

DATE: January 8, 2026

DEPARTMENT OF GENERAL SERVICES
BUREAU OF CAPITAL PROJECT DESIGN MANAGEMENT
1800 HERR STREET
HARRISBURG, PENNSYLVANIA

ADDENDUM NO. 8

on

PROJECT NO. DGS C-0948-0090 PHASE 003

**PROJECT TITLE - Capitol Complex Central Plant - Building Renovations, Chiller System
Replacement and Electrical System Upgrades**

PROFESSIONAL:

H.F. Lenz Co.

1407 Scalp Avenue

Johnstown, Pennsylvania, 15904

If you submitted a bid prior to this Addendum being issued, your bid has been discarded and you must re-submit your bid(s) prior to the bid opening date and time.

ADMINISTRATIVE CHANGES – ALL CONTRACTS

Item 1 - N/A

SPECIFICATION CHANGES – ALL CONTRACTS

Item 1 - See attached Addendum 8 PDF.

DRAWING CHANGES – ALL CONTRACTS

Item 1 - See attached Addendum 8 PDF.

DEPARTMENT OF GENERAL SERVICES
BUREAU PRE-CONSTRUCTION
1800 HERR STREET
HARRISBURG, PENNSYLVANIA

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ADMINISTRATIVE CHANGES – ALL CONTRACTS

Item 1 - **N/A**

GENERAL CHANGES – ALL CONTRACTS

Item 1 - Section 010400, Article 1.19, Change Paragraph A to read:

" B. Portable Chain-Link Fencing: Minimum 2-inch (50-mm), 12 gauge, galvanized-steel, chain-link fabric fencing with privacy slats; minimum 6 feet high with galvanized-steel pipe posts; minimum 1-3/8-inch OD line posts and top and bottom rails. Provide galvanized-steel bases for supporting posts, utilize blocks or sandbags for stability."

Item 2 - Section 010250, Article 1.4, Paragraph A, Add to GENERAL CONSTRUCTION (.1) CONTRACT - SCHEDULE OF UNIT PRICES:

ITEM NO. - 9

DESCRIPTION - Heavy Concrete Sidewalk

UNIT OF MEASURE - Square Foot

ADDITIONAL QUANTITY IN LUMP SUM BID - 7,000

Item 3 - Section 010250, Article 1.7, Paragraph A, add sub-paragraph # 9 "Unit Price 9: Heavy Concrete Sidewalk scope of work as identified on drawings C101 and G002 and Specification Section 321313 "Concrete Paving".

DRAWING CHANGES – ALL CONTRACTS

Item 1 - Sheets G101, G102, G103, G104, G201, G202, and G203, dated January 6, 2026 are being added under this addendum to provide general floorplan and elevation section views for the different areas affected by this project.

Item 2 - Sheet CS001, dated January 6, 2026, is being reissued under this addendum.

Item 3 - Sheet G002, dated January 6, 2026, is being reissued under this addendum.

SPECIFICATION CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.1

- Item 1 - Section 053100 can be removed from the project.
- Item 2 - Section 051200, Article 1.8, Paragraph B, "Installer Qualifications: A qualified Installer who participates in the AISC Quality Certification Program and is designated as AISC-Certified Erector, Category CSE," can be deleted.
- Item 3 - Section 051200, Article 1.8, Paragraph C is updated to become Paragraph B. This is due to deletion noted in Item 2 above.
- Item 4 - Section 051200, Article 1.8, Paragraph D is updated to become Paragraph C. This is due to deletion noted in Item 2 above.
- Item 5 - Section 051200, Article 3.6, Paragraph A, included in the project in addendum 5, reading "Notify Engineer if steel is exposed during masonry removal. Where Engineer determines that steel is structural, or for other reasons cannot be totally removed, prepare and paint it as follows:," change to read "Prepare and paint existing uncoated steel as follows:."
- Item 6 - Section 079200, Article 1.2, Paragraph B can be deleted.
- Item 7 - Section 031000, Article 3.6, Paragraph A reading, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 01400, Quality Control Testing Services" change to read, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 014000, Quality Control Testing Services."
- Item 8 - Section 032000, Article 3.5, Paragraph A reading, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 01400, Quality Control Testing Services" change to read, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 014000, Quality Control Testing Services."
- Item 9 - Section 033000, Article 3.15, Paragraph A reading, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 01400, Quality Control Testing Services" change to read, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 014000, Quality Control Testing Services."
- Item 10 - Specification 051200, Section 3.7-A updated note reading, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 01400, Quality Control Testing Services" change to read, "Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 014000, Quality Control Testing Services."
- Item 11 - Section 055101, add Article 3.2 "Field Quality Control", add Paragraph A reading ""Correct deficiencies in Work that test reports and inspections indicate does not comply with the Contract Documents. Refer to section 014000, Quality Control Testing Services."

DRAWING CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.1

- Item 1 - Sheet S001: Updated Scope of Work Summaries note #1 reading “Examine and Sound Concrete Slab and Beams” to read “Examine and Sound Concrete Elements.” This is intended to include all accessible concrete elements.
- Item 2 - Sheet S200: Updated Scope of Work Summaries note #1 reading “Examine and Sound Concrete Walls, Slab, Beams, and Columns” to read “Examine and Sound Concrete Elements.” This is intended to include all accessible concrete elements.
- Item 3 - Sheet S201: Updated Scope of Work Summaries note #1 reading “Examine and Sound Concrete Walls, Slab, Beams, and Columns” to read “Examine and Sound Concrete Elements.” This is intended to include all accessible concrete elements.
- Item 4 - Sheets GC101, C101, C102: In the “Proposed Improvements Legend” the description that reads “Security Fence” shall be revised to read “Temporary Security Fence”.
- Item 5 - Sheet C503: Change “Security Fence” detail title to “Temporary Security Fence”.
- Item 6 - Sheets C103 and C104, dated January 6, 2026, are being reissued under this addendum.
- Item 7 - Sheet A103, PLAN AT GRADE 1/A103: Add the following Additional Sentences to the “New Alum Floor Access Single-Leaf Door” Note:

“The .4 Contractor is to provide the card reader system and mag locks per Keynote #9 on E200. As per Spec Section 08 71 00, the .1 Contractor is to hold a Keying Requirements Meeting and a hardware Pre-Installation Meeting with an Agenda and Document Checklist per e-Builder. The .1 Contractor is to coordinate the work of the Architectural Hardware Consultant and the Electrified Hardware Consultant.”
- Item 8 - Sheet A301, BUILDING SECTION-CHILLER 1/A301: Add the following Note / Dimension:

“Dimension is approximately 4’-0” from the Existing Grade to the Top of the Existing Underground Roof Structure.”
- Item 9 - Sheet A601, INSIDE CORNER JOINT DETAIL AT TUNNEL ROOF 4/A601, DELETE the following note:

“Expansion Joint Material with Sealant and Aluminum Cap.” and replace with the following note:
“See Structural Details 7/S300, 15/S301, and 11/S302 for Concrete Joints this area.”
- Item 10 - Sheet A601, SLAB EXPANSION JOINT DETAIL 6/A601, DELETE the following note:

“Expansion Joint Material with Sealant and Aluminum Cap.” and replace with the following note:
“See Structural Details 7/S300, 15/S301, and 11/S302 for Concrete Joints this area.”
- Item 11 - Sheet A602, ADD TO DETAIL 1/A602 the following General Note to Detail:

“Detail is for Fire Extinguisher Mounting Heights Only. The Architectural Floor Plans show the locations of the Surface Mounted Fire Extinguishers.”
- Item 12 - Sheet S003, dated January 6, 2025, is being reissued under this addendum.

SPECIFICATION CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.2

- Item 1 - **N/A**

DRAWING CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.2

- Item 1 - Drawing MD501: Add the following sentences to the end of General Note 4: "The temporary condensate cooler shall have the capacity to cool 10 GPM of water at 212 deg. F. to 140 deg. F. The temporary make up cooling water piping to the cooler shall be 1-inch."
- Item 2 - Drawing M501: Remove Keynotes 10 and 20 in their entirety.
- Item 3 - Drawing M501: Add the following General Note 12: "Provide an increaser on the branch piping for pressure relief valve connections where the valve inlet is larger than the piping main to which it is connected."
- Item 4 - Drawing M501: Revise the last sentence of Temporary Cooling Note 4 to read: "It is also acceptable for a factory fabricated tangential or media type air separator with a 12" inlet and 5,500 GPM flow capacity to be provided in lieu of a contactor fabricated separator."
- Item 5 - Drawing M501: Revise Keynote 1 to read: "Cap pipe and insulate and jacket the pipe cap."
- Item 6 - Drawing M502: Revise Keynote 1 to read: "Cap pipe and insulate and jacket the pipe cap."

SPECIFICATION CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.4

- Item 1 - Spec Section 261323 - Medium-Voltage Switchgear: Revise control voltages for electrical operated breakers from 125 volt DC to 48 volt DC in Section 2.5.C.5. and in section 2.11.A.

DRAWING CHANGES – CONTRACT NO. DGS C-0948-0090 PHASE 3.4

- Item 1 - General: Refer to attached record submittal "16271-2 Power Transformers Dimensioned Dwgs" for additional information related to existing transformers T1, T2, T3, & T4.
- Item 2 - General: Refer to attached "Central Plant Transformer Oil Samples 7.8.2025" for most recent transformer oil testing results for transformers 1, 2, 3, 4.
- Item 3 - Drawing E202.B, E202.C, and E202.D: add note with leader point to large box on south-central part of mezzanine "opening for vertical conduit pathway from tunnel (provided by .01 contractor)".
- Item 4 - Drawing E004: Add text to existing text note with leader pointing to access hatch in center of page: "existing access hatch opening dimensions are 13'-0" x 9'-6". Burial depth is unknown, but estimated to be approximately 4'-0" deep".
- Item 5 - Drawing E004: Revise note in both duct bank details on views 2 and 3 indicating "No 4 rebar 4"-0" OC (spacer bar)" to "No 4 rebar 4'-0" OC (spacer bar).
- Item 6 - Drawing E202C: Add text to keynote 10: "Also demo entire length of existing fire pump feeders within the utility tunnel from first pullbox to each fire pump."
- Item 7 - Drawing E200: Add general note: "All switchgear in vault to be top entry. Provide new busduct flanges."
- Item 8 - Drawing E200: Revise station battery voltage in Keynote #6 to from 125VDC to 48VDC.

COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES

HARRISBURG, PENNSYLVANIA

GOVERNOR JOSH SHAPIRO

REGINALD B. McNEIL, II - SECRETARY

PROJECT NO. D.G.S. C-0948-0090 PHASE 003 CAPITAL COMPLEX CENTRAL PLANT BUILDING RENOVATIONS, CHILLER SYSTEM REPLACEMENT & ELECTRICAL SYSTEMS UPGRADES

HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

ARCHITECT CONSULTANT
UPSTREET ARCHITECTS INC.
911 MENOHER BOULEVARD
JOHNSTOWN, PA 15905

CIVIL ENGINEERING CONSULTANT
HONOR ENGINEER CO.
1100 NORTH MOUNTAIN ROAD, SUITE 1
HARRISBURG, PA 17112

STRUCTURAL ENGINEERING CONSULTANT
J.M. HUNT ASSOCIATES, INC.
(DBA HUNT ENGINEERING COMPANY)
P.O. BOX 537, 22 KING STREET
MALVERN, PA 19355

ELEVATOR CONSULTANT
ELEVATOR MANAGEMENT SERVICES
FRICK BUILDING, SUITE 1201, 437 GRANT STREET
PITTSBURGH, PA 1529

MEP ENGINEERING - PRIME CONSULTANT
H.F. LENZ CO.
1407 SCALP AVENUE
JOHNSTOWN, PA

INDEX TO DRAWINGS

COMMON DRAWINGS ALL CONTRACTS

CS001 COVER SHEET
GC101 OVERALL SITE PLAN
G001 BUILDING CODE INFORMATION AND WALL TYPES
G002 SITE LOGISTICS AND PROJECT SEQUENCING PLAN

G101 CENTRAL PLANT LOWER LEVEL PLAN
G102 CENTRAL PLANT MEZZANINE PLAN
G103 COOLING TOWER FAN DECK PLAN
G104 ELECTRICAL VAULT PLAN
G201 CENTRAL PLANT SECTIONS
G202 COOLING TOWER SECTIONS
G203 ELECTRICAL VAULT SECTIONS

TB001 TEST BORING LOCATION SITE PLAN AND SCHEDULE
TB002 TEST BORING LOGS
TB003 TEST BORING LOGS
TB004 TEST BORING LOGS

GENERAL CONSTRUCTION CONTRACT NO. DGS C-0948-0090 PHASE 003.1

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A-002 LOWER LEVEL FLOOR PLAN - HIGH ELEVATION
A-010 SCHEDULES
A-101 LOWER LEVEL PLAN
A-102 VAULT LEVEL PLAN
A-103 PLAN AT GRADE
A-301 BUILDING SECTIONS & PLAN - CHILLER
A-302 BUILDING SECTIONS
A-303 BUILDING SECTIONS
A-601 DETAILS
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A-901 3D VIEWS - ARCHITECTURAL

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C101 PROPOSED SITE IMPROVEMENT PLAN
C102 PCSM AND GRADING PLAN
C103 PROPOSED UTILITY PLAN
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P202 ELECTRICAL VAULT PLAN - PLUMBING NEW WORK

ELECTRICAL CONSTRUCTION CONTRACT NO. DGS C-0948-0090 PHASE 003.4

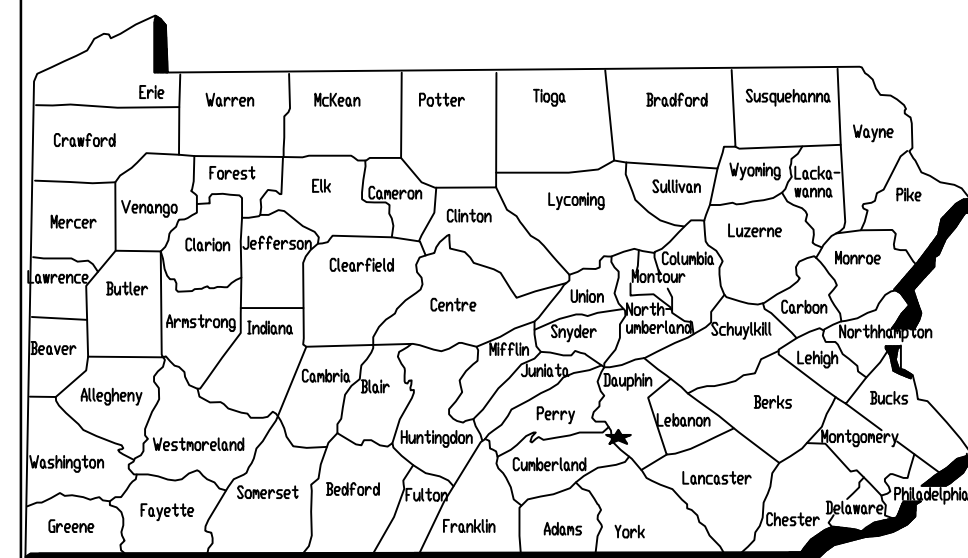
ELECTRICAL DRAWINGS

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E705 SCHEDULES - ELECTRICAL
E706 SCHEDULES - ELECTRICAL
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EW-E502 DIAGRAMS - ELECTRICAL
EW-E701 SCHEDULES - ELECTRICAL

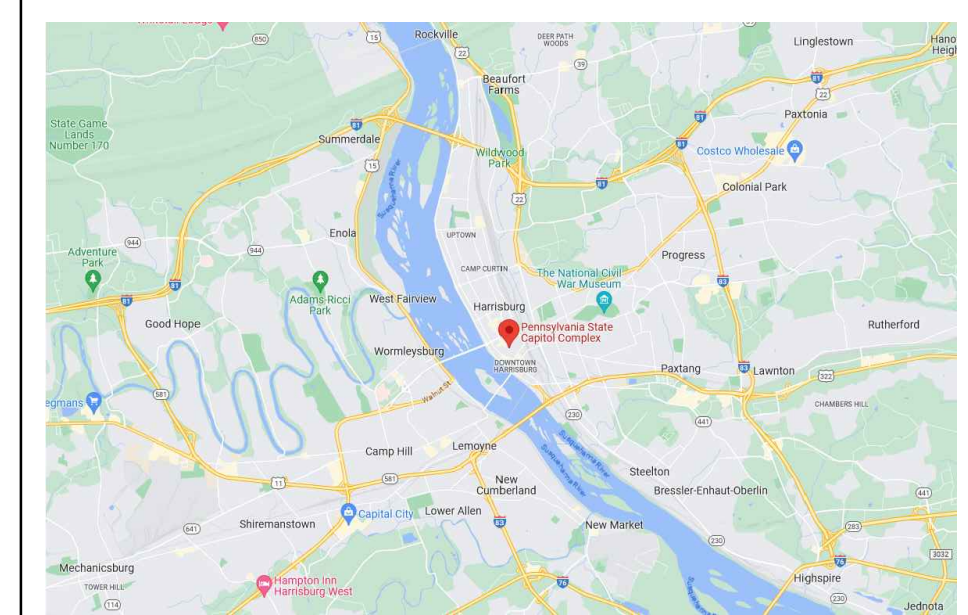
CODE APPROVALS

PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY: BUILDING PERMIT APPROVAL
2018 INTERNATIONAL BUILDING CODE
2018 INTERNATIONAL MECHANICAL CODE
2018 INTERNATIONAL PLUMBING CODE
2018 INTERNATIONAL ENERGY CONSERVATION CODE
2018 INTERNATIONAL FIRE CODE
2017 NFPA 70 - NATIONAL ELECTRIC CODE
• CAPITOL COMPLEX CENTRAL PLANT MODIFICATION - PERMIT #202300820, FILE #555815, 7/18/2025
• CAPITOL COMPLEX CENTRAL PLANT ELECTRICAL VAULT - PERMIT #202500821, FILE #555816, 7/17/2025
• MAIN CAPITOL EAST WING MODIFICATION - PERMIT #202500819, FILE #555817, 7/17/2025
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• ARCHAEOLOGICAL - 2023PR05194.003, 3/28/2025
PENNSYLVANIA NATURAL DIVERSITY INVENTORY:
• PNDI-817986, 7/5/2024
PENNSYLVANIA NATURAL DIVERSITY INVENTORY:
• PNDI-817986, 7/5/2024
DAUPHIN COUNTY CONSERVATION DISTRICT:
• PROJECT #25-10-060, 6/13/2025
HIGHWAY OCCUPANCY PERMIT:
• PERMIT #08118207, 9/16/2025

PROJECT LOCATION MAP

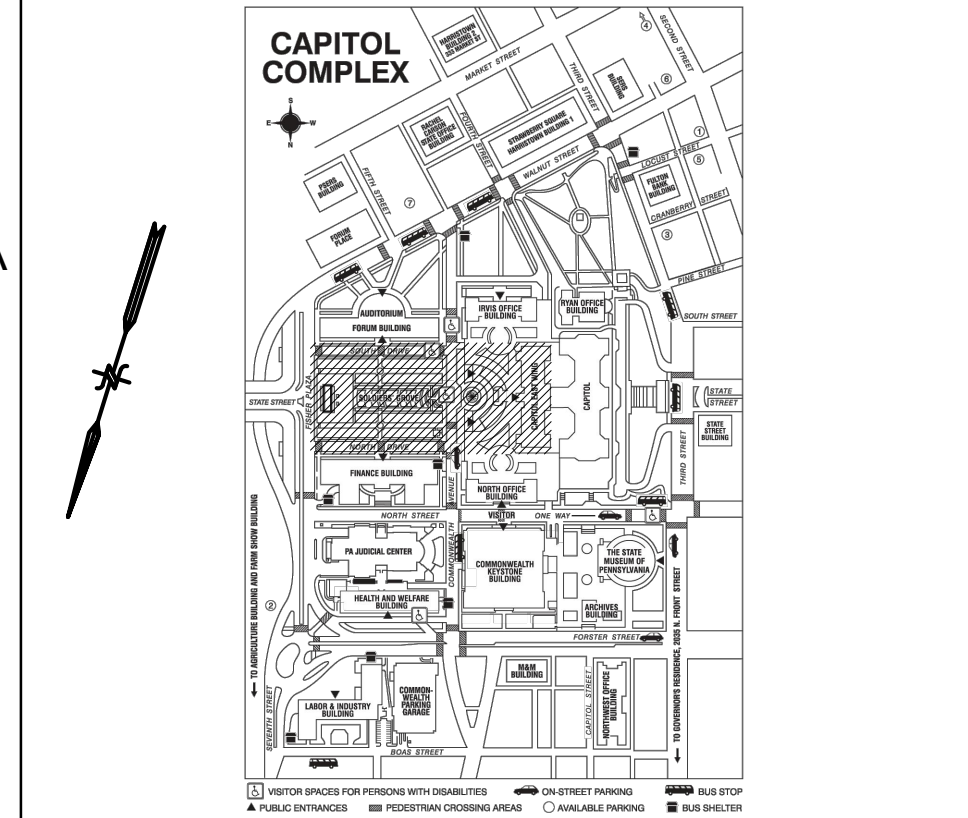


VICINITY MAP



LOCATION OF SITE

INSTITUTION PLAN



Drawings Listed In Index



Professional's Signature: *Brian D. Schmidt* Date: _____
H.F. LENZ ENGINEERING
Headquarters: 1407 Scalp Avenue, Johnstown, PA 15904, 814-269-9300, www.hflenz.com

**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES**
HARRISBURG, PENNSYLVANIA

PROJECT NO. DGS C-0948-0090 PHASE 003

CAPITAL COMPLEX CENTRAL PLANT
BUILDING RENOVATIONS, CHILLER SYSTEM
REPLACEMENT & ELECTRICAL SYSTEMS
UPGRADES
HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

COVER SHEET

NO.	RECORD REVISIONS
1	6 JAN 2026 ADDENDUM 8

DRAWN BY: E. HOOVER
CHECKED BY: B. SCHMIDT
DATE: 27 AUG 2025
SCALE: AS NOTED
DRAWING NO.: **CS001**

CONSTRUCTION DOCUMENTS

SERVICE / UTILITY INTERRUPTIONS:

- EXCEPT FOR PRE-APPROVED UTILITY AND SERVICE INTERRUPTIONS, ALL BUILDING SERVICES AFFECTING OCCUPIED AREAS SHALL BE MAINTAINED AT ALL TIMES DURING THE CONSTRUCTION PERIOD.
- CONDUCT THE WORK SO AS TO MINIMIZE THE DURATION OF ANY REQUIRED INTERRUPTIONS.
- THE CONTRACTORS SHALL PROVIDE ALL REQUIRED MANPOWER, INCLUDING 2ND AND 3RD SHIFT WORK, IF REQUIRED, TO COMPLETE THE REQUIRED WORK ACTIVITIES ASSOCIATED WITH EACH SHUTDOWN WITHIN THE MAXIMUM DURATION PERMITTED. THESE COSTS SHALL BE ANTICIPATED AND INCLUDED IN THE CONTRACTORS BID.
- THE CHILLED WATER SYSTEM SERVICE INTERRUPTION UTILIZING THE EXISTING CHILLED WATER SYSTEM EQUIPMENT SHALL BE LIMITED TO THE FOUR (4) MONTHS OF THE LOWEST CAPITOL COMPLEX COOLING LOAD, WHICH OCCURS DECEMBER 1ST THROUGH MARCH 31ST. TEMPORARY COOLING SYSTEM EQUIPMENT AND PIPING SHALL BE IN PLACE AND FUNCTIONAL PRIOR TO PLACING THE EXISTING CENTRAL PLANT OUT OF SERVICE. BY APRIL 1ST FOLLOWING THIS 4 MONTH SHUTDOWN, THE PLANT CHILLED WATER OPERATION SHALL BE RESTORED UTILIZING THE NEW PIPING SYSTEMS, NEW CONTROL SYSTEMS, NEW CHILLED AND CONDENSER WATER PUMPS, AND THE TWO (2) EXISTING 2,500 TON CHILLERS THAT ARE REMAINING.
- THE TEMPORARY COOLING SYSTEMS SHALL REMAIN ON SITE AND OPERATIONAL UNTIL AT LEAST ONE (1) OF THE REPLACEMENT CHILLERS (CHILLER 3, 4, AND 5) ARE MADE FULLY OPERATIONAL.
- DURING THE PERIOD WHERE THE TEMPORARY COOLING SYSTEMS ARE STILL IN PLACE WHILE THE EXISTING 2,500T CHILLERS ARE AGAIN OPERATING, THE INTENTION IS FOR THE TEMPORARY COOLING SYSTEMS TO ONLY SERVE AS A PARTIAL REDUNDANCY IN THE EVENT THAT ONE OF THE 2,500 TON CHILLERS IS OUT OF SERVICE AND THE SYSTEM

- LOAD EXCEEDS 2,500 TONS. IN SUCH A CASE WHERE THE TEMPORARY CHILLERS AND PUMPS NEED TO OPERATE, THE TEMPORARY SECONDARY PUMPS SHALL BE OPERATED IN "HAND" MODE, WITH THEIR OPERATING SPEED SET MANUALLY BY THE PLANT OPERATORS. THE PERMANENT CHILLED WATER PUMPS SHALL BE AUTOMATICALLY CONTROLLED TO SATISFY THE CHILLED WATER PIPING SYSTEM REMOTE DIFFERENTIAL PRESSURE.
- THE SECOND OF THE THREE NEW CHILLERS SHALL BE MADE FULLY OPERATIONAL PRIOR TO THE START OF THE PEAK COOLING SEASON. THE PEAK COOLING SEASON RUNS FROM JUNE 1ST TO AUGUST 31ST.
- ADDITIONAL, SINGLE DAY SERVICE INTERRUPTIONS OF THE CHILLED WATER SYSTEM ARE ALSO PERMITTED FOR SPECIFIC EVENTS, SUCH AS THE INSTALLATION OF THE MAIN 20" ISOLATION VALVES TO ISOLATE THE PLANT. SUCH INTERRUPTIONS IN SERVICE SHALL BE LIMITED TO 12 HOURS, AND SHALL OCCUR ON A WEEKEND OR STATE HOLIDAY.
- SERVICE INTERRUPTIONS TO OCCUPIED AREAS OF THE PLANT SHALL BE LIMITED TO 2 HOURS IN DURATION, BETWEEN THE HOURS OF 4PM AND 6PM. THE WORK SHALL BE PLANNED AND PERFORMED IN A MANNER SO AS TO MINIMIZE THE QUANTITY OF SHUTDOWNS AND THE NUMBER OF AFFECTED AREAS TO THE GREATEST EXTENT POSSIBLE.
- ALL UTILITY / SERVICE INTERRUPTIONS SHALL BE SCHEDULED WITH THE DEPARTMENT AND CLIENT AGENCY NO LESS THAN 2 WEEKS IN ADVANCE OF THE PLANNED SHUTDOWN.
- CONTRACTORS SHALL FOLLOW ALL REQUIREMENTS STATED IN ARTICLES 6.21 AND 6.22 OF THE GENERAL CONDITIONS AND SUBMIT THE "UTILITY SHUTDOWN CHECKLIST" FORM ACCESSED THROUGH THE #BUILDER FORMS MODULE FOR APPROVAL. FORMS ARE LOCATED UNDER THE PROJECT MENU ALONG THE LEFT COLUMN OF #BUILDER. THE "UTILITY SHUTDOWN CHECKLIST" FORM IS LISTED UNDER WORKFLOW FORMS WITHIN THE "ALL WORKFLOW AND STATIC FORMS" DROP DOWN MENU.

