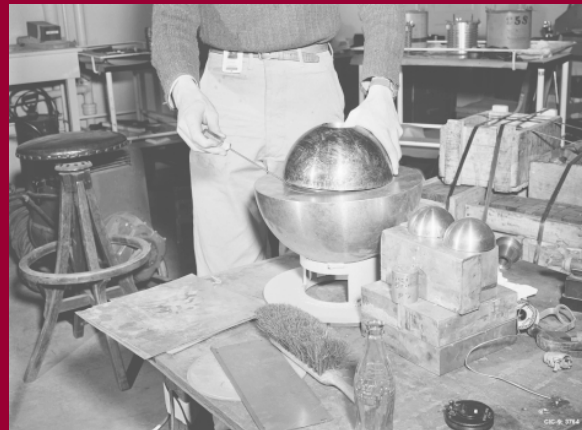
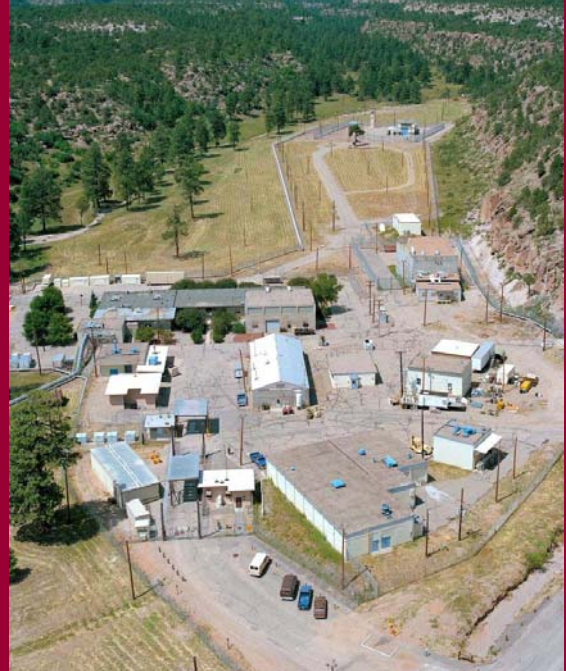


Of Critical Importance: An Assessment of Historic Buildings at Pajarito Site (TA-18)



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An Assessment of Historic Buildings at Pajarito Site (TA-18)**

Historic Building Survey Report No. 291

Los Alamos National Laboratory

**June 2009
Survey No. 832**

Prepared for the U.S. Department of Energy
National Nuclear Security Administration
Los Alamos Site Office

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EXECUTIVE SUMMARY

In compliance with Section 106 and Section 110 of the National Historic Preservation Act, Los Alamos National Laboratory's (LANL) cultural resources personnel have completed the evaluation of all properties at Technical Area (TA) 18 for inclusion on the National Register of Historic Places (Register). Twenty-four potential historic properties are located at TA-18, and, of these, five properties were evaluated in a previous report (*Sentinels of the Atomic Dawn*, LA-UR-03-0726). Of the 19 properties not previously reviewed, 12 are Register-eligible and seven are not. Descriptions of the recently evaluated properties and associated LANL historic building inventory forms are contained in this report. Summary information related to previously reviewed properties located at TA-18 is included in Table 3.

In addition to Register evaluations, historic properties at TA-18 were also assessed for their preservation and public interpretation potential, and the most historically significant properties were identified for permanent retention. Six properties located at TA-18 are candidates for preservation: buildings TA-18-1, -2, -23, -26, -29, and -186. These properties are associated with the development of the "Fat Man" bomb (TA-18-2 and TA-18-29), with criticality research, nuclear propulsion research, and the development of related health and safety protocols (TA-18-1, TA-18-23, and TA-18-26), and with nuclear safeguards and security (TA-18-26 and TA-18-186). The six buildings represent important aspects of Los Alamos's contribution to the history of World War II and the Cold War.

The entire TA-18 facility has been slated for closure, and all operations have been relocated to the Nevada Test Site or elsewhere at LANL. The majority of the properties at TA-18 are scheduled for decontamination and decommissioning and eventual demolition in the next few years. However, the six most significant properties located at TA-18 discussed above will be preserved. This assessment report initiates Section 106 consultation on the upcoming site closure action, an undertaking that will include potential adverse effects to Register-eligible properties from demolition and from mission changes (i.e., transitioning from active use to inactive status).

The State Historic Preservation Officer (SHPO) is requested to concur with the eligibility determinations contained in this assessment report for the 19 properties at TA-18 not reviewed in previous reports. A memorandum of agreement resolving the potential adverse effects to historic properties at TA-18 will be drafted in consultation with the SHPO once the initial consultation on Register eligibility has been completed.

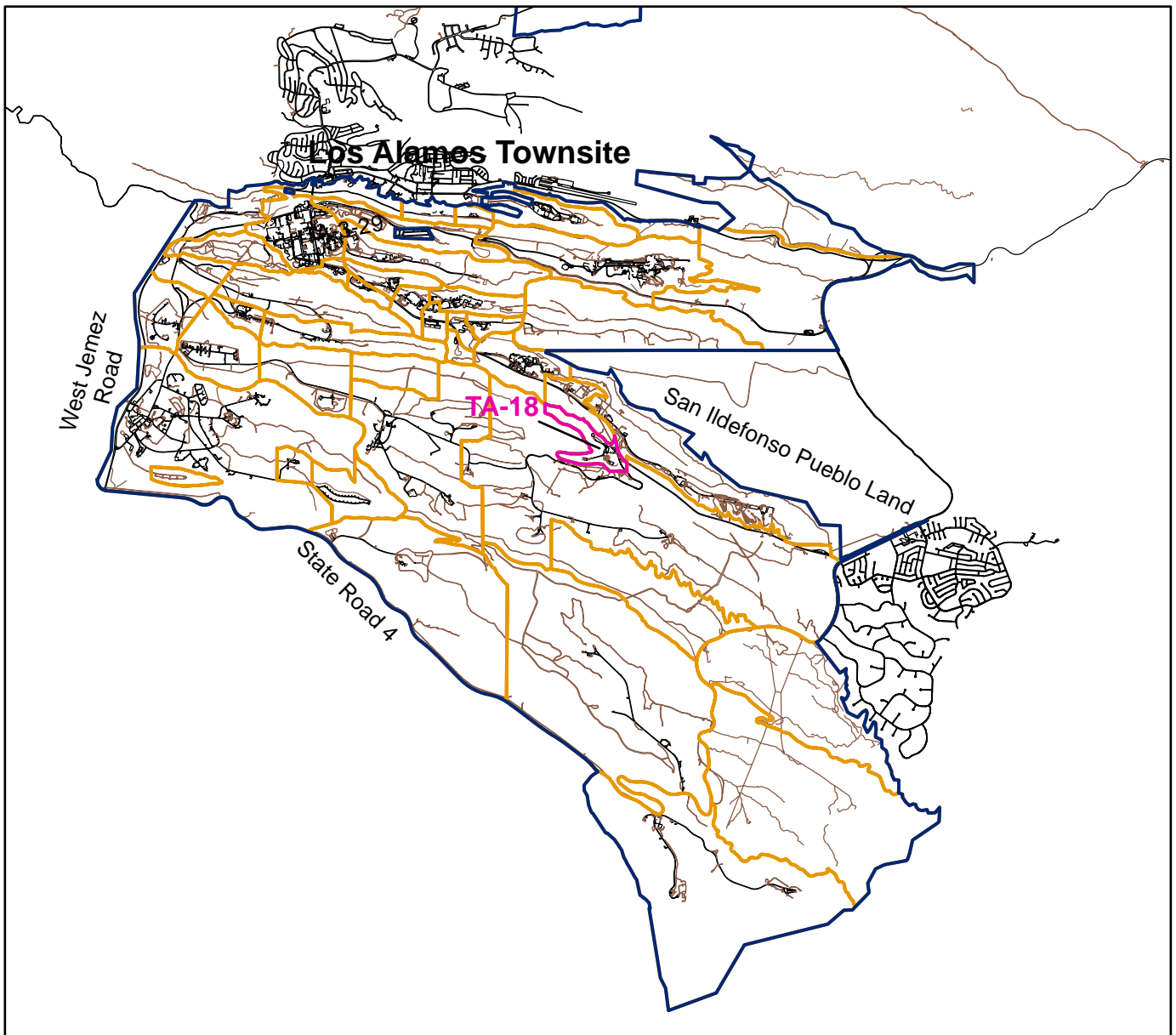
INTRODUCTION

Historic Property Eligibility Assessment and Historic Context

In compliance with Sections 106 and 110 of the National Historic Preservation Act, this report contains documentation regarding the National Register of Historic Places (Register) eligibility status of historic buildings located at Technical Area (TA) 18: TA-18-23, -26, -28, -30, -31, -32, -37, -116, -119, -122, -127, -128, -129, -138, -168, -186, -187, -188, and -277. Work processes carried out at TA-18 supported Manhattan Project and Cold War nuclear weapons research and development. Historical context information about activities at TA-18, property descriptions for properties not previously reviewed, and recommendations for Register eligibility are included in this report. The Appendix presents historic building inventory forms with selected photographs and building drawings. A discussion of the multiple property method used to evaluate these properties is also included.

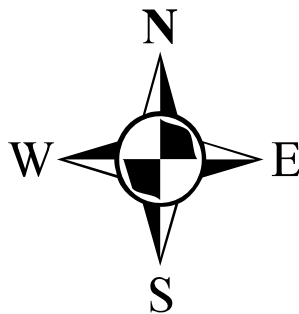
Survey Methods

In 2004 and 2008, surveys of historic properties located at TA-18 were conducted by Sheila A. McCarthy, Historical Architect, Benchmark Consulting Group; John Ronquillo, Sigma Science, Inc.; Ken Towery, Site Planning and Project Initiation Group, Los Alamos National Laboratory (LANL); and Kari Garcia and Ellen McGehee, Ecology and Air Quality Group, LANL. The building surveys were accomplished by conducting field visits to the buildings at TA-18 (Map 1). Architectural and engineering elements of the properties were documented and photographs were taken. LANL records research was also conducted.



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LANL Boundary and TA-18



1:110,000



- Technical Area 18
- LANL Boundary
- Technical Areas
- Dirt Roads
- Paved Roads

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. Although the fission bomb was conceptually attainable, many difficulties stood in the way of producing a usable weapon. Technical problems included timing the release of energy from fissionable material and overcoming engineering challenges related to producing a deliverable weapon. Nuclear material and high explosive studies were of immediate importance (LANL 1995).

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

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

Early Cold War Era (1946–1956)

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

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

With the beginning of the Cold War—the term "Cold War" was first coined in 1947—weapons research once again became a national priority. Weapons research at Los Alamos, spearheaded by Edward Teller and Stanislaw Ulam, focused on the development of the hydrogen bomb, the feasibility of which had been discussed seriously at Los Alamos as early as 1946. The simmering Cold War came to a full boil in late 1949 with the successful test of "Joe I," the Soviet Union's first atomic bomb. In January 1950, President Truman approved the development of the hydrogen bomb; Truman's decision led to the remobilization of the country's weapons laboratories and production plants. The year 1950 also marked the initial 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 1993a).¹ In short order, the Soviet Union responded with a successful fusion demonstration in August 1953, followed by a test of a hydrogen bomb in 1955. The arms race was on. By 1956, Los Alamos had successfully tested a new generation of high explosives (plastic-bonded explosives) and had begun to make improvements to the primary stage of a nuclear weapon (LANL 2001).

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

¹ A better understanding of the Marshall Islands language has permitted a more accurate transliteration of Marshall Island names into English. Enewetak is now the preferred spelling (formerly Eniwetok).

delivery systems. The year 1956 was also the last year that Los Alamos was a closed facility—the gates into the Los Alamos town site 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 the satellite detection of nuclear explosions), research and development of space-based weapons, and continued involvement with stockpile stewardship issues. Non-weapons undertakings supported nuclear medicine, genetic studies, National Aeronautics and Space Administration collaborations, superconducting research, contained fusion reaction research, and other types of energy research (McGehee and Garcia 1999).

DESCRIPTION OF TECHNICAL AREA

TA-18 (Pajarito Site)

Historical Background

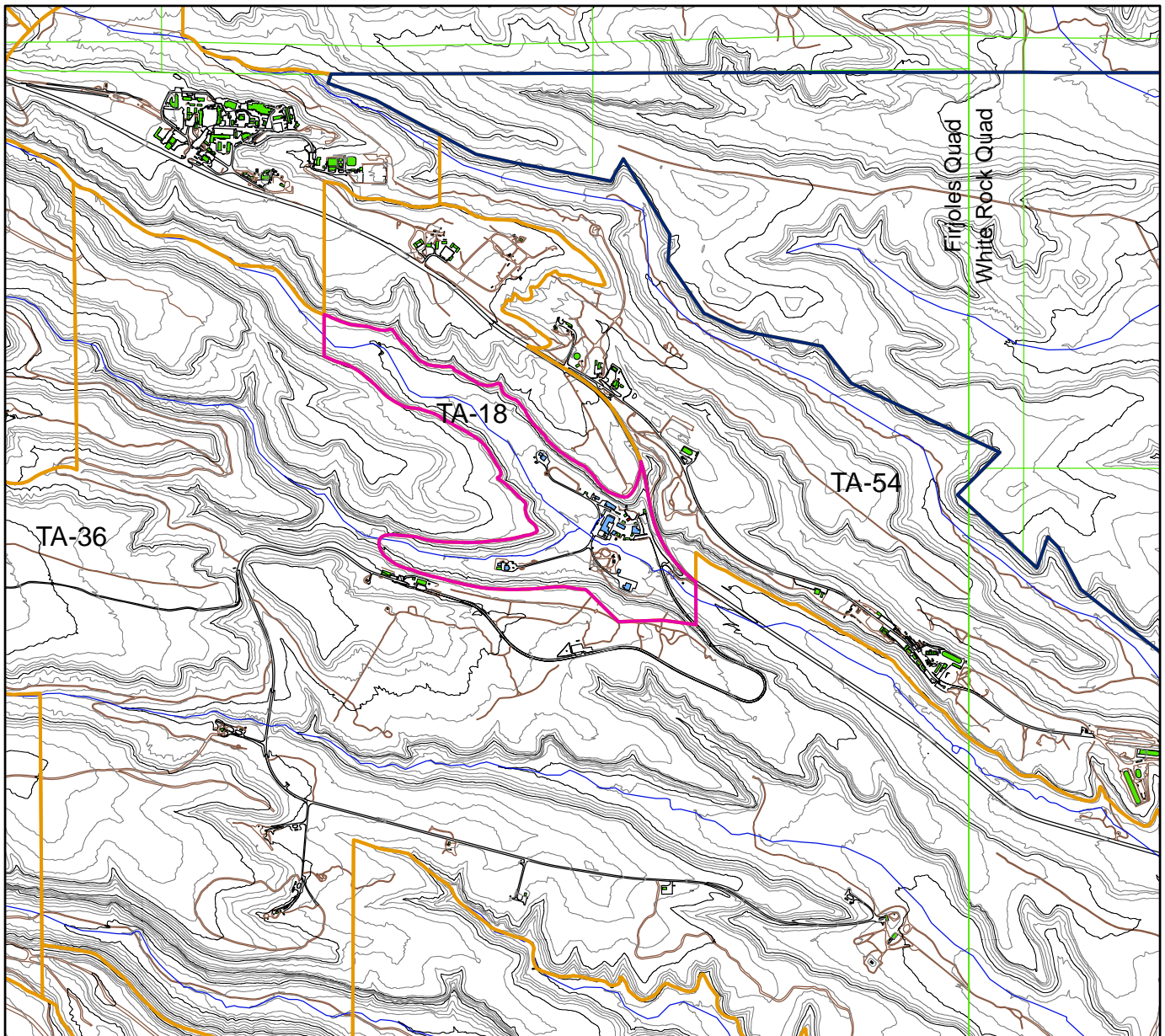
TA-18, known both as Pajarito Site and Pajarito Laboratory Site, is located at the confluence of Pajarito Canyon and Threemile Canyon. The site was the location of a former guest ranch, the Pajarito Club, which was built by Ashley Pond in 1914 and abandoned in 1916 (Figure 1) (Map 2).

Group P-5, the Radioactivity Group, first developed the site as a technical area in August 1943 during the Manhattan Project to study rates of spontaneous fission from samples of radioactive materials. Emilio Segrè spearheaded this early activity at TA-18. Segrè was a leading Laboratory scientist and had been a protégé of Enrico Fermi in Rome before WWII. The Radioactivity Group used ionization chambers and amplifiers to study samples of plutonium and to determine counting rates from spontaneous fission. The instruments used in this work were extremely sensitive. This meant that Segrè and his scientists could not work in the technical area centered around Ashley Pond. They sought a place far from ongoing work with radioactive sources that might affect their instruments. The scientists made use of former Pajarito Club properties and other log buildings, including the extant Pond Cabin (TA-18-29), which was used for administrative functions, and a second log cabin, which was used for experimental work and was subsequently torn down (Figures 2 and 3). Housed at Pajarito Site, they found the solitude they required. “It was a most poetic place,” Segrè recalled. “We went there by jeep every day. There was a bed in it (the cabin). Somebody occasionally slept there” (LANL 1993b). The work at TA-18 by Segrè and others led to the abandonment of the plutonium gun bomb design in July 1944.



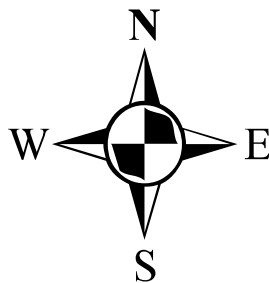
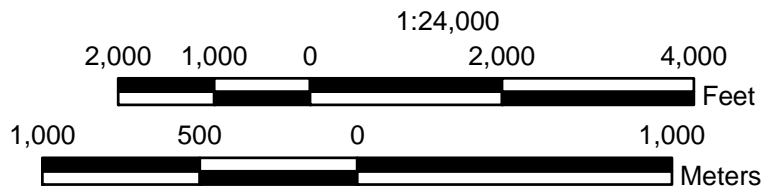
(Photo courtesy of the Los Alamos Historical Society)

Figure 1. Ashley Pond's Pajarito Club



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TA-18



Map 2

- Buildings Previously Declared Eligible
- Buildings Currently Being Evaluated
- Technical Area 18
- LANL Boundary
- Technical Areas
- Drainage
- Township, Range, Section
- USGS 7.5 Minute Quad
- 20 Foot Contours
- 100 Foot Contours
- Dirt Roads
- Paved Roads
- Exempt Building/Structures



Figure 2. Log Cabin, Pajarito Site (TA-18) During WWII



Figure 3. Experimental Set-up in Cabin

In 1944, Group G-3 took over the site (then named Pajarito Canyon Laboratory), enlarged it, and used it as a proving ground for the magnetic method of studying implosions. Full-scale tests of high explosives assemblies were also conducted at this technical area. Three firing sites were constructed. The first firing site was used for experiments involving small explosive charges of a few pounds (approximately 1 to 2 kg). A magazine (TA-18-15) and a trimming building (TA-18-19) were constructed east of this small firing site. The second site, called medium firing site, was established for charges of several hundred pounds (a few hundred kilograms). Both of these firing sites were located close to each other in TA-18. The Laboratory built a third site, located approximately a mile east of TA-18, for testing charges of up to two tons (1800 kg). The third site, known as Far Point, was later incorporated into Gamma Site, which was redesignated TA-27. Each of the three sites consisted of one or more firing locations and aboveground bunkers reinforced with steel plates, referred to as “battleships” (Figure 4). The central area at TA-18 during the end of the Manhattan Project consisted primarily of Building TA-18-1, which contained an electronics laboratory, shop, and photochemical laboratory, and was much larger than the high bay portion of the building that remains today (LANL 1993c). The east-west part of 18-1 was used as an electronics assembly area and the south wing was used for radiation counting experiments. Two additional magazines (TA-18-11 and -12) and an explosives assembly building (TA-18-10) were built north of Pajarito Road on the mesa above the site. These three structures, now removed, were within present-day TA-54. A lumber storage building (TA-18-13) and a carpentry shop (TA-18-14) were located south of Pajarito Road on the mesa above TA-18 between Pajarito Road and the north rim of Pajarito Canyon. Building TA-18-14 was later used as a radiation-counting laboratory (LANL 1993c).

Implosion field testing was abandoned before the end of 1945. In April 1946, Pajarito Laboratory was transferred to Group M-12, the Critical Assemblies Group, and became Los Alamos’s main site for critical assembly work (LANL 1993c). The decision to conduct critical assembly work at TA-18 was directly related to Harry Daghljan’s death from radiation exposure at Omega Site in 1945. Critical assemblies were still operated by hand at Pajarito Site until Louis Slotin’s death in May 1946. Like Daghljan, Slotin received a lethal radiation exposure from a critical assembly experiment. After this second fatality, all critical assembly operations were halted until safer facilities could be constructed. Remotely controlled criticality experiment structures, called Kivas², were built at TA-18. Casa 1 (TA-18-23) was built in 1948 at the former small firing site in Pajarito Canyon located on the western side of the technical area. The quarter-mile separation from the control room in the east wing of building TA-18-1 provided a safe working distance from which to operate critical assemblies (Figure 5). In 1952, expanded workload at TA-18 required the addition of an office building (TA-18-30) and a second Casa (TA-18-32), located south of the central TA-18 area in lower Threemile Canyon. Buildings TA-18-28, -31, and -37 were constructed between 1949 and 1952. The third remotely controlled structure, Casa 3 (TA-18-116), was added circa 1961 near the confluence of Threemile Canyon and Pajarito Canyon (LANL 1993c).

² The Kiva designation was changed to “Casa” in the 1990s. Throughout the report and in the property descriptions contained in this report Kivas 1–3 are called Casas 1–3.



Figure 4. TA-18-2, Battleship Bunker



Figure 5. TA-18, circa 1950

A major job of the Critical Assemblies Group was to measure criticality data for easily calculated systems. This is useful for improving or confirming the detailed neutronic calculations that enter into weapons design. The first critical assembly for this purpose was named Topsy and began operation in 1948. The assembly consisted of a nearly spherical core of highly enriched uranium embedded in thick natural uranium. In 1951, another machine, named Lady Godiva, replaced Topsy to conduct this work. Through hundreds of experiments over many years, these machines have allowed Laboratory scientists to expand the range and reliability of detailed neutronic calculations (Paxton 1983).

Throughout the Cold War period, TA-18 was home for some of the Laboratory's most essential experiments on critical assemblies, including Godiva, SHEBA [Solution High-Energy Burst Assembly], the Flattop assembly, and the Comet machine. These experiments have greatly enhanced the Laboratory's work and the nation's nuclear capacity.

Project Rover was a national-level program to develop nuclear reactors that could power a rocket in space. The program, established in the 1950s, included several participating federal agencies: Los Alamos Scientific Laboratory (LASL, now LANL), the AEC (now Department of Energy), and the National Aeronautics and Space Administration's Space Nuclear Propulsion Office. Los Alamos scientists were tasked with the program's scientific and technical details. At the Laboratory, Rover reactors were built at TA-18, and fuel elements for the reactors were designed and tested at TA-46. The first phase of Project Rover was active between 1959 and 1964. During this time, eight Kiwi reactors were built and tested. The second phase involved the testing of Phoebus reactors (a more advanced design). Phoebus 1 units were tested from 1965 to 1966. Phoebus 2 tests were conducted in 1967 (LANL 1997).

From 1955 to 1972, fission reactor mockup studies for the Rover Program were conducted at TA-18 using the remotely controlled Casas. The most intensive research centered on the neutronics of Rover reactors. When overall dimensions became fixed, specific details relating to the core, controls, and internal structures were established in a mockup. The Rover reactors were tested at Los Alamos at very low power before being disassembled. The units were then shipped to the NTS and reassembled in the Reactor Maintenance, Assembly, and Disassembly Building. Finally, the reactor designs were tested at Nevada and adjusted as necessary (Paxton 1983). Reactor mockups consisted of various geometries and used materials such as deuterium oxide, uranium carbide, enriched uranium, graphite, niobium, and zirconium hydride (Figure 6). The completion of Casa 3 allowed the uranium reactor mockup tests to be moved from Casa 1. Zero-power mockups remained in Casa 1 and non-Rover critical assembly work was done in Casa 2 (LANL 1993c).

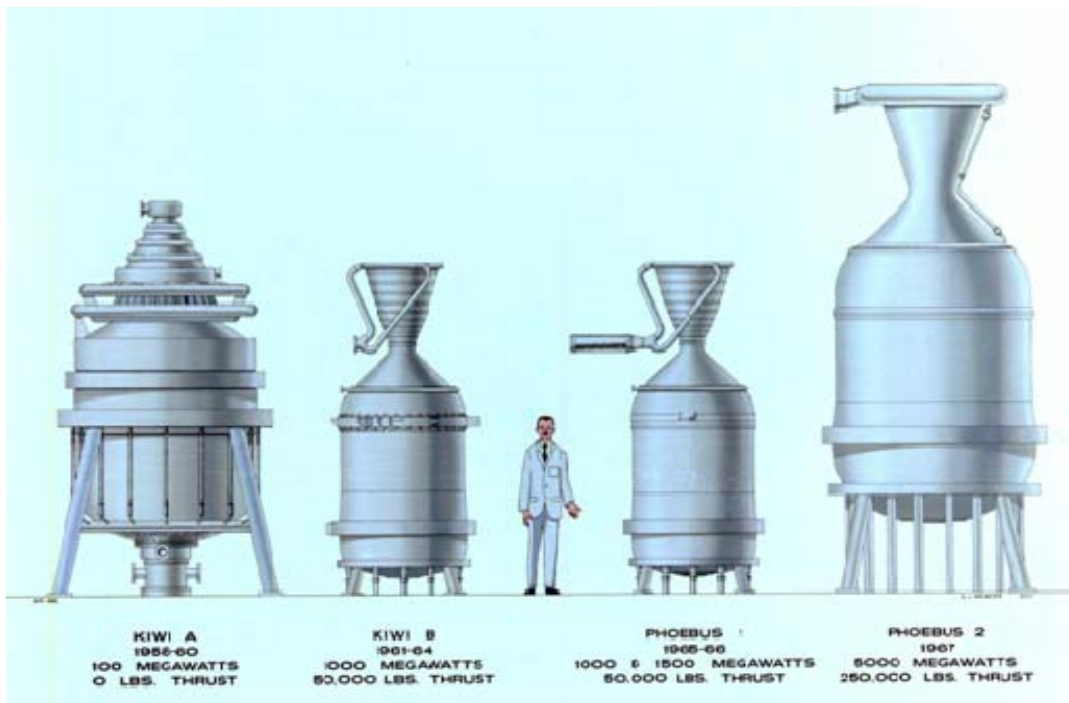


Figure 6. Rover Program Reactor Mockups

Termination of the Rover Program in 1973 resulted in a major downsizing and reorganization of TA-18 personnel. The work shifted to mockups of a plasma-core power reactor, which used fuel elements and beryllium (components left over from the Rover Program), enriched uranium foils, and uranium hexafluoride gas. Criticality work involving reactor safety and, later, nuclear detection technologies continued under various other groups (LANL 1993c).

During the 1970s and 1980s, buildings TA-18-186, -187, -188, -189, -227, -256, -257, and -258 were added. TA-18's facilities and expertise in critical assemblies made it the center of criticality safety training for the Department of Energy and other institutions (LANL 1993c) (Figure 7).

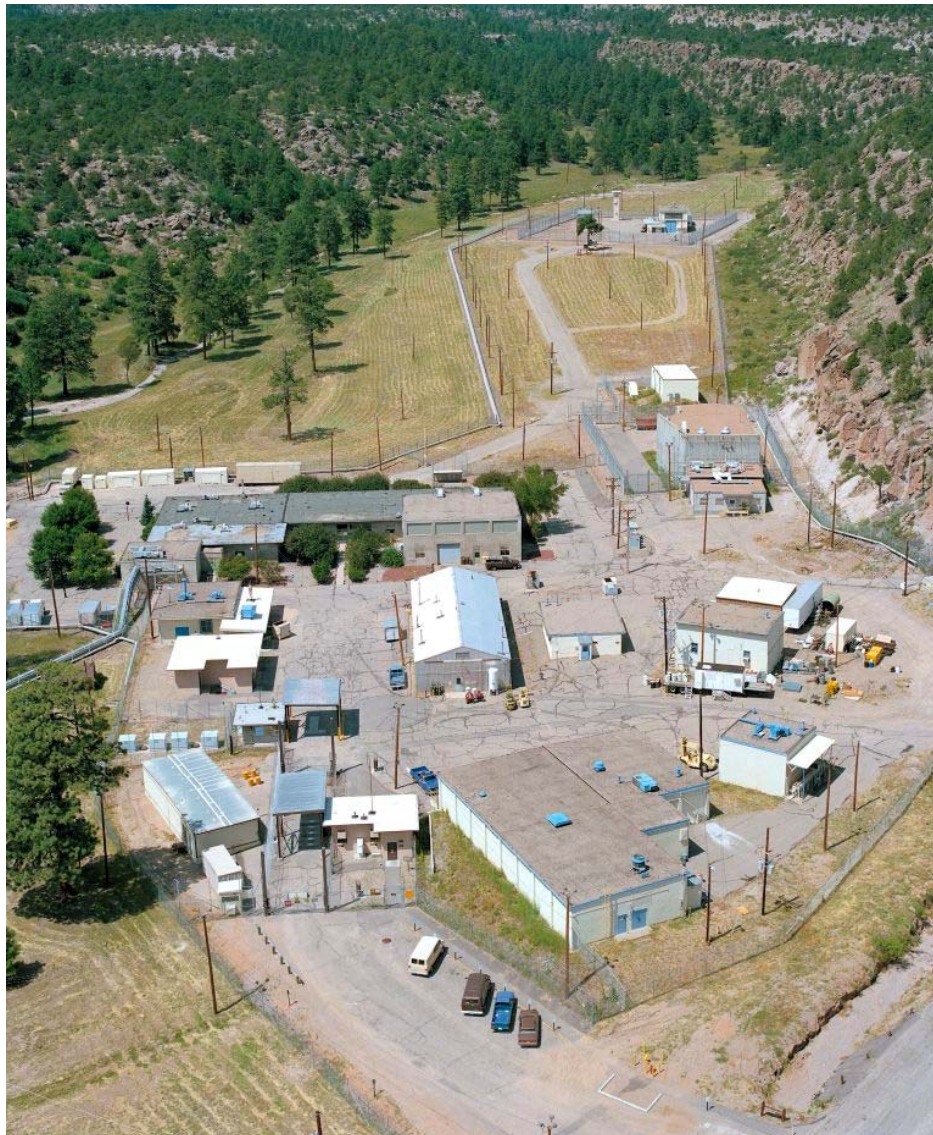


Figure 7. 1991 Aerial of TA-18

Recent Site Operations

Operations at TA-18 over the last two decades played a pivotal role in the development of verification technology for the Strategic Arms Reduction Treaty I and Intermediate-Range Nuclear Forces Agreements. Additionally, TA-18 operational capabilities provided ongoing training of inspectors and development of safeguards technology for the International Atomic Energy Agency.

The last functioning experimental machines located at TA-18 included 1) the Planet machine, a general-purpose vertical-lift table machine for training and initial assembly of new experiments; 2) the Flattop assembly, a fast-neutron-spectrum benchmarked assembly for validation of calculation methods, basic measurements of nuclear data of interest to defense and nuclear nonproliferation programs, and training; 3) the Godiva assembly, a pulse assembly to validate

dynamic weapons models, verify the function of criticality alarm systems to a fast transient, calibrate detectors, and validate radiation dosimetry; and 4) the Comet machine, a large-capacity, general purpose vertical table machine to accommodate benchmark experiments designed to explore unknowns. The SHEBA machine, a low-enriched uranium-solution critical assembly machine, was also in use. SHEBA provided capabilities for free-field irradiation of criticality alarm systems and dosimetry validation (NNSA 2002).

Criticality Accidents at TA-18

The Critical Assemblies Group joined the Water Boiler Group at Omega Site in mid-1944, and experiments with critical amounts of active materials were conducted at the TA-2 facility in Los Alamos Canyon. These experiments explored the design of the implosion device's "pit assembly" (Hawkins *et al.* 1983:198). Preliminary investigations also led to the development of safe handling and fabricating procedures so that uncontrolled nuclear chain reactions could be prevented. An important experiment conducted at TA-2 was known as "tickling the dragon's tail"—the "dragon" experiment created a controlled supercritical reaction using prompt neutrons alone (Hawkins *et al.* 1983:198). Critical assembly research continued at TA-2 until August 21, 1945, when staff member Harry Daghlia accidentally received a lethal radiation dose from a brief supercritical arrangement of his critical assembly experiment. Daghlia was creating a critical assembly by hand stacking tungsten-carbide bricks around a plutonium core (Figure 8). When he moved the final brick over the assembly, Daghlia noticed that the addition of this last brick would make the assembly supercritical. The brick slipped and fell onto the assembly and the system became super-prompt critical. Daghlia removed the brick and unstacked the assembly. The power excursion gave him an exposure of approximately 510 rem and he died 28 days later (Stratton rev. by Smith 1989). As a result of this accident, critical assembly work was transferred to Pajarito Site (TA-18) (Hawkins *et al.* 1983).

