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Submitted to:	The New Mexico State Historic Preservation Office in compliance with the National historic Preservation Act of 1966 (As Amended)

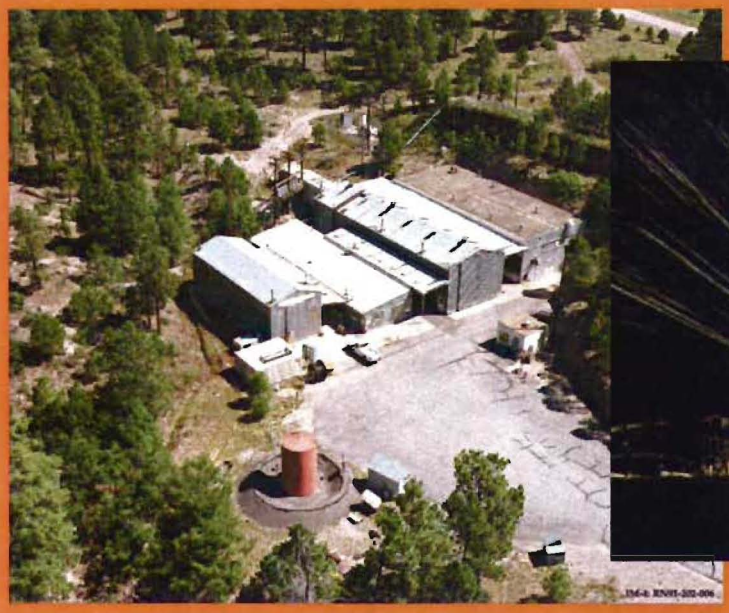
Los Alamos
NATIONAL LABORATORY

Form 836 (8/00)

LA-UR-04-XXXX

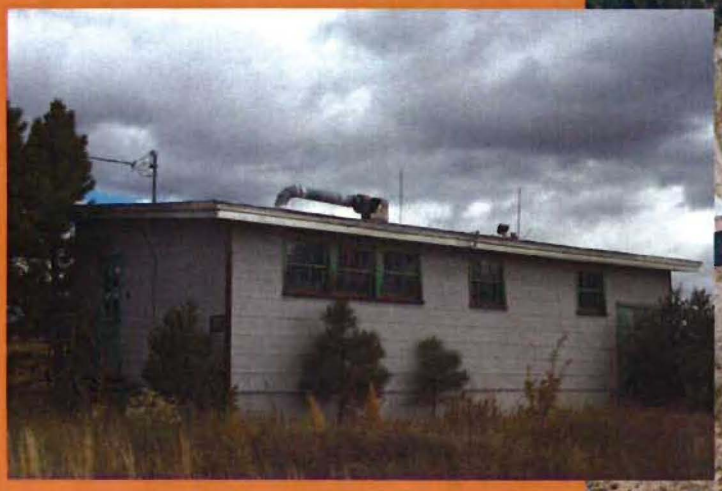
The Hollow and GMX Manor at TA-15 (R Site): Historic Context and Property Documentation

Volume 1



"The Hollow"

PHERMEX



"GMX Manor"

Firing Site R-45

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

LA-UR-04-????

The Hollow and GMX Manor at TA-15 (R Site): Historic Context and Property Documentation

Historic Building Report No. 229

Los Alamos National Laboratory

June 30, 2004
Survey No. 810

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

prepared by

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

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ACRONYMS

AEC – Atomic Energy Commission

DARHT – Dual Axis Radiographic Hydrodynamic Test

DOE/NNSA – Department of Energy/National Nuclear Security Administration

LANL – Los Alamos National Laboratory

MeV – Million Electron Volts

MOA – Memorandum of Agreement

NTS – Nevada Test Site

PHERMEX – Pulsed High-Energy Radiographic Machine Emitting X-rays

REX – Relativistic Electron Beam Experiment

SHPO – State Historic Preservation Officer

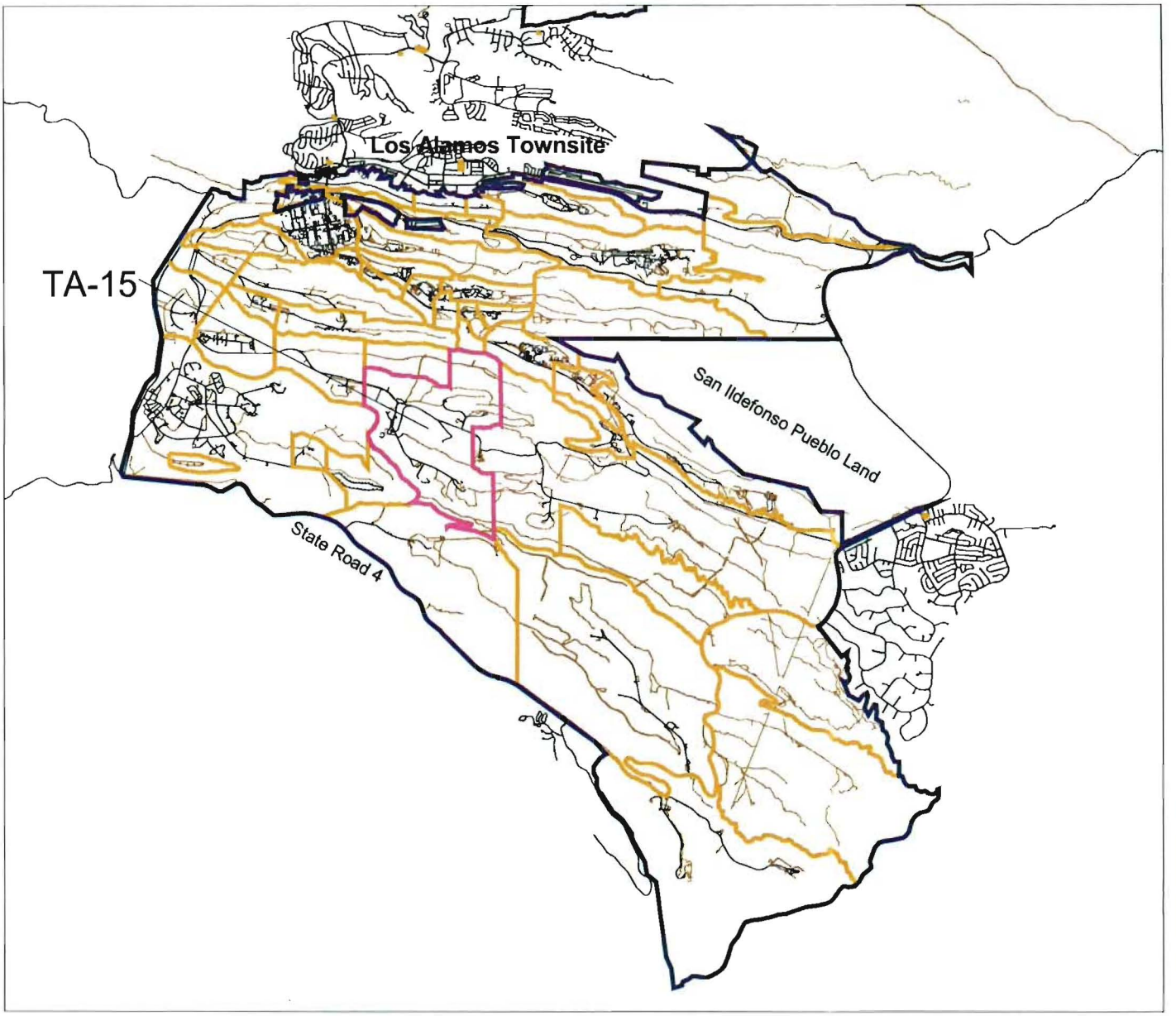
TA – Technical Area

INTRODUCTION

The following documentation fulfills the terms set forth in a memorandum of agreement (MOA) between the Department of Energy/National Nuclear Security Administration (DOE/NNSA) and the New Mexico Historic Preservation Division regarding the demolition of buildings TA-15-20, -22, -23, -30, -194, -203, -213, and -245 at Technical Area (TA) 15, Los Alamos National Laboratory (LANL). As per the terms of the MOA, finalized on April 10, 2002, this report includes a history and description of TA-15. Appendices to the report also include historic building inventory forms with selected building drawings (Appendix A), facility location maps showing TA-15's construction history and the location of eligible and non eligible properties (Appendix B), oral interview information and a listing of pertinent LANL technical reports (Appendix C), a listing of building drawings on file at LANL (Appendix D), and a set of indexed archival photographs (Appendix E).

Buildings TA-15-20, -22, -23, -30, -194, -203, -213, and -245 were determined eligible for the National Register of Historic Places under Criterion A in correspondence between the New Mexico State Historic Preservation Officer (SHPO) and the DOE/NNSA's Los Alamos Site Office on June 8, 2001. Initial recommendations for eligibility were contained in a report written by LANL heritage resource managers (*"The Hollow" at TA-15; An Eligibility Assessment Report*, Cultural Resource Report No. 191, LA-UR-01-1805).

Situated on the Pajarito Plateau in northern New Mexico, TA-15 is located in the central part of LANL (Map 1). Work processes carried out this remote technical area, historically known as "R Site," supported early post-World War II explosive testing activities. From the Cold War era to the present, the Laboratory has conducted dynamic radiographic testing at TA-15. Hydrodynamic testing systems, such as PHERMEX and DARHT, study the inner workings of nuclear weapons without actually initiating a nuclear reaction. LANL's development of hydrodynamic test facilities has played a crucial part in the maintenance of the United States' nuclear stockpile and, at the same time, has allowed the United States to comply with international test ban treaties.



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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 15
LANL Boundary
LANL Tech Area Boundary
Roads
Roaddirt
Parkpave
Parkdirt

TA-15

Map 1

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.

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 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 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 the atmospheric testing program in the Pacific, dubbed "Operation Crossroads." 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 of 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 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 early advancements in supercomputing, fundamental biomedical research and health physics issues, explosives research and development, early reactor technology, pioneering physics research, and the development of early 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 fundamental 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)

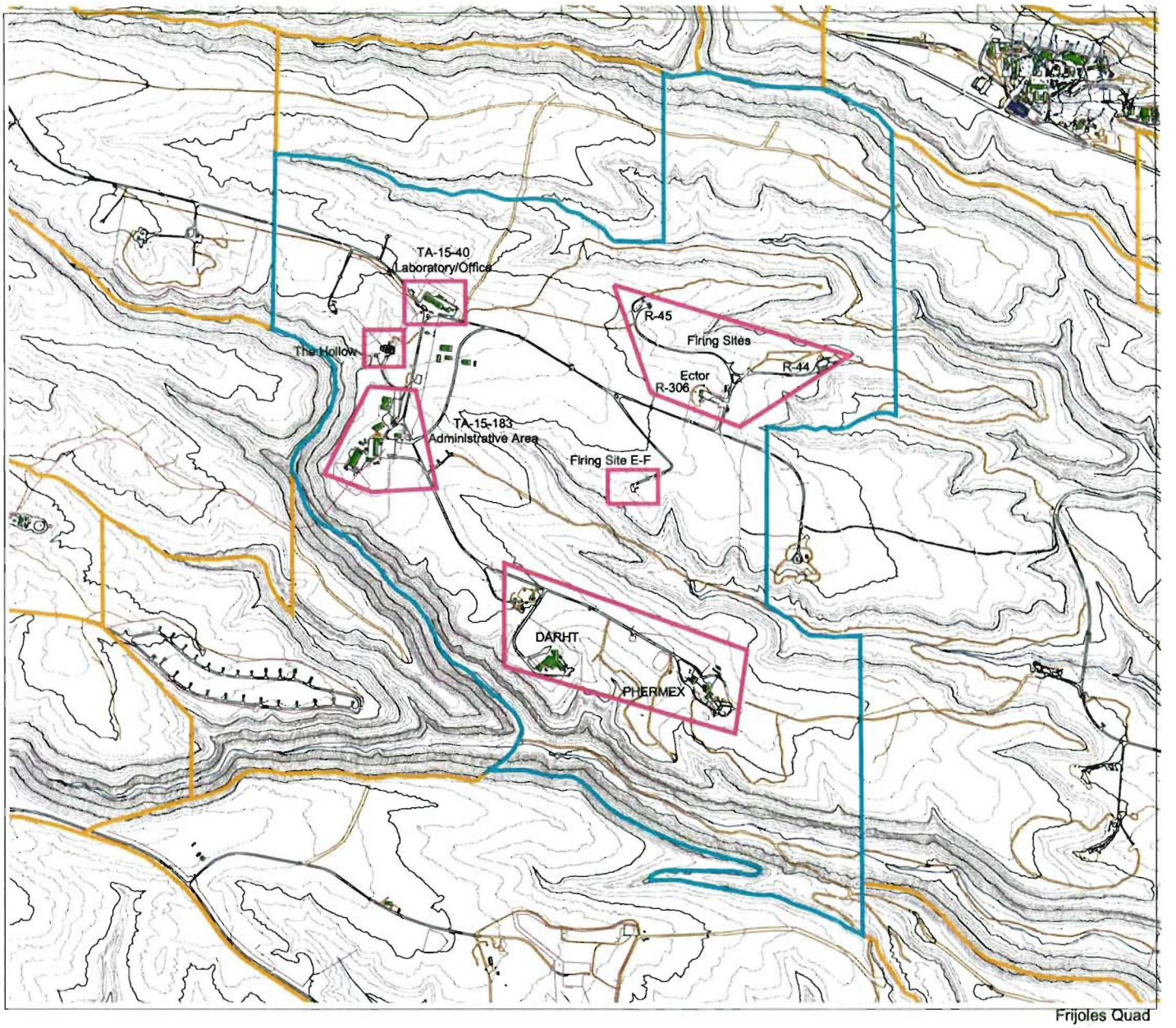
The Late Cold War era saw Los Alamos's continued support of the atmospheric testing programs in the Pacific and at NTS. In 1957, the first of many underground tests at NTS was conducted. Other defense mission undertakings during this time included treaty and test ban verification programs (such as using 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, NASA collaborations, superconducting research, contained fusion reaction research, and other types of energy research (McGehee and Garcia 1999).

HISTORIC CONTEXT OF TA-15, R SITE

General Overview

TA-15 (R Site) is located on top of Threemile Mesa between Cañon de Valle and Threemile Canyon (Map 2). TA-15 consists of a number of firing areas used extensively since 1944 for the explosive testing of weapon design components (Map 3). Weapon components were tested, without their fissionable materials, to determine whether actual performance would match design calculations. These components sometimes contained multi-kilograms quantities of natural metal, depleted uranium metal, and lesser quantities of beryllium and other metals. In most cases, the tests were carried out aboveground, which resulted in the test materials being scattered over areas with radii up to several hundreds of meters (U.S. Department of Energy 1986).

Dynamic radiography is one of the major tools used at these firing sites to obtain data on the hydrodynamic performance of the weapon components. X-ray "pictures" of an explosion can be examined to determine if the components are acting as predicted. Principal sites with X-ray



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RRES-ECO Ecology Group

1:24000

800 0 800 1600 2400 3200 Feet

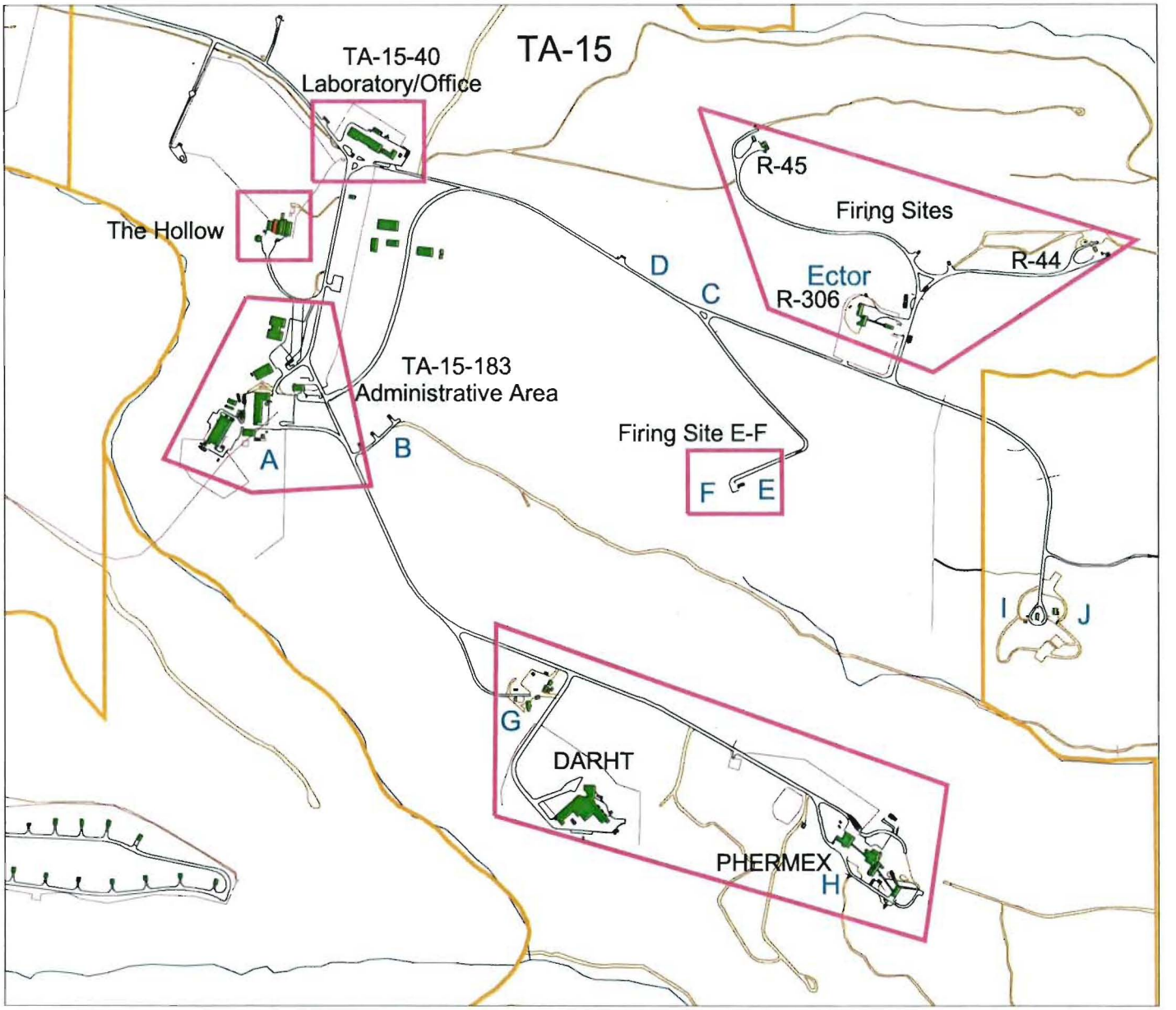
200 0 200 400 600 800 1000 Meters

N
W E
S

- Tech Area 15
- LANL Tech Area Boundary
- LANL Boundary
- TA-15 Areas
- Bldgs destroyed by Cerro Grande Fire
- 20 Foot Contours
- 100 Foot Contours
- Drainage
- Township, Section, Range
- USGS 7.5 Minute Quad
- Trails
- paved_roads.shp
- Roaddirt
- Parkpave
- Parkdirt
- Fences
- Buildings/Structures

TA-15

Map 2



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RRES-ECO Ecology Group

1:13000

400 0 400 800 1200 1600 2000 Feet

100 0 100 200 300 400 500 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
TA-15 Areas
Drainage
Trails
paved_roads
Roaddirt
Parkpave
Parkdirt
Fences

Original firing areas designated in blue.

TA-15 Firing Areas

Map 3

emitting equipment include the PHERMEX (Pulsed High-Energy Radiographic Machine Emitting X-rays), Ector, and DARHT (Dual-Axis Radiographic Hydrodynamic Test) facilities.

Over the years, various Laboratory groups with shared scientific and organizational lineages have operated at TA-15—from G Division ("Gadget') of the 1940s and M Division of the 1940s and 1970s, to DX Division today. G Division was formed in August of 1944 in response to a major Laboratory reorganization related to the development of the implosion bomb. This division was dissolved in October of 1945 but its functions were mostly subsumed by the new M Division. M Division was dissolved in July of 1948 upon the formation of GMX Division. This new division was formed to study explosives and their interactions with metals. GMX Division was an integration of work formerly conducted by several M Division groups and by X Division. GMX-11 was specifically formed in 1957 to develop the PHERMEX facility. M Division was formed in 1972 out of groups GMX-1, -4, -6, -8, -9, and -11. Activities at TA-15 are now under the administrative control of DX Division (Organizational information available from LANL Archives, IM-9).

TA-15 (1950)

TA-15 Firing Sites

Sites "A" through "J"

The first facilities at R Site were built in 1944. Early buildings and structures included a control building, a laboratory building, a trimming building, several explosives magazines and hutments, and a few firing points with barricades and subsurface instrument rooms. Through time, more firing sites, firing points, and underground test chambers were built to support experiments incorporating both radioactive materials and high explosives. These experiments included wartime research using flash photography to study the implosion of cylinders. In 1946, R Site became a permanent testing location for firing large-scale tests involving explosive charges up to 2 tons. Early firing points were given alphabetical identifiers. In 1947, Group M-6 was using firing points A through F. By 1949, M Division had added two more firing areas, Points G and H. Firing point H, built in 1948, had a camera chamber for diagnostic purposes and was used until the 1950s. Explosions at Point H were typically larger than those set off at Firing Point A. In use for less than 10 years, firing points A through D were abandoned by the mid to late 1950s. Firing point H was removed to make room for the PHERMEX facility, and Point G was removed in 1967 (U.S. Department of Energy 1986).

Administrative area at TA-15-183, site of former firing points A and B (1991)

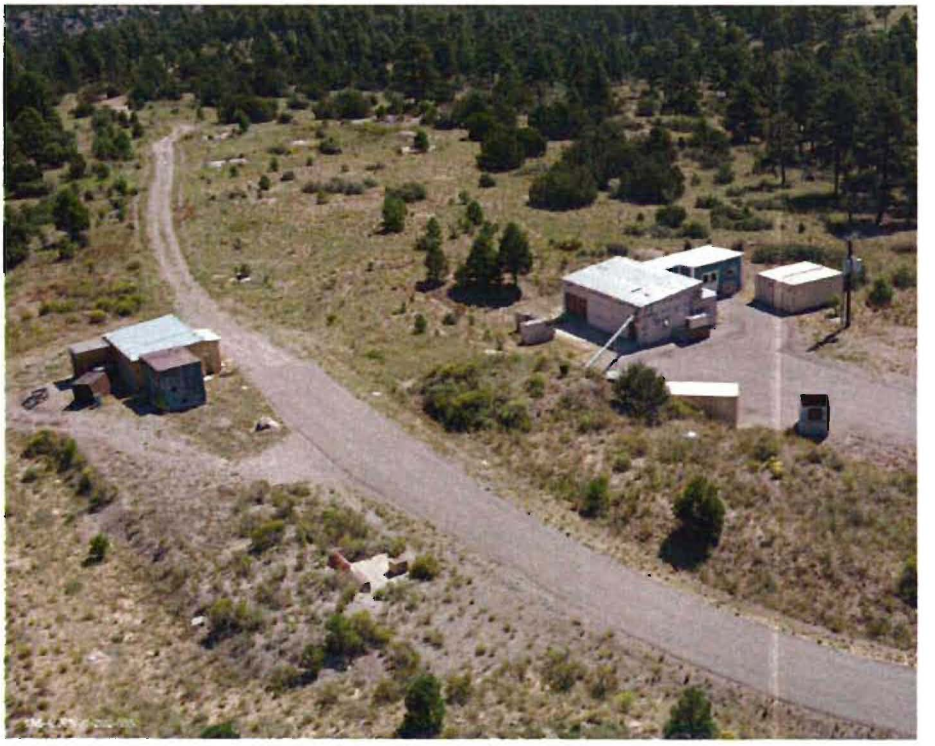
Firing points E and F share a central control building and are known collectively as "E-F Site." E-F has been one of the main firing areas at TA-15 since the mid 1940s. Many types of explosives and hazardous materials have been fired at E-F including uranium, mercury, beryllium, and lead. Two additional firing points, I and J, were in use by 1949. However, Laboratory groups housed at Kappa Site in TA-36 primarily used these outlying firing areas, and Points I and J were later formally incorporated into the physical boundaries of TA-36 (U.S. Department of Energy 1986).

E-F Site (1991)

R-44 and R-45

Built by 1954, firing points R-44 and R-45 were used for shots employing large quantities of uranium and beryllium. R-44 and R-45, named after their respective control rooms (TA-15-44 and TA-15-45), were also used for gun ballistic studies. R-44 has been generally used for larger test shots and was used extensively from 1956 to 1978 to perform diagnostic tests on weapon components. R-45 has been used for smaller test shots (U.S. Department of Energy 1986).

Firing site R-44 (1991)



Firing site R-45 (1991)

Hydrodynamic Testing (PHERMEX, Ector, REX, PIXY, ITS, and DARHT)

Hydrodynamic testing investigates "the behavior of matter under the extreme pressures, shocks, and temperatures generated by high explosives. This specialized science is termed hydrodynamic testing because solids and metals seem to flow like liquids when driven by the detonation of high explosives" (Neal 1993:57). Hydrodynamic experiments are exploded during every test and each new experiment must be rebuilt; this method of explosive testing dictates the use of firing sites as "the laboratories of hydrodynamic testing" (Neal 1993:57).

> In a common type of [hydrodynamic] experiment, a metal plate is placed in contact with the high explosive, and the high explosive is detonated with the goal of determining how effective it is at pushing on the metal plate....Early diagnostics consisted of electronic gauges and high-speed optical motion cameras that took a few pictures at the rate of a million pictures per second. In addition...experiments were also carried out on weapons assemblies containing surrogates for the fissile material. Such experiments allowed measurements to be made on the early stages of implosion....In the 1960s, a major new diagnostic was added to the repertoire—flash radiography. The technique involves the use of a high-energy electron beam to produce extremely short-duration bursts of x rays. During a hydrodynamic test a single x-ray burst passes through the rapidly moving test object and is recorded on film (Neal 1993:57).

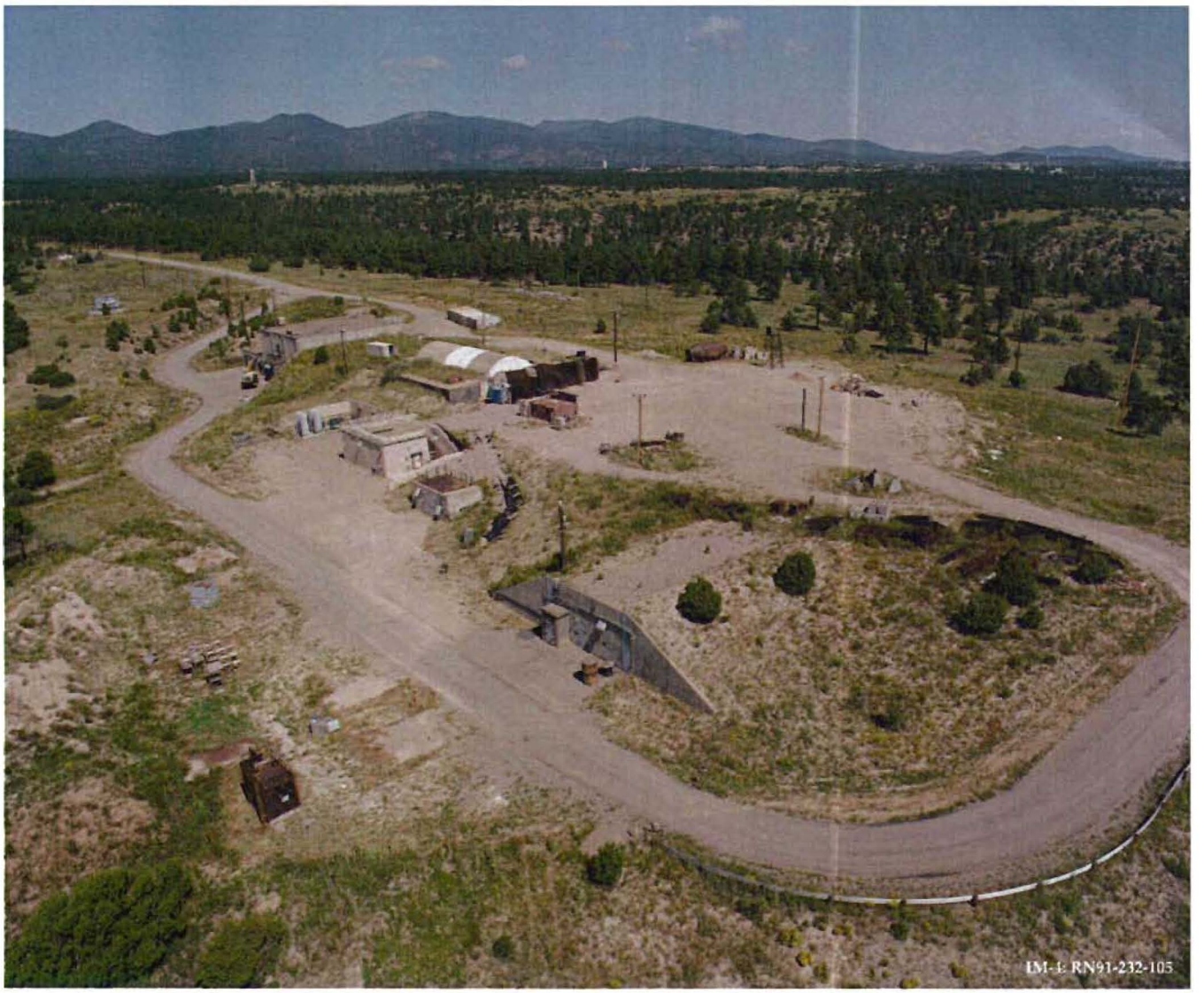
The study of explosively driven systems at Los Alamos has been enhanced since the mid 1960s by flash photography, a technique in which a pulsed beam of electrons interacts with a converter target to produce X-rays. These X-rays penetrate an object and are detected and recorded by a film pack (Carlson 1993). Dynamic testing researchers use two basic kinds of flash radiography: shadow radiography (low-energy X-ray sources, 1 MeV or less, that only photograph the shadow of the object) and penetrating radiography. Los Alamos scientists use penetrating radiographic machines that provide intense flash X-ray sources in order to "see through" the target plates and capture an image (Lucht and Eckhouse 1989:2).

PHERMEX

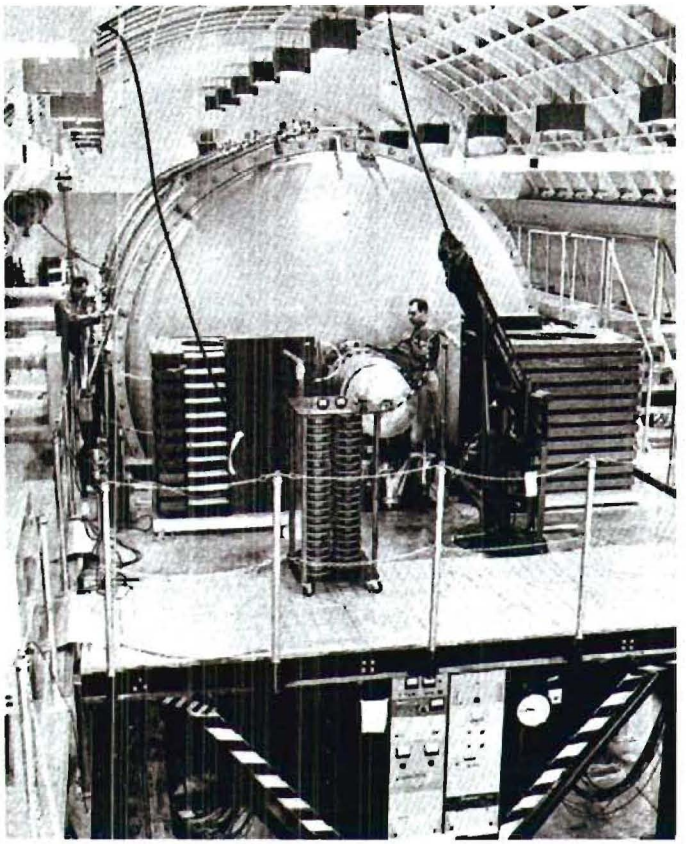
The PHERMEX machine was built in the early 1960s for radiographic studies of explosives and explosive-driven metal systems and has mainly operated in support of weapons-system hydrodynamic testing (U.S. Department of Energy 1986). PHERMEX contains a large radio

frequency linear accelerator that produces a beam of relativistic electrons with energies of 30 MeV. The beam is directed at a tungsten target where the energy of the electrons is converted into bremsstrahlung radiation, most of it in the X-ray range (Neal 1993:58). PHERMEX's electron transport system is comprised of an electron gun, transport line, and cavity. Coil systems placed along the beam line and encased in soft iron serve to focus the beam as it leaves the gun and travels along the transport line (Faehl 1983:1). PHERMEX was the first of its kind in the United States and for many years was the premier high-energy radiographic facility in the world. For the past two decades, the PHERMEX facility has been used to examine the performance of new Los Alamos nuclear weapon designs and all major changes to stockpile weapons (U.S. Department of Energy 1986).

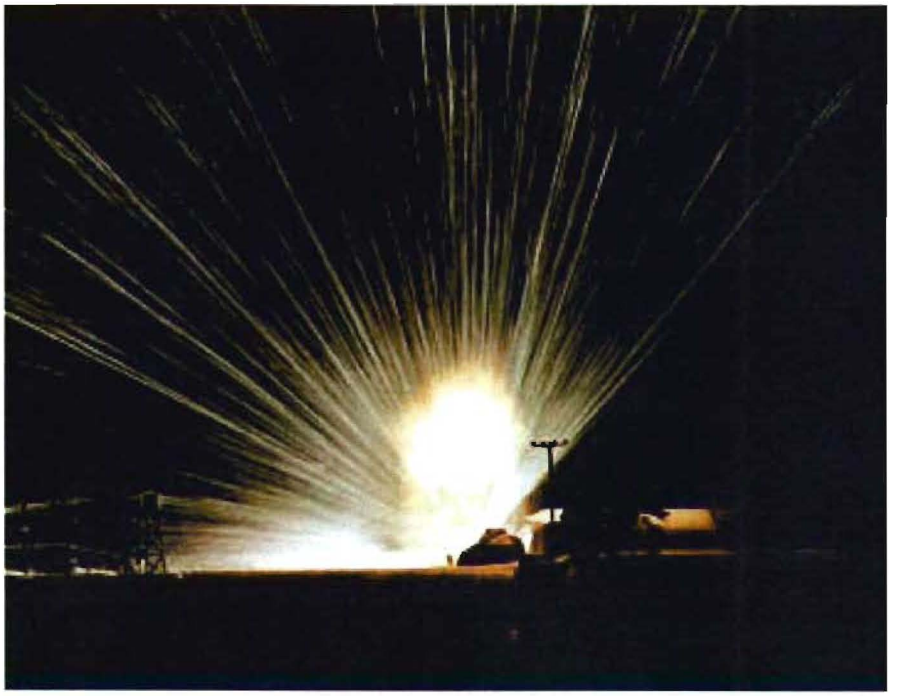
PHERMEX facility and firing pad (1991)



PHERMEX – former location of H Point
(1991)



PHERMEX Cavity



PHERMEX shot

Ector, REX, PIXY, ITS

At one time, M-Division had four operational radiographic machines in addition to its PHERMEX facility: Ector, the Relativistic Electron Beam Experiment (REX) (discussed below), PIXY, and ITS. Ector was a 3.5 to 4 MeV machine. PIXY was a 4 to 8 MeV machine. Both were pulsed-diode radiographic machines (Carlson 1993). Ector, a dynamic radiographic machine imported from England, was brought to Los Alamos in the early 1980s for use when medium resolution flash radiography was required. This diode-type pulsed power machine was housed at firing area R-306, near firing sites R-44 and R-45. Ector was operational in 1988 and provided flash radiographic support for Los Alamos projects and military applications (Carlson 1993). The Ector facility, containing fast cameras and water-cooled lasers, was used to conduct experiments similar to those carried out at PHERMEX. The Ector control room was built underground in order to provide protection from explosions associated with Ector operations. Ector was in use by the mid 1980s; however, it was not used as extensively as PHERMEX. Prior to the installation of Ector, building TA-15-280 was used as the control room for the firing pad at this site. These earlier firing activities were conducted from 1973 to 1982 (U.S. Department of Energy 1986).

R-306, site of Ector

DARHT

DARHT is the most advanced hydrodynamic testing facility in the world. Like PHERMEX before it, DARHT is a high-explosive firing site that uses X-ray machines to create images of mock-ups of nuclear weapons components at the moment of implosion. DARHT has two flash X-ray machines, one in each axis. Images from both machines, when combined together, will produce a quasi-three-dimensional image. These images will be used to support computer modeling needed for the certification of the nuclear weapons stockpile (LANL 2003).

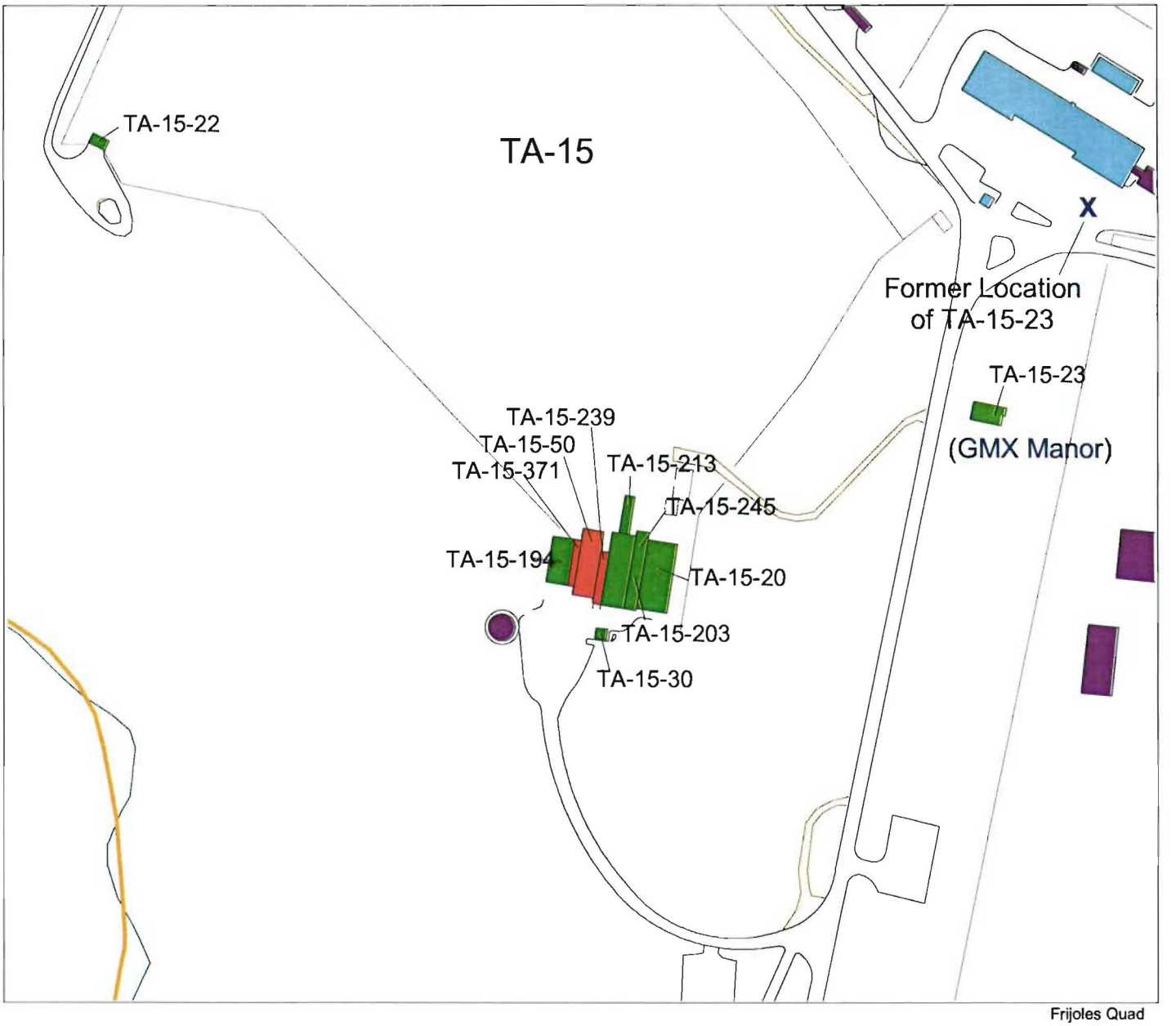
DARHT (2002)

The Hollow

Early History

The "Hollow" at TA-15 is located south of building TA-15-40 and is situated down slope and west of R Site Road (Map 4). At the Hollow, R Site scientists developed an isolated area for explosives and hydrodynamic research, eventually constructing a small group of interconnected buildings. The buildings at the Hollow have been used over the years as assembly buildings, laboratories, and shops. Built in 1949, TA-15-20 was Group M-4's first assembly building. Researchers used the building to prepare experiments being fired at E-F Site (Rasmussen 2000). Because of its association with explosives work, TA-15-20's original design included a non-sparking floor. The building was also equipped with other non-sparking features, such as a brass crane hook (Ridlon 2003). Building TA-15-20 was later used as a research laboratory and then as a machine shop.

