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TA-16-306: A Plastics Components Development Facility: Volume 1

LANL FY 2021 FOOTPRINT REDUCTION PROGRAM

HISTORIC BUILDINGS REPORT NO. 389

SURVEY NO. 1208

Los Alamos
NATIONAL LABORATORY
EST. 1943

Cover image: Technical Area 16 Building 306 in 2018

Prepared for: The U.S. Department of Energy/National Nuclear Security Administration, Los Alamos Field Office

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EXECUTIVE SUMMARY

The U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA), Los Alamos Field Office (Field Office), has prepared final documentation for the resolution of adverse effects to Building 306 in Technical Area (TA) 16 at Los Alamos National Laboratory (LANL or the Laboratory). This documentation is being submitted to the New Mexico State Historic Preservation Officer (SHPO).

TA-16-306 was determined eligible for listing in the National Register of Historic Places (Register) in 1995 in the report, *TA-16 Heating System Replacement* (LA-CP-95-0180). TA-16-306 was identified as an excess property to be decontaminated, decommissioned, and demolished by the LANL Footprint Reduction Program in fiscal year 2021, an adverse effect to Register eligible building 16-306 requiring mitigation.

To bring a resolution to the adverse effects to Building TA-16-306, the Field Office initiated consultation with the SHPO on December 4, 2017. The New Mexico Historic Preservation Division concurred with the mitigation actions outlined in the *Programmatic Agreement among the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office, the New Mexico State Historic Preservation Office, and the Advisory Council on Historic Preservation Concerning Management of Historic Properties of Los Alamos National Laboratory, Los Alamos, New Mexico* (PA) in correspondence dated January 30, 2018. The PA states in Appendix D.2.A that adverse effects to Register-eligible buildings and structures will be resolved according to the procedures defined in *A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico* (CRMP) (LA-UR-19-21590, formerly LA-UR-15-27624) and within the PA itself.

Standard documentation measures for TA-16-306 include:

- a detailed use history of the building and the technical area associated with its operation,
- a historic building inventory form with select photographs and building drawings,
- a list of potential artifacts from TA-16-306,
- maps showing TA-16's construction history and the location of eligible and non-eligible properties,
- a comprehensive listing of LANL architectural drawings, and
- a set of indexed archival photographs.

Table of Contents

List of Figures

Appendices

Volume 2

Acronyms and Terms

Acronym	Term
ACHP	Advisory Council on Historic Preservation
AEC	U.S. Atomic Energy Commission
CMU	concrete masonry units
DOE	U.S. Department of Energy
EPC	engineering, procurement, consulting and construction
Field Office	Los Alamos Field Office
FY	fiscal year
HE	high explosive
HVA	heating, ventilation, and air
HVAC	heating, ventilation, and air conditioning
LANL	Los Alamos National Laboratory
NHPA	National Historic Preservation Act
SHPO	New Mexico State Historic Preservation Office
NNSA	National Nuclear Security Administration
Register	National Register of Historic Places
NTS	Nevada Test Site
PA	Programmatic Agreement
PBX	polymer-bonded explosive
RDX	Research Department Explosive
SCS	Soil Conservation Service
TA	Technical Area
TNT	trinitrotoluene

1.0 Introduction

The U.S. Department of Energy (DOE), National Nuclear Security Administration (NNSA), Los Alamos Field Office (Field Office) is submitting *TA-16-306: A Plastics Components Development Facility* as mitigation for the demolition of TA-16-306, which is planned to occur at Los Alamos National Laboratory (LANL) in fiscal year (FY) 2021. TA-16-306 is part of the larger TA-16-300's line complex, whose construction was completed in 1953 to support the development of high-explosives components for nuclear weapons research testing and stockpile stewardship.

In an effort to adhere to the LANL Footprint Reduction Program and to be compliant with the National Historic Preservation Act of 1966, as amended (NHPA), Building 306 (Figures 1-1, 1-2, and 1-3) at TA-16 was evaluated for listing in the National Register of Historic Places (Register) for its association to exceptional significant Cold War events or scientific developments (McGehee 1995). TA-16-306 was determined Register-eligible and concurred with by the New Mexico State Historic Preservation Office (SHPO). In addition to the eligibility evaluation, it was determined that permanent retention of the building was not possible, as it contains legacy radioactive and chemical contamination, making it inoperable. As a result, the building is planned for demolition in FY 2021.

This report provides documentation as a standard mitigation measure to the adverse effects that will occur through the demolition of this historic property. To mitigate the adverse effects, LANL has followed Section 106 process contained in 36 CFR 800.6, resolution of adverse effects. In addition to these regulations and within this report, LANL has implemented the standards for documenting and reporting in accordance to the document *A Plan for the Management of the Cultural Heritage at Los Alamos National Laboratory, New Mexico* (CRMP) and as outlined in the *Programmatic Agreement among the U.S. Department of Energy, National Nuclear Security Administration, Los Alamos Field Office, the New Mexico State Historic Preservation Office, and the Advisory Council on Historic Preservation Concerning Management of Historic Properties of Los Alamos National Laboratory, Los Alamos, New Mexico* (PA).

Standard reporting measures for TA-16-306 are presented in two volumes. Volume 1 includes a detailed use history of the building and the technical area associated with its operation, historic building inventory forms with select photographs and building drawings (Appendix A), a list of potential artifacts from TA-16-306 (Appendix B), maps showing TA-16's construction history and the location of eligible and non-eligible properties (Appendix C), and a comprehensive listing of LANL architectural drawings (Appendix D). A set of indexed archival photographs is included in Volume 2. This report is the result of this resolution to document and record this historic building.

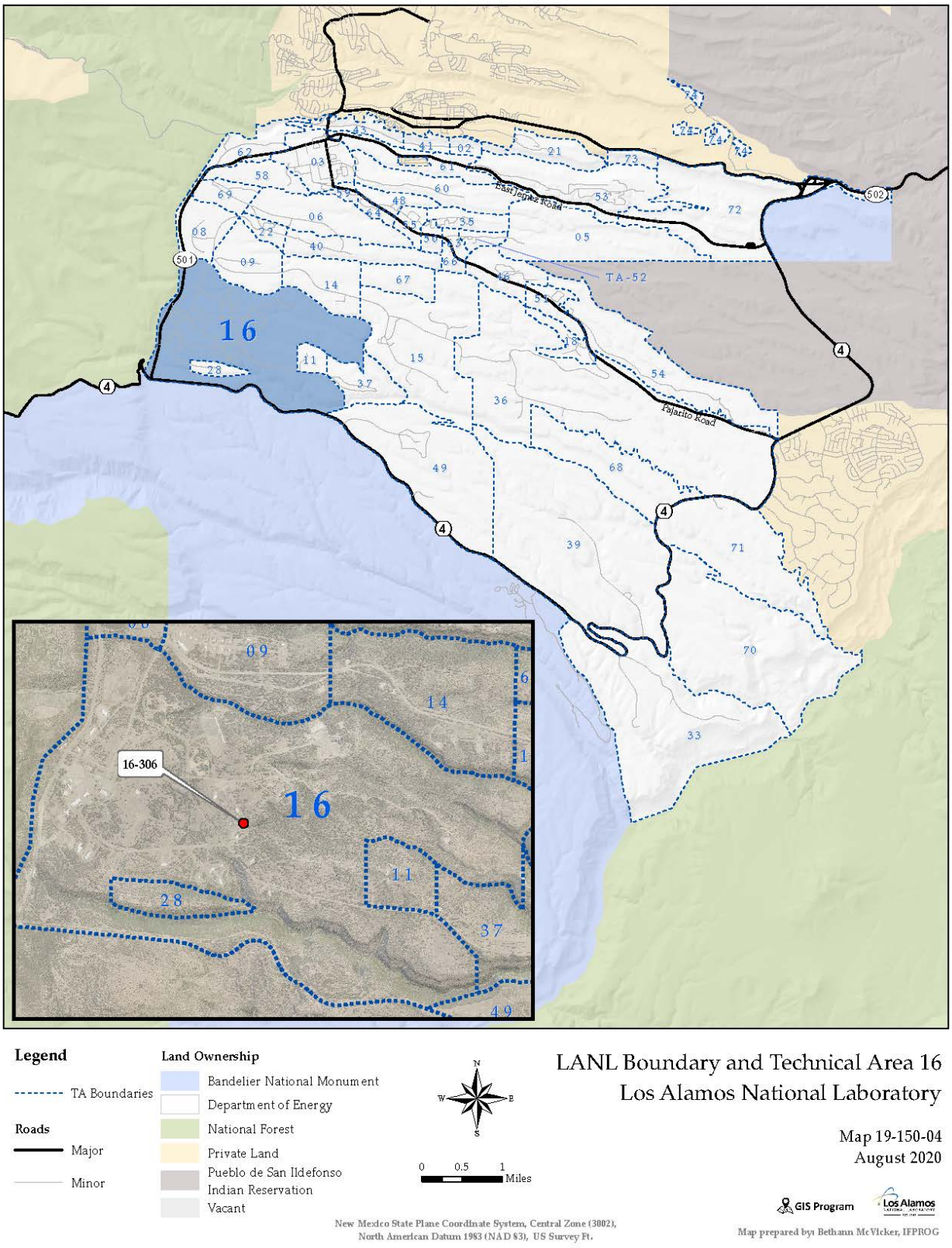


Figure 1-1. Map of LANL Boundary and Technical Area 16

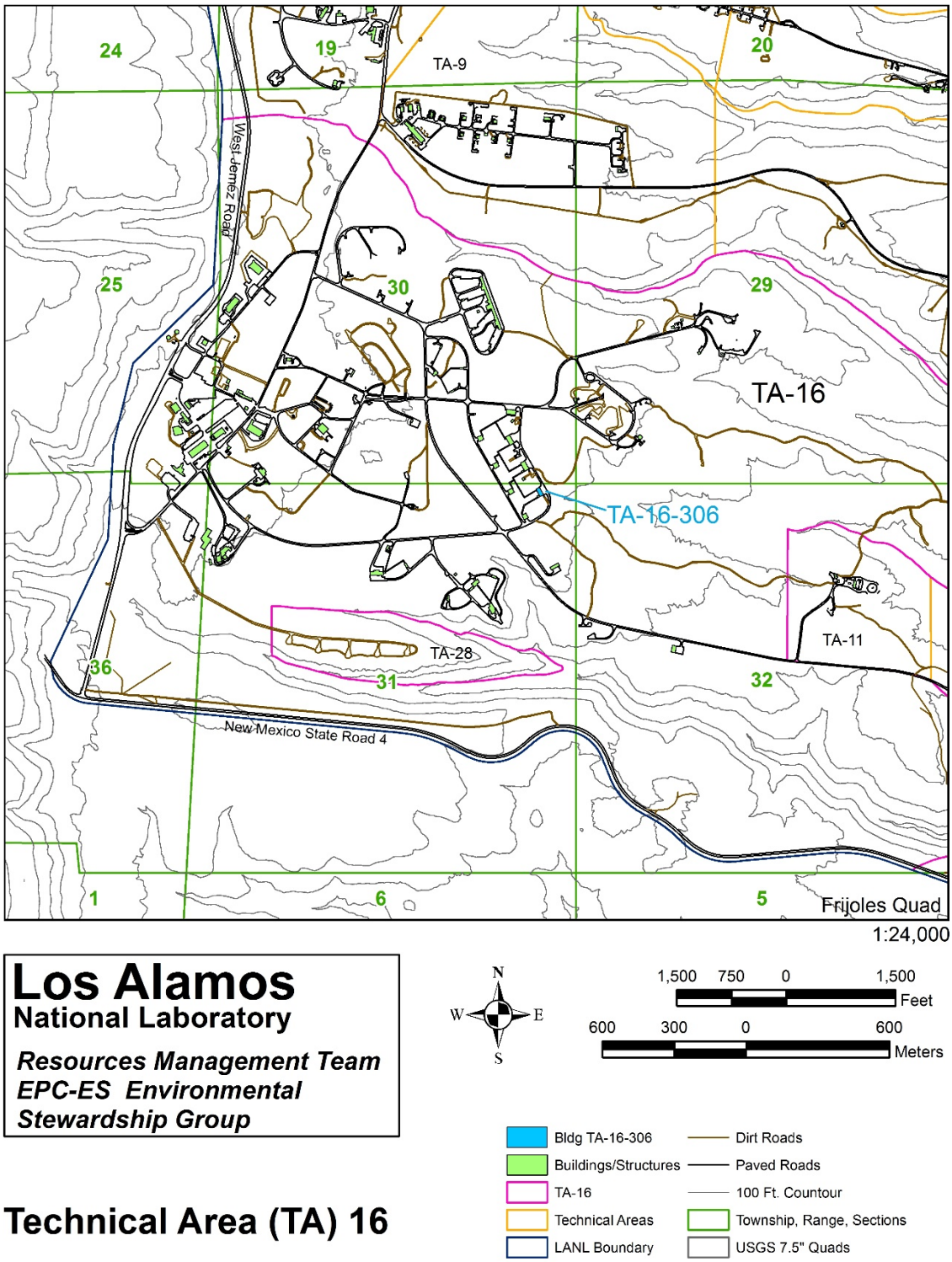


Figure 1-2. Map of TA-16 Evaluated Buildings

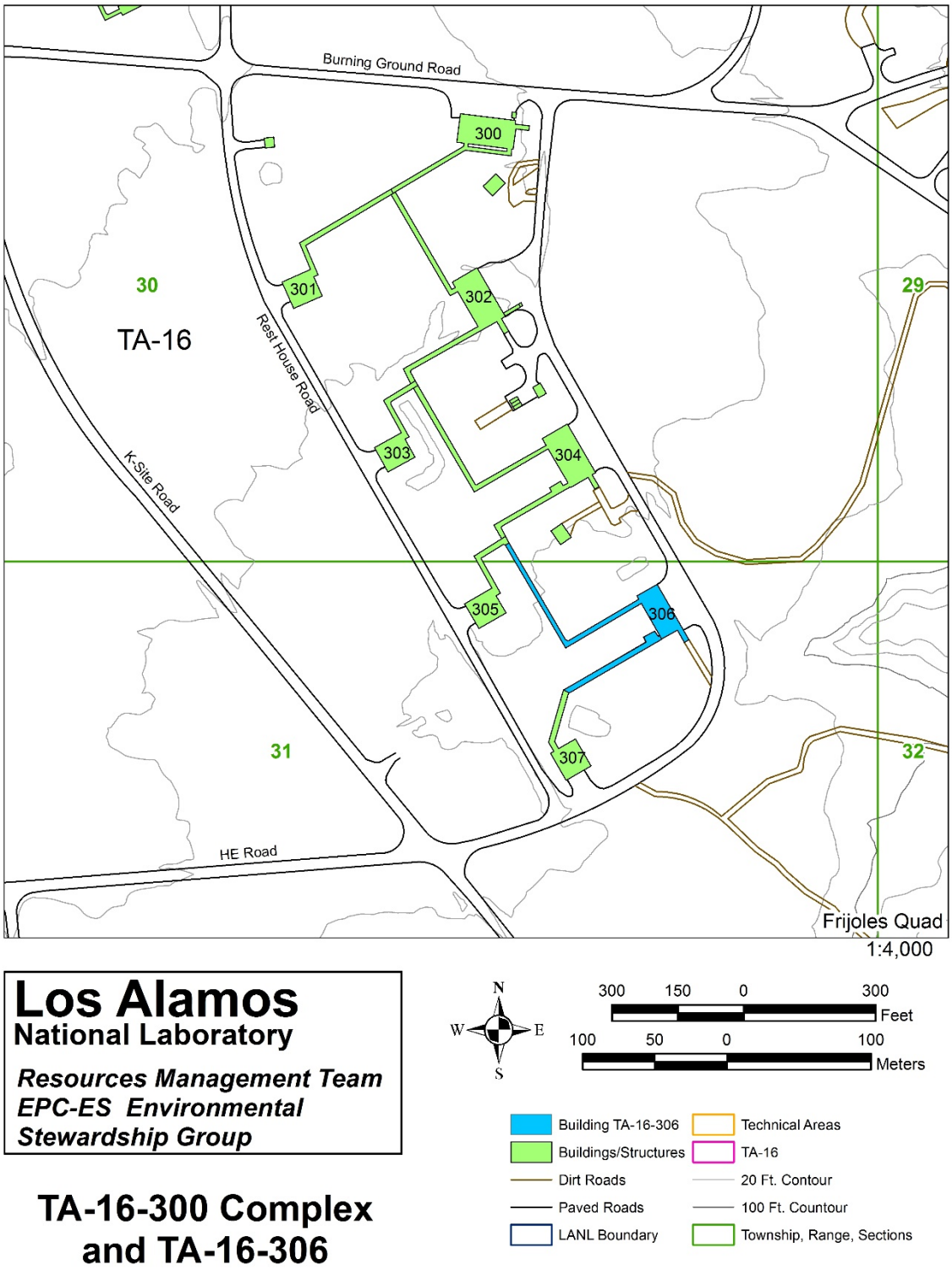


Figure 1-3. Map of TA-16-300 Complex and Building TA-16-306

1.1 Eligibility Determinations

In 1995, the SHPO concurred that this historic building was eligible for listing in the Register. This determination was documented in a 1995 report titled *TA-16 Heating System Replacement No. 114* (McGehee, 1995). This building was determined eligible for listing in the Register under Criteria A. Criteria A is defined by properties "…associated with events that have made a significant contribution to the broad patterns of our history" (LANL, 2017).

1.2 Demolition and Adverse Effects

The demolition of this Register-eligible building is considered to be an adverse effect under Section 106 of the NHPA. The building no longer supports the scientific mission of the Laboratory, and high-explosives formulation work historically conducted in TA-16-306 has been relocated to other facilities. The operations within TA-16-306 were moved to TA-16-260 as part of ESA's consolidation of operations that began with the review of the building in 2002 and 2003 in the report *ESA Division's Five-Year Plan: Consolidation and Revitalization at Technical Areas 3, 8, 11, and 16.* In addition, due to its association with high-explosives (HE) processing, portions of the building are likely contaminated with high-explosives residue (DOE, 2017). Potentially hazardous materials include HE and various types of solvents used in the process line, including acetone, chlorothene, freon-PCA solvent, and methylene chloride. Methylene chloride was used as a spray-can propellant but its use has been discontinued. In 1959, H Division found above-permissible levels of toluene diisocyanate within TA-16-306 (LANL, 1993). In order to mitigate the adverse effects, standard documentation was conducted as outlined in the (PA), and includes:

(1) interior and exterior archival quality digital photographs,

(2) documentation of historically significant associated equipment and artifacts,

(3) a list of LANL drawings and the reproduction of select drawings in a reduced scale of 11 x 17, and

(4) a written history of the building supplemented by oral interviews.

2.0 Historical Overview

2.1 Manhattan Project (1942–1946)

In 1939, Albert Einstein wrote a letter to President Franklin Roosevelt alerting him to the possible threat of a German atomic bomb (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 selected Robert Oppenheimer to coordinate the design of the bomb. Oppenheimer was to organize the construction and needed staffing for a "secret laboratory" to perform research and development of the atomic bomb.

General Groves had criteria for the proposed location of the facility where this experimental project would take place: a secure and isolated location that had good water supply and suitable climate with access to a labor force and adequate transportation network and “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, recognized a place that met all of Groves’ criteria, the Los Alamos Ranch School in northern New Mexico.

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). The University of California agreed to operate the site, code-named “Project Y,” under contract with the government (Rothman, 1992). 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 HE 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., 1993). This concept led to the development of the “Little Boy” device. Scientists were less confident about the implosion design, which used shaped HE to compress a subcritical mass of plutonium-239. The symmetrical compression increased the density of the fissionable material to cause a critical reaction.

In 1944, the uncertainties surrounding the plutonium implosion 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 this test site (“Trinity Site”) on May 7, 1945. 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).

The world’s first atomic device successfully detonated in the early morning of July 16, 1945. Little Boy, an untested uranium gun device, 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.

2.2 Early Cold War Era (1946–1956)

The future of the Laboratory was uncertain after the end of World War II (WWII). Many scientists and laboratory workers left Los Alamos and went back to their pre-war lifestyles. Norris Bradbury had been appointed director of the Laboratory following Oppenheimer’s return to his pre-WWII duties (LANL, 1986). Bradbury felt the nation needed “a laboratory for research into military applications of nuclear energy” (LANL, 1986). 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 in 1946, the establishment of the U.S. Atomic Energy Commission (AEC) acted 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 laboratory.

With the beginning of the Cold War, 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, a growing topic of interest at the Laboratory from 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, 2001a).

In 1951, the Nevada Proving Ground (now the Nevada Test Site [NTS]) was established. Development of the site was rapid, culminating with the detonation of "Ranger Able" on January 27, 1951, which was the first atmospheric test conducted in the U.S. since 1945 (DOE, 2015). In the same year, Los Alamos directed "Operation Greenhouse" in the Pacific and successfully conducted the first test of the thermonuclear principle, known as "George," as well as "Item," the first test of a fission weapon boosted by a fusion reaction. In 1952, the first full-scale thermonuclear device, known as "Mike," was detonated at Enewetak Atoll in the Pacific (LANL, 1986).[1] The Soviet Union responded with a successful fusion demonstration in August 1953, followed by a test of a hydrogen bomb in 1955, signaling an acceleration in the Arms Race between the U.S. and the USSR. 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, 2001a).

Although weapons research and development has always played a major role in the history of the Laboratory, other key themes for the years 1942–1956 include supercomputing advancements, fundamental biomedical and health physics research, high explosives and 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 the Laboratory ended in 1956, a date that marks the completion of all basic nuclear weapons design; later research focused on the engineering of nuclear weapons to fit specific delivery

[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).

systems. The year 1956 was also the last year Los Alamos was a closed laboratory, the gates into the Los Alamos town site came down in 1957.

2.3 Late Cold War Era (1956–1990)

The late Cold War era saw Los Alamos' continued support of the atmospheric testing programs in the Pacific and at NTS. The first of many underground tests at NTS occurred in 1957. 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).

2.4 End of the Cold War to Recent Times (1990–2006)

The transition from the Cold War era to the post-Cold War, initiated by the collapse of the Soviet Union at the end of 1991, prompted a period of profound change throughout Los Alamos. Because international treaties restricted and then halted the testing of nuclear weapons, laboratory scientists had to devise new methods of ensuring the safety and reliability of the nation's nuclear stockpile. The last underground nuclear test conducted by the U.S. occurred in 1992. In the years following, the Laboratory developed sophisticated methods of analyzing the viability of weapons as part of the Stockpile Stewardship Program.

Although weapons research remains the Laboratory's primary mission, scientists throughout the Laboratory conduct research in a wide variety of disciplines. The Laboratory became host to one of three national centers of human genome studies and made other major advances in human-health research, culminating in increased bioforensic research aimed at thwarting biological terrorism. The Laboratory continues to make huge advances in computing capacity and capabilities, spurred by the need to solve the increasingly complex codes required for weapon certification. A number of Laboratory experiments fly on satellites to conduct research in space science, and Laboratory scientists provide valuable scientific and technical expertise in support of homeland-security issues.

3.0 Historical Context of TA-16

3.1 The Ramón Vigil Grant

In 1742, the lands that encompass present-day S-Site were part of a Spanish land grant given to Pedro Sánchez and remained within the Sánchez family for over one-hundred years (Foxx 2002; Machen et al., 2012). In 1860, José Ramón Vigil obtained confirmation of title from the U.S. Congress to most of the original Sánchez Grant (Hoard, 2006). Between 1860 and 1934, the Ramón Vigil Grant would pass through no fewer than five separate titleholders before the land was sold to the Soil Conservation Service (SCS) (Machen et al., 2012).

3.2 The Buckman's S-Site and Railway Station

In 1897, the owners of the Ramón Vigil Grant sold their timber rights to H. S. Buckman, who removed lumber from the area until 1903. His contract allowed him to cut all trees greater than eight inches in diameter. To transport lumber from the Pajarito Plateau to the railroad line that ran along the Rio Grande, Buckman not only built a road from the sawmill at S-Site to the river but also built the town of Buckman, which served as the railway station (Foxx, 2002). S-Site was named for a large pile of sawdust found in the area during the beginning of the Laboratory's use—the Manhattan Project. This sawdust was the only remnant of a nearby sawmill operation from the late 19th century (Figure 3-1).

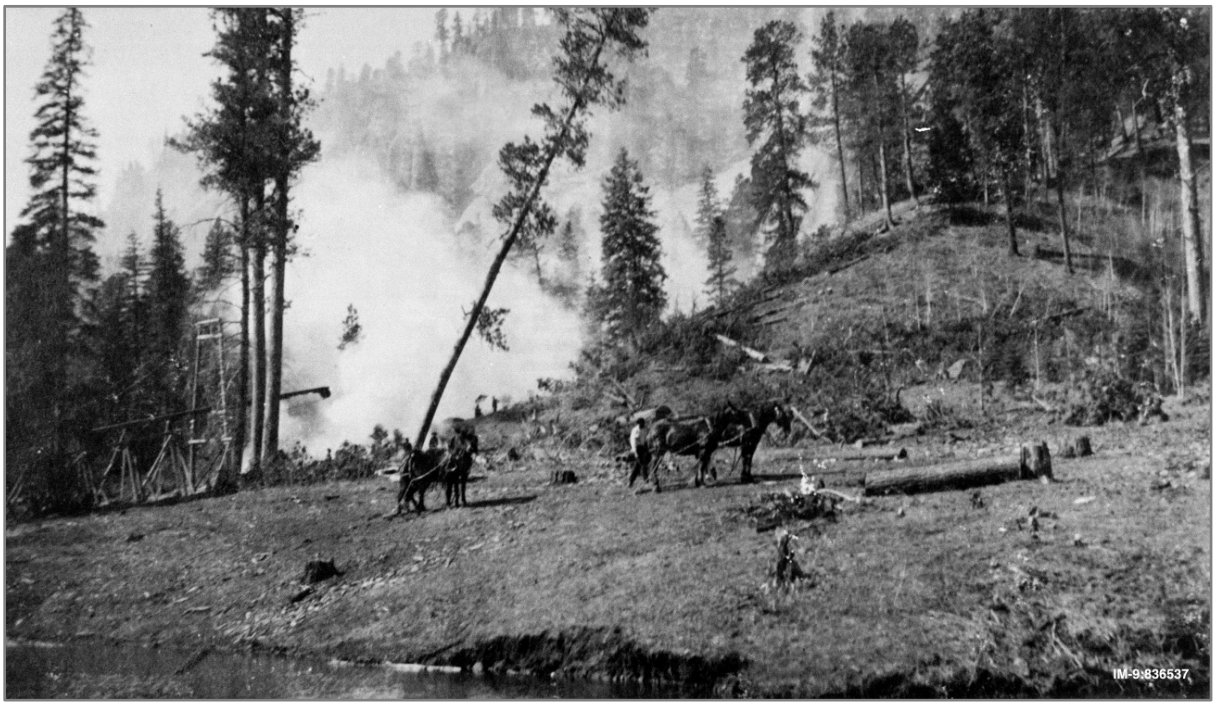
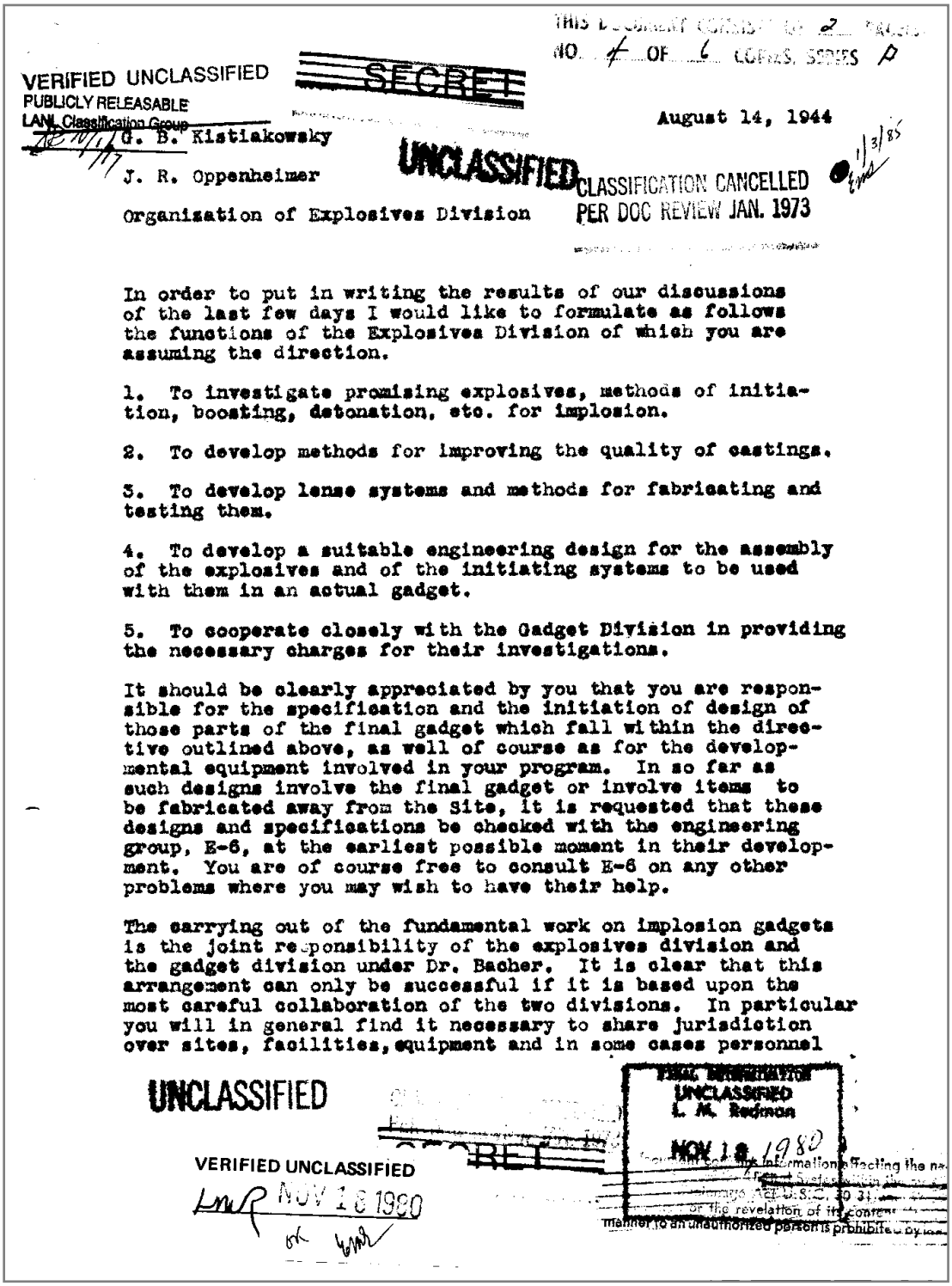


Figure 3-1. Logging activities directly west of S-Site

3.3 World War II and the Los Alamos Laboratory "Project Y"

During WWII, the Laboratory was also known as "Project Y." This secret laboratory was established by the Manhattan Project and operated by University of California. At the height of the Manhattan Project, scientists at the Laboratory realized that plutonium was not suitable for assembly in a gun-type weapon, forcing the development of the implosion detonation concept. With the implosion method eventually used in the "Fat Man" weapon, high explosives were detonated to compress a plutonium "pit." Although theoretically feasible, the complexities of implosion demanded extensive testing and experimentation in a variety of technical fields. Solving the implosion problem not only involved understanding the properties of plutonium but also required solving problems regarding the formulation and casting of high explosives (Hurd and Schaefer, 2006). S-Site was developed between December 1943 and May 1944 to test and develop explosives systems for the implosion bomb. The Explosive Division was formally

organized and documented by a letter dated August 14, 1944; testing and development of explosives was underway at the Laboratory (Figure 3-2) (LANL, 1993).



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SECRET

NO. 4 OF 6 COPIES, SERIES A

August 14, 1944

G. B. Kistiakowsky

J. R. Oppenheimer

UNCLASSIFIED CLASSIFICATION CANCELLED PER DOC REVIEW JAN. 1973

Organization of Explosives Division

In order to put in writing the results of our discussions of the last few days I would like to formulate as follows the functions of the Explosives Division of which you are assuming the direction.

1. To investigate promising explosives, methods of initiation, boosting, detonation, etc. for implosion.

2. To develop methods for improving the quality of castings.

3. To develop lense systems and methods for fabricating and testing them.

4. To develop a suitable engineering design for the assembly of the explosives and of the initiating systems to be used with them in an actual gadget.

5. To cooperate closely with the Gadget Division in providing the necessary charges for their investigations.

It should be clearly appreciated by you that you are responsible for the specification and the initiation of design of those parts of the final gadget which fall within the directive outlined above, as well of course as for the developmental equipment involved in your program. In so far as such designs involve the final gadget or involve items to be fabricated away from the Site, it is requested that these designs and specifications be checked with the engineering group, E-6, at the earliest possible moment in their development. You are of course free to consult E-6 on any other problems where you may wish to have their help.

The carrying out of the fundamental work on implosion gadgets is the joint responsibility of the explosives division and the gadget division under Dr. Bacher. It is clear that this arrangement can only be successful if it is based upon the most careful collaboration of the two divisions. In particular you will in general find it necessary to share jurisdiction over sites, facilities, equipment and in some cases personnel

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FINAL DETERMINATION
UNCLASSIFIED
L. M. Redman
NOV 18 1980

Figure 3-2. 1944 document (page 1) establishing the new explosives division

It was at S-Site that many challenging scientific and engineering problems in high explosives were tackled. From laboratories and processing facilities scattered throughout the landscape of S-Site, HE components of the implosion design were developed, manufactured, and tested. The fundamental problem was how to achieve a perfectly symmetrical implosion; the shockwave created by detonating HE had to uniformly compress a sphere of plutonium. The solution was to use explosives cast in a series of geometric shapes, called lenses, to focus the shockwave uniformly. These lenses would be ignited by a series of detonators fired simultaneously around the entire sphere of HE (McGehee et al,. 2003).

Another major problem facing the scientists working with high explosives was the lack of existing methods for casting HE. The military's standards for explosives performance were well below what was needed to develop a symmetrical implosion, prompting the scientists of Project Y to develop new processing techniques and HE formulations. Thus, the development of HE at S-Site became one of Project Y's most important wartime tasks. Because of the need for hundreds of lenses, both for proof testing and for any combat units, a multi-building casting facility was built at S-Site to produce lenses from a molten slurry of HE into precise shapes. Early S-Site facilities included an office building, a steam plant, a casting house, storage magazines, and HE preparation buildings. Because of construction delays and difficulty procuring equipment, TA-16 operated only on a limited basis by May 1944 and did not begin steady operation until August of the same year (McGehee et al., 2003).

The development of diverse and complex engineering methods relating to detonator, initiator, and HE research was a major accomplishment for the wartime Laboratory. Numerous technical problems experienced during early processing operations were eventually overcome, with facilities at S-Site (Figure 3-3) producing about 20,000 usable castings over an 18-month period. By its wartime peak, S-Site would use over 100,000 pounds of HE per month. Several types of explosive materials were used in the casting process, such as Composition B (TNT combined with British-invented Research Department Explosive [RDX]), Torpex, Pentolite, Baronal, and Baratol (LANL, 2000; McGehee et al., 2003).

Figure 3-3. Project Y high explosives facilities at S-Site

3.4 Cold War Laboratory Expansion

During the Cold War, Laboratory scientists designed new weapons that were smaller, lighter, and more efficient than the original Fat Man implosion bomb. Between 1945 and 1956, the diameter of a nuclear weapon's primary stage decreased by more than a factor of three, and weight decreased by more than a factor of 30 (Machen et al., 2010). The savings in weight and volume in early Cold War nuclear weapons were the result of a remarkable set of improvements that occurred in the physics, design, and engineering of the primary stage. These new weapons were adapted to meet the requirements of new delivery vehicles, such as missiles. Laboratory scientists provided both the theory and the applied science behind the development of explosives for these new designs. To test new high explosives and detonation systems, S-Site greatly increased its staff, capabilities, and capacity (LANL, 2006; Mitchell, 2003).

The bulk of the postwar U.S. Nuclear Weapon Complex was constructed during the administration of President Harry Truman, with three notable expansions between 1949 and 1952, which were in response to the growing Cold War Arms Race between the USSR and the U.S. During this early competition with the USSR, Truman directed the Nuclear Weapon Complexes to pursue the development of a thermonuclear bomb. In response, the largest construction project in peacetime history ensued as wartime national laboratories at Hanford, Oak Ridge, and Los Alamos were expanded to produce special nuclear materials and new nuclear weapons.

During the Cold War era, the task of Laboratory scientists and S-Site personnel was to research and develop new weapons designs. To accomplish this task, S-Site employees worked around

the clock under a rigorous schedule of three shifts a day, seven days a week. Although operations were carried out under strict postwar safety standards, S-Site suffered its only fatal HE accidents during this period. Two machinists were killed while machining explosives in February 1959. Seven months later, in September, four men died when HE unexpectedly detonated during disposal. As a result of the two accidents in 1959, all operations involving explosives at the Laboratory were shut down for a period of several months until new health and safety regulations could be implemented (Brooks, 2008; Courtwright and Fulgenzi, 2008; Machen et al., n.d.).

To keep up with the demands of explosives research, the Laboratory continually upgraded its HE processing capabilities throughout TA-16. Ultimately, the facilities at TA-16 totaled 78 buildings with over 280,000 square feet of space (Figure 3-4). S-Site operated around-the-clock schedules and supported large-scale formulations of HE and their casting, pressing, machining, and assembly; mechanical and safety testing; and an extensive range of quality assurance operations. S-Site also received, stored, packaged, and transported HE for the entire Laboratory (LANL, 2001b).

Figure 3-4. Cold War era S-Site (TA-16), 1991

3.5 Reduction, Consolidation, and Stockpile Stewardship at the Laboratory

The rapid expansion experienced in 1946 by the entire Nuclear Weapon Complex began a slow and steady decrease by the 1960s. By 1965, President Johnson had decided to reduce production of plutonium and highly enriched uranium. In 1992, during the waning days of the Cold War, the United States declared a moratorium on further nuclear weapons tests. In

response to the unilateral test moratorium, Laboratory scientists have had to turn to alternative methods of assuring the nation's nuclear weapons will work as designed as they continue to age. Scientists use a blend of physics, chemistry, metallurgy, hydrodynamics, and computer science to simulate the reliability of the weapons. These methods are collectively known as stockpile stewardship (Courtwright and Fulgenzi, 2008; Mitchell, 2003).

While experimentalists and defense customers still need HE components for experimental applications and military needs, the end of the Cold War meant the dispersal of large manufacturing facilities at S-Site were no longer cost effective. Many 1950s-vintage buildings used in HE operations have high maintenance costs, and they were nearing the end of their useful lives. Some facilities have been decommissioned, and major operations have been consolidated. Capabilities have been modernized by the integration of new technologies, while floor space has been significantly reduced (LANL, 2003). Yet S-Site's role remains unchanged. Its staff continues to support national security by manufacturing HE for continuing research into energetic materials and for the Laboratory's Stockpile Stewardship mission.

3.6 Safety Standards and Layout

The Laboratory's layout for facilities processing explosives is unique. As originally constructed, operations were divided into functionally distinct and physically separated complexes called main processing areas or "lines" (Figure 3-5). These operational lines were designed to anticipate the effects of accidental explosions within a working bay. Safety features were incorporated into the design of each HE facility. Safe quantities and distances and appropriate levels of protection were considered for each type of explosives activity. Specific design elements included interconnected metal corridors, separate "rest" houses for storage of explosives, and earthen berms and barricades (MacRoberts, n.d.). For current operations, the Laboratory follows detailed safety regulations described in DoD 6055.9-STD (U.S. Department of Defense, 2007).

Figure 3-5. S-Site (TA-16), TA-16-300 Complex. TA-16-306 (far left center), 1991.

3.7 Processing and Testing High Explosives

Historically, for safety reasons, the Laboratory's HE processing operations were conducted in physically separate buildings divided by their functions (Fig. 3-5). Processing activities of HE components for nuclear weapons research consists primarily of manufacturing and assembly operations as well as science-based Stockpile Stewardship Program tests and experiments.

Capabilities at TA-16 include a variety of highly specialized assembly, machining, inspection, and transportation activities. High-explosives casting, inert-materials processing, and plastics operations at S-Site are used to produce explosive components for a variety of display and testing purposes. At S-Site inspection facilities, explosives obtained from commercial vendors are examined upon arrival. In preparation facilities, high explosives are readied for various uses, including the coating of HE granules with plastics. In the plastics areas, components made of both energetic and inert materials are fabricated to simulate nuclear weapons assemblies. Metal forming, a historical operation of S-Site that is now performed infrequently, takes place in a separate facility (Goldie, 2007).

For safety reasons, HE pressing operations at S-Site are conducted in locations physically isolated from other processing facilities. Explosives are delivered to these facilities for processing into shapes that can be precisely machined as necessary. During pressing operations, HE material in plastic-coated granular form are placed into molds and subjected to very high pressures. This process produces solid pieces of HE in a variety of dimensions.

In machining facilities, rough pressings or castings of HE are machined into hemispherical shapes or test charges using a combination of computer-controlled mills and lathes. High-explosives machining is conducted using water as a coolant, and each machine is provided with a re-circulating water treatment and cooling system. In inspection facilities, radiography by X-rays is used as part of the inspection process to determine the presence of flaws in cast, pressed, and machined HE. Once a high explosive is no longer useful at S-Site, the materials are demilitarized—disposed of by a number of methods onsite. Some high explosives are disposed of by detonation, whereas others are burned; however, each process is conducted under strict safety regulations.

4.0 Early Laboratory Architecture Style

During the Cold War era, architectural designs began emerging to meet the technical and scientific requirements of the Laboratory. Highly technical and scientific facilities commonly housed specific machines and equipment resulting in one-of-a-kind or first-of-a-kind facilities. These facilities were associated with man's first ventures into space, the discovery of nuclear fission, the development of computers and artificial intelligence, and genetic engineering. America's scientific and technical facilities stand as monuments to the nation's ability to invent and exploit new technology, as well as advancing scientific and engineering knowledge (ACHP, 2017; Brown et al., 2019).

Historically, significant scientific and technological facilities and structures are those that meet the criteria for inclusion in the NRHP or that qualify for designation as National Historic Landmarks for the contributions they made, the role they played, or breakthroughs they were associated with in American science, technology, and industry. Significant scientific and technological structures could include the equipment itself or the facility where it was used and/or built.

Laboratory facilities were typically designed from the inside out to support the specific shape and size of the equipment that would be housed and operated within them. Characteristics of these historic facilities are defined by equipment, programs, or processes, and not by codified characteristics of a formal architecture style. While the TA-16-300 Complex does not fit into any specific modern style, it does adhere to one of the primary attributes of 20th century Modern Architecture—form follows function. The high-explosive manufacturing process dictated the style and materials for the utilitarian-designed structures within TA-16. Heavily reinforced concrete was the primary construction material used because of its inherent security, durability, and ability to be cleaned (McGehee et al., 2003). Likewise, the interior materials for facilities in TA-16 were often chosen to address specific industrial processes or hazards; interior walls were

often constructed with structural glazed tile, as it is easily washable, and floors were covered with non-spark conductive material (McGehee et al., 2003).

Another characteristic of 20th century Modern Architecture that finds expression in the TA-16-300 Complex as well as building TA-16-306 and similar facilities is the concept that materials used in construction are meant to be seen and appreciated for what they are without being deliberately obscured. The construction of the buildings within the Complex and its layout within TA-16 are directly related to its operational use. To facilitate the safe transport of materials to TA-16-306, corridors were designed with multiple turns to reduce the direct blast path if the explosives stored in the rest houses exploded (Machen et al., n.d.). In addition, the spacing of the buildings within the Complex would, in the event of an explosion, direct blast energy away from surrounding buildings (McGehee et al., 2003).

Laboratory-processing buildings, such as the TA-16-300 Complex, are representative of the "industrial vernacular" architectural style prevalent at all TAs in Los Alamos (McGehee et al., 2003). Although the industrial vernacular does not completely capture the essence of these facilities, it has proven adequate in its description of the general characteristics of Cold War-era construction throughout Los Alamos. It has been suggested that the industrial architecture movement with its systematic study of material evidence associated with the industrial past, including sites and structures of immense scale and unique structural expression from our technological past, could include these types of highly scientific facilities (Miller, 2016). However, until a new architectural style has been defined to capture the highly technical and scientific facilities of the late 20th and early 21st centuries, facilities within the Laboratory—such as the TA-16-300 Complex—will continue to be described under the industrial vernacular nomenclature (Brown et al., 2019).

5.0 The Beginnings of the Complex

5.1 Design Firm: Black & Veatch: Kansas City, Missouri

Two graduates, Ernest Bateman (E. B.) Black and Nathan Thomas (N. T.) Veatch, from the University of Kansas founded Black and Veatch in 1915. The company eventually grew to become one of the world's most successful engineering, procurement, consulting, and construction (EPC) companies. Surviving the Great Depression, the company started to thrive beginning in 1935. This growth only continued between the years of 1945 to 1955, and the "incoming tidal wave of business" initially proved challenging following the death of one of the founders, E. B. Black, in 1949. The Manhattan Project's demand for engineering and construction services was a major contributor to this new business as the firm's "history of reliable service encompasses the Federal government's most significant programs" (Black & Veatch, n.d.). This includes the construction of the Complex, with the intent to support early Cold War-specific operations.

Architectural Modernism, with its clean lines and lack of ornamentation, reached peak popularity during the early Cold War era. However, the Laboratory's Complex is exceptionally utilitarian in

its design. The fact that an engineering firm, as opposed to an architectural firm, designed the Complex highlights functionality and not aesthetics as the driving factor. A utilitarian architectural style exists throughout the properties at the Laboratory. However, there is not a current known term for this architectural style. Future endeavors to provide a defining name for this style will be made in order to clarify this specific style type (Black & Veatch, n.d.).

5.2 General Contractor: Robert. E. McKee

Robert E. McKee began his general contracting company in 1913. By the start of the Manhattan Project, the company had an established record of building Department of Defense (DoD) facilities, including the naval docks and Marine Hospital at the naval base in San Diego, California, and facilities at Hickam Field in Pearl Harbor, Hawaii. In 1944, the company was chosen to build facilities for the Manhattan Project, which earned it the Army–Navy “E” award in 1945. According to Laboratory records, the company completed over 30 buildings, including TA-16-516/517 (V-Site), TA-18-1 (Slotin Building), TA-18-2 (Battleship Bunker), and TA-16-58 (Magazine). All five of these buildings are eligible for inclusion in the Manhattan Project National Historical Park. After the war ended, McKee agreed to continue providing construction services for the Laboratory and the community of Los Alamos through the creation of a separate company, named Zia Company, which operated from 1946–1986. Outside of the Laboratory, McKee’s company was known for an extensive list of projects, such as hospitals, educational buildings, industrial facilities, governmental offices, and military installations (Aldrich, 2013; Robert E. and Evelyn McKee Foundation, n.d.; Stanley and Stanley, 2010).