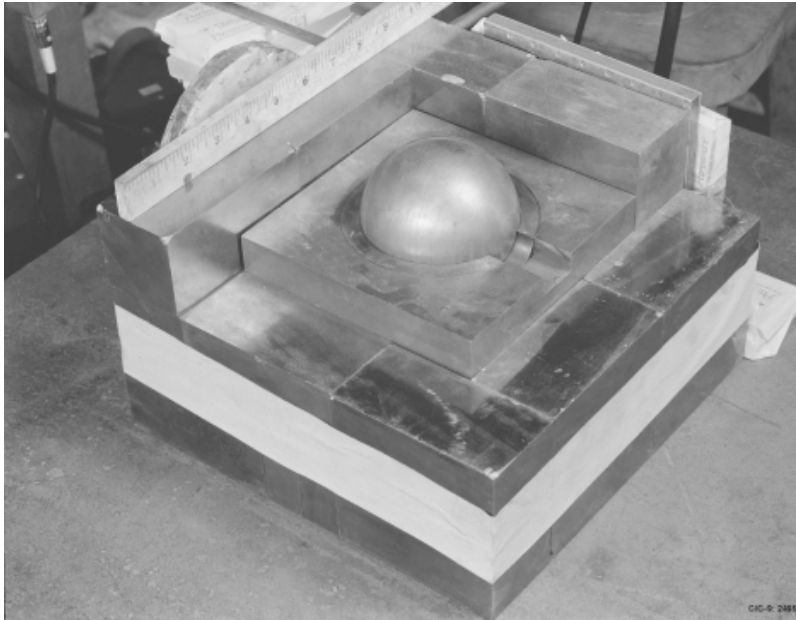


Figure 8. Critical Assembly with Stacked Tungsten-Carbide Bricks

On the afternoon of May 21, 1946, Los Alamos scientist Louis Slotin was conducting an experiment in building TA-18-1 to bring plutonium to a critical state (Figures 9 and 10). Attempting to bring two halves of a beryllium-coated sphere into contact, a screwdriver-type tool he used to hold them in place slipped. This caused the two halves to touch and the plutonium inside to reach a supercritical state, starting a chain reaction.



Figure 9. TA-18-1, the 'Slotin Building'



Figure 10. Re-enactment of Slotin Critical Assembly Experiment

Criticality accidents also played an important role in the history of TA-18. The fatal radiation injury to Harry Daghlian in 1945 created the need for critical assemblies that could be assembled by machine as opposed to by hand. The death of Louis Slotin in 1946 made this all the more urgent, and critical assembly operations were moved to Pajarito site in 1947. The remote operations proved quite effective as continued critical assembly work caused eight incidents where criticality was overstepped. In all eight incidents, no one was hurt as remote control operations created a safe working environment for Laboratory employees (Paxton 1981).

Harry Daghlian and Louis Slotin's unfortunate deaths had wide-reaching ramifications, not only in changing how the Laboratory conducted its criticality testing, but in the wider American culture as well. Artists have immortalized the two men in several ways.

Daghlian's accident was fictionalized in author Joseph Konrad's 1995 novel, *Los Alamos*. The Slotin accident also appeared in a fictionalized form in the film *Fat Man and Little Boy*, the 1989 film directed by Roland Joffé that dramatized the construction of the first nuclear weapons during WWII. An accident with handling plutonium spheres that served as a key moment in the film was based on the two important early plutonium accidents at Los Alamos that killed Harry Daghlian and Louis Slotin.

Playwright Paul Mullin portrayed Slotin in his play, *Louis Slotin Sonata*, as an egotistical man who spent his last days coming to terms with his mortality while dealing with his constant need to be impressive to others. Many in Los Alamos disliked the play for its anti-science perspective, but nonetheless, it was reviewed in major publications ranging from *Variety* to the *New York Times* (Variety 1999, New York Times 2001). In addition, a documentary on Slotin entitled *Tickling the Dragon's Tail* was released in 1999, though it did not receive wide release.

MULTIPLE PROPERTY METHOD OF EVALUATION

TA-18's buildings and structures were evaluated using a multiple property documentation approach. This systematic approach serves as a useful evaluation tool to determine the historical significance of a group of thematically related properties, such as those located at TA-18. A key element of the multiple property documentation approach is context. Contexts provide information about historical patterns and trends and have clearly defined themes, geographical areas, and chronological periods (U.S. NPS 1999). Within the boundaries of TA-18, properties are linked to one or more historical themes underlying the main context: *Research, Development, and Testing in Support of the Nuclear Weapons Program*. The buildings and structures are technologically related and date to the Manhattan Project and Cold War time periods at Los Alamos (1942–1963). Decisions relating to final eligibility recommendations were based on the type of property, the level of physical integrity, and associations with significant themes.

Associated Property Types

The multiple property documentation approach requires the identification of property types that are associated with historical contexts. This identification facilitates the evaluation of individual properties within the broader complex of properties being reviewed. Properties are compared with other historical resources that have similar histories and similar physical characteristics (Hanford Site 1999a).

There are four general property types associated with TA-18's historical themes.

1. Laboratory-Processing Buildings or Structures such as implosion and criticality research and development facilities.
2. Administration Buildings such as office buildings and facilities housing facility management and health and safety personnel.
3. Security Buildings and Structures such as guard stations and towers, access control buildings, storage vaults, security lights, and fencing.
4. Support Buildings and Structures such as warehouses, storage buildings, water tanks, utilities, and waste treatment facilities.

Laboratory-processing facilities located at TA-18 are associated with the technical functions underlying the main context of research, development, and testing in support of the nuclear weapons program. Specific activities carried out in this type of property supported Manhattan Project plutonium chemistry and implosion device research and Cold War criticality research.

Laboratory-processing facilities are representative of the “industrial vernacular” architectural style prevalent at Los Alamos. Like LANL's other research facilities, the design of TA-18's properties is primarily determined by the nature of specific operations. For example, heavily reinforced concrete is the primary construction material used when designing a facility for criticality research because concrete is inherently secure, durable, and cleanable. The type of activities carried out in each building or structure also determines the configuration of interior

space, and the physical layout of these facilities is often dictated by safety concerns, such as the remote locations of the three Casa buildings.

Administration buildings located at TA-18 are closely associated with the operation of nearby laboratory-processing facilities. Administration buildings typically house support and research operations such as control rooms and administrative and staff offices. Administration buildings are typically located away from the experimental areas. This practice allows personnel and material from the administration facilities to remain separate from operational hazards and maximizes the distance from experiments.

Security buildings and structures are associated with the general operation of TA-18 and support the main overarching theme of research, development, and testing related to the Laboratory's nuclear weapons program. Examples of this property type include guard stations, guard towers, special nuclear material vaults, and physical exclusion structures such as fencing and barriers.

Support buildings and structures were originally built to support Manhattan Project and Cold War research and development. Like laboratory-processing facilities, support facilities are divided into two subcategories. "First tier" support properties are primarily buildings and include machine shops, warehouses, power plants, and significant water tanks. "Second tier" support properties are primarily structures; examples include pump houses and electrical substations.

Core properties within each associated property type have also been identified. These buildings or structures are key representatives of their associated theme(s) and are often eligible for the National Register.

Integrity

Although properties may be significant or exceptionally significant and may be eligible for the Register based on association with historical events and contexts, integrity must be determined for all buildings that, on first-cut, are considered eligible. The LANL historic buildings staff has developed four integrity codes to better assess potentially eligible properties. The integrity requirements for properties eligible under Criterion A are less stringent than for those properties eligible under Criterion C. A historically significant property with level 3 integrity could still be eligible, especially if an element of historical uniqueness is involved. Properties eligible under Criterion C should have no lower than level 2 integrity. Level 4 integrity properties are not eligible for the Register.

1. **Excellent Integrity** - the property is still closely associated with its primary context and retains integrity of location, design, setting, workmanship, materials, feeling, and association. Little or no remodeling has occurred to the property and all remodeling is in keeping with its associated historic context and significant use period. Good examples at LANL would be TA-21-1001 with its original file cabinets and relatively stable use history (the building had always housed records) and the Van de Graaff facility (TA-3-16) with its original equipment, records, and control panels.
2. **Good Integrity** - the property's interior and exterior retain historic feeling and character but most of the original equipment may be gone. The property may have had minor remodeling.

3. Fair Integrity - a property in this category should retain original location, setting, association, and exterior design. All associated interior machinery and equipment may be absent but the key question is “Is this property still recognizable to a contemporary of the building’s historic period?”
4. Poor Integrity - the property has no connection with the historically significant setting, feeling, and context. Major changes to the property have occurred. The property would be unrecognizable to a contemporary.

Themes

Activities within TA-18 can be grouped under five main historical themes that support the technical area’s main historical context: *Research, Development, and Testing in Support of the Nuclear Weapons Program*. The themes are listed below. Some of the facilities at TA-18 are linked with more than one theme. Minor historical themes not listed below include the general Laboratory theme of “administration.”

WWII Weapons Development (including implosion device research [the “Fat Man” weapon])

Criticality Assembly Operations (including Manhattan Project and Cold War era criticality research)

Security (including both physical site security and the protection of special nuclear material)

Nuclear Propulsion (including Project Rover activities)

Nuclear Safeguards (including the development of verification technology and ongoing training of inspectors and development of safeguards technology)

Eligibility Criteria

Laboratory-processing facilities, administration buildings, and security buildings and structures do not need to possess an integrity of both exterior and interior features in order to be eligible for the National Register under Criterion A. In cases where original equipment has been removed, a property can still be considered significant for its historical associations. Laboratory-processing, administration, and security properties need only retain original location, setting, association, feeling, and exterior design to maintain significant historical integrity under Criterion A. Properties eligible under Criterion C have to meet a more stringent standard of physical integrity. Additions and remodeling that reflect changing scientific missions are acceptable under Criterion C (Hanford Site 1999b).

In order to be eligible under Criterion A, support buildings and structures must have functioned as significant support facilities within an associated historical context (Hanford Site 1999b). “First tier” support properties, if linked to a historically significant context and 50 years old or older, may be eligible for the Register. If less than 50 years old, support properties must be exceptionally significant. “Second tier” support and laboratory-processing properties, primarily structures, are usually not eligible for the Register (even if they are 50 years old or older) because of the minor role they played in history.

DESCRIPTIONS OF EVALUATED BUILDINGS

Architectural Information

Buildings TA-18-30, -31, -32, and -37 were designed by the firm of Skidmore, Owings, and Merrill (SOM). This noted company, which continues to be active worldwide, emerged between the two world wars of the twentieth century. The partnership between Louis Skidmore, Nathaniel Owings, and John Merrill began in 1936, at a time when the International Style was becoming dominant in European architecture. SOM's influence has spread well beyond America. Its international reputation for excellence is confirmed by the number of its buildings in over 40 countries. Perhaps less well known are SOM's achievements in designing and constructing government buildings during and shortly after WWII. The Oak Ridge project carried out under wartime conditions with great urgency and under the strictest security, demonstrated SOM's ability to plan and design not only individual buildings but also entire communities. The firm built more than homes at Oak Ridge—it constructed hospitals and schools; churches and cemeteries; beauty salons and barber shops; bakeries and butcher stores; police and fire stations; miles of railroad sidings; and restaurants, warehouses, and truck depots (Owings 1973:83–98).

Just a few years after the completion of Oak Ridge, SOM was chosen by the government for a project at another Manhattan Project site: Los Alamos. On April 16, 1951, J. W. Hammond of SOM signed the building program for "Project Q," the project to build the Administration Building for Los Alamos (TA-3-43)(LASL 1951). The four SOM buildings at TA-18 were all built in 1952.

Other buildings at TA-18, including TA-18-1, -2, -5, -23, and -26, were designed by the firm of W.C. Kruger and Associates. Willard Kruger, a well-known and prolific New Mexico architect, opened his Santa Fe office in 1946. During WWII, W.C. Kruger and Associates was hired by the Manhattan Project to develop the Los Alamos master plan, which included residential, technical, educational, medical, and recreational buildings. Other prominent New Mexico projects include the Governor's Mansion, the State Penitentiary, and the State Highway Building. One of his most celebrated projects was the design and construction of the New Mexico State Capitol in Santa Fe, which was a collaboration with architect John Gaw Meem.

Several less-prominent New Mexico architects and engineers were responsible for the design of other post-war buildings at TA-18. These firms include Philippe Register, AIA; Neuner and Cabaniss, Architect Engineers; and the Professional Engineers Group of Bridges & Paxton Consulting Engineers, Inc., Chavez-Grievies Consulting Engineers Inc., Tierra del Sol Engineering, Inc., and Dale Crawford and Associates Consulting Architect.

Butler Manufacturing and Mesco metal buildings were used at TA-18 to support a variety of Cold War era operations. These pre-fabricated buildings included four warehouse buildings and two buildings that served to cover experimental assemblies.

Butler Manufacturing Company was established in 1901 in Clay Center, Kansas, by Emanuel Norquist and Charles Butler, with financial assistance from Newton Butler, Charles Butler's brother. Early designs included an arched-roof garage constructed with an all-steel framework and bolted corrugated galvanized-steel culvert sheets. The first Butler building was sold in 1910.

Galvanized steel grain bins (put on the market in 1907) were another early Butler product. By the 1940s, Butler Manufacturing Company had a full line of pre-engineered rigid-frame buildings suitable for industrial and institutional uses. Weather-tight buildings were developed in the 1970s with the introduction of waterproof double-lock roof seams and insulated purlins. The Butler Manufacturing Company made several acquisitions and formed several company divisions during the 1980s. Butler itself was acquired by the Australian company BlueScope Steel Limited in 2004. Butler's new parent company sells steel building products across the world and has established markets in North America and China (Butler Manufacturing, n.d.).

The Mesco Metal Buildings Company was established in 1955 in Dallas, Texas. Like the Butler Manufacturing Company, Mesco manufactured pre-engineered metal building systems. The company quickly moved its headquarters to Southlake, Texas, but continued to focus on the Dallas-Fort Worth area as its primary market. The company expanded operations in the 1960s, and its product and name became nationally recognized. In 1996, Mesco was acquired by NCI Building Systems, L.P. (Mesco Metal Buildings, n.d.).

Technical Area:	18	Associated Themes:	Critical Assembly Operations, Project Rover
Building Number:	23	Property Type:	Laboratory/Processing
Original Function:	Critical Assembly Bldg Kiva #1	Integrity:	Excellent
Current Function:	Critical Assembly Bldg Casa #1 (1 st Tier)	Core:	Yes
Date Constructed:	1948	Eligibility:	Eligible (Criterion A)
Architect/Builder:	W.C. Kruger Co.		
Buildings with same floor plan within TA:	18-32 and 18-116		



View of south side



View of east side



View of north side

Architectural Description:

TA-18-23 is a multi-story structure that is approximately rectangular in plan. The building measures 50 ft by 48 ft and has a net square footage of 2,533 ft². The building consists primarily of two areas: the laboratory room with a toilet room and equipment room and the assembly room. The laboratory room was constructed as a 10-ft-high one-story area located on the east

side of the building. The laboratory room has a reinforced perimeter foundation, 6-in. concrete floor slab, and 8-in. concrete masonry unit walls finished with light beige stucco. The flat roof, with 4-ft cantilevered eaves, is constructed with steel beams covered with a gypsum deck and built-up roofing. The south elevation of the laboratory room contains steel-framed center pivot windows and a single metal door.

The assembly room, located on the west side of the building, is a two-story structure, 26 ft in height. The assembly room was constructed similarly to the laboratory room. The difference in construction between the two areas is that the assembly room has a poured concrete post and beam wall structure in-filled with 8-in. concrete masonry units. A second difference is the roof construction. The assembly room roof consists of a flat roof constructed with 2-ft-deep concrete beams supporting a concrete roof slab covered by rigid insulation and finished with a built-up roofing system.

The assembly room, measuring 24 ft tall, was designed to allow daylight into the building through banks of glass block set within the concrete structure. Access into the assembly room is possible directly from the exterior or from the laboratory room. A pair of oversized equipment doors, approximately 14 ft high by 12 ft wide, is located on the north side of the assembly room. Both the north and south sides of the assembly room contain a single personnel door accessing the exterior as well. Access into the laboratory room is also through a single personnel door.

The building was constructed to function as an assembly room with a supporting laboratory room. A catwalk, located 10 ft above the finished floor, was constructed on the west side of the assembly Room and spanned the length of the room.

Historical Background:

TA-18-23 was designed as a remote-controlled laboratory. Built in 1948, Casa 1 formerly housed three, general-purpose remote assembly machines: Mars, Venus, and Planet. Planet was the last machine to support criticality assembly operations at TA-18. These machines contain no permanently mounted nuclear fuel, but are designed to assemble critical masses in various configurations with provisions contained for mounting safety and control element drives (NNSA 2002). Project Rover testing was also conducted at TA-18-23.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality and nuclear propulsion research in support of the Laboratory's nuclear weapons and nuclear energy programs.

Technical Area:	18	Associated Themes:	Security, Critical
Building Number:	26		Assembly Operations, Project Rover
Original Function:	Vault	Property Type:	Security
Current Function:	Vault	Integrity:	Good
Date Constructed:	1948	Core:	Yes
Architect/Builder:	W.C. Kruger Co.	Eligibility:	Eligible (Criteria A and C)
Buildings with same floor plan within TA:	none		



View of south side of vault

Architectural Description:

TA-18-26 is a one-story rectangular-in-plan vault building measuring approximately 15 ft by 19 ft. The “Hillside vault,” as it is known, was built within the mountain face and partially camouflaged with large boulders. The only visible area of the vault is the exterior steel prison gate leading to the entry door to the anteroom. The vault consists of two parts: the anteroom and the vault itself. Access into the building is through a steel prison gate into the anteroom. Access into the vault is from the anteroom proper. The entire structure is constructed with a 6-in. reinforced concrete floor slab, 18-in.-thick reinforced concrete walls, and a 12-in.-thick flat reinforced concrete roof.

A 10-ft-wide asphalt drive leads up to the concrete dock area from the parking area below and to the south of the vault. The staging area in front of the loading dock is 15 ft long and 10 ft wide. The concrete dock measures 10 ft by 10 ft with 3-ft-wide concrete stairs leading up to the dock on the south side. The entire area in front of the vault is enclosed with a 16-ft-high chain link fence.

Historical Background:

The Hillside vault was built to hold radioactive materials and weapons and served as the main storage vault for special nuclear materials used for experiments at TA-18 (Mynard 1992a). Until recently, the vault held materials and components stored in sealed storage containers. These containers were transported to other locations at TA-18 for use in experiments or radiation measurements (NNSA 2002). The Hillside vault played a vital security role at the Laboratory during the Cold War era.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its support of the Laboratory's nuclear weapons and energy research programs. Furthermore, the building is significant under Criterion C due to its unique design dictated by criticality safety and physical security requirements.

Technical Area: 18
Building Number: 28
Original Function: Warehouse
Current Function: Warehouse
Date Constructed: 1949
Architect/Builder: Butler Manufacturing/LASL
Buildings with same floor plan within TA: none

Associated Themes: Critical Assembly
Operations, Project Rover
Property Type: Support (1st Tier)
Integrity: Fair
Core: No
Eligibility: Not Eligible



View of south side



View of west side



View of north side



View of east side

Architectural Description:

TA-18-28 is a one-story rectangular-in-plan Butler Building measuring 40 ft by 100 ft containing 4,695 ft² of useable space. The prefabricated building has a concrete perimeter foundation, concrete floor slab, steel-frame walls sheathed with galvanized steel panels, and a medium-pitched, galvanized steel panel, gable roof. Louvers are set within the gable ends of the building. Each of the two long sides is equipped with six pairs of steel-framed 2/2 awning-style windows. Both short ends of the building are equipped with 16-ft by 14-ft double sliding doors. Pedestrian doors were added to these sliding doors for ease of access. There is also a roll-up door located on the south side of the building. Additional building equipment includes wall-mounted lights, lightning rods, signs, speakers, junction boxes, and a small hood.

Historical Background:

TA-18-28 was originally constructed as an open storage warehouse. The warehouse area served to support general TA-18 operations. The building was modified in 1964 for use as a contaminated shop. The open floor plan was retained, but equipment and fixtures were added to the converted space, including a lathe, drill press, milling machine, disc sander, arbor press, tool grinder, band saw, and work bench, as well as storage and tool cabinets. The warehouse was later used for storage and most of the shop fixtures were removed. By 1983, the open plan had been subdivided into an office area, separate storage area, and machine shop.

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because it is of secondary or minor importance, serves a purely support function, and retains only fair interior integrity due to several phases of remodeling.

Technical Area: 18
Building Number: 30
Original Function: Main Building
Current Function: Main Building
Date Constructed: 1952
Architect/Builder: Skidmore, Owings, & Merrill
Buildings with same floor plan within TA: none

Associated Themes: Critical Assembly
Operations, Project Rover, Administration
Property Type: Administration
Integrity: Good
Core: Yes
Eligibility: Eligible (Criterion A)



Front entrance on east side



Oblique view of east side to south



View of basement dock on south side



Oblique view of east



View of north side



Partial view of west side near south end

Architectural Description:

TA-18-30 is a multi-story building that is predominantly C-shaped in plan. In addition to office rooms (some divided into cubicles), this mostly administrative building contained a basement, hallways, vault, conference room, lunch room, and three criticality control rooms. Other functional areas in the building included space for exercise equipment and a ping pong table, a work bench, and a five-ton bridge crane. Some of the office spaces had supplemental sound proofing installed and were outfitted with scrambled phones for security purposes.

The building measures approximately 193 ft by 94 ft. The majority of the building is one story in height; however, the south end contains a partial basement and the north end contains a two-story high bay. The building is constructed with a concrete foundation and floor slab. It has concrete walls in the lower level, a reinforced concrete floor slab (for the main floor), concrete walls, and a flat concrete roof with interior roof drains and 4-ft-deep concrete eaves. The southeast corner of the building is slightly taller than the main building, and the roof is constructed with steel bar joists instead of concrete. Access into the basement is possible from inside the building as well as from a ramp located on the south side. Basement features of note include an extensive pipe run and associated escape route hatch.

The main entrance into the building is from the east side through a pair of painted hollow-metal and half-glass doors. Additional single painted hollow-metal doors and painted hollow-metal and half-glass doors are located on the remaining three sides of the building. A painted roll-up door is located on the east side of the high bay. The building contains 2/2 awning-style windows. The upper level of the high bay is equipped with glass block panels.

Two cable tunnels, one connecting to Casa 1 (TA-18-23) and the other to Casa 2 (TA-18-32), extend out from the southwest corner of the building. A third cable tunnel extends from the southeast side of the building to Casa 3 (TA-18-116). Additional building equipment includes signage, wall-mounted lights, window air conditioning units, roof-mounted air handling equipment, and lightning rods.

Historical Background:

TA-18-30 housed the main offices of the operating group. The Casa 1, 2, and 3 control rooms are located on the south side of the building all sharing a common hallway, with control room three located on the east side of the building, control room two in the center, and control room one on the west side. The Casa 3 control room was added some time around 1961 when Casa 3 (TA-18-116) was built. Building 30 also housed the main TA-18 machine shop used to build parts for the Casas (NNSA 2002). No radioactive materials were machined there (Mynard 1992b). However, a small shed attached to the southwest corner of the building was used for storing plutonium sources (Mynard 1992a). The building also had a radiation counting room in the basement where metal foils, wires, and Project Rover fuel elements were checked for radioactivity (Mynard 1992c). Some time prior to 1993, TA-18-30 had a serious contamination incident when radioactive polonium leaked, causing a two-month shutdown (Mynard 1992c). All three control rooms were deactivated when the site went into closure mode. The Godiva, Comet, Flattop, and Planet criticality experiments were relocated to TA-35 by February 2007, with only the SHEBA experiment remaining.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality and nuclear propulsion research in support of the Laboratory's nuclear weapons and nuclear energy programs.

Technical Area: 18
Building Number: 31
Original Function: Utility Building
Current Function: Utility Building
Date Constructed: 1952
Architect/Builder: Skidmore, Owings, & Merrill
Buildings with same floor plan within TA: none

Associated Themes: Critical Assembly
Operations, Project Rover
Property Type: Support (1st Tier)
Integrity: Fair
Core: No
Eligibility: Not Eligible



View of north side



Oblique view of east side



Oblique view of west and south sides



View of west side

Architectural Description:

TA-18-31 was originally a one-story rectangular-in-plan building with approximately 1921 ft² of net square footage. The building has a concrete perimeter foundation, a 6-in. concrete floor slab, poured concrete walls with a stucco finish, and a low-pitched concrete shed roof with 3-ft-deep eaves. The south side of the building contains a single painted hollow-metal door and two 2/2 awning-style windows covered with security screens. A second pair of painted hollow-metal doors is located on the east end of the building.

In 1985, a one-story rectangular addition was constructed on the north side of the original building. The addition measures 16 ft by 48 ft 6 in. The addition was constructed with a concrete perimeter foundation, a 6-in. concrete floor slab, 8-in.-thick concrete masonry unit walls, and a low-pitched steel-frame shed roof with 3-ft-deep eaves. The north side of the addition contains

both a pair of painted hollow-metal doors and a 4-ft-wide metal louver. The west side of the addition contains a second 4-ft-wide louver as well as a large through-the-wall ventilator. The interior of the addition is divided into two rooms, Rooms 2 and 3, with access into the original building through single hollow-metal doors located in each room.

The building also contains a roof access ladder on the west side as well as perimeter surface-mounted lighting, signage, and a junction box. The roof is equipped with two vent stacks and air handling equipment.

Historical Background:

TA-18-31 is a utility building and was originally constructed to support operations at TA-18. An underground utility tunnel connects TA-18-31 to the main office building (TA-18-30). In 1985, approximately 776 ft² of space was added to the north side of the original 1950s era building. This support building is not a key laboratory facility associated with criticality or nuclear energy research.

Determination of Eligibility:

TA-18-31 does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because it is of secondary or minor importance, serves a purely support function, and does not adequately illustrate historical themes shaping the history of the Laboratory. In addition, although the building has good integrity of function (it has always served as a utility building), its integrity of design is poor.

Technical Area:	18	Associated Themes:	Critical Assembly Operations
Building Number:	32		
Original Function:	Critical Assembly Bldg Kiva #2	Property Type:	Laboratory/Processing
Current Function:	Critical Assembly Bldg Casa #2 (1 st Tier)		
Date Constructed:	1952	Integrity:	Excellent
Architect/Builder:	Skidmore, Owings, & Merrill	Core:	Yes
Buildings with same floor plan within TA:	18-23 and 18-116	Eligibility:	Eligible (Criterion A)



View of east side



Partial view of south side



View of north side

Architectural Description:

TA-18-32 is a multi-story (one-and-a-half- and two-story) building predominantly rectangular in plan and measuring 57 ft 5 in. by 58 ft 6 in. The building has a reinforced concrete perimeter foundation, reinforced concrete walls, and a flat reinforced concrete roof. The main entrance into the building is from the east side either through a single painted metal personnel door or through a pair of oversized painted metal doors. Both of these doors enter directly into the truck station room. The truck station room opens into the operation room spanning the full width of the west side of the building. Access into the operation room is through an overhead door. The operation room is two stories in height and contains 1,456 ft² of useable floor space. The room is also equipped with two single painted metal doors, one on both the north and south sides. All four sides of the upper floor of the operation room are equipped with banks of glass block. A steel

catwalk encircles the operation room. The building is also equipped with a vault, laboratory room, utility room, and bathroom.

Additional building equipment includes high-powered lights, signage, alarms, wall-mounted conduit, and security cameras. For added exterior protection, very large concrete blocks, each weighing several tons, surround and enclose the northeast corner of the building.

Historical Background:

TA-18-32 (originally known as Kiva 2) was the site of Lady Godiva critical assembly work (Mynard 1992a). This building is known today as Casa 2. The Flattop and Comet critical assemblies were housed there. Flattop is a critical assembly designed to provide benchmark neutronic measurements in a spherical geometry with a number of different fissile driver materials. The Flattop assembly consists of a core of fissionable material at the center of a sphere of natural uranium. Each core is supported by its own natural uranium pedestal, which is mounted on a keyed track and may be moved in or out by a hand crank. The Comet assembly is a general-purpose assembly machine designed to accommodate a wide variety of experiments in which neutron multiplication would be measured as a function of distance between components. In general, the configuration under study is split into two parts, one of which is mounted in a stationary position above and the other on a movable plate below (NNSA 2002).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality research in support of the Laboratory's nuclear weapons program.

Technical Area: 18
Building Number: 37
Original Function: Guard Station
Current Function: Guard Station
Date Constructed: 1952
Architect/Builder: Skidmore, Owings, & Merrill
Buildings with same floor plan within TA: none

Associated Themes: Security, Critical Assembly Operations, Project Rover
Property Type: Security
Integrity: Good
Core: Yes
Eligibility: Eligible (Criteria A)



Oblique view of east and north sides



Oblique view of west and south sides. Note space frame at rear left of photo.

Architectural Description:

TA-18-37 is a one-story square-in-plan structure guard station measuring 13 ft 9 in. by 13 ft 9 in. with 167 ft² of net square footage. The building has a raised reinforced concrete foundation, floor slab, and walls. Concrete steps and an apron are located on the north and west sides. The steel-framed, very-low-pitched conical roof has 3-ft-deep cantilevered eaves with a tongue and groove wood fascia. The roof is equipped with lightning rods, roof-mounted lights, and an antenna. The single painted hollow-metal and half-glass entry door is located on the building's north side. Three-lite awning-style windows are located on the east, north, and west sides while the windows on the south side are one-lite units.

Additional exterior building elements include pendant-style light fixtures at all four corners, conduit, minor signage, and a fire extinguisher.

A steel space frame was constructed north of the guard station in 1983. The space frame measures 20 ft 9 in. wide by 24 ft long by 16 ft 10 in. high. The space frame is constructed with concrete piers, steel columns, and a metal roof deck. Portions of the roof deck are covered with quarter-in. lead shielding. The north side of the space frame is sheathed with metal panels.

Historical Background:

The guard station building originally served as one of the main security access control points at TA-18. This building played a vital security role at the Laboratory.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The

building is significant under Criterion A due to its association with Cold War criticality research in support of the Laboratory's nuclear weapons program.

Technical Area:	18	Associated Themes:	Critical Assembly Operations, Project Rover
Building Number:	116	Property Type:	Laboratory/Processing
Original Function:	Critical Assembly Bldg Kiva #3	Integrity:	Excellent
Current Function:	Critical Assembly Bldg Casa #3 (1 st Tier)	Core:	Yes
Date Constructed:	circa 1961	Eligibility:	Eligible (Criterion A)
Architect/Builder:	Neuner & Cabaniss		
Buildings with same floor plan within TA:	18-23 and 18-32		



View of west side



Oblique view of north and west sides



Oblique view of east and north sides



Partial view of south side

Architectural Description:

TA-18-116 is the largest of the three critical assembly buildings within TA-18. The building is oversized with a one-and-a-half-story area on the west side and a two-story area on the east side. The entire building is rectangular in plan measuring 81 ft by 64 ft 4 in. with a net square footage of 5,667 ft². The building has a reinforced perimeter foundation, reinforced concrete floor slab, and a flat roof with interior roof drains. The two sides of the building are constructed with different heights and different wall materials. The west side, containing the machinery area, lavatories, and equipment room, measures 21 ft in height. The walls are constructed with concrete masonry units. The roof is constructed with steel bar joists overlaid with rigid insulation and light-weight concrete and is finished with a built-up tar and gravel roof system. One section of the roof is constructed with an 18-in.-thick concrete roof instead of the steel bar joist system.

A one-ton monorail is attached to the ceiling in this room. Two pairs of oversized metal doors are located on the west side. The south side contains a two-lite awning-style window as well as wall louvers.

The east side of the building, containing the control room, measures 36 ft in height and is constructed with 18-in.-thick reinforced concrete walls. The roof is constructed with steel beams covered with a corrugated metal roof deck and 8 in. of light-weight concrete. A 1-ft 4-in.-high concrete parapet encloses the predominantly flat roof. The interior of the control room is one large open space with a steel catwalk, located approximately 12 ft above the floor, wrapping the room on three sides. Located on the east side of the control room is a cable tray that extends two-thirds of the length of the building then veers northeast towards the cluster of administration buildings. The south side of the control room contains a pair of metal doors covered with a steel prison gate.

Room 1 in Casa 3 houses two vaults: the Godiva vault is located along the east wall and the Massine Modular Vault is located in the northeast corner. Room 2 houses a tank farm for SHEBA fluid solution. This tank farm was installed in the building in the 2003/2004 timeframe. The shower and bathroom areas in the building were abandoned when water was cut off in the building due to increased criticality risk. Additional building equipment includes high-powered lights, alarms, signage, a safety ladder to the roof, and three large roof vents. The entire building is enclosed within a chain link fence.

Historical Background:

TA-18-116 (originally designated Kiva 3) was built to test Rover reactor assemblies, such as Kiwi and Phoebus, before the reactor assemblies were test fired in Nevada (Mynard 1992a). Today, this building is known as Casa 3. The building's construction provides reasonable confinement in case of relatively severe criticality accident. The one entrance to the main room is designed like a tunnel to minimize radiation scattering outside the building, and the entrance is oriented so that it does not open toward the areas most frequently occupied by personnel or members of the public. Casa 3 houses the critical assembly Godiva. The Godiva assembly is a fast-burst critical assembly machine with a bare-enriched uranium alloy metal core with no external reflector (NNSA 2002).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality and nuclear propulsion research in support of the Laboratory's nuclear weapons and nuclear energy programs.

Technical Area: 18
Building Number: 119
Original Function: Storage Building
Current Function: Storage Building
Date Constructed: 1958
Architect/Builder: Butler Manufacturing/LASL
Buildings with same floor plan within TA: 18-122

Associated Themes: Critical Assembly Operations, Project Rover
Property Type: Support (1st Tier)
Integrity: Good
Core: No
Eligibility: Eligible (Criterion A)



Oblique view of west and south sides of TA-18-119



View of north side of TA-18-119

Architectural Description:

TA-18-119 is one of two identical pre-fabricated Butler buildings within TA-18. TA-18-119 is a one-story rectangular-in-plan building measuring 32 ft by 37 ft 10 in. The building is constructed with a poured concrete foundation, 6-in. concrete floor slab, and steel-framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into TA-18-119 is from the west side through a pair of 10-ft-wide oversized sliding metal doors or through a single metal door on the east side. Attached to the right side of the building is a small shed-roof equipment room equipped with a pair of metal doors. Additional building equipment includes signage and an alarm located on the side of the equipment room.

The only difference between TA-18-119 and TA-18-122 is the location of the single personnel door. While TA-18-119 has a single door on the east side of the building, TA-18-122 has a single door on the south side.