Buildings TA-15-20 and TA-15-50 at the Hollow (center) and building TA-15-22 (far left), circa 1950



Frijoles Quad

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Environmental Policy Compliance Team
RRES-ECO Ecology Group

1:2500

80 0 80 160 240 320 400 Feet

20 0 20 40 60 80 100 Meters

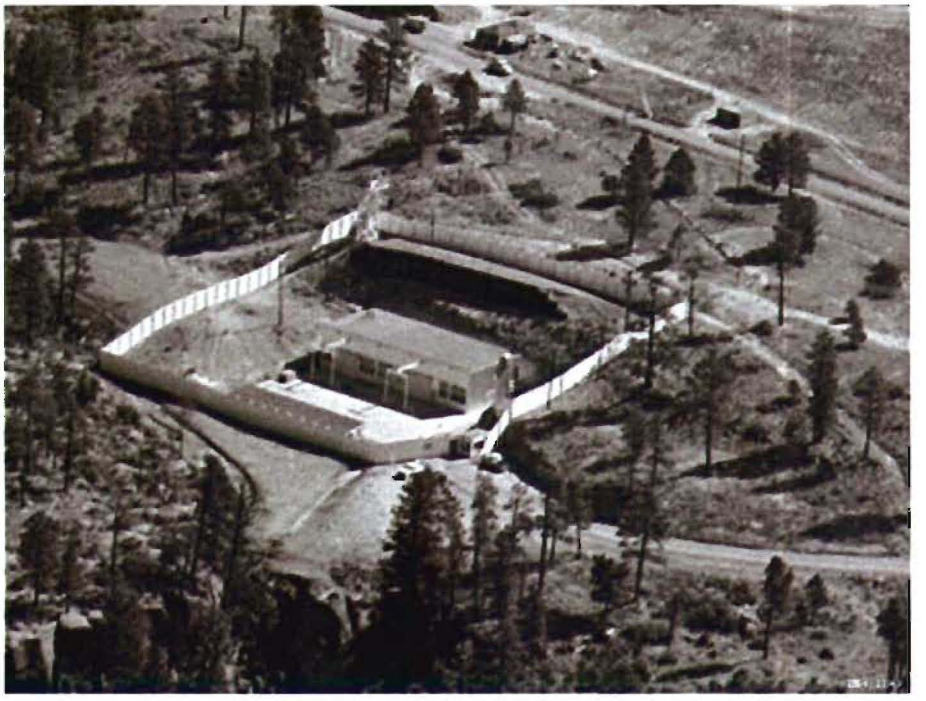
N
W E
S

- Eligible Buildings/Structures
- Potentially Eligible Buildings/Structures
- Exempt Buildings/Structures
- LANL Tech Area Boundary
- LANL Boundary
- Bldgs destroyed by Cerro Grande Fire
- Drainage
- Trails
- Roads
- Roaddirt
- Parkpave
- Parkdirt
- Fences

There are no buildings in this area that bave been declared not eligible.

TA-15
The Hollow

Map 4



Close up view of explosives assembly building, TA-15-20 (center), and building TA-15-50 (roof visible at lower left side of "no peek" fence area), circa 1950

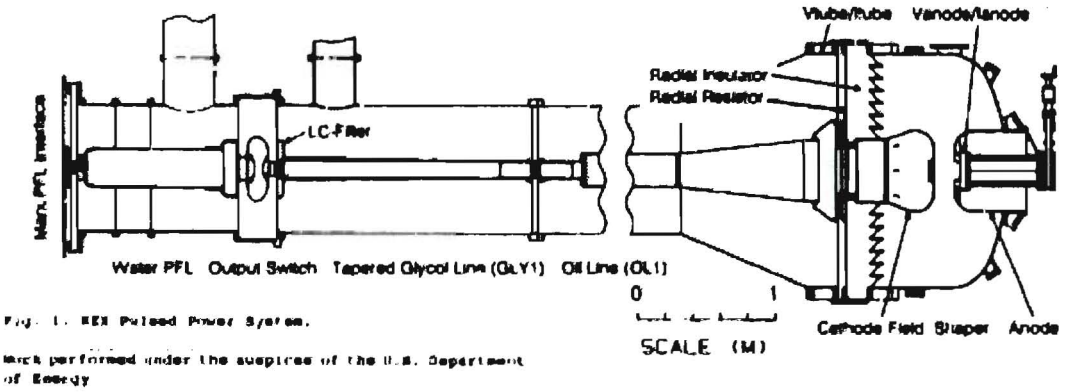
The Hollow (TA-15-20 at far right)
(1991)

PHERMEX Cavity Shelter and REX

Later research at the Hollow contributed to the development of PHERMEX and DARHT technologies that study the inner workings of nuclear weapons without actually initiating a nuclear reaction. Beginning in the late 1950s and continuing to the 1970s, much of the work at the Hollow focused on the development of PHERMEX cells (Ridlon 2003). TA-15-203 was constructed in 1959 to house the PHERMEX Cavity Shelter, a small prototype for the accelerator that became PHERMEX. Building TA-15-22, originally an explosives magazine, was refurbished as a control room for the PHERMEX experiments being conducted in TA-15-203. The PHERMEX Cavity Shelter was supposed to have a high-power beam, and an aboveground cabling system was put in place to enable safe, remote operations. However, the beam was never used at maximum power so TA-15-22 was never used for its intended function (U.S. Department of Energy 1986). In the 1980s, the Hollow was the central location for support activities related to REX, PIXY, and Ector test shots. M Division employees maintained, tested, and supported operations activities for the TA-15 pulsed power radiographic machines. Many of the accelerator machines were acquired from Maxwell Laboratories and had to be remodeled and adjusted to fit Los Alamos experimental parameters. Maxwell Laboratories, founded in 1965, was originally a government contracting company. Know today as Maxwell Technologies, this company provided pulsed power and other advanced physics research and development services to government customers and the United States military (Maxwell Technologies 2004). REX, a machine assembled out of Maxwell components scavenged from Sandia National Laboratories and LANL parts, was located at the Hollow in building TA-15-203 (Ridlon 2003).

The REX accelerator is a pulsed-power source that was built as a test of a low-inductance 5-MV accelerator design. REX was later used to study the physics of generating, transporting, and focusing low emittance electron beams. Based on these studies, the REX design was chosen to be the injector for DARHT and is viewed as the prototype experimental test stand for DARHT's first axis (Ridlon 2003). Part of a long-term Laboratory project to use radiography to discover how explosive assemblies will perform during detonation, the REX project served a key role in LANL's continuing development of weapons technology in the 1980s and 1990s (Carlson 1996). Using REX, scientists measured current, voltage, and current density in the hopes of obtaining the required laser power for a high-brightness electron gun to use as an injector for a linear

induction accelerator (Carlson 1991). The REX design was comprised of several key parts: a mineral oil-filled Marx tank to generate the high voltage burst needed to produce the electron beam and an 80-ft long transport line to "transport" the electron beam to the target end.



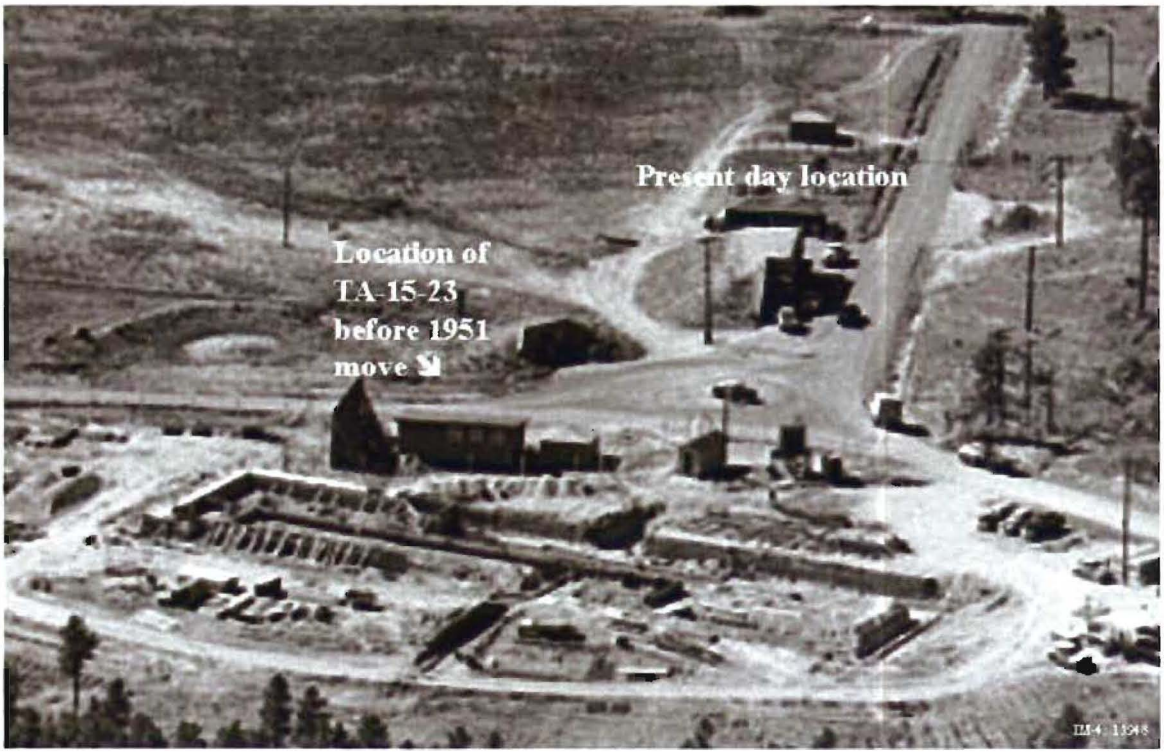
REX diagram from Carlson *et al.* 1991

REX in 1988 surrounded by magnetite-loaded concrete shielding blocks (TA-15-203), photo courtesy of Rae Ridlon

REX in 1991–Rae Ridlon (left), Todd Kauppila (center right), and Randy Carlson (right), photo courtesy of Rae Ridlon

GMX Manor – TA-15-23

TA-15-23, originally numbered TA-20-1, was built in 1945 during the Manhattan Project years for use as a laboratory building at TA-20 (Sandia Site). Situated in Sandia Canyon, TA-20 was abandoned in the late 1940s so that East Jemez Road could be built. TA-20 had been used during the war to test initiators, devices used to add neutrons to nuclear explosions. Steel-lined pits and cylindrical steel recovery vessels known as "Dumbos" were part of the initiator testing program at TA-20. Initiator timing tests involving gun configurations were also conducted. In 1946, M-4, the Electric (Pin) Method Group, conducted high-explosives firing tests at TA-20. In 1948, building TA-20-1 was relocated to R Site and renumbered TA-15-23. In 1951, the building was moved to its current location in TA-15. While at TA-15, building TA-15-23 received the designation "GMX Manor" and the building was used in a variety of capacities; as a firing site control building, as a chemistry laboratory, as an assembly building for non-HE components of HE experiments, and as a main shop building (U.S. Department of Energy 1986).



TA-15 circa 1950, site of present day TA-15-40 (building footings in foreground)

Building TA-15-40 (1991)

PROPERTY DESCRIPTIONS (The Hollow and TA-15-23)

TA-15-22

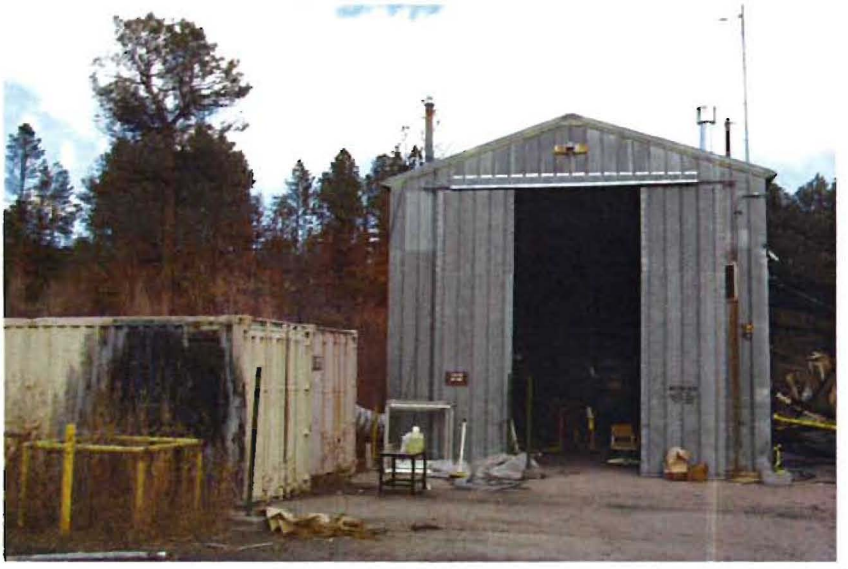
TA-15-22 was built in 1948. The building is of concrete masonry unit construction and has a corrugated metal roof and associated earthen berm. Building 22 was originally an explosives magazine. It was later intended for use as a control building for a PHERMEX prototype experiment. TA-15-22 has also been used as an explosives preparation building and for storage.

TA-15-23

TA-15-23 was built in 1945. This wooden Manhattan Project era building is clad with asbestos clapboard shingles. Building 23 was originally used as an initiator laboratory at TA-20 in Sandia Canyon. At TA-15, the building has been used as a control building, a laboratory building, and a shop building.

TA-15-30

TA-15-30 was built in 1949 for use as a guard house. The building is of concrete masonry unit construction and was used in later years for storage.



TA-15-194 (right)

TA-15-194, built in 1959, is a metal butler building. This building, known as the electron gun shelter, was a pulsed power laboratory where PHERMEX and DARHT components were tested.

TA-15-203 (center)

TA-15-203, a metal butler building, was built in 1959. This laboratory building housed the PHERMEX Cavity Shelter and the REX experiments.

TA-15-213

TA-15-213 was built in 1961 as an extension of TA-15-203 above. The structure is a wood frame equipment platform that supported the operations conducted in building 203.

TA-15-245 (covered passage at left) and TA-15-20 (at right)

TA-15-245 was built in 1967. This portion of the Hollow complex was originally an open passageway and was converted to a metal butler building for use as the REX control room. TA-15-20 was built in 1949. It is a steel framed, reinforced concrete structure and has been used over the years as an assembly building, research laboratory, and machine shop.

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Appendix A: Historic Building Inventory Forms with Representative Building Drawings

LANL TA- Building # 15-0020

Camera 949790

Frame #s P0002363 through P0002368, P0002371, and P0002387 through P0002390

Surveyor(s) K.Towery/J.Ronquillo

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Branch Shop & Lab Bldg. UTMs easting 381805 northing 3967278 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function Building is currently abandoned Original Use/ Function Assembly Shop

Date (estimated) 1950 Date (actual) 1949 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction Standard site-built metal building. # of Stories 1

Foundation Concrete foundation consisting of footings, stem wall and slab.

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) Corrugated metal siding with long bays with awning windows. The exterior siding is coated corrugated steel panels with many coats of silver paint.

Exterior Features (docks, speakers, lights, signs, etc) The building is connected to TA-15-245.

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

Steel (corrugated)-Addition ☐ Asbestos Shingles-Addition ☐ Other- Addition No addition is evident.

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☐ Gable ☑ Other Roof Type

Degree of Pitch/ Slope Slight

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 Awning

# of Each Window Type/ Comments

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

Light Pattern

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:

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☐

CMU- Interior ☑ Plywood ☑ Other- Interior: Metal panel.

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

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc): Exposed structure with open web steel bar joists.

Degree of Remodeling: Minor

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

Associated Building ☑

If yes, list building names and #s: TA-15-245, REX Control Room

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)

Total sq ft 5044 Gross **Architect/ Builder** Contractor: Haddock Engineers, Ltd.

Alterations

List of Drawings (Cntrl + Enter for para break)

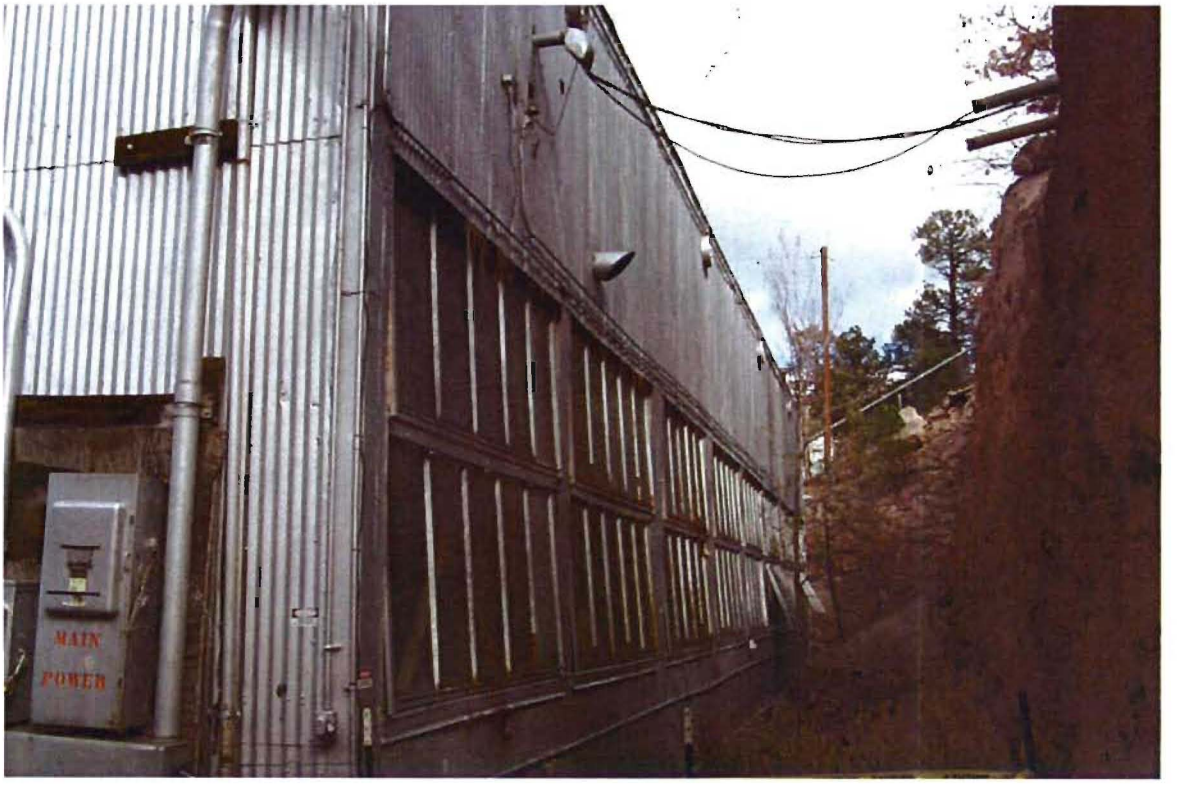
ENG-C 12870
Sheet A-1 of 14
TA-15 (R-Site), Bldg. R-20
Assembly Building
Architectural: Plans, Elevations, Schedules
September 7, 1948

ENG-C 622
TA-15 (R-Site), Building R-20
Assembly Building
Const. Settling Pit for Assembly Room
September 19, 1949

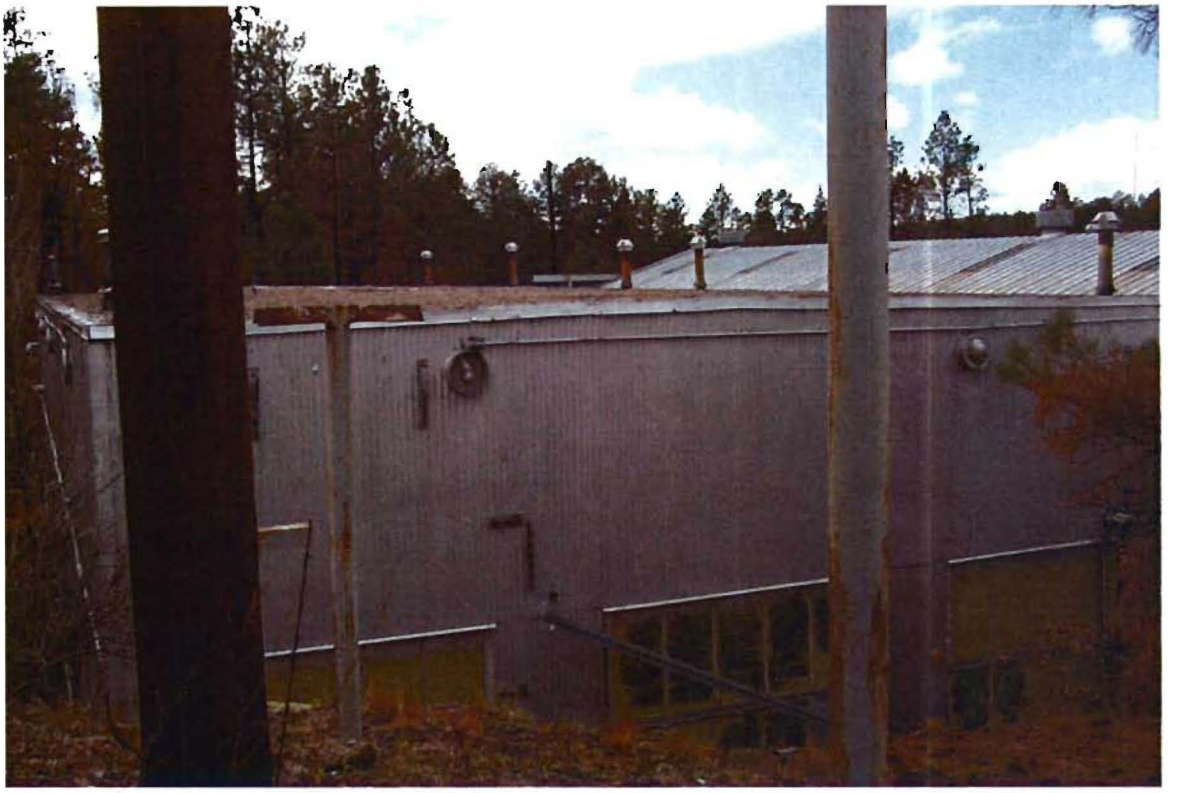
ENG-C 2478
TA-15, Bldg. R-20
Interior Alterations to Bldg. R-20
Conversion to Machine Shop
October 5, 1951

ENG-R 2709
TA-15, Bldg. R-20
Branch Shop and Lab Bldg.
Floor Plan
September 2, 1983

TA-15-20, west side and south side (front), direction northeast.

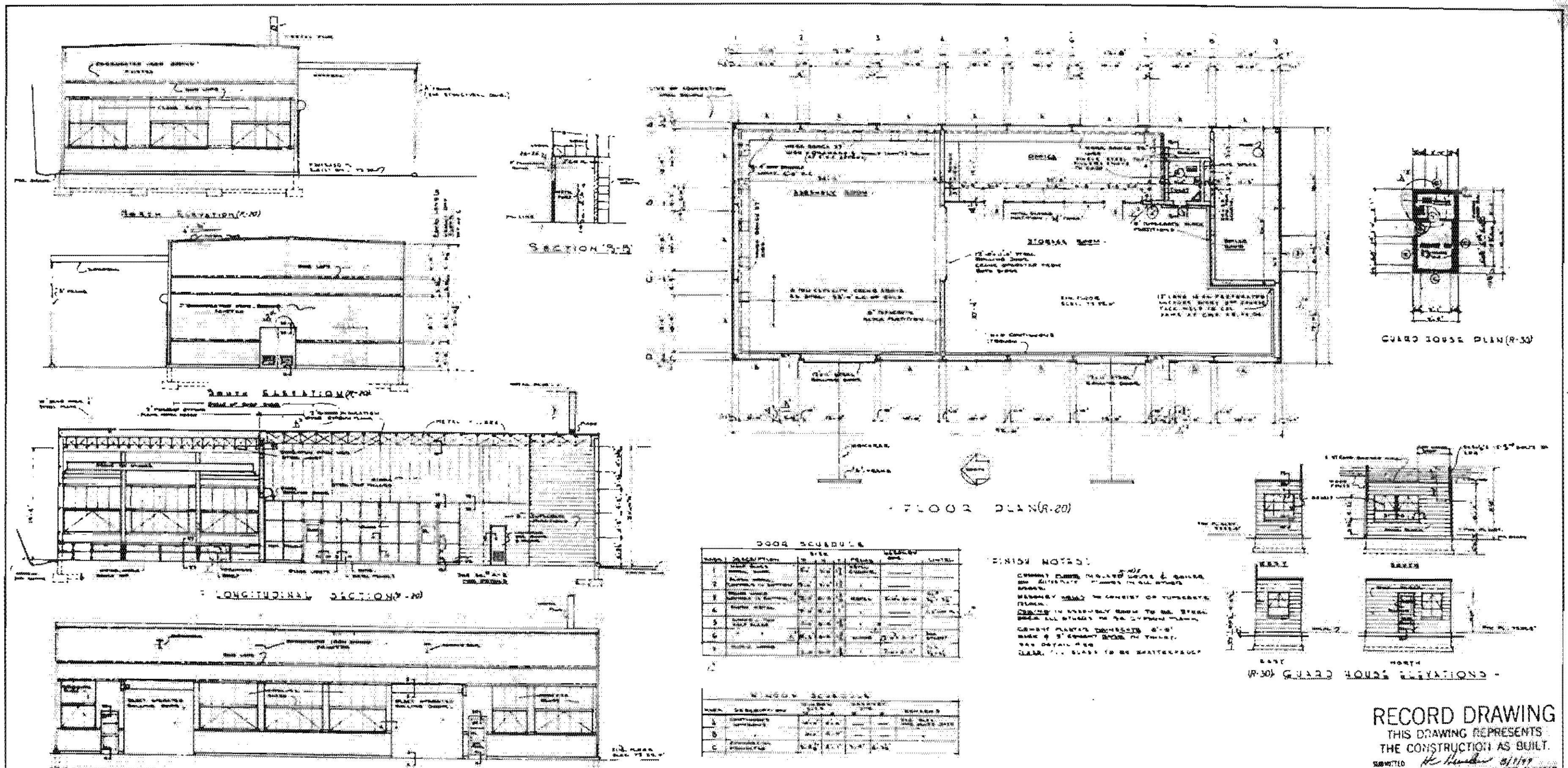


TA-15-20, east side, direction north northwest.



TA-15-20, north side, direction southwest.

TA-15-20, room 102 looking into room 101, direction northeast.



RECORD DRAWING
THIS DRAWING REPRESENTS
THE CONSTRUCTION AS BUILT.

Unclassified/Not UCNI 9/25/13
LANL Class. Group

~~OFFICIAL USE ONLY~~

~~RESTRICTED - FOR OFFICIAL USE ONLY~~

U. S. ATOMIC ENERGY COMMISSION
OFFICE OF SANTA FE DIRECTED OPERATIONS
LOS ALAMOS, NEW MEXICO

ARCHITECTURAL
PLANS . ELEVATIONS . SCHEDULES

(R-20) ASSEMBLY BUILDING TA-15
R-SITE
LOS ALAMOS NEW MEXICO

W. C. KRUGER AND ASSOCIATES
ARCHITECTS · ENGINEERS INC.

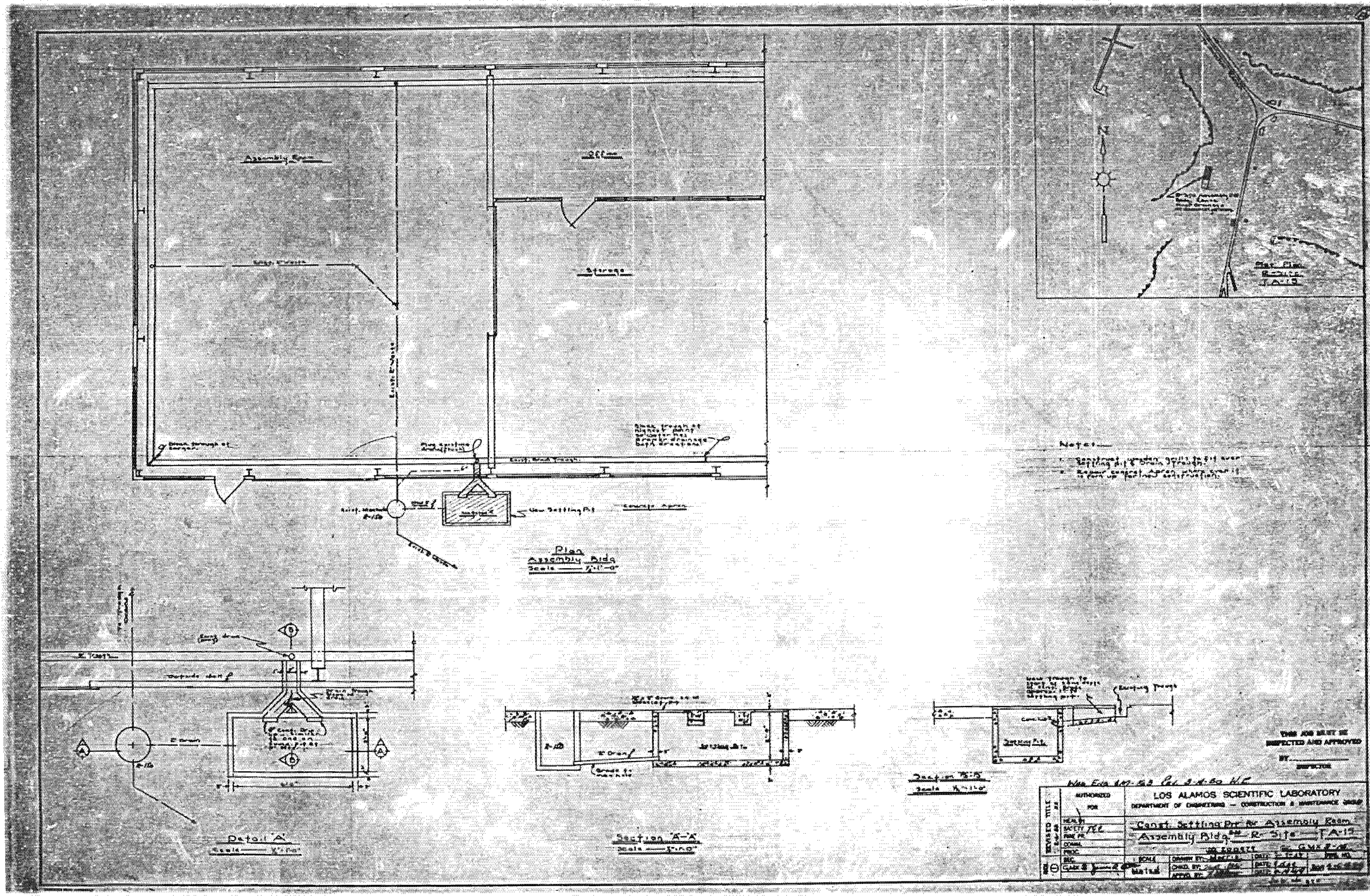
DATE 9/7/49

A-L 14

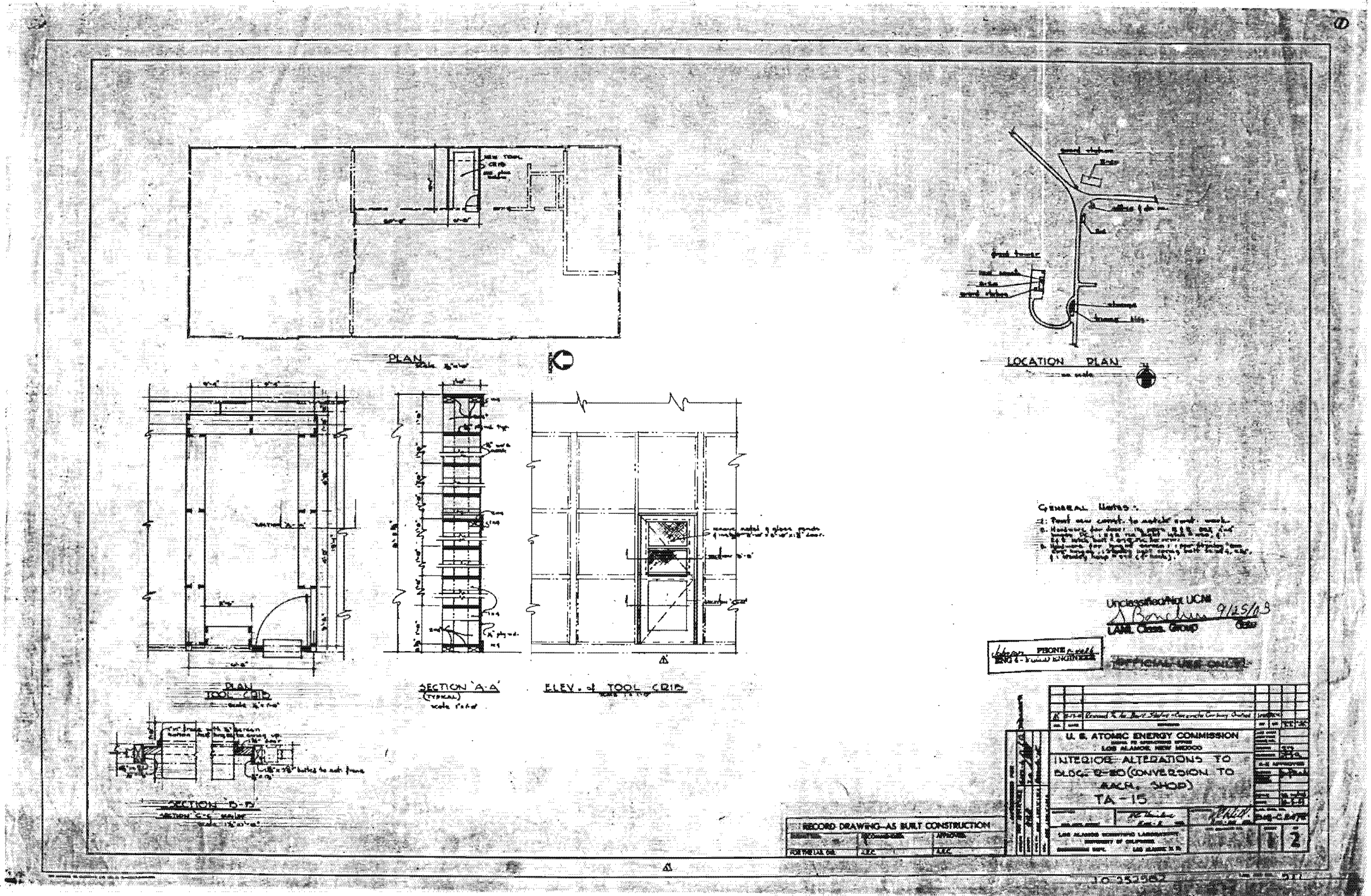
REVISIONS

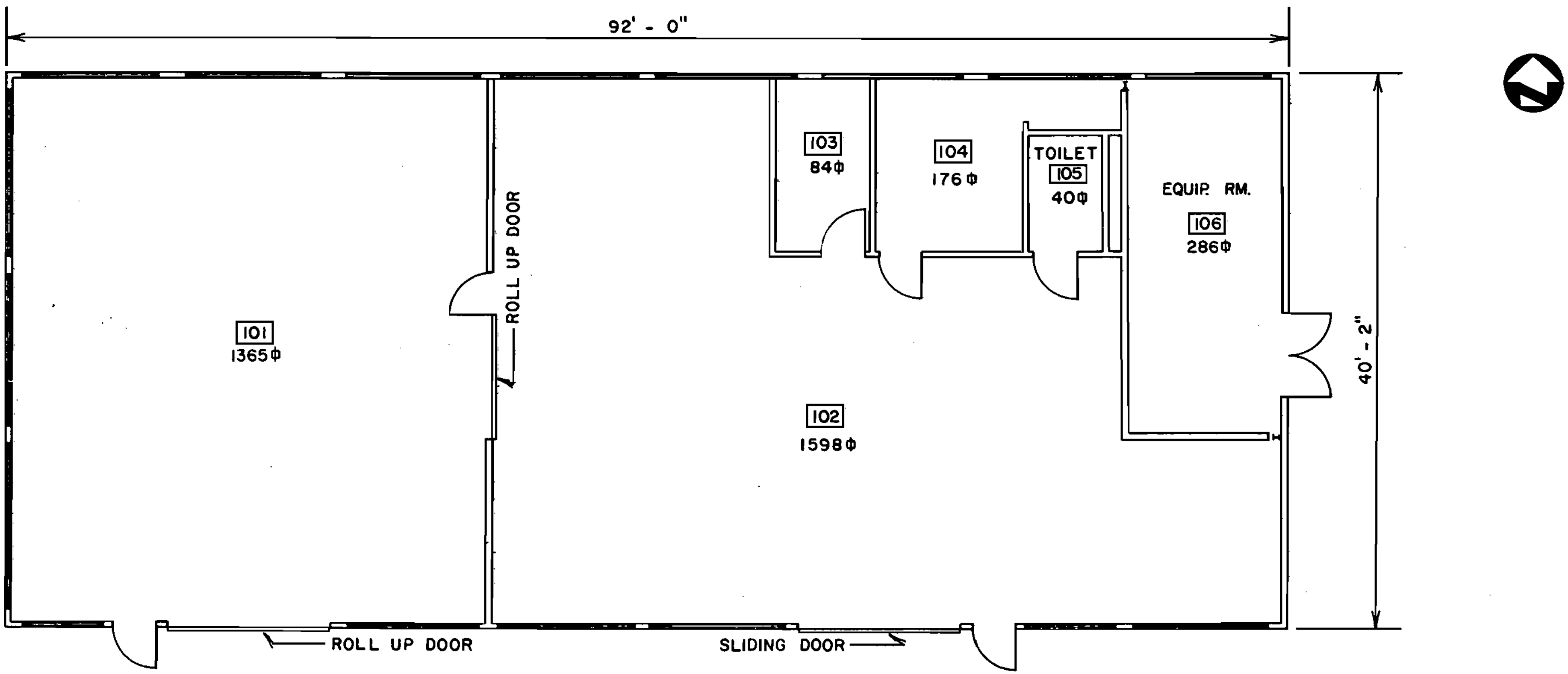
L.A.S.L. DWG. NO. ENG-C 12870

SFA-CT-1/A1.1



Assembly Room
Office
Storage
Notes
Plan
Assembly Bldg.
New Settling Pit
Plot Plan
T.A-15
Detail "A"
Section "A-A"
Section "B-B"
THIS JOB MUST BE
INSPECTED AND APPROVED
BY
INSPECTOR
LOS ALAMOS SCIENTIFIC LABORATORY
AUTHORIZED
FOR
Const. Settling Pit for Assembly Room
Assembly Bldg. R-Site T.A-15
SCALE
Noted


PLAN
NEW TOOL CRIB
LOCATION PLAN
no scale
PLAN TOOL CRIB
SECTION 'A-A' (TYPICAL)
ELEV. of TOOL CRIB
SECTION 'B-B'
GENERAL NOTES:
RECORD DRAWING—AS BUILT CONSTRUCTION
Unclassified/Not UCNI
LANL Class. Group
PHONE
ENGINEER
OFFICIAL USE ONLY
U. S. ATOMIC ENERGY COMMISSION
LOS ALAMOS, NEW MEXICO
INTERIOR ALTERATIONS TO BLDG. U-20 (CONVERSION TO MACH. SHOP)
TA-15
LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
LOS ALAMOS, N. M.
1
2
10 252962



1/8" = 1' - 0" 0 5 10 15 20

TOTAL ft² 3549

REV.	DATE	REVISION	BY	CKD.	APP.
2	9-2-83	REDRAWN TO STATUS OF 9-2-83	H&N		

MF

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

FACILITIES ENGINEERING DIVISION

BRANCH SHOP AND LAB BLDG.
FLOOR PLAN
BLDG. R-20 TA-15

SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 10-17-83

SUBMITTED E. Trujillo
RECOMMENDED
APPROVED W. T. E

DRAWN K.A.K. H&N
CHECKED Humble H&N
DATE 9-2-83
SHEET NO. 1 OF 1
DRAWING NO. ENG-R2709

LANL TA- Building # 15-0022

Camera 949790

Frame #s P0002408 through P0002411

Surveyor(s) J.Ronquillo/K.Towery

Date 03/25/2003

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Storage Building UTMs easting 381581 northing 3967454 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function Building is currently abandoned Original Use/ Function Name changed from Magazine to Control Room to Explosive Preparation Building

Date (estimated) 1945 Date (actual) 1948 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction Cast in place concrete walls, 12 inches thick. # of Stories 1

Foundation Reinforced concrete slab and 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 exterior has been painted over the years. It now consists only of chalky remnants of the paint coatings.

Exterior Features (docks, speakers, lights, signs, etc) The building is accessed from a personnel door and a set of large double doors on the south side of the building that access two separate storage rooms.

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

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

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☑ Gable ☐ Other Roof Type

Degree of Pitch/ Slope Slight

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

Other Roof Materials The roof structure is wood frame with corrugated asbestos roofing panels.

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

Other Window Type N/A

# of Each Window Type/ Comments

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

Light Pattern

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:

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)

Degree of Remodeling Unknown/None

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

Associated Building ☐

If yes, list building names and #s: TA-15-20, TA-15-194, TA-15-203, TA-15-213, TA-15-245, and TA-15-30

Integrity Excellent

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

Building 22 was originally an explosives magazine. It was later intended for use as a control building for a PHERMEX prototype experiment. Also it was used as an explosives preparation building, and for storage.

