Invitation for Bids

Leahi Hospital Young, Admin, and Atherton Buildings Fire Alarm System
26L-0209

The Hawaii Health Systems Corporation (HHSC) Oahu Region is requesting bids from qualified companies for the rehabilitation of fire alarm system of the Young, Administration, and Atherton Buildings at Leahi Hospital located at 3675 Kilauea Ave., Honolulu, HI 96816.

The IFB may be obtained electronically from the following website:
http://leahi.hhsc.org/procurement/notices/

A site visit is scheduled for February 17, 2026 at 11:30 a.m. All interested companies shall meet in the Leahi Hospital Parking Lot entrance area. The deadline for submission of written/emailed questions pertaining to the IFB is February 24, 2026.

All bids must be received by HHSC by March 10, 2026, 2:00 p.m. Hawaii Standard Time. All bids shall be sent digitally to oahucip@hhsc.org. E-mail bids not received by deadline will be disqualified for consideration. No exceptions will be made even if network provider or software (e.g. MS Outlook) delays delivery. Please note that large files (>10MB) may experience network delivery issues.

Addenda to the IFB will be posted on the website listed above.

For any inquiries, please contact Michael Nakada, at (808) 733-7951 or by email at mnakada@hhsc.org.

Leahi Hospital
3675 Kilauea Ave.
Honolulu, HI 96816

TABLE OF CONTENTS

SECTION 1
ADMINISTRATION

1.0 INTRODUCTION

This Invitation for Bid (hereinafter "IFB") is issued by the Hawaii Health Systems Corporation (hereinafter "HHSC"), a public body corporate and politic and an instrumentality and agency of the State of Hawaii. All procedures and processes will be in accordance with HHSC Oahu Region policy and procedures.

In order for HHSC to accept Bidder's response in a timely manner, please thoroughly read this IFB and follow instructions as presented.

1.1 IFB TIMETABLE AS FOLLOWS

The timetable as presented represents HHSC's best estimated schedule. If an activity of the timetable, such as "Closing Date for Receipt of Bids" is delayed, the rest of the timetable dates may be modified. BIDDER will be advised, by addendum to the IFB, of any such modifications to the timetable. Contract start date will be subject to the issuance of a Notice to Proceed.

ACTIVITY		SCHEDULED DATES
1.	IFB Public Announcement	February 10, 2026
2.	Pre-Bid Orientation Leahi Hospital parking lot entrance 11:30 a.m.	February 17, 2026
3.	Closing Date for Receipt of Questions	February 24, 2026
4.	**Closing Date for Receipt of Bids 2:00 p.m.**	**March 10, 2026**
5.	Contractor Selection/Award Notification (on/about)	March 11, 2026
6.	Contract Start Date (on/about)	March 25, 2026

1.2 AUTHORITY

This IFB is issued following the provisions of Chapter 323F, Hawaii Revised Statutes (HRS), and its administrative rules. All BIDDERS are charged with presumptive knowledge of all requirements of the cited authorities. Submission of a valid executed bid by any BIDDER shall constitute admission of such knowledge on the part of such BIDDER.

1.2.1 IFB ORGANIZATION

This IFB is organized into four sections:

SECTION 1: ADMINISTRATIVE
Provides information regarding administrative requirements.

SECTION 2: SCOPE OF SERVICES
Provides a detailed description of goods and/or services to be provided and delineates HHSC and CONTRACTOR responsibilities.

SECTION 3: BID FORMS AND GENERAL CONDITIONS
Describes the required format and content for submission of the bid.

SECTION 4: BID EVALUATION AND AWARD
Describes how bids will be evaluation and procedures for selection and award of contract.

1.3 HEAD OF PURCHASING AGENCY (HOPA)

The HOPA for HHSC, or designee, is authorized to execute any and all Agreements (Contracts), resulting from this IFB.

The HOPA for this IFB is:

Sean Sanada
Regional Chief Executive Officer
Hawaii Health Systems Corporation

1.4 DESIGNATED OFFICIALS

The officials identified in the following paragraphs have been designated by the HOPA as HHSC's procurement officials responsible for execution of this IFB, award of Agreement and coordination of CONTRACTOR's satisfactory completion of contract requirements.

1.4.1 ISSUING OFFICER

The Issuing Officer is responsible for administrating/facilitating all requirements of the IFB solicitation process and is the **sole point of contact** for BIDDER from date of public announcement of the IFB until the selection of the successful BIDDER. The Issuing Officer will also be responsible for contractual actions throughout the term of the contract. For purposes of this IFB, the designated Issuing Officer is:

Michael Nakada
HHSC Oahu Region
e-mail: mnakada@hhsc.org
phone: (808) 733-7951

1.5.1 CHARTER

HHSC is a public body corporate and politic and an instrumentality and agency of the State of Hawaii. HHSC is administratively attached to the Department of Health, State of Hawaii and was created by the legislature with passage of Act 262, Session Laws of the State of Hawaii 1996. Act 262 affirms the State's commitment to provide quality health care for the people in the State of Hawaii, including those served by small rural facilities.

1.5.2 STRUCTURE AND SERVICES

HHSC is organized into four operational regions and provides a broad range of healthcare services including acute, long term, rural and ambulatory health care services. As the fourth largest public health system in the country, HHSC is the largest provider of healthcare in the Islands, other than on Oahu. This solicitation is for the Oahu Region.

1.5.3 MISSION

The mission of HHSC is to provide and enhance accessible, comprehensive health care services that are quality-driven, customer-focused and cost-effective.

1.6 FACILITY INFORMATION

Detailed information pertaining to HHSC facilities is located at http://www.hhsc.org.

1.7 SUBMISSION OF QUESTIONS

Questions must be submitted in writing via electronic mail, facsimile or post mail to the Issuing Officer no later than the "Closing Date for Receipt of Questions", identified in paragraph 1.1 in order to generate an official answer. All written questions will receive an official written response from HHSC and become addenda to the IFB.

IMPORTANT

BIDDER may request changes and/or propose alternate language to the HHSC General and Special Terms and Conditions (https://www.hhsc.org/procurement/) during this phase only. All requests will be presented to the HHSC Legal Department for review. No requests to change the HHSC General or Special Terms and Conditions will be entertained after the bids have been submitted or during the contracting process. All written questions and/or approved changes will receive an official written response from HHSC and shall be recorded as addenda to the IFB.

HHSC reserves the right to reject or deny any request(s) made by BIDDER.

Responses by HHSC shall be due to the BIDDER prior to notice of award.

Impromptu, un-written questions are permitted and verbal answers will be provided during pre-bid conferences and other occasions, but are only intended as general direction and will not represent the official HHSC position. The only official position of HHSC is that which is stated in writing and issued in the IFB as addenda thereto.

No other means of communication, whether oral or written, shall be construed as a formal or official response/statement and may not be relied upon.

SEND QUESTIONS TO:

Michael Nakada, Issuing Officer
e-mail: mnakada@hhsc.org

1.8 SOLICITATION REVIEW

BIDDER should carefully review this solicitation for defects and questionable or objectionable matter. Comments concerning defects and questionable or objectionable matter, **excluding requests to revise the General or Special Conditions**, must be made in writing and should be received by the Issuing Officer, no later than the "Closing Date for Receipt of Bids" as identified in Section 1.1. This will allow issuance of any necessary amendments to the IFB. It will also assist in preventing the opening of bids upon which award may not be made due to a defective solicitation package.

1.9 IFB AMENDMENTS

HHSC reserves the right to amend the IFB any time prior to the deadline date of the IFB. IFB Amendments will be in the form of addenda.

1.10 CANCELLATION OF IFB

The IFB may be canceled when it is determined to be in the best interests of HHSC.

1.11 PROTESTS

Any protest shall be submitted in writing to the HOPA as noted below.

A protest based upon the content of the solicitation shall be submitted in writing within five (5) working days **after** the aggrieved individual/business knows or should have known of the facts giving rise thereto; provided further that the protest shall not be considered unless it is submitted in writing prior to and not later than the "Closing Date for Receipt of Bid" identified in section 1.1.

A protest of an award or proposed award shall be submitted within five (5) working days after the posting of award of the contract. The notice of award, if any, resulting from this solicitation shall be posted at the following website: http://leahi.hhsc.org/procurement/notices/

Any and all protests shall be submitted in writing to the HOPA, as follows:

Sean Sanada
Hawaii Health Systems Corporation
Oahu Region
3675 Kilauea Avenue
Honolulu, Hawaii 96816

1.12 PERFORMANCE AND PAYMENT BOND

Performance and payment bonds shall be required for contracts $25,000 and higher. At the time of the execution of the contract, the successful Bidder shall file good and sufficient performance and payment bonds, each in an amount equal to one hundred percent (100%) of the amount of the contract price unless otherwise stated in the solicitation of bids.

1.13 SPECIALTY CONTRACTOR'S LICENSE

A. Contractor shall be solely responsible to ensure that all specialty licenses required to perform the Work are covered by the Contractor and/or its subcontractor(s).

1.14 WORKING HOURS

A. Regular working hours for this project shall take place between the hours of 8:00 AM to 4:30 PM Monday through Friday, excluding State Holidays, unless otherwise noted or restricted.

B. The Contractor may be given approval to work beyond the regular hours including Saturdays, Sundays, State Holidays, night work, or after hours under the provisions of the GENERAL CONDITIONS.

1.15 SPECIAL PROCEDURES DURING BIDDING

A. All bids shall be submitted to the Issuing Officer.

B. All questions regarding the IFB shall be submitted, in writing, to the Issuing Officer, who shall review the questions and issue any responses via Addendum. Only information received by Addendum shall be binding.

C. Any visitation to the site to examine the scope of work shall be requested through the HHSC Representative. Disruption of facility operations shall not be permitted.

SECTION 2
SCOPE OF SERVICES

2.0 INTRODUCTION

LEAHI HOSPITAL YOUNG, ADMIN, AND ATHERTON BUILDINGS FIRE ALARM SYSTEM

Work for this project shall include, but is not limited to the renovating the fire alarm system including panels, initiating device, annunciators, and miscellaneous work as indicated on the drawings.

2.1 CONTRACT PERIOD

The work shall be completed within **360** consecutive calendar days from the Notice to Proceed (NTP).

2.2 SCOPE OF SERVICES

A. The CONTRACTOR shall complete the work specified in the specifications and drawings in APPENDIX C.

B. Qualifications. The CONTRACTOR shall have:

1. A current and valid license to perform the scope of work.
2. Have been in business for the past three (3) consecutive years.
3. A permanent, on-island office location in conducting business which is accessible to telephone calls. An answering service is not acceptable.

C. HOSPITAL shall provide:

Technical Representatives who shall have the authority to oversee the successful completion of contract requirements, including monitoring, coordinating and assessing CONTRACTOR performance; placing requests for services; and, approving completed work/services with verification of same for CONTRACTOR's invoices. Technical Representatives will also serve as points of contact for "technical" matters throughout the term of the contract.

SECTION 3
Bid Forms and General Conditions

General Instructions for Completing Forms

- *Bids shall be submitted in the prescribed format outlined in this IFB*
- *No supplemental literature, brochures or other unsolicited information should be included in the bid packet.*
- *A written response is required for each item unless indicated otherwise.*

3.0 Bid Form

The bid form must be completed and submitted to HHSC by the required due date and time, and in the form prescribed by the HHSC. Facsimile transmissions shall not be accepted.

Interested bidders shall submit their bid under the interested bidder's exact legal name that is registered with the Department of Commerce and Consumer Affairs and shall indicate this exact legal name in the appropriate space on page 1 of the bid form. Failure to do so may delay proper execution of the Contract.

Interested bidders shall certify its ability to provide services on March 25, 2026 or upon execution of the Contract agreement by both parties. The Hospital reserves the right to apply liquidated damages for the delay in Contract execution on the part of the Contractor.

The interested bidder's authorized signature shall certify bid documents. If the Bid Form on Appendix A is unsigned the bid shall be automatically rejected.

The option to extend the Contract shall be at the sole discretion of the Hospital and determined to be in the best interests of the State.

3.1 Bid Security

All lump sum bids of $25,000 and higher, or lump sum base bids including alternates of $25,000 and higher shall require a bid security.

a. The bid security shall be in an amount equal to at least five percent (5%) of the lump sum bid or lump sum base bid including alternates or in an amount required by the terms of the federal funding, where applicable.

3.2 General Conditions

The State of Hawaii INTERIM GENERAL CONDITIONS, dated August 1999, and AMENDMENTS shall be read by the Contractor as they form a part of the Agreement to be entered into between the Contractor and HHSC. The Interim General Conditions are not physically included in these specifications, but are included by reference. Copies of the INTERIM GENERAL CONDITIONS may be obtained from the Division of Public works, Department of Accounting and General Services, State of Hawaii at the following website: http://hawaii.gov/pwd/construction_bids/Members/qc/gen_cond_constr

The State of Hawaii General Conditions are hereby amended as follows:

a. The following terms specified in Section 1 are hereby defined:

i) Bidder shall have the same definition as Contractor.

ii) Comptroller shall be the Chief Financial Officer at HHSC or his authorized representative.

iii) Department shall be HHSC or its designee.

iv) Engineer shall be the person so designated by HHSC.

v) State shall be HHSC or its designee.

b. Section 1.20 and 1.25 replace "State of Hawaii" with "State".

c. The last two sentences of the third paragraph of Section 2.1.1.2, in the Interim General Conditions is deleted and is replaced with the following:

" If the notice is faxed, the time of receipt by the CEO's fax machine shall be official. The submittal of intention to bid via fax is acceptable only to this office."

d. Section 2.1.2.1: second sentence is hereby deleted in its entirety.

e. Last sentence of paragraph 2.1.2.3 of the Interim General Conditions is amended to read as follows:

"Failure to submit either the required tax clearance certificate or Bid Form will be sufficient grounds for HHSC to refuse to receive or consider the prospective bidder's proposal."

f. The addresses specified in Section 2.6.1 of the Interim General Conditions shall be changed to Leahi Hospital 3675 Kilauea Avenue Honolulu Hawaii 96816.

g. Sections 2.10 through 2.11 are hereby deleted in their entirety.

h. Paragraph 3.8.1 of the Interim General Conditions is amended to read as follows:

“The contract shall be signed and forwarded to HHSC (Contracts Office), by the successful bidder all within three (3) days of receipt of the contract. The performance and payment bonds shall be received by HHSC (Contracts Office) within ten (10) calendar days after the bidders is awarded the contract. No proposal or contract shall be considered binding until the contract has been fully and properly executed by all parties thereto.”

i. In paragraph 3.9.2 of the Interim General Conditions, “ten (10) calendar days after such award or within such further time as the Comptroller may allow” shall be replaced with, “the time allowed in the previous section.”

j. Section 4.1: the words “accepted bid” is deleted from the first sentence.

k. Section 4.9.3: the words “submission of bids” is replaced with the words “execution of this contract”.

l. Section 5.5: the last sentence is hereby deleted in its entirety and replaced with the following:

"In the event of conflict among the Contract Documents, the order of precedence is listed in paragraph 5 of this contract and is further detailed in the following subparagraphs:"

m. Sections 5.5.1 and 5.5.2 are hereby deleted in their entirety.

n. Section 5.8.1: "twenty-four (24)" is hereby changed to "three (3)".

o. Section 5.11 is hereby deleted in its entirety.

p. Section 5.12.4 is hereby deleted in its entirety.

q. Section 7.3.7.4, subparagraphs a and b: Replace "If the project falls within the State University System, The University of Hawaii" with "HHSC."

r. Section 7.4.1 is hereby deleted in its entirety and replaced with the following:

"The Contractor shall prepare, process, obtain, and pay for all permits necessary for the proper execution of the work."

s. Section 7.7.2 is amended to read as follows: "The wage rate schedule is attached to this contract."

t. Sections 7.14.2, 7.19.2, and 7.19.4: delete "Departments and Agencies and their" and insert "directors" between "officers" and "representatives".

u. Section 7.14.4 is hereby added and reads as follows:

"Contractor warrants that it and none of its employees, agents or subcontractors performing services or providing goods pursuant to this Agreement are excluded from participation in federal health care programs, as defined in the Social Security Act (section 1128 and 1128A), and other federal laws and regulations relating to health care. HHSC reserves the right to verify that the above warranty is true and to immediately cancel this Agreement in the event it is violated."

v. Section 7.15 delete "and its Departments and Agencies".

w. Section 7.21.8.6 — Delete the word "bad" before the words "weather day conditions."

x. Section 7.35.1: the last word "earlier" is changed to "later".

3. CORPORATE COMPLIANCE PROGRAM. A description of the Corporate Compliance Program of HHSC is posted on the HHSC Internet (www.hhsc.org). The CONTRACTOR, by signing this contract, acknowledges that it has read said description, and that the CONTRACTOR knows of the fact and substance of the Corporate Compliance Program, which governs operations at all facilities of the HHSC. The CONTRACTOR understands and agrees that employees, agents, and contractors performing any services at any of the HHSC facilities shall be fully subject to such Corporate Compliance Program, as may be amended from time to time, as well as all federal program requirements and applicable policies and procedures of HHSC and its facilities. The Corporate Compliance Program requires periodic training, including an orientation program, of all people who provide financial, business office, personnel, coding, medical records information systems and clinical services in the facility. The CONTRACTOR agrees to cause its employees, agents, and contractors who provide any services at any financial, business office, personnel, coding, medical records information systems and clinical services at any of the HHSC facilities to participate in the orientation and training programs.

4. CONFIDENTIAL INFORMATION. It is acknowledged and agreed that all of the trade secrets, business plans, marketing plans, know how, data, contracts, documents, scientific and medical concepts, billing records, personnel records, medical records of any kind, and referral resources for existing or future services, products, operations, management, business, pricing, financial status, valuations, business plans, goals, strategies, objectives and agreements of HHSC and any of its facilities, affiliates or subsidiaries, and all patient information, in any form, whether written, verbal, or electronic, are confidential ("Confidential Information"); provided, however, that Confidential Information, with the exception of patient information, shall not include information that is in the public domain.

5. CONTRACTOR EXCLUSION FROM FEDERAL PROGRAMS. CONTRACTOR warrants that it and none of its employees, agents or subcontractors performing services or providing goods pursuant to this Agreement are excluded from participation in federal health care programs, as defined in the Social Security Act (section 1128 and 1128A), and other federal laws and regulations relating to health care. HHSC reserves the right to verify that the above warranty is true and to immediately cancel this Agreement in the event it is violated.

6. CAMPAIGN CONTRIBUTIONS BY STATE AND COUNTY CONTRACTORS.
CONTRACTORs are hereby notified of the applicability of Section 11-205.5, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, please consult with the Campaign Spending Commission, or visit its website, www.hawaii.govicampaign.

(END OF SECTION)

SECTION 4
BID EVALUATION AND AWARD

4.0 Bid Evaluation

Each bid offer will be reviewed for exact conformity of the requirements in the IFB, known as a responsible bid. Information provided in/with the bid offer will be used to determine whether the interested bidder has the technical and financial capacity to deliver the goods or services, known as a responsive bid.

4.1 Method of Award

A. The contract will be awarded to the lowest responsive and responsible Bidder whose bid (including any alternates which may be selected) meets the requirements and criteria set forth in the solicitation documents.

B. In the event the total lump sum bid of all bidders exceeds the project control budget, HHSC reserves the right to make an award to the apparent Low Bidder if additional funds are available or by reducing the scope of work through negotiation.

4.2 Contract Execution

Upon receipt of the Contract document, the CONTRACTOR shall have ten (10) business days to execute and return the Contract to the Issuing Officer. Explicit execution instructions will accompany the Contract. A copy of the fully executed Contract will be provided the CONTRACTOR within seven (7) business days of Contract execution.

Award of Contract may be withdrawn if the CONTRACTOR is unable to meet Contract execution requirements.

(END OF SECTION)

APPENDIX A

SAMPLE
BID TRANSMITTAL COVER LETTER

Dear Mr. Nakada,

(Name of Business) proposes to provide any and all goods and services as set forth in the "Invitation for Bid" for Leahi Hospital Young, Admin, and Atherton Buildings Fire Alarm System IFB No. 26L-0209, for which fees/costs have been set. The fees/costs offered herein shall apply from XXX, 2026 to XXX, 2026.

It is understood and agreed that (Name of Business) have read HHSC's Scope of Services described in the IFB and that this bid is made in accordance with the provisions of such Scope of Services. By signing this bid, (Name of Business) guarantee and certify that all items included in this bid meet or exceed any and all such Scope of Services. (Name of Business) agree, if awarded the contract, to provide the goods and services set forth in the IFB; and comply with all terms and conditions indicated in the IFB; and at the fees/costs set forth in this bid. The following individual(s) may be contacted regarding this bid:_____

_____

Other information:

Address:		Federal Tax ID #:	
Phone No.:		Hawaii GET ID #:	
E-mail address:			

(Name of Business) is a: ☐ Sole Proprietor ☐ Partnership ☐ Corporation ☐ Joint Venture Other (Specify)_____

State of Incorporation is: (Specify)_____

Year of Business started: _____

The exact legal name of the business under which the contract, if awarded, shall be executed is:_____

_____

(Authorized Bidder's Signature, Printed Name/Title; Corporate Seal or Notarized)

APPENDIX B

IFB No. 26L-0209
Leahi Hospital Young, Admin, and Atherton Buildings Fire Alarm System

BID FORM

After carefully examining the bid documents, drawings and specifications identified above, the Bidder proposes to furnish at its own expense all necessary labor, materials, tools and equipment to complete the work according to the true intent and meaning of the drawings and specifications, all for the Lump Sum Base Bid of:

_____DOLLARS ($_____)

(Schedule of Values must be submitted with the Bid).

Respectfully Submitted:

_____ _____
Signature / Printed Name Date

_____
Title

OTHER CONDITIONS

1. Bidder agrees to liquidated damages as specified.

2. By submitting this proposal, the Bidder is declaring that its firm has not been assisted or represented on this matter by an individual who has, in a County capacity, been involved in the subject matter of this contract in the past two years;

3. Anti-collusion certification. In accordance with HAR 3-122-192, by submitting this proposal, the Bidder is declaring that the price submitted is independently arrived at without collusion.

4. Certification for Safety and Health Program for bids in excess of $100,000. In accordance with HRS 396-18, the Bidder certifies that its organization will have a written safety and health plan for this project that will be available and implemented by the Notice to Proceed date of this project. Details of the requirements of this plan may be obtained from the Department of Labor and Industrial Relations, Occupational Safety and Health Division (HIOSH); and

5. Upon the acceptance of the proposal by the HHSC, the Bidder must enter into and execute a contract for the same and furnish a Performance and Payment bond, as required by law.

RECEIPT OF ADDENDA
Receipt of the following addenda issued by HHSC is acknowledged by the date (s) of receipt indicated below:

Addendum No. 1 _____ Addendum No. 3 _____
Date
Addendum No. 2 _____ Addendum No. 4_____

It is understood that failure to receive any such addendum shall not relieve the Bidder from any obligation under this Proposal as submitted.

ALL JOINT CONTRACTORS OR SUBCONTRACTORS TO BE ENGAGED ON THIS PROJECT

The Bidder certifies that the following is a complete listing of all joint contractors or subcontractors covered under Chapter 444, Hawaii Revised Statutes, who will be engaged by the Bidder on this project to perform the nature and scope of work indicated and understands that failure to comply with this requirement may be just cause for rejection of the bid.

The Bidder further understands that only those joint contractors or subcontractors listed shall be allowed to perform work on this project and that all other work necessary shall be performed by the Bidder with his own employees. If no joint contractor or subcontractor is listed, it shall be construed that all of the work shall be performed by the Bidder with its own employees.

The Bidder must be sure that it has and that the subcontractor(s) listed in the proposal have all the necessary specialty licenses needed to perform the work for this project. The Bidder shall be solely responsible for assuring that all the specialty licenses required to perform the work are covered in its bid.

The Bidder shall include the license number of the joint contractors or subcontractors listed below. Failure to provide the correct names and license numbers as registered with the Contractor's Licensing Board may cause rejection of the bid submitted.

Complete Firm Name Joint Contractor or Subcontractor for Lump Sum Base Bid	License Number	Nature and Scope of Work to be Performed

Enclosed herewith:

1. Surety Bond (*1))
2. Legal Tender (*2))
3. Cashier's Check (*3))
4. Certified Check (*3))

(Cross Out Those Not Applicable)

in the amount of:

_____ DOLLARS ($_____).

as required by law.

Respectfully submitted,

_____
Name of Company, Joint Venture or Partnership

_____
License

By _____
Signature (*4)

Title _____

Date: _____

(CORPORATE SEAL)
(*5)

NOTES:

1. Surety bond underwritten by a company licensed to issue bonds in this State;

2. Legal tender; or

3. A cashier's or a certified check accepted by, and payable on demand to the HHSC by a bank, a savings institution, or credit union insured by the Federal Deposit Insurance Corporation.

    a. These instruments may be utilized only to a maximum of $100,000.

    b. If the required security or bond amount totals over $100,000, more than one instrument not exceeding $100,000 each and issued by different financial institutions shall be accepted.

4. Please attach to this page evidence of the authority of this officer to submit bids on behalf of the Company, and also the names and residence addresses of all officers of the Company.

5. Fill in all blank spaces with information asked for or bid may be invalidated. PROPOSAL MUST BE INTACT. MISSING PAGES MAY INVALIDATE YOUR BID.

END OF BID FORM

APPENDIX C

S P E C I F I C A T I O N S

FOR

FURNISHING LABOR AND MATERIALS

REQUIRED FOR

LEAHI HOSPITAL
FIRE ALARM SYSTEM
YOUNG, ADMINISTRATION, AND ATHERTON BUILDINGS

3675 KILAUEA ST.
HONOLULU, OAHU, HAWAII

TMK: 3-2-031:001

FOR THE

HAWAII HEALTH SYSTEMS CORPORATION (HHSC)

STATE OF HAWAII

CKM Architects, LLC

December 2025

TABLE OF CONTENTS

END OF TABLE OF CONTENTS

SECTION 00210 - INSTRUCTIONS TO BIDDERS

Part 1 - GENERAL

1.01 GENERAL

A. Only Bidders with the required contractor's license(s) are eligible to submit a Bid.

B. Bidders (Contractors) shall be incorporated or organized under the laws of the State or be registered to do business in the State as a separate branch or division that is capable of fully performing under the contract. The following definitions are used in the solicitation documents.

1. Hawaii Business §3-1222-112 HAR: A bidder who is registered and incorporated or organized under the laws of the State is a "Hawaii Business" and eligible for an award.

2. Compliant non-Hawaii Business §3-122-112 HAR: A bidder not incorporated or organized under the laws of the State, but is registered to do business in the State and complies with or is exempt from the requirements of §3-122-112 HAR, is a "Compliant Non-Hawaii Business" and eligible for an award.

3. Non-compliant Bidder: If a bidder is a non-Hawaii business and is not registered with the DCCA Business Registration Division (BREG) or cannot comply with §3-122-112 HAR, then the bidder in non-compliant and is ineligible for an award.

C. Prospective Bidders shall submit their "Intention to Bid".

D. Bidders shall submit the "Sealed Bid Form", bid bond (if required), tax clearances, Hawaii business certificates, and any other documents required by the bidding documents.

E. The GENERAL CONDITIONS set forth additional terms and conditions for the bid and award process. The GENERAL CONDITIONS will be part of the contract documents by which HHSC and the bidder (prospective contractor) will be bound. Bidders are directed to the GENERAL CONDITIONS for contract and statutory requirements and for Bidding and Execution of the Contract Requirements. Bidders are also directed to "Section 00700 – General Conditions" and "Section 00800 – Special Conditions" of these specifications for definitions and modifications to the GENERAL CONDITIONS.

