



**INCORPORATED COUNTY OF LOS ALAMOS
SERVICES AGREEMENT**

This **SERVICES AGREEMENT** ("Agreement") is entered into by and between the **Incorporated County of Los Alamos**, an incorporated county of the State of New Mexico ("County"), and **Gardner Zemke Company**, a New Mexico corporation ("Contractor"), to be effective for all purposes January 25, 2023 ("Effective Date").

WHEREAS, the County Purchasing Officer determined in writing that the use of competitive sealed bidding was either not practical or not advantageous to County for procurement of the Services and County issued Request for Proposals No. 23-48 ("RFP") on November 27, 2022, requesting proposals for the service of a qualified electrical contractor to replace the existing electric transformer at the El Vado Hydroelectric plant, located at 3070 State Road 12, El Vado, New Mexico 87575 ("Site"), as described in the RFP; and

WHEREAS, Contractor timely responded to the RFP by submitting a response dated December 15, 2022 ("Contractor's Response"); and

WHEREAS, based on the evaluation factors set out in the RFP, Contractor was the successful Offeror for the services listed in the RFP; and

WHEREAS, the Board of Public Utilities approved this Agreement at a public meeting held on January 18, 2023; and

WHEREAS, the County Council approved this Agreement at a public meeting held on January 24, 2023; and

WHEREAS, Contractor shall provide the Services, as described below, to County.

NOW, THEREFORE, for and in consideration of the premises and the covenants contained herein, County and Contractor agree as follows:

SECTION A. SERVICES:

1. Project Kick-off Meeting and Site Visit: Contractor shall, within ten (10) business days of the Effective Date of this Agreement, coordinate a Project Kick-Off Meeting and Site Visit with County's designated Department of Public Utilities ("DPU") staff. As part of the kick-off meeting, the parties shall:
 - a. Introduce and assign Contractor and County project team members and Project leads ("Project Staff" and "Project Manager").
 - b. Establish a mutually agreed upon Project Schedule that includes deliverable due dates, Project Milestones and communication protocols. Contractor shall provide a written Project Schedule to County's Project staff within five (5) business days from the date of the kick-off meeting. The Project Schedule may be modified by mutual written agreement of the parties.
 - c. Discuss the scope of work, planning assumptions, and Project progression to meet County identified lead times.

As a component of the Kick-off meeting and Site Visit, Contractor shall conduct the following preparation activities:

- i. Inventory County-furnished items needed to install the transformer. If any items are missing, Contractor shall immediately notify County so it shall take appropriate action to acquire any materials required for installation.
 - ii. Contractor shall measure all connection points, to include high and low side connections, to confirm that they align, and no additional adapters or flex braids are required. If additional adapters or flex braids are required, County shall have the additional equipment fabricated and delivered prior to installation, pursuant to the Project Schedule.
 - iii. The flexible bus boot (bellows) shall be supplied by the manufacturer of the Transformer.
2. Contractor shall provide all labor, materials, and equipment to remove and properly dispose of the existing transformer.
3. Contractor shall provide all labor, materials, and equipment to install the new transformer, test the transformer and place the transformer into service, which includes but is not limited to movement, confirmation of proper assembly by the manufacturer, oil-processing, installation, testing and start-up of a new County furnished 69kV Generator Step-Up (GSU) transformer.
4. The new transformer shall be delivered to the Site by the manufacturer prior to the installation date. The transformer shall require assembly which shall be completed by the manufacturer. The new transformer shall be lifted from its off-load position by Contractor's sub contracted crane service, to the location where it shall be placed into service.
5. The work to be completed is detailed in Exhibit "B," Project Tasks, and Exhibit "C" Plan Set which identifies the existing conditions, new transformer details, old transformer details and equipment placement instructions. Acceptance of the work shall be pursuant to receipt of documentation demonstrating successful commissioning and testing identified in Exhibit "B", Task 3.0.
6. Contractor shall perform tests which include but are not limited to:
 - a. Power Factor of Bushings
 - b. Power Factor of Transformer
 - c. Transformer Turns Ratio
 - d. Insulation Resistance of Windings
 - e. Insulation Resistance of Core
 - f. Winding Resistance
 - g. Current Transformers Tests: Ratio, polarity, saturation, winding resistance
 - h. Instrument Transformers PTs Ratio, winding resistance
 - i. Two oil samples to independent laboratories for testing
 - j. Field Calibration of pressure devices
 - k. Testing of HV and LV arresters
 - l. Testing of Grounding of transformer and 69kV structures
 - m. Sweep Frequency Response Testing
 - n. Functional Testing of the transformer controls, alarm and protection circuit
7. Testing shall be completed under the supervision of the manufacturer's field engineer.

8. Once testing is complete, Contractor shall connect the new Transformer to the plant and to the overhead conductors.
9. Contractor shall service the overhead switch located on the 69kV transmission line H-Structure onsite. Service and maintenance shall be performed per the manufacturer's recommendations in the operation and maintenance manual provided with the RFP and current industry standards.
10. Contractor shall properly paint the steel transmission line H-Structure and the Potential Transformer structure in accordance with the work as described in detail on sheet 5 of Exhibit "C."
11. Contractor shall comply with Wage Rate Decision RA-22-2854-A, attached as Exhibit "D."
12. All work to install the new transformer shall be performed during an on-going outage of the hydroelectric plant, as provided in the Project Schedule to be developed by the parties. The new transformer shall be replaced and in service no later than May 31, 2023.
13. If temperatures are below the paint manufacturer's recommended ranges for application and curing, painting the transmission line H-Structure can be performed at a later date, to be completed no later than June 30, 2023.

SECTION B. WARRANTIES, REPRESENTATIONS, AND OTHER OBLIGATIONS

1. Contractor shall provide all protective coverings necessary to protect existing and adjacent finishes while performing its work. Contractor shall be responsible for any damage and the repair of damage by its employees, subcontractors, and vendors.
2. Contractor shall provide for all clean-up for its operations and control of all construction debris. All work areas shall be maintained in a neat and workmanlike manner. All construction debris shall be removed from the Site and disposed of at an approved waste disposal site.
3. All work shall be in strict compliance with national, state, and local building codes. Any work involving disconnect or switching of electrical service to a work area shall utilize LOCKOUT/TAGOUT identification practices. Work shall be authorized by County staff, performed per standard operating procedures.
4. Safety shall be the main concern and enforced by Contractor on Site and may be periodically inspected by County's qualified safety personnel. Contractor shall comply with all local, state, and federal laws governing safety, health, and sanitation. Contractor, not County, shall be responsible for any fines set forth for such violations of codes, Occupational Health and Safety Act (OSHA) standards or any other governing agency having jurisdiction at the Site. Contractor shall provide all needed safeguards, safety devices and protective equipment; take any actions necessary to protect the life and health of the employees on the job, the safety of County employees working in the area, as well as the safety of the public, and to protect the property of County in connection with the performance of work under this Agreement.
5. Contractor and Sub-contractors shall provide a three (3) year warranty for the transformer installation covering workmanship, after Contractor's successful completion of the Project and County's acceptance of Contractor's work on the Project. Any manufacturer warranty provided shall be in County's name.

6. Contractor and Sub-contractors shall provide a one (1) year warranty for the painting work, covering materials and workmanship, after Contractor's successful completion of the Project and County's acceptance of Contractor's work on the Project. Any manufacturer warranty provided shall be in County's name.
7. Contractor shall furnish County with a performance bond in an amount equal to One Hundred percent (100%) of the contract price of this Agreement, which may be adjusted by any Change Order as provided herein.
8. Contractor shall furnish County with a payment (labor and materials) bond in an amount equal to One Hundred Percent (100%) of the contract price of this Agreement, which may be adjusted by any Change Order as provided herein.
9. Contractor shall use the *Performance Bond* forms, the *Payment (Labor and Materials) Bond*, the *Notice to Proceed* form, the *Acceptance of Notice to Proceed* form, the *Application and Certification for Payment Part 1* form, the *Application and Certification for Payment Part 2* form, the *Affidavit of Payment and Release of Liens* form, the *Change Order* form, and the *Certificate of Substantial Completion* as provided in Exhibit "E," attached hereto and made a part hereof for all purposes, without any change in form unless agreed to in writing by County, and with the terms and conditions of each form being material terms and obligations of this Agreement.

SECTION C. TERM: The term of this Agreement shall commence January 25, 2023 and shall continue through June 30, 2023, unless sooner terminated, as provided herein.

SECTION D. COMPENSATION:

1. **Amount of Compensation.** County shall pay compensation for performance of the Services in an amount not to exceed THREE HUNDRED EIGHTY-SIX THOUSAND THREE HUNDRED FIFTY-ONE DOLLARS (\$386,351.00), which amount does not include applicable New Mexico gross receipts taxes (NMGRT). Compensation shall be paid in accordance with the rate schedule set out in Exhibit "A," attached hereto and made a part hereof for all purposes.
2. **Monthly Invoices.** Contractor shall submit itemized invoices to County's Project Manager showing amount of compensation due, amount of any NMGRT, and total amount payable. Payment of undisputed amounts shall be due and payable thirty (30) days after County's receipt of the invoice.

SECTION E. TAXES: Contractor shall be solely responsible for timely and correctly billing, collecting and remitting all NMGRT levied on the amounts payable under this Agreement.

SECTION F. STATUS OF CONTRACTOR, STAFF, AND PERSONNEL: This Agreement calls for the performance of services by Contractor as an independent contractor. Contractor is not an agent or employee of County and shall not be considered an employee of County for any purpose. Contractor, its agents, or employees shall make no representation that they are County employees, nor shall they create the appearance of being employees by using a job or position title on a name plate, business cards, or in any other manner, bearing County's name or logo. Neither Contractor nor any employee of Contractor shall be entitled to any benefits or compensation other than the compensation specified herein. Contractor shall have no authority to bind County to any agreement, contract, duty, or obligation. Contractor shall make no representations that are intended to, or create the appearance of, binding County to any

agreement, contract, duty, or obligation. Contractor shall have full power to continue any outside employment or business, to employ and discharge its employees or associates as it deems appropriate without interference from County; provided, however, that Contractor shall at all times during the term of this Agreement maintain the ability to perform the obligations in a professional, timely, and reliable manner.

SECTION G. STANDARD OF PERFORMANCE: Contractor agrees and represents that it has and shall maintain the personnel, experience, and knowledge necessary to qualify it for the particular duties to be performed under this Agreement. Contractor shall perform the Services described herein in accordance with a standard that meets the industry standard of care for performance of the Services.

SECTION H. MODIFICATION OF CONTRACT AND CHANGE ORDERS: This Agreement shall be modified only by mutual written consent of the parties. County may at any time, as the need arises, order changes within the Project without invalidating this Agreement. If such changes increase or decrease the costs of the Project within the not-to-exceed compensation amount provided herein, or the time required for completion of the Project, then an equitable adjustment to the amount of compensation due and/or times for completion of the Project shall be authorized by the Change Order as mutually agreed to by County and Contractor. Only the Utility Manager shall have authority to authorize such Change Orders on behalf of the County under this Agreement. If such changes increase the costs of the Project beyond the not-to-exceed compensation amount provided herein, such an increase must be approved and authorized by an Amendment to this Agreement.

SECTION I. DELIVERABLES AND USE OF DOCUMENTS: All deliverables required under this Agreement, including material, products, reports, policies, procedures, software improvements, databases, and any other products and processes, whether in written or electronic form, shall remain the exclusive property of and shall inure to the benefit of County as works for hire; Contractor shall not use, sell, disclose, or obtain any other compensation for such works for hire. In addition, Contractor may not, with regard to all work, work product, deliverables, or works for hire required by this Agreement, apply for, in its name or otherwise, any copyright, patent, or other property right, and acknowledges that any such property right created or developed remains the exclusive right of County. Contractor shall not use deliverables in any manner for any other purpose without the express written consent of County.

SECTION J. EMPLOYEES AND SUB-CONTRACTORS: Contractor shall be solely responsible for payment of wages, salary, or benefits to any and all employees or contractors retained by Contractor in the performance of the Services. Contractor agrees to indemnify, defend, and hold harmless County for any and all claims that may arise from Contractor's relationship to its employees and subcontractors.

SECTION K. INSURANCE: Contractor shall obtain and maintain insurance of the types and in the amounts set out below throughout the term of this Agreement with an insurer acceptable to County. Contractor shall assure that all subcontractors maintain like insurance. Compliance with the terms and conditions of this Section is a condition precedent to County's obligation to pay compensation for the Services, and Contractor shall not provide any Services under this Agreement unless and until Contractor has met the requirements of this Section. County requires Certificates of Insurance, or other evidence acceptable to County, stating that Contractor has met its obligation to obtain and maintain insurance and to assure that subcontractors maintain like insurance. Should any of the policies described below be cancelled before the expiration date

thereof, notice shall be delivered in accordance with the policy provisions. General Liability Insurance and Automobile Liability Insurance shall name County as an additional insured.

1. **General Liability Insurance:** ONE MILLION DOLLARS (\$1,000,000.00) per occurrence; ONE MILLION DOLLARS (\$1,000,000.00) aggregate.
2. **Workers' Compensation:** In an amount as may be required by law. County may immediately terminate this Agreement if Contractor fails to comply with the Worker's Compensation Act and applicable rules when required to do so.
3. **Automobile Liability Insurance for Contractor and its Employees:** ONE MILLION DOLLARS (\$1,000,000.00) combined single limit per occurrence; ONE MILLION DOLLARS (\$1,000,000.00) aggregate on any owned, and/or non-owned motor vehicles used in performing Services under this Agreement.
4. **Professional Liability Insurance:** ONE MILLION DOLLARS (\$1,000,000.00). Professional Liability Insurance shall provide coverage for Services provided hereunder during the term of this Agreement and for a period of at least five (5) years thereafter.
5. **All Risks Builders Risk Insurance** (covering Fire, Extended Coverage, Vandalism and Malicious Mischief) will be carried on a completed value or reporting form, for not less than 100% of the value of the work, including foundations. The All Risks Builder's Risk shall include the Incorporated County of Los Alamos, and will cover the interests of all sub-contractors without specifically naming them. If the insurance is written subject to a deductible clause, Contractor assumes responsibility for the amount of the deductible.

SECTION L. RECORDS: Contractor shall maintain, throughout the term of this Agreement and for a period of six (6) years thereafter, records that indicate the date, time, and nature of the services rendered. Contractor shall make available, for inspection by County, all records, books of account, memoranda, and other documents pertaining to County at any reasonable time upon request.

SECTION M. DUTY TO ABIDE: Contractor shall abide by all applicable federal, state, and local laws, regulations, and policies and shall perform the Services in accordance with all applicable laws, regulations, and policies during the term of this Agreement.

SECTION N. NON-DISCRIMINATION: During the term of this Agreement, Contractor shall not discriminate against any employee or applicant for an employment position to be used in the performance of the obligations of Contractor under this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability, or veteran status.

SECTION O. CHOICE OF LAW: The interpretation and enforcement of this Agreement shall be governed by and construed in accordance with the laws of the State of New Mexico.

SECTION P. VENUE, FORUM NON-CONVENIENS, EXCLUSIVE STATE JURISDICTION: County and Contractor knowingly, voluntarily, intentionally, and irrevocably agree that any and all legal proceedings related to this Agreement, or to any rights or any relationship between the parties arising therefrom, shall be solely and exclusively initiated, filed, tried, and maintained in the First Judicial Circuit of the State of New Mexico. County and Contractor each expressly and irrevocably waive any right otherwise provided by any applicable law to remove the matter to any other state or federal venue, consents to the jurisdiction of the First Judicial Circuit of the State of New Mexico in any such legal proceeding, waives any objection it may have to the laying of the

jurisdiction of any such legal proceeding. County and Contractor also agree that this term is a material inducement for each to enter this Agreement, and that both County and Contractor warrant and represent that each have had the opportunity to review this term with legal counsel.

SECTION Q. WAIVER OF JURY TRIAL: In the event of any action or proceeding, (including without limitation, any claim, counterclaim, cross-claim or third party claim) arising out of or, relating to this Agreement, or the transaction contemplated by this Agreement, County and Contractor KNOWINGLY, VOLUNTARILY, INTENTIONALLY, AND IRREVOCABLY WAIVE ANY RIGHT TO A JURY TRIAL, and agree that a court shall determine and adjudicate all issues of law and fact with a jury trial being expressly waived. County and Contractor also agree that this waiver of a jury trial was a material inducement for each to enter this Agreement, and that both County and Contractor warrant and represent that each have had the opportunity to review this jury waiver with legal counsel.