Historical Background:

This building, like TA-18-122 and a similar warehouse TA-18-138, originally functioned as a storage facility in support of criticality research. TA-18-119 also supported nuclear propulsion research at TA-18. TA-18-119, a storage building for Casa 1 operations, held tons of beryllium in small cubes brought back from the NTS after Rover tests (Mynard 1992a).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. When compared to TA-18-122 and TA-18-138, buildings with similar historical functions and layouts, this building is the better example. The building is significant under Criterion A due to its

association with Cold War criticality and nuclear propulsion research in support of the Laboratory's nuclear weapons and energy programs.

Technical Area: 18
Building Number: 122
Original Function: Storage Building
Current Function: Storage Building
Date Constructed: 1960
Architect/Builder: Butler Manufacturing/LASL
Buildings with same floor plan within TA: 18-119

Associated Themes: Critical Assembly Operations
Property Type: Support (1st Tier)
Integrity: Good
Core: No
Eligibility: Not Eligible



View of east side of TA-18-122



Oblique view of north and west sides of TA-18-122

Architectural Description:

TA-18-122 is one of two identical pre-fabricated Butler buildings within TA-18. TA-18-122 is a one-story rectangular-in-plan building measuring 32 ft by 37 ft 10 in. The building is constructed with a poured concrete foundation, 6-in. concrete floor slab, and steel-framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into TA-18-122 is from the west side through a pair of 10-ft-wide oversized sliding metal doors or through a single metal door on the east side. Attached to the right side of the building is a small shed-roof equipment room equipped with a pair of metal doors. Additional building equipment includes signage and an alarm located on the side of the equipment room.

The only difference between TA-18-122 and TA-18-119 is the location of the single personnel door. While TA-18-119 has a single door on the east side of the building, TA-18-122 has a single door on the south side.

Historical Background:

This building, like TA-18-119 and similar warehouse building TA-18-138, was constructed to support criticality research at TA-18. The storage building served to support Casa 2 operations but is not a key facility at this technical area.

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because another building of identical design and similar historical function at TA-18 serves as the better example of type.

Technical Area: 18
Building Number: 127
Original Function: Pulsed Accelerator Bldg
Current Function: Pulsed Accelerator Bldg
Date Constructed: 1966
Architect/Builder: Philippe Register, AIA
Buildings with same floor plan within TA: none

Associated Theme: Project Rover
Property Type: Laboratory/Processing
(1st Tier)
Integrity: Excellent
Core: Yes
Eligibility: Eligible (Criterion A)



View of south side



Oblique view of west and south sides



View of east side

Architectural Description:

TA-18-127 is a multi-story building that is predominantly rectangular in plan and measures approximately 40 ft wide (not including the “point”) and over 100 ft long. The building is constructed in two parts. The one-story east end area contains the control room, mechanical room, and a corridor. Below the corridor is a small cable room. The open two-story area with full basement is located on the west end of the building and contains the pulsed accelerator room. The control room section is constructed with a reinforced concrete perimeter foundation, reinforced concrete walls, and a flat built-up tar and gravel roof. The north side of this section contains an access ladder to the roof and a pair of metal doors. Separating the control room section from the connecting corridor is a 2-ft-thick concrete wall. Separating the corridor from the pulsed accelerator room is a 3-ft-thick concrete wall. Angling to the southwest from the corner of the control room is a 2-ft-thick, 59-ft-long by 30-ft-high reinforced concrete shield

wall. Located behind, to the north, of the shield wall is the pulsed accelerator room. This two-story-high open bay room is constructed with a full basement. The basement area is constructed with a reinforced concrete perimeter foundation, steel pipe columns on concrete piers, and concrete walls. A catwalk is suspended above the basement floor. The main floor of the pulsed accelerator room is constructed with a combination of concrete beams with a concrete floor (towards the east end), and steel I-beams covered with metal decking (west end). The floor is equipped with several access holes as well as removable floor sections. The main floor walls are constructed with prefabricated metal panels, as is the moderately pitched gable roof. Access into the pulsed accelerator room is possible through a roll-up overhead door on the west end as well as a single painted personnel door. The roof is equipped with large ventilators, lightning rods, and lights. Additional building equipment includes signage, alarms, and surface-mounted lights.

In 1970, a one-story addition was constructed on the east end of the control room area. This addition houses the electronics laboratory, data reduction room, and lab and assembly room. The addition, measuring 40 ft by 24 ft 8 in., is constructed with a reinforced concrete perimeter foundation, 6-in. concrete floor slab, and 16-in. by 8-in. by 8-in. pumice block walls. The flat roof is constructed with steel bar joists, rigid insulation, and a four-ply built-up tar and gravel roof system. A 3-ft-high concrete dock is located on the east side of the addition and covered with a flat canopy. A single painted hollow-metal and half-glass door is located at the dock level. The addition also contains three-lite awning-style windows.

Historical Background:

TA-18-127, in addition to having an accelerator, had a control room at the east end of the building. Hot beryllium was removed from previously fired Rover nuclear rocket reactors in the entryway area of the building (Mynard 1992a). Also known as the High Bay, this building consists of a large room and a basement with an office complex. The experimental bay features a false floor and light walls to provide low scatter. This feature has led to the use of the facility for measurements that require a “clean” radiation environment. A two-story-high shield wall separates the experimental bay from the rest of the site. Activities on the main floor include portable radiography and detector development for passive and active surveillance of the material. A linear accelerator and a Kaman neutron generator were housed in the basement. Both the linear accelerator and the neutron generator were connected to a scram system and a series of interlocks that allowed their operation from the main-floor control room (NNSA 2002). 18-127 also housed a Cockcroft-Walton accelerator (Mynard 1992a and 1992b).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality and nuclear propulsion research in support of the Laboratory’s nuclear weapons and nuclear energy programs.

Technical Area:	18	Associated Theme:	Critical Assembly Operations
Building Number:	128	Property Type:	Laboratory/Processing (2 nd Tier)
Original Function:	Assembly Cover Building	Integrity:	Good
Current Function:	Hydro Assembly Building	Core:	No
Date Constructed:	1962	Eligibility:	A and C
Architect/Builder:	LASL		
Buildings with same floor plan within TA:	none		



Oblique view of south and east sides

Architectural Description:

TA-18-128 is a 16-ft 4-in.-high structure that is rectangular in plan and measures 8 ft by 10 ft 4 in. The structure is constructed with a steel frame sheathed with corrugated industrial aluminum siding. The interior walls are sheathed with quarter-in. aluminum plates. The east side of the building contains a full-height, crank-opened, aluminum roll-up door while the west side is equipped with a wooden bumper. The entire structure sits on four 8¾-in.-high wheel assemblies that connect to a pair of steel rails set 10 ft apart and extend 79 ft 3 in. in length. The wheels and rails allow the entire structure to move east to west and west to east (when pushed by a forklift). The shelter had four hold down anchors as well. A 28-ft-wide by 97-ft 8-in.-long asphalt concrete apron surrounds the rail/building assembly. Located at the east end of the rails was the site for a hydro assembly machine.

Historical Background:

TA-18-128, located next to Casa 2, was a movable shelter that held uranium critical assemblies (duplicates of the Little Boy bomb minus the high explosive) (Mynard 1992a and 1992c). The shelter functioned as an assembly cover when the Comet experiment was used outside and is known as the hydro assembly building. Two nearby poles held rope used during Godiva experiments.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its support of the Laboratory's nuclear weapons programs. Furthermore, the building is significant under Criterion C due to its unique design.

Technical Area: 18
Building Number: 129
Original Function: Reactor Sub-Assembly Bldg
Current Function: Reactor Sub-Assembly Bldg
Date Constructed: 1962
Architect/Builder: Kruger, Lake, & Henderson -
Addition designed by Neuner & Cabaniss
Buildings with same floor plan within TA: none

Associated Themes: Project
Rover, Nuclear Safeguards
Property Type: Laboratory/Processing
(1st Tier)
Integrity: Fair
Core: Yes
Eligibility: A



Oblique view of north and west sides



Partial view of north side



Partial view of south side



Partial detail of west side

Architectural Description:

When originally constructed, TA-18-129 was an oversized one-story open bay building that was rectangular in plan and measured 41 ft 4 in. wide by 100 ft long. The building was constructed with a concrete post and pier foundation and has a 4-in.-thick concrete floor slab. The walls were constructed with concrete masonry unit pilasters in-filled with concrete masonry units. The very-low-pitched shed roof was constructed with double tee concrete beams, covered with rigid insulation and a built-up roof system. A 10-ft-deep concrete loading dock spans the entire length of the building on the west side. Access to the dock is possible either by steel steps on the south side, a concrete ramp on the west side, or at grade on the north end of the dock. Originally, one overhead door plus one painted hollow-metal personnel door provided access into the building from the west side. The east side of the building contained a pair of painted hollow-metal doors

as well as a single painted hollow-metal door. The interior of the building primarily served as a large open storage area with two monorail tracks suspended from the ceiling. The interior also contained an inspection room, health room, men's changing room, and a mechanical equipment room.

In 1965, a 50-ft by 40-ft addition was constructed on the building's north side. The new receiving and shipping room was constructed virtually identical to the original building as it had a concrete post and pier foundation and a concrete floor slab. Concrete masonry unit pilasters infilled with concrete masonry units formed the walls, and the very-low-pitched shed roof was constructed with double tee concrete beams, covered with rigid insulation and a built-up roof system. The original loading dock was extended to the north to span the entire west side of the building. An additional overhead roll-up door and one painted hollow-metal personnel door were located within the new addition.

In 1978, a 20-ft by 20-ft garage was constructed on the north side of the original building adjacent to the receiving and shipping room addition. The garage was constructed with a post and pier foundation, concrete slab floor, and concrete masonry unit walls. The flat roof was constructed with steel bar joists covered with a 22-gauge roof deck, rigid insulation, and four-ply built-up asphalt roofing. An almost full-width overhead garage door was installed on the north side of the garage.

Additional building equipment includes signage and wall-mounted lights. The roof contains lightning rods and ventilators.

Historical Background:

TA-18-129 had offices and small labs (Mynard 1992a). Portal monitors and detection systems were developed and tested in the building. Both neutron and gamma ray sources were used for detector development and calibration procedures (NNSA 2002). Project Rover assemblies were also prepared for shipment to the NTS in TA-18-129 (Mynard 1992b).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War nuclear proliferation and nuclear propulsion research in support of the Laboratory's nuclear weapons and nuclear energy programs. Although none of the original equipment remains in TA-18-129, its exterior physical integrity is good and adequately illustrates important historical themes shaping the history of the Laboratory.

Technical Area: 18
Building Number: 138
Original Function: Warehouse
Current Function: Warehouse
Date Constructed: 1963
Architect/Builder: Mesco Metal Buildings -
Neuner & Cabaniss

Associated Themes: Critical Assembly
Operations, Project Rover
Property Type: Support (1st Tier)
Integrity: Fair
Core: No
Eligibility: Not Eligible

Buildings with same floor plan within TA: 18-119 and 18-122



View of south side



Oblique view of north and west sides

Architectural Description:

TA-18-138 is a one-story rectangular-in-plan building measuring 42 ft by 32 ft. The pre-fabricated metal Mesco building is constructed with a poured concrete foundation, concrete slab floor, and a steel frame sheathed with galvanized corrugated metal siding with 2 in. of insulation. The medium-pitched gable roof is also finished with galvanized corrugated metal panels. Both sides of the gable roof are equipped with four 12-ft-long skylights set flush with the roofline. The roof is also equipped with two gravity exhausters. Access into the building is possible from the south side through a pair of oversized, two-panel, painted sliding metal doors. A 16-ft-wide by 4-ft-deep concrete apron is located in front of the doors. A single painted metal door is also located on the building's east side. Additional building equipment includes signage and a single wall-mounted light located above the pair of doors.

Historical Background:

18-138 functioned as a storage building in support of Casa 3 operations and Project Rover activities. Rover fuel assemblies and parts, and perhaps some solvents, were stored there. This building, like TA-18-119 and TA-18-122, was constructed to support criticality research at TA-18. The storage building is not one of TA-18's key facilities.

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because building 18-119, which is of similar design and historical function, serves as a better example of type.

Technical Area: 18
Building Number: 168
Original Function: SHEBA Critical Building
Current Function: SHEBA Critical Building
Date Constructed: 1969
Architect/Builder: Butler Manufacturing/LASL
Buildings with same floor plan: none

Associated Theme: Critical
Assembly Operations
Property Type: Laboratory/Processing
(1st Tier)
Integrity: Good
Core: Yes
Eligibility: Eligible (Criteria A and C)



Oblique view of east and north sides



Oblique view of north and west sides



Oblique view of west and south sides

Architectural Description:

TA-18-168 is a one-and-a-half-story square-in-plan Butler building with a net square footage of 361 ft². The building has a concrete perimeter foundation with a 6-in. concrete slab and 16-ft-tall steel-framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into the building is possible from either the north or south sides through a single painted metal and half-glass door. The north side is also equipped with an 8-ft-wide oversized roll-up door. Originally, the equipment door had two pairs of 8-ft-wide metal doors stacked on top of each other. The east and west sides of the building are equipped with 4-ft-wide, eight-lite, steel-framed windows. A galvanized corrugated sheet metal canopy is located on the building's west side and covers a bottle rack area. A large ventilator and

smaller vent stack are located on the roof. Additional building elements include a wall-mounted light fixture and signage.

Historical Background:

TA-18-168, or the SHEBA Building, is all metal, double-wall construction with rigid frames anchored to a concrete pad. All walls and the ceiling are fiberglass insulated. TA-18-168 originally housed the King Critical Experiment. This building now houses the SHEBA machine, a low-enriched uranium-solution critical assembly machine, which was the only liquid criticality experiment at TA-18. SHEBA provided capabilities for free-field irradiation of criticality alarm systems and dosimetry validation (NNSA 2002).

During operations, SHEBA is lowered into a pit in the floor of the building for high-radiation experiments. The pit provides shielding during the experiments and provides containment of any liquid release from SHEBA. The SHEBA Building provides only a weatherproof shelter for critical assemblies. No radiation shielding is provided by the structure. This is intentional, as radiation dose measurements and radiation instrumentation can be fielded around critical assemblies in the SHEBA Building without the presence of shielding or building scatter (NNSA 2002).

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant property within TA-18. The building is significant under Criterion A due to its association with Cold War criticality research in support of the Laboratory's nuclear weapons program. Furthermore, the building is significant under Criterion C due to its unique design related to criticality experiment requirements.

Technical Area:	18	Associated Themes:	Security, Critical
Building Number:	186		Assembly Operations
Original Function:	Guard Tower	Property Type:	Security
Current Function:	Guard Tower	Integrity:	Excellent
Date Constructed:	1984	Core:	Yes
Architect/Builder:	LANL	Eligibility:	Eligible (Criteria A)
Buildings with same floor plan within TA: 18-187 and 18-188			



View of TA-18-186

Architectural Description:

TA-18-186 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guardroom. The tower is constructed with 4½-in.-thick walls made with two layers of quarter-in. steel panels sandwiching 3½ in. of insulation. Access to the guardroom is possible through a single metal door. Once inside the tower a circular steel staircase extends approximately two-thirds of the height of the tower and connects to a steel ladder that then leads to the 2-ft 8-in. guardroom floor hatch. Once inside the guardroom, each of the four walls is equipped with a single 2-ft 6-in. by 2-ft bullet-proof window equipped with a window wiper. The guard tower is finished with a low-pitched, steel-framed gable roof.

Additional building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guardroom level, and lightning rods on the roof.

Historical Background:

This building, like guard towers TA-18-187 and -188, originally functioned as a security facility supporting operations at TA-18.

Determination of Eligibility:

This building meets National Register of Historic Places criteria in that it possesses integrity of location, design, setting, materials, workmanship, feeling, and association. In addition, the building is eligible for inclusion on the Register as a significant security property within TA-18. When compared to TA-18-187 and -188 (buildings with similar historical functions and identical layouts), this building is the better example. This security building is significant under Criterion A due to its support of the Laboratory's Cold War nuclear weapons and energy programs.

Technical Area: 18
Building Number: 187
Original Function: Guard Tower
Current Function: Guard Tower
Date Constructed: 1984
Architect/Builder: LANL

Associated Themes: Security, Critical
Assembly Operations

Property Type: Security

Integrity: Good

Core: Yes

Eligibility: Not Eligible

Buildings with same floor plan within TA: 18-186 and 18-188



TA-18-187



TA-18-187

Architectural Description:

TA-18-187 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guardroom. The tower is constructed with 4½-in.-thick walls made with two layers of quarter-in. steel panels sandwiching 3½ in. of insulation. Access to the guardroom is possible through a single metal door. Once inside the tower a circular steel staircase extends approximately two-thirds of the height of the tower and connects to a steel ladder that then leads to the 2-ft 8-in. guardroom floor hatch. Once inside the guardroom, each of the four walls is equipped with a single 2-ft 6-in. by 2-ft bullet-proof window equipped with a window wiper. The guard tower is finished with a low-pitched, steel-framed gable roof.

Additional building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guardroom level, and lightning rods on the roof.

Historical Background:

This building, like guard towers TA-18-186 and -188, originally functioned as a security facility supporting operations at TA-18.

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because TA-18-186 is of identical design and similar historical function and serves as a better example of type.

Technical Area:	18	Associated Themes:	Security, Critical
Building Number:	188		Assembly Operations
Original Function:	Guard Tower	Property Type:	Security
Current Function:	Guard Tower	Integrity:	Good
Date Constructed:	1984	Core:	Yes
Architect/Builder:	LANL	Eligibility:	Not Eligible
Buildings with same floor plan within TA: 18-186 and 18-187			



View of TA-18-188

Architectural Description:

TA-18-188 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guardroom. The tower is constructed with 4½-in.-thick walls made with two layers of quarter-in. steel panels sandwiching 3½ in. of insulation. Access to the guardroom is possible through a single metal door. Once inside the tower a circular steel staircase extends approximately two-thirds of the height of the tower and connects to a steel ladder that then leads to the 2-ft 8-in. guardroom floor hatch. Once inside the guardroom, each of the four walls is equipped with a single 2-ft 6-in. by 2-ft bullet-proof window equipped with a window wiper. The guard tower is finished with a low-pitched, steel-framed gable roof.

Additional building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guardroom level, and lightning rods on the roof.

Historical Background:

This building, like guard towers TA-18-186 and -187, originally functioned as a security facility supporting operations at TA-18.

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because TA-18-186 is of identical design and similar historical function and serves as a better example of type.

Technical Area:	18	Associated Themes:	Nuclear
Building Number:	227		Safeguards
Original Function:	Accelerator Development Lab	Property Type:	Laboratory/Processing
Current Function:	Accelerator Development Lab		(1st Tier)
Date Constructed:	circa 1987	Integrity:	Good
Architect/Builder:	Professional Engineers Group	Core:	Yes
Buildings with same floor plan within TA:	none	Eligibility:	Not Eligible



Oblique view of south and east sides



Oblique view of west and south sides

Architectural Description:

TA-18-227 is a high bay with basement. The rectangular-in-plan building measures 25 ft 4 in. by 49 ft 4 in. The building has a poured concrete perimeter foundation, 9-in. concrete slab, and 8-in.-thick poured concrete walls in the basement level. The high bay walls are constructed with 8-ft-wide pre-cast concrete wall panels topped with a flat roof enclosed with parapets. The roof is constructed with pre-cast concrete double tees covered with insulation and a single-ply roof. The west side of the building is equipped with a single painted hollow-metal door and a 12-ft by 14-ft 20-gauge insulated rolling metal door. There are no additional doors into the high bay part of the building. A section of the main high bay floor, designed as an open work area, contains removable floor panels for access into the basement. A bridge crane is also located in the high bay area.

A 16-ft 8-in. by 16-ft control room is located on the south side of the building at basement level. A secondary entrance into the control room is from an exterior stairway. A 2-ft 8-in.-thick concrete wall separates the control room from the basement area.

Historical Background:

TA-18-227 is known as the Accelerator Development Laboratory. Radiography operations were conducted in this building. The laboratory building is a concrete structure housing a radio-frequency quadrupole accelerator in the main level and a tomographic gamma scanner and a radioactive waste drum counter in the basement. Both devices use small sources, or up to security Category III special nuclear material, inserted in matrices inside the drums to be used. The tomographic gamma scanner uses cesium and barium sources and the drum counter uses a shield pulsed neutron generator. A shielded control room is situated in the basement adjoining

the laboratory space. The shielding is provided by a combination of concrete and earth (NNSA 2002).

Determination of Eligibility:

This building does not qualify for listing in the National Register of Historic Places as a significant property within TA-18 because it is of recent construction and not enough time has passed to assess its significance. At this time, it does not appear to be associated with exceptionally significant events, methods of construction, or design and does not adequately illustrate historical themes shaping the history of TA-18 and the Laboratory.

NATIONAL REGISTER ELIGIBILITY RECOMMENDATIONS

Properties Determined Eligible for the National Register of Historic Places

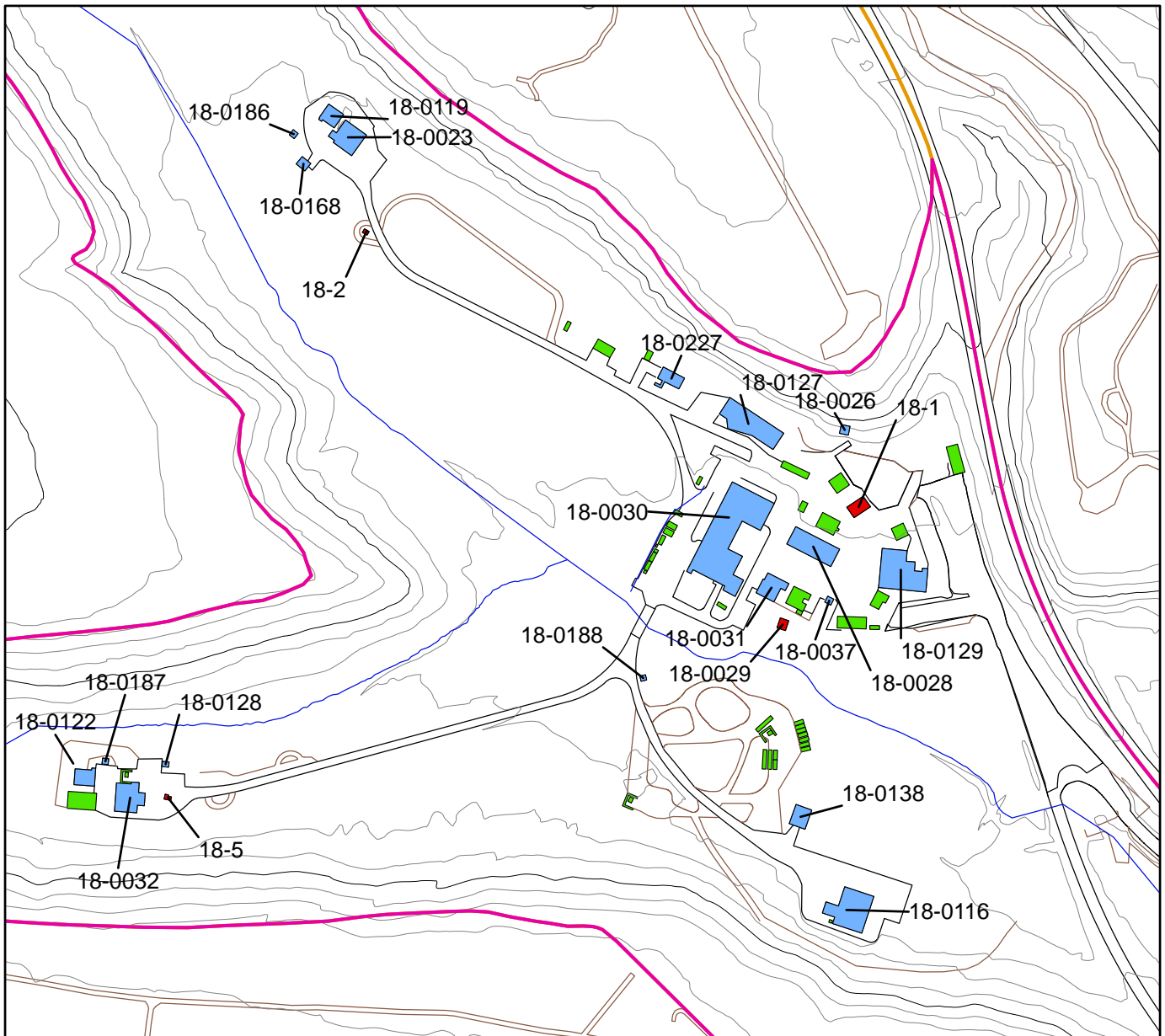
In 2004 and 2008, historic property surveys were conducted at TA-18 (Map 3). Of the 19 properties recently evaluated for Register eligibility, 12 were determined eligible under Criterion A (“properties associated with events that have made a significant contribution to the broad patterns of our history”) or under both Criterion A and Criterion C (architectural or engineering significance). Historically, these properties supported research, development, and testing in support of the nuclear weapons and nuclear propulsion programs during the Manhattan Project and the Cold War, from the 1940s to the 1990s at LANL. Table 1 lists recently evaluated buildings located at TA-18 that are eligible for listing in the Register.

Table 1. Eligible TA-18 Properties (evaluated in this report)

Property Number	Original Use	Date	Associated Themes	Property Type	Integrity	Core
18-23	Critical Assembly Building	1948	Critical Assembly Operations, Project Rover	Laboratory-Processing (1 st Tier)	Excellent	Yes
18-26	Vault	1948	Security, Critical Assembly Operations, Project Rover	Security	Good	Yes
18-30	Main Building	1952	Administration, Critical Assembly Operations, Project Rover	Administration	Good	Yes
18-32	Critical Assembly Building	1952	Critical Assembly Operations,	Laboratory-Processing (1 st Tier)	Excellent	Yes
18-37	Guard Station	1952	Security, Critical Assembly Operations, Project Rover	Security	Good	Yes
18-116	Critical Assembly Building	ca. 1961	Critical Assembly Operations, Project Rover	Laboratory-Processing (1 st Tier)	Excellent	Yes
18-119	Storage Building	1958	Critical Assembly Operations, Project Rover	Support (1 st Tier)	Good	No
18-127	Pulsed Accelerator Building	1966	Project Rover	Laboratory-Processing (1 st Tier)	Excellent	Yes
18-128	Assembly Cover Building	1962	Critical Assembly Operations	Laboratory-Processing (2 nd Tier)	Good	No

Of Critical Importance: An Assessment of Historic Buildings at Pajarito Site (TA-18)

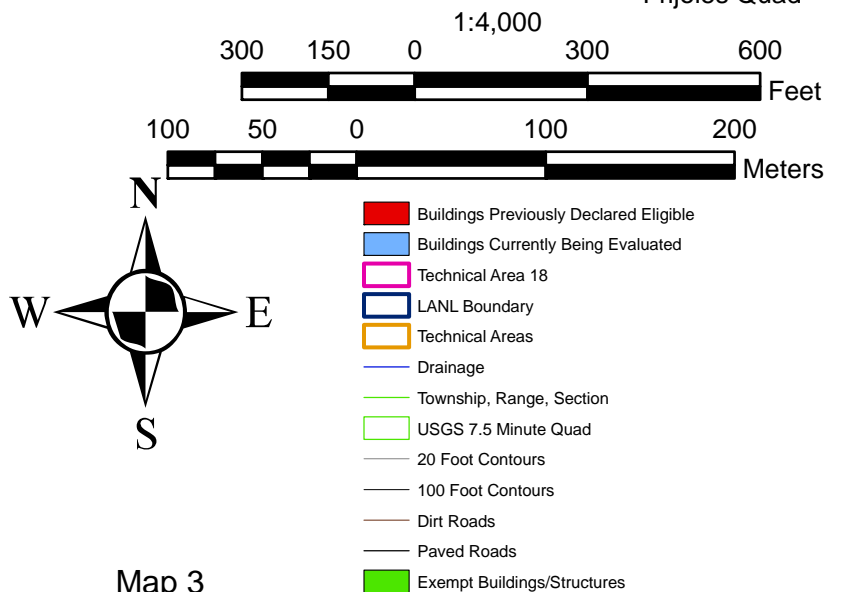
Property Number	Original Use	Date	Associated Themes	Property Type	Integrity	Core
18-129	Reactor Sub-Assembly Building	1962	Project Rover, Nuclear Safeguards	Laboratory-Processing (1 st Tier)	Fair	Yes
18-168	SHEBA Critical Building	1969	Critical Assembly Operations	Laboratory-Processing (1 st Tier)	Good	Yes
18-186	Guard Tower	1984	Security, Critical Assembly Operations	Security	Excellent	Yes
Total number of eligible properties	12					



Frijoles Quad

Los Alamos
National Laboratory
Cultural Resources Team
ENV-EAQ Ecology & Air Quality Group

TA-18 Evaluated Buildings



Map 3

Properties Determined Ineligible for the National Register of Historic Places

Not all LANL properties constructed within the defined period of significance (1942–1963) qualify as significant properties. In some cases, a property is of secondary or minor importance and does not contribute to the understanding of nuclear weapons research and development during the Manhattan Project and Cold War eras. For example, some properties have served a purely support function and do not adequately illustrate the historical themes shaping the history of the Laboratory. In other cases, properties associated with significant LANL events have been modified to such an extent that the loss of physical integrity has impacted their status as Register-eligible properties. Additionally, some LANL properties belong to a series of nearly identical building designs, and only the best example of each building design is usually eligible for the Register.

Table 2 lists recently reviewed properties located at TA-18 that are not eligible for listing in the Register.

Table 2. Ineligible TA-18 Properties (evaluated in this report)

Property Number	Original Use	Date	Associated Themes	Property Type	Integrity	Core
18-28	Warehouse	1949	Critical Assembly Operations, Project Rover	Support (1 st Tier)	Fair	No
18-31	Utility Building	1952	Critical Assembly Operations, Project Rover	Support (1 st Tier)	Fair	No
18-122	Storage Building	1960	Critical Assembly Operations	Support (1 st Tier)	Good	No
18-138	Warehouse	1963	Critical Assembly Operations, Project Rover	Support (1 st Tier)	Fair	No
18-187	Guard Tower	1984	Security, Critical Assembly Operations	Security	Good	Yes
18-188	Guard Tower	1984	Security, Critical Assembly Operations	Security	Good	Yes
18-227	Accelerator Development Laboratory	1987	Nuclear Safeguards	Laboratory-Processing (1 st Tier)	Good	Yes
Total number of non-eligible properties	7					

Previously Reviewed Properties

Four properties at TA-18 have already been evaluated for historical significance; property descriptions and eligibility recommendations for these previously reviewed properties are included in a 2003 survey of Manhattan Project properties at LANL (McGehee *et al.* 2003). Table 3 lists previously reviewed properties located at TA-18.

Table 3. Previously Reviewed Properties

Property Number	Date	Core	Property Type	Integrity	Eligibility Status	Report
18-1 (high bay addition)	1946	Yes	Lab/Processing (1 st Tier)	Good	Yes	<i>Sentinels of the Atomic Dawn</i> (McGehee <i>et al.</i> 2003)
18-2	1944	Yes	Lab/Processing (1 st Tier)	Good	Yes	<i>Sentinels of the Atomic Dawn</i> (McGehee <i>et al.</i> 2003)
18-5	1944	Yes	Lab/Processing (1 st Tier)	Good	Yes	<i>Sentinels of the Atomic Dawn</i> (McGehee <i>et al.</i> 2003)
18-29	1914	No	Administration	Good	Y (also listed on NM State Register of Historic Places)	<i>Sentinels of the Atomic Dawn</i> (McGehee <i>et al.</i> 2003)
Total Number of Previously Reviewed Properties	4					

Master Eligibility Summary Table for TA-18 Properties

Buildings in bold in Table 4 are candidates for permanent retention. These are the properties located at TA-18 that represent Los Alamos's most important contributions to the history of WWII and the Cold War.

Table 4. Eligible TA-18 Properties (evaluated in this report and previous reports)

Property Number	Date	Property Type	Integrity	Eligibility Criteria
18-1 (high bay addition)	1946	Lab/Processing (1 st Tier)	Good	A
18-2	1944	Lab/Processing (1 st Tier)	Good	A and C
18-5	1944	Lab/Processing (1 st Tier)	Good	A
18-23	1948	Lab/Processing (1 st Tier)	Excellent	A
18-26	1948	Security	Good	A and C
18-29	1914	Administration	Good	A (also listed on NM State Register)
18-30	1952	Administration	Good	A
18-32	1952	Lab/Processing (1 st Tier)	Excellent	A
18-37	1952	Security	Good	A
18-116	1961	Lab/Processing (1 st Tier)	Excellent	A
18-119	1958	Support (1 st Tier)	Good	A
18-127	1966	Lab/Processing (1 st Tier)	Excellent	A
18-128	1962	Lab/Processing (2 nd Tier)	Good	A and C
18-129	1962	Lab/Processing (1 st Tier)	Fair	A
18-168	1969	Lab/Processing (1 st Tier)	Good	A and C
18-186	1984	Security	Excellent	A
Total Number of Eligible Properties for TA-18	16			

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APPENDIX

Historic Building Inventory Forms with Selected Photographs and Building Drawings for
Recently Reviewed Properties at TA-18

LANL TA Building 18-23
Camera #984242
Frame #s 2560-2562
Surveyor(s) S. McCarthy, J. Ronquillo
Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Critical Assembly Building Casa #1 UTM's easting 385504 northing 3967023 zone 13
Legal Description: Map Frijoles Quad tnspl 19N range 6E sec
Current Use/ Function Critical Assembly Building Casa #1 Original Use/ Function Critical Assembly Building Kiva #1
Date (estimated) Date (actual) 1948 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories 2

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) stucco

Exterior Features (docks, speakers, lights, signs, etc) The building is equipped with signage, lights, and alarms, and is enclosed with a chainlink fence.

