

**STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS**

**ADDENDUM NO. 3  
FOR  
SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM  
AT DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII  
STATE PROJECT NO. AO1095-37**

**March 4, 2026**

This Addendum shall make the following amendment(s) to the Solicitation.

**A. TABLE OF CONTENTS**

1. Delete **TABLE OF CONTENTS**, Page Numbers TOC-1 and TOC-4, dated r7/10/25, in its entirety and replace it with attached **TABLE OF CONTENTS**, TOC-1 and TOC-4, dated r03/04/26.

**B. SPECIFICATIONS**

1. Delete **SECTION 01010 DESCRIPTION OF WORK**, dated r10/30/24, in its entirety and replace it with attached **SECTION 01010 DESCRIPTION OF WORK**, dated r03/04/26.
2. Delete **SECTION 01630 SUBSTITUTIONS**, page 01630-3 dated 12/15/2025, and replace it with attached **SECTION 01630 SUBSTITUTIONS**, page 01630-3 dated r03/04/26.
3. Delete **SECTION 28050 COMMON WORK RESULTS FOR ELECTRONIC SAFETY AND SECURITY**, page 28050-6 dated 12/15/25, and replace it with attached **SECTION 28050 COMMON WORK RESULTS FOR ELECTRONIC SAFETY AND SECURITY**, page 28050-6 dated r03/04/26.
4. Delete **SECTION 28100 ACCESS CONTROL SYSTEM**, page 28100-10 dated 12/15/25, and replace it with attached **SECTION 28100 ACCESS CONTROL SYSTEM**, page 28100-10 dated r03/04/26.
5. Delete **SECTION 28230 VIDEO SURVEILLANCE**, dated 12/15/25, in its entirety and replace it with attached **SECTION 28230 VIDEO SURVEILLANCE**, dated r03/04/26.

**C. PLANS**

1. Delete **PLANS DRAWING NO. G-001 TITLE SHEET** and replace it with attached **PLANS DRAWING NO. ADD. 3 G-001 TITLE SHEET**.

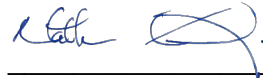
2. Delete **PLANS DRAWING NO. G-002 DRAWING INDEX, SHEET NUMBERS, DRAWING NUMBERS AND SHEET TITLES SHEET 1** and replace it with attached **PLANS DRAWING NO. ADD. 3 G-002 DRAWING INDEX, SHEET NUMBERS, DRAWING NUMBERS AND SHEET TITLES SHEET 1**.
3. Delete **PLANS DRAWING NO. C-150 GATE SCHEDULE** and replace it with attached **PLANS DRAWING NO. ADD. 3 C-150 GATE SCHEDULE AND TEMPORARY CONCRETE BARRIER FENCE DETAIL**.
4. Delete **PLANS DRAWING NO. TY-106 VMACS PLAN VEHICLE GATE VEH-289 & PEDESTRIAN GATE PED-288** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-106 VMACS PLAN VEHICLE GATE VEH-289 & PEDESTRIAN GATE PED-288**.
5. Delete **PLANS DRAWING NO. TY-132 VMACS PLAN TRANSAIR BUILDING 34** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-132 VMACS PLAN TRANSAIR BUILDING 34**.
6. Delete **PLANS DRAWING NO. TY-318 RACK AND PANEL DETAIL 6A & 6B** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-318 RACK AND PANEL DETAIL 6A & 6B**.
7. Delete **PLANS DRAWING NO. TY-352 SCC/ACC ENCLOSURE ON A CONCRETE PAD** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-352 SCC/ACC ENCLOSURE ON A CONCRETE PAD**.
8. Delete **PLANS DRAWING NO. TY-355 SCC CABINET DETAILS** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-355 SCC CABINET DETAILS**.
9. Delete **PLANS DRAWING NO. TY-501 ACCESS CONTROL SCHEDULE SHEET 2** and replace it with attached **PLANS DRAWING NO. ADD. 3 TY-501 ACCESS CONTROL SCHEDULE SHEET 2**.

The following is provided for information:

**D. RESPONSES TO REQUESTS FOR INFORMATION (RFI'S/QUESTIONS)**

1. The attached **RESPONSES TO REQUESTS FOR INFORMATION** are provided for information.

Please acknowledge receipt of this **Addendum No. 3** by recording the date of its receipt in the space provided on **Page P-4** of the Proposal.



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NATHAN KANESHIGE  
Engineering Program Manager

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DIVISION 1 - GENERAL REQUIREMENTS

SECTION 01010 - DESCRIPTION OF WORK

PART I - GENERAL

1.01 RELATED DOCUMENTS

The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

1.02 SUMMARY

A. Section Includes:

1. Location of the work
2. Hours of work
3. Safety
4. Operation of airport facilities during construction
5. Construction stakes, lines and grades.
6. Special project requirements

1.03 VEHICLE PARKING

Parking passes may be purchased at a monthly rate of \$175.00 plus a one-time fee of \$25.00 for parking access card. These passes are subject to approval by the Airport Manager and availability of parking spaces. All costs associated with obtaining parking passes shall be the responsibility of the Contractor.

1.04 PROVISIONS FOR FIELD OFFICE/STORAGE SPACE



Pending the availability of space on airport property, the State will issue Revocable Permit(s) to the Contractor for the use of the space, assessed at a monthly fee of \$50 for each Revocable Permit issued. The Contractor shall be responsible for paying for any associated County fees, inclusive of property taxes, and must notify the State Property Management Office at least 30 days in advance before vacating the premises. The space(s) may be used for a field office, staging of materials and equipment, vehicle parking or other uses subject to the approval of the State. All spaces shall be subject to the requirements of Section 01561 - CONSTRUCTION SITE POLLUTION CONTROLS.

Since space on airport property is extremely limited, the State does not guarantee that space(s) provided to the Contractor will be in close proximity to the project site. The State will make every effort to provide the Contractor with space on airport property, however, should the State determine that no space is available for such use(s), the

responsibility shall then be on the Contractor to find space outside of airport property.

#### 1.05 LOCATION OF THE WORK

- A. The work to be performed under this contract is located at Daniel K. Inouye International Airport, Honolulu, Hawaii.
- B. Conditions:
  - 1. The Main Terminal and airport roadways shall remain operational at all times. Any damages to existing areas caused by the Contractor shall be repaired by the Contractor at no cost to the State.
  - 2. Upon execution of the contract, the Contractor, at their cost, shall obtain all permits required for this project.

#### 1.06 HOURS OF WORK

- A. Work can be performed at the construction site at any time over a 24-hour period without considerable disruption to airport operations or other adjacent tenants. Noise, including installation and demolition work within tenant areas, shall be coordinated with the respective tenants and occur from 10:00 p.m. to 6:30 a.m., and water proofing shall be done from 1:30 p.m. to 10:00 p.m. Contractor shall coordinate other work activities with the Engineer for the hours between 7:00 a.m. to 3:30 p.m. Submit a proposed construction schedule to Engineer for review and approval within 30 calendar days prior to execution of contract. The Contractor shall coordinate their schedule with the Engineer if rescheduling of work or intermittent work is required, such work shall be performed at no extra cost to the State. If the Contractor elects to work overtime, compensation for State employees and for construction management consultant as authorized by the State shall be the Contractor's obligation to pay in accordance with Section 7.6 – “Overtime and Night Payment for State Inspection Services” of the General Provisions of Construction Projects (2016).
- B. Contractor shall clean work areas at the end of each working shift. Rubbish, loose materials, etc. shall be disposed of daily. **Tools and equipment shall not be left unattended during work hours.** This includes tools left in unlocked vehicles, in the bed of pickup trucks, or in unlocked job sites. TSA citations may result in fines in excess of \$13,000 per violation and the confiscation of AOA badges. Materials shall be safely secured and stored in an area designated by the Airport Manager.
- C. Dependent on the type and location of nighttime work activity, the Contractor may be required to either alter the work hours and work activities, or suspend work during the Seabird Fallout Season, roughly September 15 – December 15, annually. Schedule adjustments during the Seabird Fallout Season dates shall not incur additional costs to the State of Hawaii.

## 1.07 SAFETY

- A. The Contractor shall take the necessary precautions to protect his workers and other personnel from injuries. The rules and regulations promulgated by the Occupational Safety and Health Acts are applicable and made a part of these specifications.
- B. Barricades and warning signs shall be erected by the Contractor in the work area to properly protect all personnel in the area.
- C. During the progress of the work debris, empty crates, waste, material drippings, etc., shall be removed by the Contractor at the end of each workday, and the work area shall be left clean and orderly.

## 1.08 OPERATION OF AIRPORT FACILITIES DURING CONSTRUCTION

- A. The Contractor shall coordinate the phases of work under this contract with the Engineer to permit the continuing operation of existing Airport facilities and to minimize disruption to pedestrian and vehicular traffic.
- B. Utility Maintenance: During the construction of this contract, existing utility services serving occupied or used facilities shall not be disrupted except where authorized in writing by authorities having jurisdiction. Contractor shall provide temporary services during interruptions to existing utilities, as acceptable to the Engineer. Damages to the existing utility facilities by the Contractor will be repaired at the Contractors expense.
- C. Outages for water, power, communications, air conditioning or any other utility, if necessary, shall be kept to a minimum and scheduled for off-peak hours, generally from 12:00 a.m. to 6:00 a.m. The Contractor shall submit written requests to the Engineer for such outages no later than fourteen (14) calendar days in advance. The request shall include a description of work and the duration of the outage. The Contractor shall not proceed with such outages until written approval is received from the State.

## 1.09 CONSTRUCTION STAKES, LINES AND GRADES

- A. The Contractor shall perform all construction layout and reference staking necessary for the proper control and satisfactory completion of all fences, structures, grading, paving, drainage, sewer, water, and all other appurtenances required for the completion of the work.
- B. Existing horizontal and vertical survey control points for the project are shown on the plans. The Contractor shall verify the location of all control points prior to the start of construction.
- C. The Department will not be responsible for delays in setting stakes and marks.
- D. All control points and stakes or marks which the Engineer may set shall be

preserved by the Contractor. If such control points, stakes or marks are destroyed or disturbed by the Contractor, the cost of replacing such stakes or marks will be charged against the Contractor and deducted from payments due the Contractor.

- E. The Contractor shall be responsible for the placement and preservation of adequate ties to all control points whether established by the Contractor or by the Engineer.
- F. All original, additional or replacement stakes, marks, references and batter-boards which may be required for the construction operations, shall be furnished, set and properly referenced by the Contractor. The Contractor shall be solely and completely responsible for the accuracy of the line and grade of all features of the work. Any errors or apparent discrepancies found in previous surveys, the plans and specifications shall be called to the Engineer's attention by the Contractor for correction or interpretation prior to proceeding with the work.
- G. Before construction is started on any structure which is referenced to an existing structure or topographical feature, the Contractor shall check the pertinent locations and grades of the existing structures or topographical features to determine whether the locations and grades shown on the plans are correct.
- H. All construction staking shall be performed by qualified personnel under the direct supervision of a person with an engineering background who is experienced in the direction of such work and is acceptable to the Engineer.
- I. All stakes and markers used for control staking shall be of the same quality as used by the Department for this purpose. For slope limits, pavement edges, gutter lines, et cetera, where so called "working" stakes are commonly used, stakes of different quality may be acceptable.
- J. The Department may check the Contractor's control of the work at any times as the work progresses. The Contractor will be informed of the results of these checks, but the Department by doing so will in no way relieve the Contractor of his responsibility for the accuracy of the layout work. The Contractor shall at his expense correct or replace any deficient or inaccurate layout and construction work. If, as a result of these deficiencies or inaccuracies, the Department is required to make further studies, redesign, or both, all expenses incurred by the Department due to such deficiencies or inaccuracies, will be deducted from any payments due the Contractor.
- K. The Contractor shall furnish all necessary personnel, engineering equipment and supplies, materials, and transportation incidental to the accurate and satisfactory completion of this work.
- L. All construction staking along taxilanes shall be performed by, or under the supervision of, a land surveyor licensed in the State of Hawaii. Construction staking shall be completed such that the new fence, gates, camera poles, and appurtenances do not encroach into the Taxilane Object Free Area (TLOFA).

The TLOFA is defined as a 55-foot offset to either side of the marked centerline or extension thereof.

- M. Unless otherwise provided, all requirements imposed by this section and performed by the Contractor shall be considered incidental to the various contract items and not separate or additional payment will be made thereof.

1.10 SPECIAL PROJECT REQUIREMENTS

- A. Upon receipt of the Contract, the Contractor shall process and return the Contract to the State' Contract Office within five (5) calendar days.
- A. The State intends to issue the Notice to Proceed for the Project to the Contractor within 60 calendar days after bid opening. The Contractor shall be able to commence work on this date.
- B. Contractor to be responsible for any permit and application fees associated with the project, including, but not limited to, NPDES, Demolition, and any building related permits.
- C. Downed seabirds. Downed seabirds found within the project site shall be reported to a local wildlife center according to protocols established by the Department of Land and Natural Resources, Division of Forestry and Wildlife: <https://dlnr.hawaii.gov/wildlife/seabird-fallout-season/>

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

PART 4 - MEASUREMENT AND PAYMENT

4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.

Item No.	Description	Unit
01010.1	South Ramp Video Monitoring Access Control (VMAC) System, including all Work	Lump Sum

END OF SECTION

the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function and standard of quality and performance required by this Contract. It is not the intent of the State of Hawaii to exclude other materials, equipment, or processes or to limit competition in bidding. Therefore, unless the proprietary name referred to in the specifications is followed by words indicating that no substitution is permitted, materials, equipment, or processes of other manufacturers, fabricators, suppliers, or distributors will be considered by the Engineer for substitution.

1. Materials proposed by the Contractor to be used in lieu of materials so specified by name shall in all ways equal or exceed the qualities of the named materials.
- C. Products specified by reference to standard specifications such as ASTM and similar standards do not require further approval except for interface within the Work.
- D. Where the phrase “or equal,” or “or equal as approved by the Engineer,” occurs in the Contract Documents, do not assume that the materials, or equipment, will be approved as equal until the item has been specifically so approved for this Work by the Engineer.
- E. Aesthetics: Material and components used to construct visible portions of the Work have been selected to produce an aesthetic effect. All proposed substitutions in visible areas of the work shall be compatible with the original aesthetic effect.

## 1.02 CONDITIONS



### A. Requests for substitution will be considered only for the reasons indicated in General Provisions article 6.13, or as follows:

1. The specified product becomes unavailable through no fault of the Contractor.
2. The specified product cannot receive necessary approval by a governing authority, and the requested substitution can be approved.
3. A substantial advantage is offered the State of Hawaii, in terms of cost, time, energy conservation, or other considerations of merit, after deducting the added responsibilities the State of Hawaii may be required to bear. Additional responsibilities for the State of Hawaii may include additional compensation for redesign and evaluation services, increased cost of other construction by the State of Hawaii or separate Contractors, and similar considerations.
4. The specified product cannot be provided in a manner that is compatible with other materials, and where the Contractor certifies that the substitution will overcome the incompatibility.

- A. This Section contains the overall requirements associated with all Division 28 Electronic Safety And Security Specification Sections and includes the project design intent for all equipment and support components related to the installation of systems as specified by Division 28 specification sections and Contract Documents. The requirements outlined herein are associated with extending the reach or operation of the existing Access Control System (ACS) and the Video Management System (VMS) referred to as the Video Management Access Control System (VMACS).
- B. The Contractor shall hold complete installation and functional responsibility for the systems under this scope, including any and all supporting or temporary requirements which may be required. This responsibility shall only be relieved upon successful completion and approval of the full acceptance test program as listed in each system specification and defined under Part 3.
- C. In addition, this section shall address all requirements for submittals, quality assurance, product handling, record documents, project conditions, installation, system performance, demonstrations, testing, training and certifications for all scopes of work related to these systems. Refer to related specification sections and contract drawings for additional information.
  - 1. The intent of this project is to award as a single prime contract. The successful Contractor shall act as the prime contractor for the project and who herein shall be known as the "Contractor".
  - 2. All sub-contractors shall meet the minimum technical capabilities, certifications and licensing requirements as defined by Section 1.12 "Quality Assurance".
- D. It shall be the responsibility of the Contractor to furnish and install all necessary cabling, conduits/raceways, cable terminations, controls, systems, equipment, materials, devices, components, electrical power, wire management, equipment cabinets or enclosures and software as well as all appurtenances, programming, commissioning and testing necessary to deliver complete and fully operational systems as indicated by all Division 28 Electronic Safety And Security specification sections and related contract drawings.
  - 1. The installation, performance, features, functions, software and programming criteria as inferred and specified herein as well as all related Division 28 Electronic Safety And Security specification sections have been structured to offer the maximum system efficiency, ease of operation, occupant safety and the protection of equipment as recommended by the Owner and the Supporting Engineer.
    - a. Any deviations from the specified criteria shall be documented, reviewed and agreed to in writing by the Owner and the Supporting Engineer prior to submission of bids. Refer to Division 1, And All Related Division 28 Electronic Safety And Security specification sections for any substitutions and/or project deviation requests.
      - 1) The required information shall include but not be limited to: reason for deviation, all differences in performance,



latch bolt monitoring, security fasteners, door label, flush end caps. Coordinate with Supporting Engineer. Submit model and options for each device to the Supporting Engineer for approval prior to ordering.

A. Access Control Card Reader:

1. Card Readers shall be manufactured by HID or approved equal.
2. Card Readers shall meet the following:
  - a. Dimensions: 3.3" x 4.8" x 1.1" (8.5 cm x 12.2 cm x 2.8 cm)
  - b. 125 kHz contactless cards supported: HID Prox, Indala Prox, Dorado Prox, and EM Prox legacy contactless credentials.
  - c. 13.56 MHz contactless smart cards supported: iCLASS Seos, iCLASS SE, iCLASS, MIFARE Classic, and MIFARE DESFire EV1.
  - d. Protocol: Open Supervised Device Protocol (OSDP) mode Wiegand or Clock & Data modes.
  - e. Warranty: Limited lifetime warranty.
  - f. **Approved Product: Card Reader with keypad part number HID Multiclass SE RMPK40 or approved equal, cardreader without keypad HID Multiclass SE RMP40 or approved equal. Note that card readers enabling NFC, Bluetooth or other wireless connectivity enabled are not acceptable.**



A. Contractor shall provide all needed ancillary components necessary to deliver the essential system performance in accordance with the contract documents.

B. Access Control Software – Existing:

1. Software House C•CURE 9000 Enterprise is the existing ACS for the location where the work will be performed.
2. Licensing shall be included as needed to expand the existing system to incorporate the products, devices, systems and services as shown on contract drawings or described herein.

C. Access Control Field Devices

1. All Access Control door controllers, modules, and accessories shall be compatible with Software House.
2. Door Controllers
  - a. iSTAR Ultra G2 or approved equal
    - 1) Cyber-hardened and networked door controller supporting up to 32 readers.
    - 2) Dual GigE Ethernet LAN ports.
    - 3) Static and dynamic IP addressing.

## SECTION 28230 – VIDEO SURVEILLANCE

### GENERAL

#### 1.01 RELATED DOCUMENTS

The General Provisions for Construction Projects (2016), Special Provisions and General Requirements of the Specifications, apply to the work specified in this Section.

#### 1.02 GENERAL REQUIREMENTS

- A. Contractor shall comply with all project drawings and general provisions of the Contract, including but not limited to all; General and Supplementary Conditions, DIVISION 1 – GENERAL REQUIREMENTS and stipulated DIVISION 16 ELECTRICAL and DIVISION 28 ELECTRONIC SAFETY AND SECURITY Specification Sections. Those requirements shall apply to this and all related Division 28 specification sections.
- B. Related Specification Sections.
1. Division 16700 – Common Work Results for Communication Systems
  2. Division 16710 – Structured Cabling
  3. Division 16740 – Data Network Equipment
  4. Division 28050 – Common Work Results for Electronic Safety and Security
  5. Division 28100 – Access Control System
- C. Reference Symbols:
1. All symbols are defined by the appropriate symbol schedule on the symbols and abbreviations sheet in the system drawing package. Not all device symbols as indicated may be required for the project.
    - a. Due to the scale of the drawings, symbols are shown on the drawings as close as possible to the mounting location. Contractor shall coordinate exact locations with architectural drawings and all affected trades prior to submittal of shop drawings.
- D. Abbreviations & Acronyms:
1. Refer to Abbreviations & Acronyms as defined in Division – 28050 Common Work Results for Electronic Safety and Security.

E. Definitions:

1. Contract Documents: The documents consisting of the Form of Agreement between Owner and Contractor, Conditions of the Contract, (General, Supplementary, and other Conditions), Drawings, Specifications and all Addenda issued prior to the execution of the Contract.
2. Contract Drawings: The drawings that form a part of the Contract Documents that provides the graphical representation of the project requirements intended design and/or performance criteria to be delivered by the Contractor.
3. Reference Drawings: A drawing and/or set of drawings produced by a proprietary supplier, manufacturer, subcontractor, or fabricator included in the Contract Documents for informational purposes, providing specific information related to the installation of related appurtenances, components, devices, hardware, products and/or systems. Reference Drawings shall also include any Contract Drawings from prior bid packages that may have pertinent information or require coordination of trades related to this contract.
4. Shop Drawings: A drawing and/or set of drawings produced by the contractor, supplier, manufacturer, subcontractor, or fabricator as a detailed representation of the proper installation of the related, appurtenance, component, device, hardware, product and/or system to be delivered in conformance to the requirements of the Contract Documents.