SECTION R. INDEMNITY: Contractor shall indemnify, defend, and hold harmless County, its Council members, employees, agents, and representatives, from and against all liability, claims, demands, actions (legal or equitable), damages, losses, costs, or expenses, including attorney fees, of any kind or nature, to the extent that the liability, claims, demands, actions, damages, losses, costs, and expenses are caused by, or arise out of, the acts or omissions of the Contractor or Contractor's officers, employees, agents representatives, and subcontractors in the performance or breach of the Services under this Agreement.

SECTION S. FORCE MAJEURE: Neither County nor Contractor shall be liable for any delay in the performance of this Agreement, nor for any other breach, nor for any loss or damage arising from uncontrollable forces such as fire, theft, storm, war, or any other force majeure that could not have been reasonably avoided by exercise of due diligence.

SECTION T. NON-ASSIGNMENT: Contractor shall not assign this Agreement or any privileges or obligations herein and shall not novate this Agreement to another without the prior written consent of the County Utilities Manager.

SECTION U. LICENSES: Contractor shall maintain all required licenses including, without limitation, all necessary professional and business licenses, throughout the term of this Agreement. Contractor shall require and shall assure that all of Contractor's employees and subcontractors maintain all required licenses including, without limitation, all necessary professional and business licenses.

SECTION V. PROHIBITED INTERESTS: Contractor agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. Contractor further agrees that it shall not employ any person having such an interest to perform services under this Agreement. No County Council member or other elected official of County, or manager or employee of County shall solicit, demand, accept, or agree to accept, a gratuity or offer of employment contrary to Section 31-282 of the Los Alamos County Code.

SECTION W. TERMINATION:

- 1. Generally.** The County Utilities Manager may terminate this Agreement with or without cause upon ten (10) days prior written notice to Contractor. Upon such termination, Contractor shall be paid for Services actually completed to the satisfaction of County at the rate set out in Section D. Contractor shall render a final report of the Services performed to the date of

termination and shall turn over to County originals of all materials prepared pursuant to this Agreement.

2. **Funding.** This Agreement shall terminate without further action by County on the first day of any County fiscal year for which funds to pay compensation hereunder are not appropriated by County Council. County shall make reasonable efforts to give Contractor at least ninety (90) days advance notice that funds have not been and are not expected to be appropriated for that purpose.

SECTION X. NOTICE: Any notices required under this Agreement shall be made in writing, postage prepaid to the following addresses, and shall be deemed given upon hand delivery, verified delivery by telecopy (followed by copy sent by United States Mail), or three (3) days after deposit in the United States Mail:

County:

Casey Aumack, Engineering Associate
Incorporated County of Los Alamos
1000 Central Avenue, Suite 130
Los Alamos, New Mexico 87544

Contractor:

Clinton Muncy, President
Gardner Zemke Company
1218 Griego Road, N.E.
Albuquerque, New Mexico 87107

With a copy to:

County Attorney's Office
1000 Central Avenue, Suite 340
Los Alamos, New Mexico 87544

SECTION Y. INVALIDITY OF PRIOR AGREEMENTS: This Agreement supersedes all prior contracts or agreements, either oral or written, that may exist between the parties with reference to the services described herein and expresses the entire agreement and understanding between the parties with reference to said services. It cannot be modified or changed by any oral promise made by any person, officer, or employee, nor shall any written modification of it be binding on County until approved in writing by both authorized representatives of County and Contractor. In the event of any conflict between the terms, conditions, and provisions of this Agreement, and the terms, conditions and provisions of any exhibits or attachments, the terms, conditions and provisions of this Agreement shall control and take precedence.

SECTION Z. NO IMPLIED WAIVERS: The failure of County to enforce any provision of this Agreement is not a waiver by County of the provisions, or of the right thereafter, to enforce any provision(s).

SECTION AA. SEVERABILITY: If any provision of this Agreement is held to be unenforceable for any reason: (i) such provision shall be reformed only to the extent necessary to make the intent of the language and purpose of the Agreement enforceable; and (ii) all other provisions of this Agreement shall remain in effect so long as the substantive purpose of the Agreement is possible.

SECTION AB. CAMPAIGN CONTRIBUTION DISCLOSURE FORM: A Campaign Contribution Disclosure Form was submitted as part of the Contractor's Response and is incorporated herein by reference for all purposes.

SECTION AC. LEGAL RECOGNITION OF ELECTRONIC SIGNATURES: Pursuant to NMSA 1978 § 14-16-7, this Agreement may be signed by electronic signature.

SECTION AD. DUPLICATE ORIGINAL DOCUMENTS: This document may be executed in two (2) counterparts, each of which shall be deemed an original.

SECTION AE. NEGOTIATED TERMS: This Agreement reflects negotiated terms between the parties, and each party has participated in the preparation of this Agreement with the opportunity to be represented by counsel, such that neither party shall be considered to be the drafter of this Agreement or any of its provisions for the purpose of any statute, case law, or rule of interpretation or construction that would or might cause any provision to be construed against the drafter of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) set forth opposite the signatures of their authorized representatives to be effective for all purposes on the date first written above.

ATTEST

INCORPORATED COUNTY OF LOS ALAMOS

NAOMI D. MAESTAS
COUNTY CLERK

BY: _____ **DATE**
PHILO S. SHELTON III, P.E.
UTILITIES MANAGER

Approved as to form:

J. ALVIN LEAPHART
COUNTY ATTORNEY

GARDNER ZEMKE COMPANY, A NEW MEXICO CORPORATION

BY: _____ **DATE**
CLINTON MUNCY
PRESIDENT

Exhibit "A"
 Compensation Rate Schedule
 AGR23-48

<u>Task Number</u>	<u>Description</u>	<u>Cost</u>
Task 1.0	Removal of Existing Transformer and Accessories ,including mineral oil disposal.	\$70,749.00
	Salvage Value to be Credited to County, if any	(\$5,538.00)
Task 2.0	New Transformer Installation	\$89,205.00
Task 3.0	Testing & Commissioning	\$65,040.00
Task 4.0	Additional Services (total of items a, b, c, d and e)	\$110,926.00
	a) Cleaning of bushings/linkages - \$2,354.00	
	b) Grounding connection checks - \$2,354.00	
	c) Circuit Switcher/Disconnect Testing - \$7,026.00	
	d) 69 kV PT Testing - \$3,911.00	
	e) Painting of H-frame and PT structures - \$95,281	
Task 5.0	Additional items including Project Management, Meetings, Conference Calls	\$52,754.00
	Bonds	\$3,215.00
	TOTAL NOT TO EXCEED AMOUNT	\$386,351.00

**Exhibit “B”
Project Tasks and Scope of Work Task
AGR23-48**

**Los Alamos County Department of Public Utilities – El Vado Hydroelectric Plant
Transformer Replacement Project**

The following serves to establish a scope of work for the replacement of a step-up transformer at the El Vado Power Plant. The existing transformer is to be disconnected and cleared by the County for removal from the site, removed and properly disposed of by the Contractor. The existing foundation and surrounding area shall be prepared for the new unit and related accessories which will be transported to the El Vado Station location by the transformer manufacturer to be offloaded by the transformer manufacturer. Additional site services by the transformer manufacturer shall include provision of a field engineer to guide the dress out and field testing of the transformer which will be performed by the Contractor. The Contractor shall also provide maintenance and testing of an existing high side potential transformer and an existing air circuit switcher per the manufacturer’s recommendations. Minor revisions to the station 69 kV bus connections are anticipated as noted in the drawings and materials list outlined. These changes should facilitate the installation of the new unit.

The scope of work is broken down into various tasks, the tasks include all items described in Section A. SERVICES and as described below, the work described below includes but may not be limited to all Tasks required to complete the project. Contractor shall provide all necessary tools, equipment and miscellaneous hardware as necessary to complete the project and provide a functional station ready for energization to the satisfaction of the County and the County’s Third-Party Engineer. A map showing the site location details is included.

Recent logistical circumstances out of County’s control will require a return visit by Contractor and possibly the manufacturer’s factory representative at a future date to the site to complete testing and commissioning of this Unit. El Vado Dam is a United States Bureau of Reclamation (“USBR”), federally-owned dam that impounds all the water used to run this hydroelectric facility. El Vado Dam is currently undergoing significant repairs and maintenance activities that will require the water-storage levels in the lake to be kept at an absolute minimum through at least the 2024 summer months. The new transformer cannot be loaded much higher than 1-2 Megawatts (“MW”) until:

1. USBR has satisfactorily completed all of their repairs pertaining to leakage at the Dam (originally ending fall 2023 now pushing into summer of 2024); and
2. Existing drought and hydrological conditions at the time are favorable for storing enough water in the reservoir to fully load the new transformer at all manufacturer-recommended levels as it pertains to a complete commissioning effort of this new unit.

Task 1.0 Removal of Existing Transformer and Accessories

1. Transformer will be de-energized, cleared and made ready for Contractor to perform removal activities by the County. Contractor to include all labor, tools and equipment necessary for the removal of the existing transformer. Drawings are included showing details related to weight, dimensions, external connections and accessories. This effort to include, but not limited to, removal of anchor plates, grounding conductors, related accessories, disconnection of 69 kV bus and arrester connections, removal of low side bus duct, bus duct housing, disconnection of transformer neutral connection, arrester

connections and surge counting devices, disconnecting existing control cables, removal of cooling equipment, and radiators.

2. Due to the limited room around the transformer the Contractor shall present a detailed lift plan for how the crane will be placed, how the unit will be picked-up, how it will be moved, and where the transport vehicle will be placed for removal and loading of the existing unit. Multiple lifts may be required. If so, the Contractor shall detail the proposed plan for each lift. Lift plans shall be presented to the County's Project Manager for approval by the Contractor's crane services company prior to proceeding with any hoisting activities. Because of the proximity to the existing 69 kV transmission line feeding the station, County will de-energize the line during the lift based on a mutually agreed upon date and outage window.
3. Transformer shall be removed from the site along with all accessories by the Contractor. Any salvage value for the unit shall be credited to County less any appropriate fees. Oil tests are available that show the unit is free of PCB's. Paperwork documenting the proper disposal of all pieces, including the full quantity of oil shall be furnished to County as a condition precedent for release of payment to the contractor.
4. Cribbing for outriggers or temporary placement of the transformer shall be the responsibility of the Contractor. Oil containment for the removal and installation of the transformer shall be the responsibility of the Contractor.
5. Site shall be cleaned to industry standards, and the area prepared for the new unit. This shall include, but not be limited to, removal of any debris, cutting of existing anchor bolts and a high pressure wash down of the foundation to remove any accumulated dirt, etc. Grout any holes in the concrete to prevent moisture accumulation. Contractor shall secure and weather seal the conduits/cables for the controls connections, grounding connections, and the low voltage busduct. The Contractor shall submit a plan for approval by the County for sealing and securing these items prior to transformer removal.

Task 2.0 Installation

1. The new transformer and related accessories are ready for delivery by the manufacturer as noted in the schedule provided by the County. Accessories such as arresters, bushing, radiators, topping off oil, etc. are all to be provided with the delivery from the manufacturer. The Contractor shall consult and co-ordinate with the County on storage of materials around the El Vado station due to the limited area around the El Vado station.
2. Contractor shall provide labor, tools, and equipment for the installation of the new transformer. This shall include, but not be limited to, reinstallation of anchor plates, reinstallation of grounding cables, reconnection of 69 kV jumpers including replacement or new fittings as appropriate for the arrester and/or transformer bushings, re-termination of low side bus jumpers, flexible links and insulation/boots, termination of controls cables and installation of radiator/fans as well as a full complement of field testing as noted below. Contractor should note that while the units are intended to be generally identical, slight variations in footprint, conduit gland plate location, etc. may be encountered. The bus duct connections are the critical elements that must be aligned. A flexible boot has been arranged to assist with minor offsets in the bus duct sections. Review of the drawings indicate that the bushing heights and enclosure dimensions are generally the same. Slight modifications for anchor plates may be required though to allow for proper alignment. The

Contractor shall not release the crane until the placement is accepted by County so that any minor adjustments can be performed especially as related to the bus duct housing flanges and seals.

3. Radiator connections, oil filling, topping off activities shall be in accordance with the manufacturer's guidelines and requirements. Spills or leaks shall be remedied immediately, and the Contractor shall have spill prevention and containment booms, rags, etc. onsite during any work with the oil.
4. Embedded conduits in the foundation shall be protected and suitable raceways installed to the conduit gland plate in the new transformer. Galvanized rigid conduit (RMC) is the preferred method, but Flexible Metallic Conduit (FMC) raceway connections may be required. These are acceptable if the rigid conduit raceways are not aligned well enough but needs to have approval from the County's Third-Party Engineer prior to proceeding.
5. Anchor bolts/plates shall be installed after the transformer is placed in six locations to be field located. This will require field drilling of the existing foundation and installation of epoxy type anchors. Anchors are to be 5/8" x 10" with an anticipated anchor plate size of 1/2" x 4" approximately 6" in length. Details to be coordinated with the Engineer after transformer placement.
6. Connections to the 69 kV bus-work/arresters are to be revised as generally shown in drawing EV-01. The goal is to modify the bus-work such that the bus terminates on the arresters as shown and jumpers extended to make the connections to the bushings as shown. New bus pieces may be required along with field bending of the bus pipe pieces to facilitate connection between the arrester terminal, the bus support insulator and the existing bus splices. See the drawing noted along with suggested list of materials.
7. Connections to the 69 kV and 4.16 kV existing equipment and conductors shall be coordinated with the testing and commissioning effort. The Contractor is responsible for coordinating the scheduling of these activities. Contractor shall supply all new fasteners for the bolted connections. Fasteners shall include Silicon Carbide bolts of appropriate length, stainless steel nuts and flat washers along with Belleville type 'domed' washers.
8. Contractor shall clean and check all existing dead-end structure and PT bus/insulators/linkages and components. Bring any concerns to the attention of the County and Engineer for further direction.

Task 3.0 Testing & Commissioning

1. Testing shall be provided by the Contractor under the guidance and direction of the manufacturer's field engineer. Testing performed on the assembled unit in accordance with industry standards by an InterNational Electrical Testing Association (NETA) certified contractor with NETA certified testing technicians. It shall include labor, tools and equipment (including lifts) as well as any related site work that might be required to complete the overall testing effort.
2. Contractor shall perform all specified equipment testing prior to energization including operational and verification testing of all components including cooling fans, oil preservation equipment, and all other components to ensure the unit is ready for operation.
3. Contractor, at a minimum, shall perform the following tests after the transformer has been placed:

- a. Transformer turns ratio test – all taps
 - b. Megger core and windings
 - c. Oil dielectric test
 - d. Winding resistance test
 - e. Field calibration of temperature devices
 - f. Field calibration of pressure device
 - g. On-site insulation power factor test of transformer and bushings
 - h. Field ratio/saturation/polarity checks on all Current Transformers (“CTs”)
 - i. Arrester testing of HV & LV arresters
 - j. Sweep Frequency Response Testing (“SFRA”)
4. Manufacturer’s field engineer shall confirm all accessories are functional to the terminal blocks provided in the control cabinet prior to connection of any field wiring.
 5. Manufacturer’s field engineer shall provide a written report indicating any concerns or deficiencies noted along with a ‘ready for energization’ statement prior to leaving the site. This work shall be a coordinated effort between the station Contractor and field engineer such that the overall installation is efficient and the combined effort between all parties and subcontractor’s results in a complete and well documented effort for the County.
 6. Functional testing and operation of the transformer controls, alarms and protection circuits shall be required and performed with the close supervision of El Vado plant personnel as the alarms and controls are integrated into the plant generation facility. Even though the generation plant will be off-line during the project, any unplanned alarm and/or trip scheme(s) initiation(s) or unintended operations of any related equipment due to inadvertent functional testing on the transformer controls or alarm circuits should be avoided.
 7. Contractor and testing subcontractor shall certify that the unit is ready for energization upon completion of their work.
 8. Test reports shall be submitted for review within five (5) days of testing and final copies made available within seven (7) days of acceptance of the preliminary report by the County.
 9. County would like to reiterate that additional testing may be required to fully commission the installation after suitable flows are reestablished as noted herein.

Task 4.0 Additional Services

1. Contractor shall perform checks on grounding connections on the 69 kV structures including the shield wires and downloads while the station is de-energized. Contractor shall perform similar checks on the PT structure grounds. Contractor shall report any concerns or deficiencies to the County.
2. Contractor shall perform testing and maintenance on the existing 69 kV structure mounted circuit switcher (S&C Type CS-1A) during the line/station outage. Testing and maintenance shall be in accordance with manufacturer’s recommendations. Functional testing of associated relays, lockouts, alarms and controls shall be documented and shown to be acceptable. Testing shall include the motor operator for the disconnect as well as the interrupters and the ground switch. Electrical testing shall also be in accordance with manufacturer’s recommendations.