1.02 OFFEROR(S) or BIDDER(S)

A. The terms "Offeror" and "Bidder" are synonymous when used in this Section 00210 and other solicitation documents.

1.03 ADDENDA, CLARIFICATIONS

A. Addenda: The HHSC may periodically issue an addendum that may increase or decrease the scope of work or contract time, provisions or conditions. The HHSC will make the addenda available to the bidders at the Contracts Manager's office. Bidders are responsible for the information contained in the addenda or bid clarification whether or not the Bidder receives the addenda or clarification.

B. Bidders discovering an ambiguity, inconsistency or error when examining the bidding documents or the site and local conditions or bidders with questions or clarification requests shall send their written requests (email or fax notification are acceptable) to the Project Architect. Bidders shall comply with the following procedures:

1. Identify each request with the Project Name.

2. Indicate the appropriate section number, paragraph, drawing and detail number, schedule or other identifier.

3. The request should be brief, concise, but complete enough to properly evaluate and determine the merits or non-merits of the question or request.

C. Bidders shall make any requests for clarifications no later than fourteen (14) calendar days prior to the submission date for sealed bids. Refer to the "Notice to Bidders" for submission date.

D. HHSC will respond to important requests or clarifications by way of addenda. HHSC may not address or respond to all bidders inquiries, if the HHSC determines the request is unimportant or not required to disseminate to all Bidders.

1.04 SEALED BID FORM (BID FORM)

A. Bidder shall fill out the "Sealed Bid Form" completely. Write in ink or type. Besides the following paragraphs with instructions, there are supplemental Bidder's Instructions within the text of the "Sealed Bid Form" and bidders shall comply with the instructions. Do not alter the "Sealed Bid Form", and maintain the form intact.

B. RECYCLED PRODUCT PREFERENCE is not applicable to this project.

C. OTHER CONDITIONS: Bidder acknowledges and agrees to the provisions and certifications stated in this article.

D. RECEIPT OF ADDENDA: Bidder shall fill in the appropriate dates any addenda were received.

E. LISTING JOINT CONTRACTORS OR SUBCONTRACTORS:

1. Bidder shall complete the "Joint Contractors or Subcontractors List." It is the sole responsibility of the bidder to review the requirements of this project and determine the appropriate specialty contractor's licenses that are required to complete the project. Failure of the bidder to provide the correct names, license numbers, specialty class number, classification description and to indicate that the specialty contractor is required for this project, may cause the bid to be rejected.

2. Bidder agrees the completed listing of joint contractors or subcontractors is required for the project and that the bidder, together with the listed joint contractors and subcontractors, have all the specialty contractor's licenses to complete the work.

3. Based on the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Hawaii 450 (2002), the bidder as a general contractor ('A' or 'B' license) is prohibited from undertaking any work solely or as part of a larger project, which would require the bidder ('A' or 'B' general contractor) to act as a specialty ('C' license) contractor in any area in which the bidder ('A' or 'B' general contractor) has no specialty contractor's license. Although the 'A' and 'B' contractor may still bid on and act as the "Prime Contractor" on an 'A' or 'B' project (*See, HRS §444-7 for the definitions of an "A" and "B" project*), respectively, the 'A' and 'B' contractor may only perform work in the areas in which they have the appropriate contractor's license. The bidder ('A' or 'B' general contractor) must have the appropriate 'C' specialty contractor's licenses either obtained on its own, or obtained automatically under HAR §16-77-32.

4. General Engineering 'A' Contractors automatically have these 'C' specialty contractor's licenses: C-3, C-9, C-10, C-17, C-24, C-31a, C-32, C-35, C-37a, C-37b, C-38, C-43, C-56, C-57a, C-57b, and C-61.

5. General Building 'B' Contractors automatically have these 'C' specialty contractor's licenses: C-5, C-6, C-10, C-12, C-24, C-25, C-31a, C-42a, and C-42b.

6. The table that lists the specialty contractor' classifications in the bid form is from the Department of Commerce and Consumer Affairs' (DCCA) website www.state.hi.us/dcca/har/index.html. Bidders shall provide the appropriate classifications numbers and descriptions for any specialty contractors that are not included in the bid form and bidders are directed to the DCCA web site for the latest updated list.

7. Instructions to complete the Joint Contractors or Subcontractors List:

a. Determine the specialty contractor classification(s) required for this project and provide the complete firm's name and license number of the joint contractor or subcontractor in the respective columns. If the bidder is a general contractor and providing the work of the required specialty contractor classification, fill in the bidder's (general contractor's) license number and name.

b. List only one joint contractor or subcontractor per required specialty contractor's classification.

c. For projects with alternate(s), fill out the respective "Joint Contractors or Subcontractors List for the Alternate(s)." Bidder shall determine the specialty contractor's classification and description required for the respective alternate. Bidders shall fill in the complete class number, class description, firm name and license number of the respective joint contractor or subcontractor. The bidder shall not include any joint contractor or subcontractor previously listed for the base bid.

F. COST AND TIME: Bidder shall completely fill out the article and enter the cost for the Project Bid Price, and Alternates when provided. Bidder shall tabulate the Project Bid Price, and Alternates when provided, and the Bidders shall then enter the Total Lump Sum Bid Price. **BE SURE TO ENTER THE TOTAL LUMP SUM BID PRICE IN WORDS AND NUMERALS**. Refer to Bidder's Instructions located within the article.

1. If provided, bidder shall fill in total costs for each alternate.

2. The bidder is directed to the construction time information paragraph "B" for the list of contract times and dates which may include: contract duration, project start date, jobsite start date, jobsite completion, contract completion date and construction time for alternates. Bidder shall refer to "Section 01100" of these specifications for additional construction time information, as applicable.

G. SIGNATORY PAGE: Bidder shall completely fill out article (page). Bidder shall indicate if it is a "Hawaii Business" or a "Compliant Non-Hawaii Business." Also, bidder shall refer to Bidder's Instructions located within the article.

1.05 EVALUATION CRITERIA

A. EVALUTATING BIDS: The lowest responsive, responsible bid is determined by the following procedures:

1. The total lump sum bid price is adjusted to reflect the applicable preferences.

    a. For projects with alternates, the total lump sum base bid price and alternates will be adjusted to reflect the applicable preferences.

2. Project control budget is established prior to the submission of bids.

1.06 METHOD OF AWARD

A. The contract will be awarded to the lowest responsive and responsible Bidder whose bid (including any alternates which may be selected) meets the requirements and criteria set forth in the solicitation documents.

B. In the event the total lump sum bid of all bidders exceeds the project control budget, HHSC reserves the right to make an award to the apparent Low Bidder if additional funds are available or by reducing the scope of work through negotiation.

1.07 OTHER CONDITIONS FOR AWARD

A. The Chief Procurement Officer may reject any or all bids and waive any defects if the Chief Procurement Officer believes the rejection or waiver is in the best interest of HHSC.

B. The Chief Procurement Officer may hold all bids up to 60 calendar days from the date bids were opened. Unless otherwise required by law, bids may not be withdrawn without penalty.

C. The award of the contract is conditioned upon funds made available for the project (or projects if applicable)

1.08 COMPLIANCE WITH §3-122-112 HAR:

A. As a condition for award of the contract and as proof of compliance with the requirements of 103D-310(c) HRS, the bidder shall meet the "Hawaii Business" or "Compliant non-Hawaii Business" requirements and shall provide the following documents:

1. Department of Taxation (DOTAX) and the IRS tax clearance certificates.

2. Department of Labor (DLIR) certificate of compliance.

3. Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG) certificate of good standing.

    a. A Hawaii business that is a sole proprietorship is not

required to register with the BREG and therefore not required to submit the DCCA, BREG "Certificate of Good Standing."

B. The apparent three low bidders shall furnish the required documents to HHSC within seven calendar days from the bid opening date. If a valid certificate is not submitted on a timely basis for award of a contract, a bidder otherwise responsive and responsible may not receive the award. Bidder is responsible to apply for and submit the documents by the required deadlines.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 REQUIRED DOCUMENTATION FOR HAWAII BUSINESS OR COMPLIANT NON-HAWAII BUSINESS (§3-122-112 HAR)

A. TAX CLEARANCE REQUIREMENTS (HRS Chapter 237): Bidder shall obtain a tax clearance certificate from the Hawaii State Department of Taxation (DOTAX) and the Internal Revenue Service (IRS). The certificate is ~~are~~ valid for six months from the most recently approved stamp date on the certificate; the certificate must be valid on the date received by HHSC.

1. DOTAX *TAX CLEARANCE APPLICATION* Form A-6 (Rev 2003) is available at DOTAX and IRS (State of Hawaii) offices or DOTAX website, and by mail or fax.

   a. DOTAX website: http://www.state.hi.us/tax/alphalist.html#a

   b. DOTAX forms by fax/mail: (808) 587-7572 or 1-800-222-7572

2. Mail, fax or submit in person completed tax clearance application forms to the Department of Taxation, Taxpayer Services Branch or to the address listed on the application. Facsimile numbers are:

   a. DOTAX: (808) 587-1488

   b. IRS: (808) 539-1573

3. DOTAX will return the form to the bidder. The bidder is reminded that it is responsible to submit the applications for the tax clearance directly to DOTAX or IRS and not to HHSC.

B. DLIR CERTIFICATE of COMPLIANCE (HRS Chapter 383 - Unemployment Insurance, Chapter 386 - Workers' Compensation, Chapter 392 - Temporary Disability Insurance, and 393 – Prepaid Health Care): Bidder shall obtain a certificate of compliance from the Hawaii

State Department of Labor and Industrial Relations (DLIR). The certificate is valid for six months from the date of issue; certificates must be valid on the date received by HHSC.

1. DLIR *APPLICATION FOR CERTIFICATE OF COMPLIANCE WITH SECTION 3-122-112 HAR*, Form LIR#27 is available at DLIR website or at the neighbor island DLIR District Office.

   a. DLIR website: http://www.dlir.state.hi.us/LIR#27

2. Mail, fax or submit in person completed application form to the Department of Labor and Industrial Relations, Administrative Services Office at the address listed on the application.

3. DLIR will return the form to the bidder. The bidder is reminded that it is responsible to submit the application for the certificate directly to DLIR and not to HHSC.

C. DCCA CERTIFICATE OF GOOD STANDING: Bidder shall obtain a certificate of good standing issued by the Department of Commerce and Consumer Affairs (DCCA), Business Registration Division (BREG). The certificate of good standing is valid for six months from the date of issue; certificates must be valid on the date received by HHSC.

1. DCCA *CERTIFICATE OF GOOD STANDING* is available from the business registrations website or by telephone. Bidders are advised there are costs associated with registering and obtaining the certificate.

   a. DCCA form website: http//www.BusinessRegistrations.com

   b. DCCA telephone: (808) 586-2727, M - F 7:45 to 4:30 HST

2. Submit the application per DCCA's requirements.

3. DCCA will return the form to the bidder. The bidder is reminded that it is responsible to submit the application for the certificate directly to DCCA and not to HHSC.

END OF INSTRUCTION TO BIDDERS

SECTION 00800 - SPECIAL PROVISIONS

PART 1 - GENERAL

1.01 SUBSTITUTION REQUESTS

A. Written substitution requests must be submitted with your Invitation for Bid (IFB) in accordance with IFG Section 3. All substitutions will be reviewed and approved in accordance with Section 6.3 Substitution of Materials and Equipment.

B. Substitution requests by FAX are not acceptable.

1.02 PROJECT CONTACT PERSON

A. HHSC Representative – For access to the site.

NAME:	Mr. Ron Kurasaki
POSITION OR TITLE:	Project Manager
TELEPHONE NUMBER:	(808) 497-9350

B. Procurement Agency – For questions regarding proposal and contract requirements.

NAME:	Mr. Scott Kawai
POSITION OR TITLE:	Contracts Manager
TELEPHONE NUMBER:	(808) 832-3001
Email:	skawai@hhsc.org

C. Prepare Drawings and Specifications.

NAME:	Curtis Miyamura
POSITION OR TITLE:	Architect
TELEPHONE NUMBER:	(808) 741-1577
Email:	cmiyamur@hawaii.rr.com

1.03 OFFEROR'S RESPONSIBILITY FOR EXAMINING PLANS, SPECIFICATIONS AND SITE OF WORK

A. Offerors herewith refers to sub-contractors, suppliers, manufacturer's representatives as well as contractors.

1.04 LIQUIDATED DAMAGES

A. The time of completion for the Work shall be within 360 consecutive calendar days from the official commencement date of the Notice to Proceed (NTP).

B. In accordance with the General Conditions, upon failure to complete Work or any portion of the Work within the time or times fixed in the contract or extension thereof, the Contractor shall pay liquidated damages to the Department in the amount of $500.00 per calendar day of delay.

C. In accordance with the General Conditions, PROJECT ACCEPTANCE DATE, for failure to correct punch list deficiencies, within the time or times fixed in the contract or extension thereof, the Contractor shall pay liquidated damages to the HHSC, in the amount equal to ten percent (10%) of the liquidated damages per calendar day of delay.

D. In accordance with the General Conditions FINAL SETTLEMENT OF THE CONTRACT, for failure to submit closing documents within the time or times fixed in the contract or extension thereof, it is agreed that the Bidder shall pay liquidated damages to HHSC in the amount equal to five percent (5%) of the liquidated damages per calendar day of delay.

1.05 SPECIALTY CONTRACTOR'S LICENSE

A. Contractor shall be solely responsible to assure that all the specialty licenses required to perform the Work are covered by the Contractor or its subcontractor(s).

1.06 WORKING HOURS

A. The regular working hours for this project is from 8:00 AM to 4:30 PM Monday through Friday, excluding State Holidays, unless otherwise noted or restricted under "Section 01100". The Working Hours provisions of specification "Section 01100" shall govern over this article 1.06.

B. The Contractor may be given approval to work beyond the regular hours including Saturdays, Sundays, State Holidays, night work, or after hours under the provisions of the GENERAL CONDITIONS, "Overtime And Night Work Section" and under specification "Section 01100".

1.07 SPECIAL PROCEDURES DURING BIDDING

A. Bid documents will be available from the Contracts Manager's office, at Leahi, 3675 Kilauea St., Honolulu, HI, 96817.

B. All bids shall be submitted to the Contracts Manager.

C. All questions regarding the plans and specifications shall be submitted, in writing, to the OWNER REP. The OWNER REP will review the questions and issue any responses via Addendum. Only information received by Addendum shall be binding.

D. All questions regarding the proposal or contractual requirements shall be submitted, in writing to the Contracts Manager. The Contracts Manager will review the questions and issue any responses via Addendum. Only information received by Addendum shall be binding.

E. Any visitation to the site to examine the scope of work shall be requested through the HHSC Representative. Disruption of facility operations shall not be permitted.

1.08 PROCEDURES DURING CONSTRUCTION

A. Upon issuance of the Notice to Proceed, the Contractor shall submit a work schedule for review and discussion. The work schedule shall be up-dated on a weekly or bi-weekly basis as directed by the OWNER REP.

B. On a weekly or bi-weekly basis, the Contractor shall conduct a progress meeting with the Hospital and OWNER REP. The meeting will discuss the progress of the construction, discussion of problems, and review of outstanding issues. The Contractor shall conduct the meeting and prepare the meeting notes and minutes and distribute to all parties.

C. During the construction, submittals and RFIs shall be submitted to the OWNER REP for review and action. To expedite the review, the Contractor may make submittals via email.

D. Periodic requests for payment shall be submitted to the OWNER REP for review and confirmation. Approved requests for payment will be forwarded to the Contracts Officer for processing of payment.

E. Upon substantial completion of the project, the Contractor shall submit in writing to the OWNER REP a request for a pre-final inspection. The Contractor shall have completed their own inspection and completed all noted discrepancies. Include with the request for the pre-final inspection a list of all outstanding work not completed or corrected.

F. Upon conducting a pre-final inspection, the OWNER REP shall prepare a punchlist of noted discrepancies for the Contractor's remedial action. A final inspection will be performed upon completion of all punchlist items.

1.09 PROJECT RESTRICTIONS

A. The Contractor is informed that the facilities will be fully occupied and work shall be performed in close coordination with the HHSC representative. Work shall be phased and may be limited to one Bathroom or area at a time. Work will require the relocation of clients from the work area. Time shall be allocated for the Hospital to conduct this relocation. Scheduling of the work shall be closely monitored and work performed to minimize the disruption to the remaining areas of the facility.

B. Staging and storage of materials on-site is limited and shall be coordinated with the HHSC representative. Contractor may be required to store materials off-site at his own expense.

C. Parking on-site is limited and may be restricted to only active delivery of materials and equipment. Coordinate with the HHSC representative. If on-site parking not be available, the Contractor shall park off-site.

D. The above restrictions shall be considered in the work of this project and shall be included in the Contractor's cost. No additional compensation shall be made for not considering these restrictions.

PART 2 - MATERIALS (Not Used)

PART 3 - EXECUTION

3.01 FINAL PAYMENT REQUIREMENTS

A. In addition to the requirements in the GENERAL CONDITIONS "Final Payment" section, the contractor shall submit"

1. Tax clearance certificate from DOTAX and IRS, current within two months of the issuance date; and

2. An originally signed Certificate of Compliance for Final Payment (SPO Form - 22, modified), affirming that the contractor remained in compliance with all laws as required by (§3-122-112 HAR). A contractor making a false affirmation shall be suspended and may be debarred pursuant to section 103D-702 HRS.

END OF SPECIAL PROVISIONS

SECTION 01019 - GENERAL PROJECT REQUIREMENTS

PART 1 - GENERAL

1.01 SUMMARY OF WORK

A. Perform operations and furnish equipment, tools, materials, related items and labor necessary to execute, complete and deliver the Work as required by the Contract Documents.

1.02 DIVISION OF WORK

A. The Division and Sections into which these specifications are divided shall not be considered an accurate or complete segregation of work by trades. This also applies to work specified within each section

B. Where devices, or items, or parts thereof are referred to in the singular, it is intended that such reference shall apply to as many such devices, items or parts as are required to properly complete the Work.

C. Specifications and Drawings are prepared in abbreviated form and include incomplete sentences. Omission of words or phrases such as "the Contractor shall", "as shown on the drawings", "a", "an", and "the" are intentional. Omitted words and phrases shall be provided by inference to form complete sentences

D. Specifying of interface and coordination in the various Specification Sections is provided for information and convenience only. Such requirements in the various Sections shall complement the requirements of this Section.

1.03 NOTIFICATION

A. Contact the OWNER REP and HHSC Representative at least five (5) working days prior to starting any onsite work.

1.04 SAFETY REQUIREMENTS

A. The Hawaii Occupational Safety and Health Law, Chapter 396, Hawaii Revised Statutes, effective May 16, 1972, as amended, is applicable and made a part of the Contract. Carefully read and strictly comply with its requirements.

B. Protect the facility personnel, students, and the public whenever power driven equipment is used. Ensure adequate safety precautions are used when operating any power-driven equipment.

1.05 PERFORMANCE AND COORDINATION

A. Contractor shall be in charge of the Work and the Project Contract Limits, as well as the directing and scheduling of all work. Contractor shall include general supervision, management and control of the Work of this project, and in addition to other areas more specifically noted throughout the Specifications. Final responsibility for performance, interface, and completion of the Work and the Project shall be the Contractor's.

B. Jobsite Administration shall be the responsibility of the Contractor. Provide a competent superintendent on the job and provide an adequate staff to execute the Work. In addition, all workers shall dress neatly and conduct themselves properly at all times. Loud abusive behavior, sexual harassment and misconduct will not be tolerated. Workers found in violation of the above shall be removed from the job site as directed by the HHSC Technical Representative.

C. The HHSC and/or Hospital will hold the Contractor liable for all the acts of Subcontractors and shall deal only with the Prime Contractor in matters pertaining to other trades employed on the job.

D. Coordination: Provide project interface and coordination to properly and accurately bring together the several parts, components, systems, and assemblies as required to complete the Work.

1. Provide interface and coordination of all trades, crafts and subcontracts. Ensure and make correct and accurate connections of abutting, adjoining, overlapping, and related work. Provide anchors, fasteners, accessories, appurtenances, and incidental items needed to complete the Work, fully, and correctly in accordance with the Contract Documents.

2. Provide additional structural components, bracing, blocking, miscellaneous metal, backing, anchors, fasteners, and installation accessories required to properly anchor, fasten, or attach material, equipment, hardware, systems and assemblies to the structure.

3. Provide caulking, sealing, and flashing as required to waterproof the building complete and as required to insulate the building thermally and acoustically. Include sealing, flashing, and related work as required to prevent moisture intrusion, air infiltration, and light leakage.

4. Materials, equipment, component parts, accessories, incidental items, connections, and services required to complete the Work which is not provided by subcontractors shall be provided by the Contractor.

1.06 COOPERATION WITH OTHER CONTRACTORS

A. The Hospital reserves the right at any time to contract for or otherwise perform other or additional work within the Project Contract Limits. The Contractor of this project shall to the extent ordered by the HHSC Representative, conduct its work so as not to interfere with or hinder the progress or completion of the work performed by the Hospital or other contractors.

1.07 SUBMITTALS

A. Furnish required submittals specified in this Section and in the Technical Sections. Submittals include one or more of the following: shop drawings, color samples, material samples, technical data, material safety data information, schedules of materials, schedules of operations, guarantees, certifications, operating and maintenance manuals, and field posted as-built drawings.

B. Record Drawings: Field Posted As-Built Drawings, the intent of which is to record the actual in-place construction so that any future renovations or tie-ins can be anticipated accurately, shall be prepared and submitted by the Contractor. To accomplish this, the following procedure shall be followed by the Contractor:

1. A full-size set of field posted as-built drawings shall be maintained at the job site. All deviations from alignments, elevations and dimensions which are stipulated on the drawings and authorizations given by the HHSC Technical Representative to deviate from the drawings shall be clearly and accurately recorded by the Contractor on this set of record drawings.

2. Changes shall be recorded immediately after they are constructed in place to assure they are not forgotten. Record the changes in red pencil and where applicable, refer to the authorizing document or Change Order. The field posted as-built drawings shall be made available to the OWNER REP and HHSC Technical Representative at any time so that its clarity and accuracy can be monitored.

3. The words "FIELD POSTED AS-BUILT" shall be labeled on the title sheet and certified by the Contractor as to accuracy and completeness as shown below:

   FIELD POSTED AS-BUILT

   Certified By: _____Date:
   Contractor (Include name and company)

4. The words "FIELD POSTED AS-BUILT" shall be labeled on all sheets in the margin space to the right of the sheet number written from the bottom upward.

5. The Index to Drawings shall be revised with the label "FIELD POSTED AS-BUILT" for each sheet. The index shall conclude with the following note: "A COMPLETE SET CONTAINS ____ SHEETS" with the total number of sheets comprising the set to be placed in the blank.

6. Any "FIELD POSTED AS-BUILT" drawing which the OWNER REP determines does not accurately record the deviation may be corrected by the OWNER REP and the Contractor shall be charged for the services.

7. Submit the set of "FIELD POSTED AS-BUILT" drawings to the OWNER REP and notify the HHSC Technical Representative no later than five (5) calendar days prior to the date of final inspection.

8. "AS-BUILT" drawings will be prepared by the design consultant using the "FIELD POSTED AS-BUILT". Both sets of drawings will be sent to the Contractor for review and approval. The Contractor shall retain the "FIELD POSTED AS-BUILT" drawings for records, sign the "AS-BUILT" set of drawings, indicating approval, and return the drawings in a timely manner to the OWNER REP and notify the HHSC Technical Representative.

1.08 CONSTRUCTION SCHEDULE:

A. The Construction Schedule completion date will be approved prior to award. The daily activities of the Construction Schedule will be reviewed within fifteen (15) calendar days after the Notice to Proceed or upon earlier written instruction by HHSC.

B. The schedule shall be related to the entire project to the extent required by the Contract Documents, and shall provide for expeditious and practicable execution of the work. If requested by the OWNER REP or HHSC Representative, the Contractor shall participate in a preliminary meeting to discuss the proposed schedule and requirements prior to submission of the schedule.

C. Contractor shall prosecute the work according to the Schedule. The OWNER REP and HHSC Representative shall rely on the reviewed Contractor's Schedule and regular updates for planning and coordination. The HHSC Representative's review of the Contractor's Construction Schedule does not relieve the Contractor of its obligation to complete the work within the allotted contract time. Nor does the review grant, reject or in any other way act on the Contractor's request for adjustment(s)to complete remaining contract work, or for claims of additional compensation. Such requests shall be processed in accordance with other relevant provisions of the contract.

D. If the OWNER REP issues a Field Order or Change Order or requires Force Account Work that affects the sequence or duration of work activities noted on the construction progress schedule, the Contractor shall promptly update the schedule. This shall be accomplished by adding, deleting or revising the work activities noted, or changing the logic in the schedule to show the Contractor's plan for incorporating the change into the flow of work. All Change Orders and Time Extension requests that affect the construction schedule shall be evaluated based on their impact on the approved Construction Schedule.

1.09 MEETINGS

A. Contractor shall meet with the hospital's representative, weekly or other interval as determined, to discuss the progress of the Work.

B. For each meeting, Contractor shall take meeting minutes and provide a list stating all items, work or material, which may cause a delay or have an impact on the project's contractual dates. The list shall be inclusive of items requiring action from all responsible parties such as outstanding submittal status, request for information (clarification), force account work, change order, and change proposals. The format of this list shall be at the Contractor's discretion, subject to the OWNER REP's approval. Submit the list to all parties for discussions as a meeting agenda. Contractor shall provide a plan of corrective action for any item, which is delayed or expected to be delayed, where that item impacts the contractual dates.

1.10 PROJECT AND SITE CONDITIONS

A. Project Contract Limits (Contract Zone Limits) shown on the drawings indicate only in general the limits of the work involved. Perform necessary and incidental work, which may fall outside of these demarcation lines. Confine construction activities within the Project Contract Limits and do not spread equipment and materials indiscriminately about the area.

1.11 SANITARY FACILITIES

A. The Contractor shall be allowed to utilize on-site restrooms as directed by the OWNER REP and/or HHSC Representative. The Contractor shall maintain the facility in clean and sanitary condition at all time. Failure to do so, may require the Contractor to provide portable temporary toilet facilities for the contractor's use.

1.12 CONSTRUCTION AIDS

A. Provide construction aids and equipment required by construction personnel and to facilitate execution of the Work including: scaffolds, ladders, ramps, platforms, railings, and other such facilities and equipment.

PART 2 - MATERIALS

2.01 QUALITY

A. Materials, items, equipment and fixtures specified in the various Divisions and Sections shall be new unless otherwise specified.

2.02 STORAGE AND HANDLING

A. Contractor shall supervise jobsite delivery and handling, and assign storage space for materials, items, equipment and fixtures of all trades. Contractor and installer are responsible for delivery, unloading, unpacking, handling, storage, distribution, installation and protection of its materials at the jobsite.

B. Except as otherwise required by these specifications or by the Hospital, determine and comply with manufacturer(s) recommendation(s) on product handling, storage and protection.

C. Deliver products to the jobsite in manufacturer's original containers, with labels intact and legible. Maintain packaged material with seals unbroken and labels intact until time of use. Promptly remove damaged materials and unusable items from the jobsite, and promptly replace with material meeting the specified requirements, at no additional cost to the Hospital.

D. The OWNER REP may reject as non-complying such material and products that do not bear identification satisfactory to the OWNER REP as to manufacturer, grade, quality, and other pertinent information.

PART 3 - EXECUTION

3.01 EXAMINING THE SITE

A. Contractor and Subcontractors are expected to visit the site and make due allowances for difficulties and contingencies to be encountered. Compare contract documents with work in place. Become familiar, with existing conditions, the conditions to be encountered in performing the Work, and the requirements of the drawings and specifications.