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 flat

Degree of Pitch/ Slope Slight

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

Other Roof Materials The flat roof, with 4 ft cantilevered eaves, is constructed with steel beams covered with a gypsum deck and built-up roofing.

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

Other Window Type banks of glass block

of Each Window Type/ Comments Glass block located on all four sides of the assembly room. The south elevation contains steel framed center pivot windows.

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Exterior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

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

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-23 is a multi-story structure that is approximately rectangular in plan. The building measures 50 ft by 48 ft and contains 2,533 ft2 of useable floor space. The building consists primarily of two areas: the laboratory room with a toilet room and equipment room, and the assembly room.

Total sq ft

2,533 (net)

Architect/ Builder

W.C. Kruger Co.; Los Alamos National Laboratory, Engineering Department; The Zia Company, Facilities Engineering Department; R.E. McKee (Builder)

Alterations

List of Drawings (Cntrl + Enter for para break)

"Architectural and Structural Plans": ENG-C12066.
"Section and Elevations": ENG-C12067; "Assembly Building PL-23, Pajarito Canyon Laboratory": A5-C24;
"As-Built Record Floor Plan, Assembly Building": AB99.



TA-18-23 South Elevation



TA-18-23 North Elevation



TA-18-23 East Elevation

JCI #91-011

4. REVISOR 171A.01, 171A.02
AND
171A.03
REPEALED.
171A.04
171A.05
171A.06
171A.07
171A.08
171A.09
171A.10
171A.11
171A.12
171A.13
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171A.89
171A.90
171A.91
171A.92
171A.93
171A.94
171A.95
171A.96
171A.97
171A.98
171A.99
171A.100

LANL TA Building 18-26

Camera #984242

Frame #s 2583

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Vault UTM's easting 385814 northing 396867 zone 13

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

Current Use/ Function Vault Original Use/ Function Vault

Date (estimated) Date (actual) 1948 Property Type Security

Type of Construction

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

Other Type of Construction constructed into a mountain side # of Stories 1

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) signs, chainlink fence, alarms, lights

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 flat

Degree of Pitch/ Slope Slight

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

Other Roof Materials concrete

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

Other Window Type

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
				Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>	
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
			Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						

of Each Door Type/Comments:

Interior Wall	Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
	CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
	Other- Interior	<input type="checkbox"/>		<input type="text" value=""/>
	In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

Nuclear Weapon Components and Assembly	<input type="checkbox"/>	Nuclear Weapon Design and Testing	<input checked="" type="checkbox"/>	Nuclear Propulsion	<input checked="" type="checkbox"/>
Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science	<input type="checkbox"/>	Energy and Environment: R and D Projects	<input type="checkbox"/>		

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-26 is an 1-story, rectangular-in-plan structure measuring approximately 15 ft by 19 ft. The vault is constructed within the mountain face and partially camouflaged with large boulders. The only visible area of the vault is the exterior steel prison gate leading to the entry door to the anteroom. The vault consists of two parts: the anteroom and the vault itself. Access into the structure is through a steel prison gate into the anteroom. Access into the vault is from the anteroom proper. The entire structure is constructed with a 6 in. reinforced concrete floor slab, 18- in.-thick reinforced concrete walls, and a 12- in.-thick flat reinforced concrete roof.

Total sq ft 191 (net)

Architect/ Builder W.C. Kruger Co.; Los Alamos National Laboratory, Engineering Department; Johnson Controls World Services Inc.; R.E. McKee (Builder)

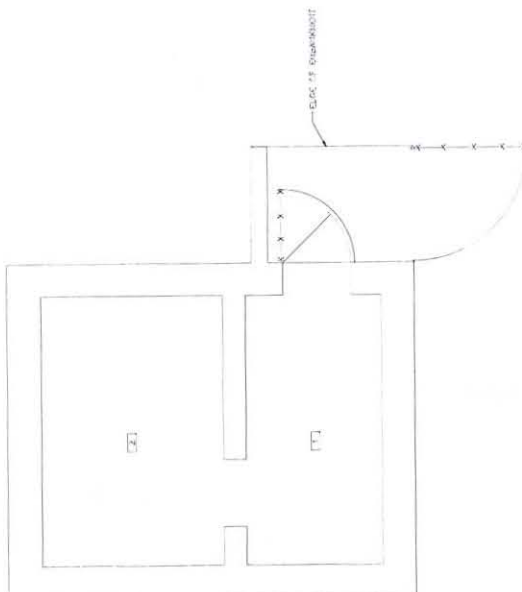
Alterations

List of Drawings (Cntrl + Enter for para break)

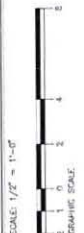
"Layout and Detail": ENG-C12080; "As-Built Record Floor Plan": AB108.



TA-18-26 South Elevation



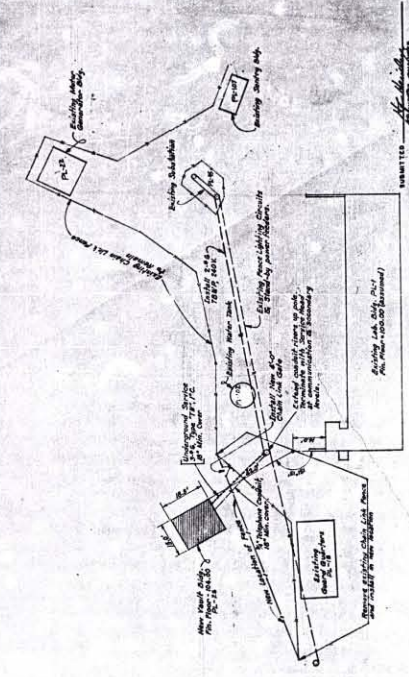
FIRST FLOOR PLAN



FIELD NUMBER 64-06-02

DATE	NO.	REVISIONS	JOHNSON	WORLD SERVICES INC.
AS-BUILT RECORD FLOOR PLAN + VAULT FIRST FLOOR PLAN				
DESIGNED BY	DATE	SCALE	PROJECT NO.	DATE
JOHNSON	12-15-83	1/8" = 1'-0"	64-06-02	12-15-83
CHECKED BY	DATE	SCALE	PROJECT NO.	DATE
JOHNSON	12-15-83	1/8" = 1'-0"	64-06-02	12-15-83
APPROVED BY	DATE	SCALE	PROJECT NO.	DATE
JOHNSON	12-15-83	1/8" = 1'-0"	64-06-02	12-15-83
7556 AB108				

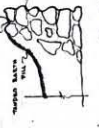
JCI #91-011



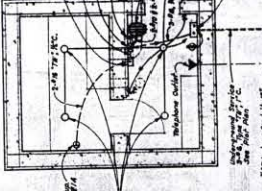
RECORD DRAWING
THIS DRAWING REPRESENTS
THE CONSTRUCTION AS BUILT

DATE 3/31/64
NOTE: Layout of Special Conduit System will be submitted at a later date as an addendum to this contract.

PLOT PLAN
SCALE 1"=10'



SECTION B-B
SCALE 1"=10'



ELECTRICAL PLAN
SCALE 1"=10'

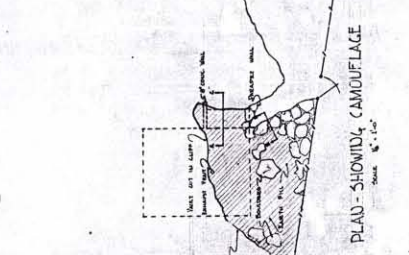
SPECIAL CONDUIT SYSTEM
SCALE 1"=10'

GENERAL NOTE:
The construction of this building is to be in accordance with the specifications and drawings of the U.S. Army Corps of Engineers, Fort Belvoir, Illinois.

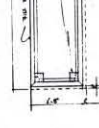
APPROVED FOR THE U.S. ARMY
DATE 3/31/64

W. C. KRAMER CO. ARCHITECTS-ENGINEERS
1111 N. W. 10th St., Fort Belvoir, Illinois

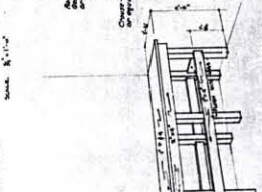
LA 1111 IN DW-3-12080
SFA-A-17



PLAN - SHOWING CAMOUFLAGE
SCALE 1"=10'



ELEVATION
SCALE 1"=10'



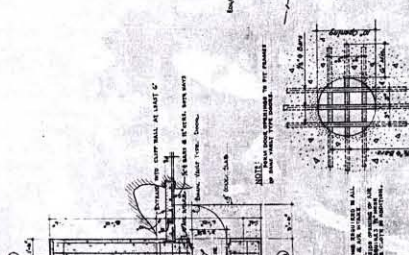
SECTION C-C
SCALE 1"=10'

GENERAL NOTE:
The construction of this building is to be in accordance with the specifications and drawings of the U.S. Army Corps of Engineers, Fort Belvoir, Illinois.

APPROVED FOR THE U.S. ARMY
DATE 3/31/64

W. C. KRAMER CO. ARCHITECTS-ENGINEERS
1111 N. W. 10th St., Fort Belvoir, Illinois

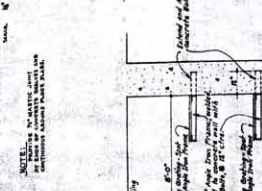
LA 1111 IN DW-3-12080
SFA-A-17



DETAIL OF GRATING
SCALE 1"=10'



SECTION A-A
SCALE 1"=10'



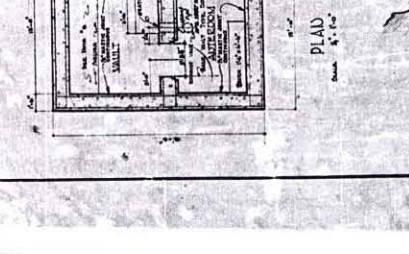
SECTION THRU VAULT
SCALE 1"=10'

GENERAL NOTE:
The construction of this building is to be in accordance with the specifications and drawings of the U.S. Army Corps of Engineers, Fort Belvoir, Illinois.

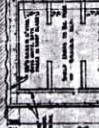
APPROVED FOR THE U.S. ARMY
DATE 3/31/64

W. C. KRAMER CO. ARCHITECTS-ENGINEERS
1111 N. W. 10th St., Fort Belvoir, Illinois

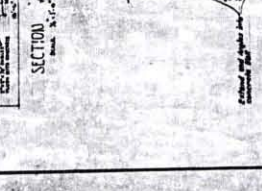
LA 1111 IN DW-3-12080
SFA-A-17



PLAN
SCALE 1"=10'



SECTION D-D
SCALE 1"=10'



SECTION THRU VAULT
SCALE 1"=10'

GENERAL NOTE:
The construction of this building is to be in accordance with the specifications and drawings of the U.S. Army Corps of Engineers, Fort Belvoir, Illinois.

APPROVED FOR THE U.S. ARMY
DATE 3/31/64

W. C. KRAMER CO. ARCHITECTS-ENGINEERS
1111 N. W. 10th St., Fort Belvoir, Illinois

LA 1111 IN DW-3-12080
SFA-A-17

LANL TA Building 18-28

Camera #984242

Frame #s 2536-2539

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Warehouse UTM's easting 385793 northing 3966763 zone 13

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

Current Use/ Function Warehouse Original Use/ Function Warehouse

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

Type of Construction

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

Other Type of Construction # of Stories 1

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) Building equipment include wall-mounted lights, lightning rods, signs, speakers, junction boxes, and a small hood.

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 steel framed 2/2 awning style windows

of Each Window Type/ Comments six pairs per long side

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input checked="" type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

of Each Door Type/Comments: 16 ft by 14 ft double sliding doors - 1 pair per short end; pedestrian doors added to sliding doors; roll-up door on south side

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

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-28 is a 1-story, rectangular- in-plan Butler Building measuring 40 ft by 100 ft containing 4,695 ft². The prefabricated building is constructed with a concrete perimeter foundation, concrete floor slab, steel frame walls sheathed with galvanized steel panels, and a medium-pitched, galvanized steel panel, gable roof. Louvers are set within the gable ends of the building. Each of the two long sides are equipped with six pairs of steel framed 2/2 awning style windows. Both short ends of the building are equipped with 16 ft by 14 ft double sliding doors with inset pedestrian doors. A roll-up door is located on the south side..

Total sq ft 4,695 (net)

Architect/ Builder Butler Manufacturing; Los Alamos Scientific Laboratory, Technical Maintenance Group; R.E. McKee (Builder)

Alterations Installation of a contaminated shop and monorail

List of Drawings (Cntrl + Enter for para break)

"40' x 100' Warehouse, Plans, Elevations, & Electrical": A5-C106; "Contaminated Shop Installation": ENG-C26801; "Floor Plan"; ENG-R2903.



TA-18-28 East Elevation



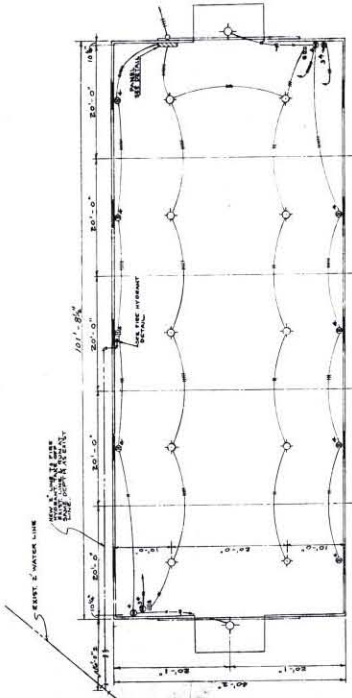
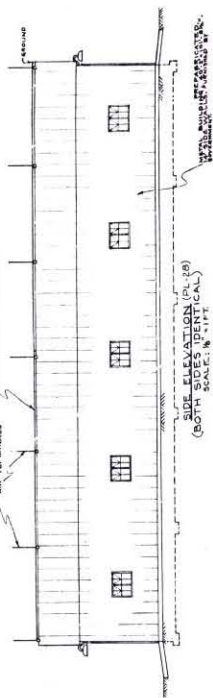
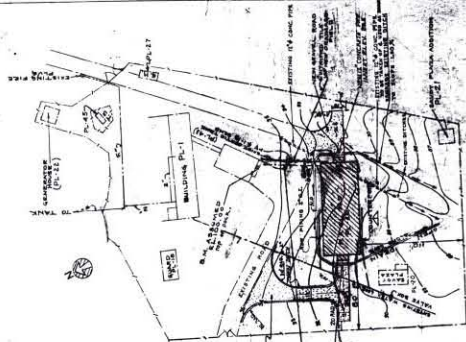
TA-18-28 North Elevation



TA-18-28 West Elevation



TA-18-28 South Elevation



GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

2. ALL MATERIALS SHALL BE OF THE BEST QUALITY AND SHALL BE SUBMITTED FOR APPROVAL TO THE ARCHITECT.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

4. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

5. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

7. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

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9. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

REFERENCE: PLANS AND DETAILS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

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6. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

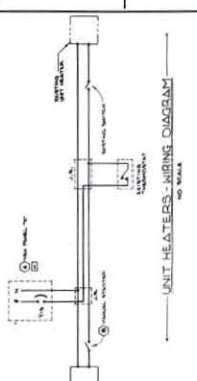
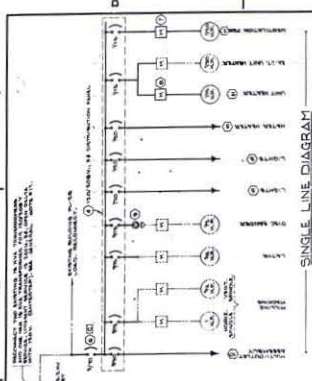
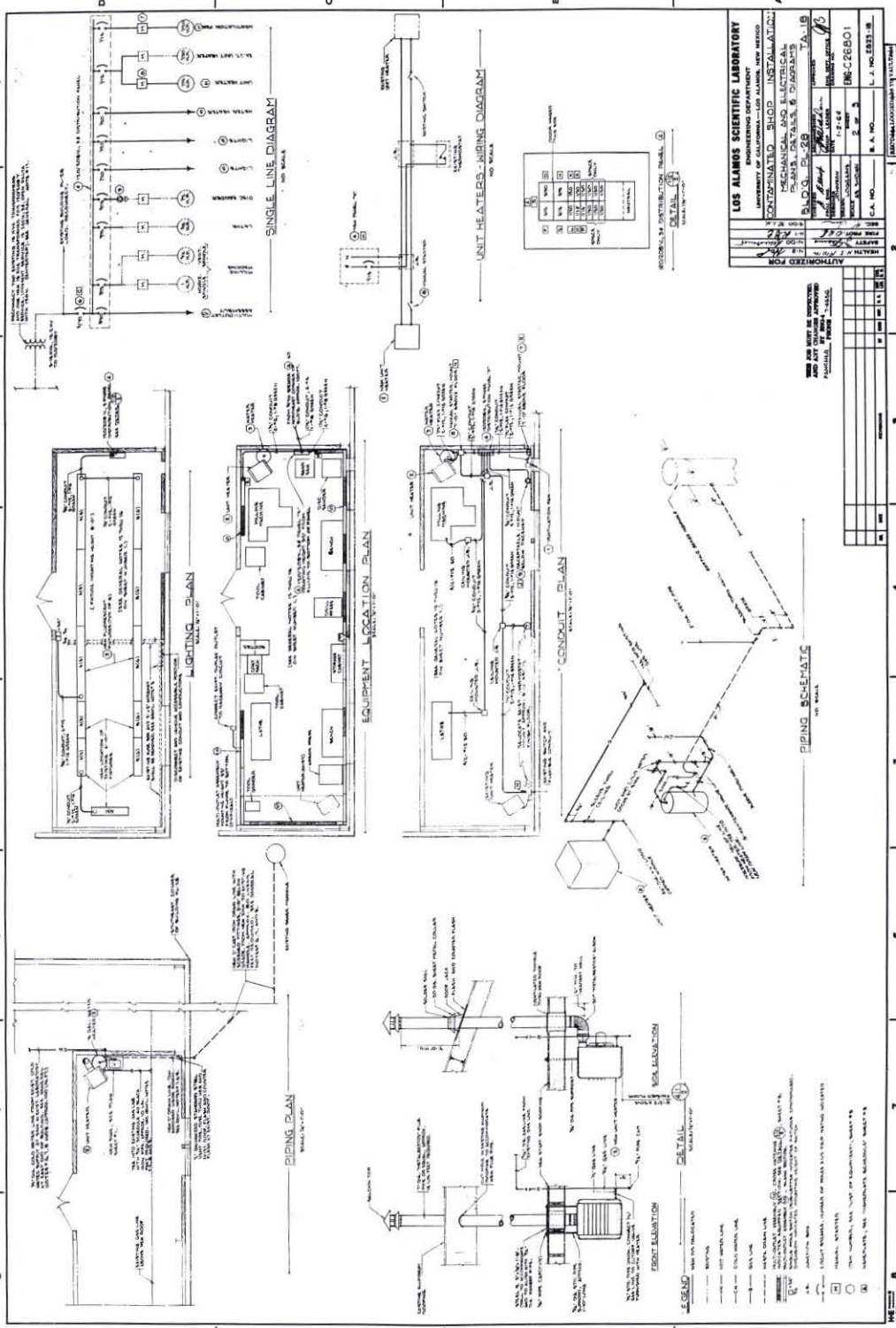
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8. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

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10. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE BUILDING CODES AND SPECIFICATIONS.

U. S. ATOMIC ENERGY COMMISSION OFFICE OF SANTA FE DISTRICT OPERATIONS LOS ALAMOS SCIENTIFIC LABORATORY LOS ALAMOS, NEW MEXICO		40-100 WAREHOUSE PLAN, ELEVATIONS & ELECTRICAL	SCALE DRAWN BY J. M. THAYER CHECKED BY J. M. THAYER DATE 1-15-58	AS SHOWN DATE 1-15-58	100-10-06
APPROVED FOR SPECIAL AGENT IN CHARGE SPECIAL AG					



NO.	DESCRIPTION	QTY.	REMARKS
1	1/2" SCH. 40 STEEL PIPE	100	
2	1/2" SCH. 40 STEEL PIPE	100	
3	1/2" SCH. 40 STEEL PIPE	100	
4	1/2" SCH. 40 STEEL PIPE	100	
5	1/2" SCH. 40 STEEL PIPE	100	
6	1/2" SCH. 40 STEEL PIPE	100	
7	1/2" SCH. 40 STEEL PIPE	100	
8	1/2" SCH. 40 STEEL PIPE	100	
9	1/2" SCH. 40 STEEL PIPE	100	
10	1/2" SCH. 40 STEEL PIPE	100	

LOS ALAMOS SCIENTIFIC LABORATORY
UNIVERSITY OF CALIFORNIA - LOS ALAMOS, NEW MEXICO

CONTAMINATED SHED INSTALLATION

ENGINEERING DEPARTMENT

PROJECT NO. 100-1000

DATE: 10-1-58

BY: [Signature]

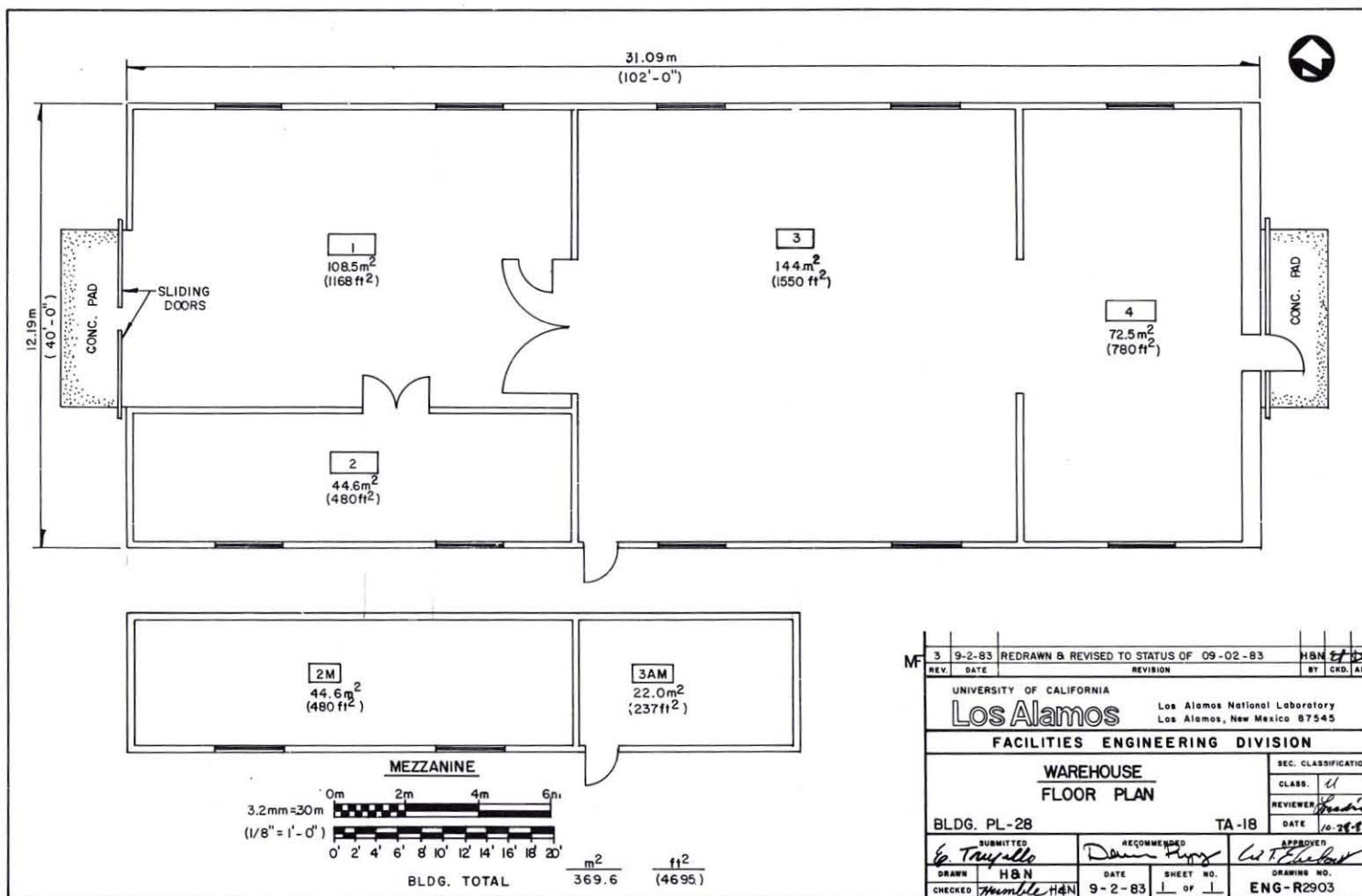
CHECKED: [Signature]

APPROVED: [Signature]

REVISIONS:

NO.	DESCRIPTION	DATE
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3	1/2" SCH. 40 STEEL PIPE	10-1-58
4	1/2" SCH. 40 STEEL PIPE	10-1-58
5	1/2" SCH. 40 STEEL PIPE	10-1-58
6	1/2" SCH. 40 STEEL PIPE	10-1-58
7	1/2" SCH. 40 STEEL PIPE	10-1-58
8	1/2" SCH. 40 STEEL PIPE	10-1-58
9	1/2" SCH. 40 STEEL PIPE	10-1-58
10	1/2" SCH. 40 STEEL PIPE	10-1-58

1 2 3 4 5 6 7 8 9 10



REV	DATE	REVISION	BY	CHKD.	APP
3	9-2-83	REDRAWN & REVISED TO STATUS OF 09-02-83	HBN	ef	ef

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

FACILITIES ENGINEERING DIVISION

**WAREHOUSE
FLOOR PLAN**

BLDG. PL-28 TA-18

SUBMITTED <i>E. Trujillo</i>	RECOMMENDED <i>Dawn Perry</i>	APPROVED <i>W. T. ...</i>
DRAWN HBN	DATE 9-2-83	SHEET NO. 1 OF 1
CHECKED <i>Humble HBN</i>	DATE 9-2-83	DRAWING NO. ENG-R2903

SEC. CLASSIFICATION
CLASS. *CI*
REVIEWER *Radley*
DATE *10-28-83*

REC'D LOGGED TO VALUE *11-25-83*

LANL TA Building 18-30

Camera #984242

Frame #s 2546-2553

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Main Building UTM's easting 385737 northing 3966772 zone 13

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

Current Use/ Function Main Building Original Use/ Function Main Building

Date (estimated) Date (actual) 1952 Property Type Administration

Type of Construction

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

Other Type of Construction # of Stories 2

Foundation Other

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)

Exterior Features (docks, speakers, lights, signs, etc) Building equipment includes signage, wall-mounted lights, window air conditioning units, as well as roof-mounted air handling equipment and lightning rods. Three cable trays extend out from the building to Casas 1, 2, and 3.

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

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 2/2 awning style windows

of Each Window Type/ Comments All four sides contain awning style windows on the main level. The upper level of the high bay is equipped with glass block panels.

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

Light Pattern

Door Type

Personnel Door Types	Exterior	Fire Door <input type="checkbox"/> Single <input checked="" type="checkbox"/> Double <input checked="" type="checkbox"/> Roll-up <input type="checkbox"/> Sliding <input type="checkbox"/> Hollow Metal <input checked="" type="checkbox"/> Solid Wood <input type="checkbox"/> 1/2 Glazed <input checked="" type="checkbox"/> Paneled <input type="checkbox"/> Louvered <input type="checkbox"/> Painted <input checked="" type="checkbox"/>
	Interior	Fire Door <input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Roll-up <input type="checkbox"/> Sliding <input type="checkbox"/> Hollow Metal <input type="checkbox"/> Solid Wood <input type="checkbox"/> 1/2 Glazed <input type="checkbox"/> Paneled <input type="checkbox"/> Louvered <input type="checkbox"/> Painted <input type="checkbox"/>
	Equipment Door Types	Exterior
	Interior	Fire Door <input type="checkbox"/> Single <input checked="" type="checkbox"/> Double <input type="checkbox"/> Roll-up <input checked="" type="checkbox"/> Sliding <input type="checkbox"/> Hollow Metal <input checked="" type="checkbox"/> Solid Wood <input type="checkbox"/> 1/2 Glazed <input type="checkbox"/> Paneled <input type="checkbox"/> Louvered <input type="checkbox"/> Painted <input checked="" type="checkbox"/>
	Interior	Fire Door <input type="checkbox"/> Single <input type="checkbox"/> Double <input type="checkbox"/> Roll-up <input type="checkbox"/> Sliding <input type="checkbox"/> Hollow Metal <input type="checkbox"/> Solid Metal <input type="checkbox"/> 1/2 Glazed <input type="checkbox"/> Paneled <input type="checkbox"/> Louvered <input type="checkbox"/> Painted <input type="checkbox"/>

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

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☒ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-30 is a multi-story building that is predominately C-shaped in plan. The building measures approximately 193 ft by 94 ft. The majority of the building is one story in height however, the south end contains a partial basement and the north end contains a two-story high bay. The building is constructed with concrete foundation and floor slab, and concrete walls in the lower level, reinforced concrete floor slab (for the main floor), concrete walls, and a flat concrete roof with interior roof drains and 4-ft-deep concrete eaves

Total sq ft

21,914 (net)

 Architect/ Builder

Skidmore, Owings, & Merrill, Architects Engineers, New York, Chicago, San Francisco; Los Alamos Scientific Laboratory, Engineering Department; R.J. Daum Construction Company

Alterations

List of Drawings (Cntrl + Enter for para break)

"Basement Plan": ENG-C12662; "First Floor Plan": ENG-C12663; "Roof Plan, Elevations & Section": ENG-C12664; "First Floor Plan": ENG-C12712; "As-Built Record": AB96.