3. Contractor shall perform testing on the existing 69 kV structure mounted potential transformer (PT) during the line/station outage. Testing shall be in accordance with manufacturer's recommendations. Testing shall be fully documented and shown to be acceptable.
Contractor shall provide all labor, tools and equipment necessary for the testing including, but not limited to, removal/replacement of the jumpers. Drawings are available for details related to weight, dimensions, external connections and accessories.
4. Contractor shall furnish preliminary test reports to the County within five (5) days of testing and provide final test reports to the County within seven (7) days of furnishing the preliminary test report.

Task 5.0 Additional Acknowledgements

1. Contractor acknowledges that access to the site is steeply inclined with little room for parking/storage. Care will be required for regular access to the site as well as for deliveries and offloading/loading of equipment.
2. Contractor acknowledges and agrees that the platform around the transformer foundation serves as part of a multi-level installation and care must be taken with handling heavy equipment, vehicles and apparatus. Placement of the crane to lift the transformer as well as the transport vehicle is critical to a successful project. Accordingly, a detailed lifting plan shall be provided for both the removal and installation. Any plans to place heavy equipment on the platform may require structural review which will be at the cost of the Contractor.
3. Contractor acknowledges and agrees that the existing containment area is limited in size as is the fenced area around the transformer. Removal of the fence may be necessary for easier access to the equipment and Contractor shall bear the cost of removal and replacement of the fence. with the cost of removal and replacement of the fence
4. Contractor shall ensure that any concerns noted during the removal/installation of the new transformer are promptly brought to the attention of the County for review and resolution.
5. Contractor acknowledges and agrees that weekly conference calls shall be coordinated with site personnel, County engineering staff and the County's Engineer to review project details, schedules and look ahead timelines.

EL VADO HYDROELECTRIC PLANT TRANSFORMER REPLACEMENT PROJECT

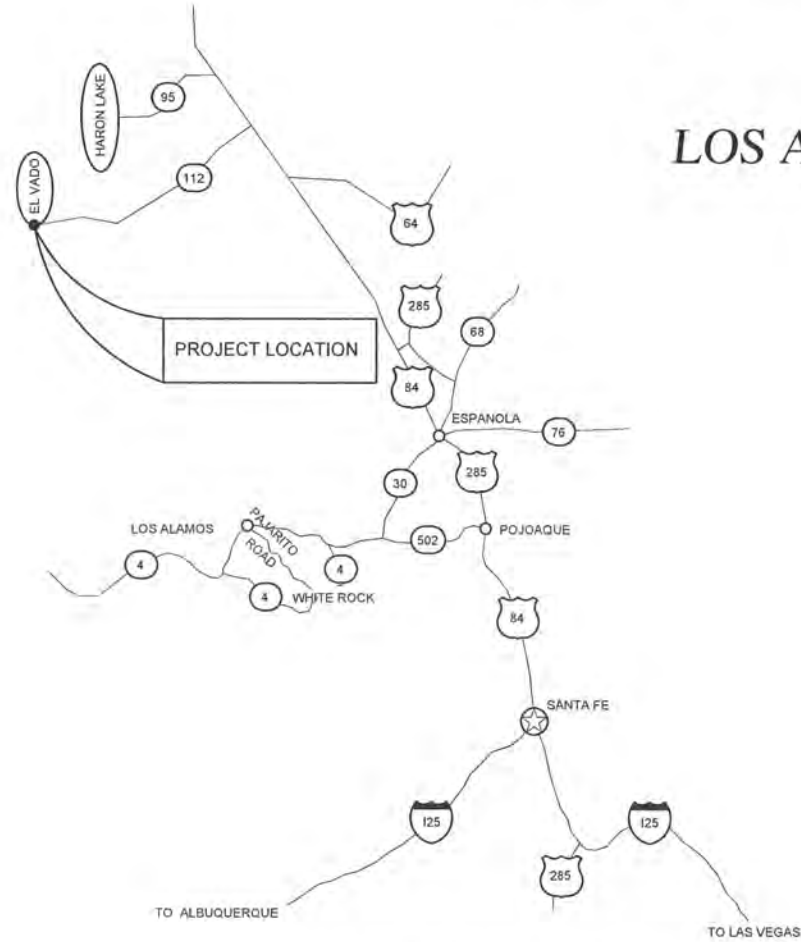
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RFP 23-48

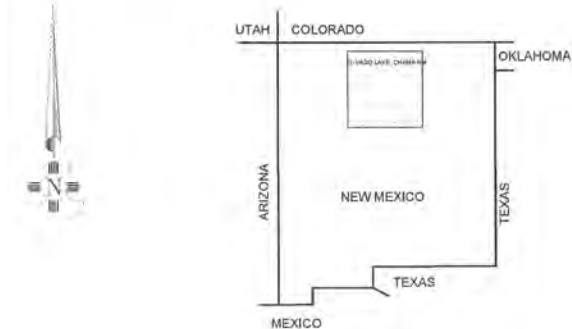
LOS ALAMOS COUNTY - NEW MEXICO



LOS ALAMOS



NEW MEXICO REGIONAL MAP
 NOT TO SCALE



SHEET INDEX

- 1/11 TITLE SHEET
- 2/11 SITE PLAN
- 3/11 EXISTING TRANSFORMER
- 4/11 ACCESS ROAD AND YARD
- 5/11 RE-PAINT HIGH VOLTAGE DISCONNECT SWITCH STRUCTURE
- 6/11 HIGH VOLTAGE DISCONNECT SWITCH STRUCTURE
- 7/11 ELECTRICAL SWITCH YARD PLAN & SECTIONS
- 8/11 UPPER DECK ELECTRIC ARRANGEMENT ELEVATION 6,750'
- 9/11 UPPER DECK CONCRETE OUTLINE ELEVATION 6,752'
- 10/11 NEW TRANSFORMER
- 11/11 OLD TRANSFORMER

APPROVED BY:

DEPARTMENT OF PUBLIC
 UTILITIES PROJECT ENGINEER

DATE

11/18/22

DEPARTMENT OF PUBLIC UTILITIES
 ENGINEERING PROJECT MANAGER

DATE

11/18/22

L:\PROJ\EDR\23-48 EL VADO TRANSFORMER INSTALLATION\PROJECT\CONSTRUCTION\DRAWINGS\DESIGN\COVER SHEET\COVER AND SHEET 1-1.DWG

Drawing File: L:\PROJECTS\IRFP 2023-48 EL VADO TRANSFORMER INSTALLATION PROJECT\CONSTRUCTION DRAWINGS\DESIGN\CAD DRAWINGS\DESIGN SHEETS_2_9 TO 9_9.DWG



AERIAL VIEW OF HYDROELECTRIC PLANT

GENERAL NOTES:

1. THE HYDROELECTRIC PLAN WILL BE OFFLINE WHEN WORK TAKES PLACE. WORK ON THE TRANSFORMER AND WITHIN THE SWITCHYARD WILL REQUIRE HIGH VOLTAGE ELECTRIC FACILITIES ARE LOCKED OUT AND TAGGED OUT.
2. CONTRACTOR IS RESPONSIBLE FOR PROVIDING A CRANE TO SET AND REMOVE THE NEW AND EXISTING TRANSFORMERS.
3. WORK SHALL BE SCHEDULED BETWEEN THE HOURS OF 7:00AM AND 5:00 PM WHILE THE PLANT IS STAFFED BY LAC OPERATORS. WORK TO PERFORMED ON WEEKENDS OR EXTENDED DAYS SHALL BE COORDINATED WITH PLANT STAFF TWO WEEKS IN ADVANCE.
4. ACCESS TO THE PLANT IS A SINGLE LANE DIRT ROAD WITH STEEP GRADE. CONTRACTOR SHALL MAKE THEMSELVES FAMILIAR WITH THE SITE CONDITIONS AND PLAN WORK AND LARGE VEHICLE ACCESS ACCORDINGLY GIVEN THE SITE CONDITIONS. NO ADDITIONAL PAYMENT WILL BE MADE FOR ACCESS RESTRICTIONS THAT IMPACT THE WORK.
5. CONTRACTOR SHALL COORDINATE WITH PLANT OPERATORS 2 WEEKS IN ADVANCE DE-ENERGIZING THE 69.9KV TRANSMISSION LINE TO COMPLETE THE RE-PAINTING OF THE POWER POLE STRUCTURE.

NO.	REVISION DESCRIPTION
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DESIGNED BY:	JA
DRAWN BY:	ERG
APPROVED BY:	JA
DATE:	11/2022
SCALE:	N/T

**EL VADO HYDROELECTRIC PLANT
TRANSFORMER REPLACEMENT
PROJECT
SITE PLAN**



INCORPORATED COUNTY
OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVE., SUITE 130
LOS ALAMOS, NEW MEXICO 87544
(505) 662-8333 FAX: (505) 662-8005

SHEET

2/11



A
3

VIEW LOOKING EAST



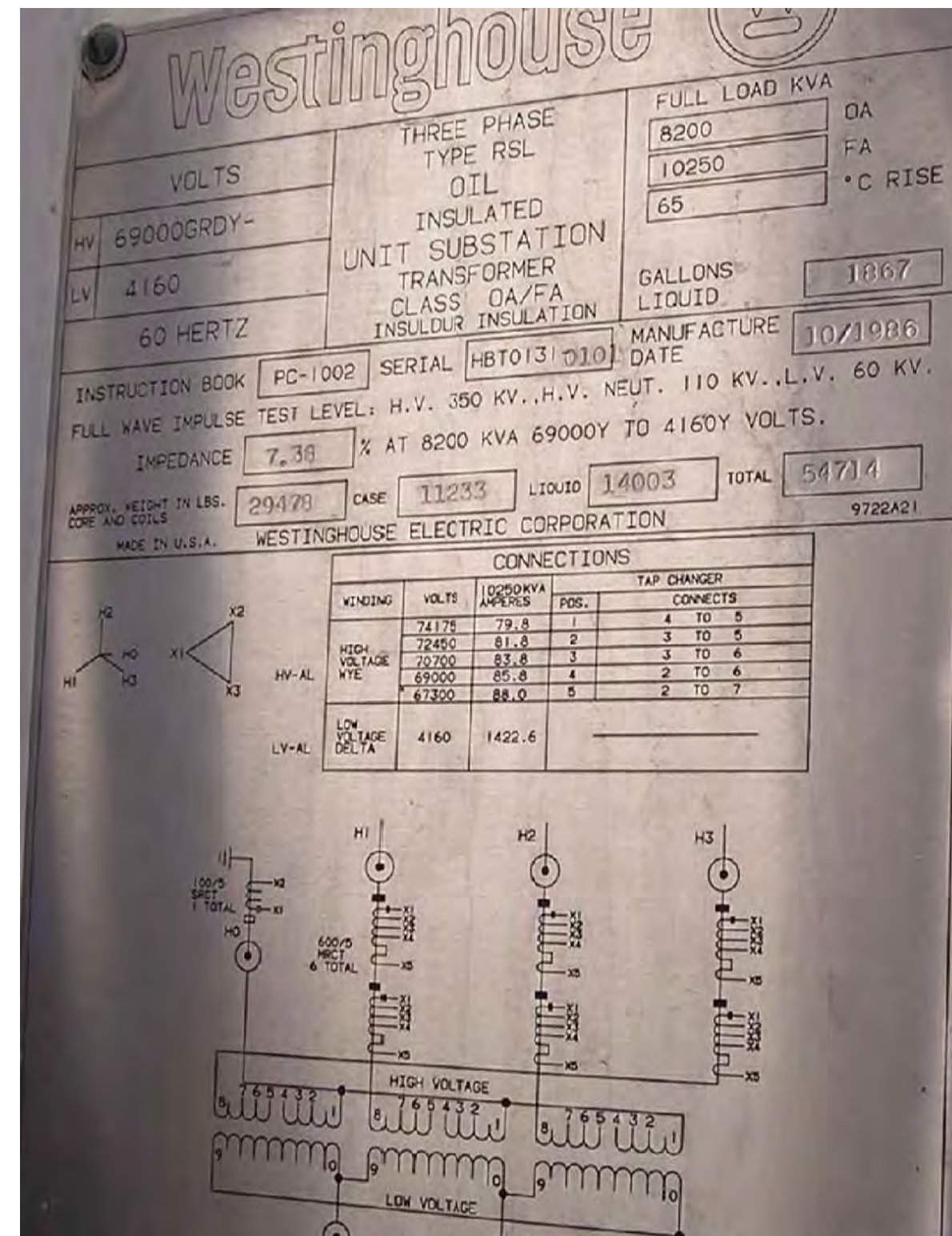
B
3

VIEW LOOKING WEST



C
3

VIEW LOOKING NORTH



D
3

EXISTING TRANSFORMER NAME PLATE

NO.	REVISION DESCRIPTION
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DESIGNED BY: JA
 DRAWN BY: ERG
 APPROVED BY: JA
 DATE: 11/2022
 SCALE: NTS

EL VADO HYDROELECTRIC PLANT
 TRANSFORMER REPLACEMENT
 PROJECT
 EL VADO HYDROELECTRIC PLANT
 EXISTING TRANSFORMER



INCORPORATED COUNTY
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 (505) 662-8333 FAX: (505) 662-8005

SHEET
 3/11



A
4

TOP OF ACCESS ROAD LOOKING NORTH



B
4

ACCESS ROAD LOOKING NORTH



C
4

SWITCHING YARD



D
4

PLANT YARD

NO.	REVISION DESCRIPTION
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DESIGNED BY:	JA
DRAWN BY:	ERG
APPROVED BY:	JA
DATE:	11/2022
SCALE:	NTS

EL VADO HYDROELECTRIC PLANT
TRANSFORMER REPLACEMENT
PROJECT
EL VADO HYDROELECTRIC PLANT
ACCESS ROAD AND YARD



INCORPORATED COUNTY
OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVE., SUITE 130
LOS ALAMOS, NEW MEXICO 87544
(505) 662-8333 FAX: (505) 662-8005

SHEET
4/11



GENERAL NOTES

- ① REFER TO SHEET 6/9 FOR MEASUREMENTS AND DIMENSION OF STRUCTURES
- ② TRANSMISSION LINE WILL BE DE-ENERGIZED DURING PAINTING

KEYED NOTES

- ① SURFACE PREPARATION AND APPLY COATING TO VERTICAL STEEL POLES
- ② SURFACE PREPARATION AND APPLY COATING TO HORIZONTAL STRUCTURE STEEL MEMBERS AND SWITCH MOUNTS
- ③ SURFACE PREPARATION AND APPLY COATING TO BASE PLATE & ANCHOR BOLTS
- ④ SURFACE PREPARATION AND APPLY COATING TO PT TRANSFORMER MAST
- ⑤ CONTRACTOR SHALL PERFORM INSPECTION AND MAINTENANCE OF THE EXISTING OVERHEAD SWITCH. MAINTENANCE ON SWITCH SHALL BE PERFORMED PER THE MANUFACTURES RECOMMENDATIONS. SWITCH LITERATURE AND CUT SHEETS WILL BE PROVIDED AT PRE-PROPOSAL MEETING.

PAINT SPECIFICATION(S)

1. All coatings shall be applied per the paint manufacturer's recommendations.
2. Surface Preparation
 - All surfaces **SSPC-SP WJ-4** Waterjet Cleaning of Metals-Light Cleaning:
 - Remove all visible oil, grease, dirt, dust, loose mill scale, loose rust and other corrosion products, and loose coating. Any residual material shall be tightly adhered to the metal substrate and may consist of randomly dispersed stains of rust and other corrosion products or previously applied coating, tightly adherent thin coatings, and other tightly adherent foreign matter.
 - Where bare metal is exposed and corroded and pitted **SSPC-SP11** Power-Tool Cleaning to Bare Metal.
3. Primer
 - 1 Coat: B58W00610 - Macropoxy® 646 Fast Cure Epoxy or engineer approved equal. Apply 5 to 10 mils Dry Film Thickness.
4. Finish Coat
 - 2 Coats: B80W00501 - SHER-LOXANE 800 or engineer approved equal. Apply 10 mils Dry Film Thickness (total of 2 coats combined).