Architectural Features (elevations)

Total sq ft 310 Gross

Architect/ Builder Contractor: R.E.McKee

Alterations

List of Drawings (Cntrl + Enter for para break)

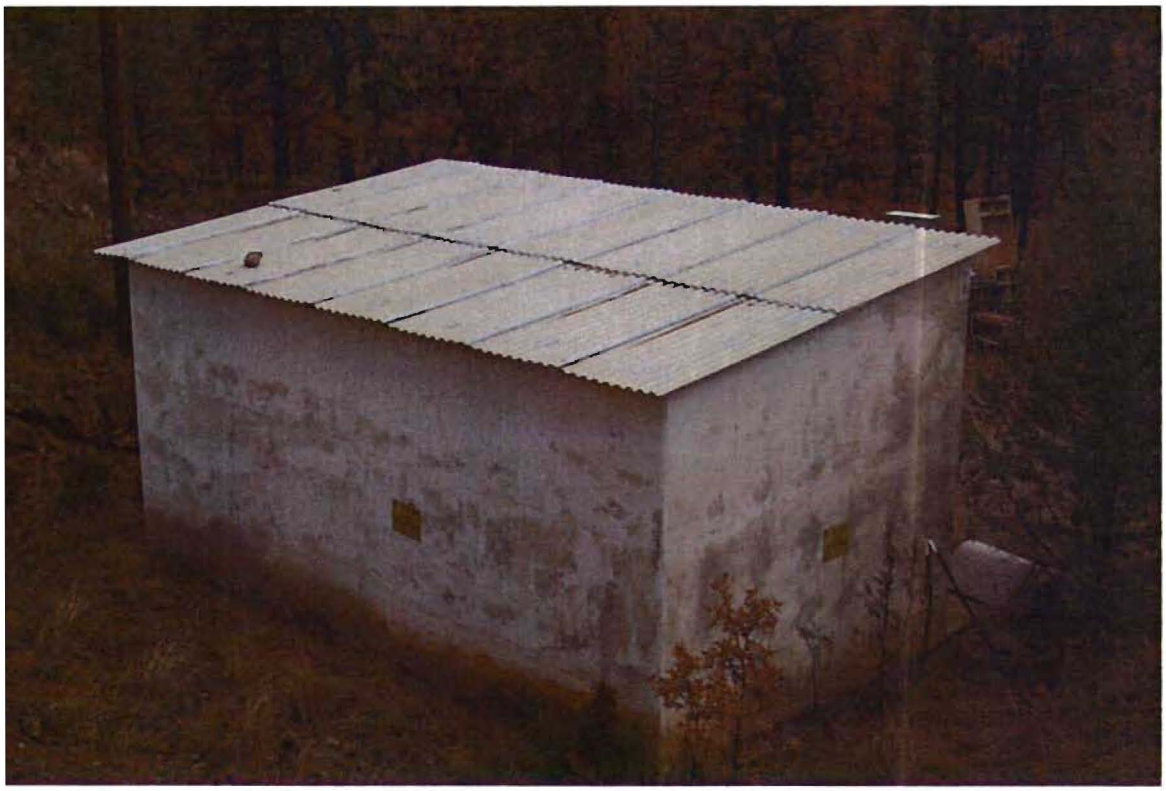
ENG-C 12830
TA-15, Building R-22
Storage Magazine
Layout & Details
August 1, 1947

ENG-C 19092
TA-15
Building R-22 to Building R-50
PHERMEX Control Line Installation
February 20, 1959

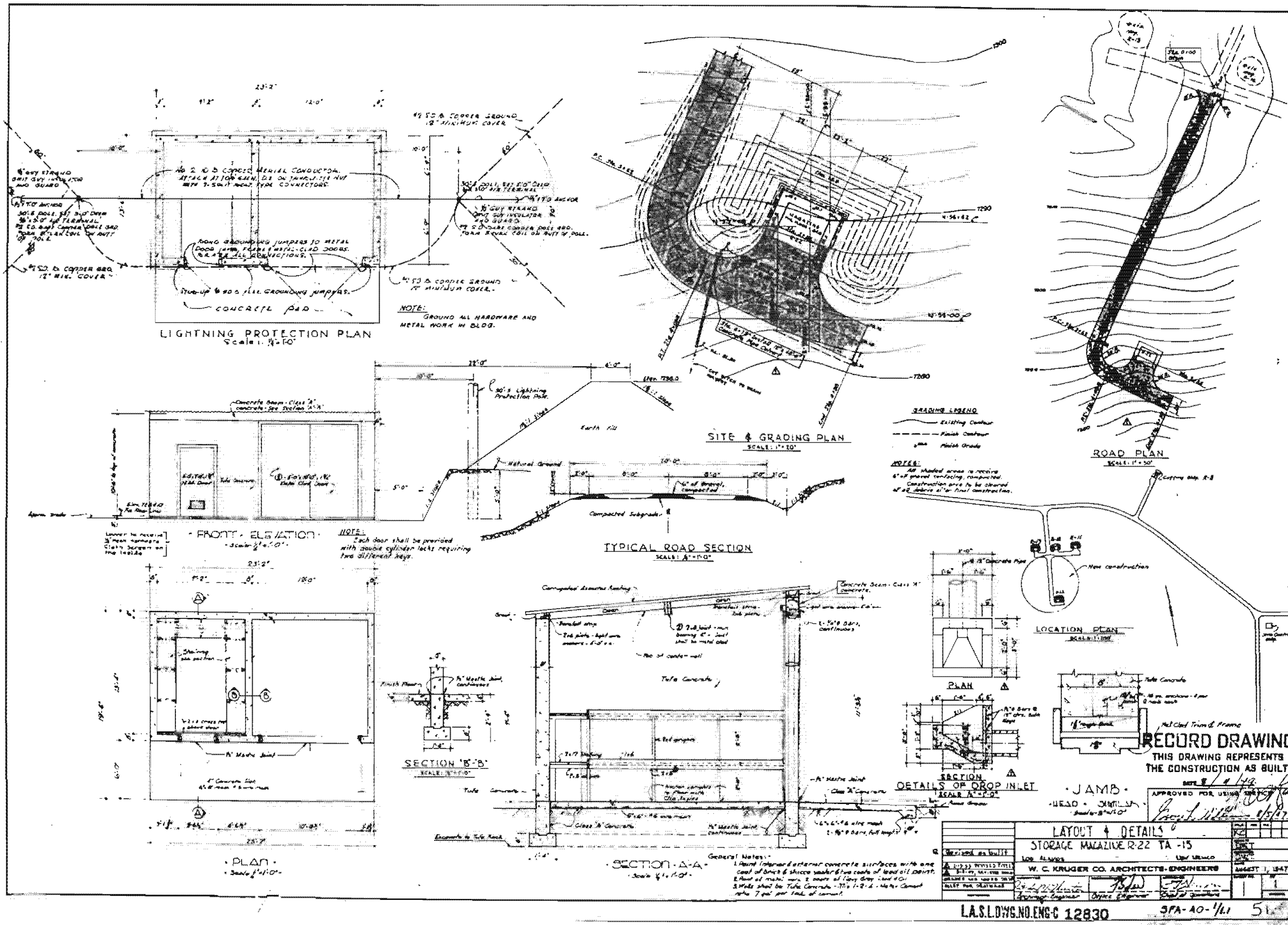
ENG-R 2711
TA-15, Bldg. R-22
Explosives Prep. Bldg.
Floor Plan
July 15, 1983

TA-15-22, south side, direction north northeast.

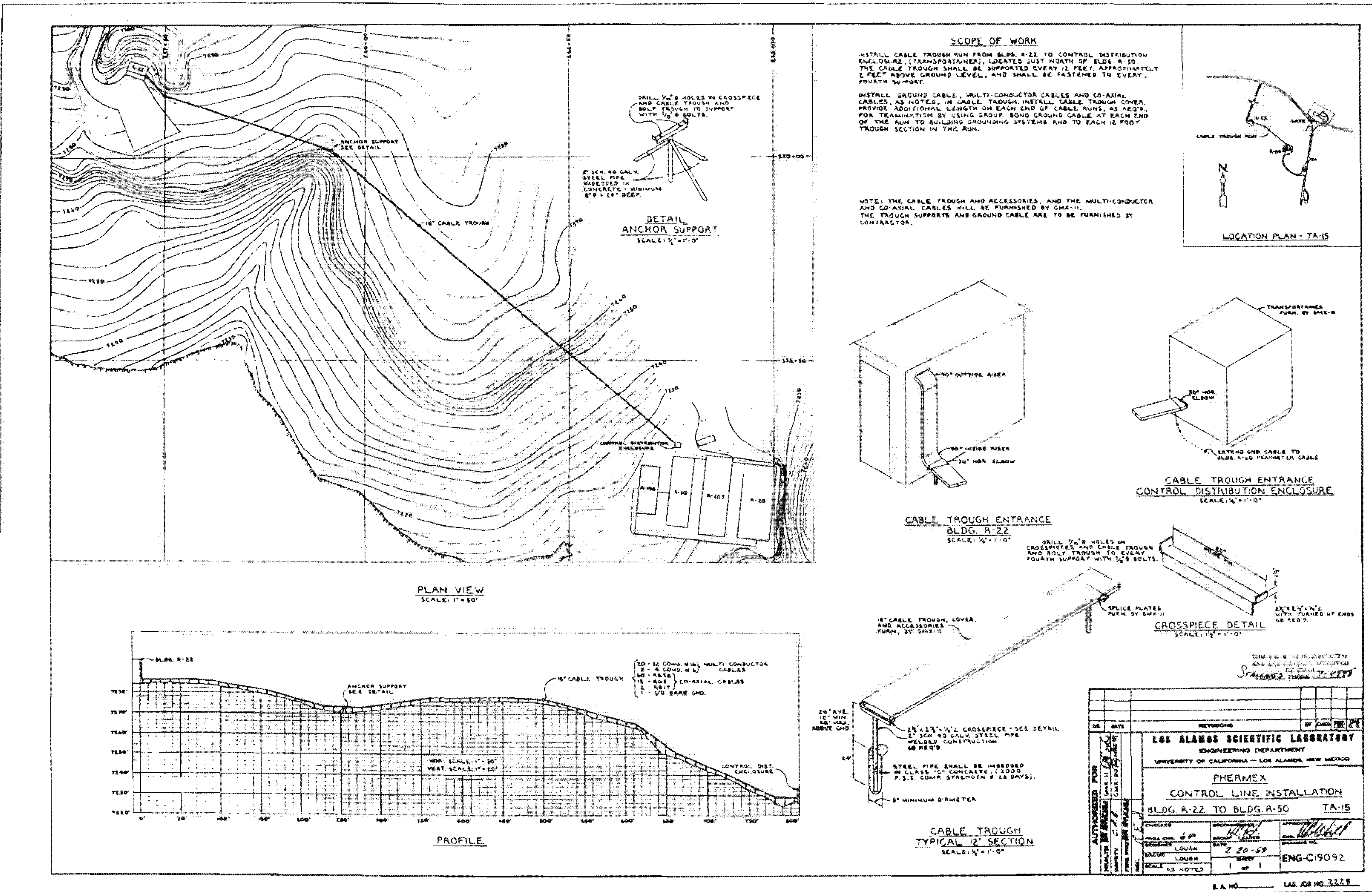
TA-15-22, east and north sides, direction southwest.



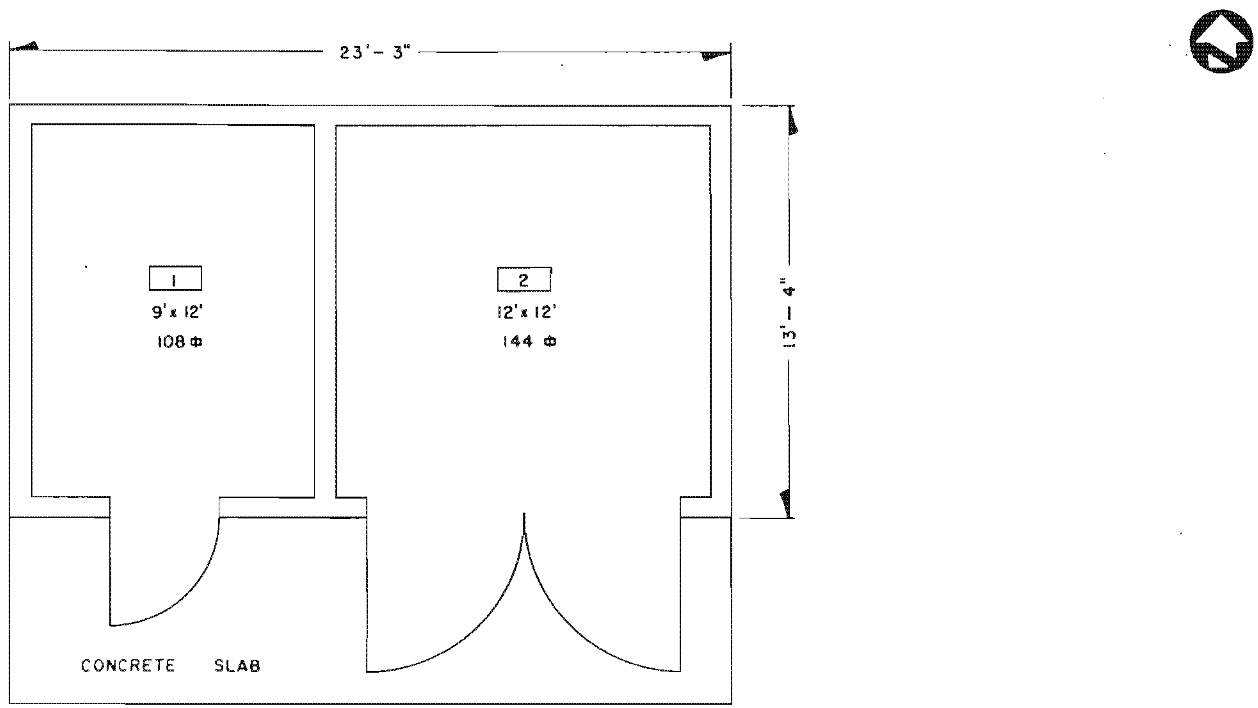
TA-15-22, north and west sides, direction southeast.



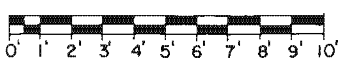
LIGHTNING PROTECTION PLAN
NOTE:
GROUND ALL HARDWARE AND METAL WORK IN BLDG.
SITE & GRADING PLAN
ROAD PLAN
GRADING LEGEND
Existing Contour
Finish Contour
Finish Grade
NOTES:
All shaded areas to receive 6" of gravel surfacing, compacted.
FRONT ELEVATION
NOTE:
Each door shall be provided with double cylinder locks requiring two different keys.
TYPICAL ROAD SECTION
Compacted Subgrade
LOCATION PLAN
New construction
PLAN
SECTION 'B'-'B'
SECTION A-A
PLAN
SECTION
DETAILS OF DROP INLET
JAMB
HEAD · SIMILAR
General Notes:
RECORD DRAWING
THIS DRAWING REPRESENTS THE CONSTRUCTION AS BUILT.
APPROVED FOR USING SERVICE
LAYOUT & DETAILS
STORAGE MAGAZINE R-22 TA-15
Revised as built
W. C. KRUGER CO. ARCHITECTS-ENGINEERS
AUGUST 1, 1947
L.A.S.L. DWG. NO. ENG-C 12830



PLAN VIEW
SCALE: 1" = 50'
BLDG. R-22
ANCHOR SUPPORT SEE DETAIL
18" CABLE TROUGH
CONTROL DISTRIBUTION ENCLOSURE
R-154
R-50
R-207
R-20
DETAIL ANCHOR SUPPORT
SCALE: 1/2" = 1'-0"
DRILL 7/16" Ø HOLES IN CROSSPIECE AND CABLE TROUGH AND BOLT TROUGH TO SUPPORT WITH 3/8" Ø BOLTS.
2" SCH. 40 GALV. STEEL PIPE IMBEDDED IN CONCRETE - MINIMUM 8" Ø x 24" DEEP.
SCOPE OF WORK
INSTALL CABLE TROUGH RUN FROM BLDG. R-22 TO CONTROL DISTRIBUTION ENCLOSURE, (TRANSPORTAINER), LOCATED JUST NORTH OF BLDG. R-50. THE CABLE TROUGH SHALL BE SUPPORTED EVERY 12 FEET, APPROXIMATELY 2 FEET ABOVE GROUND LEVEL, AND SHALL BE FASTENED TO EVERY FOURTH SUPPORT.
INSTALL GROUND CABLE, MULTI-CONDUCTOR CABLES AND CO-AXIAL CABLES, AS NOTED, IN CABLE TROUGH. INSTALL CABLE TROUGH COVER. PROVIDE ADDITIONAL LENGTH ON EACH END OF CABLE RUNS, AS REQ'D., FOR TERMINATION BY USING GROUP. BOND GROUND CABLE AT EACH END OF THE RUN TO BUILDING GROUNDING SYSTEMS AND TO EACH 12 FOOT TROUGH SECTION IN THE RUN.
NOTE: THE CABLE TROUGH AND ACCESSORIES, AND THE MULTI-CONDUCTOR AND CO-AXIAL CABLES WILL BE FURNISHED BY GMX-11. THE TROUGH SUPPORTS AND GROUND CABLE ARE TO BE FURNISHED BY CONTRACTOR.
LOCATION PLAN - TA-15
CABLE TROUGH RUN
CABLE TROUGH ENTRANCE BLDG. R-22
SCALE: 1/4" = 1'-0"
90° OUTSIDE RISER
90° INSIDE RISER
90° HOR. ELBOW
TRANSPORTAINER FURN. BY GMX-11
90° HOR. ELBOW
EXTEND GND. CABLE TO BLDG. R-50 PERIMETER CABLE
CABLE TROUGH ENTRANCE CONTROL DISTRIBUTION ENCLOSURE
SCALE: 1/4" = 1'-0"
DRILL 7/16" Ø HOLES IN CROSSPIECES AND CABLE TROUGH AND BOLT TROUGH TO EVERY FOURTH SUPPORT WITH 3/8" Ø BOLTS.
SPLICE PLATES FURN. BY GMX-11
18" CABLE TROUGH, COVER, AND ACCESSORIES FURN. BY GMX-11
CROSSPIECE DETAIL
SCALE: 1 1/2" = 1'-0"
24" AVE. 12" MIN. 48" MAX. ABOVE GND.
2 1/2" x 2 1/2" x 1/4" L CROSSPIECE - SEE DETAIL
2" SCH. 40 GALV. STEEL PIPE WELDED CONSTRUCTION 68 REQ'D.
STEEL PIPE SHALL BE IMBEDDED IN CLASS "C" CONCRETE. (2000 P.S.I. COMP. STRENGTH @ 28 DAYS).
8" MINIMUM DIAMETER
CABLE TROUGH TYPICAL 12' SECTION
SCALE: 1/2" = 1'-0"
BLDG. R-22
ANCHOR SUPPORT SEE DETAIL
18" CABLE TROUGH
20 - 32 COND. #16 MULTI-CONDUCTOR CABLES
2 - 4 COND. #6
60 - RG58 CO-AXIAL CABLES
18 - RG8
2 - RG17
1 - 1/0 BARE GND.
HOR. SCALE: 1" = 50'
VERT. SCALE: 1" = 20'
CONTROL DIST. ENCLOSURE
PROFILE
NO. DATE REVISIONS
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PHERMEX
CONTROL LINE INSTALLATION
BLDG. R-22 TO BLDG. R-50
TA-15
AUTHORIZED FOR
GMX-11
GMX-20
HEALTH
SAFETY
FIRE PROTECTION
DATE 2-20-59
SHEET 1 OF 1
DESIGNED LOUGH
DRAWN LOUGH
SCALE AS NOTED
ENG-C19092
LAB. JOB NO. 2229



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



GRAPHIC SCALE

TOTAL SQ. FT. 252

REV	DATE	REVISION	BY	CKD.	APP.
1	9-1-83	REVISED TO STATUS OF 9-1-83	HBN		

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

FACILITIES ENGINEERING DIVISION

EXPLOSIVES PREP. BLDG.
FLOOR PLAN

BLDG. R-22 TA-15

SEC. CLASSIFICATION	
CLASS.	U
REVIEWER	
DATE	10-17-83

SUBMITTED: E. Trujillo	RECOMMENDED	APPROVED
DRAWN: HARRISON	DATE: 7-15-83	SHEET NO. 1 OF 1
CHECKED: Trimble H4N		DRAWING NO. ENG-R 2711

K•E ALBANENE LA 0805

LANL TA- Building # 15-0023

Camera 949790

Frame #s P0001394 and P0002395 through P0002402

Surveyor(s) K.Towery/J.Ronquillo

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Lab/Storage Building UTMs easting 381938 northing 3967641 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function The building is currently abandoned. Original Use/ Function Name change from GMX-Manor to Lab Building.

Date (estimated) 1945 Date (actual) 1945 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction The exterior walls are 2"x4" wood frame with 1"x8" diagonally placed wood siding covered with asphalt impregnated paper, covered with asbestos board shingles. # of Stories 1

Foundation Wood post foundation, post and beam sections of 8"x8" members sunk into the ground.

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) Asbestos shingle siding, painted wood doors and windows.

Exterior Features (docks, speakers, lights, signs, etc) The main entrance is on the west elevation. A service area with wood double doors is on the south elevation.

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

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

Exterior Treatment-Addition Asbestos siding similar to that on the original portion of the building.

Exterior Features-Addition The exterior of the addition resembles the original building in material selection.

Roof Form Slanted/Shed ☑ Gable ☐ Other Roof Type

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 Wood double hung.

# of Each Window Type/ Comments

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

Light Pattern: 3 over 3

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:

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): The interior ceiling material is gypsum board

Degree of Remodeling: Minor

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

Associated Building ☐

If yes, list building names and #s:

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

Building was originally located at TA-20 in Sandia Canyon and designated as Building 1 or SAN-1. It was used as an initiator laboratory at its TA-20 location. At TA-15, the building has been used as a control building, a laboratory building, and a shop building.

Architectural Features (elevations)

Total sq ft 780 Gross **Architect/ Builder** R.E. McKee

Alterations

List of Drawings (Cntrl + Enter for para break)

ENG-C 1774
TA-20, Bldg (No 1) (SAN-1)
Plans, Elevations, Sections, and Details
January 1, 1945

ENG-C 620
R-Site (TA-15)
Building R-23
Alterations to R-Site Manor (R-23)
September 13, 1949

ENG-C 1481
Sheet 1 of 7
TA-15, Bldg. 23
Relocation of R-Site "Manor"
Plot Plan & Retaining Wall Details
August 11, 1951

ENG-C 1484
Sheet 4 of 7
TA-15, Bldg. R-23
Relocation of R-Site "Manor"
Floor Plan
August 15, 1951

ENG-C 17352
TA-15, Bldg. R-23
Rest Room Installation
October 2, 1957

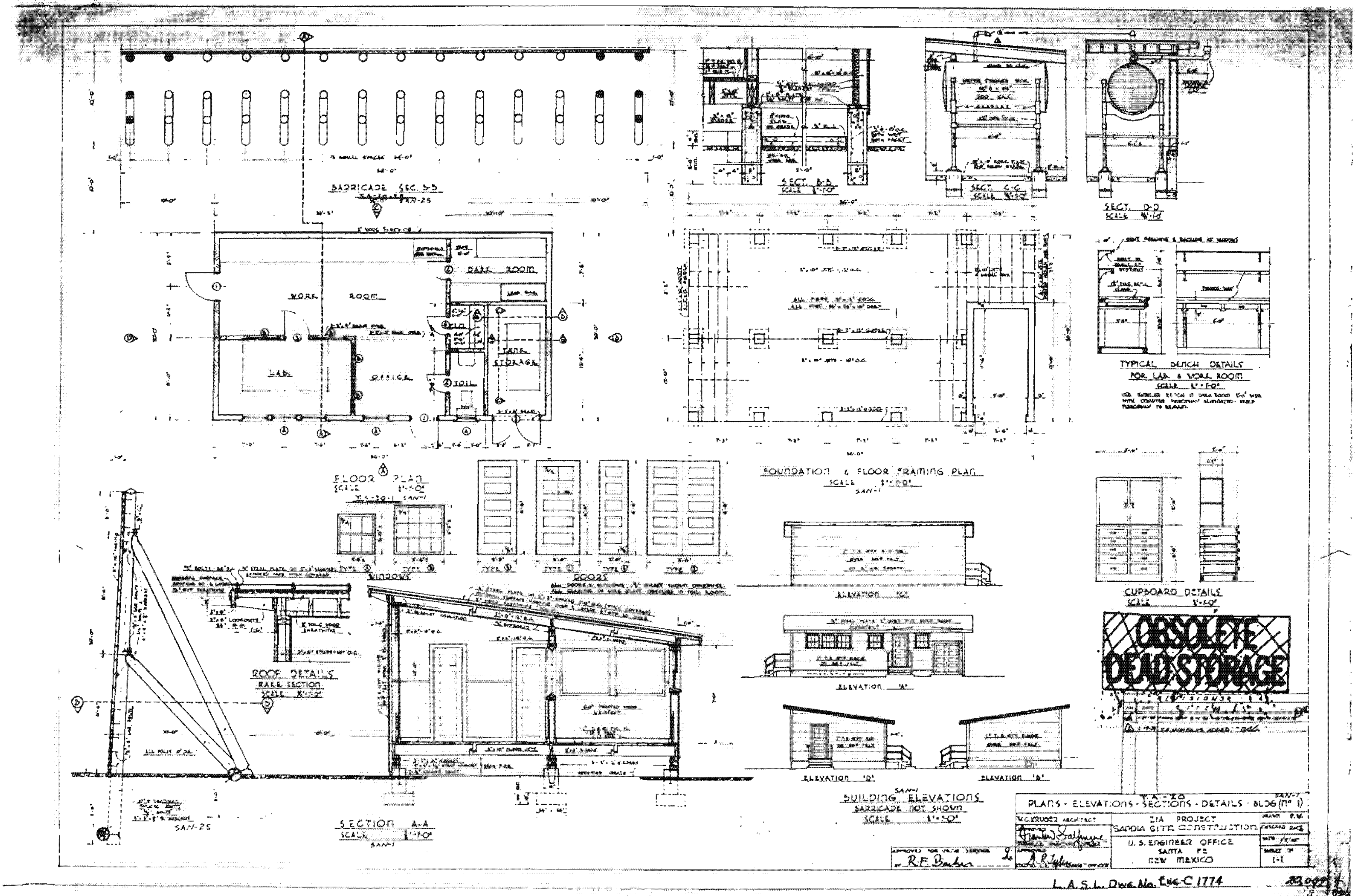
ENG-R 2712
TA-15, Bldg. R-23
Laboratory Building
Floor Plan
August 31, 1983

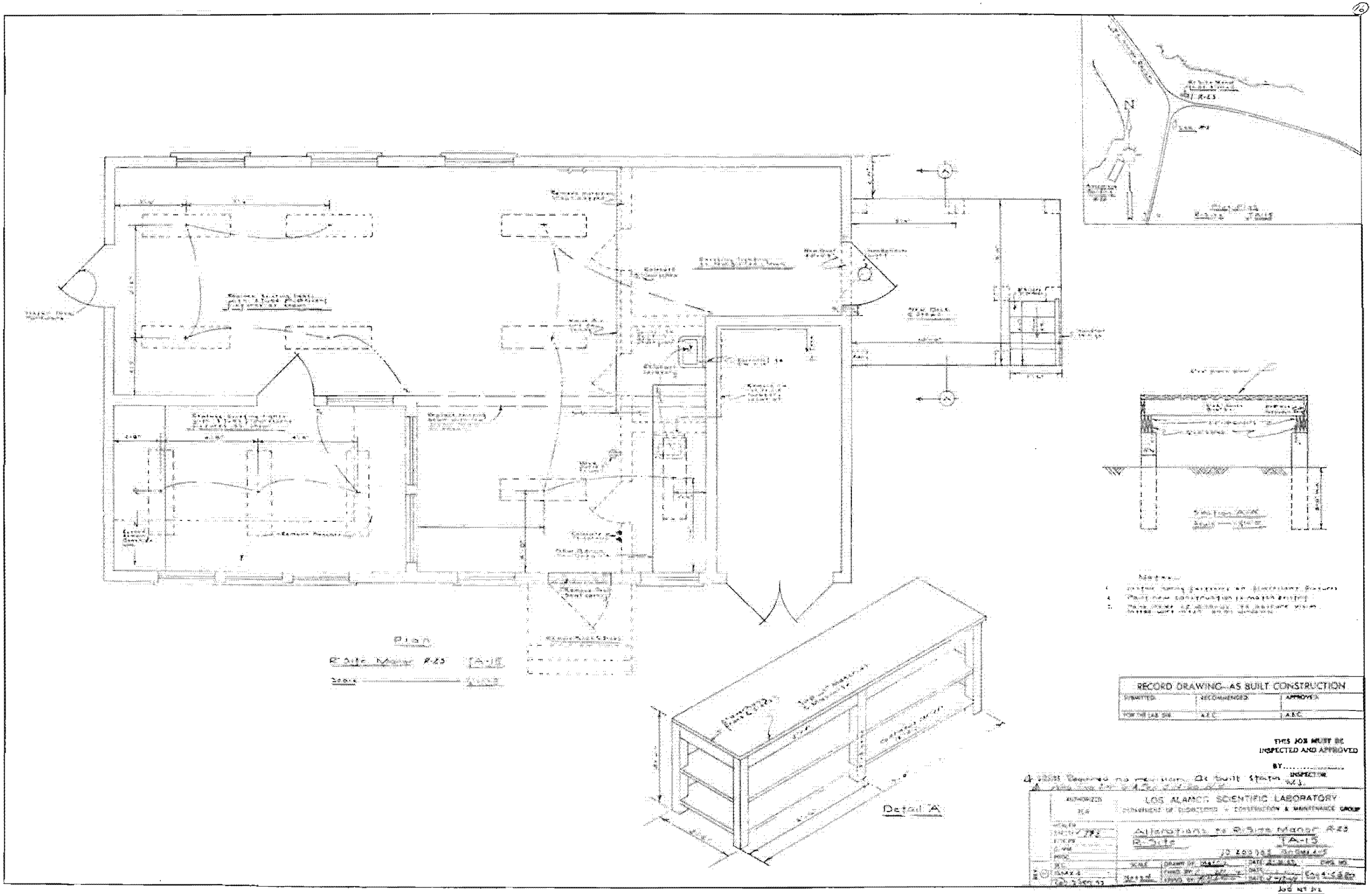
TA-15-23, west and south sides, direction northeast.

TA-15-23, west side, direction east.

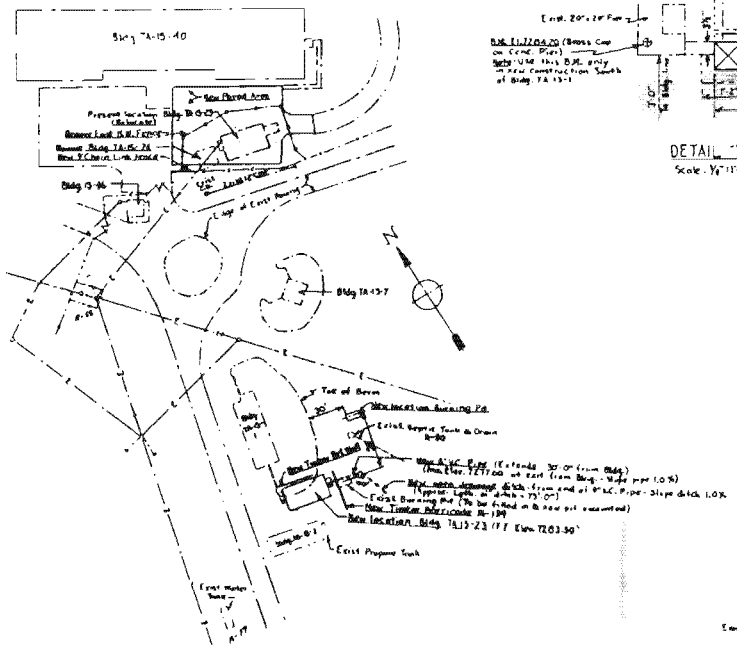
TA-15-23, south and east sides, direction northwest.

TA-15-23, east and north sides, direction south southwest.

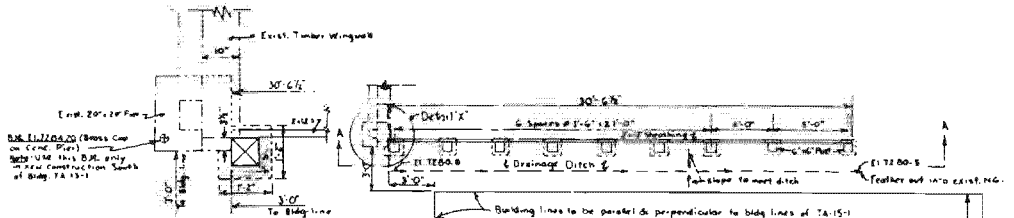

BARRICADE SEC. 5-5
WORK ROOM
DARK ROOM
LAB.
OFFICE
TOIL.
TANK STORAGE
FLOOR PLAN
SCALE 1/4"=1'-0"
SECT. B-B
SECT. C-C
SECT. D-D
FOUNDATION & FLOOR FRAMING PLAN
TYPICAL BENCH DETAILS FOR LAB. & WORK ROOM
WINDOWS
DOORS
TYPE 1
TYPE 2
TYPE 3
TYPE 4
ELEVATION "C"
ELEVATION "A"
ELEVATION "D"
ELEVATION "B"
CUPBOARD DETAILS
OBSOLETE
DEAD STORAGE
ROOF DETAILS
RAKE SECTION
SECTION A-A
SAN-25
BUILDING ELEVATIONS
BARRICADE NOT SHOWN
T.A.-20
PLANS · ELEVATIONS · SECTIONS · DETAILS · BLDG (Nº 1)
W.C. KRUGER ARCHITECT
ZIA PROJECT
SANDIA SITE CONSTRUCTION
U. S. ENGINEER OFFICE
SANTA FE
NEW MEXICO
R.F. Barker
L.A.S.L. Dwg. No. ENG-C 1774



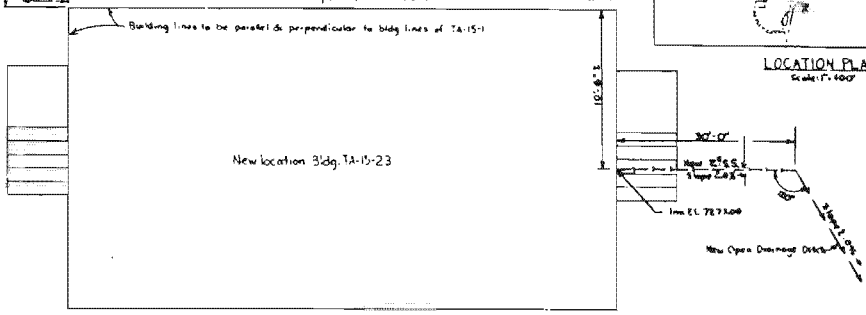
Plan
Detail 'A'
Notes
RECORD DRAWING—AS BUILT CONSTRUCTION
SUBMITTED
RECOMMENDED
APPROVED
FOR THE LAB DIR.
A.E.C.
A.E.C.
THIS JOB MUST BE
INSPECTED AND APPROVED
BY
INSPECTOR
LOS ALAMOS SCIENTIFIC LABORATORY
Alterations to R-Site Manor R-23
R-Site
TA-15



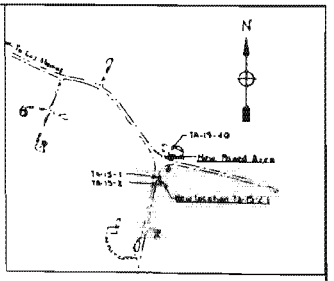
PLOT PLAN
Scale: 1"=30'



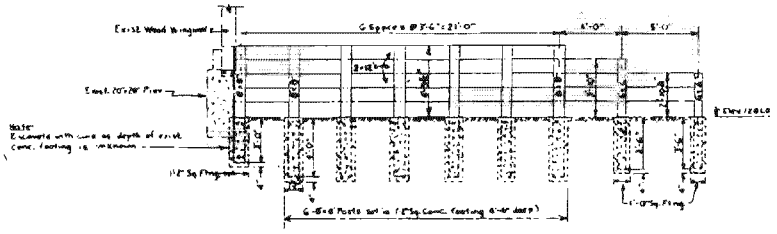
DETAIL "X"
Scale: 1/4"=1'-0"



BUILDING LOCATION & RETAINING WALL PLAN
Scale: 1/8"=1'-0"

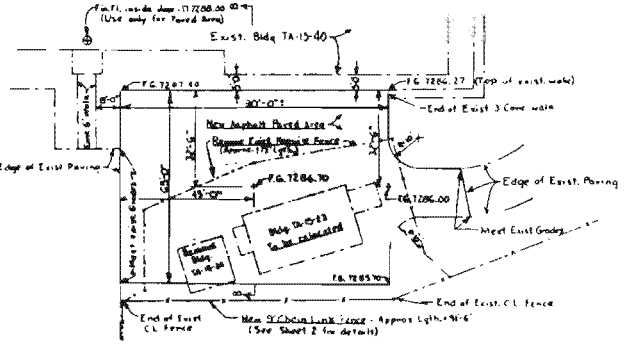


LOCATION PLAN
Scale: 1"=400'

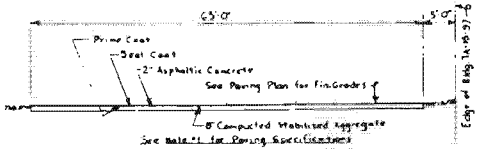


SECTION A-A R-139
Scale: 1/4"=1'-0"

Notes:
1. Asphaltic Paving to be as follows:
(a) Subgrade to be compacted to 90% max. density at optimum moisture content.
(b) 8" Base Course of Stabilized Aggregate with 1 max. aggregate size 1½".
(c) Prime Coat to be Tack Mat (RC-1) applied at the rate of .25 Gal./S.Y.
(d) 2" compacted Asphaltic Concrete with max. aggregate size ½".
(e) Seal Coat to consist of Tack Mat (RC-1) applied at the rate of .25 Gal./S.Y. and 20 lb. #2 Aggregate per S.Y.
2. Back side of Timber Wall sheathing to be creosoted. Front portion of wall to be given 2 coats of green paint. Portion of posts set in concrete to be wrapped with hot tar & wrapped with building paper.
3. Where lines and grades are required by the construction indicated, they will be set by ENG-3 Survey Personnel.
4. Contractor must Coordinate along inside of new retaining wall.
5. Bldg. TA-15-24 to be moved to Ind. Salvage.
6. 7'-0" Retaining sheathing to be accurately rolled to posts.



PAVING PLAN
Scale: 1"=10'



SECTION B-B
Scale: 1"=1'-0"

THIS SET OF PLANS CONSISTS OF THE FOLLOWING DRAWINGS:

LAB DWG NO.	TITLE
ENG. C-1481	Plot Plan & Retaining Wall Details
ENG. C-1482	Fence & Barricade Details
ENG. C-1483	Foundation Plan
ENG. C-1484	Floor Plan
ENG. C-1485	Architectural Details
ENG. C-1486	Plumbing & Heating
ENG. C-1487	Electrical Plan

APPROVED FOR CONSTRUCTION
AEC Chicago Group
9/15/53

OFFICIAL USE ONLY

PHONE 2-4086
ENGR. FIELD ENGINEER

AUTHORIZED FOR CONSTRUCTION
AEC APPROVED
CHIEF ENGR.
CHIEF ARCHITECT

U. S. ATOMIC ENERGY COMMISSION
SANTA FE OPERATIONS OFFICE
LOS ALAMOS, NEW MEXICO

RELOCATION OF R-SITE "MANOR"
BLDG. TA-15-23 TA-15
PLOT PLAN & RETAINING WALL DETAILS

A-E APPROVED
DRAWN
TRACED
CHECKED
DATE 8-14-53
ENG C-1481

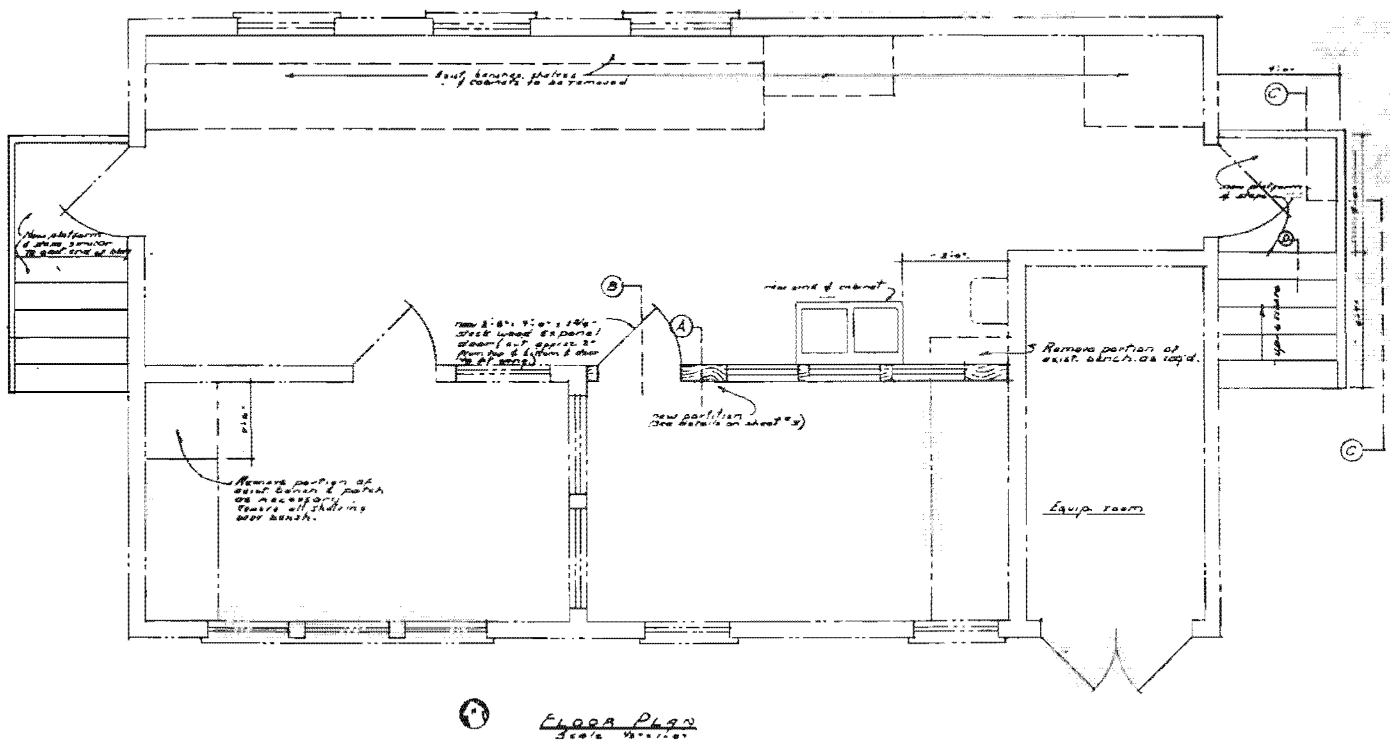
LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPT. LOS ALAMOS, N. M.