GENERAL WORK SEQUENCING REQUIREMENTS:

- THE WORK SEQUENCE DESCRIBED ON THIS SHEET IS PROVIDED FOR THE CONTRACTORS INFORMATION AND SHALL REPRESENT THE BASIS FOR THE CONTRACTORS BID PRICES. NOTE THAT ONLY SOME OF THE REQUIRED WORK ACTIVITIES ARE EXPLICITLY IDENTIFIED ON THIS DRAWING.
- DIVISION 01 AND OTHER DRAWINGS ALSO INCLUDE INFORMATION RELEVANT TO THE REQUIRED SEQUENCING AND SCHEDULING OF THE WORK.
- THE CONTRACTORS ARE RESPONSIBLE FOR PREPARING A DETAILED PROJECT SCHEDULE THAT GENERALLY CONFORMS TO THE CONSTRUCTION SEQUENCING / STAGING DESCRIBED ON THIS SHEET. PER SECTION 013100, THE LEAD CONTRACTOR SHALL PREPARE THE SCHEDULE WITH INPUT FROM ALL OTHER PRIME CONTRACTORS. MINOR DEVIATIONS FROM THE SEQUENCING PRESENTED IN THESE CONTRACT DOCUMENTS MAY BE POSSIBLE SO LONG AS THEY MEET THE SERVICE INTERRUPTION LIMITATIONS AND TIME OF YEAR REQUIREMENTS FOR VARIOUS ASPECTS OF THE WORK, BUT ALL SUCH PROPOSED DEVIATIONS SHALL BE SUBMITTED FOR REVIEW BY THE PROFESSIONAL AND DEPARTMENT.
- THE CONTRACTORS SHALL SUBMIT WITH THE DETAILED SCHEDULE A SEPARATE LIST OF DEVIATIONS FROM THE SEQUENCING REQUIREMENTS DESCRIBED IN THESE CONTRACT DOCUMENTS. AN EXPLANATION / JUSTIFICATION SHALL BE GIVEN FOR EACH PROPOSED DEVIATION.
- THE CONTRACTORS BID PRICES SHALL ACCOUNT FOR THE POSSIBILITY THAT THE PROFESSIONAL AND/OR DEPARTMENT AND/OR CLIENT AGENCY / INSTITUTION MAY NOT GRANT PERMISSION FOR THE CONTRACTOR TO DEVIATE FROM THE SEQUENCING DESCRIBED IN THESE DOCUMENTS.
- CONFORMANCE TO UTILITY OUTAGE DURATIONS INDICATED IS STRICTLY REQUIRED.
- SIDEWALK RESTORATION OUTSIDE OF THE CONSTRUCTION FENCE SHALL BE PERFORMED IMMEDIATELY FOLLOWING CONSTRUCTION ACTIVITY COMPLETION OUTSIDE OF CONSTRUCTION FENCE.

GENERAL SITE LOGISTICS:

- PORTABLE TOILETS SHALL BE PROVIDED BY THE LEAD CONTRACTOR (THE 1 CONTRACTOR) AT THE CAPITOL COMPLEX SITE FOR CONTRACTOR USE BY WORKERS. THESE PORTABLE TOILETS SHALL BE LOCATED OUTSIDE IN THE PARKING AND STAGING AREAS IDENTIFIED. THE TOILETS WITHIN STATE OWNED OFFICE BUILDINGS AND WITHIN THE EXISTING CHILLER PLANT SHALL NOT BE UTILIZED BY THE CONTRACTORS.
- DUE TO THE LIMITED SITE AREA AVAILABLE FOR CONTRACTOR STAGING AND STORAGE, EACH CONTRACTOR SHALL INCLUDE IN THEIR BIDS THE REQUIREMENT THAT WORKER PARKING BEING LOCATED ELSEWHERE. EACH CONTRACTOR WILL BE PERMITTED TO PARK ONE VEHICLE ON SITE IN THE IDENTIFIED PARKING LOCATION.
- NO CELL PHONE SERVICE IS AVAILABLE WHEN INSIDE THE EXISTING CHILLER PLANT.
- PARKING SPOTS ALONG N. 7TH STREET THAT ARE AVAILABLE FOR THE CONTRACTOR'S ENTRY/EXIT FROM THE SITE ARE INDICATED WITH KEYNOTES ON THIS SHEET. ALL OTHER PARKING SPOTS ON ALONG N. 7TH STREET WILL BE OCCUPIED.

LEAD CONTRACTOR DESIGNATION:

THE 1 CONTRACTOR IS THE LEAD CONTRACTOR.

CONSTRUCTION SEQUENCE:

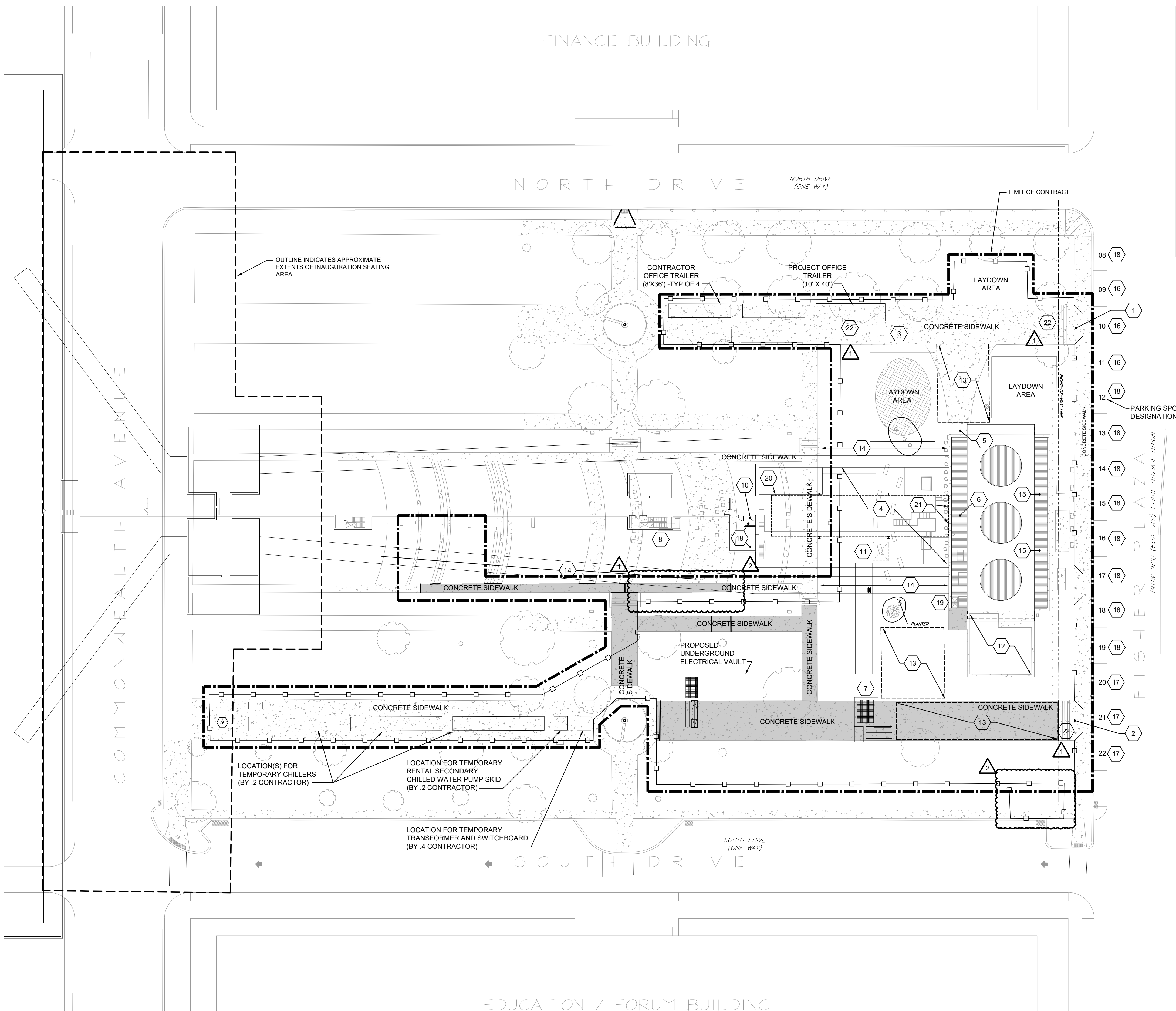
REFER TO SPECIFICATION SECTION 013100.

- LETTER OF INTENT ISSUED.
- INITIAL JOB CONFERENCE.
- MOBILIZATION AND INSTALLATION OF CONSTRUCTION TRAILERS.
- LONG LEAD ELECTRICAL SUBMITTAL SHOP DRAWING REVIEW.
- LONG LEAD MECHANICAL SUBMITTAL SHOP DRAWING REVIEW.
- CONSTRUCTION OF ELECTRICAL VAULT, ACCESS SHAFT / AREAWAYS, AND ACCESS TUNNEL ALONG WITH CONNECTING THE TUNNEL TO THE EXISTING PLANT BUILDING. THIS WORK ACTIVITY INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
 - UTILITY RELOCATIONS.
 - EXCAVATION AND SHORING.
 - FORMING, REBAR, AND CONCRETE.
 - STAIRS / ACCESS DOORS.
 - CONCRETE CURING AND BACKFILL.
 - ELECTRICAL DUCTBANK TO MANHOLES.
 - SUMP PUMPS AND DRAINAGE SYSTEMS.
 - LIGHTING.
 - HEATING IN THE SUMP PUMP ROOM.
 - CONTROLS FOR TEMPORARY COOLING SYSTEMS.
- MAKE PROVISIONS FOR ISOLATING THE PLANT AND PROVIDING TEMPORARY COOLING. THE TEMPORARY COOLING IS REQUIRED TO OPERATE DURING THE FOUR (4) MONTHS OF LOWEST CHILLED WATER SYSTEM COOLING LOAD WHICH ARE FROM DECEMBER 1ST THROUGH MARCH 31ST. THIS WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
 - INSTALLATION OF CHILLED WATER VAULT.
 - INSTALL THE 20" ISOLATION VALVES AND NEARBY MAKEUP WATER CONNECTIONS ON THE CHILLED WATER MAINS IN THE EXISTING UTILITY TUNNEL. ISOLATE THE PLANT FROM THE REST OF THE CAPITOL COMPLEX. PROVIDE THREE (3) MINIMUM 450 TON AIR-COOLED "RENTAL" CHILLERS AND ASSOCIATED PUMPS.
 - PIPING FROM THE TEMPORARY CHILLERS AND PUMPS TO CONNECT TO THE PIPING IN THE CHILLED WATER VAULT.
 - POWER FOR THE TEMPORARY CHILLERS WILL BE FROM THE EXISTING 4,160V GEAR IN THE CENTRAL PLANT. A TEMPORARY 4,160V/480V TRANSFORMER SHALL BE PROVIDED ON GRADE.
- ONCE THE TEMPORARY COOLING IS IN SERVICE WITH THE PLANT ISOLATED, PERFORM ALL WORK THAT PUTS THE COOLING PLANT OUT OF OPERATION AND PREVENTS THE CHILLED WATER SYSTEM FROM RUNNING WHILE USING THE TWO EXISTING 2,500 TON YORK CHILLERS. THIS WORK INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING:
 - REMOVE EXISTING CHILLERS AND ASSOCIATED BRANCH PIPING. RELOCATE THE EXISTING CHILLER TRANSFORMERS. THIS IS TO MAKE SPACE FOR THE NEW CHILLED WATER PUMPS.
 - DEMOLITION OF EXISTING CHILLED WATER AND CONDENSER WATER PIPING, AND EXISTING CHILLED WATER AND CONDENSER WATER PUMPS IN THE PLANT WHILE ON TEMPORARY COOLING.
 - REMOVE EXISTING CONCRETE PADS FOR REMOVED EQUIPMENT AND PROVIDE CONCRETE PADS FOR NEW HVAC EQUIPMENT.
 - INSTALLATION OF NEW CHILLED WATER AND CONDENSER WATER PIPING AND NEW CHILLED WATER AND CONDENSER WATER PUMPS IN THE PLANT WHILE OPERATING ON TEMPORARY COOLING.
 - INSTALLATION OF NEW CHILLED WATER SYSTEM CHEMICAL TREATMENT TANK AND PIPING IN THE PLANT, AND SUBSEQUENT DEMOLITION OF THE EXISTING UNDERGROUND TANK WHILE ON TEMPORARY COOLING.
 - PERFORM COOLING TOWER STRUCTURAL REPAIRS.
 - MAKE TEMPORARY ELECTRICAL CONNECTIONS INSIDE OF EXISTING CHILLER PLANT.
 - REPLACE ELECTRICAL PANEL, BOARDS AND PROVIDE UPS SYSTEM.
 - PROVIDE COOLING TOWER AND CHILLED WATER PUMPS VFD'S ON MEZZANINE.
 - ONCE SUFFICIENT WORK IS COMPLETE SO THAT THE PLANT CAN BE USED (WITH THE TWO EXISTING TO REMAIN 2,500 TON CHILLERS), RE-START THE CHILLER PLANT.
- PERFORM THE REMAINDER OF THE WORK TO INSTALL THE THREE NEW CHILLERS (CHILLERS NO. 3, 4, AND 5) AND BRING THEM ONLINE. THIS ALSO INCLUDES TEMPORARY ELECTRICAL CONNECTIONS VIA THE RELOCATED TRANSFORMERS.
- REMOVE THE TEMPORARY CHILLERS, PUMPS, PIPING, AND ASSOCIATED ELECTRICAL CONNECTIONS.
- COMMISSIONING OF THE CHILLED WATER SYSTEM.
- INSTALL ELECTRICAL GEAR AND VENTILATION SYSTEMS IN THE NEW ELECTRICAL VAULT.
- REMOVE 4,160V ELECTRICAL GEAR FROM THE EXISTING MEZZANINE.
- RELOCATE 4,160/480V UNIT SUBSTATIONS TO NEW ELECTRICAL VAULT, RE-FEED EXISTING 480V DISTRIBUTION ON THE PLANT MEZZANINE.
- INSTALL NEW 5,000A, 480V SWITCHGEAR ON EXISTING PLANT MEZZANINE.
- RE-FEED CHILLERS NO. 3, 4, AND 5 FROM PERMANENT SOURCE AND DEMOLISH EXISTING ASSOCIATED TRANSFORMERS.
- FINAL COMMISSIONING OF ANY SYSTEMS AND EQUIPMENT NOT ALREADY PREVIOUSLY COMMISSIONED.
- FINAL INSPECTION / PUNCH LIST COMPLETION.

- NON-CRITICAL PATH WORK ITEMS**
- ELEVATOR REPLACEMENT. THE ELEVATOR IS NOT PERMITTED TO BE USED BY THE CONTRACTOR AFTER IT HAS BEEN REPLACED.
 - BOLLARDS, ALTHOUGH THE BOLLARD INSTALLATION SHALL NOT OCCUR UNTIL THE DEMOLITION OF THE EXISTING UNDERGROUND CHEMICAL TREATMENT TANK HAS TAKEN PLACE.
 - COMPRESSED AIR SYSTEM MODIFICATIONS. THIS SHALL BE PERFORMED TO MINIMIZE DOWNTIME TO THE SYSTEM.

KEYNOTES:

- TEMPORARY HIGHWAY OCCUPANCY PERMIT (HOP) ACCESS LOCATION. THIS LOCATION IS THE PRIMARY VEHICULAR ENTRANCE TO THE PROJECT SITE.
- SECONDARY VEHICULAR ENTRANCE. THIS LOCATION IS TO BE UTILIZED ONLY FOR EQUIPMENT AND MACHINERY DELIVERIES AND TO HAUL SPOILS FROM THE PROJECT SITE.
- CONTRACTOR PARKING AREA. EACH PRIME CONTRACTOR SHALL BE PERMITTED TO PARK ONE (1) VEHICLE IN THIS GENERAL AREA.
- THE AREA ABOVE THE EXISTING CHILLER PLANT SHALL NOT BE USED BY THE CONTRACTOR FOR ANY PURPOSE. FOR EXAMPLE, NO MATERIALS OR EXCAVATION SPOILS MAY BE STORED IN THIS AREA. NO EQUIPMENT MAY BE OPERATED ABOVE THE PLANT. FOOT TRAFFIC BETWEEN THE NORTH AND SOUTH SIDES OF THE SITE SHALL BE LIMITED TO THE COOLING TOWER INTAKE GRATINGS IDENTIFIED BY KEYNOTES 6 AND 15 ON THIS SHEET. NO EXISTING PLANT ROOF HATCHES MAY BE USED, EXCEPT FOR THE HATCH INDICATED ON THIS SHEET BY KEYNOTE 11.
- THE FREIGHT ELEVATOR MAY BE UTILIZED FOR EQUIPMENT REMOVAL OR INSTALLATION, BUT ONLY PRIOR TO ITS REPLACEMENT. NOTE THAT THE WALKWAY GRATING IN THE COOLING TOWER AREAWAY BETWEEN THE LOWER STOR OF ELEVATOR AND THE ROLL UP DOOR IN THE PLANT IS ONLY RATED FOR 3 TONS LIVE LOAD.
- THE REMOVABLE GRATING IN THIS GENERAL LOCATION MAY BE UTILIZED FOR MATERIAL AND EQUIPMENT REMOVAL OR INSTALLATION. IT SHALL BE BROUGHT TO THE CONTRACTORS ATTENTION THAT A 5 TON CRANE EXISTS IN THE EXISTING CHILLER PLANT AND MAY BE UTILIZED BY THE CONTRACTORS FOR EQUIPMENT REMOVAL AND RIGGING. HOWEVER THE LOAD ON THE FLOORS ON BOTH SIDES OF THE ROLL UP DOOR ARE ONLY RATED FOR 3 TONS OF LIVE LOAD. THE EXISTING ROLL UP DOOR AT THIS LOCATION IS APPROXIMATELY 10FT WIDE X 8FT HIGH.
- UPON COMPLETION OF THEIR CONSTRUCTION, THE AREAWAY AND ACCESS TUNNEL SHALL BE PERMITTED TO BE UTILIZED FOR EQUIPMENT REMOVAL OR INSTALLATION.
- THIS PATH INTO THE EXISTING CHILLER PLANT SHALL NOT BE UTILIZED FOR EQUIPMENT REMOVAL OR INSTALLATION.
- IT SHALL BE BROUGHT TO THE CONTRACTORS ATTENTION THAT AN INAUGURATION WILL OCCUR WITHIN THE TIME PERIOD OF THE TEMPORARY CHILLER OPERATION. THE CONTRACTORS SHALL ASSUME FOR BIDDING PURPOSES THAT ONE OF THE TEMPORARY CHILLERS AND THE FENCE WILL REQUIRE RELOCATION DURING THE INAUGURATION EVENT. COORDINATE WITH THE DEPARTMENT FOR THE REQUIREMENTS FOR NOISE CONTROL DURING INAUGURATION ACTIVITIES. THIS WILL LIKELY ONLY TAKE THE FORM OF NOT OPERATING THE TEMPORARY CHILLERS AND PUMPS FOR SEVERAL HOURS. FOLLOWING THE INAUGURATION ACTIVITIES THE CHILLER AND ACCESS TUNNEL SHALL BE RELOCATED TO ITS ORIGINAL LOCATION. THE 1 CONTRACTOR SHALL RELOCATE AND RESTORE THE FENCE. THE 2 CONTRACTOR SHALL RELOCATE THE CHILLER AND CONNECTING PIPING, AND THE 4 CONTRACTOR SHALL DISCONNECT AND RECONNECT THE ELECTRICAL CONNECTIONS TO THE CHILLER.
- THE CONTRACTORS ARE PROHIBITED FROM USING THE TOILET ROOM IN THE CENTRAL PLANT.
- EXISTING HATCH FOR REMOVAL OF EXISTING ELECTRICAL EQUIPMENT FROM MEZZANINE IN PLANT. HEAVY EQUIPMENT MAY NOT BE LOCATED ABOVE EXISTING PLANT.
- EXISTING FORUM BUILDING COOLING TOWER AREAWAY. DO NOT ROUTE EQUIPMENT OR STORE MATERIALS OVER THIS AREA. GRANT THE CLIENT AGENCY ACCESS TO THIS COOLING TOWER AREA AT ALL TIMES.
- THE STAGING OF LIFTING EQUIPMENT SHALL BE LIMITED TO THESE AREAS IDENTIFIED.
- EXISTING VENTILATION TUNNEL. DO NOT PLACE HEAVY EQUIPMENT ABOVE.
- THE REMOVABLE GRATING IN THIS GENERAL LOCATION MAY BE UTILIZED FOR MATERIAL AND EQUIPMENT REMOVAL OR INSTALLATION INTO THE COOLING TOWER SUMP AREA.
- PARKING SPOT THAT WILL BE EMPTY AND CLEAR FOR THE CONTRACTOR'S USE DURING THE PROJECT.
- PARKING SPOT THAT CAN BE CLEARED FOR THE CONTRACTOR'S USE IF THE DEPARTMENT IS GIVEN NO LESS THAN 5 BUSINESS DAYS ADVANCE NOTICE. THE PARKING SPACES WILL BE AVAILABLE FOR THE ENTIRETY OF THE CONSTRUCTION OF THE ELECTRICAL VAULT, ACCESS SHAFT/AREAWAYS AND ACCESS TUNNEL, FROM APPROXIMATELY 71 DAYS TO 327 DAYS FROM THE INITIAL JOB CONFERENCE. HOWEVER FOLLOWING COMPLETION OF THE VAULT CONSTRUCTION, APPROXIMATELY 328 FROM THE INITIAL JOB CONFERENCE, THE NUMBER OF BUSINESS DAYS FOR WHICH THE USE OF THESE SPACES WILL BE GRANTED WILL NOT EXCEED EIGHT (8) PER MONTH.
- SPACES THAT WILL REMAIN OCCUPIED BY STATE EMPLOYEES AND UNAVAILABLE TO THE CONTRACTORS DURING THE PROJECT. NOTE THAT OTHER PARKING SPACES ON NORTH AND SOUTH DRIVES NOT EXPLICITLY SHOWN ON THIS SHEET WILL ALSO BE UNAVAILABLE FOR CONTRACTOR USE.
- EXISTING HATCH AND STAIR ACCESS INTO PLANT AVAILABLE FOR CONTRACTOR USE.
- THIS DASHED LINE REPRESENTS THE REGION INSIDE THE EXISTING PLANT THAT THE EXISTING CRANE INSIDE THE PLANT CAN REACH.
- EXISTING ROLL UP DOOR INTO UPPER LEVEL OF PLANT. NOTE THAT THE CRANE IN THE PLANT CAN REACH THIS LEVEL. EXISTING DOOR IS APPROX. 10FT WIDE X 8FT TALL.
- THE LEAD CONTRACTOR SHALL REPAIR OR REMOVE AND REPLACE, AS REQUIRED, ANY DAMAGES CAUSED BY CONSTRUCTION TO THE SIDEWALK WITHIN THE LIMITS OF CONSTRUCTION AND THE STAIRS AT THE VEHICULAR ACCESS LOCATIONS. PROVIDE UNIT PRICE FOR HEAVY CONCRETE SIDEWALK IN ACCORDANCE WITH SPECIFICATION 010500.