B. Verify construction dimensions and elevations indicated on the drawings before any construction begins. Any discrepancy shall be immediately brought to the attention of the OWNER REP, and any change shall be made in accordance with the OWNER REP's instruction. Contractor shall not be entitled to extra payment if it fails to report the discrepancies before proceeding with any work whether within the area affected or not.

E. Obtain all field measurements required for the accurate fabrication and installation of the Work included in this Contract. Exact measurements are the Contractor's responsibility.

F. Furnish or obtain templates, patterns, and setting instructions as required for the installation of all Work. All dimensions shall be verified in the field.

G. The Contractor shall accept the site in the condition which exists at the time access is granted to begin the Work.

1. Verify existing conditions and dimensions shown and other dimensions not indicated but necessary to accomplish the Work.

2. Locate general reference points and take action to prevent their destruction. Lay out work and be responsible for lines, elevations and measurements and the work executed. Exercise precautions to verify figures and conditions shown on drawings before layout of work.

3. Before starting the Work, the Contractor and each Subcontractor, shall verify governing dimensions and shall examine adjoining work on which the Contractor's work is in any way dependent. No additional compensation will be allowed on account of differences between actual measurements and dimensions shown. Submit differences discovered during the verification work to the OWNER REP for interpretations before proceeding with the associated work.

3.03 UTILITY SERVICE

A. Electricity - Make arrangements with the facilities for temporary use of electricity for construction use.

B. Telephone - Make arrangements with the utility companies for temporary telephone service for construction use or utilize cellular phone service.

C. Water - Make arrangements for temporary water use with the facilities.

3.04 ENVIRONMENTAL

A. General Contractor shall oversee that proper environmental conditions are met regarding temperature, humidity, lighting and ventilation.

3.05 PREPARATION AND PROTECTION

A. Protection of Property: Continually maintain adequate protection of the Work from damage and protect all property, including but not limited to buildings, interior or exterior finishes, equipment, furniture, grounds, vegetation, material, utility systems located at and adjoining the job site. Repair, replace or pay the expense to repair damages resulting from Contractor's work, fault or negligence.

B. Before starting work to be applied to previously erected constructions, make a thorough and complete investigation of such recipient surfaces and determine their suitability to receive required additional construction

and finishes. Contractor, at its expense, shall make whatever repairs and conditioning required to properly prepare such surfaces. Contractor shall coordinate the work to provide a suitable surface to receive following work.

C. Commencement of work by any trade will be construed as acceptance of existing conditions and surfaces as being satisfactory for application of subsequent work, and full responsibility for finished results and assumption of warranty obligations under the Contract.

D. Protect existing work in a manner to prevent damage including interior work from damage by vandals or the elements. Provide temporary protection. Use curtains, barricades, or other appropriate methods. Take positive measures to prevent breakage of glass and damage to plastic, aluminum and other finishes.

E. Repairs and Replacements: In event of damage, promptly make replacements and repairs to the approval of the OWNER REP and/or HHSC Representative and at no additional cost to the Hospital. Additional time required to secure replacements and to make repairs will not be considered to justify an extension in the Contract Time or completion.

3.06 BARRICADE

A. Erect temporary construction barricade(s) to prevent unauthorized persons from entering the project area and to the extent required by the OWNER REP and/or HHSC Representative.

B. Maintain temporary construction barricade(s) throughout the duration of the Work. During the course of the project, the OWNER REP and/or HHSC Representative may require additional barricades be provided for the safety of the public. Contractor shall erect the additional barricade(s) at its own expense.

3.07 INSTALLATION

A. Materials, items, fixtures required by the various Divisions and Sections of the Specifications shall be installed in accordance with Contract Documents, by workers specially trained and skilled in performance of the particular type of work, to meet guarantee and regulatory agency requirements. Should the drawings or specifications be void of installation requirements, install the materials, items, fixtures in accordance with the manufacturer's current specifications, recommendations, instructions, and directions, and/or best construction industry standards.

3.08 PATCHING

A. Patching materials and workmanship shall be of equal quality to that indicated on the drawings, specified for new work, and/or to match the construction of item to be patched.

3.09 CLEAN-UP

A. Rubbish and debris resulting from work of the various Divisions and Sections of the specifications shall be collected and disposed of by the Contractor at legal disposal areas away from the project site. Clean up and remove from premises all debris accumulated from operations from time to time and as directed by the OWNER REP and/or HHSC Representative. Permission to provide on-site trash containers shall be granted by the Hospital and shall be placed where directed by the OWNER REP and/or HHSC Representative.

END OF GENERAL PROJECT REQUIREMENTS

SECTION 01100 - SUMMARY

PART 1 - GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: The work shall generally consist of removing existing addressable fire alarm panels, addressable fire alarm initiating devices and remote fire alarm annunciators at the Young Building, Admin Building and Atherton Building as indicated on the drawings and specified herein.

1. Project Location: Leahi Hospital, 3675 Kilauea St., Honolulu, Hawaii.

B. Perform operations and furnish equipment, tools, materials, related items and labor necessary to execute, complete and deliver the Work as required by the Contract Documents.

C. The Division and Sections into which these specifications are divided shall not be considered an accurate or complete segregation of work by trades. This also applies to work specified within each section

D. Contractor shall not alter the Drawings and Specification. If an error or discrepancy is found, notify the OWNER REP.

E. Specifying of interface and coordination in the various specification sections is provided for information and convenience only. These requirements in the various sections shall complement the requirements of this Section.

1.02 SPECIFICATION FORMATS AND CONVENTIONS

A. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated and include incomplete sentences. Omission of words or phrases such as "the Contractor shall", "as shown on the drawings", "a", "an", and "the" are intentional. Omitted words and phrases shall be provided by inference to form complete sentences. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred, as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates. Where devices, or items, or parts thereof are referred to in the singular, it is intended that such reference

2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

   a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

3. Abbreviations and Acronyms for Industry Organizations: Where abbreviations and acronyms are used in Specifications or other Contract Documents, they shall mean the recognized name of the entities indicated in Gale Research's "Encyclopedia of Associations" or in Columbia Books' "National Trade & Professional Associations of the U.S."

B. Definitions

1. Directed: Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by Contracting Officer, requested by Contracting Officer, and similar phrases.

2. Indicated: The term "indicated" refers to graphic representations, notes, or schedules on drawings or to other paragraphs or schedules in specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference.

3. Furnish: The term "furnish" means to supply and deliver to project site, ready for unloading, unpacking, assembly, installation, and similar operations.

4. Install: The term "install" describes operations at project site including unloading, temporarily storing, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.

5. Provide: The terms "provide" or "provides" means to furnish and install, complete and ready for the intended use.

6. Installer: An installer is the contractor or another entity engaged by contractor as an employee, subcontractor, or sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

7. Submit: Terms such as "submit," "furnish," "provide," and "prepare" and similar phrases in the context of a submittal, means to submit to the Contracting Officer.

C. Industry Standards

1. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.

2. Publication Dates: Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.

3. Conflicting Requirements: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Contracting Officer for a decision before proceeding.

1.04 WORK SEQUENCE

A. The Work will be conducted in a single construction phase.

1.05 USE OF PREMISES AND WORK RESTRICTIONS

A. General: Contractor shall have full use of construction zone for construction operations, including restricted use of project site, during construction period. Contractor's use of premises is limited only by State's right to perform work or to retain other contractors on portions of the project site.

B. Contractor's use of premises is restricted as follows:

1. Construction Times and Schedule:

a. The Contractor shall coordinate the work schedule with the OWNER REP and/or HHSC Representative. An advanced notice of 15 calendar days shall be provided prior to the start of work. Work can be scheduled for weekdays (8:00 AM to 4:30 PM) with advanced notice by the Contractor.

b. The normal operational hours are 8:00 AM to 4:30 PM, Monday through Friday.

c. Unless restricted elsewhere in these specifications, the Contractor may not perform work outside of normal daily operation hours. Weekend or holiday work may be

permitted with the approval of the OWNER REP and/or HHSC Representative. Any weekend or holiday work shall require a 15 calendar day advanced notice.

d. Work performed during normal operating hours shall not impede public traffic or office personnel. An alternate route around the work areas may be required.

2. Site Access and Parking:

a. Arrange all on-site parking and access with the OWNER REP and/or HHSC Representative.

b. Permanent use of the loading area is prohibited.

c. Subject to availability, the OWNER REP and/or HHSC Representative will designate other on-site areas that may be used by the Contractor other than assigned stalls. Restore any property damaged by construction activities at the completion of the project.

3. Sanitation and Utilities:

a. Contractor may use designated restrooms, however, shall maintain the facilities in clean condition at all times. Coordinate with the OWNER REP and/or HHSC Representative.

b. Arrange all temporary electricity and water service with the OWNER REP and/or HHSC Representative. There will be no charges for reasonable electricity and water service.

c. Should interruption of any utility services be required, outages shall be coordinated with the OWNER REP and/or HHSC Representative. A minimum five (5) working days notice shall be provided. Contractor is forewarned that the OWNER REP and/or HHSC Representative may require outages to be done at specific times to minimize disruptions to the facility operations.

4. Other Conditions:

a. Noise and other disrupting activities normally resulting from construction operations are detrimental to the conduct of normal activities in adjacent locations surrounding the project area. Accordingly, exercise every precaution to keep noise levels to a minimum. Internal combustion engines and compressors shall be equipped with mufflers to reduce noise to a minimum.

b. Use or application of materials with offensive odors should be avoided and may be restricted from use on this project.

1.06 WORK UNDER OTHER CONTRACTS

A. Separate Contract: The HHSC may execute a separate contract for certain construction at the facility that was not known at the time Offers were submitted.

B. Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying work under this Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 – EXECUTION (Not Used)

END OF SUMMARY

SECTION 01140 – WORK RESTRICTIONS

PART 1 – GENERAL

1.01 SUMMARY

A. This section includes work restrictions on the Contractor's operations, and construction as required to maintain the facility's operation during the construction period.

B. CONSTRUCTION PROVISIONS

1. Rules and Regulations: Consult with the OWNER REP and HHSC Representative at the pre-construction conference and become familiar with the rules and regulations of the facility.

2. Contractor's Operations: Confine all construction operations to the immediate vicinity of the construction activity. Store building materials, equipment, tools and incidentals in an enclosed area as directed by the OWNER REP or HHSC Representative. Take precautions and prevent access to power equipment, tools, etc., by other than authorized construction personnel. Perform operations to ensure the safety of the occupants of the buildings at all times.

3. Perform operations to minimize inconvenience or disturbance upon the personnel and residents.

4. Protection of occupants: Special consideration must be made by the Contractor at all times to safely protect the occupants and facility personnel from any and all injuries that may be caused as a result of the work performed under this contract.

5. Caution: The Contractor shall caution his personnel on the job that any association with the occupants be avoided as much as possible, that when spoken to by occupants, normal courtesy shall be maintained at all times.

7. None of the foregoing regulations shall be construed as a restriction on the legal prosecution of the work.

1.02 SEQUENCING OF WORK

A. The Contractor shall schedule his work in general consideration for the on-going operation of the hospital. All work shall be coordinated with the HHSC Representative and/or OWNER REP. Contractor shall consider in his proposal interruptions or delays to his schedule of work due to special requirements of the hospital or HHSC Representative.

END OF WORK RESTRICTIONS

SECTION 01300 - SUBMITTALS

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

Where indicated in these specifications, provide submittals to the OWNER REP for review.

1.02 PROCEDURES

A. Unless otherwise specified, deliver submittals to the OWNER REP with copy of transmittal to the Contracts Manager.

B. Transmit all items using form which identifies Project, Contractor, Subcontractor, and major supplier. Identify pertinent drawing sheet, detail number, and specification section number, as appropriate. Identify deviations from Contract Documents. Provide space for the OWNER REP or his Consultant's review stamp.

C. Upon completion of review by the OWNER REP, the OWNER REP will return submittals to the Contractor with copy to the Contracts Manager and HHSC Representative.

1.03 SCHEDULE OF WORK

A. Coordinate Schedule with Work Sequence specified in Section 01140.

1.04 SHOP DRAWINGS AND SAMPLE SUBMITTALS

A. All submittals shall be made in accordance with the following unless otherwise specified. Minimum sheet size is 8-1/2" x 11". Maximum sheet size is same size as the Contract Drawings. Drawings shall be presented in a clear and thorough manner. Details shall be identified by reference to sheet, schedule, and detail shown on Contract Drawings.

B. Mark each copy to identify applicable products, and other data. Supplement manufacturer's standard data to provide information unique to the work. Include manufacturer's installation instructions when required by the specification.

1. The Contractor shall review, stamp with his approval and submit with reasonable promptness and in orderly sequence so as to cause no delay in work of any other Subcontractor, all shop drawings, and product data required by these specifications.

2. Properly identify shop drawings and samples as specified. At the time of submission, the Contractor shall inform the HHSC Technical Representative in writing of any deviation in the shop drawings or submittals from requirements of the Contract Documents.

3. By approving and submitting the shop drawings and submittals the Contractor thereby represents that he has determined and verified all field measurements, field criteria, materials, catalog numbers and similar data, or will do so, and that he has checked and coordinated each shop drawing and sample with the requirements of these specifications.

4. Six (6) copies of the Shop Drawings and submittals shall be submitted for review. Upon review, the OWNER REP will retain three (3) copies and return the balance to the Contractor.

5. The OWNER REP will review the shop drawings and submittals with reasonable promptness so as to cause no delay but only for conformance with the design concept of the Project and with the information given in the Contract Documents. The OWNER REP's review of a separate item shall not indicate approval of an assembly in which the item functions.

6. The Contractor shall make any corrections required by the OWNER REP and shall resubmit the required number of corrected copies of shop drawings or submittals for review. The Contractor shall direct specific attention in writing or on resubmitted shop drawings to revisions other than the corrections requested by the OWNER REP on previous submissions.

7. The OWNER REP's review of shop drawings or submittals shall not relieve the Contractor of responsibilities for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Hospital in writing of such deviation, at time of submission, and the HHSC Representative has given written approval to the specific deviation; nor shall the OWNER REP's review relieve the Contractor from responsibility for errors or omissions in the shop drawings or samples.

8. No portion of the work requiring a shop drawing or sample submission shall be commenced until the submission has been reviewed by the OWNER REP. All such portions of the work shall be in accordance with reviewed shop drawings and samples.

1.05 BIDDER'S SPECIAL RESPONSIBILITY FOR COORDINATING CONTRACTURAL WORK AND SUBMITTALS:

A. The General Contractor shall be responsible for the coordination of all contractual work and submittals.

B. The General Contractor shall have a rubber stamp made up in the following format:

Contractor's Name

PROJECT: _____

_____

PROJECT NO.: _____

THIS SUBMITTAL HAS BEEN CHECKED BY THIS GENERAL CONTRACTOR. IT IS CERTIFIED CORRECT, COMPLETE, AND IN COMPLIANCE WITH CONTRACT DRAWINGS AND SPECIFICATIONS. ALL AFFECTED CONTRACTORS AND SUPPLIERS ARE AWARE OF, AND WILL INTEGRATE THIS SUBMITTAL INTO THEIR OWN WORK.

DATE RECEIVED _____
SPECIFICATION SECTION # _____
SPECIFICATION PARAGRAPH # _____
DRAWING _____
SUBCONTRACTOR _____
SUPPLIER _____
MANUFACTURER _____

CERTIFIED BY: _____

C. This stamp, "filled-in", should appear on the title sheet of each shop drawing, on a cover sheet of submittals in an 8-1/2" x 11" format, or on one face of a cardstock tag (min. 3" x 6") tied to each sample. The tag on the samples should state what the sample is, so that if the tag is accidentally separated from the sample, they can be matched up again. The back of this tag will be used by the OWNER REP for his receipt, review, and log stamp and for any comments that relate to the sample.

D. All submittals for material and shop drawings listed in the contract documents, shall be required and shall be first reviewed and certified by the General Contractor, then reviewed and approved by the OWNER REP, prior to any ordering of materials and equipment. Submittals that have not been reviewed by the General Contractor shall be returned for review.

1.06 MANUFACTURER'S CERTIFICATES

Submit certificates, warranties, operating and maintenance instructions in accordance with requirements of each specification section. Submit in triplicate.

1.07 MSDS

MSDS shall be submitted prior to the pre-construction meeting. The Contractor shall submit MSDS log and reference each MSDS to its specification Section number and product system.

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION (Not used)

END OF SUBMITTALS

SECTION 01577 - POLLUTION CONTROL

PART 1 - GENERAL

1.01 SUMMARY

A. Includes site and environmental control requirements.

1.02 TRASH, REFUSE DISPOSAL

A. Assume all ballast or lamps from removed light fixtures contain mercury and are pcb contaminated. Dispose fixtures properly in accordance with federal, state, and local requirements

B. Burning of debris and/or waste materials on the project site is prohibited.

C. Do not bury debris and/or waste material on the project site, unless specifically allowed elsewhere in these specifications as backfill material.

D. Haul unusable debris and waste material to an appropriate off-site dump area. During loading operations, water down or provide other measures to prevent dust or other airborne contaminants.

E. Vacuum, wet mop, or damp sweep when cleaning rubbish and fines which can become airborne from floors or other paved areas. Do not dry sweep.

F. Use enclosed chutes and/or containers to conveying debris from above the ground floor level.

G. Clean-up shall include the collection of all waste paper and wrapping materials, cans, bottles, construction waste materials and other objectionable materials, and removal as required. Frequency of clean-up shall coincide with rubbish producing events. The Contractor shall be responsible for all clean-up cost.

1.03 DUST

A. Prevent dust from becoming airborne at all times including non-working hours, weekends and holidays in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 60 - Air Pollution Control.

B. Contractor is responsible for and shall determine the method of dust control. Subject to the Contractor's choice, the use of water or "environmentally friendly chemicals" may be used over surfaces which create airborne dust.

C. Construct or erect dust control barriers as required to retain dust within the project site area.

D. Contractor is responsible for all damage claims resulting from failure to control airborne dust during all times that the site is under the Contractor's control.

1.04 NOISE

A. Keep noise within acceptable levels at all times in conformance with the State Department of Health, Administrative Rules, Title 11, Chapter 46 - Community Noise Control. Contractor shall obtain and pay for the Community Noise Permit from the State Department of Health when the construction equipment or other devices emit noise at levels exceeding the allowable limits.

B. To reduce loud disruptive noise levels, ensure mufflers and other devises are provided on equipment, internal combustion engines and compressors. Maintain equipment to reduce noise to acceptable levels.

C. Starting-up of construction equipment meeting allowable noise limits shall not be done prior to 8:00 a.m. without prior approval of the HHSC Representative. Equipment exceeding allowable noise levels shall not be started-up prior to 8:00 a.m.

1.05 SUSPENSION OF WORK

A. Violations of any of the above requirements or any other pollution control requirements which may be specified in the Specifications shall be cause for suspension of the work creating such violation.

B. Reference the General Conditions Construction, dated 3/17/06 for the suspension procedures.

C. The OWNER REP and/or HHSC Representative may also suspend any operations which creates a pollution problems even if the problem does not violate the provisions of this Section. In this instance, the work is considered a Change and subject to the provisions of the contract.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION (Not used)

END OF POLUTION CONTROL

SECTION 07900 – JOINT SEALANTS

PART 1 – GENERAL

1.01 GENERAL CONDITIONS

A. As specified in Section 01019.

1.02 DESCRIPTION OF WORK

A. Provide two-hour fire stop at all pipe penetrations through concrete floors.

1.03 SUBMITTALS

A. Meet the applicable requirements of Section 01300.

PART 2 – PRODUCTS

2.01 MATERIALS

A. 3M Fire Barrier Products, DAP Fire Barrier Products, SIKA Corp, or equal.

PART 3 – EXECUTION

3.01 PREPARATION

A. INSPECTION: Verify that new pipe is secured before two-hour fire stop is added around pipe to fill void concrete.

END OF JOINT SEALANTS

SECTION 09510 – ACOUSTICAL CEILINGS

PART 1 – GENERAL

1.01 GENERAL CONDITIONS

A. As specified in Section 01019.

1.02 DESCRIPTION OF WORK

A. Reinstall existing acoustical ceiling tiles as necessary to put in Fire Alarm System.

1.03 SUBMITTALS

A. Meet the applicable requirements in Section 01300.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Use acoustical tiles, if required to replace, as provided by Maintenance Department.

PART 3 – EXECUTION

3.01 INSPECTION

A. Examine the substrates and conditions under which work of this section will be performed. Do not proceed until unsatisfactory conditions detrimental to timely and proper completion of the work have been corrected.

END OF ACOUSTICAL CEILINGS

SECTION 09900 - PAINTING

PART 1 – GENERAL

1.01 GENERAL CONDITIONS

As specified in Section 01019.

1.02 DESCRIPTION OF WORK

A. Paint all new drywalls.

1.03 SUBMITTALS

A. Paint new drywalls to match existing wall color.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Manufacturer
   1. Equal products of Sinclair, Ameritone, Benjamin Moore, Sherwin Williams, Glidden, may be used subject to approval of schedule of materials and treatment as required in submittal paragraph.

PART 3 – EXECUTION

3.01 PREPARATION

A. Verify that all surfaces are properly prepared, dry and clean before starting work.

B. Proceeding with this work will indicate acceptance of surface as being suitable.

3.02 APPLICATION

A. Performed by skilled craftsmen.

B. Interior

   1. Gypsum Board: Low Sheen
      1st Coat: 890 Pigmented Primer
      2nd Coat: 1790 Aqua Coater
      3rd Coat: 3000 Aqua Suede Finish

END OF PAINTING

DIVISION 16 - ELECTRICAL

SECTION 16010 - ELECTRICAL WORK

PART 1 - GENERAL

1.01 SUMMARY

A. Furnish all labor and materials required to complete all electrical work as indicated on the drawings and/or specified herein. In general, the following work is included:
   1. Power systems including branch circuits, outlets and wiring.
   2. Electrical demolition work as indicated.
   3. Raceways for fire alarm system.

B. The term "wiring" shall include raceways, outlets, conductors, fixtures and devices.

C. Wiring and connecting of all electrical equipment supplied for installation and use in this contract and not specifically listed as work by others.

D. Obtain and pay for electric permit.

1.02 RULES AND PERMIT

A. The entire installation to be made in strict accordance with the applicable provisions of the latest edition of the National Electrical Code, Local Ordinances, and rules and regulations of the State of Hawaii.

B. The Contractor to obtain and pay for the electrical permit as required by local rules and regulations. He shall arrange for periodic inspection by the local authorities as work progresses so that certificates of completion and inspection may be turned over to the Contracting Officer.

1.03 SUBMITTALS

A. Submit in accordance with SECTION 01330 - SUBMITTAL PROCEDURES.

B. Shop Drawings and Catalog Cuts: Submit for approval one set of reproducible transparency and 3 sets of ozalid prints of shop drawings or 6 sets of catalog cuts of following equipment and resubmit until approval is received before placing order:
   1. Raceways
   2. Outlet boxes.

C. Field Posted As-Built Drawings: Before installing, verify all dimensions and sizes of equipment at job site. Circuit and conduit routing is typical and may be altered in any logical manner; however, all changes shall be approved by Contracting Officer and shown on "field posted as-built" drawings. See SECTION 01770 - CLOSEOUT PROCEDURES for "field posted as-built" drawings.

D. Warranty: Submit warranty as noted under item entitled "WARRANTY" hereinbelow.

1.04 QUALITY ASSURANCE

A. Drawings: Specifications are accompanied by architectural plans of building, site plans and diagrammatic electrical plans showing locations of outlets, fixtures, switches, devices, and other electrical equipment. Locations are approximate and before installing, Contractor shall study adjacent construction details and make installation in most logical manner. Any device may be relocated within 10-feet-0 inch before installation at direction of the Contracting Officer, whose decision shall be final.

B. Shop drawings and catalog cuts for substitute materials shall clearly specify compliance with and/or deviation from specified material. Approval of shop drawings and catalog cuts shall not release Contractor from complying with intent of specifications and drawings. Any deviations from approved shop drawings shall have prior approval by the Contracting Officer.

1.05 WARRANTY

A. Manufacturer's Warranty:
   1. The warranty period shall commence from the project acceptance date. Materials and equipment shall be replaced by such materials, apparatus or parts including installation labor to make such defective portion of complete system conform to true intent and meaning of drawings and specifications, at no additional cost to the State.

   2. Warranty Provisions: The warranty provisions and number of years for the warranties required in this Section shall take precedence over the standard provisions in the Interim General Conditions (IGC).

B. Contractor's Warranty: Installation shall be complete in every detail and ready for use. Any item supplied by the Contractor developing defects within one year from the project acceptance date by the State shall be replaced by such materials, apparatus, or parts including installation labor to make such defective portion of the complete system conform to the true intent and meaning of drawings and specifications, at no additional cost to the State.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Materials and equipment shall be new and those listed by Underwriters' Laboratories shall bear "UL" label of approval. Brand names, manufacturer's names and catalog numbers indicate standards of design and quality required.

B. Raceways:
   1. Electrical Metallic Tubing (EMT) - Thin walled steel tubing, zinc coated; 3/4-inch minimum diameter.

   2. Rigid steel conduit, zinc coated, 3/4-inch minimum diameter.

C. Outlet Boxes:
   1. Concealed boxes shall be pressed from NEC gauge steel, galvanized 4-inch square x 1-1/2 inches deep minimum.

2. Exposed boxes shall be galvanized cast iron or alloyed aluminum with threaded hubs for conduit connections. Boxes for surface metal raceway shall be by the same manufacturer of the raceway.

3. Extension or raised rings for pressed boxes pressed from NEC gauge steel and galvanized.

D. Device and Cover Plates: Plates for interior flush construction shall be satin finished 302 high nickel stainless steel, 18 percent chrome, 8 percent nickel with suitable hole for device.

E. Conductors:
1. Wires: Conductors shall be copper, 600 volts, No. 12 AWG minimum. Conductors No. 10 and smaller, solid and round. All conductors No. 6 and larger shall be NEC Type TW, XHHW and THW. Wiring in fixtures and fixture wiring channels shall be type RHH or THHN.

2. Color Code: Black-Phase "A", red--Phase "B", blue--Phase "C", White-neutral, green-ground. Color coding shall be maintained throughout entire system.

F. Wiring Devices:
1. Duplex Convenience Receptacles: Duplex, 15 ampere, 125 volts, side wired, 3 wires, grounding type in plastic body.

Hubbell	No. 5262
Bryant	No. 5262
Arrow Hart	No. 5262

2. Switches: Specification grade, non-mercury, "quiet", 120-277 volts, ivory or brown to match or coordinate with the wall.

1 Pole 20A	Arrow 1991
2 Pole 20A	Arrow 1992
3 Way, 20A	Arrow 1993

3. Equal devices by General Electric Company, Leviton and Sierra are approved or accepted equivalent.

G. Circuit breakers and safety switches shall be of the rating and type indicated. Circuit breakers shall be of the interchangeable trip type when available. Safety switches shall be heavy duty. For indoor locations, enclosures shall be NEMA 1 enclosure and for exterior locations enclosures shall be NEMA 3R.

H. Panelboards shall be 3-phase, 4WSN application, voltage and mounting as indicated, with doors and trims, copper bussed with bolted molded case thermal magnetic breakers, complement as shown on the drawings, circuit directory, lock and 2 keys. Breakers shall be interchangeable trip type when such is available. All panels shall be keyed alike.

I. Hardware, Support, Backing, Etc.: Provide all hardware, supports, backing and other accessories necessary to install electrical equipment. Wood materials shall be treated, iron or steel materials shall be galvanized for corrosion protection, and non-ferrous materials shall be brass or bronze. All wood screws shall be brass or galvanized steel.