1 7

Job Order # 239745

JE #239745

915



FLOOR PLAN
Scale 1/4" = 1'-0"

Notes:

1) Hardware: – New door to have 1 1/2 prs. 3 1/2 x 3 1/2 hinges, P.C., 1 ... lockset ... – ...

2) Painting: – New interior partition to have 1 coat of primer & two coats flat paint, color to match existing. New trim to have 1 coat primer & two coats semi-gloss, color to match existing. Repaint existing interior walls, ceiling & trim to match existing.
New exterior work to receive 1 coat ... & two coats exterior house paint, color to match exist.

3) Floors – Patch as necessary where ... is removed. Clean floor thoroughly with steel wool & sand paper & washing. Stain with 1 coat oil stain, apply one thin coat of shellac, & two coats of clear varnish. First coat to be thinned with ... turpentine ... varnish. Floor to be waxed.

4) Provide new skirting similar to exist.

5) Remove exist. jib crane & chain hoist & patch ceiling as necessary.

Legend
Exist. const. to remain
" " to be removed
New work

Unclassified/Not UCNI
9/25/03
LANL Class. Group

Doyle PHONE
ENG 4 - FIELD ENGINEER

~~OFFICIAL USE ONLY~~

U. S. ATOMIC ENERGY COMMISSION
SANTA FE OPERATIONS OFFICE
LOS ALAMOS, NEW MEXICO

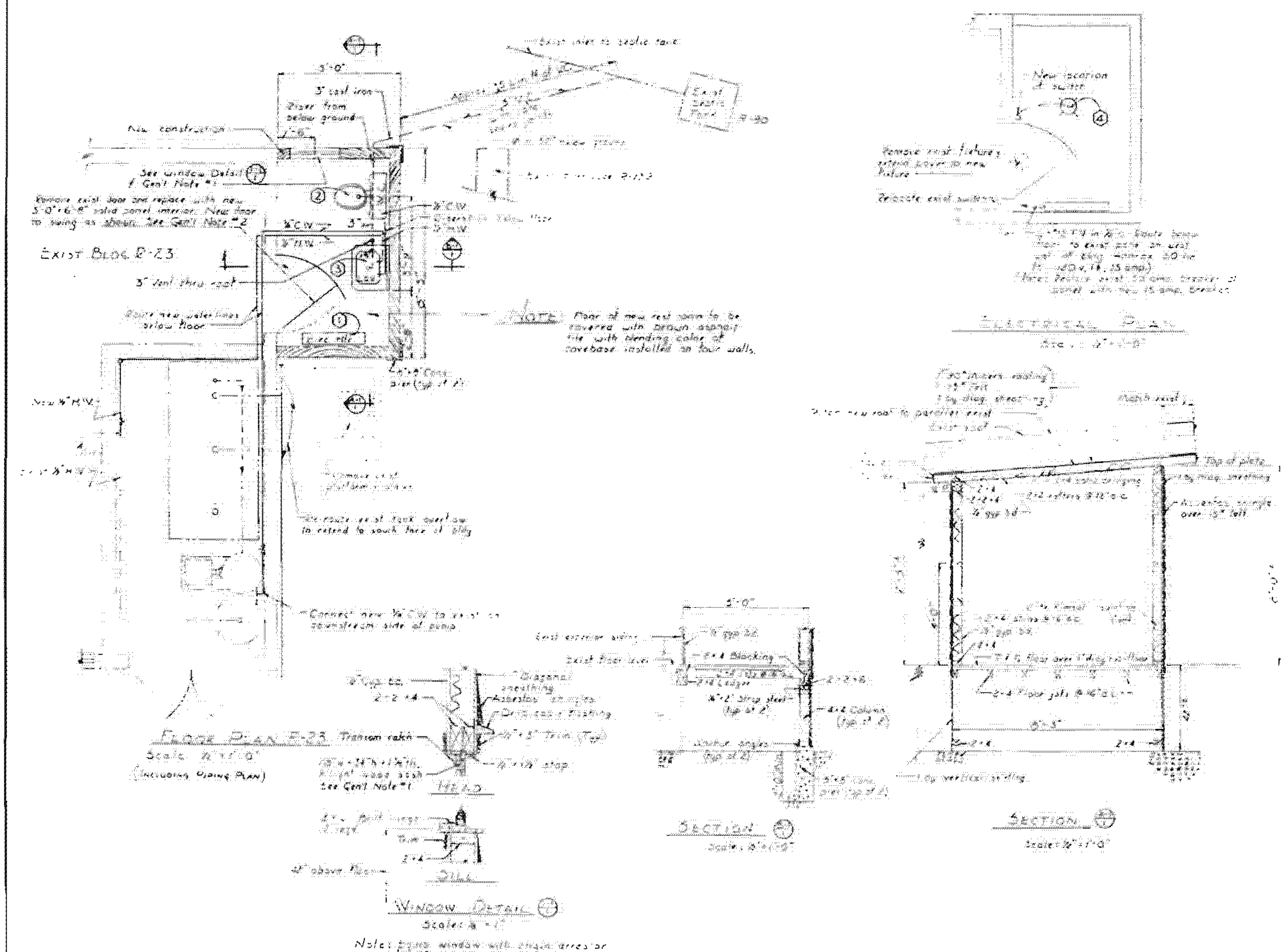
RELOCATION OF R SITE "MANOR"
BUILDING R-23
TA-16
FLOOR PLAN

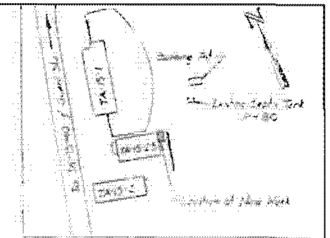
LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
ENGINEERING DEPT. LOS ALAMOS, N. M.

ENG-C 1484

4 | 7

10'25'5'/9E ... 915





Location Plan
R-23 TA-15

List of Equipment

Sym	Req'd	Description	Mfg. by
①	1	Space heater, natural convection type, wall mounted heater with 3-heat snap switch, for 120 volt 60 cycle operation, 1500 W. Cat. No. 2A573G1	Gen Elec Co. Schenectady, N.Y.
②	1	Water Closet, "Wellworth" close-coupled, vitreous china. Cat No. K-3705-PB	Kohler Co. Kohler, Wisc.
③	1	"Greenwich" vitreous china lavatory with back, size 19 x 17, complete with supply & drain fitting, 1¼" trap & K-1814, 12" brackets. Cat. No. K-1955-C	
④	1	Art. Metal General area incandescent lighting unit complete with white opal glass. Cat. No. 1738	Westinghouse Elect. Supply El Paso, Tex.

General Notes

1. Equip new sash with opaque or frosted lights.
2. New solid panel interior door to be equipped with 1½ prs 4 x 4 butt hinges & R & E #1039 DKS lockset.
3. Relocate crawl space access door from its existing location to new location in skirt wall on north side of new addition.
4. New rest room to be equipped with necessary fixtures & dispensers, including a mirror mounted above lavatory and a waste disposal.
5. Hot & cold galvanized water lines and exposed section of drain line to be insulated.
6. The entire electrical installation to be made in accordance with the current rules of the N.E.C.
7. New heater & incandescent fixtures to be bonded to bldg. grounding system.
8. Identify new circuit at panel.
9. Conduit runs shall be routed to suit equipment and bldg structure.
10. All wire shall be #12 AWG, Type TW, unless otherwise specified.
11. Paint interior of new rest room & exposed exterior wood surfaces to match existing.
12. Equal approved substitutions may be made for any or all items in the List of Equipment.

Stallings 7-1957

No.	Date	Revisions	By	Chkd		

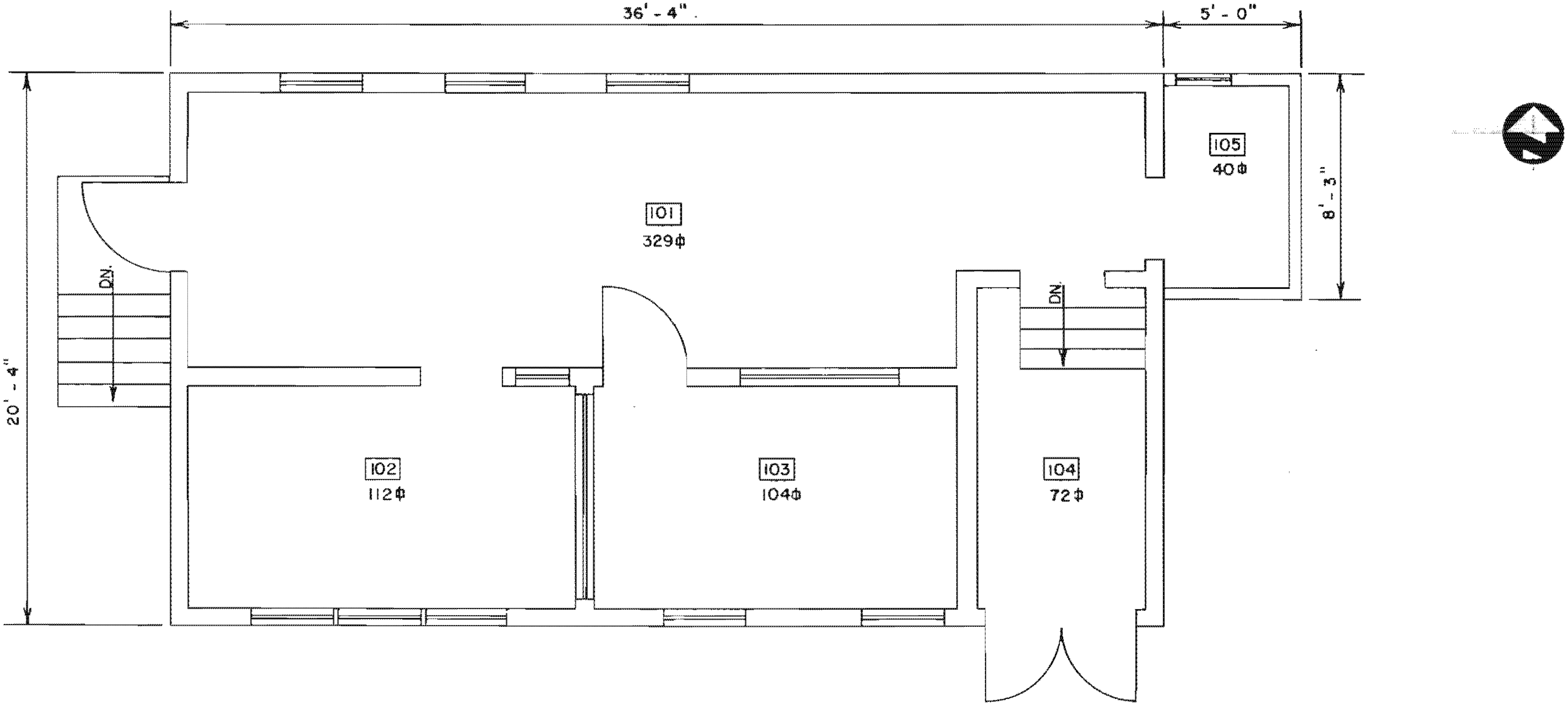
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

REST ROOM INSTALLATION BLDG. R-23 TA-15

Authorized for: Health / Safety / Fire Prot. / M.C.

Checked / Recommended / Approved — Eng. Dept. Office
Date: Oct. 2, 1957
Sheet 1 of 1
Drawing No. ENG-C 17352

E. A. No. ______ Lab. Job No. 2060



1/4" = 1' - 0" 0 1 2 4 6 8 10
GRAPHIC SCALE

TOTAL ft² 657

REV.	DATE	REVISION	BY	CKD.	APP.
2	8-31-83	REDRAWN TO STATUS OF 8-31-83	H&N		

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

FACILITIES ENGINEERING DIVISION

LABORATORY BLDG.
FLOOR PLAN

BLDG. R-23 TA-15

SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 10-17-83

SUBMITTED
RECOMMENDED
APPROVED

DRAWN KENNEDY H&N
CHECKED H&N
DATE 8-31-83
SHEET NO. 1 OF 1
DRAWING NO. ENG-R2712

LANL TA- Building # 15-0030

Camera 949790

Frame #s P0002372 through P0002374

Surveyor(s) K.Towery/J.Ronquillo

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Guard Station UTMs easting 381781 northing 3967254 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function Building is currently unoccupied. Original Use/ Function Guard Station

Date (estimated) 1945 Date (actual) 1949 Property Type Security

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

Exterior Treatment (painted, stuccoed, etc) The CMU has a light plaster wash over it.

Exterior Features (docks, speakers, lights, signs, etc) Very utilitarian facility. This Guard Station is different in design than previous type buildings found at LANL. It does not have the typical concrete overhang found on other guard stations at LANL.

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

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

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☑ Gable ☐ Other Roof Type

Degree of Pitch/ Slope Slight

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

Other Roof Materials Hypalon membrane roofing.

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

Other Window Type Metal

# of Each Window Type/ Comments

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

Light Pattern: 3 over 3; 2 over 3.

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:

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): Painted concrete.

Degree of Remodeling: Unknown/None

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

Associated Building ☐

If yes, list building names and #s: TA-15-194, TA-15-203, TA-15-213, TA-15-245, TA-15-20

Integrity: Excellent

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 Original function was as a guard house and in later years it was used for storage.

Architectural Features (elevations)

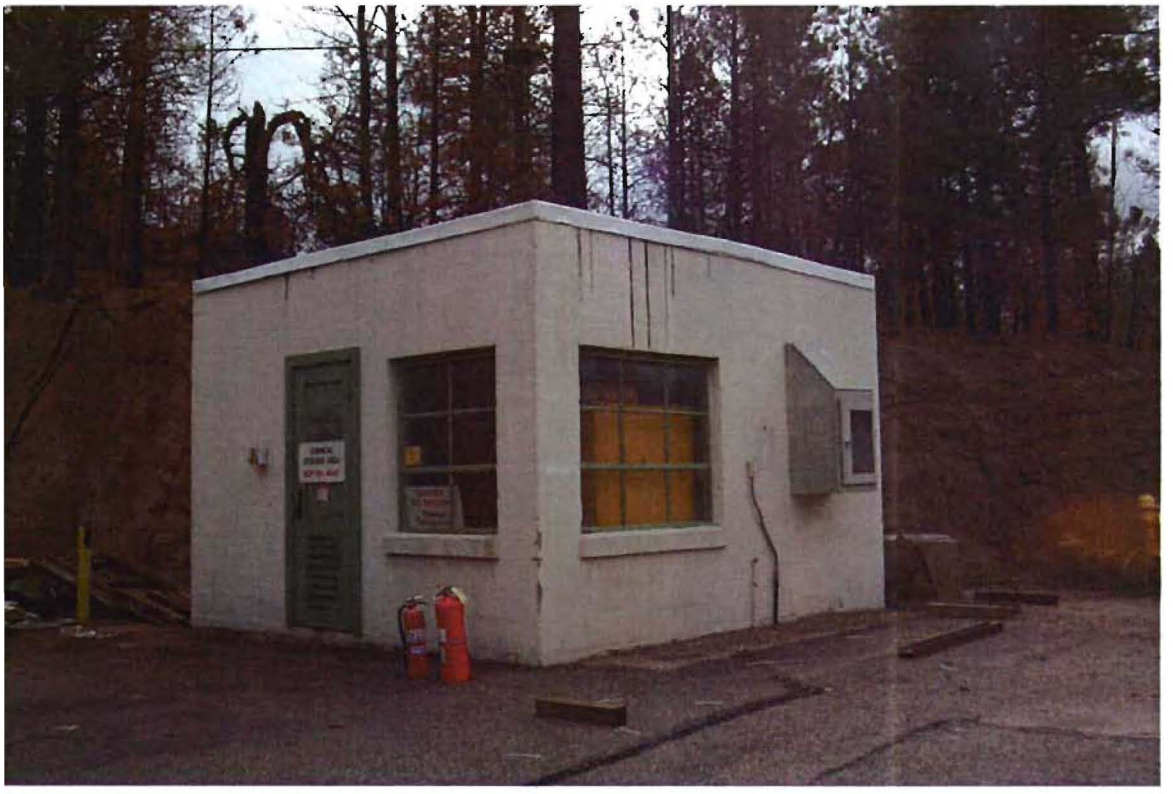
Total sq ft 205 **Architect/ Builder** Contractor: Haddock Engineers, LTD.

Alterations

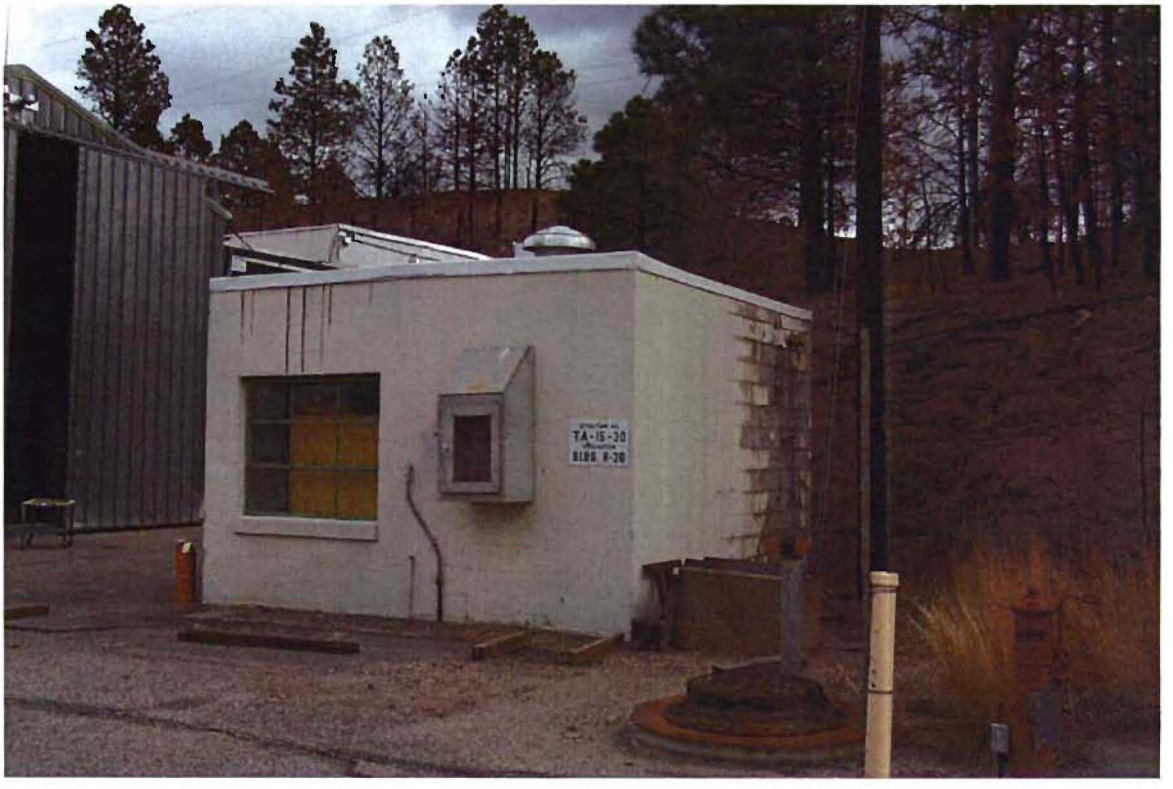
List of Drawings (Cntrl + Enter for para break)

Cold War Era Buildings Historic Context
Sheet A-1
TA-15, Bldg 30
Guard Station
June 7, 2004

ENG-R 2714
TA-15, Bldg. R-30
Guard Station
Floor Plan
August 31, 1983

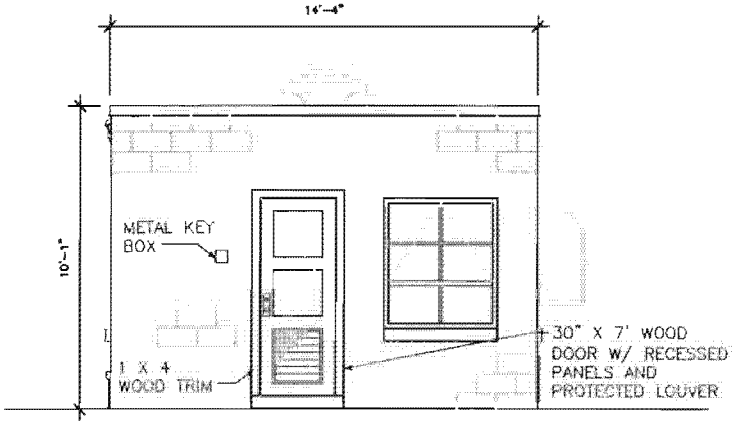


TA-15-30, north and west sides, direction southeast.

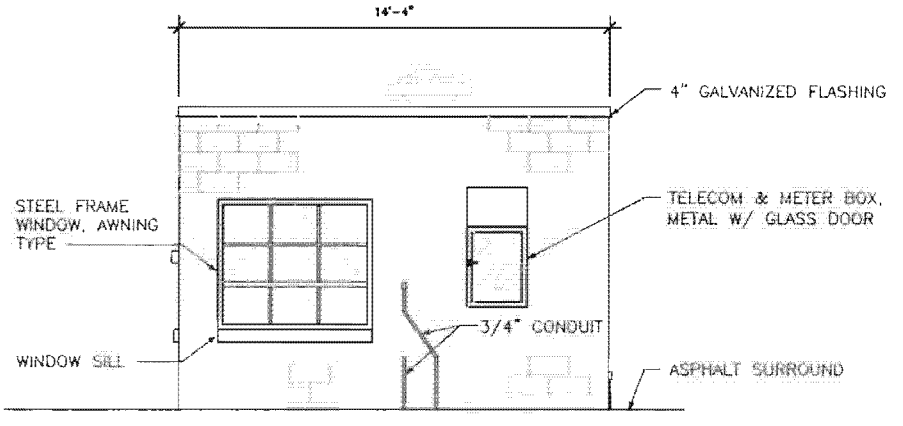


TA-15-30, west and south sides, direction northeast.

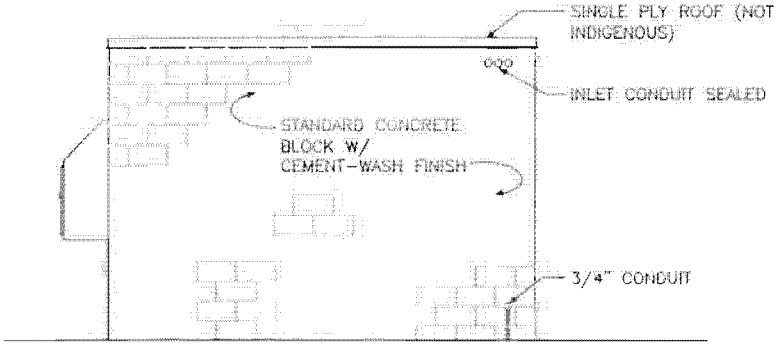
TA-15-30, east and north sides, direction southwest.



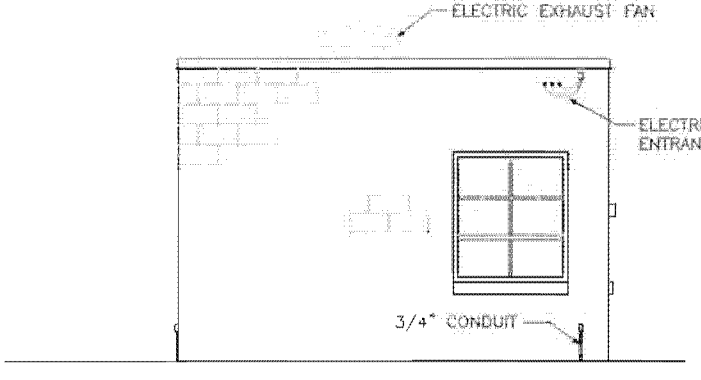
NORTH ELEVATION
SCALE: 1/2"=1'-0 (1 / A-1)



EAST ELEVATION
SCALE: 1/2"=1'-0 (2 / A-1)



SOUTH ELEVATION
SCALE: 1/2"=1'-0 (3 / A-1)



WEST ELEVATION
SCALE: 1/2"=1'-0 (4 / A-1)

COLD WAR ERA BUILDINGS
HISTORIC CONTEXT

BLDG 30 GUARD STATION TA-15

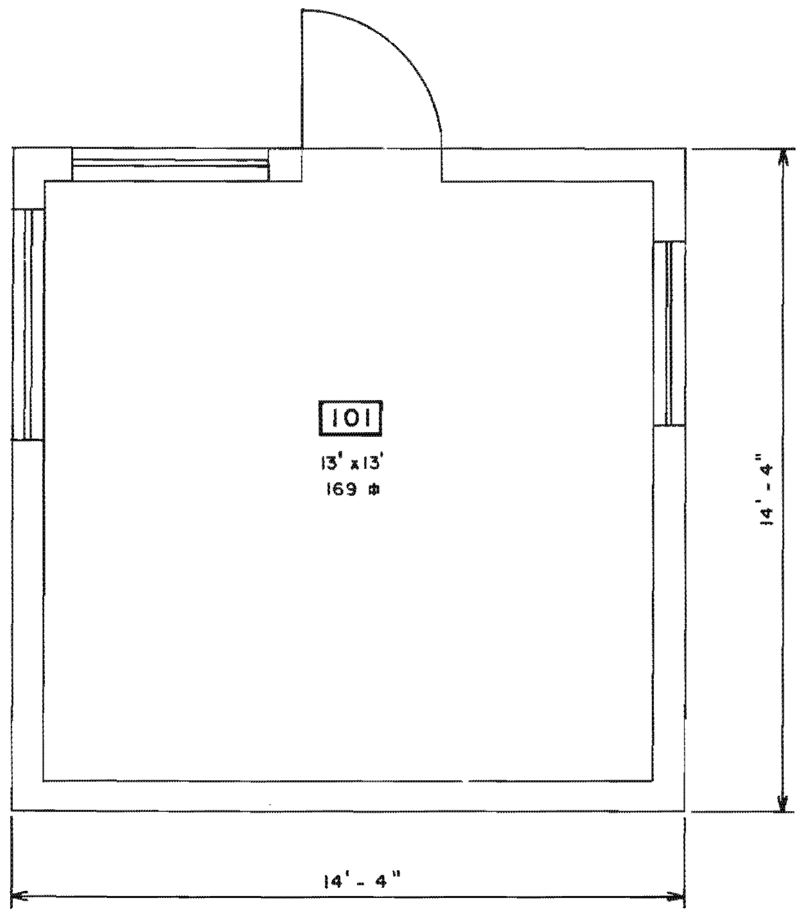
DRAWN K. HOMER
CHECKED K. KINNEY
DATE JAN 04

SUBMITTED
APPROVED FOR RELEASE

Los Alamos NATIONAL LABORATORY
P.O. Box 1663 Los Alamos, New Mexico 87545

SHEET A-1
1 OF 1

CLASSIFICATION U
REVISIONS
DATE 05/17/04



3/8" = 1' - 0" 0' 1' 2' 3' 4' 5'

GRAPHIC SCALE

TOTAL ft² 169

REV.	DATE	REVISION	BY	CKD.	APR.
1	8-31-83	REDRAWN AND REVISED TO STATUS OF 8-31-83	HBN		DP

UNIVERSITY OF CALIFORNIA

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

GUARD STATION

FLOOR PLAN

BLDG. R-30 TA-15

SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 10-17-83

SUBMITTED | RECOMMENDED | APPROVED

DRAWN G. MARTINEZ
CHECKED HAN

DATE 8-31-83

SHEET NO. 1 OF 1

DRAWING NO. ENG-R 2714

REC'D. ... LOGGED ✓ TO VAULT 11-83-83

LANL TA- Building # 15-0194

Camera 949790

Frame #s P0002350 through P0002357, P0002375, P0002376, P0002378, P0002379, and P0002394

Surveyor(s) J.Ronquillo/K.Towery

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Pulse Power Lab UTMs easting 381765 northing 3967284 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function The building is currently abandoned. Original Use/ Function Electron Gun Shelter

Date (estimated) 1950 Date (actual) 1959 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories

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 main access to the building is through two large metal sliding doors located on the south elevation of the facility.

Exterior Features (docks, speakers, lights, signs, etc) Loading/Unloading area is located on the south side of the building.

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

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

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☐ Gable ☑ Other Roof Type

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

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

Light Pattern

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:

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 Structure.

Degree of Remodeling Unknown/None

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

Associated Building ☑

If yes, list building names and #s: TA-15-20, TA-15-203, TA-15-213, TA-15-30, TA-15-245

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)

Total sq ft 1976 Gross **Architect/ Builder** Butler pre-engineered Building.

Alterations

List of Drawings (Cntrl + Enter for para break)

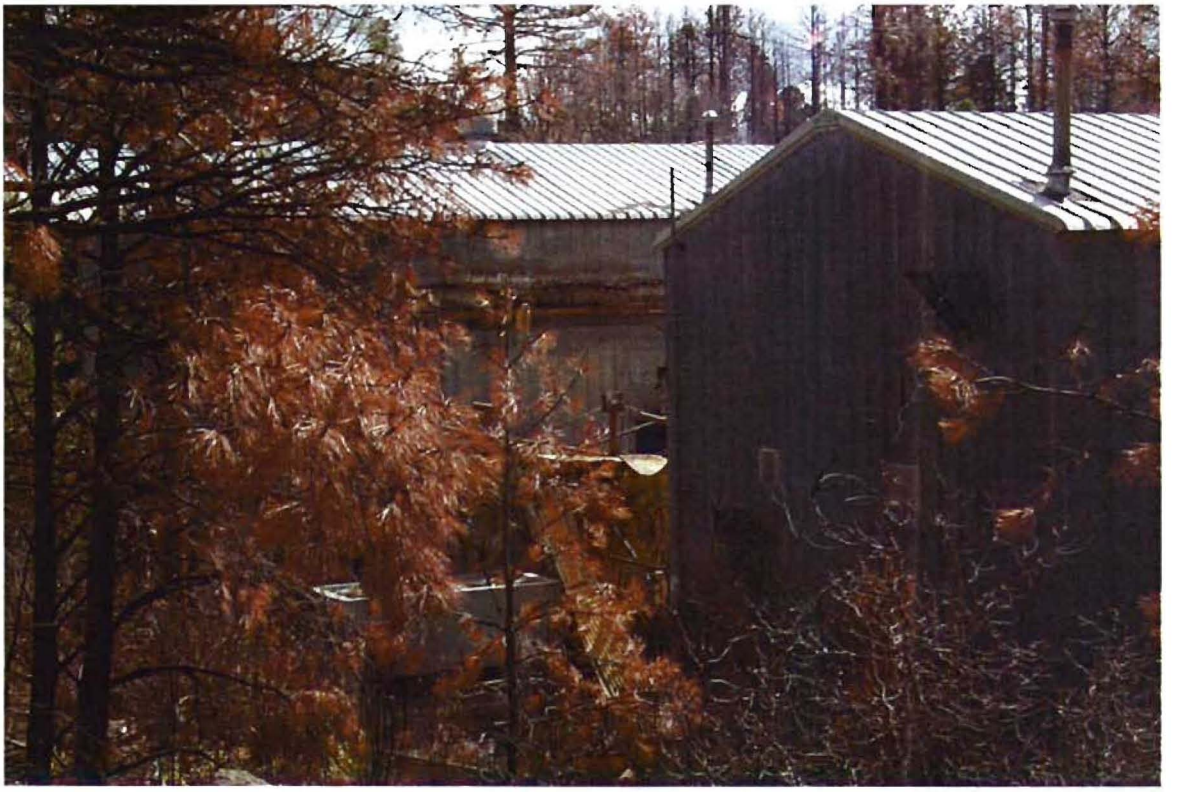
ENG-C 20720
Sheet 1 of 6
TA-15, Bldg. R-194
Electron Gun Shelter
Structural Plans
January 23, 1959

ENG-C 20722
Sheet 3 of 6
TA-15, Bldg. R-194
Electron Gun Shelter
Architectural Elevations
January 23, 1959

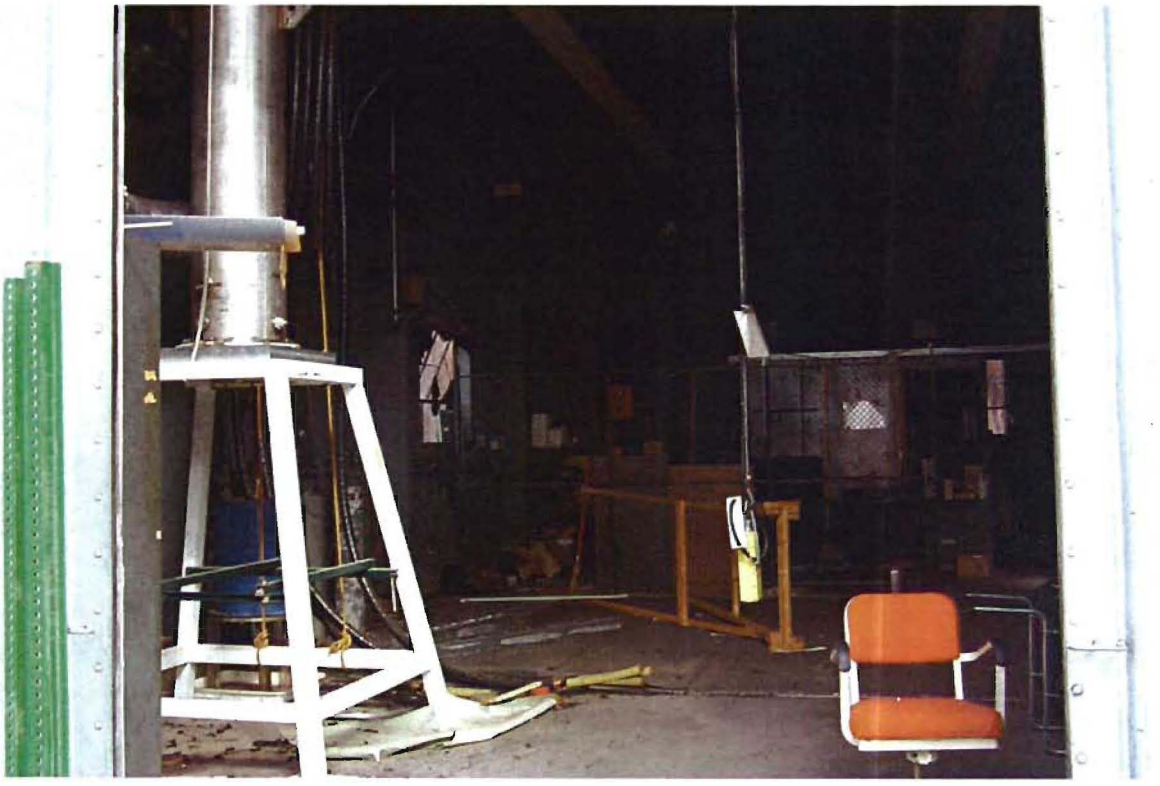
ENG-C 43579
Sheet 19 of 59
TA-15, Bldg. R-194
Fire Protection Improvements
Floor Plan
September 3, 1979

TA-15-194, south and east sides, direction northwest. East side connected to a covered passageway that burned in the Cerro Grande Fire May 2000.

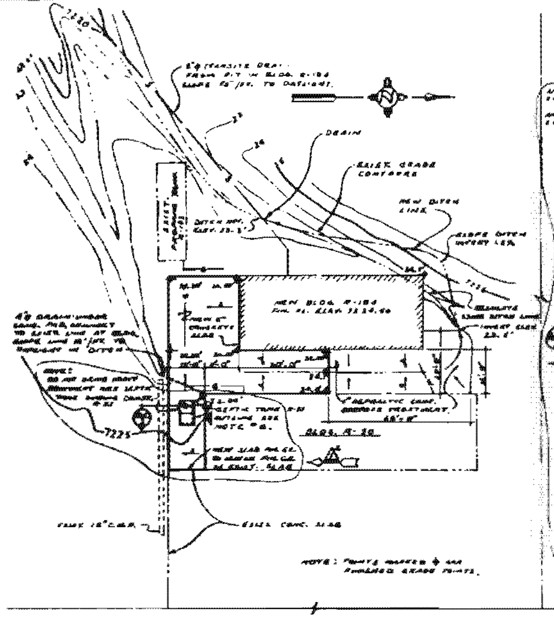
TA-15-194, west side, direction east southeast.



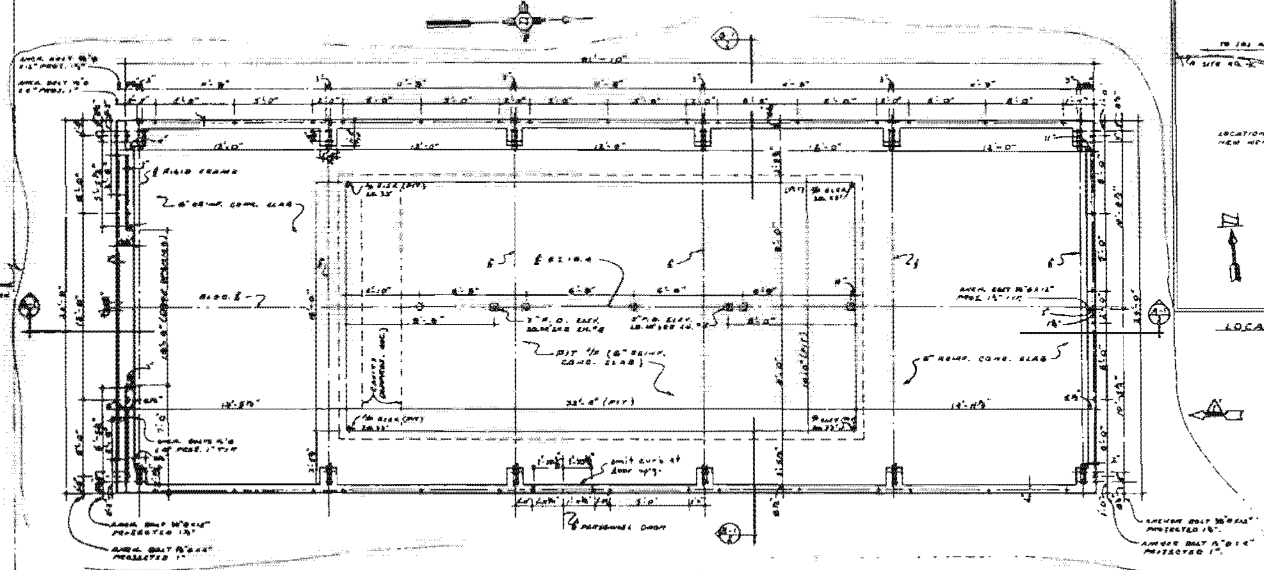
TA-15-194, north side, direction south southeast.



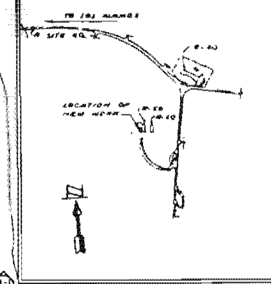
TA-15-194, interior, direction north.