1.03 SUMMARY

- A. The Contractor is responsible for the full installation, configuration, connectivity, database additions, integration and testing necessitated by extending the reach and operational functionality of the existing Video Surveillance/Video Management System (Identified as the VMS within this document) which is Genetec Security Center with Plan Manager/Map Manager.
- B. The systems shall be complete with all equipment as indicated on the Contract Drawings and/or described herein. The Contractor shall turn over to the Owner a complete and operational system in full compliance with the contract documents. The Video Management System shall operate seamlessly with new components and existing hardware.
- C. The Contractor shall submit, for each camera installed a "Field of View" (FOV) image showing the anticipated FOV of the specific camera in its proposed installation location. Cameras shall not be permanently installed until the HDOT-A Project Manager or the Supporting Engineer reviews and approves the submitted camera field of view documentation. The Contractor is to submit, for

approval, a field of view template document. At a minimum the FOV information provided is to include:

1. Camera location – contract drawing sheet number with a description
2. Camera name – temporary project name or permanent camera name
  - a. Contractor shall provide a project ID to permanent ID camera correlation reference sheet or provide location drawings with the corrected camera name at least 5 days prior to the scheduled Functional Test.
3. Camera type – define the type of camera, fixed, PTZ, 360, 180, other
4. Camera lens – lens information
5. Camera analytics – define active or anticipated analytic functions

D. Work to include, but not limited to the following:

1. Perform camera pre-installation signoff walk through with Owner and Supporting Engineer.
2. Installation of cameras, camera cabling, patch cables, data jacks, grips, fittings, mounts, poles, connectors, swivels, brackets, supports, arms, back boxes, covers and additional hardware necessary to install cameras in professional manner where shown on the drawings or identified herein.
3. Provide all required software and licenses to the Owner.
4. Connect, configure, program and integrate cameras within the VMS and ACS (referred to as the VMACS), Plan Manager and the sensor monitoring and management system.
5. The Contractor shall provide continuous onsite supervision of the installation technicians. Onsite supervision shall include: daily supervision of the work, updating work site progress drawings to reflect changes and installations details, preparing progress reports and attendance at site or virtual coordination meetings as directed by the Owner and Supporting Engineer.
6. The Contractor shall provide ongoing engineering and programming support during the installation as required to accommodate existing conditions and unforeseen conditions that may arise during performance of the work.
7. The Contractor shall provide all miscellaneous hardware including cable management devices, termination cabinets, wire and cable labeling materials, fasteners, hangers and brackets as necessary.

8. The contractor will coordinate the delivery and storage of all materials, wire, cable, equipment and hardware.
9. Provide data/video communications between points of surveillance indicated on drawings and the data communications equipment, communications room or electrical room.
10. All camera S/F/TP/UTP cables are to be terminated to data jacks and patch panels providing a structured cable system capable of being tested and certified to category 6/6a standards. All patch cables shall be manufactured and of the same category as the infrastructure cabling. No field assembled patch cables shall be installed without the approval of the Project Manager and or the Supporting Engineer.
11. The Contractor shall provide 100/1000 Base-T Category 6/6a camera lightning/transient/surge protectors as specified in the drawings or documented herein. The device is to guard sensitive electronics against lightning induced surges and electrostatic discharge. The device is to protect the power providing data switch connected to exterior cameras susceptible to lightning. The device shall be installed to meet manufacturer recommendations. The proposed protection device shall be submitted for approval.
12. Cameras are to be PoE/PoE+ unless otherwise identified or necessitated.
13. Coordinate and obtain IP addresses with the HDOT-A Project Manager. Requests for addresses is to be made 45 days prior to need.
  - a. Reference section 28050 for additional IP address request requirements.
14. The Contractor shall provide all materials, equipment, labor and all other incidental relevant tools, appliances and transportation as required for a complete and functional system as shown on drawings or described herein.
15. Common elements of the work shall consist of but not limited to:
  - a. Procure all permits and license required to complete this installation.
  - b. Attend construction meetings with Owner and Supporting Engineer.
  - c. Coordination of conduit system, raceway and power distribution provided by Division 16 contractors.
  - d. Coordination with all trades and Owner representatives as required facilitating the installation of the security equipment including: Door Hardware, Existing Fire Alarm and Electrical Systems.
  - e. Provide security system sensors, cable, connectors, wiring, equipment enclosures and all other elements necessary to complete the system.

- f. Verify conditions and dimensions at the job site prior to installation.
  - g. Coordinate all system programming and camera naming with HDOT-A Project Manager.
  - h. Perform pre-installation camera position and view sign off. Deliver an image of each proposed camera in or near its final installation location. Each image is to be reviewed by and receive the approval of the Project manager and the Supporting Engineer
  - i. Installation shall be in accordance with contract documents and manufacturers' recommendations. Any necessary deviations shall be documented and receive the approval of the Project Manager and or the Supporting Engineer.
  - j. The Contractor is to ensure the protection of new facility finishes and equipment.
  - k. The Contractor is to ensure construction materials and refuse stay within the area of work.
  - l. The Contractor is to clean the work area at the end of each day or between shift work periods.
  - m. The Contractor shall make final adjustments and calibrations as directed by the Project Manager or the Supporting Engineer.
  - n. The Contractor shall prepare and provide O&M manuals, as-built documents and training documents.
  - o. Provide training for Owner's security staff, facility personnel and technical staff.
- E. Where ambiguity exists between the project specifications and the contract drawings, the superior in system performance at the sole discretion of the engineer and regardless of cost shall prevail and shall be delivered by the Contractor at no additional expense to the project.
- F. Pre-Qualification
- 1. The Contractor is required to be a current (or be in partnership with a current) Genetec Certified Vendor. Certification documents shall be presented upon request. Any Contractor personal approved to perform programming on the VMS or Plan Manager shall be certified by Genetec.

#### 1.04 REFERENCES

Comply with all requirements as defined in:

- A. Division – 1 General Requirements.
- B. Division – 16700 Common Work Results for Communication Systems.
- C. Division – 16710 Structured Cabling.
- D. Division – 16740 Data Network Equipment.
- E. Division – 28050 Common Work Results for Electronic Safety and Security.

- F. in Division – 28230 Video Surveillance.
- G. Division – 16 Electrical.

1.05 SUBMITTALS

- A. Comply with all requirements as defined in Division – 16700 Common Work Results for Communications Systems.
- B. Comply with all requirements as defined in Division – 16710 Structured Cabling.
- C. Comply with all requirements as defined in Division – 16740 Data Network Equipment.
- D. Comply with all requirements as defined in Division – 16 Electrical.
- E. Submittals shall be detailed, describing methods, procedures and specific equipment proposed to conform to the design documents.
- F. Submittals shall consist of product data, shop drawings, samples and detailed completion schedules.
- G. Partial submittals shall not be accepted without prior approval by the Project Manager.
- H. No portion of the work shall commence, or equipment be ordered until the Project Manager or supporting Engineer has approved the submittals.
- I. The Contractor shall not be relieved from any contract required responsibility by the approval of submittals.
- J. Nothing in the specification shall relieve the Contractor of responsibility in delivering a functioning and operational system.

1.06 SHOP DRAWINGS

- A. Comply With Section 16700 – Common Work Results For Communication Systems.
- B. Comply With Section 28050 – Common Work Results For Electronic Safety And Security.
- C. The Contractor shall maintain a complete set of current and up to date shop drawings (updated daily) and equipment submissions at the job site at all times. The Shop drawings and all other submissions shall be marked up to reflect all as-built conditions and shall be made available for review by the Supporting Engineer at request.
- D. Primarily Shop Drawings are to show all deviations of project drawings and deliver Contractor developed details of the installation. Where no changes exist

between project drawings and contract drawings Contractor developed drawings may be substituted. Coordinate with the Supporting Engineer as necessary for enhanced clarity if needed.

- E. Provide Shop Drawings no less than 25 working days after notice to proceed.

#### 1.07 RESUBMITTALS

- A. Make corrections or changes in Submittals as required by Supporting Engineers stamped instructions and attached comments and resubmit.
- B. Identify changes on resubmittals by clouding. Only indicated changes will be reviewed when resubmitted.
- C. Added drawings shall be clearly identified.

#### 1.08 QUALITY ASSURANCE

- A. Comply With All Requirements As Defined In Section – 28050 Common Work Results For Electronic Safety And Security.

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURED PRODUCTS

- A. Materials and equipment furnished shall be of current production by manufacturers regularly engaged in the manufacture of such items, that meet and/or exceed the specified performance and features of the equipment and/or systems and for which replacement parts shall be readily available to the system integrator and/or using agency.
- B. Comply With All Requirements As Defined In Section – 28050 Common Work Results For Electronic Safety And Security.

#### 2.02 COMPONENTS

- A. Video Surveillance System Cameras

The cameras identified are approved for their known task and location. Comparable or superior alternatives may be submitted for approval although standardization is required. Alternatives submissions are to include the data sheet of the approved camera and the submitted alternative. Both data sheets are to be marked up to clearly indicate feature and specification comparisons.

- 1. Camera Type CFX

- a. Axis Communications P3278-LVE Network Camera or approved equal

- b. Image sensor: 1/1.2" progressive scan CMOS
- c. Maximum resolution: 8 MP (3840 × 2160)
- d. Horizontal field of view: 103° – 29°
- e. Vertical field of view: 56° – 17°
- f. Motorized varifocal lens with remote zoom and focus, P-Iris control
- g. Minimum illumination: Color 0.11 lux, B/W 0 lux with IR
- h. Integrated IR illumination, Smart IR, minimum range 30 m (98 ft)
- i. Wide dynamic range (WDR)
- j. Deep learning processing unit (DLPU)
- k. ONVIF Profile G, M, S, T
- l. Environmental rating: IK10, IP66, IP67, NEMA 4X
- m. Power: IEEE 802.3af/at PoE
- n. Include Axis Surveillance Card 256 GB or approved equal
- o. Submit full model number for approval prior to procurement

2. Camera type CPZ- Pan-tilt-zoom

- a. Axis Q6358-LE PTZ Camera or approved equal
- b. Optical zoom: 31x
- c. Zoom speed: <1 sec between any zoom value
- d. Focal length: 6.91 – 214.64 mm
- e. Horizontal field of view: 60.6°– 2.0°
- f. Vertical field of view: 36.5°– 1.1°
- g. Laser focus, autofocus, P-iris
- h. Pan: 360° endless, 0.05°– 550°/s
- i. Tilt: +20 to -90°, 0.05°– 500°/s
- j. Zoom: 31x optical, 12x digital, Total 372x zoom
- k. Deep learning processing unit
- l. ONVIF Profile G, M, S, T
- m. Include Axis Surveillance Card 256 GB or submitted and approved equivalent.
- n. Submit full model number for approval prior to procurement

3. Camera Type CMS- Multi-sensor

- a. Hanwha PNM-C32083RVQ or approved equal
- b. 120dB WDR
- c. 4.25~170mm (Optical 40x) lens
- d. PTZ Auto Tracking, SmartZoom to Preset / IVA Trigger
- e. 4-Channels @ 4K/8MP with motorized PTRZ with remote adjustment
- f. FoV, 3.3~5.7mm (FoV H: 109°~56°, V: 55°~31°)
- g. 15FPS AI ON, 20FPS AI OFF
- h. 2MP @ 60FPS PTZ with 40x zoom
- i. IR viewable [4CH] length 20m (65ft) / [PTZ] WiselR 200m (656ft)
- j. H.265, H.264, MJPEG triple codec
- k. IP66, IK10, NEMA4X
- l. Include Hanwha Industrial Memory Card 256 GB or submitted and approved equivalent.

- m. Submit full model number for approval prior to procurement
4. Camera Type CMP- Multi-sensor with integrated PTZ
    - a. Hanwha PNM-C34404RQPZ with 4x 4K imagers for up to 360 degree field of view or approved equal.
    - b. 360° Analytics events based on AI engine: Classified object (Person/Face/Vehicle/License plate)
    - c. 360° Attributes search (Vehicle type: Car/Bus/Truck/Motorcycle/Bicycle)
    - d. AI based loitering detection and line crossing detection
    - e. AI based WiseNR, Auto prefer shutter control, WiseStream III
    - f. AI based smart zoom and advanced hand over
    - g. PTRZ remote adjustment
    - h. Next level cybersecurity (TPM 2.0 with FIPS 140-2 level2)
    - i. IP66, IK10, NEMA4X
    - j. Include Hanwha Industrial Memory Card 256 GB or submitted and approved equivalent.
    - k. Submit full model number for approval prior to procurement
  
  5. Camera Type CFL- Low Light fixed camera
    - a. Axis Q1808-LE or approved equal.
    - b. Varifocal, 12-48 mm, F1.7-4.0
    - c. Horizontal field of view: 90°–21°
    - d. Vertical field of view: 49°–12°
    - e. Minimum focus distance: 1.5 m (4.9 ft)
    - f. Remote zoom and focus, P-Iris control
    - g. Deep learning processing unit
    - h. ONVIF Profile G, M, S, T
    - i. Include Axis Surveillance Card 256 GB or submitted and approved equivalent.
    - j. Submit full model number for approval prior to procurement.
  
  6. Camera Type LPR- license plate reader
    - a. Genetec AutoVu SharpV or approved equal.
    - b. 1920 x 1200 @ 30 fps; monochrome; global shutter
    - c. Capture range: 9–148\* ft (3–45\* m)
    - d. On-board analytics: Vehicle type, vehicle color, speed estimation, direction of travel, virtual loop, plate origin.
    - e. Power input: PoE++ (Power over Ethernet) 802.3bt Type 3: 27 W typical, 40 W max, 24 V input option: 24 V dc +/-15%, 25 W typical consumption, 37 W max.
    - f. Submit full model number for approval prior to procurement
    - g. Location at 258 and 289
    - h. Fully compatible with Genetec LPR software

7. Camera Type CFE (Vehicle gate)
  - a. Axis Communications M4317-PLVE Network Camera or approved equal
  - b. Image sensor: 1/1.8" progressive scan CMOS
  - c. Maximum resolution: 6 MP
  - d. Horizontal field of view: 182°
  - e. Vertical field of view: 182°
  - f. Motorized varifocal lens with remote zoom and focus, P-Iris control
  - g. Minimum illumination: Color 0.16 lux, B/W 0 lux with IR
  - h. Integrated IR illumination, Smart IR, minimum range 20 m (65 ft)
  - i. Wide dynamic range (WDR)
  - j. Deep learning processing unit (DLPU) for on-camera analytics
  - k. ONVIF Profile G, M, S, T
  - l. Environmental rating: IK10+, IP66, NEMA 4X
  - m. Power: IEEE 802.3af/at PoE
  - n. Include Axis Surveillance Card 256 GB or approved equal
  - o. Submit full model number for approval prior to procurement
  
8. Camera Type CFE (ACS Pedestal)
  - a. Axis Communications F2137-RE Modular Sensor with compatible F-Series main unit, or approved equal
  - b. Maximum resolution: 5 MP (2592 × 1944)
  - c. Image sensor: 1/2.7" progressive scan CMOS
  - d. Horizontal field of view: 185°
  - e. Vertical field of view: 125°
  - f. Fixed-focus fisheye lens, factory calibrated
  - g. Minimum illumination: Color 0.25 lux, B/W 0 lux with IR
  - h. Environmental rating (sensor): IP66, IP67, IK10
  - i. Operating temperature: -40 °C to 60 °C (-40 °F to 140 °F)
  - j. Sensor cable length: Up to 30 m (98 ft) between sensor and main unit
  - k. Deep learning analytics supported via main unit
  - l. ONVIF Profile G, M, S, T (via main unit)
  - m. Power: PoE via main unit
  
9. Submit full sensor and main unit model numbers for approval prior to procurement
  
10. Submit full model number for approval prior to procurement
  
11. Specialty cameras may be identified on the drawing set.
  
12. All cameras, called out or otherwise identified, shall be submitted for approval.
  
13. Camera product numbers and camera series change frequently, if any product is found to be out of production, in end of life or has a

manufacture identified replacement; the Contractor shall submit the updated replacement camera for approval.

14. Directly prior to procurement the Contractor is to verify manufacturer part numbers and identify if updated models have been introduced. If the camera manufacturer recommends upgrading submit the recommended camera for approval.

B. Ethernet Surge Protector

1. The surge protector is to provide shielding to PoE/PoE+ devices against transient voltage spikes in the S/FTP cable. It is to be a compact, high-quality product engineered to work seamlessly with IP cameras.
2. The surge protector is to be securely mounted on a DIN rail or other approved method.
3. The surge protector is to be provided, connected and installed for all exterior cameras open to the sky.
4. Acceptable hardware:
  - a. 4-Port DIN Rail Mounted: Etherwan PD1044 or approved equal.
  - b. 1 Port DIN Rail Mounted: DITEK DTK-MRJPOE with DTK-DRK mounting kit or submitted and approved equivalent.
  - c. 1 Port Wall Mounted: L-com HGLN-CAT6AJ or approved equal.
  - d. Installation of the surge protection device shall follow the manufacturer's recommendations. Grounding/bonding wire shall be green in color and 14AWG minimum.
  - e. All S/FTP keystone data jacks and / or patch panels shall be grounded/bonded following the manufacturer's recommendations.

C. Power Over Ethernet

1. All cameras are to be powered by and operate using POE/class 1, PoE class 2 (30W) or PoE class 3 (60W) maximum.
2. All physical layer of Ethernet connected cameras shall be installed and confirm to TIA/EIA structured cabling standards and meet the requirements needed to obtain the manufacturers certified cable plant warranty. The Permanent Link shall not extend beyond 295 feet. The Channel shall not extend beyond 328 feet. Any cable runs beyond these identified limits shall be identified during the installation of the conduit and prior to the installation of the cable. Submit any exceptions to the Supporting Engineer for review. Any cables installed beyond TIA/EIA cabling standards will require correction, at the full direction of the Supporting Engineer, and at no additional cost to the project.

3. All cameras will be PoE powered from network edge switches located in the SCC that the camera is routed to. Mid-span injectors are not acceptable.
- D. Mounting Hardware
1. Any and all necessary camera mounting hardware is to be provided, installed and operational and submitted for approval, components to be based on field conditions.
- E. Network Switch Identification
1. The networked data switch each camera is connected to and receives power from shall be identified on the Contractors shop drawings and as-built set.
  2. Refer to Section 16740 – Data Network Equipment For Additional Information
- F. T-Hanger Enclosure Camera Components
1. Communication enclosures at Hanger locations require upgrading. The following components have been selected for installation within the existing, mounted enclosures. Comparable or superior alternatives may be submitted for approval.
    - a. Fiber Optic Patch Panel: DinSpace SNAP, 24LC/12LC, DIN rail mounted or approved equal.
    - b. Shielded Twisted Pair Patch Panel: DinSpace SNAP, DIN rail mounted, Shielded Copper Keystone Patch Panel or approved equal.
    - c. Enclosure Tamper: All enclosures shall include a tamper switch. The tamper switch shall be from the same manufacturer of the enclosure such as the nvent door switch, or a comparable, mountable, tamper switch from GRI or submitted and approved equivalent. All tamper switches shall include premanufactured or customized mounting brackets. Tamper switches adjacent to an Access Control Cabinet (ACC) shall be wired to an open input, configured to alarm on event and all tampers installed in adjacent enclosures shall be wired in series therefore using only one input.
    - d. Enclosure UPS: Phoenix QUINT4-UPS-1AC-1KVA DIN rail mount or approved equal.
    - e. Enclosure UPS Battery: Phoenix 24DC/12AH Module or and equal, provided with DIN rail mounting option, two per UPS.
    - f. Network switch shall be Etherwan EX78934X-0VB or and approved equal.
    - g. Refer to Section 16740 Data Network Equipment for additional information.
    - h. Power supply shall be Etherwan NDR-480-48 or approved equal.

- i. Enclosure Power Strips: Eaton, Industrial Strip, 3SP or 602-15, or submitted and approved equivalent, based on requirement, only installed if plug connected devices are positioned in the enclosure.

## 2.03 GENERAL REQUIREMENTS

- A. The locations, types, sizes and quantities of components shall be as shown on the Contract Drawings.
- B. Comply with all requirements as defined in SECTION – 28050 COMMON WORK RESULTS FOR ELECTRONIC SAFETY AND SECURITY.
- C. Comply with all requirements as defined herein.
- D. Surveillance Cameras
  1. Camera schedule location, camera view, lens and mounting method are for reference purposes.
  2. Contractor is responsible for coordinating these details with the Project Manager and the Supporting Engineer.
  3. Contractor is responsible for lens calculation prior to installation of cameras; specify fields of view and exact position of cameras.
  4. Prior to camera installation, contractor will verify lens and camera placement to optimize view during installation.
  5. Final camera position and lens schedule shall be submitted for approval.

## 2.04 ACCESS CONTROL SYSTEM

- A. VMS Summary:
  1. The existing system Genetec Security Center with Plan Manager.
  2. The Contractor is responsible for the delivering, continuing and enhancing the integration between the VMS and the Access Control System as defined in Section 28100 Access Control System.
  3. The Contractor is responsible for the installation, integration, linkages, and development of area maps within Plan Manager for the areas and components capable of interfacing with Plan Manager.
  4. The Video Management System and attached end devices are managed via a smart dashboard and sensor monitoring platform Vunetrix. Each camera and SNMP status monitoring device installed through this contract and attached to the existing VMS shall include the procurement of four (4) management sensors (per device) from Vunetrix. Once

procured, updating the sensor licensing shall be completed by the security system maintenance contractor.

5. Upon updating the sensor licensing on the existing management system, the Contractor is to complete the configuration of the cameras and sensors on the platform.
6. Plan Manager/Map Manager – Standard:
  - a. Plan Manager – Standard is instated and operating supporting a Site level license.
  - b. Integration between C-Cure 9000 and Plan Manager is operational.
  - c. The Contractor is to introduce cameras installed as part of this project into Plan Manager.
  - d. Map development shall be provided. PTZ camera control and ACS door control shall be made available from the map.
  - e. All device icons shall be configured and inserted into Plan Manager maps and shall be integrated and operational.
  - f. Plan Manager icon choice, operation and linkages shall be presented for approval prior to full deployment. The Contractor shall prepare an interactive and connected, real time Plan Manager presentation to the Project Manager and the project Engineering team showing the programmed alarms, events and operation of the system prior to the full configuration of the integrated system. Alterations resulting from the presentation shall be implanted and presented for approval within two (2) weeks from the initial presentation.
  - g. Any additional necessary Plan Manager licensing shall be provided under this project.
  - h. Plan Manager shall be configured to support real-time linkage of digital video clips to their associated alarms as well as those from linked devices in the ACS database; Access Control hardware for example. This linkage shall happen automatically as defined by the configuration.
  - i. The integrated system shall allow for the central administration, monitoring, and archiving of digital video and the associated cameras.
  - j. The integrated system shall support the ability to launch live and recorded video and alarm location maps on alarm or event activation.
  - k. The integrated system shall support the ability to define video behavior by alarm/event type and/or device activation.
  - l. The integrated system shall support the ability to dynamically apply the behavior in real-time as alarms are generated.
  - m. The ACS shall be fully inter-operational and support all necessary functions with the VMS and Plan Manager as defined herein.
  - n. The Contractor shall configure the VMS system for automatic door event to camera call up action. The Contractor is to assume all

cameras will be integrated with the Access Control System, providing door event-to-camera call up action.