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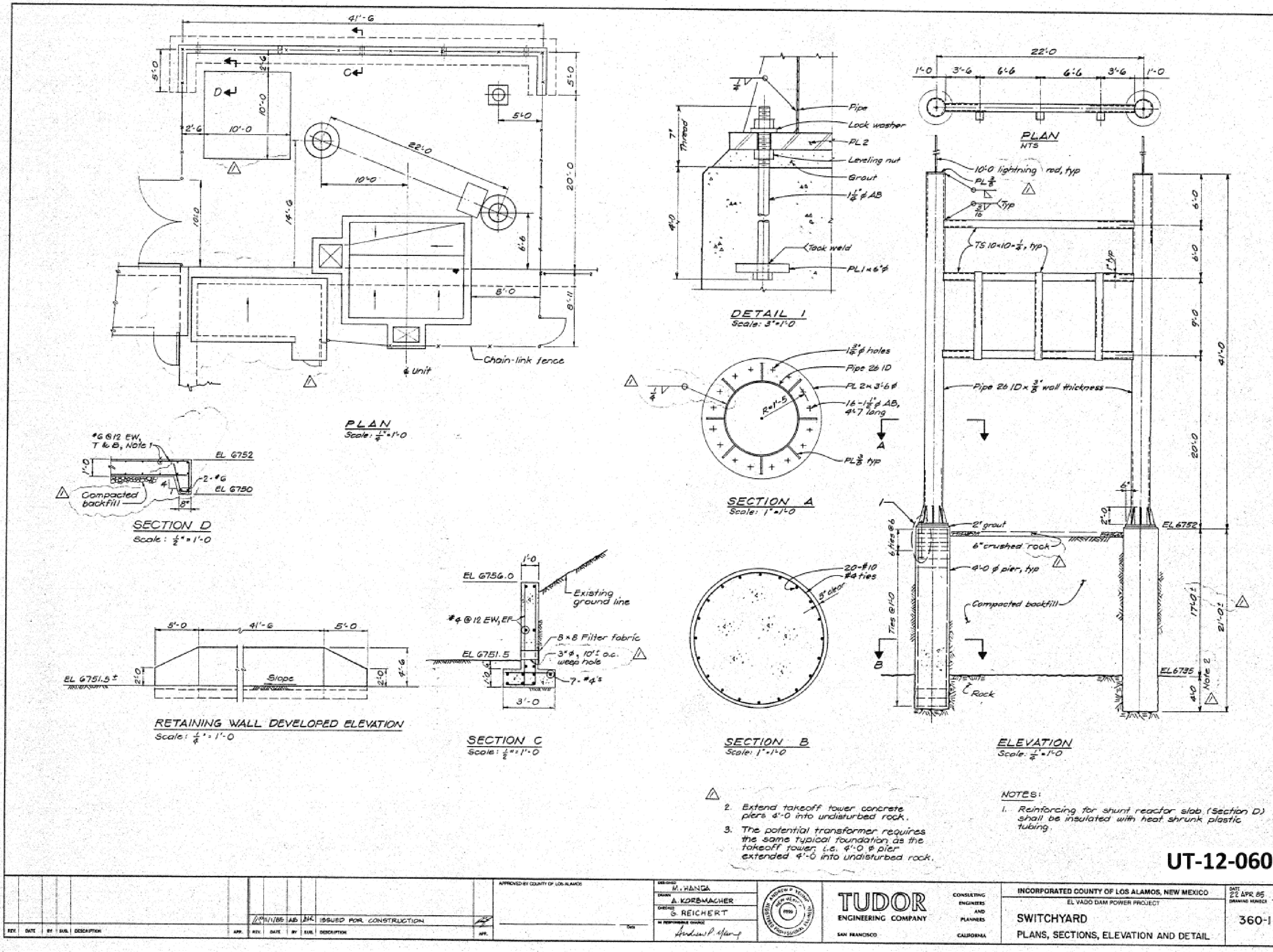
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APPROVED BY: JA	DATE: 11/2022
SCALE: NTS	

**EL VADO HYDROELECTRIC PLANT
 TRANSFORMER REPLACEMENT
 PROJECT**
 EL VADO HYDROELECTRIC PLANT RE-PAINT HIGH
 VOLTAGE DISCONNECT SWITCH STRUCTURE



**INCORPORATED COUNTY
 OF LOS ALAMOS**
 DEPARTMENT OF PUBLIC UTILITIES
 1000 CENTRAL AVE., SUITE 130
 LOS ALAMOS, NEW MEXICO 87544
 (505) 662-8333 FAX: (505) 662-8005

SHEET
5/11



<table border="1"> <tr> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				REV	DATE	BY	DESCRIPTION					<table border="1"> <tr> <th>APP</th> <th>REV</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				APP	REV	DATE	BY	DESCRIPTION						<table border="1"> <tr> <td>DESIGNED BY: M. HANNA</td> <td>DATE: 22 APR 85</td> </tr> <tr> <td>DRAWN BY: A. KORBMACHER</td> <td>DRAWING NUMBER: 360-1</td> </tr> <tr> <td>CHECKED BY: G. REICHERT</td> <td> </td> </tr> <tr> <td>IN CHARGE: Andrew P. Young</td> <td> </td> </tr> </table>				DESIGNED BY: M. HANNA	DATE: 22 APR 85	DRAWN BY: A. KORBMACHER	DRAWING NUMBER: 360-1	CHECKED BY: G. REICHERT		IN CHARGE: Andrew P. Young	
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APPROVED BY COUNTY OF LOS ALAMOS:																																					
TUDOR ENGINEERING COMPANY SAN FRANCISCO, CALIFORNIA				INCORPORATED COUNTY OF LOS ALAMOS, NEW MEXICO EL VADO DAM POWER PROJECT SWITCHYARD PLANS, SECTIONS, ELEVATION AND DETAIL																																	

REFERENCE DRAWING - SWITCHING STRUCTURE

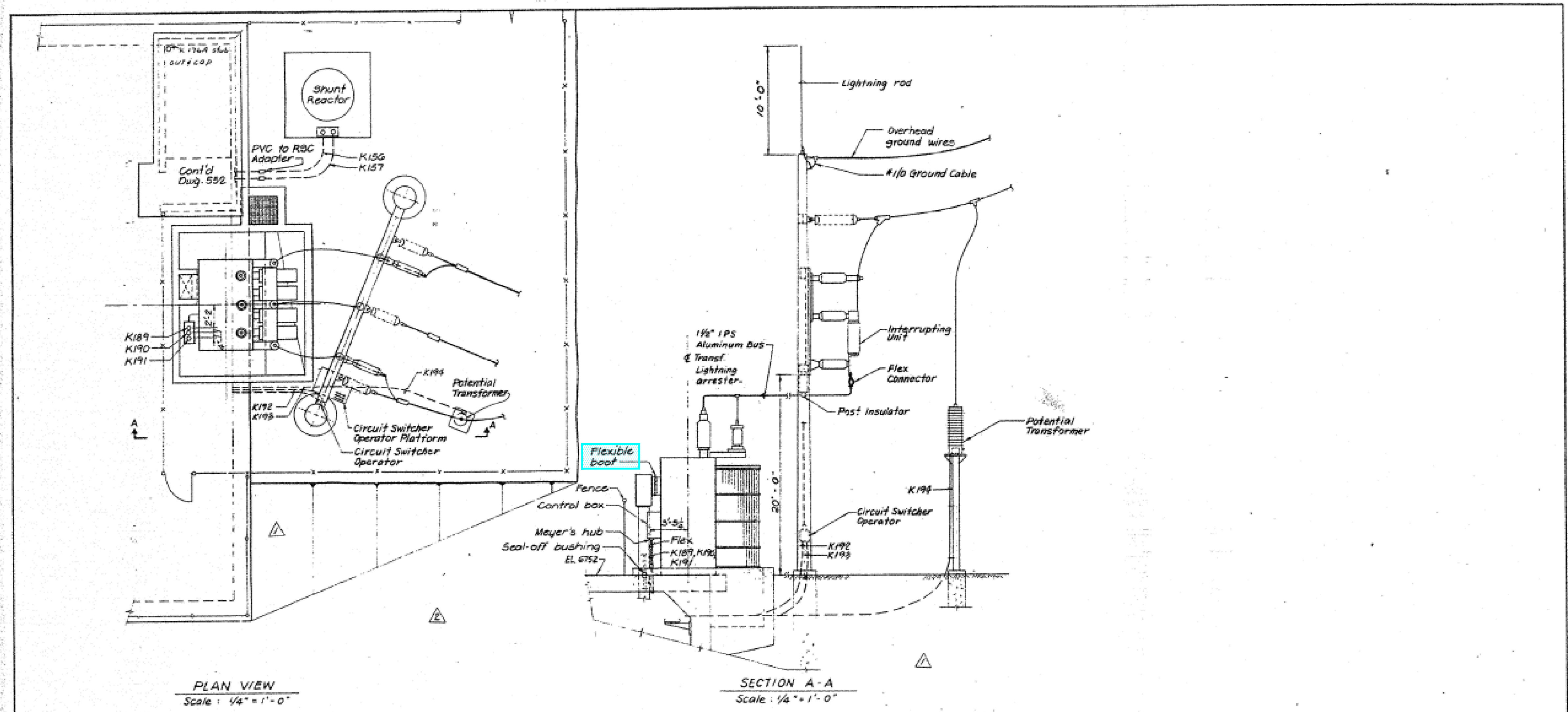
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DESIGNED BY: JA	ERG
DRAWN BY: ERG	JA
APPROVED BY: JA	
DATE: 11/2022	
SCALE: NTS	

EL VADO HYDROELECTRIC PLANT
TRANSFORMER REPLACEMENT
PROJECT
EL VADO HYDROELECTRIC PLANT HIGH VOLTAGE
DISCONNECT SWITCH STRUCTURE



INCORPORATED COUNTY OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVE., SUITE 130
LOS ALAMOS, NEW MEXICO 87544
(505) 662-8333 FAX: (505) 662-8005



REV. DATE BY SUB DESCRIPTION 1 11/2022 J.A. REV PER MRP CHANGES 2 11/2022 J.A. REV FOR CONSTRUCTION		APPROVED BY COUNTY OF LOS ALAMOS 	DESIGNED BY G. CARDENAS CHECKED BY J. LEE DRAWN BY C.J. FERNANDEZ / J. LEE IN CHARGE C.J. FERNANDEZ	 TUDOR ENGINEERING COMPANY SAN FRANCISCO CALIFORNIA	INCORPORATED COUNTY OF LOS ALAMOS, NEW MEXICO EL VADO DAM POWER PROJECT ELECTRICAL SWITCHYARD PLAN AND SECTIONS	DATE 22 APR 25 DRAWING NUMBER 580-2
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UT-12-060

REFERENCE DRAWING - ELECTRIC SWITCH YARD PLAN & SECTIONS

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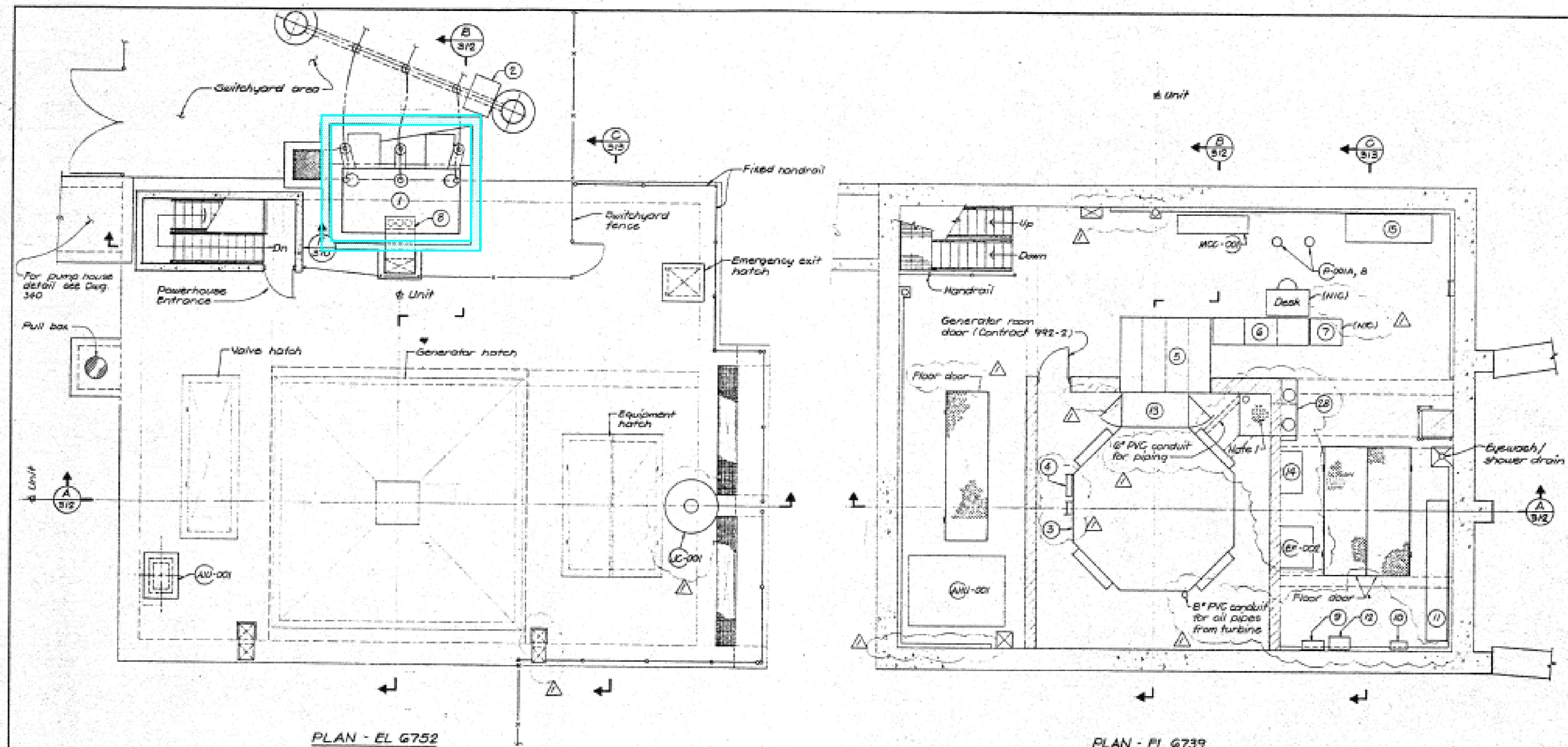
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DRAWN BY: J.A.	NTS
APPROVED BY: J.A.	
DATE: 11/2022	
SCALE: NTS	

EL VADO HYDROELECTRIC PLANT
 TRANSFORMER REPLACEMENT
 PROJECT
 EL VADO HYDROELECTRIC PLANT
 ELECTRICAL SWITCH YARD PLAN & SECTIONS



INCORPORATED COUNTY OF LOS ALAMOS
 DEPARTMENT OF PUBLIC UTILITIES
 1000 CENTRAL AVE., SUITE 130
 LOS ALAMOS, NEW MEXICO 87544
 (505) 662-8333 FAX: (505) 662-8005

SHEET
 7/11



PLAN - EL 6752
Scale: 1/4" = 1'-0"

PLAN - EL 6739
Scale: 1/4" = 1'-0"

EQUIPMENT LIST
CONTRACT 992-2

1. MAIN POWER TRANSFORMER	18. VOLTAGE REGULATOR
2. CIRCUIT SWITCHER	19. STATION SERVICE TRANSFORMERS
3. GENERATOR (G-001)	20. TURBINE SHUTOFF VALVE (TV-001)
4. GENERATOR ACCESSORY TERMINAL BOX	21. MECHANICAL COUPLING
5. METALCLAD SWITCHGEAR WITH GENERATOR BREAKER AND SURGE PROTECTION	22. TURBINE SHUTOFF VALVE OPERATOR
6. MAIN CONTROL PANELS	23. SPIRAL CASE PRESSURE INDICATOR TRANSMITTER
7. SCADA	24. GENERATOR HYDRAULIC UNIT (GHW-001)
8. NON-SEGREGATED PHASE BUS DUCT	25. GENERATOR PRESSURE TANK (V-001)
9. DC DISTRIBUTION PANEL	26. GENERATOR AIR COMPRESSOR (A-001)
10. 125 H DC FUSE SAFETY SWITCH	27. GENERATOR ELECTRICAL CURTICLE (ECC-001)
11. BATTERIES AND BATTERY RACK	28. OIL COOLERS
12. BATTERY CHARGER	29. HIGH PRESSURE OIL LIFT SYSTEM (HOL-001)
13. MAIN AND NEUTRAL TERMINAL CABINET	30. PENROCK PRESSURE INDICATOR TRANSMITTER
14. TURBINE GENERATOR GAUGE BOARD (TGB-001)	31. BREAK AND JUMP CURTICLE (BJC-001)
15. STATION SERVICE DISTRIBUTION PANELS	32. WINTNER-KENNEDY FLOW MEASURING TRANSDUCER
16. TURBINE WICKET GATE SERVOACTUATORS	33. COMBINED PRESSURE AND VACUUM INDICATOR AND TRANSMITTER
17. EXCITATION TRANSFORMER	

EQUIPMENT LIST
CONTRACT 992-3

JC-001	- JIB CRANE
AHU-001	- AIR HANDLING UNIT
MCC-001	- MOTOR CONTROL CENTER
EF-001, 002	- CO ₂ EXHAUST FANS
P-001A, B	- PINEHOUSE DRAINAGE PUMPS
K-002, K-002	- STATION AIR COMPRESSOR AND TANK
PP-001, 002, 003	- CO ₂ BOTTLES AND RACK
P-002A, B	- COOLING WATER PUMPS
LT-001	- TAILWATER AND LEVEL TRANSDUCER
P-005	- UTILITY WATER PUMP AND STRAINER
AIU-001	- AIR INTAKE UNIT

NOTES:
1. Cover plate shall be manufactured upon completion of piping. Cover plate will act as CO₂ barrier.