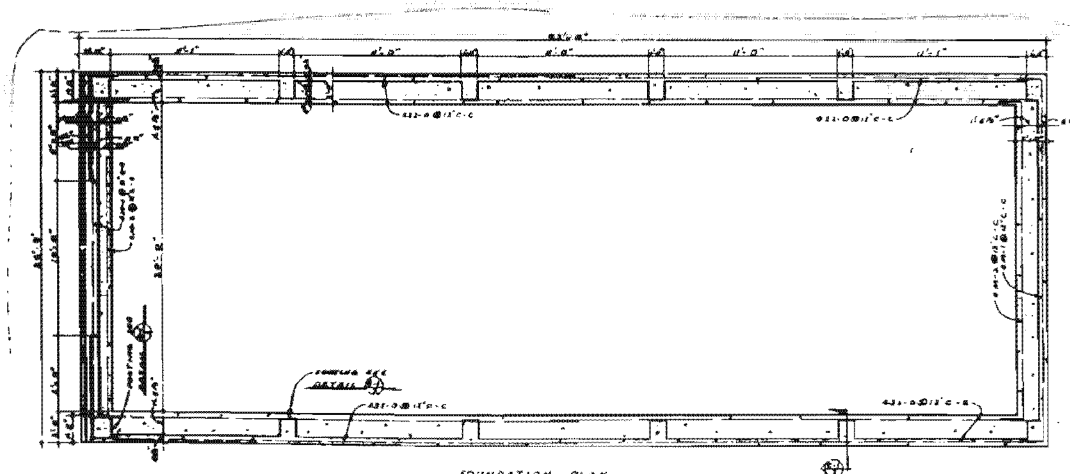
PLOT PLAN
SCALE: 1" = 20'-0"



FLOOR PLAN
SCALE: ¼" = 1'-0"



LOCATION PLAN
TA-3



FOUNDATION PLAN
SCALE: ¼" = 1'-0"

NOTES:

1. BLDG. TO BE RIGID FRAME, BUTLER TYPE [illegible] OR APPROVED EQUAL, NOMINAL LENGTH 80 FT., WIDTH 35 FT., EAVE HT. 16 FT. WITH CORRUGATED GALVANIZED IRON SIDING & ROOF. BLDG. TO BE INSULATED WITH 1½" THICK, ¾ LB. DENSITY FIBERGLAS ON WALLS & ROOF AND COVERED ON THE INSIDE OF BLDG. WITH 26 GA. CORRUGATED GALV. IRON. BLDG. TO HAVE THE FOLLOWING DOORS & WINDOWS COMPLETE WITH ALL NECESSARY HARDWARE:
   - 1 - 16'-0" WIDE x 16'-0" HIGH DOUBLE HORIZ. SLIDING METAL DOOR.
   - 1 - 3'-0" WIDE x 6'-8" HIGH METAL PERSONNEL DOOR WITH WINDOW & HYDRAULIC DOOR CLOSER.
   - 6 - GALV. STEEL WINDOWS [illegible]

   BLDG. SHALL BE DESIGNED TO WITHSTAND THE FOLLOWING LOADINGS:
   - UNIFORM WIND LOAD 15 LB. PER SQ. FT.
   - UNIFORM SNOW LOAD 30 LB. PER SQ. FT.
   - LOAD FROM MONORAIL AND HOIST - 4000 LB. (IMPACT INCLUDED) CONCENTRATED AT THE CENTER OF ANY RIGID FRAME.
2. ALL NEW CONCRETE TO BE 3000 PSI @ 28 DAYS.
3. PAINT ALL NEW STRUCTURAL STEEL WITH 1 COAT OF LIGHT GREY RUST INHIBITOR PAINT — EXCEPTION — DO NOT PAINT ANY GALVANIZED STEEL.
4. LOCATION OF UNDERFLOOR CONDUIT AND GROUNDING CONNECTIONS SEE "PLAN VIEW" SHEET #8.
5. TROWEL FINISH TOP OF FOUNDATION. FOUNDATION MUST BE SQUARE, LEVEL, AND SMOOTH.
6. MARK OUTLINE OF SEPTIC TANK AND PAINT WITH YELLOW STRIPE. PAINT ON RIM. SLAB OVER SEPTIC TANK "KEEP HEAVY LOADS OFF THIS AREA".

THIS JOB MUST BE [illegible] AND ANY CHANGES [illegible] BY [illegible]
STALLINGS [illegible] 7 4288

NO.	DATE	REVISIONS	BY	CHECK		
1	3-13-59	REVISED FOUNDATION	RLH			

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

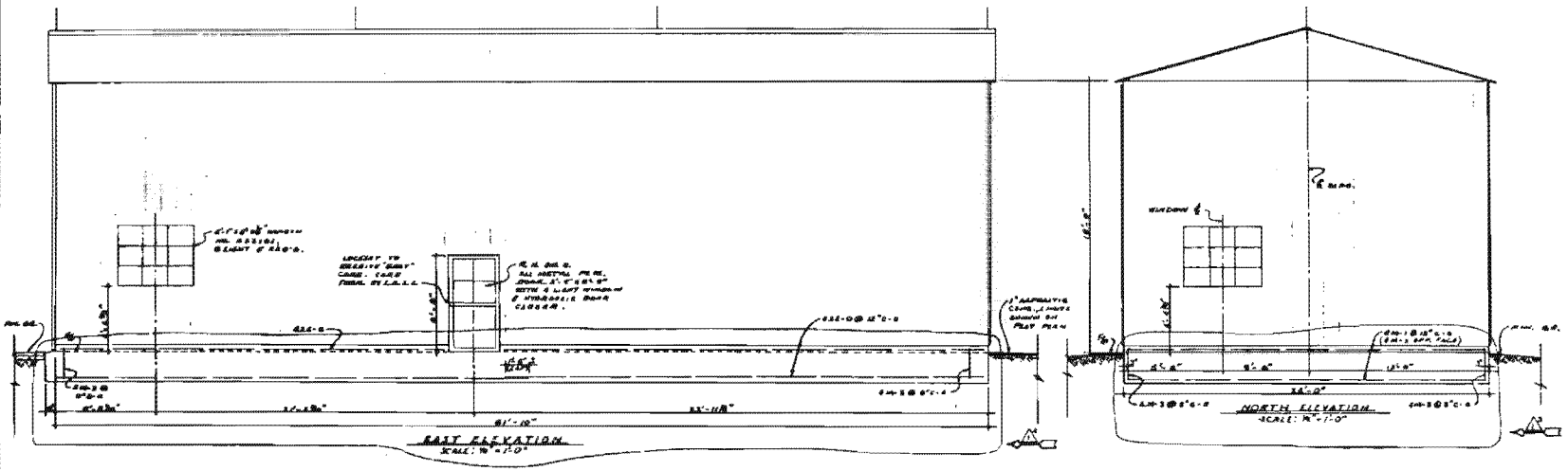
ELECTRON GUN SHELTER
STRUCTURAL
PLANS

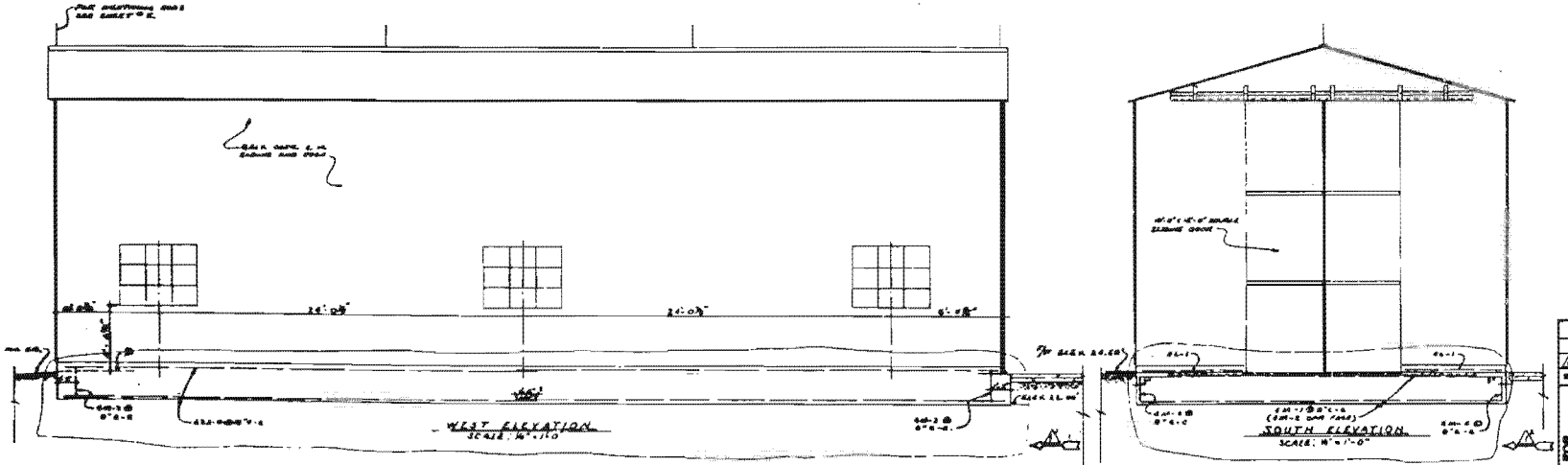
BLDG. R-194 TA-3

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

CHECKED J.F.E.	RECOMMENDED / GROUP LEADER	APPROVED / ENG. DEPT. OFFICE
PROJ. ENG. J.F.E.	DATE 1-23-59	DRAWING NO.
DESIGNER R.L.H.	SHEET 1 OF 6	ENG-C 20720
DRAWN R.L.H.		
SCALE NOTED		

R.A. NO. ______ LAB. JOB NO. 2164





THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY ENG-4 STRASINGER PHONE 7-4138

AUTHORIZED FOR CONSTRUCTION

NO.	DATE	REVISIONS	BY
1	5-15-59	REVISED BLDG. FOUNDATION	W.A.K.

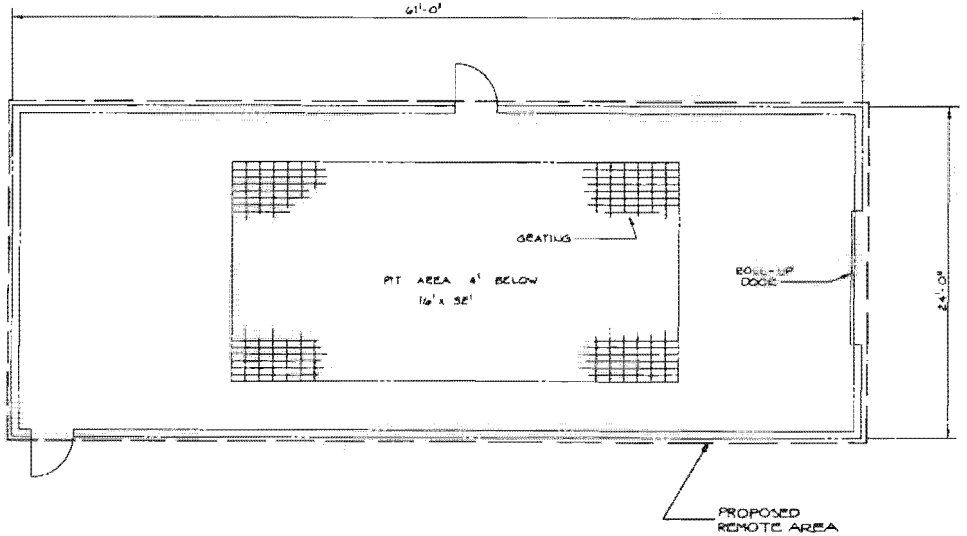
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

ELECTRON GUN SHELTER ARCHITECTURAL ELEVATIONS

BLDG. R-194 T4-15

DESIGNED R.L.H.	DRAWN W.A.K.	APPROVED
TRACED R.L.H.	DATE 1-23-59	ENG. DEPT. OFFICE
CHECKED R.L.H.	SHEET 3 OF 6	DRAWING NO. ENG-C 20722
SCALE NOTED		

S. A. NO. LAB. JOB NO. 2164



FLOOR PLAN

SCALE: 1/4"=1'-0"

ORDINARY HAZARD GROUP II
0.1% GPM/1500 SQ. FT.

TOTAL SQ. FT. (INCLUDES PIT) = 1,696

UNITED STATES
DEPARTMENT OF ENERGY
LOS ALAMOS AREA OFFICE - LOS ALAMOS, NEW MEXICO

FIRE PROTECTION IMPROVEMENTS

FLOOR PLAN

BLDG. R-194 TA-15

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA
POST OFFICE BOX 1663 LOS ALAMOS, N. M.

DOE DRAWING NO. LA-TJ-M180 M-18 SHEET NO. 19 OF 59

CLASSIFICATION

DATE 6-4-79

LASL JOB NO. 604L-15 LASL DWG. NO. ENG-C43579

LANL TA- Building # 15-0203

Camera 949790

Frame #s P0002356, P0002358 through P0002362, P0002377 and P0002378, P0002390, and P0002392 through P0002394

Surveyor(s) K.Towery/J.Ronquillo

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name REX Laboratory UTMs easting 381789 northing 3967280 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function Building is not currently occupied. Original Use/ Function PHERMEX Cavity Shelter

Date (estimated) 1950 Date (actual) 1959 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 foundation including slab and footings.

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) Galvanized metal ribbed siding.

Exterior Features (docks, speakers, lights, signs, etc) The main entry to the high bay building is on the south through approximately 20' high center-parting metal doors that dominate the south entrance to the building.

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

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

Exterior Treatment-Addition Wood siding. This addition has a separate building identification number TA-15-213. See building form for TA-15-213 for more information.

Exterior Features-Addition

Roof Form Slanted/Shed ☐ Gable ☑ Other Roof Type

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

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

Light Pattern

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:

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☐
CMU- Interior ☐ Plywood ☑ Other- Interior: Corrugated metal.
In-Wall Electrical Wiring ☑ On-Wall Electrical Wiring ☑

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc): Exposed structure, high bay with a mezzanine level. Massive concrete blocks of different weights shield an existing accelerator. The shielding blocks consist of a mixture of magnetite and concrete. The exposed metal ceiling contains numerous symmetrically placed skylights with one large louvered opening.

Degree of Remodeling: Unknown/None

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

Associated Building ☐

If yes, list building names and #s: TA-15-245, TA-15-20, TA-15-213, TA-15-194, and TA-15-30.

Integrity: Excellent

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 This laboratory building housed the PHERMEX Cavity Shelter and the REX experiments.

Architectural Features (elevations)

Total sq ft 4133 Gross **Architect/ Builder** Butler pre-engineered building.

Alterations A "special assembly room" was constructed inside the building in 1961. This room has since been removed.

List of Drawings (Cntrl + Enter for para break)

ENG-C 19098
Sheet 1 of 6
TA-15, Bldg. R-203
PHERMEX Cavity Shelter
Civil Plan & Plot Plan
June 9, 1959

ENG-C 19099
Sheet 2 of 6
TA-15, Bldg. R-203
PHERMEX Cavity Shelter
Architectural Elevations
June 9, 1959

ENG-C 26237
Sheet 1 of 5
TA-15, Bldg. R-203
Special Assembly Room Installation
Location Plan, Site Plan, Architectural Floor Plan, Roof Framing Plan, Elevations, Sections, Details, & General Notes
June 6, 1961

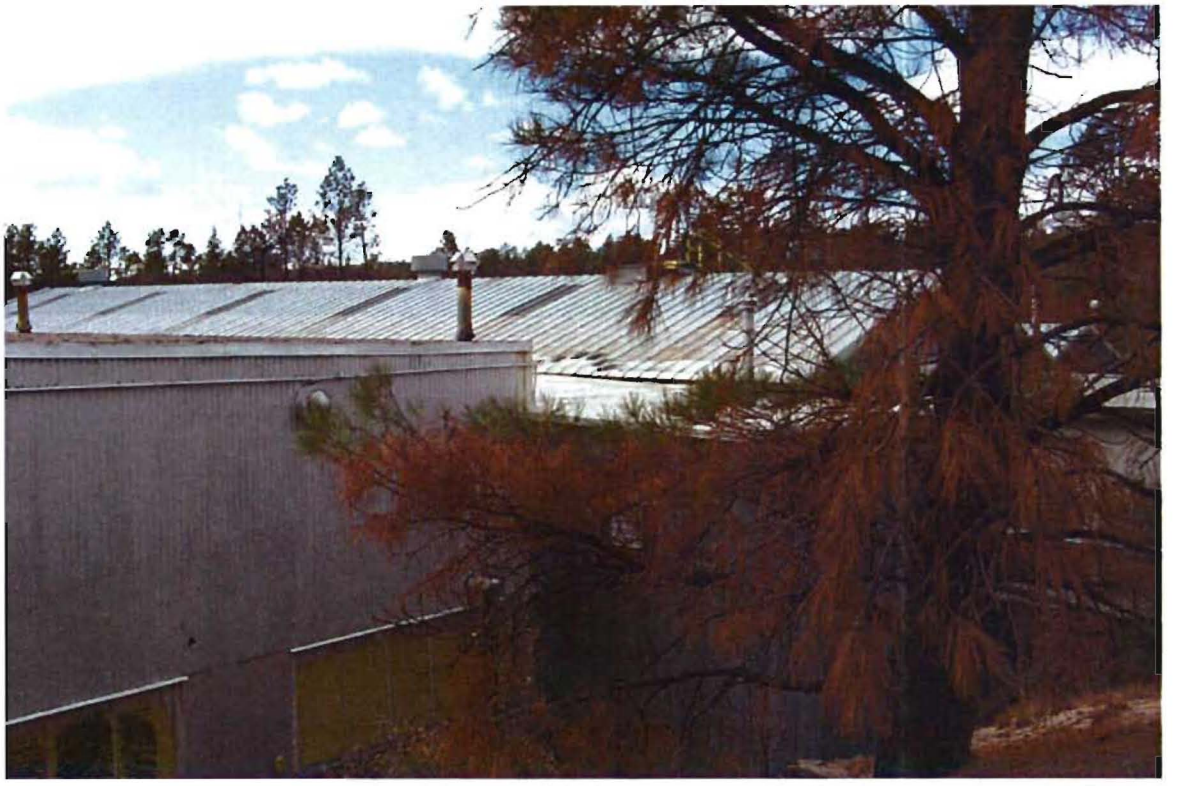
ENG-C 27185
TA-15, Bldg. R-203
Platform Extension (Building TA-15, R-213)
Civil: Plans and Details
February 25, 1963

ENG-C 21913
TA-15, Bldg. R-203
Platform Extension (Building TA-15, R-213)
Plans, Section & Details
April 13, 1964

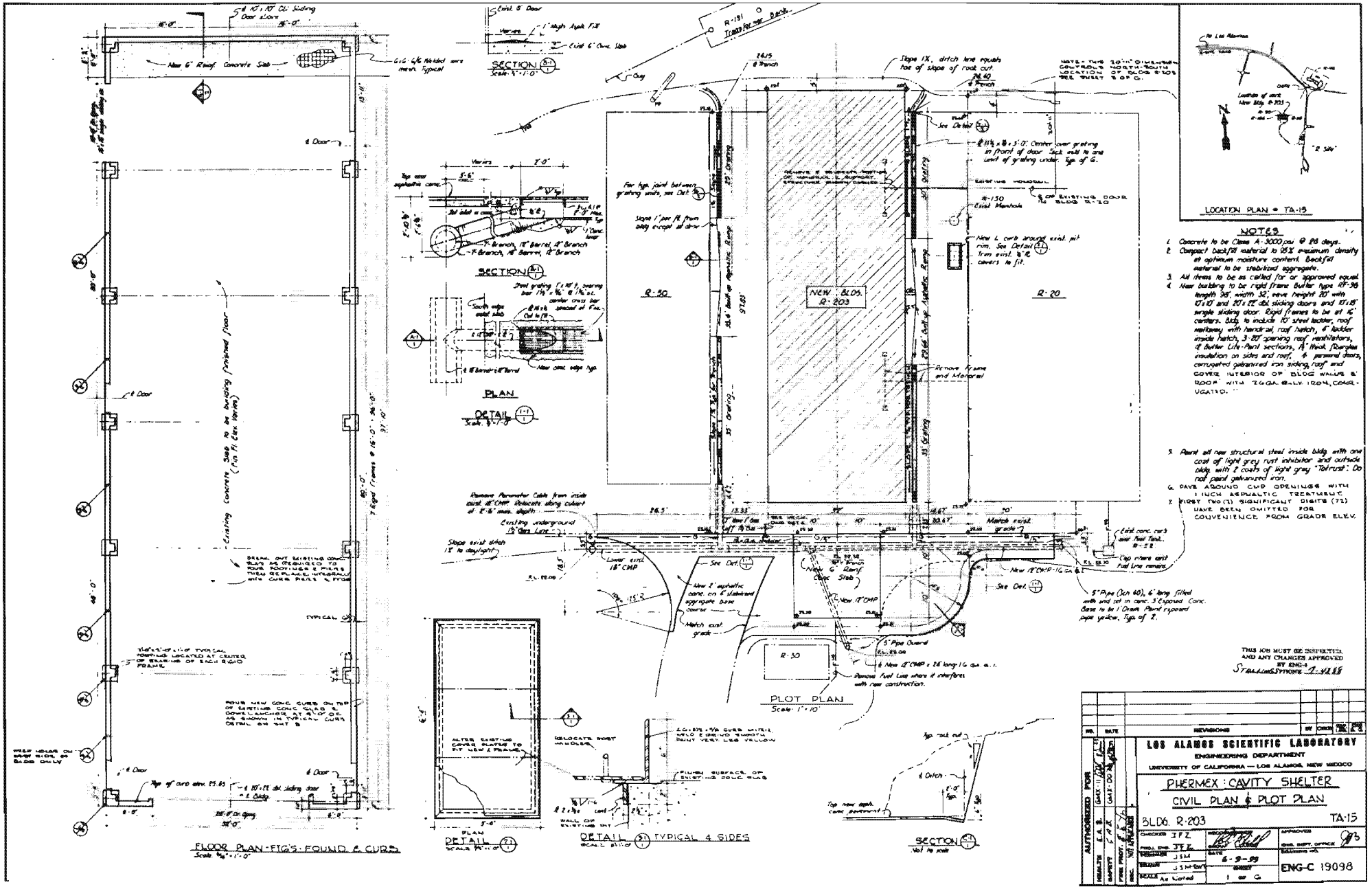
ENG-C 38197
TA-15, Bldg R-203
Platform Extension
Structural
October 24, 1969

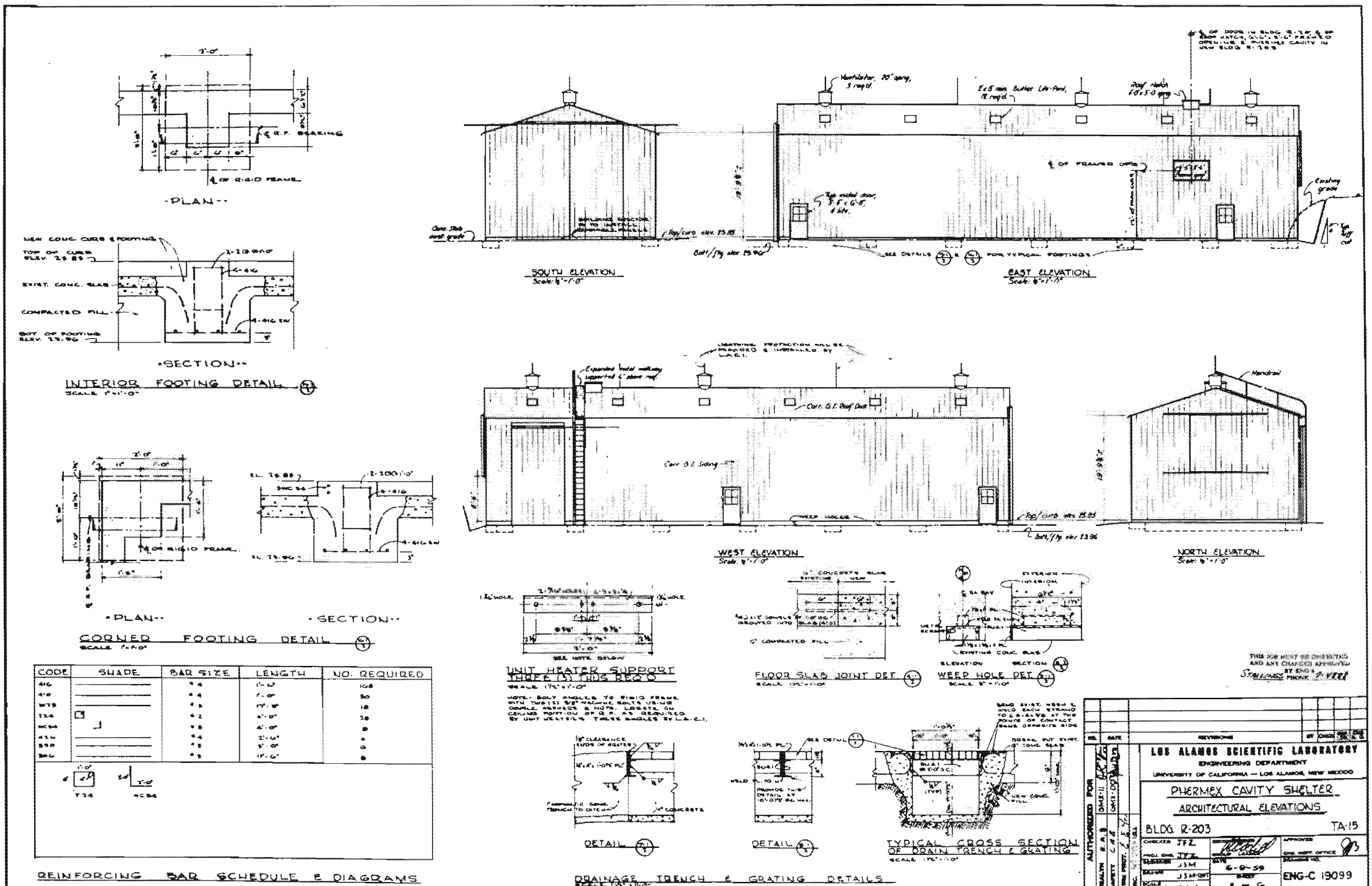
ENG-R 3255
TA-15, Bldg. R-203
PHERMEX Cavity Shelter
First Floor Plan & Mezzanine
September 1, 1983

TA-15-203, west and south sides, direction northeast.

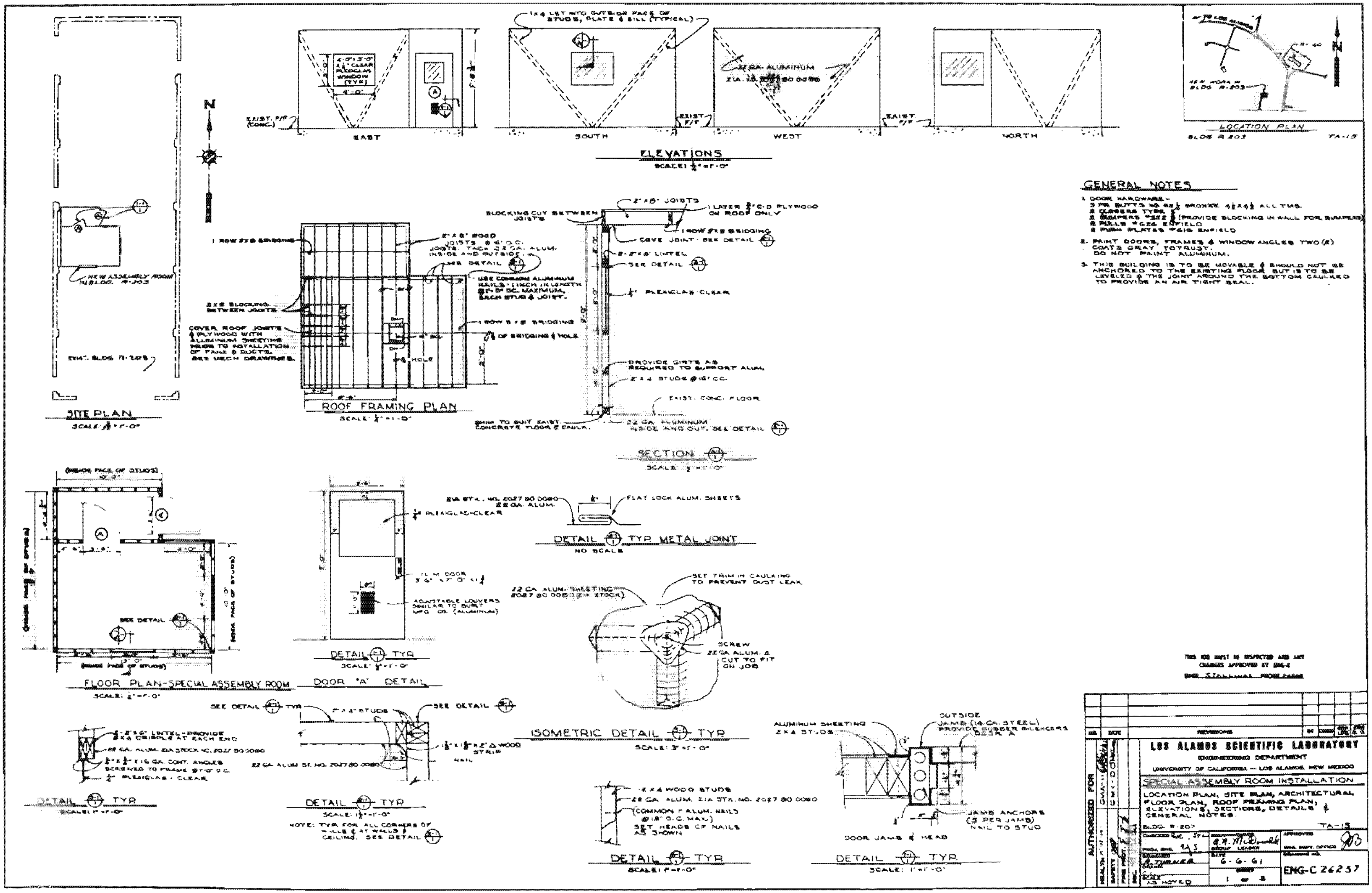


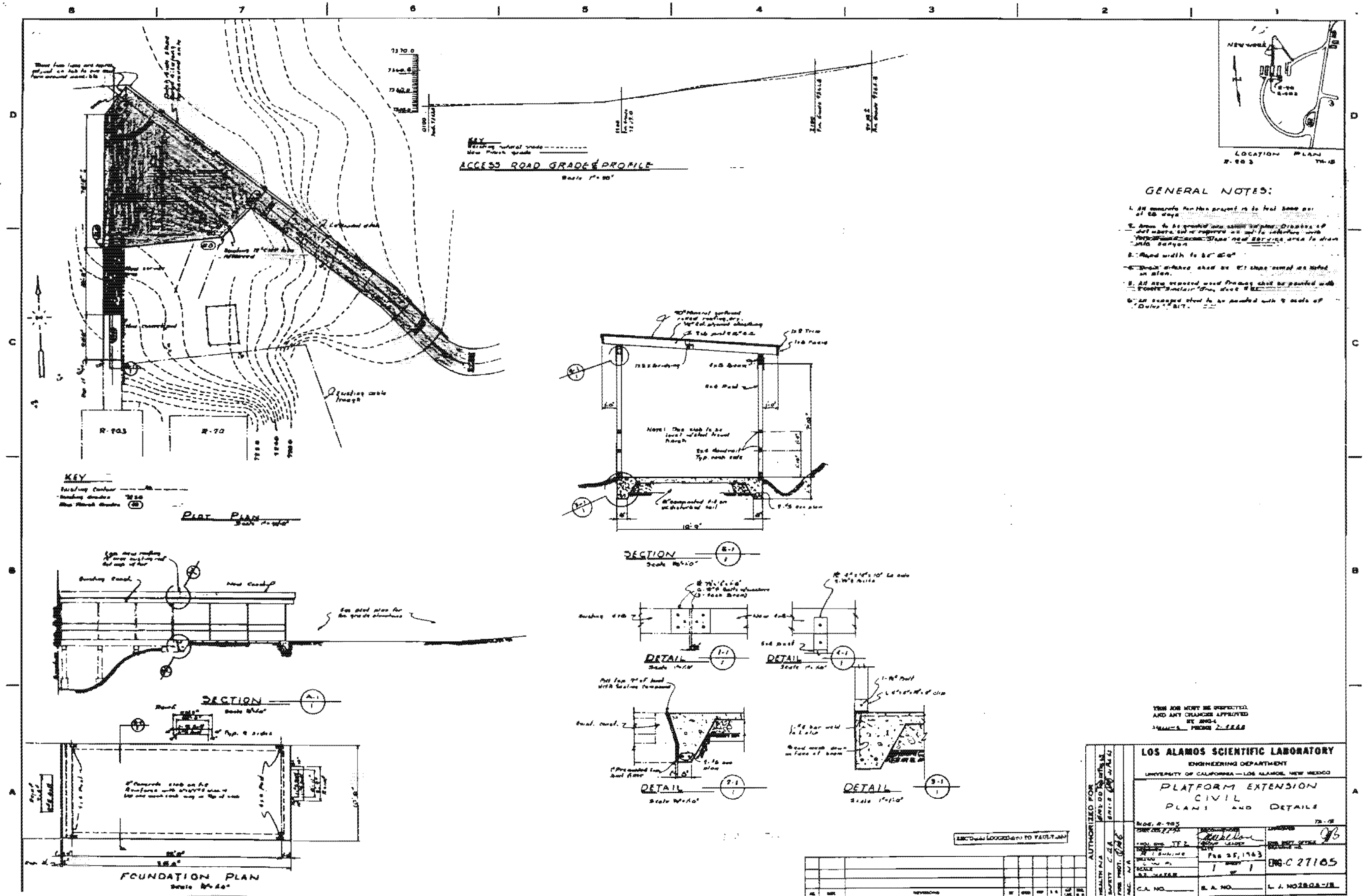
TA-15-203, east and north sides, direction southwest.


FLOOR PLAN-FIG'S: FOUND. & CURBS
Scale: 1/16"=1'-0"
PLOT PLAN
Scale: 1"=10'
SECTION
SECTION
PLAN
DETAIL
DETAIL
PLAN
DETAIL
TYPICAL 4 SIDES
SECTION
Not to scale
LOCATION PLAN = TA-15
NOTES
1. Concrete to be Class A-3000 psi @ 28 days.
2. Compact backfill material to 95% maximum density at optimum moisture content. Backfill material to be stabilized aggregate.
3. All trees to be as called for or approved equal.
4. New building to be rigid frame Butler type RF-96 length 96', width 32', eave height 20' with 1-10' and 2-12' dbl. sliding doors and 1-18' single sliding door. Rigid frames to be at 6' centers. Bldg. to include 10' steel ladder, roof walkway with handrail, roof hatch, 4' ladder inside hatch, 3-20" opening roof ventilators, 4' Butler Life-Point sections, 4" thick fiberglass insulation on sides and roof, 4 personal doors, corrugated galvanized iron siding, roof and cover interior of bldg walls & roof with 26 GA. galv. iron, corrugated.
5. Paint all new structural steel inside bldg with one coat of light grey rust inhibitor and outside bldg. with 2 coats of light grey "Rolrust". Do not paint galvanized iron.
6. Pave around cut openings with 1 inch asphaltic treatment.
7. First two (2) significant digits (72) have been omitted for convenience from grade elev.
THIS JOB MUST BE CONSTRUCTED AND ANY CHANGES APPROVED BY ENG-8
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PHERMEX: CAVITY SHELTER
CIVIL PLAN & PLOT PLAN
BLDG. R-203
TA-15
ENG-C 19098

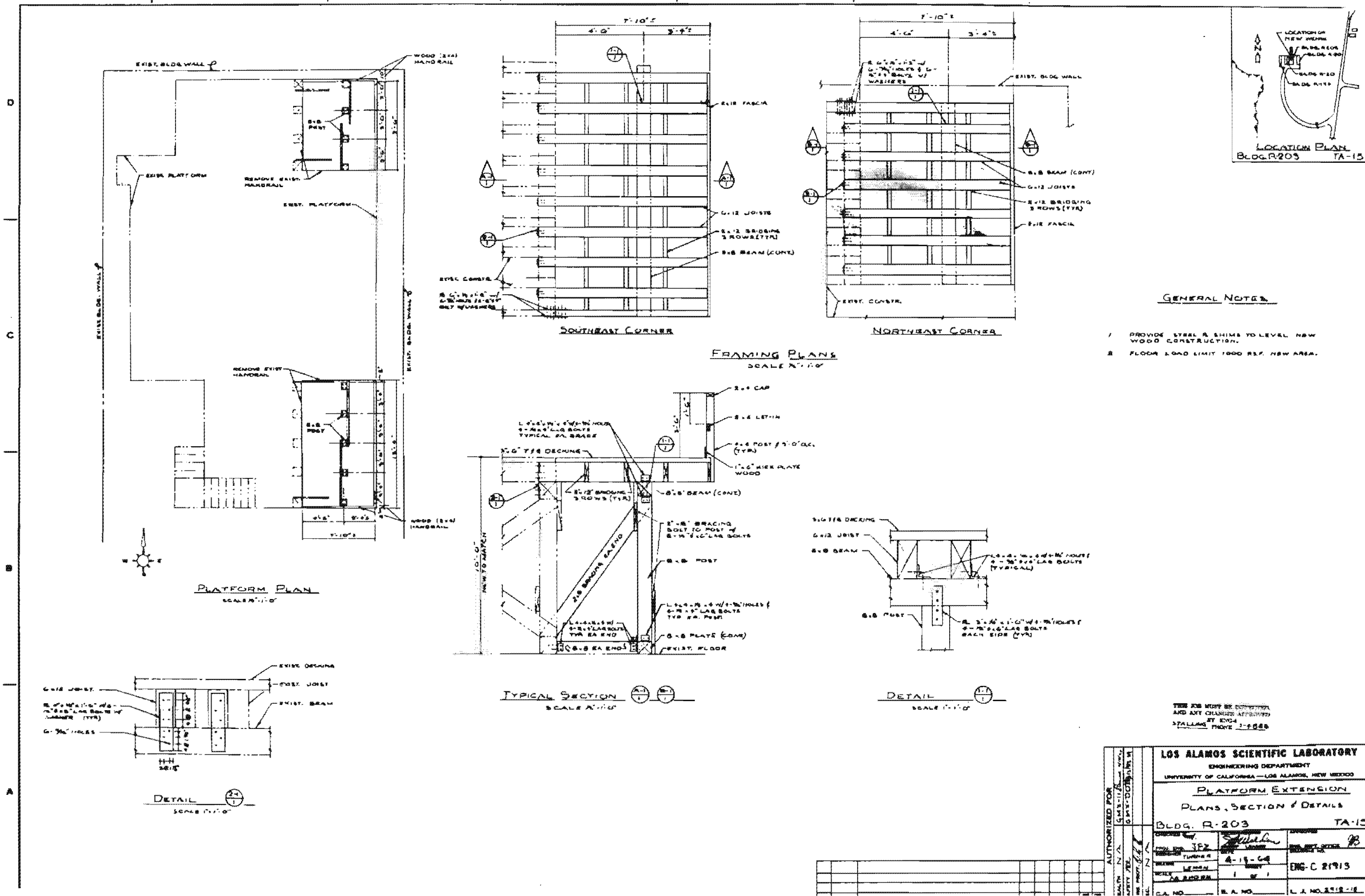


PLAN
SECTION
INTERIOR FOOTING DETAIL
CORNER FOOTING DETAIL
SOUTH ELEVATION
EAST ELEVATION
WEST ELEVATION
NORTH ELEVATION
Corr. G.I. Roof Deck
Corr. G.I. Siding
Handrail
Existing grade
UNIT HEATER SUPPORT
THREE (3) THUS REQ'D
FLOOR SLAB JOINT DET.
WEEP HOLE DET.
DETAIL
TYPICAL CROSS SECTION OF DRAIN TRENCH & GRATING
DRAINAGE TRENCH & GRATING DETAILS
REINFORCING BAR SCHEDULE & DIAGRAMS
CODE
SHAPE
BAR SIZE
LENGTH
NO. REQUIRED
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PHERMEX CAVITY SHELTER
ARCHITECTURAL ELEVATIONS
BLDG R-203
TA-15
CHECKED TFZ
PROJ. ENG. TFZ
JSM
6-9-59
As Noted
ENG-C 19099