- o. Camera call-ups shall be activated by event activation or alarms initiated from the C-Cure system. System shall be configured to support and retain pre and post event/alarm video.
- p. Video based alarms shall be configured for camera call-up on video loss, alarm and other video system alarm features.
- q. Testing Plan Manager, system to system event linkages, camera integration and icon operation is to be described in the submitted testing plan.

B. Network Switches:

- 1. Network Switches shall be provided as required and as specified in Section – 16740 Data Network Equipment.

### PART 3 - EXECUTION

#### 3.01 GENERAL

- A. Comply with all requirements as defined in Section – 28050 Common Work Results For Electronic Safety And Security.
- B. The Video Management System (VMS), its Database; event establishment; event operations and linkages; event integration; system synchronization and network addressing are to be described in the Contractor provided testing plan.
- C. Analytics and AI features are provided embedded in multi-sensor and PTZ cameras. Additional features exist in the Genetec VMS. Built-in camera analytics shall be configured and integrated with the installed and operational Genetec video management system. Any additional licensing needed to facilitate camera analytic integration shall be provided by the Contractor. Use cases will be evaluated when first fence gate or when adjacent cameras are available for demonstration on local basis. Once use cases are configured and evaluated in coordination with HDOT-A and Supporting Engineer using test vehicles and personnel, Contractor will configure similar algorithms at all fence gates. Support HDOT-A in evaluation of these and possible third-party analytics/AI. Use cases may include:
  - 1. Vehicle detection at gate, personnel presence at reader.
  - 2. Pedestrian use of vehicle gate.
  - 3. Fence climb or fence dwell time.
  - 4. Passenger exit of vehicle and use of pedestrian gate (manned gates only).
  - 5. Oversized vehicles.

6. Auto-PTZ tracking of violator from landside to airside driven by fixed camera.
7. Forced event.

### 3.02 TESTING AND ACCEPTANCE

#### A. GENERAL REQUIREMENTS:

1. The Contractor is to prepare and submit for approval a comprehensive Test Plan for each test phase, testing the systems and components to be integrated in the field and programmed into the Video Management System. Testing of the new cameras, devices, servers, systems and integrations shall be divided into three distinct phases as follows:
  - a. **Functional Test:** The Contractors Proof of Operation Functional Test. The Contractor is to coordinate and conduct this “pre-test” to ensure the functionality of the components encompassing the installed systems a minimum of 30 days in advance of the earliest, approved, and scheduled Final Test date. Test results shall be documented and submitted to the Project Manager no later than 4 days after the Functional Test completion date and shall clearly demonstrate the system components are meeting the requirements of this Section. The Contractor shall arrange for and conduct a meeting to review the test results and outline the process of moving to Final Testing no later than 7 days after competition.
  - b. **Final Testing:** Within 30 days of completing the Functional Testing the Contractor is to coordinate and conduct an onsite inspection and conduct Final Testing. Final Testing shall be performed in the presence of the Project Manager and/or the Supporting Engineer in order to clearly demonstrate the system or components are meeting the requirements of this Section. Test results shall be documented and submitted to the Project Manager no later than 4 days after the Final Testing completion date and shall clearly demonstrate the system components are operating in-line with requirements. The Contractor shall arrange for and conduct a meeting to review the test results and outline the process of moving to Operational Testing no later than 7 days after competition.
  - c. **Operational Test 30-Days:** The Contractor in coordination with the Security Department, the Project Manager and the Supporting Engineer is to coordinate, conduct, manage and witness a 30 day operational or “burn in” test immediately following the successful completion and acceptance of the Final Test, to demonstrate compliance with the requirements of this Section. The 30 Day Operational test shall clearly demonstrate the system and its operation meets the requirements of this Section.

2. The Contractor is to prepare and submit for approval a comprehensive Test Plan for each test phase, which describes all the activities and tasks associated with testing of the system and components in accordance with the requirements of this Section. The Test Plan shall include a comprehensive description of each test, test equipment, testing methods, and the anticipated outcome. At a minimum, the presented Test Plan shall contain the following elements:
  - a. Summary of each test phase (Functional, Final and Operational)
  - b. A schedule for the accomplishment of each test and identification of the interim milestones.
  - c. Identification of all components, including the number and type of field devices to be tested.
  - d. Identification of all test devices to be used during the test, including Contractor workstations; laptops; software; meters; cables; wire; specific test programming; test partitions; and specialized testing hardware.
  - e. Schematic drawings showing detailed component interconnections and characterizing the software based actions achieved by system integration.
  - f. A description of the hardware and software involved and/or required for the test.
  - g. A statement of the purpose and goal of each test case and the method of testing.
  - h. A full step-by-step description of the tests performed including test conditions at the start and end of each test, expected test results with Pass/Fail criteria, and actual test results.
  - i. A description of the conditions that shall exist at the start of the test, the action and or function to be tested, and the conditions/results expected to exist at the conclusion of the test.
  - j. A description of the procedures to be used to control and resolve all failures encountered during the performance of each test.
  - k. A plan and schedule to conduct the next iteration of the test phase or a statement that the phase was completed successfully.
  - l. A list of subsystems to be tested shall be provided. At a minimum this is to include; Plan Manager, Vunetrix, and other systems integrated or installed to operate with the VMS.
3. Each test procedure shall include a sheet for sign off and date by both the person performing the test and the test witness. Space for tester and witness comments shall also be included.
4. A Factory representative does not need to be on-site during site testing activities; however, a vendor certified representative shall conduct the tests. The vendor should be readily available during testing to answer questions as needed.

B. Specific Requirements

1. Functional Testing:

- a. Prepare and submit for approval a comprehensive phased Functional Test plan that describes all the activities and tasks associated with testing in accordance with the requirements of this section. The functional test plan must be submitted for approval to the HDOT-A Project Manager a minimum of 10 calendar days prior to the start of the witnessed functional test. The functional test shall, at a minimum, include:
- 1) Physical inspection of all equipment for conformance with approved shop drawings.
  - 2) Review screenshots and operation of fixed and PTZ cameras. Test all camera features utilized.
  - 3) Review screenshots and camera operations of specialty cameras – thermal, biometric, license plate, other.
  - 4) Review the monitoring and control of connected cameras, devices, components, systems and sub-systems.
  - 5) Review integrated system alarm and event configuration and linkages.
  - 6) Review of automated camera to event operation.
  - 7) Review of automated component to event operation.
  - 8) Review of camera data retention time.
  - 9) Review of all programmable camera settings.
  - 10) Ensure default camera passwords have been changed and new password information has been given to the HDOT-A Project Manager. Passwords used for these devices should aim to be no less than twelve (12) characters in length consisting of numbers, upper and lowercase letters and symbols.

2. Final Testing:

- a. Within five (5) calendar days after successful completion of the functional test, submit for approval a detailed Final Test plan that describes all the activities and tasks associated with the final test of all elements and functions of the system in accordance with the requirements in these specifications.
- b. After installation and agreement by the HDOT-A Project Manager to initiate Final Testing, the system shall be tested in compliance with the approved test plan. The Final Test shall be conducted with all devices and components installed and /or connected through a specific system introduction phase, integrated as a system at the site with simulation only used to perform stress and performance testing. The test scripts to be used shall include, but not be limited to, those test scripts used for the Functional Test, and any additions as required to encompass all devices, such as

local processors and network components, system to system Database synchronization and any tests mandated by HDOT-A or their representatives.

- c. The Final Test submittals shall be in the same general format as the Functional Test documentation. Since the Final Testing will be on the installed equipment, properly connected, configured and interfaced to the actual field devices, the test procedures shall be in correspondingly greater detail than the Functional Test and shall demonstrate the full and complete system functionality.
- d. Final Testing shall include:
  - 1) Command, control and monitoring of all field cameras both locally and over the network where required by contract drawings.
  - 2) Preliminary as-built drawings shall be available during the Final Testing so their accuracy can be verified by the HDOT-A Project Manager and/or the Supporting Engineer in the field.
  - 3) Instruments, ladders, scaffolding, lifts, testing equipment and labor required for all tests shall be furnished by the Contractor.
  - 4) Upon completion of the installation and testing, prior to acceptance, thoroughly clean and ensure the professional installation (internally and externally) of all equipment furnished and/or installed under this Section. Including camera lenses, camera housing, filters, fan covers or grills, enclosures, covers, cables and other attached and operational equipment.
  - 5) Restore all systems to full operating capacity and capability after testing to the satisfaction of the HDOT-A Project Manager.

3. Operational Testing:

- a. Within five (5) calendar days after successful completion of the Final Test, submit for approval a detailed Operational Test plan that describes all the activities and tasks associated with the Operational Test.
- b. Prior to the commencement of Operational Testing the Contractor shall furnish one complete set of the approved system shop drawings, have completed training key security staff members and provided all relevant operational documentation on the installed software and systems. All information is to be provided for use by the HDOT-A Project Manager during the test process.
- c. Operational Testing shall commence following notification by the HDOT-A Project Manager that the results of the Final Test are approved. Following receipt the system is ready for 30 Day Operational Testing the Operational Tests shall be performed by the HDOT-A Project Manager, Security personnel, representatives and the security maintenance contractor with the advice and on-

site assistance of the Contractor during the 30 consecutive day testing period.

- d. During the Operational Test period, the HDOT-A Project Manager, the security maintenance contractor and the security force team will operate the system as specified using the fully configured software and hardware and all applicable manuals, printed guides and procedures submitted by the Contractor. The Contractor shall correct any major failure, malfunction or operational inadequateness uncovered during the period as it occurs. Said malfunctions include, but are not limited to, invalid programming, incorrect firmware, inadequate or legacy licensing, equipment failure or failure of the system to comply with this section. Major failure is defined for this purpose as any failure of any item of the equipment or software, or both, that prevents HDOT-A from performing meaningful work based upon the specific HDOT-A business needs. The determination of whether a failure is major is strictly at the discretion of the HDOT-A Project Manager.
- e. Any and all malfunctions of the installed software and hardware encountered during operational testing shall be corrected by the Contractor at no additional cost to HDOT-A. After correction and re-testing following the Final Test plan, the operational test shall restart at day one, and shall continue until the results meet the conditions and terms of the performance period and the system has operated continuously for 30 consecutive days without error or malfunction.

C. Reports and Acceptance Forms:

1. Test Reports: Following the completion of each test period, prepare and submit a test report that describes the results of the test period and the next steps to be taken. Prepare and submit for approval a sample test report prior to starting the testing phase. The HDOT-A Project Manager will review the report and respond, indicating its approval or noting changes required either in the performance of the work or within the report. The Contractor shall make changes or perform additional work as the HDOT-A Project Manager may direct prior to the start of the next test phase. No test phase shall be considered complete, nor may the Contractor proceed to the next phase of testing until the HDOT-A Project Manager has approved, in writing, the Contractor's test report for the previous phase. The report shall contain, but not be limited to:
  - a. Summary of the test period results including a statistical analysis of test results.
  - b. Descriptive narrative of individual test objective(s).
  - c. Data dictionary of test Database (when applicable).
  - d. System status prior to testing and after testing.
  - e. Expected test results.
  - f. Actual test results.
  - g. Exception condition report (when applicable).

- h. Explanation of exception conditions and Contractor corrections.
  - i. Before and after Database listings (when applicable).
  - j. All relevant screen printouts, reports, interim processing dumps and other audit trail physical evidence to validate the test activity for each iteration of the tests conducted.
- D. Completed Testing and Sign-off Sheets:
  - a. Functional Test Results: Submit endorsed Functional Test result documentation no later than 4 business days after successful completion of the Functional Testing.
  - b. Final Test Results: Submit endorsed Final Test result documentation no later than 4 business days after successful completion of each field test.
- E. Operational 30-Day Test Results: Upon completion of the final 30 day Operational Test, submit documentation showing the entire system has successfully completed operational testing and include all Supporting project documentation including; drawings, schematics, manuals and training material.

#### PART 4 – BASIS OF PAYMENT

##### 4.01 BASIS OF MEASUREMENT AND PAYMENT

- A. Work under this section will not be measured nor paid for separately but shall be considered incidental to and included in the bid prices for the various items of work in this project.
- B. Additional charges by the Contractor for overhead, coordination, profit, insurances and other incidental expenses shall not be allowed. These shall be included in the Contractor's lump sum bid price. Base contract maintenance support for 12 months shall be included in Contractor's lump sum bid prices. Maintenance support may be optionally extended by the State for one or more one-month periods.

END OF SECTION

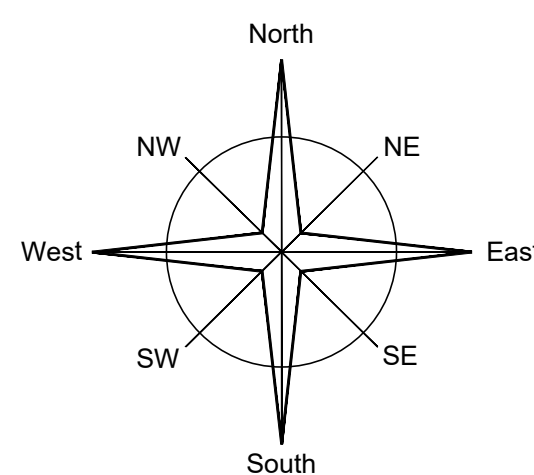
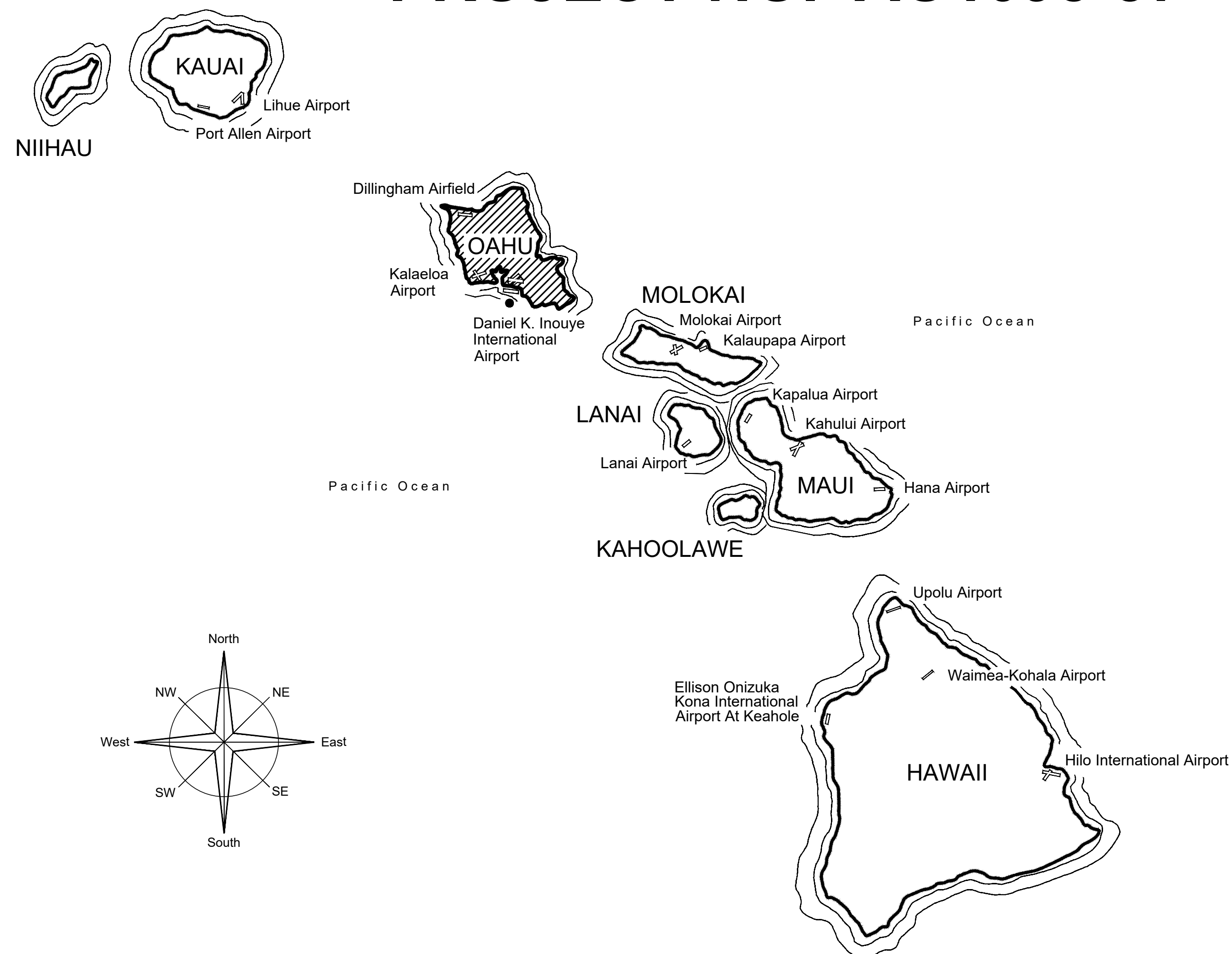
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS

PLANS FOR

# SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM

AT

## DANIEL K. INOUE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII PROJECT NO. AO1095-37



**PROJECT TEAM**

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS

This work was prepared by me or under my supervision.

DSGN.	DRWN.	CHKD.	APPD.
NB	NB	DC	DC

3	3/2/2026	ADDENDUM #3
1	2/09/2026	ADDENDUM #1

NO.	DATE	REVISIONS
<b>CONSTRUCTION DOCUMENTS</b>		
December 15, 2025 DATE		

PROJECT TITLE :  
**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

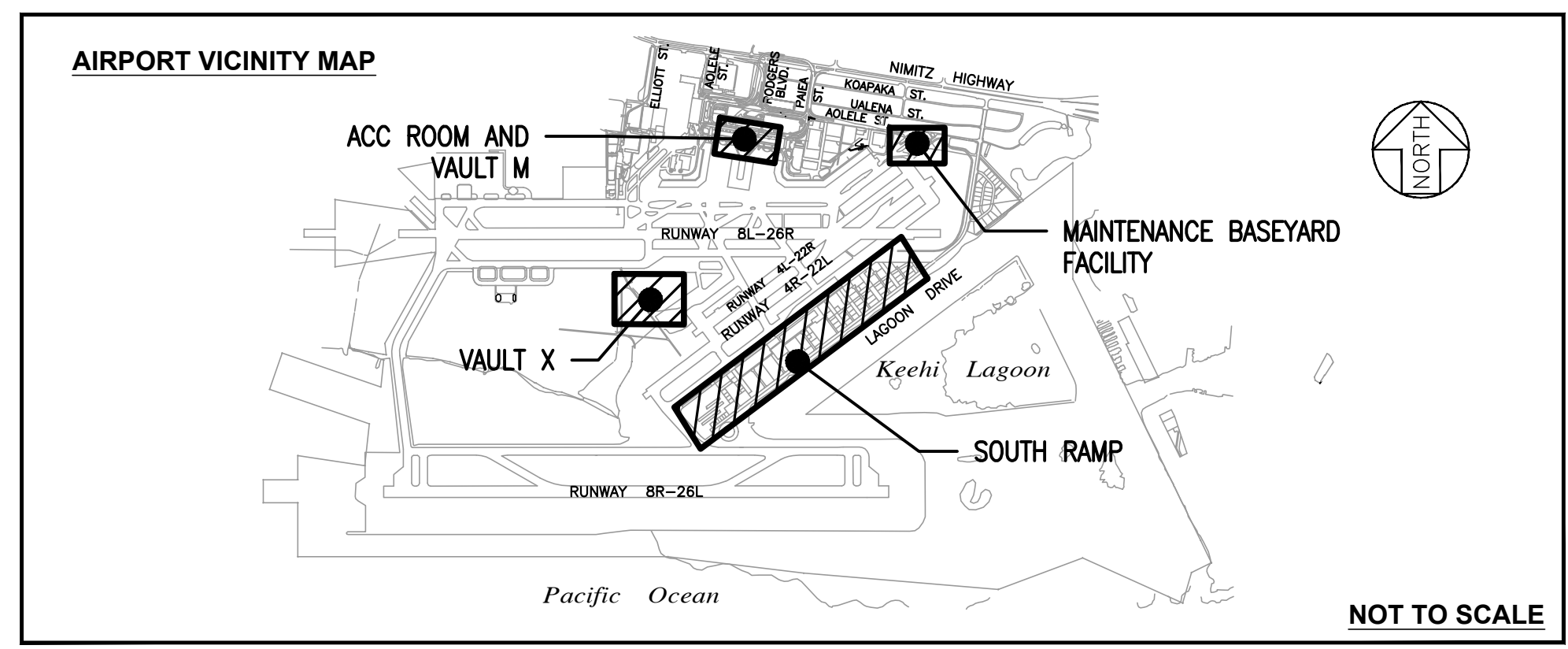
PROJECT NO.:

**AO1095-37**

SHEET TITLE:

**TITLE SHEET**

DATE :	DWG. NO.
12/15/2026	<b>G-001</b>
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DEPARTMENT OF TRANSPORTATION  
STATE OF HAWAII

APPROVED: \_\_\_\_\_

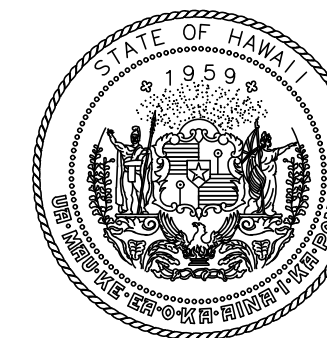
DIRECTOR OF TRANSPORTATION \_\_\_\_\_ DATE \_\_\_\_\_

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



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04/30/2026  
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DSGN.	DRWN.	CHKD.	APPD.
NB	NB	DC	DC

3	3/2/2026	ADDENDUM #3
1	2/19/2026	ADDENDUM #1

NO.	DATE	REVISIONS
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**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

PROJECT TITLE :

**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

PROJECT NO.:

**AO1095-37**

SHEET TITLE:

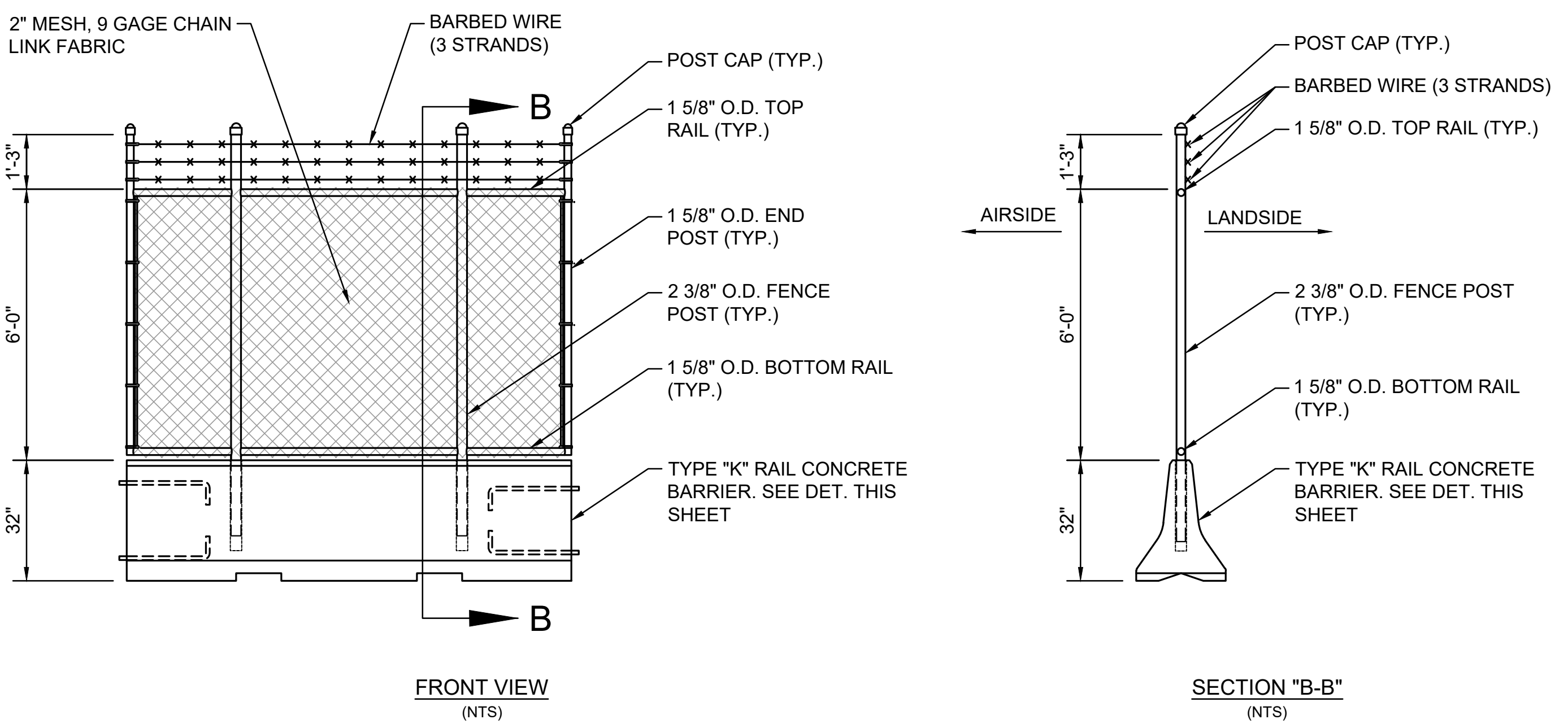
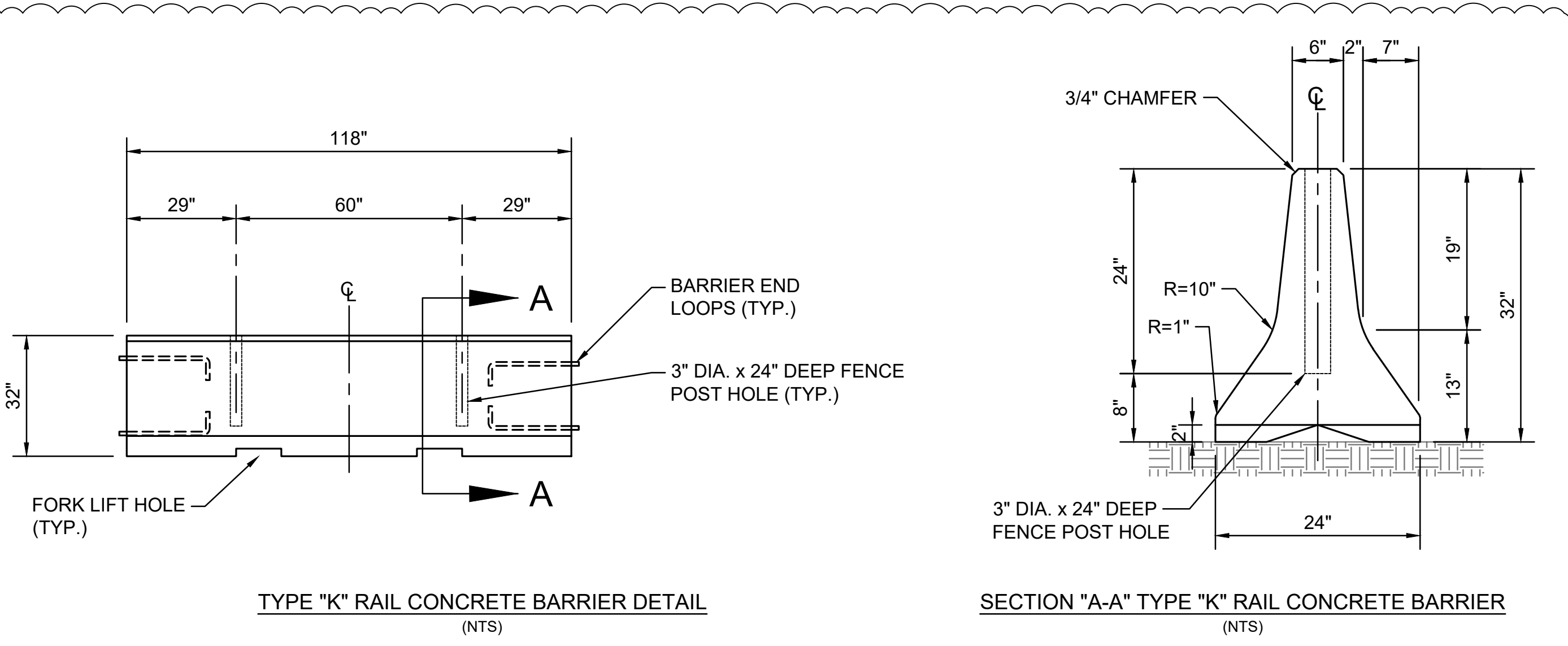
**DRAWING INDEX, SHEET NUMBERS, DRAWING NUMBERS AND SHEET TITLES SHEET 1**

DATE :	DWG. NO.
12/15/2025	<b>G-002</b>
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GATE SCHEDULE				
GATE NUMBER	GATE TYPE	DETAIL NUMBER	DRAWING NUMBER	GATE OPENING DIMENSION
VEH-200	SINGLE SWING GATE	G-2	C-148	16'-0"
VEH-203	SLIDING GATE	G-5	C-147	22'-0"
VEH-205	SLIDING GATE	G-5	C-147	18'-0"
VEH-205B	DOUBLE SWING GATE	G-4	C-146	24'-0"
VEH-205C	SINGLE SWING GATE	G-1	C-146	14'-0"
PED-210	PEDESTRIAN GATE	G-3	C-145	4'-0"
VEH-212	SLIDING GATE	G-5	C-145	20'-0"
PED-212C	PEDESTRIAN GATE	G-1	C-145	6'-0"
VEH-212D	SLIDING GATE	G-5	C-145	12'-0"
VEH-221	DOUBLE GATE-SWING	G-4	C-144	24'-0"
VEH-223	DOUBLE GATE-SWING	G-4	C-144	20'-0"
VEH-226	VEHICLE GATE-SWING	G-4	C-143	12'-0"
VEH-227	DOUBLE SWING GATE	G-4	C-143	20'-0"
PED-236	PEDESTRIAN GATE	G-3	C-143	4'-0"
VEH-248	DOUBLE SWING GATE	G-4	C-141	24'-0"
VEH-250	DOUBLE SWING GATE	G-4	C-141	12'-0"
VEH-251	VEHICLE GATE-SWING	G-1	C-140	12'-0"
VEH-253	VEHICLE GATE-SWING	G-1	C-140	12'-0"
VEH-258	BI-FOLD GATE	G-6	C-139	24'-0"
PED-258A	PEDESTRIAN GATE	G-3	C-139	4'-0"
VEH-264	SLIDING GATE	G-5	C-138	50'-0"
VEH-265	DOUBLE SWING GATE	G-4	C-138	22'-0"
VEH-266	DOUBLE SWING GATE	G-4	C-138	25'-0"
VEH-267	DOUBLE SWING GATE	G-4	C-137	30'-0"
VEH-269	SLIDING GATE	G-5	C-137	35'-0"
VEH-270	SLIDING GATE	G-5	C-136	38'-0"
VEH-271	SLIDING GATE	G-5	C-136	20'-0"
VEH-272	SLIDING GATE	G-5	C-135	18'-0"
PED-273	PEDESTRIAN GATE	G-3	C-134	4'-0"
VEH-275A	DOUBLE SWING GATE	G-4	C-134	24'-0"
*VEH-277	VEHICLE GATE-SWING	G-1	C-132	15'-0"
PED-288	PEDESTRIAN GATE	G-3	C-132	4'-0"
VEH-289	BI-FOLD GATE	G-6	C-132	24'-0"

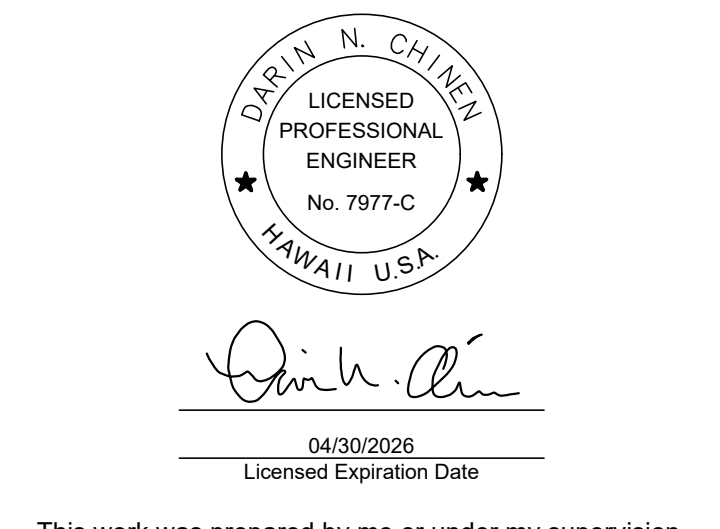
\* GATE WITH PRIVACY MESH



- DETAIL NOTES:**
- CONTRACTOR SHALL MAINTAIN SECURE PERIMETER BY PROVIDING TEMPORARY CONCRETE BARRIER FENCE SEGMENTS FOR ALL REMOVED SECTIONS OF EXISTING FENCE. TEMPORARY CONCRETE BARRIER FENCE SHALL REMAIN IN PLACE DURING BOTH CONSTRUCTION AND NON-CONSTRUCTION WORK HOURS FOR ONGOING FENCE CONSTRUCTION LOCATIONS.
  - TEMPORARY CONCRETE BARRIER SEGMENTS SHALL HAVE INTERLOCKING CAPABILITY. GAP BETWEEN INTERLOCKING CONCRETE BARRIER AND FENCE SEGMENTS SHALL BE A MAXIMUM OF 2-INCHES.
  - ALL GATE FRAME JOINTS SHALL BE WELDED.
  - POST AND BRACES SHALL BE SCHEDULE 40 (STANDARD WEIGHT) PIPE. SIZES SPECIFIED ARE OUTSIDE DIAMETER.
  - ALL FENCING MATERIAL SHALL BE GALVANIZED STEEL.
  - TEMPORARY CONCRETE BARRIER FENCE SHALL BECOME PROPERTY OF DOT-A UPON COMPLETION OF THIS PROJECT.

1 TEMPORARY CONCRETE BARRIER FENCE DETAIL  
C-150 (NTS)

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DSGN.	DRWN.	CHKD.	APPD.
NB	NB	DC	DC

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3	3/2/2026	ADDENDUM #3

**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

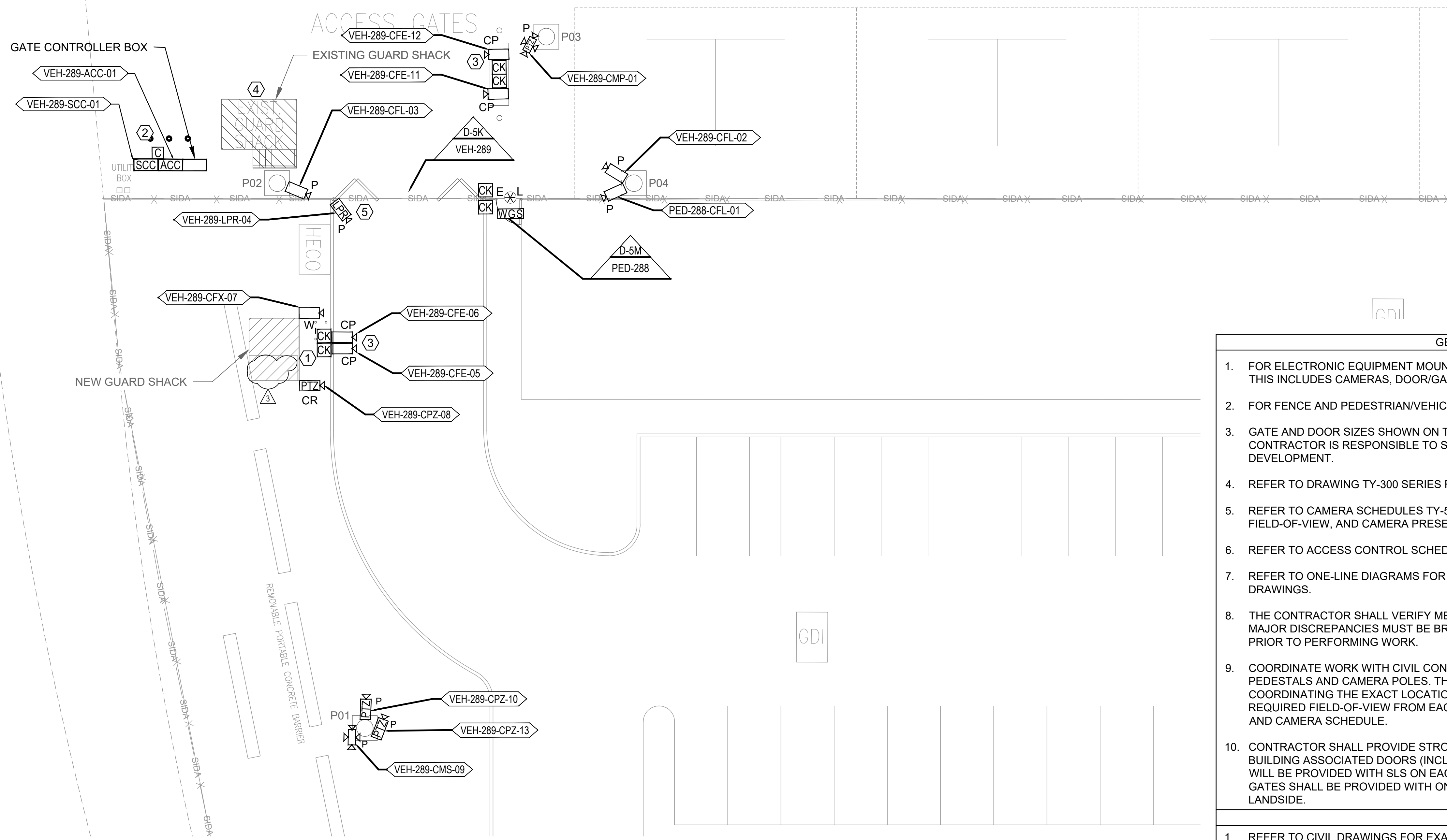
**PROJECT TITLE :**  
**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

**SHEET TITLE:**

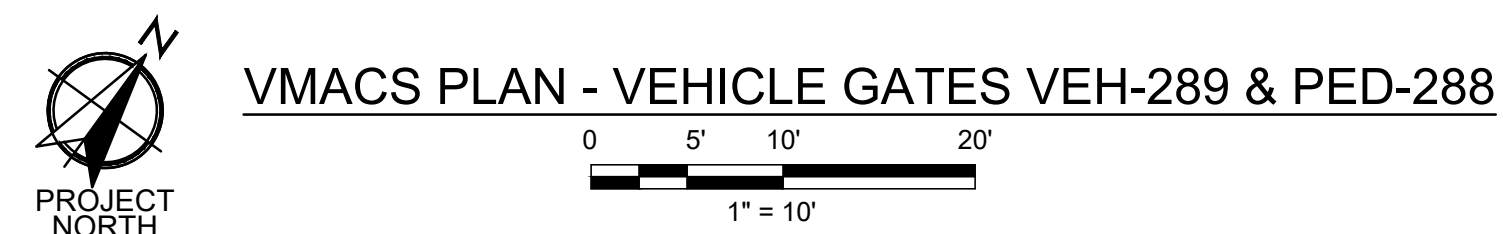
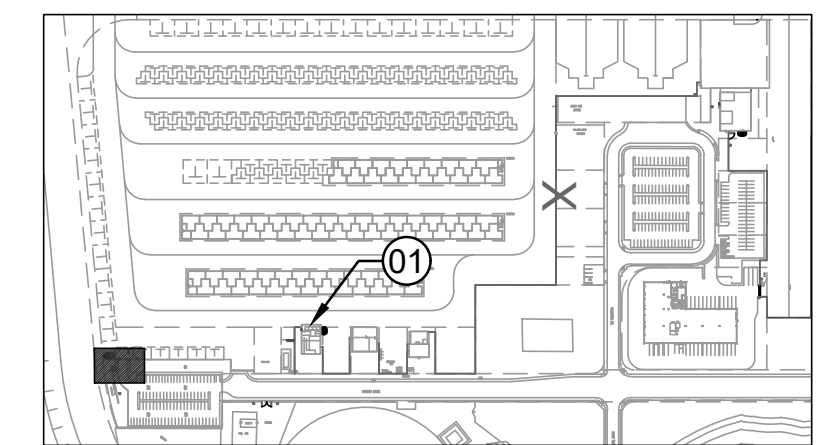
**GATE SCHEDULE AND TEMPORARY CONCRETE BARRIER FENCE DETAIL**

DATE :	DWG. NO.
12/15/2025	<b>C-150</b>
SHEET :	
61 OF 238	

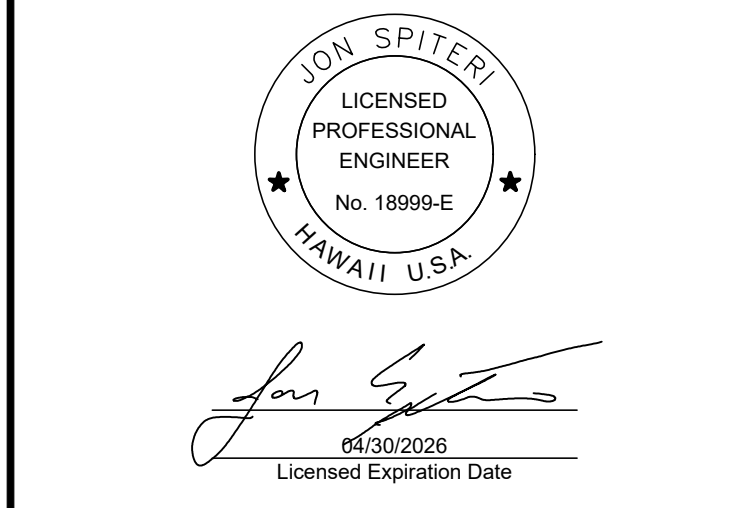


- GENERAL NOTES**
- FOR ELECTRONIC EQUIPMENT MOUNTING DETAILS REFER TO 300 SERIES DRAWINGS. THIS INCLUDES CAMERAS, DOOR/GATE DEVICES AND ACC/SCC CABINETS.
  - FOR FENCE AND PEDESTRIAN/VEHICULAR GATE DETAILS REFER TO CIVIL DRAWINGS.
  - GATE AND DOOR SIZES SHOWN ON THESE DRAWINGS ARE NOT TO SCALE. THE CONTRACTOR IS RESPONSIBLE TO SURVEY THESE AREAS AS PART OF SHOP DRAWING DEVELOPMENT.
  - REFER TO DRAWING TY-300 SERIES FOR ALL DOOR AND CAMERA DETAILS.
  - REFER TO CAMERA SCHEDULES TY-503 AND TY-504 FOR INTENDED CAMERA FIELD-OF-VIEW, AND CAMERA PRESETS.
  - REFER TO ACCESS CONTROL SCHEDULES ON DRAWINGS TY-501 AND TY-502.
  - REFER TO ONE-LINE DIAGRAMS FOR DEVICE CONNECTIVITY ON TY-400 SERIES DRAWINGS.
  - THE CONTRACTOR SHALL VERIFY MEASUREMENTS AND ALL CONDITIONS ON SITE. MAJOR DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PERFORMING WORK.
  - COORDINATE WORK WITH CIVIL CONTRACTOR FOR FENCE, GATES, CARDREADER PEDESTALS AND CAMERA POLES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE EXACT LOCATION OF EACH CAMERA POLE TO ACHIEVE THE REQUIRED FIELD-OF-VIEW FROM EACH CAMERA AS DEFINED IN THE SPECIFICATIONS AND CAMERA SCHEDULE.
  - CONTRACTOR SHALL PROVIDE STROBE LIGHT SIREN (SLS) AT EACH DOOR AND GATE. BUILDING ASSOCIATED DOORS (INCLUDING OVERHEAD DOORS AND HANGAR DOORS) WILL BE PROVIDED WITH SLS ON EACH SIDE OF THE DOOR. PEDESTRIAN AND VEHICLE GATES SHALL BE PROVIDED WITH ONE SLS THAT COULD BE VIEWED FROM AIRSIDE AND LANDSIDE.