PART 3 - EXECUTION

3.01 CONSTRUCTION METHODS

A. Comply with local ordinances and regulations of the State of Hawaii. Workmanship subject to approval of Contracting Officer who shall be afforded every opportunity to determine skill and competency. Concealed work re-opened at random during formal inspection by Contracting Officer without additional charge to the State of Hawaii.

B. Construction shall conform to construction practices as recommended by American Electricians Handbook by Croft (latest edition), National Electrical Code, National Electrical Safety Code and applicable instruction of manufacturers of equipment and materials supplied for project.

C. Raceways:

1. All conduits within building line shall be rigid steel conduits or electrical metallic tubing. Electrical metallic tubing may be used only in dry walls and in dry exposed locations 10-feet or higher above floor. Provide #14 gauge galvanized steel pull wire or nylon pull line in all empty conduits.

2. Cut raceways square, and ream inner edges. Butt together evenly in couplings.

3. Make bends and offsets with hickey or conduit bending machine. Do not use vise or pipe tee. Bends made so that interior cross-sectional area will not be reduced. Radius of curve of inner edge of field bend not less than 10 times internal diameter of raceway. Use of running threads not permitted. When raceways cannot be joined by standard threaded couplings, use approved water-tight raceway unions.

4. Cap raceways during construction with plastic or metal-capped bushings to prevent entrance of dirt or moisture. Swab all raceways out and dry before wires or cables are pulled in.

5. Mount raceway free from other piping, valves, or mechanical equipment.

6. Fish wires, cords, strings, chains or the like shall not be placed or inserted in the conduit system during installation.

7. Install insulating bushings and two locknuts on each end of every run of conduit at enclosures and boxes. Provide grounding bushings as required to grounding receptacles and connect conduits to service ground, per NEC Article 250.

8. Project adequate number of conduit threads through box for bushings.

9. Run exposed conduit or raceway parallel with, or at right angles to structural or architectural elements.

10. Securely fasten conduits with galvanized pipe straps with screws or bolts and spaced not more than 7-feet apart, or with approved beam clamps, or approved single or gang pipe hangers spaced not more than 7-feet apart, as conditions require. Vertical runs supported at intervals not exceeding 5-feet by approved clamp hangers. Conduit runs with one 90-degree bends or equivalent, 100-feet maximum without pullbox.

D. Outlet Boxes: Provide outlet boxes to suit conditions encountered. Provide outlet boxes in spaces with extension or raised rings of such depth that metal will be flush with surrounding surfaces of opening. Concealed boxes shall be pressed steel, galvanized, 4-inch square by 1-1/2 inches deep minimum.

E. Conductor Fill in a raceway shall conform to NEC Chapter 9, Table 3A (based on Type RHW wires) unless otherwise indicated on the drawings.

F. Wire Pulling: Mechanical means for pulling shall be torque-limiting type and not used for #2 AWG and smaller wires. Pulling tension shall not exceed wire manufacturer's recommendations. Where necessary, powdered soapstone shall be used as a lubricant for drawing wires through conduit. Other means of lubricating allowed with written approval of Contracting Officer.

G. Wire Splicing:
   1. Form wires neatly in enclosures and boxes.

   2. Splice in accordance with NEC Article 110. Crimp connect conductors #10 and smaller. Splice conductors #8 through #4/0 with high pressure compression (indent) copper sleeve connectors. Do not use bolt-on connectors. Re-insulate splices and waterproof splices. Re-insulate splices according to wire manufacturer's instructions. Splice insulation shall be 200 percent in thickness of original wire insulation and of same electrical and mechanical characteristics. Tape shall be vinyl plastic.

H. Equipment Connections: The Contractor shall connect all equipment and appliances for operation. Furnish all disconnects and starters if none are furnished by other trades. Verify equipment ratings, locations and wiring requirements prior to rough-in work.

J. Finishing:
   1. Patch, repair and restore all structural and architectural elements cut or drilled for installation of electrical system. Drilling, cutting, patching, repairing and restoring shall be subject to approval of Contracting Officer.

2. Attach electrical equipment to wood by wood screws, and attach to concrete by embedded or expansion inserts and bolts. Use powdered-driven charge with approval only. Close unused knock-outs on boxes or enclosures with metal cap. Powder actuated fasteners shall not be used on precast concrete. Do not use powder activated fasteners to attach enclosures and boxes to the building.

3. Wipe clean all exposed raceways and enclosures with rag and solvent. Prime painting and finishing of unfinished raceways and enclosures shall conform to SECTION 09901 - PAINTING. Factory finished enclosures shall not be painted.

4. Connect circuits to circuit assignments shown on drawings. Correct existing panel circuit directory as required.

K. Testing:
1. All wiring shall be tested to insure proper operation according to functions specified.

2. Balance loading on each feeder.

END OF SECTION

SECTION 16721 - ADDRESSABLE FIRE ALARM SYSTEM

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

A. As specified in Section 00700.

1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

A. Section 00700 – General Requirements.

B. Section 01040 - Coordination

C. Section 01330 - Submittal

D. Section 07840 – Firestopping: Fire stopping requirements.

E. Section 09900 - Painting: Painting of all conduits, raceways, ducts, cabinets, junction boxes, etc.

F. Section 16010 - Electrical Work: All power wiring including wiring to disconnect switches and breakers and wiring to all equipment.

1.03 PAYMENT PROCEDURES

A. Permits, Tests and Inspections: Apply, secure and pay for all required permits, fees, licenses, tests, inspections and royalties necessary to accomplish the work. Schedule and coordinate required tests and inspections.

1.04 SCOPE

System Description: This work includes designing and providing a new, multiplex/addressable programmable fire alarm system as described herein and on the contract drawings. The new fire alarm system shall reuse existing conduit and wire from the existing system. All existing Hochiki notification devices shall be re-used in the new system. The new system fire panels and power boosters shall be UL listed to work with the existing notification appliance devices. All existing Hochiki addressable devices shall be changed out with new devices as shown on plans. There is no existing as-built shop drawings documenting voltage drop, NAC load, and battery backup calculations. The contractor shall include labor to trace all fire alarm circuits and document them on as-built drawings, Which will include voltage drop calculations, actual voltage drop measurements, total load NAC load, and battery backup calculations. All device address must be shown in the drawings. When the existing fire panels are being replaced and the system is impaired, the hospital shall provide a 24/7 fire watch, for the duration of the panel change outs. The Contractor shall provide labor so that the fire watch is minimal. An approved schedule device and panel swap out plan must be approved by the Hospital prior to doing the work.

1. Equipment, materials, installation, workmanship, inspection, and testing shall be in strict accordance with the required and advisory provisions of NFPA 72 except as modified herein.

A. Equipment Removal: All existing equipment not connected to the new system shall be removed, all unused exposed conduit shall be removed, and all damaged surfaces shall be restored.

1.05 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

1. Code of Federal Regulations (CFR)

a.	47 CFR 90	Private Land Mobile Radio Service
b.	29 CFR 1910.36	Occupational Safety and Health Standards, Subpart E - Means of Egress, General Requirements
c.	29 CFR 1910.37	Occupational Safety and Health Standards, Subpart E - Means of Egress, General

2. American Society of Mechanical Engineers (ANSI/ASME)

a.	ASME/ANSI A17.1	(1993) Safety Code for Elevators and Escalators

3. Factory Mutual Engineering and Research Corporation (FM)

a.	FM P7825	(2001) Approval Guide

4. National Electrical Manufacturers Association (NEMA)

a.	NEMA ICS 1	(1993) Industrial Control and Systems

5. National Fire Protection Association (NFPA)

a.	NFPA 70	(2011) National Electrical Code
b.	NFPA 72	(2006) National Fire Alarm Code

c. NFPA 90A (2006) Installation of Air Conditioning and Ventilating Systems

6. Underwriters Laboratories Inc. (UL)

a. UL 464 (1990) Audible Signal Appliances

b. UL 864 (1991; R 1994, Bul. 1995) Control Units for Fire-Protective Signaling Systems

c. UL 1449 (1985; Errata 1986, Bul. 1993, 1994, and 1995) Transient Voltage Surge Suppressors

d. UL FPED (2001) Fire Protection Equipment Directory

7. American Electricians Handbook by Croft (latest edition), McGraw-Hill

8. Practical Electrical Wiring by Herbert P. Richter and W. Creighton Schwan, McGraw-Hill

9. Copper Development, Inc.'s "Copper Building Wire Handbook"

10. National Electrical Safety Code

11. Local ordinances and regulations of the County

12. International Municipal Signal Association Inc. Specification No. 19-1 1, polyethylene insulated, polyvinyl chloride jacket signal cable; and Applicable instructions of the manufacturer for equipment and materials supplied for the project.

1.06 SUBMITTALS

A. Submit under provisions of Section 01330 - SUBMITTALS. Partial submittals will not be acceptable. Submit for approval six (6) complete sets of submittals as described below. Annotate descriptive data to show the specific model, type, and size of each item the Contractor proposes to furnish. Do not commence work until the design of the system and the various components have been approved. The Hospital will review and approve all submittals. Before work is commenced the shop drawings must be approved.

1. Manufacturer's Catalog Data:

a. Fire alarm control panels (FACP's)

b. Manual fire alarm stations

c. Batteries

d. Battery charger

e. Addressable heat detectors

f. Addressable smoke detectors

g. Addressable interface devices

h. Audiovisual alarms

i. Visual alarms

j. Remote microphone station

2. Shop (Working) Drawings:

a. Point-To-Point Wiring Diagrams: Drawings shall be job-specific. "Typical" or "generic" drawings are not acceptable. The diagrams shall include but not be limited to the following:

1) Locations Of All System's Elements: Indicate all devices, junction boxes, handholes, and pass-through devices and entities where the cables and conductors can be accessed by personnel. Indicate the number of devices provided.

2) Also indicate the locations of all cable and conductor terminations and intermediate connections showing where they pass through without terminations/connections from and to equipment panels and/or devices.

3) Labeling Of All Elements: All devices junction boxes, etc. shall be labeled by functional designations, locations and numbers such as building alphabet, room function and room number, and handhole number.

4) Fire Alarm Wiring and Color Codes: All cable and conductor color codes, the wire marking system and marker designation as specified herein shall be shown.

b. Equipment and/or Modular Systems Wiring Diagram: Wiring diagrams showing all equipment (control panel and annunciator in separate panel) modules, components and key internal cabinet wiring that should be accessed for tests and maintenance. Drawings shall include but not be limited to the following:

1) Equipment Modules and Components: The equipment modules and components layout (relative locations in proportion to the modules, components and cabinet/enclosure sizes) including the fire alarm control panel(s), battery cabinets, etc. The drawings shall also show the arrangement of modules, components, wiring and expansion space within the FACP cabinet.

2) Input and Output Circuits Labeling: Label the input and output circuits by circuit designations specified herein.

3) Internal - External Circuits Interface Information: Only information that interfaces with external circuits and internal equipment wiring need be shown. All external wiring and circuits shall be shown in the riser diagram and the Contractor furnished Point-To-Point Wiring Diagrams.

   Changes in or deletion of the modular system wiring diagrams shall not require changes to the riser diagrams and the Contractor furnished Point-To-Point Wiring Diagrams and vice versa except for the panel deletion or change.

   Provide a complete description of the system sequence of operation for all initiating, notification, and control devices via a sequence of operation matrix diagram.

   Provide a complete list of device addresses and corresponding messages.

3. Design Data:

   a. Standby battery capacity calculations shall list the type of devices and modules, quantities, unit amperage draw for standby and alarm conditions, total amperage draw and battery amp/hour rating.

   b. Provide detailed voltage drop calculations for all notification appliance circuits and releasing device circuits.

   c. Provide data on each circuit to indicate that there is at least 25 percent spare capacity for notification appliances, and 25 percent spare capacity for initiating devices.

4. Guaranty.

5. Operations and Maintenance Manual: Provide five (5) bound copies of the Operations and Maintenance Manuals in three (3) hole binders with hard covers. The manuals shall be submitted to the Hospital a minimum of two (2) weeks prior to the final test.

    a. The manual may be provided in several volumes if so approved by the Hospital.

    b. All drawings shall be folded to letter size by individual sheets so they can be retained in the manual.

    c. The manual shall contain the following:

        1) Manufacturer's Printed Equipment/System Operations and Maintenance Manual, and Devices Brochures:

            a) Start-up, operating, preventative maintenance, adjustment and troubleshooting procedures, and parts list.

            b) System Control Diagrams.

            c) Internal equipment wiring diagrams.

        2) Manufacturer's Representatives: The names, addresses and phone numbers of the fire alarm system manufacturer, the nearest manufacturer's representative, and the nearest supplier of the manufacturer's equipment and parts.

        3) Fire Alarm System Test Results: Provide completed test data sheets with the recorded measured data obtained during pre-final testing in the designated spaces and a printout of the equipment program. The test plan shall be developed in accordance with NFPA 72, Chapter 7. Submit the following information.

            a) Test information applicable for the project.

            b) Standard attendance signature sheets.

6. As-Built Drawings: Submit in accordance with Section 01300 - SUBMITTALS. Drawings shall provide a detailed description of system operation during alarm, supervisory, and trouble modes and shall include a complete list of all system addresses including input/output logic. Upon completion and before final acceptance of the work, submit complete set of as-built drawings of the system for record purposes. Drawings shall include all components and circuit diagrams complete with conductor color codes and a listing of initiating devices. Submit 24 by 36 inch drawings on reproducible vellum with title block similar to full size contract drawings.

1.07 QUALITY ASSURANCE

A. Qualification of Installer: Installation shall be accomplished by an Hawai C-15 low voltage contractor with a minimum of 15 years experience in the installation of fire alarm systems in the State of Hawaii. The services of a technician provided by the control equipment manufacturer shall be provided to supervise installation, adjustments, and tests of the system. Prior to installation,
submit data for approval by the Engineer/Hospital showing that the Contractor has successfully installed addressable, programmable analog intelligent interior fire alarm systems of the same type as specified herein, or that the Contractor has a firm contractual agreement with a subcontractor having such required experience. Include the names and locations of at least two installations where the Contractor, or the subcontractor referred to above, has installed such systems. Indicate the type and design of each system and certify that each system has performed satisfactorily in the manner intended for a period of not less than 18 months. Submit names and phone numbers of points of contact at each site.

B. Qualifications of System Technician / Factory representative: The fire alarm manufactures rep must have minimum FIVE Techs with NICET I, II,III, IV certifications. The techs must have had HOCHIKI factory training and the new IPA Potter panel training prior to bid time. The Factory representative must have been in business for 15 years prior to the bid opening.
Installation drawings, shop drawings, and "as-built" drawings shall be prepared by, or under the supervision of, a qualified technician. Qualified NICET IV technician shall be an individual who is experienced with the types of work specified herein, and is currently certified by the National Institute for Certification in Engineering Technologies (NICET) as an engineering technician with minimum Level-IV certification in Fire Alarm Systems program. Contractor shall submit data showing the name and certification of the all technicians at or prior to submittal of drawings.

C. Regulatory Requirements: Devices and equipment for fire alarm service shall be listed by Underwriters Laboratories, Inc. or approved by the Factory Mutual System or listed by other nationally recognized testing laboratories.

E. Requirements for Fire Protection Service: Equipment and material shall have been tested by Underwriters Laboratories, Inc. and listed in UL FPED or approved by Factory Mutual and listed in FM P7825. Where the terms "listed" or "approved" appear in this specification, they shall mean listed in UL FPED or FM P7825. The omission of these terms under the description of any item of equipment described shall not be construed as waiving this requirement.

Standard Products: Materials and equipment shall be standard new products of a manufacturer regularly engaged in the manufacture of such products and shall essentially duplicate items that have been in satisfactory use for at least one year prior to bid opening. Select material from one manufacturer, where possible, and not a combination of manufacturers, for any particular classification of materials.

G. Modification of References: In NFPA publications referred to herein, consider advisory provisions to be mandatory, as though the word "shall" had been substituted for "should" wherever it appears; interpret reference to "authority having jurisdiction" to mean the County Building and Fire Departments.

1.08 GUARANTY AND CERTIFICATE

A. The Contractor shall guaranty and certify in writing all work in this section for period of two (2) years. Should any equipment or material fail due to defective equipment, material or workmanship within this period, the Contractor shall replace the item at no cost to the Hospital.

B. The two (2) year guaranty shall start at the end of thirty (30) consecutive days of trouble free operation after certification by the Fire Department and acceptance by the Hospital whichever date is the latest.

C. If the existing fire alarm system is inoperative or deficient and requires repair, the guaranty shall begin thirty (30) days after trouble free operation after the date the Contractor installed portion of the fire alarm system is tested to confirm that it is operational and meets contract requirements.

1.09 MAINTENANCE

A. During the fire alarm system's two (2) year guaranty period, the Contractor shall supply complete maintenance and testing services for the entire fire alarm system in accordance with the manufacturer's instructions and NFPA 72. The system shall be tested and serviced every six (6) months for a minimum of four (4) times during the guaranty period. Reports prepared on Contractor-furnished standardized forms similar to the form in NFPA 72 shall be submitted to the Hospital each time a test and/or maintenance action occurs.

B. During the two (2) year guaranty period, the Contractor shall, upon the receipt of notice from the Hospital's representative, promptly make all repairs arising out of defective material, workmanship or equipment. The Contractor shall respond to such notices within 12 hours after receipt of the notice.

The local representative or supplier shall have direct access to replacement parts and a fire alarm repairman, either on his own staff or in a manufacturer's service center, to ensure the system can be restored to normal operation within two (2) days of system failure. All costs including air-fare, car rental, travel time, etc. shall be borne by the contractor.

It is understood that the Hospital will undertake repairs if, following two (2) working days after receipt of such notice, the Contractor fails to make or undertake the repairs with due diligence. The expense in connection therewith shall be charged to the Contractor.

PART 2 – PRODUCTS

2.01 MANUFACTURER QUALIFICATIONS

The fire alarm manufactures rep must have minimum FIVE Techs with NICET I,II,III, IV certifications. The techs must have had HOCHIKI factory training and the new IPA Potter panel training prior to bid time. The Factory representative must have been in business for 15 years prior to the bid opening. The fire alarm manufactures rep must have an office located in Honolulu. The company must have had four years as an IPA Potter dealer.

2.02 SYSTEM DESIGN

A. System Operation: System shall be a complete, supervised, noncoded, addressable multiplex fire alarm system conforming to NFPA 72. The system shall operate in the alarm mode upon actuation of any alarm initiating device. The system shall remain in the alarm mode until all initiating device(s) are reset and the fire alarm control panel is manually reset and restored to normal. The system shall provide the following functions and operating features:

1. Fire alarm control panels and fire alarm control units, if used, shall provide power, annunciation, supervision and control for the system.

2. Provide 1 Class B, Style B, initiating device circuits.

3. Provide Class B, Style 4, signaling line circuits.

4. Provide 10 Class B, Style Y, notification appliance circuits.

5. Provide electrical supervision for flow and tamper switches. Electrical supervision of wiring external to control panel for mechanical equipment shutdown and magnetic door holding circuits will not be required.

6. Provide electrical supervision of the primary power (AC) supply, presence of the battery, battery voltage, and placement of system modules within the control panel, and any extender panel(s).

7. Provide an audible and visual trouble signal to activate upon a single break or open condition, or ground fault which prevents the required operation of the system. The trouble signal shall also operate upon loss of primary power (AC) supply, absence of a battery supply, low battery voltage, or removal of alarm or supervisory panel modules. Provide a trouble alarm silence feature which will silence the audible trouble signal, without affecting the visual indicator. After the system returns to normal operating conditions, the trouble signal shall again sound until the trouble is acknowledged. A smoke sensor in the process of being verified for the actual presence of smoke shall not initiate a trouble condition.

8. Provide a notification appliance silencing switch which, when activated, will cause the notification appliances to cease operating, but not affect the liquid crystal display. This switch shall be overridden upon activation of a subsequent alarm.

9. Provide alarm verification capability for smoke sensors. Additionally, alarm verification shall be disabled on sensors used in cross zoned detection systems.

10. Provide program capability via switches in a locked portion of the FACP to bypass the automatic notification appliance circuits, door release, and door unlocking features. Operation of a switch shall indicate a trouble condition on the FACP display.

11. All alarm, supervisory, or trouble signals shall be automatically transmitted to other networked panels.

12. Alarm functions shall override trouble or supervisory functions. Supervisory functions shall override trouble functions.

13. The system shall be field programmable. All programmed information shall be stored in non-volatile memory.

14. The system shall be capable of operating, supervising, and/or monitoring both addressable and non-addressable alarm and supervisory devices.

15. The system shall sustain the maximum system capacity on the number of addressable devices which may be in alarm simultaneously.

16. Where the fire alarm system is responsible for initiating an action in another emergency control device or system, such as a HVAC system and access control system, the addressable fire alarm relay shall be within 3 feet of the emergency control device.

17. An alarm signal shall automatically initiate the following functions:

    a. Transmission of an alarm signal to the other networked panels.

    b. Visual indication of the device operated on the fire alarm control panel (FACP) and on the annunciator. Indication on the graphic annunciator shall be by floor, zone or circuit, and type of device.

    c. Continuous actuation of all alarm notification appliances.

    d. Release of doors held open by electromagnetic devices.

e. Release of power to electric locks on doors which are part of the means of egress.

f. Visual indication of the device operated on the fire alarm control panel (FACP) and on the annunciator.

18. A trouble condition shall automatically initiate the following functions: Visual indication of the system trouble on the FACP and on the annunciator.

19. Provide Ethernet interface cards and include software for network and stand alone modes. Utilize "SF" or "MMF" fiber optic cable runs, installed in conduit between fire alarm control panels.

B. System Monitoring:

1. Valves: Each valve affecting the proper operation of a fire protection system, including automatic sprinkler control valves, standpipe control valves, sprinkler service entrance valve, valves at fire pumps, and valves at backflow preventers, whether supplied under this contract or existing, shall be monitored to ensure its proper position. Each tamper switch shall be provided with a separate address.

2. Elevator Recall Monitoring: As described on drawings.

3. Elevator Sprinkler Pre-Action Monitoring: As described on drawings.

C. Overvoltage and Surge Protection: Provide a factory approved surge suppressor at power inputs to control panels, on all signaling line circuits conforming to UL 1449. Suppressor shall be hybrid MOV type providing a maximum clamping voltage of 500 volts and a 150 joule minimum energy dissipation capacity.

D. Fire Alarm Control Panel (FACP): Provide a complete control panel fully enclosed in a lockable steel enclosure as specified herein. All operations required for testing or for normal care and maintenance of the systems shall be performed from the front of the enclosure. Each control unit shall provide power, supervision, control and logic for the entire system, utilizing solid state, modular components, internally mounted and arranged for easy access. Each control unit shall be suitable for operation on a 120 volt, 60 hertz, normal building power supply. Provide each panel with supervisory functions for power failure, internal component placement, and operation. Visual indication of alarm, supervisory or trouble initiation on the fire alarm control panel shall have 7" color graphic touch screen and will display graphics and text. The FACP shall have a 4064 point capacity, with a 10 NAC ckts and a 10 amp power supply. The FACP shall be capable of connecting 31 annunciators with 7" screens. The FACP shall be expandable to have 200 total peer to peer network nodes. The FACP shall be a POTTER IPA fire alarm control panel with no substitutions

1. Cabinet: Install control panel components in cabinets large enough to accommodate all components and also to allow ample gutter space for interconnection of all panels as well as all field wiring. The enclosure shall be identified by an engraved laminated phenolic resin nameplate. Lettering on the nameplate shall say "Fire Alarm Control Panel" and shall not be less than 0.75 inch high. Provide prominent rigid plastic or metal identification plates for all lamps, circuits, meters, fuses and switches. The cabinet shall be provided in a sturdy steel housing, complete with backbox, hinged steel door with cylinder lock, and surface mounting provisions. The cabinet shall be painted beige.

2. Control Panel Modules: Provide power and control modules to perform all functions of the FACP. Provide audible signals to indicate any alarm, supervisory or trouble condition. The alarm signals shall be different from the trouble signal. Connect all circuit conductors entering or leaving the panel to screw-type terminals with each terminal marked for identification. Locate diodes and relays, if any, on screw terminals in the FACP.

3. Silencing Switches: Provide an alarm silence switch at the FACP which will silence the audible signal but not affect the visual alarm indicator. Provide trouble and supervisory silencing switch which will silence the audible trouble and supervisory signal, but not extinguish the visual indicator. This switch shall be overridden upon activation of a subsequent alarm.

4. Memory: Provide each control unit with non-volatile memory and logic for all functions. The use of long life batteries, capacitors or other age-dependent devices shall not be considered as equal to non-volatile processors, PROMS or EPROMS. The control panel shall have the ability to store a minimum of 4000 events in a log stored in a battery-protected memory.

5. Field Programmability: Provide control units and control panels that are fully field programmable for control, initiation, notification, supervisory and trouble functions of both input and output. The system program configuration shall be menu driven. All system changes shall be password protected.

6. Input/Output Modifications: The FACP shall contain features which allow the bypassing of input devices from the system or the modification of system outputs. These control features shall consist of a panel mounted keypad. Any bypass or modification to the system shall indicate a trouble condition on the FACP.

7. Resetting: Provide the necessary controls to prevent the resetting of any alarm, supervisory, or trouble signal while the alarm, supervisory or trouble condition on the system still exists.

8. Walk Test: The FACP shall have a walk test feature. When using this feature, operation of initiating devices shall result in limited system

outputs, so that the notification appliances operate for only a few seconds and the event is indicated on the system printer, but no other outputs occur.

E. Electric Power:

1. Primary Power: Provide primary power for the FACP from the normal AC service to the building where shown on the drawings. Power shall be 120 VAC service, transformed through a two-winding, isolation type transformer and rectified to low voltage DC for operation of all circuits and devices. Make the service connection for the FACP at the location indicated. Provide a red and white engraved plastic sign permanently affixed to the FACP identifying the power service location, panel, and breaker. The electrical circuit in the panel supplying power to the fire alarm control panel shall be marked in red.

2. Emergency Power Supply: Provide for system operation in the event of primary power source failure. Transfer from normal to auxiliary (secondary) power or restoration from auxiliary to normal power shall be automatic and shall not cause transmission of a false alarm.

   a. Batteries: Provide rechargeable, maintenance-free, lead-acid gelled electrolyte sealed batteries as the source for emergency power to the FACP. Batteries shall contain suspended electrolyte. The battery system shall be maintained in a fully charged condition by means of a solid state battery charger. Provide an automatic transfer switch to transfer the load to the batteries in the event of the failure of primary power. Batteries shall have lead bolt-on or wing-nut-type terminals. Batteries with fast-tab terminals are unacceptable. House batteries within the control panel. Separate cells to prevent contact between terminals of adjacent cells and between terminals and other metal parts. Batteries shall have a clear or transparent battery shell which clearly displays the liquid level within the battery.

   b. Capacity: Provide the batteries with sufficient capacity to operate the system under supervisory and trouble conditions, including audible trouble signal devices for 24 hours and audible and visual signal devices under alarm conditions for an additional 5 minutes.

   c. Battery Charger: Provide a solid state, fully automatic, variable charging rate battery charger. The charger shall be capable of providing 150 percent of the connected system load and shall maintain the batteries at full charge. In the event the batteries are fully discharged the charger shall recharge them back to full charge within 48 hours. Provide pilot light to indicate when batteries are manually placed on a high rate of charge as part of the unit assembly if a high rate switch is provided.

G. Addressable Interface Devices: The addressable monitor device shall provide an addressable input interface to the FACP for monitoring normally-open or normally-closed contact devices such as alarm pressure switches, waterflow switches, valve supervisory switches, fire pump monitoring, independent smoke detection systems, etc. The addressable control device shall provide an addressable output interface to the FACP for door releasing, solenoid activation, etc.