0 4 8 12 16 20 24 28 Feet
Scale: 1/4" = 1'-0"

UT-12-060

APPROVED BY COUNTY OF LOS ALAMOS W. POKORNY A. BULSECO G. REICHERT			TUDOR ENGINEERING COMPANY SAN FRANCISCO	CONSULTING ENGINEER AND ARCHITECT CALIFORNIA	INCORPORATED COUNTY OF LOS ALAMOS, NEW MEXICO EL VADO DAM POWER PROJECT POWERHOUSE GENERAL ARRANGEMENT PLANS - EL 6752 AND EL 6739	DATE: 02 APR 05 SHEET NUMBER: 310-1
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REFERENCE DRAWING - UPPER DECK GENERAL ARRANGEMENT (ELEV. 6,752')

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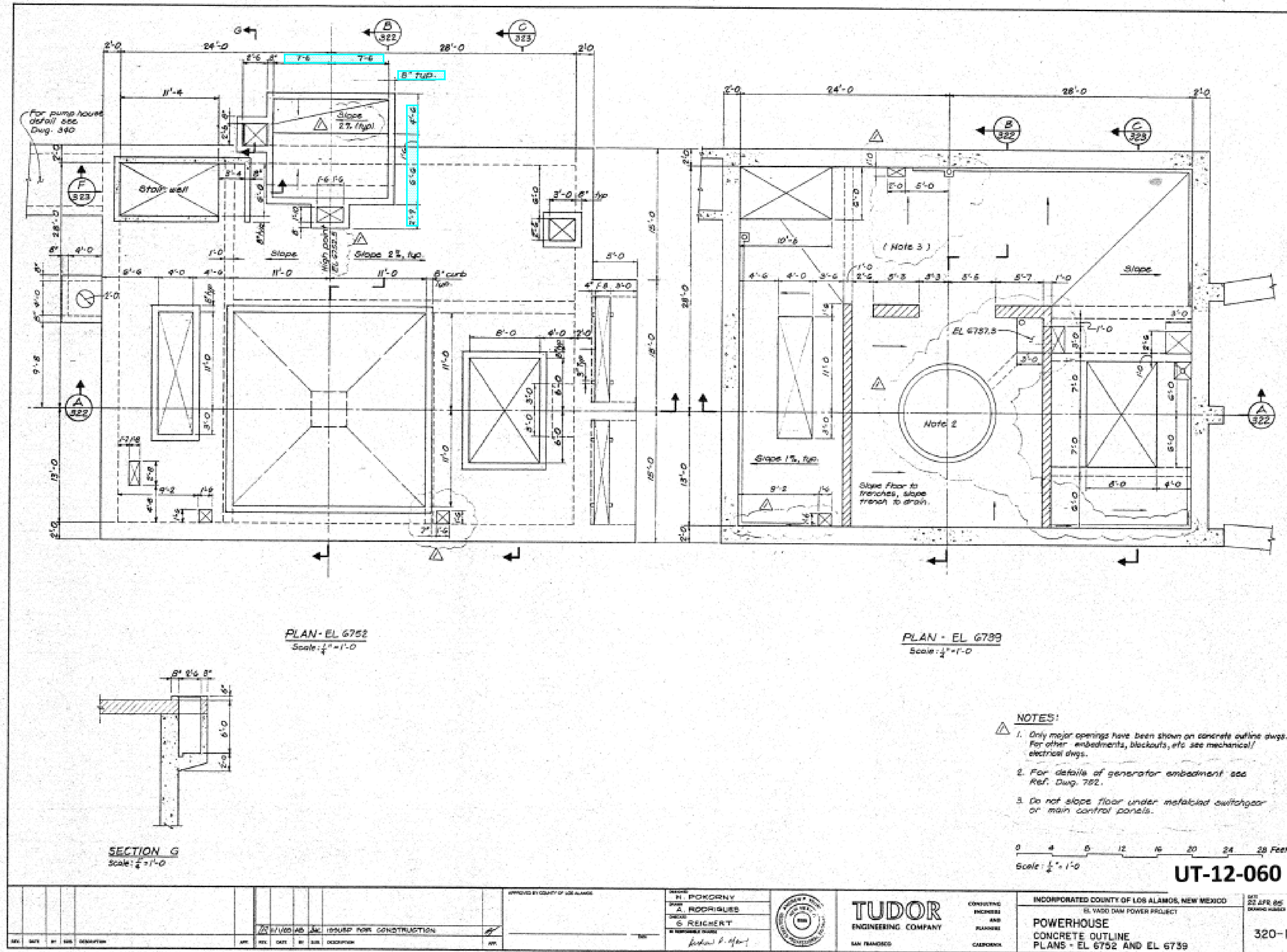
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APPROVED BY:	JA
DATE:	11/2022
SCALE:	NTS

**EL VADO HYDROELECTRIC PLANT
TRANSFORMER REPLACEMENT
PROJECT**
**UPPER DECK GENERAL ARRANGEMENT
ELEVATION 6,752'**



INCORPORATED COUNTY OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVE., SUITE 130
LOS ALAMOS, NEW MEXICO 87544
(505) 662-8333 FAX: (505) 662-8005

SHEET
8/11



REFERENCE DRAWING - CONCRETE OUTLINE (ELEV. 6,752')

NO.	REVISION DESCRIPTION
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DESIGNED BY:	JA
DRAWN BY:	ERG
APPROVED BY:	JA
DATE:	11/2022
SCALE:	NTS

EL VADO HYDROELECTRIC PLANT
TRANSFORMER REPLACEMENT
PROJECT
UPPER DECK CONCRETE OUTLINE
ELEVATION 6,752'



INCORPORATED COUNTY OF LOS ALAMOS
DEPARTMENT OF PUBLIC UTILITIES
1000 CENTRAL AVE., SUITE 130
LOS ALAMOS, NEW MEXICO 87544
(505) 662-8333 FAX: (505) 662-8005

SHEET

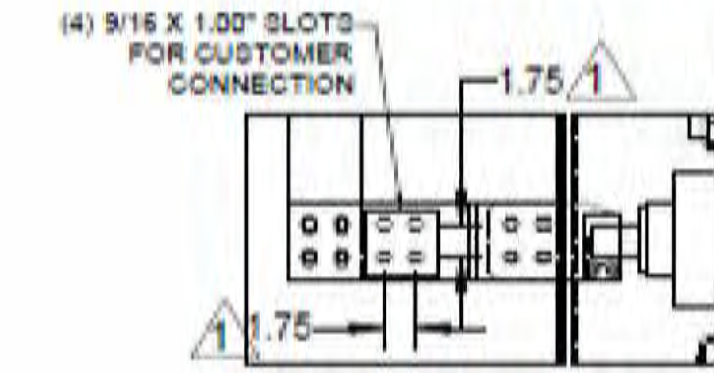
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ITEMS:

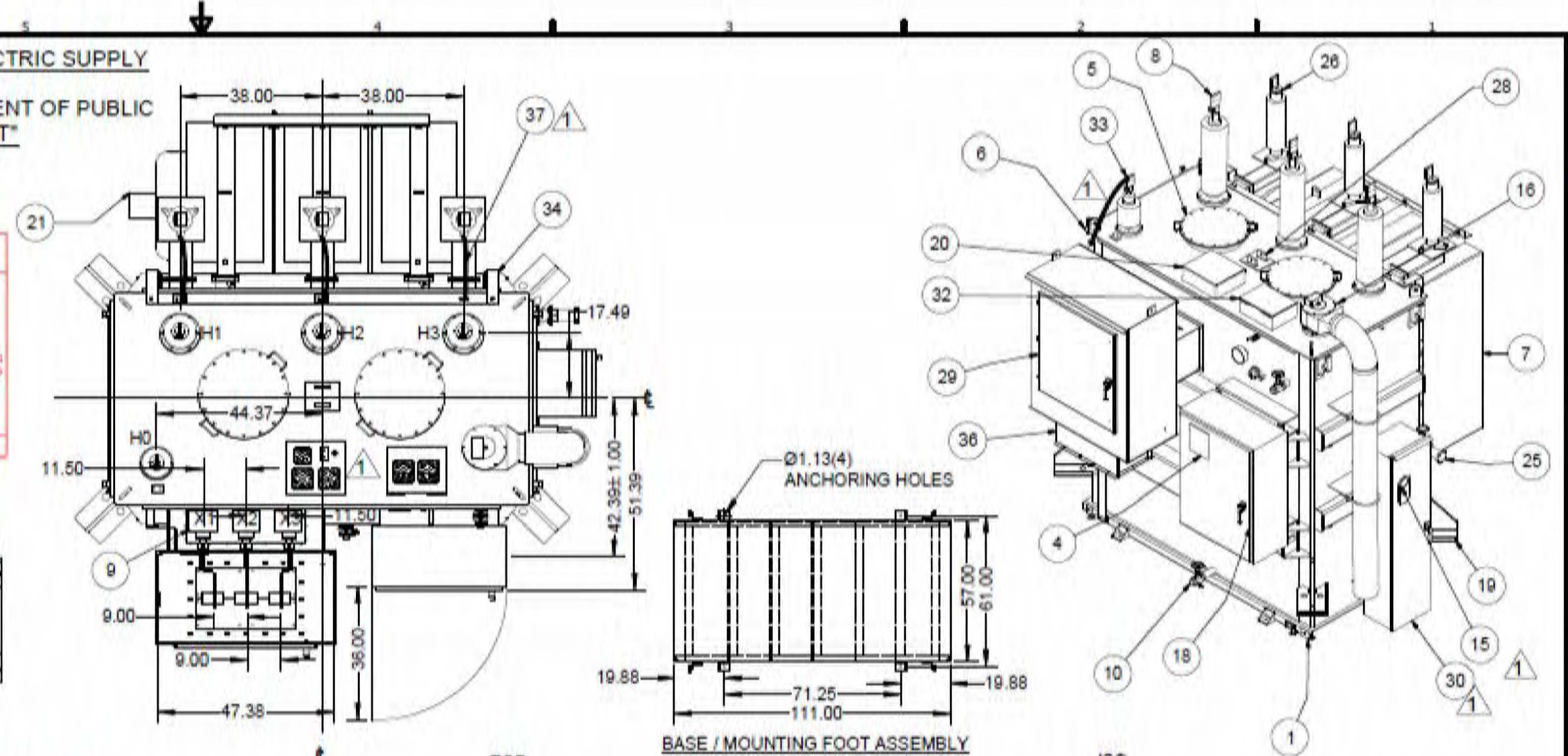
1. PROVISION ON BASE FOR SKIDDING
2. TRANSFORMER LIFTING LUGS
3. STAINLESS STEEL NEMA 2-HOLE GROUND PADS (4) ON EACH CORNER OF TANK
4. ALUMINUM DIAGRAMMATIC NAMEPLATE
5. 20" DIA. MANHOLE (2) WITH COVER (BOLTED AND GASKETED)
6. WELDED TOP COVER WITH LIFTING EYES (4) FOR COVER ONLY, SLOPE FOR DRAINAGE
7. COOLING RADIATORS (3), HOT DIPPED GALVANIZED, UNPAINTED, DEMOUNTABLE WITH ISOLATION VALVES, LIFTING EYES, AND 1" DRAIN/ VENT PLUGS
8. HV DRAW LEAD BUSHING, 69kV, 350kV BIL, 400A RATED (3), WITH 4 HOLE NEMA PAD
9. LV BOTTOM CONNECTED BUSHING, 15kV, 110kV BIL, 2400A RATED (4), WITH 4 HOLE NEMA PAD
10. 2" COMBINATION LOWER DRAIN AND FILTER VALVE WITH SAMPLER AND PLUG LOCATED FOR COMPLETE DRAINAGE
11. 2" UPPER FILTER VALVE AND PLUG
12. VTC PRESSURIZATION TEST POINT WITH 1/2" BALL VALVE AND PLUG
13. LIQUID LEVEL GAUGE WITH CONTACTS, GAUGE CENTER IS AT 25deg C OIL LEVEL
14. LIQUID TEMPERATURE GAUGE WITH CONTACTS
15. PRESSURE VACUUM GAUGE, INSIDE NITROGEN BOX, WITH CONTACTS AND BLEEDER
16. PRESSURE RELIEF DEVICE WITH CONTACTS, FLAG, 8" DIRECTIONAL SHROUD PVC PIPE AND SCREEN
17. DE-ENERGIZED NO LOAD MANUAL TAP CHANGER WITH PROVISION FOR PADLOCKING
18. CONTROL BOX, NEMA 4, 48 x 36 x 18 WITH BOLTED BOTTOM PLATE
19. JACK PADS (4) WITH PULLING EYES
20. BOX FOR LV CT FEED THRU AND EXTERNAL CORE GROUND BUSHING
21. COOLING FAN
22. WINDING TEMPERATURE GAUGE, SIMULATION SYSTEM, WITH CONTACTS
23. BOLTED, GASKETED PLATE FOR ACCESS TO DETC
24. THERMOWELLS FOR TEMPERATURE GAUGES
25. SUDDEN PRESSURE RELAY, UNDER OIL TYPE WITH FLANGED GLOBE VALVE GATE TYPE AND SEAL IN RELAY
26. HV STATION CLASS ARRESTER (3), POLYMER, 54kV, 42kV MCOV
27. LV STATION CLASS ARRESTER (3), POLYMER, 6kV, 5.1kV MCOV
28. FALL PROTECTION MOUNTING PLATE
29. LV PARTIAL HEIGHT AIR TERMINAL CHAMBER, BOLT-ON, WITH HINGED FRONT LOCKABLE DOOR, SPACE HEATERS, CABLE SUPPORTS AND CONNECTION BOTTOM FOR TRANSITION BOOT
30. BOX FOR NITROGEN BOTTLE AND CONTROLS (3 STAGE REGULATOR)
31. GROUND LUG (4) CLAMP TYPE FOR 4/0 TO 500 MCM CABLE
32. BOX FOR HV CT FEED THRU
33. H0 DRAW LEAD BUSHING, 15kV, 110kV BIL, 600 A RATED WITH 4 HOLE NEMA PAD
34. 1/4 X 3.00" Cu GROUND BUS FOR GROUNDING HV/LV ARRESTERS TO BASE GROUND PAD, PAINTED SAME AS TRANSFORMER EXCEPT CONNECTION POINTS
35. 1/2" X 4 Cu EXTENSION BUS TO CONNECT 4 HOLE PHASE BUS
36. FLEXIBLE TRANSITION BOOT FOR EXISTING BUST DUCT
37. 4/0 Cu BARE CABLE FROM BUSHINGS TO ARRESTERS AND FROM H0 TO GRD BUS

Customer: WESTERN UNITED ELECTRIC SUPPLY
 PO # 83323
 LOS ALAMOS COUNTY DEPARTMENT OF PUBLIC UTILITIES "EL VADO HYDRO PLANT"