1 SITE LOGISTICS AND PROJECT SEQUENCING PLAN
Scale: 1"=30'-0"

1	15 DEC 2025	ADDENDUM 5
2	8 JAN 2026	ADDENDUM 8

RECORD REVISIONS

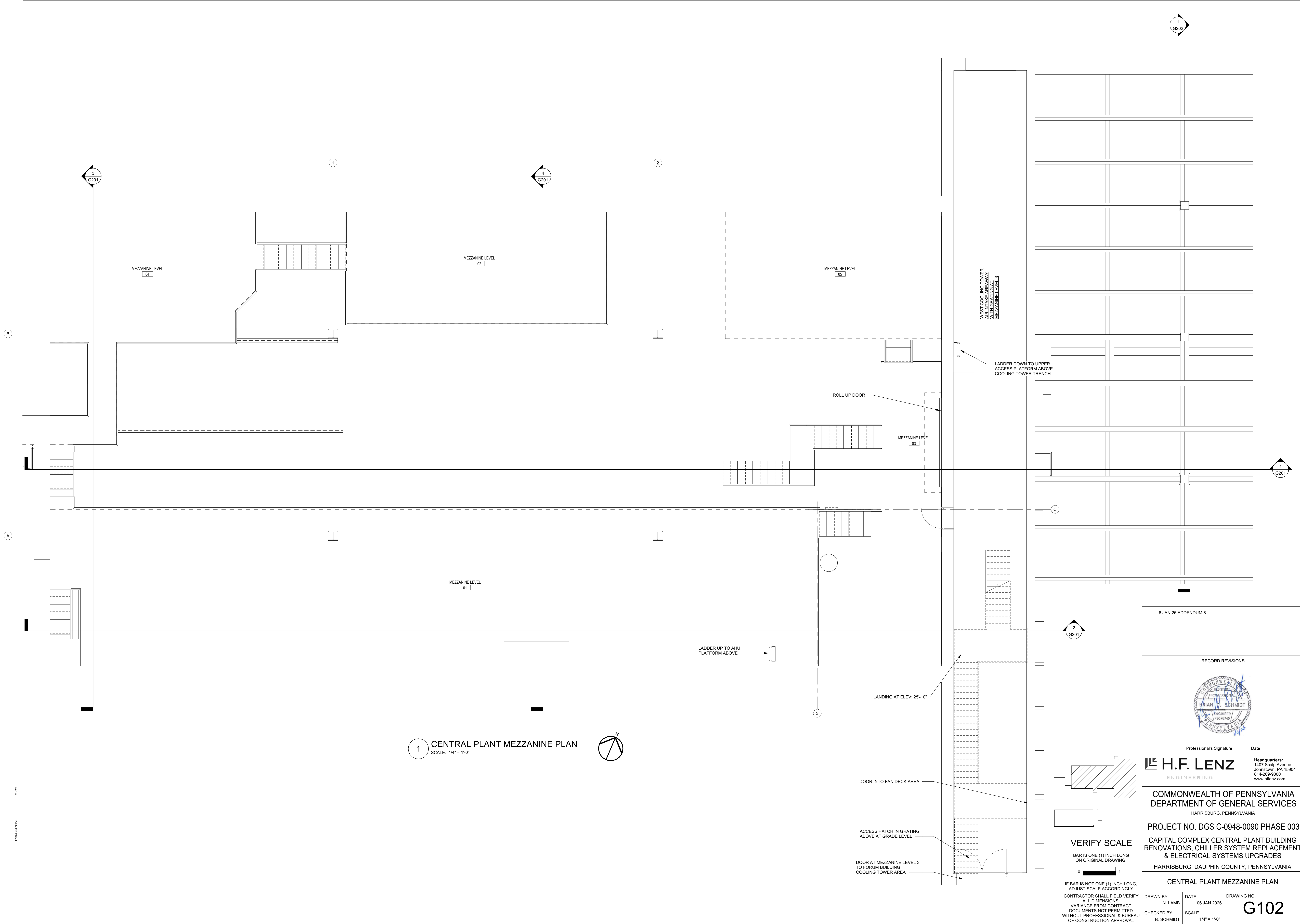
Professional's Signature: *Brian D. Schmidt* Date: _____
H.F. LENZ ENGINEERING
 Headquarters: 1407 Sculp Avenue, Johnstown, PA 15904, 814-269-9300, www.hflenz.com

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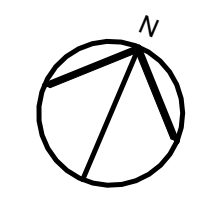
PROJECT NO. DGS C-0948-0090 PHASE 003
CAPITAL COMPLEX CENTRAL PLANT
BUILDING RENOVATIONS, CHILLER SYSTEM
REPLACEMENT & ELECTRICAL SYSTEMS
UPGRADES
 HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA
SITE LOGISTICS AND PROJECT
SEQUENCING PLAN
 DRAWN BY: E. HOOVER DATE: 27 AUG 2025
 CHECKED BY: B. SCHMIDT SCALE: AS NOTED
 DRAWING NO. **G002**

VERIFY SCALE

BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING.
 0 1
 IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY.
 CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL.

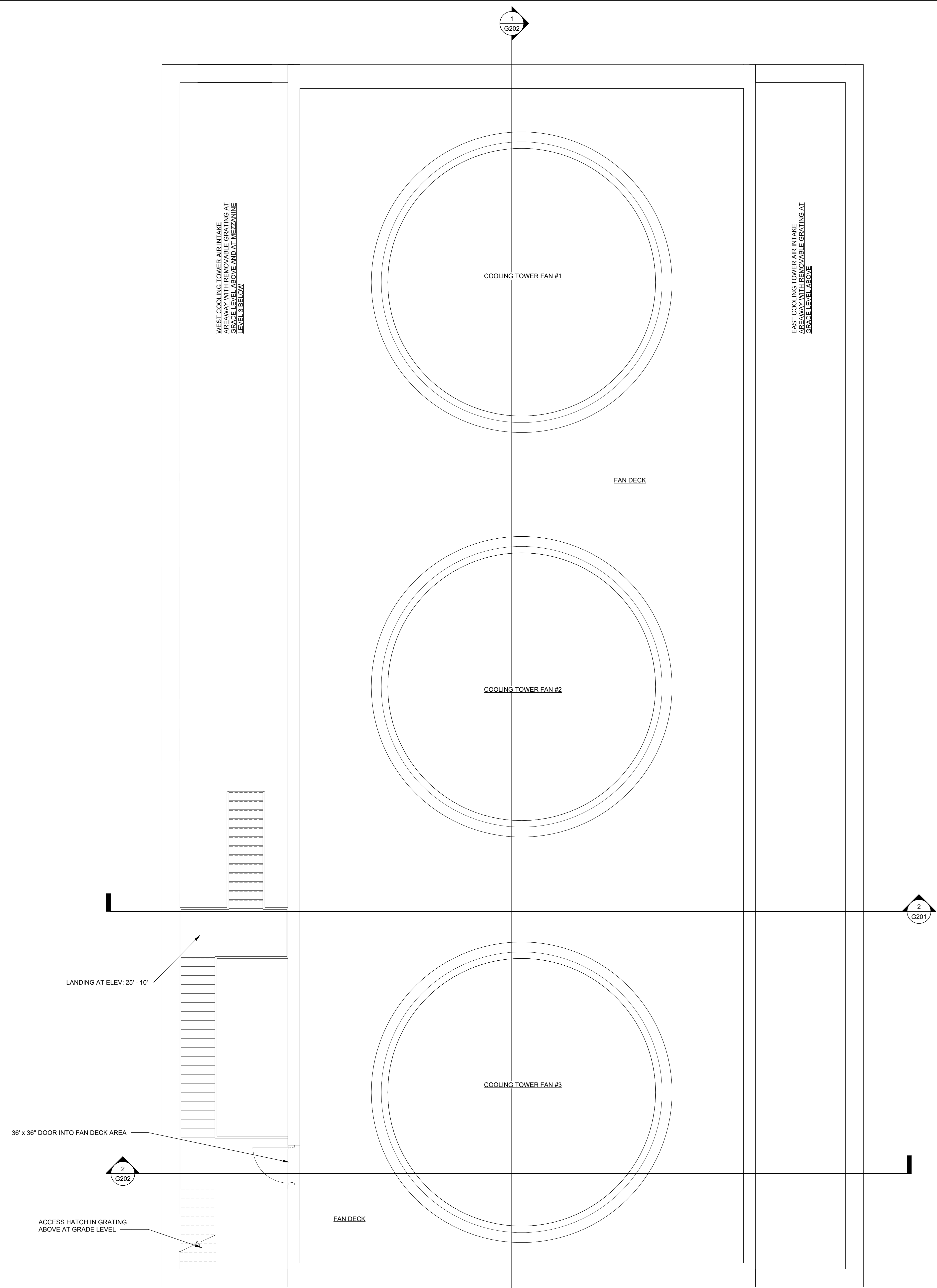


1 CENTRAL PLANT MEZZANINE PLAN
SCALE: 1/4" = 1'-0"



VERIFY SCALE
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0 1
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6 JAN 26 ADDENDUM 8	
RECORD REVISIONS	
Professional's Signature Date	
Headquarters: 1407 Sculp Avenue Johnstown, PA 15904 814-269-9300 www.hfrenz.com	
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA	
PROJECT NO. DGS C-0948-0090 PHASE 003	
CAPITAL COMPLEX CENTRAL PLANT BUILDING RENOVATIONS, CHILLER SYSTEM REPLACEMENT & ELECTRICAL SYSTEMS UPGRADES HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA	
CENTRAL PLANT MEZZANINE PLAN	
DRAWN BY N. LAMB CHECKED BY B. SCHMIDT	DATE 06 JAN 2026 SCALE 1/4" = 1'-0"
DRAWING NO. G102	



1 COOLING TOWER FAN DECK PLAN
SCALE: 1/4" = 1'-0"

6 JAN 26 ADDENDUM 8	

RECORD REVISIONS

Professional's Signature:  Date: _____

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ENGINEERING
Headquarters:
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Johnstown, PA 15904
814-269-9300
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PROJECT NO. DGS C-0948-0090 PHASE 003

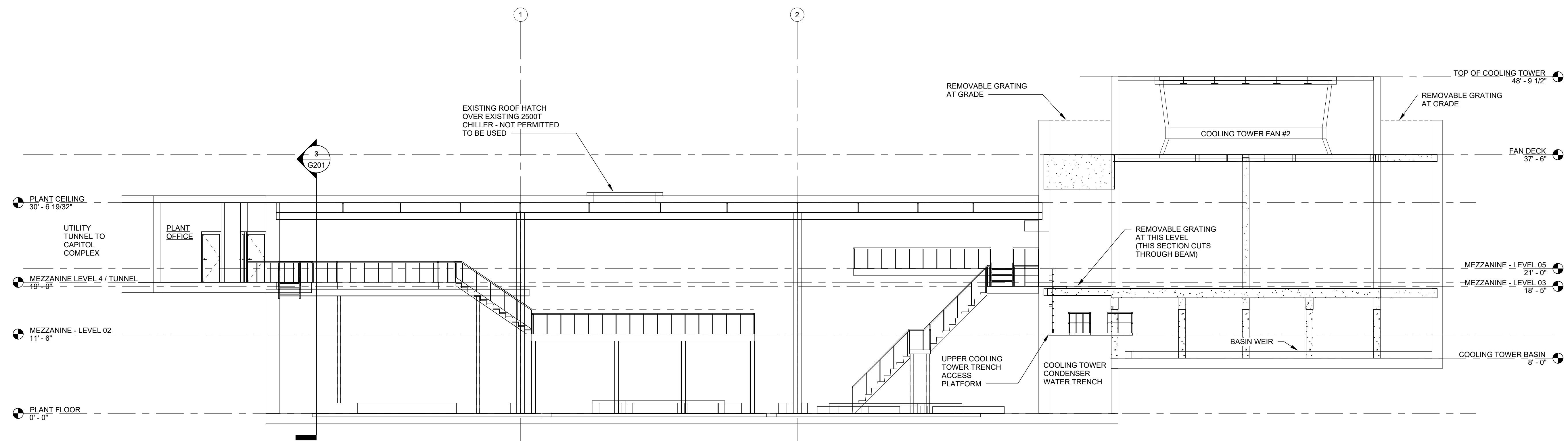
CAPITAL COMPLEX CENTRAL PLANT BUILDING
RENOVATIONS, CHILLER SYSTEM REPLACEMENT
& ELECTRICAL SYSTEMS UPGRADES
HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

COOLING TOWER FAN DECK PLAN

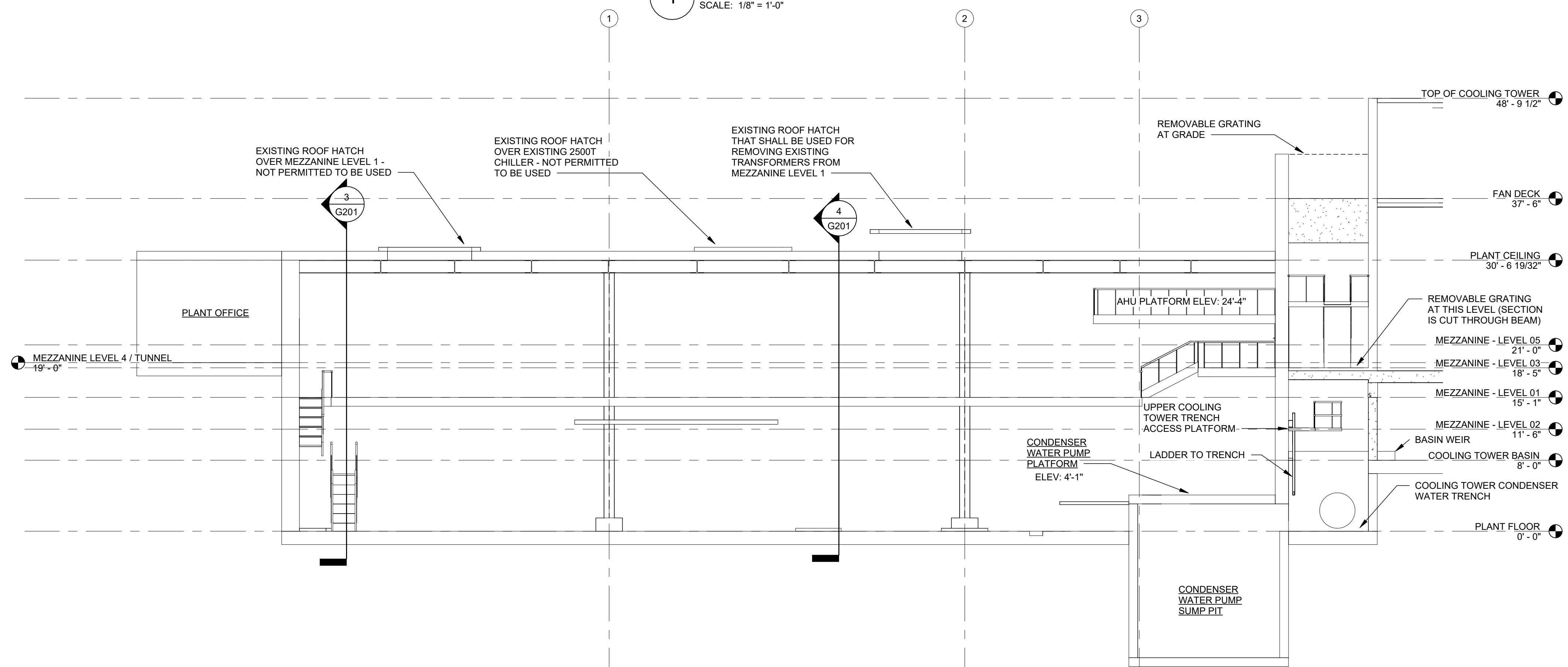
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IF BAR IS NOT ONE (1) INCH LONG,
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CONTRACTOR SHALL FIELD VERIFY
ALL DIMENSIONS.
VARIANCE FROM CONTRACT
DOCUMENTS NOT PERMITTED
WITHOUT PROFESSIONAL & BUREAU
OF CONSTRUCTION APPROVAL

DRAWN BY N. LAMB	DATE 06 JAN 2026	DRAWING NO. G103
CHECKED BY B. SCHMIDT	SCALE 1/4" = 1'-0"	

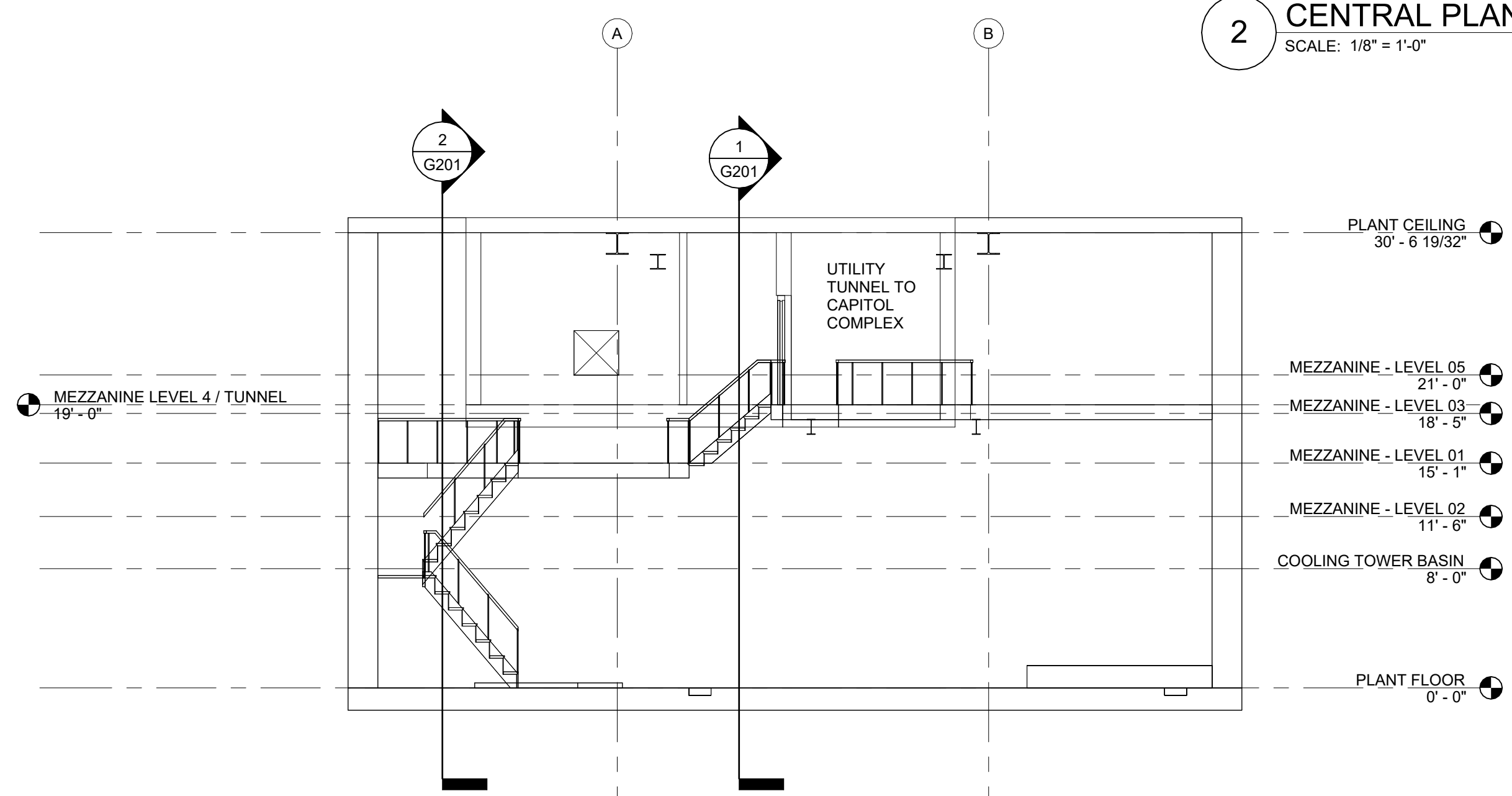
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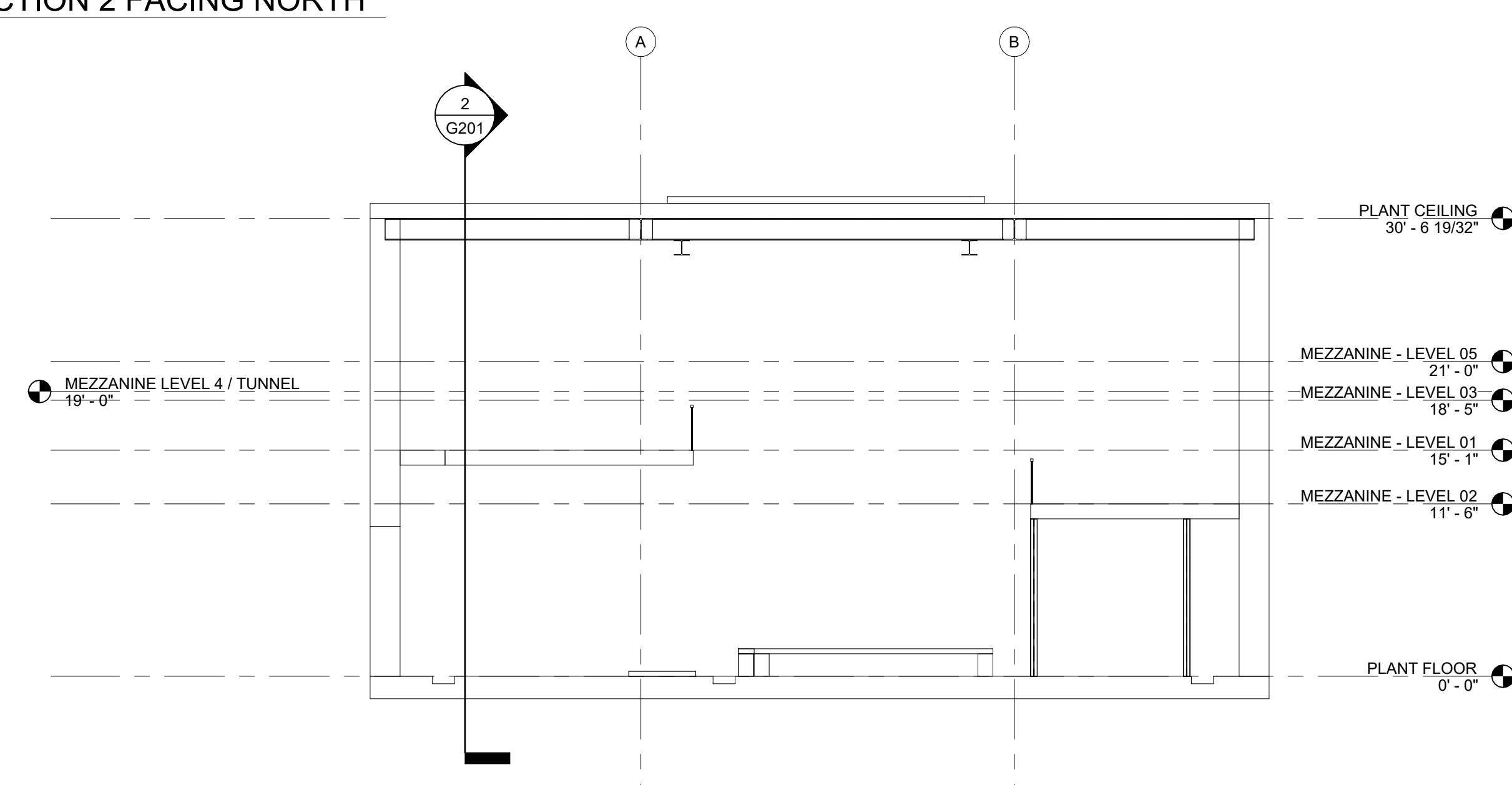
1 CENTRAL PLANT - SECTION 1 FACING NORTH
SCALE: 1/8" = 1'-0"