1. Addressable Monitor Modules: Addressable Monitor Module shall be provided to connect supervised conventional initiating device or zone of supervised conventional initiating devices, including but not limited to water flow and alarm pressure switches, valve tamper switches, low pressure switches, manual release stations, and heat detectors, and other such devices. Monitor module shall mount in a 4 inch square, 2-1/8 inch deep electrical box and shall be capable of Style B supervised wiring to the initiating device. Monitor module shall provide address setting means switches and store an internal identifying code which the control panel shall use to identify the type of devices. Monitor module shall contain an integral LED that flashes each time the monitor module is polled.

2. Addressable Control Modules: Addressable Control Module shall be provided to connect supervised conventional notification device or zone of notification devices that require an external power supply, such as audio-visual alarms, to one of the (2) wire analog loop cards in a Style Z configuration. The control module shall be capable of operating as a relay (dry contact Form C), to control auxiliary functions. The module shall mount in a 4 inch square, 2-1/8 inch deep electrical box and shall be capable of Style B supervised wiring to the indicating or control device. The module shall provide address setting means switches and store an internal identifying code which the control panel shall use to identify the type of devices. Module shall contain an integral LED that flashes each time the module is polled.

3. Isolation Modules: Provide isolation modules to isolate wire-to-wire short circuits on a loop and limit the number of other modules or sensors that are incapacitated by the short circuit fault. Place isolator modules at signaling line circuit T-taps where the T-tap will contain more than 5 addressable devices, and located such that not more than 30 addressable devices are connected between isolation modules. If a wire-to-wire short occurs, the module shall automatically open the circuit. On repair of the short, the module shall automatically reconnect the isolated section of the signaling line circuit. The module shall mount in a 4 inch square, 2-1/8 inch deep electrical box. Module shall contain an integral LED that flashes each time the module is polled and illuminates steadily to indicate that a short has been detected and isolated.

4. Provide (3) addressable output modules and required programming for each elevator controller performing recall functions. One output

module is for elevator recall to primary level; the second module is for recall to the alternate level; and the third module is for operation of the fire fighter light in the cab. Include equipment and programming as described above for all elevators not currently equipped with recall functions. Install modules in Elevator Machine Room and label.

4. Provide all required devices, wiring and programming for each elevator sprinkler pre-action system at top of hoistway and machine room.

H. Smoke Detectors:

1. Photoelectric Smoke Detectors: Provide addressable photoelectric smoke sensors as follows:

a. Provide addressable photoelectric smoke detectors utilizing the photoelectric light scattering principle for operation. Smoke detectors shall be listed for use with the fire alarm control panel.

b. All components shall be rust and corrosion resistant. Vibration shall have no effect on the detector's operation. Protect the detector chamber with a fine mesh metallic screen which prevents the entrance of insects or air born materials. The screen shall not inhibit the movement of smoke particles into the chamber.

c. Provide twist lock bases for the detectors. The detectors shall maintain contact with their bases without the use of springs. Provide companion mounting base with fixed wiring terminals. Terminate field wiring on the fixed terminals.

d. Detectors shall be equipped with screw terminals for each conductor.

e. The detector address shall identify the particular unit, its location within the system, and its sensitivity setting. Detectors shall be of the low voltage type rated for use on a 24 VDC system.

f. Detectors shall include alarm LED which flashes under normal conditions, indicating that the sensor is operational and in regular communication with the control panel. LED to be placed into steady illumination by the control panel when the sensor is in alarm. Provide an output connection for an external remote alarm LED.

g. Provide smoke detectors with sounder base when indicated.

I. Heat Detectors:

1. Thermal Detectors: Provide addressable rate of rise with fixed temperature heat detectors as follows:

a. Provide detectors designed for the rate of rise principal with an independent fixed temperature element. Temperature rating of detectors shall be 135 degrees F. unless ceiling temperatures require a higher temperature rating in accordance with NFPA 72. Rate of rise shall be 15 degrees F.

b. Provide detectors with a visual indicator to show that the detector has operated.

J. Manual Stations: Provide dual action addressable noncoded type with mechanical tool-less reset feature. Locate stations as indicated. Stations shall be surface -mounted. Surface-mounted boxes shall be painted the same color as the alarm station. Provide each station with screw-type terminals of proper number and type to perform functions required. Break-glass-front stations and pull-lever, break-glass-rod type are not acceptable. Potter PAD Pull station

K. Notification Appliances:

1. Fire Alarm Horns:

Re-use existing horns and horn strobes

2. Connections: Provide screw terminals for each notification appliance. Terminals shall be designed to accept the size conductors used in this project without modification.

3. Visual Alarms:

a. Re-use existing horns and horn strobes

L. Fire Alarm Power Extender Panels (where required): Fire alarm power extender panel shall comply with the applicable requirements of UL 864. Panel shall be modular, installed in a surface-mounted steel cabinet with hinged door and cylinder lock. The extender panel(s) shall have the necessary components and equipment required to provide a minimum of Six supervised, Class B, Style Y, notification appliance circuits. Each appliance circuit shall be rated for 3 amperes at 24 volts DC. An alarm signal from the FACP will initiate the four notification appliance circuits to extend the alarm. Primary power for the panel shall be 6 amperes at 120 volts AC. Standby power shall be same as FACP and charger shall be housed integrally within the cabinet. POTTER PSN-1000 Addressable power expander

N. System Wiring: Provide wiring materials under this section as specified in Section 16010 - ELECTRICAL WORK with the additions and modifications specified herein.

1. Wiring Within Cabinets, Enclosures, Boxes, Etc.: Provide wiring installed in a neat and workmanlike manner and installed parallel with or at right angles to the sides and back of any box, enclosure or

cabinet. All conductors which are terminated, spliced, or otherwise interrupted in any enclosure, cabinet, mounting or junction box shall be connected to terminal blocks. Mark each terminal in accordance with the wiring diagrams of the system. Make all connections with approved pressure type terminal blocks, which are securely mounted.

2. Terminal Cabinets: Provide a terminal cabinet on each floor at each riser and where indicated on the drawings. Terminal size shall be appropriate for the size of the wiring to be connected. All conductor terminations shall be labeled and a drawing containing all conductors, their labels, their circuits and their interconnection shall be permanently mounted in the terminal cabinet. Minimum size is 8 inches high by 8 inches wide.

3. Above Grade Alarm Wiring: Conductors shall be Type THHN/THWN. Type TW is not permitted. Signaling line circuits and initiating device circuit field wiring shall be twisted pair No. 18 to No. 12 AWG, depending on distance and per manufacturer's recommendations. Visual alarm signal and audible appliance circuits shall be single solid copper No. 14 AWG size conductors at a minimum. Speaker circuits shall be solid copper No. 16 AWG size conductors at a minimum. Wire size shall be sufficient to prevent voltage drop problems. Power wiring, operating at 120 VAC minimum, shall be No. 12 AWG solid copper having similar insulation. Provide wiring in electrical metallic tubing in dry locations not enclosed in concrete or where not subject to mechanical damage.

   Provide rigid conduit in all other locations. Conceal conduit in finished areas of any new construction and wherever practicable in existing construction. The use of flexible conduit not exceeding a 6 foot length shall be permitted in initiating device circuits. The minimum conduit size shall be 0.75 inch. Shielded wiring shall be utilized where recommended by the manufacturer. For shielded wiring, the shield shall be grounded at only one point, which shall be in or adjacent to the FACP. T-taps are permitted in Style 4 circuits with interconnections occurring on terminal strips. Circuits to fan shutdown systems, door locking systems shall terminate in terminal cabinets within 3 feet of the controllers for those systems. The completion of those circuits from the terminal cabinets to the appropriate system shall be provided under the appropriate Division.

4. Conductor Terminations: Color coding is specified under PART 3 - EXECUTION. Labeling of any circuit at terminal blocks in terminal cabinets, FACP, and remote fire alarm control units shall be provided at each conductor connection. Each conductor or cable shall have a shrink-wrap label to provide a unique and specific designation. Each terminal cabinet, FACP and remote fire alarm control unit shall contain a laminated drawing which indicates each conductor, its label, circuit and terminal. The laminated drawing shall be neat, using 12 point lettering minimum size, and mounted within each cabinet, panel or unit so that it does not interfere with the wiring or terminals. Maintain existing color code scheme where connecting to existing equipment.

5. Frame for Operating Instructions: The frame material shall be welded stainless steel, with clear UV resistant plexi-glass. Instructions shall be typewritten. Drawings shall be done by computer. Hand lettering and drafting not acceptable.

6. Cable Markers:

   a. Rectangular, commercially available polyethylene cable tags with pre-punched holes at each corner for the attachment with self-locking ties.

   b. Minimum 0.035-inch thick.

   c. Average Tensile Strength: 4500 pounds p.s.i.

   d. Non-corrosive, non-conductive, resistant to acids, alkalis, organic solvents, salt water and distortion-resistant in temperatures up to 300 degrees F.

   e. White or yellow and machine printed with the phrase "Fire Alarm Cable - Buildings A to E" in black block letters 1/8" or larger in vertical height. Handwritten markers are not acceptable.

      1) The preprinting shall be permanent and shall not fade or dissolve.

      2) The tags shall be suitable for marking with black permanent markers. There shall also be space available for additional notes (for maintenance / service contractor use only).

7. Cable and Conductor Ties: One-piece, self-locking nylon ties having a minimum loop tensile strength of 175 pounds and resistance to the same conditions as cable marker.

8. Nameplates: Provide metallic and/or phenolic noncorrosive and non-heat sensitive nameplates for:

   a. Fire Alarm Control Panels: The nameplates shall be factory installed, securely mounted inside the fire alarm panel with machine screws or glue, and shall also be accessible and visible. Information on the nameplates shall be 1/8" or larger lettering stamped or engraved with the following:

      1) Manufacturer's name and address.

      2) Model Number.

      3) Serial Number.

      4) Date of Manufacture.

5) Manufacturer's drawing number (if available).

b. Subpanels and Modules: The nameplates shall be securely mounted on the Subpanels and/or module with machine screws or glue and include the following information:

1) Subpanel and/or module model and/or type number.

2) Catalog number.

9. Corrosion and Fungus Protection: Metallic equipment shall be coated with a rust inhibiting treatment and standard finish per the manufacturer's standard. Components shall be protected against corrosion and fungus (e.g. circuit boards shall be epoxy coated).

PART 3 – EXECUTION

3.01 EXAMINATION OF THE DRAWINGS AND SPECIFICATIONS

A. Confirm and coordinate voltages and requirements of equipment furnished by other trades which will be connected to the fire alarm system. They include detectors and dampers, and any other equipment connected to the fire alarm system. Include the above information on the field-post as-built drawings.

3.02 EXAMINATION OF EXISTING SITE CONDITIONS

A. Cabinets, panels, annunciators, outlets, pull stations, audio / visual devices and other equipment and devices shall be installed in the locations and heights shown on the drawings and/or as specified herein.

1. The location of the equipment and devices shown on the plans are approximate. Before installing, the Contractor shall study adjacent construction, verify all dimensions and sizes of equipment at the job site and perform installation in what he considers the most logical manner.

2. Any changes from the locations shown on the drawings must be approved by the Hospital and shown on the "field-posted as-built" drawings.

3. Any device may be relocated within 10'-0" before installation at the direction of Hospital without additional charges.

B. The Contractor shall determine the location of existing cables and record their route on the field-posted as-built drawings.

3.03 INSTALLATION

A. Protect dissimilar metals with approved fittings and treatment.

B. Coat steel conduits installed underground with an approved asphaltic paint or plastic coating, or wrap with a shingled layer of a pressure sensitive plastic tape, half-lapped. Do not use aluminum in contact with the earth.

C. All metallic conduits and boxes shall be grounded with a green wire ground conductor.

D. Equipment Installation: Equipment, materials, installation, workmanship, inspection, and testing shall be in accordance with NFPA 70, NFPA 72, and as modified herein.

1. FACP: Locate the FACP where indicated on the drawings. Surface mount the enclosure with the bottom of the cabinet 4 feet above the finished floor. All conductor terminations shall be labeled and a drawing containing all conductors, their labels, their circuits and their interconnection shall be permanently mounted in the FACP.

2. Manual Stations: Locate manual stations where shown on the drawings. Mount stations so that their operating handles are 4 feet above the finished floor.

3. Notification Appliance Devices: Locate notification appliance devices where shown on the drawings. Mount assemblies on walls 80 inches above the finished floor or 6 inches below the ceiling whichever is lower.

4. Smoke Detectors and Heat Detectors: Locate detectors as shown on the drawings on a 4 inch mounting box. Detectors located on the ceiling shall be installed not less than 4 inches from a side wall to the near edge. Those located on the wall shall have the top of the detector at least 4 inches below the ceiling, but not more than 12 inches below the ceiling. In the case of solid joist construction, the sensors/detectors shall be mounted on the bottom of the joists. On smooth ceilings, sensors/detectors shall be installed not over 25 feet apart in any direction. Closer spacing shall be used when recommended by the detector manufacturer or required by NFPA 72. Install smoke detectors no closer than 3 feet from air handling supply outlets. Heat detectors shall be installed in strict accordance with their UL listing.

E. Cables and Conductors:

1. Below Grade Cable Installation: Cable shall be installed as indicated on the drawings.

a. Conduits shall be sloped as noted on the drawings to provide drainage at handholes and manholes.

b. Cables shall not be installed in the same ducts, conduits, handholes, etc. with non-fire alarm circuits.

c. Align and clean ducts and conduits before cable installation using mandrels, and scrapers and wire brushes. Arrange with

the Hospital to have an inspector present for conduit and duct cleaning, and cable installation.

d. Properly sized tensiometer and pulling devices shall be used for cable installation. Jerking of cables during the pulling installation process shall not be allowed.1) At the request of the Hospital, the Contractor shall provide proof and date of calibration of the tensiometer and cable pulling devices used.

2) Cable pulling tensions shall not exceed manufacturer`s recommended pulling tensions.

3) Use cable lubricants and compounds that will neither change the physical characteristics nor increase the conductor insulation dielectric constants of the cable sheath.

e. Should the Contractor proceed with conduit cleaning and cable installation without having notified the Hospital, if directed by the Hospital, the Contractor shall remove the cable(s) for inspection and reinstall at no additional cost.

1) The Contractor may reinstall the removed cable if inspection and/or tests show no cable damage.

2) If the cable is damaged, the Contractor shall install a new replacement cable at no additional cost.

2. Above Grade Conductor Installation:

a. Conductors shall not be installed in the same conduits, ducts, junction boxes, etc. with non-fire alarm circuits. 120 volt AC fire alarm circuit conductors shall not be contained within the same multi-conductor cable nor installed with cables and other conductors in the same conduits, ducts, enclosures, junction boxes, etc. with 24 volt DC fire alarm circuits.

b. Conductors shall be installed in continuous lengths. Splices shall be made in above ground junction boxes by terminating wires with wirenut connections.

c. Cable pulling tensions shall not exceed manufacturers' recommended pulling tensions.

d. Wire-nut connectors: Permitted for connections in above grade locations only, in junction boxes and equipment and to devices that are not available or manufactured with screw-type connections.

3. Conductor Color Code: Conductors shall be provided with insulation color coded as follows:

a. Power Branch Circuit Conductors: Red (+), White (-) for 120 VAC. Black (+), Red (-), and White (neutral) for 240 VAC.
b. Initiating Device Circuit: Red (+), Black (-).

c. Audible Notification Appliance Circuit: Blue (+), Orange (-).

d. Visual Notification Appliance Circuit: Brown (+), Yellow (-).

e. Detector Power Supply or separate annunciator wiring color code: Violet (+), Black (-).

f. Tie Circuit:

1) Red (+), Black (-) if used as an initiating circuit.

2) Blue (+), White (-) if used as a signaling circuit.

g. Door Holder Circuit (DHC): Pink, Pink.

h. Multi-conductor cable green, white, and gray colors shall not be used.

F. Cable and Conductor Terminations and Dress. The following requirements shall apply to terminal cabinets, junction and outlet boxes larger than 12" x 12":

1. Electric equipment shall be installed in a neat and workmanlike manner in accordance with NEC 373-7, Space in Enclosures.

2. Cable conductors or individual conductors shall be bundled, dressed and held together with cable straps, ties or lace and fanned in a manner that equipment terminals are visible and accessible, and allow the connections to be removed and reconnected without moving a large number of wires.

a. Conductors to screw type connectors shall be terminated with wire lugs or with approved cable termination connectors compatible with the specific termination.

b. A minimum of 6 inch excess length shall be provided for conductors from the bundles to the connectors using a vibration loop as described by NEC 300-14.

c. Conductors shall be labeled as specified herein.

3. Cross-connected conductor pairs in junction and device outlet boxes or cabinets will not require bundling and cable straps, ties or lace but shall be neatly installed with a minimum of 6 inches of excess length so conductors can be easily traced between terminals. Label all conductors as specified herein.

4. Cabinets, junction boxes, outlet boxes, other boxes, shall have sufficient space to accommodate all conductors installed in them without crowding.

5. Completed work shall be uncrowded and uncluttered and shall allow accessibility without cutting and/or removing of any straps, ties, laces, cables, components, devices, brackets, modules, equipment and like items.

6. Cables shall be secured to junction boxes, equipment cabinet backboards, console members or to other system components using cable clamps and wraps. Provide cable support posts as required to facilitate system installation.

G. Cable and Conductor Identification System

1. Underground Cable Markers:

a. Provide markers at both ends of the cables and at all intermediate locations where the cables are accessible and visible.

b. Each marker shall be secured with two (2) nylon ties.

2. Conductor Markers:

a. Provide markers at ends of each conductor connected to the control panels and terminal cabinets at each building.

b. Attach markers a minimum of four (4) inches from the ends of conductors in a manner that will not permit accidental detachment.

3. Signaling Line Circuits: Signaling line circuits shall be labeled by zone number as shown on the drawings. Conductors shall be labeled in the fire alarm panel(s), the building's main fire alarm junction box and termination cabinet.

4. Audible and Visual Notification Circuits: Notification circuits shall be labeled by signaling circuit number as shown on the drawings. Conductors shall be labeled in the fire alarm panel(s) and in the building's fire alarm termination cabinet.

H. Framed Operating Instructions: A framed set of operating instruction printed on a white background or engraved Main Fire Alarm Panel Operating Instructions shall be provided. The framed instructions shall be permanently mounted adjacent to the main fire alarm annunciator-control panel.

I. Field Touch-up Painting: Touch-up painted surfaces and fire alarm system components damaged during installation to match the existing or specified paint and color.

J. Disconnection and Removal of Existing System: Fire alarm control panels and fire alarm devices disconnected and removed shall be turned over to the Hospital.

1. The existing fire alarm and smoke detection system shall remain in operation at all times during the installation and commissioning of the new system. The Contractor shall take precautions to avoid any accidental activation of the existing fire alarm system. When making modifications to the existing systems, the Contractor shall minimize the time the existing system is out of service. Prior to any impairment of the existing system the Contractor shall notify the State and County Fire Department. The Contractor shall comply with 29 CFR 1910.36 and 29 CFR 1910.37. No impairment shall exceed 4 hours. The Contractor shall establish a fire watch to monitor the impaired area until the entire fire alarm system is returned to full operation. The Contractor shall schedule outages 30 days in advance. Once this new system is on-line and accepted by the State, remove the old system. As new equipment is installed, label it "NOT IN SERVICE". Upon acceptance, remove labels.

2. Disconnect and remove the existing fire alarm and smoke detection systems where indicated and elsewhere in the specification.

3. Properly dispose of fire alarm outlet and junction boxes, wiring, conduit, supports, and other such items.

K. Connection of New System: The following new system connections shall be made during the last phase of construction, at the beginning of the preliminary tests. New system connections shall include:

1. Connection of new control modules to existing magnetically held smoke door (hold-open) devices.

2. Connection of new elevator recall smoke sensors to existing wiring and conduit.

3. Connection of new system transmitter to existing fire alarm transmitter interface panel.

Once these connections are made, system shall be left energized and new audio/visual devices activated. Report immediately to the State, coordination and field problems resulting from the connection of the above components.

3.04 TESTING

A. Testing Of The New Fire Alarm System:

1. After completion of the fire alarm system's installation, turn on and leave the system on for a minimum of three (3) consecutive weeks to demonstrate that contract work operates, meets the requirements of the specifications and does not affect the operation of the entire fire alarm system.

2. Upon successful completion of the three (3) week operational period, arrange with the Hospital for a pre-final fire alarm system test and inspection. The test and inspection shall demonstrate that all the Contractor installed fire alarm system equipment, devices cables and conductors are operating acceptably and have been installed in accordance with this specification.

   Accordingly, the test demonstrates that the system is ready for a final test of the overall fire alarm system.

   Representatives at the prefinal test shall include the Contractor, fire alarm system manufacturer's representative, user, the user's facility maintenance agency personnel, F.A. system design consultant, and the Hospital. Representatives at the Final test shall include all the foregoing representatives and the County Fire Department Inspector.

3. Preliminary Test Results: Include the control panel and initiating and indicating devices, a unique identifier for each device with an indication of test results, and signature of the factory-trained technician of the control panel manufacturer and equipment installer. With reports on preliminary tests, include a hard copy of printer output information from preliminary testing, i.e. download historical file so that all test data is available for Hospital review.

   a. Tests:

      1) Dielectric Strength and Insulation Resistance Tests: Test the dielectric strength and the insulation resistance of the system interconnecting wiring by means of an instrument capable of generating 500 volts dc and equipped to indicate leakage current in 1000 megohms. For the purpose of this test, the instrument shall be connected between each conductor on the line and between each conductor and ground at the control panel end of the line, with the other extremity open circuited and all series-connected devices in place. The system shall withstand the test without breakdown and shall indicate a resistance of not less than 500,000 ohms, the measurement being

taken after an electrification of not more than 1.0 minute with a dc potential of not less than 100 volts nor more than 550 volts. The tests shall be witnessed by the State Inspector and test results recorded for use at the final acceptance test.

2) Loop Resistance Tests: Measure and record the resistance of each circuit with each pair of conductors in the circuit short-circuited at the farthest point from the circuit origin. The tests shall be witnessed by the State Inspector and test results recorded for use at the final acceptance test. Loop Resistance Tests: Measure and record the resistance of each circuit with each pair of conductors in the circuit short-circuited at the farthest point from the circuit origin. The tests shall be witnessed by the State Inspector and test results recorded for use at the final acceptance test.

3) Ground Resistance Tests: Measure the resistance of each connection to ground. Ground resistance shall not exceed 5 ohms. The tests shall be witnessed by the State Inspector and test results recorded for use at the final acceptance test.

4) Smoke Detector Tests: Prior to formal inspection and tests, clean and perform sensitivity tests on each smoke detector. Clean the smoke detectors in accordance with the manufacturer's recommended procedures. Perform voltage activation sensitivity test on each sensor and record the results. Remove detectors with a sensitivity level above or below the UL accepted sensitivity range for that detector and replace with new detectors. Present recorded data at the formal inspection for verification. Approved copies shall become part of the operations and maintenance manual for the fire alarm system.

5) Preliminary Testing: Conduct preliminary tests to ensure that all devices and circuits are functioning properly. Tests shall meet the requirements of paragraph entitled "Minimum System Tests" of this section. After preliminary testing is complete, provide a letter certifying that the installation is complete and fully operable to the Hospital a minimum of 7 calendar days before the formal acceptance test date required in the paragraph below. Without the submission of this report, the final acceptance test is automatically canceled.

b. Formal Acceptance Testing: Notify the Hospital in writing when the system is ready for final acceptance testing. Submit request for test at least 15 calendar days prior to the test date. A final acceptance test will not be scheduled until the O&M Manuals are submitted and the following are provided at the job site:

1) Marked-up red line drawings of the system as actually installed.

2) Dielectric strength and insulation resistance test results

3) Loop resistance test results

4) Complete program printout including all input/output addresses

5) A diskette containing the entire software program for the system

6) A list of passwords permitting access by designated Hospital employees to all levels of the software programs(s).

The final tests shall be witnessed by the County Fire Department or the Authority Having Jurisdiction (AHJ). At this time, any and all required tests shall be repeated according to the AHJ. Following acceptance of the system, as-built drawings and Operation and Maintenance (O&M) Manuals shall be submitted for review and acceptance. In existing buildings, the transfer of devices from the existing system to the new system and the permission to begin demolition of the old fire alarm system will not be permitted until the as-built drawings and O&M Manuals are received.

c. Minimum System Tests: Test the system in accordance with the procedures outlined in NFPA 72, Chapter 7. The required tests are as follows:

1) Verify the absence of unwanted voltages between circuit conductors and ground. The tests shall be accomplished at the preliminary test with results available at the final system test.

2) Verify that the control unit is in the normal condition as detailed in the manufacturer's operating and maintenance manual.

3) Test each initiating and indicating device and circuit for proper operation and response at the control unit.

4) Test the system for all specified functions in accordance with the contract drawings and specifications and the manufacturer's operating and maintenance manual.

5) Test both primary power and secondary power. Verify, by test, the secondary power system is capable of operating the system for the time period and in the manner specified.

6) Determine that the system is operable under trouble conditions as specified.

7) Visually inspect all wiring.

8) Test the battery charger and batteries.

9) Verify that all software control and data files have been entered or programmed into the FACP. Hard copy records and two identical diskette copies of the software and data files shall be provided to the Hospital.

10) Verify that red-line drawings are accurate.

11) Measure the current in circuits to assure there is the calculated spare capacity for the circuits.

12) Measure voltage readings for circuits to assure that voltage drop is not excessive.

13) Disconnect the verification feature for smoke sensors during tests to minimize the amount of smoke or test gas needed to activate the sensor.

14) Measure the voltage drop at the most remote appliance on each notification appliance circuit.

4. Audio Tests:

a. Provide test equipment and conduct audio test for the fire alarm system in and around the building and in areas where new audio alarm devices have been installed.

b. Audio measurements shall be made in classrooms and other rooms (e.g. equipment and storage rooms) and buildings with the doors in the open and closed position.

c. An audio test plan and proposed test equipment shall be submitted for review and approval with the test plans submittal in accordance with NFPA 72, Chapter 7.

d. The measured data shall be recorded on data sheets provided by the Contractor and shall be part of the test plan submission and records.

e. At the request of the Hospital, the Contractor shall provide proof of instrument calibration and date of calibration.

f. Contractor shall be responsible for notifying the AHJ and Fire Department of formal acceptance testing.

5. In addition to satisfactory acceptance tests of the Contractor portion of the fire alarm system, where a new fire alarm system is tied into an existing system, the entire fire alarm system must be accepted and certified by the County Fire Department or AHJ before commencement of the specified two-year system warranty period with full maintenance responsibility.

   The tests must demonstrate that the entire campus (or facility) fire alarm system is operating in order to receive the Fire Department Certification.

6. If requested by the Hospital, isolate the contract work from the overall system and demonstrate that the contract work does not affect the operation of the overall fire alarm system and shall repeat tests at no additional cost to the Hospital.

B. Concealed Work: Concealed work re-opened and re-closed at random during the formal inspection as requested by the Hospital shall be done at no additional cost to the Hospital.

C. Testing Tools and Equipment: The Contractor shall provide the tools and equipment, including handheld radios, etc. necessary to accomplish the testing.

3.05 TRAINING

A. Conduct training and instruction for the operating and maintenance staff, as designated by the Hospital, on the operation of the fire alarm panel and system.

B. The training session shall be conducted during normal business hours, and shall last as long as necessary to properly instruct the staff, but not less than 1-hour.

C. Instruction shall include hands-on training in routine operations and queries (reading of normal status and trouble status) of the fire alarm system.