TA-18-30 North Elevation



TA-18-30 West Elevation



TA-18-30 South Elevation



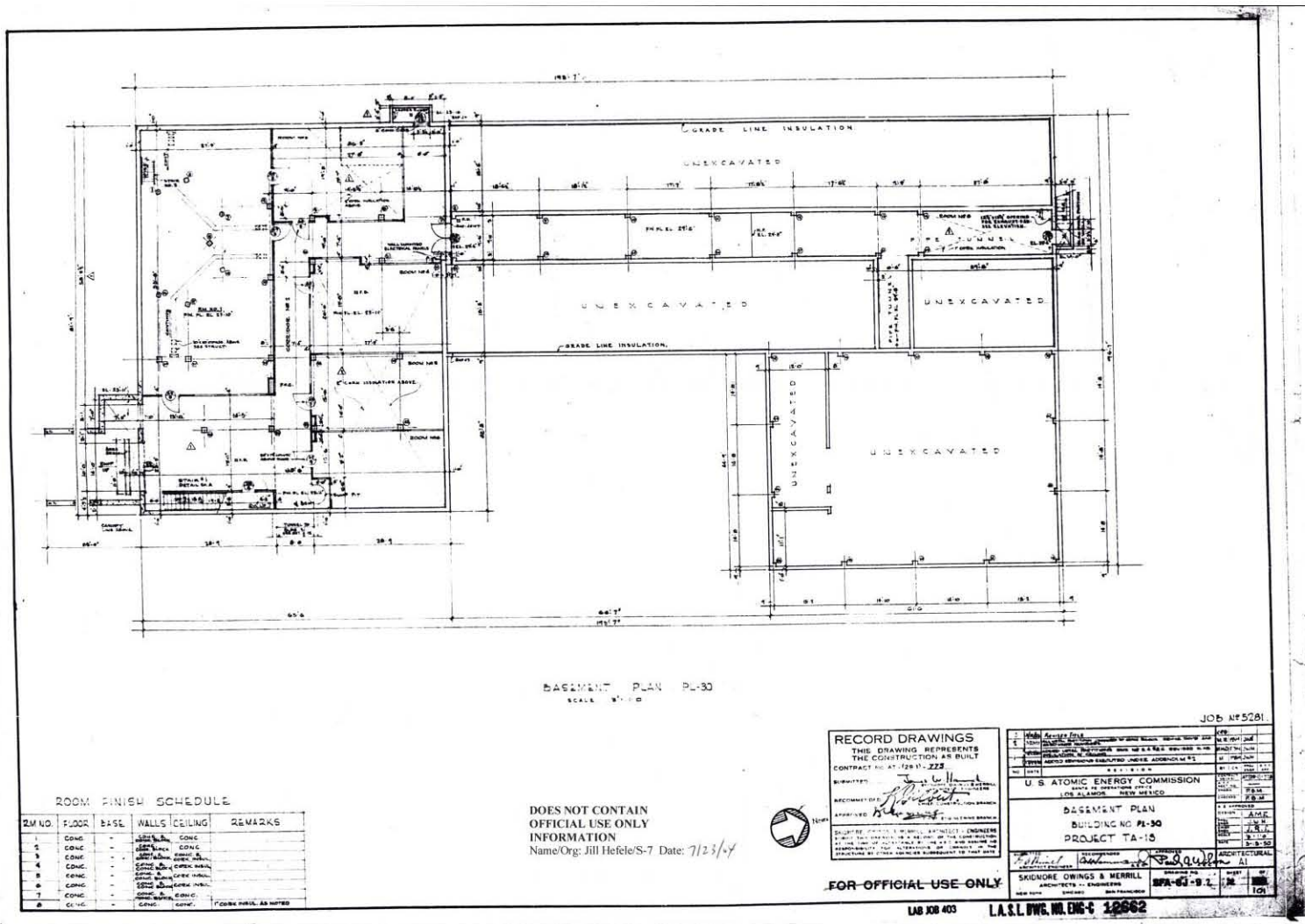
TA-18-30 East Elevation

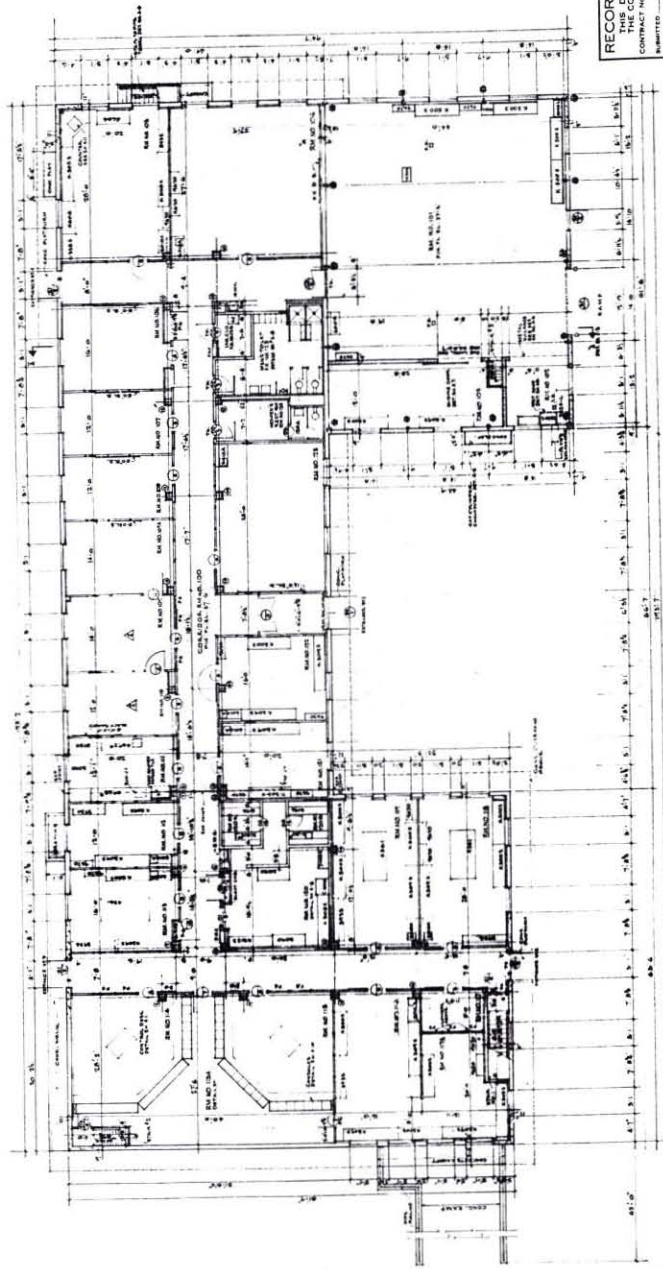


TA-18-30 East Elevation



TA-18-30 East Elevation





FIRST FLOOR PLAN

SCALE 1/8" = 1'-0"

NO.	FLOOR	BASE	WALLS	CEILING	ROOF	DOOR	WALL	CEILING	REMARKS
101	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
102	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
103	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
104	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
105	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
106	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
107	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
108	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
109	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
110	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
111	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
112	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
113	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
114	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
115	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
116	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
117	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
118	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
119	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
120	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
121	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
122	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
123	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
124	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
125	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
126	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
127	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
128	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
129	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
130	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
131	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
132	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
133	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
134	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
135	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
136	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
137	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
138	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
139	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
140	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
141	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
142	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
143	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
144	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
145	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
146	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
147	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
148	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
149	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER
150	1ST	CONC.	CONC.	CONC.	FLAT	CONC.	CONC.	CONC.	AT BASE CORNER

DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION

Name/Op: J. H. Hefley Date: 1/23/64

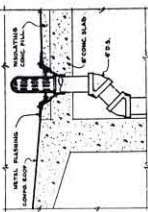
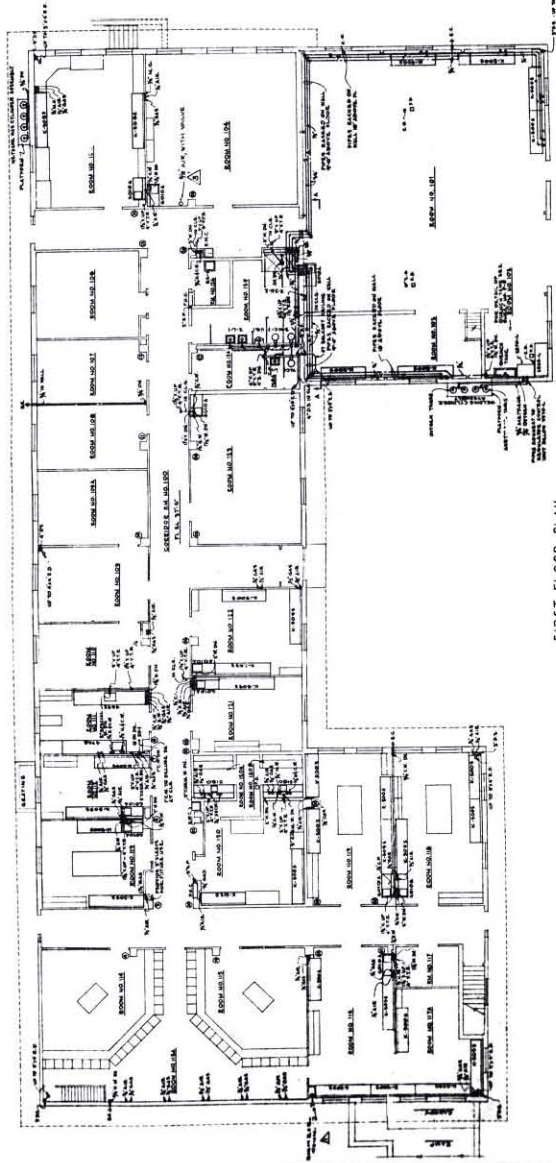
FOR OFFICIAL USE ONLY

RECORD DRAWINGS
THIS DRAWING IS THE
CONSTRUCTION AS BUILT
CONTRACT NO. AT 1281-222
APPROVED: [Signature]
DATE: 1/23/64

1. NAME OF DRAWING	2. DATE	3. DRAWN BY	4. CHECKED BY
5. PROJECT NO.	6. BUILDING NO.	7. SHEET NO.	8. TOTAL SHEETS
9. PROJECT TITLE			
10. PROJECT LOCATION			
11. PROJECT DESCRIPTION			
12. PROJECT STATUS			
13. PROJECT OWNER			
14. PROJECT ARCHITECT			
15. PROJECT ENGINEER			
16. PROJECT CONTRACTOR			
17. PROJECT SUBCONTRACTOR			
18. PROJECT SPECIALIST			
19. PROJECT CONSULTANT			
20. PROJECT REVIEWER			
21. PROJECT APPROVER			
22. PROJECT SIGNATURE			
23. PROJECT DATE			
24. PROJECT SCALE			
25. PROJECT NOTES			

12863

100 300 400



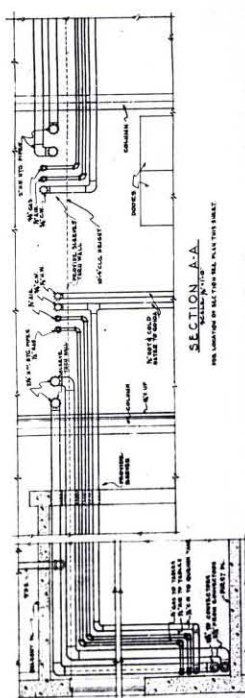
DETAIL OF ROOF DRAIN
SCALE 1/4" = 1'-0"

NOT TO SCALE. THIS DRAWING IS A REPRODUCTION OF THE ORIGINAL DRAWING. IT IS NOT TO BE USED FOR CONSTRUCTION. IT IS FOR INFORMATION ONLY.

DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION
Name: J. H. Heide S-7 Date: 7/23/64



FIRST FLOOR PLAN
SCALE 1/8" = 1'-0"



SECTION A-A
SCALE 1/4" = 1'-0"

RECORD DRAWINGS
THIS DRAWING REPRESENTS
THE OFFICIAL RECORD OF THE
CONTRACT NO. AT (19-1) 112.
APPROVED: *[Signature]*
RECOMMENDED: *[Signature]*
RECORD DRAFTER: *[Signature]*
RECORD CHECKER: *[Signature]*
RECORD REVIEWER: *[Signature]*
RECORD APPROVER: *[Signature]*

FOR OFFICIAL USE ONLY

PROJECT NO.	100-400
PROJECT NAME	LABORATORY BUILDING
PROJECT LOCATION	100-400
PROJECT DATE	7/23/64
PROJECT DRAWN BY	J. H. Heide
PROJECT CHECKED BY	J. H. Heide
PROJECT REVIEWED BY	J. H. Heide
PROJECT APPROVED BY	J. H. Heide
PROJECT RECOMMENDED BY	J. H. Heide
PROJECT RECORD DRAFTER	J. H. Heide
PROJECT RECORD CHECKER	J. H. Heide
PROJECT RECORD REVIEWER	J. H. Heide
PROJECT RECORD APPROVER	J. H. Heide
PROJECT RECORD RECOMMENDER	J. H. Heide

LAB 100-400 LAB 100-400-1 12742

[illegible]

FIELD VERIFIED 10-27-92

101-011

JCI #91-011

LANL TA Building 18-31

Camera #984242

Frame #s 2542-2545

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Utility Building UTM's easting 385766 northing 3966738 zone 13

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

Current Use/ Function Utility Building Original Use/ Function Utility Building

Date (estimated) Date (actual) 1952 Property Type Support

Type of ConstructionPre-Fabricated Metal ☐ Steel Frame ☐ Wood Frame ☐ CMU ☐ Reinforced Concrete ☒

Other Type of Construction # of Stories 1

Foundation Concrete 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) painted

Exterior Features (docks, speakers, lights, signs, etc)

The building also contains a roof access ladder on the west side as well as perimeter surface-mounted lighting, signage and a junction box. The roof is equipped with two vent stacks and air handling equipment.

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 concrete, built-up

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

Other Window Type 2/2 awning

of Each Window Type/ Comments 2 on south

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
Interior		Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						

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

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

The building is also known as the "Switchgear Bldg."

Architectural Features (elevations)

TA-18-31 was originally an one story, rectangular-in-plan building. The building was constructed with a concrete perimeter foundation, 6 in. concrete floor slab, poured concrete walls with a stucco finish, and a low-pitched concrete shed roof with 3-ft.-deep eaves. The south side of the building contains a single, painted hollow metal door and two 2/2 awning style windows covered with security screens. A second pair of painted hollow metal doors is located on the east end of the building.

Total sq ft

1,921 (net)

Architect/ Builder

Skidmore, Owings, & Merrill, Architects Engineers; The Zia Company, Facilities Engineering Division - Los Alamos National Laboratory; Johnson Controls World Services Inc.; R.J. Daum Construction Company

Alterations

In 1985, a one-story rectangular addition was constructed on the north side of the original building. The addition measures 16 ft by 48 ft 6 in. The addition was constructed with a concrete perimeter foundation, 6 in. concrete floor slab, 8-in.-thick concrete masonry unit walls, and low-pitched steel frame shed roof with 3-ft-deep eaves. The north side of the addition contains both a pair of painted hollow metal doors and a 4-ft-wide metal louver. The west side of the addition contains a second 4-ft-wide louver as well as a large through-the-wall ventilator. The interior of the addition is divided into two rooms, rooms 2 and 3, with access into the original building through single hollow metal doors located in each room.

List of Drawings (Cntrl + Enter for para break)

"Safeguards & Security Upgrades": ENG-C44526;
"Install Above Ground Storage Tank": C46189; "Plans, Elevations, & Sections": ENG-C12673.



TA-18-31 West and South Elevations



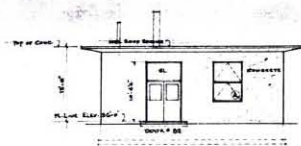
TA-18-31 West Elevation



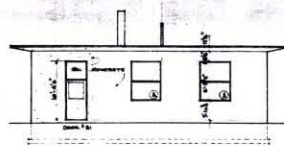
TA-18-31 East and North Elevations



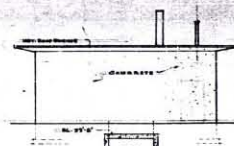
TA-18-31 North Elevation



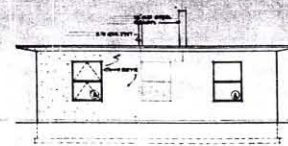
EAST ELEVATION



SOUTH ELEVATION

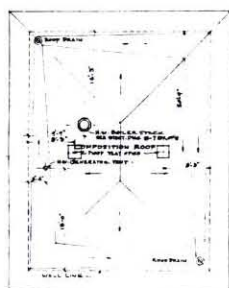


WEST ELEVATION

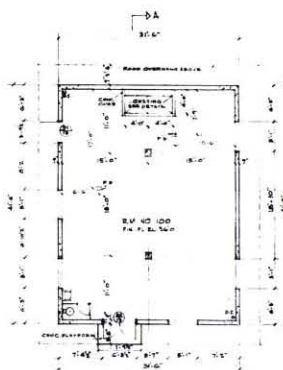


NORTH ELEVATION

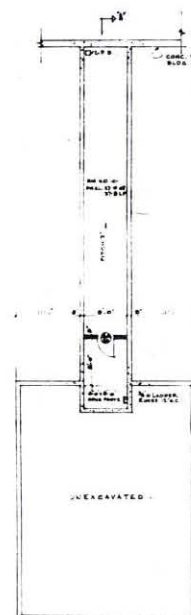
SCALE 3/8" = 1'-0"



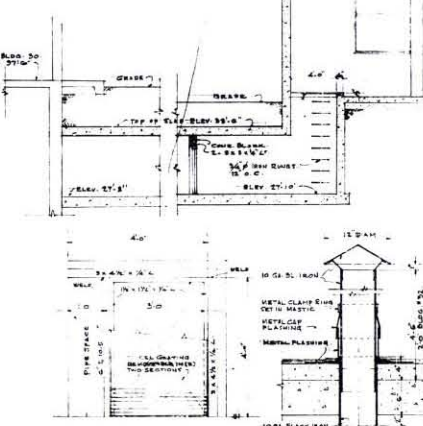
ROOF PLAN



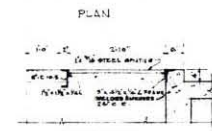
FIRST FLOOR PLAN



PLAN OF TUNNEL



SECTION A-A



DETAIL OF GRATING OVER TUNNEL

DETAIL OF VENT FOR H.W. GENERATOR

DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION

Name/Org: Jill Heife/S-7 Date: 7/23/09

FOR OFFICIAL USE ONLY

ROOM FINISH SCHEDULE

RM NO	FLOOR	BASE	WALLS	CEILING	REMARKS
100	CONG	-	CONG	CONG	
101	CONG	-	CONG	CONG	

NOTE:
FOR TYPICAL WALL SECTIONS SEE BY TAB.
FOR WINDOW & DOOR DETAILS AND DOOR SCHEDULE SEE BY TAB.

RECORD DRAWINGS

THIS DRAWING REPRESENTS
THE CONSTRUCTION AS BUILT

CONTRACT NO. AT-122-11-222

SUBMITTED: *[Signature]*

RECOMMENDED: *[Signature]*

APPROVED: *[Signature]*

SKIDMORE, OWINGS & MERRILL, ARCHITECTS

SKIDMORE, OWINGS & MERRILL, ARCHITECTS

ARCHITECTURAL

PROJECT: *[Signature]*

DATE: 7/23/09

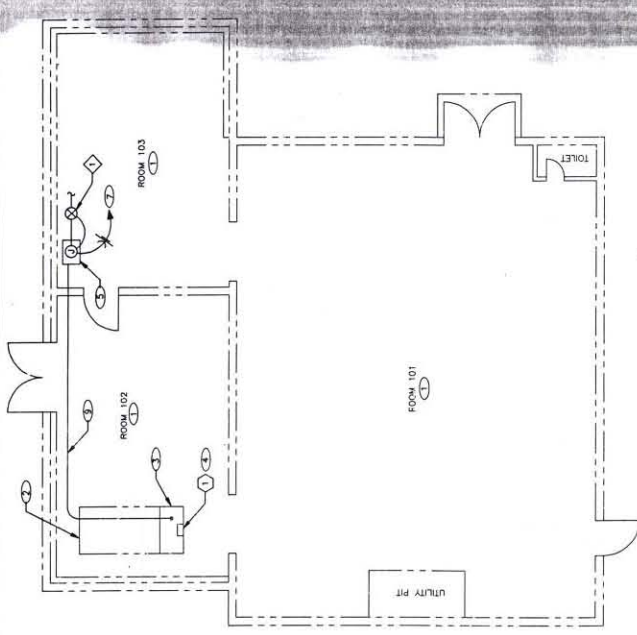
BY: *[Signature]*

FOR OFFICIAL USE ONLY

NO.	DATE	REVISION	BY	CHKD.	APP'D.
1	7/23/09	U.S. ATOMIC ENERGY COMMISSION BUILDING NO. PL-31 LOS ALAMOS, NEW MEXICO			
2	7/23/09	PLANS, ELEVATIONS & SECTION BUILDING NO. PL-31 PROJECT TA-18			
3	7/23/09	SKIDMORE, OWINGS & MERRILL ARCHITECTS - ENGINEERS			

LAB JOB 403

L.A.S.L. DWG. NO. ENG-4 12673

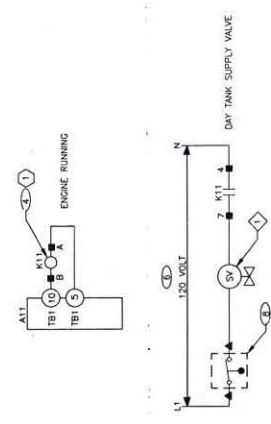


FLOOR PLAN
SCALE 1/4" = 1'-0"

- KEYED NOTES:**
- ① OTHER EQUIPMENT NOT SHOWN FOR CLARITY.
 - ② EXISTING STAND-BY GENERATOR SET.
 - ③ EXISTING CONTROL PANEL.
 - ④ INSTALL AUX. RUN RELAY K11 AND WIRE PER CONTROL VALVE SCHEMATIC WHEN GENERATOR IS RUNNING. K11 IS TO BE OPERATED THROUGH FUEL DAY TANK.
 - ⑤ EXISTING FUEL DAY TANK.
 - ⑥ DISCONNECT AND REMOVE PUMP MOTOR AND ASSOCIATED WIRING.
 - ⑦ RE-USE EXISTING SUPPLY CIRCUIT TO FEED FUEL SOLINOID VALVE.
 - ⑧ RECONNECT DAY TANK FLOAT SWITCH TO OPERATE THE VALVE SCHEMATIC.
 - ⑨ INSTALL 3/4" CONDUIT, 2-#12 STR CONTROL WIRES, AND 1-#12 GND.

ELECTRICAL BILL MATERIAL
THE BILL OF MATERIAL IS INTENDED ONLY AS A GUIDE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MATERIALS AND EQUIPMENT REQUIRED. CATALOG NUMBERS ARE GIVEN AS REFERENCE ONLY, AND APPROVED EQUALS MAY BE SUBSTITUTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MATERIALS AND EQUIPMENT REQUIRED. CATALOG NUMBERS ARE GIVEN AS REFERENCE ONLY, AND APPROVED EQUALS MAY BE SUBSTITUTED.

ITEM NO.	QTY.	DESCRIPTION	MANUFACTURER AND CATALOG NUMBER
1	1 EA.	RUN RELAY KIT FOR INSTALLATION ON EXISTING CONTROL PANEL. 275 500-1/10000	JOHN DEERE #207-2605



VALVE CONTROL SCHEMATIC
NTS

- LEGEND:**
- EXISTING CONSTRUCTION
 - NEW CONSTRUCTION
 - EXISTING CONSTRUCTION TO BE REMOVED
 - TERMINALS ON DAY TANK
 - TERMINALS ON GENERATOR CONTROL PANEL
 - TERMINALS ON TERMINAL BOARD "TBI"
 - ON GENERATOR CONTROL PANEL
 - SEE MECHANICAL EQUIPMENT LIST ON DRAWING SHEET M1



JOHNSON CONTROLS WORLD SERVICES INC.

INSTALL ABOVE GROUND STORAGE TANK
ELEC. PLAN, EQUIPMENT LIST AND SCHEMATIC

BUDG. 31
SUBMITTED 1/1/82
REVISIONS 1/1/82
DATE 1/1/82
PROJECT 100-100000

LOS ANGELES
12463
C46189
0

CLASSIFICATION: 100-100000
PROJECT 100-100000

LANL TA Building 18-32

Camera #984242

Frame #s 2568-2570

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Critical Assembly Building Casa 2 UTM's easting 385360 northing 3966612 zone 13

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

Current Use/ Function Critical Assembly Building Kiva 2 Original Use/ Function Critical Assembly Building Casa 2

Date (estimated) Date (actual) 1952 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories 2

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)

Exterior Features (docks, speakers, lights, signs, etc) Building equipment includes high-powered lights, signage, alarms, wall-mounted conduit, and security cameras.

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 flat

Degree of Pitch/ Slope Slight

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

Other Roof Materials concrete and built-up

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

Other Window Type banks of glass block

of Each Window Type/ Comments two banks of glass block on each of the four sides of the operation room

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Equipment Door Types	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Exterior		Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

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

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-32 is a multi-story (1 ½ and 2-story) building predominately rectangular in plan and measuring 57 ft 5 in. by 58 ft 6 in. The building is constructed with a reinforced concrete perimeter foundation, reinforced concrete walls and a flat reinforced concrete roof. The main entrance into the building is from the east side through either a single painted metal personnel door or through a pair of oversized painted metal doors. Both of these doors enter directly into the truck station room. The truck station room opens into the operation room spanning the full width of the west side of the building. Access into the operation room is through an overhead door. The operation room is 2-stories in height and contains 1,456 ft2 of useable floor space. The room is also equipped with two, single painted metal doors, one on both the north and south sides. All four sides of the upper floor of the operation room are equipped with banks of glass block. Encircling the operation room is a steel catwalk. The building is also equipped with a vault, laboratory room, utility room and bathroom.

Total sq ft 3,023 (net)

Architect/ Builder Skidmore, Owings, & Merrill, Architects Engineers; Los Alamos National Laboratory; Los Alamos National Laboratory, Engineering Department; R.J. Daum Construction Company

Alterations

List of Drawings (Cntrl + Enter for para break)

"Plans, Elevations and Sections": ENG-C12674;
"Sections & Details": ENG-C12675; "As-Built Record Floor Plan": AB100.



TA-18-32 North Elevation



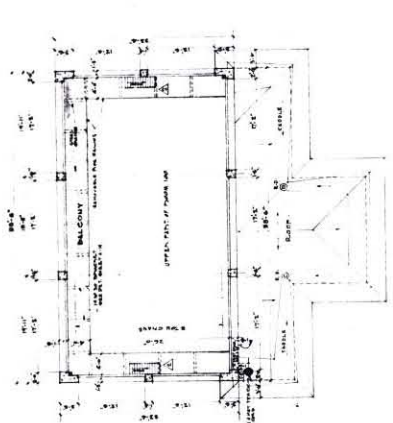
TA-18-32 West and South Elevations



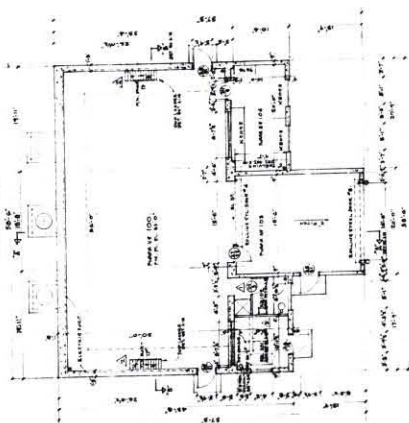
TA-18-32 East Elevation

ROOM FINISH SCHEDULE					REMARKS
RM NO	FLOOR	WALLS	CEILING	DOOR	
100	CONC	CONC	CONC	CONC	
101	CONC	CONC	CONC	CONC	
102	CONC	CONC	CONC	CONC	
103	CONC	CONC	CONC	CONC	
104	CONC	CONC	CONC	CONC	
105	CONC	CONC	CONC	CONC	
106	CONC	CONC	CONC	CONC	
107	CONC	CONC	CONC	CONC	
108	CONC	CONC	CONC	CONC	
109	CONC	CONC	CONC	CONC	
110	CONC	CONC	CONC	CONC	

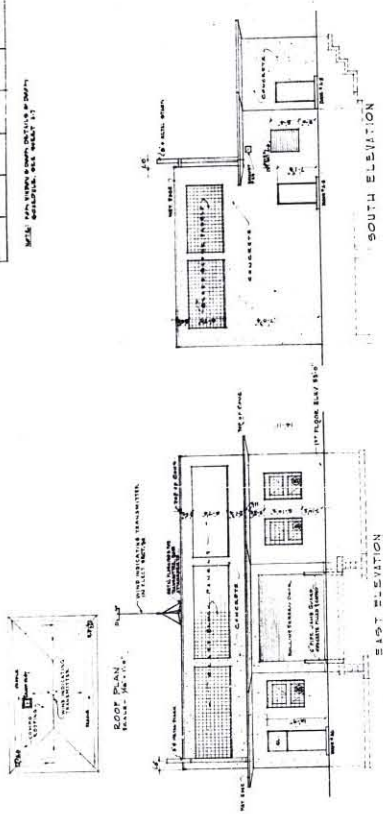
NOTES: 1. ALL FINISHES TO BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE U.S. ATOMIC ENERGY COMMISSION. 2. ALL FINISHES TO BE IN ACCORDANCE WITH THE SPECIFICATIONS OF THE U.S. ATOMIC ENERGY COMMISSION.



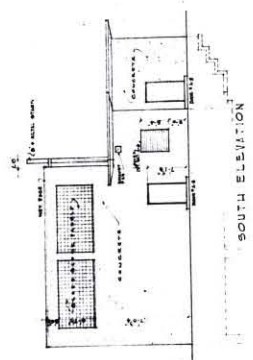
UPPER PLAN OF ROOM 102.
SCALE 1/8" = 1'-0"



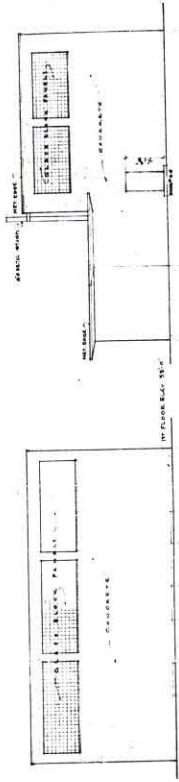
FIRST FLOOR PLAN.
SCALE 1/8" = 1'-0"



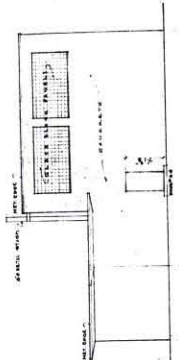
EAST ELEVATION
SCALE 1/8" = 1'-0"



SOUTH ELEVATION
SCALE 1/8" = 1'-0"



WEST ELEVATION
SCALE 1/8" = 1'-0"



NORTH ELEVATION
SCALE 1/8" = 1'-0"

RECORD DRAWINGS THIS DRAWING IS THE PROPERTY OF THE U.S. ATOMIC ENERGY COMMISSION. IT IS TO BE USED ONLY FOR THE PURPOSES FOR WHICH IT WAS PREPARED. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT PERMISSION IN WRITING FROM THE U.S. ATOMIC ENERGY COMMISSION.	
CONTRACT NO. AT (124) 272 PROJECT NO. TA-18 BUILDING NO. PL-32 PLANS ELEVATIONS & SECTIONS U.S. ATOMIC ENERGY COMMISSION LOS ALAMOS, NEW MEXICO	
DRAWN BY: [Signature] CHECKED BY: [Signature] APPROVED BY: [Signature] DATE: 7/23/67	
FOR OFFICIAL USE ONLY L&L INC. INC. 12674 LOS ANGELES, CALIF.	

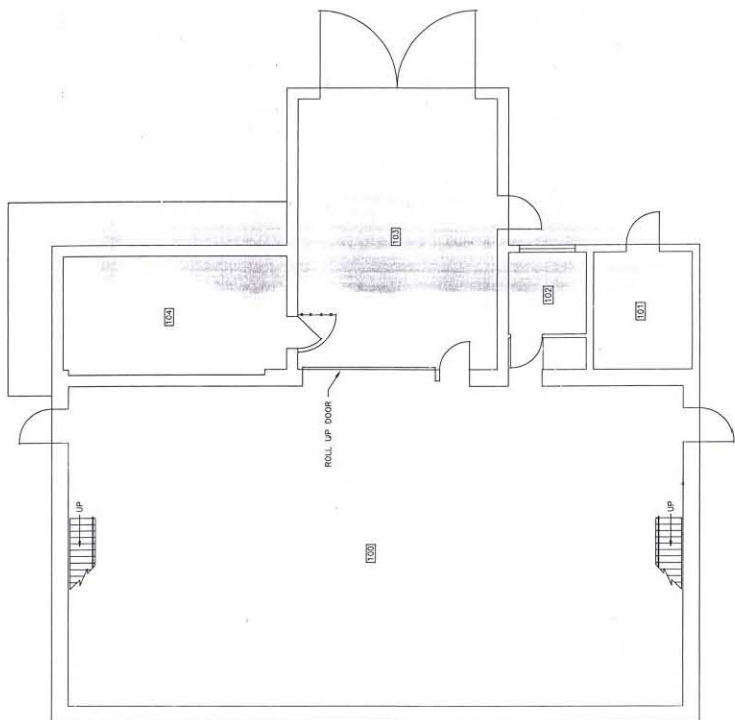
DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION
Name: Org: Jil Heide S-7 Date: 7/23/67

INFORMATION
Name/Org: Jill Heffle/S-7 Date: 7/23/04

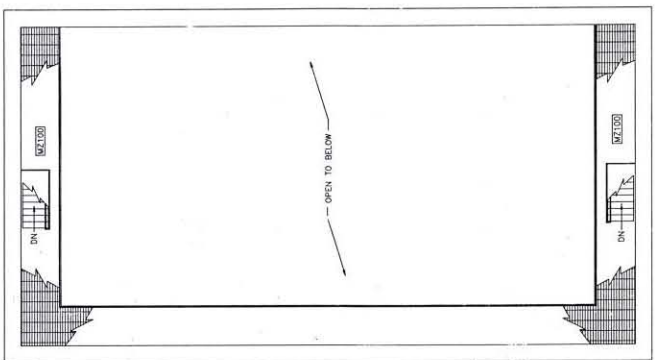


LA8 J08 403

L.A.S.L. DWG. NO. ENG-C 12675



FIRST FLOOR PLAN
SCALE 1/4" = 1'-0"



MEZZANINE FLOOR PLAN
SCALE 1/4" = 1'-0"

NO.		DATE	BY	CHKD.	REV.	DATE	BY	CHKD.	REV.	DATE	BY	CHKD.	REV.	DATE	BY	CHKD.	REV.
<div style="display: flex; justify-content: space-between;"> <div> <p>JOHNSON CONTROLS</p> <p>WORLD SERVICES INC.</p> <p>AS-BUILT RECORD FLOOR PLAN</p> <p>ASSEMBLY BUILDING</p> <p>FIRST FLOOR AND MEZZANINE FLOOR PLANS</p> </div> <div> <p>PROJECT NO. 7556</p> <p>CLIENT: LOS ANGELES</p> <p>LOCATION: 111-12-132</p> <p>DATE: 11-12-12</p> <p>SCALE: 1/4" = 1'-0"</p> <p>SHEET: 1</p> <p>TOTAL SHEETS: 1</p> <p>DESIGNED BY: [Signature]</p> <p>CHECKED BY: [Signature]</p> <p>RELEASED BY: [Signature]</p> </div> </div>																	

FIELD VERIFIED 11-12-12

ICI #01-011

LANL TA Building 18-37
Camera #984242
Frame #s 2540, 2541
Surveyor(s) S. McCarthy, J. Ronquillo
Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Guard Station UTM's easting 385803 northing 3966729 zone 13
Legal Description: Map Frijoles Quad tnspl 19N range 6E sec
Current Use/ Function Guard Station Original Use/ Function Guard Station
Date (estimated) Date (actual) 1952 Property Type Security

Type of Construction

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

Other Type of Construction # of Stories 1

Foundation Concrete 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) painted

Exterior Features (docks, speakers, lights, signs, etc) Additional exterior building elements include pendant style light fixtures at all four corners, conduit, minor signage, and a fire extinguisher.

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 conical

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

3-lite awnings on west, north and east. Single lite awning windows on south side

of Each Window Type/ Comments pairs on three sides with a triple window on the west

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

of Each Door Type/Comments:

Interior Wall

Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
		Other- Interior	<input type="text" value=""/>
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

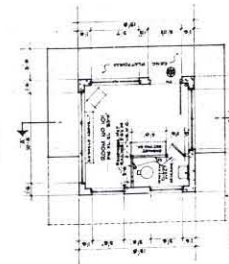
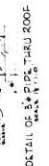
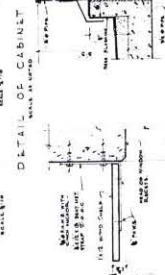
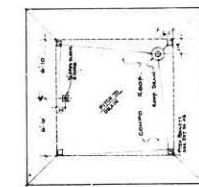
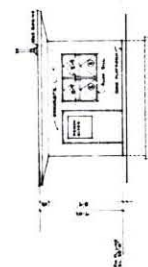
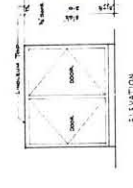
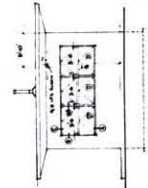
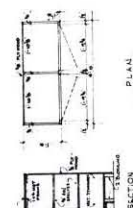
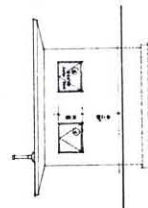
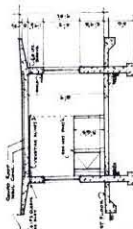
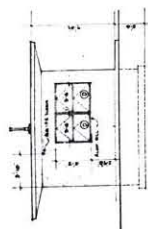
Recommendations/ Additional Comments			
Architectural Features (elevations)			
Total sq ft	167 (net)	Architect/ Builder	Skidmore, Owings, & Merrill, Architects Engineers; Los Alamos National Laboratory, Facilities Engineering Division; Los Alamos National Laboratory, Engineering Department; R.J. Daum Construction Company
Alterations			
List of Drawings (Cntrl + Enter for para break)			
"Floor Plan": ENG-R2909; "Plans, Elevations & Sections": ENG-C12677.			