2 CENTRAL PLANT - SECTION 2 FACING NORTH
SCALE: 1/8" = 1'-0"



3 CENTRAL PLANT - SECTION 2 FACING WEST
SCALE: 1/8" = 1'-0"



4 CENTRAL PLANT - SECTION 1 FACING WEST
SCALE: 1/8" = 1'-0"

6 JAN 26 ADDENDUM 8	

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Professional's Signature: Date: _____

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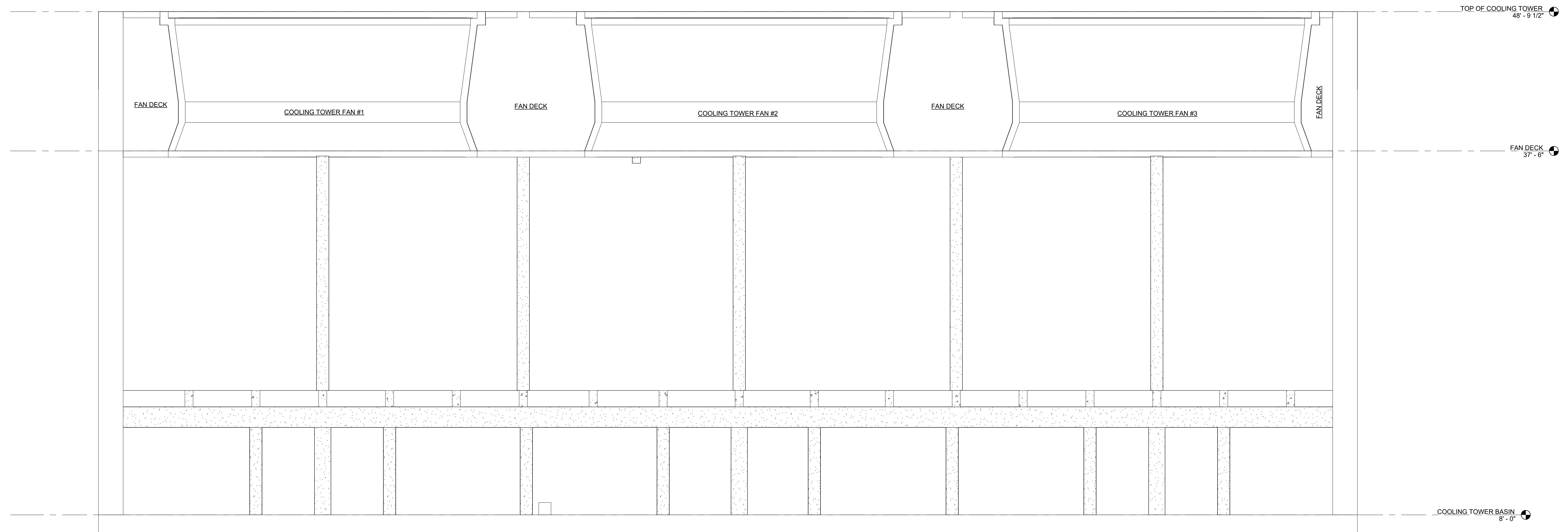
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HARRISBURG, PENNSYLVANIA

PROJECT NO. DGS C-0948-0090 PHASE 003

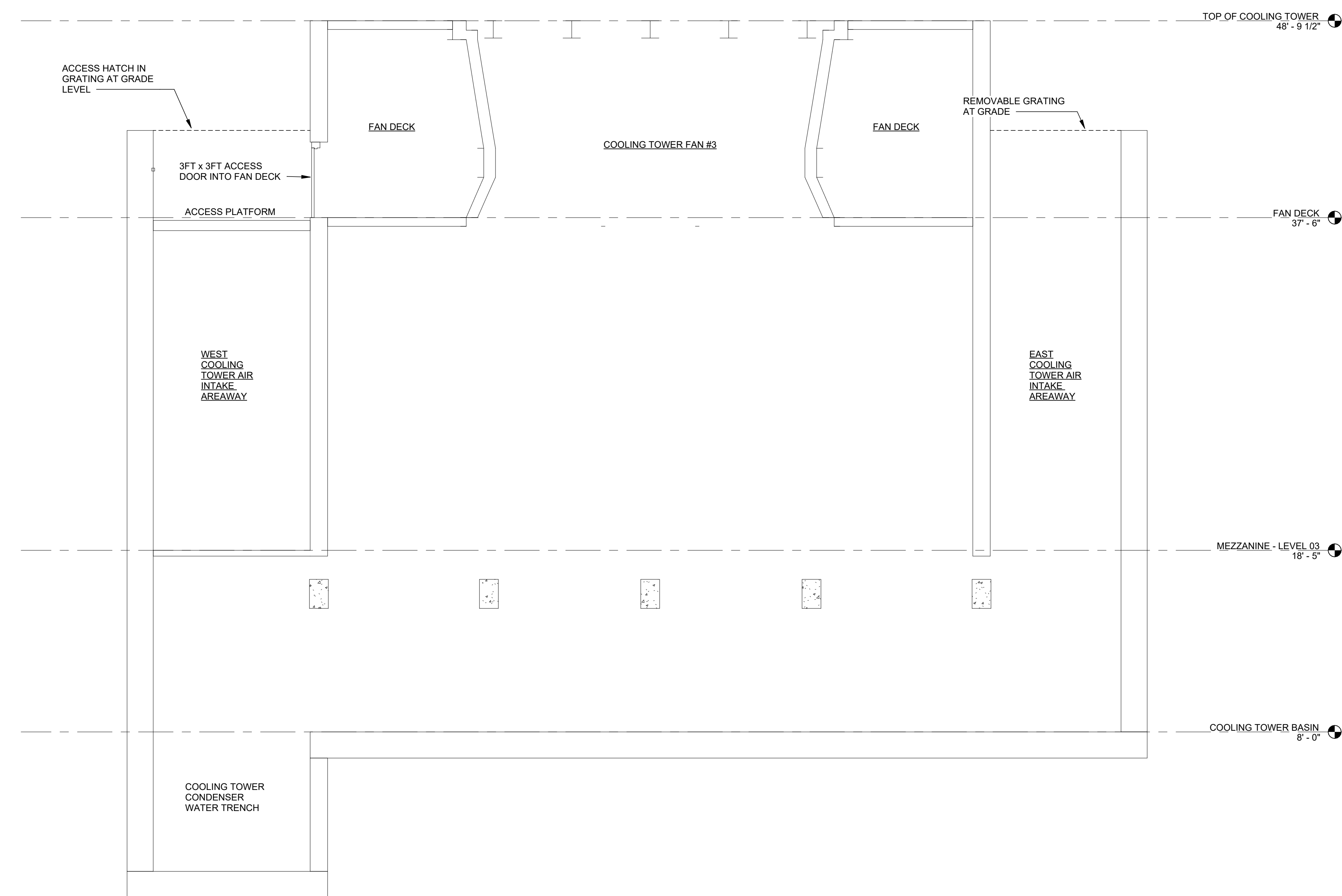
CAPITAL COMPLEX CENTRAL PLANT BUILDING RENOVATIONS, CHILLER SYSTEM REPLACEMENT & ELECTRICAL SYSTEMS UPGRADES
HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

CENTRAL PLANT SECTIONS

VERIFY SCALE BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING. 0 ————— 1 IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL.	DRAWN BY: N. LAMB CHECKED BY: B. SCHMIDT	DATE: 06 JAN 2026 SCALE: 1/8" = 1'-0"	DRAWING NO.: G201
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1 COOLING TOWER - SECTION FACING EAST
SCALE: 1/4" = 1'-0"



2 COOLING TOWER - SECTION FACING NORTH
SCALE: 1/4" = 1'-0"

6 JAN 26 ADDENDUM 8	

RECORD REVISIONS

Professional's Signature:  Date: _____

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HARRISBURG, PENNSYLVANIA

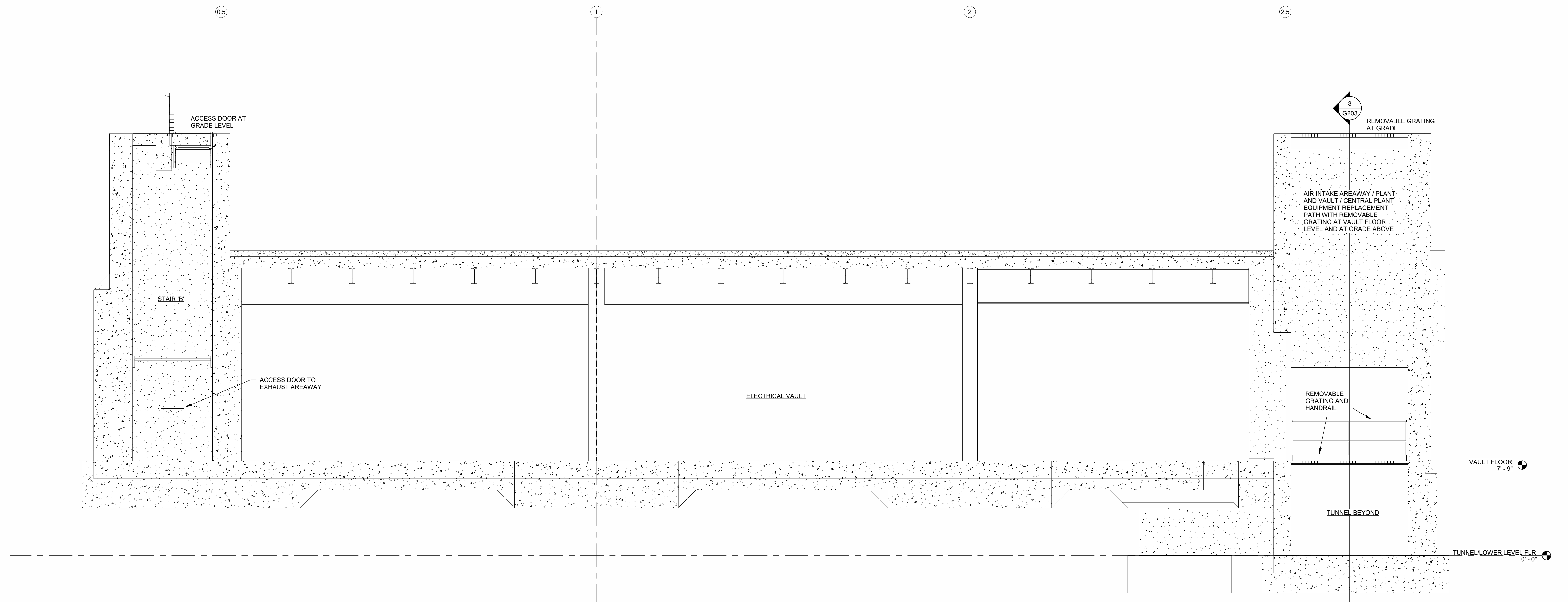
PROJECT NO. DGS C-0948-0090 PHASE 003

CAPITAL COMPLEX CENTRAL PLANT BUILDING
RENOVATIONS, CHILLER SYSTEM REPLACEMENT
& ELECTRICAL SYSTEMS UPGRADES
HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

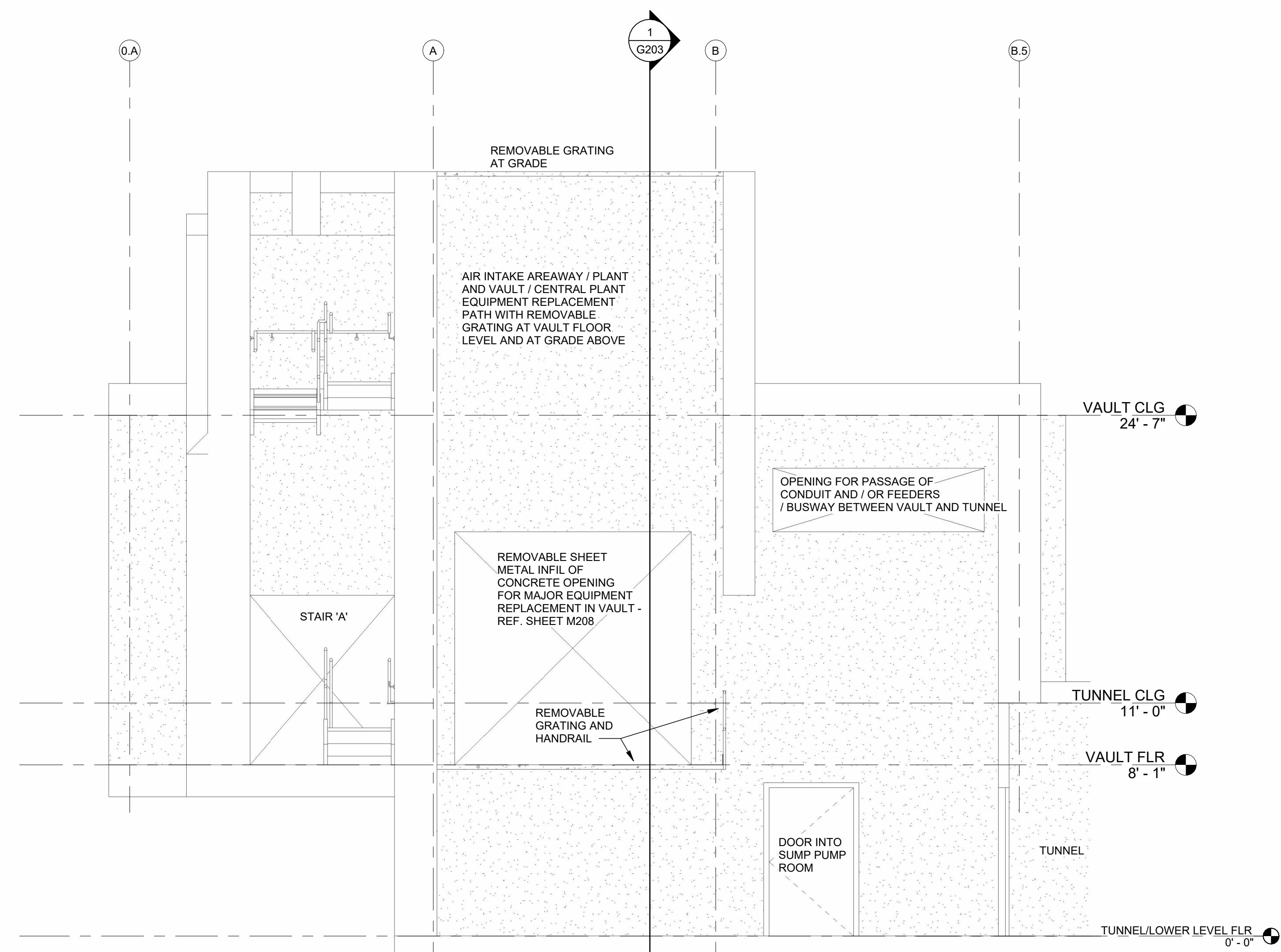
COOLING TOWER SECTIONS

VERIFY SCALE BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWING. 0 1 IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL	DRAWN BY: N. LAMB CHECKED BY: B. SCHMIDT	DATE: 06 JAN 2026 SCALE: 1/4" = 1'-0"	DRAWING NO.: G202
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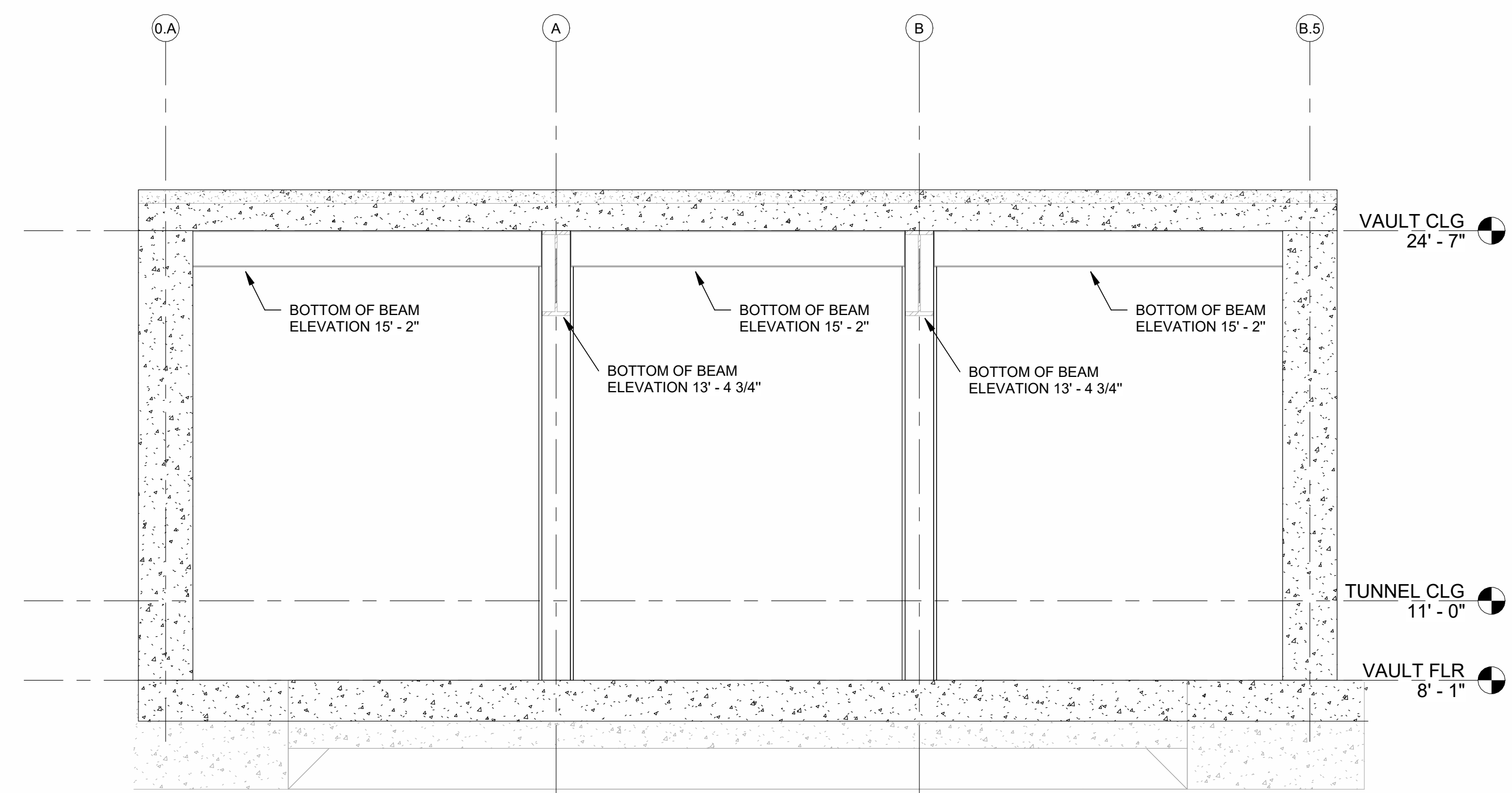
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1 ELECTRICAL VAULT - SECTION FACING NORTH
SCALE: 1/4" = 1'-0"




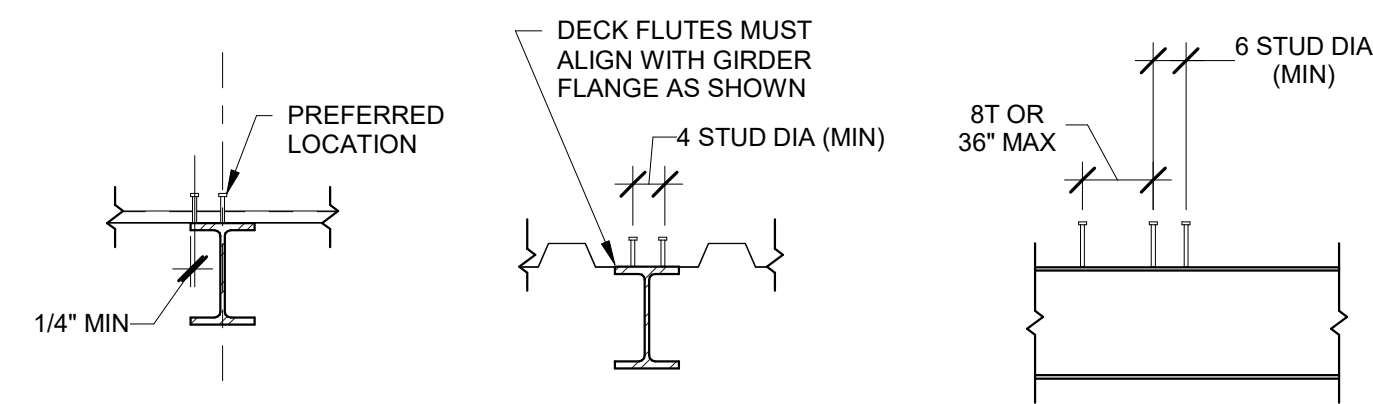
3 ELECTRICAL VAULT - TUNNEL SECTION FACING WEST
SCALE: 1/4" = 1'-0"



2 ELECTRICAL VAULT - SECTION FACING WEST
SCALE: 1/4" = 1'-0"

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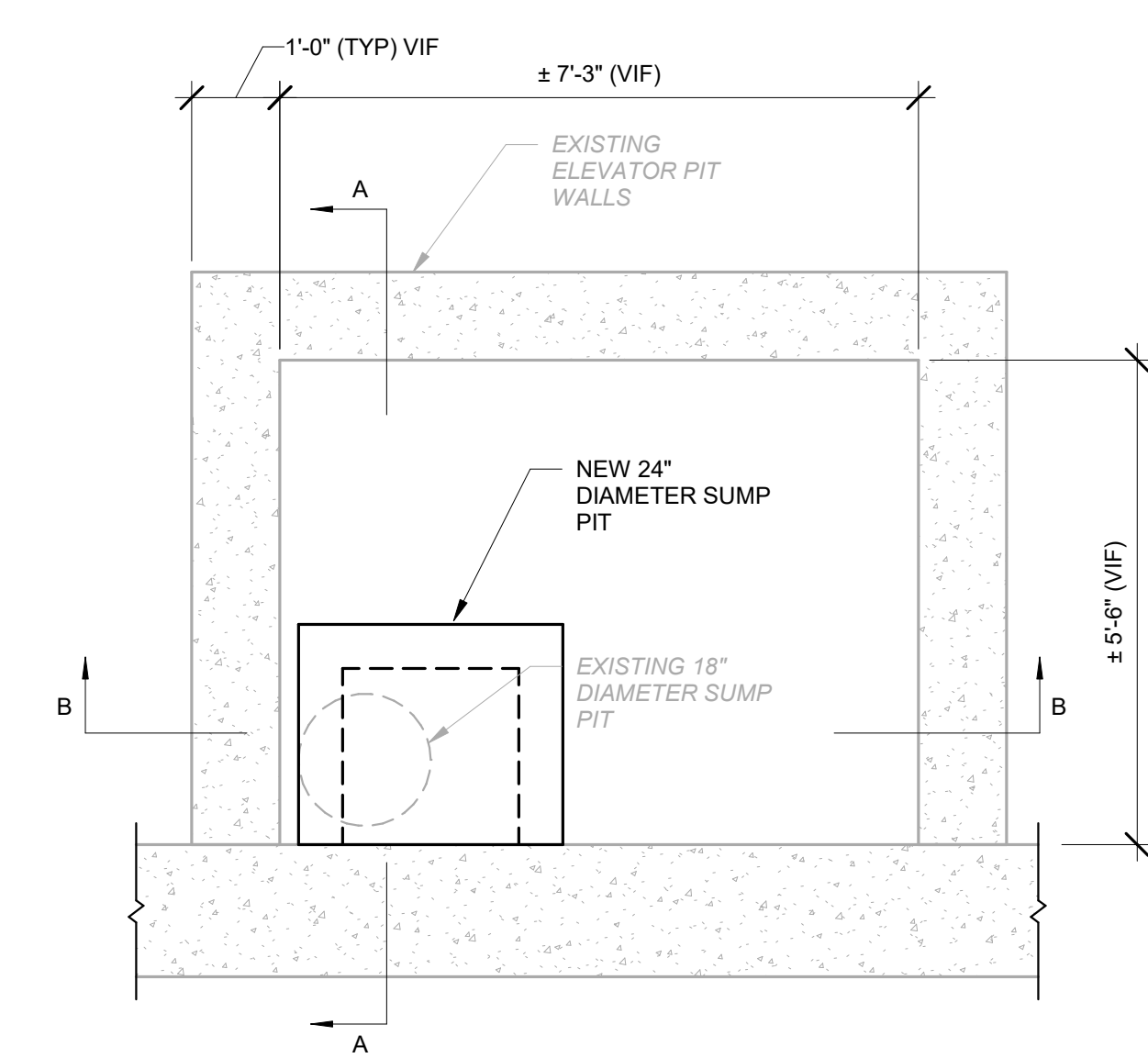
6 JAN 26 ADDENDUM 8	
RECORD REVISIONS	
 Professional's Signature: _____ Date: _____	
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA	
PROJECT NO. DGS C-0948-0090 PHASE 003	
CAPITAL COMPLEX CENTRAL PLANT BUILDING RENOVATIONS, CHILLER SYSTEM REPLACEMENT & ELECTRICAL SYSTEMS UPGRADES HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA	
ELECTRICAL VAULT SECTIONS	
DRAWN BY: N. LAMB CHECKED BY: B. SCHMIDT	DATE: 06 JAN 2026 SCALE: 1/4" = 1'-0"
DRAWING NO. G203	



NOTES:
 1. ALL STUDS TO BE 3/4" WITH 1/2" MIN CONCRETE COVER ABOVE HEADS AFTER WELDING INTO FINAL POSITION.
 2. WHERE A SINGLE NUMBER OF SHEAR STUD CONNECTORS IS INDICATED THUS [] ON PLAN, THE NUMBER OF SHEAR CONNECTORS SHALL BE DISTRIBUTED UNIFORMLY ALONG THE LENGTH OF THE BEAM, UNLESS NOTED OTHERWISE.