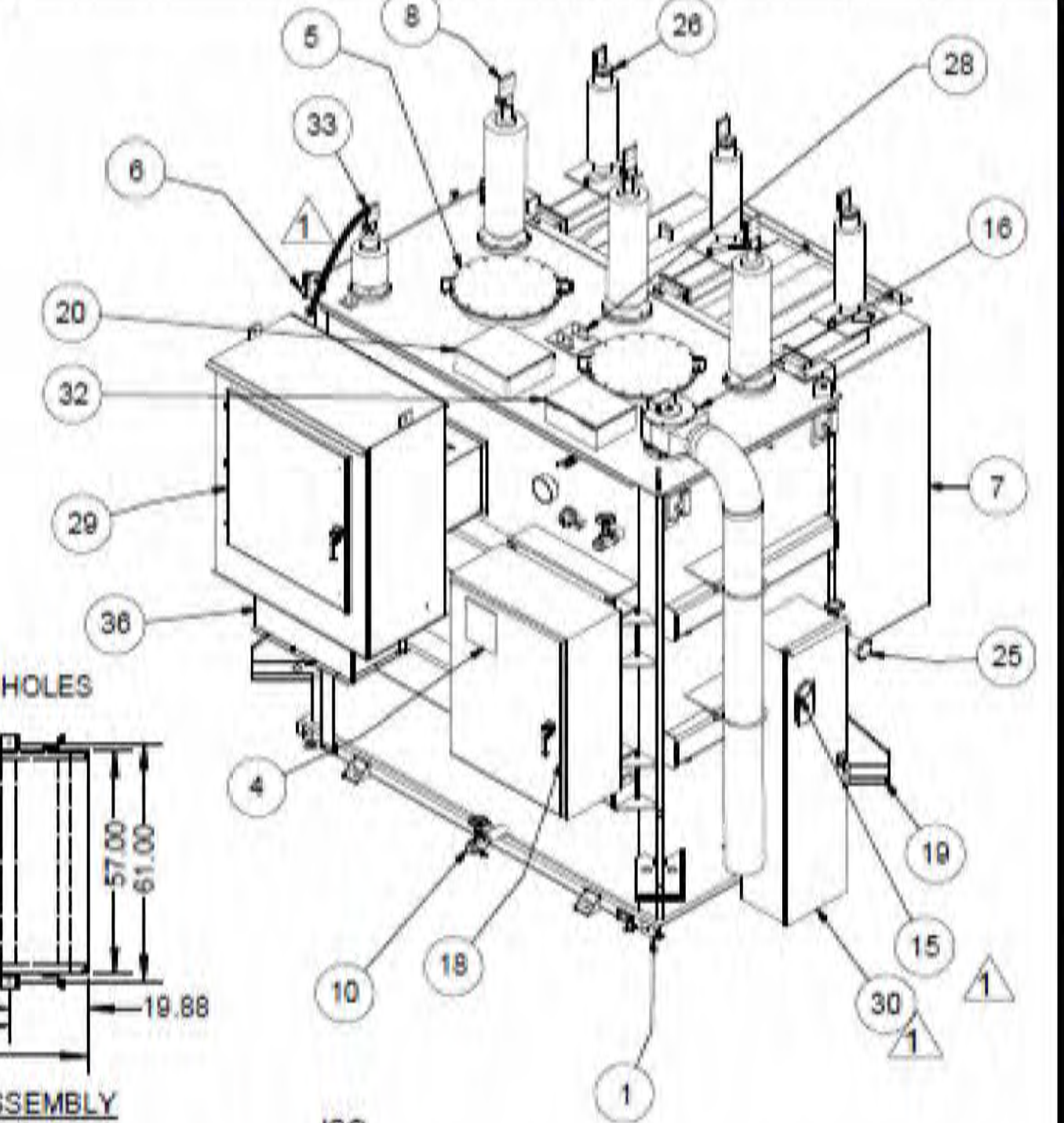
REVIEWED: [] REJECTED [] SEE ATTACHED NOTES [] REVISE AND RESUBMIT []
 THIS REVIEW DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS REVIEW IS ONLY FOR THE GENERAL CONSISTENCY WITH THE CONTRACT DOCUMENTS BEARING THE STAMP OF T&D SERVICES. CONTRACTOR IS RESPONSIBLE FOR MEANS, METHOD, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION INCLUDING, BUT NOT LIMITED TO, CONFORMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING WORK WITH THAT OF ALL OTHER TRADES, AND JOB SITE SAFETY PRECAUTIONS AND PROGRAMS.
 BY: Kenneth Adams T&D SERVICES 7/19/2022 DATE



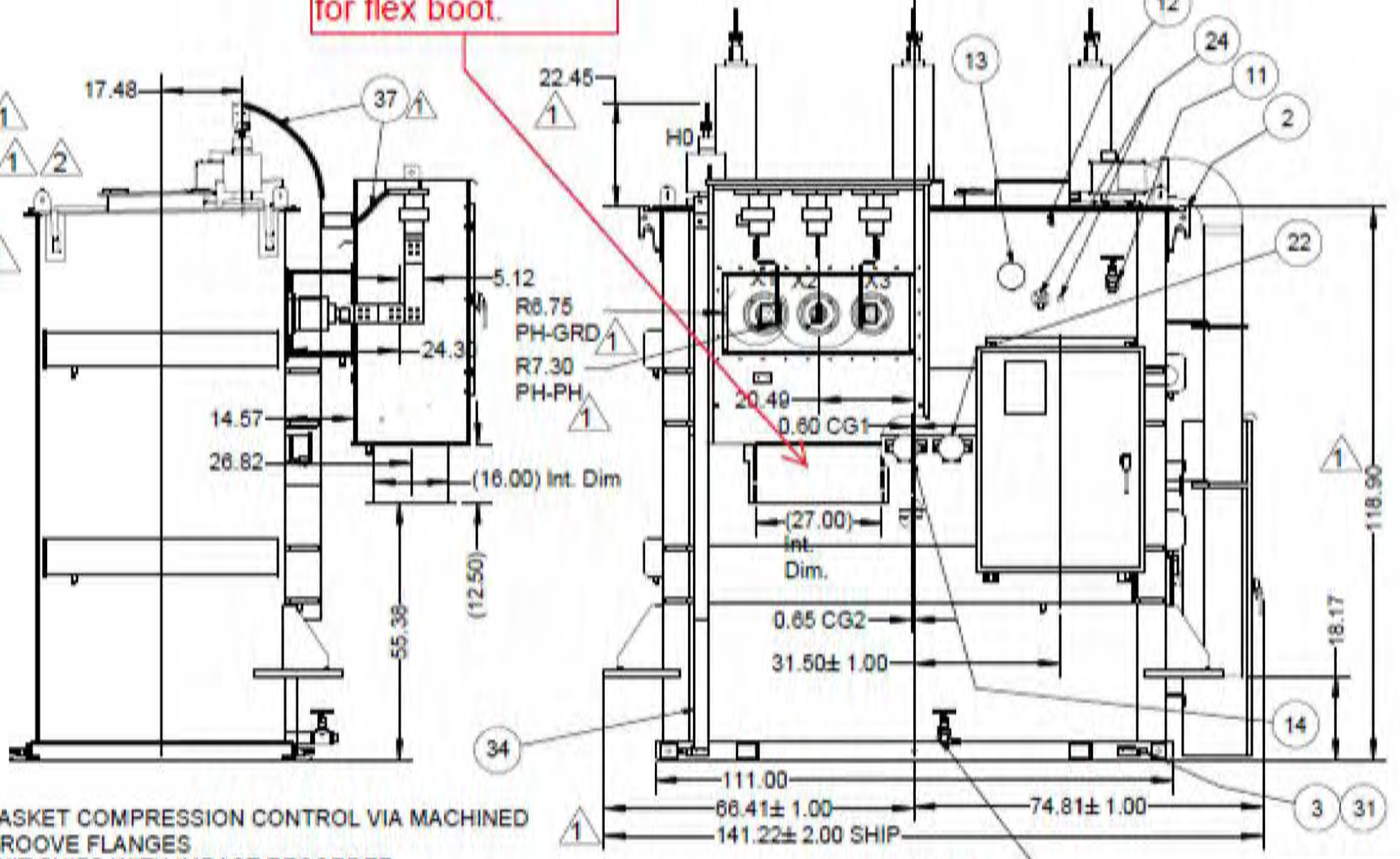
Provide Submittal for flex boot.



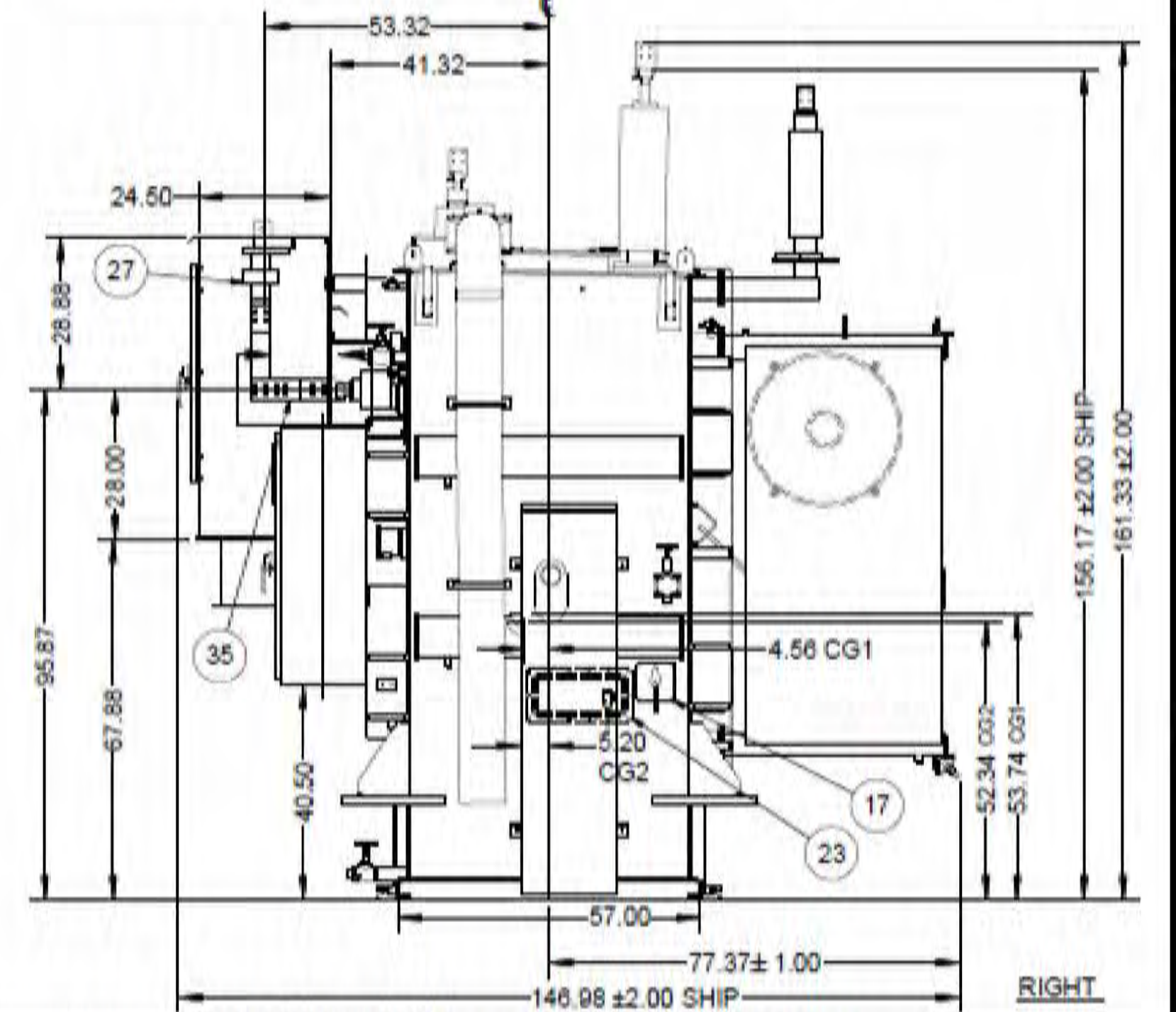
BASE / MOUNTING FOOT ASSEMBLY



ISO



FRONT



RIGHT

- NOTES:
1. TYPE II MINERAL OIL FILLED TRANSFORMER, APPROXIMATELY 2083 GALLONS
 2. OUTDOOR SERVICE
 3. PAINT: ANSI-70, URETHANE OVER EPOXY (VTC PAINT SYSTEM IV). BASE UNDERCOATED WITH COAL-TAR EPOXY. TANK INSIDE & CORE CLAMPS PAINTED WHITE
 4. TOUCH UP PAINT KIT PROVIDED
 5. UNIT DESIGNED FOR INERT GAS TYPE OIL PRESERVATION
 6. SEE 20 SERIES SHEETS FOR SCHEMATIC
 7. ACCESSORY WIRING IN RIGID GALVANIZED STEEL CONDUIT; FINAL SHORT RUNS MAY BE FLEXIBLE LIQUID TIGHT CONDUIT; FAN POWER VIA WEATHERPROOF CORDS AND PLUGS
 8. CG1 IS FULLY ASSEMBLED, CG2 IS AS SHIPPED
 9. UNIT DESIGNED FOR FULL VACUUM FILLING
 10. UNIT SHIPS WITH FOLLOWING ITEMS DEMOUNTED:

ITEM:	SHIPPING WEIGHT:
HV BUSHINGS PADS	16 LBS
HV ARRESTERS WITH BRACKETS	300 LBS
RADIATORS AND FAN	3,000 LBS
OIL FOR RADS	
(2 DRUM RAD OIL @ 55 GALLONS = 110 GAL)	872 LBS
MAIN UNIT	53,012 LBS
8.1 GAL OF RAD OIL SHIPS IN GAS SPACE = 0.33" ABOVE 25deg C LEVEL	

11. UNIT DESIGNED FOR OPERATION AT MINIMUM AMBIENT -20deg C

Liquid Filled Transformer Data:
 MOD/SN: 478200A001 MVA: 8.2/10.25 AT 65°C RISE

3 PHASE, 60 Hz, CLASS: ONAN/ONAF
 MP: 7.38% NOM, WT: 57,200 LBS
 WINDINGS: COPPER
 TAPS: +3/-1 X 2.5 %
 HV: 69,000 GRDY/39837 V, 350kV BIL, 80A NOM @ 10.25 MVA
 LV: 4160V DELTA 110kV BIL 1423 A @ 10.25 MVA

12. GASKET COMPRESSION CONTROL VIA MACHINED GROOVE FLANGES
13. UNIT SHIPS WITH IMPACT RECORDER
14. 60/60 MONTH WARRANTY PROVIDED
15. UNIT DESIGNED FOR LOW SEISMIC ZONE
16. UNIT DESIGNED FOR 7000 FEET
17. SFRA TEST IS PROVIDED
18. TANK SEAMS ARE WELDED INSIDE AND OUTSIDE-NO CORNER WELDS WITHIN 6" OF CORNER
19. CENTERLINES AND CENTER OF GRAVITY SHOULD BE MARKED ON ALL FOUR SEGMENTS OF TANK

Warranty Field Work:
 If, at the job site, the equipment is found to have not conformed to specifications or needs re-work covered under warranty, all parties concerned shall provide full access to Virginia Transformer Corp. or their representatives to work on the unit(s) at the job site. The method of repair/re-work will be determined solely by Virginia Transformer Corp.

TOLERANCES
 IF NO TOLERANCES SHOWN ±0.5(12.7)
 OTHERWISE:
 Δ ±0.25(6.3)
 □ ±1.0(25.4)

ALL DIMENSIONS IN INCHES & IN PWT IF SHOWN IN PARENTHESIS
 THIS DOCUMENT IS INTENDED FOR COORDINATION PURPOSES ONLY OTHER USES ARE PROHIBITED EXCEPT BY WRITTEN PERMISSION OF VTC
 D813A-101J0W
 VIRGINIA TRANSFORMER CORP.
 220 GLADE VIEW RD, FARMHURST, VA 24012
 (540) 345-8982

1	REVISED PER CUSTOMER COMMENTS LGG 4/20/22	2	REVISED PER CUSTOMER COMMENTS & ENGINEERING LGG 8/10/22
TITLE: DIMENSIONAL OUTLINE		JOB # D813A	
DWN: LGG	CHK: KAP	DATE: 3/1/22	
D		478200A001	
SHEET NUMBER 101		2	