6.0 TA-16-300 Complex

6.1 Architectural Description

High-explosives plastics production occurred at the TA-16-300 Complex (Complex), which included buildings 300, 301, 302, 303, 304, 305, 306, and 307. All of these buildings are connected by a series of enclosed hallways, or corridors, suitable for forklift or powered cart operation. The plastics processing area consists of two types of buildings. One type of building (300, 302, 304, 306) historically contained mixing, baking, casting, and extruding equipment, while the other type (301, 303, 305, 307) contained storage, some winding equipment, environmental chambers, and other small experiments. The plastics operations were conducted in buildings 304–307.

6.2 Historic Description

Construction of the Complex was completed in 1953 to support plastics production. The plastics area provided plastics component fabrication for nuclear weapons assembly. Feeds to the plastics production consisted of raw filler materials, formulation chemicals, and polymer synthesis products. Products from the plastics production would be plastic weapons components. Formulation chemicals, fillers, and various plastic components were required. These activities did not involve radiological air or wastewater emissions. The activities involved

the generation of hazardous and non-hazardous liquid and solid wastes. Industrial wastewater was discharged to the sanitary sewer system. There were minimal emissions of volatile organic compounds due to the handling and processing of solvents and volatile organic compounds. All hazardous liquid and solid wastes were handled and treated in accordance with existing federal, state, and LANL policies (MacRoberts, n.d.).

7.0 Building Descriptions

The following subsections provide a summary outline for building TA-16-306's, historical background, architectural form, and historic operations as well as photographs.

7.1 Building 306 in Technical Area 16 (TA-16-306)

Figure 7-1. TA-16-306 Northeast Elevation

Figure 7-2. TA-16-306 Southeast Elevation

7.1.1 Historical Description

TA-16-306 is a Cold War-era, high-explosives processing building that played an important role in the development of high-explosives components for nuclear weapons research, testing, and stockpile stewardship (DOE, 2017). This building was originally constructed as a high-explosives processing facility and was built between 1951 and 1953. In the late 1950s, the building was converted to support the plastics operations at TA-16 and functioned in this role until operations were moved from the building. Operations included molding of polysiloxane foam and polyurethane components, intrusion molding, and epoxy and laminate work (LANL, 1993).

Building TA-16-306 contained plastic, polymer, and adhesive processing and chemical benches in Bays A and C. Ovens in room 101 were used for curing thermoset plastics (LANL, 1993). A battery room in the basement provided a battery back-up power system for emergency lighting in the case of a power failure. A small machine shop area was also located in room 101 (MacRoberts, n.d.).

The basement in this building, as well as the basements in TA-300, 302, and 305, contain the heating, ventilation, and air (HVA) and heating, ventilation, and air conditioning (HVAC) systems, compressed air lines, chilled water line loops, processing steam lines, and air handling and chilling equipment (MacRoberts, n.d.).

Panowski and Salgado reported TA-16-306 was one of the larger users of solvents at S-Site. These solvents included acetone, chlorothene, freon-PCA solvent, and methylene chloride. Methylene chloride was used as a spray-can propellant but its use was discontinued. Use of all chlorinated solvents has been discontinued. In 1959, H Division found above-permissible levels of toluene diisocyanate within TA-16-306 (LANL, 1993).

The building was proposed to be remodeled in 2008, but it was determined that the building was not suitable for continued use. Archival photographs of the interior of the building were taken in preparation of the proposed remodeling in 2008. After the archival photographs were taken, the proposed remodeling project was cancelled, and the building has been unoccupied ever since.

7.1.2 Architectural Description

TA-16-306 was constructed with a 1.5-story-tall first floor with a basement level. The building measures 56 ft 7 in × 122 ft 4 in and encompasses a gross square footage of 19,639. A covered dock spans the length of the building's front northeast side. The building was constructed with a reinforced concrete foundation, 12-inch- thick reinforced concrete walls, and a flat reinforced concrete roof with an overhang that measures 3 ft 6 in. A concrete trench with a wood covering is on the west side and terminates in a sump pit. The building connects via passageway TA-16-314 (new designation TA-16-306) and passageway TA-16-316 (new designation TA-16-306) to buildings TA-16-305 and TA-16-307 correspondingly (McGehee et al., 2003).

The building's first floor was constructed with reinforced concrete floors, a combination of glazed brick and stud walls, and a concrete ceiling. First-floor interior walls vary in size from 4-in to 16-in in thickness. The building walls allow technicians to wash the walls down after processing sessions. There are floor drains that allow the water to drain to the sump pits. Room 101 is a long, open room that accesses the three bays from the northeast. Room 101 houses three ovens and a Toledo scale as well plastics equipment machines. All three bays had copper strips installed under the floor tiles for electrical grounding purposes. (McGehee et al., 2003).

Access to the basement is possible from two directions. Stairs located at the exterior northwest corner connect the dock area with the basement level. A civil defense storage room, accessed from the basement level, was incorporated under these stairs. A second exterior entry is from a concrete ramp located at the southeast corner of the building. The enclosed ramp, 12 ft wide × 32 ft long, angles down from grade level to the basement level. The ramp was large enough to accommodate a small vehicle for moving items in an out of the building with relative ease (McGehee et al., 2003).

The basement level included both a main mechanical room and an equipment room. The main mechanical area is a single, large open room with five columns equally spaced down its length. Floor trenches are incorporated into the floor, which empty into the building's sump pits. The equipment room, located at the northwest corner of the basement, has 12-in concrete walls and contains both air intake and exhaust shafts (McGehee et al., 2003).

8.0 Conclusion

In compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, this report fulfills the reporting requirements associated with demolition activities identified in Appendix D.2 (B): *Demolition and Major Remodeling Requirements* from the PA.

Building TA-16-306 was identified as eligible for inclusion in the Register. This building, completed in 1953, was designed to support the high-explosives operations within TA-16 and ultimately functioned to provide plastics components fabrication for nuclear weapons assembly. An architectural description for historic Building 16-306 is included in this report. This Register-eligible building was not identified for permanent retention because the building no longer supports the scientific mission of the Laboratory, and high-explosives formulation work historically conducted in TA-16-306 has been relocated to other facilities. Another factor contributing to the demolition of this building was that historic operations have contaminated the building, making reuse and retention impractical.

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Appendix A. Historic Building Site Form

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LANL TA- Building # 16-0306

Camera 984242

Frame #s DCP_0420 through DCP_0423, DCP_0425, DCP_0509 through DCP_511

Surveyor(s) S. McCarthy, K. Towery, J. Ronquillo, R. Piatt, B. McCormick, K. Garcia, K. Plimpton, J. Brunette

Date 7/23/2002; February 2017

Los Alamos National Laboratory
Historic Building Survey Form

Building Name Plastics Operations Building UTMs easting 377007 northing 3967247 zone 13

Legal Description: Map Friioles Ouad 2002 tnsp 19N range 6E sec 31

Current Use/ Function Vacant Original Use/ Function High Explosives Processing Building

Date (estimated) Date (actual) 1953 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) 6' deep full length inset dock with open wall area supported by steel columns. Concrete trenches with wood covers on northwest side terminating in sump pit. Enclosed concrete ramp to basement. Lightning protection, lights, alams, conduit, signage, roof access ladder.

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 interior roof drains

Degree of Pitch/ Slope

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

Other Roof Materials Flat concrete roof with built-up roof finish

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

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

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

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

# of Each Door Type/Comments: Combination of both single and double metal doors throughout the building.

Interior Wall: Gypsum Board ☐ Reinforced Concrete- Interior ☑
CMU- Interior ☐ Plywood ☐ Other- Interior: Glazed structural tile.
In-Wall Electrical Wiring ☐ On-Wall Electrical Wiring ☑

Ceiling: Drop Ceiling ☐

Interior Comments (Equipment, etc): Ovens, kettles, and scale have been removed, but the overhead vacuum lines, dust collector for casting kettles, and cranes still remain.

Degree of Remodeling: Unknown/None

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

Associated Buildings ☑

If yes, list building names and #s: TA-16-300, -302, and -304.

Integrity: Good

Significance: Eligible

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

DOE Themes

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

LANL Themes

Weapons Research and Design, Testing, and Stockpile Support ☑
Super Computing ☐
Reactor Technology ☐
Biomedical/Health Physics ☐
Strategic and Supporting Research ☐
Environment/Waste Management ☐
Administration and Social History ☐
Architectural History ☐

Recommendations/ Additional Comments

Architectural Features (elevations)

Building TA-16-306 was constructed of reinforced concrete with one story and a full basement and measures 56 ft 7 in. by 122 ft 4 in. The first floor was constructed with an interior height of approximately 1 1/2 stories. A 6 ft covered dock spans the length of the building's northeast side. The building has a flat reinforced concrete roof with a 3 ft 6 in. overhang and a large concrete exhaust vent on west side.

The building's first floor was constructed with reinforced concrete floors, a combination of glazed brick and stud walls, and a concrete ceiling. First floor interior walls vary in size from 4 in. to 16 in. in thickness. The building was designed primarily around three partially enclosed 650 ft2 bays constructed of glazed brick walls. The glazed walls allow technicians to wash the walls down after processing sessions. Concrete trenches lined the walls of the bays and emptied into the exterior sump pits. For electrical grounding purposes, copper strips were placed under all floor tiles in all three bays. A long open room, Room 101, accesses the three bays from the northeast. Room 101 housed three ovens and a Toledo scale, as well as the replacement plastics equipment machines.

Access to the basement is possible from two directions. Stairs, located at the northwest corner, connect the dock area with the basement level. A storage room, accessed from the basement level, was incorporated under these stairs. A second entry is from a concrete ramp located at the northeast corner of the building. The enclosed ramp, 12 ft wide by 32 ft angles down from grade level to the basement level. The ramp is large enough to accommodate a small vehicle for moving items in and out of the building with relative ease. The basement level includes both a main mechanical area and the equipment room. The main mechanical area is a single large open room with five columns equally spaced down its length. Floor trenches are incorporated into the floor, which empty into the building's sump pits. The mechanical room, located at the southwest corner of the basement, was constructed with 12 in. concrete walls and contains both air intake and exhaust shafts.

Total sq ft: 17,811 gross

Architect/ Builder: Architect: Black & Veach / Contractor: R. E. McGee

Alterations:

List of Selected Drawings (Cntrl + Enter for para break)

ENG-C 15730
Sheet 6 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Architectural
Plans and Schedules
May 2, 1951

ENG-C 15731
Sheet 7 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Architectural
Roof Plan and Details
May 2, 1951

ENG-C 15732
Sheet 8 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Architectural
Elevations
May 2, 1951

ENG-C 15733
Sheet 9 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Architectural
Sections
May 2, 1951

ENG-C 15734
Sheet 10 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Architectural
Sections
May 2, 1951

ENG-C 15743
Sheet 19 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Structural
Sections-I
May 2, 1951

ENG-C 15744
Sheet 20 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Structural
Sections-II
May 2, 1951

ENG-C 15745
Sheet 21 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Structural
Miscellaneous Details-I
May 2, 1951

ENG-C 15746
Sheet 22 of 127
TA-16, Project "K"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Structural
Miscellaneous Details-II
May 2, 1951

ENG-C 2720
Sheet 9 of 10
TA-16, Phase "B"
Buildings (134,-1, 2, 3, 4) 16-300, 16-302, 16-304, 16-306
Electrical
Installation of Equipment
July 3, 1951

ENG-C 34657
Sheet 1 of 1
TA-16, Buildings 16-304, 306, & 450
Folding Gate Installation
Plans, elevations & Sections
October 24, 1966

ENG-C 39628
Sheet 1 of 3
TA-16, Bldg. 16-306
Filament Winder Installation
Mech. Sections & Plans
March 22, 1971

ENG-C 39629
Sheet 2 of 3
TA-16, Bldg. 16-306
Filament Winder Installation
Mech. Sections & Details
March 22, 1971

ENG-R 2835
Sheet 1 of 1
TA-16, Bldg. 16-306
Process Building
Basement & First Floor Plan
March 30, 1984

ENG-AB 598
Sheet 1 of 4
TA-16, Bldg. 306
Process Building
As-Built Record Floor Plan
Architectural: Basement Floor Plan
January 19, 1996

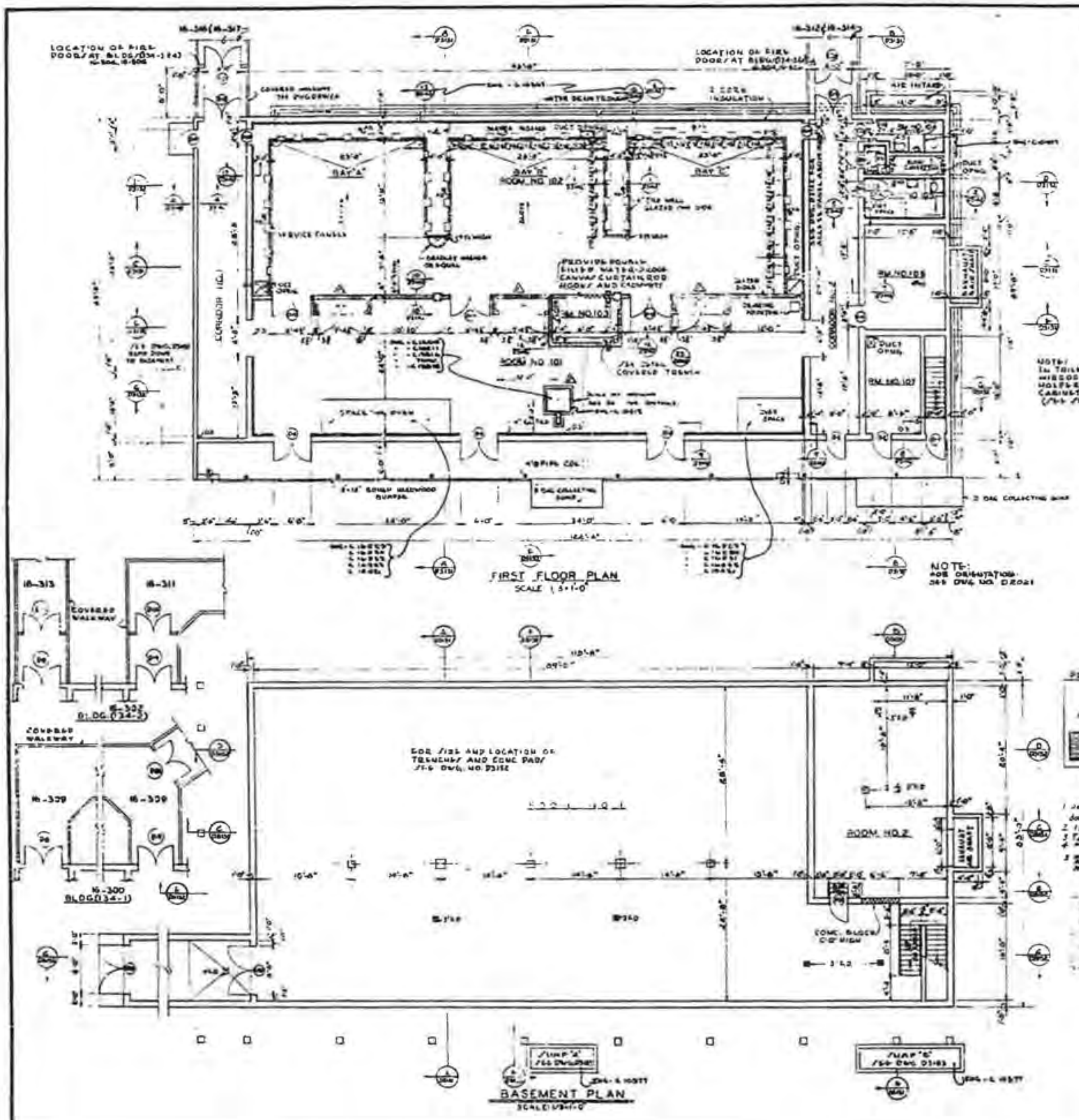
ENG-AB 598
Sheet 2 of 4
TA-16, Bldg. 306
Process Building
As-Built Record Floor Plan
Architectural: First Floor Plan
January 19, 1996

TA-16-306 northeast elevation.


TA-16-306 southeast elevation.

TA-16-306 southwest elevation.

TA-16-306 northwest elevation.



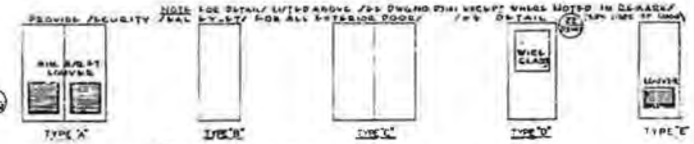
ROOM FINISH SCHEDULE													
RM NO	FLOOR			WALLS			CLG		BASE		WAINSCOT		REMARKS
	NON SPARKING CONDUCTIVE	QUARRY TILE	HARDENED CONCRETE	GLAZED TILE	PAINTED CONCRETE	UNGLAZED TILE	PAINTED CONCRETE		NON-SPARKING CONDUCTIVE	GLAZED TILE	GLAZED TILE		
101	X			X			X		X				
102	X			X			X		X				
103	X			X			X		X				
104		X			X		X			X	X		WAINSCOT-2" GLAZED TILE, 4'6" HIGH
105		X			X		X			X	X		WAINSCOT-2" GLAZED TILE-4'6" HIGH
106	X				X		X		X				
107			X		X		X						
CORRIDOR NO 1	X				X		X		X				
CORRIDOR NO 2	X				X		X		X				
SERVICE PASSAGE	X					X	X		X				CORK INSULATION ON OUTSIDE WALLS
STAIRWELL			X		X		X						
JAN CLO.		X			X		X			X	X		WAINSCOT-2" GLAZED TILE 4'6" HIGH

Unclassified/ Not UCNI
L. Bechtold 7/25/03

NOTE: IN TOILET ROOMS PROVIDE MIRROR, TOILET PAPER HOLDER, PAPER TOWEL CABINET & SOAP DISPENSER (SEE SPECS)

DOOR SCHEDULE										
MARK	TYPE	MAT'L	SIZE W	SIZE H	SIZE T	GLASS	DETAILS H	DETAILS J	DETAILS S	REMARKS
D-1&2	B	STEEL	5'-0"	7'-0"	1 3/4"	NONE	1	1	6	USE TYPE "C" FOR D-2. ASTRAGAL
D-3	B	"	5'-0"	7'-0"	1 3/4"	"	1	1	11	ASTRAGAL
D-4,5&6	C	"	2'-6"	7'-0"	1 3/4"	"	2	2	7	ASTRAGAL
D-7	B	"	5'-0"	7'-0"	1 3/4"	"	4	4	8	ASTRAGAL
D-8&9						"				SEE DRAWING NO D2414
D-10	B	"	5'-6"	7'-0"	1 3/4"	"	13	13	14	
D-11&12	B	"	2'-6"	7'-0"	1 3/4"	"	3	3	10	
D-13	C	"	3'-6"	7'-0"	1 3/4"	1/4" PLAIN WIRE GLASS	1	1	15	
D-14,15&16	C	"	2'-10"	6'-8"	1 3/4"	NONE	23	5	19	
D-17,18&19	"	"	3'-0"	7'-0"	1 3/4"	"	23	5	12	
D-20&21	B	"	2'-6"	6'-8"	1 3/4"	"	18	18	9	
D-22	C	"	2'-6"	6'-0"	1 3/4"	"	1	1	16	
D-23	C	"	2'-6"	6'-0"	1 3/4"	"	1	1	16	OMIT METAL WEATHERSTRIP ON DETAIL 1
D-24	B	"	3'-0"	7'-0"	1 3/4"	"	1	1	16	
D-25&26	C	"	[illegible]			"				CLASS "C" FIRE DOORS - SEE DWG [illegible]

NOTE: FOR DETAILS LISTED ABOVE SEE DWG NO D3161 EXCEPT WHERE NOTED IN REMARKS
PROVIDE SECURITY SEAL EYELETS FOR ALL EXTERIOR DOORS - SEE DETAIL



Notes
1. Security seal eyelets also on inside of all exterior doors
2. 12" long astragals on exterior single doors
3. Tack welds approx. 6" o.c. on all astragals
4. [illegible]
5. [illegible]

DOOR TYPES

AS CONSTRUCTED DRAWING
K. O. [illegible]

[redacted]

		DWG NOS. REFER TO SHOP DWG NOS.	
5		REVISED TITLE - Building Numbers [illegible]	
		ADD NOTE. MOD 18, 20 & 22.	
		ADDED NOTES	
		ADDED [illegible]	
		[illegible]	

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

ARCHITECTURAL BUILDINGS(34-1,2,3,4)
16-300,16-302,16-334,16-306
PLANS AND SCHEDULES
TA-16 PROJECT "K"

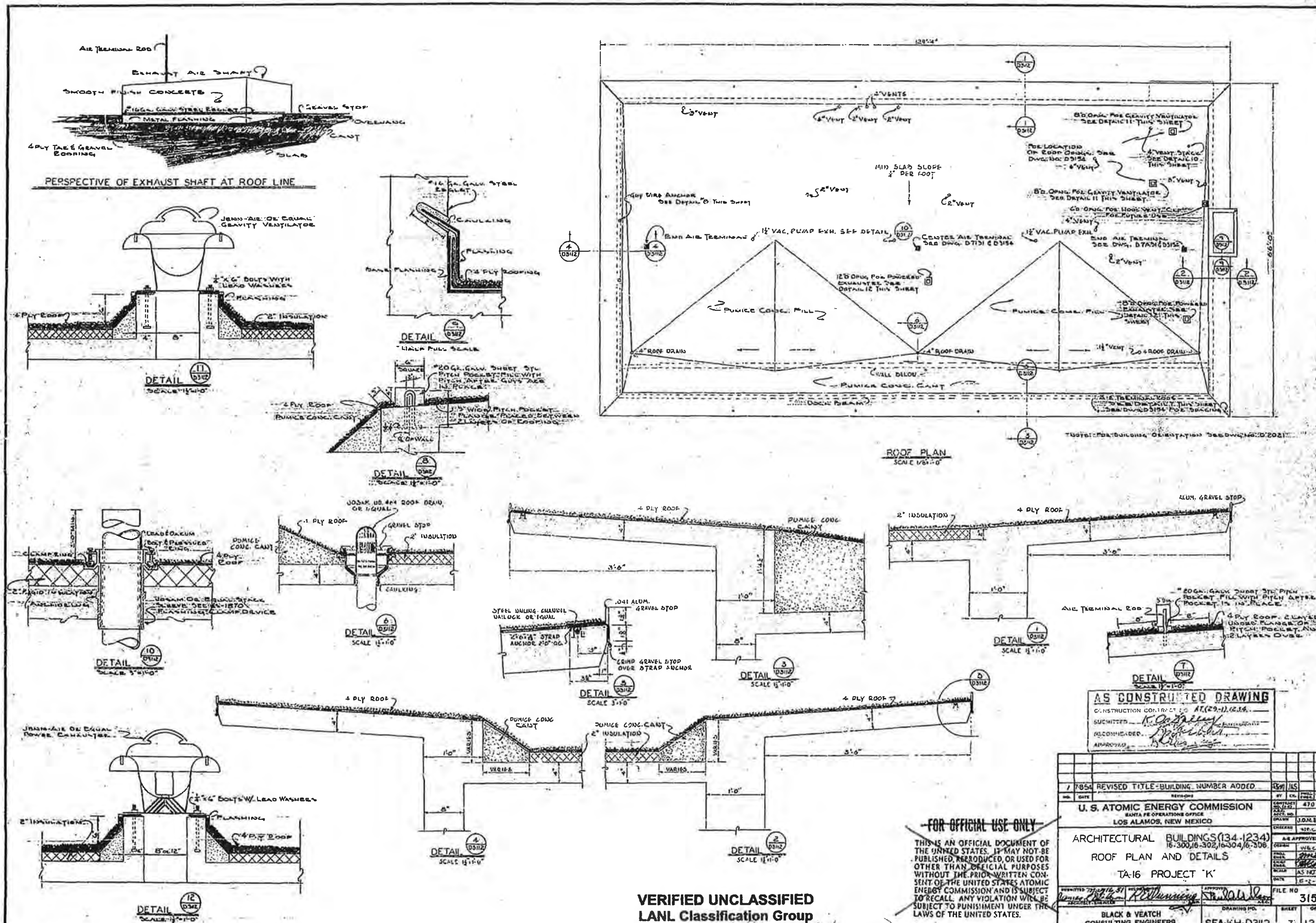
AS NOTED
5023

BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

SFA-KH-D3116 | 6 | 27

LAB JOB 670
L.A.S.L. DWG. NO. ENG-C 15730

1451



AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1).1234
SUBMITTED K. O. ...
RECOMMENDED ...
APPROVED ...

NO.	DATE	REVISIONS	BY	CK.
1	7-8-54	REVISED TITLE-BUILDING NUMBER ADDED		JLS

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

ARCHITECTURAL BUILDINGS (134-1234) 16-300, 16-302, 16-304, 16-306
ROOF PLAN AND DETAILS
TA-16 PROJECT "K"

CONTRACT 470
DRAWN J.O.M.
CHECKED
SCALE AS NOTED
DATE 6-2-51
FILE NO 3159

BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

DRAWING NO. SFA-KH-D3112 SHEET 7 OF 127

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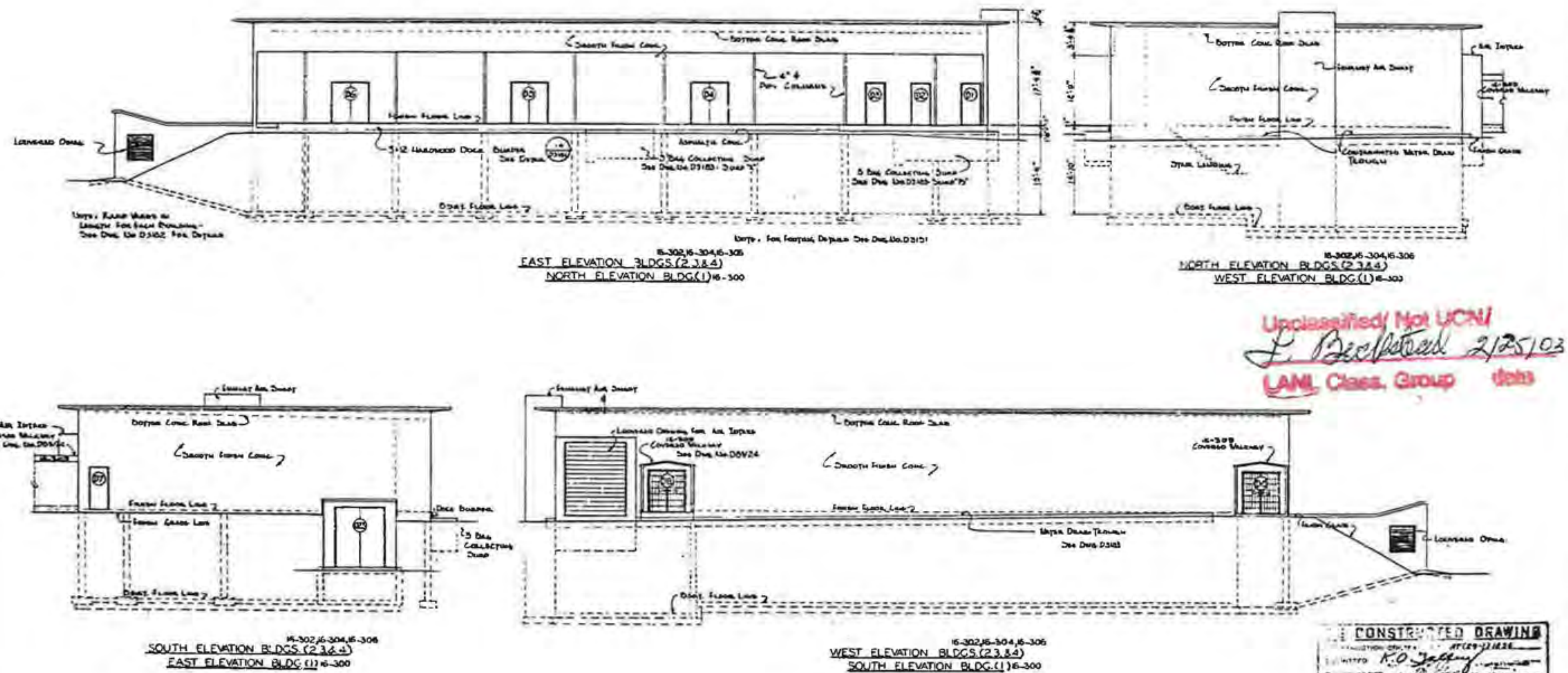
VERIFIED UNCLASSIFIED
LANL Classification Group
2/3/2020

LAB JOB 670

L.A.S.L. DWG. NO. ENG-C 15731



Unclassified/ Not UCNI
L. Beckstead 2/25/03
LANL Class. Group (date)

AS CONSTRUCTED DRAWING
K.O. Jaffey

[redacted]

1	7-8-54	REVISED TITLE-BUILDING NUMBERS ADDED	

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

ARCHITECTURAL BUILDINGS(134-1234) 16-300,16-302,16-304,16-306

ELEVATIONS

TA-16 PROJECT "K"

FILE NO. 3177

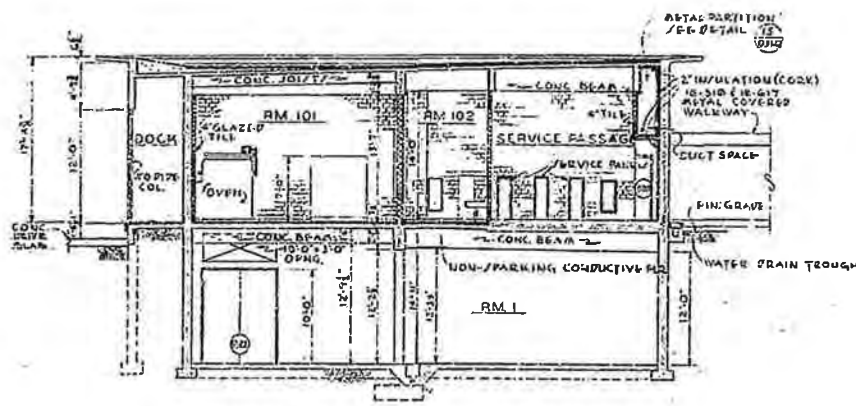
BLACK & VEATCH CONSULTING ENGINEERS

SFA-KH-D3121 | 8 | 127

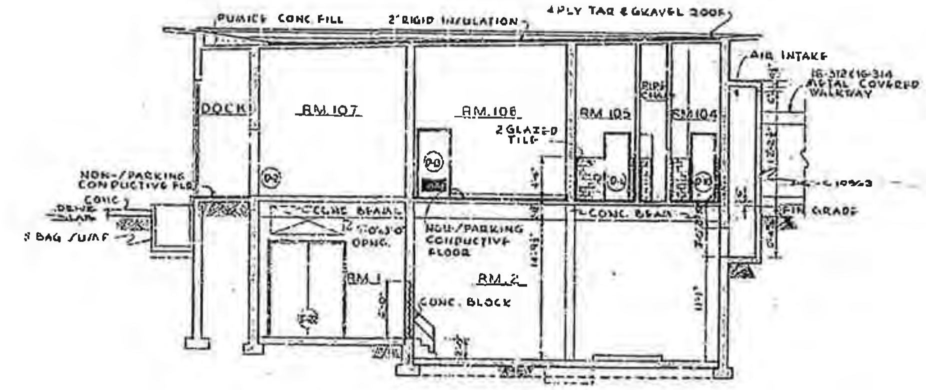
LAB JOB 670

L.A.S.L. DWG. NO. ENG-C 15732

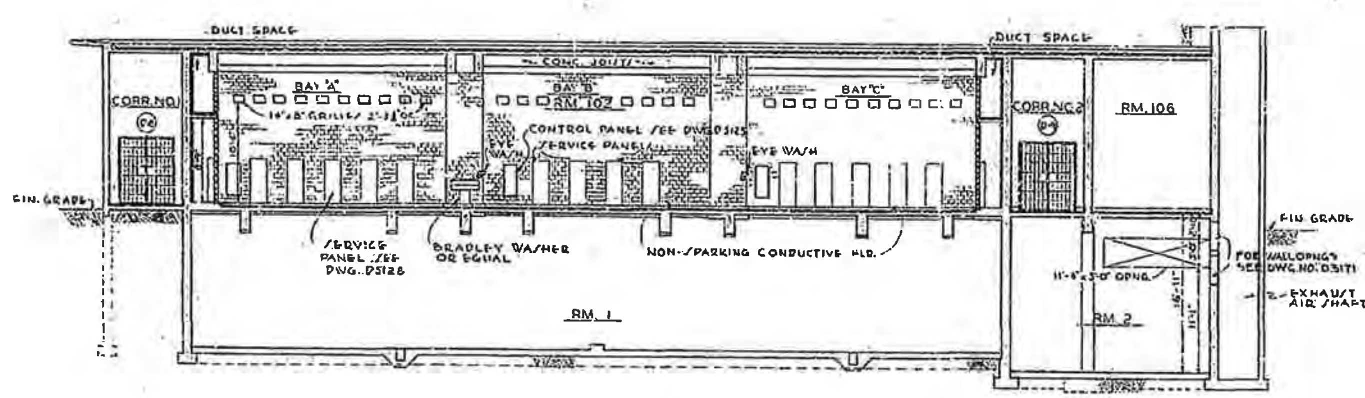
1451



SECTION A
SCALE: 1/8" = 1'-0"



SECTION B
SCALE: 1/8" = 1'-0"



SECTION C
SCALE: 1/8" = 1'-0"

AS CONSTRUCTED DRAWING

CONSTRUCTION CONTRACT NO. AT(29-1) 1234

SUBMITTED K. O. [signature]

RECOMMENDED [signature]

APPROVED [signature]

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LANL Classification Group
[signature] 2/3/2020

No.	Date	Revisions	By	Ch.
2		ENG. NOS. REFER TO SHOP DWG. NOS.		
1	7854	REVISED TITLE-BUILDING NUMBERS ADDED		AS

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

16-300, 16-302, 16-304, 16-306
ARCHITECTURAL BUILDINGS (134-1,2,3,4)
SECTIONS
TA-16 PROJECT "K"

Contract No. 470
Drawn WHU
Scale AS NOTED
Date 5-2-51
FILE NO 3213

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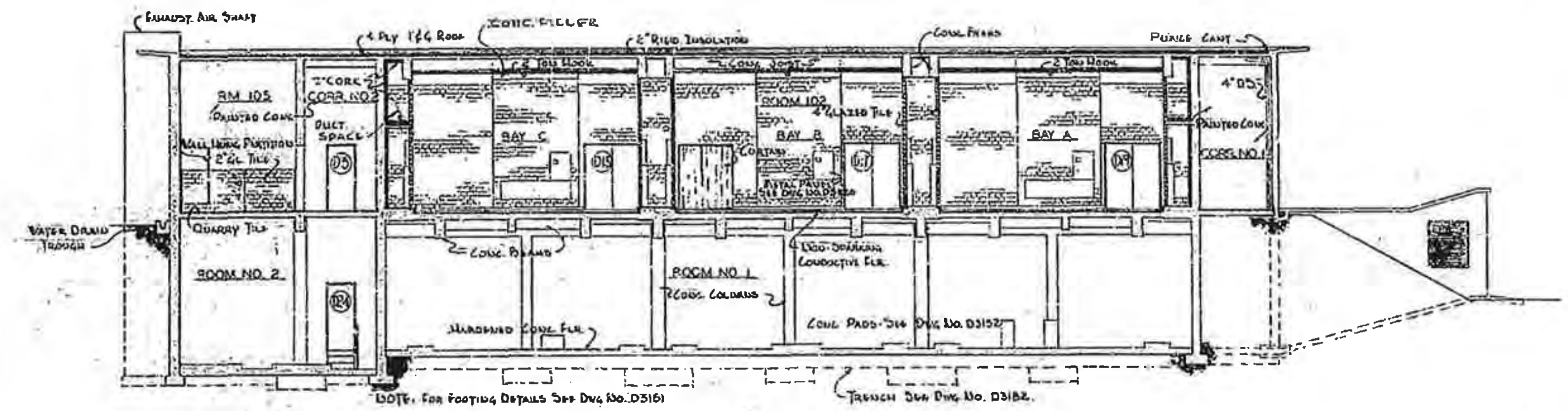
KANSAS CITY, MISSOURI

DRAWING NO. SFA-KH-D3131 SHEET 9 OF 127

LAB JOB 670 L.A.S.L. DWG. NO. ENG-C 15733



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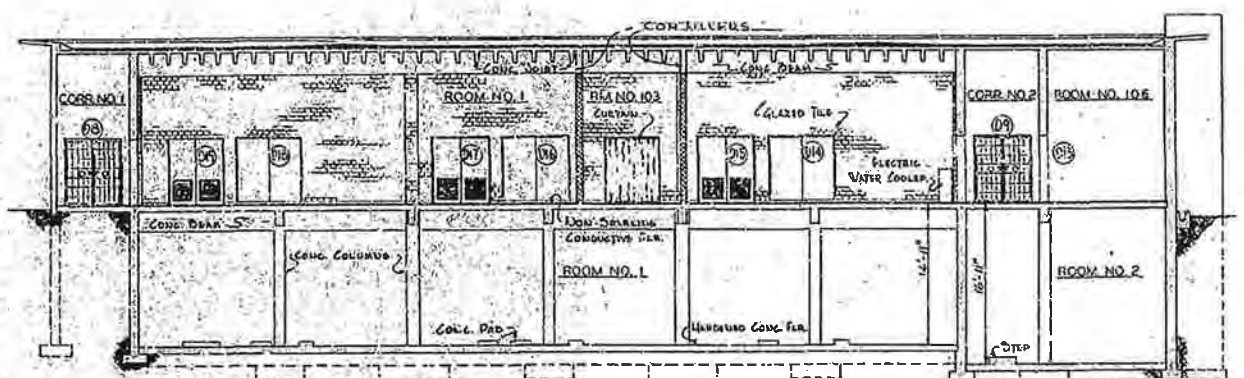

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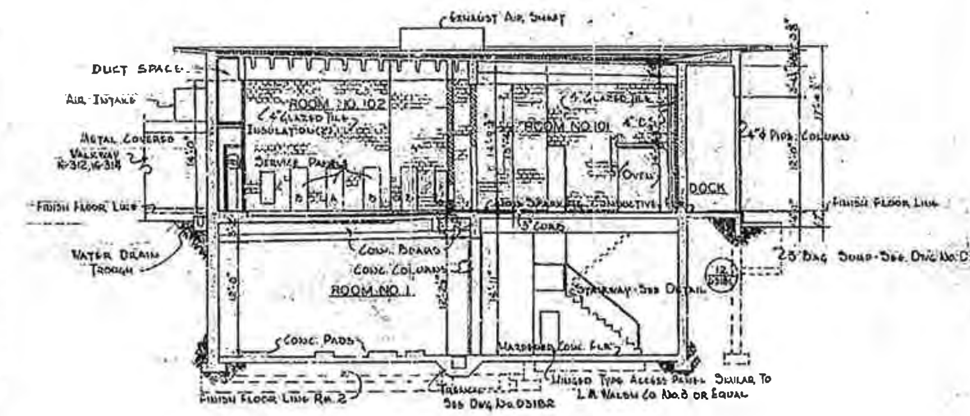
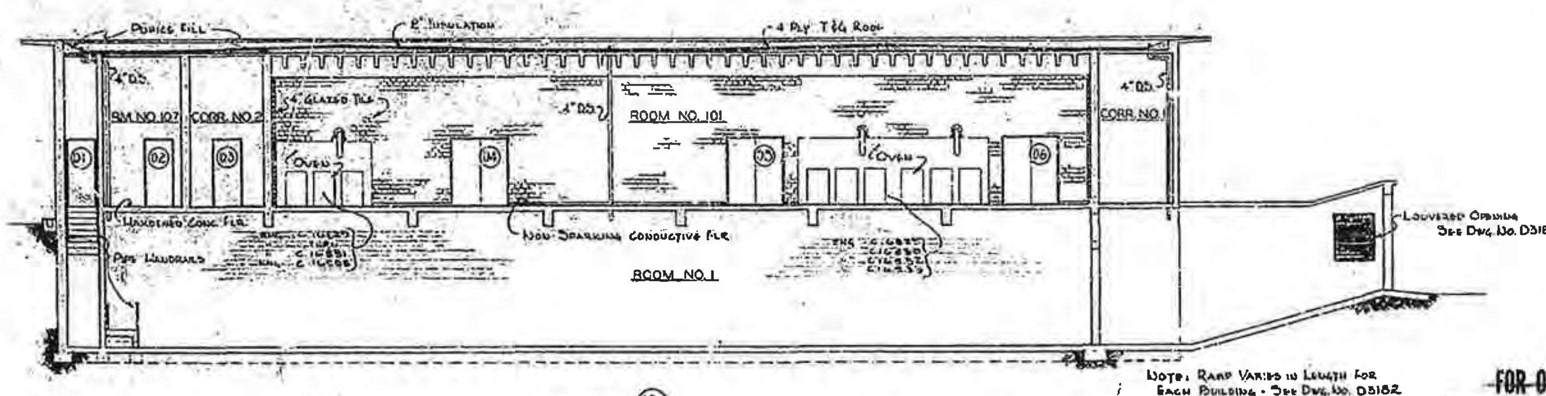


SECTION F



SECTION G

AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1)1238
SUBMITTED K.O. Galey
RECOMMENDED
APPROVED

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2/3/2020

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SANTA FE OPERATIONS OFFICE
LOS ALAMOS, NEW MEXICO

ARCHITECTURAL BUILDINGS(134-1,2,3,4) 16-300, 16-302, 16-304, 16-306
SECTIONS
T.A-16 PROJECT "K"

CONTRACT 470
DRAWN L.D.R.
SCALE 1/8"=1'-0"
DATE 5-2-51
FILE NO 3222

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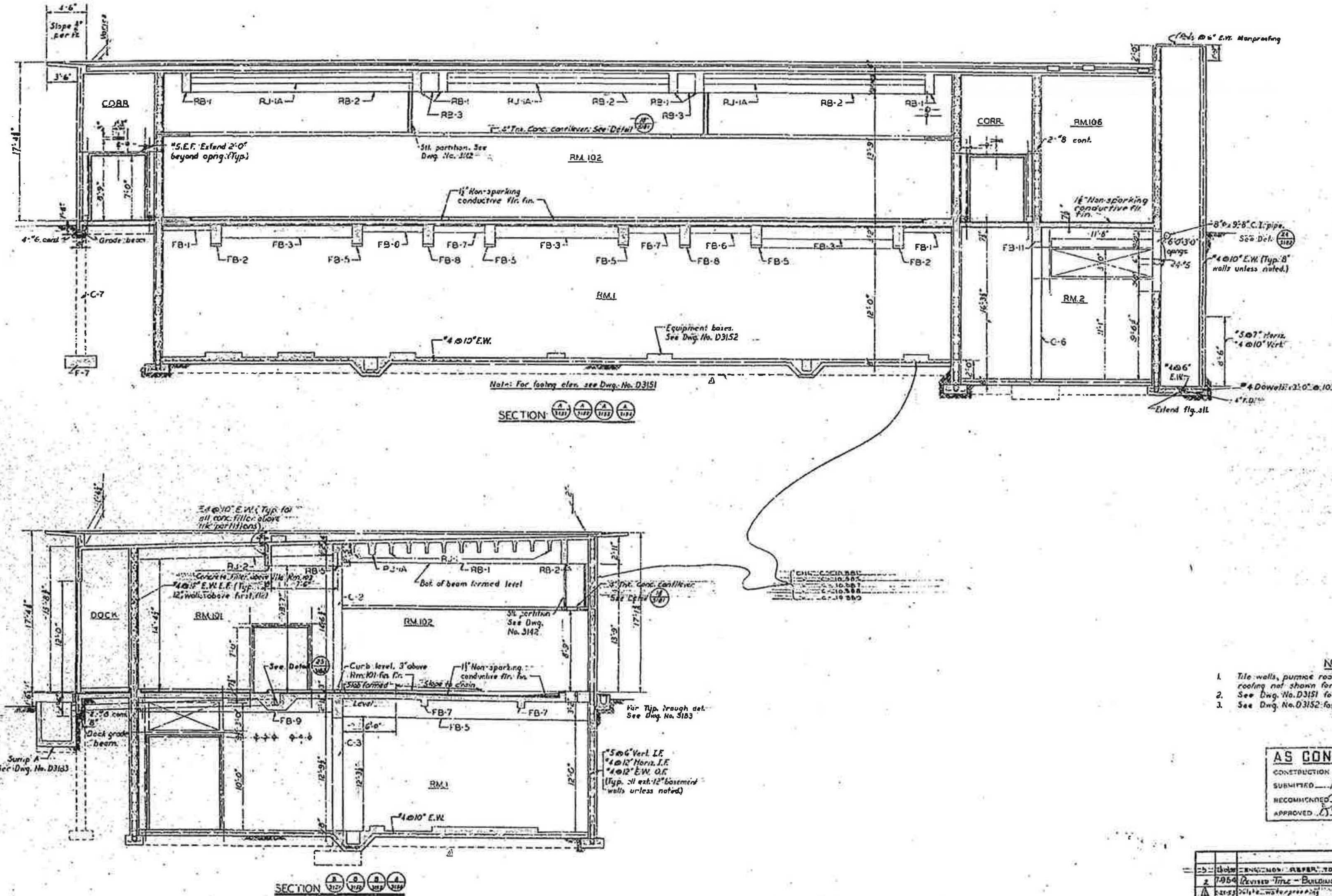
KANSAS CITY, MISSOURI

DRAWING NO. SFA-KH-D3132 SHEET 10 OF 127

L.A.S.L. DWG. NO. ENG-C15734

LAB JOB 670



NOTES

1. Tile walls, pumice roof fill, insulation, and tar & gravel roofing not shown for clarity.
2. See Dwg. No. D3151 for General Notes.
3. See Dwg. No. D3152 for Reference Dwgs.

AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1)1234
SUBMITTED K. O. [signature]
RECOMMENDED [signature]
APPROVED [signature]

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[signature] 2/3/2020

NO.	DATE	REVISIONS	BY	CK.
		ENG. MON. REFER TO SHOP DWG. NOS.		
2	7-9-54	Revised Title - Building Numbers Added		JAS
1		Delete waterproofing	WEE	

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

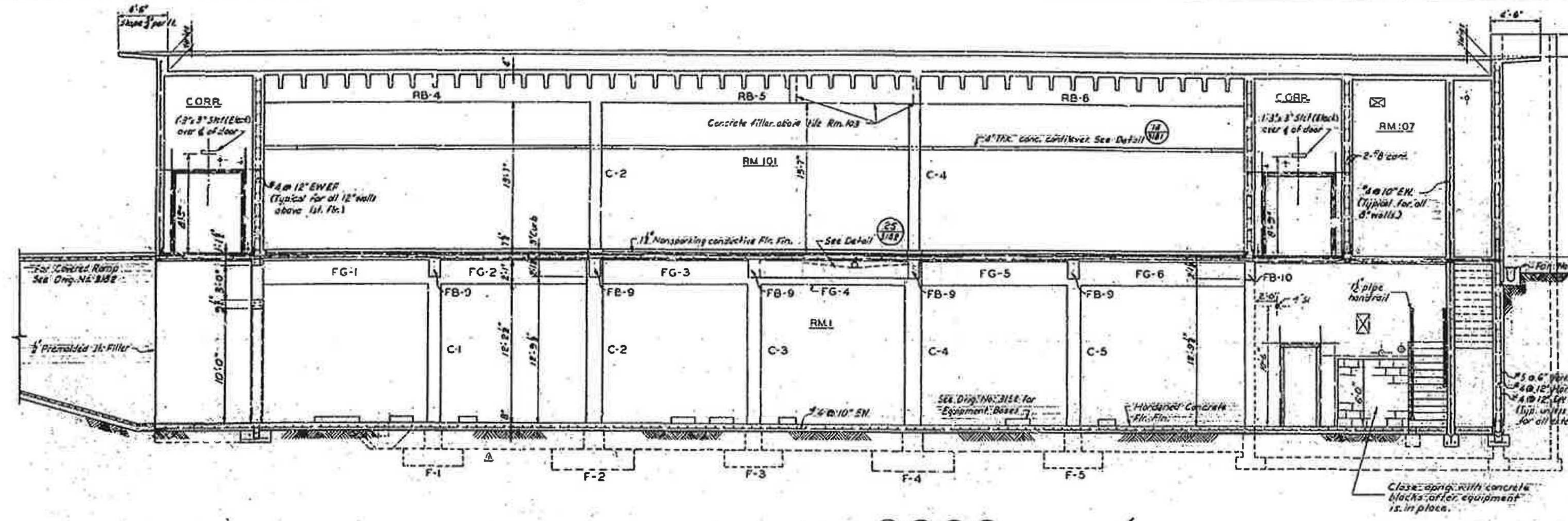
STRUCTURAL BUILDINGS (134-123,4)
16-300, 16-302, 16-304, 16-306
SECTIONS-I
T.A.-16 PROJECT "K"

CONTRACT NO. 470
DRAWN H.B. 4-17-51
CHECKED ELC
SCALE 3/16" = 1'-0"
DATE 5/2/51
FILE NO. 3.017

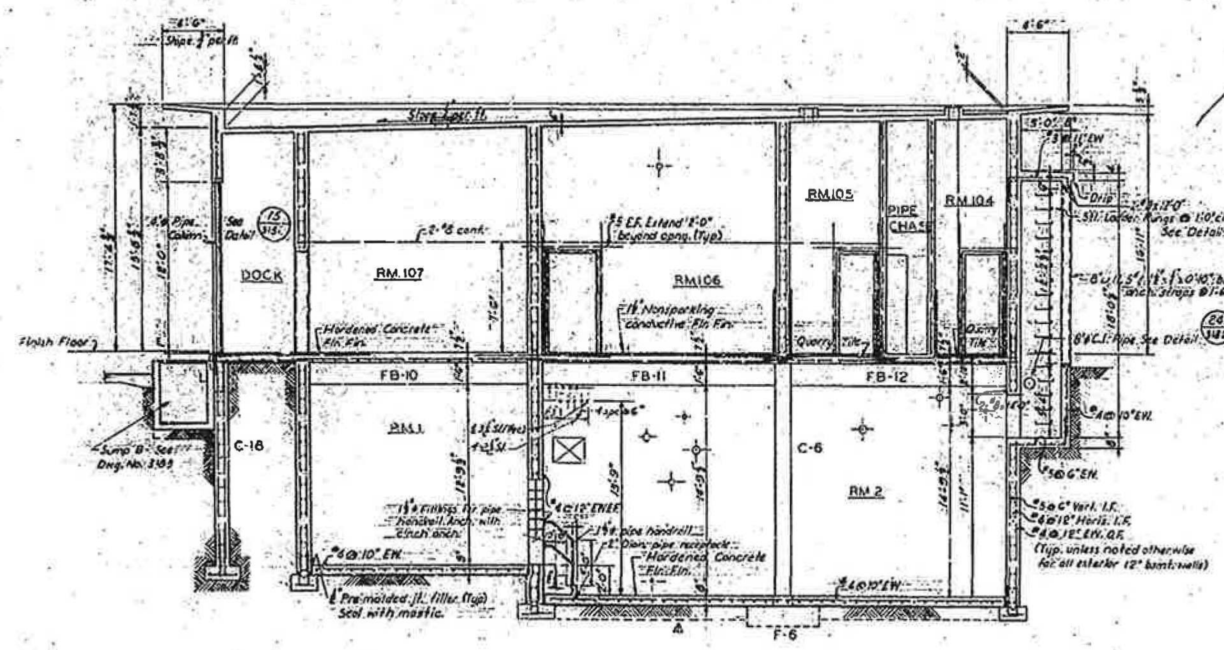
BLACK & VEATCH
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

DRAWING NO. SFA-KH-D3171.1 SHEET 19 OF 127

LAB JOB 370
L.A.S.L. DWG. NO. ENG-C 15743



SECTION C/3151 C/3152 C/3153 C/3154



SECTION D/3151 D/3152 D/3153 D/3154

NOTES

1. Tile walls, pumice aggregate concrete roof fill and tar and gravel roofing are not shown. See Architectural drawings.
2. See Drg. No. 3151 for General Notes and Drg. No. 3152 for Reference Drawings.

AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1) 1234
SUBMITTED K.O. Jolley
RECOMMENDED
APPROVED R.E. Cummings

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LANL Classification Group
Diane Hall 2/3/2020

NO.	DATE	REVISIONS	BY	CK.
3		ENG. NOS. REFER TO SHEET DWG. NOS.		
2	7954	Revised Title - Building Numbers Added		
1	2293	Delete waterproofing		

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

STRUCTURAL BUILDINGS (134-123,4)
16-300, 16-302, 16-304, 16-306
SECTIONS-II

T.A.-16 PROJECT 'K'

CONTRACT 470
DRAWN CLO 6-11-51
CHECKED ELC
SCALE 1/8"=1'-0"
DATE 5/3/51
FILE NO. 3018

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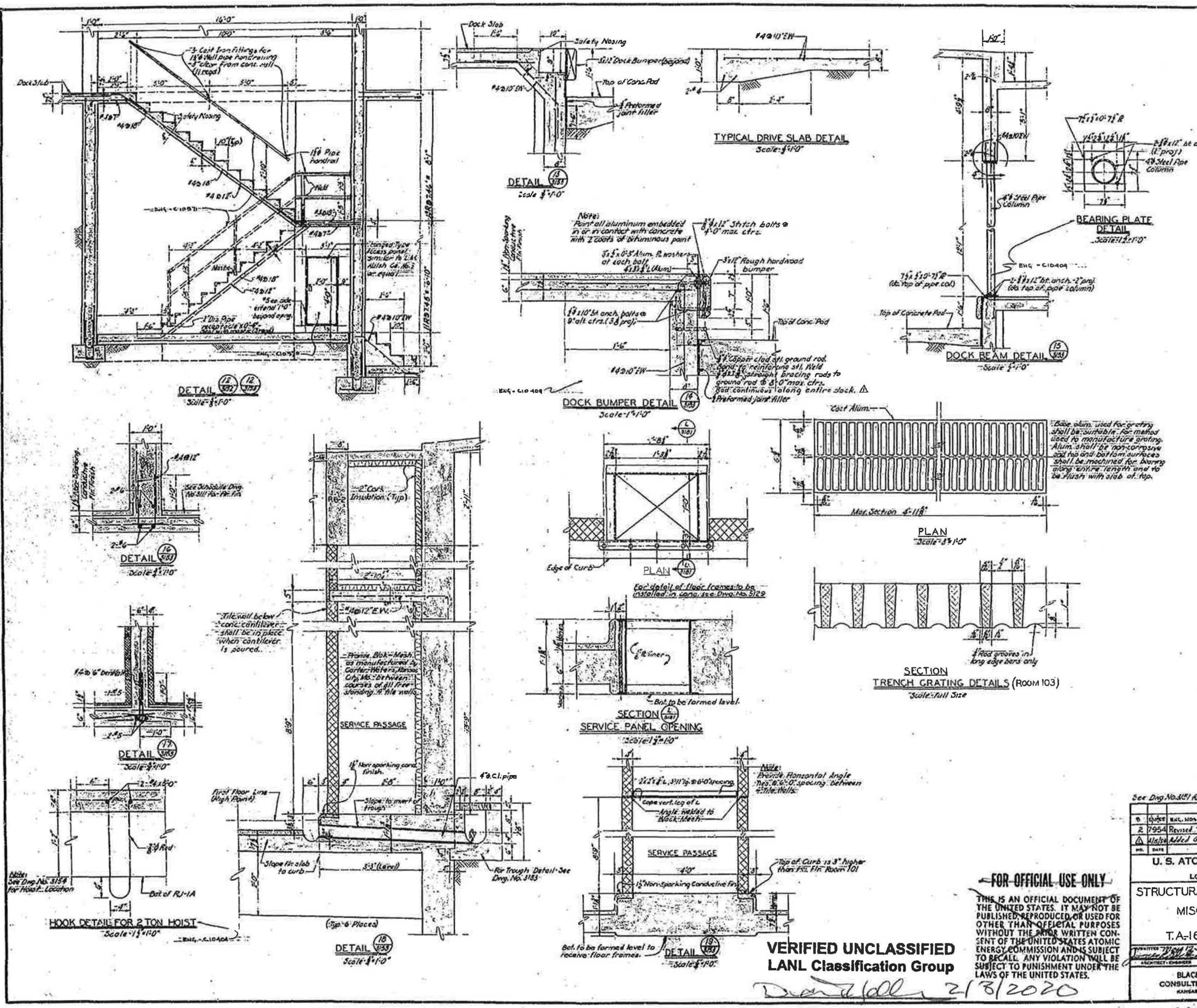
CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

DRAWING NO. SFA-KH-D3172J SHEET 20 OF 127

LAB JOB 670

L.A.S.L. DWG. NO. ENG-C 15744



AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1)-1285
SUBMITTED K. O. Jaffrey
RECOMMENDED
APPROVED

See Dwg. No. 3151 for General Notes and Dwg. No. 3152 for Reference Dwgs.

No.	Date	Revisions	By	Ch.	Proj. Engr.	A.E.C. App.
3	[illegible]	ENG. NOS. REFER TO SHOP DWG. NOS.	9%			
2	7954	Revised Title - Building Numbers Added	[illegible]			
△	[illegible]	Added Ground Rods in Bumper of Dock (Mod. #35)	JDO			

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

STRUCTURAL BUILDINGS (134-1234) 16-300, 16-302, 16-304, 16-306
MISCELLANEOUS DETAILS-I
T.A.-16 PROJECT K

Contract No. 470
Drawn SF 4-20-51
Checked ELC
A-E APPROVED
Scale AS NOTED
Date 5/2/51
File No. 3019

ARCHITECT-ENGINEERS
BLACK & VEATCH
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KANSAS CITY, MISSOURI

Drawing No. SFA-KH-D3181:1 | Sheet 21 | Of 127

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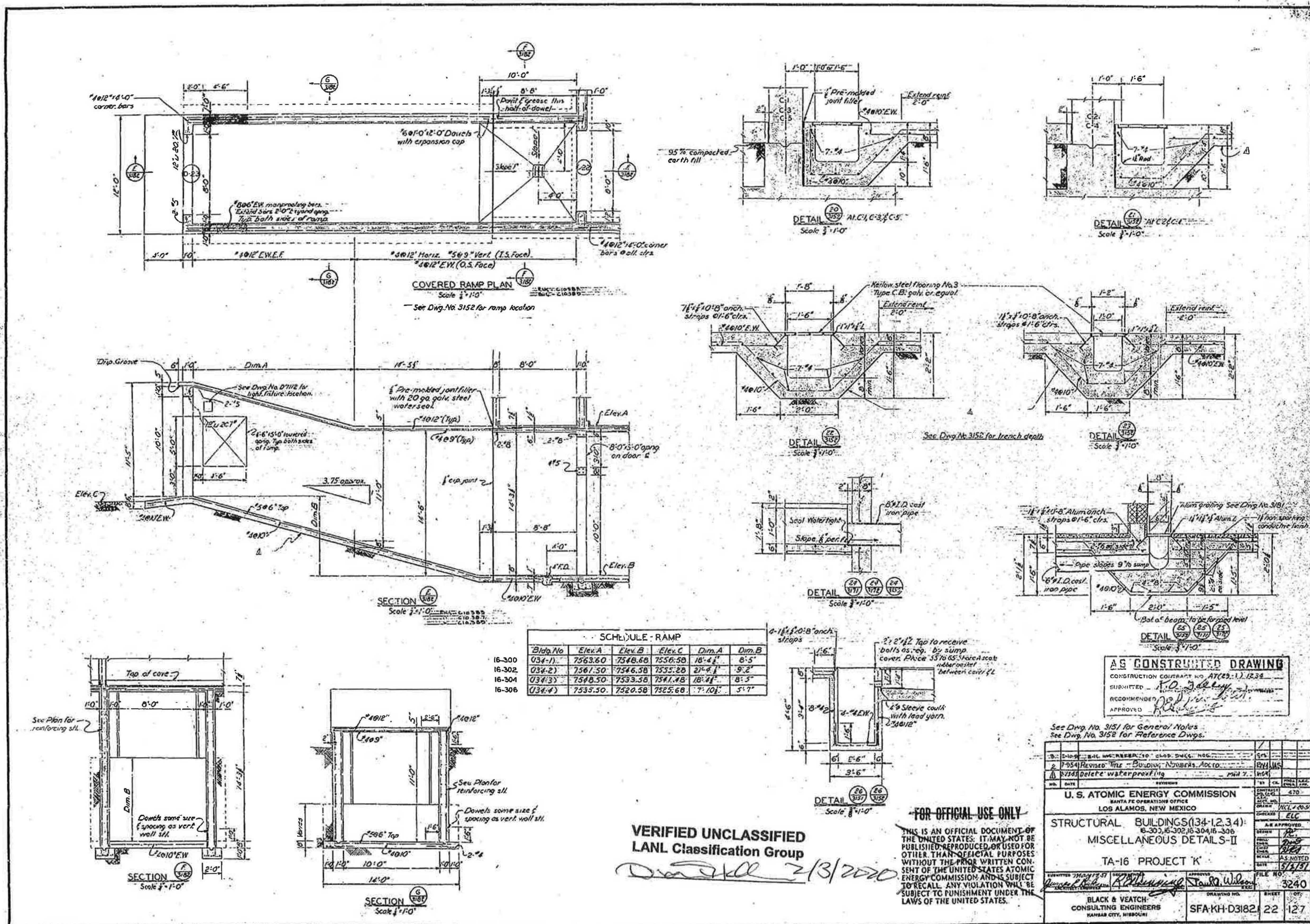
LAB JOB 670
L.A.S.L. DWG. NO. ENG-C 15745



	SCHEDULE - RAMP					
	Bldg. No	Elev. A	Elev. B	Elev. C	Dim. A	Dim. B
16-300	(034-1)	7563.60	7548.68	7556.58	18'-4½"	8'-5"
16-302	(034-2)	7561.50	7546.58	7555.28	21'-4½"	9'-2"
16-304	(034-3)	7548.50	7533.58	7541.48	18'-4½"	8'-5"
16-306	(034-4)	7535.50	7520.58	7525.68	7'-10½"	5'-7"

See Dwg. No. 3151 for General Notes
See Dwg. No. 3152 for Reference Dwgs.

No.	Date	Revisions	By	Ck.
3	2-10-5?	B.I.L. INC. REFER. TO CLOS. DWGS. NOS.		
2	7-9-54	Revised Title - Building Numbers Added		
1	3-7-3-?	Delete waterproofing		

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

STRUCTURAL BUILDINGS (134-1,2,3,4) 16-300, 16-302, 16-304, 16-306
MISCELLANEOUS DETAILS-II
TA-16 PROJECT 'K'

Contract: 470
Checked: ELC
Scale: AS NOTED
Date: 5/3/51
File No. 3240

BLACK & VEATCH CONSULTING ENGINEERS
KANSAS CITY, MISSOURI

Drawing No. SFA-KH-D3182 — Sheet 22 of 127

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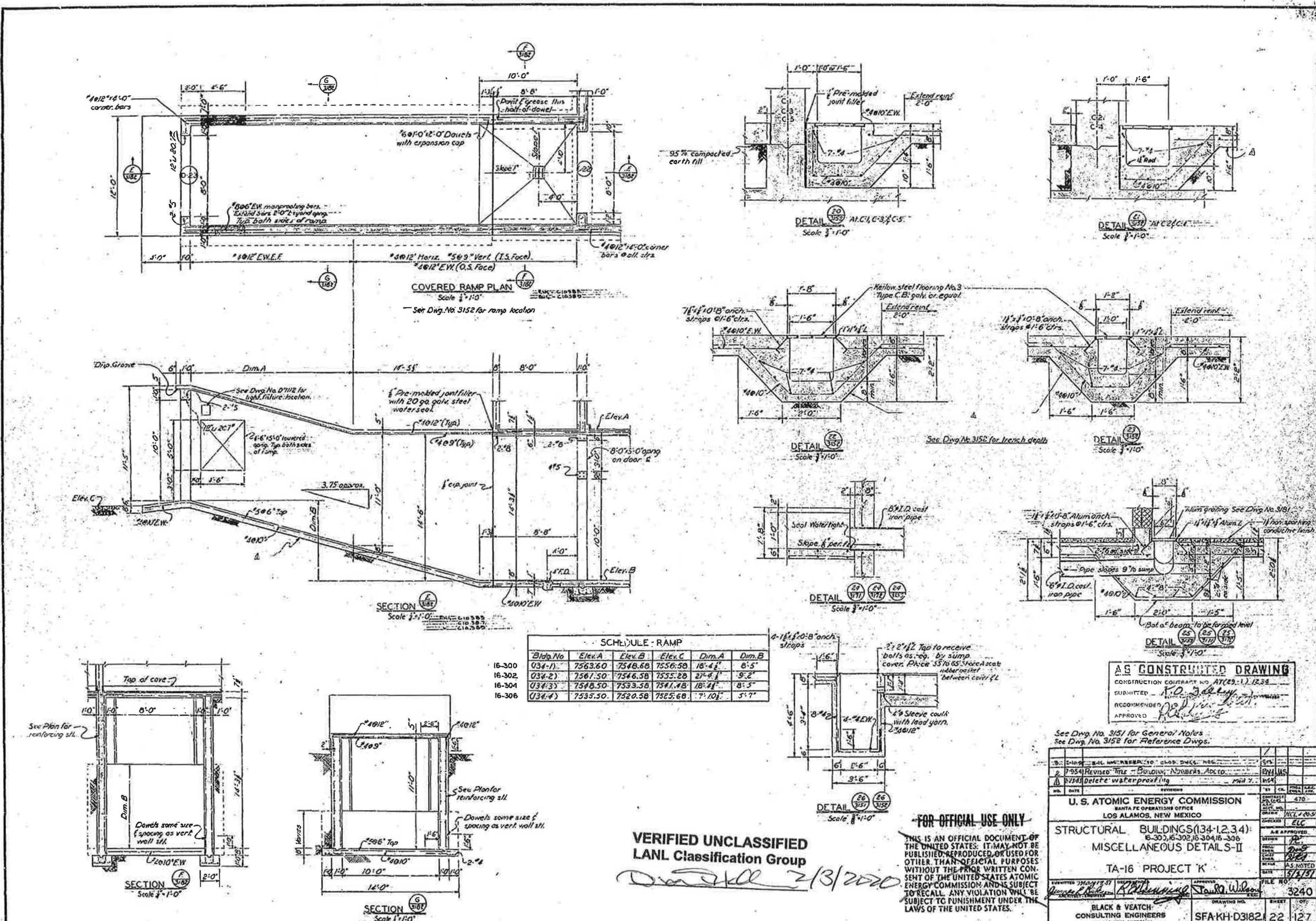
LANL Classification Group
2/3/2020

LAB JOB 670
L.A.S.L. DWG. NO. ENG-C 15746



Bldg. No	SCHEDULE - RAMP					
	Bldg. No	Elev. A	Elev. B	Elev. C	Dim. A	Dim. B
16-300	(34-1)	7563.60	7548.68	7556.58	18'-4 1/2"	8'-5"
16-302	(34-2)	7561.50	7546.58	7555.28	21'-4 1/2"	9'-2"
16-304	(34-3)	7548.50	7533.58	7541.48	18'-4 1/2"	8'-5"
16-306	(34-4)	7535.50	7520.58	7525.68	7'-10 1/2"	5'-7"

AS CONSTRUCTED DRAWING
CONSTRUCTION CONTRACT NO. AT(29-1) 1234
SUBMITTED K.O. [illegible]
RECOMMENDED [illegible]
APPROVED [illegible]

See Dwg. No. 3151 for General Notes
See Dwg. No. 3152 for Reference Dwgs.

NO.	DATE	REVISIONS	BY	CK.
3	2-10-5?	B.C. [illegible] REFER. TO CHOD. DWGS. NOS.	[illegible]	
2	7-9-54	Revised Title - Building Numbers Added	[illegible]	[illegible]
1	9-13-51	Delete waterproofing	[illegible]	

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

STRUCTURAL BUILDINGS (134-1,2,3,4): 16-300, 16-302, 16-304, 16-306
MISCELLANEOUS DETAILS-II
TA-16 PROJECT 'K'

CONTRACT NO. (CE) 470 · DRAWN HCL 4-20-51 · CHECKED ELC · SCALE AS NOTED · DATE 5/3/51

SUBMITTED May 1951 · RECOMMENDED · APPROVED

FILE NO. 3240

BLACK & VEATCH CONSULTING ENGINEERS, KANSAS CITY, MISSOURI
DRAWING NO. SFA-KH-D3182 · SHEET 22 · OF 127

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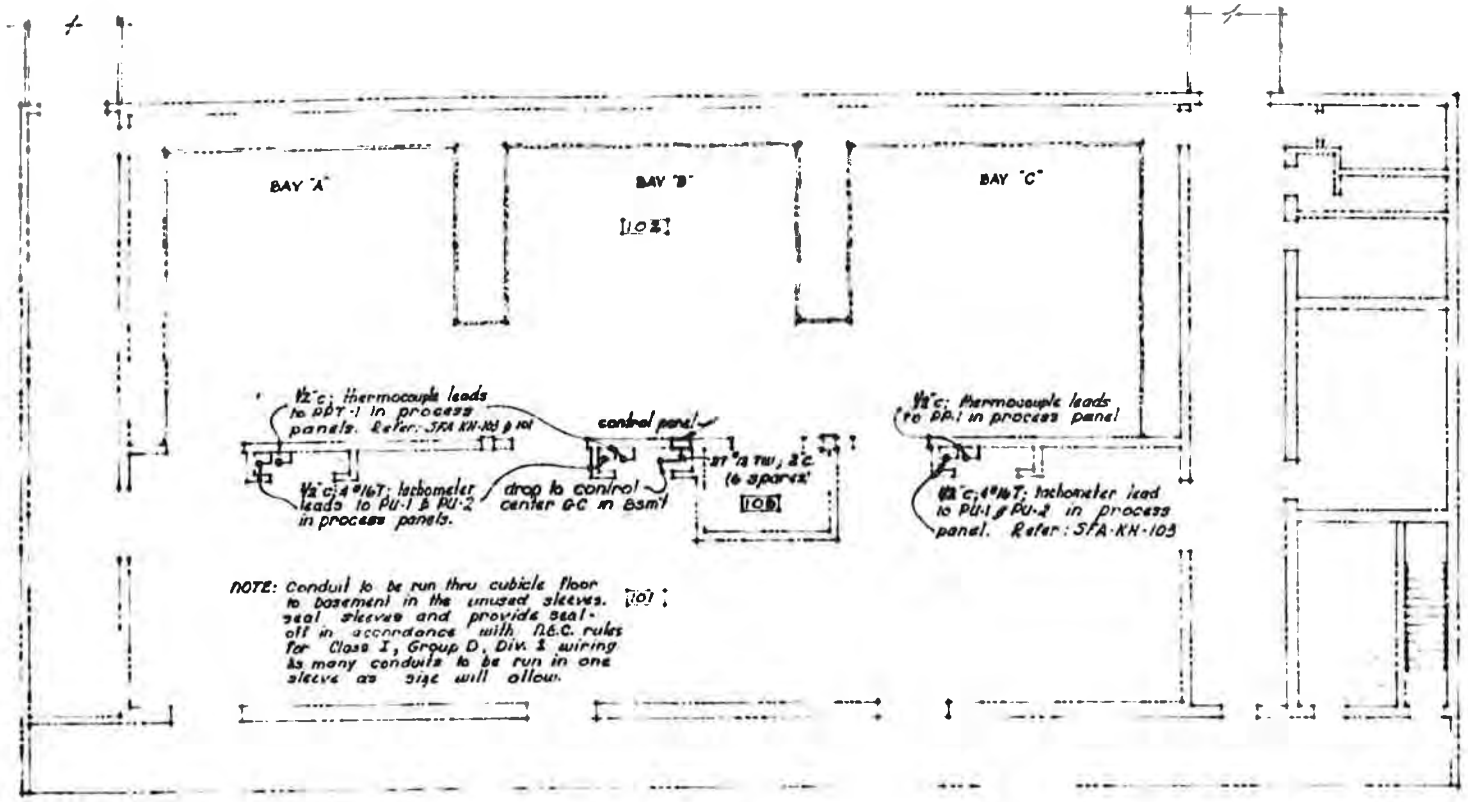
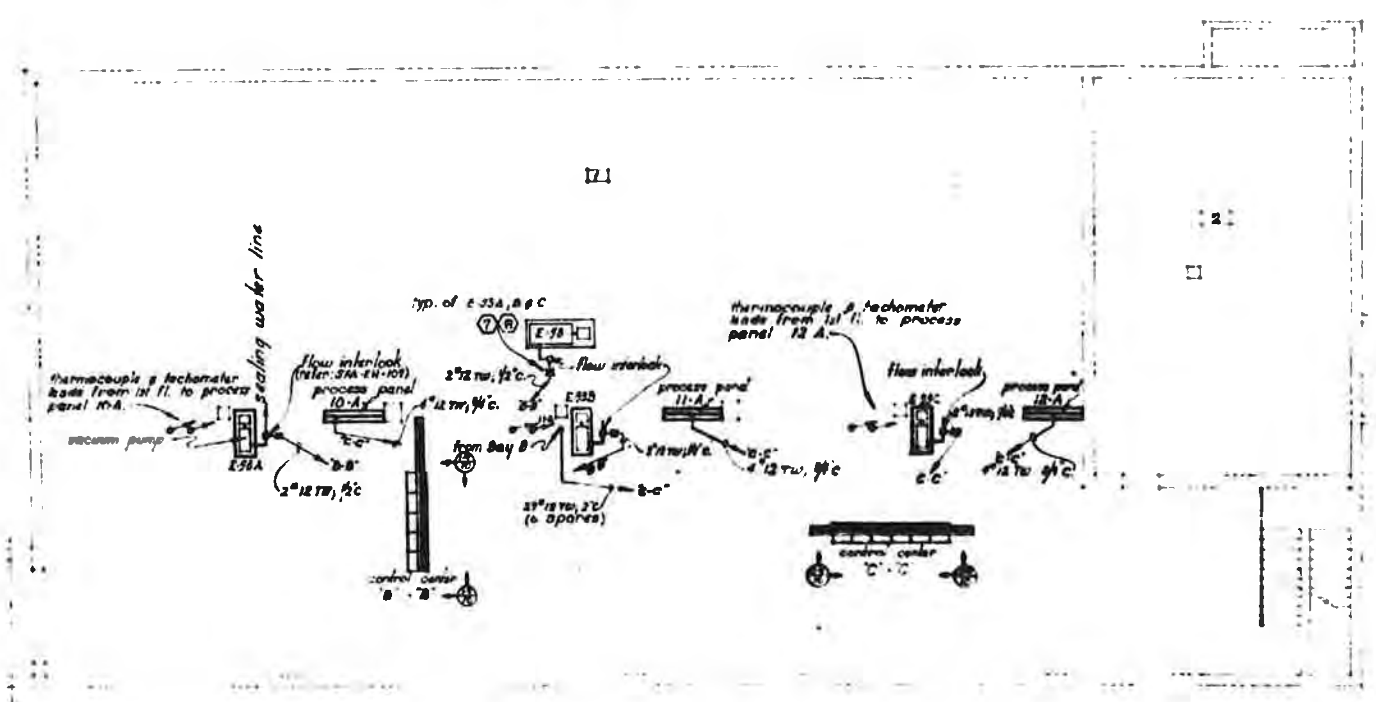
LAB JOB 670

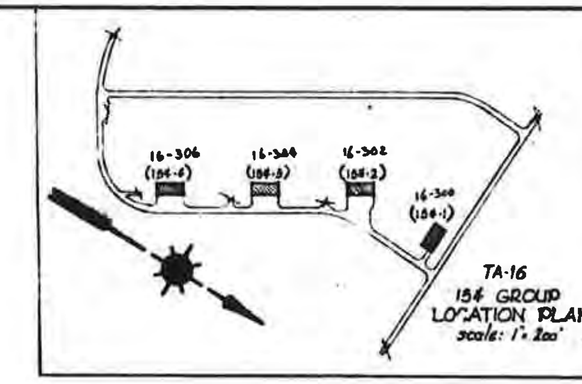
L.A.S.L. DWG. NO. ENG-C 15746



• TYPICAL FIRST FLOOR PLAN •



• TYPICAL BASEMENT PLAN •



• BILL OF MATERIAL •

item no.	no. req'd	description	mfg. & catalog no.
①	7	control transformer; 200 v.a.; 460-115 volt; 1 phase.	G.E. cat. # 716829
②	7	fuse cut-out, 0-30 amp; 250 v.; 1 phase (fuse at 5A)	G.E. 189666
③	3	contactor. size "0", 3 pole N.O. with 115 volt, 60 cycle coil.	Arrow-Hart 38486-U
④	3	8-Wire terminal blocks	to match existing
⑤	1	hinged door with handle to replace coverplate on single cubical in control center "C"-"C". See Elev.	Zinsco mfg. Co.
⑥	7	holding coils, 115 volt, 60 cycles; Refer to "Scope of Work"; notes 1-a. and 2a.	Arrow-Hart cat. no. as req'd to fit exist. starters
⑦	4	Push Button stations; Lock-out stops	Crouse-Hinds DS 171 G
⑧	4	Boxes for Push Button Stations	Crouse-Hinds FSC-1

• SCOPE OF WORK •

1. Install control wiring for 3 15 h.p. pump motors (E-54-A; E-54-B, E-54-C) as indicated on drawings. This will require the following:
   - (a) provide & install new control transformers, replace holding coils and alter pilot lights as required to convert control system to 115 volt operation.
   - (b) Revise control wiring in 3 motor starters in control center C-C. ref
   - (c) Provide & install control circuits from Bay B, 1st floor to control center "C"-"C".
   - (d) Provide & install control circuits from panels 10A, 11A, & 12 A to control centers C-C.

2. Install control wiring for 3 5 hp. vacuum pumps (E-53A, E-53-B, E-53C) and one 15 h.p. vacuum pump (E-53) as indicated on drawings. This will require the following:
   - (a) Provide & install control transformers, replace holding coils & alter pilot lights as required to convert control system to 115 volt operation.
   - (b) Revise control wiring in 3 motor starters in control center B-B and 1 motor starter in control center C-C. ref.
   - (c) Provide & install control wiring from flow interlocks at vacuum pumps E-53, E-53A, E-53B, & E-53-C to their respective motor starters in control centers B-B & C-C.
   - (d) Provide lock-out stop push button stations at each motor.

3. Install conduit and conductors for tachometers & thermocouples as indicated on drawings.

• GENERAL NOTES •

1. The entire installation to be made in accordance with the current rules of N.E.C. First floor to be Class I, Group D, Div. 1 wiring.
2. All raceway and the frames & enclosures of all motors, breakers, switches, control panels, and other electrical equipment to be in accordance with para. 307 of specifications for contract no. AT(29-1)-1234. (grounding)
3. All circuit breakers, motor starters, contactors, and control stations to be identified by means of engraved laminated bakelite name plates.
4. Conduit to be routed & installed to suit building structure and other utilities.
5. The Bill of Material is intended as an aid in estimating and material take-off, and does not necessarily include all materials required. Except as noted, catalog numbers are given as reference only; substitutions may be made with approval of contracting officer.
6. Conduit shall be in accordance with para. 301 'a of specifications for contract no. AT(29-1)-1234.

Supplement to contract no. AT(29-1)-1234
Title III, Field supervision by Black & Veatch.

No.	Date	Revisions	By	Ch.
△	1-7-94	REQUIRED NO REVISION FOR AS-BUILT STATUS	LCW	JAS

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

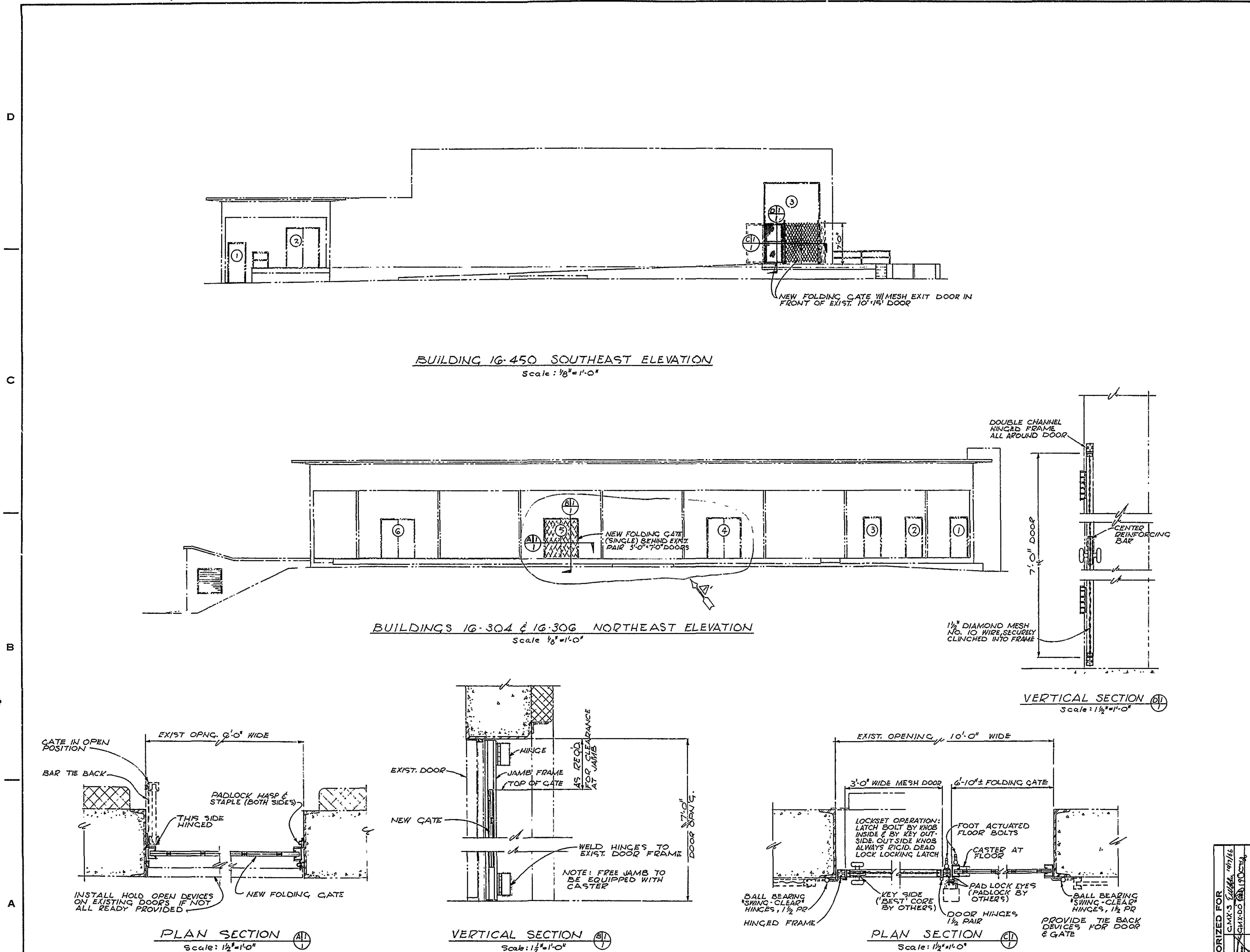
INSTALLATION OF EQUIPMENT
BLDGS. 154-1,2,3,4 PROJECT "K"
(16-300)(16-302)(16-304)(16-306)
PHASE "B" TA-16 ELECTRICAL

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

Drawn: S. r. d.
Scale: 1/8" = 1'-0"
ENG C-2720
SFA-KH-112
Sheet 9 of 10

RECORD DRAWING--AS BUILT CONSTRUCTION
SUBMITTED | RECOMMENDED | APPROVED
FOR THE A.E.C. | A.E.C. | A.E.C.

LAB. JOB NO. 1146, supp. 6



NOTES:

1. GATES & MESH DOOR TO BE AS MANUFACTURED BY ACORN WIRE AND IRON WORKS, INC. OR APPROVED EQUAL.
2. GATES (3 REQUIRED) TO BE LAZY TONG TYPE NO. 5654 TO FIT DESCRIBED CONDITIONS. MESH DOOR TO BE A STANDARD TYPE SUCH AS USED WITH WIRE MESH PARTITIONS.
3. GATES & MESH DOOR TO BE FURNISHED COMPLETE WITH ALL HARDWARE SHOWN AND NEEDED FOR A COMPLETE INSTALLATION. PRIME & SHOP PAINT W/ BLACK ENAMEL

THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY ENG-4 STALLINGS PHONE 7-5611

NO.	DATE	REVISIONS	BY	CHKD	GRP.	D.O.	GRP. LDR.	ENG. D.O.
1	11-1-67	CHANGED GATE LOCATION TO REFLECT AS BUILT CONDITIONS	BDL	JFZ				

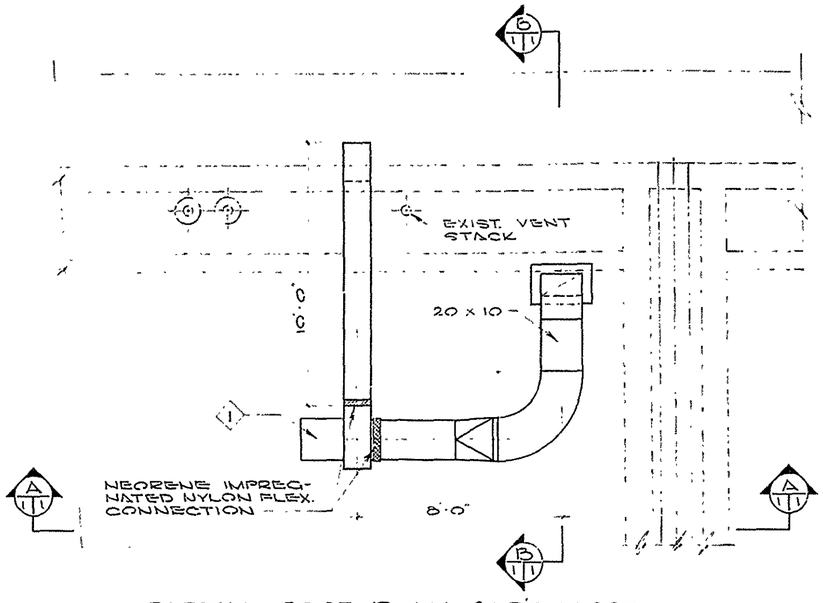
AUTHORIZED FOR: CMX-3 10/17/66; CMX-DO 19 OCT 66; ENG-5 NA; HEALTH NA; SAFETY; FIRE PROT.; SEC.

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

FOLDING GATE INSTALLATION
PLANS, ELEVATIONS & SECTIONS
BUILDINGS 16-304, 306, & 450 TA-16

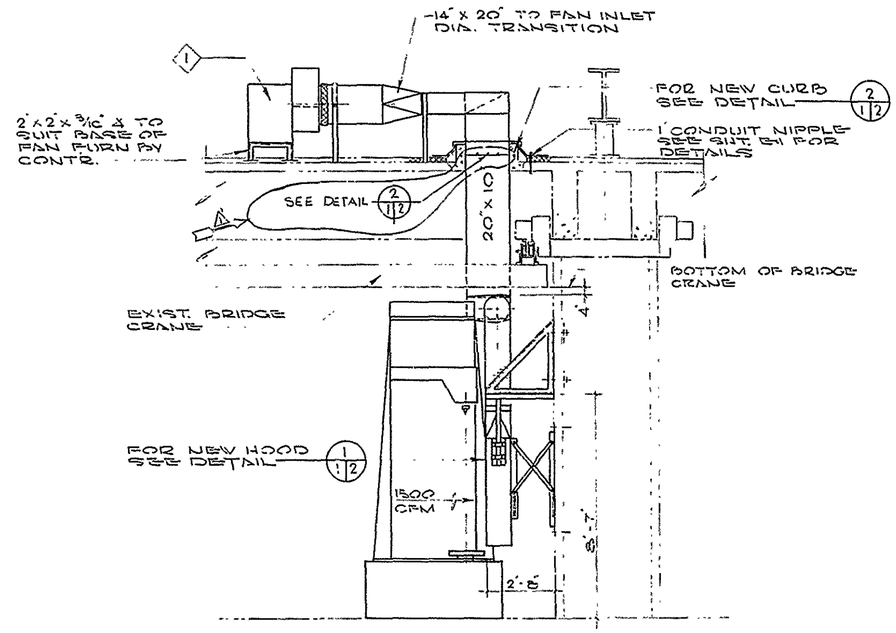
CHECKED	RECOMMENDED	APPROVED
PROJ. ENG. JFZ	GROUP LEADER	ENG. DEPT. OFFICE
DESIGNER DYER-LUPARDUS	DATE Oct 24, 1966	DRAWING NO.
DRAWN LUPARDUS	SHEET 1 OF 1	ENG-C 34657
SCALE AS NOTED		
C.A. NO.	B. A. NO.	L. J. NO. 3487-16

REC'D & LOGGED TO VAULT



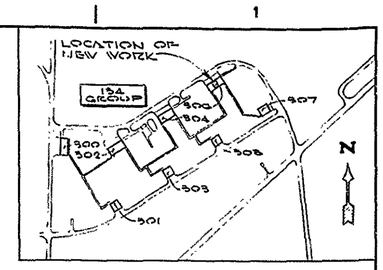
PARTIAL ROOF PLAN BLDG. 16-306

SCALE 3/8" = 1'-0"



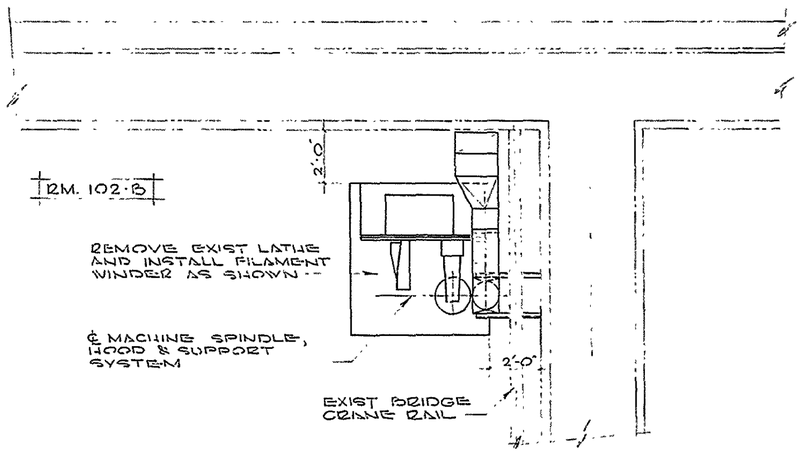
SECTION

SCALE 3/8" = 1'-0"



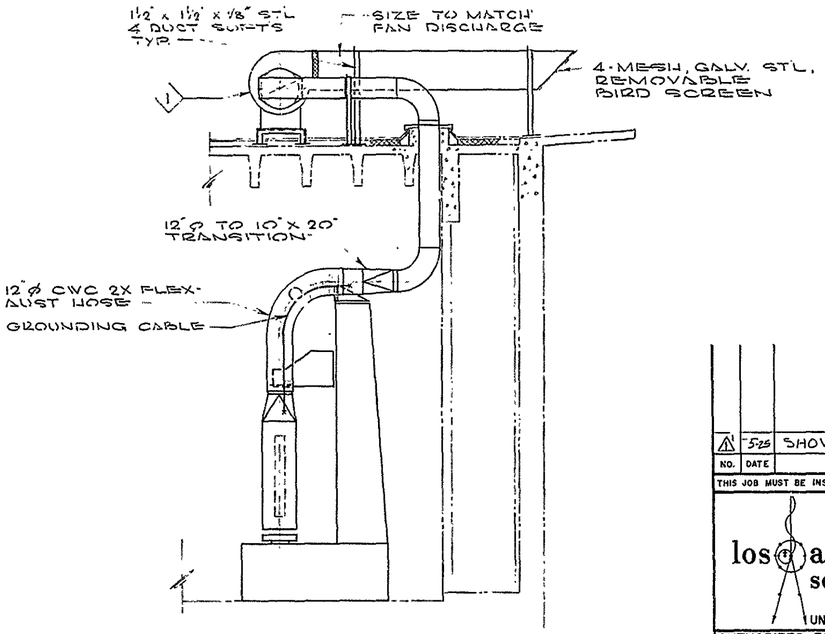
LOCATION PLAN

BLDG. 306 TA-16



PARTIAL 1ST FLOOR PLAN BLDG 16-306

SCALE 3/8" = 1'-0"



SECTION

SCALE 3/8" = 1'-0"

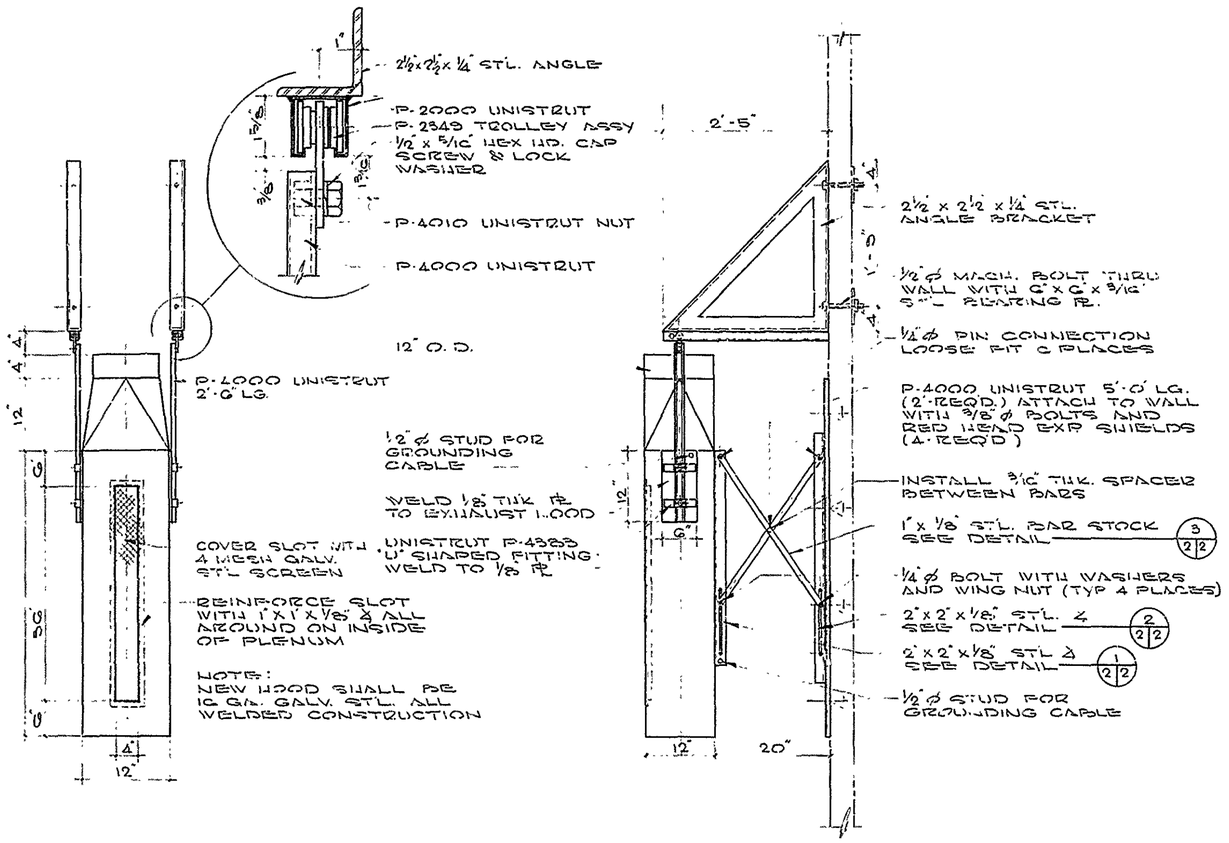
NO.	DATE	REVISIONS	BY	CHKD	GRP.	D.O.	GRP. LDR	ENGR. D.O.
1	5-25	SHOW SECURITY BARS	GDL					

THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY STALLINGS ENG-4 PHONE 6772

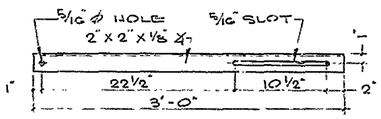
los alamos scientific laboratory
engineering department
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

AUTHORIZED FOR	FILAMENT WINDER INSTALLATION
SECURITY	MECH. SECTIONS & PLANS
SAFETY H-3	BLDG. 16-306 TA-16
HEALTH H-5	
FIRE PROT.	
DIVISION GMX-DO	SUBMITTED: WKJ for EJA, PROJ. ENGR.
GROUP GMX-3	APPROVED: GROUP LEADER
	APPROVED: ENGR. DEPT. OFFICE
	CHECKED WKJ
	DESIGNED H. PALMER
	DRAWN H. PALMER
ENG-5	LAB JOB NUMBER 4622-16
	CA / BA
	DATE 3-22-71
	SHEET M-1 | 1 OF 3
	DRAWING NO. ENG-C-33628

REC'D.