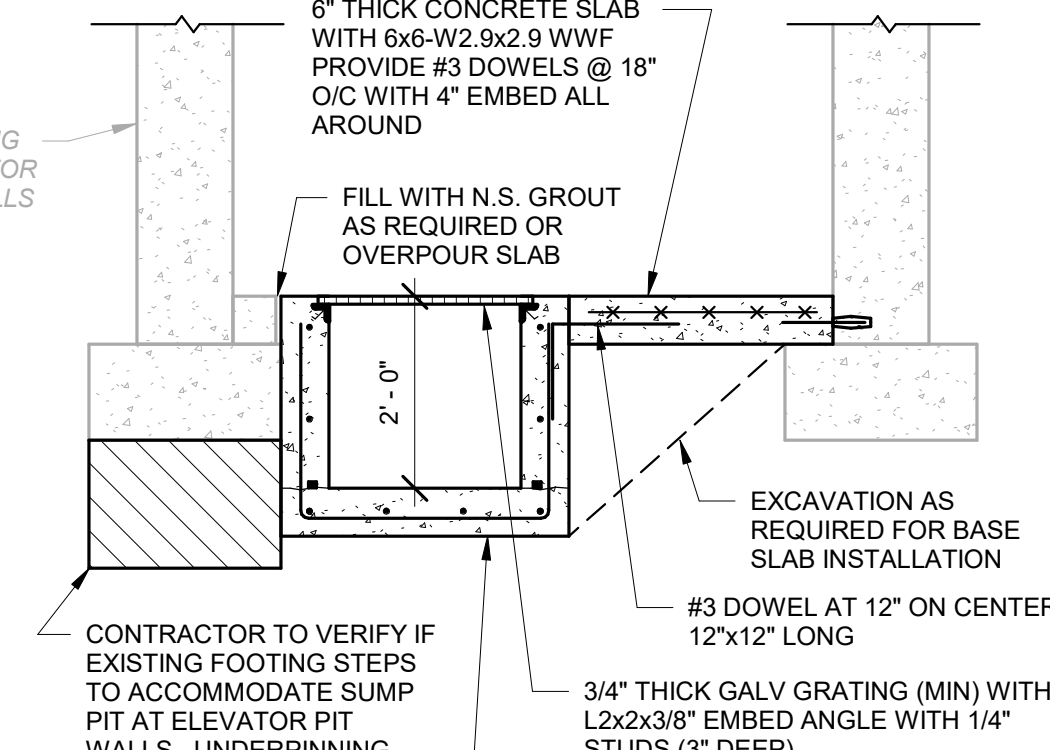
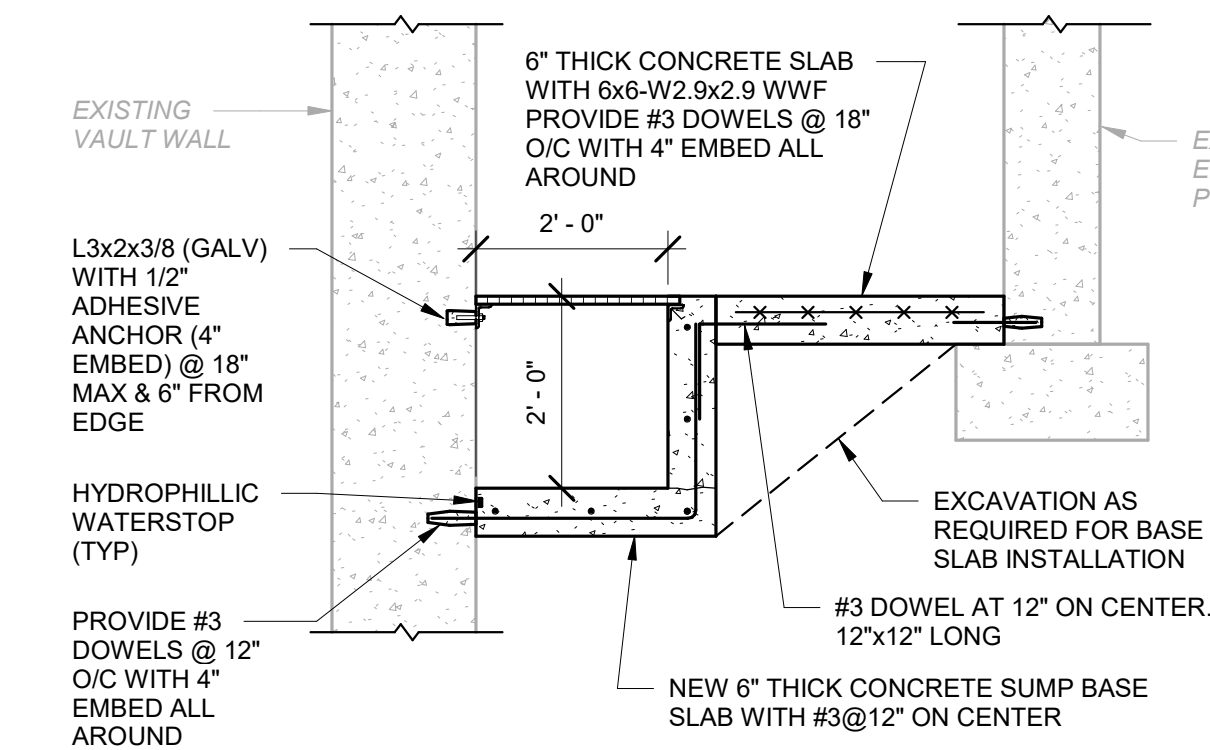
1 COMPOSITE BEAMS - SHEAR STUD CONNECTORS

S003 1/2" = 1'-0"



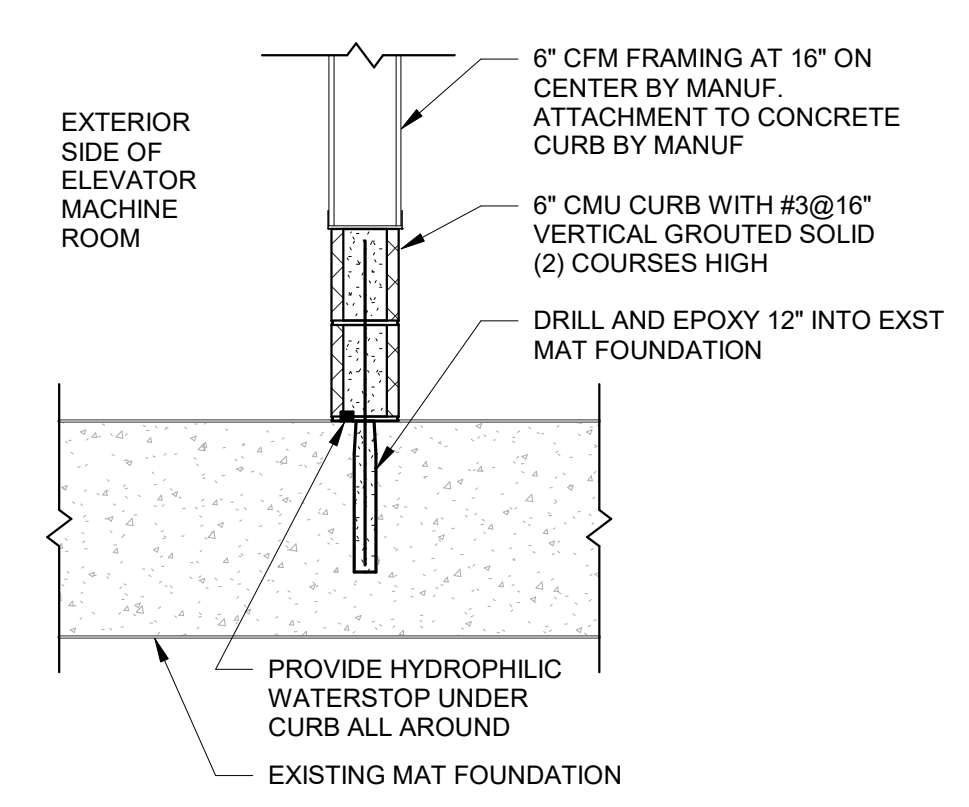
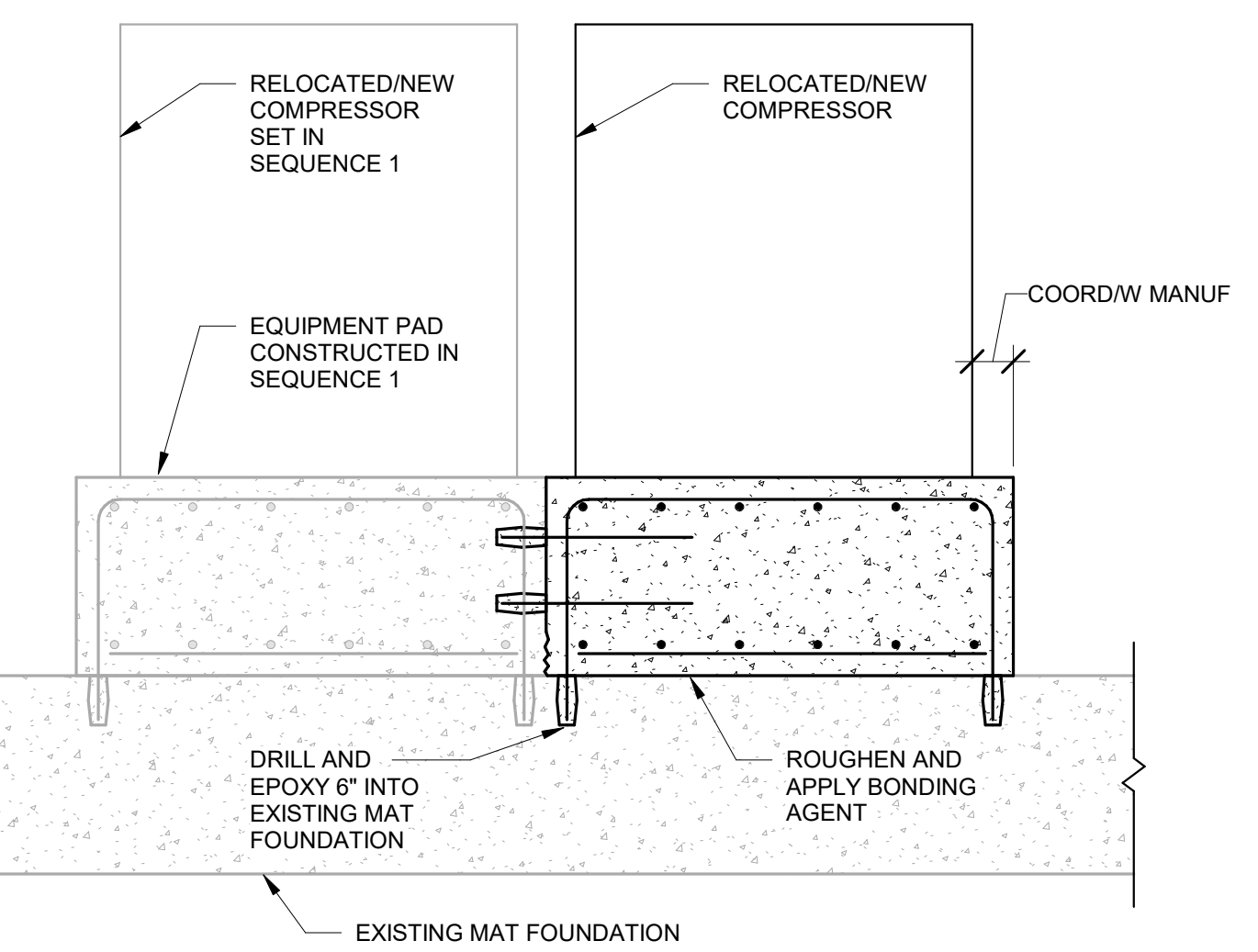
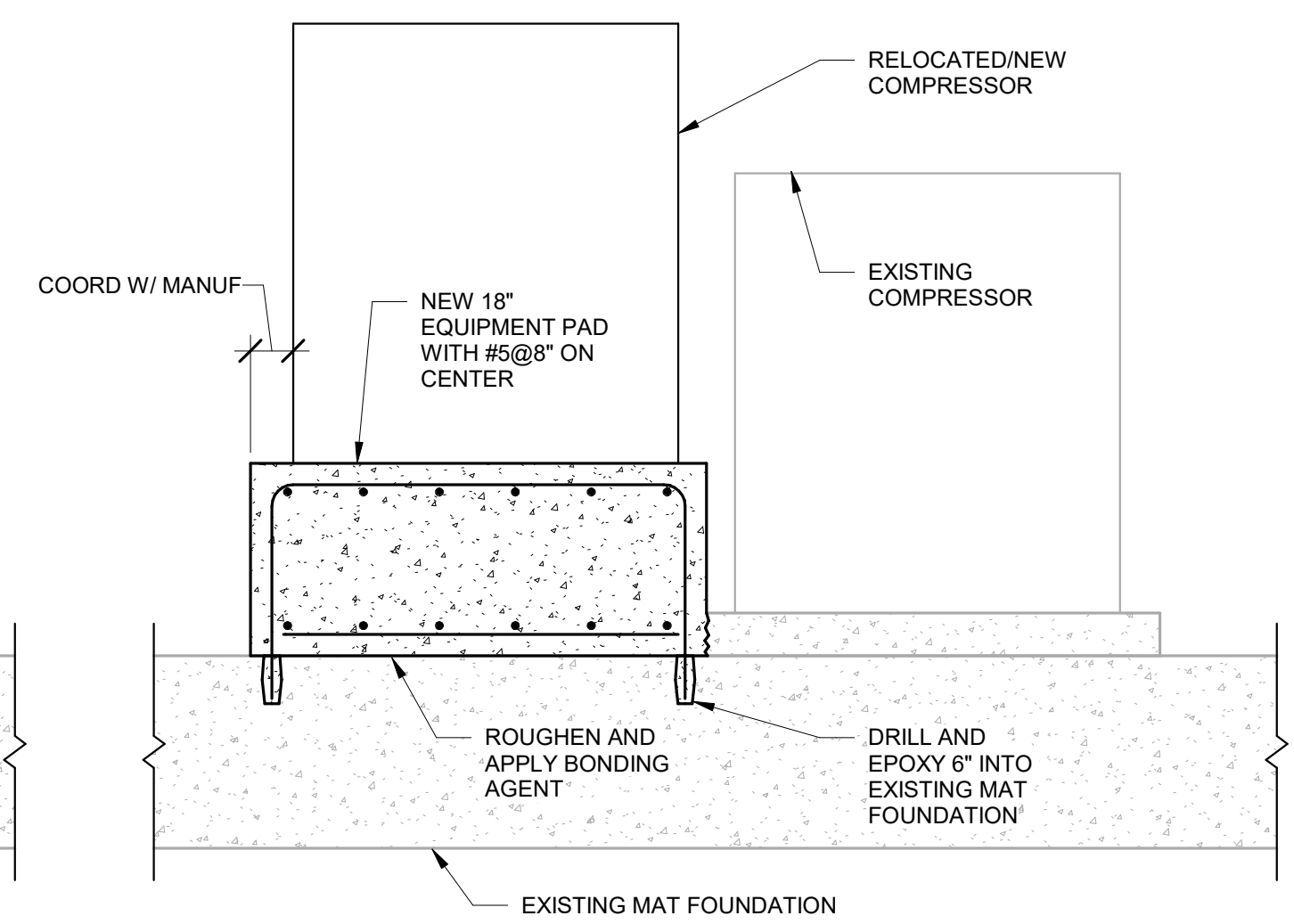
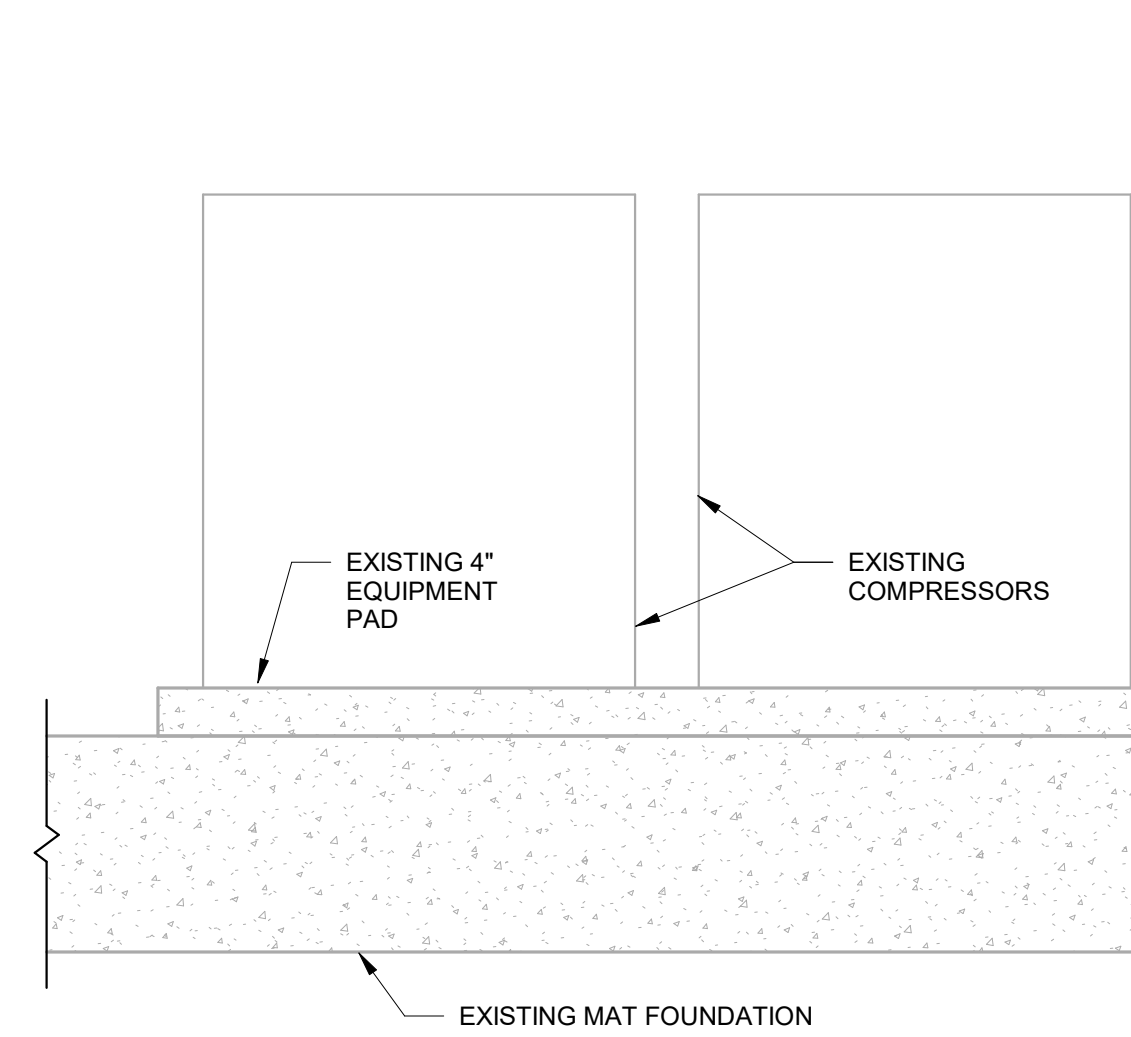
2 SUMP PLAN

S003 1/2" = 1'-0"