NEW TRANSFORMER

NO.	REVISION DESCRIPTION
1	
2	
3	
4	
5	

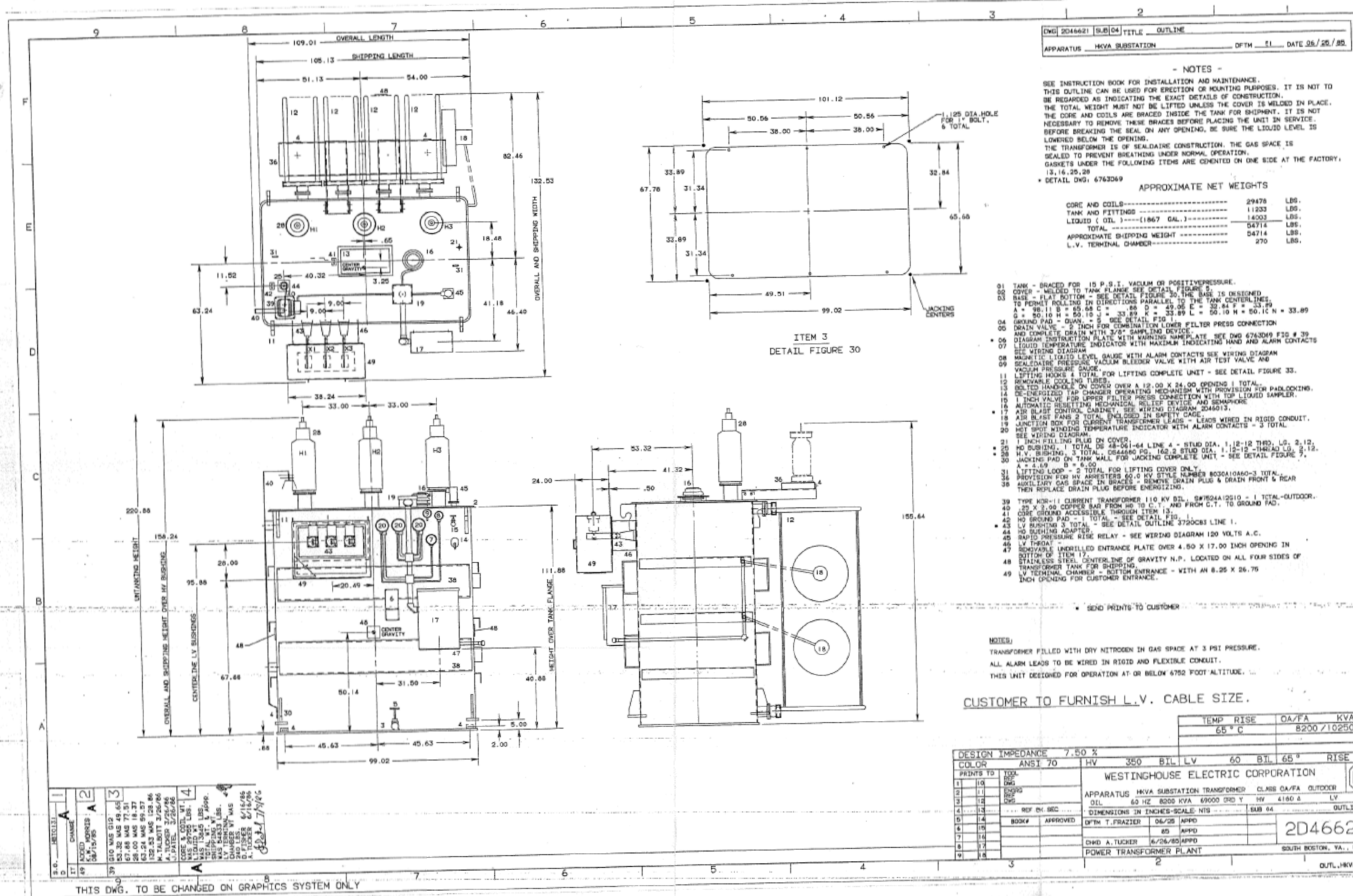
DESIGNED BY: JA
 DRAWN BY: ERG
 APPROVED BY: JA
 DATE: 11/2022
 SCALE: NTS

EL VADO HYDROELECTRIC PLANT
 TRANSFORMER REPLACEMENT
 PROJECT
 NEW TRANSFORMER DETAIL SHEET

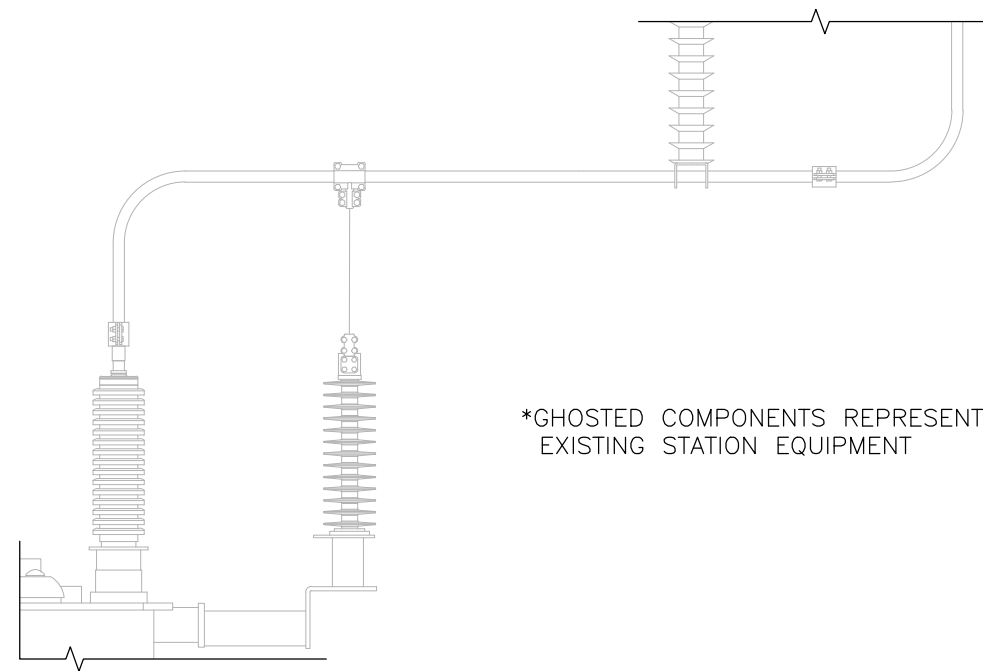


INCORPORATED COUNTY OF LOS ALAMOS
 DEPARTMENT OF PUBLIC UTILITIES
 1000 CENTRAL AVE., SUITE 130
 LOS ALAMOS, NEW MEXICO 87544
 (505) 662-8333 FAX: (505) 662-8005

SHEET
 10/11

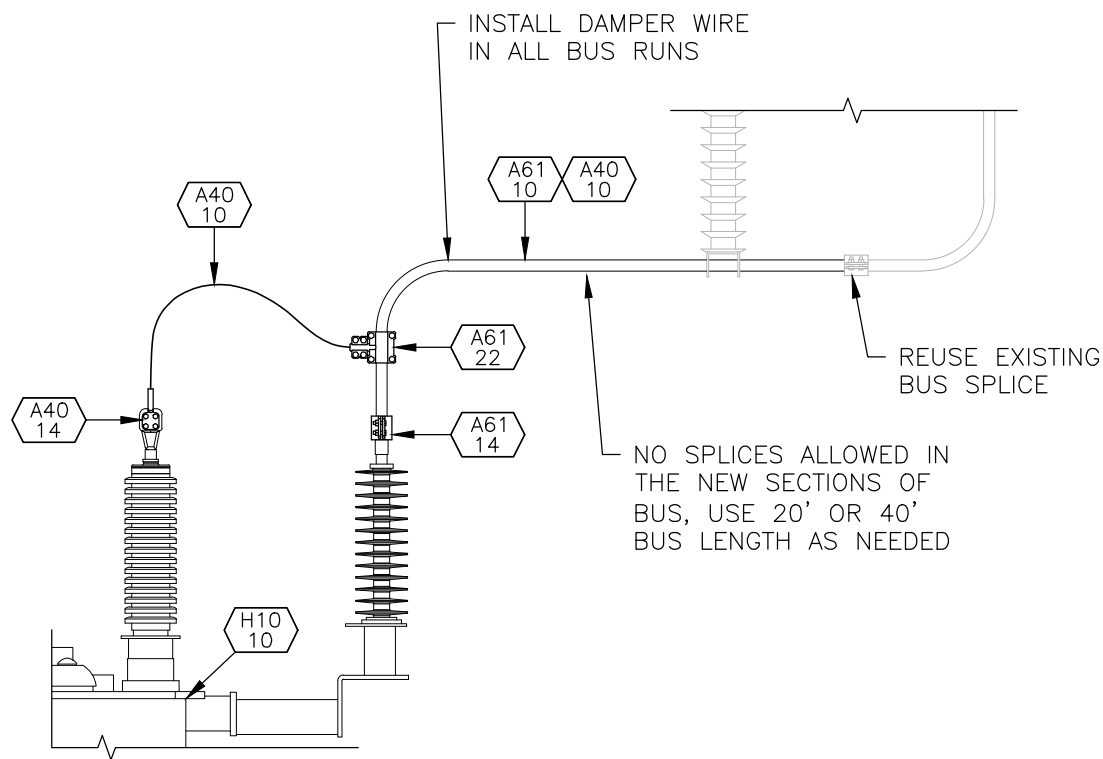


EXISTING TRANSFORMER



*GHOSTED COMPONENTS REPRESENT EXISTING STATION EQUIPMENT

EL VADO - AS FOUND CONDITIONS



EL VADO - PROPOSED CONNECTION

Bid Unit	Item No.	Qty.	Unit	Submittal Required	Description
A40	10	20	Feet	Yes	Conductor 4/0 ACSR, 6/1 strand "Penguin" conductor.
A40	14	3	Each	Yes	Terminal - Compression type for 4/0 ACSR to 4-hole, 3" wide NEMA pad. Travis Pattern DPU catalog number 16-129C or approved equivalent.
A61	10	60	Feet	Yes	Bus Pipe - 1-1/2" Aluminum seamless IPS tube, Schedule 40, 6063-T6 electrical grade in 40' &/or 20' lengths. Alcoa catalog number 150S40YT6B. No splices allowed in any of the new runs of bus pipe.
A61	14	3	Each	Yes	Terminal - Bolted type for 1-1/2" Al tubing to 4-hole, 3" wide NEMA pad. Travis Pattern DPU catalog number 11-192C or approved equivalent.
A61	22	3	Each	Yes	Tee - Bolted type for 1-1/2" Al tubing to 4/0 ACSR conductor. Travis Pattern DPU catalog number 12-715 or approved equivalent.
H10	10	1	Each	Yes	New Power Transformer - See Transformer Specifications
K2	101		Feet	Yes	Cable - Two conductor #10, Non-Shielded, TC, XHHW-2 (Match existing color code as needed)
K3	81		Feet	Yes	Cable - Three conductor #8, Non-Shielded, TC, XHHW-2 (Match existing color code as needed)
K4	101		Feet	Yes	Cable - Four conductor #10, Non-Shielded, TC, XHHW-2 (Match existing color code as needed)
K12	121		Feet	Yes	Cable - Twelve conductor #12, Non-Shielded, TC, XHHW-2 (Match existing color code as needed)
K10	1	10	Feet	Yes	Conduit - 1/2" or 1" Rigid Galvanized Steel (for existing conduit run)
K20	1	10	Feet	Yes	Conduit - 2" Rigid Galvanized Steel (as needed for control cabinet risers)
K20	2	12	Feet	Yes	Conduit - 2" Flex for short lengths to connect to transformer enclosure/cabinet.
K90	1	1	Lot	Yes	Conduit fittings and accessories as needed and in such variety, size and correct application as will be in accordance with neat and workmanlike installation practices.
K90	2	1	Lot	Yes	Cable Accessories - Including miscellaneous wire and cable labels, ring lugs, and any other material needed to complete the job according to the prints and in accordance with industry accepted practices.
O1	1	50	Feet	Yes	Grounding Conductor - 4/0 bare Cu, soft drawn wire, 7 strand.
O3	20	10	Each	Yes	Exothermic Splice - 4/0 Cu to 4/0 Cu. Erico mold number SSC2Q, or approved equivalent. (90# weld) (includes Spares that are to be left with Owner at the end of project)
O3	30	1	Lot	No	Miscellaneous grounding accessories, brushes, lighters, mold handles, wear plates, sleeves, etc.
O3	31	1	Lot	Yes	Miscellaneous C-crimps for grounding accessories - as needed. Burndy part numbers: YC28C28TN (4/0 to 4/0), YC28C2TN (4/0 to #2), etc. or approved equivalents.
X1	1	1	Lot	No	Demolition - Removal of Existing Transformer & HV/LV/Grounding & Controls Connections

Questions regarding equipment erection, material callouts, etc. should be brought to the attention of the Engineer for clarification or direction. Note that the bill of materials listing is a means of establishing identification of items shown on the drawings and the quantities of the materials required. Counts and/or lengths are best estimates and should be verified prior to purchase. Discrepancies in counts and/or lengths should be brought to the attention of the Engineer for clarification and review but do not relieve the Contractor of the requirement to supply material in adequate quantities and types to complete the project.

EL VADO SUBSTATION
AS FOUND CONDITIONS
& PROPOSED CONNECTION

SCALE STATE SHEET
N.T.S. NM EV-01

DATE	REVISIONS
5/14/21	CONCEPTUAL LAYOUT
5/28/21	PER OWNER COMMENTS
6/9/21	ISSUED FOR BID

Transmission & Distribution Services
Consulting Engineers & Surveyors
9550 San Mateo Blvd. NE Suite G
Albuquerque, NM 87113
www.t-d-services.com

This drawing is a copyrighted work product of T & D Services, LLC. as of the date shown on this drawing. Any re-use or copying of any portion of this drawing, without written permission from an authorized employee of T & D Services, LLC. is strictly prohibited.

Exhibit "D"
Wage Rate Decision
AGR23-48



LABOR RELATIONS DIVISION

401 Broadway NE
 Albuquerque, NM 87102
 Phone: 505-841-4400
 Fax: 505-841-4424

226 South Alameda Blvd
 Las Cruces, NM 88005
 Phone: 575-524-6195
 Fax: 575-524-6194

WWW.DWS.STATE.NM.US

1596 Pacheco St. Suite 103
 Santa Fe, NM 87505
 Phone: 505-827-6817
 Fax: 505-827-9676

Wage Decision Approval Summary

1) Project Title: El Vado Transformer Replacement Project
 Requested Date: 11/17/2022
 Approved Date: 11/18/2022
 Approved Wage Decision Number: RA-22-2854-A

Wage Decision Expiration Date for Bids: 03/18/2023

2) Physical Location of Jobsite for Project:
 Job Site Address: State Road 112
 Job Site City: Tierra Amarilla
 Job Site County: Rio Arriba

3) Contracting Agency Name (Department or Bureau): Los Alamos County
 Contracting Agency Contact's Name: James Martinez
 Contracting Agency Contact's Phone: (505) 927-1518 Ext.

4) Estimated Contract Award Date: 01/26/2023

5) Estimated total project cost: \$400,000.00
 a. Are any federal funds involved?: No
 b. Does this project involve a building?: No
 c. Is this part of a larger plan for construction on or appurtenant to the property that is subject to this project?: No
 d. Are there any other Public Works Wage Decisions related to this project?: No
 e. What is the ultimate purpose or functional use of the construction once it is completed?: The project will require the services of a qualified commercial electrician to provide all labor, materials, and equipment to remove and dispose the existing transformer. The contractor will also provide all labor, materials, and equipment to install the new transformer, test the transformer and place the transformer into service.

6) Classifications of Construction:

Classification Type and Cost Total	Description
Highway/Utilities (A) Cost: \$400,000.00	The project will require the services of a qualified commercial electrician to provide all labor, materials, and equipment to remove and dispose the existing transformer. The contractor will also provide all labor, materials, and equipment to install the new transformer, test the transformer and place the transformer into service.



TYPE "A" – STREET, HIGHWAY, UTILITY & LIGHT ENGINEERING

Effective January 1, 2022

Trade Classification	Base Rate	Fringe Rate
Bricklayer/Block layer/Stonemason	24.46	8.81
Carpenter/Lather	26.48	12.14
Carpenter- Los Alamos County	29.24	13.94
Cement Mason	17.74	7.41
Drywall Finisher/Taper	25.21	8.00
Glazier		
Glazier/Fabricator	21.00	6.45
Delivery Driver	11.50	6.45
Ironworker	27.70	17.89
Painter- Commercial	17.75	8.20
Paper Hanger	17.75	8.20
Plumber/Pipefitter	33.10	13.10
Electricians- Outside Classifications: Zone 1		
Ground man	24.57	11.74
Equipment Operator	35.25	16.06
Lineman	44.32	18.08
Journeyman technician	41.47	17.37
Cable Splicer	48.75	19.19
Electricians-Outside Classifications: Zone 2		
Ground man	24.57	11.74
Equipment Operator	35.25	16.06
Lineman	44.32	18.08
Journeyman technician	41.47	17.37
Cable Splicer	48.75	19.19
Electricians-Outside Classifications: Los Alamos		
Ground man	25.27	11.76
Equipment Operator	36.27	16.09

Lineman	45.47	18.36
Journeyman technician	42.41	17.60
Cable Splicer	49.59	19.40
Laborers		
Group I	14.79	6.93
Group II	15.29	6.93
Group III	16.79	6.93
Group IV	17.29	6.93
Operators		
Group I	19.93	6.74
Group II	20.92	6.74
Group III	21.02	6.74
Group IV	21.14	6.74
Group V	21.24	6.74
Group VI	21.44	6.74
Group VII	21.61	6.74
Group VIII	21.92	6.74
Group IX	29.87	6.74
Group X	33.32	6.74
Soft Floor Layers	20.75	8.45
Truck Drivers		
Group I-IX	17.65	8.72

NOTE: All contractors are required to pay **SUBSISTENCE, ZONE AND INCENTIVE PAY** according to the particular trade. Details are located in a PDF attachment at WWW.DWS.STATE.NM.US. Search Labor Relations/Labor Information/Public Works/Prevailing Wage Rates.

For more information about the Subsistence, Zone, and Incentive Pay rates, or to file a wage claim, contact the Labor Relations Division at (505) 841-4400 or visit us online at www.dws.state.nm.us.



PUBLIC WORKS PROJECT REQUIREMENTS

As a participant in a Public Works project valued at more than \$60,000 in the state of New Mexico, the following list addresses many of the responsibilities that are defined by statute or regulation to each project stakeholder.