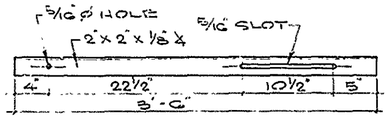


DETAIL 1/1/2
SCALE 1" = 1'-0"



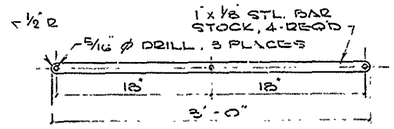
1-REQ'D. AS SHOWN
1-REQ'D. OPP HAND

DETAIL 1/2/2
SCALE 1½" = 1'-0"

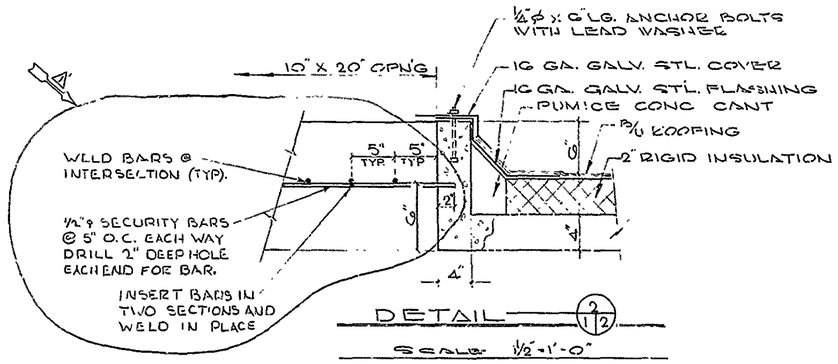


1-REQ'D. AS SHOWN
1-REQ'D. OPP HAND

DETAIL 2/2/2
SCALE 1½" = 1'-0"



DETAIL 3/2/2
SCALE 1½" = 1'-0"



DETAIL 2/1/2
SCALE ½" = 1'-0"

MECHANICAL EQUIPMENT LIST

ITEM NO.	NO. REQD.	MANUFACTURER, DESCRIPTION OR APPROVED EQUAL	FURN. BY
1 * **	1	EXHAUST FAN: TRANE UTILITY FAN, SIZE 16 BI V-BELT DRIVE, TYPE A SPARK RESISTANT CONSTRUCTION, TOP HORIZONTAL DISCHARGE, COUNTER CLOCKWISE ROTATION. FAN SHALL DELIVER 1500 CFM, AGAINST 1" S.P. AT 7500 FT. ELEVATION, WHEN OPERATING AT 1113 RPM AT LOW FAN SPEED. FAN SHALL BE DRIVEN BY A TWO SPEED 1800/1200 RPM 2 H.P., 460 VOLT, 3 PHASE, 60 HERTZ VARIABLE TORQUE, TWO WINDING MOTOR. PROVIDE VARIABLE SPEED, NO. 5, 1467-1835 RPM AT HIGH SPEED, V-BELT DRIVE AND WEATHERPROOF HOOD.	CONTR.

* INDICATES EQUIPMENT FOR WHICH SUBMITTAL DATA MUST BE APPROVED BY ENG.

** PREORDERED UNDER ENG-7 SP-359.

MECHANICAL NOTES

1. THE CONTRACTOR SHALL FURNISH ALL NECESSARY DUCTWORK, SUPPORTS, ETC. FOR THE COMPLETE MECHANICAL INSTALLATION.
2. NEW EXHAUST HOOD AND TRANSITIONS SHALL BE FABRICATED FROM 16 GAUGE GALVANIZED STEEL WITH WELDED JOINTS. NEW DUCTWORK SHALL BE FABRICATED IN 4'-0" LENGTHS FROM 20 GAUGE GALVANIZED STEEL WITH RIVETED AND SOLDERED LONGITUDINAL JOINTS. ALL INSIDE SURFACES SHALL BE SMOOTH AND FREE FROM OBSTRUCTIONS. PROVIDE GROUNDING JUMPER ACROSS ALL FLEXIBLE AND FLANGED JOINTS.
3. PAINT ALL NEW EXPOSED FERROUS METAL WITH TWO COATS "TOTRUST" NO. 51, ITEM 54.
4. ENG-4 SHALL ADJUST EXHAUST FAN TO DELIVER 1500 CFM AT LOW SPEED.
5. GROUNDING CABLE TO BE 1/2" WIDE, BRAIDED NO. 6 BARE COPPER STRAP, ZIA STOCK NO. 1104 74 0032.

ENG-4 EQUIPMENT CODE LIST

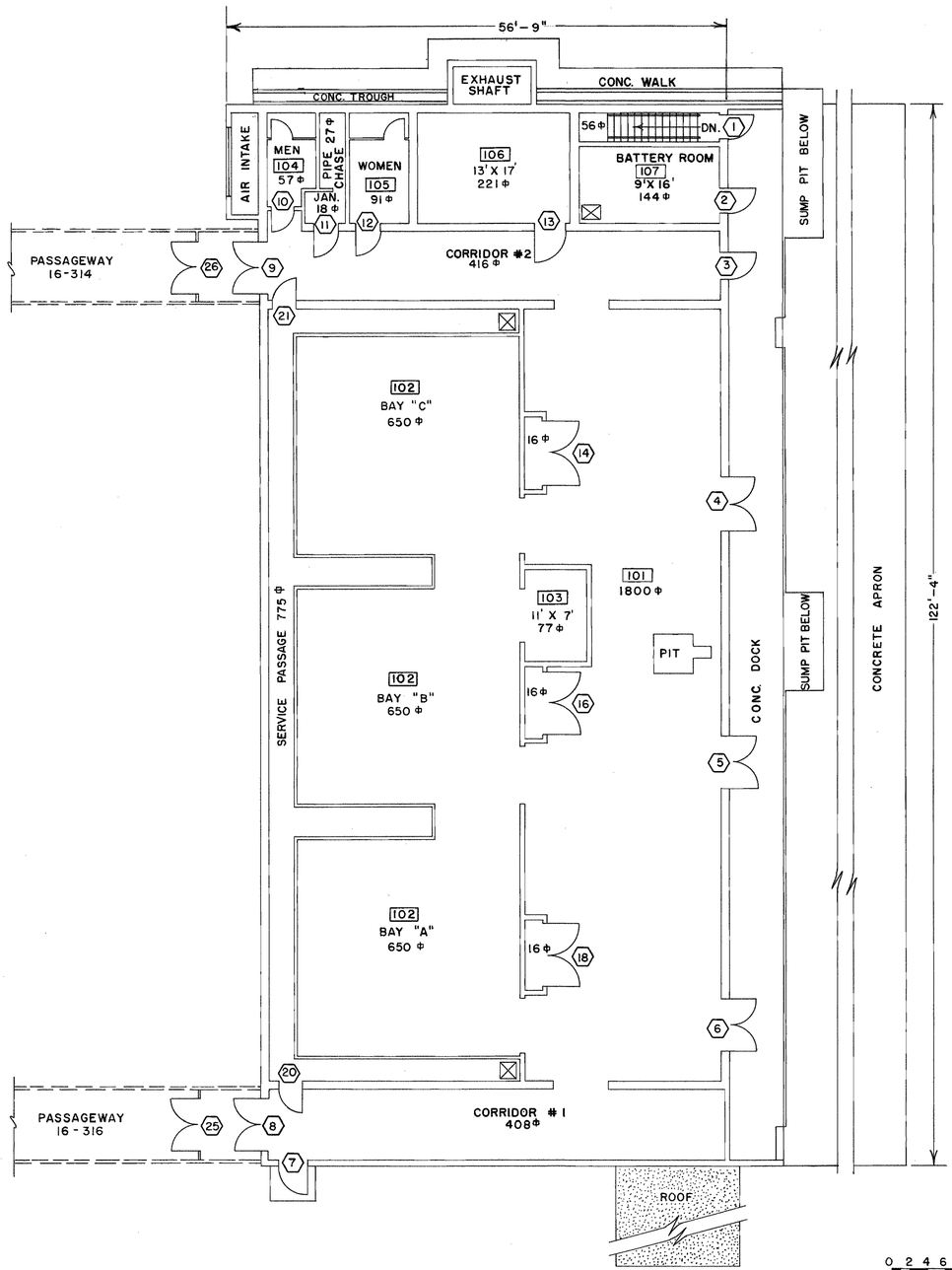
ITEM NO.	NO. REQD.	INSCRIPTION T'-BLDG. PREFIX-NO.	CODE TAG LOCATION	UNIT LOCATION
1	1	16-304 FE-15	HOUSING	RF
1	1	16-304 FEM-15	FRAME	RF

NO.	DATE	REVISIONS	BY	CHKD.	GRP.	D.O.	ORK ENGR. LDR	D.O.
1	5-25	ADD SECURITY BARS	GDL					

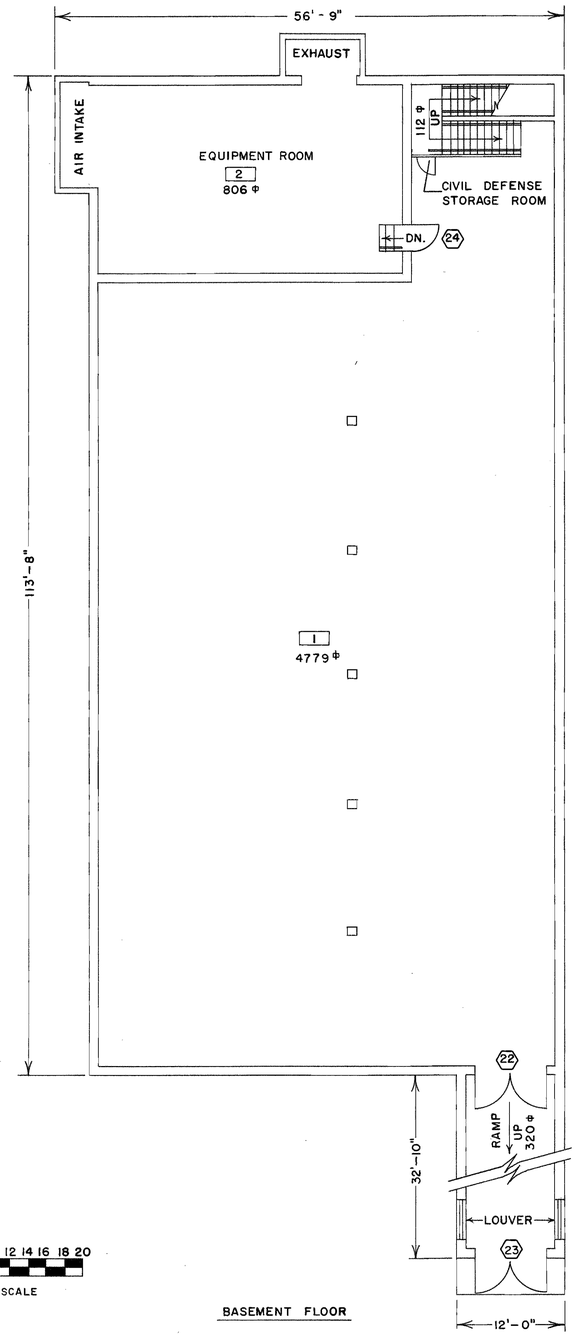
THIS JOB MUST BE INSPECTED AND ANY CHANGES APPROVED BY STALLINGS ENG-4 PHONE 6772

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

AUTHORIZED FOR	FILAMENT WINDER INSTALLATION
SECURITY	MECH. SECTIONS & DETAILS
SAFETY 14-5	BLDG. 16-306 TA-16
HEALTH 14-5	
FIRE PROT.	
DIVISION GMX-DO	SUBMITTED WRF for EJA PROJ. ENGR. — APPROVED ENGR. GROUP LEADER — APPROVED ENGR. DEPT. OFFICE
GROUP GMX-3	CHECKED WRF — CA — BA — DATE 5-22-71 — SHEET M-2 2 OF 3
ENG-5	DESIGNED W. BAKER — LAB JOB NUMBER 4G22-16 — DRAWING NO. ENG-C-39629
	DRAWN W. BAKER



FIRST FLOOR



BASEMENT FLOOR

BASEMENT FLOOR TOTAL SQ. FT.	6017
FIRST FLOOR TOTAL SQ. FT.	6088
TOTAL SQ. FT.	12105

REV.	DATE	REVISION	BY	CKD.	APP.
2	3-12-84	REVISED TO STATUS OF 3-12-84	H&N		

MF

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

FACILITIES ENGINEERING DIVISION

PROCESS BUILDING

BASEMENT & FIRST FLOOR PLAN

BLDG. 16-306 TA-16

SEC. CLASSIFICATION
CLASS. U
REVIEWER Tomasini
DATE 3-30-84

SUBMITTED	RECOMMENDED	APPROVED
L. Trujillo	Dawn Pyatt	R.H. Kochen

DRAWN	DATE	SHEET NO.	DRAWING NO.
HARRISON	8-26-64	1 OF 1	ENG-R2835
CHECKED Humble H&N			

166-G4 CLOTH—K. & E. CO., N. Y.—REG. U.S. PAT. OFF.

ROOM INFORMATION CHART					
RM NO	NET SQ FOOTAGE	RM NO	NET SQ FOOTAGE	RM NO	NET SQ FOOTAGE
1	4,866	2	766	10	315
B-STW1	63				

TOTAL ROOM NET SQUARE FOOTAGE (THIS SHEET) = 6,010

GROSS SQUARE FOOTAGE (THIS SHEET) = 6,403

TOTAL ROOM NET SQUARE FOOTAGE (BUILDING) = 18,371

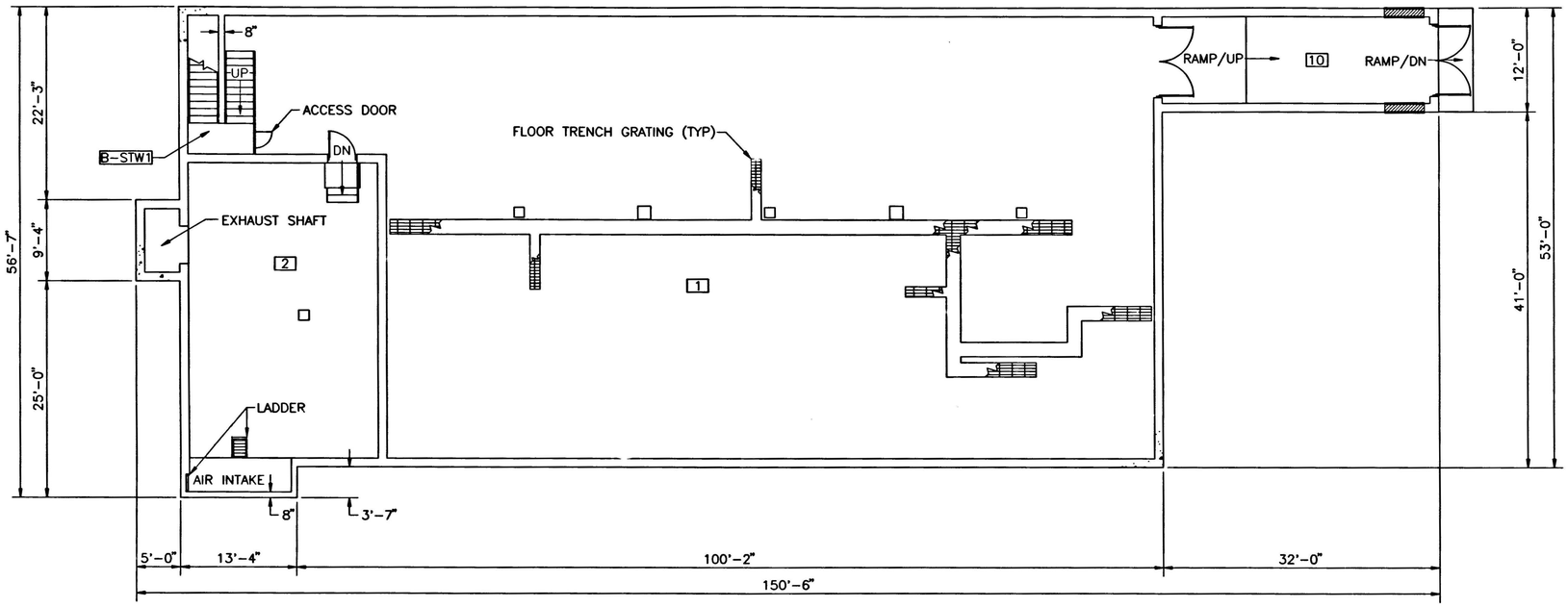
GROSS SQUARE FOOTAGE (BUILDING) = 19,646

LEGEND

CONCRETE
LOUVER
COLUMNS

NOTES

1. ALL EXTERIOR WALLS ARE 12" THICK UNLESS OTHERWISE NOTED.
2. ALL INTERIOR WALLS ARE 12" THICK UNLESS OTHERWISE NOTED.
3. REFERENCE DRAWING ENG-R2835.
4. ROOM NET SQUARE FOOTAGE IS COMPUTED BY MEASURING FROM THE INSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF ALL OTHER WALLS. AREAS SHOWN ARE ROUNDED TO THE NEAREST SQUARE FOOT.
5. GROSS SQUARE FOOTAGE IS EQUAL TO ALL FLOOR AREA (INCLUDING ALL OPENINGS IN FLOOR SLABS) MEASURED TO THE OUTER SURFACES OF EXTERIOR OR ENCLOSING WALLS, AND INCLUDES ALL FLOORS, MEZZANINES, HALLS, VESTIBULES, STAIRWELLS, SERVICE AND EQUIPMENT ROOMS, PENTHOUSES, VAULTS, AND ENCLOSED PASSAGES.
6. DIMENSIONS SHOWN ARE ROUNDED TO THE NEAREST INCH.



BASEMENT FLOOR PLAN

SCALE: 1/8" = 1'-0"

8 6 4 2 0 8 16 32
GRAPHIC SCALE

N

FIELD VERIFIED 12-8-95

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
MF								

JOHNSON CONTROLS

AS-BUILT RECORD FLOOR PLAN
PROCESS BUILDING
ARCH: BASEMENT FLOOR PLAN

DRAWN	M.VELASQUEZ
VERIFIED	MV/AG/FG
CHECKED	C. SANDOVAL
DATE	1-19-95

BLDG 306 TA-16

SUBMITTED JERRY FORTE

APPROVED FOR RELEASE FRED THOMPSON

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

SHEET 1 OF 4

CLASSIFICATION U REVIEWER T. GUSDORF DATE 3/20/96

PROJECT ID 016523

DRAWING NO AB598

REV

ROOM INFORMATION CHART					
RM NO	NET SQ FOOTAGE	RM NO	NET SQ FOOTAGE	RM NO	NET SQ FOOTAGE
101	1,872	102B	682	107	154
101A	65	102C	664	108	22
101C	65	103	90	CORR1	477
101E	21	104	59	CORR2	448
101F	23	105	97	1-STW1	64
101G	21	106	236	UTILITY1	556
102A	664				

TOTAL ROOM NET SQUARE FOOTAGE (THIS SHEET) = 6,340

GROSS SQUARE FOOTAGE (THIS SHEET) = 6,615

TOTAL ROOM NET SQUARE FOOTAGE (BUILDING) = 18,371

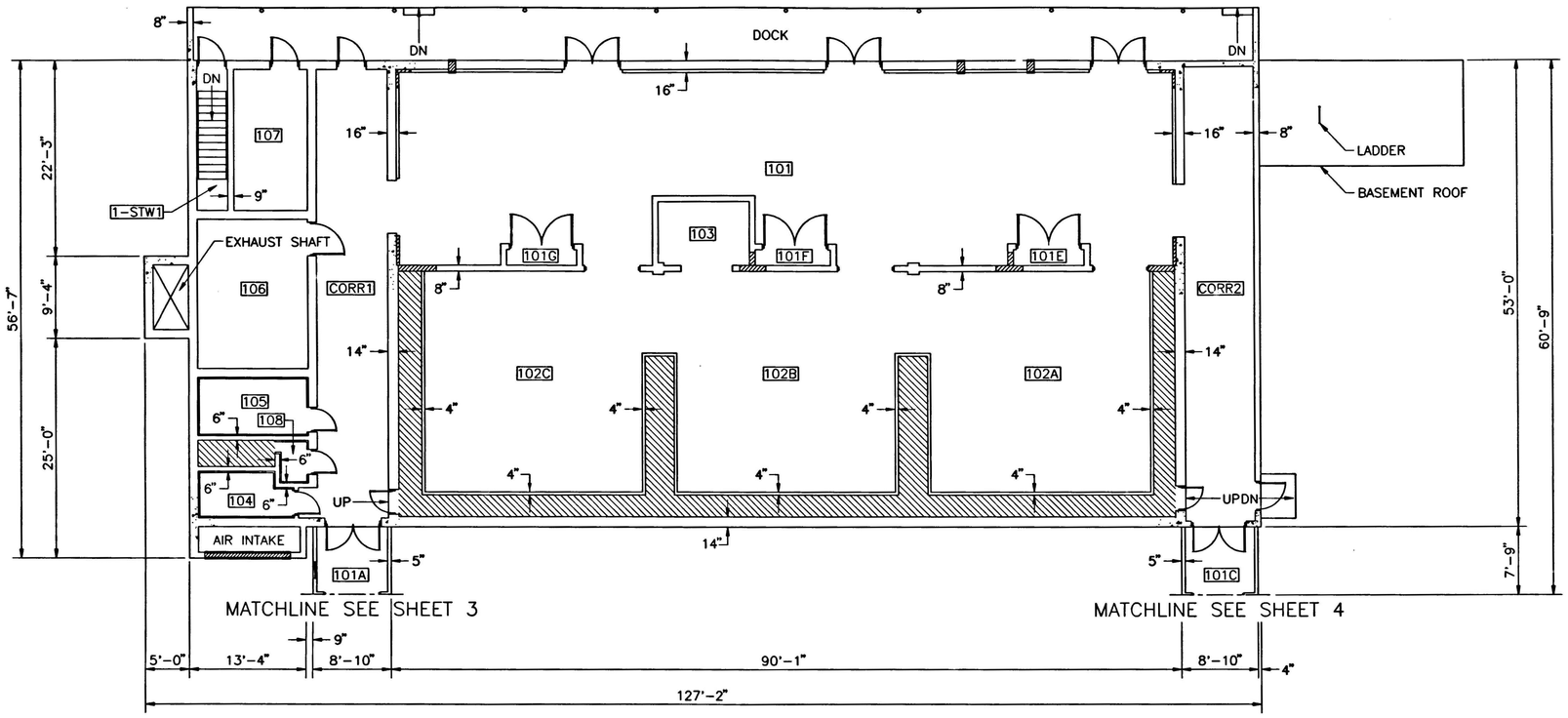
GROSS SQUARE FOOTAGE (BUILDING) = 19,639

LEGEND

BRICK
CONCRETE
LOUVER
UTILITY SPACE
WINDOW
WOOD OR METAL STUD
COLUMNS

NOTES

1. ALL EXTERIOR WALLS ARE 12" THICK UNLESS OTHERWISE NOTED.
2. ALL INTERIOR WALLS ARE 12" THICK UNLESS OTHERWISE NOTED.
3. REFERENCE DRAWING ENG-R2835.
4. ROOM NET SQUARE FOOTAGE IS COMPUTED BY MEASURING FROM THE INSIDE FACE OF EXTERIOR WALLS TO THE CENTERLINE OF ALL OTHER WALLS. AREAS SHOWN ARE ROUNDED TO THE NEAREST SQUARE FOOT.
5. GROSS SQUARE FOOTAGE IS EQUAL TO ALL FLOOR AREA (INCLUDING ALL OPENINGS IN FLOOR SLABS) MEASURED TO THE OUTER SURFACES OF EXTERIOR OR ENCLOSING WALLS, AND INCLUDES ALL FLOORS, MEZZANINES, HALLS, VESTIBULES, STAIRWELLS, SERVICE AND EQUIPMENT ROOMS, PENTHOUSES, VAULTS, AND ENCLOSED PASSAGES.
6. DIMENSIONS SHOWN ARE ROUNDED TO THE NEAREST INCH.



FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0"

8 6 4 2 0 8 16 32
GRAPHIC SCALE

N

FIELD VERIFIED 12-8-95

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP

JOHNSON CONTROLS

AS-BUILT RECORD FLOOR PLAN
PROCESS BUILDING
ARCH: FIRST FLOOR PLAN

DRAWN M.VELASQUEZ
VERIFIED MV/AG/PC
CHECKED C. SANDOVAL
DATE 1-19-96

BLDG 306 TA-16

SUBMITTED JERRY FORTE
APPROVED FOR RELEASE FRED THOMPSON

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

SHEET 2 OF 4

CLASSIFICATION U REVIEWER T. GUSDORF DATE 3-20-96

PROJECT ID 016523

DRAWING NO AB598

REV

Appendix B. List of Potential Artifacts

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The following pages are photographs of the potential artifacts that have been identified for retention if possible. It will not be known until these identified artifacts are removed and tested for high explosives as well as radiological contamination whether they can be retained or not.

This page intentionally left blank

1. Exterior building number sign

2. Explosion proof switches

3. Bathroom paper towel dispensers

4. *Peters-Dalton Hydrowhirl* Oven sign

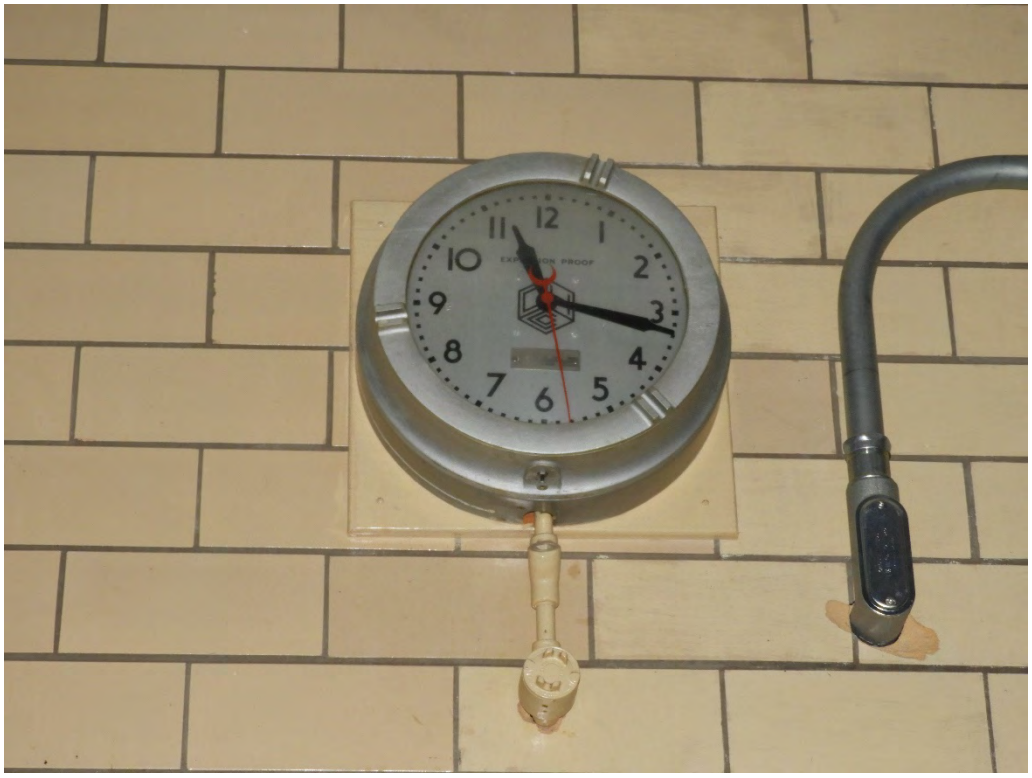
5. Explosion proof clock

6. Explosion proof light switch

7. Control panels

8. *CHECO Load Chief* crane sign

9. Switches and warning lights (No photos)



10. Explosion proof clock

11. Interior door “Push” lever

12. “VIKING” fire alarm


13. Green enamel asymmetrical light fixtures

Appendix C. TA-16 Construction History Maps

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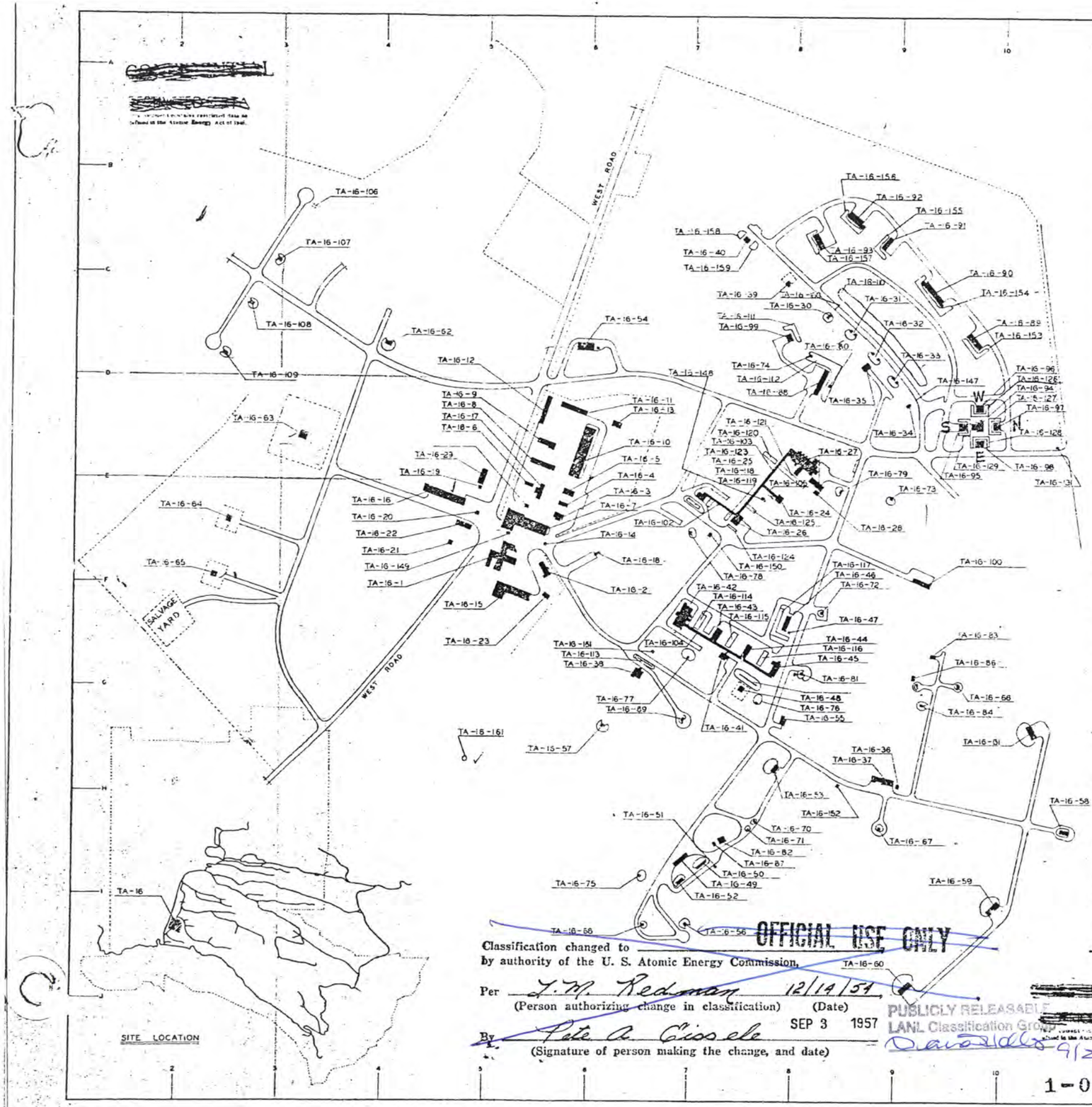

STRUCTURE NUMBER	DESIGNATION (SBD)	REMARKS & FORMER DESIGNATION
TA-16- 1	16 - 1	5F ADMINISTRATION BLDG.
TA-16- 2	16 - 2	6F OFFICE
TA-16- 3	16 - 3	8E ZIA ELEC. BLDG.
TA-16- 4	16 - 4	6E INFLAMMABLE STOCK STORAGE
TA-16- 5	16 - 5	6E INSTRUMENT SHOP
TA-16- 6	16 - 6	5E ZIA REPAIR SHOP
TA-16- 7	16 - 7	6E STEAM PLANT & MACHINE SHOP
TA-16- 8	16 - 8	5E ZIA CABINET SHOP
TA-16- 9	16 - 9	5E MOTOR POOL DISPATCH OFFICE
TA-16- 10	16 - 10	6E WAREHOUSE
TA-16- 11	16 - 11	6D OBSOLETE STORAGE, WAS S-10D
TA-16- 12	16 - 12	5D WAREHOUSE, WAS S-10E
TA-16- 13	16 - 13	6D DOCK, WAS S-10F
TA-16- 14	16 - 14	8F GUARD HOUSE, WAS S-11
TA-16- 15	16 - 15	5F LAUNDRY & LOCKER RM. WAS S-12
TA-16- 16	16 - 16	4E CAFETERIA, WAS S-13
TA-16- 17	16 - 17	5F PLUMBING SHOP, WAS S-14
TA-16- 18	16 - 18	6F STEAM WASHING HOUSE, WAS S-15
TA-16- 19	16 - 19	5E PUMP HOUSE, WAS S-16
TA-16- 20	16 - 20	5E WATER PUMP HOUSE, WAS S-17
TA-16- 21	16 - 21	5F PUMPING STATION, WAS S-17A
TA-16- 22	16 - 22	5E OFFICE, WAS S-8
TA-16- 23	16 - 23	6F STORAGE, WAS S-19
TA-16- 24	16 - 24	6E ANALYTICAL LAB., WAS S-20
TA-16- 25	16 - 25	7E PROCESS BLDG WAS S-23
TA-16- 26	16 - 26	8E PROCESS BLDG., WAS S-24
TA-16- 27	16 - 27	8E MELTING & CASTING, WAS 25325E
TA-16- 28	16 - 28	8E WATER COOLING TOWER, WAS S-25T
TA-16- 29	16 - 29	3E FUEL OIL TANK
TA-16- 30	16 - 30	8C MAGAZINE, WAS S-26A
TA-16- 31	16 - 31	9C MACH. BUILDING, WAS S-26B
TA-16- 32	16 - 32	9C MACH. BUILDING, WAS S-26C
TA-16- 33	16 - 33	9D MACH. BUILDING, WAS S-26D
TA-16- 34	16 - 34	9D MAGAZINE, WAS S-26E
TA-16- 35	16 - 35	9D EQUIPMENT ROOM, S-26F
TA-16- 36	16 - 36	9H EXPLOSIVE TESTING, S-27
TA-16- 37	16 - 37	9H STEAM CLEANING, WAS S-27E
TA-16- 38	16 - 38	8G EXPERIMENTAL CASTING, S-28
TA-16- 39	16 - 39	8C RADIO-GRAPHIC BLDG, S-29
TA-16- 40	16 - 40	7C RADIO-GRAPHIC BLDG S-29-B
TA-16- 41	16 - 41	7G PROCESS LAB WAS S-30
TA-16- 42	16 - 42	7F PROCESS BLDG WAS S-31
TA-16- 43	16 - 43	7F PROCESS BLDG WAS S-32
TA-16- 44	16 - 44	8G PROCESS BLDG WAS S-33
TA-16- 45	16 - 45	8G PROCESS BLDG WAS S-34
TA-16- 46	16 - 46	8F PROCESS BLDG WAS S-35
TA-16- 47	16 - 47	8F EQUIPMENT, WAS S-35E
TA-16- 48	16 - 48	8G RADIUM BLDG, WAS S-36
TA-16- 49	16 - 49	7I ANALYTICAL LAB. WAS S-41
TA-16- 50	16 - 50	7I EXPERIMENTAL CASTING, S-42
TA-16- 51	16 - 51	7I STEAM CLEANING, WAS S-42A
TA-16- 52	16 - 52	7I EXPLOSIVE MATL, WAS S-43
TA-16- 53	16 - 53	8H OPTICAL EQUIP. STOR, S-44
TA-16- 54	16 - 54	8D PROCESS BLDG S-45
TA-16- 55	16 - 55	8G GRINDING BLDG, S-45A
TA-16- 56	16 - 56	7I TESTING LAB., S-46
TA-16- 57	16 - 57	8G MAGAZINE, S-56
TA-16- 58	16 - 58	10H MAGAZINE, S-57
TA-16- 59	16 - 59	10I MAGAZINE, S-58
TA-16- 60	16 - 60	9J MAGAZINE, S-59
TA-16- 61	16 - 61	10H MAGAZINE, S-60
TA-16- 62	16 - 62	10D MAGAZINE S-66
TA-16- 63	16 - 63	3D MAGAZINE S-67
TA-16- 64	16 - 64	2E MAGAZINE S-68
TA-16- 65	16 - 65	2F MAGAZINE S-69
TA-16- 66	16 - 66	10G MAGAZINE S-70
TA-16- 67	16 - 67	9H MAGAZINE S-71
TA-16- 68	16 - 68	8I MAGAZINE S-72
TA-16- 69	16 - 69	7G MAGAZINE S-73
TA-16- 70	16 - 70	8H MAGAZINE S-74
TA-16- 71	16 - 71	8H MAGAZINE S-75
TA-16- 72	16 - 72	8I MAGAZINE S-76
TA-16- 73	16 - 73	9E MAGAZINE S-77
TA-16- 74	16 - 74	8D MAGAZINE S-78
TA-16- 75	16 - 75	6I PERSONNEL SHELTER, S-80
TA-16- 76	16 - 76	8G PERSONNEL SHELTER, S-81
TA-16- 77	16 - 77	7G PERSONNEL SHELTER, S-82
TA-16- 78	16 - 78	7E PERSONNEL SHELTER, S-83
TA-16- 79	16 - 79	8E PERSONNEL SHELTER, S-84
TA-16- 80	16 - 80	8D STORAGE S-85
TA-16- 81	16 - 81	8G PROCESS BLDG & FAN ROOM S-90
TA-16- 82	16 - 82	7H STORAGE, S-91
TA-16- 83	16 - 83	9F LABORATORY, S-92
TA-16- 84	16 - 84	9G MAGAZINE, S-93
TA-16- 85	16 - 85	WAREHOUSE, S-94 (DESTROYED)
TA-16- 86	16 - 86	9G LABORATORY, S-95
TA-16- 87	16 - 87	7H MACH. SHOP TRAILER, S-95A
TA-16- 88	16 - 88	8D CASTING REST HOUSE, S-100
TA-16- 89	16 - 89	10C PROCESS BLDG FORMERLY S-104
TA-16- 90	16 - 90	9C PROCESS BLDG FORMERLY S-102
TA-16- 91	16 - 91	9C PROCESS BLDG FORMERLY S-105
TA-16- 92	16 - 92	9B INSPECT BLDG FORMERLY S-101
TA-16- 93	16 - 93	9C PROCESS BLDG FORMERLY S-103
TA-16- 94	16 - 94	10D EQUIP & CONTROL, S-106
TA-16- 95	16 - 95	9E MACH. BLDG S-106 S
TA-16- 96	16 - 96	10D MACH. BLDG S-106 W
TA-16- 97	16 - 97	10D MACH. BLDG S-106 N
TA-16- 98	16 - 98	10E MACH. BLDG S-106 E
TA-16- 99	16 - 99	MAGAZINE WAS S-8
TA-16- 100	16 - 100	9F PROCESS BLDG WAS S-108
TA-16- 101	16 - 101	RESERVE
TA-16- 102	16 - 102	7E PASSAGEWAY 15-2E & 15-
TA-16- 103	16 - 103	7E PASSAGEWAY 16-6 & 6-
TA-16- 104	16 - 104	7F PASSAGEWAY 5-12 & 16
TA-16- 105	16 - 105	8E PASSAGEWAY 16-24 & 6
TA-16- 106	16 - 106	3B " STORAGE, A-1
TA-16- 107	16 - 107	3C " STORAGE, A-2
TA-16- 108	16 - 108	3C " STORAGE, A-3
TA-16- 109	16 - 109	3D " STORAGE, A-4
TA-16- 110	16 - 110	9C BARRICADE
TA-16- 111	16 - 111	8C BARRICADE
TA-16- 112	16 - 112	8D BARRICADE
TA-16- 113	16 - 113	8C BARRICADE (EARTHEN) S- 8
TA-16- 114	16 - 114	7E " " S- 9
TA-16- 115	16 - 115	7F " " S-20
TA-16- 116	16 - 116	9C " " S-21
TA-16- 117	16 - 117	8F " " S-22
TA-16- 118	16 - 118	7E " " S-23
TA-16- 119	16 - 119	7E " " S-24
TA-16- 120	16 - 120	8E " " S-25
TA-16- 121	16 - 121	8E " " S-26
TA-16- 122	16 - 122	" " S-27 REV.
TA-16- 123	16 - 123	" " S-28
TA-16- 124	16 - 124	8E " " S-129
TA-16- 125	16 - 125	8E " " S-130
TA-16- 126	16 - 126	10D " " S-131
TA-16- 127	16 - 127	10D " " S-132
TA-16- 128	16 - 128	10D " " S-133
TA-16- 129	16 - 129	10E " " S-134
TA-16- 130	16 - 130	RESERVE
TA-16- 131	16 - 131	10E GUARD HOUSE, S-136
TA-16- 132	16 - 132	PAINT SHOP, S-137
TA-16- 133	16 - 133	LUMBER STORAGE, S-138
TA-16- 134	16 - 134	MESS HALL, S-139
TA-16- 135	16 - 135	STORAGE BLDG, S-140
TA-16- 136	16 - 136	IMPLEMENT SHED, S-141
TA-16- 137	16 - 137	PLUMBING & ELEC. SHOP, S-142
TA-16- 138	16 - 138	BLACKSMITH SHOP, S-143
TA-16- 139	16 - 139	STORAGE BLDG, S-144
TA-16- 140	16 - 140	STORAGE BLDG, S-145
TA-16- 141	16 - 141	STORAGE BLDG, S-146
TA-16- 142	16 - 142	FIRE HOUSE, S-147
TA-16- 143	16 - 143	HOSE HOUSE, S-148
TA-16- 144	16 - 144	EQUIP. RM. & STORAGE, S-149
TA-16- 145	16 - 145	LATRINE, S-150
TA-16- 146	16 - 146	PORTABLE STORAGE, S-151
TA-16- 147	16 - 147	9D ROAD BLOCK
TA-16- 148	16 - 148	8E SOLVENT BLDG.
TA-16- 149	16 - 149	5E GUARD BLDG.
TA-16- 150	16 - 150	7E HOSE HOUSE
TA-16- 151	16 - 151	7G " "
TA-16- 152	16 - 152	8H " "
TA-16- 153	16 - 153	10C BARRICADE
TA-16- 154	16 - 154	9F BARRICADE
TA-16- 155	16 - 155	9C BARRICADE
TA-16- 156	16 - 156	9B BARRICADE
TA-16- 157	16 - 157	8I BARRICADE
TA-16- 158	16 - 158	8C BARRICADE
TA-16- 159	16 - 159	8I BARRICADE
TA-16- 160	16 - 160	8E ROAD BLOCK
TA-16- 161	16 - 161	8H SEPTIC TANK