- KEY NOTES**
- REFER TO CIVIL DRAWINGS FOR EXACT LOCATION FOR NEW GUARD SHACK.
  - REPLACE EXISTING PANELS. REFER TO DETAIL SHEET TY-352.
  - CARDREADER PEDESTALS SHALL BE PROVIDED WITH A HIGH AND LOW CARDREADER TO ACCOMMODATE CARS AND TRUCKS. LOW-PROFILE FISHEYE CAMERAS SHALL BE PART OF EACH CARDREADER ON THE PEDESTAL. REFER TO DRAWING TY-370. SPARE ETHERNET CABLE AND A COVER PLATE SHALL ALSO BE PROVIDED FOR EACH CARDREADER LOCATION ON THE PEDESTAL FOR FUTURE INTERCOM.
  - CONNECT EXISTING CAMERAS TO NEW SCC AT THIS LOCATION.
  - MOUNT LPR CAMERA ON GATE POLE PROVIDED WITH NEW BI-FOLD GATE.



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DSGN.	DRWN.	CHKD.	APPD.
NS	RT	MB	JS

NO.	DATE	REVISIONS
3	3/2/2026	ADDENDUM #3

**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

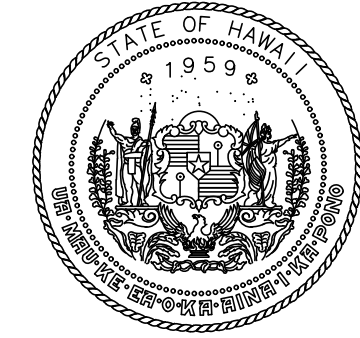
**PROJECT TITLE :**  
**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

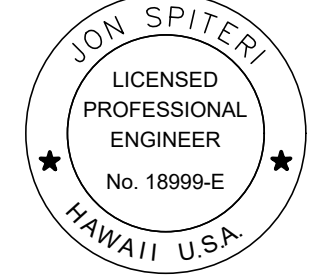
**SHEET TITLE:**  
**VMACS PLAN VEHICLE GATE VEH-289 & PEDESTRIAN GATE PED-288**

DATE :	12/15/2025	DWG. NO.	<b>TY-106</b>
SHEET :	145 OF 238		

C:\USERS\TORAD\ORION\DRIVE - WSP 0365\DOCUMENTS\BZZZ\TEMP-HAWAII DOT-AIRPORTS\52663 SOUTH RAMP-30962262-TASK 3C- CONSTRUCTION DOCUMENTS\CADD\099-SECURITY\TY-106-136 VMACS PLANS DWG - PLOT DATE: 2/25/26



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



*Jon Spiteri*  
03/30/2026  
Licensed Expiration Date

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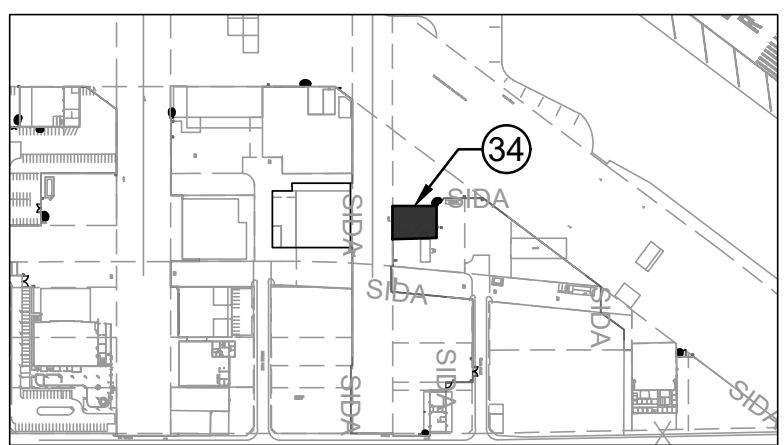
DSGN.	DRWN.	CHKD.	APPD.
NS	RT	MB	JS

GENERAL NOTES

- FOR ELECTRONIC EQUIPMENT MOUNTING DETAILS REFER TO 300 SERIES DRAWINGS. THIS INCLUDES CAMERAS, DOOR/GATE DEVICES AND ACC/SCC CABINETS.
- FOR FENCE AND PEDESTRIANS/VEHICULAR GATE DETAILS REFER TO CIVIL DRAWINGS.
- GATE AND DOOR SIZES SHOWN ON THESE DRAWINGS ARE NOT TO SCALE. THE CONTRACTOR IS RESPONSIBLE TO SURVEY THESE AREAS AS PART OF SHOP DRAWING DEVELOPMENT.
- REFER TO DRAWING TY-300 SERIES FOR ALL DOOR AND CAMERA DETAILS.
- REFER TO CAMERA SCHEDULES TY-503 AND TY-504 FOR INTENDED CAMERA FIELD-OF-VIEW, AND CAMERA PRESETS.
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- THE CONTRACTOR SHALL VERIFY MEASUREMENTS AND ALL CONDITIONS ON SITE. MAJOR DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PERFORMING WORK.
- COORDINATE WORK WITH CIVIL CONTRACTOR FOR FENCE, GATES, CARDREADER PEDESTALS AND CAMERA POLES. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE EXACT LOCATION OF EACH CAMERA POLE TO ACHIEVE THE REQUIRED FIELD-OF-VIEW FROM EACH CAMERA AS DEFINED IN THE SPECIFICATIONS AND CAMERA SCHEDULE.
- CONTRACTOR SHALL PROVIDE STROBE LIGHT SIREN (SLS) AT EACH DOOR AND GATE. BUILDING ASSOCIATED DOORS (INCLUDING OVERHEAD DOORS AND HANGAR DOORS) WILL BE PROVIDED WITH SLS ON EACH SIDE OF THE DOOR. PEDESTRIAN AND VEHICLE GATES SHALL BE PROVIDED WITH ONE SLS THAT COULD BE VIEWED FROM AIRSIDE AND LANDSIDE.

KEY NOTES

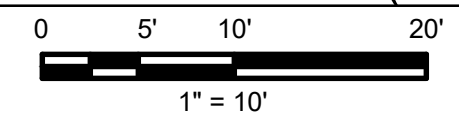
- CAMERA TO BE MOUNTED AT APPROXIMATELY 8' HEIGHT TO VIEW DOOR UNDER AWNING.
- SECURITY DOOR IS PROVIDED WITH A BLUETOOTH LOCKSET. CONTRACTOR TO REMOVE BLUETOOTH LOCKSET DOOR HANDLES AND REPLACE WITH NEW KEYED DOOR HANDLES AS SPECIFIED IN THE CONTRACT DOCUMENTS. BLUETOOTH HANDLES SHALL BE RETURNED TO DOT.
- GATES ARE PROVIDED WITH BLUETOOTH PADLOCKS. CONTRACTOR IS TO REMOVE THIS PADLOCK AND RETURN IT TO DOT.



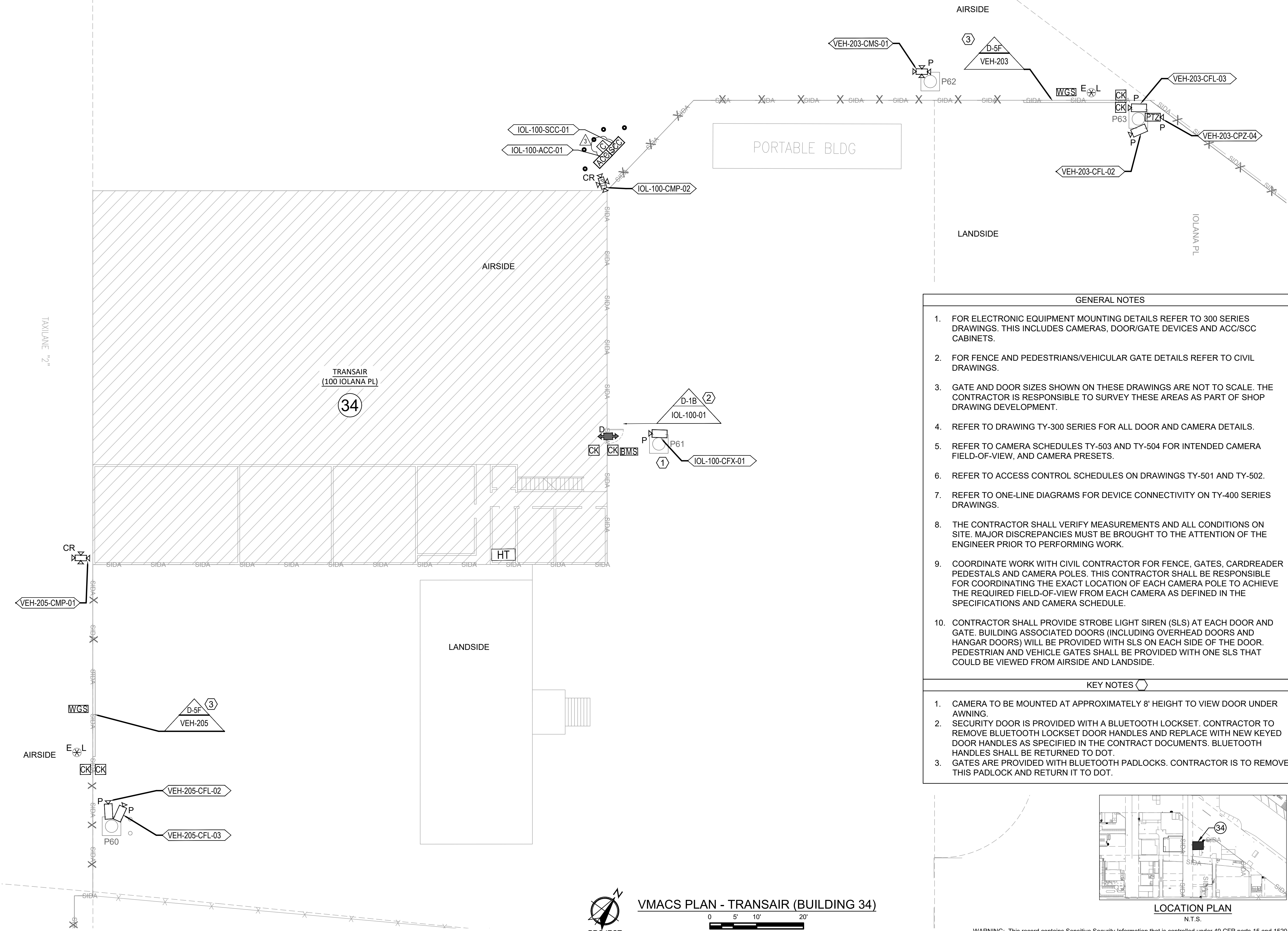
LOCATION PLAN  
N.T.S.



VMACS PLAN - TRANSAIR (BUILDING 34)



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3	3/2/2026	ADDENDUM #3
NO.	DATE	REVISIONS

**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

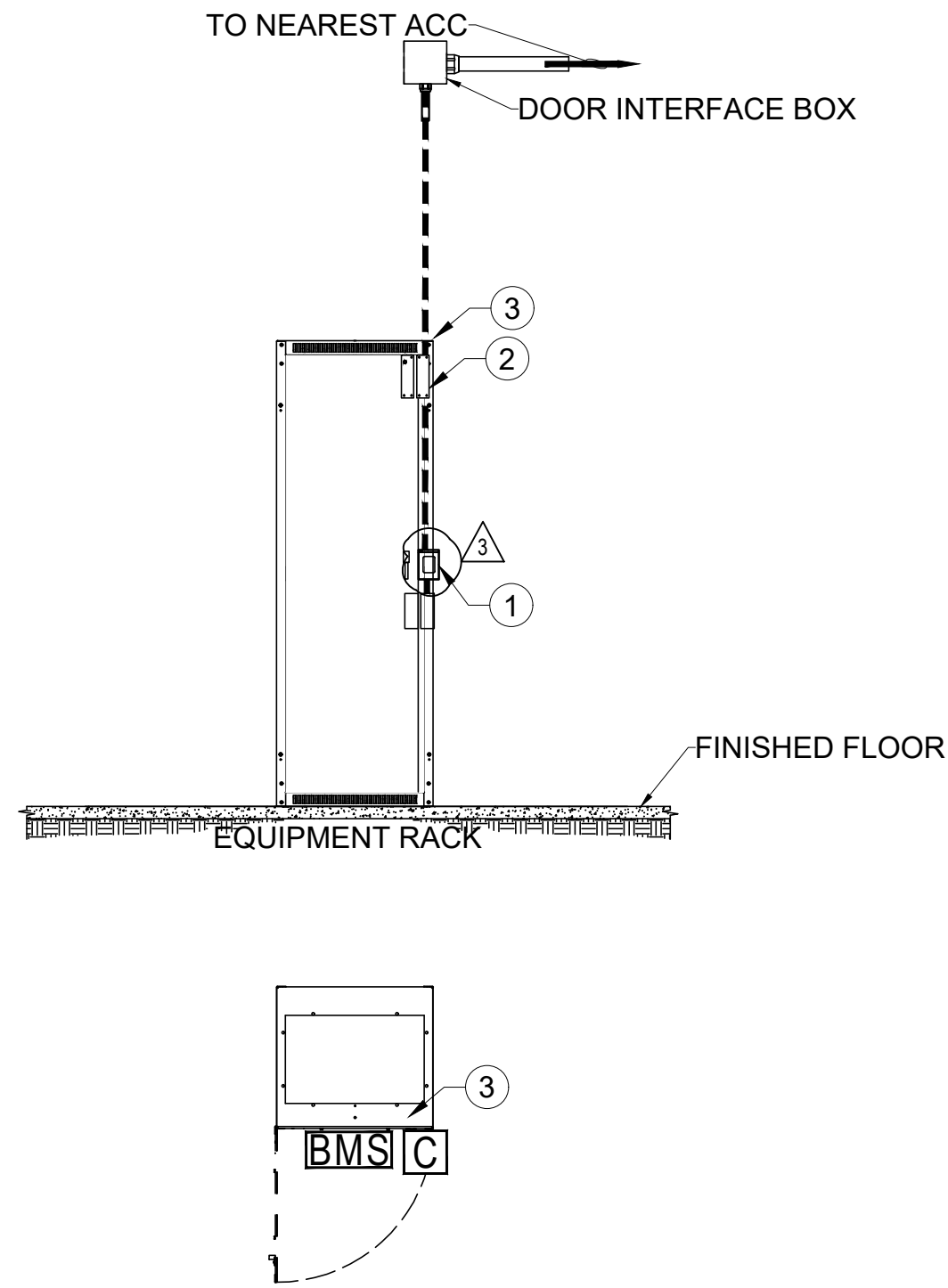
**PROJECT TITLE :**  
**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

**SHEET TITLE:**  
**VMACS PLAN TRANSAIR BUILDING 34**

DATE :	12/15/2025	DWG. NO.	TY-132
SHEET :	171 OF 238		

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**SEQUENCE OF OPERATIONS**

**VALID CARDREADER USAGE ON EQUIPMENT RACK**

UPON A VALID CARDREADER USAGE, THE ACS SHALL IMMEDIATELY SHUNT THE BMS FOR A USER DEFINED TIME PERIOD. UPON THE DOOR CLOSING, THE ACS SHALL RESET THE SHUNT PERIOD. IF THE DOOR IS NOT CLOSED BEFORE THEIR BMS SHUNT TIME OUT PERIOD EXPIRES, THEN THE DOOR HELD OPEN SIGNAL SHALL BE IMMEDIATELY SENT TO THE VMACS WORKSTATION. AND THE LOCAL BUZZER SHALL BE ENERGIZED FOR A DESIGNATED PERIOD OF TIME.

**NON-VALID DOOR ACCESS**

IF THE DOOR IS FORCED OPEN WITHOUT A VALID CARDREADER/ USAGE, THEN THE DOOR FORCED OPEN SIGNAL SHALL BE IMMEDIATELY SENT TO THE VMACS WORKSTATION. AND THE LOCAL BUZZER SHALL BE ENERGIZED FOR A DESIGNATED PERIOD OF TIME.

**DOOR FUNCTIONAL OPERATIONS**

THE PORTAL INTERFACE SHALL SECURE THE PORTAL VIA AN ELECTRIC LOCK.

THE ACS SHALL MONITOR:

DOOR FORCED OPEN AND DOOR HELD OPEN CONDITIONS FROM THE BMS.

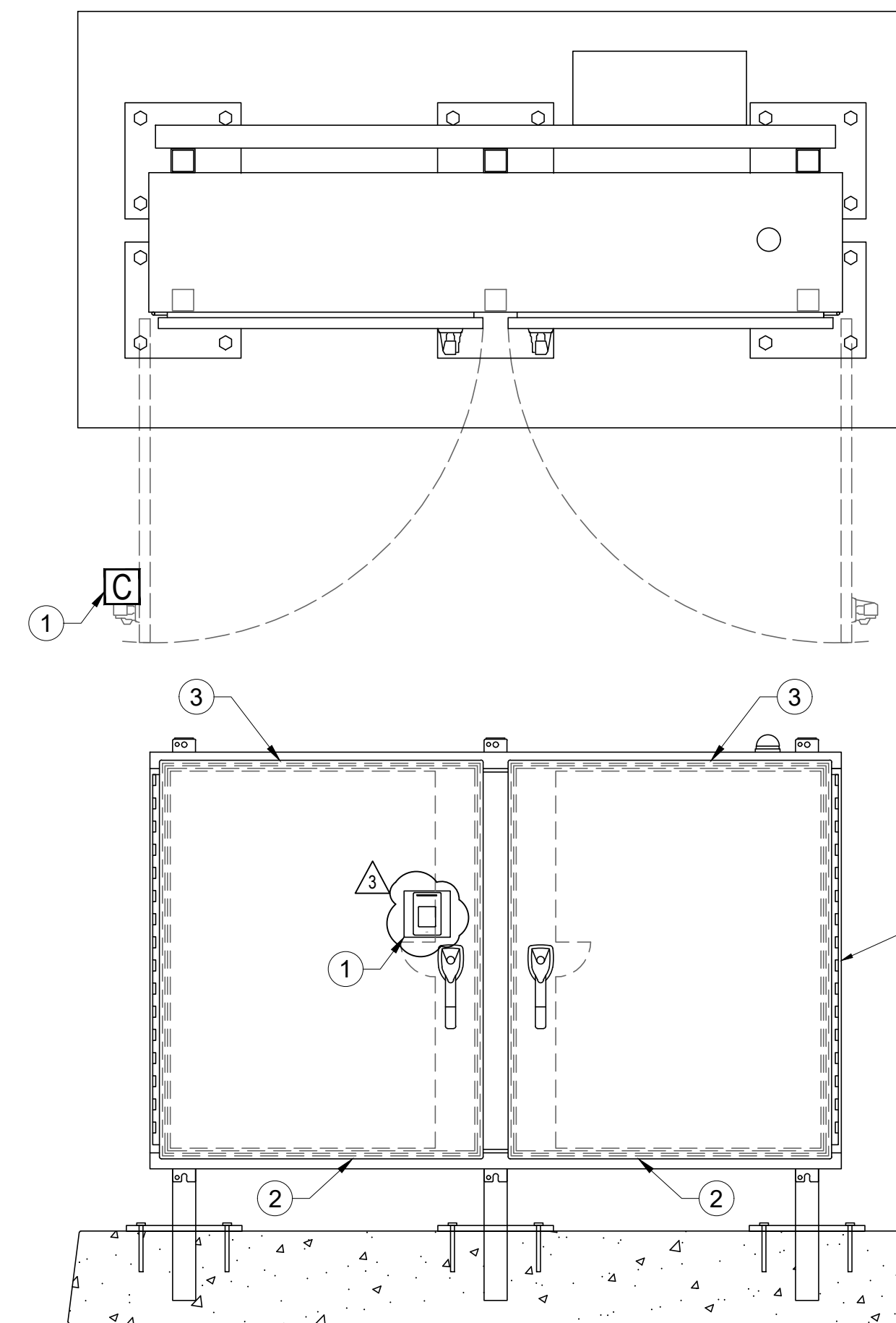
**NOTES**

- FOR LEGEND, ABBREVIATIONS AND NOTES, SEE DRAWINGS G003 & G004.
- EQUIPMENT RACK DETAILS ARE MEANT TO BE DIAGRAMMATIC ONLY TO SHOW EQUIPMENT AND GENERAL CONNECTIVITY. MATERIAL TYPE, DOOR SWING, ETC ARE NOT SHOWN. CONTRACTOR SHALL BE FAMILIAR WITH THE EXISTING EQUIPMENT RACK TYPE AND SHALL ADAPT THE EQUIPMENT TO THE FINAL DOOR CONDITIONS.
- CONTRACTOR MAY COMBINE HOME RUNS FOR ADJACENT DOORS. CONTRACTOR SHALL VERIFY CONDUIT SIZE AND CONDUCTOR CAPACITY PER NEC CODE.
- EXISTING RACK SHALL BE RETROFITTED TO SUPPORT CARDREADER AND BMS. ALL OTHER PANELS OF THE EXISTING RACK SHALL BE SECURED WITH TAMPER PROOF SCREWS AND SHALL BE PROVIDED WITH TAMPER SWITCHES.

**DEVICES**

- ① CARD READER
- ② BALANCED MAGNETIC SWITCH
- ③ LOCAL BUZZER

6A EQUIPMENT RACK, CARD READER  
TY-318 N.T.S.



**SEQUENCE OF OPERATIONS**

**VALID CARDREADER/USAGE ON ACC/SCC AND BATTERY/UPS PANELS.**

UPON A VALID CARDREADER/KEYPAD USAGE, THE ACS SHALL IMMEDIATELY SHUNT ALL THE TAMPER SWITCHES FOR A USER DEFINED TIME PERIOD. THE AUTHORIZED USER CAN THEN OPEN ANY OF THE PANELS FOR A DESIGNATED TIME PERIOD. IF THE DOOR IS NOT CLOSED BEFORE THE SHUNT TIME OUT PERIOD EXPIRES, THEN THE DOOR HELD OPEN SIGNAL SHALL BE IMMEDIATELY SENT TO THE VMACS WORKSTATION. AND THE LOCAL BUZZER SHALL BE ENERGIZED FOR A DESIGNATED PERIOD OF TIME.