TA-18-37 West and South Elevations



TA-18-37 East and North Elevations



ROOM FINISH SCHEDULE				
RM NO.	FLOOR	BASE	WALLS/CEILING	REMARKS
(10)	CONC.G.	---	CONC.G.	QUANTITIES TO BE FINE

NOTE: 1. FOR TYPICAL WALL SECTIONS SEE 136-10.

RECORD DRAWINGS

THIS DRAWING REPRESENTS
THE CONSTRUCTION AS BUILT

CONTRACT NO. AT 129-11, 222

SUBMITTER: [Signature]

APPROVED: [Signature]

DATE: 12/1/11

PROJECT: [Signature]

DRAWING NO. 129-11, 222

SHEET NO. 129-11, 222

DRAWING NO. 129-11, 222

SHEET NO. 129-11, 222

[illegible]

DOES NOT CONTAIN
OFFICIAL USE ONLY
INFORMATION

Name/Org: Jill Hefele/S-7 Date: 7/23/02

FOR OFFICIAL USE ONLY

L.A.S.L.DWG. NO. ENG-C 12877



TOTAL SQ. FT. 144

REC'D _____ LOGGED ☒ TO VAULT 11-16-93

5

B

1

LANL TA Building 18-116

Camera #984242

Frame #s 2579-2582

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Critical Assembly Building Casa #3 UTM's easting 385815 northing 3966536 zone 13

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

Current Use/ Function Critical Assembly Building Casa #3 Original Use/ Function Critical Assembly Building Kiva #3

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

Type of Construction

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

Other Type of Construction # of Stories 2

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)

Exterior Features (docks, speakers, lights, signs, etc)

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 predominately flat with interior roof drains

Degree of Pitch/ Slope Slight

Roof Materials Corrugated Metal ☐ Rolled Asphalt ☐ Asbestos Shingles ☐ 4-Ply Built Up ☐
Other Roof Materials steel joists and concrete

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

of Each Window Type/ Comments 1 2-lite awning

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

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

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-116 is the largest of the three critical assembly buildings within TA-18. The building is oversized with a 1 ½-story area on the west side and a 2-story area on the east side. The entire building is rectangular in plan measuring 81 ft by 64 ft 4 in., with a net size of 5667 ft². The building is constructed with a reinforced perimeter foundation, reinforced concrete floor slab, and a basically flat roof with interior roof drains. The two sides of the building are constructed with different heights and different wall materials.

Total sq ft 5,667 (net)

Architect/ Builder Neuner & Cabaniss, Architect Engineers; Los Alamos Scientific Laboratory, Engineering Department; Johnson Controls World Services Inc.

Alterations

List of Drawings (Cntrl + Enter for para break)

"Architectural - Roof Plan, Elevations, & Details": Eng-C29720; "Architectural - Roof Plan, Elevations, & Details": Eng-C29734; "As-Built Record Floor Plan": AB98.



TA-18-116 East and North Elevations



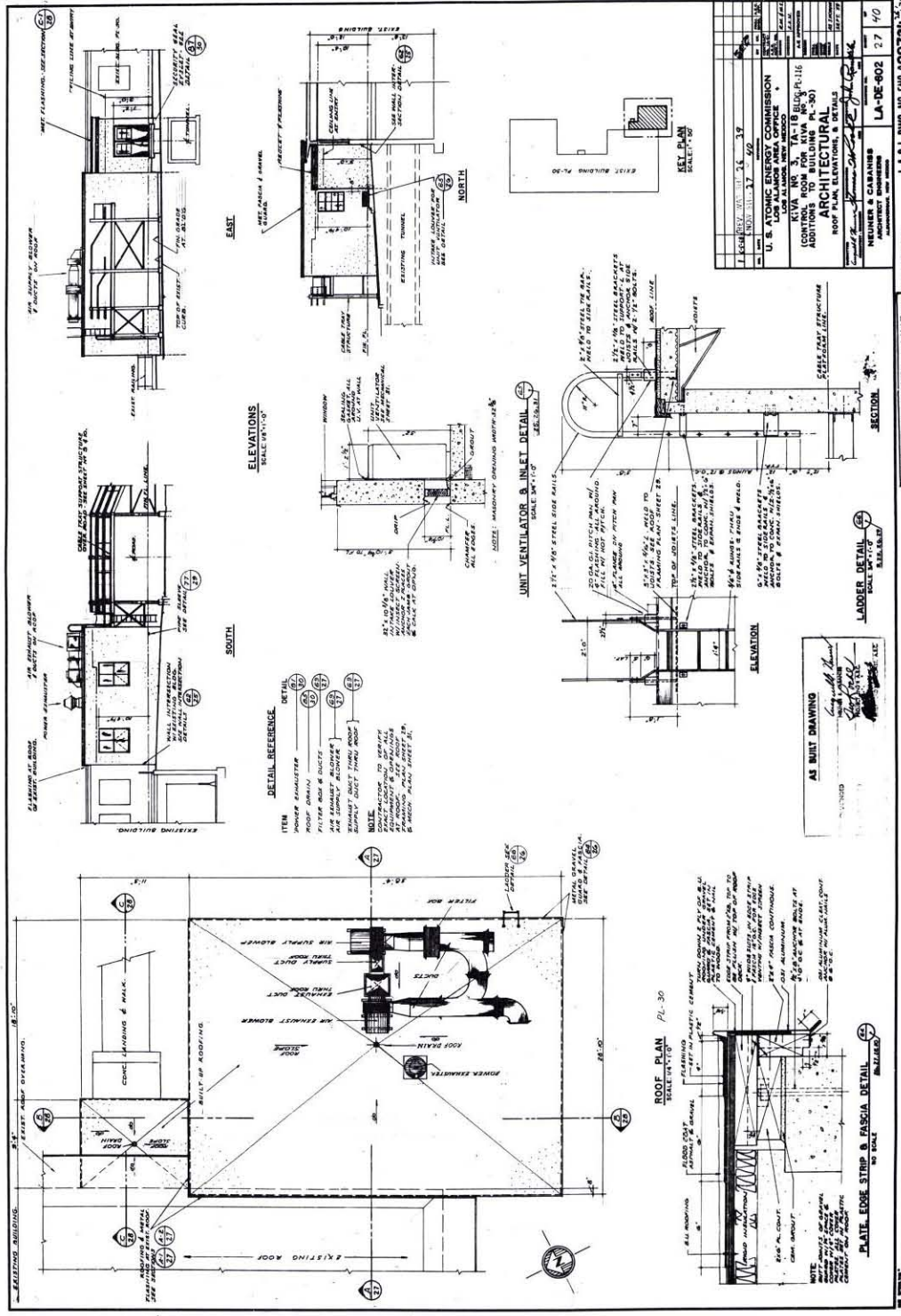
TA-18-116 South Elevation



TA-18-116 North and West Elevations



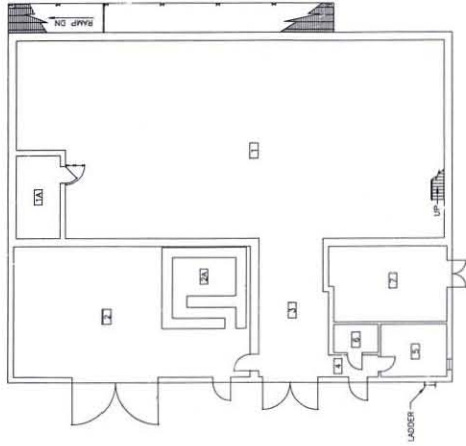
TA-18-116 West Elevation



RECD ENG 3-11-66 LOGGED JAN 11 1966

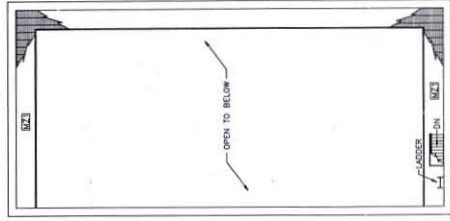
LA S L INC. NO. 146-129794

LA-DE-902 27 4/0



FIRST FLOOR PLAN

SCALE 1/8" = 1'-0"



MEZZANINE FLOOR PLAN

SCALE 1/8" = 1'-0"



FIELD VERIFIED 11-17-92

JOHNSON CONTROLS		WORLD SERVICES INC.	
AS-BUILT RECORD FLOOR PLAN + ASSEMBLY BUILDING		FIRST FLOOR AND MEZZANINE FLOOR PLANS	
DATE	11-17-92	DATE	11-17-92
BY	JOHNSON	BY	JOHNSON
CHECKED	JOHNSON	CHECKED	JOHNSON
APPROVED	JOHNSON	APPROVED	JOHNSON
PROJECT NO. 7556		SHEET 1 OF 1	
DRAWING NO. 7556		JOB NO. 7556	
CLIENT: LOS ANGELES		CLIENT: LOS ANGELES	
PROJECT: RECORD TO BUILD		PROJECT: RECORD TO BUILD	
JOB NO. 7556		JOB NO. 7556	
DRAWING NO. 7556		DRAWING NO. 7556	
SHEET 1 OF 1		SHEET 1 OF 1	

JCI #01-011

LANL TA Building 18-119

Camera #984242

Frame #s 2558, 2559

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Storage Building UTM's easting 385494 northing 3967038 zone 13

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

Current Use/ Function Storage Building Original Use/ Function Storage Building

Date (estimated) Date (actual) 1958 Property Type Support

Type of Construction

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

Other Type of Construction # of Stories 1

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) Additional building equipment includes an alarm located on the side of the equipment room and signage.

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

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input checked="" type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

of Each Door Type/Comments:

1 metal double sliding door, 1 single metal personnel door, pair of metal doors into equipment room

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-18-23

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: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-119 is one of two identical prefabricated Butler buildings within TA-18. TA-18-119 is a 1-story, rectangular- in-plan building measuring 32 ft by 37 ft 10 in. The building is constructed with a poured concrete foundation, 6 in. concrete floor slab, and steel framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into TA-18-119 is from the west side through a pair of 10-ft-wide oversized sliding metal doors or through a single metal door on the east side. Attached to the right side of the buildings is a small, shed-roof equipment room equipped with a pair of metal doors.

Total sq ft 1,713 (net)

Architect/ Builder Butler Manufacturing; Los Alamos Scientific Laboratory, Engineering Department

Alterations

List of Drawings (Cntrl + Enter for para break)

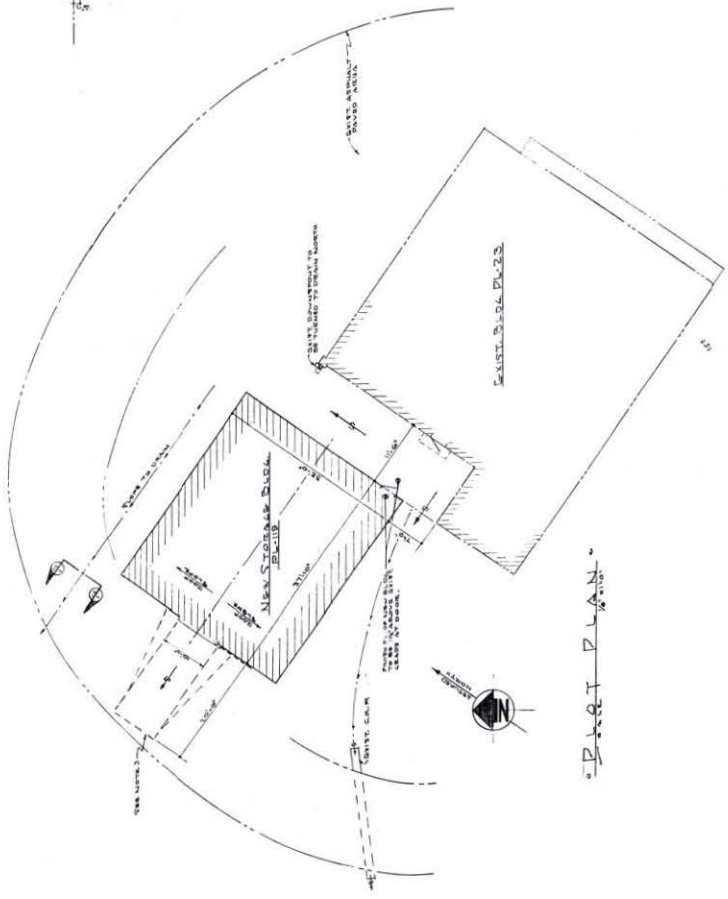
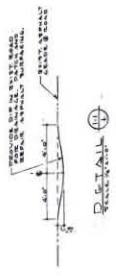
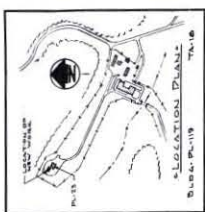
"New Storage Building": ENG-C18996; "Storage Building Floor Plan": ENG-R2913.



TA-18-119 North Elevation



TA-18-119 West and South Elevations

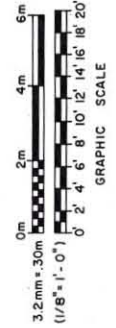
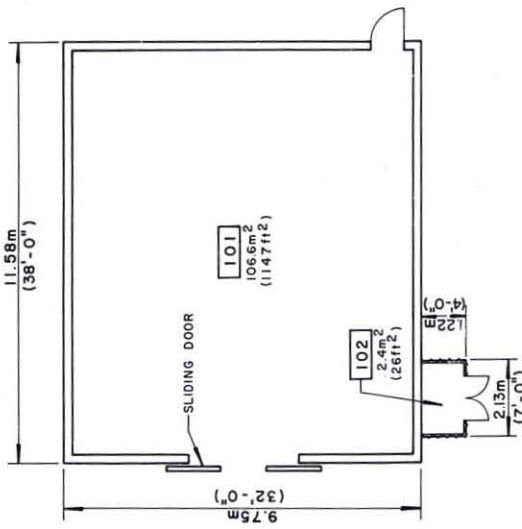


GENERAL NOTES

- CONCRETE TO BE CLASS "C" AND COMPRESSIVE STRENGTH OF 3,000 P.S.I. MINIMUM.
- FOUNDATIONS TO BE CAST IN PLACE. FOUNDATION TO BE CONCRETE WITH GROUND ANCHORS. FOUNDATION TO BE CAST IN PLACE. FOUNDATION TO BE CONCRETE WITH GROUND ANCHORS. FOUNDATION TO BE CAST IN PLACE. FOUNDATION TO BE CONCRETE WITH GROUND ANCHORS.
- GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE.
- GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE. GRAVEL TO BE 3/4" MAXIMUM SIZE.

THIS SET OF DRAWINGS IS TO BE USED FOR THE CONSTRUCTION OF THE NEW STORAGE BUILDING AND ANY CHANGES TO THE ORIGINAL DESIGN MUST BE APPROVED BY THE ENGINEER OF RECORD.

PROJECT NO.	100	DATE	10/1/66
DESIGNED BY	W. J. B. J.	CHECKED BY	W. J. B. J.
ENGINEER OF RECORD	W. J. B. J.	DATE	10/1/66
<p>LOS ALAMOS SCIENTIFIC LABORATORY ENGINEERING DEPARTMENT UNIVERSITY OF CALIFORNIA - LOS ALAMOS NEW MEXICO</p>			
<p>NEW STORAGE BUILDING PL-19</p>			
<p>CIVIL-PLATE LOCATION</p>			
PROJECT NO.	100	DATE	10/1/66
DESIGNED BY	W. J. B. J.	CHECKED BY	W. J. B. J.
ENGINEER OF RECORD	W. J. B. J.	DATE	10/1/66
<p>ENG-C 10096</p>			



BLDG. TOTAL $\frac{m^2}{109.0}$ $\frac{ft^2}{(1173)}$

3		6-9-83		REVISED TO STATUS OF SEPTEMBER 06, 1983		NON-APP.	
REV.		DATE		REVISION		BY	
M		F		F		F	
UNIVERSITY OF CALIFORNIA Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545							
FACILITIES ENGINEERING DIVISION							
STORAGE BUILDING				FLOOR PLAN			
BLDG. PL. -119				TA-18			
DRAWN BY IS. VIGIL				DATE 08-07-78			
CHECKED BY H. HEN				SHEET NO. 1 OF 1			
RECOMMENDED BY D. R. R.				APPROVED BY K. H. H.			
REVIEWED BY J. H. H.				DATE 12-28-83			
REVISION				DRAWING NO. ENG-R2913			

NOTED... LARGED... TO VAULT... 11-22-83

LANL TA Building 18-122

Camera #984242

Frame #s 2571, 2572

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Storage Building UTM's easting 385334 northing 3966624 zone 13

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

Current Use/ Function Storage Building Original Use/ Function Storage Building

Date (estimated) Date (actual) 1960 Property Type Support

Type of Construction

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

Other Type of Construction # of Stories 1

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) Additional building equipment includes an alarm located on the side of the equipment room and signage.

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

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input checked="" type="checkbox"/>		
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>		
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>		
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>		
			Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>

of Each Door Type/Comments:

1 metal double sliding door, 1 single metal personnel door, pair of metal doors into equipment room.

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-18-32

Integrity

Good

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: R and D Projects ☐

LANL Themes

Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-122 is one of two identical prefabricated Butler buildings within TA-18. TA-18-122 is a 1-story, rectangular-in-plan building measuring 32 ft by 37 ft 10 in. The building is constructed with a poured concrete foundation, 6 in. concrete floor slab, and steel framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into TA-18-122 is through a pair of 10-ft-wide oversized sliding metal doors or through a single metal door. Attached to the right side of the buildings is a small, shed-roof equipment room equipped with a pair of metal doors.

Total sq ft

1,297 (net)

Architect/ Builder

Butler Manufacturing; Los Alamos National Laboratory: Engineering Department; Johnson Controls World Services Inc.; Los Alamos National Laboratory: Facilities Engineering Division

Alterations

List of Drawings (Cntrl + Enter for para break)

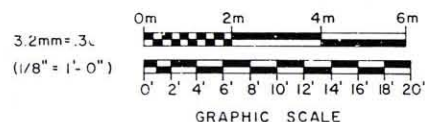
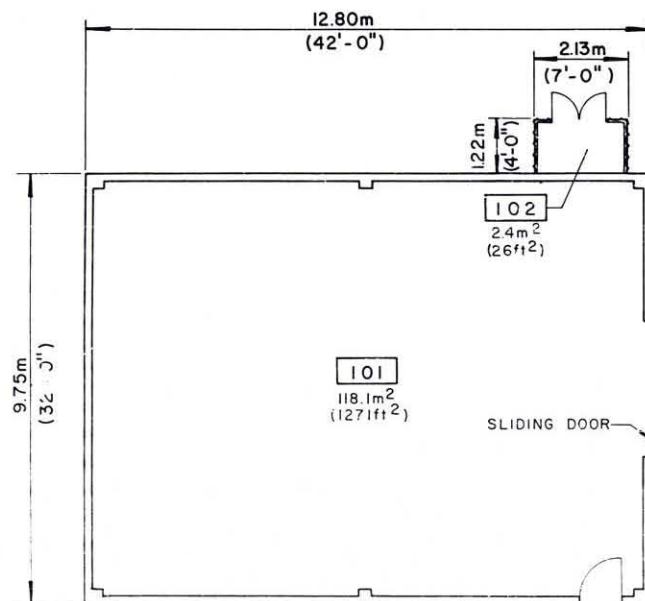
"Storage Building Floor Plan": ENG-R2914.



TA-18-122 North and West Elevations



TA-18-122 East Elevation



BLDG. TOTAL $\frac{m^2}{120.5}$ $\frac{ft^2}{(1297)}$

REV. DATE		REVISION		BY CKD APP	
2 9-6-83		REVISED TO STATUS OF SEPTEMBER 06, 1983		H9N <i>[Signature]</i>	
UNIVERSITY OF CALIFORNIA Los Alamos Los Alamos National Laboratory Los Alamos, New Mexico 87545					
FACILITIES ENGINEERING DIVISION					
STORAGE BUILDING FLOOR PLAN				SEC. CLASSIFICATION	
BLDG. PL-122				TA-18	
SUBMITTED <i>E. Trujillo</i>		RECOMMENDED <i>D. R. [Signature]</i>		APPROVED <i>C. T. [Signature]</i>	
DRAWN S. VIGIL		DATE 08-07-78		SHEET NO. 1 OF 1	
CHECKED <i>[Signature]</i>		DATE 08-07-78		DRAWING NO. ENG-R2914	

LANL TA Building 18-127

Camera #984242

Frame #s 2565-2567

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

Los Alamos National Laboratory CRMT
Historic Building Survey Form

Building Name Pulsed Accelerator Building UTM's easting 385755 northing 3966841 zone 13

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

Current Use/ Function Pulsed Accelerator Building Original Use/ Function Pulsed Accelerator Building

Date (estimated) Date (actual) 1966 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories 2

Foundation Other

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

Wood Siding ☐ Asbestos Shingles-Exterior ☐ In-Fill Panels ☐ Other-Exterior pre-fabricated metal wall panels

Exterior Treatment (painted, stuccoed, etc)

Exterior Features (docks, speakers, lights, signs, etc) Building equipment includes signage, alarms, and surface-mounted lights. A concrete dock is located on the east end.

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

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

Exterior Treatment-Addition

Exterior Features-Addition Concrete dock on east end

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 Steel joist and galvanized metal panels. The roof is equipped with large ventilators, lightning rods, and lights.

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

Other Window Type 3-lite awnings on east end addition

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	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input checked="" type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

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

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☐ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments**Architectural Features (elevations)**

TA-18-127 is a multi-story building that is predominately rectangular in plan and measures approximately 40 ft wide (not including the "point") and over 100 ft long. The building is constructed in two parts. The 1-story east end area contains the control room, mechanical room, and a corridor. Below the corridor is a small cable room. The open 2-story area with full basement is located on the west end of the building and contains the pulsed accelerator room.

Total sq ft 8,866 (net)**Architect/ Builder**

Philippe Register, AIA; Los Alamos Scientific Laboratory, Engineering Department; The Zia Co., Facilities Engineering Department; J.R. Brennand Construction Company (Builder)

Alterations

Trailer relocation, installation of weather canopy, substation upgrades, new security fence

List of Drawings (Cntrl + Enter for para break)

"Architectural": LA-HB-A1R through LA-HB-A4R;
"Trailer Relocation": ENG-C38326, ENG-C38430;
"Safeguards Data Facility": ENG-C38431; "Substation Replacement": SK7921; "Pulsed Accelerator Bld'g, Floor Plan": ENG-PL-1333; "Pulsed Accelerator Bld'g, Plan - Basement": ENG-PL-1334.



TA-18-127 East Elevation



TA-18-127 South Elevation



TA-18-127 West and South Elevations

[illegible]

(P101) 4" CONDUIT WITH 3 #1/0 AND 15KV EPR CABLES. #1/0 AWG BASE COPPER GROUND IS RUN OUTSIDE CONDUIT.

(P102) 3 #2/0 AWG 15KV WELDING CABLES.

(P103) THREE (3) #500 KCMIL THIN/THIN PER PHASE AND 1 #4" AWG THIN/THIN GROUND INSTALLED AND 1 #4" AWG THIN/THIN GROUND.

(P104) 2" IAC CONDUIT FILL WITH 3 #1/0 AWG THIN/THIN AND 1 #4" AWG THIN/THIN GROUND.

(P105) ONE (1) 4" ROSS CONDUIT WITH 3 #500 KCMIL THIN/THIN AND 1 #4/0 AWG THIN/THIN GROUND.

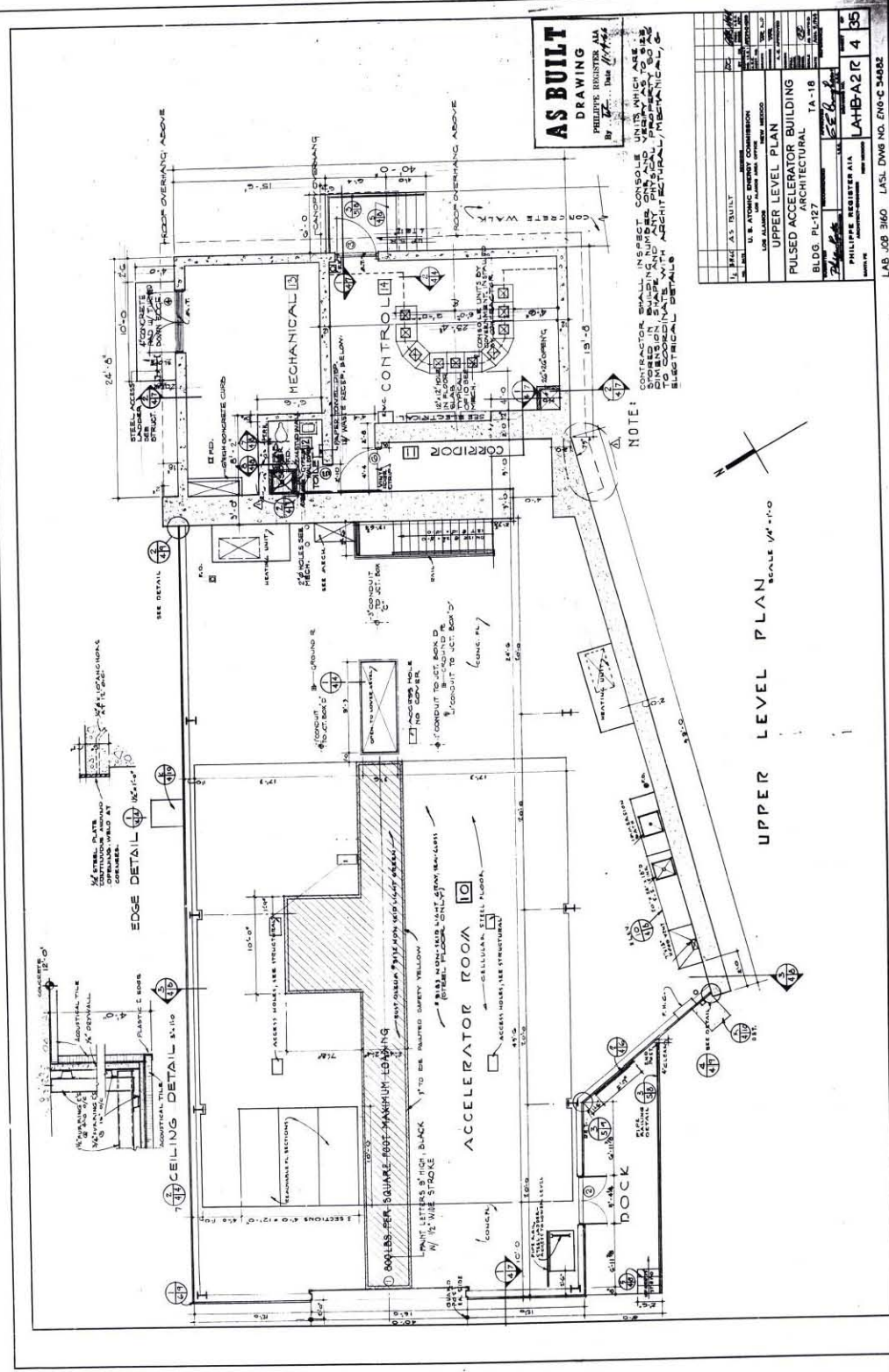
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LEGEND

	EXISTING CONSTRUCTION	NEW CONSTRUCTION
1990	1,000	1,000
1991	1,000	1,000
1992	1,000	1,000
1993	1,000	1,000
1994	1,000	1,000
1995	1,000	1,000
1996	1,000	1,000
1997	1,000	1,000
1998	1,000	1,000
1999	1,000	1,000
2000	1,000	1,000
2001	1,000	1,000
2002	1,000	1,000
2003	1,000	1,000
2004	1,000	1,000
2005	1,000	1,000
2006	1,000	1,000
2007	1,000	1,000
2008	1,000	1,000
2009	1,000	1,000
2010	1,000	1,000
2011	1,000	1,000
2012	1,000	1,000
2013	1,000	1,000
2014	1,000	1,000
2015	1,000	1,000
2016	1,000	1,000
2017	1,000	1,000
2018	1,000	1,000
2019	1,000	1,000
2020	1,000	1,000
2021	1,000	1,000
2022	1,000	1,000
2023	1,000	1,000
2024	1,000	1,000
2025	1,000	1,000
2026	1,000	1,000
2027	1,000	1,000
2028	1,000	1,000
2029	1,000	1,000
2030	1,000	1,000

[illegible]

LAB JOB 3160 LASL DWG NO. ENG-C 34801



AS BUILT
DRAWING
By *PHILIPPE REGISTER AIA* Date *11-1-66*

CONTRACTOR SHALL INSPECT CONSOLE UNITS WHICH ARE
STAMPED IN BUILDING NUMBER ONE AND REPORT TO
SUPERVISOR FOR APPROVAL. TO COORDINATE WITH ARCHITECTURAL
ELECTRICAL DETAILS

1. BLDG. AS BUILT	2. DATE	3. SCALE	4. SHEET NO.	5. TOTAL SHEETS
U. S. ATOMIC ENERGY COMMISSION	11-1-66	1/4" = 1'-0"	4	35
LOS ALAMOS	NEW MEXICO			
PULSED ACCELERATOR BUILDING				
ARCHITECTURAL TA-18				
BLDG. PL-127				
PHILIPPE REGISTER AIA				
L.A.H.B.A.2 R 4				