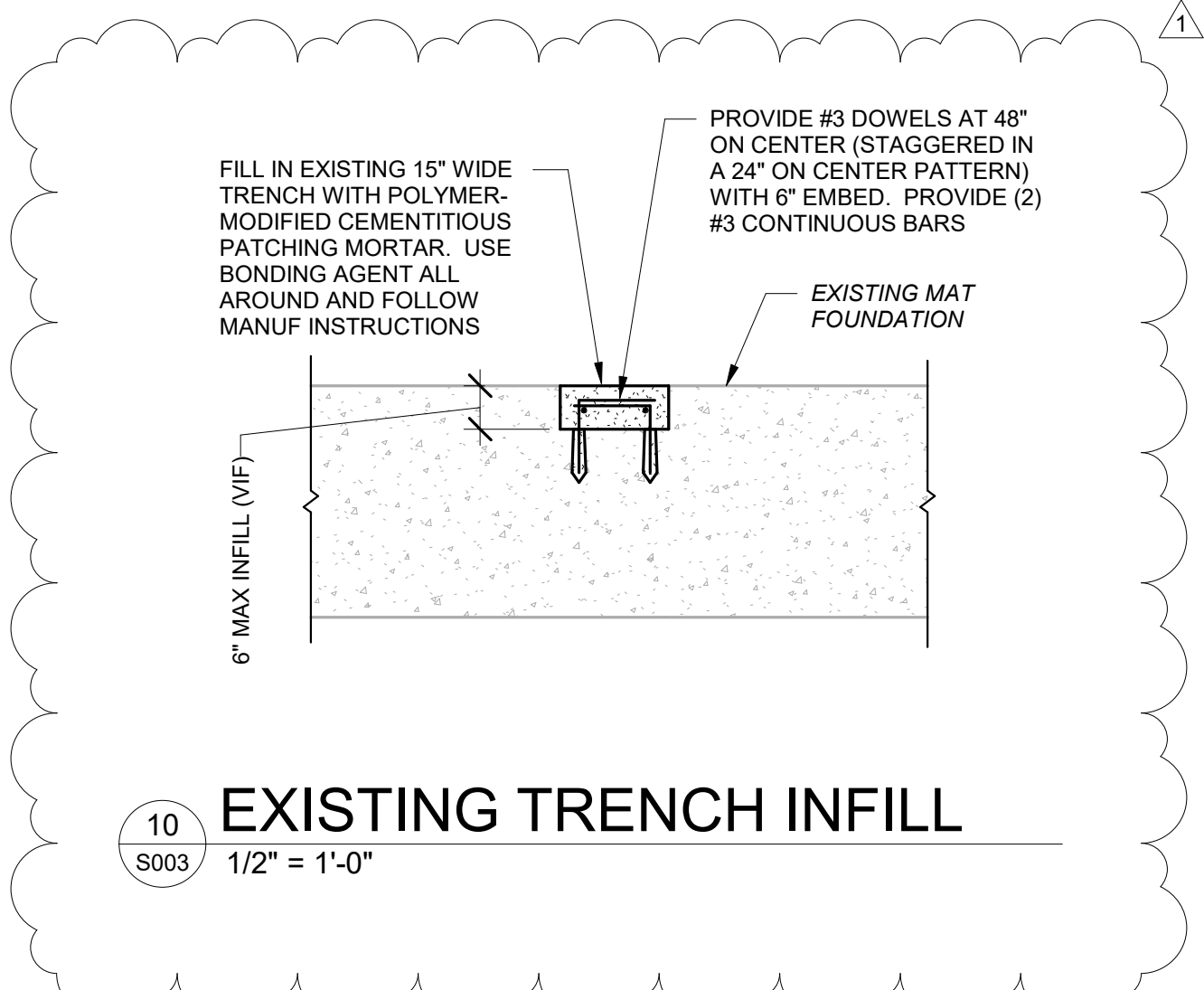
SECTION A-A

SECTION B-B



4 ELEVATOR MACHINE ROOM CURB

S003 3/4" = 1'-0"



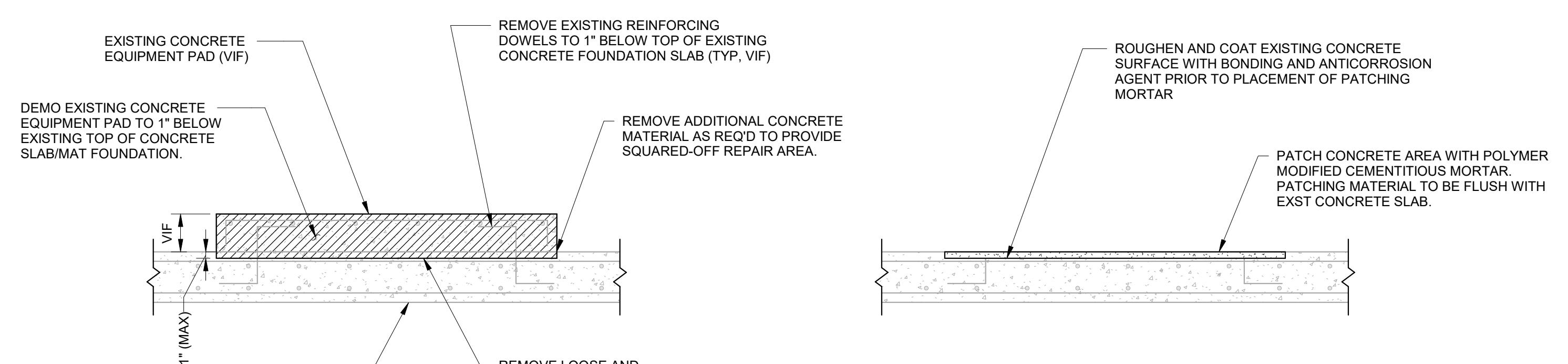
10 EXISTING TRENCH INFILL

S003 1/2" = 1'-0"

NOTES:
SEQUENCE 1
 1. REMOVE (1) COMPRESSOR WHILE KEEPING (1) COMPRESSOR IN SERVICE.
 2. SAW-CUT AND DEMO EXISTING EQUIPMENT SLAB AT REMOVED COMPRESSOR.
 3. DRILL AND EPOXY REINFORCING INTO MAT FOUNDATION AND PROVIDE ROUGHENED SURFACE AND BONDING AGENT TO EXISTING MAT FOUNDATION FOR INSTALLATION OF NEW 18" EQUIPMENT SLAB.
SEQUENCE 2
 1. REMOVE REMAINING COMPRESSOR ONCE NEWLY CONSTRUCTED PAD AND COMPRESSOR ARE REINSTALLED.
 2. SAW-CUT AND DEMO EXISTING EQUIPMENT SLAB AT REMOVED COMPRESSOR.
 3. DRILL AND EPOXY REINFORCING INTO MAT FOUNDATION AND NEWLY CONSTRUCTED PAD AND PROVIDE ROUGHENED SURFACE AND BONDING AGENT TO EXISTING MAT FOUNDATION FOR INSTALLATION OF NEW 18" EQUIPMENT SLAB.

3 COMPRESSOR PAD DETAILS

S003 3/4" = 1'-0"

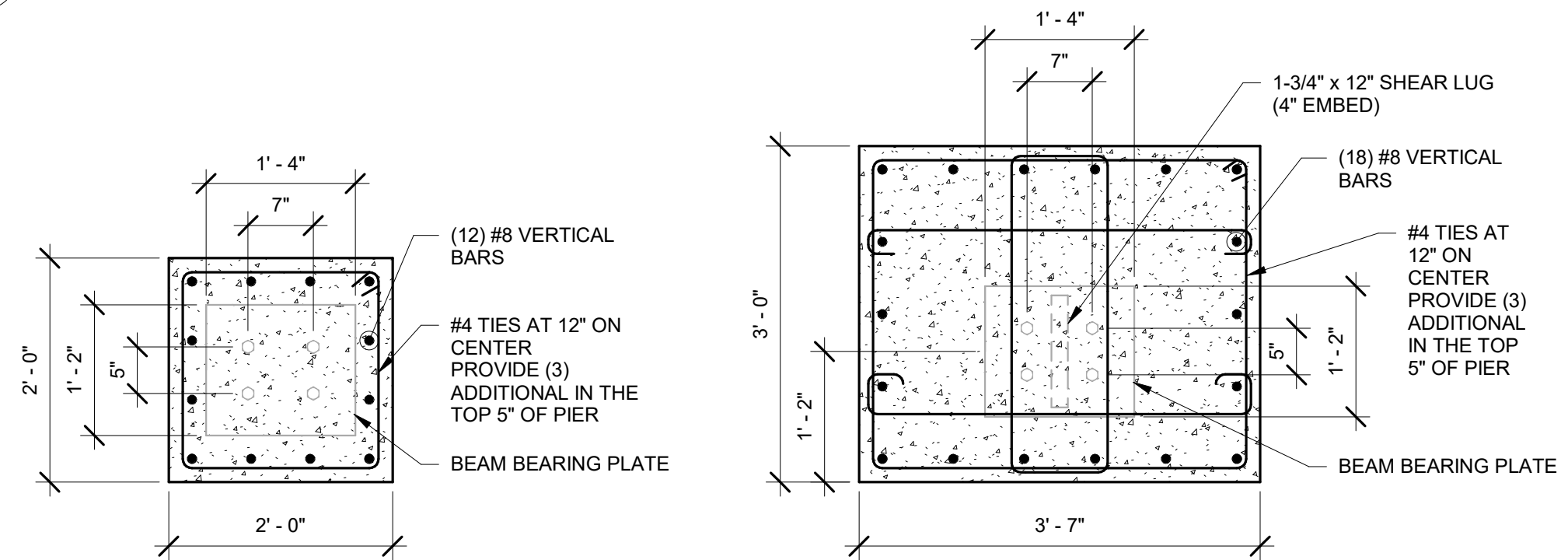


6 TYPICAL DETAILS AT HATCH OPENING

S003 3/4" = 1'-0"

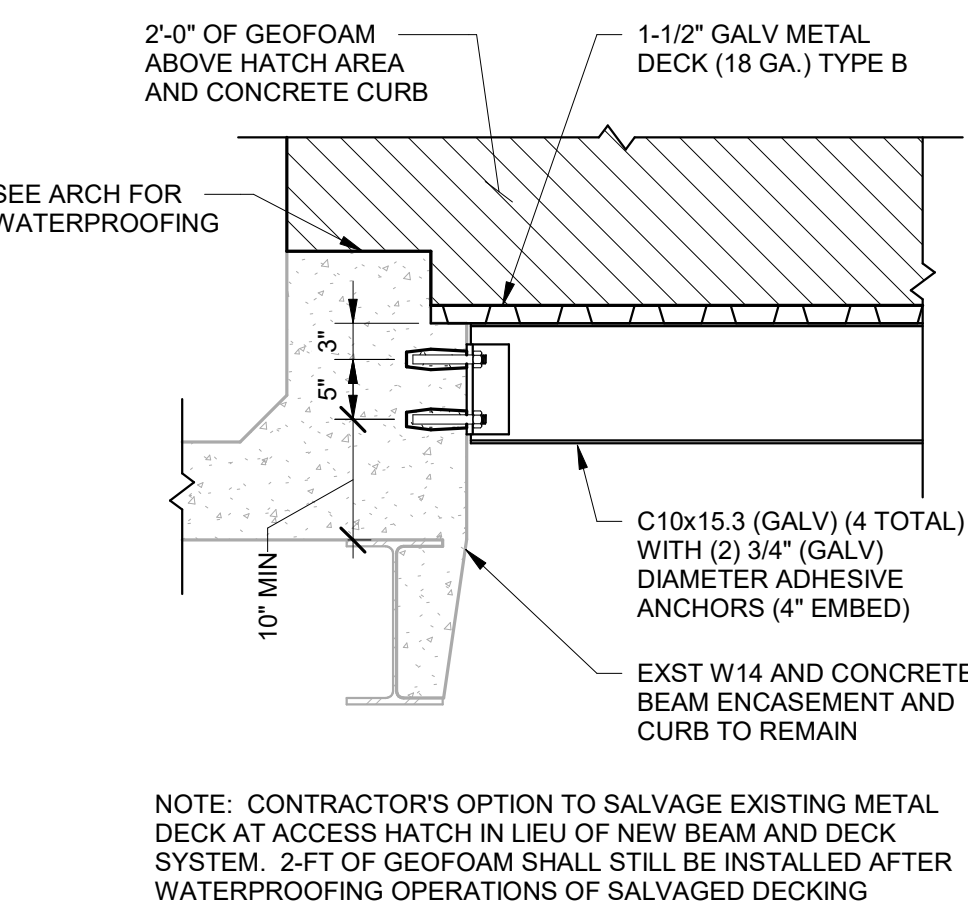
5 TYPICAL PAD DEMOLITION DETAIL

S003 3/4" = 1'-0"



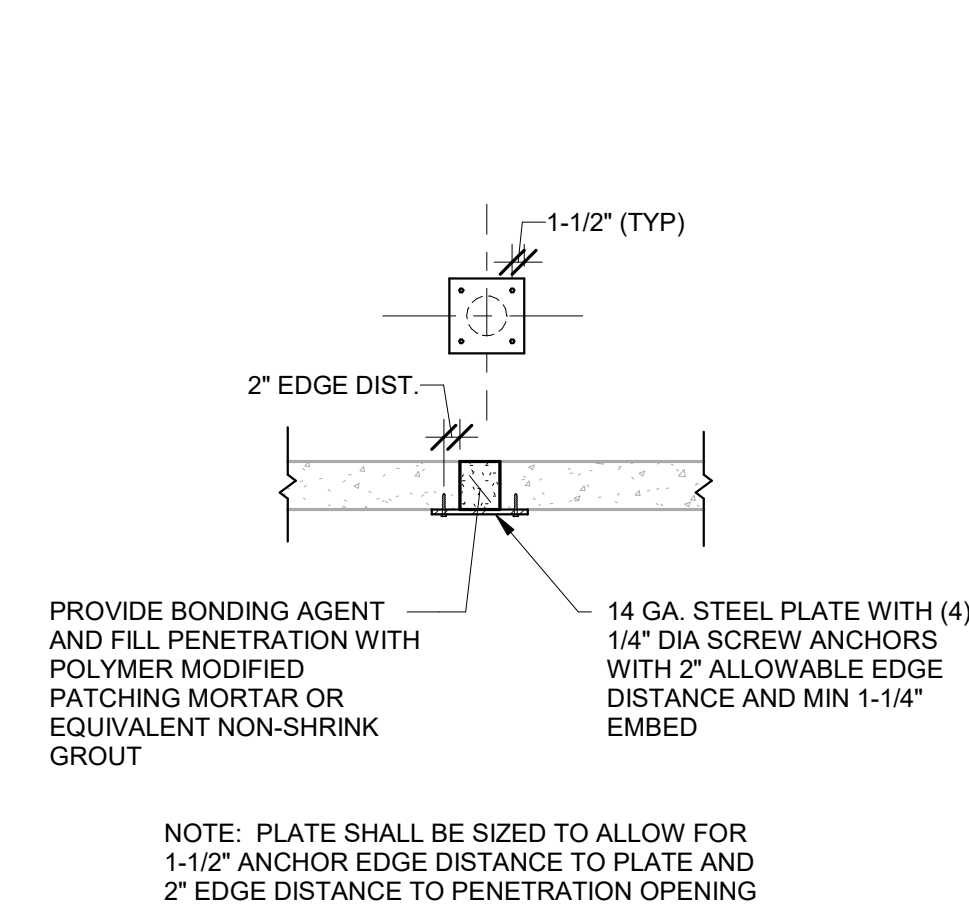
7 PILASTER DETAILS

S003 3/4" = 1'-0"



8 EXISTING ACCESS HATCH INFILL

S003 3/4" = 1'-0"



9 TYPICAL FLOOR INFILL DETAIL

S003 1/2" = 1'-0"

1	ADDENDUM 8 - 1/6/2026
---	-----------------------

RECORD REVISIONS

Professional's Signature: *Mark Piotrowicz* Date: 8/27/2025

H.F. LENZ ENGINEERING
 Headquarters: 1407 Sculp Avenue, Johnstown, PA 15904, 814-269-9300, www.hflenzen.com

COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF GENERAL SERVICES
 HARRISBURG, PENNSYLVANIA

PROJECT NO. DGS C-0948-0090 PHASE 003

CAPITAL COMPLEX CENTRAL PLANT BUILDING
 RENOVATIONS, CHILLER SYSTEM REPLACEMENT
 & ELECTRICAL SYSTEMS UPGRADES
 HARRISBURG, DAUPHIN COUNTY, PENNSYLVANIA

TYPICAL DETAILS

VERIFY SCALE BAR IS ONE (1) INCH LONG ON ORIGINAL DRAWINGS. IF BAR IS NOT ONE (1) INCH LONG, ADJUST SCALE ACCORDINGLY. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS. VARIANCE FROM CONTRACT DOCUMENTS NOT PERMITTED WITHOUT PROFESSIONAL & BUREAU OF CONSTRUCTION APPROVAL.	DRAWN BY M. PIOTROWICZ	DATE 27 AUG 2025	DRAWING NO. S003
	CHECKED BY R. PENTZ	SCALE As indicated	



SHOP DRAWING TRANSMITTAL

H.F. LENZ COMPANY

1407 Scalp Avenue
Johnstown, PA 15904-3329
Phone: 814-269-9300
FAX: 814-269-9301

Engineers
Planners
Surveyors
Energy Consultants

To: Mr. Keith Eberly
G.R. Sponaugle & Sons, Inc.
4391 Chambers Hill Road
P.O. Box 4456
Harrisburg, PA 17111

Subject: Harrisburg State Capitol
Upgrade Central Refrigeration Plant
DGS Project No. 948-53.4444

Shipping:
Transmittal Number: 50

Item(s): *Approved as Noted*

Item	Copies	Title
16271-2	1	Power Transformers Dimensioned Drawings

Checking is for quality, type and conformance with the design of the project only. Approval of shop drawings shall not relieve the Contractor of responsibility for any modifications or deviation from the requirements of the Contract Documents unless the Contractor has duly noted such deviation and written approval has been granted. Shop drawing approval shall not relieve the Contractor from responsibility for errors or omissions in the shop drawings. Quantities are the responsibility of the Contractor.

H.F. LENZ COMPANY

Elvin H. Davidhizar
Elvin H. Davidhizar
Field Representative

cc: Frank Cimino (1)
Jeff Brophy (1)
Brian Robinson (1)
Rich Mummert (1)
Drew Kugler (1)
John Klinger/Mike Penyak (1)

Date: 11/28/06
HFL File No.: 2005-0107.01
Checked By: EHD

TRANSMITTAL



G.R.SPONAUGLE & SONS, INC.

CONTRACTORS
PLUMBING • HEATING • ELECTRICAL • SHEET METAL
AIR CONDITIONING • REFRIGERATION

4391 CHAMBERS HILL ROAD
P.O. BOX 4456
HARRISBURG, PA 17111-0456
717-564-1515 FAX: 717-564-3675
www.grsponaugle.com

Transmittal Number

40632

Date

11/02/06

GRS Job Number

06153

GRS Purchase Order Number

**H.F. LENZ COMPANY
1407 SCALP AVENUE**

**JOHNSTOWN
SKIP DAVIDHIZER**

PA 159043329

RECEIVED

NOV 06 '06

H.F. LENZ CO.

**DEPARTMENT OF GENERAL SERVICES
STATE CAPITOL
UPGRADE CENTRAL REFRIGERATION PLANT
CENTRAL PLANT ELECTRICAL UPGRADES**

Spec. Section ~~16145-16441~~

16271

ITEM(S) **DIMENSIONED DRAWINGS FOR SWITCHBOARDS, MOTOR
CENTERS, LOW VOLTAGE GEAR, POWER
TRANSFORMERS.**

8

APPROVED AS NOTED

11-21-06

This Submission is for your records. 4 copies are enclosed.

REMARKS CC: **JEFF BROPHY
FRANK CIMINO**

Original

G.R. SPONAUGLE & SONS, INC.

Keith A Eberly

Keith A Eberly (SEG)

[REDACTED]



4391 Chambers Hill Road, PO Box 4456, Harrisburg, PA 17111-0456
717.564.1515 fax 717.564.3675 www.grsponaule.com

Submittal Data

For

STATE CAPITOL-CENTRAL PLANT

**DIMENSIONED DRAWINGS FOR SWITCHBOARDS,
MOTOR CONTROL CENTERS, LOW VOLTAGE GEAR,
POWER TRANSFORMERS**

Job #	06153	Purchase Order #	06153.00-0004
Submission #:		Specification #:	16145-16441
Page		Paragraph	
Drawing			
Bulletin		This Submission is for:	<input type="checkbox"/> Approval
Item			<input checked="" type="checkbox"/> Record

Reviewed by: Keith Eberly

Date: 11/2/06




Comments:

Central Plant Upgrades

Approval Confirmation Drawings

PO # 1546-287563

Equipment:


Power Transformers



General Order
MYW01802

[REDACTED]

[REDACTED]

[REDACTED]

16271

~~10-11-11~~ X FORMER

DGS SHOP DRAWING REVIEW

APPROVED AS NOTED <input checked="" type="checkbox"/>	
<p>Checking is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades. Approval subject to satisfactory performance of equipment.</p>	
H.F. LENZ COMPANY	
Date: <u>11-28-06</u>	BY: <u>EHD</u>



Electrical

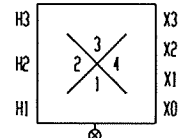
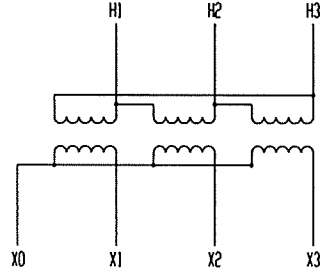
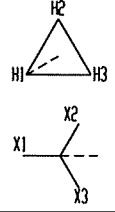
PER PENDING CHANGE ORDER, TRANSFORMERS
 ARE TO BE COPPER WOUND

EATON Cutler-Hammer 3 ϕ TRANSFORMER
WAUKESHA, WI U.S.A

1500-1680/1725-1932	55-65°C	60Hz
CP SER	005J5A14F54S	
4160	KNAN/KNAF	
480Y/277	6.50 %IZ @75°C	MFG DATE
HV KV BIL 60 HV NEUTRAL KV BIL -- LV KV BIL 30 HV/LV CONDUCTOR AL / AL	PCB CONTENT LESS THAN 1 PPM AT TIME OF MANUFACTURE CAUTION - READ INSTRUCTION MANUAL S210-15-10	

APPROX. WEIGHT IN LBS.	
CORE & COIL UNTANKING	4525
TANK & FIT	2860
FLUID: FR3™ GALLONS: 435	3345
TOTAL	10730

TAP	VOLTAGE	MAX AMPS	LOW VOLTAGE	MAX AMPS
A	4370	255	480	2324
B	4265	262		
C	4160	268		
D	4055	275		
E	3950	282		



PHYSICAL BUSHING ARRANGEMENT

MAX AMPS AT 1932 KVA
%IZ AT BASE KVA AND RATED VOLTAGE

ENVIROTEMP® FR3™ FLUID: MAINTAIN INSULATING FLUID DRYNESS. MINIMIZE EXPOSURE TO ATMOSPHERE. AFTER SERVICING, VERIFY TANK SEAL.
25 DEG.C LIQUID LEVEL 8 INCHES BELOW TOP OF MANHOLE FLANGE. LIQUID LEVEL CHANGES 0.52 INCHES PER 10 DEG.C CHANGE IN LIQUID TEMPERATURE. MAXIMUM OPERATING PRESSURES OF LIQUID PRESERVATION SYSTEM 6 PSI POSITIVE AND 2 PSI NEGATIVE. TANK DESIGNED FOR 3 PSI VACUUM FILLING.