D. Training shall be provided for the new fire alarm system and additional circuits and devices.

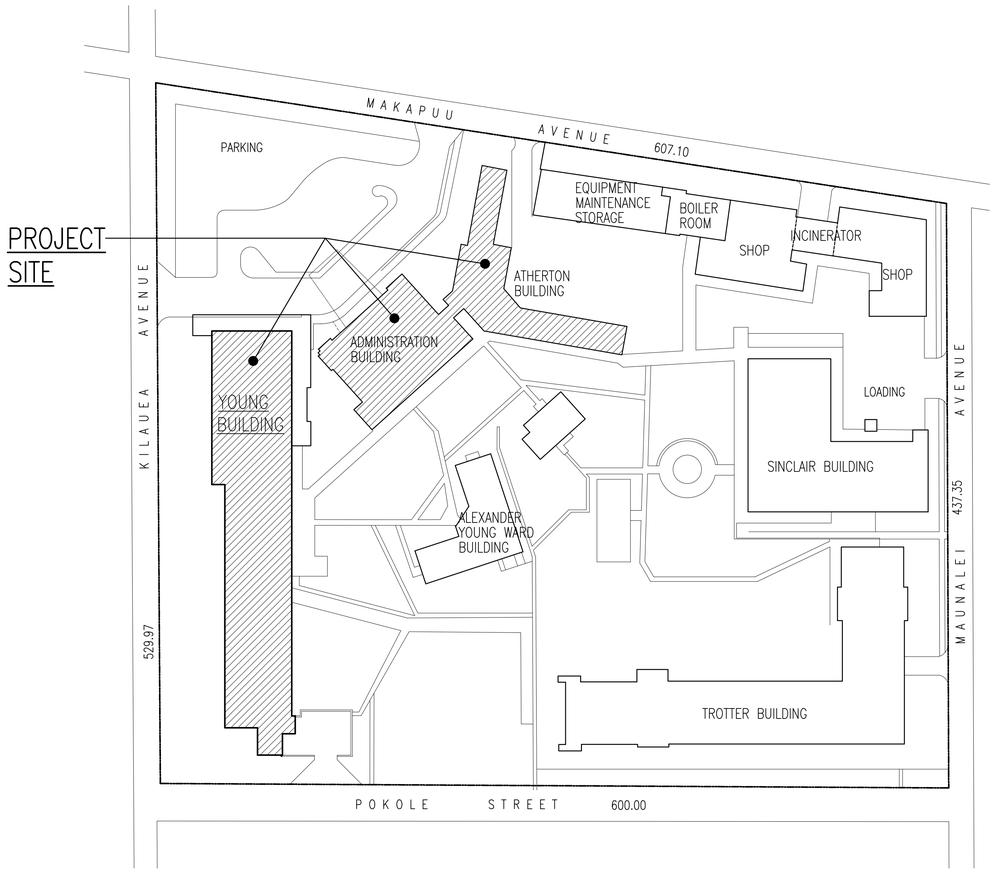
E. If the main control panel and annunciator panel are of the central processing unit (CPU) type system, instruction shall include operations and query of system status, etc.; and hands-on training in the procedures and process for operations and obtaining system status, trouble and other functional information to determine when to call for repairs and how to report the type of trouble encountered.

END OF SECTION

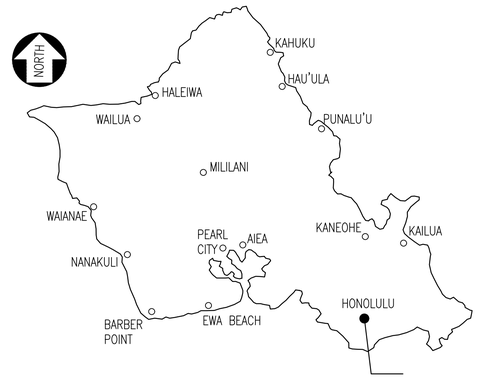
LEAHI HOSPITAL - YOUNG, ADMINISTRATION & ATHERTON BUILDINGS

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES

3675 KILAUEA AVENUE
HONOLULU, HAWAII 96816
T.M.K. 3 - 2 - 031 : 001



SITE PLAN
NOT TO SCALE



LOCATION MAP
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INDEX TO DRAWINGS

NO. OF SHEETS	SHEET NO.	DRAWING DESCRIPTION
1	001	TITLE SHEET
2	E0	ELECTRICAL SYMBOLS, GENERAL WORK NOTES, DEMOLITION NOTES, PHASING OF WORK
3	E1	ELECTRICAL SITE PLAN – NEW WORK
4	E2	YOUNG BUILDING – SUB–BASEMENT ELECTRICAL PLAN
5	E3	YOUNG BUILDING – BASEMENT ELECTRICAL PLAN
6	E4	YOUNG BUILDING – 1ST FLOOR ELECTRICAL PLAN
7	E5	YOUNG BUILDING – 2ND FLOOR ELECTRICAL PLAN
8	E6	YOUNG BUILDING – 3RD FLOOR ELECTRICAL PLAN
9	E7	YOUNG BUILDING – 4TH FLOOR ELECTRICAL PLAN
10	E8	YOUNG BUILDING – 5TH FLOOR ELECTRICAL PLAN
11	E9	YOUNG BUILDING – 6TH FLOOR ELECTRICAL PLAN
12	E10	ADMIN BUILDING – BASEMENT ELECTRICAL PLAN
13	E11	ADMIN BUILDING – 1ST FLOOR FLOOR ELECTRICAL PLAN
14	E12	ADMIN BUILDING – 2ND FLOOR FLOOR ELECTRICAL PLAN
15	E13	ADMIN BUILDING – 3RD FLOOR FLOOR ELECTRICAL PLAN
16	E14	ATHERTON BUILDING – BASEMENT ELECTRICAL PLAN
17	E15	ATHERTON BUILDING – 1ST FLOOR ELECTRICAL PLAN
18	E16	ATHERTON BUILDING – 2ND FLOOR ELECTRICAL PLAN
19	E17	ATHERTON BUILDING – 3RD FLOOR ELECTRICAL PLAN

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

CURTIS K. MIYAMURA
LICENSED PROFESSIONAL ARCHITECT
No. 6268
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.
Curtis K Miyamura
4-30-26
EXP. DATE

HAWAII HEALTH SYSTEM CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL – YOUNG, ADMINISTRATION & ATHERTON BUILDINGS
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU OAHU HAWAII

TITLE SHEET

CKM ARCHITECTS, LLC

DESIGNED BY:	CHECKED BY:	DAGS JOB NO.	DRAWING NO.
CM	CM		001
DRAWN BY:	APPROVED BY:	DATE	SHEET
DM	CM	NOV. 2025	OF 19 SHTS
SCALE: AS SHOWN			

FILE ..... DRAWER ..... FOLDER.....

LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES

HONOLULU, OAHU, HAWAII

TAX MAP KEY : 3-2-031:001

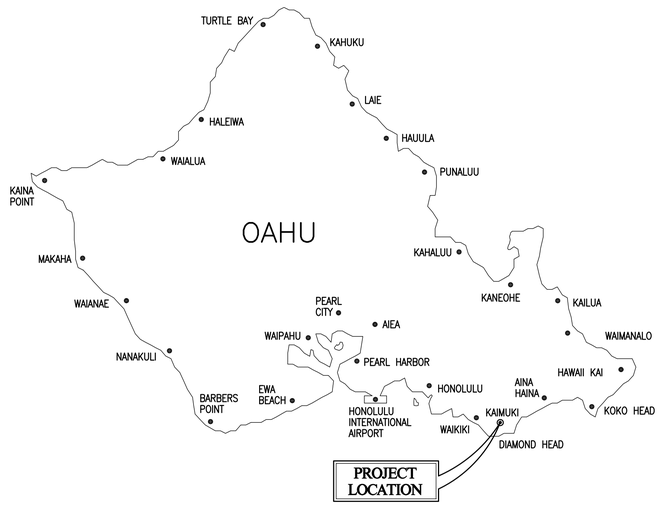
FOR THE

HAWAII HEALTH SYSTEMS CORPORATION

ELECTRICAL ENGINEER :

ELECTECH HAWAII, INC.

INDEX OF DRAWINGS		
SHEET NO.	DWG. NO.	SHEET TITLE
1	T000	TITLE, LOCATION MAP, OAHU MAP, INDEX OF DRAWINGS
2	E000	ELECTRICAL SYMBOLS, GENERAL FIRE ALARM NOTES, DEMOLITION NOTES, PHASING OF WORK
3	E001	ELECTRICAL SITE PLAN
4	E100	YOUNG BUILDING – SUB–BASEMENT ELECTRICAL PLAN
5	E101	YOUNG BUILDING – BASEMENT ELECTRICAL PLAN
6	E102	YOUNG BUILDING – 1ST FLOOR ELECTRICAL PLAN
7	E103	YOUNG BUILDING – 2ND FLOOR ELECTRICAL PLAN
8	E104	YOUNG BUILDING – 3RD FLOOR ELECTRICAL PLAN
9	E105	YOUNG BUILDING – 4TH FLOOR ELECTRICAL PLAN
10	E106	YOUNG BUILDING – 5TH FLOOR ELECTRICAL PLAN
11	E107	YOUNG BUILDING – 6TH FLOOR/ROOF ELECTRICAL PLAN
12	E200	ADMIN BUILDING – BASEMENT ELECTRICAL PLAN
13	E201	ADMIN BUILDING – 1ST FLOOR ELECTRICAL PLAN
14	E202	ADMIN BUILDING – 2ND FLOOR ELECTRICAL PLAN
15	E203	ADMIN BUILDING – 3RD FLOOR ELECTRICAL PLAN
16	E300	ATHERTON BUILDING – BASEMENT ELECTRICAL PLAN
17	E301	ATHERTON BUILDING – 1ST FLOOR ELECTRICAL PLAN
18	E302	ATHERTON BUILDING – 2ND FLOOR ELECTRICAL PLAN
19	E303	ATHERTON BUILDING – 3RD FLOOR ELECTRICAL PLAN
20	E400	FIRE ALARM RISER DIAGRAM – NETWORK PLAN
21	E500	FIRE ALARM RISER DIAGRAM – YOUNG BUILDING
22	E501	FIRE ALARM RISER DIAGRAM – ADMIN BUILDING
23	E502	FIRE ALARM RISER DIAGRAM – ATHERTON BUILDING



NORTH

LOCATION MAP

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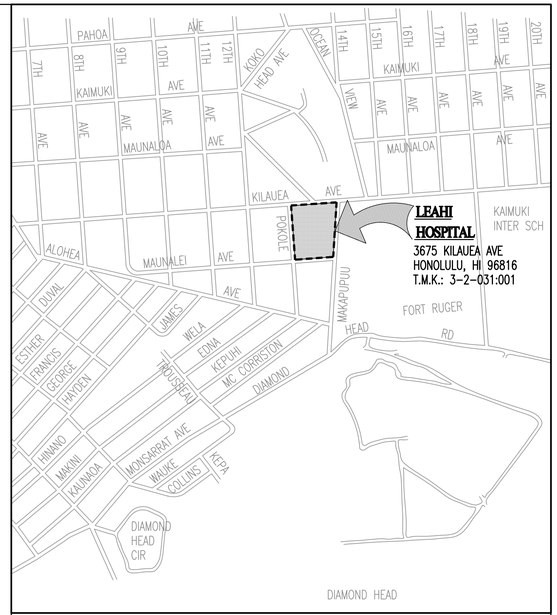


NORTH

VICINITY MAP

NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT ____ OF ____	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

TITLE, LOCATION MAP, VICINITY MAP, INDEX OF DRAWINGS

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		T000
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY		
SCALE: AS NOTED		DECEMBER 2025	OF ____ SHTS

FILE ..... DRAWER..... FOLDER.....

PHASING OF WORK

1. ALL BUILDINGS WILL BE OCCUPIED DURING THE CONSTRUCTION PERIOD.

2. THE EXISTING FIRE ALARM SYSTEM SHALL BE MAINTAINED FULLY OPERATIONAL UNTIL THE NEW FIRE ALARM SYSTEM HAS BEEN TESTED AND ACCEPTED. NOTE THAT BOTH EXISTING AND NEW FIRE ALARM SYSTEMS WILL BE OPERATING SIMULTANEOUSLY. AFTER THE NEW NEW FIRE ALARM SYSTEM IS INSTALLED AND THE ACCEPTANCE TEST IS COMPLETE, THE EXISTING FIRE ALARM SYSTEM SHALL BE DISCONNECTED AND REMOVED.

3. SCHEDULING WORK: PROVIDE A WORK PLAN AND SCHEDULE SO THAT THE NURSING STAFF AND ADMINISTRATIVE STAFF CAN MAKE ACCOMMODATIONS FOR THE RESIDENTS AND OCCUPANTS WHILE THE WORK IS BEING DONE.

DEMOLITION NOTES

1. THE EXISTING PLANS DO NOT INDICATE THE COMPLETE EXISTING WIRING CONDITIONS. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO START OF WORK.

2. BEFORE ANY WIRING IS CUT, THE CONTRACTOR SHALL VERIFY USAGE OF WIRING TO BE CUT TO ASSURE THAT SERVICES REQUIRED ARE NOT DISCONTINUED. PROVIDE ADDITIONAL WIRING DEVICES AND OTHER ACCESSORIES TO ENSURE CONTINUITY OF SERVICE TO THE PARTS OF THE INSTALLATION THAT REMAIN.

3. REMOVE ALL CONDUITS NO LONGER REQUIRED.

4. PHASE WORK TO ASSURE CONTINUITY OF THE ELECTRICAL AND FIRE ALARM SYSTEMS TO PARTS OF FACILITIES THAT WILL REMAIN IN USE.

5. REMOVE ALL EXISTING FIRE ALARM EQUIPMENT INDICATED TO BE REMOVED OR NO LONGER REQUIRED. BLANK OUTLETS AND PLUG ALL HOLES IN BOXES AND CABINETS.

6. DELIVER ALL SALVAGEABLE MATERIAL AT NO ADDITIONAL COST TO THE HOSPITAL. PACK MATERIAL IN BOXES. COIL ALL CABLES AND TIE. COORDINATE ALL WORK WITH THE UNIVERSITY. DELIVER AND STACK IN LOCATION AS DETERMINED BY THE HOSPITAL. IF THE HOSPITAL DOES NOT WANT THE SALVAGED MATERIALS, THE CONTRACTOR SHALL DISPOSE OF THE MATERIALS IN THE MANNER DESCRIBED IN THE SPECIFICATIONS AND AT NO ADDITIONAL COST TO THE HOSPITAL.

7. ABANDON CONDUITS BELOW GRADE NO LONGER REQUIRED. PULL OUT ALL WIRES IN ABANDONED CONDUITS.

8. REMOVE AND LEGALLY DISPOSE OF ALL MATERIALS AND DEBRIS. DISPOSAL SHALL BE IN ACCORDANCE WITH APPLICABLE EPA, CITY, COUNTY, STATE AND GOVERNMENT REGULATIONS. PATCH, REPAIR, PRIME, AND PAINT ALL SURFACES AFFECTED BY THE REMOVAL OF THE EXISTING EQUIPMENT, CONDUITS, AND ASSOCIATED DEVICES.

GENERAL FIRE ALARM NOTES

1. ALL FIRE ALARM WORK SHALL COMPLY WITH NFPA 1, 2021.

2. CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIRING, EQUIPMENT, PROGRAMMING AND TESTING AS REQUIRED TO ACCOMMODATE ALL FIRE ALARM WORK.

ELECTRICAL SYMBOLS

F	EXISTING ADDRESSABLE FIRE ALARM MANUAL STATION TO BE REMOVED AND REPLACED WITH NEW
F	EXISTING FIRE ALARM AUDIBLE DEVICE/FLASHING LIGHT
F	EXISTING FIRE ALARM AUDIBLE DEVICE
F	EXISTING FIRE ALARM VISUAL SIGNAL
	EXISTING ADDRESSABLE SMOKE DETECTOR TO BE REMOVED AND REPLACED
SB	EXISTING ADDRESSABLE SMOKE DETECTOR, SB–SOUNDER BASE TO BE REMOVED AND REPLACED WITH NEW
	EXISTING ADDRESSABLE FIRE ALARM PANEL TO BE REMOVED AND REPLACED WITH NEW WHEN NOTED. NEW FIRE ALARM PANEL SHALL HAVE VOICE AND PROVIDED WITH DACT
	EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR TO BE REMOVED AND REPLACED WITH NEW
E	EXISTING EQUIPMENT CONNECTION
H	EXISTING ADDRESSABLE HEAT DETECTOR TO BE REMOVED AND REPLACED WITH NEW
TS	EXISTING SPRINKLER TAMPER SWITCH. EXISTING FIRE ALARM ADDRESSABLE MONITORING MODULE TO BE REMOVED AND REPLACED WITH NEW
FS	EXISTING SPRINKLER FLOW SWITCH. EXISTING ADDRESSABLE MONITORING MODULE TO BE REMOVED AND REPLACED WITH NEW
D	EXISTING DOOR RELEASE CONNECTION. CONTRACTOR SHALL ENSURE RELEASE DOOR FUNCTION IS MAINTAINED AFTER REPLACING EXISTING SMOKE DETECTOR WITH NEW
Z	EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE OR CONTROL MODULE TO BE REMOVED AND REPLACED WITH NEW
PIV	EXISTING POST INDICATOR VALVE
WP	WEATHERPROOF
— — — —	WIRING IN EXISTING RACEWAY

NOTES:

1. ANY CIRCUIT WITH NO FURTHER DESIGNATION INDICATES A TWO WIRE CIRCUIT. CIRCUITS WITH ADDITIONAL WIRES ARE INDICATED AS FOLLOWS: —//— , 3 WIRES: —///— , 4 WIRES, ETC.
2. GROUND WIRE PER NATIONAL ELECTRICAL CODE INDICATED AS FOLLOWS; —⏚— .
3. ALL EXPOSED CONDUIT AND BOXES SHALL BE PAINTED TO MATCH ADJACENT WALL OR CEILING SURROUNDING.

REVISION NO.	SYM.	DESCRIPTION	SHT____ OF____	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062–E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

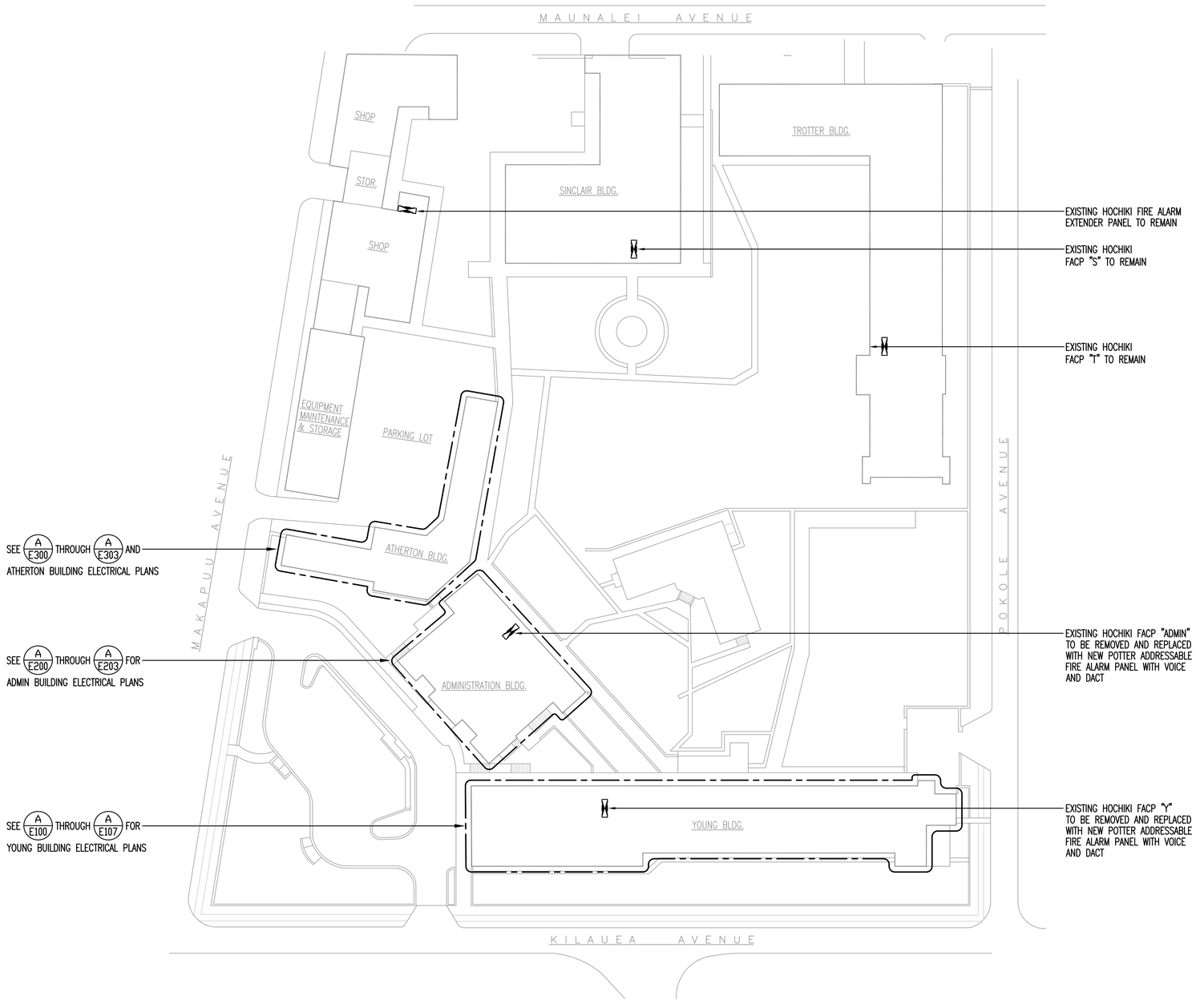
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ELECTRICAL SYMBOLS, GENERAL FIRE ALARM NOTES, DEMOLITION NOTES, PHASING OF WORK

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E000
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF_____ SHTS

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. ALL NEW AND EXISTING ADDRESSABLE FIRE ALARM PANELS SHALL BE NETWORKED. PROVIDE ALL PROGRAMMING, EQUIPMENT, AWIRING AND TESTING AS REQUIRED.

A/E001 ELECTRICAL SITE PLAN

SCALE : 1" = 40'-0"

NORTH

0 20' 40' 80'

GRAPHIC SCALE : 1"=40'-0"

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HONOLULU, OAHU, HAWAII

ELECTRICAL SITE PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E001
DESIGNED BY: JY	CHECKED BY: CP		
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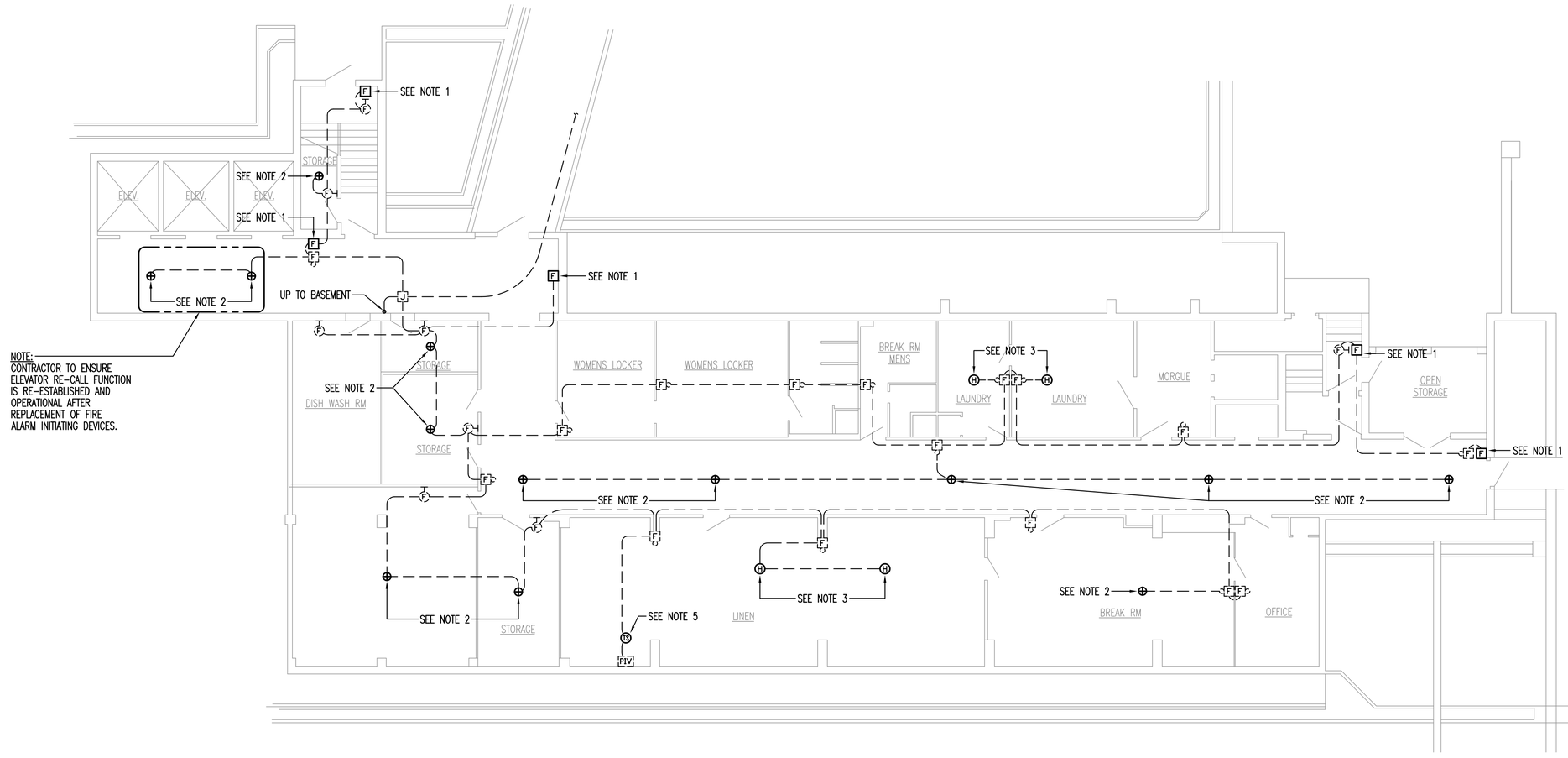
FILE ..... DRAWER ..... FOLDER .....



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A / E100 YOUNG BUILDING - SUB-BASEMENT ELECTRICAL PLAN

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

0 2' 4' 8' 16'

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

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No. 9062-E
HAWAII, U.S.A.