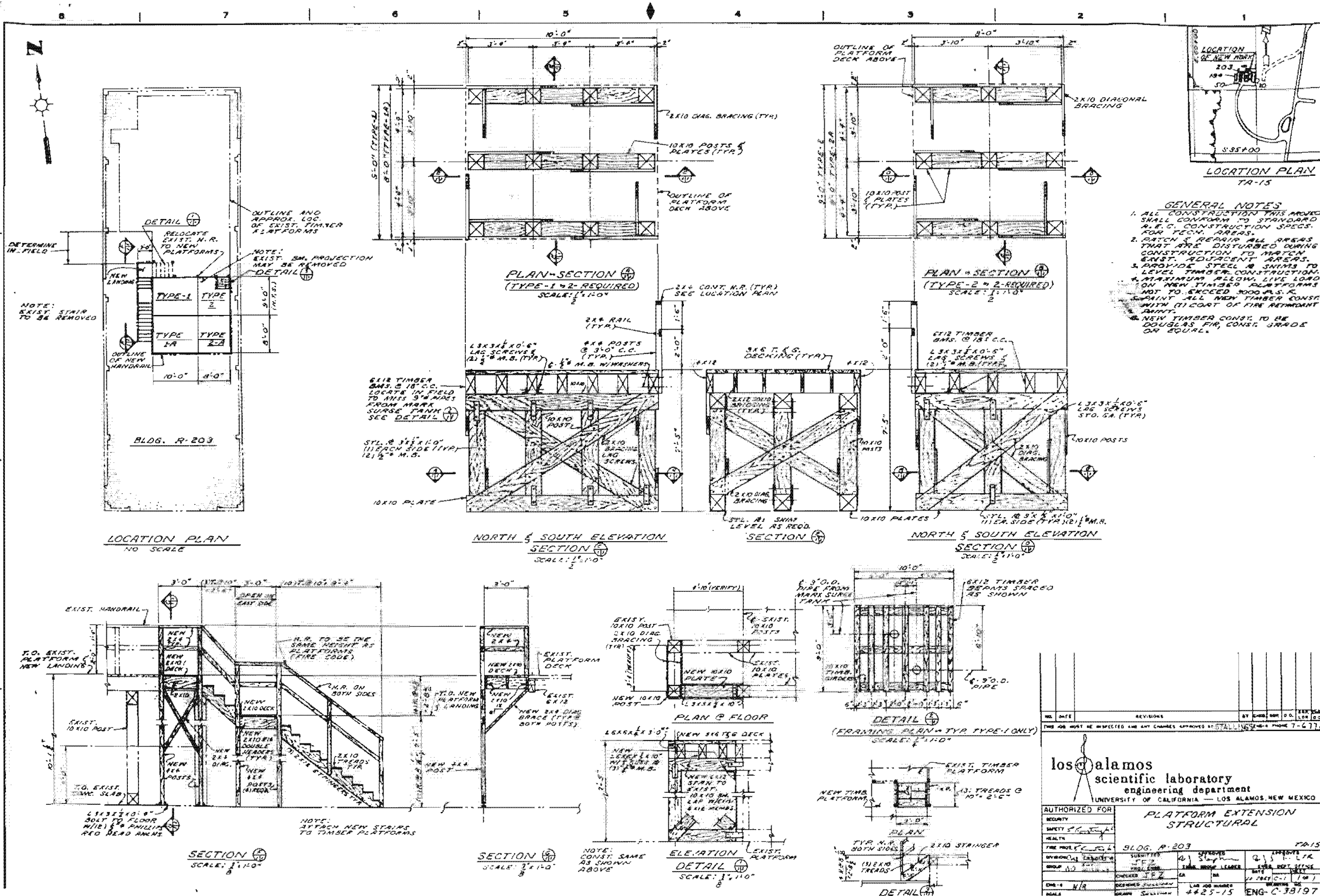

ELEVATIONS
SCALE: 1/4" = 1'-0"
EAST
SOUTH
WEST
NORTH
1x4 LET INTO OUTSIDE FACE OF STUDS, PLATE & SILL (TYPICAL)
22 GA. ALUMINUM
LOCATION PLAN
BLDG R-203
TA-15
SITE PLAN
NEW ASSEMBLY ROOM IN BLDG. R-203
EXIST. BLDG. R-203
ROOF FRAMING PLAN
1 ROW 2x6 BRIDGING
2x6 BLOCKING BETWEEN JOISTS
2"x6" WOOD JOISTS @ 16" O.C.
USE COMMON ALUMINUM NAILS
SECTION
2"x6" JOISTS
1 LAYER 3/8" C-D PLYWOOD ON ROOF ONLY
BLOCKING CUT BETWEEN JOISTS
COVE JOINT. SEE DETAIL
1/4" PLEXIGLAS-CLEAR
PROVIDE GIRTS AS REQUIRED TO SUPPORT ALUM.
2"x4" STUDS @ 16" O.C.
EXIST. CONC. FLOOR
SHIM TO SUIT EXIST. CONCRETE FLOOR & CAULK.
22 GA. ALUMINUM INSIDE AND OUT. SEE DETAIL
GENERAL NOTES
1. DOOR HARDWARE -
3 PR. BUTTS NO. 88 1/2 BRONZE 4 1/2 x 4 1/2 ALL TMS.
2 CLOSERS TYPE
2 BUMPERS (PROVIDE BLOCKING IN WALL FOR BUMPERS)
2 PULLS #626 ENFIELD
2 PUSH PLATES #616 ENFIELD
2. PAINT DOORS, FRAMES & WINDOW ANGLES TWO (2) COATS GRAY TOTRUST. DO NOT PAINT ALUMINUM.
3. THIS BUILDING IS TO BE MOVABLE & SHOULD NOT BE ANCHORED TO THE EXISTING FLOOR BUT IS TO BE LEVELED & THE JOINT AROUND THE BOTTOM CAULKED TO PROVIDE AN AIR TIGHT SEAL.
FLOOR PLAN-SPECIAL ASSEMBLY ROOM
DOOR "A" DETAIL
DETAIL TYP
FLAT LOCK ALUM. SHEETS
DETAIL TYP METAL JOINT
NO SCALE
SET TRIM IN CAULKING TO PREVENT DUST LEAK
22 GA. ALUM. SHEETING
SCREW
22 GA. ALUM. & CUT TO FIT ON JOB
ISOMETRIC DETAIL TYP
2"x4" WOOD STUDS
COMMON ALUM. NAILS (@ 12" O.C. MAX.)
SET HEADS OF NAILS AS SHOWN
ALUMINUM SHEETING
2x4 STUDS
OUTSIDE
JAMB (14 GA. STEEL)
PROVIDE RUBBER SILENCERS
DOOR A
JAMB ANCHORS (3 PER JAMB) NAIL TO STUD
DOOR JAMB & HEAD
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
SPECIAL ASSEMBLY ROOM INSTALLATION
LOCATION PLAN, SITE PLAN, ARCHITECTURAL FLOOR PLAN, ROOF FRAMING PLAN, ELEVATIONS, SECTIONS, DETAILS & GENERAL NOTES.
BLDG. R-203
TA-15
AUTHORIZED FOR
REVISIONS
GROUP LEADER
APPROVED
DATE
6-6-61
SCALE
AS NOTED
SHEET
1 OF 3
ENG-C 26257
LAA JOB NO. 2541-15



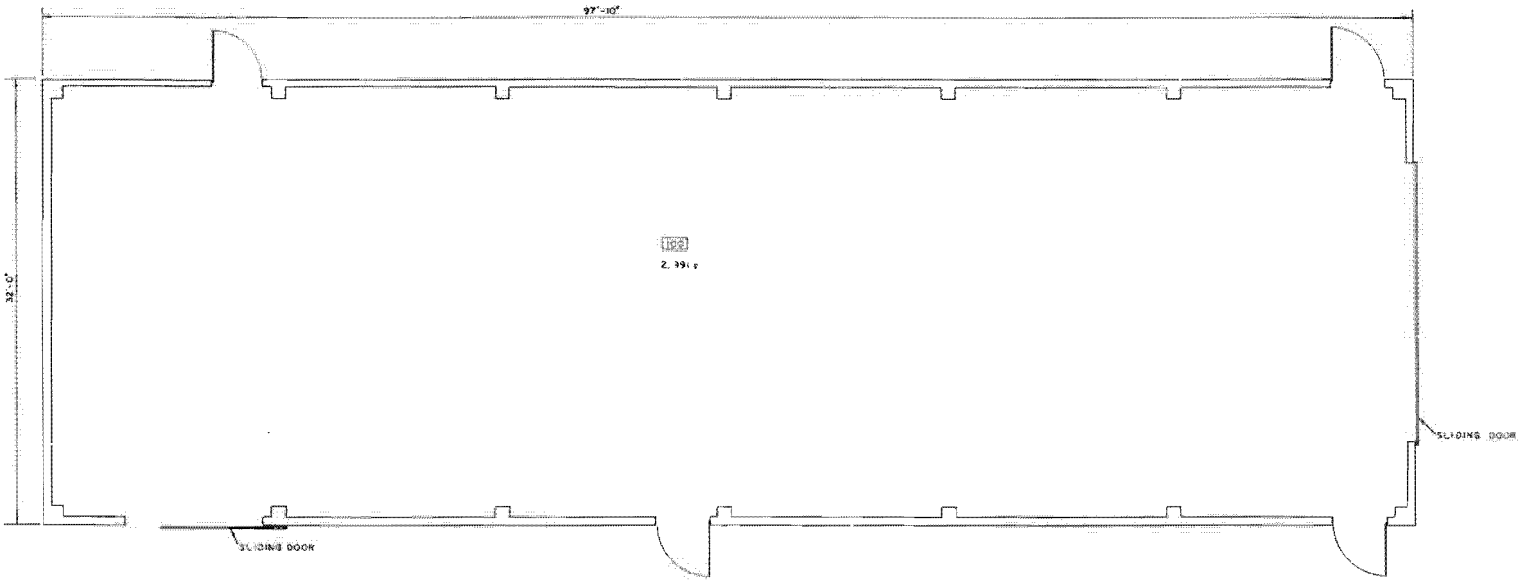
ACCESS ROAD GRADE & PROFILE
KEY
PLOT PLAN
R-203
R-70
SECTION
FOUNDATION PLAN
DETAIL
LOCATION PLAN
GENERAL NOTES:
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PLATFORM EXTENSION
CIVIL
PLANS AND DETAILS
AUTHORIZED FOR
Feb 25, 1963
1 of 1
ENG-C 27165
C.A. NO.
E. A. NO.



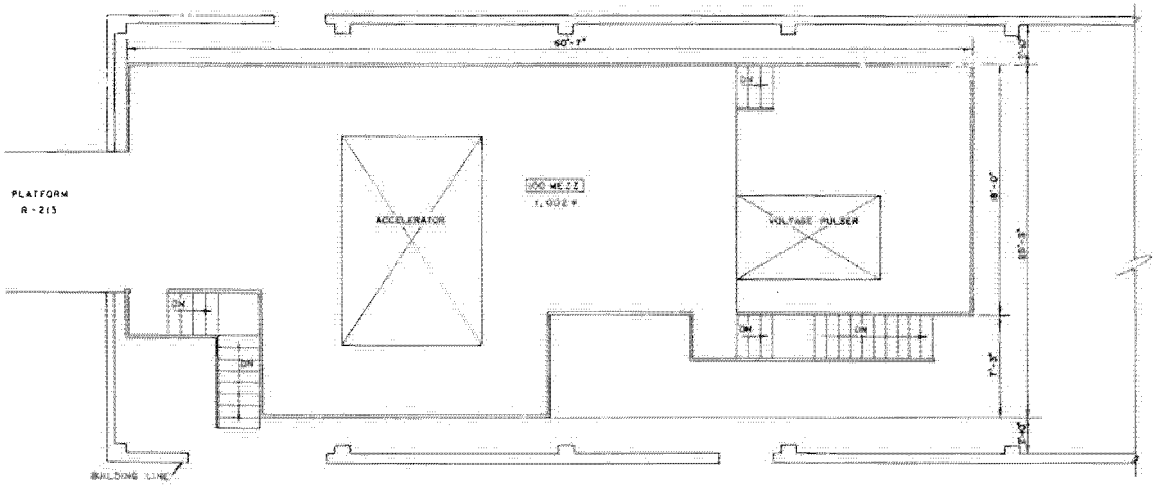
PLATFORM PLAN
SOUTHEAST CORNER
NORTHEAST CORNER
FRAMING PLANS
SCALE ¼" = 1'-0"
LOCATION PLAN
BLDG. R-203 TA-15
GENERAL NOTES
1 PROVIDE STEEL & SHIMS TO LEVEL NEW WOOD CONSTRUCTION.
2 FLOOR LOAD LIMIT 1000 P.S.F. NEW AREA.
TYPICAL SECTION
DETAIL
DETAIL
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PLATFORM EXTENSION
PLANS, SECTION & DETAILS
BLDG. R-203 TA-15
AUTHORIZED FOR
4-15-64
ENG-C 21913



LOCATION PLAN
NO SCALE
BLDG. R-203
TYPE-1
TYPE 2
TYPE 1-A
TYPE 2-A
NOTE: EXIST. STAIR TO BE REMOVED
DETERMINE IN FIELD
OUTLINE AND APPROX. LOC. OF EXIST. TIMBER PLATFORMS
RELOCATE EXIST. H.R. TO NEW PLATFORMS
NOTE: EXIST. SM. PROJECTION MAY BE REMOVED
PLAN - SECTION
(TYPE-1 & 2- REQUIRED)
2X10 DIAG. BRACING (TYP.)
10X10 POSTS & PLATES (TYP.)
OUTLINE OF PLATFORM DECK ABOVE
PLAN - SECTION
(TYPE-2 & 2-REQUIRED)
2X10 DIAGONAL BRACING
NORTH & SOUTH ELEVATION
SECTION
SECTION
NORTH & SOUTH ELEVATION
SECTION
LOCATION PLAN
TA-15
LOCATION OF NEW WORK
GENERAL NOTES
1. ALL CONSTRUCTION THIS PROJECT SHALL CONFORM TO STANDARD A.E.C. CONSTRUCTION SPECS. FOR TECH. AREAS.
2. PATCH & REPAIR ALL AREAS THAT ARE DISTURBED DURING CONSTRUCTION TO MATCH EXIST. ADJACENT AREAS.
3. PROVIDE STEEL SHIMS TO LEVEL TIMBER CONSTRUCTION.
4. MAXIMUM ALLOW. LIVE LOAD ON NEW TIMBER PLATFORMS NOT TO EXCEED 3000 P.S.F.
5. PAINT ALL NEW TIMBER CONST. WITH (1) COAT OF FIRE RETARDANT PAINT.
6. NEW TIMBER CONST. TO BE DOUGLAS FIR, CONST. GRADE OR EQUAL.
SECTION
SECTION
NOTE: ATTACH NEW STAIRS TO TIMBER PLATFORMS
PLAN @ FLOOR
ELEVATION
DETAIL
NOTE: CONST. SAME AS SHOWN ABOVE
DETAIL
(FRAMING PLAN - TYP. TYPE-1 ONLY)
PLAN
DETAIL
los alamos scientific laboratory
engineering department
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
AUTHORIZED FOR
PLATFORM EXTENSION
STRUCTURAL
BLDG. R-203
TA-15
4425-15
ENG-C-38197



FIRST FLOOR PLAN



MEZZANINE

1/4"=1'-0" GRAPHIC SCALE 0 2 4 6 8 10

	ft²
MEZZANINE	1,002
FIRST FLOOR	2,991
TOTAL	3,993

NO.	DATE	REVISION	BY	CHK'D	APP'D
1	5-21	INCREASED AND REVISED TO STATUS OF 2-21-84			

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

FACILITIES ENGINEERING DIVISION

PHERMEX CAVITY SHELTER

FIRST FLOOR PLAN & MEZZANINE

REC. CLASSIFICATION
CLASS.
REVIEWER
DATE

BLDG. R-203 TA-15

SUBMITTED	RECOMMENDED	APPROVED

DRAWN
CHECKED
DATE 5-1-84
SHEET NO. 1 OF 1
DRAWING NO. ENG-R 3255

LANL TA- Building # 15-0213

Camera 949790

Frame #s P0002380 through P0002382

Surveyor(s) J.Ronquillo/K.Towery

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Platform UTMs easting 381793 northing 3967302 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function The building is currently unoccupied. Original Use/ Function Support structure for Building 203.

Date (estimated) 1960 Date (actual) 1961 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction Wood post and beam with wood decking (heavy timber). A portion of the building has a concrete slab underneath the wood decking. The post and beam configuration is supported by reinforced concrete footings. # of Stories

Foundation Wood post and beam with wood decking (heavy timber).

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) Painted wood siding

Exterior Features (docks, speakers, lights, signs, etc) There is a large iron post embedded in the ground on the north side of the building that appears to align with the equipment in bldg. 203. The north end of the building is level with finished grade and the south end is approximately 10' above grade.

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

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

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☑ Gable ☐ Other Roof Type

Degree of Pitch/ Slope Slight

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

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:

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☐ CMU- Interior ☐ Plywood ☐ Other- Interior Wood panel

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

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc) Exposed wood structure.

Degree of Remodeling Unknown/None

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

Associated Building ☐

If yes, list building names and #s: TA-203

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 TA-15-213 is an extension of building TA-15-203.

Architectural Features (elevations) The structure is a wood frame equipment platform that supported the operations conducted in building TA-15-203.

Total sq ft 624 Gross **Architect/ Builder**

Alterations

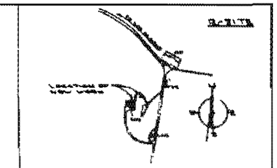
List of Drawings (Cntrl + Enter for para break)

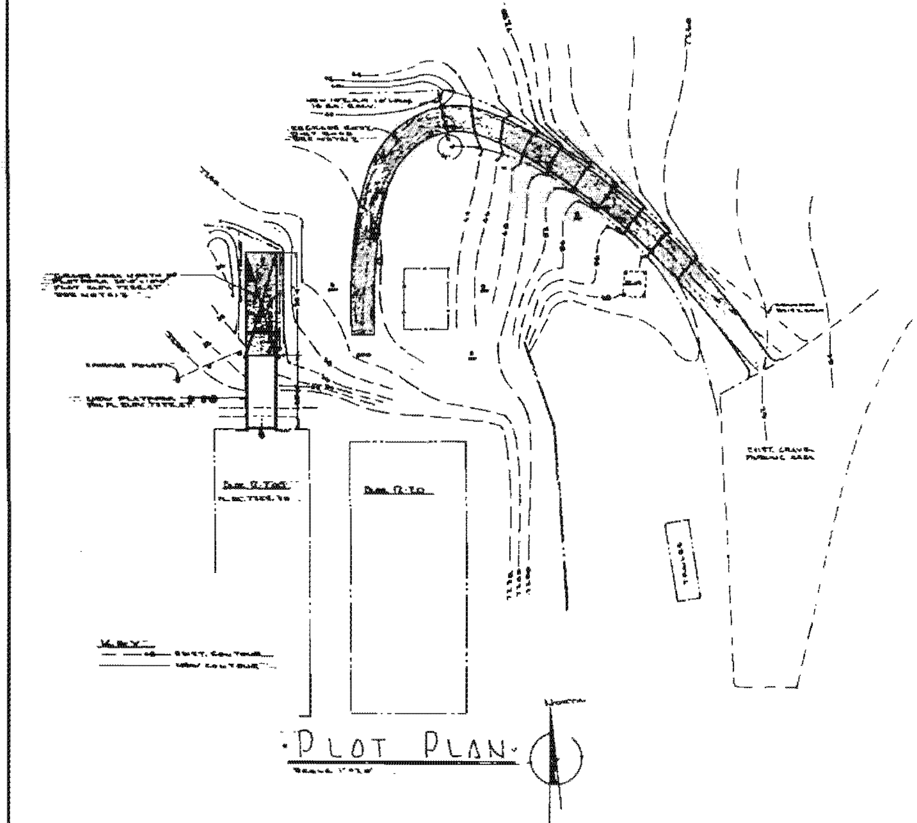
ENG-C 25934
Sheet 1 of 2
TA-15, Platform R-213
Exterior Platform Installation
Plot Plan
November 14, 1960

ENG-C 25935
Sheet 2 of 2
TA-15, Platform R-213
Exterior Platform Installation
Structural Details
November 14, 1960

ENG-C 27185
TA-15, Bldg. R-203
Platform Extension (Building TA-15, R-213)
Civil: Plans and Details
February 25, 1963

TA-15-213, north and west sides, direction southeast.





PLOT PLAN

GENERAL NOTES:

1. CONCRETE TO BE CLASS "A" [illegible]
2. [illegible]
3. [illegible]
4. ALL EXPOSED WOOD ON PLATFORM TO BE PAINTED [illegible]
5. ALL EXPOSED STEEL TO BE PAINTED [illegible]

THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY ENG-4

NO.	DATE	REVISIONS
1	8-18-64	REVISED TITLE (WAS BLDG. R-213)

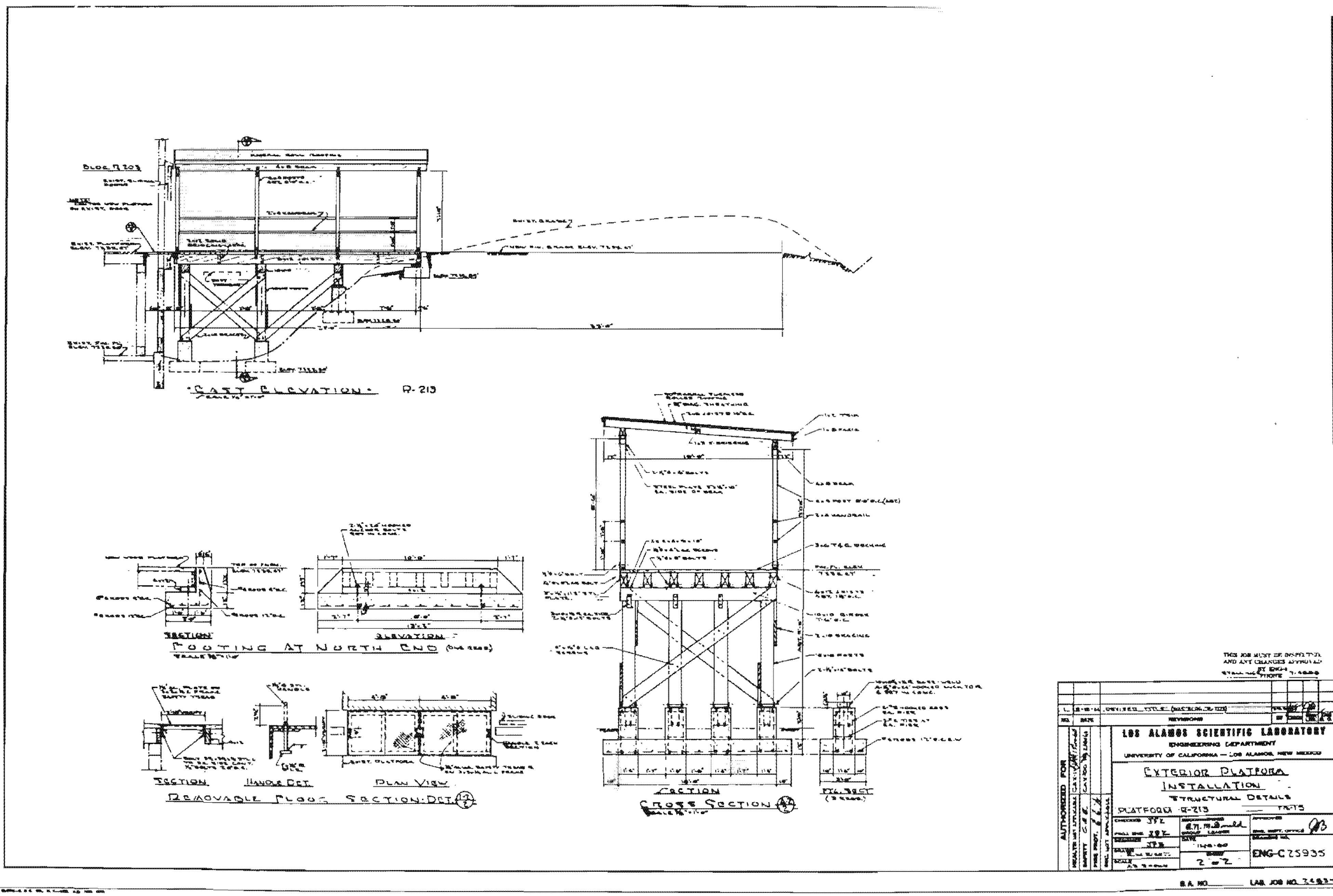
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

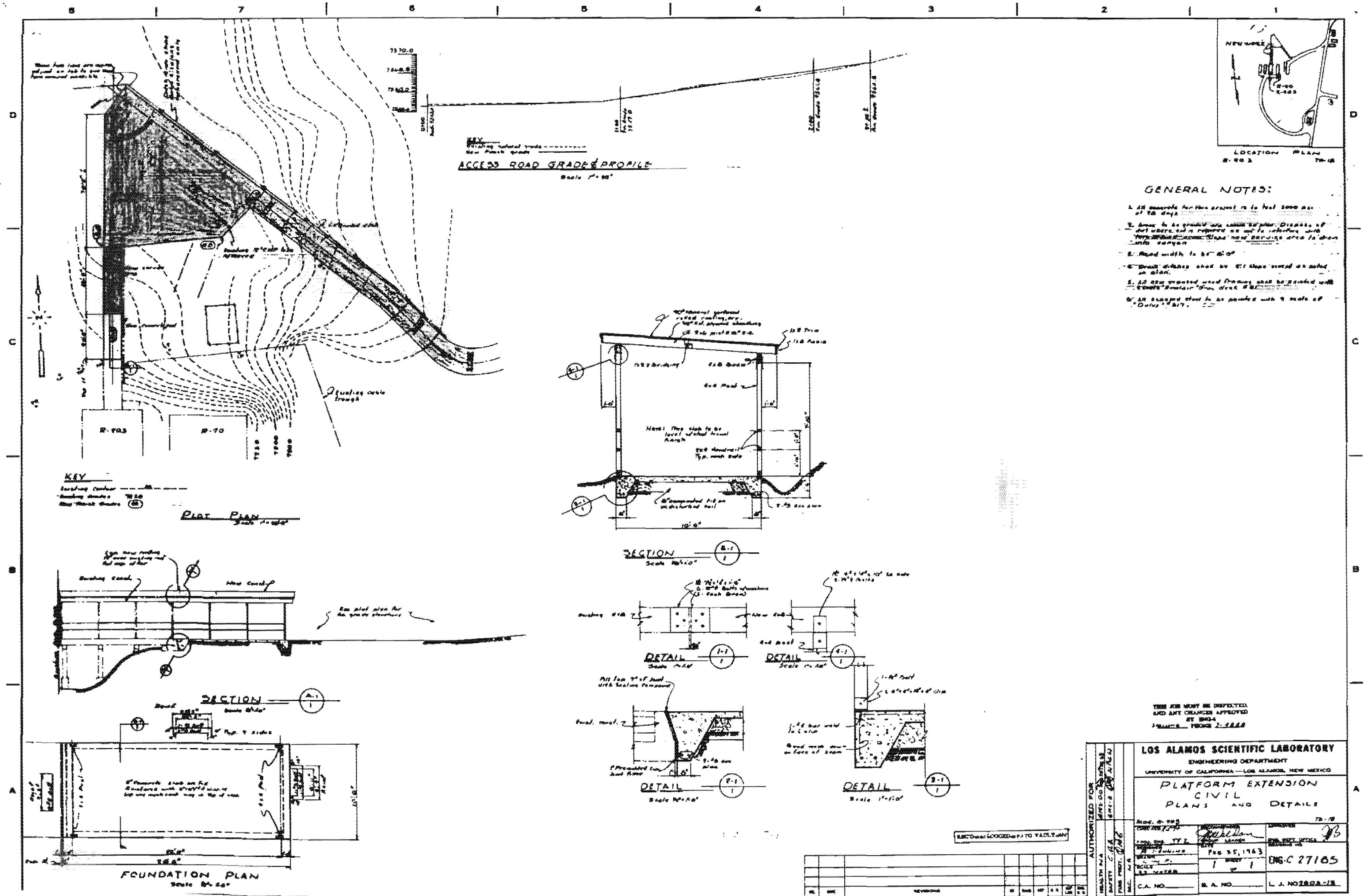
EXTERIOR PLATFORM INSTALLATION
PLOT PLAN
PLATFORM R-213 TA-15

AUTHORIZED FOR: HEALTH UNIT APPROVAL; SAFETY; FIRE PROT.; SEC. UNIT APPROVAL

DATE 11-16-60
SHEET 1 OF 2
ENG-C25994

B.A. NO. ______ LAB. JOB NO. [illegible]


EAST ELEVATION R-213
FOOTING AT NORTH END
SECTION
ELEVATION
REMOVABLE FLOOR SECTION DET.
SECTION
HANDLE DET.
PLAN VIEW
SECTION
CROSS SECTION
FTG. SECT.
THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY ENG-4
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
EXTERIOR PLATFORM
INSTALLATION
STRUCTURAL DETAILS
PLATFORM R-213
TA-15
AUTHORIZED FOR
REVISIONS
NO. DATE
ENG-C 25935
2 of 2
LAB. JOB NO.



ACCESS ROAD GRADE & PROFILE
KEY
LOCATION PLAN
GENERAL NOTES:
KEY
PLOT PLAN
R-70
SECTION
DETAIL
SECTION
FOUNDATION PLAN
DETAIL
DETAIL
DETAIL
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
PLATFORM EXTENSION
CIVIL
PLANS AND DETAILS
FEB 25, 1963
1 OF 1
ENG-C 27185
AUTHORIZED FOR
C.A. NO.
B. A. NO.

LANL TA- Building # 15-0245

Camera 949790

Frame #s P0002363 through P0002365, P0002369 and P0002370

Surveyor(s) K.Towery/J.Ronquillo

Date 03/25/2002

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name REX Control Room UTMs easting 381796 northing 3967278 zone 13

Legal Description: Map Frijoles Quad 1984 tnsp 19N range 6E sec

Current Use/ Function The building is currently unoccupied. Original Use/ Function Covered Passageway

Date (estimated) 1950 Date (actual) 1949 and 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 (between buildings).

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) Corrugated steel with steel structure.

Exterior Features (docks, speakers, lights, signs, etc) Open loading/unloading area.

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

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

Exterior Treatment-Addition

Exterior Features-Addition

Roof Form Slanted/Shed ☑ Gable ☐ Other Roof Type

Degree of Pitch/ Slope Slight

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

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:

Interior Wall Gypsum Board ☐ Reinforced Concrete- Interior ☐

CMU- Interior ☐ Plywood ☑ Other- Interior Corrugated metal panel.

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

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc) Exposed structure.

Degree of Remodeling Unknown/None

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

Associated Building ☑

If yes, list building names and #s: TA-15-203 and TA-15-20.

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)

Total sq ft 1653 Gross **Architect/ Builder**

Alterations Added amplifier pits in the mid 1970's.

List of Drawings (Cntrl + Enter for para break)

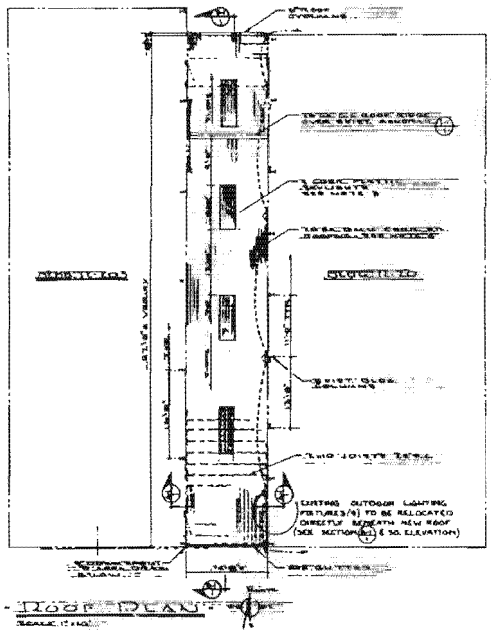
ENG-C 34231
TA-15, Structure No. R-245
Roof Cover Between Bldg. R-20 and R-203
Architectural and Electrical
March 5, 1966

ENG-C 48036
Sheet 1 of 14
TA-15, Bldg. R-245
Amplifier Pit Installation
Pit Location Plan
June 7, 1976

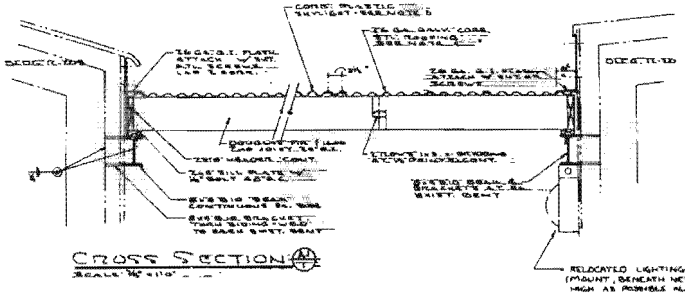
ENG-R 2960
TA-15, Bldg. R-245
Passageway
Floor Plan
September 2, 1983

TA-15-245, south side, direction north.

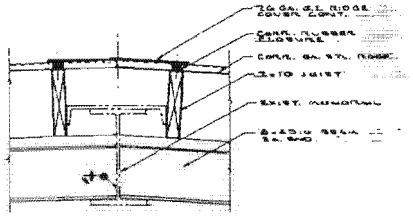
TA-15-245, interior, yellow railing for Pit #1 in center of photo.



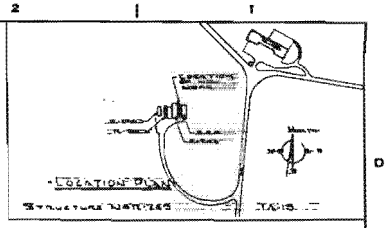
ROOF PLAN



CROSS SECTION



ROOF RIDGE DET.

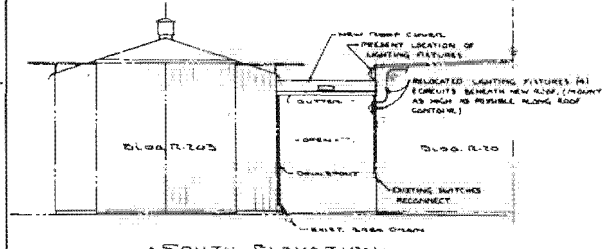


LOCATION PLAN

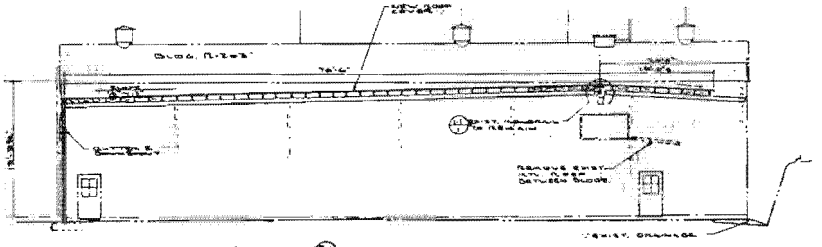
ARCHITECTURAL NOTES:

ELECTRICAL SCOPE OF WORK:

1. FURNISH ALL PARTS NECESSARY TO RELOCATE OUTDOOR LIGHTING FIXTURES (4) BENEATH NEW ROOF ON WEST SIDE OF BLDG. R-20 (RELOCATE LIGHTING FIXTURES AS SHOWN).
2. RELAMP FIXTURES (4) USING MOGUL TO MEDIUM ADAPTER SOCKET AND 500 WATT INCANDESCENT LAMPS.



SOUTH ELEVATION



LONGITUDINAL SECTION

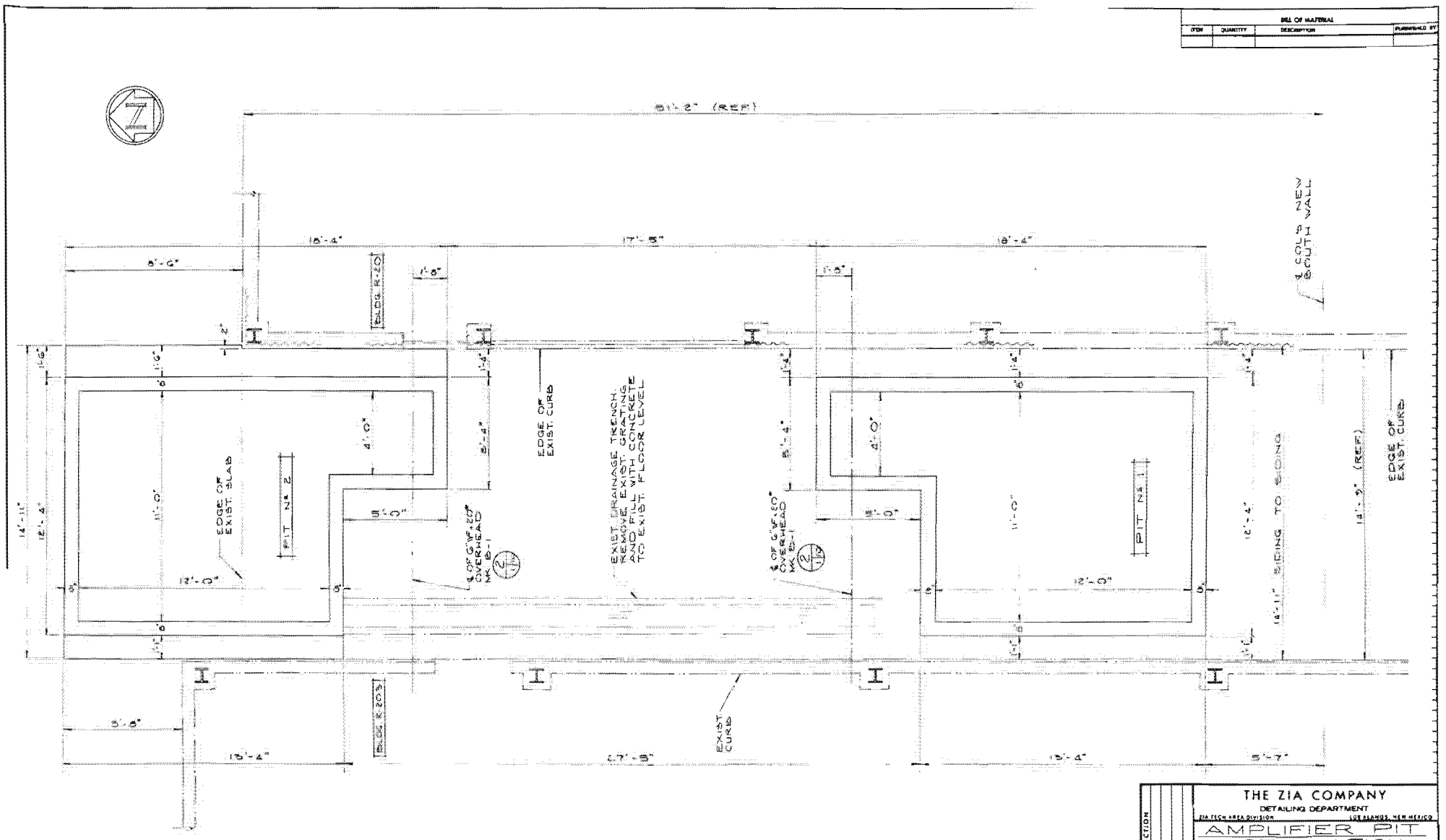
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

ROOF COVER
BETWEEN BLDG. R-20 & R-203
ARCHITECTURAL & ELECTRICAL
STRUCTURE NOS. R-203 TA-15

MARCH 8, 1966

ENG-C-34231

C.A. NO. B.A. NO. L.J. NO. 339715



PIT LOCATION PLAN

SCALE: 1/2" = 1'-0"

THE ZIA COMPANY
DETAILING DEPARTMENT
ZIA TECH AREA DIVISION — LOS ALAMOS, NEW MEXICO

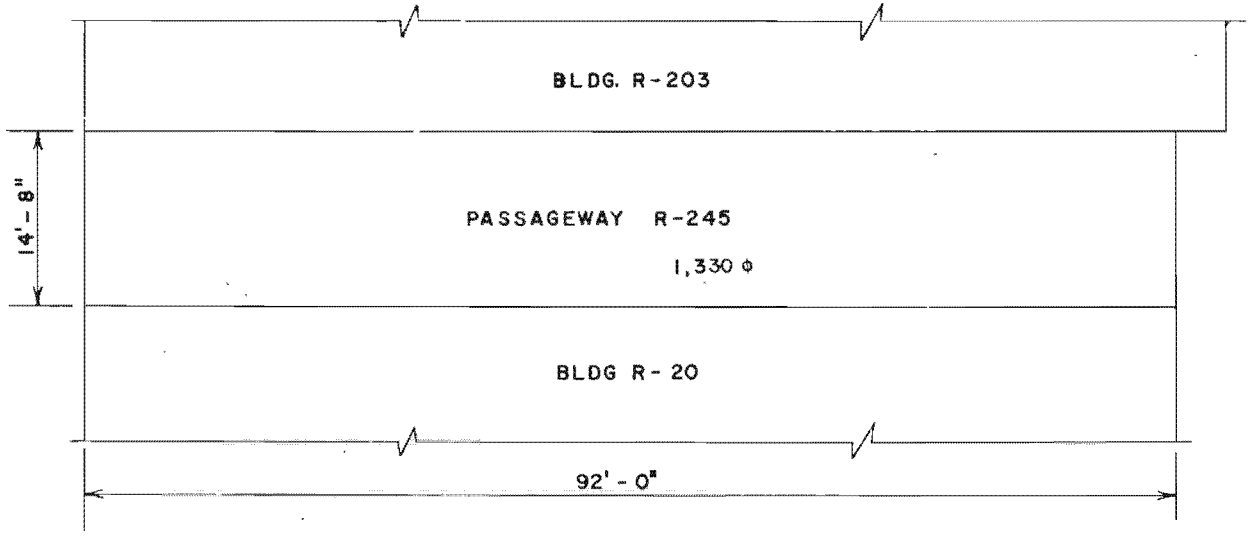
AMPLIFIER PIT INSTALLATION
PIT LOCATION PLAN

BLDG. NO. R-245 — FA. NO. 115

CHECKED	APPROVED	DATE REQUIRED
CHECKED		
DRAWN WOLGAMOTT	DATE JUNE 7, 76	DRAWING NO. DA
BOM NOTED	SHEET 1 OF 14 SHEETS	Z-4345
FABRICATION IRON WORKERS	REF. W.O. NO. 9088-55	L.L. NO.