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Per L. M. Redman 12/14/54
(Person authorizing change in classification) (Date)

By Pete A. Cissele SEP 3 1957
(Signature of person making the change, and date)

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David Allen 9/29/06

1-0106191

NORTH (MAGNETIC)

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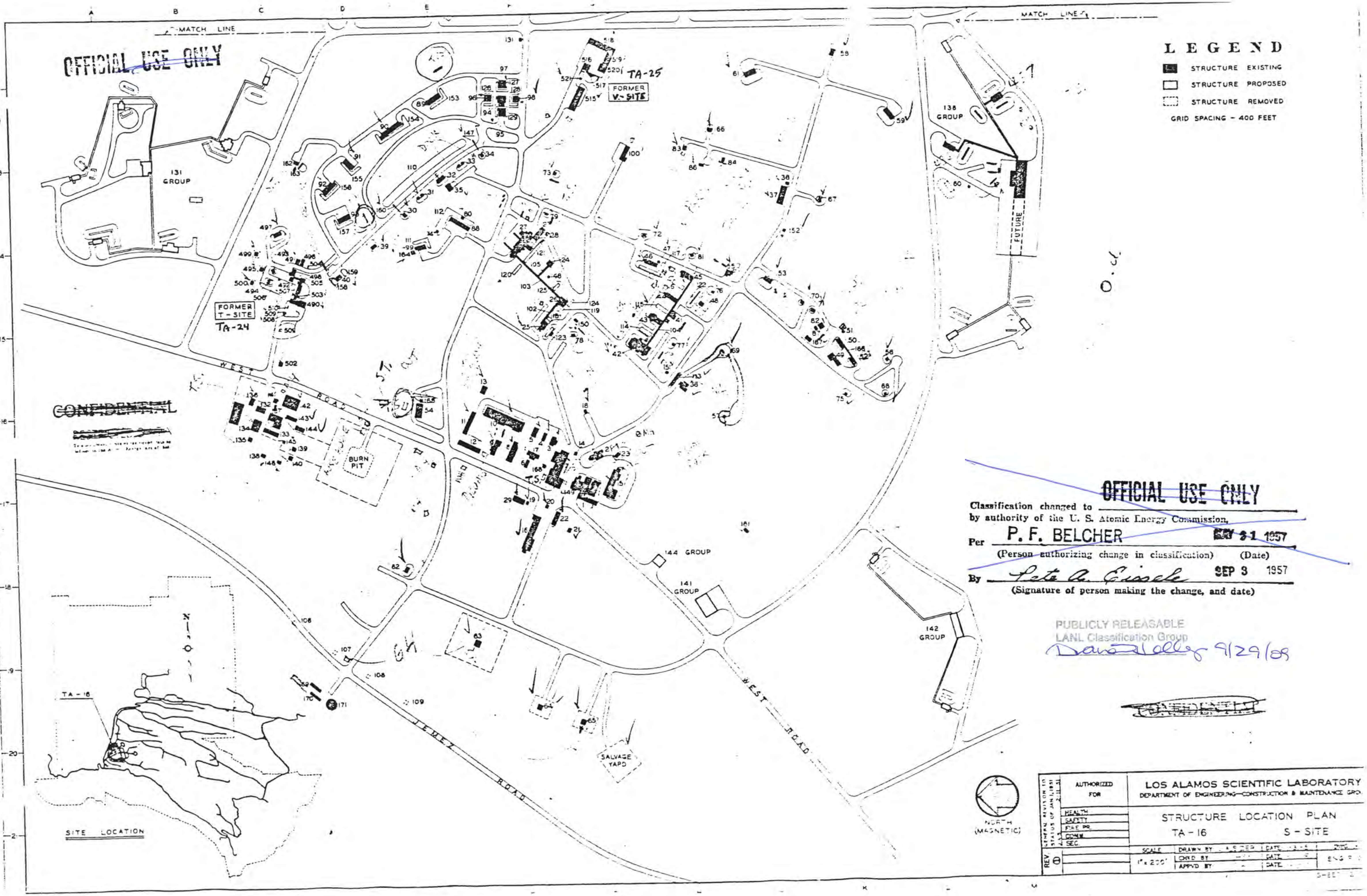
HEALTH SAFETY FIRE PR. COMM. SEC.	STRUCTURE LOCATION PLAN TA-16 S - SITE

REV.		SCALE	DRAWN BY: G.R.S.	DATE 3-1-55	DWG. NO.
0		1" = 200	CHK'D. BY:	DATE	ENGR. 132
			APPV'D. BY:	DATE	



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Per P. F. BELCHER MAY 31 1957
(Person authorizing change in classification) (Date)
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(Signature of person making the change, and date)

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LANL Classification Group
David Kelley 9/29/08

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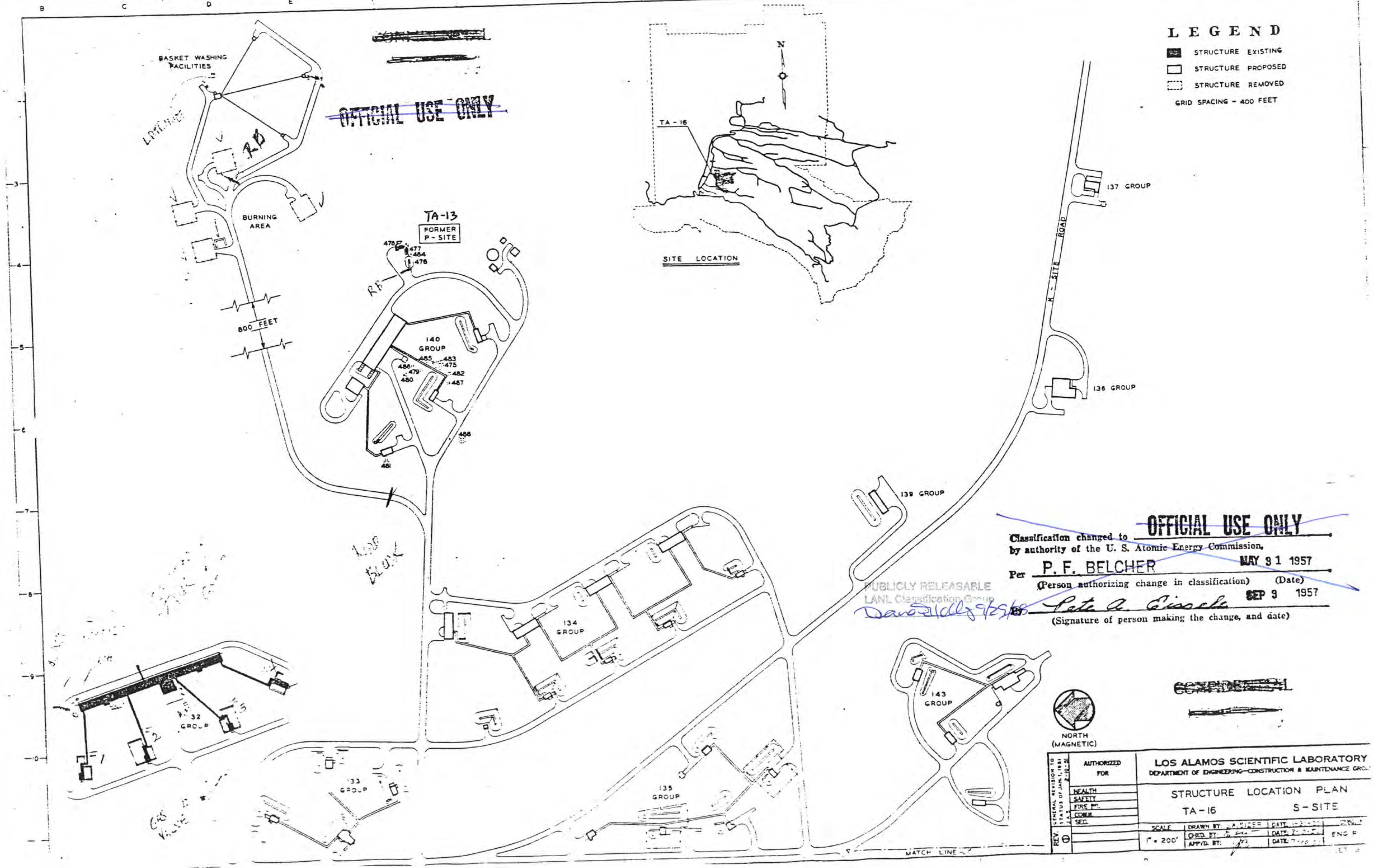
LEGEND
STRUCTURE EXISTING
STRUCTURE PROPOSED
STRUCTURE REMOVED
GRID SPACING - 400 FEET
BASKET WASHING FACILITIES
BURNING AREA
TA-13
FORMER P-SITE
800 FEET
140 GROUP
TA-16
SITE LOCATION
137 GROUP
136 GROUP
139 GROUP
K - SITE ROAD
134 GROUP
32 GROUP
133 GROUP
135 GROUP
143 GROUP
NORTH (MAGNETIC)
MATCH LINE
Classification changed to OFFICIAL USE ONLY
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Per P. F. BELCHER MAY 31 1957
(Person authorizing change in classification) (Date)
By SEP 3 1957
(Signature of person making the change, and date)
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LANL Classification Group
LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING—CONSTRUCTION & MAINTENANCE GROUP
STRUCTURE LOCATION PLAN
TA-16
S-SITE
AUTHORIZED FOR
HEALTH
SAFETY
FIRE PR.
CODE
SEC.
SCALE
1" = 200'
DRAWN BY:
CHKD. BY:
APP'D. BY:
DATE:
REV.

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MATCH LINE

MATCH LINE

LEGEND

- STRUCTURE EXISTING
- STRUCTURE PROPOSED
- STRUCTURE REMOVED

GRID SPACING - 400 FEET

131 GROUP

138 GROUP

141 GROUP

142 GROUP

144 GROUP

FORMER T-SITE

FORMER V-SITE

FUTURE

SERVICE AREA

BURN PIT

WEST ROAD

JEMEZ ROAD

SITE LOCATION

TA-16

N

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By Pete A. Casale SEP 3 1957

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NORTH (MAGNETIC)

REV. ② GENERAL REVISION TO STATUS OF JULY 1, 1951 N.O.B. 7-27-51

REV. ① GENERAL REVISION TO STATUS OF JAN. 1, 1951 2-11-51

AUTHORIZED FOR: HEALTH, SAFETY, FIRE PR., COMM., SEC.

LOS ALAMOS SCIENTIFIC LABORATORY
DEPARTMENT OF ENGINEERING—CONSTRUCTION & MAINTENANCE GROUP

STRUCTURE LOCATION PLAN
TA-16 S-SITE

SCALE	DRAWN BY: J.A. SIZER	DATE: 1-31-51	DWG. NO.
1" = 200'	CHKD. BY:	DATE: 2-10-51	ENG R 134
	APPVD. BY:	DATE: 3-10-57	

SHEET 3 OF 4

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BASKET WASHING FACILITIES

BURNING AREA

800 FEET

FORMER P-SITE

140 GROUP

132 GROUP

133 GROUP

134 GROUP

137 GROUP

136 GROUP

139 GROUP

143 GROUP

K-SITE ROAD

TA-16

SITE LOCATION

N

NORTH (MAGNETIC)

MATCH LINE

MATCH LINE

LEGEND

- STRUCTURE EXISTING
- STRUCTURE PROPOSED
- STRUCTURE REMOVED

GRID SPACING - 400 FEET

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By Leta A. Lisenbe SEP 3 1957
(Signature of person making the change, and date)

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LANL Classification Group
David Wolf 9/29/05

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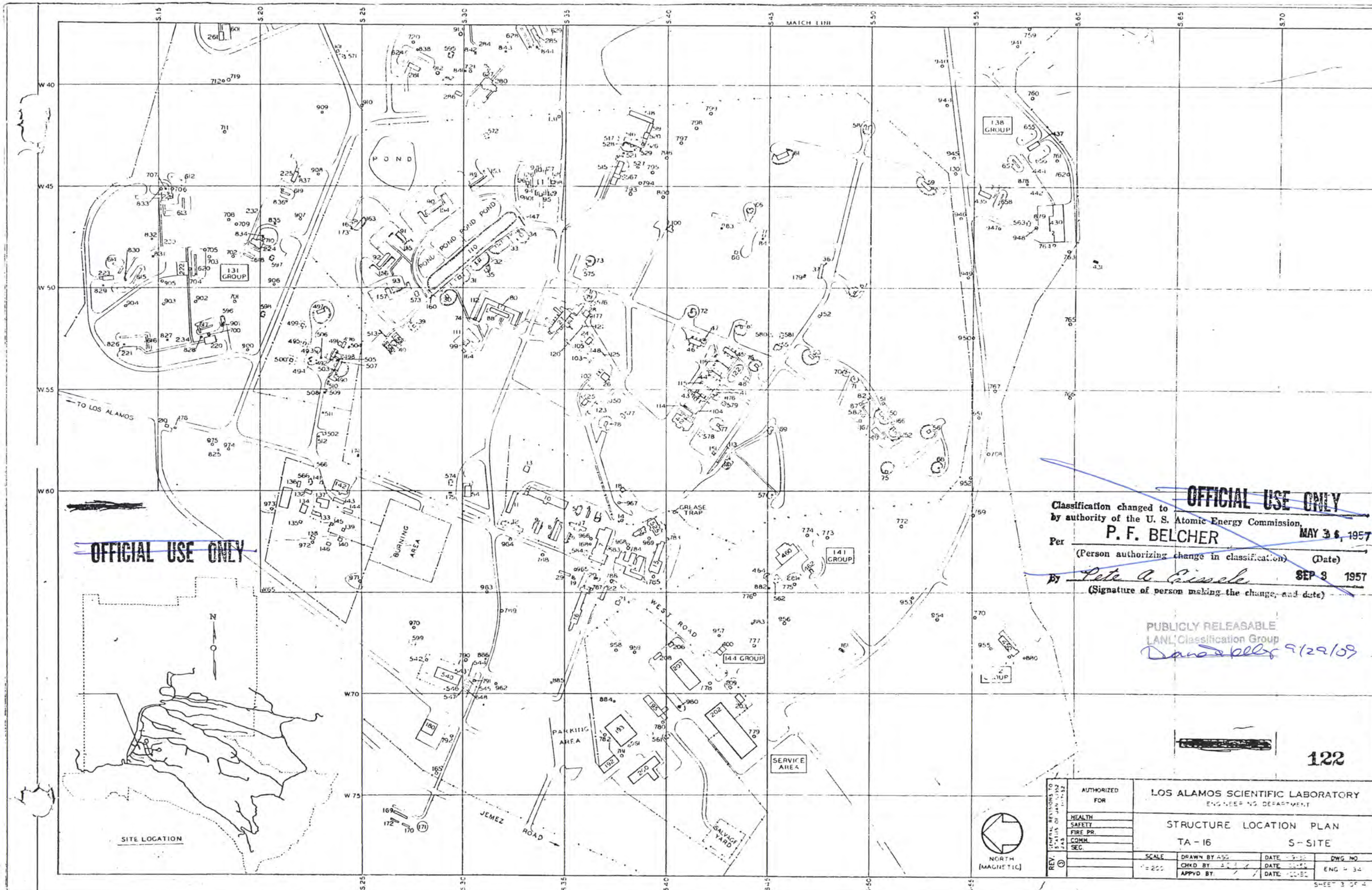
⊖	GENERAL REVISION TO STATUS OF JULY 1, 1951 N.O.B. 7-27-51	HEALTH	STRUCTURE LOCATION PLAN			
⊖	GENERAL REVISION TO STATUS OF JAN. 1, 1951 2-16-51	SAFETY	TA-16 S-SITE			
		FIRE PR.				
		COMM.				
		SEC.	SCALE	DRAWN BY: J.A. SIZER	DATE: 1-31-51	DWG. NO.
			1" = 200'	CHKD. BY: [illegible]	DATE: 3-12-51	ENG R 135
				APPVD. BY: [illegible]	DATE: 3-10-51	

SHEET 4 OF 4



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Per P. F. BELCHER MAY 3 1957
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Dana Kelly 9/29/09

[redacted]

122

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(Person authorizing change in classification) (Date)
By PETE ESSELE — SEP 3 1957
(Signature of person making the change, and date)

BASKET WASHING FACILITIES

BURNING AREA

140 GROUP

132 GROUP

134 GROUP

136 GROUP

137 GROUP

139 GROUP

143 GROUP

K-SITE ROAD

TO TA-37

MATCH LINE

SITE LOCATION

NORTH (MAGNETIC)

122

AUTHORIZED FOR	LOS ALAMOS SCIENTIFIC LABORATORY ENGINEERING DEPARTMENT			
HEALTH SAFETY FIRE PR. COMM. SEC.	STRUCTURE LOCATION PLAN TA - 16 S - SITE			
REV. ① GENERAL REVISIONS TO AS OF JAN. 31, 1952	SCALE 1" = 200'	DRAWN BY: ASG	DATE: 1-19-52	DWG. NO. ENG R 135
		CHKD. BY: JAS &	DATE: 1-22-52	
		APPVD. BY:	DATE: 1-22-52	

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809 acres - total area

509.18 acres - excl. ar.
7.96 acres - S. excl. ar.
16.50 acres - limited acre

64% exclusion ar.
1% S. excl. ar
35% Limited ar.

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Per P. F. BELCHER (Person authorizing change in classification) (Date) MAY 31 1957

By Pete A. Esposito (Signature of person making the change, and date) SEP 3 1957

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LANL Classification Group
Dan Dellegg 9/29/09

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258

TO LOS ALAMOS

POND

POND POND POND POND

BURNING AREA

WEST ROAD

PARKING AREA

SERVICE AREA

JEMEZ ROAD

SALVAGE YARD

131 GROUP

38 GROUP

141 GROUP

44 GROUP

142 GROUP

GREASE TRAP 1082

543

TA-16

SITE LOCATION

N

NORTH (MAGNETIC)

REV.		AUTHORIZED FOR
⑦	GENERAL REVISION TO STATUS OF JULY 1, 1952	HEALTH
⑥	GENERAL REVISIONS TO STATUS OF JAN. 1, 1952	SAFETY
		FIRE PR.
		COMM.
		SEC.

LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT

STRUCTURE LOCATION PLAN
TA - 16 S - SITE

SCALE	DRAWN BY: ASG	DATE: 4-9-52	DWG. NO.
1" = 200'	CHKD. BY: JAS	DATE: 4-22-52	ENG R 134
	APPVD. BY:	DATE: 1-22-52	

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Per P. F. BELCHER MAY 31 1957
(Person authorizing change in classification) (Date)

By Peter A. Eisele SEP 3 1957
(Signature of person making the change, and date)

BASKET WASHING FACILITIES

BURNING AREA

140 GROUP

132 GROUP

134 GROUP

139 GROUP

143 GROUP

136 GROUP

137 GROUP

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~~CONFIDENTIAL~~

K-SITE ROAD

TO TA-37

TA-16

SITE LOCATION

MAG DECLINATION 15°30'
GRID NORTH
TRUE NORTH

MATCH LINE

375

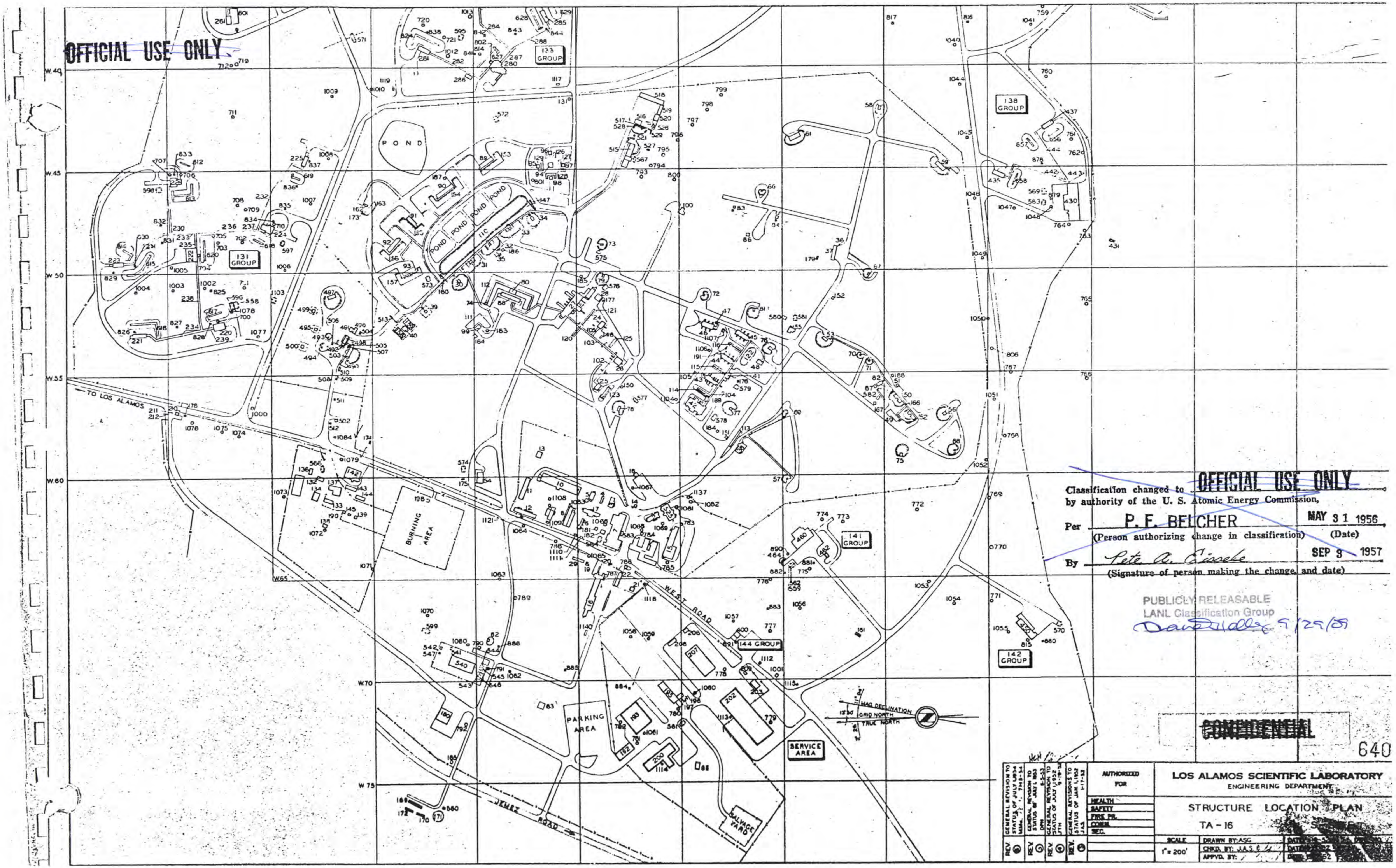
REV.	
A	GENERAL REVISION TO STATUS OF JULY 1, 1953 DPH 6-8-53
	GENERAL REVISIONS TO STATUS OF JAN. 1, 1952 9-15-52 JAS 11TH
REV. A	
REV. B	

AUTHORIZED FOR: HEALTH, SAFETY, FIRE PR., COMM, SEC.

LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT

STRUCTURE LOCATION PLAN
TA-16 S-SITE

SCALE	DRAWN BY: ASG	DATE: 1-19-52	DWG. NO.
1"=200'	CHKD. BY: JAS & EG	DATE: 1-22-52	ENG. R 135
	APPVD. BY: [illegible]	DATE: 1-22-52	


OFFICIAL USE ONLY
POND
133 GROUP
138 GROUP
131 GROUP
141 GROUP
142 GROUP
144 GROUP
TO LOS ALAMOS
BURNING AREA
PARKING AREA
SERVICE AREA
SALVAGE YARD
WEST ROAD
JEMEZ ROAD
MAG DECLINATION
GRID NORTH
TRUE NORTH
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Per P. F. BELCHER MAY 3 1 1956
(Person authorizing change in classification) (Date)
By Pete A. Eisele SEP 3 1957
(Signature of person making the change and date)
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640
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
STRUCTURE LOCATION PLAN
TA - 16
AUTHORIZED FOR
HEALTH
SAFETY
FIRE PR.
COMM.
SEC.
SCALE 1" = 200'
DRAWN BY: ASG
CHKD. BY: J.A.S.
APPVD. BY:

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BASKET WASHING FACILITIES

BURNING AREA

140 GROUP

132 GROUP

134 GROUP

139 GROUP

143 GROUP

136 GROUP

137 GROUP

K-SITE ROAD

TO TA-37

MAG DECLINATION 13°30' EAST
GRID NORTH
TRUE NORTH

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Per P. F. BELCHER MAY 31 1956
(Person authorizing change in classification) (Date)
By Pete A. Cissele SEP 3 1957
(Signature of person making the change, and date)

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Dana Hall 9/25/15

REV.	
6	GENERAL REVISION TO STATUS OF JULY 1, 1954 MMC 7-15-54
5	GENERAL REVISION TO STATUS OF JULY 1, 1953 DPH 6-8-53
4	GENERAL REVISION TO STATUS OF JULY 1, 1952 9-15-52
3	GENERAL REVISIONS TO STATUS OF JAN. 1, 1952 JAS 1-17-52

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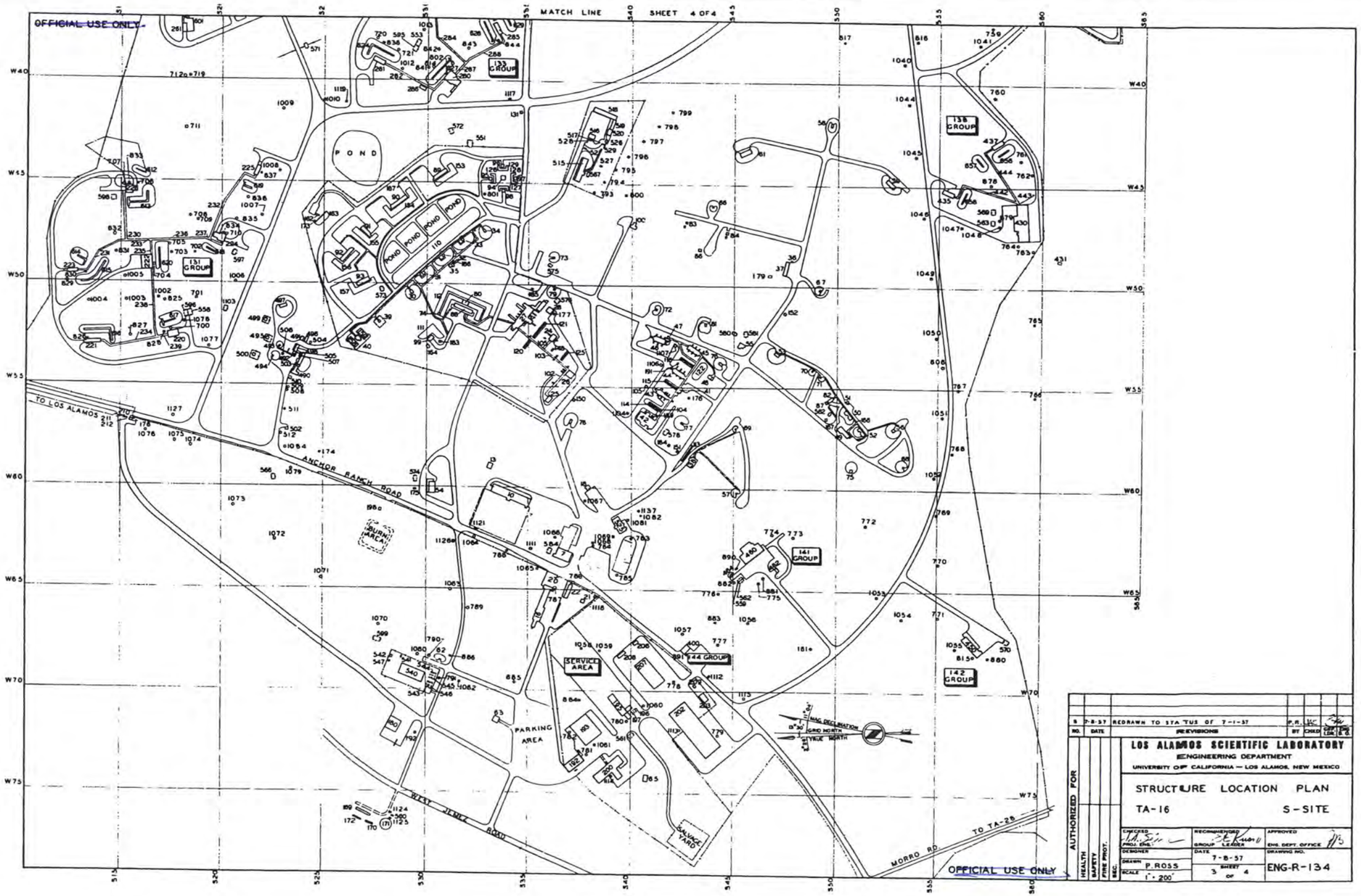
AUTHORIZED FOR: HEALTH, SAFETY, FIRE PR., COMM., SEC.

LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT

STRUCTURE LOCATION PLAN
TA - 16 S - SITE

SCALE	DRAWN BY: ASG	DATE: 1-19-52	DWG. NO.
1" = 200'	CHKD. BY: JAS	DATE: 1-22-52	ENG. R 135
	APPVD. BY:	DATE: 1-22-52	



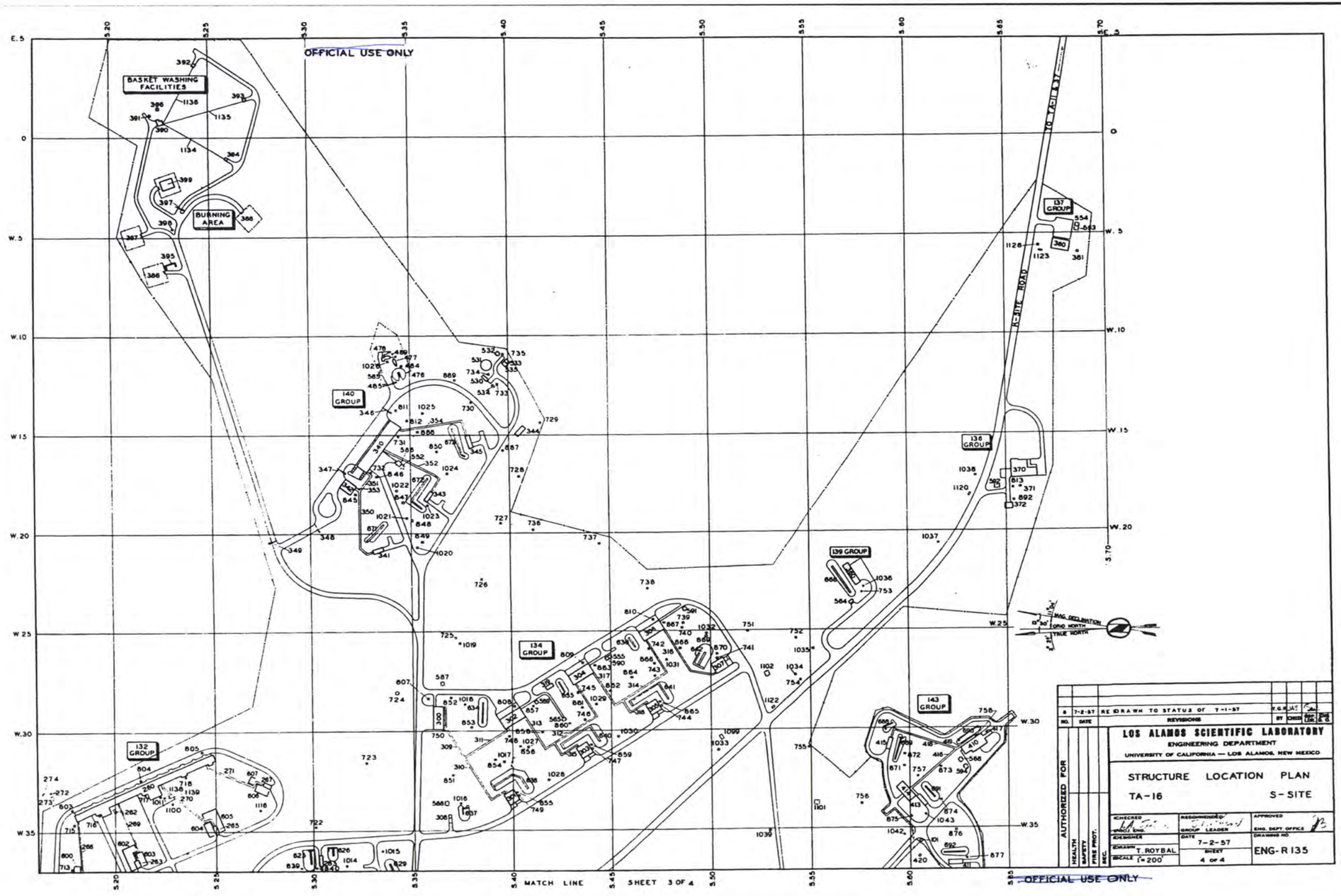
NO.	DATE	REVISIONS	BY	CHKD
8	7-8-57	REDRAWN TO STATUS OF 7-1-57	P.R.	WC

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

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

STRUCTURE LOCATION PLAN
TA-16 S-SITE

CHECKED (MULL. ENG.)	RECOMMENDED GROUP LEADER	APPROVED ENG. DEPT. OFFICE
DESIGNED	DATE 7-8-57	DRAWING NO. ENG-R-134
DRAWN P.ROSS	SHEET 3 OF 4	
SCALE 1" = 200'		



NO.	DATE	REVISIONS	BY	CHKD	ENG	PROJ
8	7-2-57	RE DRAWN TO STATUS OF 7-1-57	Y.G.M.	JAT		

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

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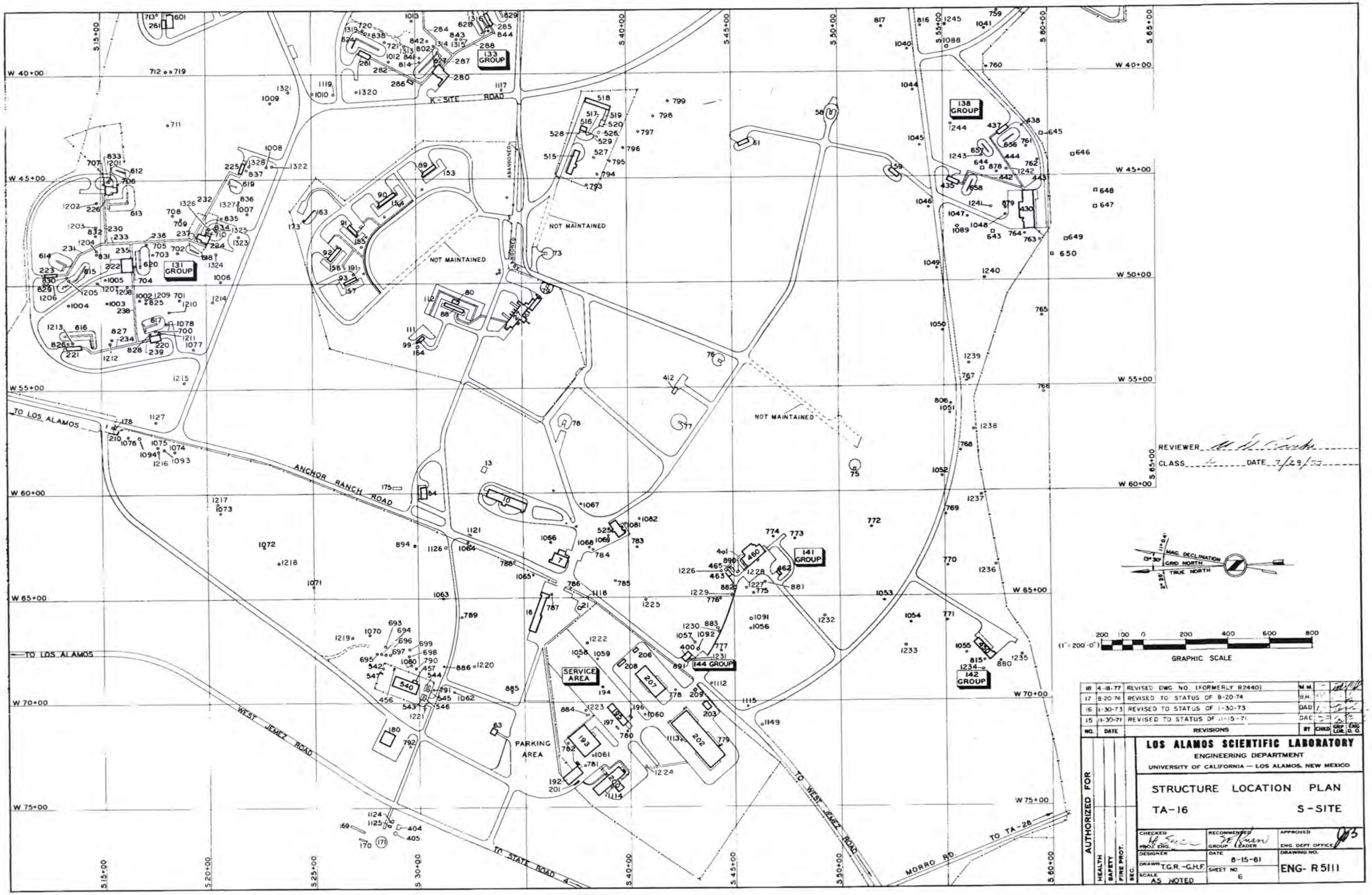
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

STRUCTURE LOCATION PLAN
TA-16 S-SITE

CHECKED	RECOMMENDED	APPROVED
PROJECT ENGR.	GROUP LEADER	ENG. DEPT. OFFICE
ENGINEER	DATE 7-2-57	DRAWING NO.
DRAWN T. ROYBAL	SHEET 4 of 4	ENG-R 135
SCALE 1"=200'		



K-SITE ROAD
ANCHOR RANCH ROAD
WEST JEMEZ ROAD
TO WEST JEMEZ ROAD
TO STATE ROAD 4
MORRO RD
TO TA-28
TO LOS ALAMOS
NOT MAINTAINED
ABANDONED
131 GROUP
133 GROUP
138 GROUP
141 GROUP
142 GROUP
144 GROUP
SERVICE AREA
PARKING AREA
MAG. DECLINATION
GRID NORTH
TRUE NORTH
GRAPHIC SCALE
(1" = 200'-0")
REVIEWER
CLASS
DATE
18 4-8-77 REVISED DWG NO. (FORMERLY R2440) M.M.
17 8-20-74 REVISED TO STATUS OF 8-20-74 B.H.
16 1-30-73 REVISED TO STATUS OF 1-30-73 DAD
15 11-30-71 REVISED TO STATUS OF 11-15-71 DAC
NO. DATE REVISIONS BY CHKD GRP LDR. ENG D. O.
AUTHORIZED FOR
HEALTH
SAFETY
FIRE PROT.
SEC.
LOS ALAMOS SCIENTIFIC LABORATORY
ENGINEERING DEPARTMENT
UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO
STRUCTURE LOCATION PLAN
TA-16
S-SITE
CHECKED PROJ. ENG.
RECOMMENDED GROUP LEADER
APPROVED ENG. DEPT OFFICE
DESIGNER
DRAWN T.G.R.-G.H.F.
SCALE AS NOTED
DATE 8-15-61
SHEET NO 6
DRAWING NO.
ENG- R5111

BURNING AREA

BURNING AREA

132 GROUP

140 GROUP

134 GROUP

139 GROUP

143 GROUP

136 GROUP

137 GROUP

TO TA-II & 37

K-SITE ROAD

S 30+00 | S 35+00 | S 40+00 | S 45+00 | S 50+00 | S 55+00 | S 60+00 | S 65+00 | S 70+00

0+00 | W 5+00 | W 10+00 | W 15+00 | W 20+00 | W 25+00 | W 30+00

MAG. DECLINATION 13° 30' EAST
GRID NORTH
TRUE NORTH

GRAPHIC SCALE (1" = 200'-0")

NO.	DATE	REVISIONS	BY	CHKD	GRP LDR.	ENG. G. O.
20	11-4-77	ADDED ARCH SITE 15858, UNEX	DAD			
19	4-18-77	REVISED DWG NO (FORMERLY R2411)	MM			
18	8-20-75	REVISED TO STATUS OF 8-20-74	SH			
17	8-30-73	REVISED TO STATUS OF 8-30-73	DAD			
16	1-30-73	REVISED TO STATUS OF 1-30-73	DAD			
15	11-30-71	REVISED TO STATUS OF 11-30-71	DAD			

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

LOS ALAMOS SCIENTIFIC LABORATORY

ENGINEERING DEPARTMENT

UNIVERSITY OF CALIFORNIA — LOS ALAMOS, NEW MEXICO

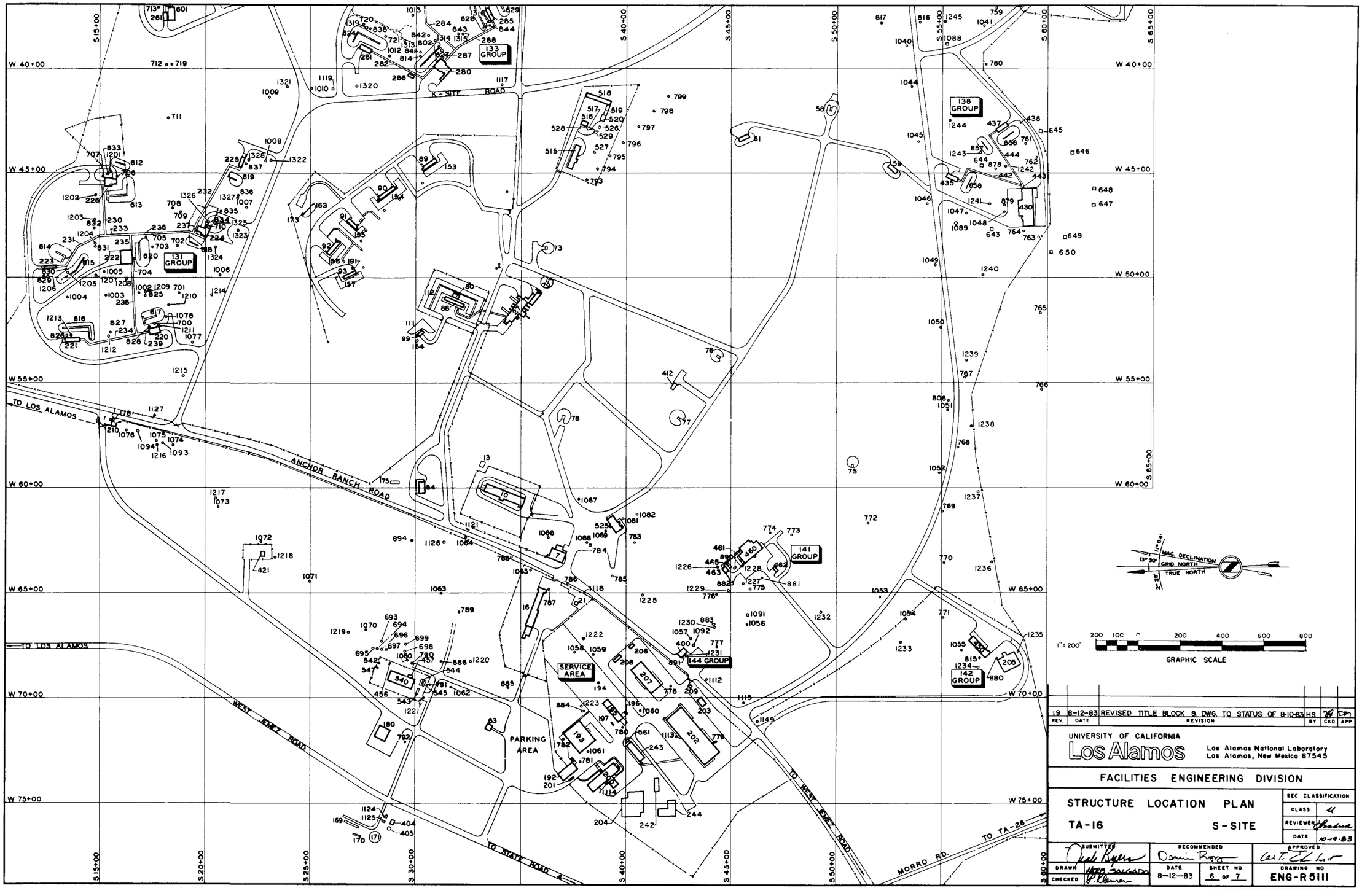
STRUCTURE LOCATION PLAN

TA-16 S-SITE

CHECKED	RECOMMENDED	APPROVED
PROJ. ENG.	GROUP LEADER	ENG. DEPT. OFFICE
DESIGNED	DATE	DRAWING NO.
DRAWN FRENCH	8-15-61	ENG- R5111
SCALE AS FILED	SHEET NO. 7	