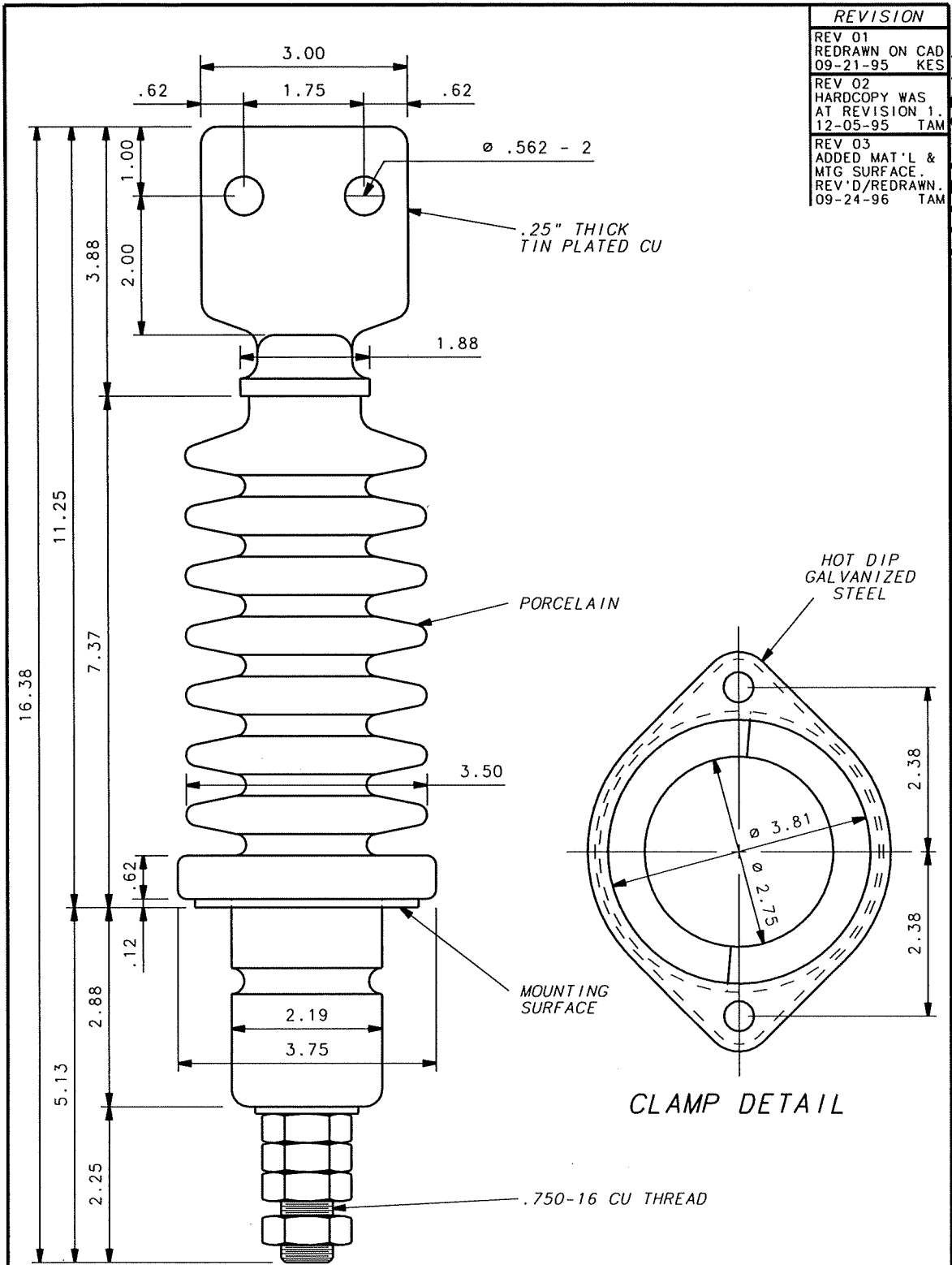
1189604A8584-00

- NOTES: 1) ACTUAL PLATE IS A NEGATIVE OF THE ABOVE DRAWING.
2) ACTUAL %IZ TO BE STAMPED IN AFTER TESTING.

NAMEPLATE MATERIAL: ALUMINUM

1490725,01

REVISION			EATON Cutler-Hammer			
			PART NAME NAMEPLATE			
	PRINT DIST:		ANGULAR +/- 2°	DWG SJD	CHK	ISS
			* CRITICAL DIMENSION	2006/09/28	11:29:12	
				SCALE	DTS	1189604A8584



REVISION	
REV 01	REDRAWN ON CAD 09-21-95 KES
REV 02	HARDCOPY WAS AT REVISION 1. 12-05-95 TAM
REV 03	ADDED MAT'L & MTG SURFACE. REV'D/REDRAWN. 09-24-96 TAM

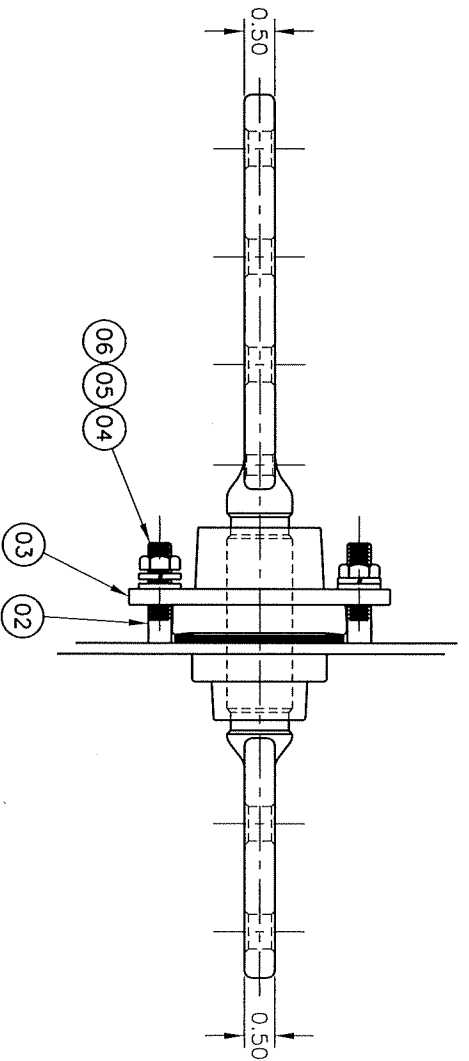
2607916 B11

REQUIRES 2.250 MTG HOLE
& .38-16 X 1.63 MTG STUD

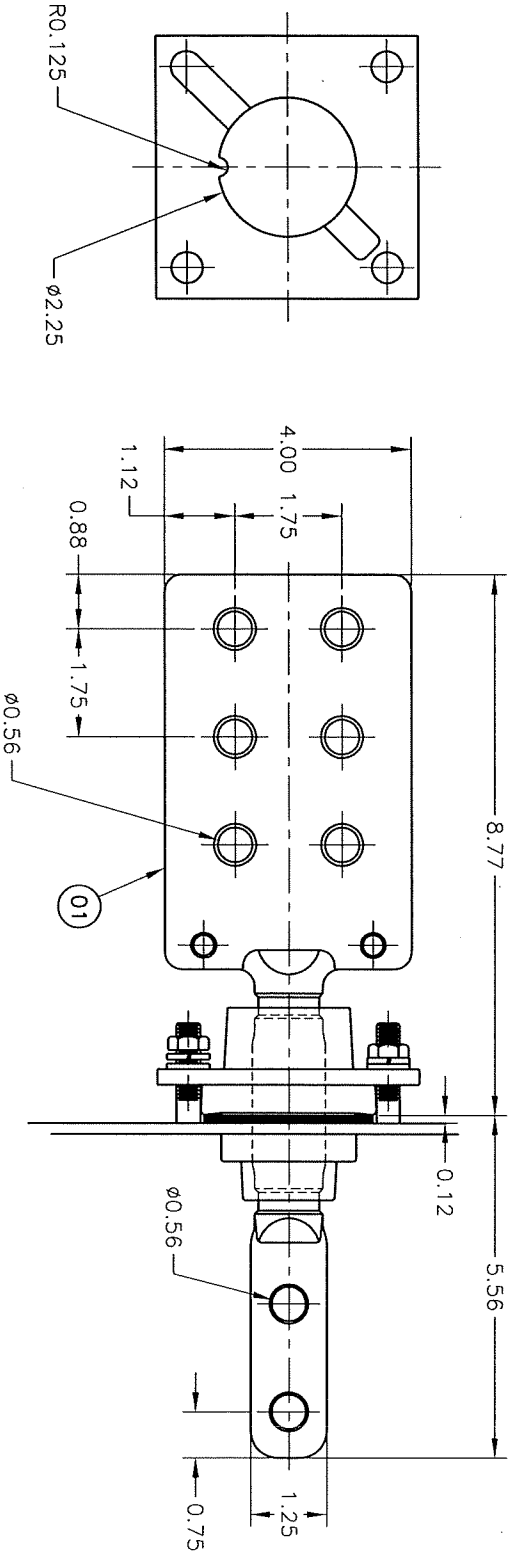
KV CLASS: 15.0
 BIL (KV): 110
 RATED CONT. CURRENT: 600 A
 MIN CREEP DISTANCE: 14.0"

UNLESS OTHERWISE SPECIFIED		TRANSFORMER PRODUCTS WAUKESHA, WI	
1 - PLACE DECIMAL ± .1			
2 - PLACE DECIMAL ± .06			
3 - PLACE DECIMAL ± .030			
REF: --	* CRITICAL DIMENSION	PART NAME BUSH ASSY	
PRINT DIST: 9		DWG KES	CHK D.A.A.
CONFIDENTIAL - MUST NOT BE USED IN ANY WAY DETRIMENTAL TO COOPER POWER SYSTEMS		DATE 09-21-95	DATE 09-21-95
ANGULAR ± 2°	SCALE .750	26	07916 B11

DESCRIP 15.0KV 600A 2-HL SP EXT .75-16 INT



2620364B29
REVISIONS
REV 01
WAS 1410 AMP.
REV'D ITEM #'S
TAM 08-25-94
REV 02
ADD CREEPAGE
DISTANCE
TAM 09-28-94
REV 03
AMP RATING
WAS 1390.
SJD 03-09-05



RATING: 1.2KV, 30KV BIL, 2400AMP
 CREEPAGE: 1.50"

NOT APPL	ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED
ONE PLACE DECIMAL ± .06	TWO PLACE DECIMAL ± .030
THREE PLACE DECIMAL ± .010	ANGULAR ± 2°
* CRITICAL DIMENSION	CONFERENTIAL MUST NOT BE USED IN ANY WAY DETERMINANT TO COOPER POWER SYSTEMS
COOPER Power Systems	Model 2400A CU J 6HZH ASTUD CU J
BUSH ASSY LV	Part 1962594 2620364B29
26203	29

EATON**Cutler-Hammer**3 ϕ TRANSFORMER
WAUKESHA, WI U.S.A.

K V A S E R	10000-11200/12500-14000		55-65°C		60Hz
	M A C P S E R		C A T		
H V	12470		KNAN/KNAF		
L V	4160Y/2400		6.50 %IZ @75°C		MFG DATE
HV KV BIL	95	PCB CONTENT LESS THAN 1 PPM AT TIME OF MANUFACTURE			
HV NEUTRAL KV BIL	--	CAUTION - READ INSTRUCTION MANUAL S210-15-10			
LV KV BIL	60				
HV/LV CONDUCTOR	AL / AL				

1189604A8585-00

APPROX. WEIGHT IN LBS.

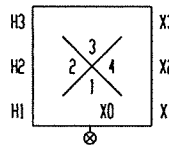
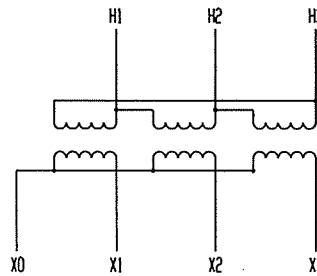
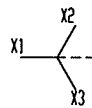
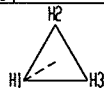
CORE & COIL
UNTANKING 20240

TANK & FIT 11155

FLUID: FR3™
GALLONS: 1370 10525

TOTAL 41920

TAP	VOLTAGE	MAX AMPS	LOW VOLTAGE	MAX AMPS
A	13090	617	4160	1943
B	12780	632		
C	12470	648		
D	12160	665		
E	11850	682		

MAX AMPS AT 14000 KVA
%IZ AT BASE KVA AND RATED VOLTAGE

PHYSICAL BUSHING ARRANGEMENT

ENVIROTEMP® FR3™ FLUID: MAINTAIN INSULATING
FLUID DRYNESS. MINIMIZE EXPOSURE TO
ATMOSPHERE. AFTER SERVICING, VERIFY TANK SEAL.25 DEG.C LIQUID LEVEL 11 INCHES BELOW TOP
OF MANHOLE FLANGE. LIQUID LEVEL CHANGES
0.69 INCHES PER 10 DEG.C CHANGE IN LIQUID
TEMPERATURE. MAXIMUM OPERATING PRESSURES
OF LIQUID PRESERVATION SYSTEM 6 PSI
POSITIVE AND 2 PSI NEGATIVE. TANK
DESIGNED FOR 15 PSI VACUUM FILLING.

- NOTES: 1) ACTUAL PLATE IS A NEGATIVE OF THE ABOVE DRAWING.
2) ACTUAL %IZ TO BE STAMPED IN AFTER TESTING.

NAMEPLATE MATERIAL: ALUMINUM

1490725,02

REVISION

EATON**Cutler-Hammer**

PART NAME

NAMEPLATE

PRINT DIST:

ANGULAR

+/- 2°

DWG SJD

CHK

ISS

2006/09/28

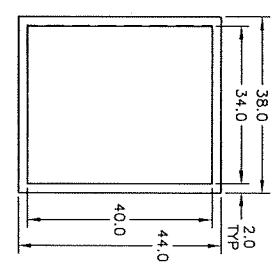
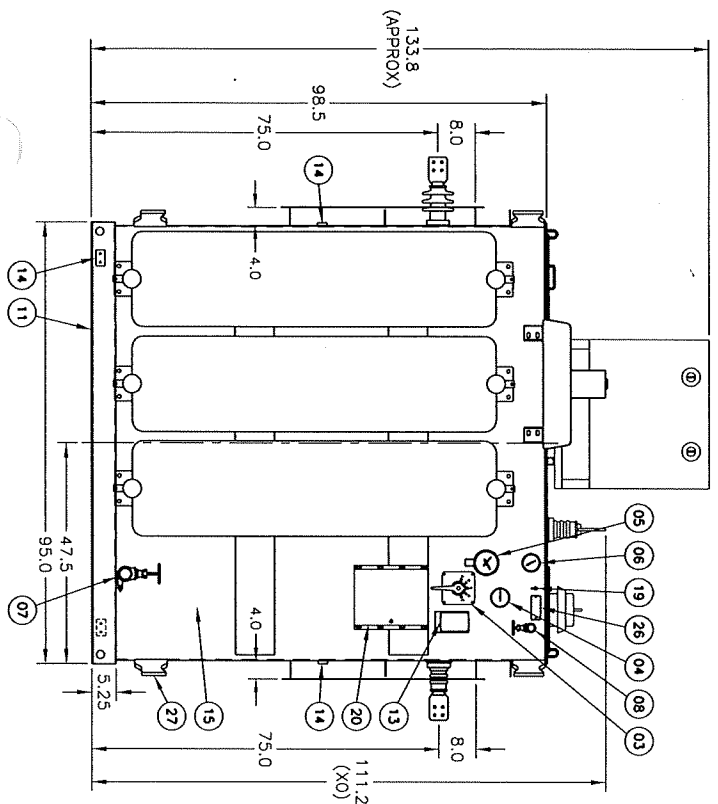
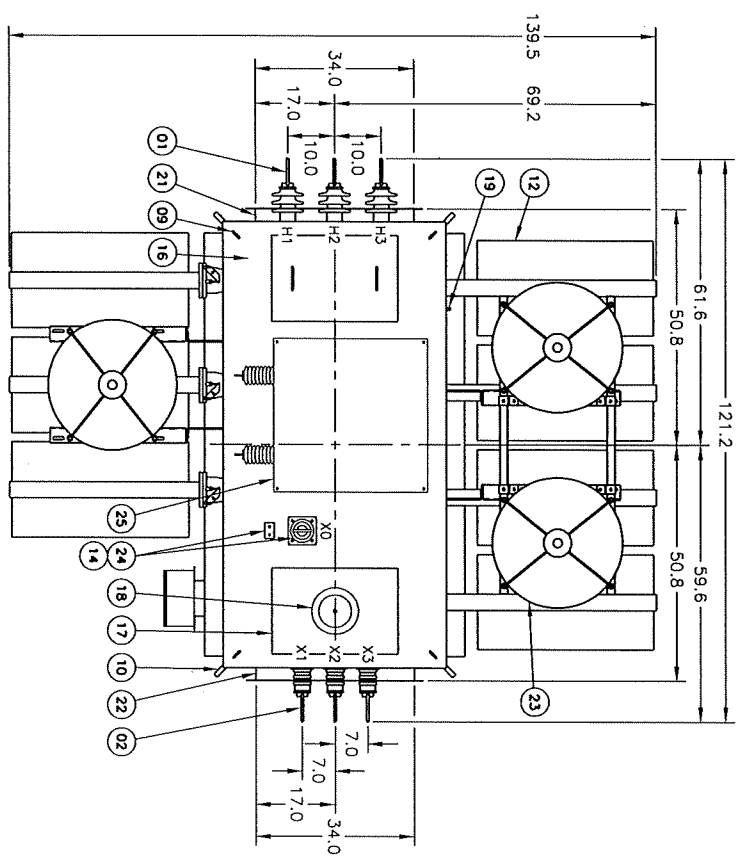
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*
CRITICAL
DIMENSION

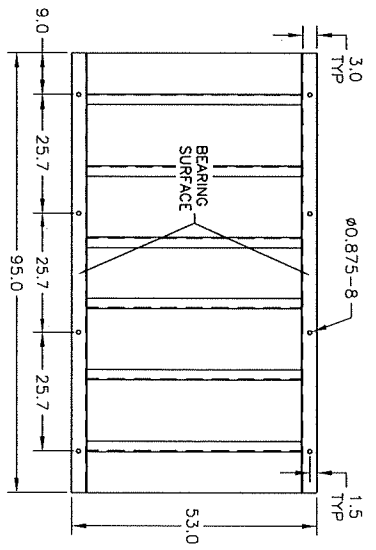
SCALE

DTS

1189604A8585



HV AND LV FLANGE
DETAIL (UNBRILLED)



INVERTED BASE DETAIL

ITEM	DESCRIPTION
01	HV BUSH: CPS 2680880A91Z, 15.0KV CLASS, 2072 AMPS.
02	LV BUSH: CPS 2680880A23Z, 5.0KV CLASS, 2600 AMPS.
03	TAP CHANGER WITH 3/8" DIAMETER HOLE FOR PADLOCKING.
04	MAGNETIC LIQUID LEVEL INDICATOR.
05	LIQUID TEMPERATURE INDICATOR WITH CONTACTS.
06	PRESSURE VACUUM GAUGE ±10 PSI.
07	COMBINATION DRAIN AND LOWER FILTER PRESSURE VALVE WITH 3/8" SAMPLER, 2.0" DIAMETER.
08	1.0" UPPER FILTER PRESS VALVE.
09	LIFTING EYES FOR LIFTING COVER ONLY.
10	LIFTING LUGS FOR LIFTING COMPLETE TRANSFORMER.
11	TRANSFORMER BASE WITH PROVISIONS FOR JACKING PER ANSI STANDARD AND FOR ROLLING IN EITHER DIRECTION.
12	RADIATORS (WELD ON SEG 3, BOLT ON SEG 1).
13	NAMEPLATE.
14	STAINLESS STEEL GROUND PADS WITH NEMA DRILLING.
15	TRANSFORMER TANK: SEALED TANK LIQUID PRESERVATION.
16	TRANSFORMER COVER: WELDED.
17	(2) MANHOLES: 15.5" X 24.0" WITH BOLTED COVER.
18	PRESSURE RELIEF DEVICE WITH INDICATOR.
19	PURGE VALVE.
20	CONTROL BOX (TYPE 4).
21	HV FLANGE.
22	LV FLANGE.
23	(3) FANS: 24" DIAMETER, 115V, 1PH, 60HZ, 2.7A, 1/6HP.
24	X0 BUSH: CPS 2680880A25Z, 5.0KV CLASS, 2600 AMPS.
25	NEUTRAL GROUNDING RESISTOR: 2400V, 400A, 10 SEC., 760° C.
26	ID TAG: "XFMR-13".
27	THE DOWN LUGS.

- NOTES:
1. UNIT IS BRACED FOR FULL VACUUM.
 2. UNIT IS SHIPPED WITH 3 PSI NITROGEN BLANKET.
 3. UNIT IS SHIPPED WITH BOLT-ON RADIATORS INSTALLED.
 4. UNIT IS SHIPPED WITH NEUTRAL GROUNDING RESISTOR SEPARATE.

ENVROTEMP® FR3™ FLUID: MAINTAIN INSULATING FLUID DRYNESS. MINIMIZE EXPOSURE TO ATMOSPHERE. AFTER SERVICING, VERIFY TANK SEAL.

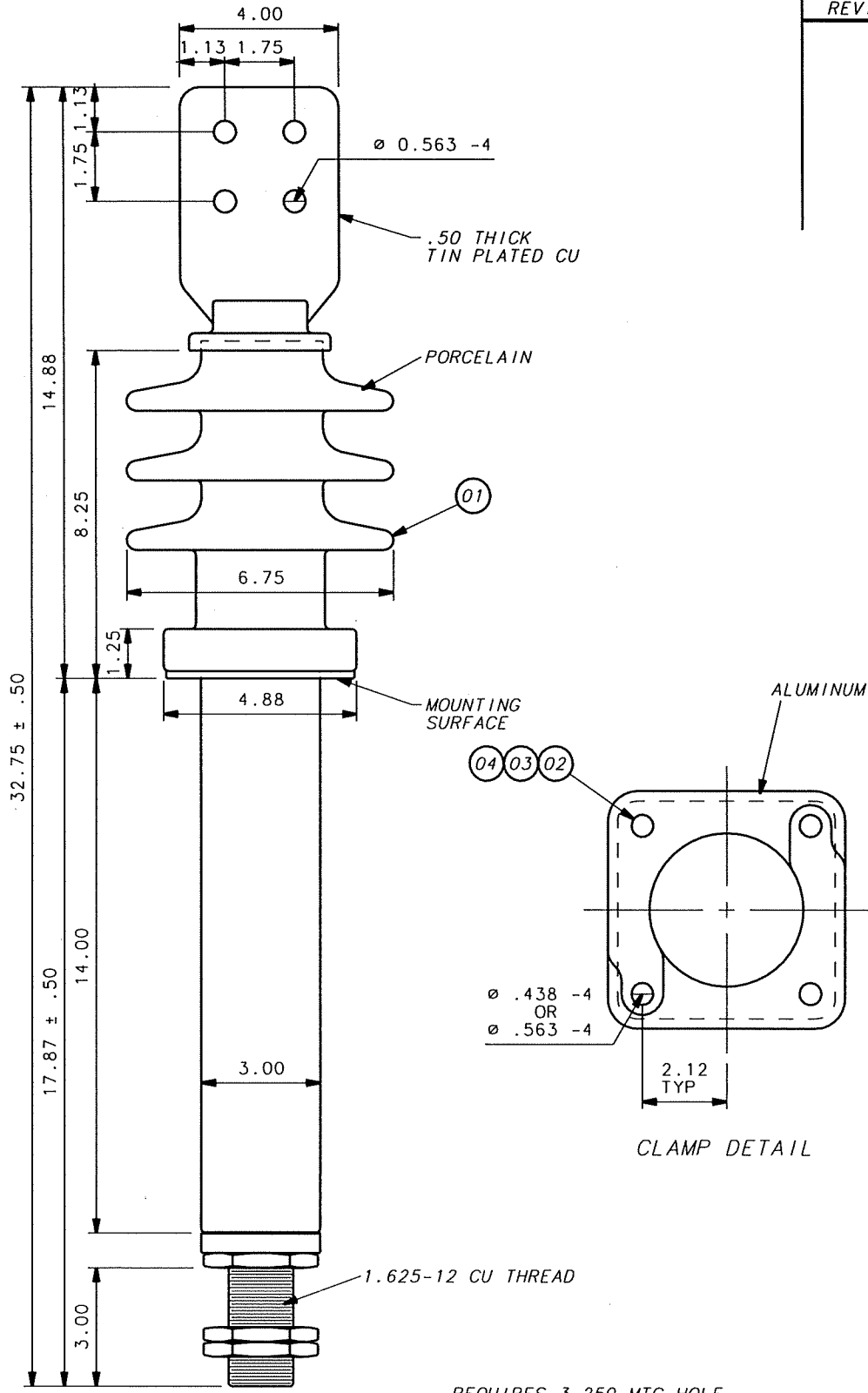
3ø POWER TRANSFORMER
10000 KVA KNAF/KNAF 55-65°C
HV: 12470 DELTA
LV: 4160Y/2400
ENVROTEMP FR3 FILLED
CUSTOMER: CAPITOL COMPLEX-
CENTRAL PLANT UPGRADES
CUSTOMER ORDER #: 4135-143455
MANUFACTURER ORDER #: 1490725.02
CATALOG #: 0098WA71F545
PAINT: ANSI #61

WEIGHTS (POUNDS)
CORE & COIL: 20240
TANK & FITTINGS: 11155
LIQUID: 10525
TOTAL: 41920
SHIPPING: 41570
GALS: 1370

DATE: _____		SCALE: _____	
ALL DIMENSIONS ARE IN INCHES			
TOLERANCES UNLESS OTHERWISE SPECIFIED:			
ONE PLACE DECIMAL ± .1	TWO PLACE DECIMAL ± .06	THREE PLACE DECIMAL ± .030	ANGULAR ± 2'
TYPICAL DIMENSIONS FOR THE MANUFACTURER'S			
DRAWING NO: 42412		SHEET # 2846	
DATE: 10/29/08		REV: 1 OF 1	
DRAWN BY: _____		CHECKED BY: _____	
DESIGNED BY: _____		APPROVED BY: _____	