L.A.S. JOB 3160 L.A.S. DWG NO. EN-C 34882



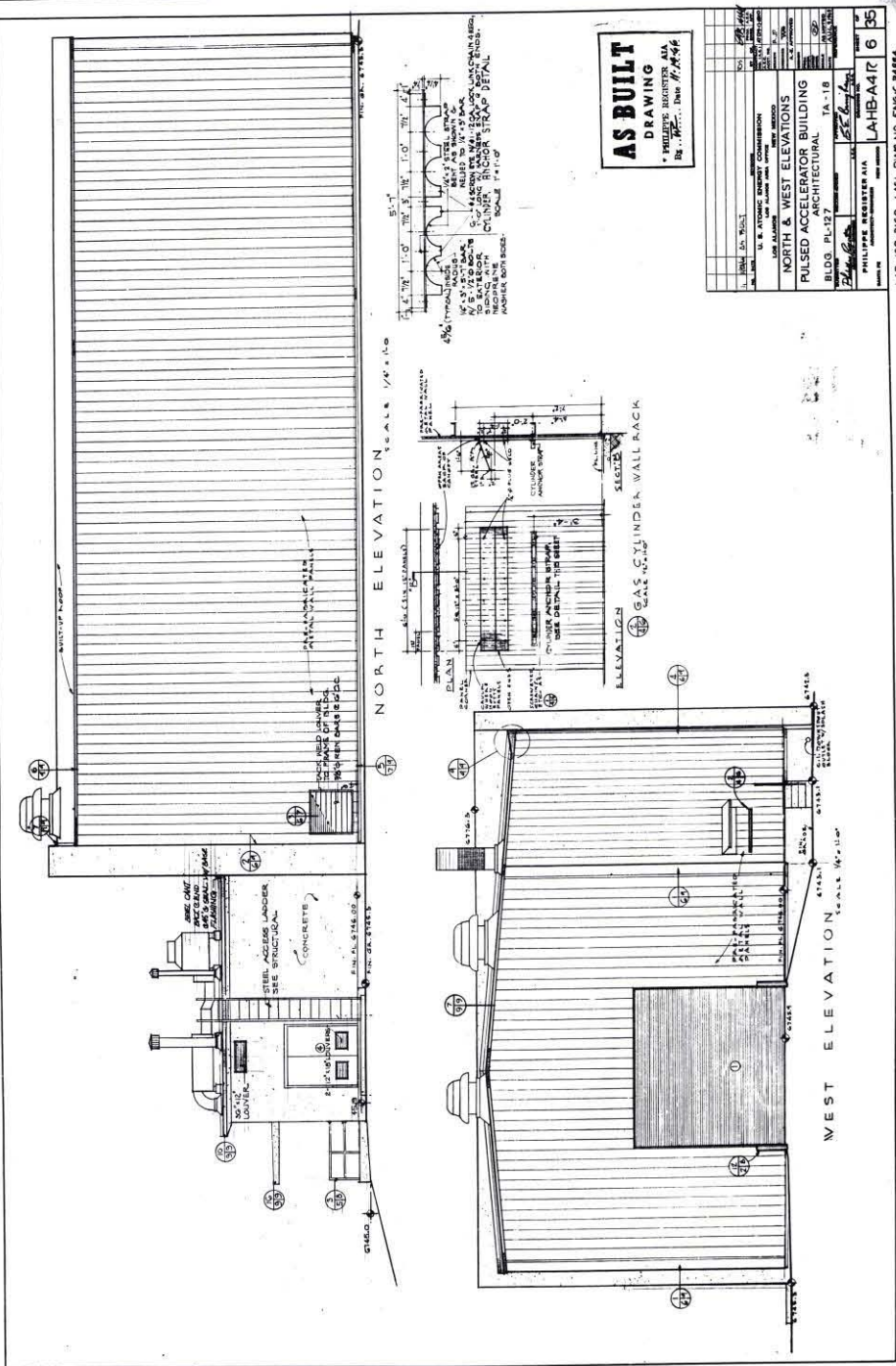
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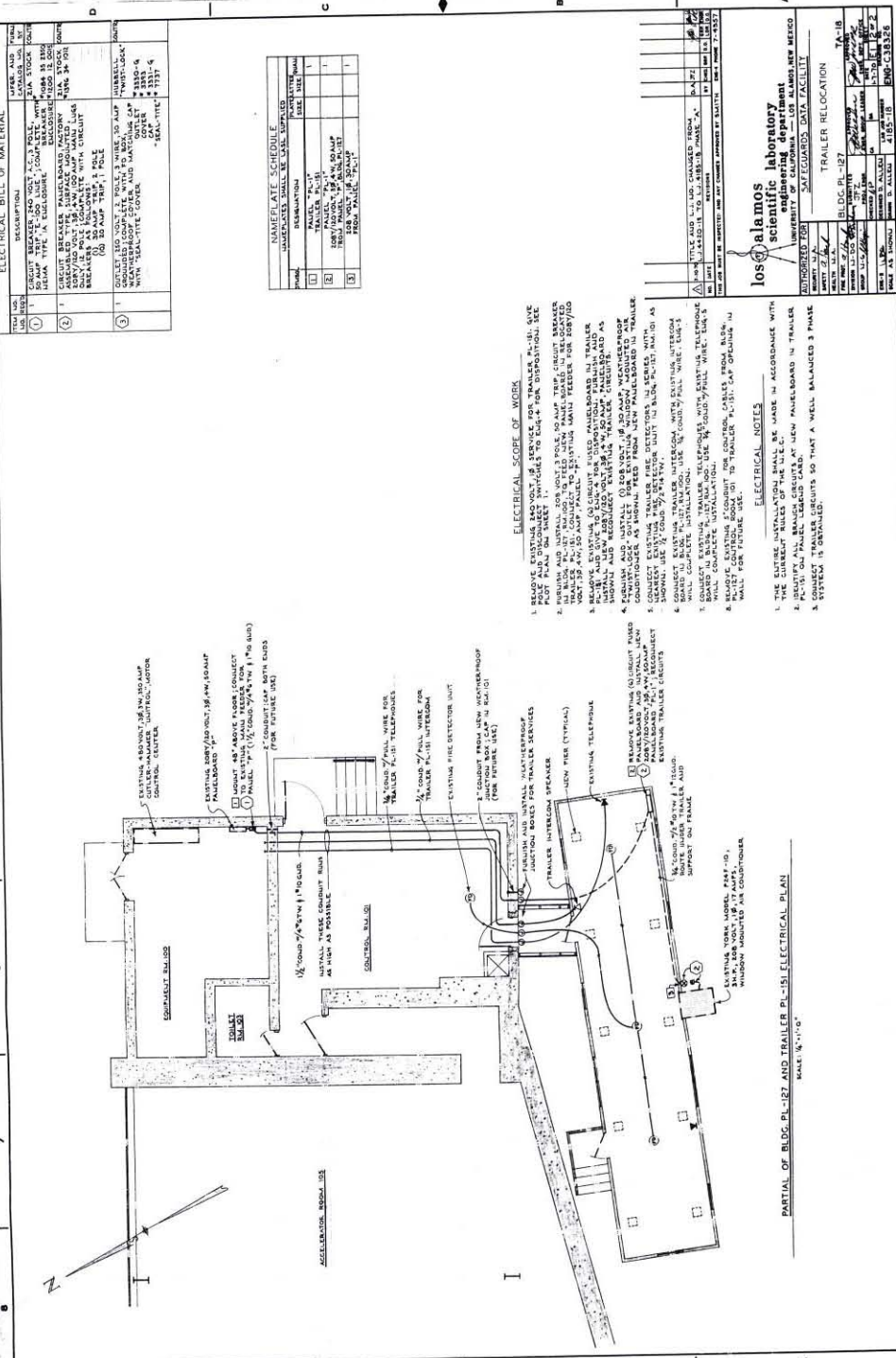
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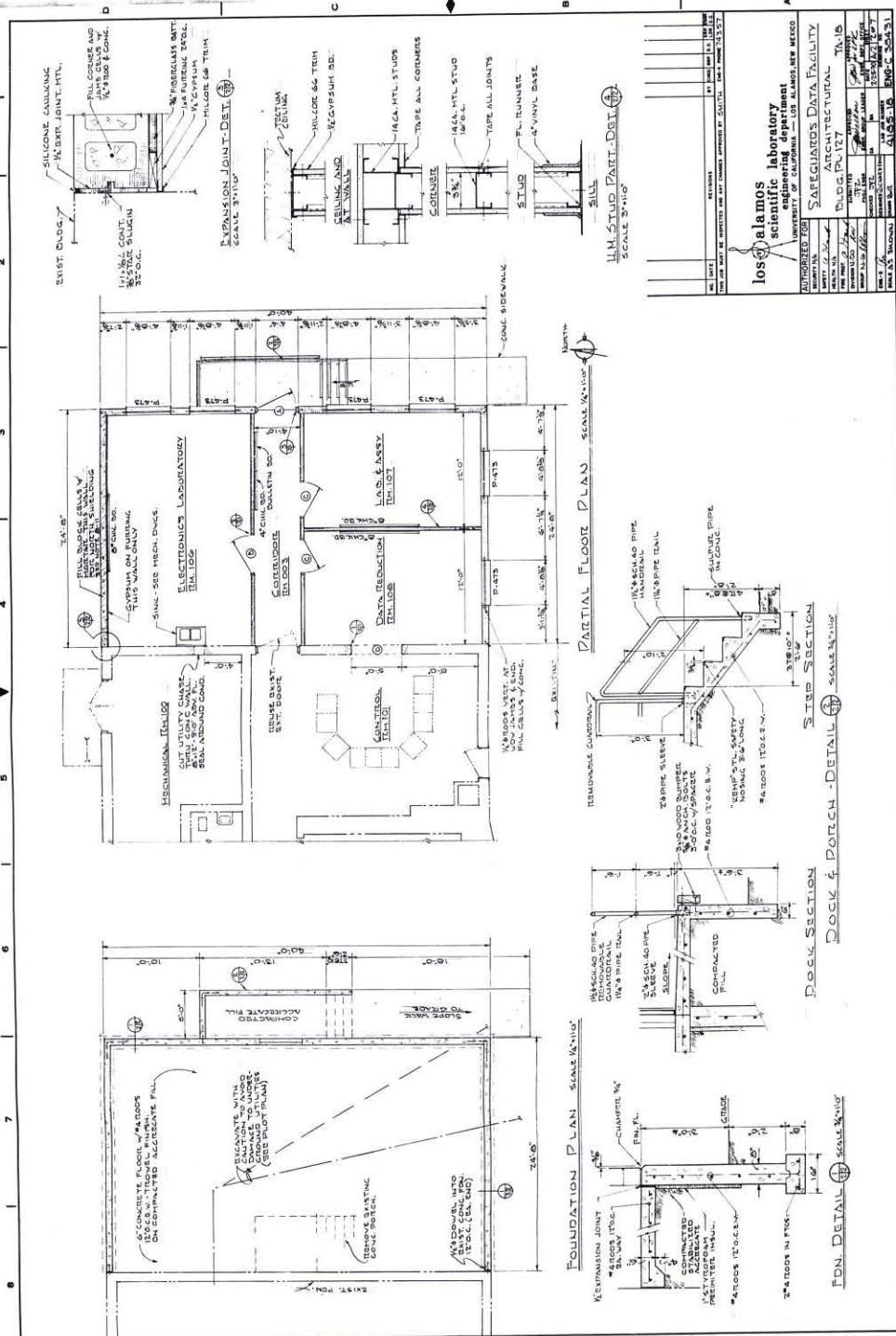
AS BUILT
DRAWING
PHILIPPE REGISTER AIA
By PH Date 11/19/68

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LAB JOB 3160 1 ASL DWG NO. ENG-C 34683







los alamos scientific laboratory
UNIVERSITY OF CALIFORNIA, LOS ALAMOS, NEW MEXICO

SAFEGUARDS DATA FACILITY

PROJECT NO. 100-1000

DATE 10-1-66

BY J. L. HARRIS

CHECKED BY J. L. HARRIS

APPROVED BY J. L. HARRIS

PLATE 6

LANL TA Building 18-128
Camera #984242
Frame #s 2574, 2575
Surveyor(s) S. McCarthy, J. Ronquillo
Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Assembly Cover Building UTM's easting 385385 northing 3966632 zone 13
Legal Description: Map Frijoles Quad tnspl 19N range 6E sec
Current Use/ Function Assembly Cover Building Original Use/ Function Hydro Assembly Machine
Date (estimated) Date (actual) 1962 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 Concrete Slab

Exterior CMU-Exterior ☐ Reinforced Concrete-Exterior ☐ Steel (galvanized) ☐ Steel (corrugated) ☐
Wood Siding ☐ Asbestos Shingles-Exterior ☐ In-Fill Panels ☐ Other-Exterior corrugated aluminum panels

Exterior Treatment (painted, stuccoed, etc)

Exterior Features (docks, speakers, lights, signs, etc) A roll-up aluminum door is on the east side, and a wooden bumper is on the west side of the structure. The entire structure is set on steel wheels connected to two steel rails.

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 Flat

Degree of Pitch/ Slope Slight

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

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

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	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

of Each Door Type/Comments:

Interior Wall

Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>			
CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>	Other- Interior	<input type="checkbox"/>	<input type="text" value="1/4 in. aluminum plates"/>
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>			

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments	
Architectural Features (elevations)	TA-18-128 is a 16 ft 4 in. high structure that is rectangular in plan and measures 8 ft 0 in. by 10 ft 4 in. The structure is constructed with a steel frame sheathed with corrugated industrial aluminum siding. The interior walls are sheathed with ¼ in. aluminum plates. The east side of the building contains a full-height aluminum roll-up door while the west side is equipped with a wooden bumper. The entire structure sits on four 8 ¾ in. high wheel assemblies that connect to a pair of steel rails set 10 ft apart. The rails are 79 ft 3 in. long. The wheels and rails allow the entire structure to move east to west and west to east. A 28 ft wide by 97 ft 8 in. long asphalt concrete apron surrounds the rail/building assembly. Located at the east end of the rails is a hydro assembly machine.
Total sq ft	114 (net)
Architect/ Builder	LASL; Zia Company
Alterations	
List of Drawings (Cntrl + Enter for para break)	"Moveable Shelter PL 128. Hydro Assembly Bldg": ENG-C26156, ENG-C26157.



TA-18-128 South and East Elevations



LANL TA Building 18-129

Camera #984242

Frame #s 2584-2587

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Reactor Sub-Assembly Building UTM's easting 385847 northing 3966746 zone 13

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

Current Use/ Function Reactor Sub- Assembly Building Original Use/ Function Reactor Sub-Assembly Building

Date (estimated) Date (actual) 1962 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 Concrete 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) painted

Exterior Features (docks, speakers, lights, signs, etc) Building equipment includes signage and wall-mounted lights. The roof contains lightning rods and ventilators.

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

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

Exterior Treatment-Addition painted

Exterior Features-Addition Two additions - one for receiving and shipping and the second for a two-car garage. Construct

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

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

of Each Door Type/Comments:

Two roll-up and two personnel doors on west, one roll-up garage door on north, one pair and one single door on east side.

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

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

Associated Building ☐

If yes, list building names and #s

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: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☒

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

When originally constructed, TA-18-129 was an oversized 1-story open bay building that was rectangular in plan and measured 41 ft 4 in. wide by 100 ft long. The building was constructed with a concrete post and pier foundation and a 4-in.-thick concrete floor slab. The walls were constructed with concrete masonry unit pilasters infilled with concrete masonry units. The very low pitched shed roof was constructed with double tee concrete beams, covered with rigid insulation and a built-up roof system. A 10 ft deep concrete loading dock spans the entire length of the building on the west side. Access to the dock is possible either by steel steps on the south side, a concrete ramp on the west side or at grade on the north end of the dock.

Total sq ft 6,321 (net)**Architect/ Builder**

Kruger, Lake and Henderson Associated Architects & Engineers; Los Alamos Scientific Laboratory, Engineering Department; Bob Taylor Dri-Wall Company; Addition - Neuner & Cabaniss Architects & Engineers; The Modern Construction Company (Builder)

Alterations

In 1965, a 50 ft by 40 ft addition was constructed on the building's north side. The new receiving and shipping room was constructed virtually identical to the original building in that it had a concrete post and pier foundation and concrete floor slab. Concrete masonry unit pilasters infilled with concrete masonry units formed the walls, and the very low pitched shed roof was constructed with double tee concrete beams covered with rigid insulation and a built-up roof. In 1978, a 20 ft by 20 ft garage was constructed on the north side of the original building adjacent to the receiving and shipping room addition. The garage was constructed with a post and pier foundation, concrete slab floor, and concrete masonry unit walls. The flat roof was constructed with steel bar joists covered with a 22-gauge roof deck, rigid insulation and 4-ply built-up asphalt roofing.

List of Drawings (Ctrl + Enter for para break)

"Reactor Sub-Assembly Bldg. TA-18": Eng-C30135 and Eng-C30136; "Addition to Sub Assembly Bldg": Eng-PL-240, Eng-PL-241, Eng-C32064 [LA-GU-300]; "Fire Protection Improvements": Eng-C44109; "As-Built Record Floor Plan": AB389.



TA-18-129 North Elevation



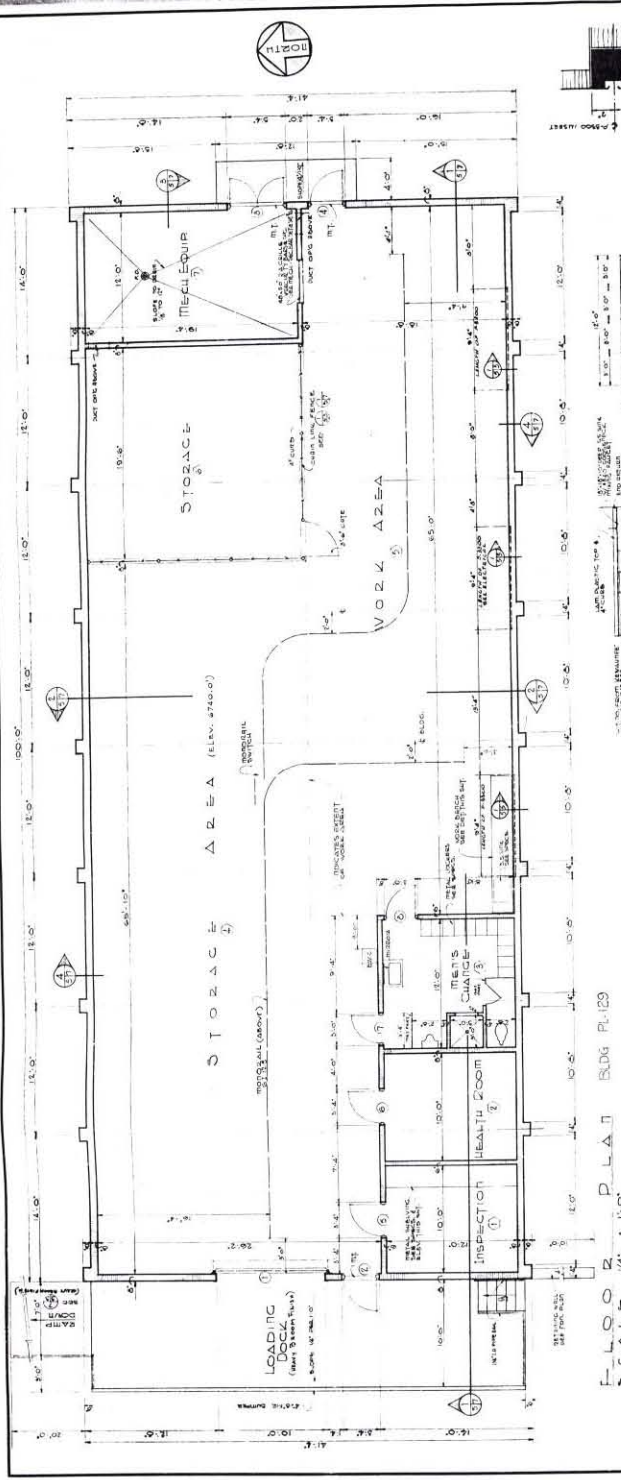
TA-18-129 North and West Elevations



TA-18-129 West and South Elevations

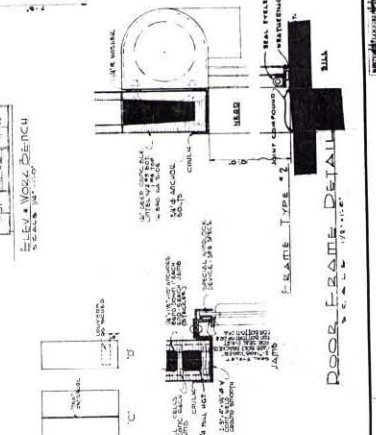
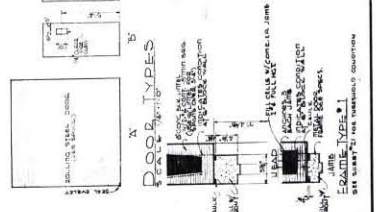


TA-18-129 South and East Elevations



ROOM FINISH SCHEDULE

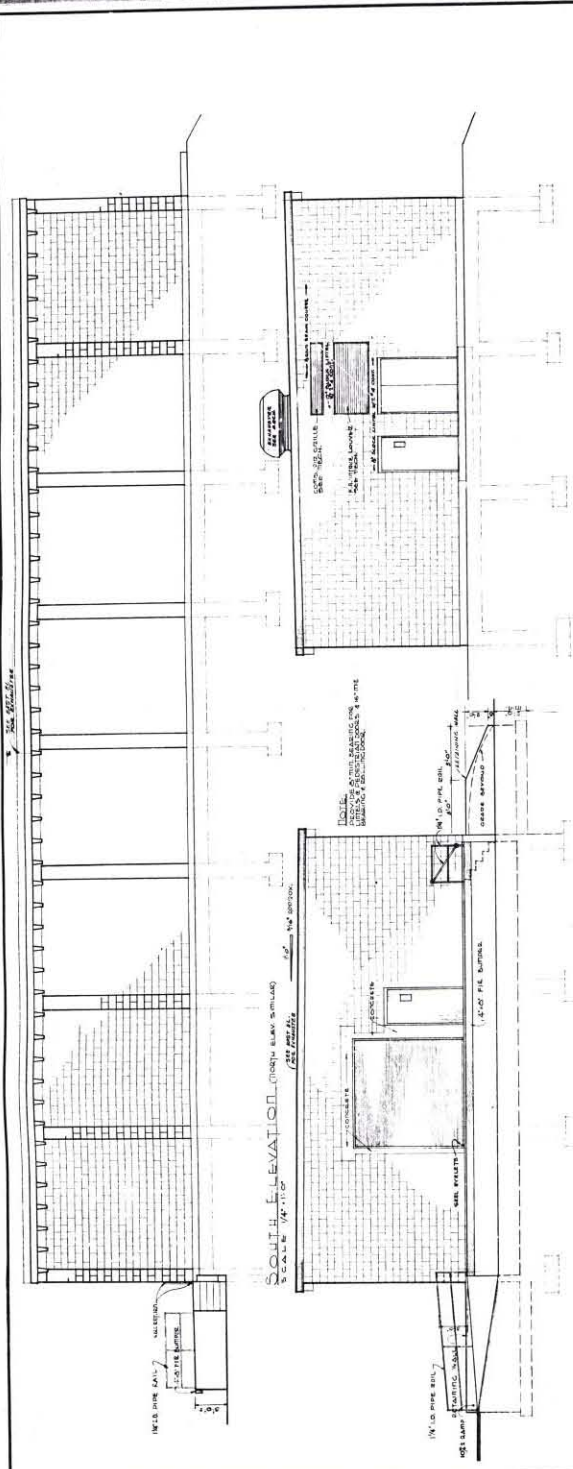
DESCRIPTION	ROOM	FINISH	REMARKS
1. FLOOR	100	CONCRETE	
2. WALLS	100	PLASTER	
3. CEILING	100	AC	
4. DOOR	100	WOOD	
5. WINDOW	100	WOOD	
6. PARTITION	100	WOOD	
7. CASE	100	WOOD	
8. CABINET	100	WOOD	
9. SINK	100	WOOD	
10. STOVE	100	WOOD	
11. REFRIG	100	WOOD	
12. FREEZER	100	WOOD	
13. DISHWASHER	100	WOOD	
14. SINK	100	WOOD	
15. STOVE	100	WOOD	
16. REFRIG	100	WOOD	
17. FREEZER	100	WOOD	
18. DISHWASHER	100	WOOD	
19. SINK	100	WOOD	
20. STOVE	100	WOOD	
21. REFRIG	100	WOOD	
22. FREEZER	100	WOOD	
23. DISHWASHER	100	WOOD	
24. SINK	100	WOOD	
25. STOVE	100	WOOD	
26. REFRIG	100	WOOD	
27. FREEZER	100	WOOD	
28. DISHWASHER	100	WOOD	
29. SINK	100	WOOD	
30. STOVE	100	WOOD	
31. REFRIG	100	WOOD	
32. FREEZER	100	WOOD	
33. DISHWASHER	100	WOOD	
34. SINK	100	WOOD	
35. STOVE	100	WOOD	
36. REFRIG	100	WOOD	
37. FREEZER	100	WOOD	
38. DISHWASHER	100	WOOD	
39. SINK	100	WOOD	
40. STOVE	100	WOOD	
41. REFRIG	100	WOOD	
42. FREEZER	100	WOOD	
43. DISHWASHER	100	WOOD	
44. SINK	100	WOOD	
45. STOVE	100	WOOD	
46. REFRIG	100	WOOD	
47. FREEZER	100	WOOD	
48. DISHWASHER	100	WOOD	
49. SINK	100	WOOD	
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51. REFRIG	100	WOOD	
52. FREEZER	100	WOOD	
53. DISHWASHER	100	WOOD	
54. SINK	100	WOOD	
55. STOVE	100	WOOD	
56. REFRIG	100	WOOD	
57. FREEZER	100	WOOD	
58. DISHWASHER	100	WOOD	
59. SINK	100	WOOD	
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61. REFRIG	100	WOOD	
62. FREEZER	100	WOOD	
63. DISHWASHER	100	WOOD	
64. SINK	100	WOOD	
65. STOVE	100	WOOD	
66. REFRIG	100	WOOD	
67. FREEZER	100	WOOD	
68. DISHWASHER	100	WOOD	
69. SINK	100	WOOD	
70. STOVE	100	WOOD	
71. REFRIG	100	WOOD	
72. FREEZER	100	WOOD	
73. DISHWASHER	100	WOOD	
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89. SINK	100	WOOD	
90. STOVE	100	WOOD	
91. REFRIG	100	WOOD	
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93. DISHWASHER	100	WOOD	
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96. REFRIG	100	WOOD	
97. FREEZER	100	WOOD	
98. DISHWASHER	100	WOOD	
99. SINK	100	WOOD	
100. STOVE	100	WOOD	



AS CONSTRUCTED DRAWING

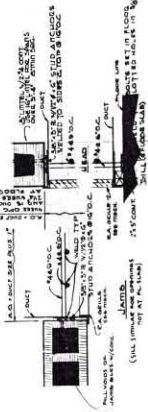
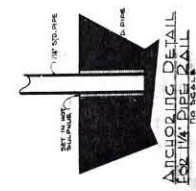
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2	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
3	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
4	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
5	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
6	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
7	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
8	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
9	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON
10	REACTOR SUB-ASSEMBLY BLDG. 7A-18	10/1/54	J. L. HENDERSON	J. L. HENDERSON

U. S. ATOMIC ENERGY COMMISSION
REACTOR SUB-ASSEMBLY BLDG. 7A-18
ARCHITECTURAL
FLOOR PLANS
SCHEDULES
DOOR TYPES
DOOR SCHEDULES
J. L. HENDERSON
KRUHNER, LAKE & HENDERSON
ARCHITECTS
LAST DATE: 10/1/54
LAB. 100-1000
30135



WEST ELEVATION
SCALE 1/4"=1'-0"

EAST ELEVATION
SCALE 1/4"=1'-0"

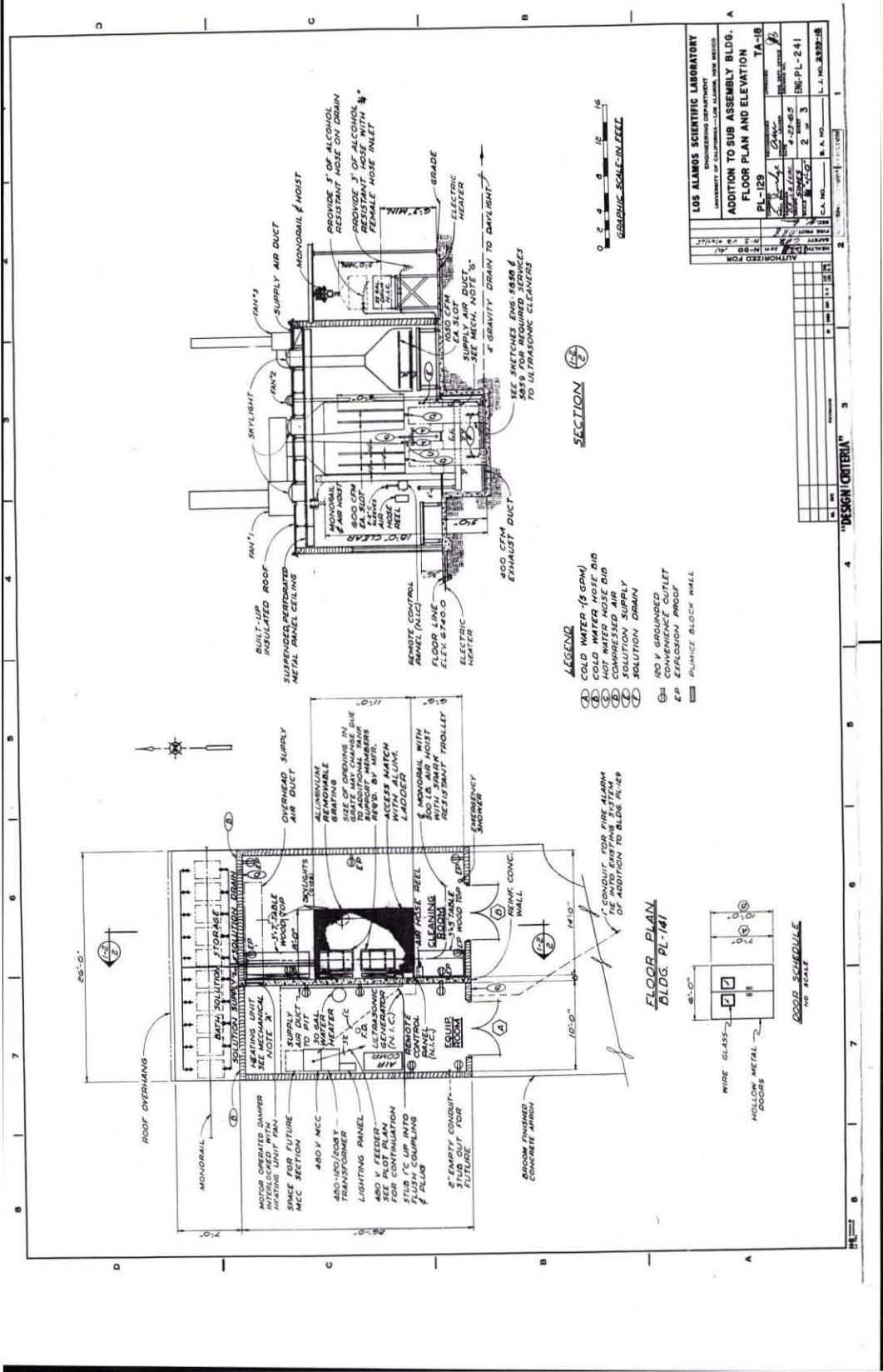


AS CONSTRUCTED DRAWING
 CONSTRUCTION NOTES: SEE SHEET 1-10-1
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]

PROJECT NO.	LA-100-102
DATE	7/3/52
BY	LA-100-102
CHECKED BY	LA-100-102
APPROVED BY	LA-100-102
PROJECT NAME	U. S. ATOMIC ENERGY COMMISSION LOS ALAMOS RESEARCH REACTOR SUB-ASSEMBLY BLDG. 1A-19
ARCHITECTURAL	BLDG PLAN ELEVATIONS
DESIGNED BY	[Signature]
DATE	7/3/52
BY	LA-100-102
CHECKED BY	LA-100-102
APPROVED BY	LA-100-102

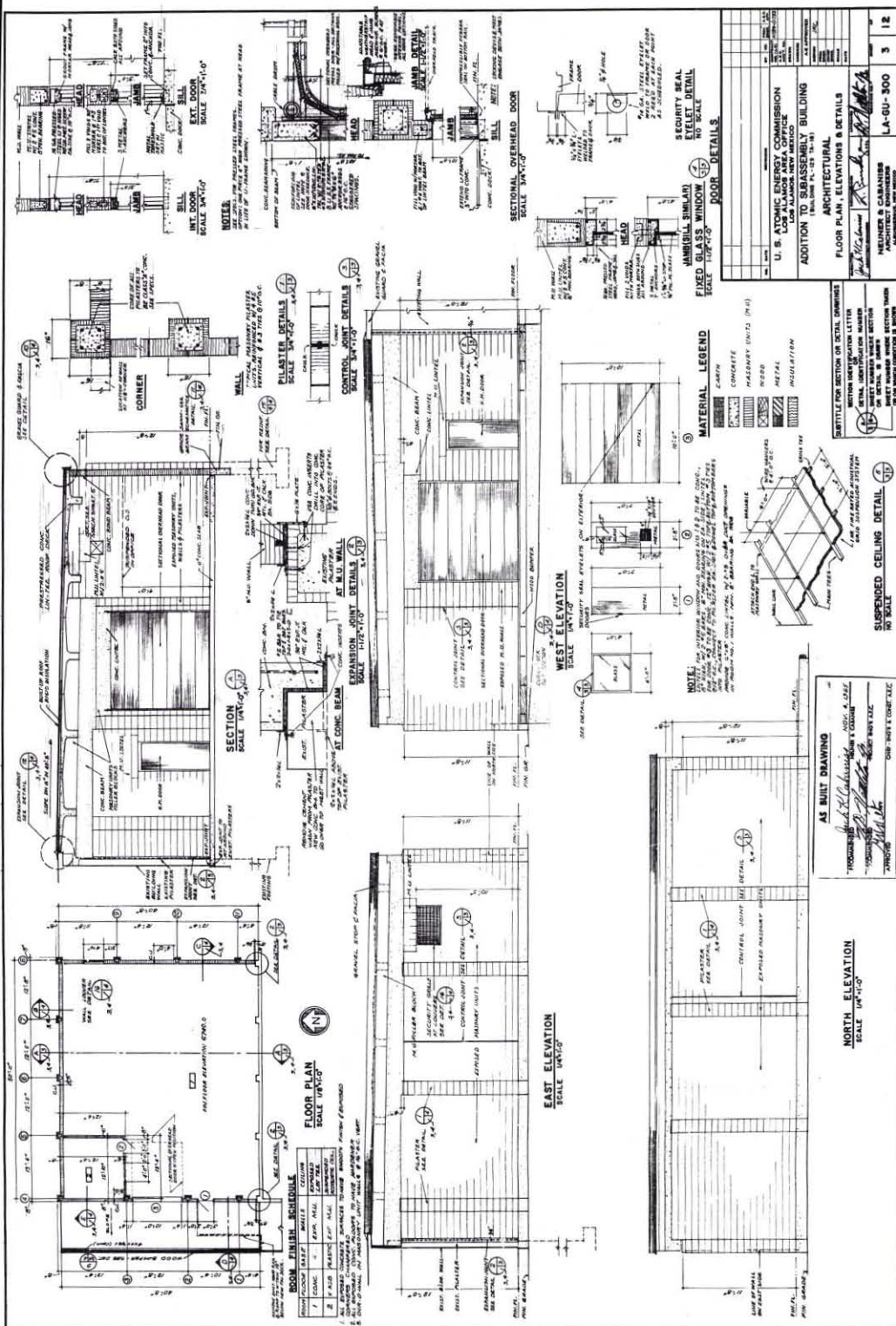
LA-100-102 U.S. ATOMIC ENERGY COMMISSION
 LOS ALAMOS RESEARCH REACTOR SUB-ASSEMBLY BLDG. 1A-19
 ARCHITECTURAL BLDG PLAN ELEVATIONS
 DESIGNED BY [Signature]
 DATE 7/3/52
 BY LA-100-102
 CHECKED BY LA-100-102
 APPROVED BY LA-100-102

RECD ENG-3 SHAL. LOOSED DATA. WALL 1/2" x 1/2"



LOS ALAMOS SCIENTIFIC LABORATORY	
UNIVERSITY OF CALIFORNIA - LOS ALAMOS, NEW MEXICO	
ADDITION TO SUB ASSEMBLY BLDG.	
FLOOR PLAN AND ELEVATION	
PL-129	TA-18
4-29-65	4-29-65
2 - 3	2 - 3
36-PL-241	36-PL-241
C.A. NO.	R.A. NO.
L.J. NO. 2332-18	L.J. NO. 2332-18

DESIGN CRITERIA	
1	2
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99	100



U.S. ATOMIC ENERGY COMMISSION
ADDITON TO SUBASSEMBLY BUILDING
ARCHITECTURAL & DETAILS
FLOOR PLAN, ELEVATIONS & DETAILS
ARCHITECT: J. H. HARRIS
ENGINEER: J. H. HARRIS
DATE: 10-1-58
JOB NO. 299
LAW. DWG. NO. ENG-3 3004

LANL TA Building 18-138

Camera #984242

Frame #s 2577, 2578

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Warehouse UTM's easting 385783 northing 3966594 zone 13

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

Current Use/ Function Warehouse Original Use/ Function Warehouse

Date (estimated) Date (actual) 1963 Property Type Support

Type of Construction

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

Other Type of Construction # of Stories 1

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) The building is equipped with signage. A single wall-mounted light is located above the pair of doors.