**NON-VALID DOOR ACCESS**

IF THE DOOR IS FORCED OPEN WITHOUT A VALID CARDREADER/KEYPAD USAGE, THEN THE DOOR FORCED OPEN SIGNAL SHALL BE IMMEDIATELY SENT TO THE VMACS WORKSTATION. AND THE LOCAL BUZZER SHALL BE ENERGIZED FOR A DESIGNATED PERIOD OF TIME.

**DOOR FUNCTIONAL OPERATIONS**

THE ACS SHALL MONITOR:

DOOR FORCED OPEN AND DOOR HELD OPEN CONDITIONS FROM THE TAMPER SWITCHES

THE ACS SHALL CONTROL:

PROVIDE REMOTE PANEL ACCESS PRIVILEGE

**NOTES**

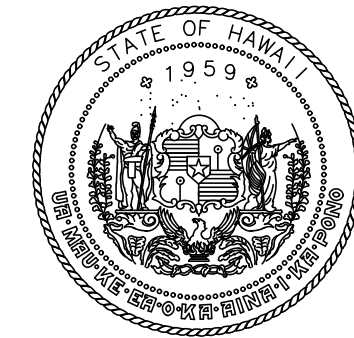
- FOR LEGEND, ABBREVIATIONS AND NOTES, SEE DRAWINGS G003 & G004.
- PANEL DIAGRAM ABOVE IS MEANT TO BE DIAGRAMMATIC ONLY TO SHOW GENERAL EQUIPMENT LAYOUT. CONTRACTOR SHALL BE FAMILIAR WITH EQUIPMENT BEING PROVIDED AND SHALL ADAPT FUNCTIONALITY BASED ON FUNCTIONAL REQUIREMENTS.
- SOME LOCATIONS MAY HAVE MORE PANELS OR LESS PANELS THAN WHAT IS IDENTIFIED ABOVE. ALL PANEL TAMPER SWITCHES SHALL BE TIED TO THIS FUNCTIONALITY, SO THAT IF ANY DOOR IS OPEN THE ALARM IS TRIGGERED.

**DEVICES**

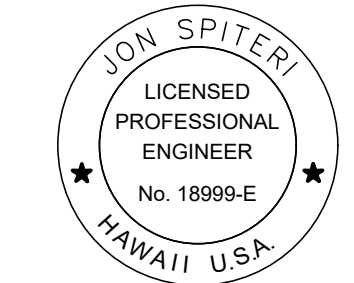
- ① CARD READER
- ② TAMPER SWITCH
- ③ WEATHER PROOF BUZZER

6B CABINET, CARD READER  
TY-318 N.T.S.

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



Jon Spiteri  
03/30/2026  
Licensed Expiration Date

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DSGN.	DRWN.	CHKD.	APPD.
NS	RT	MB	JS

3	3/2/2026	ADDENDUM #3
NO.	DATE	REVISIONS

**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

PROJECT TITLE :

**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT  
DANIEL K. INOUE INTERNATIONAL AIRPORT  
HONOLULU, OAHU, HAWAII

PROJECT NO.:

**AO1095-37**

SHEET TITLE:

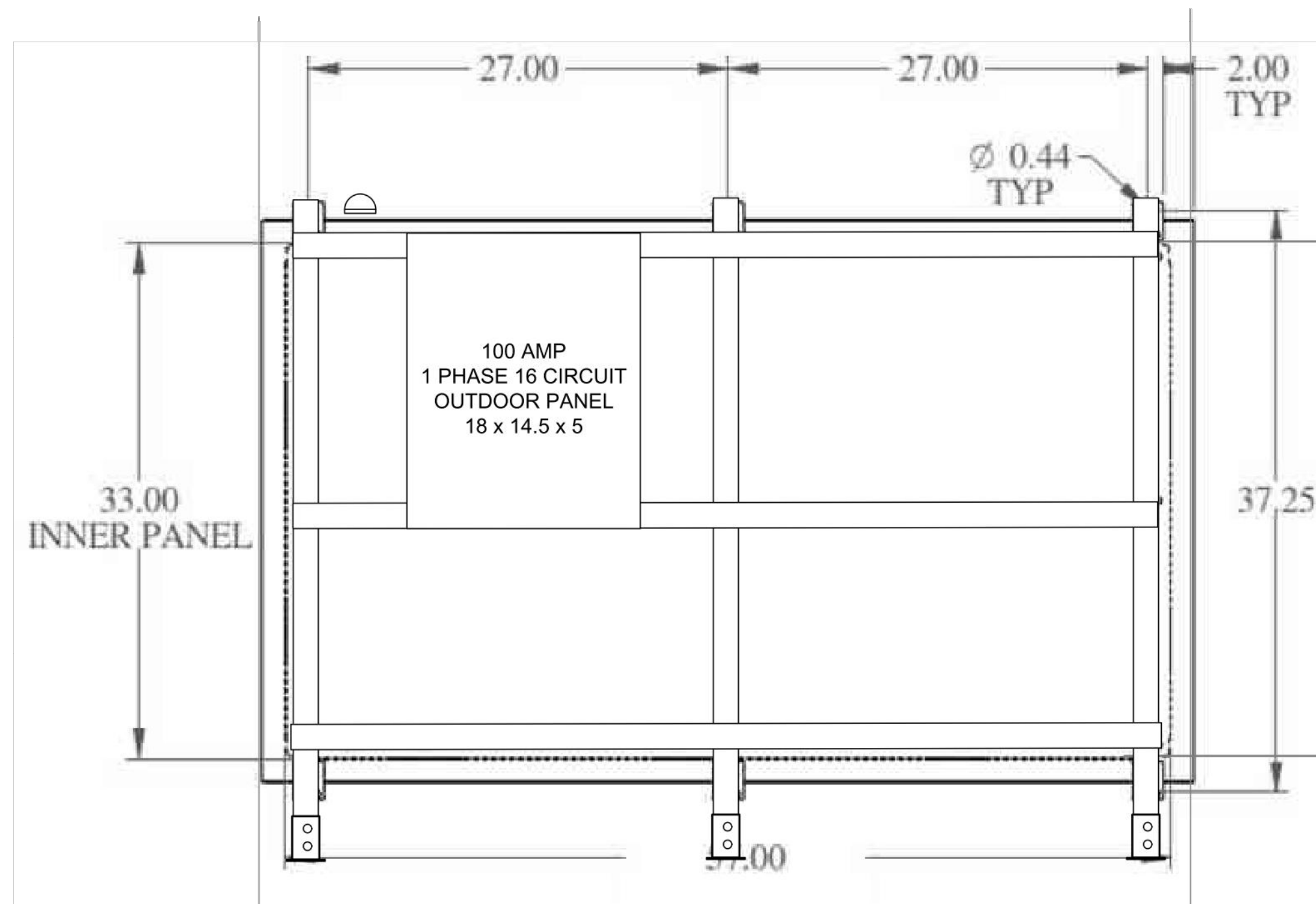
**RACK AND PANEL DETAIL 6A & 6B**

DATE :	DWG. NO.
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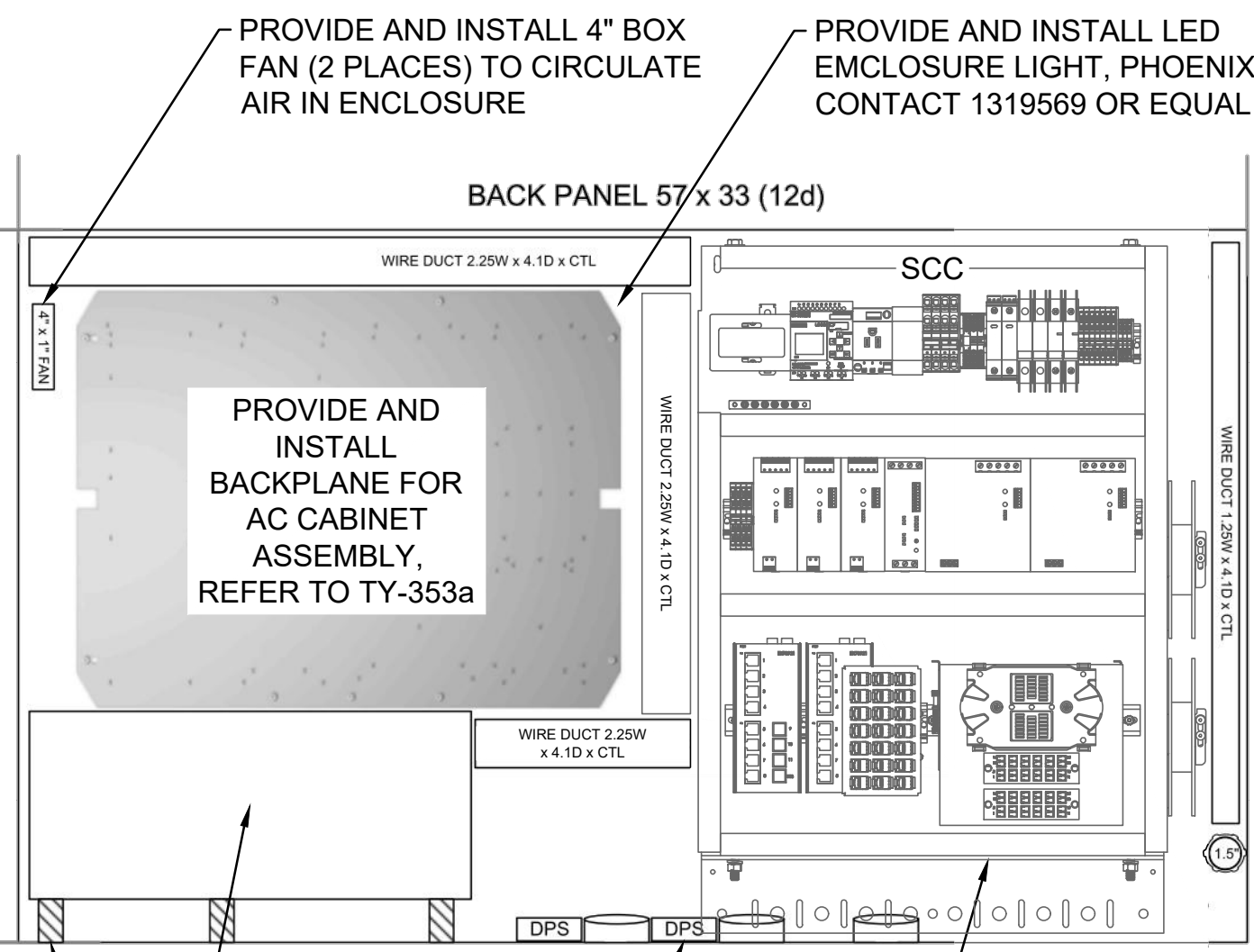
C:\USER\STORAD\ORIG\DRIVE - WSP 0366\DOCUMENTS\ZZZ\TEMP-HAWAII DOT-AIRPORTS\52663 SOUTH RAMP-30902962-TASK 3C- CONSTRUCTION DOCUMENTS\CADD\09-SECURITY\TY-318 RACK AND PNL DET.DWG - PLOT DATE: 2/25/26

GENERAL NOTES

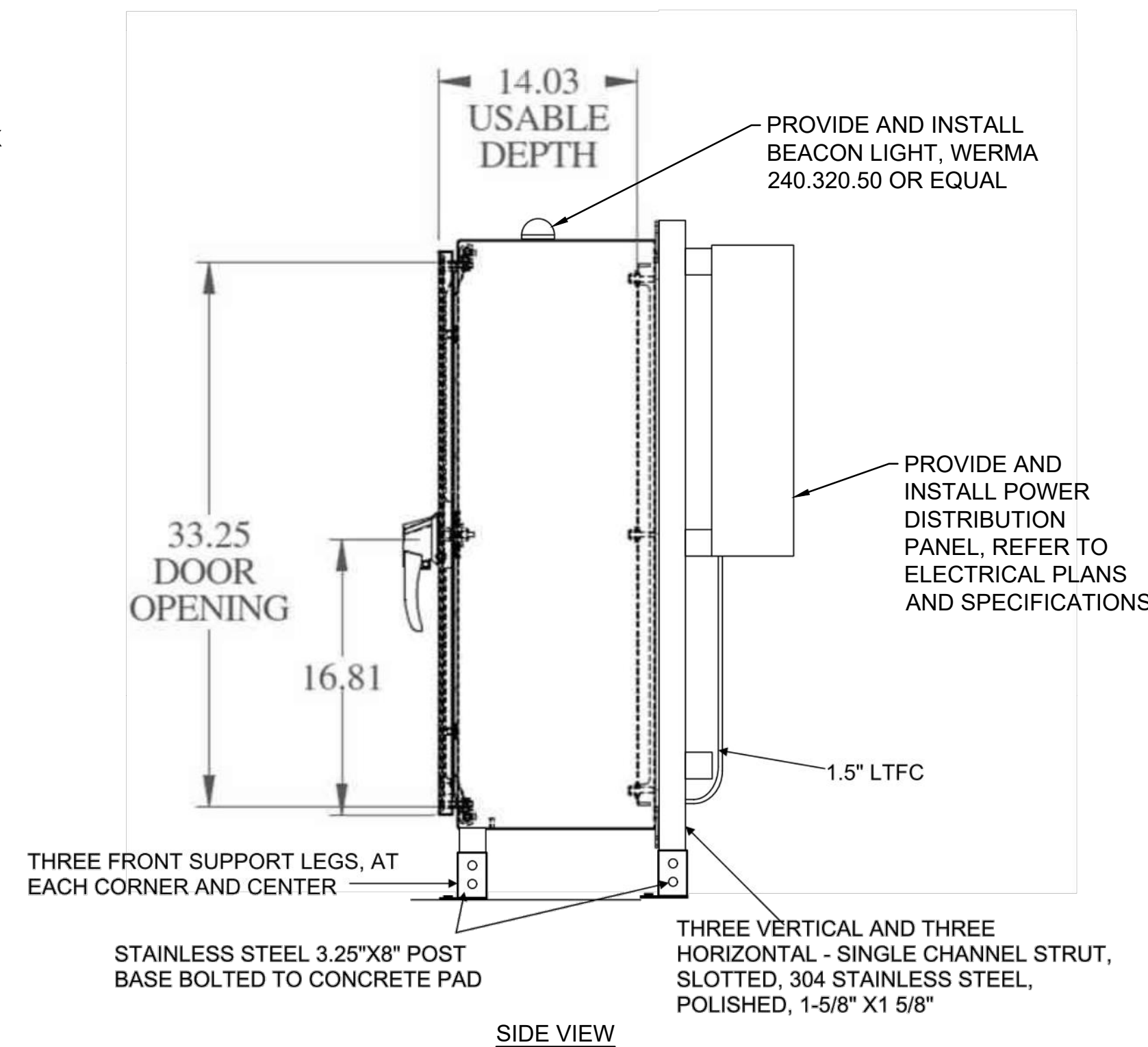
1. THESE DRAWINGS ARE INTENDED TO SHOW MOUNTING DETAILS FOR THE ACC/SCC AND ELECTRIC POWER DISTRIBUTION PANEL.
2. REFER TO AND COORDINATE WITH CIVIL CONTRACTOR FOR DUCTS AND CONCRETE PAD DIMENSIONS AND DETAILS.
3. CABINETS SHOWN ON THESE DRAWINGS ARE NOT TO SCALE.
4. CONTRACTOR IS TO PROVIDE ALL CABINETS, CONDUIT AND SUPPORT STRUCTURE.
5. ALL CABLES SHALL BE SECURELY FASTENED WITHIN THE ENCLOSURE AND BE LABELED.
6. EXCESS CABLE SLACK SHALL BE SECURELY FASTENED AND DRESSED.
7. EACH ENCLOSURE SHALL INCLUDE A CIRCUIT DIRECTORY AS DESCRIBED IN 280500.



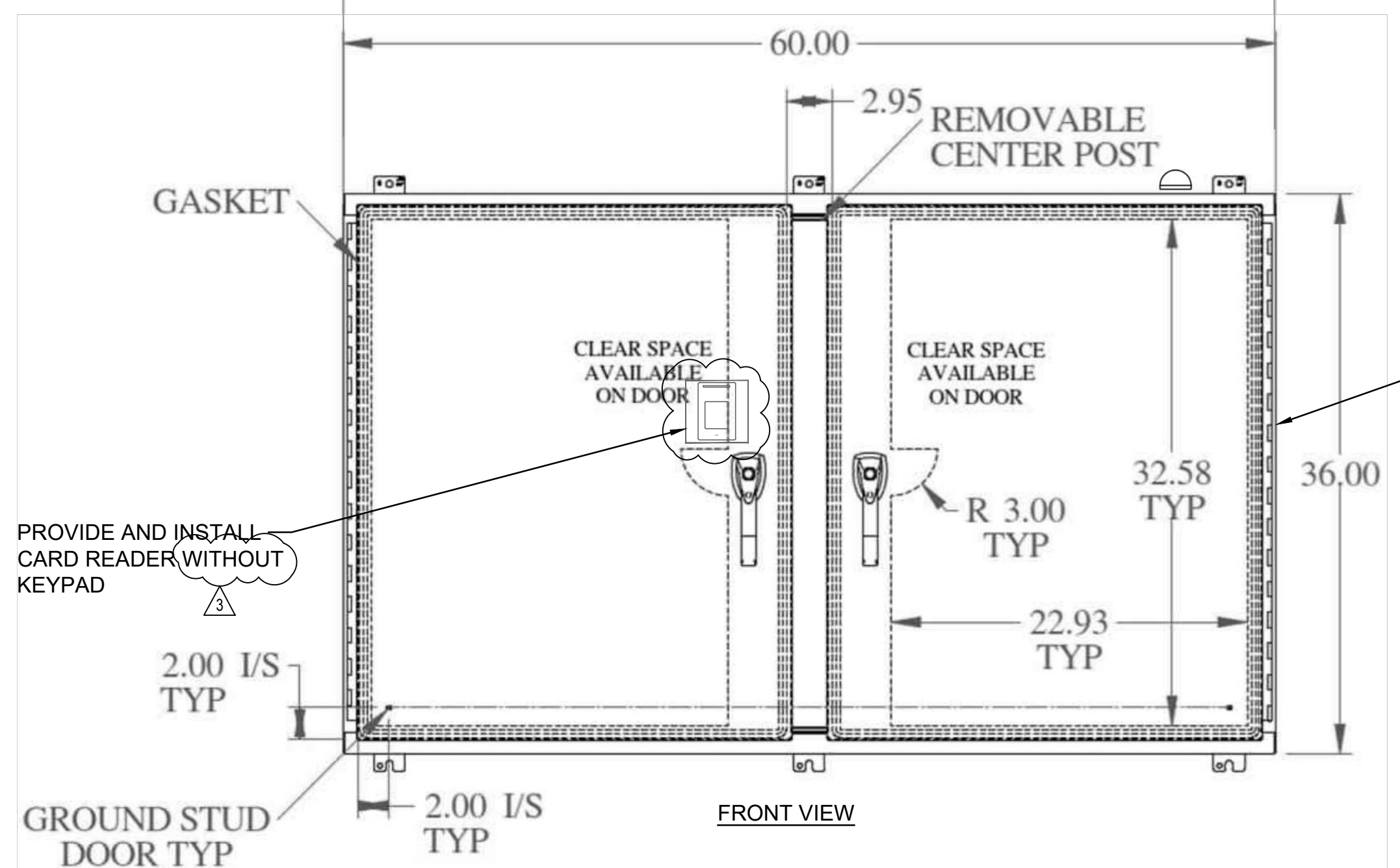
REAR VIEW



- PROVIDE AND INSTALL 4" BOX FAN (2 PLACES) TO CIRCULATE AIR IN ENCLOSURE
- PROVIDE AND INSTALL LED ENCLOSURE LIGHT, PHOENIX CONTACT 1319569 OR EQUAL
- PROVIDE AND INSTALL (2) DPS
- PROVIDE AND INSTALL SCC BACKPLANE, FACTORY ASSEMBLED AND TESTED, ETHERWAN EPCH-2PS, REFER TO TY-353b
- PROVIDE AND INSTALL (1) 24 VDC LI-ION BATTERY, 200 AH, POWER QUEEN OR EQUAL. MOUNT ON 1"x2" RUBBER STANDOFF MOUNTS