PRELIMINARY INSPECTION — FIELD CHECKED BY — MATERIAL LIST BY — ESTIMATE BY — REVISED BY

ENG. C 48026



1" = 10'-0" 0 5 10 20
GRAPHIC SCALE

TOTAL $\frac{ft^2}{1,330}$

MF	REV.	DATE	REVISION	BY	CKD.	APP.
	1	9-2-83	REDRAWN & REVISED TO STATUS OF 9-2-83	H&N		DB

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

FACILITIES ENGINEERING DIVISION

PASSAGEWAY
FLOOR PLAN

BLDG. R-245 TA-15

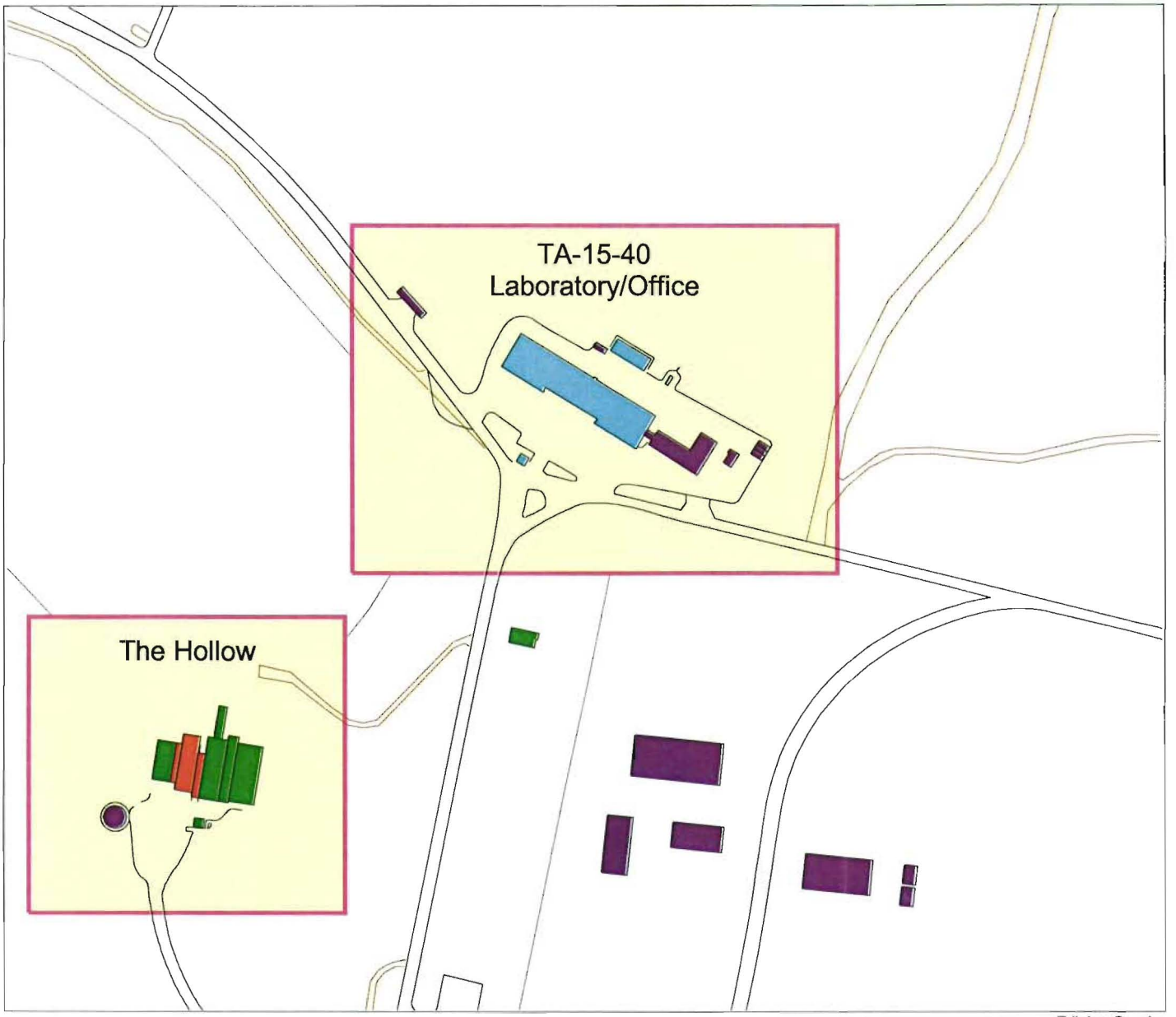
SEC. CLASSIFICATION
CLASS. U
REVIEWER
DATE 10-7-83

SUBMITTED	RECOMMENDED	APPROVED
E. Trujillo		

DRAWN	CHECKED	DATE	SHEET NO.	DRAWING NO.
K.A.K H&N	Humble H&N	9-2-83	1 OF 1	ENG-R2960

RECD. LOGGED TO VAULT 11-[illegible]-83

Appendix B: Maps Showing Location of Eligible and Non Eligible Properties and TA-15 Construction History



Frijoles Quad

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

1:3000

90 0 90 180 270 360 450 Feet

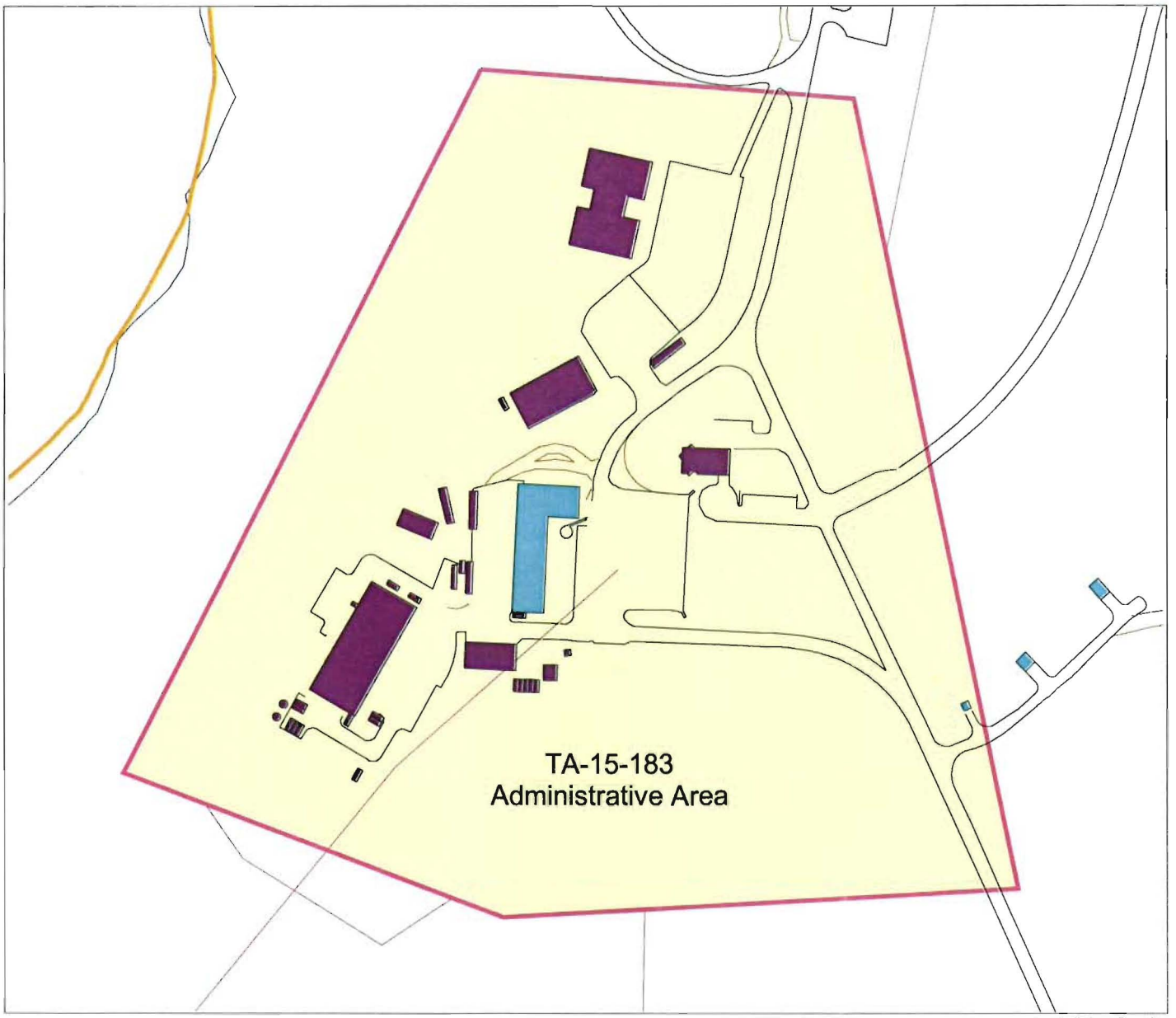
20 0 20 40 60 80 100 120 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Eligible Buildings/Structures
Potentially Eligible Buildings/Structures
Exempt Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
Drainage
Trails
paved_roads
Roaddirt
Parkpave
Parkdirt
TA-15 Areas
Fences

There are no buildings in this area that bave been declared not eligible.

TA-15-40 Laboratory/Office



Frijoles Quad

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

1:3000

90 0 90 180 270 360 450 Feet

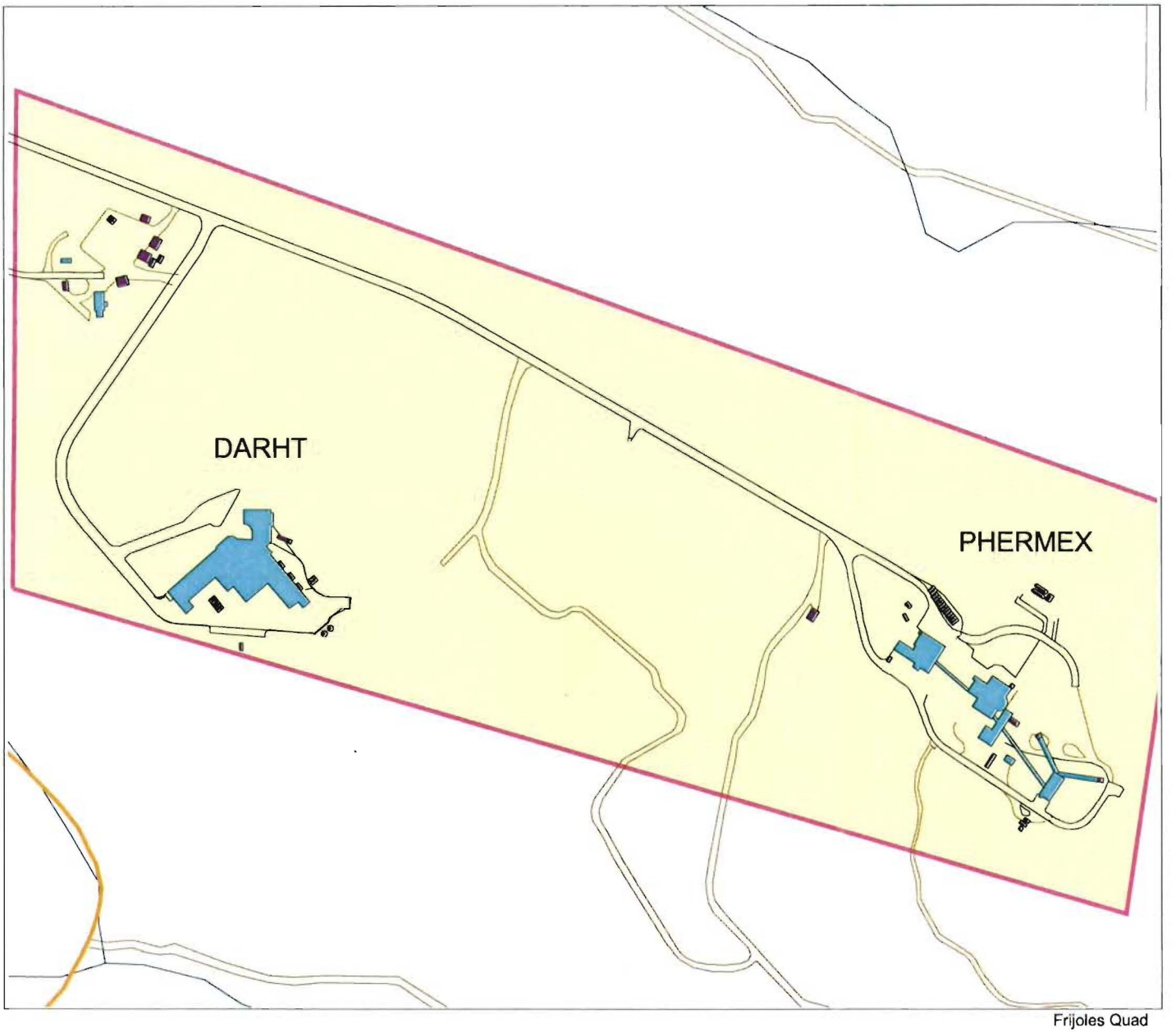
20 0 20 40 60 80 100 120 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Eligible Buildings/Structures
Potentially Eligible Buildings/Structures
Exempt Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
Drainage
Trails
paved_roads
Roaddirt
Parkdirt
TA-15 Areas
Fences

There are no buildings in this area that bave been declared not eligible.

TA-15-183 Administrative Area



Frijoles Quad

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

1:5000

200 0 200 400 600 800 Feet

30 0 30 60 90 120 150 180 210 240 270 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Eligible Buildings/Structures
Potentially Eligible Buildings/Structures
Exempt Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
Drainage
Trails
paved_roads
Roaddirt
Parkpave
Parkdirt
TA-15 Areas
Fences

There are no buildings in this area that bave been declared not eligible.

TA-15
DARHT-PHERMEX

Frijoles Quad

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

1:3000

90 0 90 180 270 360 450 Feet

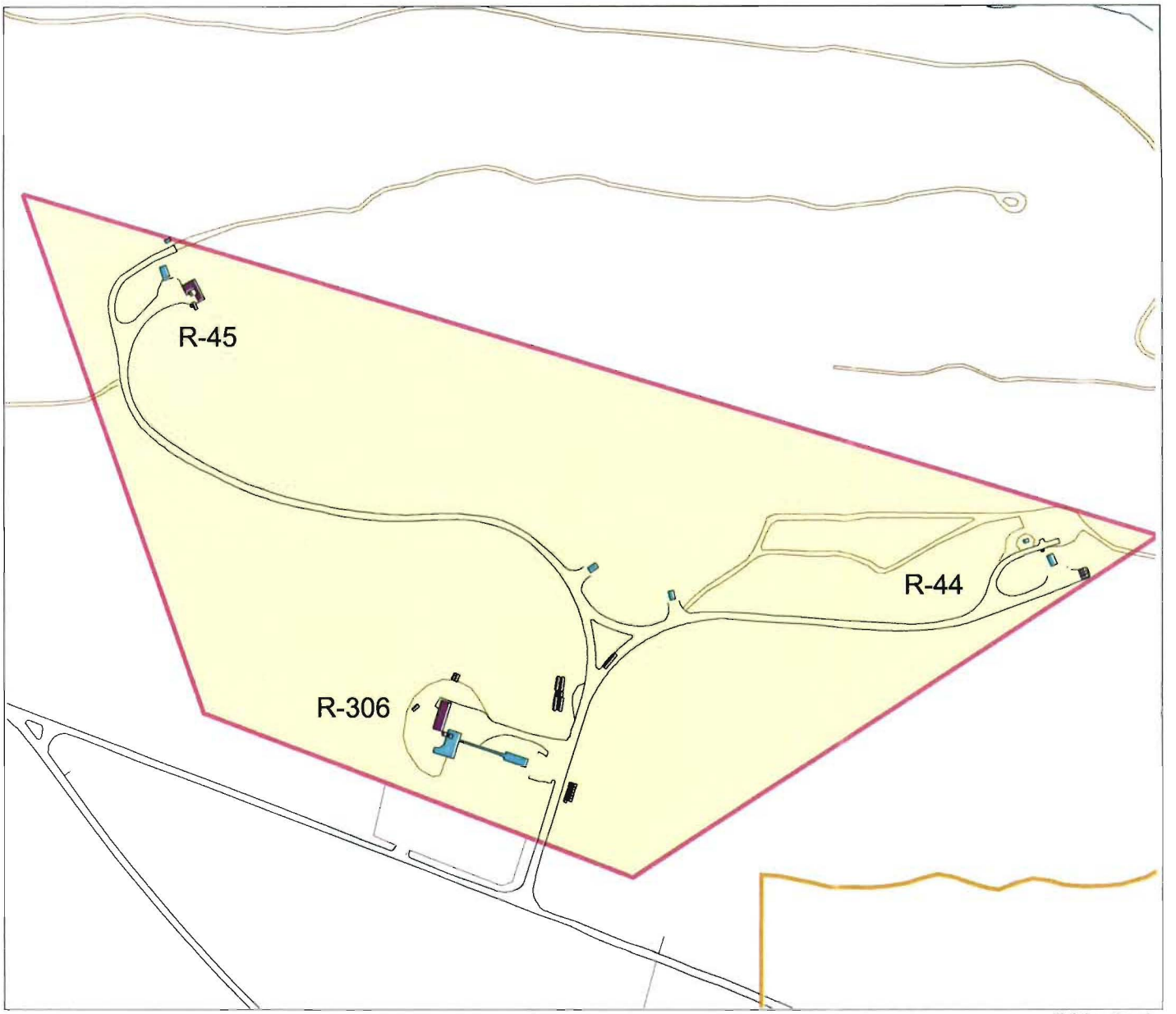
20 0 20 40 60 80 100 120 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Eligible Buildings/Structures
Potentially Eligible Buildings/Structures
Exempt Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
Drainage
Trails
paved_roads
Roaddirt
Parkpave
Parkdirt
TA-15 Areas
Fences

There are no buildings in this area that bave been declared not eligible.

TA-15
Firing Site E-F



Frijoles Quad

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

1:5000

200 0 200 400 600 Feet

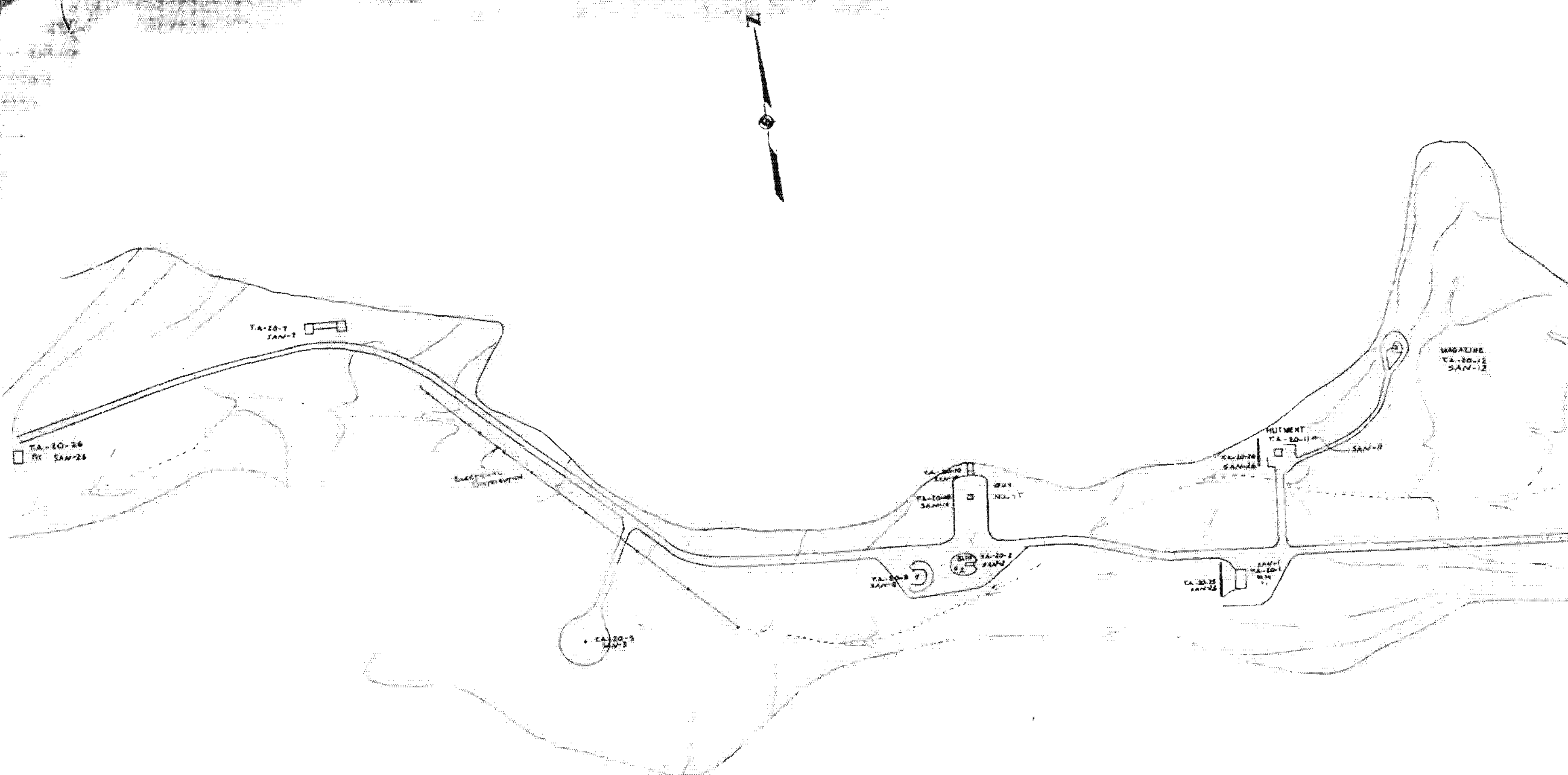
50 0 50 100 150 Meters

N
W E
S

Bldgs destroyed by Cerro Grande Fire
Eligible Buildings/Structures
Potentially Eligible Buildings/Structures
Exempt Buildings/Structures
LANL Tech Area Boundary
LANL Boundary
Drainage
Trails
paved_roads
Roaddirt
Parkpave
Parkdirt
TA-15 Areas
Fences

There are no buildings in this area that bave been declared not eligible.

TA-15 Firing Sites R-45, R-44, and R-306



OBSOLETE
DEAD STORAGE

Δ T.A. NUMBERS ADDED ΔGC 2/19/51

T.A.-20

REVISED SITE PLAN & TOPOGRAPHIC LAYOUT

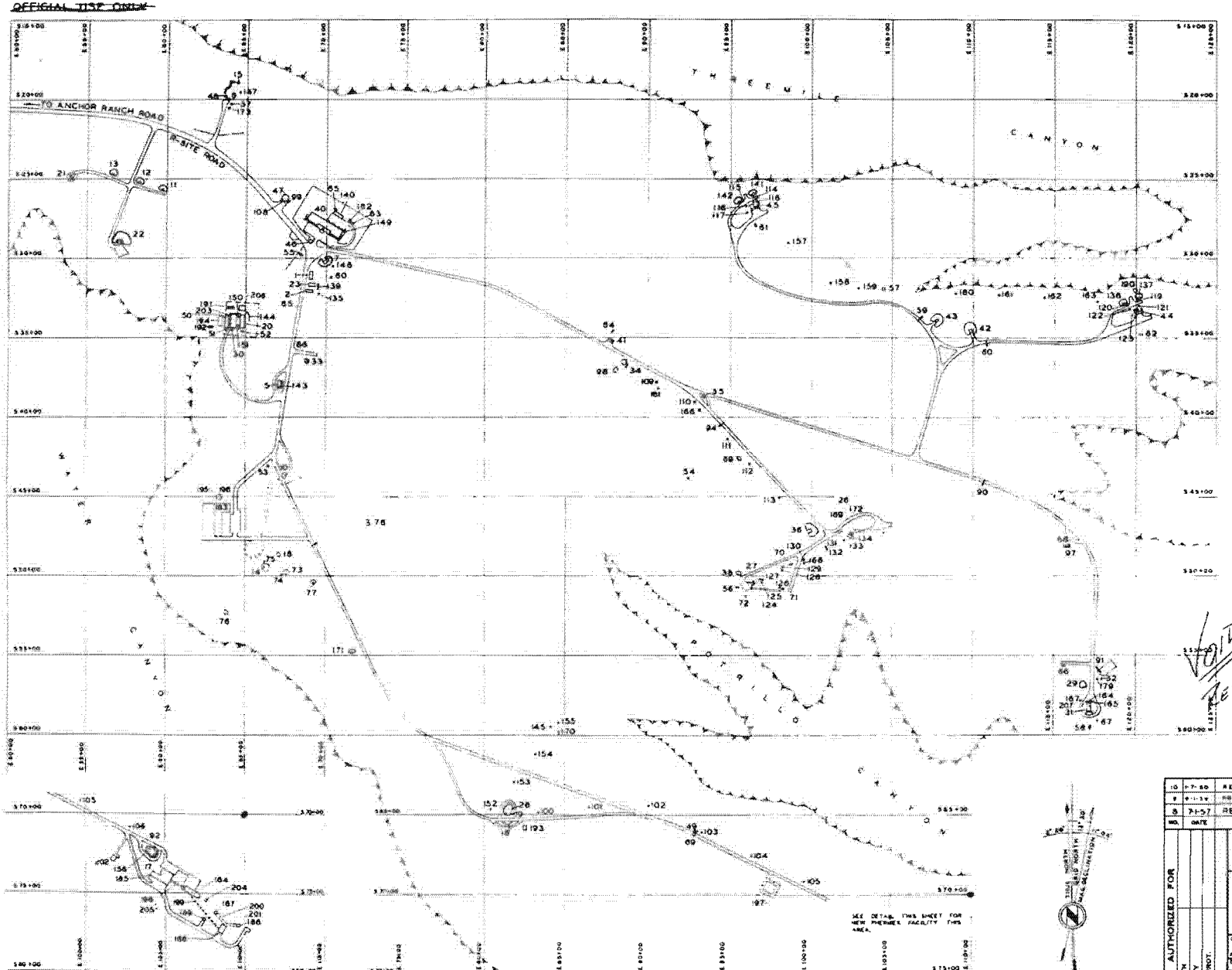
W.C. KRUGER - ARCHITECT | SANDIA SITE CONSTRUCTION | SHEET No

DATE 2-21-45 1946

U. S. ENGINEER OFFICE
SANTA FE, N. M.

L. A. S. L. DWG. No. ENG-C 1778

~~OFFICIAL USE ONLY~~



DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION
Name/Org: Jill Hefele/S-7 Date: 7/14/07

VOID - See Rev. 10, ENG-R 2432

OBSOLETE DEAD STORAGE

NO.	DATE	REVISIONS	BY	CHKD	APPD
10	7-7-80	REVISED TO FIELD CHECK STATUS OF 11-4-80	T.R.		
9	9-1-77	PROPOSED PHERMEX FACILITY ADDED	DDS	LAS	
8	7-1-57	REDRAWN TO STATUS OF 7-1-57	TR	LAS	

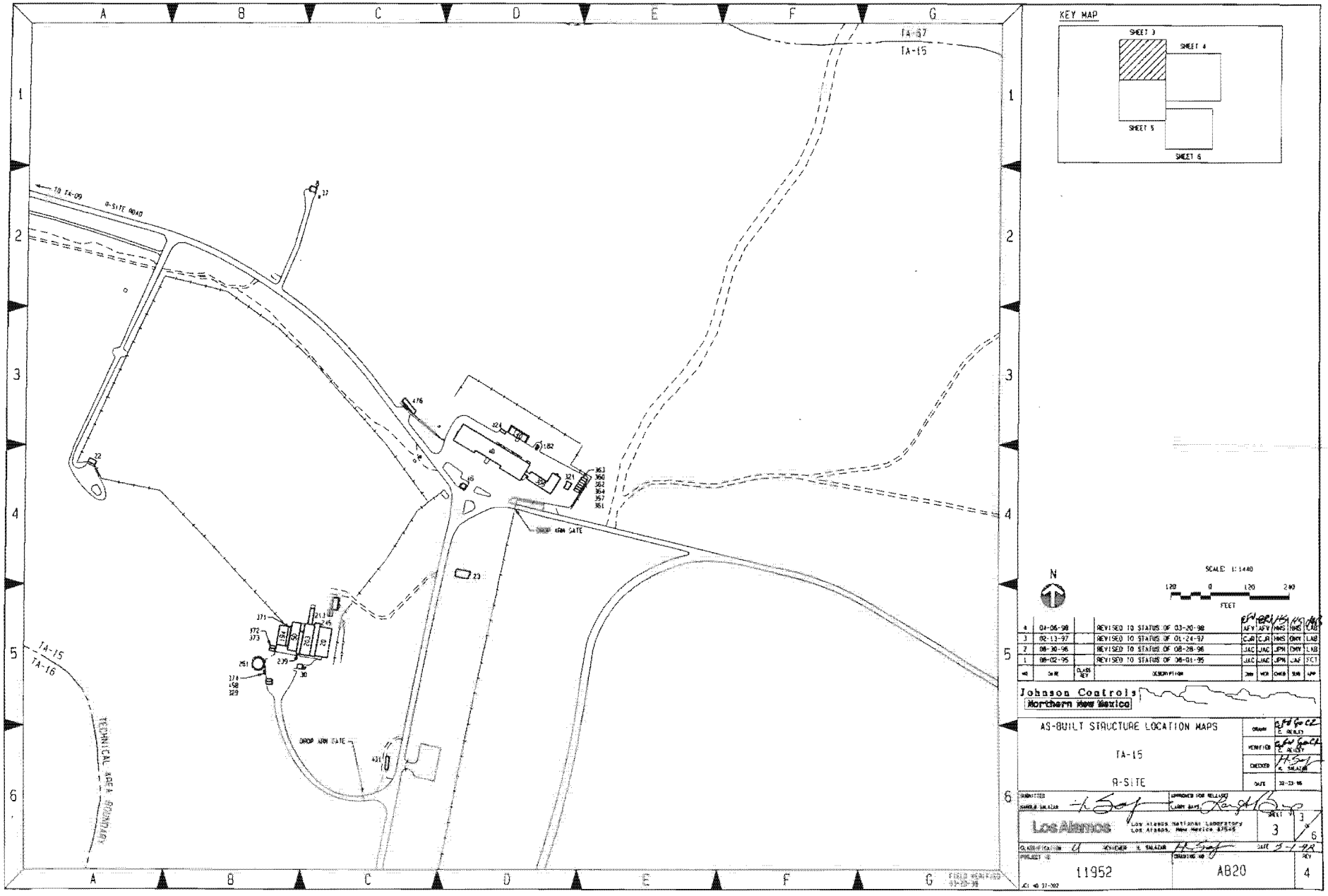
AUTHORIZED FOR: HEALTH, SAFETY, FIRE PROT., SEC.

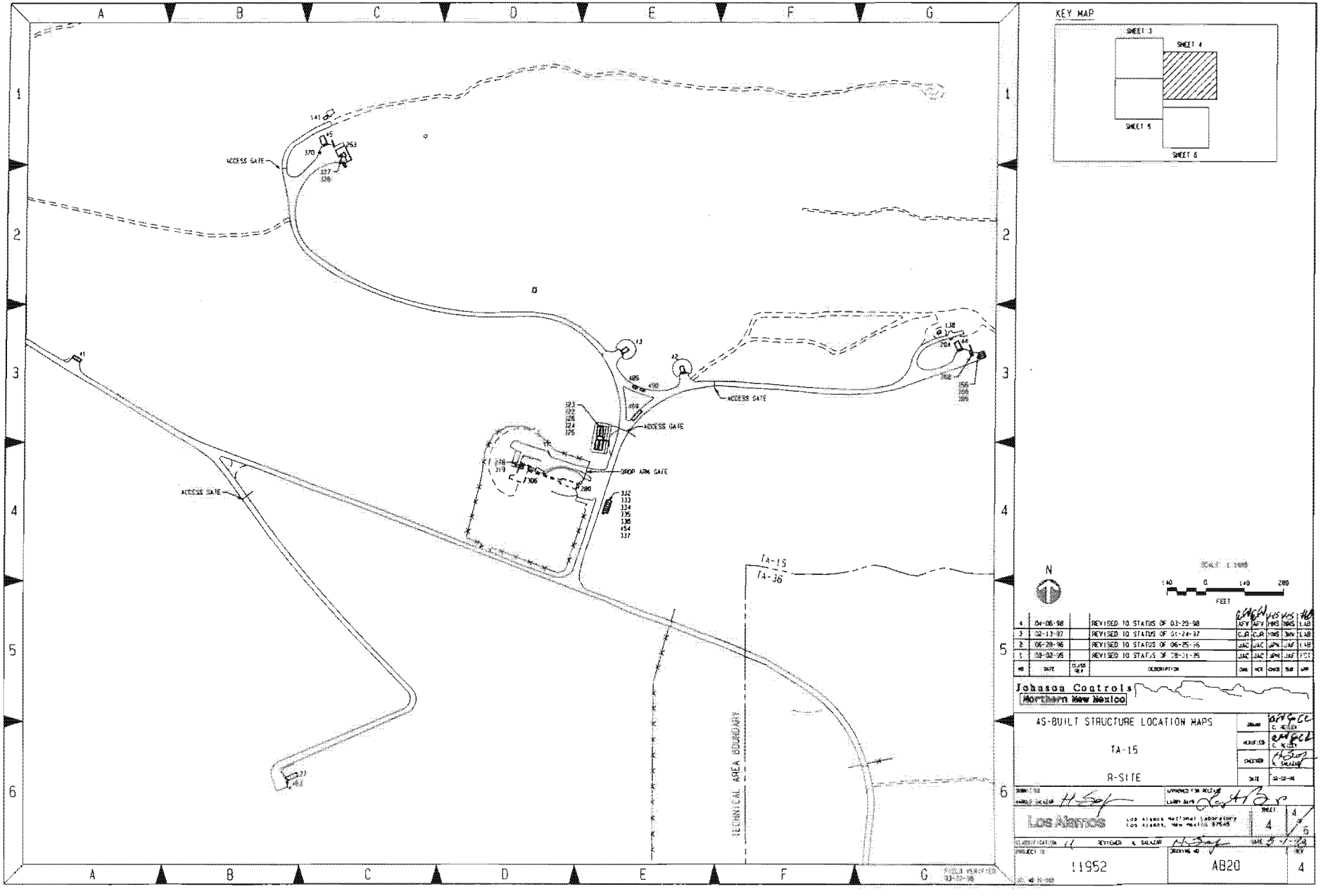
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

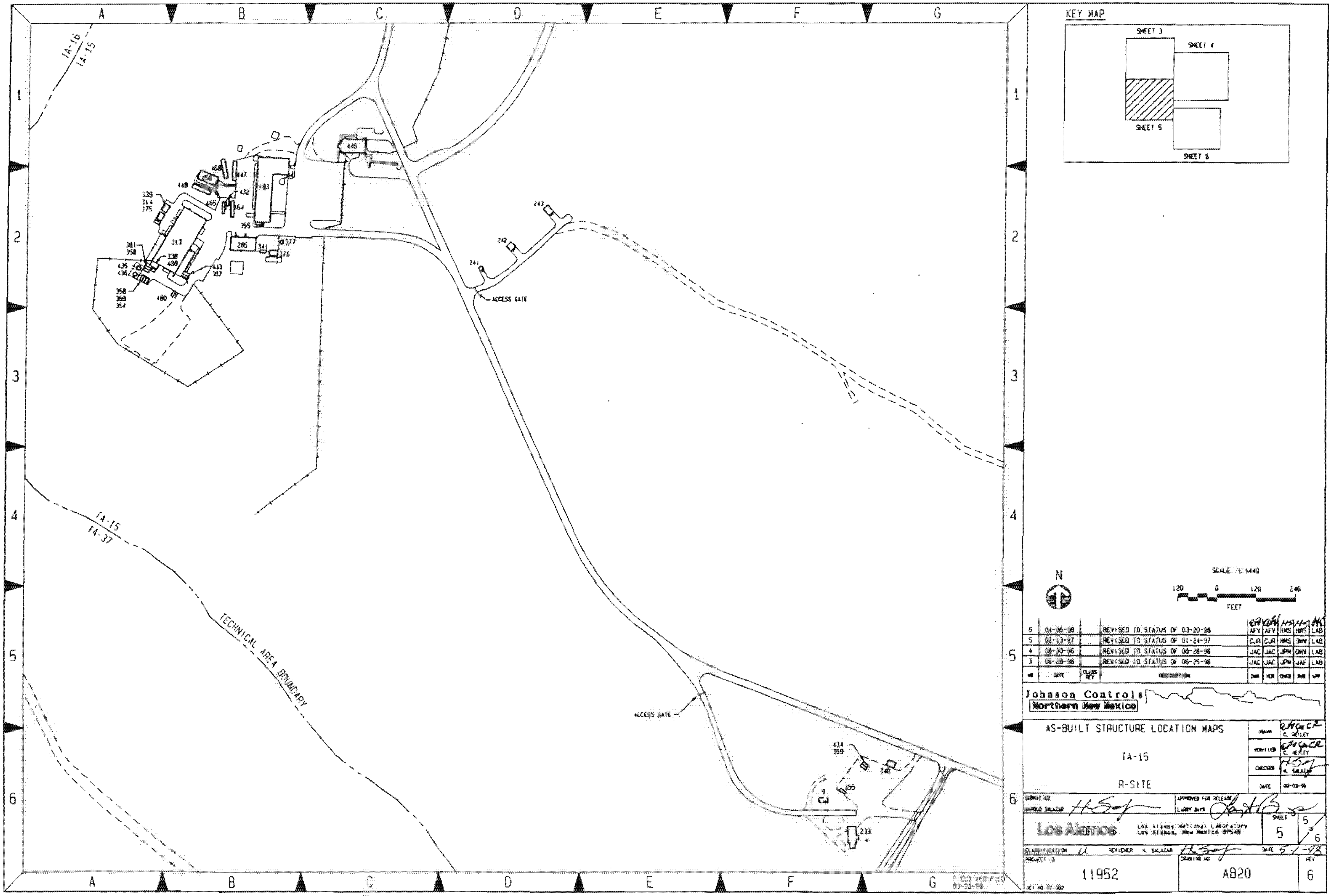
STRUCTURE LOCATION PLAN
TA-15 R-SITE

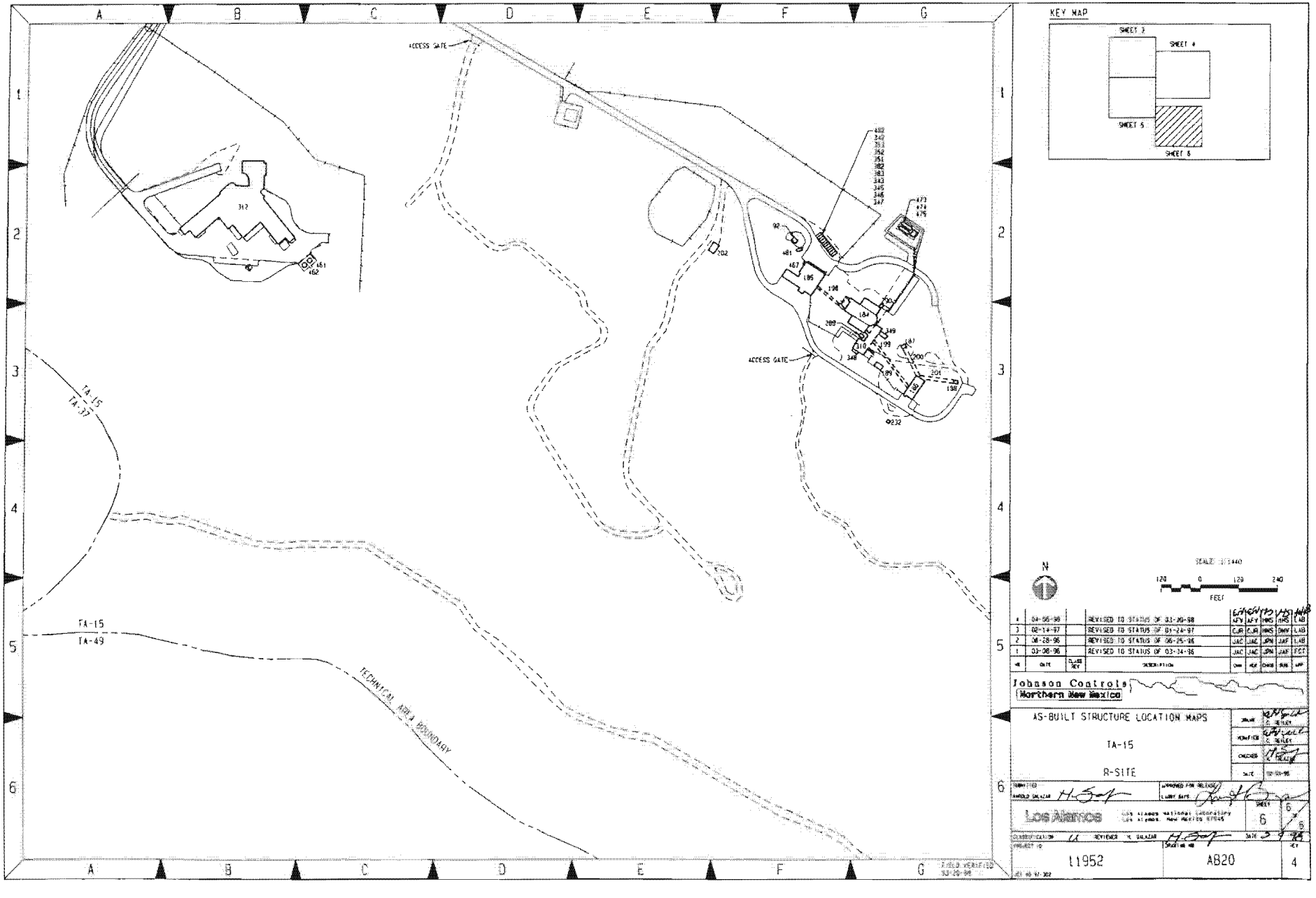
CHECKED	RECOMMENDED	APPROVED
ASSOC. ENG.	GROUP LEADER	CHIEF, DEPT. OFFICER
DESIGNED	DATE 7-1-57	DRAWING NO. ENG-R 131
DRAWN T.O. ROYBAL	SHEET 2 OF 2	
SCALE 1" = 200'		

~~OFFICIAL USE ONLY~~


A
B
C
D
E
F
G
1
2
3
4
5
6
TA-57
TA-15
TO TA-09
A-SITE ROAD
TA-15
TA-16
TECHNICAL AREA A BOUNDARY
DROP ARM GATE
DROP ARM GATE
KEY MAP
SHEET 3
SHEET 4
SHEET 5
SHEET 6
N
SCALE: 1:1440
120 0 120 240
FEET
4 04-06-98 REVISED TO STATUS OF 03-20-98 AFV AFV HMS HMS LAB
3 02-13-97 REVISED TO STATUS OF 01-24-97 CJR CJR HMS CMY LAB
2 08-30-96 REVISED TO STATUS OF 08-28-96 JAC JAC JPM CMY LAB
1 08-02-95 REVISED TO STATUS OF 06-01-95 JAC JAC JPM JAF SCT
NO. DATE CLASS SET DESCRIPTION DRWN VER CHKD SUB APP
Johnson Controls
Northern New Mexico
AS-BUILT STRUCTURE LOCATION MAPS
TA-15
A-SITE
DRAWN E. ROJO
VERIFIED E. ROJO
CHECKED K. SALAZAR
DATE 12-23-98
SUBMITTED KAREN A. SALAZAR
APPROVED FOR RELEASE LARRY GAY
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
SHEET NO. 3
3 6
CLASSIFICATION U REVIEWER K. SALAZAR DATE 5-1-98
PROJECT NO. 11952
DRAWING NO. AB20
REV 4
FIELD VERIFIED 03-25-98


A
B
C
D
E
F
G
1
2
3
4
5
6
ACCESS GATE
ACCESS GATE
ACCESS GATE
ACCESS GATE
DROP ARM GATE
TA-15
TA-36
TECHNICAL AREA BOUNDARY
KEY MAP
SHEET 3
SHEET 4
SHEET 5
SHEET 6
N
140 0 140 280
FEET
4 04-06-98 REVISED TO STATUS OF 03-29-98
3 02-13-97 REVISED TO STATUS OF 01-24-97
2 06-28-96 REVISED TO STATUS OF 06-25-96
1 10-02-95 REVISED TO STATUS OF 08-31-95
Johnson Controls
Northern New Mexico
AS-BUILT STRUCTURE LOCATION MAPS
TA-15
A-SITE
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
SHEET 4
11952
AB20
4


KEY MAP
SHEET 3
SHEET 4
SHEET 5
SHEET 6
TA-16
TA-15
TA-37
TECHNICAL AREA BOUNDARY
ACCESS GATE
ACCESS GATE
N
120 0 120 240
FEET
6 04-06-98 REVISED TO STATUS OF 03-20-98 AFY AFY HMS HMS LAB
5 02-13-97 REVISED TO STATUS OF 01-24-97 CJR CJR HMS DWY LAB
4 08-30-96 REVISED TO STATUS OF 08-28-96 JAC JAC JPW DWY LAB
3 06-28-96 REVISED TO STATUS OF 06-25-96 JAC JAC JPW JAF LAB
Johnson Controls
Northern New Mexico
AS-BUILT STRUCTURE LOCATION MAPS
TA-15
A-SITE
C. RILEY
H. SALAZAR
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545
SHEET 5
5 of 6
REVIEWER H. SALAZAR
DATE 5-1-98
11952
A820
REV 6



KEY MAP

N

SCALE: 1" = 240'

120 0 120 240

FEET

NO	DATE	CLASS REV	DESCRIPTION	DRAWN	DES	CHKD	SUB	APP
4	04-06-98		REVISED TO STATUS OF 03-26-98	AFY	AFY	HMS	HMS	LAB
3	02-14-97		REVISED TO STATUS OF 01-24-97	CJR	CJR	HMS	DMV	LAB
2	06-28-96		REVISED TO STATUS OF 06-25-96	JAC	JAC	JPH	JAF	LAB
1	03-06-96		REVISED TO STATUS OF 03-14-96	JAC	JAC	JPH	JAF	FCT

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-15

R-SITE

DRAWN	H. SALAZAR
VERIFIED	C. SKILES
CHECKED	H. SALAZAR
DATE	03-26-98

SUBMITTED: H. SALAZAR

APPROVED FOR RELEASE: LARRY BATE

Los Alamos — Los Alamos National Laboratory, Los Alamos, New Mexico 87545

SHEET 6 OF 6

REVISED: H. SALAZAR DATE: 3-26-98

PROJECT ID	SCALE	KEY
11952	AB20	4

Appendix C: Interview Information and List of Technical Reports

Oral History

Ridlon, R.
2003 Interview with John Ronquillo and Ellen McGehee. Recording of July 31, 2003 interview of Rae Ridlon on file at RRES-ECO, Los Alamos National Laboratory, Los Alamos, New Mexico.