REVISION

2680880A91Z

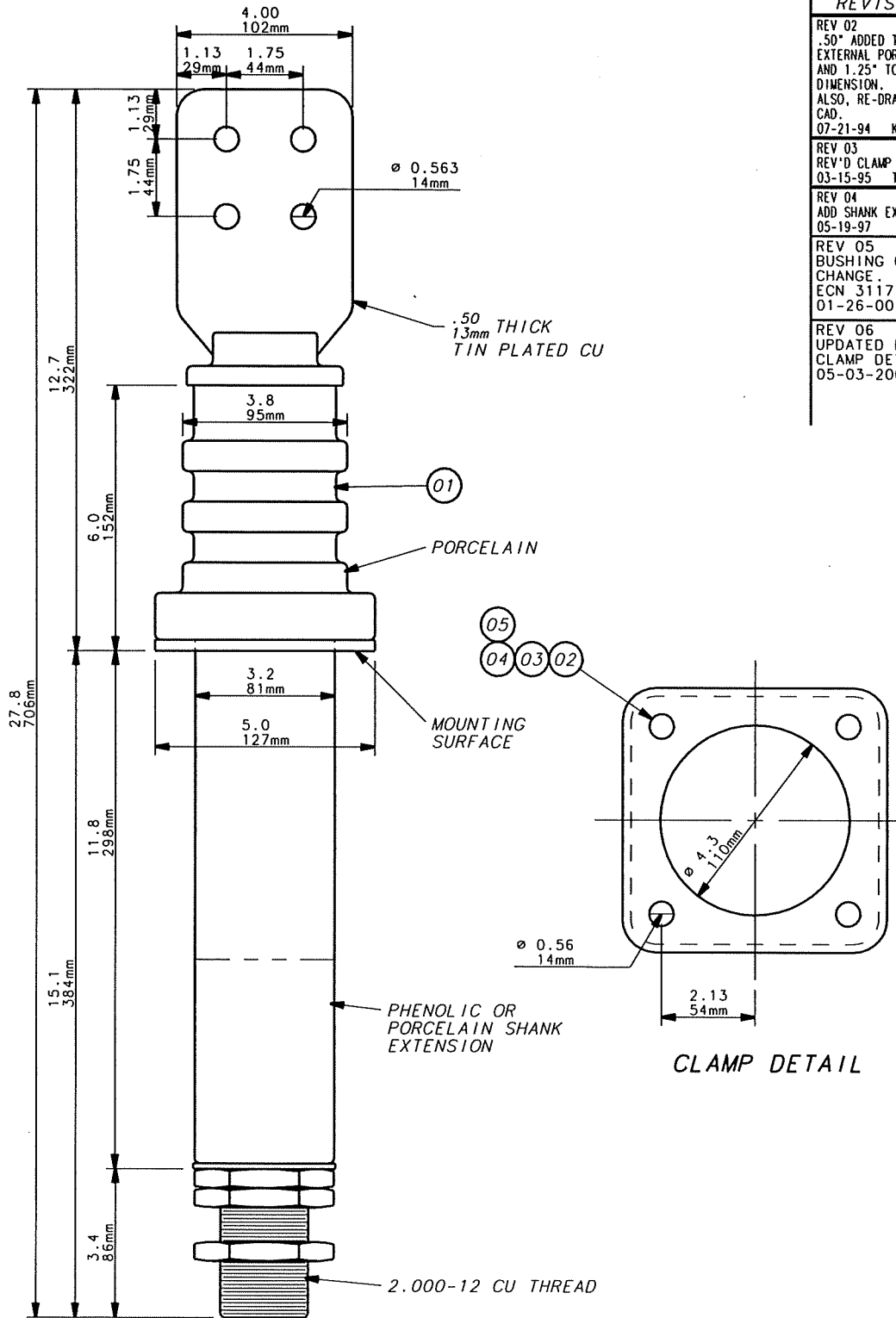


REQUIRES 3.250 MTG HOLE & .38-16 X 2.00 MTG STUD

KV CLASS: 15.0
BIL (KV): 110
RATED CONT. CURRENT: 2072 A
MIN CREEP DISTANCE: 15.0"

UNLESS OTHERWISE SPECIFIED		TRANSFORMER PRODUCTS WAUKESHA, WI	
1 - PLACE DECIMAL ± .1 2 - PLACE DECIMAL ± .06 3 - PLACE DECIMAL ± .030		COOPER	
REF: --		PART NAME BUSH ASSY	
PRINT DIST: 9	* CRITICAL DIMENSION	DWG T.A.M.	CHK D.A.A.
CONFIDENTIAL-MUST NOT BE USED IN ANY WAY DETRIMENTAL TO COOPER POWER SYSTEMS		DATE 05-15-95	DATE 05-15-95
ANGULAR ± 2°	SCALE .400	26	80880 A91Z

DESCRIP 15KV 2072A 4-HL EXT SP 1.63-12 INT+



REVISION	
REV 02	.50" ADDED TO EXTERNAL PORCELAIN AND 1.25" TO OVERALL DIMENSION. ALSO, RE-DRAWN ON CAD. 07-21-94 KES
REV 03	REV'D CLAMP DETAIL 03-15-95 TAM
REV 04	ADD SHANK EXTENSION. 05-19-97 TAM
REV 05	BUSHING CLAMP CHANGE. ECN 3117. 01-26-00 ATB
REV 06	UPDATED DIMS & CLAMP DETAIL. 05-03-2002 AKN

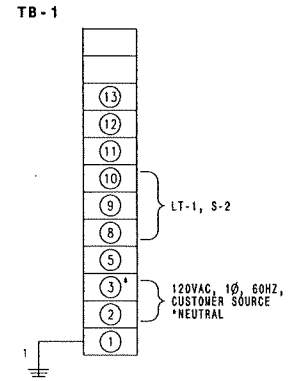
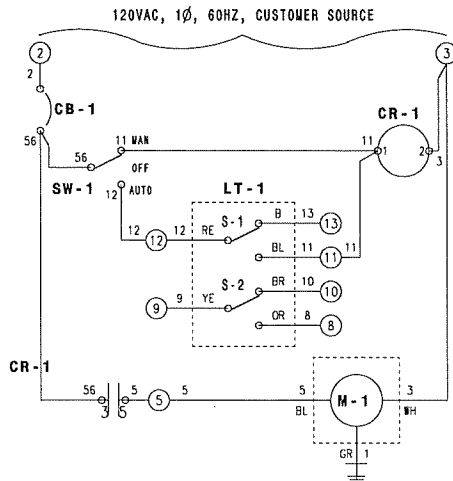
2680880A25Z

REQUIRES 3.375 MTG HOLE
& .50-13 X 2.25 MTG STUD

KV CLASS: 5.0
 BIL (KV): 75
 RATED CONT. CURRENT: 2600 A
 MIN CREEP DISTANCE: 5.12"
 130mm

UNLESS OTHERWISE SPECIFIED		TRANSFORMER PRODUCTS WAUKESHA, WI			
1 - PLACE DECIMAL ± .1 2 - PLACE DECIMAL ± .06 3 - PLACE DECIMAL ± .030		COOPER			
PART NAME		BUSH ASSY			
REF: --	* CRITICAL DIMENSION	DWG KES	CHK D.A.A.	ISS KES	
PRINT DIST: 9	ANGULAR ± 2°	DATE 07-21-94	DATE 07-21-94	DATE 07-21-94	
CONFIDENTIAL-MUST NOT BE USED IN ANY WAY DETRIMENTAL TO COOPER POWER SYSTEMS		SCALE .450	26	80880	A25Z

DESCRIP 5KV 2600A 4-HL EXT 2.00-12 INT*



- LT-1 LIQUID TEMPERATURE GAGE (260)
- CB-1 CIRCUIT BREAKER, 120/240VAC, 15A, 1-POLE
- CR-1 CONTROL RELAY, 600VAC, 2-POLE, 120VAC COIL
- SW-1 3 POSITION SWITCH, 240VAC, 10A
- M-1 FAN MOTOR, 115VAC, 1Ø, 60HZ, 2.7A, 1/6HP
- TB-1 TERMINAL BLOCK, 600V, 35A

DEVICE	125VAC	48VDC	125VDC	250VDC
LT1L/PP3/PP4	15	1.3	.50	.25
SPC	10	2.0	.50	.25
PS/VS	5	1.0	.40	.20
NTI	15	1.3	.50	.25
TPG	1
LCP	3
U	5	2.0	2.0	N/A

DEVICE	L1 65°C ABR	L1 85°C ABR	NTI
S-1 (FANS)	60°C	70°C	80°C
S-2 (ALARM)	60°C	90°C	120°C
S-3 (TRIP)	105°C FIXED	105°C FIXED	120°C FIXED

NOTE: AC LOADS = INDUCTIVE P.F. 75%
DC LOADS = NON-INDUCTIVE

LEGEND

- INDICATES PREWIRED DEVICE
- INDICATES REWIRE DEVICE
- INDICATES WIRE HEAT SHRINK NUMBER LABEL
- INDICATES TERMINAL BLOCK CONNECTION
- INDICATES INTRINSICALLY SAFE TERM BLOCK CONN
- INDICATES RELAY TERM AND #

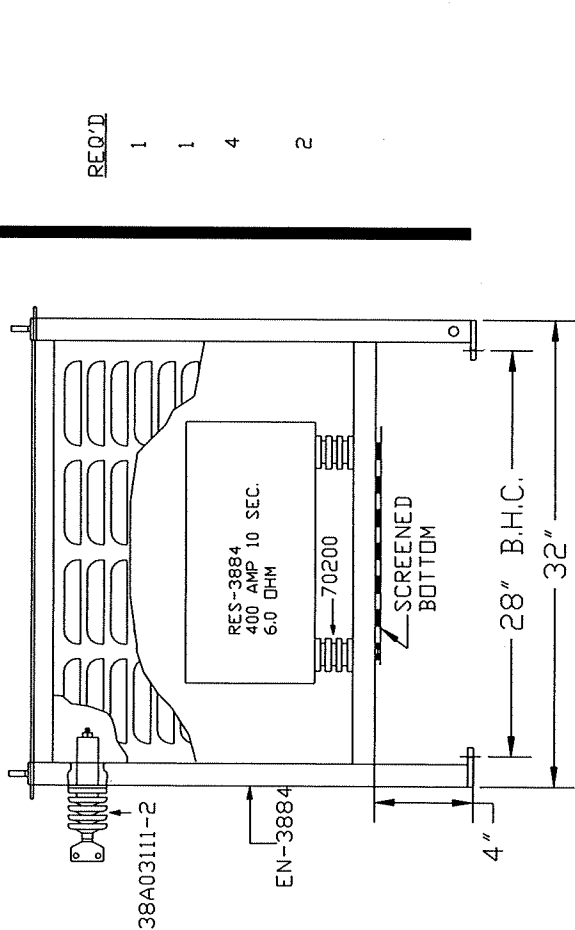
- INDICATES SPlice
- INDICATES NORMALLY CLOSED CONTACT (NC)
- INDICATES NORMALLY OPEN CONTACT (NO)
- INDICATES CUSTOMER CONNECTION
- POLARITY MARK
- INDICATES CT SHORTING PINS - TO BE REMOVED WHEN LOAD IS CONNECTED TO CT
- WIRE COLORS APPLICABLE ONLY WHEN USING CORD CONNECTORS TO SWITCHES

- WH-WHITE
- GR-GREEN
- BL-BLACK
- B-BLUE
- OR-ORANGE
- RE-RED
- BR-BROWN
- YE-YELLOW

4256240C0417 REVISIONS

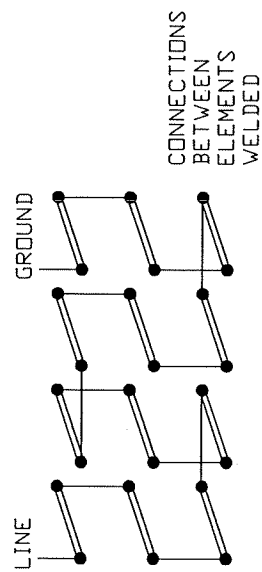
MATERIAL:		EATON Cutler-Hammer	
ALL DIMENSIONS ARE IN INCHES TOLERANCES UNLESS OTHERWISE SPECIFIED ONE PLACE DECIMAL = .1 TWO PLACE DECIMAL = .06 THREE PLACE DECIMAL = .030		NAME: SCHEMATIC	
* CRITICAL DIMENSION		DATE: 07/27/04	REFERENCE:
[CONFIDENTIAL] MUST NOT BE USED IN ANY WAY DETRIMENTAL TO COOPER POWER SYSTEMS.		4256240C0417	

REQ'D	DESCRIPTION	PART NO.
1	ENCLOSURE	EN-3884
1	RESISTOR UNIT	RES-3884
4	STANDOFF INSULATOR	70200
2	ENTRANCE BUSHINGS 15KV 4/0 TERMINAL	38A03111-2



NOTES:

- ELEMENTS = TYPE 406 STAINLESS STEEL
- ENCLOSURE BUILT WITH GALVANEAL MATERIALS
- TOP = SOLID SHEET STEEL, REMOVABLE
- SIDES AND ENDS = LOUVERED, REMOVABLE
- BOTTOM = SCREENED, REMOVABLE
- PAINT = ANSI-61 POLYESTER POWDER
- APPROX. WEIGHT = 375 LBS



COOPER POWER #5090163A186

MINING RESISTORS, INC.
 620 TILLER ST., P.O. BOX 1020
 LOGAN, WEST VIRGINIA 25601

NEUTRAL GROUNDING RESISTOR
 2400 L-N 6.0 OHM
 400 AMP 10 SEC 760 DEG. C RISE

DATE 8-16-2004 DR/N. C.D.M.
 CH'D. H.D.S. APP'D. _____
 DWG. NO. R-04-3884

TRANSFORMER FR3 Test Report



The Industry Leader in Electrical Life Extension

Customer: Department of General Services (1)

Account Number: 409932

Job Number: 649397

Date of Report: 7/9/2025

Sample Receive Date: 7/1/2025

RETEST IN THREE MONTHS

Testing Due 10/8/2025

Equipment Detail

RESA Tag 9

Substation: CENTRAL PLANT 1

Location: INDOORS/MEZZANINE

Unit: CETRAL PLANT 1 (F1)

Notes:

2 Warnings



Equipment Nameplate Data

Manufacturer: CUTLER HAMMER	Primary: 4160	Gallons: 387
Serial Number: 0759000584	KV Rating: 4.16	Fluid Type: FR3
KVA: 1500	Secondary: 480/277	HV Bushings:
Phase/Cycle: 3/60	Class/Imped: KNAN/KNAF 6.7	LV Bushings:
Equip Type: TRANSFORMER	Rated Temp:	Date of Mfg: 2007

Inspection/Gauge Settings as of 6/20/2025

HV Bushings: ENCLOSED	Fluid level: Good	Pres/Vac: 0.5
LV Bushings: ENCLOSED	Fluid Temp: 38C	Tap Setting: C
Paint Condition: GOOD	Winding Temp:	
Leaks: No Leaks		

Dissolved Gas-In-Oil / Gas Chromatography Expressed in PPM

ASTM D3612C

Date	Hydrogen	Oxygen	Nitrogen	Methane	Carbon Monoxide	Carbon Dioxide	Ethane	Ethylene	Acetylene	TDCG	ETCG	Total Gas
7/8/2025	27	1996	76091	25	73	527	117	8	0	251		78864

RETEST IN THREE MONTHS

7/8/2025: Per IEEE Std C57.155-2014: Current tests reveal: Most combustible gases are within normal limits. Methane exceeds normal limits.

Oil Quality Test

ASTM *

Date	Acid (N/N)	IFT	Dielectric	Color	Spec Gravity	Visual / Sediment	Flash/Fire Point	Viscosity
7/8/2025	*D974 0.05	*D971 22.7	*D877/D1816 30 1mm	*D1500 <0.5	*D1298 0.915	*D1524 CLEAR / ND	*D92	*D445

RETEST IN ONE YEAR



7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Moisture Content

ASTM D1533

Inhibitor Content

ASTM D2668

Date	PPM	Relative Saturation %		
7/8/2025	12	0.9		

RETEST IN ONE YEAR





7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Liquid Power Factor

ASTM D924

Furan Analysis - Parts / Billion

ASTM D5837

Date	25°C	100°C		
7/8/2025	0.352 %			

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3

TRANSFORMER FR3 Test Report



The Industry Leader in Electrical Life Extension

Customer: Department of General Services (1)

Account Number: 409932

Job Number: 649397

Date of Report: 7/9/2025

Sample Receive Date: 7/1/2025

RETEST IN ONE YEAR

Testing Due 7/8/2026

Equipment Detail

RESA Tag 10

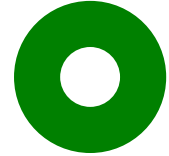
Substation: CENTRAL PLANT T2

Location: INDOORS/MEZZANINE

Unit: CENTRAL PLANT T2 (F4)

Notes:

No Abnormalities Detected



Equipment Nameplate Data

Manufacturer: CUTLER HAMMER	Primary: 4160	Gallons: 387
Serial Number: 0759000585	KV Rating: 4.16	Fluid Type: FR3
KVA: 1500	Secondary: 480/277	HV Bushings:
Phase/Cycle: 3/60	Class/Imped: KNAN/KNAF 6.7	LV Bushings:
Equip Type: TRANSFORMER	Rated Temp:	Date of Mfg: 2007

Inspection/Gauge Settings as of 6/20/2025

HV Bushings: ENCLOSED	Fluid level: Good	Pres/Vac: 0.5
LV Bushings: ENCLOSED	Fluid Temp: 40C	Tap Setting: C
Paint Condition: GOOD	Winding Temp:	
Leaks: No Leaks		

Dissolved Gas-In-Oil / Gas Chromatography Expressed in PPM

ASTM D3612C

Date	Hydrogen	Oxygen	Nitrogen	Methane	Carbon Monoxide	Carbon Dioxide	Ethane	Ethylene	Acetylene	TDCG	ETCG	Total Gas
7/8/2025	12	1890	83036	23	52	430	103	7	0	197		85553

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.155-2014: Total Dissolved Combustible Gas within this range indicates the transformer is operating satisfactorily. Hydrogen and Ethane levels acceptable for FR3 fluid.

Oil Quality Test

ASTM *

Date	Acid (N/N)	IFT	Dielectric	Color	Spec Gravity	Visual / Sediment	Flash/Fire Point	Viscosity
7/8/2025	0.04	22.2	41 1mm	<0.5	0.915	CLEAR / ND		

RETEST IN ONE YEAR





7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Moisture Content

ASTM D1533

Inhibitor Content

ASTM D2668

Date	PPM	Relative Saturation %	 
7/8/2025	14	1.0	 

RETEST IN ONE YEAR





7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Liquid Power Factor

ASTM D924

Furan Analysis - Parts / Billion

ASTM D5837

Date	25°C	100°C	 
7/8/2025	0.289 %		 

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3

TRANSFORMER FR3 Test Report



The Industry Leader in Electrical Life Extension

Customer: Department of General Services (1)

Account Number: 409932

Job Number: 649397

Date of Report: 7/9/2025

Sample Receive Date: 7/1/2025

RETEST IN ONE YEAR

Testing Due 7/8/2026

Equipment Detail

RESA Tag 11

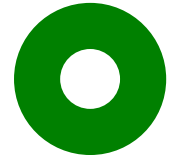
Substation: CENTRAL PLANT 3A

Location: INDOOR

Unit: CENTRAL PLANT T3, (3A)

Notes:

No Abnormalities Detected



Equipment Nameplate Data

Manufacturer: CULTER HAMMER	Primary: 12470	Gallons: 1458
Serial Number: 0759000312	KV Rating: 12.47	Fluid Type: FR3
KVA: 10000	Secondary: 4160/2400	HV Bushings:
Phase/Cycle: 3/60	Class/Imped: KNAN/KNAF 6.4	LV Bushings:
Equip Type: TRANSFORMER	Rated Temp:	Date of Mfg: 2007

Inspection/Gauge Settings as of 6/20/2025

HV Bushings: ENCLOSED	Fluid level: Good	Pres/Vac: 0.5
LV Bushings: ENCLOSED	Fluid Temp: 41C	Tap Setting: C
Paint Condition: GOOD	Winding Temp:	
Leaks: No Leaks		

Dissolved Gas-In-Oil / Gas Chromatography Expressed in PPM

ASTM D3612C

Date	Hydrogen	Oxygen	Nitrogen	Methane	Carbon Monoxide	Carbon Dioxide	Ethane	Ethylene	Acetylene	TDCG	ETCG	Total Gas
7/8/2025	35	2008	85047	15	90	1586	139	6	0	284		88925

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.155-2014: Total Dissolved Combustible Gas within this range indicates the transformer is operating satisfactorily. Hydrogen and Ethane levels acceptable for FR3 fluid.

Oil Quality Test

ASTM *

Date	Acid (N/N)	IFT	Dielectric	Color	Spec Gravity	Visual / Sediment	Flash/Fire Point	Viscosity
7/8/2025	*D974	*D971	*D877/D1816	*D1500	*D1298	*D1524	*D92	*D445
	0.05	23.4	38 1mm	<0.5	0.915	CLEAR / ND		

RETEST IN ONE YEAR



7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Moisture Content

ASTM D1533

Inhibitor Content

ASTM D2668

Date	PPM	Relative Saturation %	 
7/8/2025	10	0.7	 

RETEST IN ONE YEAR





7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Liquid Power Factor

ASTM D924

Furan Analysis - Parts / Billion

ASTM D5837

Date	25°C	100°C	 
7/8/2025	0.435 %		 

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3

TRANSFORMER FR3 Test Report



The Industry Leader in Electrical Life Extension

Customer: Department of General Services (1)

Account Number: 409932

Job Number: 649397

Date of Report: 7/9/2025

Sample Receive Date: 7/1/2025

RETEST IN ONE YEAR

Testing Due 7/8/2026

Equipment Detail

RESA Tag 12

Substation: CENTRAL PLANT 9A

Location: INDOOR

Unit: CENTRAL PLANT T4 (9A)

Notes:

No Abnormalities Detected



Equipment Nameplate Data

Manufacturer: CUTLER HAMMER	Primary: 12470	Gallons: 1458
Serial Number: 0759000666	KV Rating: 12.47	Fluid Type: FR3
KVA: 10000	Secondary: 4160/2400	HV Bushings:
Phase/Cycle: 3/60	Class/Imped: KNAN/KNAF 6.5	LV Bushings:
Equip Type: TRANSFORMER	Rated Temp:	Date of Mfg: 2007

Inspection/Gauge Settings as of 6/20/2025

HV Bushings: ENCLOSED	Fluid level: Good	Pres/Vac: 0.5
LV Bushings: ENCLOSED	Fluid Temp: 40C	Tap Setting: C
Paint Condition: GOOD	Winding Temp:	
Leaks: No Leaks		

Dissolved Gas-In-Oil / Gas Chromatography Expressed in PPM

ASTM D3612C

Date	Hydrogen	Oxygen	Nitrogen	Methane	Carbon Monoxide	Carbon Dioxide	Ethane	Ethylene	Acetylene	TDCG	ETCG	Total Gas
7/9/2025	0	5475	93829	8	69	1097	278	6	0	362		100763

RETEST IN ONE YEAR

7/9/2025: Per IEEE Std C57.155-2014: Total Dissolved Combustible Gas within this range indicates the transformer is operating satisfactorily. Hydrogen and Ethane levels acceptable for FR3 fluid.

Oil Quality Test

ASTM *

Date	Acid (N/N)	IFT	Dielectric	Color	Spec Gravity	Visual / Sediment	Flash/Fire Point	Viscosity
7/8/2025	*D974 0.04	*D971 21.3	*D877/D1816 40 1mm	*D1500 <0.5	*D1298 0.915	*D1524 CLEAR / ND	*D92	*D445

RETEST IN ONE YEAR




7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Moisture Content

ASTM D1533

Inhibitor Content

ASTM D2668

Date	PPM	Relative Saturation %		
7/8/2025	14	1.0		

RETEST IN ONE YEAR





7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3 fluid.

Liquid Power Factor

ASTM D924

Furan Analysis - Parts / Billion

ASTM D5837

Date	25°C	100°C		
7/8/2025	0.286 %			

RETEST IN ONE YEAR

7/8/2025: Per IEEE Std C57.147-2018: Acceptable for in-service FR3