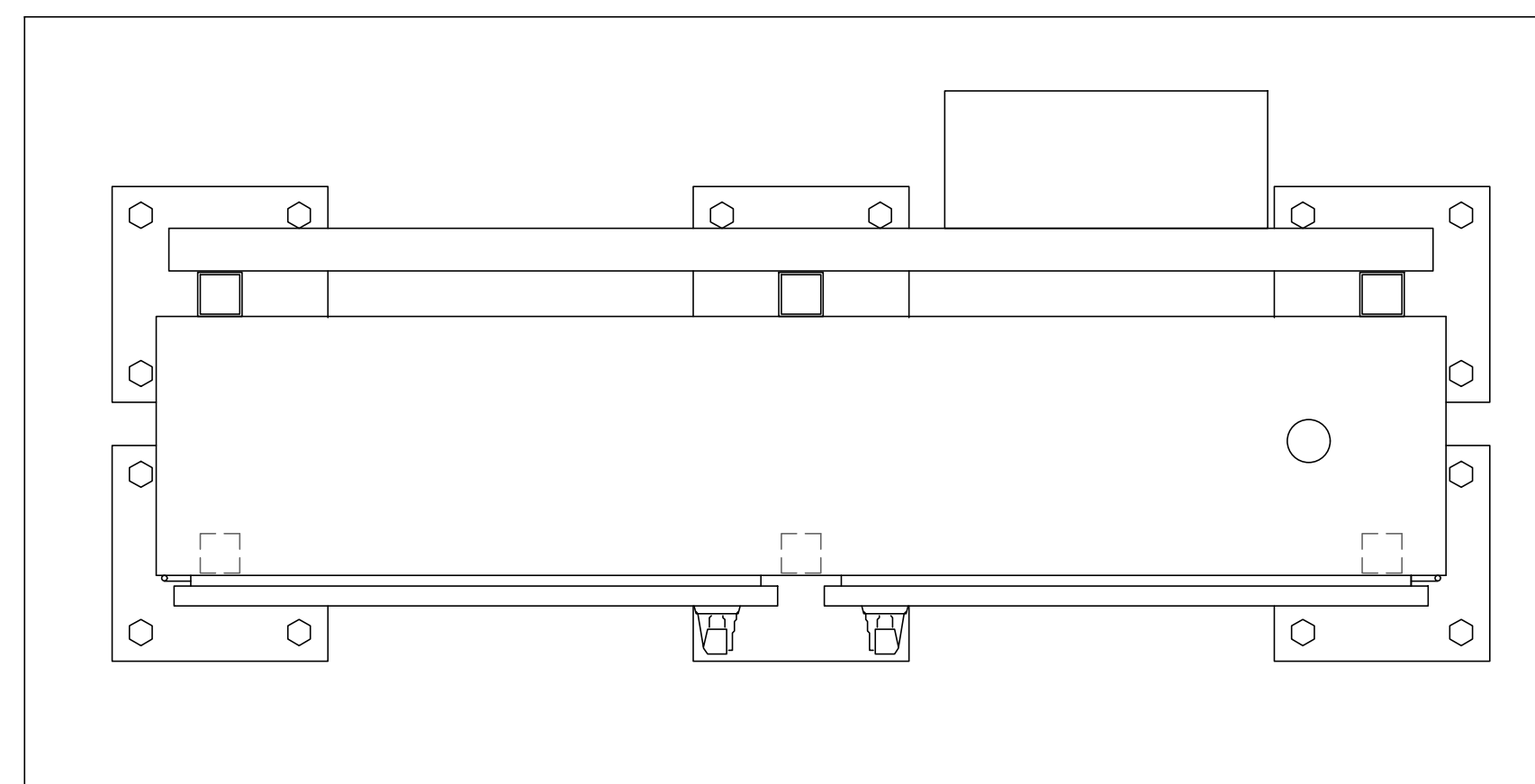


SIDE VIEW



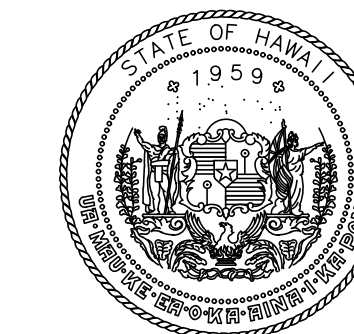
FRONT VIEW

- PROVIDE AND INSTALL FOR EACH SCC/ACC LOCATION 36"H X 60"W X 12"D TYPE 4X 316 STAINLESS STEEL ENCLOSURE WITH BACKPLANE AND LOCKABLE DOORS, HAMMOND MANUFACTURING HN4WM366012S16 OR EQUAL

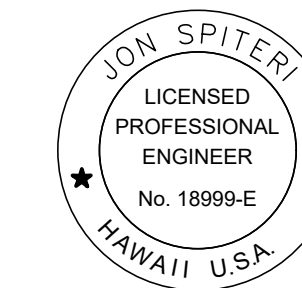


PLAN VIEW

SCC/ACC ENCLOSURE ON A CONCRETE PAD  
N.T.S



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
AIRPORTS



Jon Spiteri  
03/30/2026  
Licensed Expiration Date

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NS	RT	MB	JS

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3	3/2/2026	ADDENDUM #3

**CONSTRUCTION DOCUMENTS**  
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**PROJECT TITLE :**  
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AT  
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HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

**SHEET TITLE:**

**SCC/ACC ENCLOSURE ON A CONCRETE PAD**

DATE :  
12/15/2025

SHEET :  
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DWG. NO.

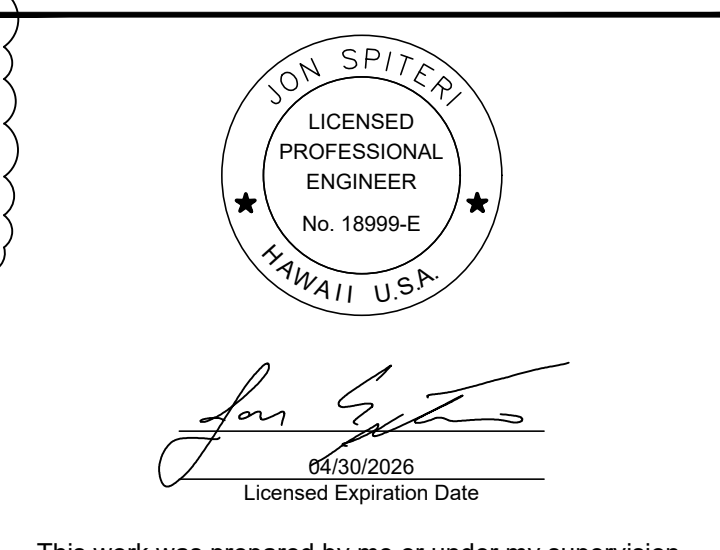
**TY-352**

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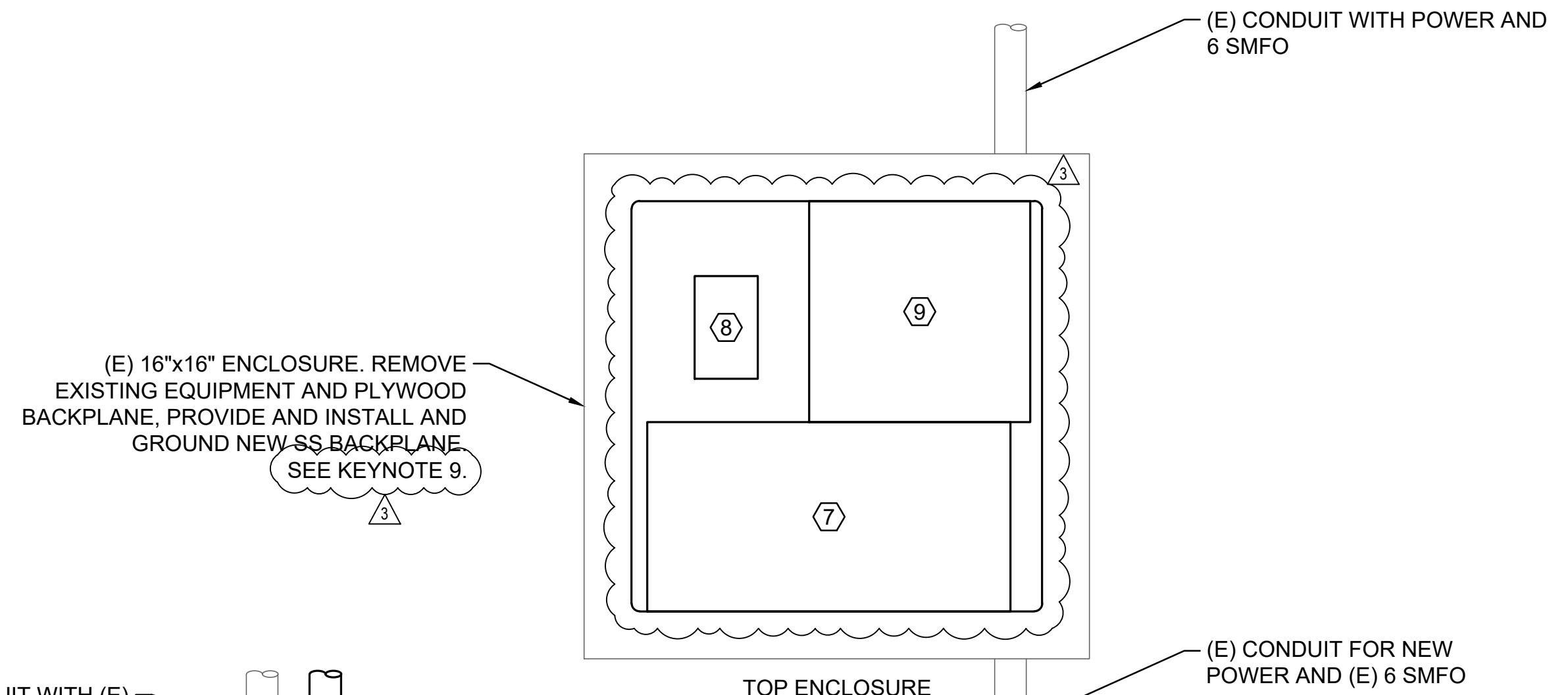
- NOTES**
- SM DARH CABLES TO SWITCH NOT SHOWN.
  - UTP PATCH CABLES FROM SURGE PROTECTION TO SWITCH NOT SHOWN.
  - PROVIDE GROUNDING FOR ALL DEVICES.
  - ALL CABLES SHALL BE SECURELY FASTENED WITHIN THE ENCLOSURE AND BE LABELED.
  - EXCESS CABLE SLACK SHALL BE KEPT TO ONE ENCLOSURE LOOP AND BE SECURELY FASTENED AND DRESSED.
  - EACH ENCLOSURE SHALL INCLUDE A CIRCUIT DIRECTORY AS DESCRIBED IN 280500.
  - PROVIDE TWELVE (12) RUBBER COATED NEODYMIUM POT MAGNET CABLE-TIE CABLE MOUNTS AND 3/8-INCH HOOK AND LOOP CABLE WRAPS WITHIN EACH ENCLOSURE TO ADDRESS CABLE MANAGEMENT, AND BEND RADIUS REQUIREMENTS, NOT SHOWN.

- KEY NOTES**
- PROVIDE AND INSTALL 480W SWITCH PS.
  - PROVIDE AND INSTALL SWITCH 3"D.
  - PROVIDE AND INSTALL LIGHTNING PROTECTORS.
  - PROVIDE AND INSTALL 12 PORT KEYSTONE STP PANEL.
  - PROVIDE AND INSTALL FOPP AND SPLICE TRAY.
  - PROVIDE AND INSTALL QUINT-HP-BAT.
  - PROVIDE AND INSTALL UPS.
  - PROVIDE AND INSTALL 480VAC BREAKER.
  - REINSTALL (E) AC TRANSFORMER 480VAC TO 120VAC.



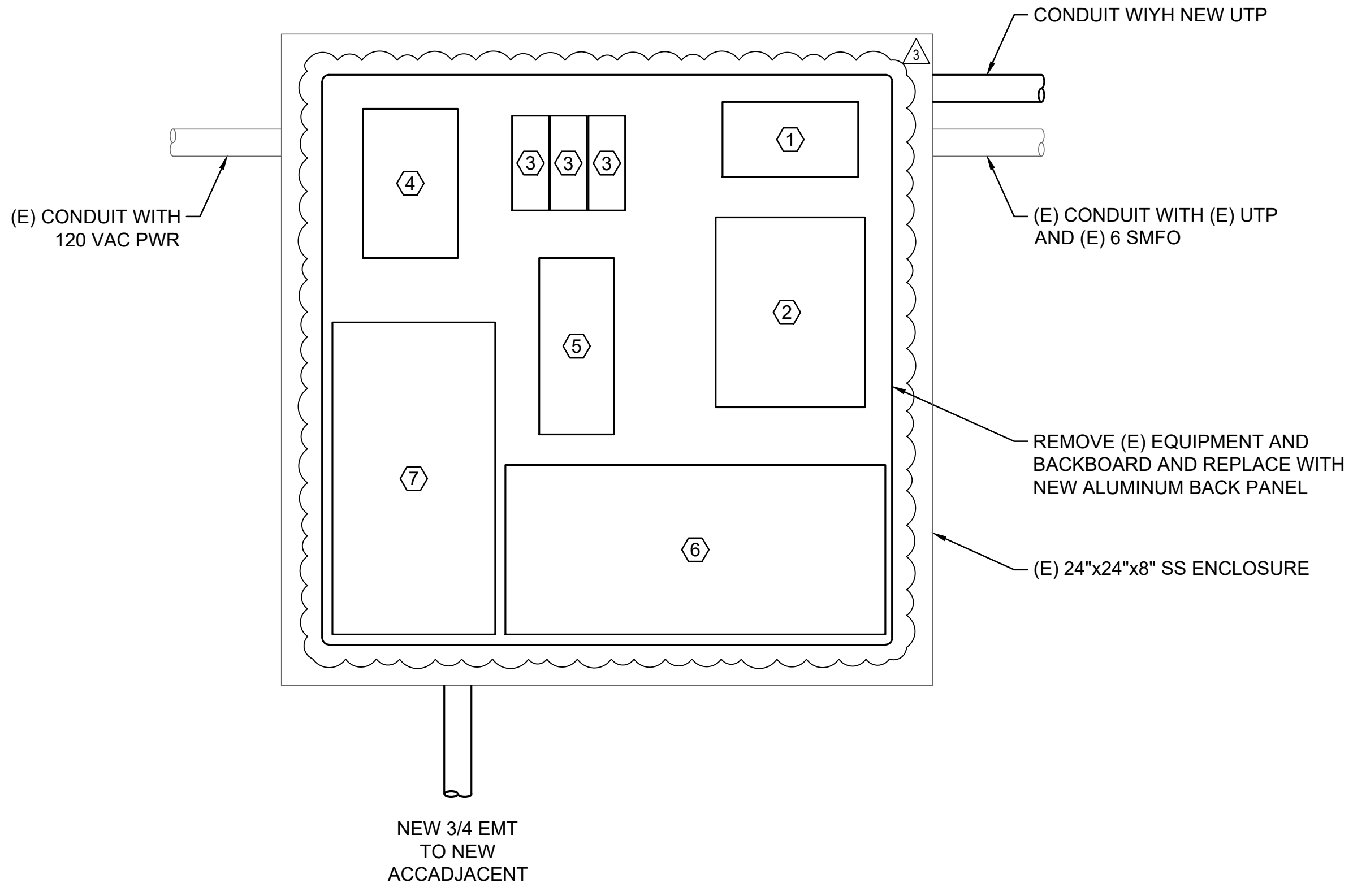
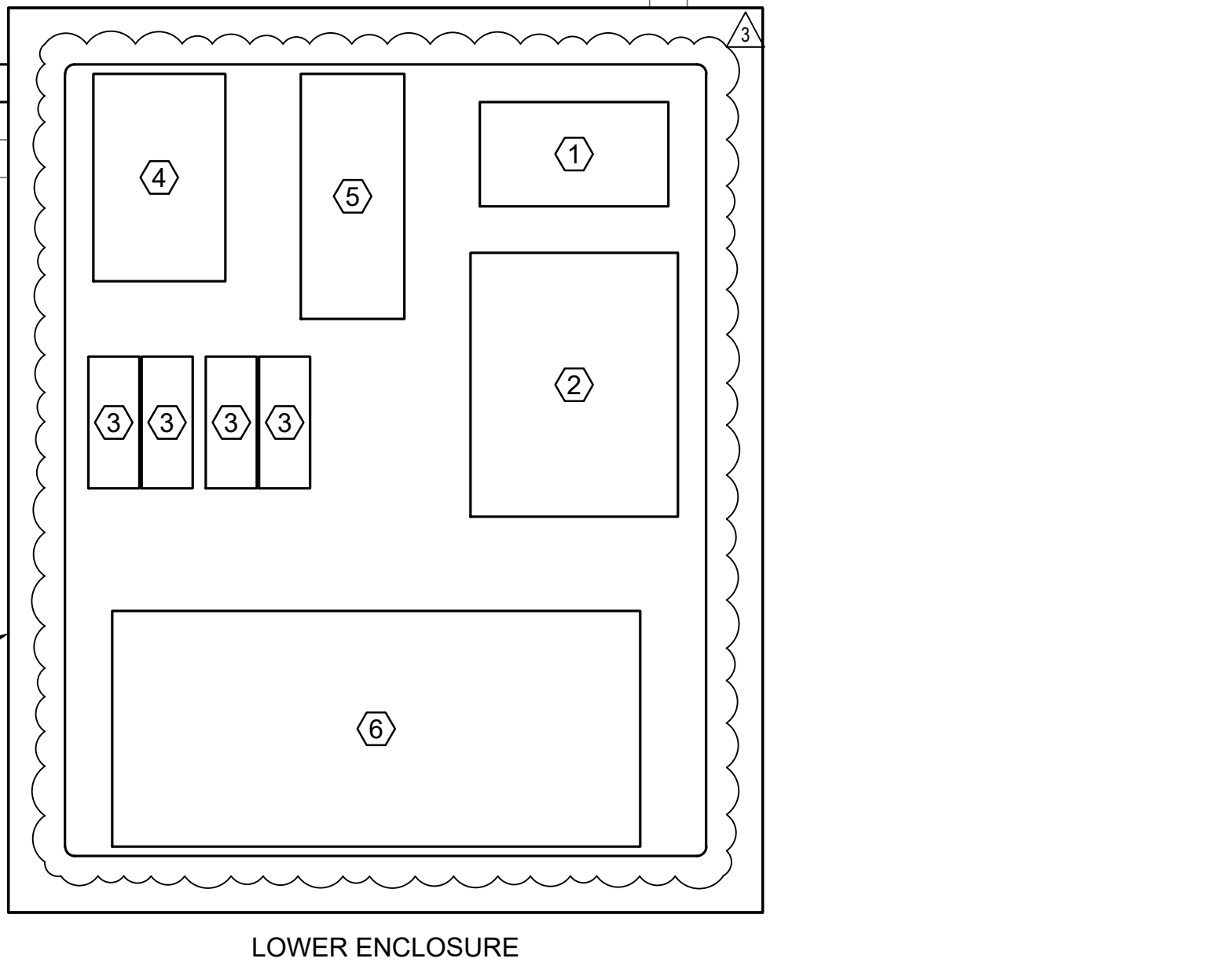
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NS	RT	MB	JS



RELOCATE (E) CONDUIT WITH (E) UTP CABLING TO NEW ENCLOSURE AND NEW CONDUIT WITH NEW UTP TO NEW ENCLOSURE

REMOVE EXISTING LOWER ENCLOSURE. PROVIDE AND INSTALL NEMA 4X 20"Hx 24"Wx8"D SS ENCLOSURE WITH PADLOCK TANG AND SCREW CLAMP LATCHES ON EXISTING STRUTS



A SCC AT T HANGERS (EVA SIDE)  
T-HGR-422-SCC-02, T-HGR-421-SCC-02, T-HGR-420-SCC-02  
TY-355 N.T.S.

B ARFF-2 GARAGE CABINET  
LAG-31-SCC-02  
TY-355 N.T.S.

NO.	DATE	REVISIONS
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**CONSTRUCTION DOCUMENTS**  
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HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

**SHEET TITLE:**

**SCC CABINET DETAILS**

DATE :	DWG. NO.
12/15/2025	TY-355
SHEET :	
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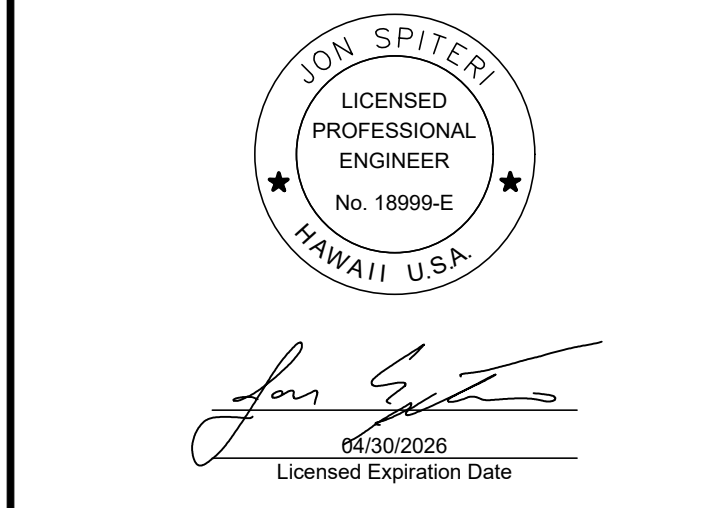
ACS DEVICE SCHEDULE																	
PORTAL NUMBER	PORTAL TYPE	REPLACE PORTAL	DRAWING NUMBER	PORTAL DETAIL	ACC CABINET	ACS		LOCKING HARDWARE							A/V		
						CR/KP	WGS	BMS	PANIC BAR W/L	PTH	ES	EL	GATE LOCK	ELEC MAG	BUNGEE CABLE	SLS	
BUILDING 17 KAMAKA AIR																	
NAK-112-01	SINGLE DOOR	X	TY-121	1A	NAK-112-ACC-01	2		1								2	
NAK-112-02	HANGAR DOOR		TY-121	4A	NAK-112-ACC-01	1	2									2	CONNECT TO HANGAR DOOR CONTROLLER
VEH-251	VEHICLE GATE-SWING	X	TY-121	5B	NAK-112-ACC-01	2	1						1			1	
BUILDING 19 VARIOUS TENANTS																	
NAK-090-02	SINGLE DOOR	X	TY-123	1B	NAK-090-ACC-01	2		1	1	1						2	
NAK-090-04	HANGAR SLIDING DOOR		TY-123	3C	NAK-090-ACC-01	2	2							2		2	INSTALL CR/KP IN SECURE AREA ON PEDESTAL
VEH-248	VEHICLE GATE-SWING	X	TY-122	5D	NAK-090-ACC-01	2	2						1			1	
VEHICLE GATE 221 AND PEDESTRIAN GATE 236																	
VEH-221	VEHICLE GATE-SWING	X	TY-125	5D	PED-236-ACC-01	2	2						1			1	
PED-236	PEDESTRIAN GATE	X	TY-125	5L	PED-236-ACC-01	2	1						1			1	
VEHICLE GATE 227 AND 226																	
VEH-227	VEHICLE GATE-SWING	X	TY-126	5D	VEH-226-ACC-01	2	2						1			1	
VEH-226	VEHICLE GATE-SWING	X	TY-127	5C	VEH-226-ACC-01	2	2						1			1	
VEHICLE GATE 221 AND 223																	
VEH-223	VEHICLE GATE-SWING	X	TY-128	5C	VEH-223-ACC-01	2	2						1			1	
VEHICLE GATE 212D AND PEDESTRIAN GATE 212C																	
VEH-212D	VEHICLE GATE-SLIDE	X	TY-129	5F	VEH-212D-ACC-01	2	1						1			1	
PED-212C	PEDESTRIAN GATE-SWING	X	TY-129	5L	VEH-212D-ACC-01	2	1						1			1	
BUILDING 31 BLUE HAWAIIAN HELICOPTERS																	
KAU-099-01	SINGLE DOOR		TY-130	1B	KAU-099-ACC-01	2		1	1	1						2	
KAU-099-04	SINGLE DOOR	X	TY-130	1A	KAU-099-ACC-01	2		1							1	2	
KAU-099-05	SINGLE DOOR	X	TY-130	1B	KAU-099-ACC-01	2		1	1	1						2	
VEH-212	VEHICLE GATE-SLIDE	X	TY-130	5E	KAU-099-ACC-01	2	1						1			1	
PED-210	PEDESTRIAN GATE	X	TY-130	5L	KAU-099-ACC-01	2	1						1			1	
BUILDING 33 SCHUMAN AVIATION MAGNUM HELICOPTERS																	
IOL-130-01	SINGLE DOOR		TY-131	1A	IOL-130-ACC-01	2		1								2	
IOL-130-02	SINGLE DOOR		TY-131	1A	IOL-130-ACC-01	2		1								2	
IOL-130-03	SINGLE DOOR		TY-131	1A	IOL-130-ACC-01	2		1								2	
IOL-130-04	SINGLE DOOR		TY-131	1A	IOL-130-ACC-01	2		1					1			2	
IOL-130-05	SINGLE DOOR		TY-131	1B	IOL-130-ACC-01	2		1	1	1						2	
VEH-205B	VEHICLE GATE-SWING	X	TY-131	5D	IOL-130-ACC-01	2	2						1			1	
VEH-205C	VEHICLE GATE-SWING	X	TY-131	5B	IOL-130-ACC-01	2	2						1			1	
BUILDING 34 TRANSAIR																	
IOL-100-01	SINGLE DOOR	X	TY-132	1B	IOL-100-ACC-01	2		1	1	1						2	
VEH-203	VEHICLE GATE-SLIDE		TY-132	5F	IOL-100-ACC-01	2	1						1			1	
VEH-205	VEHICLE GATE-SLIDE	X	TY-132	5F	IOL-100-ACC-01	2	1						1			1	
VEHICLE GATE 200																	
VEH-200	VEHICLE GATE-SWING	X	TY-133	5A	VEH-200-ACC-01	2	1						1			1	
BUILDING 36 VAULT ZULU																	
LAG-011-01	RACK READER		TY-134	6A	LAG-011-ACC-01	1*		1									EXISTING RACK. * CARDREADER ONLY
VEH-290C	VEHICLE GATE-SWING		TY-134	5D	LAG-011-ACC-01	2	2						1			1	
BUILDING 37 ARFF FIRE STATION																	
PED-290	PEDESTRIAN GATE		TY-135	5M	LAG-031-ACC-01	1	1							1		1	CONTRACTOR SHALL UPDATE EXISTING EQUIPMENT ON GATE AND CABLING TO GATE.
VEH-291	VEHICLE GATE-SLIDE		TY-135	5G	LAG-031-ACC-01	2	1							1		1	CONTRACTOR SHALL UPDATE EXISTING EQUIPMENT ON GATE AND CABLING TO GATE.
LAG-031-01	RACK READER		TY-135	6A	LAG-031-ACC-01	1*		1									EXISTING RACK. * CARDREADER ONLY
BUILDING 38 ARFF BOAT HOUSE																	
VEH-292	VEHICLE GATE-SWING	X	TY-136	5D	LAG-031-ACC-02	1	2						1			1	PROVIDE REX WITH PROTECTIVE COVER
VEH-293	VEHICLE GATE-SWING	X	TY-136	5D	LAG-031-ACC-02	1	2						1			1	PROVIDE REX WITH PROTECTIVE COVER