Technical Reports

Builta, L. A., R. L. Carlson, T. J. Kauppila, D. C. Moir, and R. N. Ridlon
1989 *Pulse-Power-Induced Oscillations of the REX Electron Beam.* LA-UR-89-963, Los Alamos National Laboratory.

Carlson, R. L.
1988 *Relativistic Electron Beam Experiment (REX) Accelerator Design and Performance.* M-4:GR-88-8, Los Alamos National Laboratory.

Carlson, R. L., M. J. George, T. P. Hughes, and D. R. Welch
1993 *Generation and Focusing of High Energy, 35-kA Electron Beams for Pulsed-diode Radiographic Machines: Theory and Experiment.* LA-UR-93-1744, Los Alamos National Laboratory.

Carlson, R. L., P. W. Allison, T. J. Kauppila, D. C. Moir, and R. N. Ridlon
1991 *Electron-Beam Generation, Transport, and Transverse Oscillation Experiments Using the REX Injector.* LA-UR-91-1497, Los Alamos National Laboratory.

Carlson, R. L., R. N. Ridlon, and G. J. Seitz
1996 *Multi-Kiloampere, Electron-Beam Generation from Bare Aluminum Photo-Cathodes Driven by an ArF Laser.* LA-UR-96-1932, Los Alamos National Laboratory.

Carlson, R. L., T. J. Kauppila, and R. N. Ridlon
1991 *REX, A 5-MV Pulsed-Power Source for Driving High-Brightness Electron Beam Diodes.* LA-UR-91-2050, Los Alamos National Laboratory.

Kauppila, T., R. Carlson, D. Moir, and R. Ridlon
1991 *Time-Resolved Emittance Measurements of An Excimer-Laser-Driven Metal Photocathode.* Los Alamos National Laboratory.

Kauppila, T. J., L. A. Builta, R. L. Carlson, A. R. Mathews, and D. C. Moir
1990 *The Measurement of Electron Beam Emittance Using Streak Cameras and Image Analysis Techniques.* LA-UR-90-1109, Los Alamos National Laboratory.

Kauppila, T. J., L. A. Builta, R. L. Carlson, D. C. Moir, and R. N. Ridlon
1989 *Pulsed 4-MeV Electron Injector with an Excimer Laser Driven Photocathode.* LA-UR-89-972, Los Alamos National Laboratory.

Appendix D: Listing of Drawings on File at LANL for TA-15-23 and Properties at the Hollow

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	20	C	609	1	2		22-AUG-49	03-AUG-49	286	AC	R-SITE, ASSEMBLY BLDG. AIR CONDITIONING, SUUPLY DUCT SYSTEM
15	20	C	610	2	2		22-AUG-49	03-AUG-49	286	AC	R-SITE, ASSEMBLY BLDG. AIR CONDITIONING, RETURN DUCT SYSTEM
15	20	C	611	3	3		22-AUG-49	03-AUG-49	286	AC	ASSEMBLY BLDG. AIR CONDITIONING, STEEL PLATFORM DETAILS
15	20	C	622	1	1		19-SEP-49	07-SEP-49	275	S	CONST. SETTLING PIT FOR ASSEMBLY ROOM, R SITE, BLDG. R-20
15	20	C	2478	1	1		12-MAY-53	05-OCT-51	977	A	INTERIOR ALTERATIONS BLDG. R-20. CONVERSION TO MACHINE SHOP
15	20	C	2479	2	1		12-MAY-53	05-OCT-51	977	E	INT. ALTERATIONS BLDG. R-20. CONVERSION TO MACHINE SHOP. ELECT.
15	20	C	2683	1	1		18-MAY-52	18-APR-52	1144	M	WATER MAIN INSTALLED TO BLDG. R-20
15	20	C	12864	1	0		26-AUG-57	09-AUG-49	117	T	INDEX, ASSEMBLY
15	20	C	12865	1	2		26-AUG-57	07-SEP-48	117	C	PLOT PLAN, ROADS & UTILITIES
15	20	C	12866	1	2		26-AUG-57	07-SEP-48	117	C	SITE GRADING, UTILITIES & DETAILS
15	20	C	12867	1	3		26-AUG-57	07-SEP-48	117	C	ROAD AND APRON DETAILS
15	20	C	12868	1	0		26-AUG-56	07-SEP-48	117	C	GATE & FENCE DETAILS
15	20	C	12869	1	2		26-AUG-57	07-SEP-48	117	C	WATER TANK, R-52; OIL TANK; SEPTIC TANK, R-51
15	20	C	12870	1	2		26-AUG-57	07-SEP-48	117	A	PLANS, ELEVATIONS, SCHEDULES
15	20	C	12871	1	2		26-AUG-57	07-SEP-48	117	A	SECTIONS & DETAILS
15	20	C	12872	1	4		26-AUG-57	07-SEP-48	117	A	PLANS & SCHEDULES
15	20	C	12873	1	3		26-AUG-57	07-SEP-48	117	A	SECTIONS & DETAILS
15	20	C	12874	1	1		26-AUG-57	08-DEC-48	117	A	PORTAL FRAME
15	20	C	12875	1	2		26-AUG-57	07-SEP-48	117	A	ELEVATIONS
15	20	C	12876	1	0		26-AUG-57	31-JAN-49	117	S	ADDITIONAL STRUCTURAL DETAILS
15	20	C	12877	1	1		26-AUG-57	31-JAN-49	117	A	ADDITIONAL BRACING
15	20	C	12878	1	1		26-AUG-57	31-JAN-48	117	A	BRACING DETAILS

15	20	C	12879	1	3	26-AUG-57	07-SEP-48	117	E	PLAN & DETAILS
15	20	C	12880	1	3	26-AUG-57	07-SEP-48	117	E	PLAN - GUARD HOUSE R-30 STATIC GROUNDING DETAILS
15	20	C	12881	1	2	26-AUG-57	11-APR-50	117	E	DISTRIBUTION LAYOUT, LIGHTNING PROTECTION LAYOUT, DET.
15	20	C	12882	1	3	26-AUG-57	07-SEP-48	117	M	PLUMBING & HEATING PLAN
15	20	C	17345	1	2	05-APR-55	29-MAR-55	1699	M	EXH. VENTILATION OF WELDING BENCH, PLAN, DETAILS & GEN. NOTES
15	20	C	19211	1	0	20-JUN-57		2021	E	POWER SUBSTATION INSTALLATION VICINITY, BLDG. R-20 - ELECTRICAL - LOCATION PLAN
15	20	C	19212	2	0	20-JUN-57		2021	E	ELECTRICAL - DETAILS
15	20	C	19213	3	0	20-JUN-57		2021	E	ELECTRICAL - DETAILS
15	20	C	19524	1	0	19-SEP-60		2441	M	NEW COMPRESSED AIR SERVICE, BLDGS. R-20,50,194,203 - MECHANICAL - PLAN & DETAILS
15	20	C	19525	2	0	19-SEP-60		2441	E	ELECTRICAL - PLAN & WIRING DIAGRAM
15	20	C	20727	1	0	20-MAR-59		2006	E	PHERMEX FACILITY - PHERMEX PROTOTYPE - ELECTRICAL DISTRIBUTION PLAN BLDGS. R-20,
15	20	C	20728	2	0	20-MAR-59		2006	E	PROTOTYPE - ELECTRICAL SINGLE LINE DIST. DIA. - BLDGS. R-20,50,194,203
15	20	C	20729	3	0	20-MAR-59		2006	E	PHERMEX PROTOTYPE - ELECTRICAL DETAILS & MATERIALS - BLDGS. R-20,50,194,203
15	20	C	21371	1	0	26-DEC-57	23-DEC-57	2055	E	PHERMEX ELECTRICAL SERVICES & COOLING SYS. INSTALL. - SCOPE AND DIST
15	20	C	21374	4	0	26-DEC-57	23-DEC-57	2055	E	PHERMEX ELEC. SERVICES & COOLING SYS. INST., BLDG. R-50 PLAN AND SECTIONS
15	20	C	21375	5	0	26-DEC-57	23-DEC-57	2055	E	PHERMEX ELEC. SERVICES & COOLING SYS. INST., WIRING DIAGRAM M-UNIT
15	20	C	21376	6	0	26-DEC-57	23-DEC-57	2055	E	PHERMEX ELEC. SERVICES & COOLING SYS. INST., WIRING DIAGRAM AND DETAILS
15	20	C	21377	7	0	26-DEC-57	23-DEC-57	2055	E	PHERMEX ELEC. SERVICES & COOLING SYS. INST., CONNECTION DIAGRAM
15	20	C	21379	9	0	26-DEC-57	23-DEC-57	2055	M	PHERMEX ELEC. SERVICES & COOLING SYS. INST., PLAN
15	20	C	21380	10	0	26-DEC-57	23-DEC-57	2055	M	PHERMEX ELEC. SERVICES & COOLING SYS. INST.
										PHERMEX ELEC. SERVICES & COOLING SYS. INST., TANK

15	20	C	21381	11	0	26-DEC-57	23-DEC-57	2055	M	CONSTRUCTION DETAILS
15	20	C	21382	1	0	19-MAR-58		2055	E	PHASE "B" - ELECTR. - PLAN, SECTION & MATERIALS
15	20	C	21383	2	0	19-MAR-58		2055	E	ELECTRICAL - WIRING DIAGRAMS AND DETAILS
15	20	C	21384	3	0	19-MAR-58		2055	E	ELECTR. - PLAN, SECTION & DETAILS
15	20	C	21385	4	0	19-MAR-58		2055	M	MECHANICAL - PLAN
15	20	C	21386	5	0	19-MAR-58		2055	M	MECHANICAL ELEVATIONS
15	20	C	21387	1	0	17-APR-59		2055	M	PHASE "C" MECHANICAL PLAN, NOTES AND SECTION
15	20	C	21907	1	0	14-MAY-59		2265	UN	COOLING WATER DIST. SYS., BLDGS. R-20, R-50, R-194, R-203, PH. "A"
15	20	C	21908	2	0	14-MAY-59		2265	M	MECHANICAL - DETAILS, BLDG. R-20
15	20	C	21909	3	0	14-MAY-59		2265	M	MECHANICAL - DETAILS, ELEVATION & MATERIAL
15	20	C	21910	1	1	07-JUL-59		2265	UN	COOLING WATER DIST. SYS., BLDGS. R-20, R-50, R-194, R-203, PH. "B"
15	20	C	21911	2	1	07-JUL-59		2265	M	MECHANICAL - DETAIL, ELEV. & EQUIPMENT LIST
15	20	C	21912	3	1	07-JUL-59		2265	M	MECHANICAL - DETAIL
15	20	C	34231	1	0	14-MAR-66		3397	E	ROOF COVER BETWEEN BLDG. R-20 & R-203, STR. NO. R-245 - ARCHITECTURAL & ELECTRIC
15	20	C	34293	1	0	26-JUL-66		3415	M	WATER SUPPLY IMROVEMENTS BLDG. R-20, R-50, R-194 & R-203 - MECHANICAL - PLANS &
15	20	C	34294	2	0	26-JUL-66		3415	M	MECHANICAL - EQUIPMENT LIST, NOTES, SECTIONS & DETAILS
15	20	C	36578	2	0	10-JUN-68		3508	E	ELECTRICAL
15	20	C	36579	3	0	10-JUN-68		3508	E	ELECTRICAL
15	20	C	36580	4	0	10-JUN-68		3508	E	ELECTRICAL
15	20	C	36581	5	0	10-JUN-68		3508	E	ELECTRICAL
15	20	C	36582	6	0	10-JUN-68		3508	E	ELECTRICAL
15	20	C	37319	1	0	21-AUG-70		4511	C	AREA PAVING - CIVIL AREA PAVING BUILDING R20 & R203
15	20	C	37378	1	0	30-APR-69		4076	UN	PRY-A-ALARM INSTALLATION, PHERMEX FACILITIES, PLAN VIEWS & DETAIL BLDGS. R-20,50
15	20	C	37380	3	0	30-APR-69		4076	UN	SCHEMATIC WIRING DIAGRAMS - BLDGS. R-20, 50, 184, 185, 194, 198 & 203
15	20	C	42213	1	1	26-DEC-73		2697	M	TODD CAVITY AMPLIFIER - RELOCATION MODIFICATION

										STRICTURAL, MECHANICAL & ELECTRI
15	20	C	43434	1	0	28-MAR-78		5778	C	WELDING HOOD, BLDG. R-20, TA-15 CIVIL; PARTIAL PLAN, SECTION, MOTOR SUPPORT DE
15	20	C	43434	4	0	28-MAR-78		5778	E	ELEC; PLAN, BILL OF MATERIAL, NOTES, AND NAMEPLATES
15	20	C	43434	2	0	28-MAR-78		5778	M	MECH; PARTIAL PLANS, ELEVATIONS, AND DETAILS
15	20	C	43434	3	0	28-MAR-78		5778	M	MECH; EQUIPMENT LIST AND NOTES
15	20	C	43579	17	0	16-OCT-78	03-SEP-79	6041	M	FIRE PROTECTION IMPROVEMENTS FLOOR PLAN R-20
15	20	C	43579	16	0	16-OCT-78	03-SEP-79	6041	F	FIRE PROTECTION IMPROVEMENTS PLOT PLAN BLDGS. R-20, R-50, R-194 AND R-203
15	20	C	43579	8	0	06-OCT-98	20-MAR-80	6041	M	FIRE PROTECTION IMPROVEMENTS MECH; MEZZ. PLAN AND RISER DETAILS
15	20	C	43579	12	1	06-OCT-98	23-JUN-83	6041	E	FIRE PROTECTION IMPROVEMENTS ELEC; BLDG. R-20 AND 203 FLOOR PLANS
15	20	C	43579	4	0	06-OCT-98	20-MAR-80	6041	M	FIRE PROTECTION IMPROVEMENTS MECH; FLOOR PLAN AND DETAILS
15	20	C	44231	8	1	12-SEP-83		7236	UN	TECH AREA AND SUMMARY EQUIPMENT LIST AND NAMEPLATE SCHEDULE SUMMARY LIST BLDG. R
15	20	C	44231	5	1	12-SEP-83		7236	M	MECHANICAL ELECTRICAL BLDG. R-40
15	20	C	44231	1	1	12-SEP-83		7236	UN	AIR DRYER INSTALL. COVER SHEET & INDEX, BLDGS. R20,R40,R183, & R203, PHASE C AS
15	20	C	47769	4	0	20-SEP-92	20-SEP-92	0	A	FLAMMABLE LIQUID STORAGE & DISPENSING BUILDING, ARCH., ARRANGEMENT & LOCATION, SCOPE OF WORK
15	20	C	52882	1	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 PLOT PLAN AND SECTIONS
15	20	C	52882	2	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 SPRINKLER PIPING PLAN
15	20	C	52882	3	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 BLDG. SECTION & MEZZ.
15	20	PL	3727	27	0	25-APR-77		5664	UN	BRANCH SHOP & LAB BLDGS., BLDG.. R-20, R-50, R-194 & R-203, TA-15
15	20	R	2709	1	2	20-MAR-63	02-SEP-83	0	A	FLOOR PLAN, BRANCH SHOP & LAB BLDG.
15	20	R	3745	1	0	27-SEP-66	15-SEP-66	3546	A	EQUIPMENT SURVEILLANCE SYSTEMS, FLOOR PLAN
15	20	SK	115	1	0	01-JUN-53	09-JUN-48	117	S	ASSEMBLY BLDG. R-20 (32 X 100)

15	20	SK	145	1	1	01-JUN-53	16-AUG-48	0	A	PROPOSED CHANGES TO ASSEMBLY BLDG. R-20 (ROOF)
15	20	SK	146	1	1	01-JUN-53	16-AUG-48	0	A	PROPOSED CHANGES TO ASSEMBLY BLDG. R-20
15	20	SK	5362	2	0	17-SEP-99	16-DEC-60	2496	M	HEATING FOR R-SITE SHOP

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	22	C	51	1	1		07-MAY-47	29-APR-47	38	S	10000 POUND MAGAZINE R-22, PLAN & SECTION
15	22	C	12830	1	3		26-AUG-57		0	UN	STORAGE MAGAZINE, R-22, LAYOUT & DETAILS
15	22	C	19092	1	0		26-FEB-59		2229	UN	PHERMEX CONTROL LINE INSTALLATION BUILDING R-22 TO BUILDING R-50
15	22	R	2711	1	1		30-JUL-64	01-SEP-83	0	A	FLOOR PLAN, EXPLOSIVE PREP. BLDG.

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	23	C	620	1	2		13-SEP-49	25-JUN-53	312	A	ALTERATIONS TO R-SITE MANOR, BLDG. R-23
15	23	C	1481	1	0		12-MAY-53	11-AUG-51	915	C	RELOCATION R-SITE MANOR, PLOT PLAN & RETAINING WALL DETAILS, PAVING PLAN,
15	23	C	1482	2	1		12-MAY-53	09-FEB-53	915	C	RELOCATION R-SITE MANOR, FENCE & BARRICADE DETAILS
15	23	C	1483	3	0		12-MAY-53	15-AUG-51	915	S	RELOCATION R-SITE MANOR, FOUNDATION PLAN
15	23	C	1484	4	0		12-MAY-53	15-AUG-51	915	A	RELOCATION R-SITE MANOR, FLOOR PLAN
15	23	C	1485	5	0		12-MAY-53	15-AUG-51	915	A	RELOCATION R-SITE MANOR, ARCHITECTURAL DETAILS
15	23	C	1486	6	0		12-MAY-53	18-AUG-51	915	M	RELOCATION R-SITE MANOR, PLUMBING & HEATING
15	23	C	1487	7	0		12-MAY-53	16-AUG-51	915	E	RELOCATION R-SITE MANOR, ELECTRICAL PLAN
15	23	C	17352	1	0		04-OCT-57		2060	UN	REST ROOM INSTALLATION BLDG. R-23
15	23	C	37346	1	0		24-FEB-69		0	UN	RAMP MODIFICATIONS, BLDG. R-23
15	23	C	42914	1	0		09-JAN-76		5478	UN	RADIATION WARNING LIGHT INSTALLATIONS, BLDGS. R-23, R-215, AND R-197. LOC. PLAN
15	23	C	42914	4	0		09-JAN-76		5478	UN	RAILROAD GATE ELEVATION AND SECTIONS
15	23	C	42914	5	0		09-JAN-76		5478	E	ELEC - PLANS, SCOPE, AND NOTES
15	23	C	42914	2	0		09-JAN-76		5478	UN	PLOT PLAN
15	23	C	42914	6	0		09-JAN-76		5478	E	ELEC - DETAILS AND BILL OF MATERIALS
15	23	C	42914	3	0		09-JAN-76		5478	S	PARTIAL STRUCTURE PLAN, FENCE AND SCREEN. DOOR ELEVATIONS
15	23	R	2712	1	2		30-JUL-64	31-AUG-83	0	A	FLOOR PLAN, LABORATORY BLDG.
15	23	SK	1301	1	0		22-AUG-97	06-JUL-51	915	A	Proposed Relocation of R-Site Manor, Plot Plan and Floor Plan

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	30	R	2714	1	1		11-AUG-64	31-AUG-83	0	A	FLOOR PLAN, GUARD STATION
15	30	R	3744	1	0		27-SEP-66	15-SEP-66	3546	M	EQUIPMENT SURVEILLANCE SYSTEMS, ANNUNCIATOR PANEL
15	30	R	3746	1	0		27-SEP-66	15-SEP-66	3546	A	EQUIPMENT SURVEILLANCE SYSTEMS, FLOOR PLAN

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	194	C	17977	1	0		08-JAN-59		2212	M	EXPERIMENTAL MODULATION CAVITY, BLDG. R-194 - MECHANICAL - ELEVATION & NOTES
15	194	C	17978	2	0		08-JAN-59		2212	M	MECHANICAL - DETAILS
15	194	C	17979	3	0		08-JAN-59		2212	M	MECHANICAL - DETAILS
15	194	C	17980	4	0		08-JAN-59		2212	M	MECHANICAL - DETAILS
15	194	C	17981	5	0		08-JAN-59		2212	M	MECHANICAL - DETAILS
15	194	C	18309	1	0		19-JUN-63		2930	S	CONCRETE PIER INSTALLATION, BLDG. R-194 - STRUCTURAL
15	194	C	20720	1	1		23-JAN-59		2164	E	ELECTRON GUN SHELTER BLDG. R-194 - STRUCTURAL PLANS
15	194	C	20721	2	1		23-JAN-59		2164	S	STRUCTURAL PLANS & DETAILS
15	194	C	20722	3	1		23-JAN-59		2164	A	ARCHITECTURAL ELEVATIONS
15	194	C	20723	4	1		23-JAN-59		2164	M	MECHANICAL PLAN & DETAILS
15	194	C	20724	5	1		23-JAN-59		2164	E	ELECT. PLAN & SECTION
15	194	C	20725	6	1		23-JAN-59		2164	E	ELECT. DETS. & MATERIALS
15	194	C	21629	1	0		06-SEP-60		2425	A	STORAGE AREA COVER, BLDG. R-194 - LOCATION PLAN & ARCHITECTURAL DETAILS
15	194	C	26169	1	0		07-MAR-61	03-MAR-61	2505	AC	PROCESS VENTILATION, BLDG. R-194, MECHANICAL - PLAN, SECTION & DETAIL
15	194	C	26170	2	0		07-MAR-61	03-MAR-61	2505	M	PROCESS VENTILATION, MECHANICAL - ELEVATIONS
15	194	C	26171	3	0		07-MAR-61	03-MAR-61	2505	M	PROCESS VENTILATION, MECHANICAL - DETAILS, EQUIPMENT LIST & NOTES
15	194	C	26172	4	0		07-MAR-61	03-MAR-61	2505	E	PROCESS VENTILATION, ELEC. - PLAN, ELEV., ONE LINE DIA., MATL. NOTES, SCOPE & NAMEPLATES
15	194	C	39534	1	0		11-FEB-71		0	UN	EXHAUST DUCT EXTENSION R-194
15	194	C	42782	1	0		09-JUL-75		5359	M	RELOCATE PANGBORN-HYDRO FLUID UNIT AND OVEN, BLDG. R-194. MECH; PLAN AND NOTES
15	194	C	42783	2	1		16-MAY-75		5360	M	MECH; PLAN, DETAILS AND NOTES
15	194	C	42783	1	1		13-MAY-75		5360	UN	FLOOR MODS. AND RELOCATION OF BLUM LEIN. MARX TANKS, BLDG. R-194, TA-15
15	194	C	43579	19	0		16-OCT-78	03-SEP-79	6041	M	FIRE PROTECTION IMPROVEMENTS FLOOR PLAN R-194

15	194	C	43579	13	1	06-OCT-98	24-JUN-82	6041	E	FIRE PROTECTION IMPROVEMENTS ELEC; FLOOR PLANS BLDG. 50 AND 194
15	194	C	43579	9	1	06-OCT-98	20-MAR-80	6041	E	FIRE PROTECTION IMPROVEMENTS ELEC; NAMEPLATES, BILL OF MATERIAL, AND NOTES
15	194	C	43579	5	0	06-OCT-98	20-MAR-80	6041	M	FIRE PROTECTION IMPROVEMENTS MECH; SECTIONS
15	194	C	43579	1	0	06-OCT-98	02-MAR-80	6041	T	FIRE PROTECTION IMPROVEMENTS BLDG. R-194, 50, 203, 20 - TITLE SHEET & LOCATION PL
15	194	C	43658	2	0	13-APR-79		6261	C	CIVIL; PLOT PLAN AND SECTIONS
15	194	C	43658	1	1	13-APR-79		6261	C	EPA TASK FORCE SUPPORT CIVIL; LOCATION PLAN, NOTES AND LEGEND BLDG. R-194 TA-15
15	194	C	44090	5	1	23-JUN-82	01-JUN-82	5664	C	FIRE PROTECTION IMPROVEMENTS, FP; PLOT PLAN, SEWER LINE DETAIL, POST INDICATOR VALVE DETAIL
15	194	C	44090	5	1	23-JUN-82	01-JUN-82	5664	F	FIRE PROTECTION IMPROVEMENTS, FP; PLOT PLAN, SEWER LINE DETAIL, POST INDICATOR VALVE DETAIL
15	194	C	47769	4	0	20-SEP-92	20-SEP-92	0	A	FLAMMABLE LIQUID STORAGE & DISPENSING BUILDING, ARCH., ARRANGEMENT & LOCATION, SCOPE OF WORK
15	194	C	47770	3	0	19-SEP-92		5907	UN	PLATFORM DETAILS
15	194	C	47770	2	0	19-SEP-92		5907	UN	SECTIONS
15	194	C	47770	4	0	19-SEP-92		5907	UN	PLATFORM PLAN & DETAILS
15	194	C	47770	1	0	19-SEP-92		5907	UN	INSTALL WALKWAY ON BLUMLINE TANK, PLAN & ELEVATION, R-194
15	194	C	52882	1	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 PLOT PLAN AND SECTIONS
15	194	C	52882	3	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 BLDG. SECTION & MEZZ.
15	194	C	52882	2	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 SPRINKLER PIPING PLAN
15	194	PL	3727	28	0	25-APR-77		5664	UN	ADMINISTRATION BUILDING, BLDG. 200, TA-16
15	194	R	2741	1	2	31-JAN-63	01-SEP-83	0	E	FLOOR PLAN, ELECTRON GUN BUILDING

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TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	203	C	12795	1	0		20-MAR-61		2508	S	MONORAIL & HOIST INSTALLATION, BLDG. R-203 - LOCATION PLAN & STRUCTURAL DETAILS
15	203	C	18439	1	0		15-JUL-65		3283	UN	HOIST MONORAIL INSTALLAIONS, BLDG. R-203 - PLAN, ELEVATION AND DETAILS
15	203	C	19098	1	0		16-JUN-59		2218	C	PHERMEX CAVITY SHELTER BLDG. R-203 - CIVIL PLAN & PLOT PLAN
15	203	C	19099	2	0		16-JUN-59		2218	A	ARCHITECTURAL ELEVATIONS
15	203	C	19100	3	0		16-JUN-59		2218	UN	ANCHOR BOLT LAYOUT
15	203	C	19101	4	0		16-JUN-59		2218	M	MECHANICAL PLAN, NOTES & EQUIP. LIST
15	203	C	19102	5	0		16-JUN-59		2218	E	ELECTRICAL SCOPE & PLANS
15	203	C	19103	6	0		16-JUN-59		2218	E	ELECTRICAL DETAILS, DIAGRAMS & MATERIALS
15	203	C	21913	1	0		16-APR-64		2912	UN	PLATFORM EXTENSION, BLDG. R-203 - PLANS, SECTIONS & DETAILS
15	203	C	23691	1	0		07-JUL-60		2451	UN	TEMPORARY EQUIPMENT PLATFORMS BLDG. R-203, TA-15
15	203	C	26237	1	0		09-JUN-61		2541	A	SPECIAL ASSEMBLY RM. INSTALLATION, BLDG. R-203, LOC. PLAN, SITE PLAN, ARCH. FL.
15	203	C	26238	2	0		09-JUN-61		2541	M	MECHANICAL - PLAN & SECTIONS
15	203	C	26239	3	0		09-JUN-61		2541	E	ELECTRICAL - PLAN, MATERIAL LIST, SCOPE & NOTES
15	203	C	27185	1	0		27-FEB-63		2803	C	PLATFORM EXTENSION, BLDG. R-203, CIVIL - PLANS & DETAILS
15	203	C	38197	1	0		17-DEC-69		4425	S	PLATFORM EXTENSION BLDG. R-203 - STRUCTURAL
15	203	C	38424	1	0		20-MAR-70		4437	UN	TEMPORARY CO2 SYSTEM BLDG. R-203 - PLANS & MISCELLANEOUS DETAILS
15	203	C	38638	1	0		06-AUG-70	22-JUN-70	4491	C	OIL STORAGE FACILITY, CIVIL & ELEC., ONE LINE DIAGRAM, SCOPE OF WORK, NOTES, TANK SUPPORT PAD DETAILS
15	203	C	38638	1	0		06-AUG-70	22-JUN-70	4491	E	OIL STORAGE FACILITY, CIVIL & ELEC., ONE LINE DIAGRAM, SCOPE OF WORK, NOTES, TANK SUPPORT PAD DETAILS
15	203	C	38639	2	0		06-AUG-70	22-JUN-70	4491	M	OIL STORAGE FACILITY, MECH., PLAN, NOTES, DETAILS & EQUIPMENT LIST, PUMPING LINE DIAGRAM
15	203	C	40064	1	0		04-NOV-71		0	UN	DEIONIZED WATER SUPPLY - BLDG. R-203

15	203	C	43579	20	0	16-OCT-78	03-SEP-79	6041	M	FIRE PROTECTION IMPROVEMENTS FIRST FLOOR AND MEZZANINE PLANS R-203
15	203	C	43579	11	1	06-OCT-98	23-JUN-82	6041	E	FIRE PROTECTION IMPROVEMENTS ELEC; PLOT PLAN
15	203	C	43579	3	0	06-OCT-98	20-MAR-80	6041	C	FIRE PROTECTION IMPROVEMENTS CIVIL; DETAILS AND SECTIONS
15	203	C	43579	7	0	06-OCT-98	20-MAR-80	6041	M	FIRE PROTECTION IMPROVEMENTS MECH; SECTIONS
15	203	C	44090	7	1	23-JUN-82	01-JUN-82	5664	F	FIRE PROTECTION IMPROVEMENTS, FP; MEZZANINE SPRINKLER PIPING PLAN & SECTION
15	203	C	44231	4	1	12-SEP-83		7236	M	MECHANICAL ELECTRICAL BLDG. R-20
15	203	C	44231	7	1	12-SEP-83		7236	M	MECHANICAL ELECTRICAL BLDG. R-203
15	203	C	45387	1	0	17-DEC-87		9208	S	JIB CRANE INSTALLATION, BLDG. 203, STRUCT; TANK PLAN, SECTION & ELEVATIONS
15	203	C	47769	4	0	20-SEP-92	20-SEP-92	0	A	FLAMMABLE LIQUID STORAGE & DISPENSING BUILDING, ARCH., ARRANGEMENT & LOCATION, SCOPE OF WORK
15	203	C	49787	1	0	05-FEB-97	05-DEC-95	11795	S	ENGINEERING SUPPORT, EXTEND CRANE RAIL, STRUCT., PLAN, SECTIONS & NOTES.
15	203	C	52882	1	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 PLOT PLAN AND SECTIONS
15	203	C	52882	2	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 SPRINKLER PIPING PLAN
15	203	C	52882	3	0	18-JUL-01	24-AUG-81		F	LOS ALAMOS TA-15 BLDGS. R-194, 50, 203, & 20 BLDG. SECTION & MEZZ.
15	203	R	3255	1	3	31-JAN-63	21-MAR-84	0	A	FLOOR PLAN, PHERMEX CAVITY SHELTER
15	203	R	4898	2	0	05-JUN-65	05-JUN-61	2541	A	SPECIAL ASSEMBLY ROOM INSTALLATION, FLOOR PLAN, R-SITE
15	203	SK	7786	1	0	06-DEC-90		0	F	SPRINKLER ADD. TO MEZZANINE & COMPUTER ROOM, BLDG. 203, 20, FP; FLOOR PLANS, PI

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	213	C	25934	1	1		16-NOV-60	14-NOV-60	2483	C	EXTERIOR PLATFORM INSTALLATION, PLATFORM R-213, PLOT PLAN
15	213	C	25935	2	1		16-NOV-60	14-NOV-60	2483	S	EXTERIOR PLATFORM INSTALLATION, PLATFORM R-213, STRUCTURAL - DETAILS

REPORT FOR: DRAWINGS

TA	BLDG	PREFIX	DRAWNUM	PAGE	REV	DSHEET	LOG_DATE	DOC_DATE	PROJID	DISC	TITLE
15	245	C	42748	3	0		06-MAY-76		5545	S	MISSCELLANEOUS STRUCTURAL DETAILS
15	245	C	42748	4	1		06-MAY-76		5545	M	MECH; PARTIAL PLAN DETAIL EQUIP. LIST AND NOTES
15	245	C	42748	5	0		06-MAY-76		5545	E	ELEC; PARTIAL PLAN, NOTES, AND NAMEPLATE SCHEDULE
15	245	C	42748	2	0		06-MAY-76		5545	C	CIVIL - STUCTURAL STEEL DETAILS
15	245	C	42748	1	0		06-MAY-76		5545	C	AMPLIFIER PIT INSTALLATION, BLDG. R-245. CIVIL - PIT PLAN AND DETAILS
15	245	C	42748	6	0		06-MAY-76		5545	E	ELEC; BILL OF MATL, ELEVATION AND DETAIL
15	245	C	48036	2	0		20-NOV-92		0	A	REBAR FABRICATION & PLACEMENT
15	245	C	48036	3	0		20-NOV-92		0	A	REBAR FABRICATION & PLACEMENT
15	245	C	48036	4	0		20-NOV-92		0	A	PARTIAL PLAN & SECTIONS
15	245	C	48036	6	0		20-NOV-92		0	A	SECTION
15	245	C	48036	10	0		20-NOV-92		0	A	DOOR DETAILS
15	245	C	48036	13	0		20-NOV-92		0	UN	CUT SHEET
15	245	C	48036	1	0		20-NOV-92		0	UN	AMPLIFIER PIT INSTALLATION, PIT LOCATION PLAN
15	245	C	48036	7	0		20-NOV-92		0	A	ELEVATION
15	245	C	48036	9	0		20-NOV-92		0	A	SOUTH ELEV. & DETAILS
15	245	C	48036	12	0		20-NOV-92		0	A	HANDRAIL DETAILS
15	245	C	48036	14	0		20-NOV-92		0	UN	CUT SHEET
15	245	C	48036	11	0		20-NOV-92		0	A	STAIR DETAILS
15	245	C	48036	8	0		20-NOV-92		0	A	ROOF FRAMING PLAN & SECTION
15	245	C	48036	5	0		20-NOV-92		0	A	SECTION
15	245	R	2960	1	1		23-SEP-69	17-OCT-83	0	A	FLOOR PLAN, PASSAGEWAY

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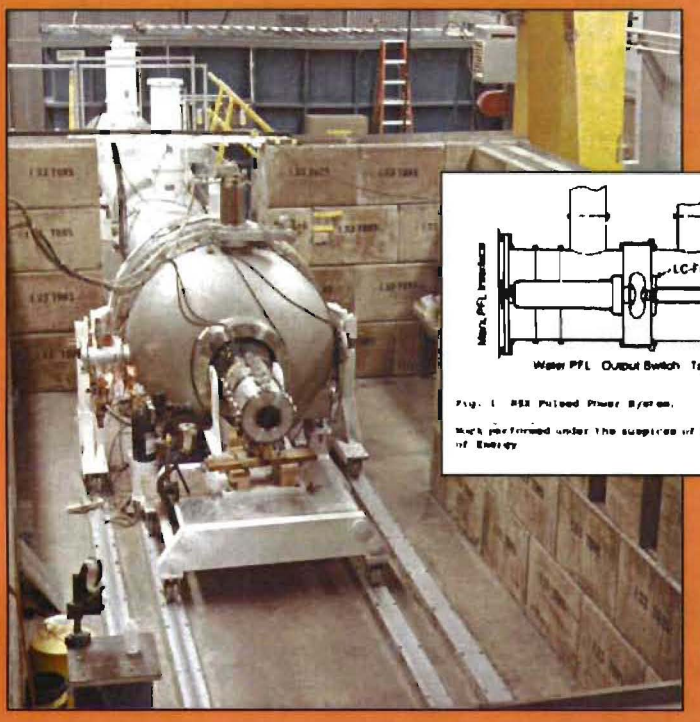
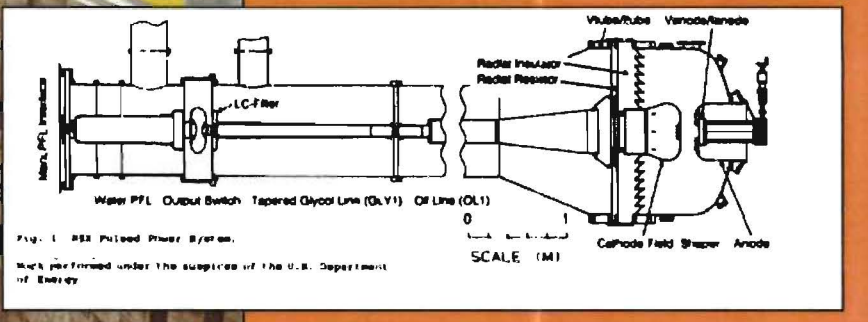
The Hollow and GMX Manor at TA-15 (R Site): Historic Context and Property Documentation

Volume 2 – Archival Photographs and Index





REX

The Hollow, Circa 1950

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