Contracting Agency

- Ensure that all contractors wishing to bid on a Public Works project when the project is \$60,000 or more are actively registered with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> (Contractor Registration) prior to bidding.
- Please submit Notice of Award (NOA) and Subcontractor List(s) to the PWAA website promptly after the project is awarded.
- Please update the Subcontractor List(s) on the PWAA website whenever changes occur.
- All sub-contractors and tiers (excluding professional services) regardless of contract amount must be listed on the Subcontractor List and must adhere to the Public Works Minimum Wage Act.
- Ninety days after project completion please go into the PWAA system and close the project. Only contracting agencies are allowed to close the project. Agents or contractors are not allowed to close projects.

General Contractor

- Provide a complete Subcontractor List and Statements of Intent (SOI) to Pay Prevailing Wages for all contractors, regardless of amount of work, to the contracting agency within 3 (three) days of award.
- Ensure that all subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- Confirm the Wage Rate poster, provided in PWAA, is displayed at the job site in an easily accessible place.
- When the project has been completed, make sure the Affidavits of Wages Paid (AWP) are sent to the contracting agency.
- All subcontractors and tiers (excluding professional services) regardless of contract amount must pay prevailing wages, be listed on the Subcontractor List, and adhere to the Public Works Minimum Wage Act.



LABOR RELATIONS DIVISION
401 Broadway NE
Albuquerque, NM 87102
Phone: 505-841-4400
Fax: 505-841-4424

WWW.DWS.STATE.NM.US

Subcontractor

- Ensure that all subcontractors wishing to bid on a Public Works project have an active Contractor Registration with the Public Works and Apprenticeship Application (PWAA) website: <http://www.dws.state.nm.us/pwaa> prior to bidding when their bid will exceed \$60,000.
- Make certain the Public Works Apprentice and Training Act contributions are paid either to an approved Apprenticeship Program or to the Public Works Apprentice and Training Fund.
- All subcontractors and tiers (excluding professional services) regardless of contract amount must pay prevailing wages, be listed on the Subcontractor List, and adhere to the Public Works Minimum Wage Act.

Additional Information

Reference material and forms may be found in the New Mexico Department of Workforce Solutions Public Works web pages at: <https://www.dws.state.nm.us/Labor-Relations/Labor-information/Public-Works>.

CONTACT INFORMATION

Contact the Labor Relations Division for any questions relating to Public Works projects by email at public.works@state.nm.us or call (505) 841-4400.

Exhibit "E"
AGR23-48
Gardner Zemke Company
Administrative Forms

Performance Bond



Bond No. _____

We as Principal, hereinafter referred to as Contractor, and _____ a corporation organized and existing under and by the virtue of the laws of the State of _____ and authorized to do business in the State of New Mexico, hereinafter called Surety, are held and firmly bound unto the Incorporated County of Los Alamos, hereinafter referred to as County, in the penal sum of one hundred percent (100%) of the Contract Price of _____ dollars (\$ _____), as may be adjusted by Change Order, inclusive of applicable gross receipts taxes in lawful money of the United States of America, for the payment of which sum Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

THE CONDITIONS OF THIS BOND are such that, whereas, Contractor has been awarded and has agreed to enter into a certain Contract with the Incorporated County of Los Alamos, to which this Performance Bond will be attached and incorporated therein, for performance of Work or services on Project specifically described in the Contract document for:

Incorporated County of Los Alamos
Agreement Number: AGR23-48
Gardner Zemke Company – Installation of New Transformer at the El Vado Hydroelectric Plant

and if Contractor shall perform and complete all of the undertakings, covenants, terms, and obligations of said Contract during the original term thereof, and any extensions which may be granted by the County with or without notice to the Surety, and if Contract shall satisfy all claims and demands incurred under such Contract, and shall fully indemnify and save harmless the County from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the County all outlay and expenses which the County may incur in making good any default, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due, except that, with respect to express guarantees of a longer term, a suit thereon must be initiated within six (6) months following the expiration of said express guarantees, if any.

The Surety acknowledges that said Contract may contain express guarantees and agrees that said guarantees, if any, are covered by the Surety's obligation hereunder.

Right of action with respect to any express guarantees, if any, in said Contract shall accrue following completion and formal acceptance of the work under said contract.

The right to sue on this bond accrues only to the contracting agency and the parties to whom New Mexico Statutes Annotated, 1978 Comp. 13-4-18 through 13-4-20, as amended, grant such right; and such right shall be exercised only in accordance with the provisions and limitation of said statutes.

PROVIDED, FURTHER, that Surety, for value received hereby stipulates and agrees that no change, extensions of time, alteration or addition to the terms of Contract. The Agreement, or the work to be performed thereunder, or the Contract Documents accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alternation or addition to the terms of the Contract.

PROVIDED, FURTHER, that no final settlement between the County and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument may be executed in two counterparts, each one of which shall be deemed as an original, this _____ day of _____, 2022.

The undersigned state that they have the authority to enter into said Contract.

CONTRACTOR AS PRINCIPAL:

By: _____

Print Name: _____

Title: _____

ATTEST: _____

SURETY:

By: _____

Print Name: _____

Title: _____

ATTEST: _____

Payment (Labor and Materials) Bond



LOS ALAMOS

Payment (Labor and Materials) Bond for the Protection of all Persons Supplying Labor and Material to the Contractor or its Sub-contractors

Bond No. _____

We _____ as Principal, hereinafter called the Contractor, and _____, a Corporation organized and existing under and by virtue of the laws of the State of _____, and authorized to do business in the State of New Mexico, hereinafter called the Surety, are held and firmly bound unto the Incorporated County of Los Alamos as Obligee, hereinafter the County, in the amount of _____ Dollars (\$_____), in the penal sum of one hundred percent (100%) of the Contract Price of _____ dollars (\$_____), as may be adjusted by Change Order, inclusive of applicable gross receipts taxes in lawful money of the United States of America, for the payment of which sum Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally.

Payment (Labor and Materials) Bond is for the Protection of all Persons Supplying Labor and Material to the Contractor or its Sub-contractors

WHEREAS, Contractor has agreed to enter into the Agreement described as follows:

Incorporated County of Los Alamos
Agreement Number: AGR23-48
Gardner Zemke Company – Installation of New Transformer at the El Vado Hydroelectric Plant

Which contract is by reference made part hereof, and is hereinafter referred to as the Agreement.

NOW, THEREFORE, the condition of this obligation is such that if the Contractor shall pay as they become due, all just claims for labor performed and materials and supplies furnished upon or for the work under said contract, whether said labor be performed and materials and supplies be furnished under the original contract or any contract thereunder, then this obligation shall be null and void; otherwise, it shall remain in full force and effect, subject, however to the following conditions:

The right to sue on this bond accrues only to the Contracting Agency and the parties to whom Section 31-173 Los Alamos County Code of Ordinances grant such right; and any such right shall be exercised only in accordance with the provisions and limitations of said ordinance.

PROVIDE, FURTHER, that the Surety, for value received hereby stipulates and agrees that no change, extensions of time, alteration, or addition to the terms of the Contract, or to the Work to be performed thereunder, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract.

PROVIDE, FURTHER, the County shall not be liable for payment of any costs or expenses of any Claimant under this Bond and shall have no obligations to make payments to give notices on behalf of or otherwise have obligations to Claimants. The Surety hereby waives notice of any change, including changes of time, to the Contractor or to related subcontracts, purchase orders and other obligations.

SIGNED AND SEALED ON this _____ day of _____, 2023.

CONTRACTOR AS PRINCIPAL:

Signature: _____
Print Name: _____
Title: _____
Address: _____

SURETY'S AUTHORIZED NEW MEXICO AGENT:

Signature: _____
Print Name: _____
Title: _____
Address: _____

This bond is issued simultaneously with Performance Bond in favor of County for the faithful performance of the contract.

Notice to Proceed

Date: _____

To: _____

Address: _____

Incorporated County of Los Alamos

Agreement Number: AGR23-48

Gardner Zemke Company – Installation of New Transformer at the El Vado Hydroelectric Plant

You are notified that the Contract time under the above contract will start on _____, 2023. By that date you are to start performing your obligations under the Contract. You are required to return an acknowledged copy of this Notice to Proceed to the County’s Designee before commencing any work and meet all other requirements of the Contract. The date of Substantial Completion of all work is therefore _____, 2023, and Final Completion of all work is therefore _____, 2023.

Incorporated County of Los Alamos

Philo S. Shelton, III P.E.
Utilities Manager

**INCORPORATED COUNTY OF LOS ALAMOS
CERTIFICATE OF SUBSTANTIAL COMPLETION**



LOS ALAMOS

Date of Issuance: _____

Agreement No. – AGR23-48

Gardner Zemke Company – Installation of new Transformer at the El Vado Hydroelectric Plant

Contractor: _____

Engineer: _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

TO:

Contractor

The Work to which this Certificate applies has been inspected by authorized representatives of County, Contractor and Engineer and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on

DATE OF SUBSTANTIAL COMPLETION

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and failure to include an item in it does not alter the responsibility of Contractor to complete all the Work in accordance with the Contract Documents.

**Certificate of Substantial Completion
(Page 2 of 2)**

This certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligations to complete the Work in accordance with the Contract Documents.

Executed by County Project Manager on _____, 20__

County Project Manager

By: _____
(Authorized Signature)

County accepts this Certificate of Substantial Completion on _____, 20__

County

By: _____
(Authorized Signature)

Contractor accepts this Certificate of Substantial Completion on _____, 20__

Contractor

By: _____
(Authorized Signature)

Change Order

Change Order No.: _____

Agreement Date: _____

Name of Project: **Incorporated County of Los Alamos**

Contractor:

The following changes are hereby made to the Contract Documents:

JUSTIFICATION:

CHANGE TO CONTRACT PRICE:

Original Price \$ _____

Current Contract Price adjusted by previous Change Order \$ _____

The Contract Price due to this Change Order will be (_____) by: \$ _____

The new Contract Price, including this Change Order will be \$ _____

CHANGE TO CONTRACT TIME:

FINAL COMPLETION

Original Contract Time _____calendar days.

Current Contract time adjusted by previous Change Order(s) _____calendar days.

The Contract Time will be (_____) by _____calendar days.

New Contract Time including this Change Order will be _____calendar days.

The date for completion of all work will be _____ (Date)

APPROVALS REQUIRED:

To be effective, this order must be approved by the Utilities Manager; or the Los Alamos County Council if the contract modification, change order, or contract price adjustment exceeds the funding budgeted and specifically appropriated for this project, or as may otherwise be required by the General Conditions.

The adjustment in Contract price and/or Contract time stated in this Change Order shall constitute the total price and/or time adjustment due or owed the Contractor for the work or changes ordered by the Change Order. By executing the Change Order, the Contractor acknowledges and agrees that the stipulated price and/or time adjustments represent full compensation for all adjustments in the cost or the time required to perform the Contract as a whole arising directly or indirectly from the Change Order, including costs and delays associated with the interruption of schedules, extended overheads, delay, and cumulative impacts or ripple effect on all other non-affected work under Contract not changed by the Change Order. Signing of the Change Order constitutes full and mutual accord and satisfaction for the adjustment in contract price and/or time, subject to the current scope of the entire work as set forth in the Contract Documents. Acceptance of this Change Order constitutes an agreement between Owner and Contractor that the Change Order represents an equitable adjustment to the Contract, and that the Contractor will waive all rights to file a claim on this Change Order after it is properly executed.

Requested by Engineer: _____

Recommended by (Project Manager): _____

Approved by (Utilities Manager): _____
Phil S Shelton, III P.E., Utilities Manager

If applicable, approved by the County Council on the _____ day of _____ 2023.

Attest:

(County Council)

Print Name _____

Title _____

Application and Certification for Payment Part 1

APPLICATION & CERTIFICATION FOR PAYMENT County of Los Alamos



Application Date: _____ Period From: _____ To _____
 Application Number: _____
 Project: _____ Bid Number: _____
 Contractor: _____
 Contract Date: _____

Change Order Summary		ADDITIONS	DEDUCTIONS
Change Orders approved in previous months by County			
TOTAL			
Approved this Month			
Number	Date		
TOTALS			
Net change by Change Orders			

1. ORIGINAL CONTRACT SUM \$ _____
2. Net change by Change Orders \$ _____
3. CONTRACT SUM TO DATE \$ _____
(Line 1 plus line 2)
4. TOTAL COMPLETED TO DATE \$ _____
(Column F on Cont. Sheet)
5. BALANCE TO FINISH \$ _____
(Line 3 less Line 4)
6. PREVIOUS TOTAL COMPLETED \$ _____
(Line 4 from prior Application)
7. SUBTOTAL OF CURRENT PAYMENT \$ _____
(Line 4 less Line 6)
8. **N.M. GROSS RECEIPTS TAX \$ _____**
(_____ % of Line 7)
9. CURRENT PAYMENT DUE \$ _____
(Line 7 plus Line 8)

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all Amounts have been paid by the Contractor for Work which previous Certificates for Payment were issued and payments received from the County, and that Current Payment shown herein is now due.

CONTRACTOR:

BY: _____ DATE: _____
 State of _____ County of _____
 Subscribed and sworn before me this _____ day of _____ 20____
 Notary Public: _____
 My Commission Expires: _____

This certificate is not negotiable. The Amount Certified is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents based on on-site observations and the data comprising the above application, the ENGINEER'S Project Manager certifies to the Owner that to the best of the ENGINEER'S Project Manager's knowledge, information and belief the Work has progressed as indicated, the quantity of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the Amount Certified.

AMOUNT CERTIFIED: \$ _____
 (Attach explanation if amount certified differs from the amount applied for.)

ENGINEER'S PROJECT MANAGER:

BY: _____ DATE: _____

Application and Certification for Payment Part 2

3.1.5 Application and Certification for Payment Part 2

APPLICATION & CERTIFICATION FOR PAYMENT Incorporated County of Los Alamos

Application Date: _____ Application Number: _____

A ITEM No.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D WORK COMPLETED		F TOTAL COMPLE TED TO DATE	% (F/C)	G BALANCE TO FINISH (C-F)
			PREVIOUS APPLICATIONS (F)	THIS PERIOD E			

Affidavit of Payment and Release of Liens

Affidavit of Payment and Release of Liens

**Affidavit of Payment and Release of Liens
Page 1 of 2**

See page 2 of this form for instructions regarding (A)-(H)

To All Whom It May Concern, To the Following I Do Solemnly Swear and Affirm:

WHEREAS, the undersigned has been employed by (A)

to furnish labor and materials for (B)

work, under a contract (C)

for improvement of the premises described as (D)

in the (E) _____ County of _____,

State of New Mexico of which _____ is the County.

NOW, THEREFORE, this _____ day of _____, 20____, for and in consideration of the sum of (F) \$ _____ Dollars paid simultaneously herewith, the receipt whereof is hereby acknowledged by the undersigned, the undersigned does hereby waive and release any lien rights to, or claim of lien with respect to and on said above described premises, and the improvements thereon, and on the monies or other considerations due or to become due from County, on account of labor, services, materials, fixtures, apparatus or machinery heretofore or which may hereafter be furnished by the undersigned to or for the above described premises by virtue of said contract.

The undersigned, as Contractor for the above named Contract pursuant to the Conditions of the Contract hereby certifies that, except as listed below, he/she has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which County or his/her property might in any way be held responsible.

The undersigned hereby certifies that all work required to be done under terms of the above described Contract has been fully performed and completed in conformance with the Contract and that applicable provisions of the New Mexico Public Works Minimum Wage Act (§ 13-4-11 NMSA 1978) have been met.

Affidavit of Payment and Release of Liens

Page 2 of 2

EXCEPTIONS:(G)

INSTRUCTIONS:

1. Person or firm with whom you agreed to furnish either labor, or services, or materials, or both. (A)
2. Fill in the nature and extent of work; strike the word labor or the materials if not in the contract. (B)
3. Identify contract(s) by number, description, and extent of work. (C)
4. Describe improvements and location of the premises to exclude all others. (D)
5. Name community, such as City of _____, Village of _____, or Unincorporated Area known as _____. (E)
6. Amount shown should be the amount received and equal to the total adjusted contract. (F)
7. If none, write "None". If required by County, Contractor shall furnish bond satisfactory to County for each exception. (G)
8. If waiver is for a corporation, corporate name should be used, corporate seal affixed and title of officer signing affidavit should be set forth; if waiver is for a partnership, the partnership name should be used, partner should sign and designate as partner. (H)

(H) _____
(Name of sole ownership, corporation or partnership)

(Signature of Authorized Representative)

TITLE: _____

State of _____ County of _____

Subscribed and sworn before me this ___ day of _____ 20_____

Notary Public: _____

My Commission Expires: _____