REVIEWER

CLASS DATE



REV.	DATE	REVISION	BY	CKD	APP
19	8-12-83	REVISED TITLE BLOCK & DWG. TO STATUS OF 8-10-83	HS		

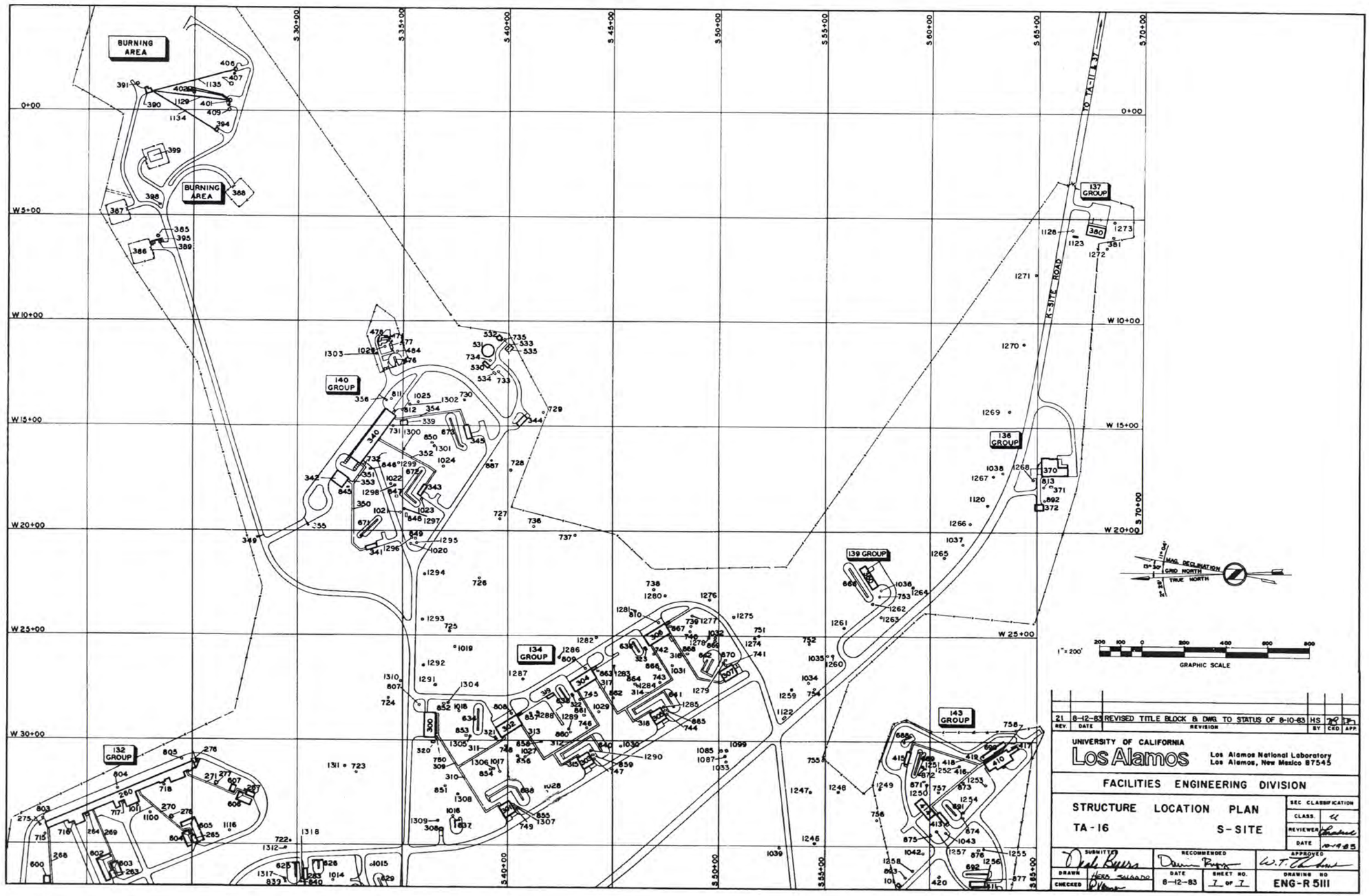
UNIVERSITY OF CALIFORNIA
Los Alamos
Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

STRUCTURE LOCATION PLAN
TA-16 S-SITE

SEC CLASSIFICATION
CLASS. U
REVIEWER Shadduck
DATE 10-19-83

SUBMITTED	RECOMMENDED	APPROVED
DRAWN H.P. SALGADO	DATE 8-12-83	SHEET NO. 6 OF 7
CHECKED		DRAWING NO ENG-R5111



REV.	DATE	REVISION	BY	C&D	APP
21	8-12-83	REVISED TITLE BLOCK & DWG TO STATUS OF 8-10-83	HS		

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

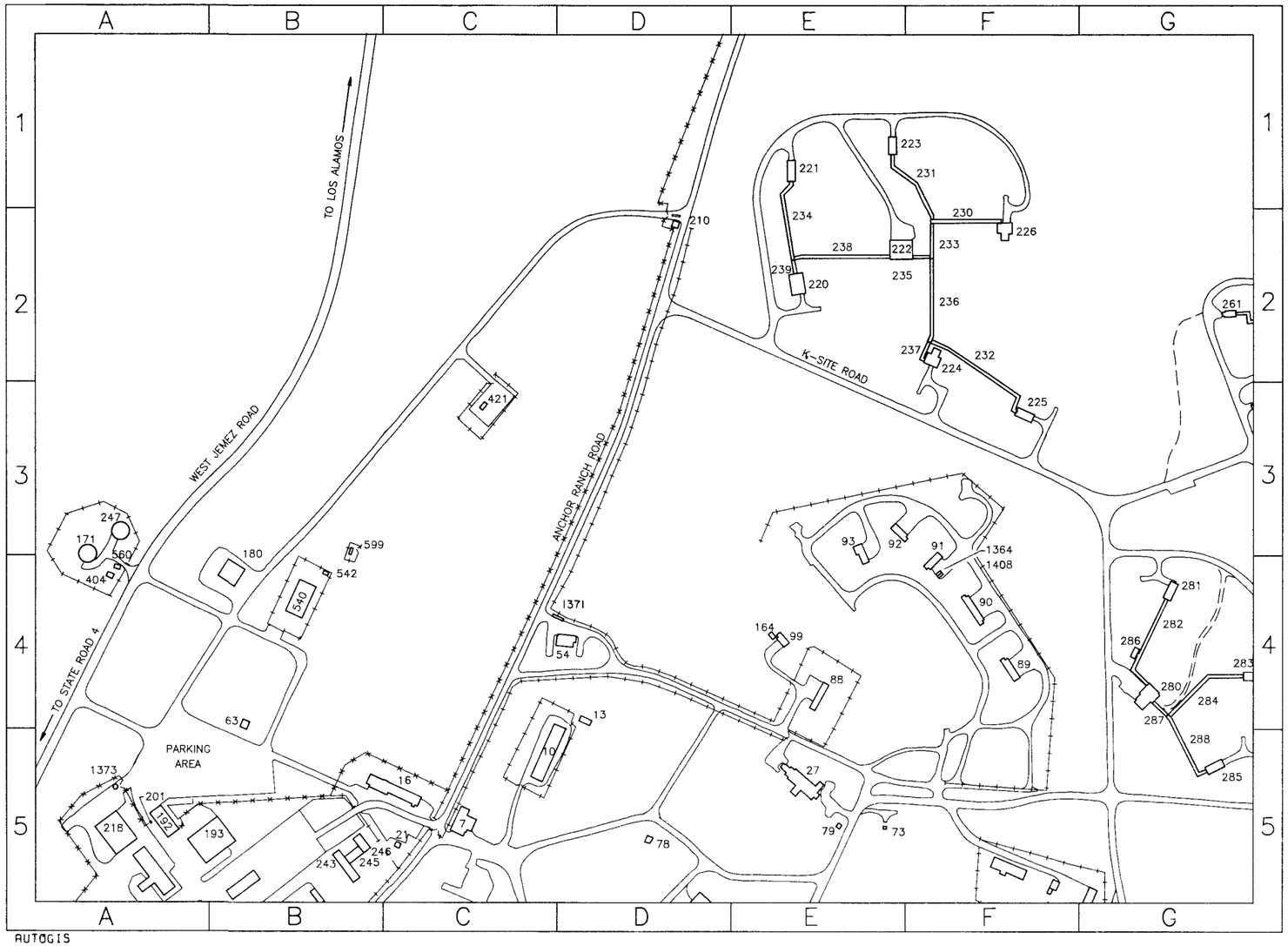
FACILITIES ENGINEERING DIVISION

STRUCTURE LOCATION PLAN
TA-16 S-SITE

SEC CLASSIFICATION: CLASS. U
REVIEWER
DATE 10-4-85

SUBMITTED	RECOMMENDED	APPROVED
Dale Byers	Dennis Byers	W. T. Gibson
DRAWN: HERB SALAZAR	DATE: 8-12-83	SHEET NO.: 1 OF 1
CHECKED:		DRAWING NO.: ENG-R 5111

TA-16



AUTOGIS

SCALE 1: 2400.

200 0 200 400 FEET

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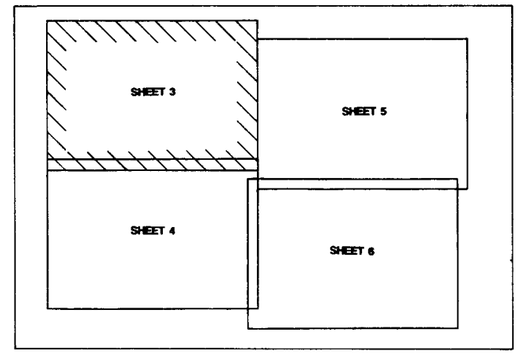


TA-16 MAP GUIDE

REV.	DATE	REVISION	BY	CKD.	APP.
22	5-10-89	REDRAWN & REVISED TO STATUS OF 5-1-89	JM	L	CMB

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

FACILITIES ENGINEERING DIVISION

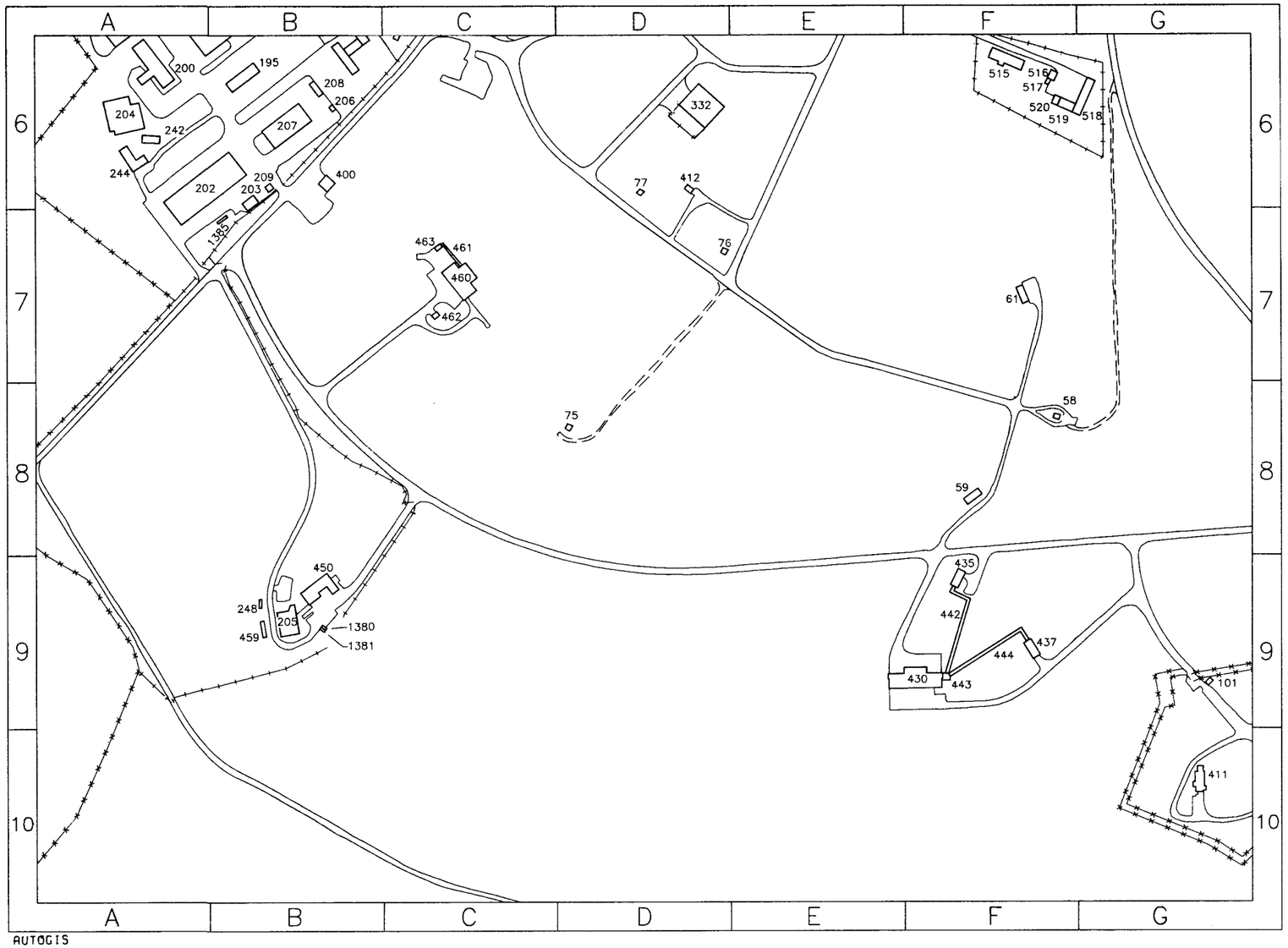
STRUCTURE LOCATION MAP

TA-16 **S-SITE**

SEC. CLASSIFICATION: CLASS U
REVIEWER: S Conley
DATE: 5/10/89

SUBMITTED	RECOMMENDED	APPROVED
DRAWN: J. MORK	DATE: 5-10-89	SHEET NO.: 3 OF 6
CHECKED: N. BYERS		DRAWING NO.: ENG-R 5111

TA-16



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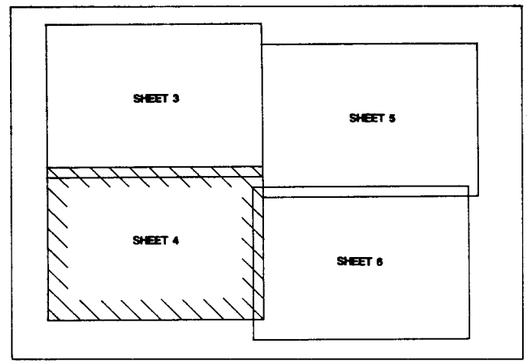

TA-16 MAP GUIDE

SCALE 1: 2400.

200 0 200 400 FEET

N

REV.	DATE	REVISION	BY	CKD	APP
22	5-10-89	REDRAWN & REVISED TO STATUS OF 5-1-89	JW	JM	CWB

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Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

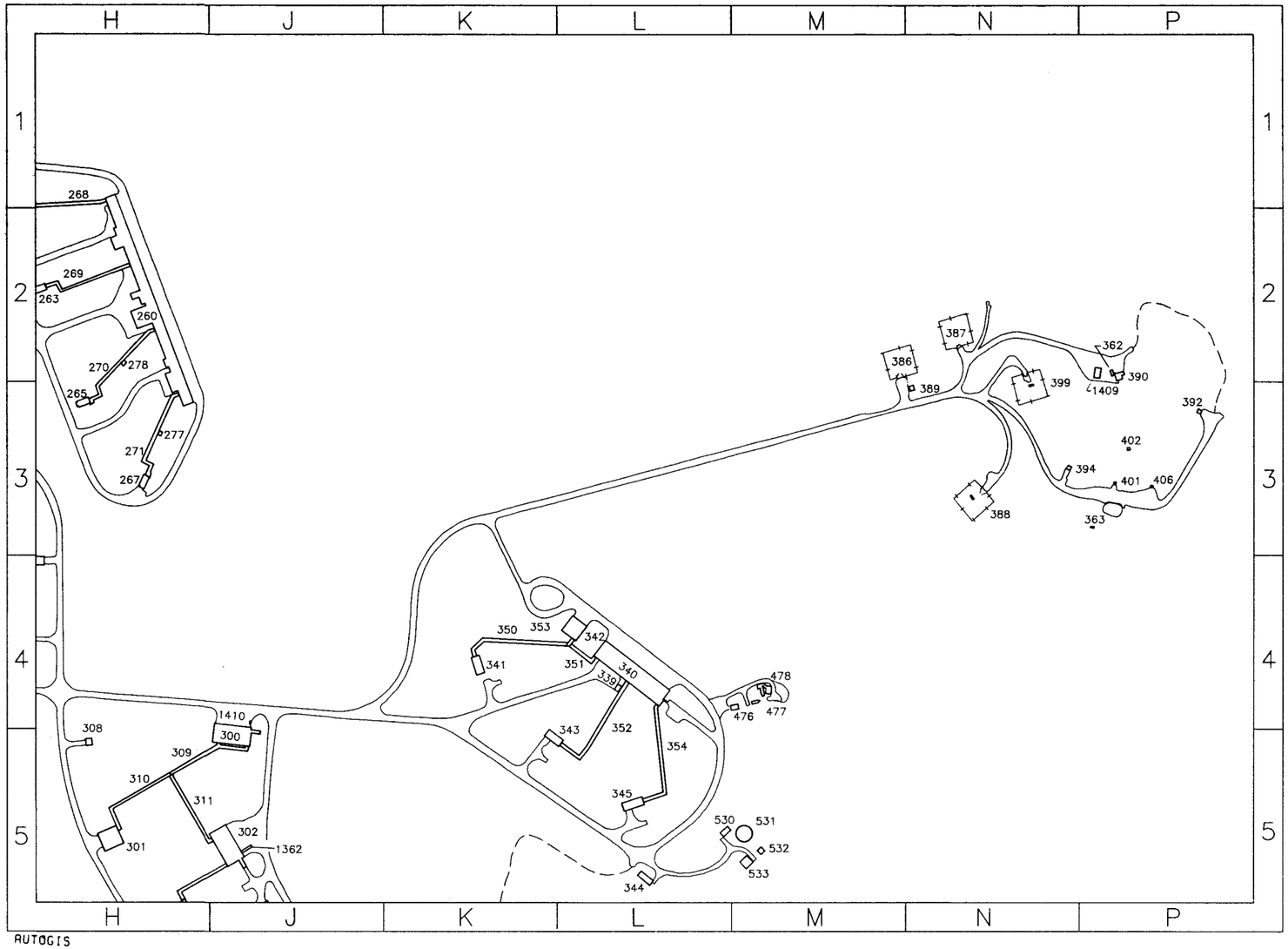
STRUCTURE LOCATION MAP

SEC. CLASSIFICATION: CLASS: U; REVIEWER: S Gordon; DATE: 5/10/89

TA-16 **S-SITE**

SUBMITTED	RECOMMENDED	APPROVED
James P. Mork	Neale Byers	C.W. Bruce
DRAWN: J. MORK	DATE: 5-10-89	SHEET NO.: 4 OF 6
CHECKED: N. BYERS		ENG- DRAWING NO.: R 5111

TA-16



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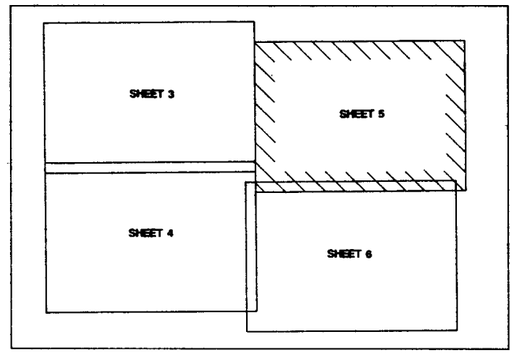

TA-16 MAP GUIDE

SCALE 1: 2400.

200 0 200 400 FEET

N

REV	DATE	REVISION	BY	CKD	APP
22	5-10-89	REDRAWN & REVISED TO STATUS OF 5-1-89			

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Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

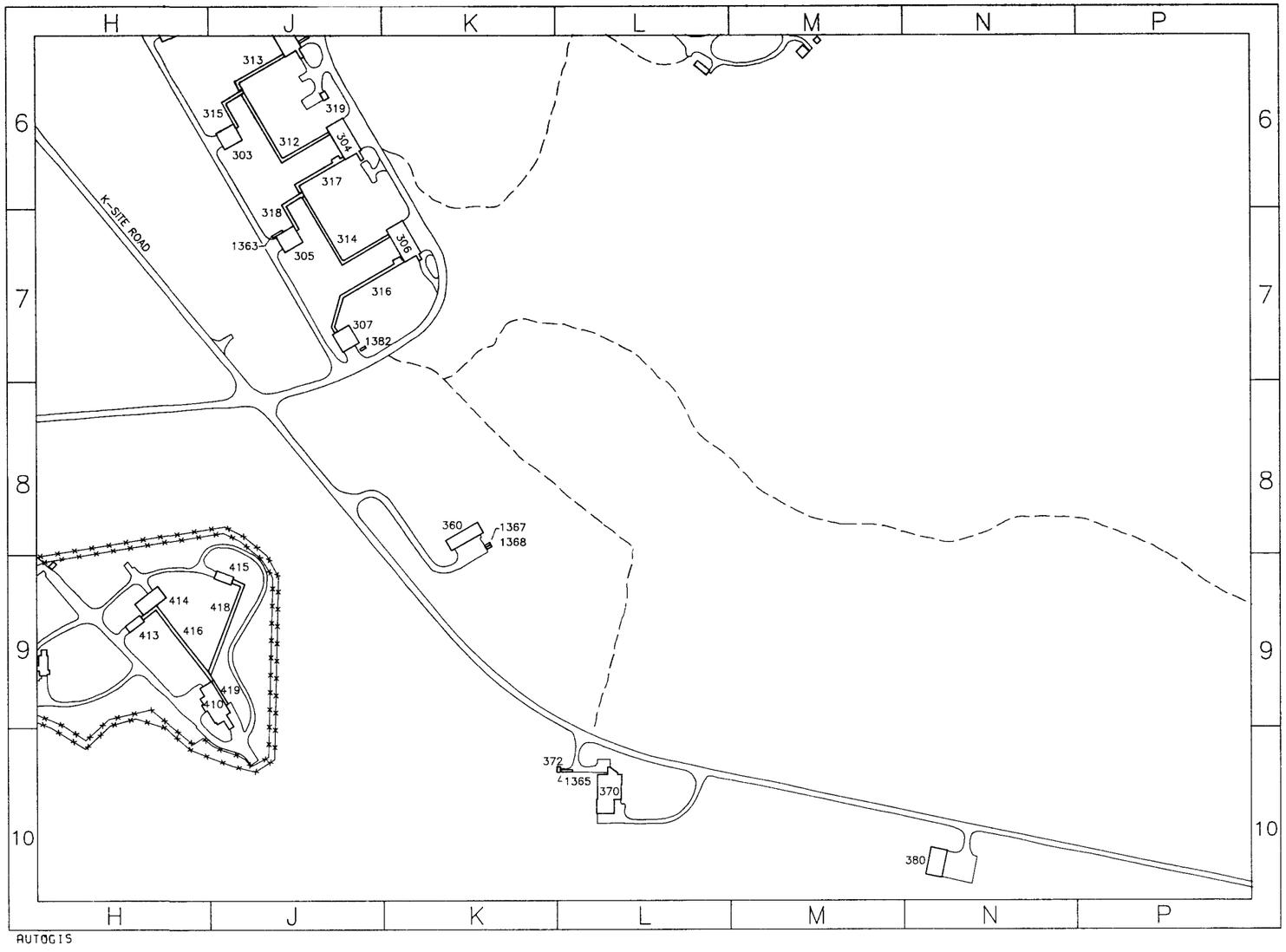
STRUCTURE LOCATION MAP

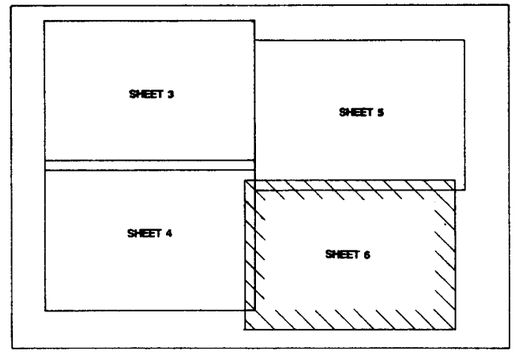
SEC. CLASSIFICATION: CLASS U; REVIEWER J Gormley; DATE 5/10/89

TA-16 **S-SITE**

SUBMITTED	RECOMMENDED	APPROVED
James P. Worth	Neale Boyer	
DRAWN: J. MORK	DATE: 5-10-89	SHEET NO.: 5 OF 6
CHECKED: N. BYERS		DRAWING NO.: ENG- R 5111

TA-16





TA-16 MAP GUIDE

SCALE 1: 2400.

200 0 200 400 FEET

REV	DATE	REVISION	BY	CKD	APP
22	5-10-89	REDRAWN & REVISED TO STATUS OF 5-1-89	JM	JB	EWB

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Los Alamos National Laboratory
Los Alamos, New Mexico 87545

FACILITIES ENGINEERING DIVISION

STRUCTURE LOCATION MAP

SEC. CLASSIFICATION
CLASS
REVIEWER J. Cowley
DATE 7/10/89

TA-16 **S-SITE**

SUBMITTED	RECOMMENDED	APPROVED
DRAWN J. MORK	DATE 5-10-89	SHEET NO. 6 OF 6
CHECKED N. BYERS		DRAWING NO. ENG- R 5111

KEY MAP

SHEET 3 | SHEET 4
SHEET 5 | SHEET 6

TO LOS ALAMOS
WEST JEMEZ ROAD
STATE ROAD 501
TO TA-09
TA-09
TA-16
TA-16
K SITE ROAD
ANCHOR RANCH ROAD
DOE BOUNDARY
TO STATE ROAD 4
TA-16
FIELD VERIFIED 03-25-96

N

SCALE: 1:2400
200 0 200 400
FEET

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
7	03-29-96		REVISED TO STATUS OF 03-25-96	JAC	JAC	JPM	JAF	FCT
6	01-31-96		REVISED TO STATUS OF 01-26-96	JAC	JAC	JPM	JAF	FCT
5	12-20-95		REVISED TO STATUS OF 12-19-95	JAC	JAC	JPM	JAF	FCT

JOHNSON CONTROLS

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN J. MORA
VERIFIED J. MORA
CHECKED K. SALAZAR
DATE 08-04-93

SUBMITTED JERRY FORTE 4-2-96
APPROVED FOR RELEASE FRED THOMPSON FCT by JAF

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

SHEET 3 OF 6

CLASSIFICATION U REVIEWER K. SALAZAR DATE 4/4/96

PROJECT ID 11952

DRAWING NO AB21

REV 7

JCI NO 91-020

A B C D E F G

1 2 3 4 5 6

R SITE ROAD

TECHNICAL AREA BOUNDARY

TA-09
TA-14

TA-14
TA-16

TA-09
TA-16

DROP ARM GATES

DROP ARM GATE

DROP ARM GATE

DROP ARM GATES

K SITE ROAD

261 263 260 1480 278 265 277 267

281 286 283 280 1481 285

1410 300 308 1483 301 1362 302 319 303 304

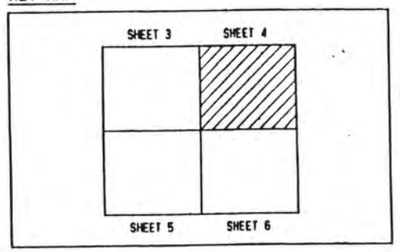
342 341 1485 339 340 343 345 344

478 476 477

530 531 532 535 533

386 387 1385 362 390 295 294 389 399 1409 392 402 394 401 406 388 363

KEY MAP



N

SCALE: 1:2400

200 0 200 400

FEET

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
4	03-29-96		REVISED TO STATUS OF 03-25-96	JMC	JAC	JPM	JAF	FCT
3	01-31-96		REVISED TO STATUS OF 01-26-96	JAC	JAC	JPM	JAF	FCT
2	12-20-95		REVISED TO STATUS OF 12-19-95	JAC	JAC	JPM	JAF	FCT

JOHNSON CONTROLS

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN J. MONTOYA

VERIFIED J. MONTOYA

CHECKED H. SALAZAR

DATE 08-04-93

SUBMITTED JERRY FORTE 4-2-96

APPROVED FOR RELEASE FRED THOMPSON 4/2/96

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

SHEET 4 OF 6

CLASSIFICATION U REVIEWER H. SALAZAR DATE 4/5/96

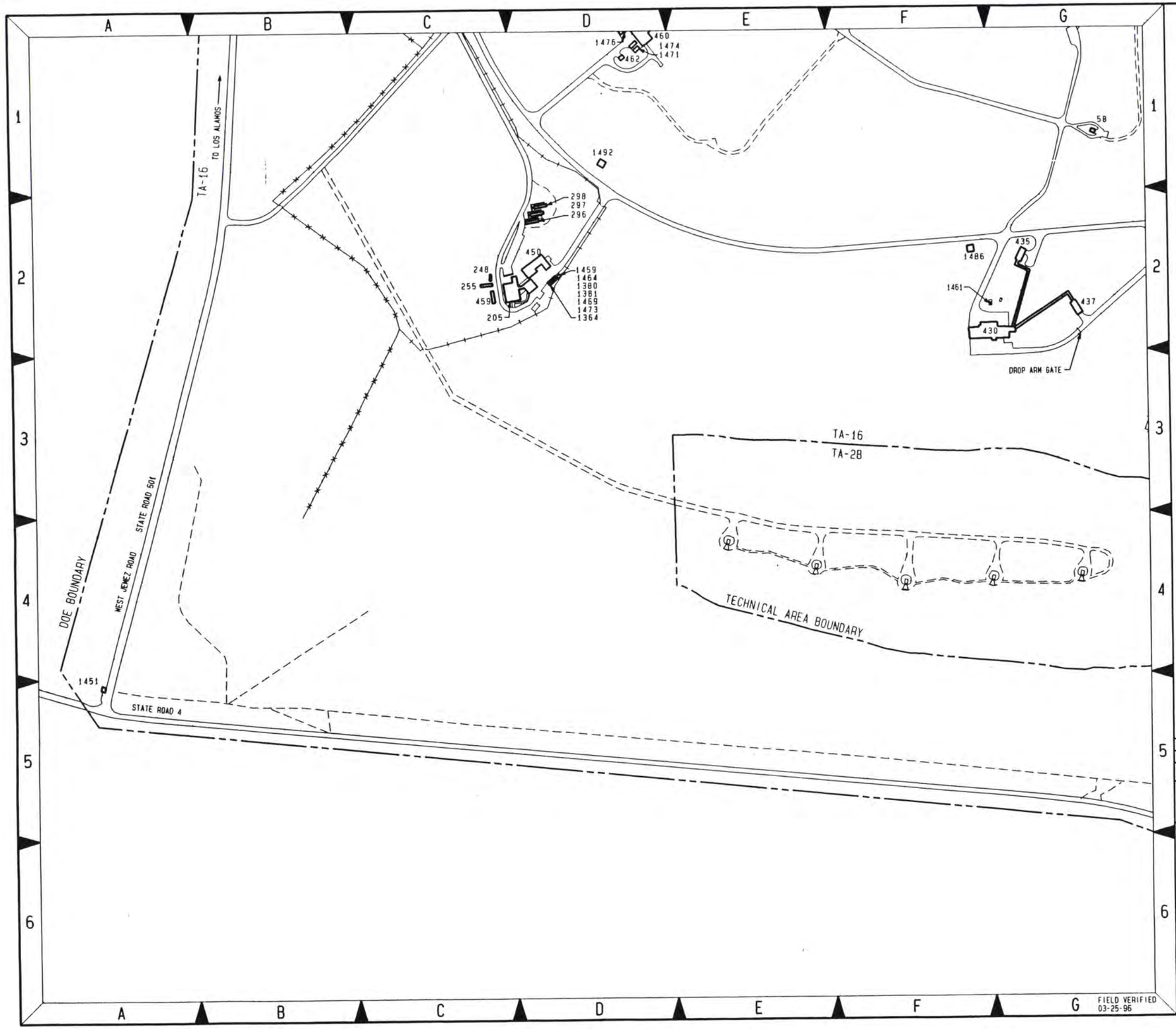
PROJECT ID 11952

DRAWING NO AB21

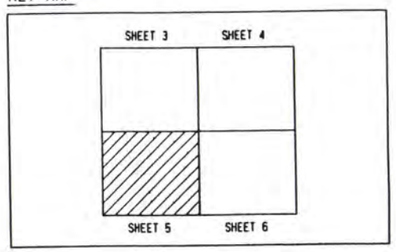
REV 4

JCI NO. 91-020

FIELD VERIFIED 03-25-96



KEY MAP



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SCALE: 1:2400

200 0 200 400

FEET

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
6	03-29-96		REVISED TO STATUS OF 03-25-96	JAC	JAC	JPM	JAF	FCT
5	01-31-96		REVISED TO STATUS OF 01-26-96	JPN	JPM	HMS	JAF	FCT
4	12-20-95		REVISED TO STATUS OF 12-19-95	JPN	JPM	HMS	JAF	FCT

JOHNSON CONTROLS

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN

VERIFIED

CHECKED H. SALAZAR

DATE 08-04-93

SUBMITTED JERRY FORTE 4-6-96

APPROVED FOR RELEASE FRED THOMPSON

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

SHEET 5 OF 6

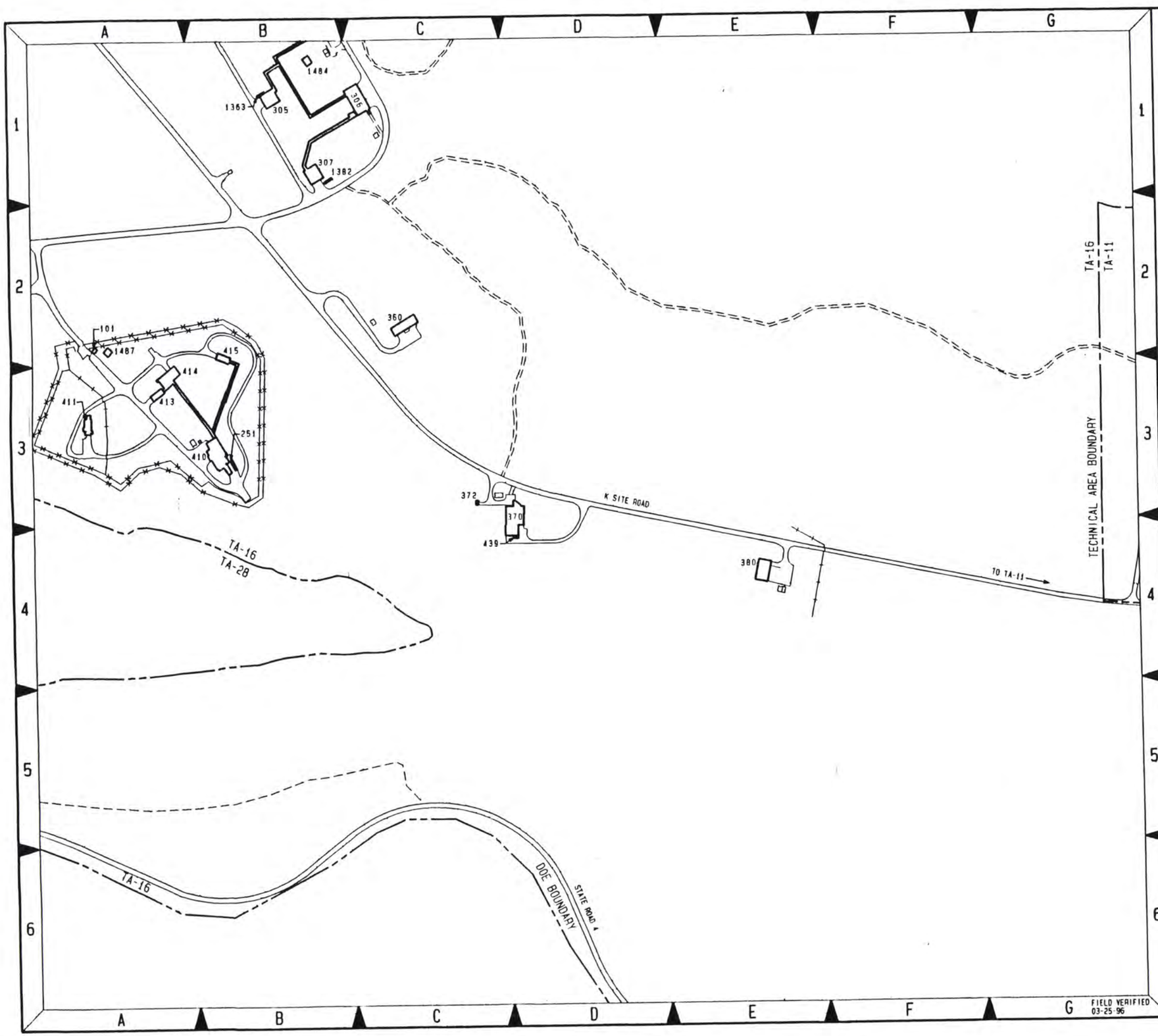
CLASSIFICATION U REVIEWER H SALAZAR DATE 4/4/96

PROJECT ID 11952

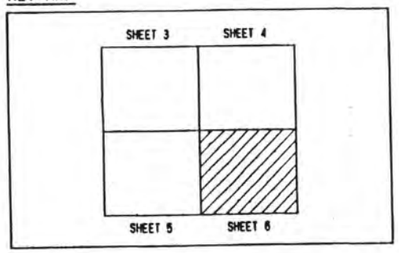
DRAWING NO AB21

REV 6

JCI NO 91-020



KEY MAP



SCALE: 1:2400

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200 0 200 400

FEET

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
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2	01-31-96		REVISED TO STATUS OF 01-26-96	JAC	JAC	JPM	JAF	FCT
1	05-16-94		REVISED PER NEW STANDARDS AND TO STATUS OF 05-05-94	JPM	JPM	HMS	JAF	FCT

JOHNSON CONTROLS

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN J. POPE

VERIFIED J. HOWARD

CHECKED H. SALAZAR

DATE 08-04-93

SUBMITTED JERRY FORTE 4-2-96

APPROVED FOR RELEASE FRED THOMPSON 4-2-96

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

SHEET 6 OF 6

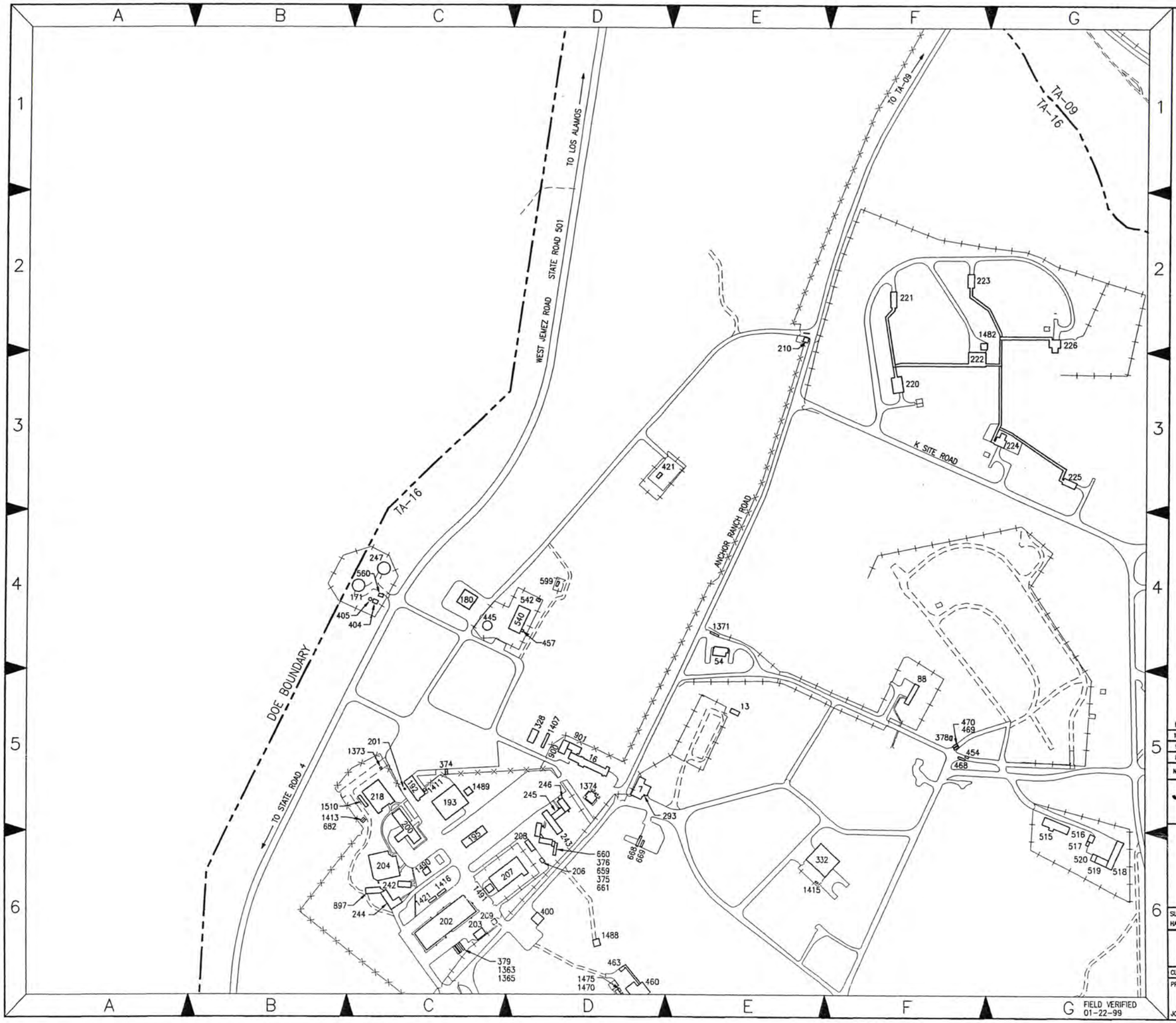
CLASSIFICATION U REVIEWER H. SALAZAR DATE 4/4/96

PROJECT ID 11952

DRAWING NO AB21

REV 3

JCI NO 91-020



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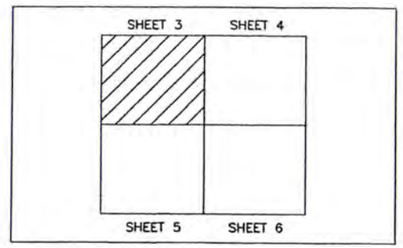

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200 0 200 400

FEET

N

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11	03-01-99		REVISED TO STATUS OF 03-01-99	SAD	MSV	HMS	HMS	LAB
10	02-10-97	U	REVISED TO STATUS OF 02-10-97	CJR	CJR	HMS	JAF	LAB
9	07-31-96	U	REVISED TO STATUS OF 07-31-96	JAC	JAC	JAF	JAF	FCT
8	05-31-96	U	REVISED TO STATUS OF 05-31-96	JPM	JPM	HMS	JAF	FCT

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN	J. MORK
VERIFIED	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED
HAROLD SALAZAR

APPROVED FOR RELEASE
LARRY BAYS

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

SHEET 3 OF 6

CLASSIFICATION U REVIEWER HAROLD SALAZAR DATE 4-23-99

PROJECT ID 11952

JCI NO 97-002

DRAWING NO AB21

REV 11

A B C D E F G

1 2 3 4 5 6

R SITE ROAD

TECHNICAL AREA BOUNDARY

TA-09
TA-16

TA-09
TA-14

TA-14
TA-16

DROP ARM GATES

DROP ARM GATE

DROP ARM GATES

DROP ARM GATE

K SITE ROAD

261 263 260 1480 278 265 277 267

281 286 280 283 1481 285

308 1410 300 1483 301 302 1362 303 319 304

342 341 1485 340 339 343 345 344

478 476 477

530 531 532 533 535

387 386 471 295 294 389 1507

362 898 653 390 1409 399

392 402 394 401 406 1508 441 363

FIELD VERIFIED 01-22-99

KEY MAP

SHEET 3	SHEET 4
SHEET 5	SHEET 6

SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
6	03-01-99		REVISED TO STATUS OF 03-01-99	SAB	MSV	HMS	HMS	LAB
5	07-31-96	U	REVISED TO STATUS OF 07-31-96	JAC	JAC	JPM	JAF	LAB
4	03-29-96	U	REVISED TO STATUS OF 03-25-96	JAC	JAC	JPM	JAF	FCT
3	01-31-96	U	REVISED TO STATUS OF 01-31-96	JPM	JPM	JPM	JAF	FCT

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN	J. MORK
VERIFIED	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED
HAROLD SALAZAR

APPROVED FOR RELEASE
LARRY BAYS

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

SHEET 4 OF 6

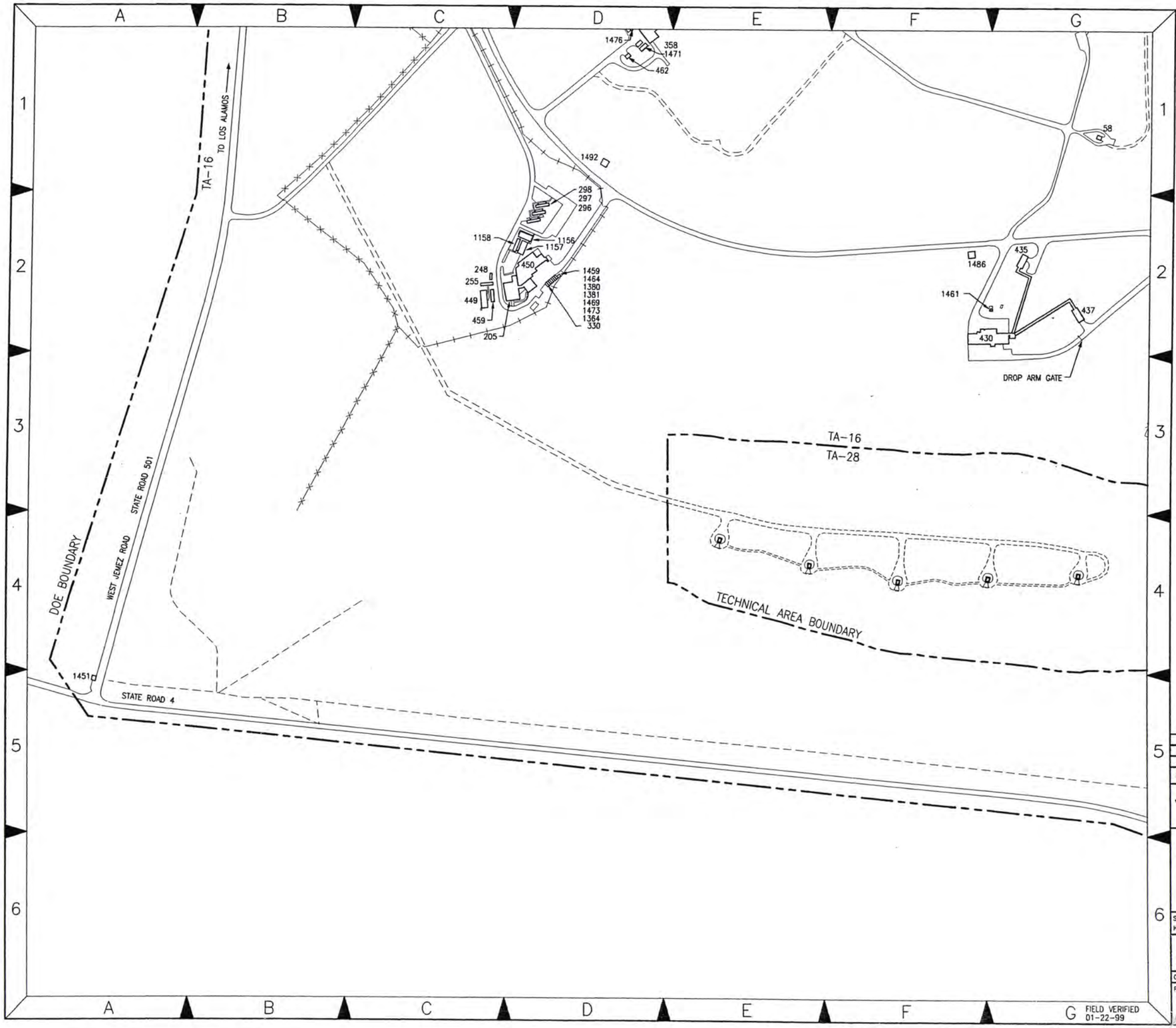
CLASSIFICATION U REVIEWER HAROLD SALAZAR DATE 4-23-99

PROJECT ID 11952

DRAWING NO AB21

REV 6

JCI NO 97-002



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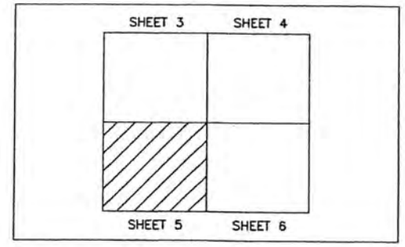


SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
8	03-01-99		REVISED TO STATUS OF 03-01-99	SAD	BSV	HMS	HMS	LAB
7	02-10-97	U	REVISED TO STATUS OF 02-10-97	CJR	CJR	HMS	JAF	LAB
6	03-29-96	U	REVISED TO STATUS OF 03-29-96	JAC	JAC	JAF	JAF	FCT
5	01-31-96	U	REVISED TO STATUS OF 01-31-96	JPM	JPM	HMS	JAF	FCT

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN	J. MORK
VERIFIED	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED
HAROLD SALAZAR

APPROVED FOR RELEASE
LARRY BAYS

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

SHEET 5 OF 6

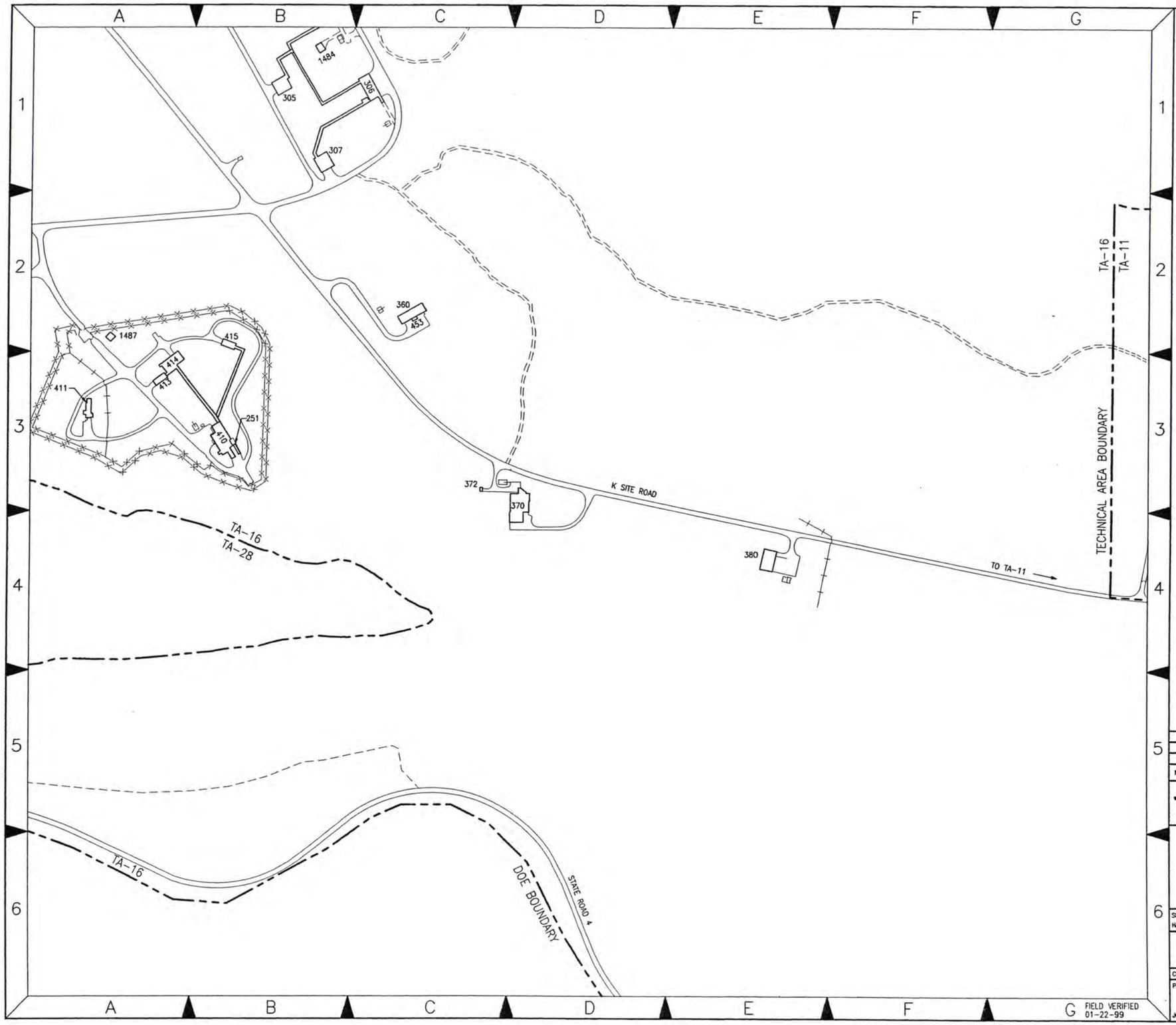
CLASSIFICATION U REVIEWER HAROLD SALAZAR DATE 9-23-99

PROJECT ID 11952

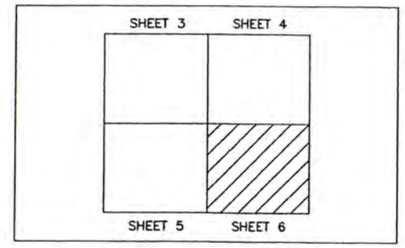
ICI NO 97-002

DRAWING NO AB21

REV 8



KEY MAP



SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
5	03-01-99		REVISED TO STATUS OF 03-01-99	SAD	MSV	HMS	HMS	LAB
4	05-31-96	U	REVISED TO STATUS OF 05-31-96	JAC	JAC	JPM	JAF	LAB
3	03-29-96	U	REVISED TO STATUS OF 03-25-96	JAC	JAC	JPM	JAF	FCT
2	01-31-96	U	REVISED TO STATUS OF 01-31-96	JPM	JPM	JPM	JAF	FCT

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN	J. MORK
VERIFIED	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE: LARRY BAYS

Los Alamos

Los Alamos National Laboratory
Los Alamos, New Mexico 87545

SHEET 6 OF 6

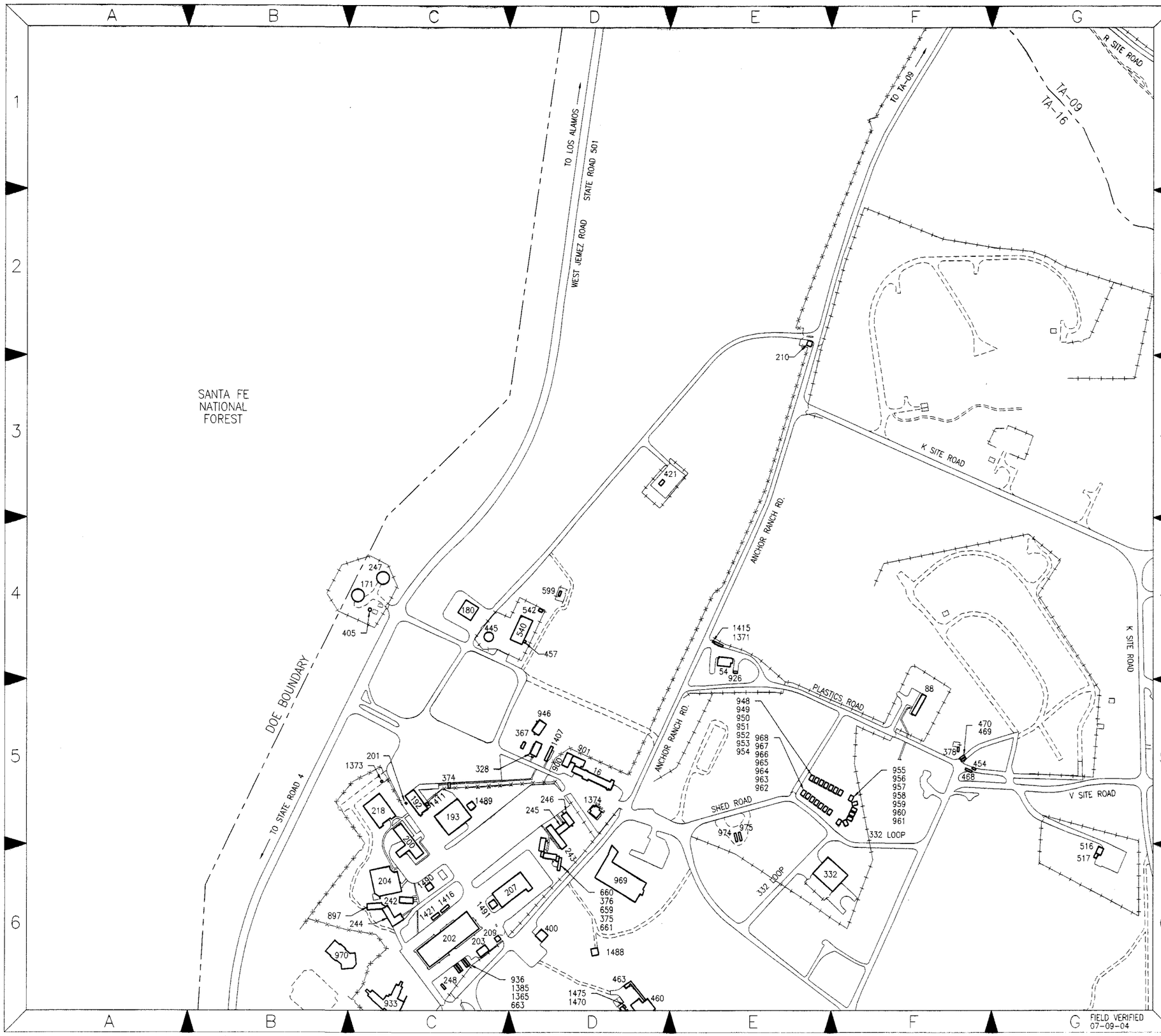
CLASSIFICATION: U REVIEWER: HAROLD SALAZAR DATE: 4-23-99

PROJECT ID: 11952

JCI NO 97-002

DRAWING NO: AB21

REV: 5



KEY MAP

NO	DATE	CLASS REV	DESCRIPTION	DWN	DES	CHKD	SUB	APP
18	07-09-04	U HMS	REVISED TO STATUS OF 07-09-04	EIM	HPR	RAG	HMS	LAB
17	10-22-03		REVISED TO STATUS OF 10-22-03	EIM	HPR	MEG	HMS	LAB
16	03-24-03		REVISED TO STATUS OF 03-24-03	EIM	HPR	MEG	HMS	LAB
15	11-25-02		REVISED TO STATUS OF 11-25-02	HPR	MEG	MEG	HMS	LAB

KSL KBR • SHAW • LATA

AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. MORK
DESIGN	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED
HAROLD SALAZAR

APPROVED FOR RELEASE BY
LARRY BAYS

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PO Box 1663
Los Alamos, New Mexico 87545

SHEET 3
3 OF 6

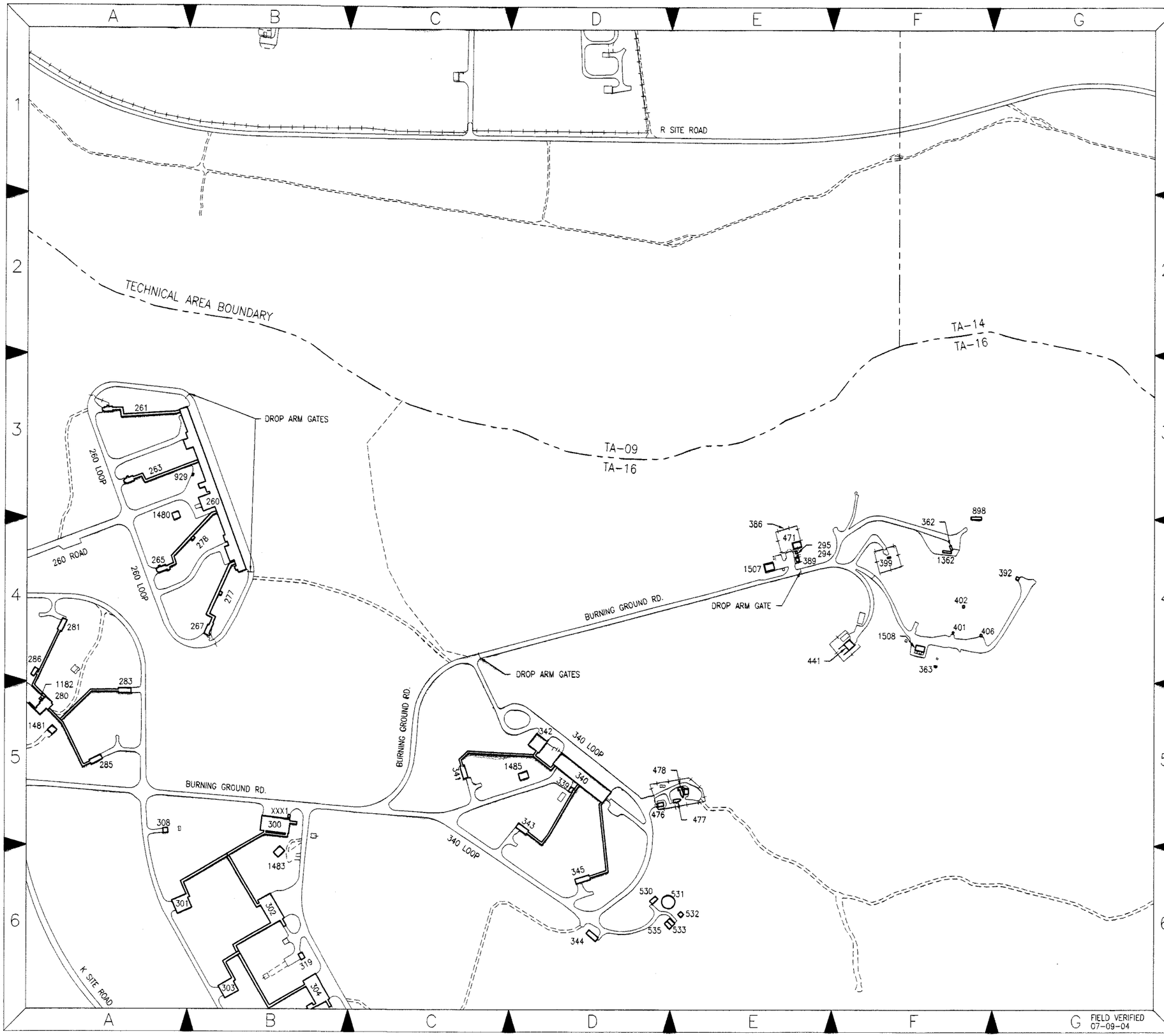
CLASSIFICATION U
REVIEWER H. SALAZAR
DATE

PROJECT ID
KSL NO. 91-020 11952

DRAWING NO
AB21

REV
18

FIELD VERIFIED 07-09-04



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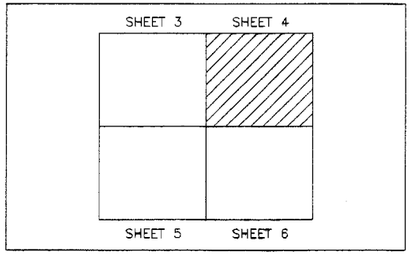

SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	DES	CHKD	SUB	APP
12	07-09-04	LC HMS	REVISED TO STATUS OF 07-09-04	EIM	HPR	RAD	HMS	LAB
11	10-22-03		REVISED TO STATUS OF 10-22-03	EIM	HPR	MEG	HMS	LAB
10	03-24-03		REVISED TO STATUS OF 03-24-03	EIM	HPR	MEG	HMS	LAB
9	11-25-02		REVISED TO STATUS OF 11-25-02	HPR	MEG	MEG	HMS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. MORK
DESIGN	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE BY: LARRY BAYS

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PO Box 1663
Los Alamos, New Mexico 87545

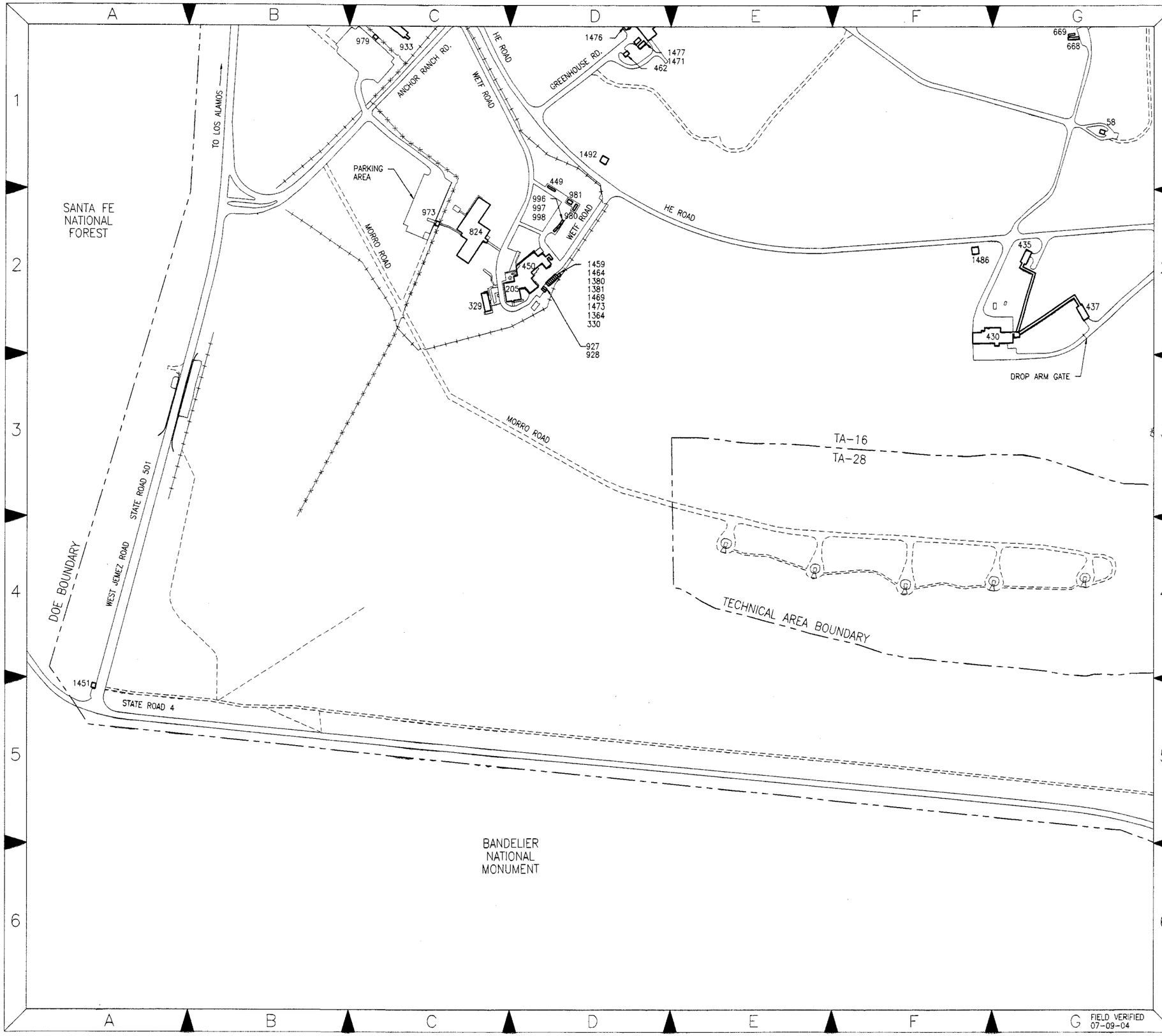
SHEET 4 OF 6

CLASSIFICATION U | REVIEWER H. SALAZAR | DATE

PROJECT ID: KSL NO. 91-020 11952

DRAWING NO: AB21

REV: 12



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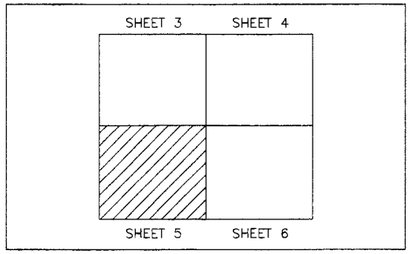

SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	DES	CHKD	SUB	APP
15	07-09-04	U	REVISED TO STATUS OF 07-09-04	EIM	HPR	RAG	HNS	LAB
14	10-22-03		REVISED TO STATUS OF 10-22-03	EIM	HPR	MEG	HNS	LAB
13	03-24-03		REVISED TO STATUS OF 03-24-03	EIM	HPR	MEG	HNS	LAB
12	11-25-02		REVISED TO STATUS OF 11-25-02	HPR	MEG	MEG	HNS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. MORK
DESIGN	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE BY: LARRY BAYS

Los Alamos NATIONAL LABORATORY
PO Box 1663
Los Alamos, New Mexico 87545

SHEET 5

5 OF 6

CLASSIFICATION U | REVIEWER H. SALAZAR | DATE

PROJECT ID: KSL NO. 91-020 11952

DRAWING NO: AB21

REV: 15

REST HOUSE ROAD

1484

305

306

307

HE ROAD

360 ROAD

360

453

293

1363

1487

415

414

413

411

251

410

370

K SITE ROAD

380

TO TA-11

TA-16

TA-11

TECHNICAL AREA BOUNDARY

TA-16

TA-28

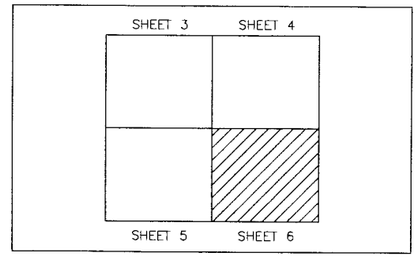
TA-16

DOE BOUNDARY

STATE ROAD 4

FIELD VERIFIED
11-25-02

KEY MAP



SCALE: 1:2400

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FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DWN	VER	CHKD	SUB	APP
8	11-25-02	HS	REVISED TO STATUS OF 11-25-02	HPR	MEC	MEC	HMS	LAB
7	04-16-01		REVISED TO STATUS OF 04-16-01	HPR	SAD	CES	HMS	LAB
6	05-30-00		REVISED TO STATUS OF 05-30-00	MMM	SAD	CES	HMS	LAB
5	03-01-99		REVISED TO STATUS OF 03-01-99	SAD	MSV	HMS	HMS	LAB

Johnson Controls
Northern New Mexico

AS-BUILT STRUCTURE LOCATION MAPS

TA-16

S-SITE

DRAWN	J. MORK
VERIFIED	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED
HAROLD SALAZAR

APPROVED FOR RELEASE
LARRY BAYS

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

SHEET 6 OF 6

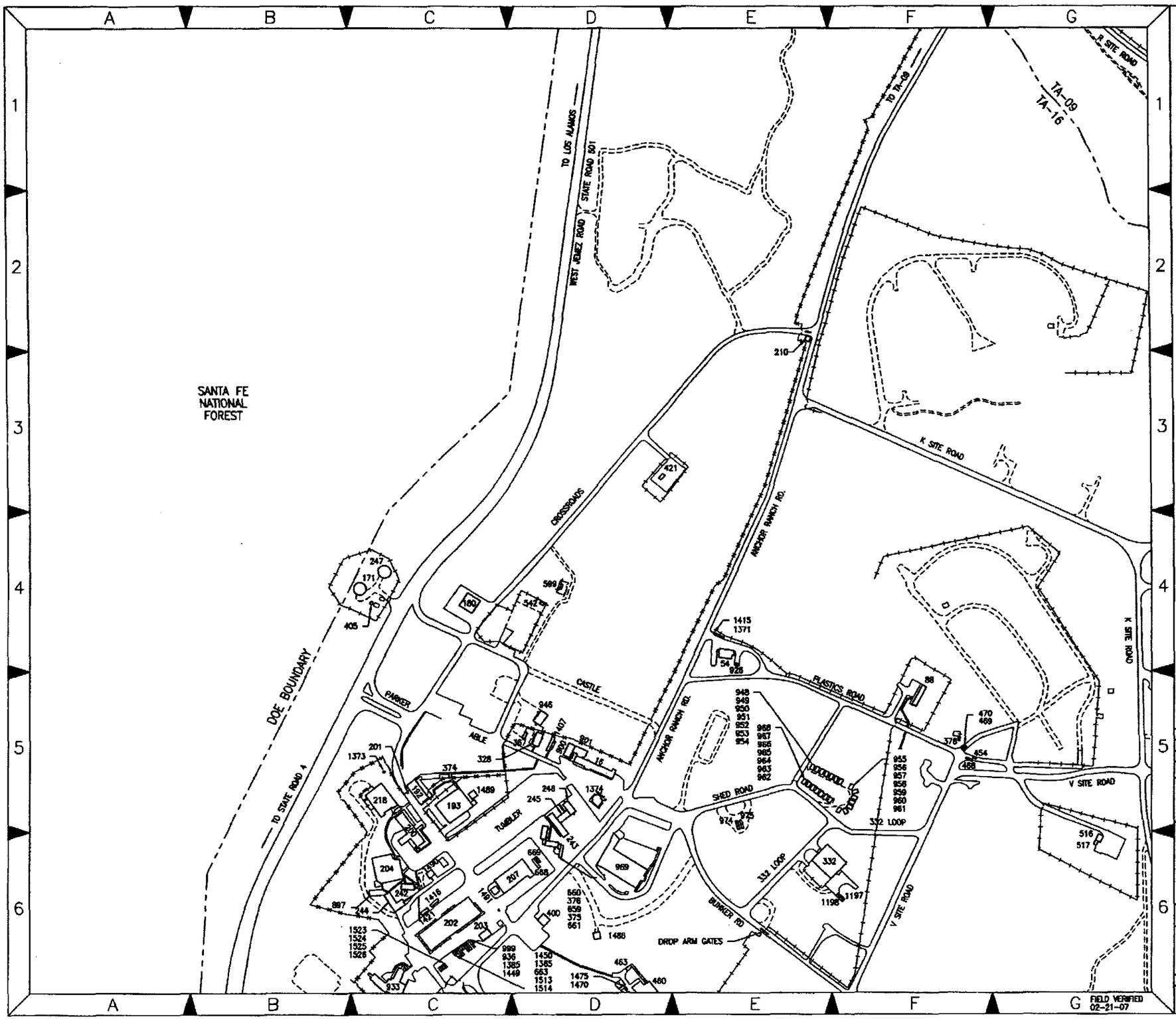
CLASSIFICATION U REVIEWER HAROLD SALAZAR DATE 11-6-02

PROJECT ID 11952

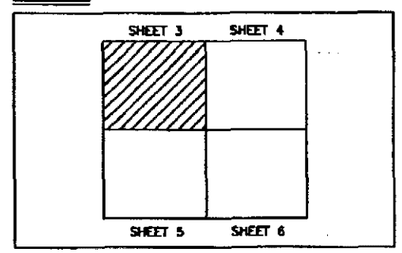
JCI NO 91-020

DRAWING NO AB21

REV 8



KEY MAP



SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DRN	DES	CHKD	SUB	APP
21	02-21-07		REVISED TO STATUS OF 02-21-07	LW	HPR	RAG		
20	06-07-06		REVISED TO ADD TRANSFORMERS S.E. 202	HPR	HPR	RAG	HMS	DAP
19	06-10-05		REVISED TO STATUS OF 06-10-05	HPR	HPR	RAG	HMS	RAT
18	07-09-04		REVISED TO STATUS OF 07-09-04	EBI	HPR	RAG	HMS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. WORK
DESIGN	J. WORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE BY: LARRY BAYS

Los Alamos NATIONAL LABORATORY — PO Box 1663, Los Alamos, New Mexico 87545

SHEET 3 of 6

CLASSIFICATION U

REVISED BY H. SALAZAR

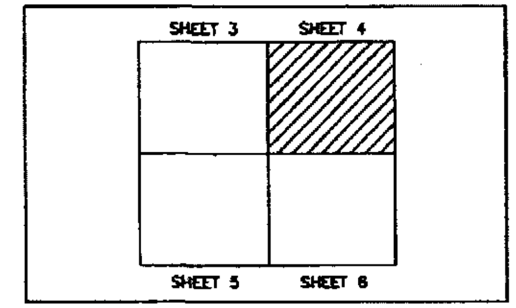
DATE

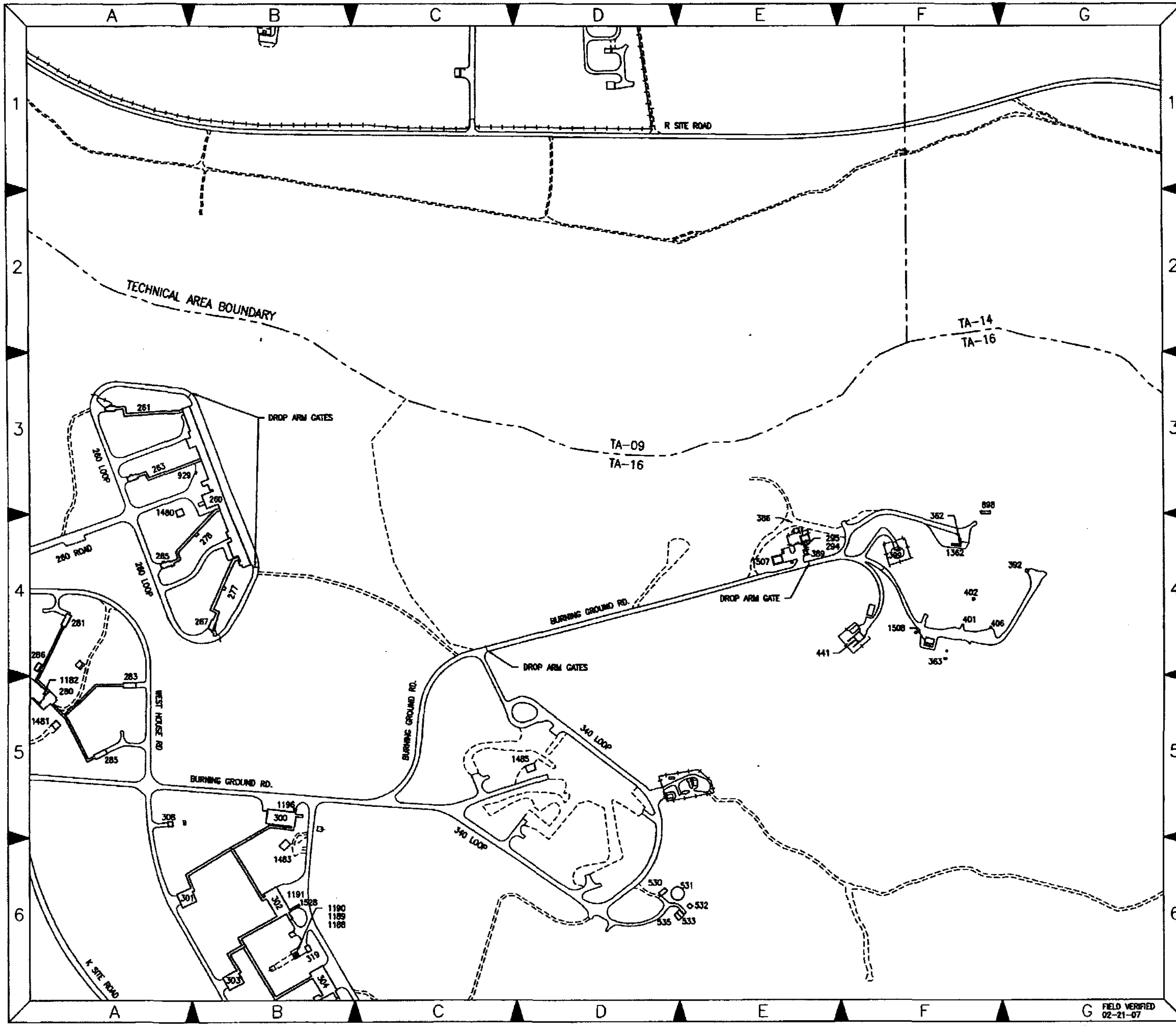
PROJECT ID: KSL NO. 91-020 11952

DRAWING NO: AB21

REV 21

KEY MAP





SCALE: 1:2400
200 0 200 400
FEET
N

NO	DATE	CLASS REV	DESCRIPTION	DWN	DES	CHKD	SUB	APP
14	02-21-07		REVISED TO STATUS OF 02-21-07	LMV	HPR	RAG	HMS	
13	06-10-05		REVISED TO STATUS OF 06-10-05	HPR	HPR	RAG	HMS	RAT
12	07-08-04		REVISED TO STATUS OF 07-08-04	EM	HPR	RAG	HMS	LAB
11	10-22-03		REVISED TO STATUS OF 10-22-03	EM	HPR	MEG	HMS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN J. MORK
DESIGN J. MORK
CHECKED H. SALAZAR
DATE 08-04-03

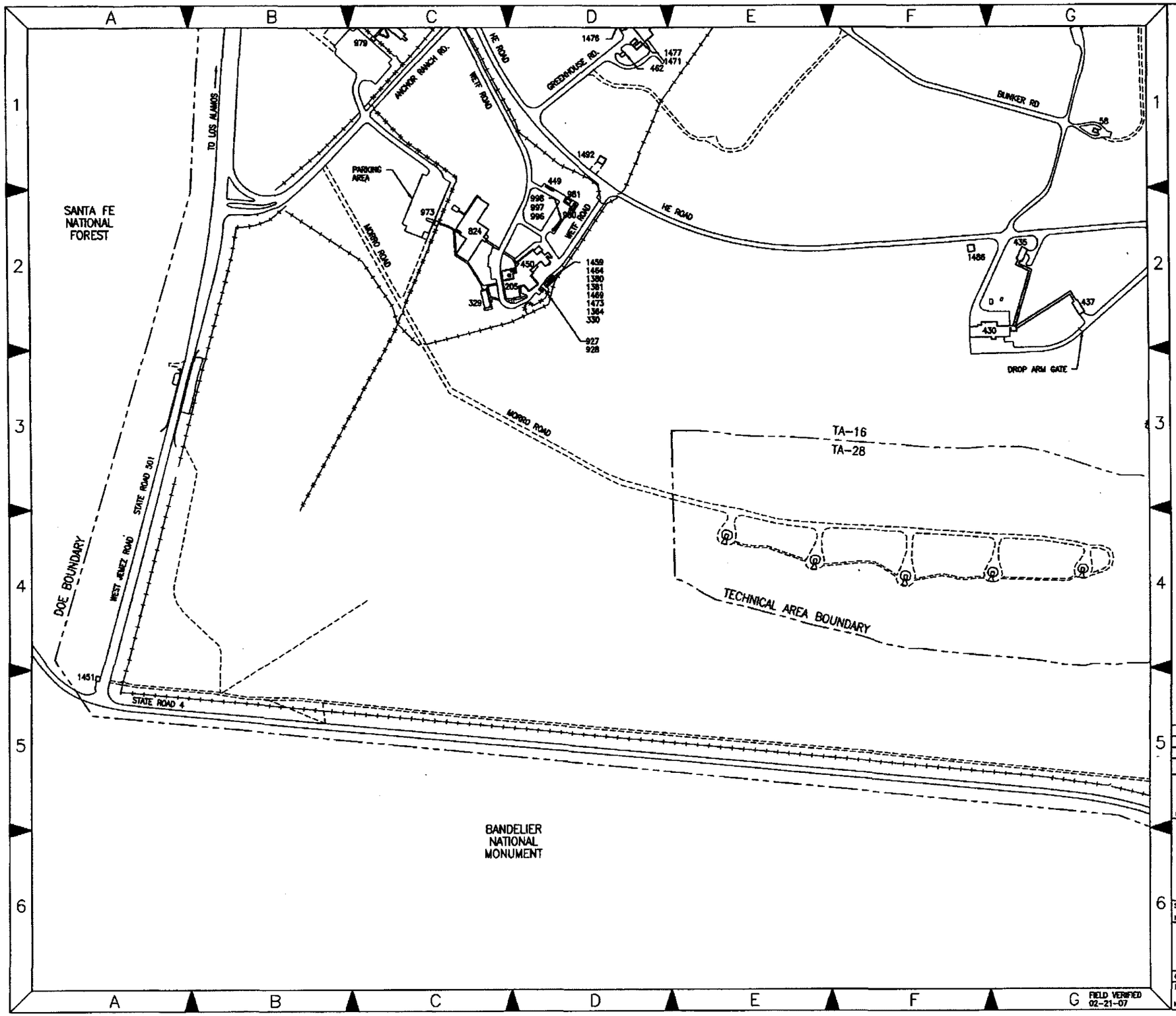
SUBMITTED HAROLD SALAZAR
APPROVED FOR RELEASE BY LARRY BAYS

Los Alamos NATIONAL LABORATORY PO Box 1663 Los Alamos, New Mexico 87545

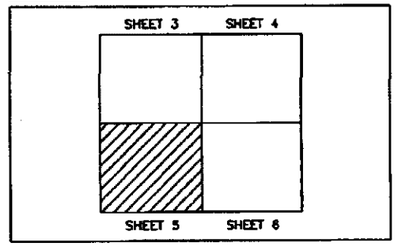
SHEET 4
4 OF 6

CLASSIFICATION U
REVIEWER H. SALAZAR
DATE

PROJECT ID KSL NO. 91-020 11952
DRAWING NO AB21
REV 14



KEY MAP



SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DRN	DES	CHKD	SUB	APP
16	02-21-07		REVISED TO STATUS OF 02-21-07	LJW	HPR	RNG	HNS	
15	07-09-04		REVISED TO STATUS OF 07-09-04	EBH	HPR	RNG	HNS	LAB
14	10-22-03		REVISED TO STATUS OF 10-22-03	EBH	HPR	RDG	HNS	LAB
13	03-24-03		REVISED TO STATUS OF 03-24-03	EBH	HPR	MDS	HNS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. MORK
DESIGN	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-03

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE BY: LARRY BAYS

Los Alamos NATIONAL LABORATORY PO Box 1663 Los Alamos, New Mexico 87545

SHEET 5

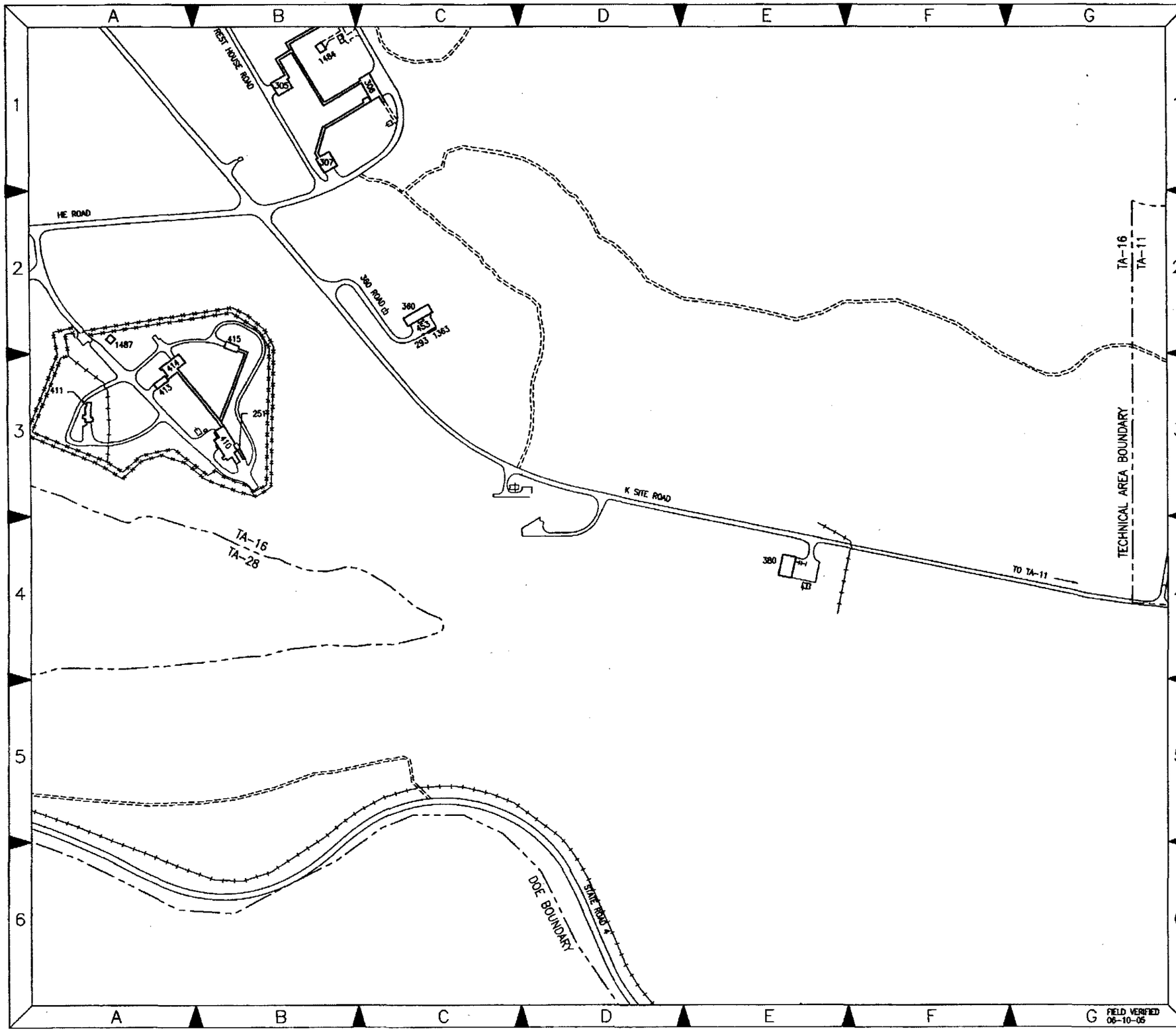
5 OF 6

CLASSIFICATION U | REVIEWER H. SALAZAR | DATE

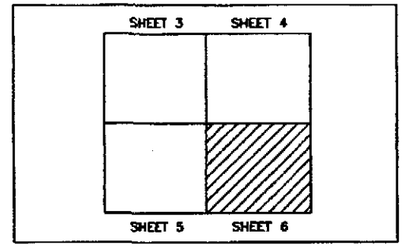
PROJECT ID: KSL NO. 91-020 11952

DRAWING NO: AB21

REV: 16



KEY MAP



SCALE: 1:2400

200 0 200 400

FEET

N

NO	DATE	CLASS REV	DESCRIPTION	DRN	VER	CHKD	SUB	APP
9	06-10-05	U HPR	REVISED TO STATUS OF 06-10-05	HPR	HPR	RMZ	HMS	RMZ
8	11-25-02		REVISED TO STATUS OF 11-25-02	HPR	MER	MED	HMS	LAB
7	04-16-01		REVISED TO STATUS OF 04-16-01	HPR	SAD	CES	HMS	LAB
6	05-30-00		REVISED TO STATUS OF 05-30-00	MAM	SAD	CES	HMS	LAB

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AS-BUILT STRUCTURE LOCATION MAPS

S-SITE

TA-16

DRAWN	J. MORK
DESIGN	J. MORK
CHECKED	H. SALAZAR
DATE	08-04-93

SUBMITTED: HAROLD SALAZAR

APPROVED FOR RELEASE BY: LARRY BOYS

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Los Alamos, New Mexico 87545

SHEET 6 of 6

CLASSIFICATION U

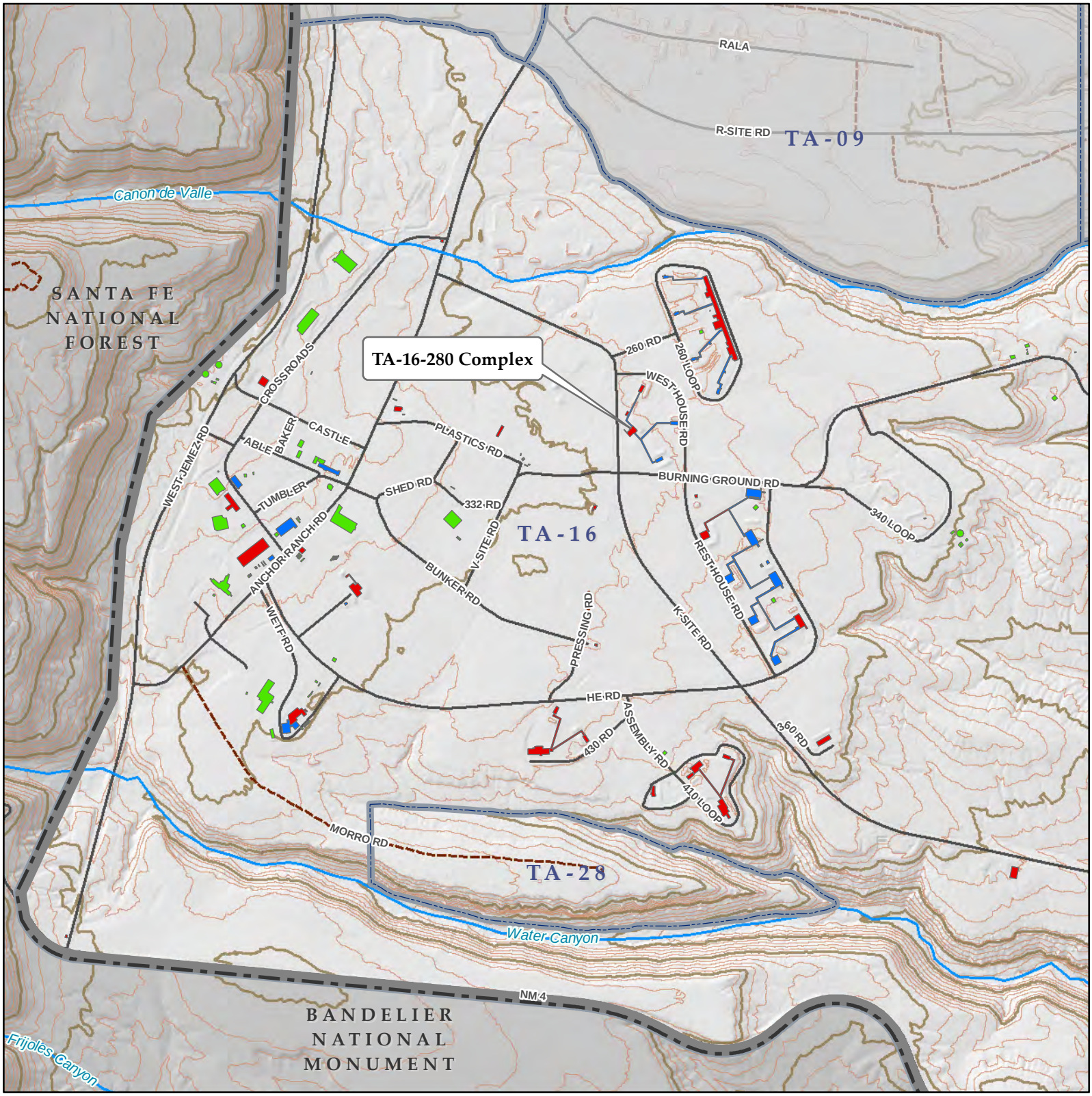
REVIEWER H. SALAZAR

DATE

PROJECT ID: KSL NO. 91-020 11952

DRAWING NO: AB21

REV 9



Legend

- LANL Boundary
- Technical Areas
- Buildings Previously Declared Eligible
- Buildings Previously Declared Not Eligible
- Buildings/Structures
- Drainage
- Dirt Roads
- Paved Roads
- Contours, 100 ft
- Contours, 20 ft

N
W E
S

0 1,000 2,000 Feet

0 250 500 Meters

TA-16 Evaluated Buildings

Map Number: 19-150-01
January 2020

New Mexico State Plane Coordinate System, Central Zone (3002)
North American Datum 1983 (NAD 83), US Survey Ft.