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

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input checked="" type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input checked="" type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input checked="" type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input checked="" type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

of Each Door Type/Comments:

Interior Wall	Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
	CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
	Other- Interior	<input type="text" value=""/>		
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>	

Ceiling	Drop Ceiling	<input type="checkbox"/>
Interior Comments (Equipment, etc)	<input type="text" value=""/>	

Degree of Remodeling

Condition	Excellent	<input type="checkbox"/>	Good	<input type="checkbox"/>	Fair	<input checked="" type="checkbox"/>	Deteriorating	<input type="checkbox"/>	Contaminated	<input type="checkbox"/>	Burned	<input type="checkbox"/>
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Associated Building	<input checked="" type="checkbox"/>
If yes, list building names and #s	<input type="text" value="TA-18-116"/>

Integrity

Significance

Eligible Under Criterion	A	<input type="checkbox"/>	B	<input checked="" type="checkbox"/>	C	<input type="checkbox"/>	D	<input type="checkbox"/>	Not Eligible	<input checked="" type="checkbox"/>
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DOE Themes			
Nuclear Weapon Components and Assembly	<input type="checkbox"/>	Nuclear Weapon Design and Testing	<input checked="" type="checkbox"/>
		Nuclear Propulsion	<input checked="" type="checkbox"/>
Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science	<input type="checkbox"/>	Energy and Environment: R and D Projects	<input type="checkbox"/>

LANL Themes	Weapons R and D, Testing, and Stockpile Support	<input checked="" type="checkbox"/>	Super Computing	<input type="checkbox"/>	Reactor Technology	<input checked="" type="checkbox"/>
	Biomedical/Health Physics	<input type="checkbox"/>	Strategic and Supporting Research	<input type="checkbox"/>	Environment/Waste Management	<input type="checkbox"/>
	Administration and Social History	<input type="checkbox"/>	Architectural History	<input type="checkbox"/>		

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-138 is a 1-story, rectangular-in-plan building measuring 42 ft by 32 ft. The prefabricated metal Mesco building is constructed with a poured concrete foundation, concrete slab floor, and a steel frame sheathed with galvanized corrugated metal siding with 2 in. of insulation. The medium-pitched gable roof is also finished with galvanized corrugated metal panels. Both sides of the gable roof are equipped with four, 12-ft-long skylights set flush with the roof line. The roof is also equipped with two gravity exhausters. Access into the building is possible from the south side through a pair of oversized two panel painted sliding metal doors. A 16 ft wide by 4 ft deep concrete apron is located in front of the doors. A single painted metal door is also located on the building's east side.

Total sq ft 1,223 (net)

Architect/ Builder Mesco Metal Buildings; Neuner & Cabaniss; Los Alamos National Laboratory, Engineering Department; Cillessen Brothers Builders

Alterations

List of Drawings (Cntrl + Enter for para break)

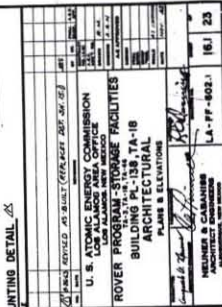
"Kiva III Warehouse": ENG-PL-899; "Rover Program Storage Facilities, Architectural": ENG-C30939, sheet 16; "Warehouse, Floor Plan": ENG-R3286.



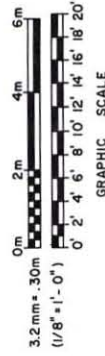
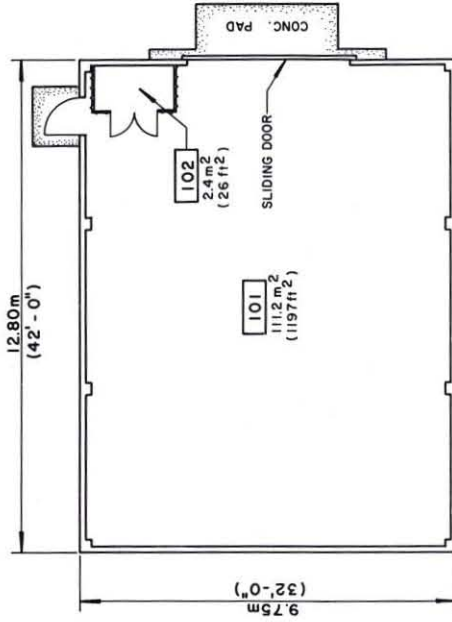
TA-18-138 North and West Elevations



TA-18-138 South Elevation







BLDG. TOTAL $\frac{m^2}{113.6}$ $\frac{ft^2}{(1223)}$

3 9-6-83 REVISED TO STATUS OF SEPTEMBER 06, 1983		HON. 100.100	
REV.	DATE	REVISED	DATE
UNIVERSITY OF CALIFORNIA			
Los Alamos National Laboratory Los Alamos, New Mexico 87545			
FACILITIES ENGINEERING DIVISION			
WAREHOUSE		FLOOR PLAN	
BLDG. PL-138		TA-18	
SUBMITTED	RECOMMENDED	DATE	DATE
6/1/83	6/1/83	10-25-83	10-25-83
DRAWN S. VIGIL	CHECKED HAN	SHEET NO.	DRAWING NO.
08-07-78	1 of 1	ENG-R3286	

REC'D - LAGGED TO VAULT 4-23-83

LANL TA Building 18-168

Camera #984242

Frame #s 2554-2556

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name SHEBA Critical Building UTM's easting 385476 northing 3967008 zone 13

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

Current Use/ Function SHEBA Critical Building Original Use/ Function King Critical Experiment

Date (estimated) Date (actual) 1969 Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories 2

Foundation Concrete 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)

Exterior Features (docks, speakers, lights, signs, etc) Building elements include a wall-mounted light fixture and signage.

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 4-ft-wide, 8-lite, steel-framed windows

of Each Window Type/ Comments East and west sides with two windows each.

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Equipment Door Types	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Exterior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

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

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes

Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-168 is a 1 ½-story, square-in-plan building. The building is constructed with a concrete perimeter foundation and 6 in. concrete slab, 16-ft-tall steel framed walls sheathed with galvanized steel panels. The medium-pitched gable roof is also covered with galvanized steel panels. Access into the building is possible from either the north or south sides through a single painted metal and ½-glass door. The north side is also equipped with an 8-ft-wide oversized roll-up door. Originally, the equipment door had two pairs of 8-ft-wide metal doors stacked on top of each other. The east and west sides of the building are equipped with steel-framed, 4-ft-wide, 8-lite windows. A galvanized corrugated sheet metal canopy is located on the building's west side and covers a bottle rack area. A large ventilator and smaller vent stack are located on the roof.

Total sq ft

361 (net)

Architect/ Builder

Butler Manufacturing; Los Alamos National Laboratory, Engineering Department; Los Alamos National Laboratory, Facilities Engineering Division; Marro Crest Company (Builder)

Alterations

List of Drawings (Cntrl + Enter for para break)

"King Critical Experiments, Plot Plan, Notes & Elevations": ENG-C37389 (or 37381?); "Dynamic Critical Assay Facility Floor Plan": ENG-R2943.



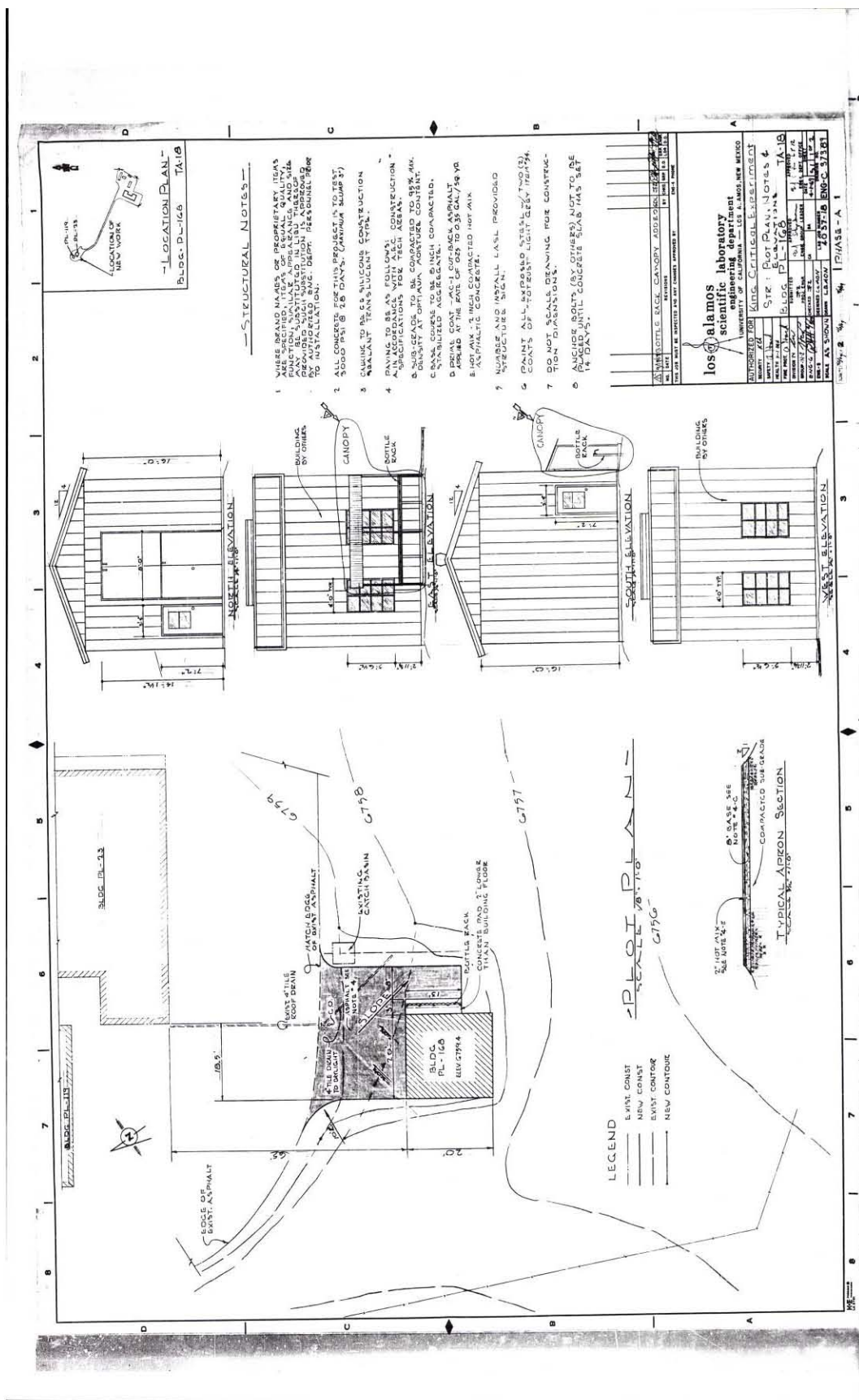
TA-18-168 West and South Elevations

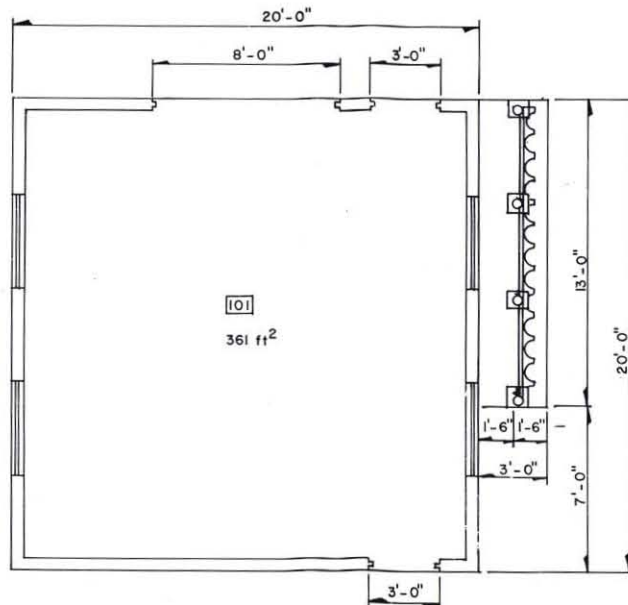


TA-18-168 North and West Elevations



TA-18-168 East and North Elevations





TOTAL SQ. FT. 361

REV.	DATE	REVISION	BY	CHKD.	APP.
2	2-3-84	REVISED TO STATUS OF FEBRUARY 03, 1984	HBN	ST	DP
1	9-6-83	REDRAWN & REVISED TO STATUS OF SEPTEMBER 06, 1983	HBN	ST	DP
UNIVERSITY OF CALIFORNIA					
Los Alamos			Los Alamos National Laboratory Los Alamos, New Mexico 87545		
FACILITIES ENGINEERING DIVISION					
DYNAMIC CRITICAL ASSAY FACILITY				REC. CLASSIFICATION	
FLOOR PLAN				CLASS. 11	
BLDG. PL - 168				DATE 3-12-84	
SUBMITTED		RECOMMENDED		APPROVED	
40 Trayville		Dana Rogers		Ruth R. R. R.	
DRAWN	HBN	DATE	SHEET NO.	DRAWING NO.	
CHECKED	Humble HAN	9-6-83	1 OF 1	ENG-R2943	

REC'D LOGGED ✓ 103 VAULT 3/14

LANL TA Building 18-186

Camera #984242

Frame #s 2557

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Guard Tower UTM's easting 385471 northing 3967026 zone 13

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

Current Use/ Function Guard Tower Original Use/ Function Guard Tower

Date (estimated) Date (actual) 1984 Property Type Security

Type of Construction

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

Other Type of Construction # of Stories 4

Foundation Concrete Slab

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

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

Exterior Treatment (painted, stuccoed, etc) painted

Exterior Features (docks, speakers, lights, signs, etc) Building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guard room level, and lightning rods on the roof.

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 steel

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

Other Window Type A 2 ft 6 in. by 2 ft bullet proof window equipped with a window wiper

of Each Window Type/ Comments 4, one per side

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
Interior		Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						

of Each Door Type/Comments:

Interior Wall

Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
		Other- Interior	<input type="text"/>
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-186 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guard room. The tower is constructed with 4 ½ in. thick walls made with two layers of ¼ in. steel panels sandwiching 3 ½ in. of insulation.

Total sq ft

32 (net)

Architect/ Builder

Los Alamos National Laboratory, Facilities Engineering Division; The Zia Company, Facilities Engineering Department

Alterations

Security upgrades and air handling equipment.

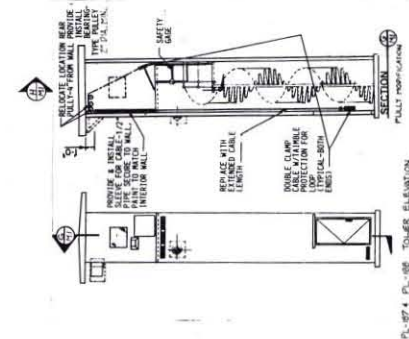
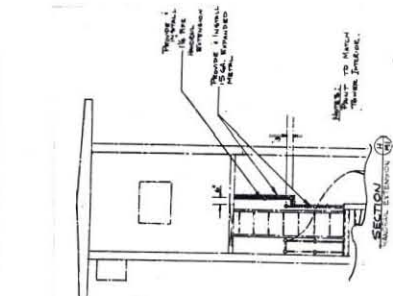
List of Drawings (Cntrl + Enter for para break)

"Security Enhancements": ENG-SK7274, sheet 4 (for TA-18-187 and TA-18-188).

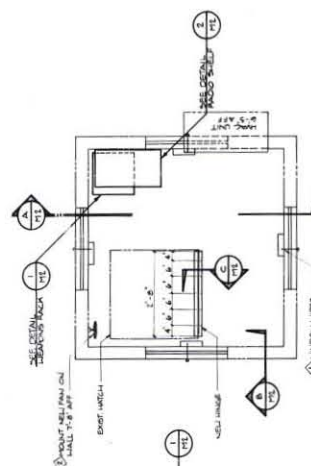


TA-18-186 North and East Elevations

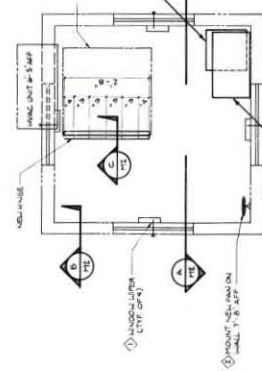
LOCATION PLAN - TA-18



PL-107 4 PL-100 TOWER ELEVATION



FLOOR PLAN - GUARD TOWER PL-187
SCALE: 3/8" = 1'-0"



FLOOR PLAN - GUARD TOWER PL-180
SCALE: 3/4" = 1'-0"

[illegible]

THIS JOB MUST BE INSPECTED
AND ANY CHANGES APPROVED
BY LEBOY MIE SA 104-1141
ENG-1 PHONE

LANL TA Building 18-187

Camera #984242

Frame #s 2573

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Guard Tower UTM's easting 385347 northing 3966634 zone 13

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

Current Use/ Function Guard Tower Original Use/ Function Guard Tower

Date (estimated) Date (actual) 1984 Property Type Security

Type of Construction

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

Other Type of Construction # of Stories 4

Foundation Concrete Slab

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

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

Exterior Treatment (painted, stuccoed, etc) painted

Exterior Features (docks, speakers, lights, signs, etc) Building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guard room level, and lightning rods on the roof.

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 steel

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

Other Window Type A 2 ft 6 in. by 2 ft bullet proof window equipped with a window wiper

of Each Window Type/ Comments 4, one per side

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
		Interior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
	Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>				
	Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>								

of Each Door Type/Comments:

Interior Wall

Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
		Other- Interior	<input type="text"/>
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☐ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments			
Architectural Features (elevations)	TA-18-187 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guard room. The tower is constructed with 4 ½ in. thick walls made with two layers of ¼ in. steel panels sandwiching 3 ½ in. of insulation.		
Total sq ft	32 (net)	Architect/ Builder	Los Alamos National Laboratory, Facilities Engineering Division; The Zia Company, Facilities Engineering Department
Alterations	Security upgrades and air handling equipment		
List of Drawings (Cntrl + Enter for para break)			
"Security Enhancements": ENG-SK7274, sheet 4.			

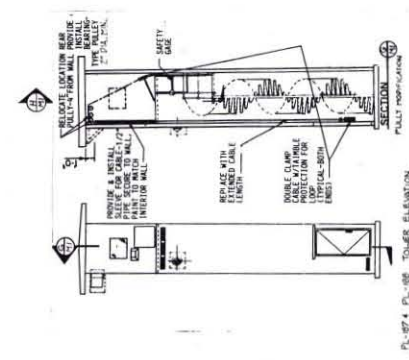
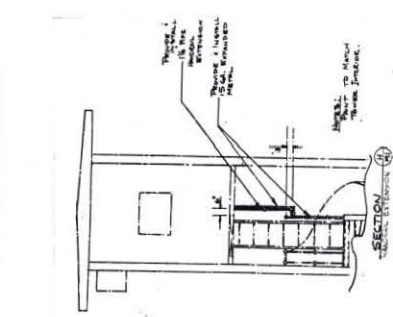


TA-18-187 South Elevation

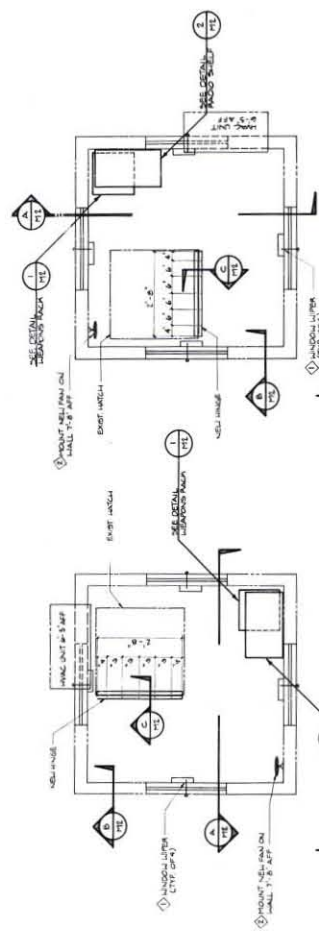


TA-18-187 North and West Elevations

LOCATION PLAN - TA-18



PL-107 4 PL-100 TOWER ELEVATION



FLOOR PLAN - GUARD TOWER PL-187
SCALE: 3/8" = 1'-0"

FLOOR PLAN - GUARD TOWER PL-180
SCALE: 3/4" = 1'-0"

[illegible]

THIS JOB MUST BE INSPECTED
AND ANY CHANGES APPROVED
BY LEBOY MIE SA 104-1141
ENG-1 PHONE

LANL TA Building 18-188

Camera #984242

Frame #s 2576

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Guard Tower UTM's easting 385686 northing 3966682 zone 13

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

Current Use/ Function Guard Tower Original Use/ Function Guard Tower

Date (estimated) Date (actual) 1984 Property Type Security

Type of Construction

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

Other Type of Construction # of Stories 4

Foundation Concrete Slab

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

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

Exterior Treatment (painted, stuccoed, etc) painted

Exterior Features (docks, speakers, lights, signs, etc) Building elements include signage, a wall-mounted light fixture above the entry door, a through-the-wall vent at the guard room level, and lightning rods on the roof.

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 steel

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

Other Window Type A 2 ft 6 in. by 2 ft bullet proof window equipped with a window wiper

of Each Window Type/ Comments 4, one per side

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>						
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						
Interior		Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
			Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>						

of Each Door Type/Comments:

Interior Wall

Gypsum Board	<input type="checkbox"/>	Reinforced Concrete- Interior	<input type="checkbox"/>
CMU- Interior	<input type="checkbox"/>	Plywood	<input type="checkbox"/>
		Other- Interior	<input type="text"/>
In-Wall Electrical Wiring	<input type="checkbox"/>	On-Wall Electrical Wiring	<input type="checkbox"/>

Ceiling Drop Ceiling ☐

Interior Comments (Equipment, etc)

Degree of Remodeling

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

Associated Building ☒

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-188 is one of three identical guard towers within TA-18. The structures are constructed with 2-ft-thick poured concrete foundations that are 15 ft square. The tower itself measures 5 ft 10 in. square and is approximately four stories tall with the top floor containing the guard room. The tower is constructed with 4 ½ in. thick walls made with two layers of ¼ in. steel panels sandwiching 3 ½ in. of insulation.

Total sq ft

32 (net)

Architect/ Builder

Los Alamos National Laboratory, Facilities Engineering Division; The Zia Company, Facilities Engineering Department

Alterations

Security upgrades and air handling equipment

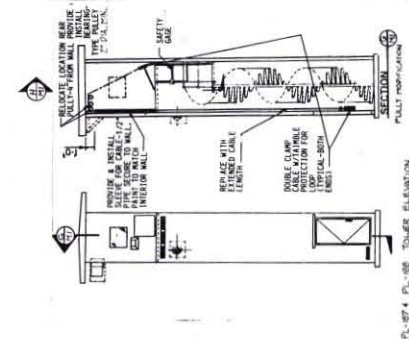
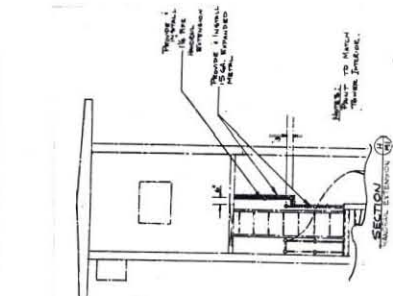
List of Drawings (Cntrl + Enter for para break)

"Security Enhancements": ENG-SK7274, sheet 4

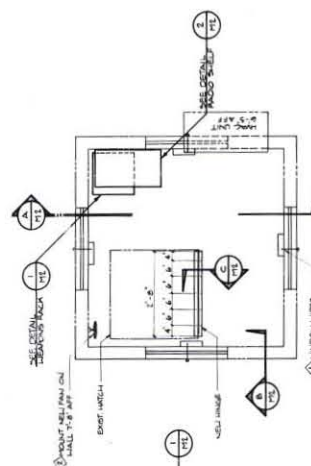


TA-18-188 North and West Elevations

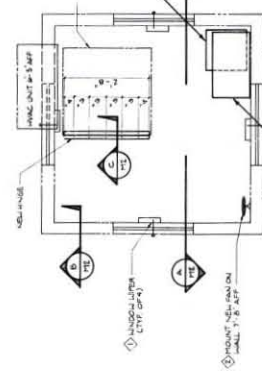
LOCATION PLAN - TA-18



PL-107 4 PL-100 TOWER ELEVATION



FLOOR PLAN - GUARD TOWER PL-187
SCALE: 3/8" = 1'-0"



FLOOR PLAN - GUARD TOWER PL-180
SCALE: 3/4" = 1'-0"

[illegible]

THIS JOB MUST BE INSPECTED
AND ANY CHANGES APPROVED
BY LEBOY MIE SA 104-1141
ENG-1 PHONE

LANL TA Building 18-227

Camera #984242

Frame #s 2563, 2564

Surveyor(s) S. McCarthy, J. Ronquillo

Date 7/1/2004

**Los Alamos National Laboratory CRMT
Historic Building Survey Form**

Building Name Accelerator Development Laboratory UTMs easting 385706 northing 3966870 zone 13

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

Current Use/ Function Accelerator Development Laboratory Original Use/ Function Accelerator Development Laboratory

Date (estimated) 1987 Date (actual) Property Type Laboratory/Processing

Type of Construction

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

Other Type of Construction # of Stories 2

Foundation Reinforced concrete with basement

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

Exterior Features (docks, speakers, lights, signs, etc) The building is equipped with lights, downspouts, and signage, and is enclosed with a chainlink fence

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 flat with parapets

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

of Each Window Type/ Comments none

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

Light Pattern

Door Type	Personnel Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input checked="" type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>
			Hollow Metal	<input checked="" type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>		
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
	Equipment Door Types	Exterior	Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input checked="" type="checkbox"/>	Sliding	<input type="checkbox"/>
		Hollow Metal	<input type="checkbox"/>	Solid Wood	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input checked="" type="checkbox"/>							
Interior		Fire Door	<input type="checkbox"/>	Single	<input type="checkbox"/>	Double	<input type="checkbox"/>	Roll-up	<input type="checkbox"/>	Sliding	<input type="checkbox"/>	
		Hollow Metal	<input type="checkbox"/>	Solid Metal	<input type="checkbox"/>	1/2 Glazed	<input type="checkbox"/>	Paneled	<input type="checkbox"/>			
		Louvered	<input type="checkbox"/>	Painted	<input type="checkbox"/>							

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

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

Associated Building ☐

If yes, list building names and #s

Integrity

Significance

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

DOE Themes

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

Peaceful Uses: Plowshare, Nuclear Medicine, Nuclear Energy, Nuclear Science ☐ Energy and Environment: R and D Projects ☐

LANL Themes Weapons R and D, Testing, and Stockpile Support ☒ Super Computing ☐ Reactor Technology ☐

Biomedical/Health Physics ☐ Strategic and Supporting Research ☐ Environment/Waste Management ☐

Administration and Social History ☐ Architectural History ☐

Site Plan Available ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

TA-18-227 is a high bay with basement, rectangular-in-plan building measuring 25 ft 4 in. by 49 ft 4 in. The building is constructed with a poured concrete perimeter foundation, 9 in. concrete slab, and 8-in.-thick poured concrete walls in the basement level. The high bay walls are constructed with 8-ft-wide precast concrete wall panels topped with a flat roof enclosed with parapets. The roof is constructed with precast concrete double tees covered with insulation and a single ply roof. The west side of the building is equipped with a single painted hollow metal door and a 12 ft by 14 ft, 20-gauge insulated rolling metal door. There are no additional doors into the high bay part of the building.

A 16 ft 8 in. by 16 ft control room is located on the south side of the building at basement level. A secondary entrance into the control room is from an exterior stairway. A 2 ft 8 in. thick concrete wall separates the control room from the basement area.

Total sq ft 2,571 (net) **Architect/ Builder** Professional Engineers Group

Alterations

List of Drawings (Cntrl + Enter for para break)

"Accelerator Development Laboratory": ENG-C45502 sheets 5, 10, & 11.



TA-18-227 South and East Elevations



TA-18-227 West and South Elevations

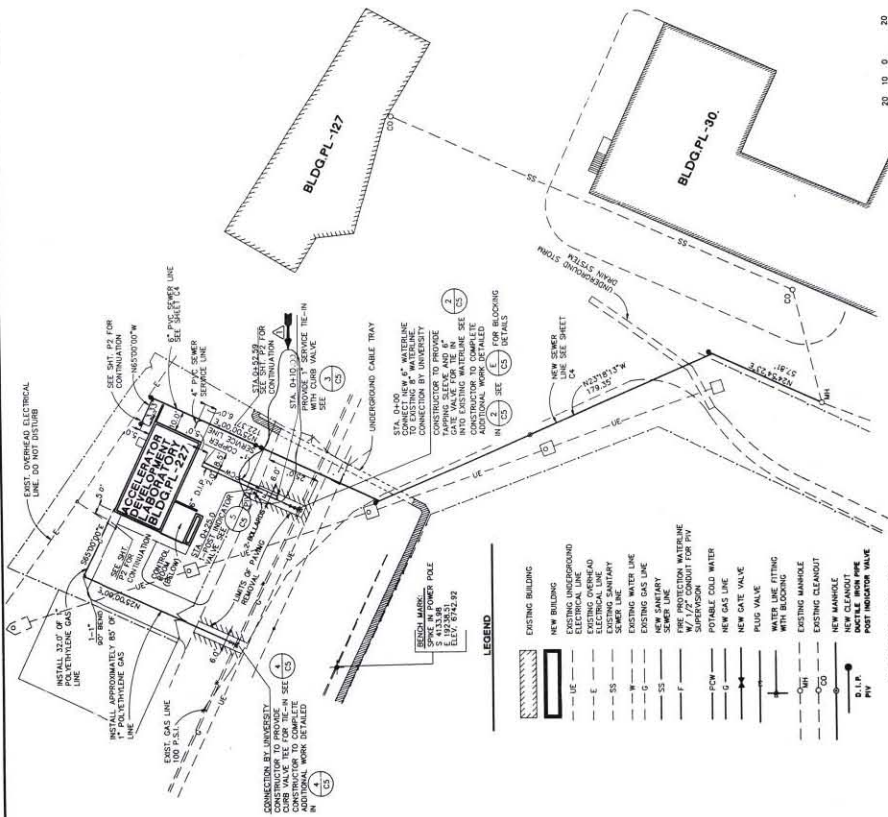
UTILITY RE-IN NOTES

1. ALL CONNECTIONS INTO EXISTING EXTERIOR GAS, WATER, ELECTRIC AND SEWER SYSTEMS WILL BE MADE BY THE UNIVERSITY. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CITY OF LOS ANGELES SPECIFICATIONS FOR THE CONSTRUCTION OF SEWER, WATER, GAS AND ELECTRIC SYSTEMS. ALL NECESSARY WORK REPAIRS TO EXISTING AND PREPARE THE RE-IN ARE INDICATED ON THE DRAWINGS AND SHALL BE PERFORMED BY THE UNIVERSITY. ALL MATERIALS REQUIRED FOR THE RE-IN ARE INDICATED ON THE DRAWINGS AND SHALL BE PROVIDED BY THE UNIVERSITY.
2. THE CONTRACTOR SHALL PROVIDE A MINIMUM OF 72 HOURS ADVANCE NOTICE TO THE CONTRACT ADMINISTRATOR PRIOR TO THE NEED FOR ANY RE-IN. THE RE-IN SHALL BE DONE IN ACCORDANCE WITH THE CITY OF LOS ANGELES SPECIFICATIONS FOR THE CONSTRUCTION OF SEWER, WATER, GAS AND ELECTRIC SYSTEMS. NO WORK WILL BE STARTED ON A RE-IN UNTIL THE CONTRACTOR HAS BEEN ADVISED BY THE CONTRACT ADMINISTRATOR THAT THE RE-IN IS APPROVED BY THE CONTRACT ADMINISTRATOR. THE RE-IN SHALL BE DONE IN ACCORDANCE WITH THE CITY OF LOS ANGELES SPECIFICATIONS FOR THE CONSTRUCTION OF SEWER, WATER, GAS AND ELECTRIC SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY UTILITIES DAMAGED BY THE RE-IN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY UTILITIES DAMAGED BY THE RE-IN.
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CAUTION WHEN EXCAVATING

THE LOCATION OF ALL UNDERGROUND UTILITY LINES AND OTHER OBSTRUCTIONS SHOWN ON THIS DRAWING IS BASED ON THE RECORD DRAWINGS AND FIELD SURVEY. THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY UTILITIES DAMAGED BY THE EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND SHALL BE RESPONSIBLE FOR THE REPAIR OF ANY UTILITIES DAMAGED BY THE EXCAVATION.

NOTE: UTILITY LOCATIONS PROVIDED BY THE UNIVERSITY



UTILITY PLAN

NO.	DATE	REVISIONS	BY	CHKD.	APP'D.
1	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
2	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
3	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
4	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
5	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
6	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
7	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
8	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
9	10/1/99	REVISED	10/1/99	10/1/99	10/1/99
10	10/1/99	REVISED	10/1/99	10/1/99	10/1/99

PROJECT: LOS ALAMOS NATIONAL LABORATORY
 DRAWN: O.V.
 DESIGNED: R.S.S.
 CHECKED: D.C.
 DATE: 7-28-99
 SCALE: 1"=20'

REVISIONS:
 1. REVISED
 2. REVISED
 3. REVISED
 4. REVISED
 5. REVISED
 6. REVISED
 7. REVISED
 8. REVISED
 9. REVISED
 10. REVISED

APPROVED: [Signature]
 DATE: 10/1/99
 TITLE: CONSULTING ARCHITECT

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 WWW: [Website]

LAB JOB NO. 8596-18 DWT 105 ENG-C45502

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- KEYED NOTES

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| 1. | CUSTOMER'S 80 INFLATED AND WELD INFLAT |
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| 23. | CONCRETE TABLE WITH FLAIR AS COMBINED. |
| 24. | CONCRETE TABLE WITH FLAIR AS COMBINED. |



NO	DATE	CLASS REV	REVISIONS	DATE	BY	APPROVED	REVISIONS
			REDUCED & REPRODUCED BY THE NATIONAL ARCHIVES COLLEGE PARK, MARYLAND DATE 04/05/2008 BY SP-6 BTJ/STP DATE 04/05/2008 BY SP-6 BTJ/STP				



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