ABBREVIATIONS

ACC	ACCESS CONTROL CABINET
BMS	BALANCED MAGNETIC SWITCH
CR/KP	CARDREADER/KEYPAD
EL	ELECTRIC LOCK
ELEC MAG	ELECTRO-MAGNETIC LOCK
ES	ELECTRIC STRIKE
PED	PEDESTRIAN
PTH	POWER TRANSFER HINGE
SLS	STROBE LIGHT WITH SIREN
VEH	VEHICLE
WGS	WIDE GAP MAGNETIC SENSOR

GENERAL NOTES	
1.	FOR DOOR DETAIL TYPES REFER TO SERIES DRAWINGS FROM TY-301 THROUGH TY-317.
2.	ALL DOORS SHALL BE PROVIDED WITH NEW DOOR CLOSURES. DOOR EXPOSED TO NON-AIRCONDITIONED SPACE SHALL BE PROVIDED WITH OUTDOOR RATED DOOR CLOSURES.
3.	COORDINATE WITH CIVIL CONTRACTOR FOR EQUIPMENT PLACEMENT AROUND VEHICLE AND PEDESTRIAN GATES AND THE ROUTING OF CABLES.
4.	CONTRACTOR SHALL PROVIDE ALL ACC/SCC PANELS WITH CARD READERS, TAMPER SWITCH AND WEATHERPROOF BUZZER. RACKS SHALL BE PROVIDED WITH CARD READERS, BMS AND LOCAL BUZZER. REFER TO DOOR TYPE 6A AND 6B ON DRAWING TY-318. THESE CARD READERS ARE NOT IDENTIFIED IN THE TABLE ABOVE.

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DSGN.	DRWN.	CHKD.	APPD.
NS	RT	MB	JS

3	3/2/2026	ADDENDUM #3
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**CONSTRUCTION DOCUMENTS**  
December 15, 2025  
DATE

**PROJECT TITLE :**  
**SOUTH RAMP VIDEO MONITORING ACCESS CONTROL (VMAC) SYSTEM**  
AT DANIEL K. INOUE INTERNATIONAL AIRPORT HONOLULU, OAHU, HAWAII

**PROJECT NO.:**  
**AO1095-37**

**SHEET TITLE:**  
**ACCESS CONTROL SCHEDULE SHEET 2**

DATE :	12/15/2025	DWG. NO.	TY-501
SHEET :	221 OF 238		

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**Responses to Request for Information (RFI's/Questions)  
HlePRO Questions for Solicitation B26001667  
South Ramp Video Monitoring Access Control (VMAC) System  
State Project No. AO1095-37  
As of March 4, 2026**

- 1. Requesting a copy of the sign in sheet from the job walk as well as the slide show presentation**

Response: The Pre-Bid Meeting Minutes and Attendance Sheet is included in Addendum No. 1.

- 2. This project involves coordination with multiple airport users whose flight schedules cannot be delayed and will likely create unavoidable scheduling conflicts that are outside the contractor's control. Given that there are multiple available entry and exit points throughout the ramp area, the work is not expected to significantly disrupt airport operations. As such, the current liquidated damages amount appears disproportionately high relative to the actual operational impact of a potential delay. If reducing the liquidated damages is not feasible, we request that additional contract time be added to the completion schedule to reasonably account for these operational constraints and mitigate the risk of delays that are not attributable to contractor performance.**

Response: Liquidated damages shall be as noted in the Contract Documents. No time extensions will be granted for completion of the Access Control System.

- 3. Is temporary fencing adequate in lieu of security?**

Response: Temporary fencing shall be TSA-compliant and be a minimum of 6-ft high with 3-strands of barbed wire and subject to the acceptance of the Engineer. Temporary fencing may consist of 6-ft high chain link fence with 3-strands of barbed wire on movable concrete barriers (Jersey Barriers, K-Rail Barriers, or similar). See revised Sheet C-150.

- 4. Can we anticipate a laydown area? If so about how large and for what duration can we expect to utilize the area**

Response: Refer to revised Section 01010 Description of Work, Part 1.04.

- 5. Assuming we follow FOD protocols and construct a sturdy temporary fence will workers need airport badging if working outside the secure area and temporary fence?**

Response: Individuals working on the AOA fence line, inclusive of temporary fencing, are required to obtain a SIDA badge. Though recommended, workers that remain entirely within public areas will not require a SIDA badge.

- 6. Given the length of some of the fiber runs are we permitted to splice in handholes? If so are there are any limitations to how many splices per cable run?**

Response: In field optical splicing will be permitted where shown as required. All splices shall be fusion and within TIA-568 loss limits. Total link limits will be based on calculated loss budget. Contractor shall submit a link loss analysis, splice enclosure for all proposed manhole or vault locations for approval and all details as part of shop drawings.

- 7. Do the existing telecom handholes that we are utilizing share space with medium voltage wiring?**

Response: No, Hawaiian Telcom has indicated that medium voltage wiring is not permitted in telecom ductbanks.

- 8. Sheet E501 detail 1 calls out for 36" depth under roadways. Are we considering two lane roads a roadway? Are we including driveways as part of the roadway requirement?**

Response: Yes, driveways shall be treated as an extension to roadways. Therefore, two lane roads and driveways require 36" depth.

- 9. Sheet C-157 call out for steel poles. Are these steel. Are there any other special requirements for these poles such as anodizing, galvanizing, etc?**

Response: Shall be in accordance with the State of Hawaii "Standard Specifications for Road and Bridge Construction" dated 2005.

- 10. Sheet TY-370 details the pedestrian dual height card reader stanchion. What material and finish is required for these stanchions?**

Response: Brushed 304 stainless steel is the minimum standard for stanchions.

- 11. Provided model number provided for (CMS) multi-sensor cameras is PNM-C34404RQPTZ. This model is a multi-sensor with PTZ. Recommend model PNM-C32083RVQ for multi-sensor with no PTZ.**

<https://hanwhavisionamerica.com/product/pnm-c32083rvq/>

Response: Correct part number is **PNM-C32083RVQ** or approved equal. See revised Specification Section 28230.

- 12. Model number provided for (CFE) fixed fish-eye cameras for card reader pedestals is P3268-LVE (discontinued, dome camera). Recommend AXIS P1245 Mk II with TF9904 swivel mount or TF1902-RE flex mount bracket for camera to mount inside card reader pedestal housing.**

<https://www.axis.com/products/axis-p1245-mk-ii>

<https://www.axis.com/products/axis-tf9904-swivel-mount>

<https://www.axis.com/products/axis-tf1902-re-mounting-bracket>

Response: Correct part number is **AXIS F2137-RE** or approved equal for card reader pedestal cameras. See revised Specification Section 28230.

- 13. Only Model 2700 Series magnetic contacts (WGS) are specified. Nothing for regular doors, overhead doors, and server rack cabinet doors. Recommend 4402-A for regular doors, 2302A-L for overhead doors, and MS4400-A for server rack cabinet doors. <https://www.adiglobaldistribution.us/Product/GI-4402A> <https://www.adiglobaldistribution.us/Product/ED-2302AL> <https://www.adiglobaldistribution.us/Product/GI-MS4400A>**

Response: Section 28100, Part 2.02.A.1: Identifies contacts other than wide gap. ED-2302AL and 4402AB or approved equals are correct part numbers.

- 14. Nothing is specified for server cabinet door sounders. Recommend PZ1 with single-gang back box. <https://www.securitron.com/en/products/system-accessories/pz1>**

Response: Securitron PZ1 or approved equal. Installation method to be submitted.

- 15. Nothing is specified for REX push buttons for Vehicle Gates VEH-290, VEH-292, VEH-293. Recommend SS2174PX-EN. Please confirm.**

Response: STS SS2375PX-EN or approved equal.

- 16. VEHICLE GATE VEH-243 is not on the Gate Schedule and is called out in C-110 as Demo and Replace. In C-142 it is called out as Remain As Is. There are no drawings of it detailed as the rest of the gates are anywhere else in the drawings. Can we get clarification here? Worse case, we can quote it as a replacement with 2 readers, 2 BMS and 1 SLS if needed.**

Response: Gate 243 as noted shall remain as is. The installation of ACS and VMS is not in the scope of this project.

- 17. DOOR IOL-130-05 is detailed in TY-131 as only having a BMS device. According to the Access Control Schedule, it has/will have (1) powered panic with delayed egress. Do we need to include Reader(s) and or SLS device(s) on this door?**

Response: On sheet TY-131, door IOL-130-05 shows a BMS and a 'Panic Delayed Egress crash bar (electrified)'. No reader is required on either side of the door, however, as note #10 indicates and shown on the access control schedule, this door will need two SLS devices and power transfer hinges. Electric strike is not required.

- 18. Licensing: Can we get current License info for CCure and GSC? Assumptions: New system controller, power distribution, and door controllers for all ACC headend locations. Fiber converter(s) provided and installed by others.**

Response: Upgrades to VMACS applications are being provided under another project and is not in the scope of this project. CCure will be 3.10.2 Unlimited, Genetec will be 5.13.2 or later. Additional Genetec licenses for all new cameras shall be provided under this contract.

All field equipment for this project is provided and installed by this contractor. There is no work at the "headend" room. We assume you are referring to Access Control Cabinets. There are no fiber converters in the scope of this project; fiber connects to SFP ports on network switches provided under this project. Per specification requirements SFP must be the same manufacturer as the switch. Third party SFP are not acceptable.

**19. RFP, HRS 104-2(a), (b), Pg. 69: Please confirm that the applicable wage rate schedule is WAGE RATE SCHEDULE BULLETIN NO. 509.**

Response: No, the new Wage Rate Schedule Bulletin No. 510 was published on February 16, 2026, on the Department of Labor and Industrial Relations (DLIR) website.

**20. Requirements of Chapter 104, HRS: Is there a collective bargaining agreement with a bona fide labor union applicable to this project?**

Response: No.

**21. General Provision 2.2, Pg. 21: Is this a Federal Aid project, and how does this answer impact timing of required licenses?**

Response: This project is not federally funded. Contractor licenses must be valid at time of bid.

**22. RFP, Technical Provisions 028050-1.04(C)(2), Pg. 622: All sub-contractors shall meet the minimum technical capabilities, certifications and licensing requirements as defined by Section 1.10 "Quality Assurance." Please confirm if this reference should be 28050 Section 1.12.**

Response: Specification Section 28050, Part 1.04.C.2, should reference section 1.12 Quality Assurance. See revised Specification Section 28050-6.

**23. RFP, Notice to Bidders, HRS Chapter 103D, Pg. 3: "Employment of State Residents on Construction Procurement Contracts. Compliance with HRS 103B-3 is a requirement for this project whereby a minimum of 80 percent of the bidder's work force on the project shall consist of Hawaii residents." Please confirm the definition of workforce as it relates to compliance. Does workforce only include those laborers/workers working under a collective bargaining unit (HRS 104-2(h)(2)) and those laborers/workers subject to prevailing wages (h)(3)?**

Response: The definition of "workforce" shall be in accordance with HRS §103B-3 and is calculated by hours. The workforce includes all employees of the contractor and their respective subcontractors. This workforce is not limited to laborers/workers covered under HRS Chapter 104.

- 24. 3.02 Work Performance, Pg. 540: Please confirm if manufacturer letters certifying our firm as a Certified Dealer for Software House and as a member of the Genetec Channel Partner Program must be included with the proposal submission.**

Response: Not required.

- 25. RFP Plans, TY-370 / A: For the Dual height Card Reader Pedestal (TY-370 / A) can you please advise on anticipated “future intercom” part number so we can identify a properly sized back plate and hood for the pedestal?**

Response: Contractor to assume future intercom size to be similar to the Zenitel TCIS-1 product.

- 26. RFP Plans, TY-360 / C: Rack elevation for rack (LAG-011-SCC-01) at Vault Zulu states to provide and install rack card reader and BMS, as well as to provide and install rear of the rack-wire management. Please confirm these requirements, as the rack does not seem to be set up for installation of a card reader as-is, and it is currently bolted down, so moving it to accommodate rear cable management may require equipment outages.**

Response: Front mounted wire management is acceptable for these locations. Card reader and BMS are required for these cabinets (racks).

- 27. RFP Plans, TY-355 / B: ARFF-2-Garage Cabinet (LAG-31-SCC-02) is specified as a 24”x24”x8” enclosure. The Phoenix contact UPS and UPS Batteries have a vertical dimension of 23.38” for the devices alone, so it seems the enclosure is not large enough. Please confirm enclosure dimensions.**

Response: Both enclosures identified on drawing number TY-355 will now contain one (1) battery. A drawing update will show adding a switch to the referenced enclosure.

- 28. RFP, Specifications; General Provisions, Pg. 91; Pg. 25: There seems to be a conflict on Normal Work Hours stated within General Provisions versus Division 1 - General Requirements within the Specifications. General Provisions paragraph 7.4 states that Normal Work Hours are 7:00 am - 3:30 pm. (anything outside of that being Night Work); The General Requirements within Specification Section 01010 state that Work Hours are 6:30 am - 1:30 pm (only 7 Hours). Please confirm work hours for this contract.**

Response: See revised Specification Section 01010.

- 29. RFP Plans, TY122: Please confirm if VEH-248-CFE-03 is a Fisheye Camera or Low Light camera.**

Response: Fish-eye camera is correct at this location only due to field of view.

- 30. RFP Plans, TY132: IOL-100-SCC-01 and IOL-100-ACC-01 does not show a card reader on the cabinet. Please clarify if the cabinet requires a card reader.**

Response: Yes, cabinet card reader without keypad are required. Note that ACC backplane is mounted inside SCC/ACC cabinet.

- 31. RFP Plans, TY106: What size monitor is required in VEH-289 new guard shack?**

Response: Delete this monitor. See revised Sheet TY-106.

- 32. General: Please confirm that only one monitor is required under the entire scope of the project.**

Response: Delete this monitor. See revised Sheet TY-106.

- 33. General: Please confirm the existing C-Cure 9000 enterprise system has the capacity for new access control equipment.**

Response: Yes.

- 37. RFP, Technical Provisions 01010-1.06, Pg. 26: Depending on the type and location of work activity, the Contractor may be required to either alter the work hours and work activities or suspend work during the Airline Operational Blackout Dates listed, as well as the Seabird Fallout Season. Can the Airport clarify the impacted types of work and locations?**

Response: Airline Operational Blackout Dates do not apply to this project. See revised Section 01010. Work affecting Seabird Fallout Season typically includes any night work requiring exterior lighting during the noted Seabird Fallout Season.

- 38. RFP, Technical Provisions 01010-1.06, Pg. 25-26: The RFP Specifications document states that the Contractor, "may be required to either alter the work hours and work activities, or suspend work during the Airline Operational Blackout dates: Winter Break (Through the month of December to the second week of January) The Dr. Martin Luther King, Jr. Day weekend (Holiday**

**celebrated on the third Monday in January) Spring Break (Varies, weeklong break, around the Easter Day weekend) Golden Week (April 29 through the first week of May) The Memorial Day weekend (Holiday celebrated on the last Monday in May) Summer Vacation (June through August) The Labor Day weekend (Holiday celebrated on the first Monday in September) Silver Week (Varies; roughly around the third week of September) Veterans' Day (Eleventh day in November) The Thanksgiving Day weekend (Holiday celebrated on the fourth Thursday in November) Please confirm whether this list accurately reflects all nonworking days associated with this contract. Additionally, please advise whether any work will be permitted on these days. If work is allowed, please specify the types of work permitted, the locations where this work may occur, and the hours during which it may take place.**

Response: Airline Operational Blackout Dates do not apply to this project. See revised Specification Section 01010.

- 40. In section 2.02, camera types CFE (fisheye) and CFX (fixed) call for an Axis P3268-LVE (8MP Varifocal Dome Camera). Are there different part numbers to differentiate the fisheye and fixed camera?**

Response: CFE for gate cameras use part number M4317-PLVE or approved equal. For CFX camera use Axis P3278-LVE or approved equal. See revised Specification Section 28230.

- 41. In section 2.02, camera type CMS (multi sensor) call for a Hanwha PNM-C34404RQPTZ. Camera type CMP (multi sensor with integrated PTZ) call for a Hanwha PNM-C34404RQPZ. Part numbers are similar. Unable to find part number for CMS camera type. Please confirm if PNM-C34404RQPTZ is the correct specified camera for CMS.**

Response: Refer to RFI #11 for response.

- 42. Camera specs says to include 256GB cards. Will cameras also be programmed for edge recording?**

Response: Yes, edge recording is to be configured under this project.

**43. Could we request exact part number required for the card readers (with and without keypad)?**

Response: With keypad part number HID Multiclass SE RMPK40 or approved equal, without keypad HID Multiclass SE RMP40 or approved equal. Note that card readers enabling NFC, Bluetooth or other wireless connectivity enabled are not acceptable. See revised Specification Section 28100, Part 2.02.f.

**44. SCC/ACC location drawings show card reader with NO keypad. TY-352 say to provide card reader WITH keypad. Please clarify requirements.**

Response: This card reader should be without keypad.

**45. SCC/ACC location on drawing TY-132 does not show a card reader. Please confirm if not needed.**

Response: Refer to RFI #30 for response.

**46. Could we receive recommended part number for strobe/siren?**

Response: SLS for doors shall be ADI 0E-SRNSTROBT or approved equal. SLS for vehicle/pedestrian fence gates shall be Signaworks STLB-24-3 or approved equal.

**47. Could we receive recommended part number for local buzzer?**

Response: Refer to RFI #14 for response.

**56. PG 678 - CFE AND CFX CAMERA ARE TWO DIFFERENT TYPES. PART NUMBER MENTIONED IS FOR THE FIXED CAM ONLY. IS THERE A SPECIFIC FISHEYE CAM HNL IS LOOKING FOR?**

Response: Refer to RFI #40 for response.

**57. PG 679 - MULTI SENSOR PART NUMBER IS INVALID. DO YOU HAVE AN ALTERNATE PART NUMBER?**

Response: Refer to RFI #11 for response.

**58. ARE THE 3 SMS SENSOR FOR EACH ACCESS CONTROL DEVICE DIFFERENT FROM THE 4 SENSOR PER DEVICE LISTED IN THE VIDEO SURVIELLANCE SECTION OF THE RFP? IF SO, CAN YOU ELABORATE ON THE SENSOR FOR ACCESS AND VIDEO?**

Response: This requirement applies to additional licenses required for the Vunetrix Network Management System (NMS) that this contract will provide to accommodate ACS and video equipment provided under this contract. The total Security Management System (SMS) sensor capacity includes 3 SMS for each Simple Network Management Protocol (SNMP) managed ACS device, 4 SMS for each SNMP managed video device, in addition to all network switches.