GIS Program

Los Alamos NATIONAL LABORATORY

Map prepared by: Bethann McVicker,

Appendix D. TA-16-306 Building Drawing List

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Technical Area	Building Number-Name	Name	Title LANL	Date on Document
16	0304, 0302, 0300, 0000, 0306	C15728-00004	GROUP 134 BUILDINGS & FACILITIES, PROJECT K, CIVIL, GRADING & DRAINAGE SECTIONS	30-Apr-1951
16	0304, 0302, 0300, 0306	C2713-00002	INSTALLATION OF EQUIPMENT, MECH., KETTLE PIPING	11-Jul-1952
16	0304, 0302, 0300, 0306	C3169-00002	PROCESS AIR SUPPLY MODIFICATIONS, MECH; DETAILS, AIR RECEIVER & SUPPORT, EQUIPMENT SCHEDULE, NEW AIR CONNECTION TO EXISTING SYSTEM SCHEMATIC	5-Jan-1954
16	0304, 0302, 0300, 0306	C3170-00003	PROCESS AIR SUPPLY MODIFICATIONS, MECH; FIRST FLOOR & BASEMENT PLANS AND SECTIONS	5-Jan-1954
16	0304, 0302, 0300, 0306	C2712-00001	INSTALLATION OF EQUIPMENT, STRUCT., KETTLE FOUNDATION PLAN	7-Jan-1954
16	0304, 0302, 0300, 0306	C2714-00003	INSTALLATION OF EQUIPMENT, MECH., KETTLE PIPING	7-Jan-1954
16	0304, 0302, 0300, 0306	C2719-00008	INSTALLATION OF EQUIPMENT, MECH., MISCELLANEOUS PIPING, PARTIAL BASEMENT PLAN	7-Jan-1954
16	0304, 0302, 0300, 0306	C2720-00009	INSTALLATION OF EQUIPMENT, ELEC., FLOOR PLAN, BILL OF MATERIAL	7-Jan-1954
16	0304, 0302, 0300, 0306	C2721-00010	INSTALLATION OF EQUIPMENT, ELEC., CONNECTION DIAGRAM, HYDRAULIC PUMP, VACUUM PUMP	7-Jan-1954
16	0314, 0304, 0302, 0300, 0311, 0309, 0306	C3168-00001	PROCESS AIR SUPPLY MODIFICATIONS, MECH; GROUP PLAN PIPING, 134 GROUP	28-May-1954
16	0314, 0304, 0302, 0300, 0311, 0308, 0306	C3171-00004	PROCESS AIR SUPPLY MODIFICATIONS, ELEC; CONDUIT RUNS, EQUIPMENT LOCATED IN BASEMENT, SCOPE OF WORK	28-May-1954
16	0304, 0302, 0300, 0306	C2715-00004	INSTALLATION OF EQUIPMENT, MECH., KETTLE PIPING LID	1-Jul-1954
16	0304, 0302, 0300, 0306	C15731-00007	GROUP 134 BUILDINGS & FACILITIES, PROJECT K, ARCH; ROOF PLAN & DETAILS, AIR TERMINAL ROD, EXHAUST SHAFT	8-Jul-1954
16	0304, 0302, 0300, 0306	C15732-00008	GROUP 134 BUILDINGS & FACILITIES, PROJECT K, ARCH; ELEVATIONS	8-Jul-1954
16	0304, 0302, 0300, 0306	C15824-00100	GROUP 134, BUILDING & FACILITIES, PROJECT K, ELEC; LIGHTNING PROTECTION & GROUNDING PLAN, AIR TERMINAL MOUNTING DETAIL	19-Jul-1954

Technical Area	Building Number-Name	Name	Title LANL	Date on Document
16	0306	C10654-00001	PROCESS LIGHTING INSTALL., PLAN & SECTION, BLDGS. 300, 302, 304,	17-Sep-1954
16	0304, 0302, 0300, 0306	C3172-00005	PROCESS AIR SUPPLY MODIFICATIONS, ELEC: SCHEMATIC WIRING DIAGRAM, COMPRESSOR #2 & #4, EQUIPMENT SCHEDULE,SSEQUENCE OF OPERATION	27-Sep-1954
16	0304, 0302, 0300, 0306	C3173-00006	PROCESS AIR SUPPLY MODIFICATIONS, ELEC; COMPRESSOR CONTROL PANEL, MASTER CONTROL PANELS, NAMEPLATE SCHEDULE	20-Oct-1954
16	0304, 0302, 0300, 0306	C15730-00006	GROUP 134 BUILDINGS & FACILITIES, PROJECT K, ARCH; FIRST FLOOR & BASEMENT PLANS & ROOM FINISH & DOOR SCHEDULES, DOOR TYPES	10-Feb-1955
16	0304, 0302, 0300, 0306	C15830-00106	GROUP 134, BUILDING & FACILITIES, PROJECT K, ELEC; PAGING SYSTEM LAYOUT FIRST FLOOR & BASEMENT PLAN, INTERCOMMUNICATION SYSTEM SCHEMATIC	11-Feb-1955
16	0304, 0302, 0300, 0306	C2716-00005	INSTALLATION OF EQUIPMENT, MECH., HYDRAULIC FLOW, SCHEMATIC PIPING	11-Feb-1955
16	0304, 0302, 0300, 0306	C2717-00006	INSTALLATION OF EQUIPMENT, MECH., FUME CONDENSERSCHEMATIC FLOW AND VALVE INSTRUMENTATION, MATERIAL LIST	11-Feb-1955
16	0304, 0302, 0300, 0306	C2718-00007	INSTALLATION OF EQUIPMENT, MECH., PIPING	11-Feb-1955
16	0303, 0314, 0304, 0634, 0315, 0312, 0301, 0302, 0555, 0313, 0310, 0300, 0000, 0309, 0307, 0318, 0308, 0305, 0316, 0306, 0317	C15725-00001	GROUP 134 BUILDINGS & FACILITIES, PROJECT K, TITLE SHEET & INDEX TO DRAWINGS	20-May-1955
16	0304, 0302, 0300, 0306	C15772-00048	GROUP 134, BUILDING & FACILITES, PROJECT K, FP; BASEMENT SPRINKLER LAYOUT	3-May-1956
16	0306	R2303-00001	FALLOUT SHELTER SURVEY, FLOOR PLAN, S-SITE	2-Apr-1962

Technical Area	Building Number-Name	Name	Title LANL	Date on Document
16	0306	C29699-00001	EXHAUST SYSTEMS MODIFICATIONS, MECH; & ELEC; ROOF PLAN & BILL OF MATERIALS	11-Apr-1963
16	0306	R4097-00001	AUDIO SYSTEM EQUIPMENT LOCATION, BASEMENT & FIRST FLOOR PLAN	5-Jul-1967
16	0306	R4098-00001	AUDIO SYSTEM BLOCK DIAGRAM	28-Aug-1967
16	0306	R4100-00003	DISTRIBUTION CIRCUIT FOR 300 AREA	29-Aug-1967
16	0304, 0450, 0306	C34657-00001	FOLDING GATE INSTALLATION, STRUCT; PLAN & VERTICAL SECTIONS, ELEVATIONS	1-Nov-1967
16	0306	R4099-00002	AUDIO SYSTEM, PRIORITY KEY CIRCUIT	8-Nov-1967
16	0306	R4101-00004	AUDIO SYSTEM, KEY DISTRIBUTION CIRCUIT	9-Nov-1967
16	0306	C39628-00001	FILAMENT WINDER INSTALLATION, 16-306 - MECHANICAL; SECTIONS & PLANS	22-May-1971
16	0306	C39629-00002	MECHANICAL; SECTIONS & DETAILS	22-May-1971
16	0306	C39630-00003	FILAMENT WINDER INSTALLATION; ELEC; PARTIAL FIRST FLOOR PLAN., ROOF PLAN, ONE LINE DIAGRAM, BILL OF MATERIAL, NAMEPLATE SCHEDULE	22-May-1971
00, 03, 16, 50, 73, 21	0141, 0020, 1095, 0180, 0304, 0203, 0302, 0332, 0200, 0123, 0300, 0000, 0001, 0306	C48514-00001	TECH AREA RE-ROOFING FY-79, TITLE SHEET, INDEX TO DRAWINGS & SITE LOCATION PLAN	13-Mar-1979
16	0304, 0302, 0300, 0306	C48514-00005	TECH AREA RE-ROOFING FY-79, ARCH; ROOF PLAN, EXISTING FEATURES, ROUTE PLAN, ELEVATION	13-Mar-1979
00, 03, 16, 50, 73, 21	0020, 0141, 1095, 0180, 0304, 0302, 0203, 0200, 0123, 0332, 0300, 0000, 0001, 0306	C48514-00008	TECH AREA RE-ROOFING FY-79, ARCH; TYPICAL FLASHING DETAILS, GRAVEL STOP, ROOF DRAIN, LIGHTNING ROD & PLUMBING VENTS & PENETRATIONS, CONDUIT CONE	13-Mar-1979

Technical Area	Building Number-Name	Name	Title LANL	Date on Document
00, 03, 16, 50, 73, 21	0141, 0020, 1095, 0180, 0304, 0302, 0203, 0123, 0200, 0332, 0300, 0000, 0001, 0306	C48514-00009	TECH AREA RE-ROOFING FY-79, ARCH; TYPICAL FLASHING DETAILS, EXPANSION JOINT, DUCT, EXHAUST FAN, TERMINAL POST & ANCHOR, BOTTOMLESS PAN	13-Mar-1979
00, 03, 16, 50, 73, 21	0020, 0141, 1095, 0180, 0304, 0302, 0203, 0332, 0200, 0123, 0300, 0000, 0001, 0306	C48514-00010	TECH AREA RE-ROOFING FY-79, ARCH; TYPICAL FLASHING DETAILS, WALKWAY WOOD, ROOF VENT, EXPANSION JOINT, PLUMBING VENT, ROOF STACK, WINDOW SILL & WALL	13-Mar-1979
16	0306	C43831-00004	HXS-1 RELOCATION PLANS, SECTIONS, DETAILS BLDG. 306	1-May-1980
16	0306	R2835-00001	BASEMENT & FIRST FLOOR PLAN, PROCESS BUILDING	12-Mar-1984
16	0303, 0304, 0301, 0302, 0300, 0307, 0308, 0305, 0306	C46319-00001	TA-16-300-308 DRAIN SYSTEMS, TITLE SHEET, INDEX, LOCATION MAP, PHASE A	5-Aug-1992
16	0303, 0304, 0301, 0302, 0300, 0307, 0308, 0305, 0306	C46319-00002	TA-16-300-308 DRAIN SYSTEMS, GEN; SUBMITTAL SHEET	5-Aug-1992
16	0303, 0304, 0301, 0302, 0300, 0307, 0308, 0305, 0306	C46319-00003	TA-16-300-308 DRAIN SYSTEMS, CIVIL; SITE PLAN AND LEGEND	5-Aug-1992
16	0303, 0304, 0301, 0302, 0300, 0307, 0308, 0305, 0306	C46319-00004	TA-16-300-308 DRAIN SYSTEMS, CIVIL; SPECIFICATIONS AND DETAILS	5-Aug-1992
16	0304, 0300, 0306	C46319-00007	TA-16-300-308 DRAIN SYSTEMS, MECH; BLDG. 300, 304 AND 306 BASEMENT FLOOR PLAN DETAILS	5-Aug-1992

Technical Area	Building Number-Name	Name	Title LANL	Date on Document
16	0304, 0300, 0306	C46319-00008	TA-16-300-308 DRAIN SYSTEMS, MECH; BLDGS. 300, 304 AND 306 FIRST FLOOR PLAN	5-Aug-1992
16	0303, 0304, 0301, 0302, 0300, 0307, 0308, 0305, 0306	C46319-00009	TA-16-300-308 DRAIN SYSTEMS, MECH; SPECIFICATIONS	5-Aug-1992
16	RM.0001, RM.0101, 0306	13Y-192429-00001	HEWTF Project Vacuum System Upgrade Building Plan	3-May-1996
16	RM.0001, 0306	13Y-192429-00002	HEWTF Project Vacuum System Upgrade Demolition & Removal	3-May-1996
16	RM.0001, 0306	13Y-192429-00003	HEWTF Project Vacuum System Upgrade Mech Vacuum Piping	3-May-1996
16	RM.0001, RM.0101, 0306	13Y-192429-00004	HEWTF Project Vacuum System Upgrade Electrical Schematic	3-May-1996
16	RM.0001, RM.0101, 0306	13Y-192429-00005	HEWTF Project Vacuum System Upgrade Elec Interconn Diag	3-May-1996
16	RM.0001, RM.0101, 0306	13Y-192429-00006	HEWTF Project Vacuum System Upgrade Elec Conduit Runs	3-May-1996
16, 21	0167, 0410, 0221, 0152, 0370, 0306	C49846-00001	WASTE STREAM CORRECTIONS, PACKAGE 3B (FMU 70), TITLE SHEET AND LIST OF DRAWINGS	13-Sep-1996
16, 21	0167, 0306	C49846-00003	WASTE STREAM CORRECTIONS, PACKAGE 3B., GEN., NOTES, SEVERAL BLDGS.	13-Sep-1996
16	0306	C49846-00020	WASTE STREAM CORRECTIONS, PACKAGE 3B., ELEC., PLAN, ONE-LINE DIAGRAM, SUMP ALARM, EQUIPMENT & NAMEPLATE SCHEDULE	13-Sep-1996
16	0304, 0302, 0300, 0306	C49914-00001	WASTE STREAM CORRECTIONS, TITLE SHEET AND LIST OF DRAWINGS	25-Nov-1996
16	0304, 0302, 0300, 0306	C49914-00002	WASTE STREAM CORRECTIONS, GEN; LEGEND AND GENERAL NOTES	25-Nov-1996
16	0304, 0302, 0300, 0306	C49914-00003	WASTE STREAM CORRECTIONS, GEN; GENERAL NOTES AND SCOPE OF WORK	25-Nov-1996
16	0304, 0306	C49914-00005	WASTE STREAM CORRECTIONS, MECH; BASEMENT PLUMBING PLAN	25-Nov-1996
16	0304, 0302, 0300, 0306	C49914-00006	WASTE STREAM CORRECTIONS, MECH; SUMP PUMP DETAIL AND EQUIPMENT LIST	25-Nov-1996

Technical Area	Building Number-Name	Name	Title LANL	Date on Document
16	0304, 0302, 0300, 0306	C49914-00007	WASTE STREAM CORRECTIONS, ELEC; LEGEND AND GENERAL NOTES	25-Nov-1996
16	0304, 0306	C49914-00009	WASTE STREAM CORRECTIONS, ELEC; BASEMENT PLAN	25-Nov-1996
16	0304, 0302, 0300, 0306	C49914-00010	WASTE STREAM CORRECTIONS, ELEC; SCHEMATICS	25-Nov-1996
16	0304, 0302, 0300, 0306	C49914-00011	WASTE STREAM CORRECTIONS, MECH; CORRECTIVE ACTION SUMMARY	25-Nov-1996
16	0306	AB598-00004	PROCESS BUILDING, FIRST FLOOR PASSAGEWAY PLAN, AS BUILT RECORD FLOOR PLAN	30-May-2001
16	0302, 0306	C53232-00011	PARTIAL SITE WIDE FIRE ALARM SYSTEM REPLACEMENT PROJECT, FP; BASEMENT FLOOR PLAN	29-Jul-2005
16	0302, 0306	C53232-00012	PARTIAL SITE WIDE FIRE ALARM SYSTEM REPLACEMENT PROJECT, FP; FIRST FLOOR PLAN	29-Jul-2005
16	0306	C19229-00001	PROCESS MODIFICATIONS, BLDG. 16-306 (134 GRP) - MECHANICAL - PLAN, EQUIPMENT LIS	1-Oct-2013
16	0306	C19230-00002	MECHANICAL - BENCH & MISC. DETAILS	1-Oct-2013
16	0306	C19231-00003	MECHANICAL - HOOT & DUCT DETAILS	1-Oct-2013
16	0306	C19232-00004	MECHANICAL - SERVICE PIPING	1-Oct-2013
16	0306	C19233-00005	MECHANICAL - OVEN EXHAUST & MISCELLANEOUS DETAILS	1-Oct-2013
16	0306	C19234-00006	ELECTRICAL - PLAN & SCOPE	1-Oct-2013
16	0306	C19235-00007	ELECTRICAL - MATERIAL & DETAILS	1-Oct-2013
16	0306	C49000-00004	HXS-1 RELOCATION PLANS, SECTIONS, DETAILS	1-Oct-2013
16	0306	R1846-00001	FIRE ALARM EQUIPMENT, BLDG. 16-306, BASEMENT & FIRST FLOOR PLAN	1-Oct-2013

LA-UR-20-26415

October 2020

TA-16-306: A Plastics Components Development Facility: Volume 2

LANL FY 2021 FOOTPRINT REDUCTION PROGRAM

HISTORIC BUILDINGS REPORT NO. 389

SURVEY NO. 1208

Los Alamos
NATIONAL LABORATORY
EST. 1943

Cover image: Technical Area 16 Building 306 in 2018

Prepared for: The U.S. Department of Energy/National Nuclear Security Administration, Los Alamos Field Office

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Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 16, High Explosives/Plastics Processing Building
Technical Area 16, Building 306
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Notes: The Laboratory is divided into different geographic areas called Technical Areas (TAs). These TAs are designated by numbers. The properties at TA-16 High Explosives/Plastics Processing Complex are identified using the current LANL system of placing the "TA" prefix and TA number before each building and structure number, creating a unique property identifier (ie. TA-16-306).

The high explosive/plastics production complex consists of eight buildings, four preparation and processing buildings TA-16-300, -302, -304, and -306 which originally contained mixing, baking, casting, and extruding equipment while the other four TA-16-301, -303, -305, and -307 contained storage, some winding equipment, environmental chambers and other small experiments. Existing operations in this building were relocated in the late 2000's and the building was proposed to be remodeled in 2008, but it was determined that the building was not suitable for continued use. Archival photographs of the interior of the building were taken in preparation of the proposed remodeling in 2008. After the archival photographs were taken the proposed remodeling project was cancelled and the building has been unoccupied ever since. All of these buildings were connected by a series of enclosed corridors (TA-16-350 through TA-16-354) that were suitable for forklift or powered cart operations.

Building TA-16-306 was previously declared eligible for inclusion in the National Register of Historic Places (Register) in correspondence from the State Historic Preservation Office (SHPO) to the Department of Energy (DOE) dated August 18, 1995. This building has been determined as excess property and is scheduled for clean up and eventual demolition. This action is in accordance with LANL's commitment to cleanup inactive sites and facilities "so that no unacceptable risk to the public or environment remains" (U.S. Department of Energy 1994). The removal of this property will be carried out by LANL's Decontamination and Decommissioning (D&D) Program. (For additional information see related project documentation*: 1) TA-16 Heating System Replacement,* LA-CP-95-180, Cultural Resource Survey Report No. 114, Los Alamos National Laboratory and 2) TA-16-306: A Plastics Components Development Facility, LA-UR-20-26415.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

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McGehee, Ellen D.
1995 *TA-16 Heating System Replacement,* LA-CP-95-180, Cultural Resource Survey Report No. 114, Los Alamos National Laboratory, Los Alamos, New Mexico.

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

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 16, High Explosives/Plastics Processing Building
Technical Area 16, Building 306
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Mike O'Keefe, Former LANL Photographer — May 27, 2007
RB07-008-001 through RB07-008-039

Richard Robinson, Former LANL Photographer, — January 11, 2018
di180025026 through di180025030

Photograph Number	Description
di180025026	TA-16-306, northeast (front) side, facing southwest.
di180025028	TA-16-306, northeast (front) and northwest sides, facing south.
di180025029	TA-16-306, northwest side, facing east.
di180025030	TA-16-306, southwest (back) side, facing northeast.
di180025027	TA-16-306, southeast side, facing northwest.
RB07-008-006	TA-16-306, corridor 1, facing southwest. Gated door at center leading into connecting corridor.
RB07-008-007	TA-16-306, corridor 1, facing northeast. Exterior entrance door.
RB07-008-014	TA-16-306, room 101, industrial ovens at left, industrial oven number 1, facing southeast.
RB07-008-015	TA-16-306, room 101, industrial ovens at right, facing northwest.
RB07-008-016	TA-16-306, room 101, industrial ovens numbers 2 & 3, facing north.
RB07-008-018	TA-16-306, room 101, industrial oven number 1, facing north.
RB07-008-019	TA-16-306, room 101, Toledo scale, Toledo Scale Company, facing northeast.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 16, High Explosives/Plastics Processing Building
Technical Area 16, Building 306
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RB07-008-021	TA-16-306, room 101, explosion proof clock, facing southwest.
RB07-008-013	TA-16-306, room 101, refrigerator for food, facing south.
RB07-008-022	TA-16-306, room 102A (Bay A), high explosives processing room, facing west.
RB07-008-024	TA-16-306, room 102A (Bay A), high explosives processing room, dust collectors and vents, facing north.
RB07-008-025	TA-16-306, room 102A (Bay A), high explosives processing room, dust collectors and vents, facing east.
RB07-008-026	TA-16-306, room 102A (Bay A), high explosives processing room, facings south.
RB07-008-023	TA-16-306, room 102A (Bay A), high explosives processing room, close-up of control panel, facing south.
RB07-008-027	TA-16-306, room 102B (Bay B), high explosives processing room, industrial kettles and control panels, facing west.
RB07-008-028	TA-16-306, room 102B (Bay B), high explosives processing room, industrial oven, facing north.
RB07-008-032	TA-16-306, room 102B B (Bay B), high explosives processing room, small industrial oven and industrial kettle, facing east.
RB07-008-033	TA-16-306, room 102B (Bay B), high explosives processing room, industrial kettles, facing south.
RB07-008-034	TA-16-306, room 102C (Bay C), high explosives processing room, facing west.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 16, High Explosives/Plastics Processing Building
Technical Area 16, Building 306
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RB07-008-035	TA-16-306, room 102C (Bay C), high explosives processing room, piping and vents, facing north.
RB07-008-036	TA-16-306, room 102C (Bay C), high explosives processing room, seeing into rooms 101G and 103, facing east.
RB07-008-001	TA-16-306, room 102C (Bay C), high explosives processing room, facing south.
RB07-008-002	TA-16-306, room 102C (Bay C), high explosives processing room, close-up of control panel, facing northwest.
RB07-008-003	TA-16-306, room 102C (Bay C), high explosives processing room, vacuum control panels, facing northwest.
RB07-008-005	TA-16-306, rooms 102A, B, & C (Bays A, B, and C), common walkway, facing northwest.
RB07-008-004	TA-16-306, room 103, storage room, facing northeast.
RB07-008-008	TA-16-306, room 106, office, facing west.
RB07-008-009	TA-16-306, basement room 1, mechanical room, facing southeast.
RB07-008-010	TA-16-306, basement room 1, mechanical room, facing west.
RB07-008-011	TA-16-306, basement room 1, mechanical room, control panel, southwest.
RB07-008-012	TA-16-306, basement room 1, mechanical room, control panel, southeast.
RB07-008-037	TA-16-306, basement room 1, mechanical room, west southwest.

Los Alamos National Laboratory Historic Building Survey
Index to Photographs

Technical Area 16, High Explosives/Plastics Processing Building
Technical Area 16, Building 306
Los Alamos National Laboratory (LANL)
Los Alamos
Los Alamos County
New Mexico

Photograph Number	Description
RB07-008-038	TA-16-306, basement room 1, mechanical room, control panel, southwest.
RB07-008-039	TA-16-306, basement room 2, equipment room, facing west.

di1800025026


di180025028

di180025029

di180025030

di180025027


RB07008006


WOMEN
EXIT
RB07008007


T095
CAUTION
HOT SURFACE
RB07008014


T264
No.3
2
RB07008015

RB07008016


OVEN No.1
RB07008018


TOLEDO
PRINTWEIGH
TOLEDO
RB07008019


RB07008021


PROCESS UNIT CUBICLE
INCOMING MATERIALS
FOOD ONLY
PHILCO
RB07008013


FLAMMABLE
RB07008022


RB07008024


RB07008025


RB07008026


RB07008023


RB07008027


GRIEVE
CAUTION
RB07008028


GRIEVE
CAUTION
HOT SURFACE
DO NOT
TOUCH
RB07008032

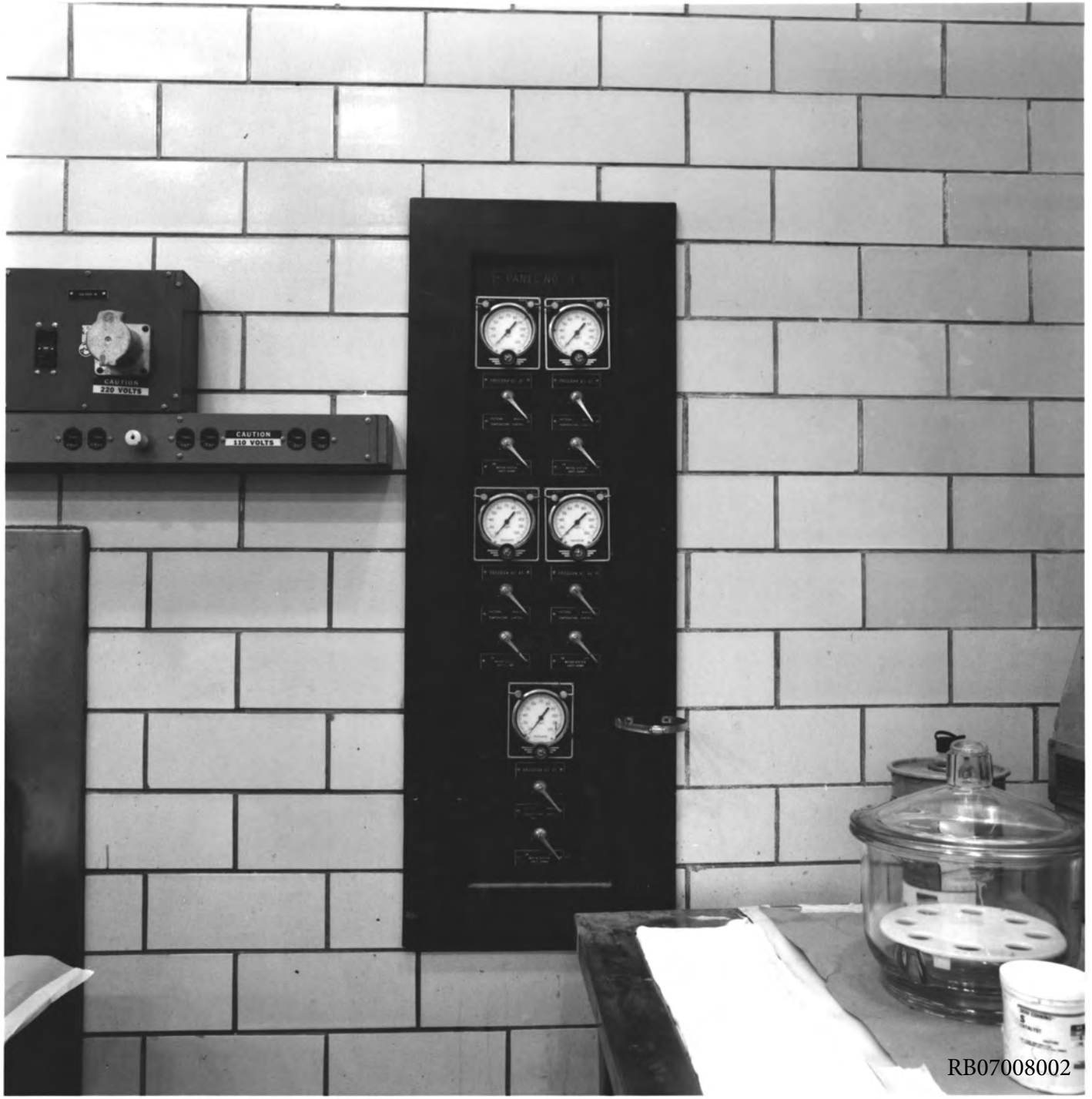

RB07008033


RB07008034


RB07008035

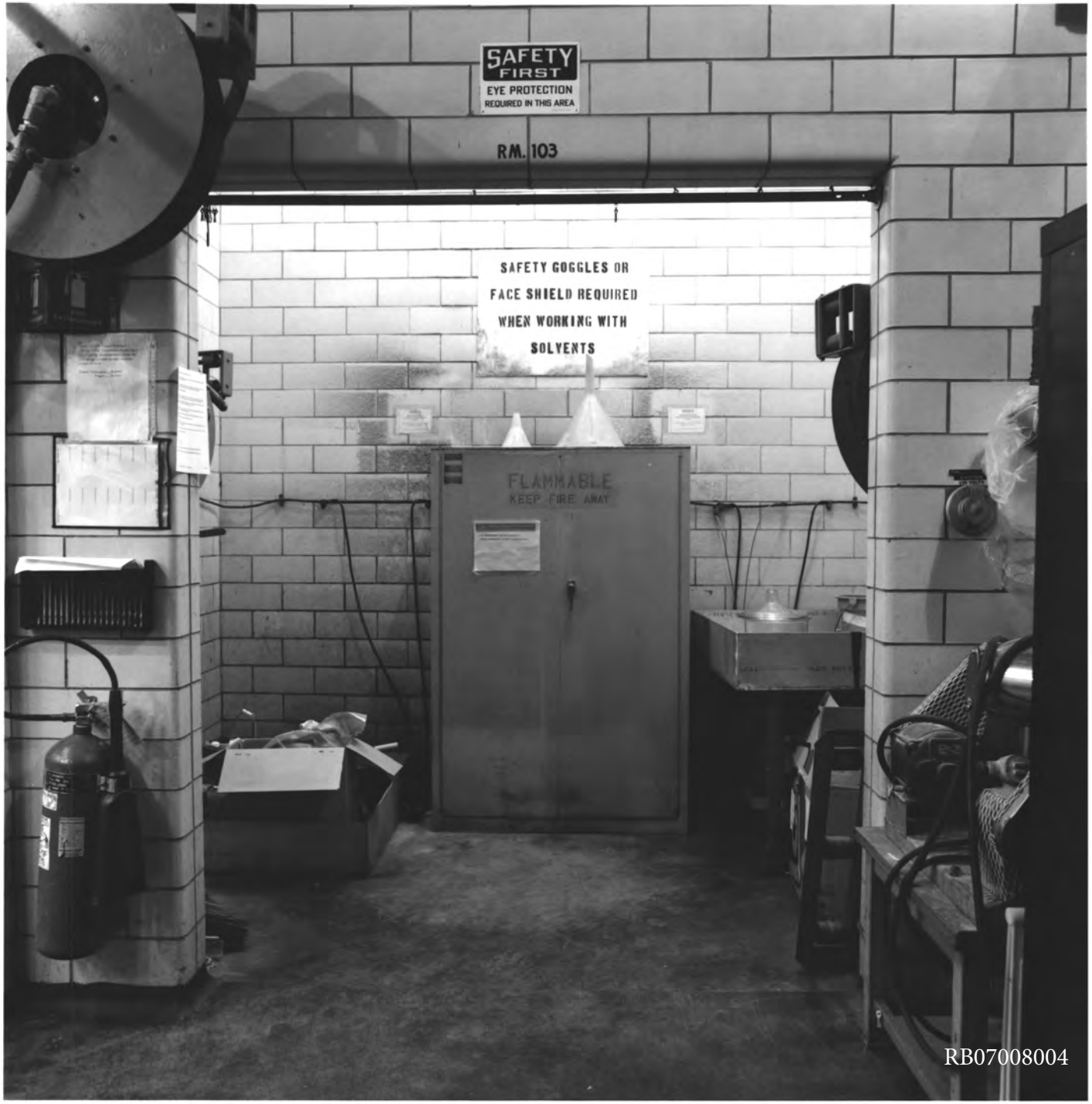

RB07008036


RB07008001

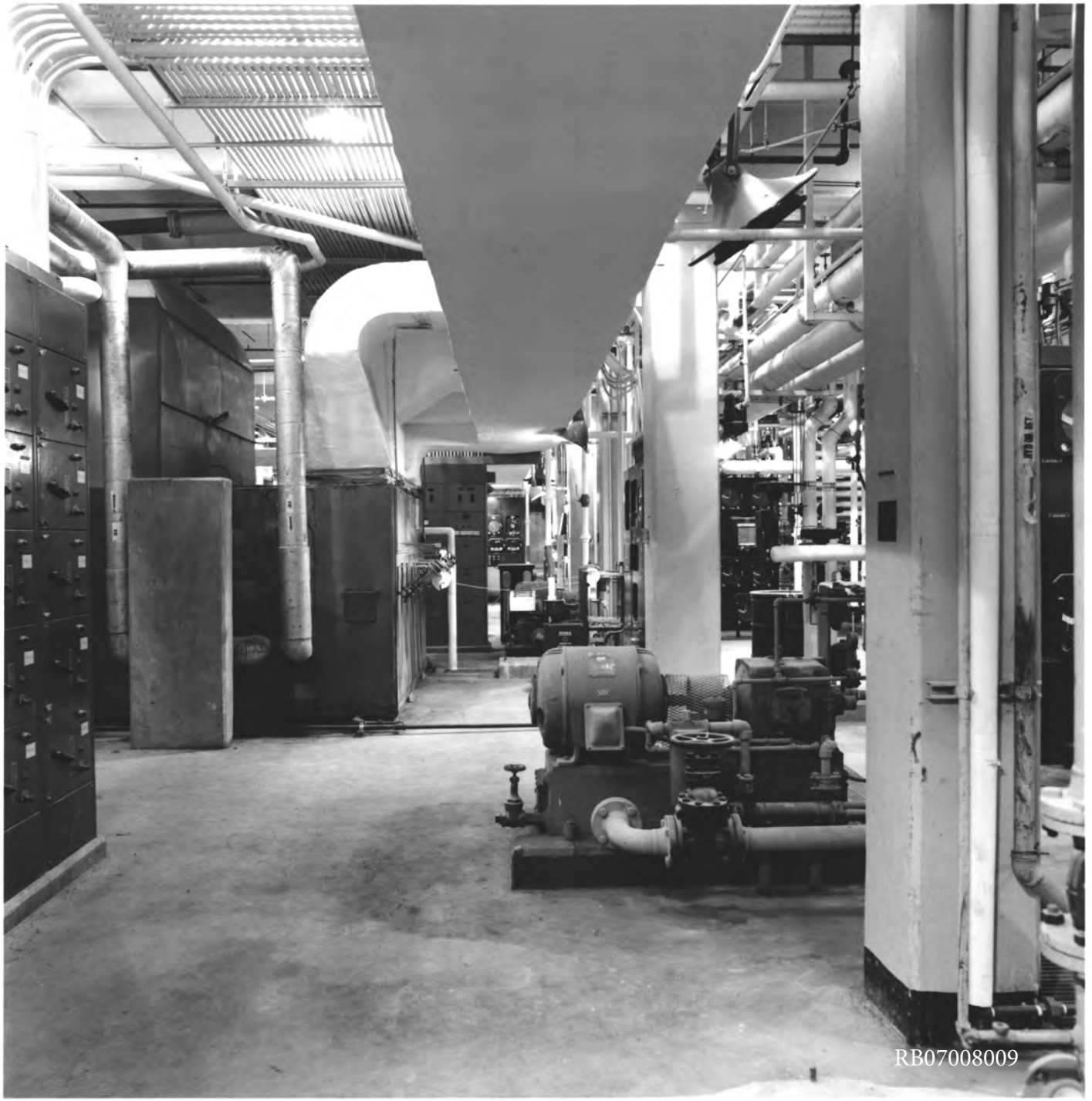

CAUTION
220 VOLTS
CAUTION
110 VOLTS
RB07008002


CAUTION
110 VOLTS
RB07008003


RB07008005


SAFETY
FIRST
EYE PROTECTION
REQUIRED IN THIS AREA
RM. 103
SAFETY GOGGLES OR
FACE SHIELD REQUIRED
WHEN WORKING WITH
SOLVENTS
FLAMMABLE
KEEP FIRE AWAY
RB07008004


UNCLASSIFIED
COMPUTING
WORK
ENVIRONMENT
CONTENTS
RB07008008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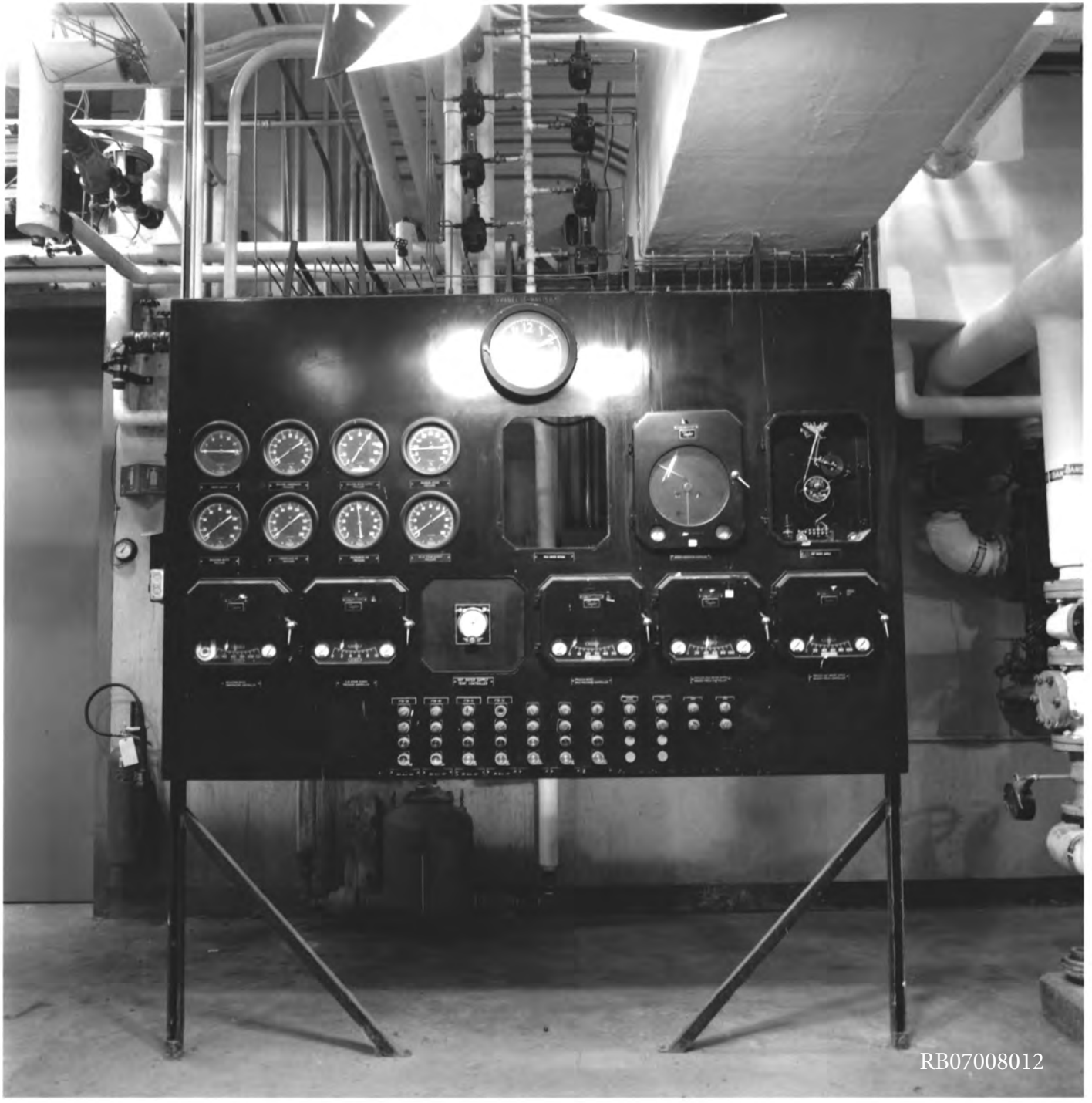
RB07008010


RB07008011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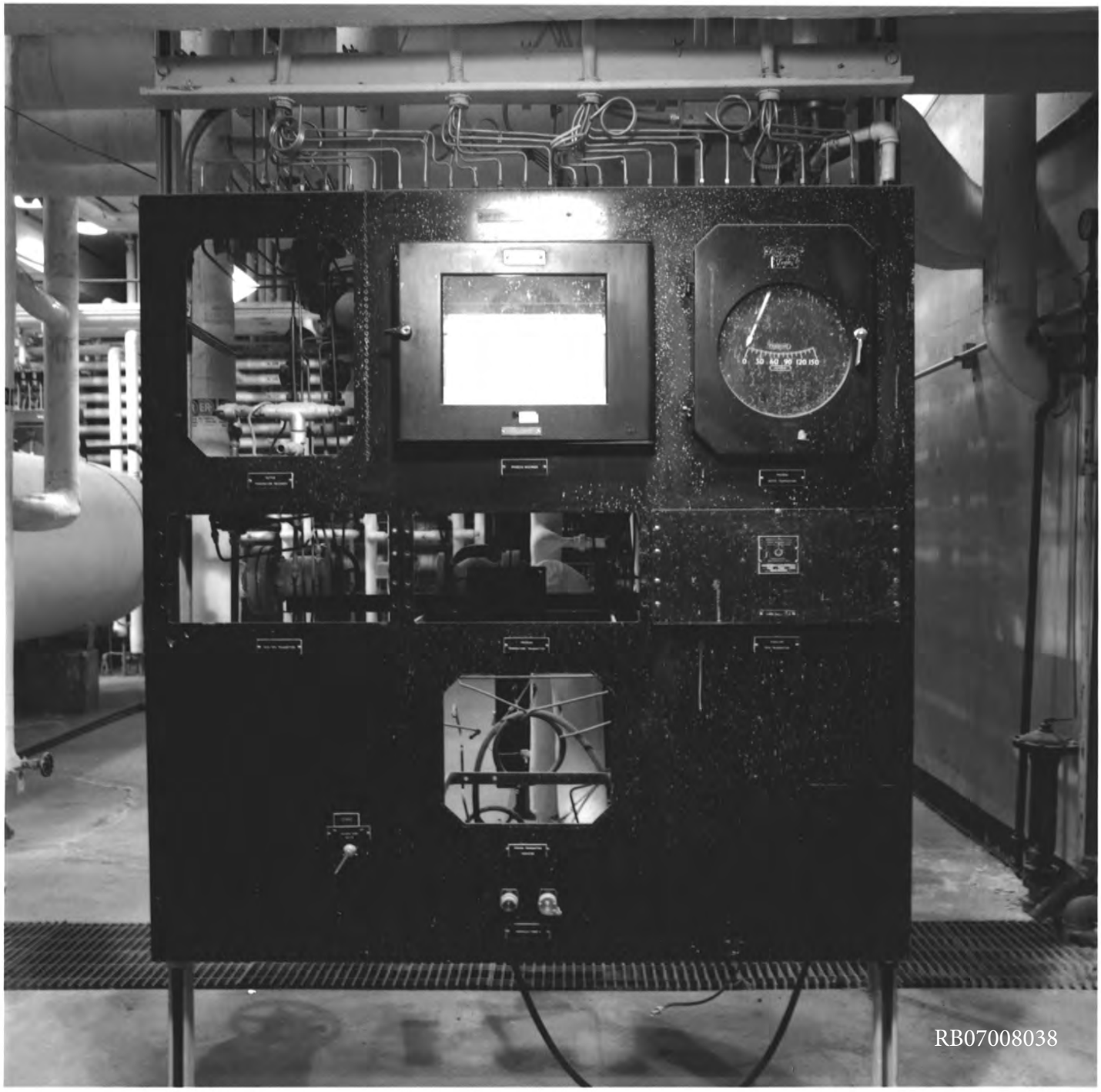
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