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HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

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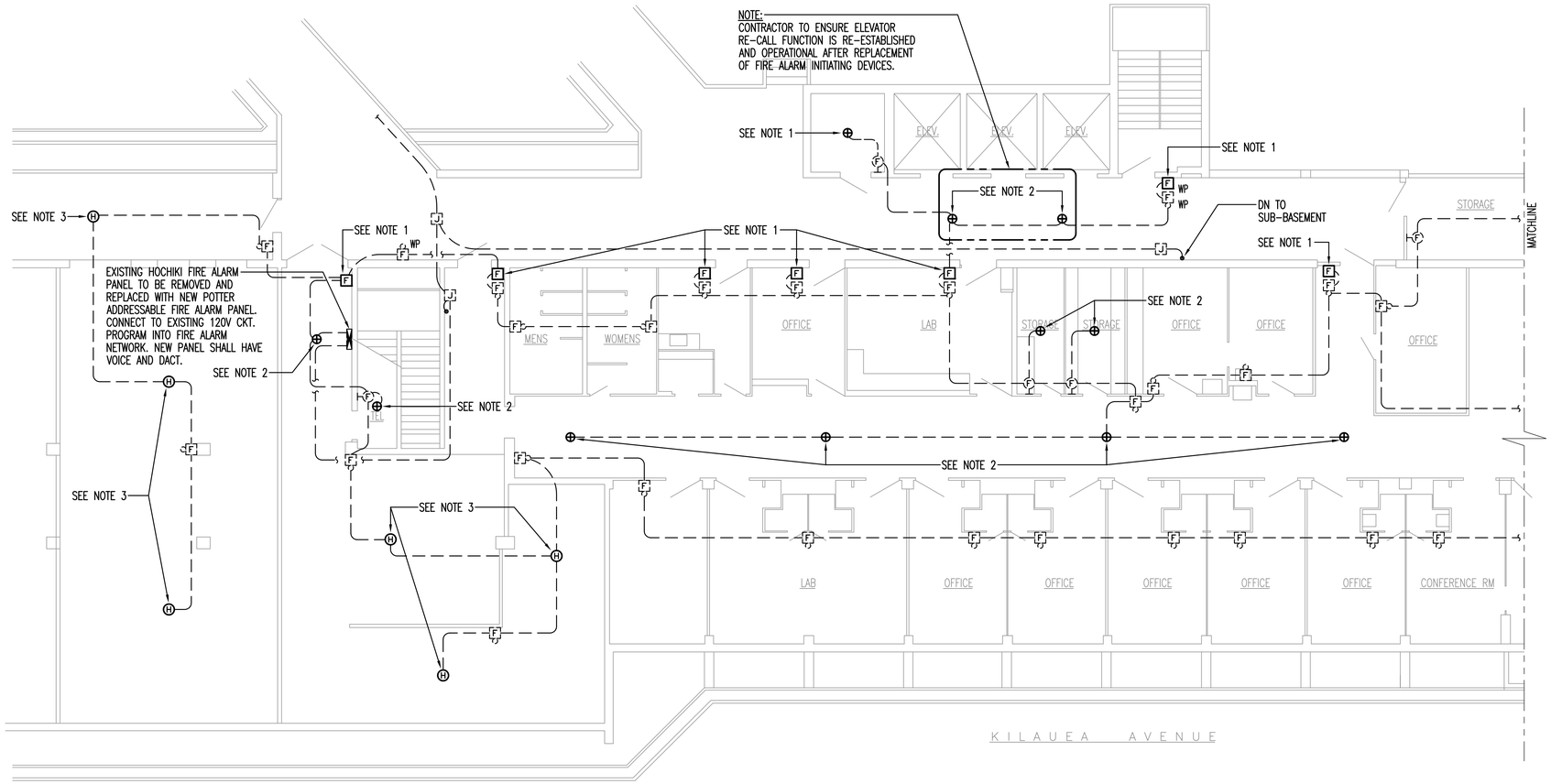
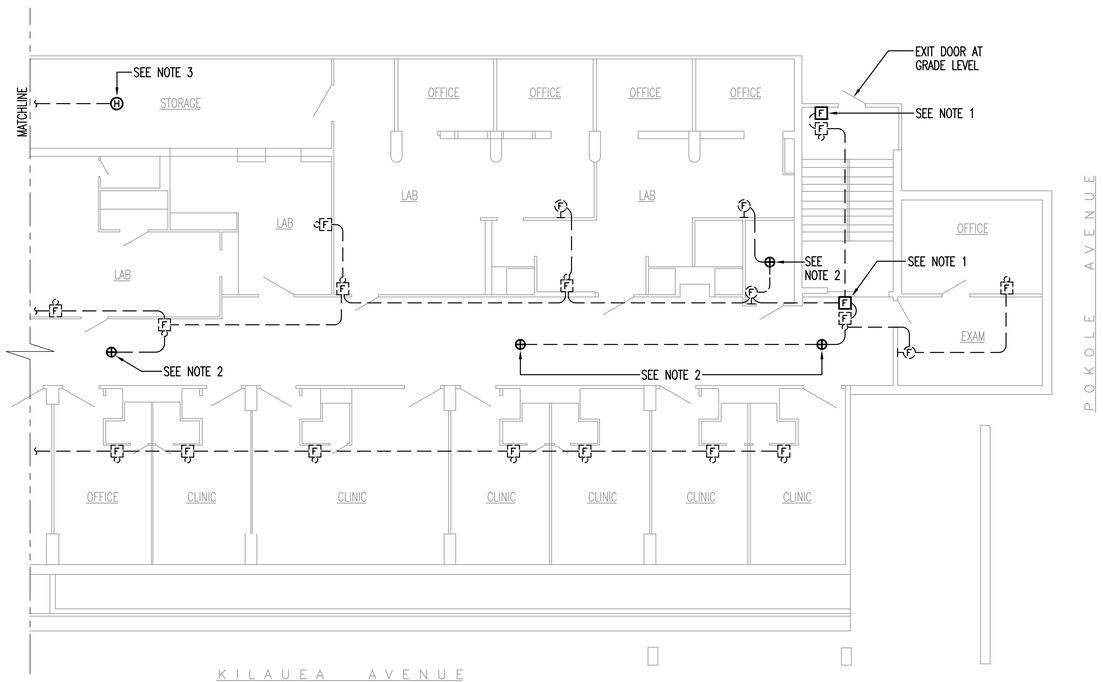
HONOLULU, OAHU, HAWAII

YOUNG BUILDING - SUB-BASEMENT ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E100
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF_____ SHTS

FILE ..... DRAWER..... FOLDER.....





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YOUNG BUILDING - BASEMENT ELECTRICAL PLAN

A / E101

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

REVISION NO.	SYM.	DESCRIPTION	SHT OF	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE Jason Yogi 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

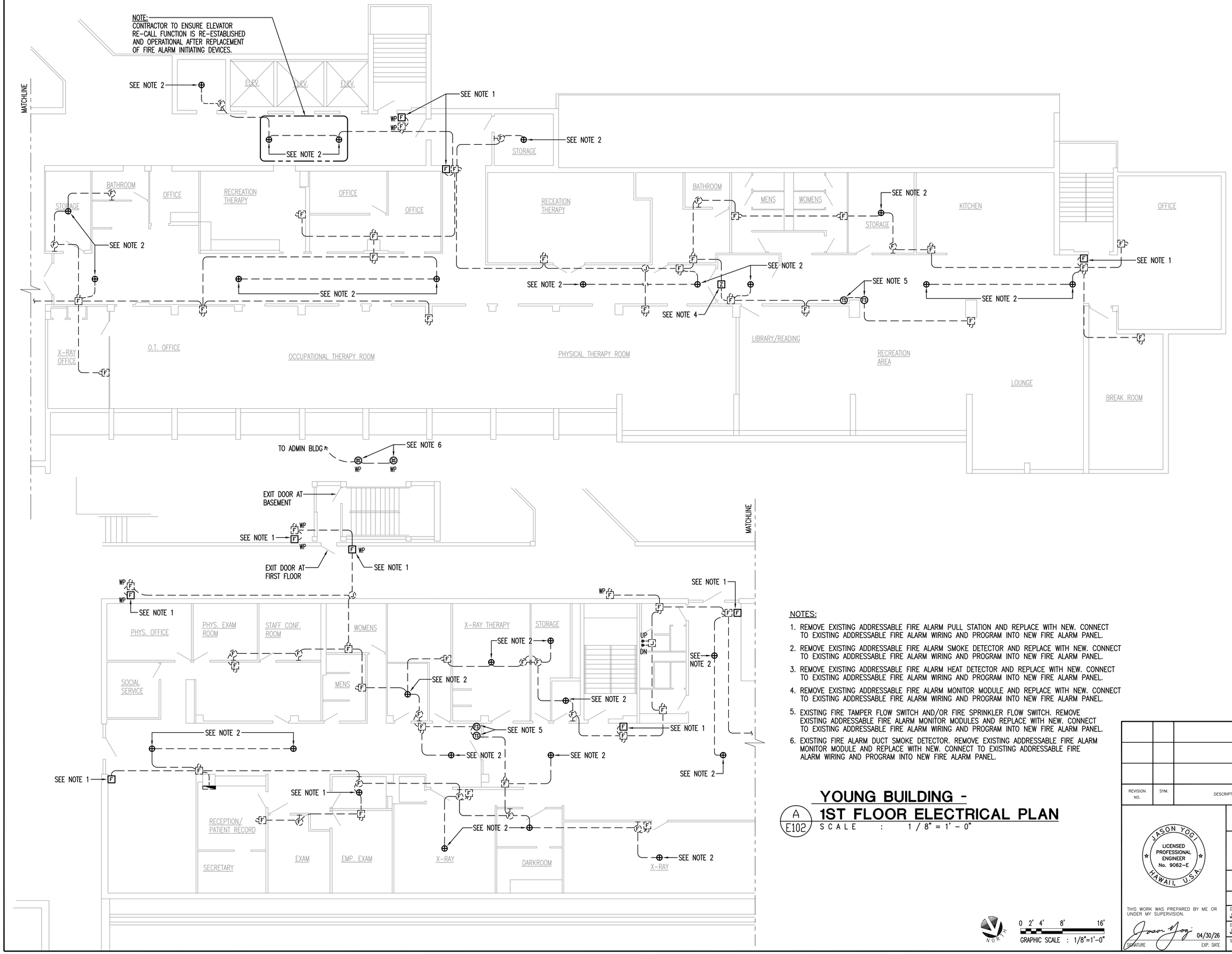
YOUNG BUILDING - BASEMENT ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E101
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

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

FILE ..... DRAWER..... FOLDER.....



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YOUNG BUILDING - 1ST FLOOR ELECTRICAL PLAN

A / E102

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

NORTH

0 2' 4' 8' 16'

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

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JASON YOGI LICENSED PROFESSIONAL ENGINEER No. 9062-E HAWAII, U.S.A.

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SIGNATURE Jason Yogi 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

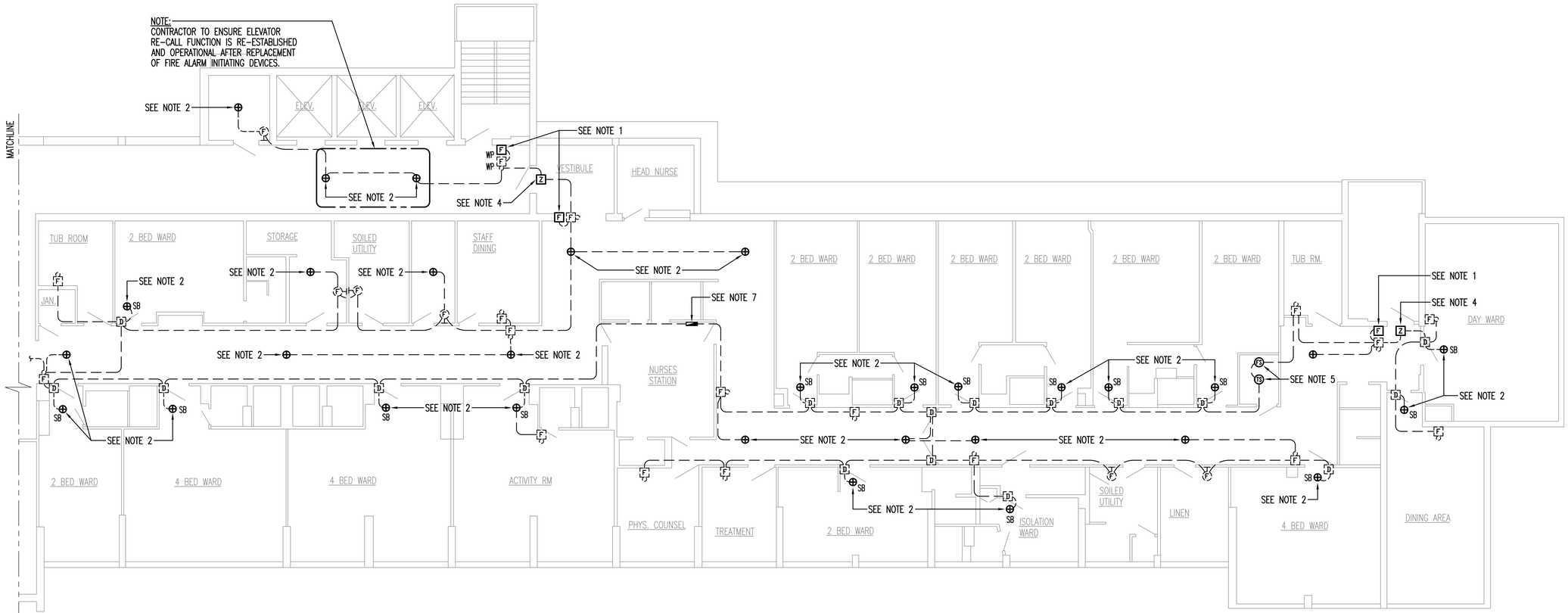
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

YOUNG BUILDING – 1ST FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E102
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF SHTS

FILE ..... DRAWER..... FOLDER.....



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YOUNG BUILDING - 2ND FLOOR ELECTRICAL PLAN

A / E103

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

NORTH

0 2' 4' 8' 16'

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

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JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

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SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

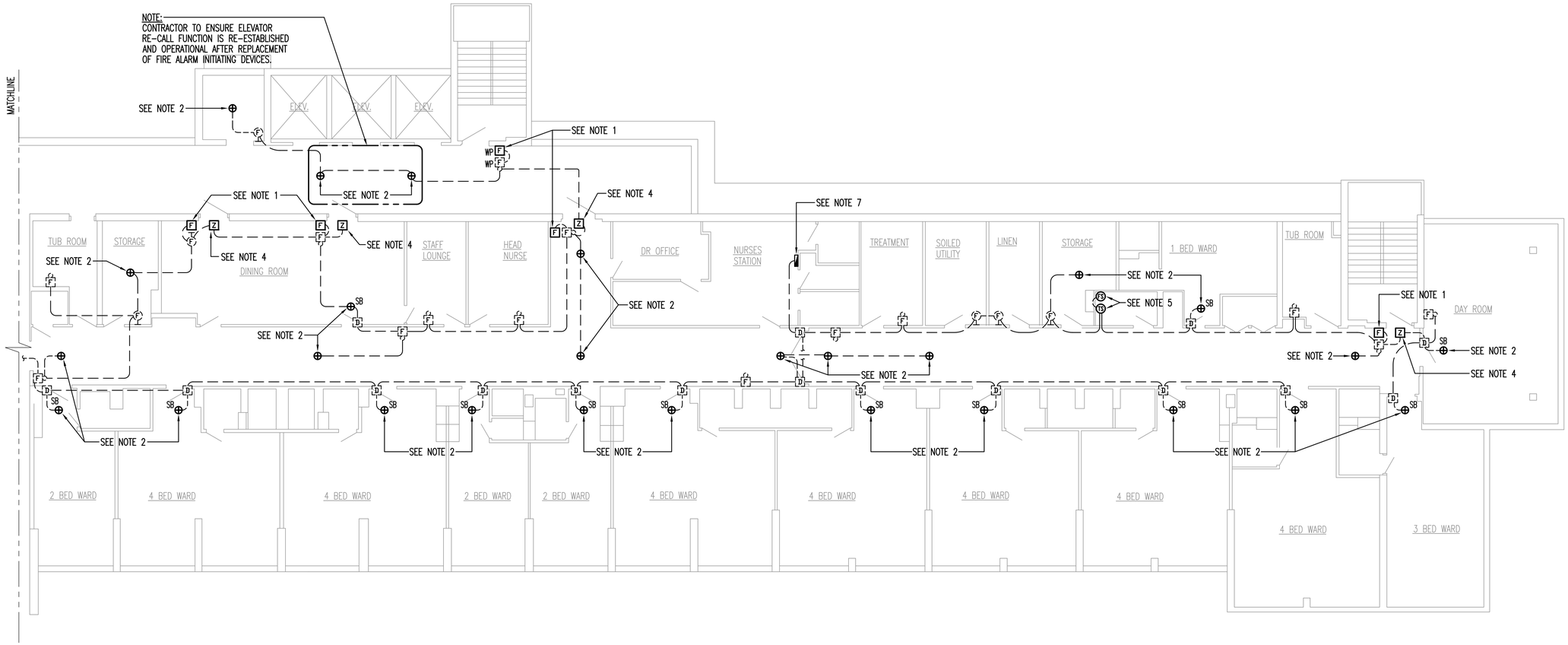
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

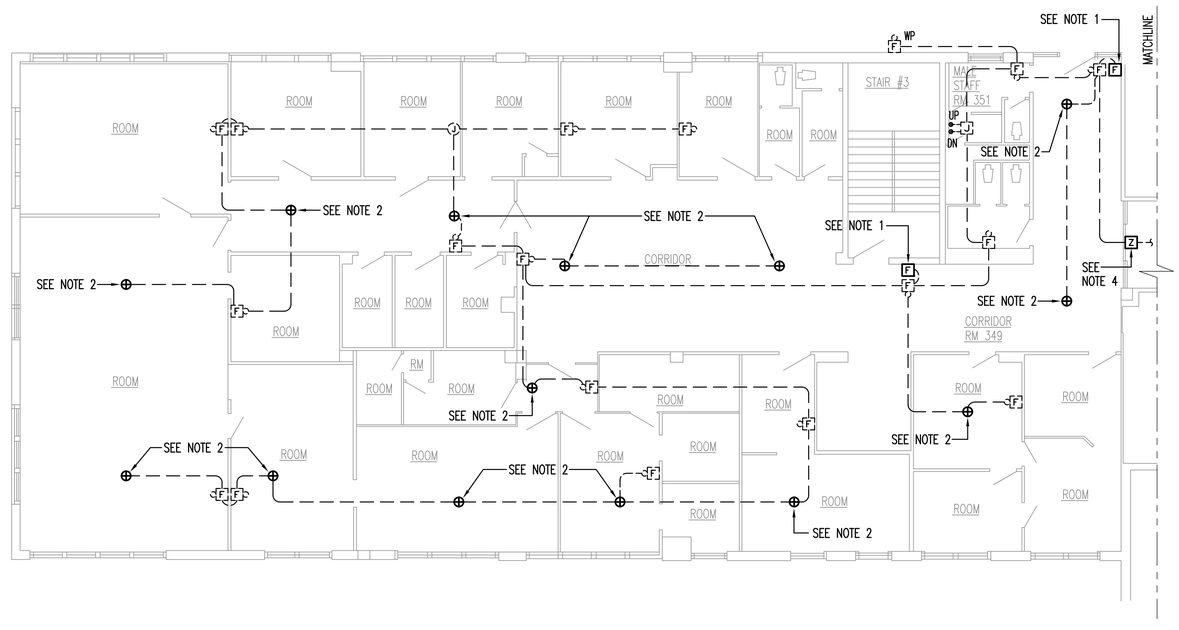
YOUNG BUILDING – 2ND FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E103
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

FILE ..... DRAWER ..... FOLDER .....





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YOUNG BUILDING - 3RD FLOOR ELECTRICAL PLAN

A / E104

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

NORTH

0 2' 4' 8' 16'

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

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JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

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SIGNATURE Jason Yogi 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

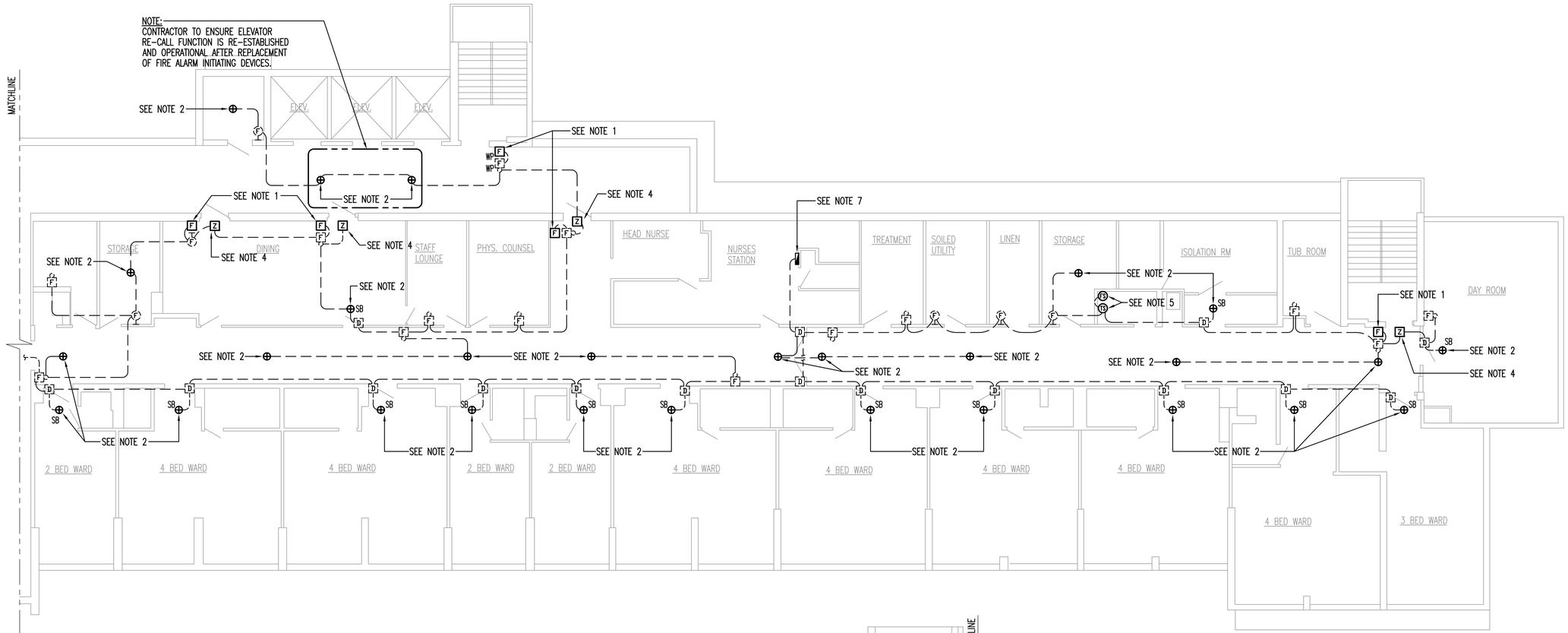
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

YOUNG BUILDING – 3RD FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E104
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF_____ SHTS

FILE ..... DRAWER..... FOLDER.....



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YOUNG BUILDING - 4TH FLOOR ELECTRICAL PLAN

A / E105

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

NORTH

0 2' 4' 8' 16'

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

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LEAHI HOSPITAL
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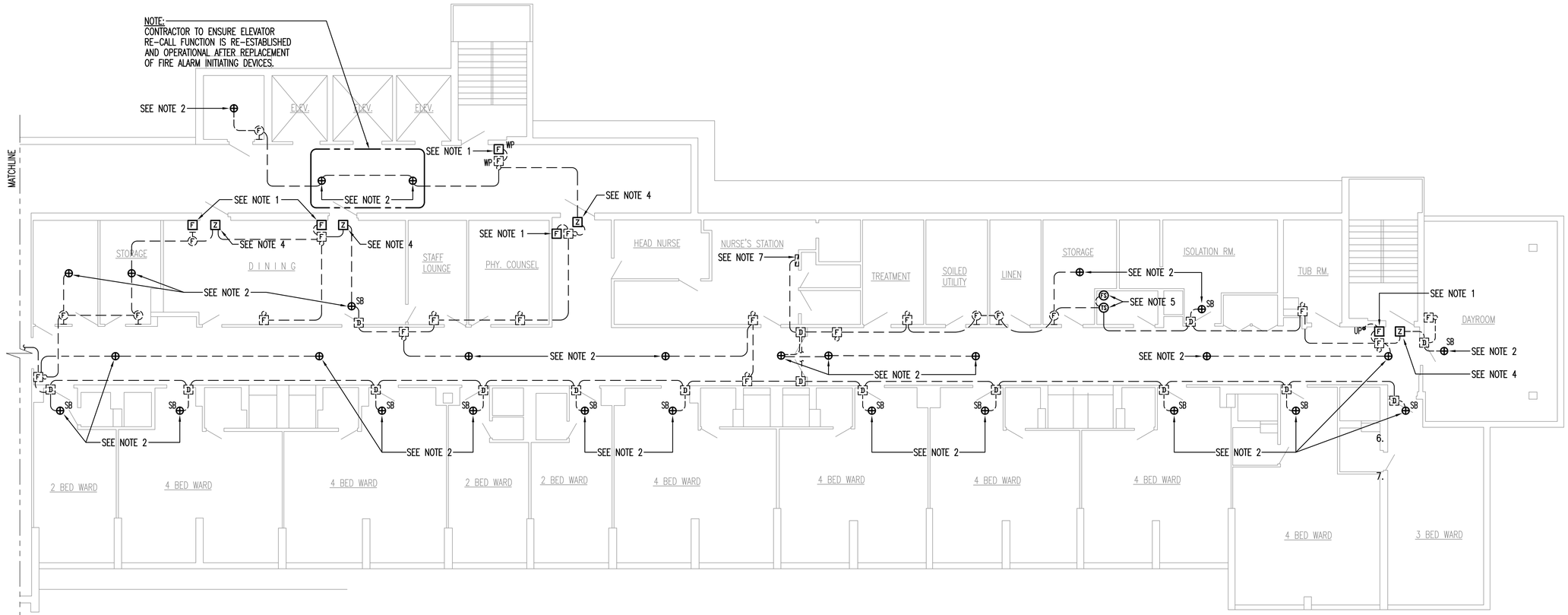
HONOLULU, OAHU, HAWAII

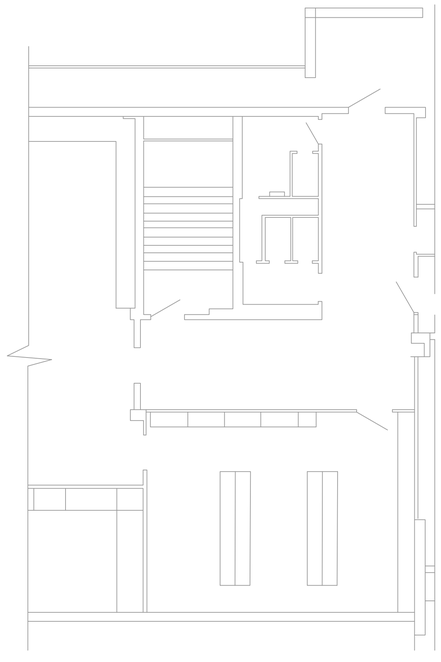
YOUNG BUILDING – 4TH FLOOR ELECTRICAL PLAN

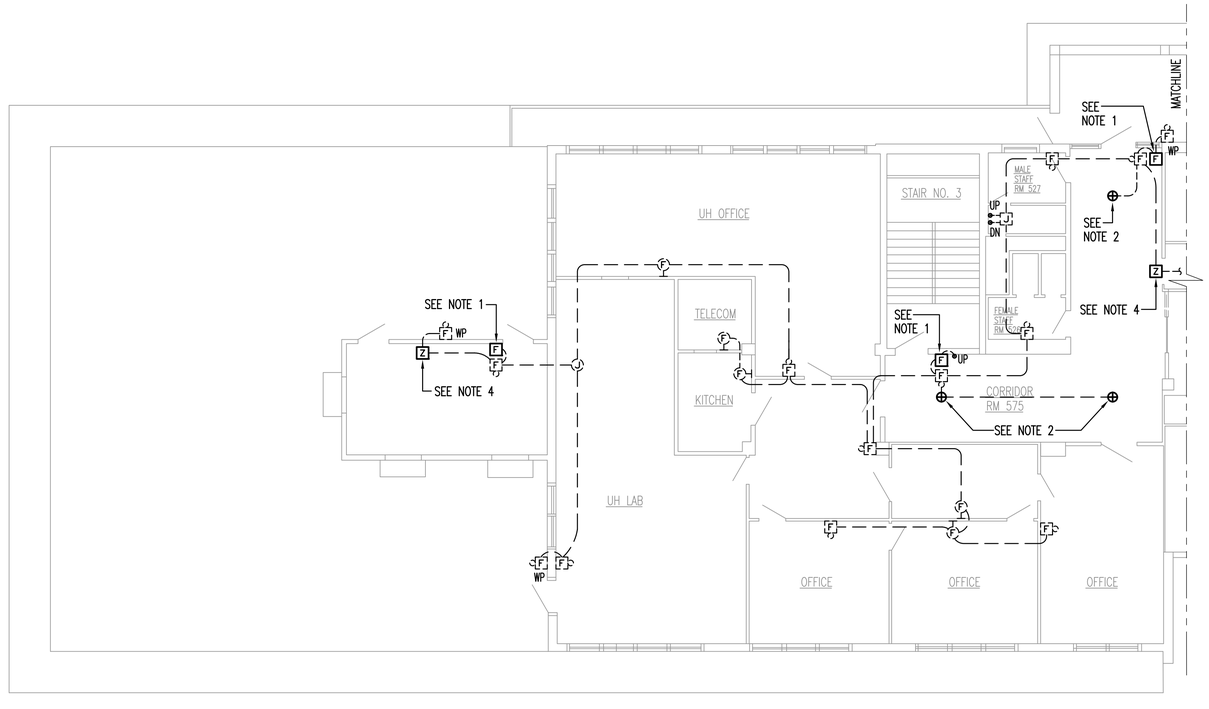
ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E105
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

FILE ..... DRAWER..... FOLDER.....







NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
3. REMOVE EXISTING ADDRESSABLE FIRE ALARM HEAT DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
7. REMOVE EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE AND NON-ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO FIRE ALARM NETWORK.

REVISION NO.	SYM.	DESCRIPTION	SHT.____ OF____	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

YOUNG BUILDING – 5TH FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E106
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF____ SHTS
SCALE: AS NOTED			

A
E106

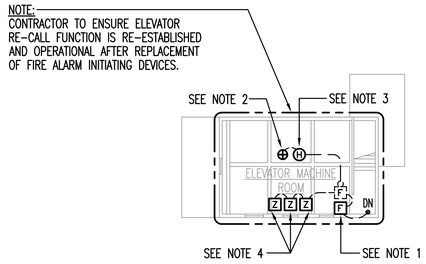
YOUNG BUILDING - 5TH FLOOR ELECTRICAL PLAN

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

NORTH

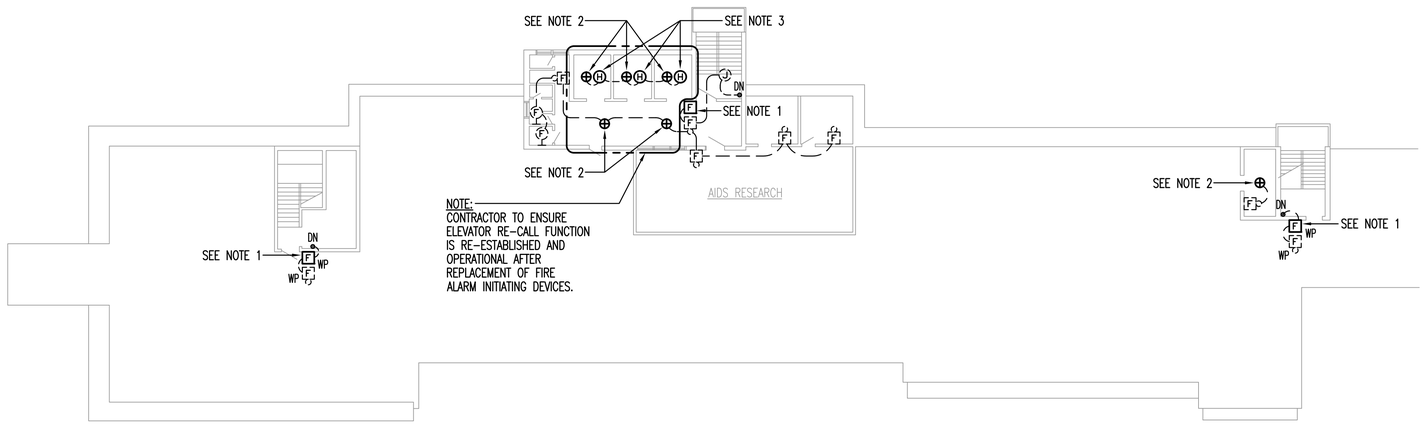
0 2' 4' 8' 16'
GRAPHIC SCALE : 1/8"=1'-0"

FILE ..... DRAWER..... FOLDER.....



B / E107 **YOUNG BUILDING - ROOF ELECTRICAL PLAN**

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



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
3. REMOVE EXISTING ADDRESSABLE FIRE ALARM HEAT DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E107 **YOUNG BUILDING - 6TH FLOOR ELECTRICAL PLAN**

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

REVISION NO.	SYM.	DESCRIPTION	SHT.____ OF____	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

NORTH

0 2' 4' 8' 16'

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

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

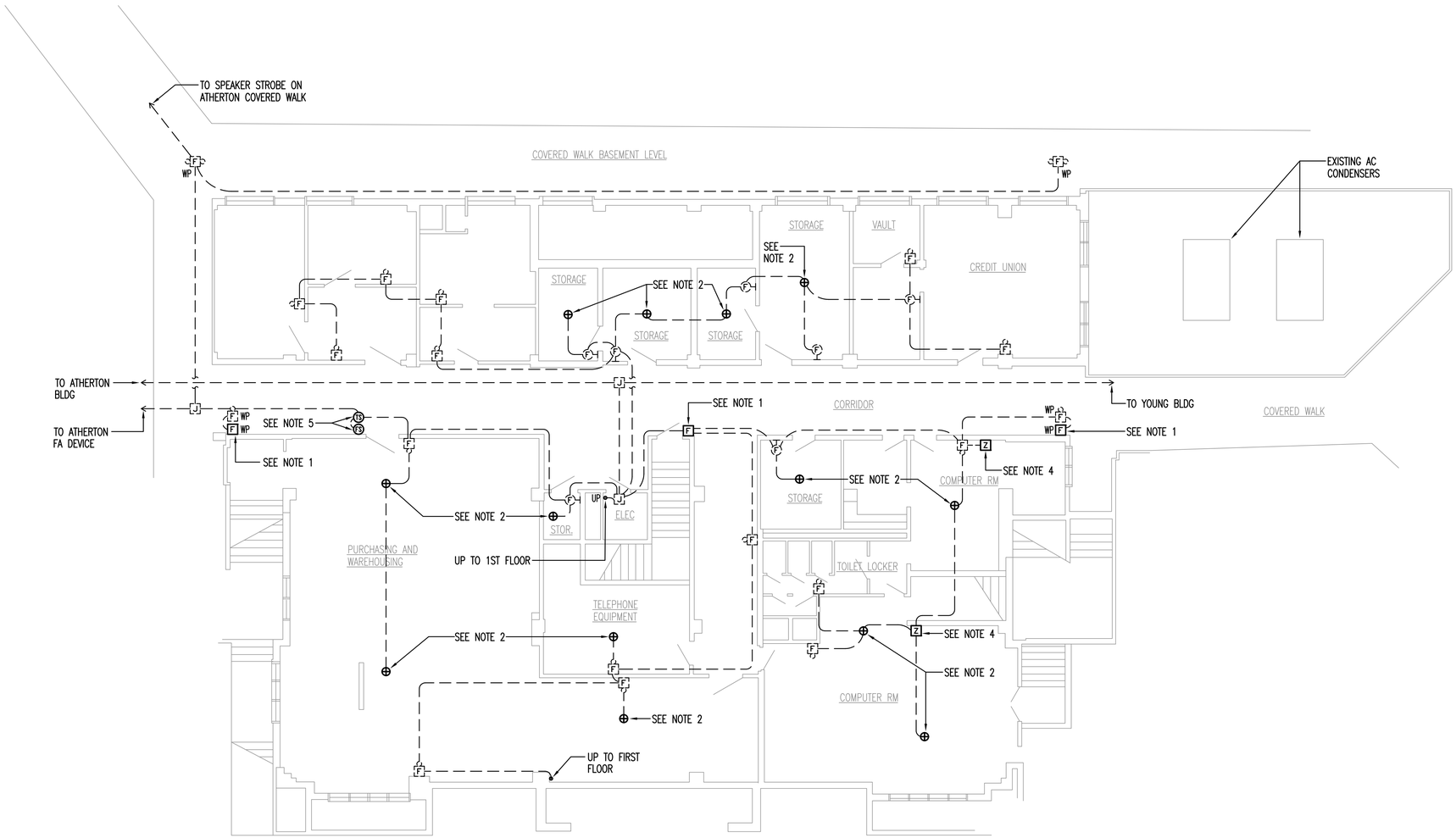
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

YOUNG BUILDING – 6TH FLOOR/ROOF ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E107
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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6. EXISTING ADDRESSABLE FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E200 **ADMIN BUILDING - BASEMENT ELECTRICAL PLAN**

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

REVISION NO.	SYM.	DESCRIPTION	SHT.__ OF__	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ADMIN BUILDING – BASEMENT ELECTRICAL PLAN

ELECTECH HAWAII, INC.

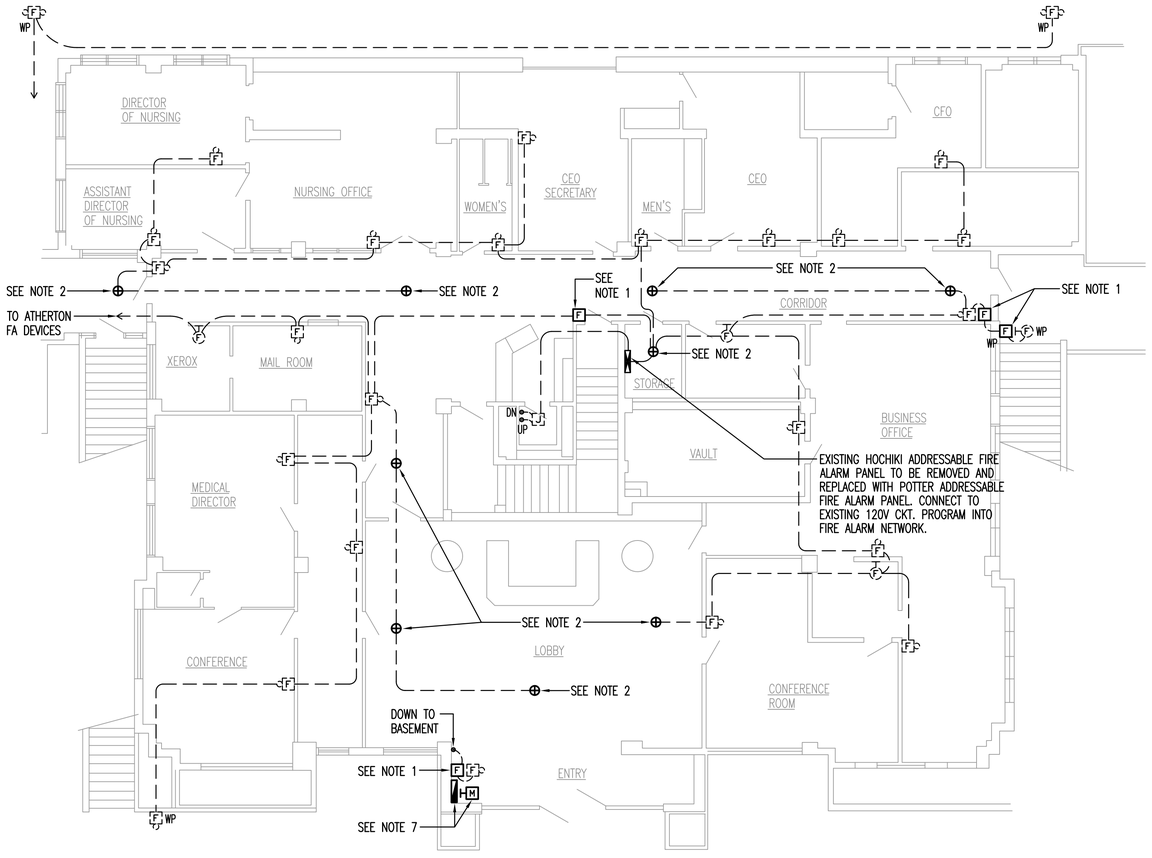
DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E200
DRAWN BY: JM	APPROVED BY: JY	DATE: DECEMBER 2025	SHEET OF SHTS
SCALE: AS NOTED			

NORTH

0 2' 4' 8' 16'

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

FILE ..... DRAWER ..... FOLDER .....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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7. REMOVE EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR AND MICROPHONE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE AND NON-ADDRESSABLE FIRE ALARM WIRING.

A / E201 **ADMIN BUILDING - 1ST FLOOR ELECTRICAL PLAN**

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

NORTH

0 2' 4' 8' 16'

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

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

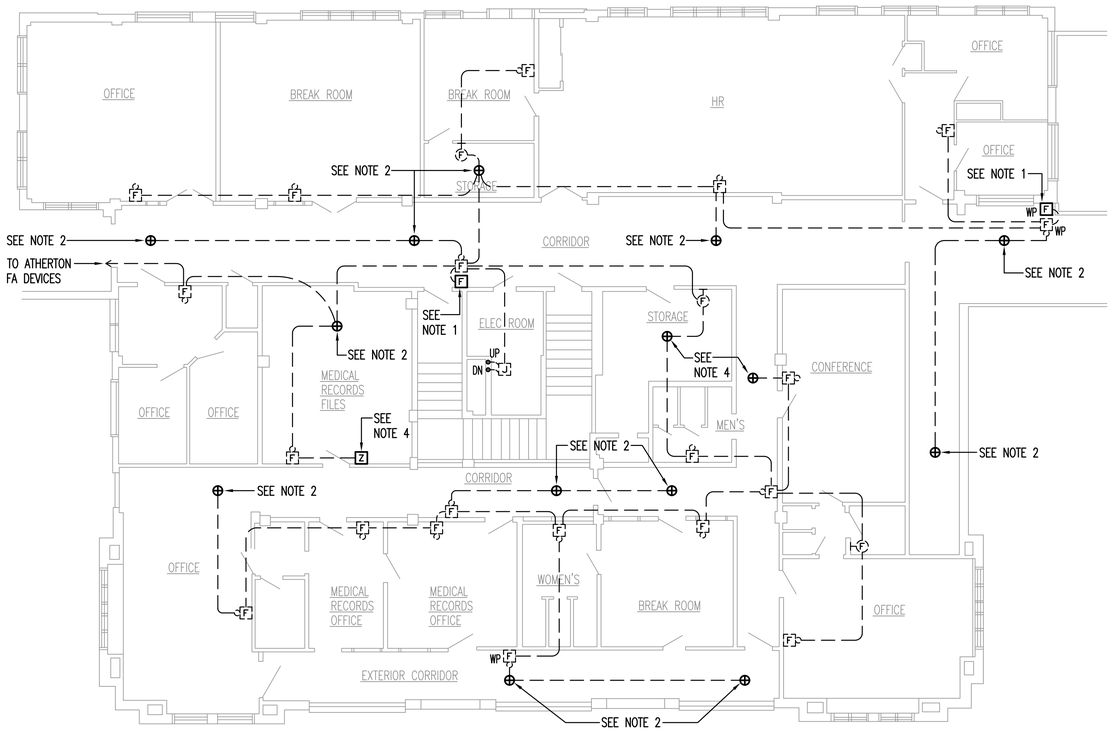
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ADMIN BUILDING – 1ST FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E201
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF SHTS

FILE ..... DRAWER ..... FOLDER .....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
3. REMOVE EXISTING ADDRESSABLE FIRE ALARM HEAT DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E202

ADMIN BUILDING - 2ND FLOOR ELECTRICAL PLAN

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

REVISION NO.	SYM.	DESCRIPTION	SHT.____ OF____	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

NORTH

0 2' 4' 8' 16'

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

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

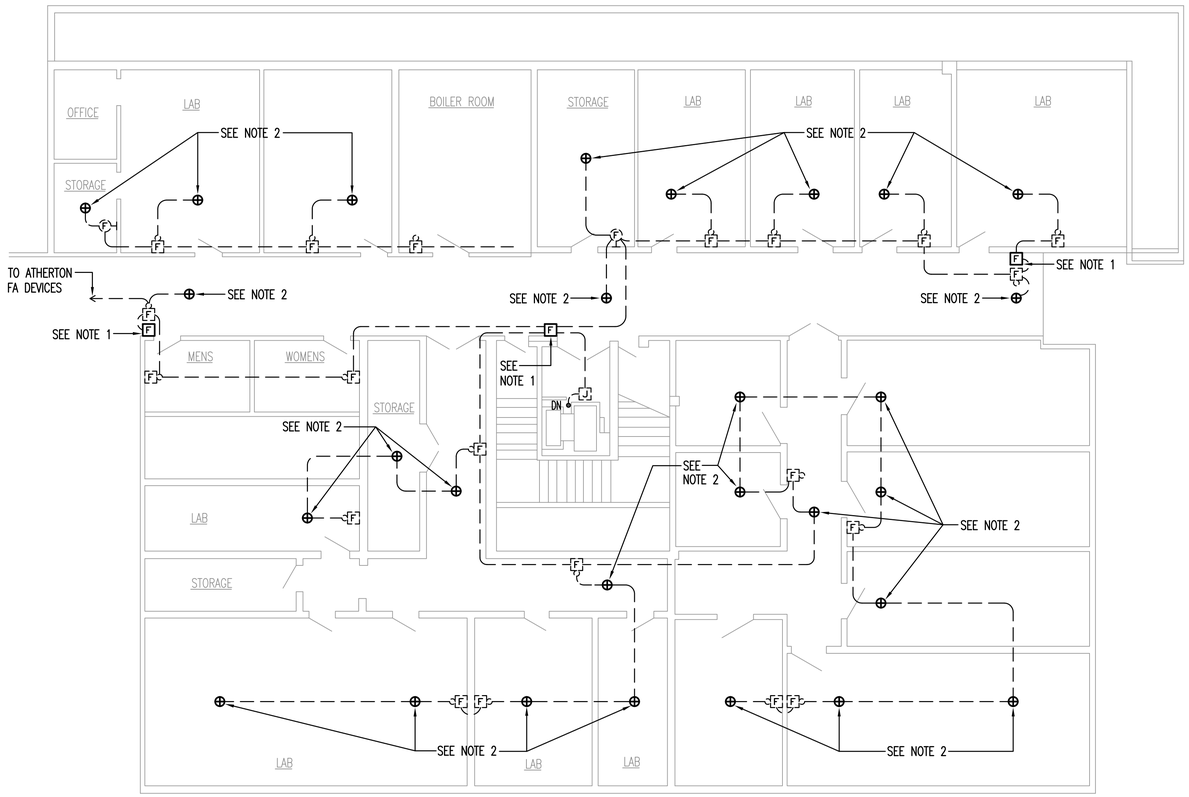
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ADMIN BUILDING – 2ND FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E202
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF_____ SHTS

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING ADDRESSABLE FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E203 ADMIN BUILDING - 3RD FLOOR ELECTRICAL PLAN

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

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

NORTH

0 2' 4' 8' 16'
GRAPHIC SCALE : 1/8"=1'-0"

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

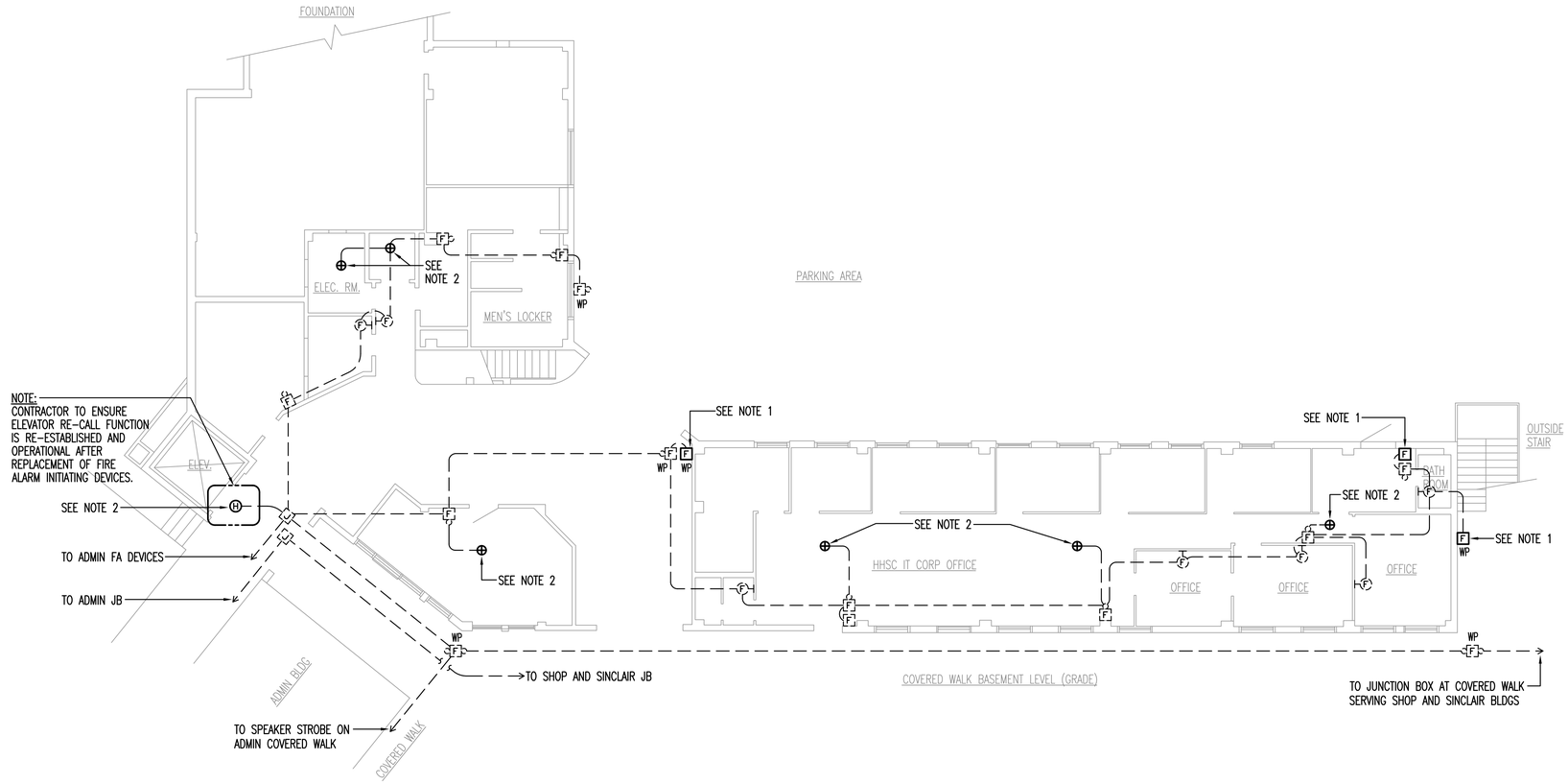
LEAHI HOSPITAL
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ADMIN BUILDING – 3RD FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E203
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER FLOW SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. REMOVE EXISTING ADDRESSABLE FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E300 ATHERTON BUILDING - BASEMENT ELECTRICAL PLAN

SCALE : 1 / 8" = 1' – 0"

NORTH

0 2' 4' 8' 16'

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

REVISION NO.	SYM.	DESCRIPTION	SHT____ OF____	DATE	APPROVED

JASON YOGI LICENSED PROFESSIONAL ENGINEER No. 9062-E HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

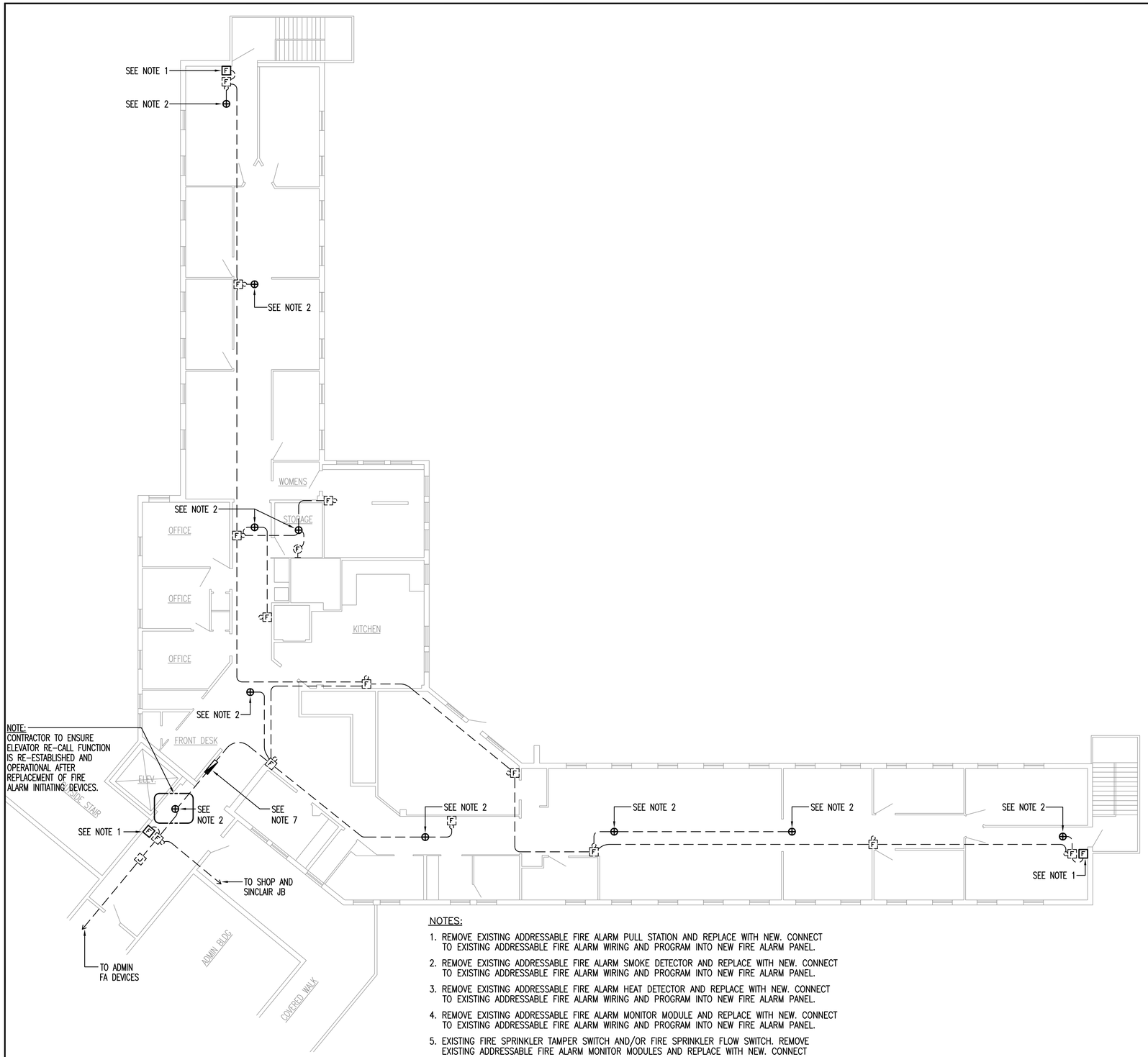
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ATHERTON BUILDING – BASEMENT ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E300
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF SHTS

FILE ..... DRAWER..... FOLDER.....



NOTES:

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7. REMOVE EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE AND NON-ADDRESSABLE FIRE ALARM WIRING.

A / E301

ATHERTON BUILDING - 1ST FLOOR ELECTRICAL PLAN

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

NORTH

0 2' 4' 8' 16'

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

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

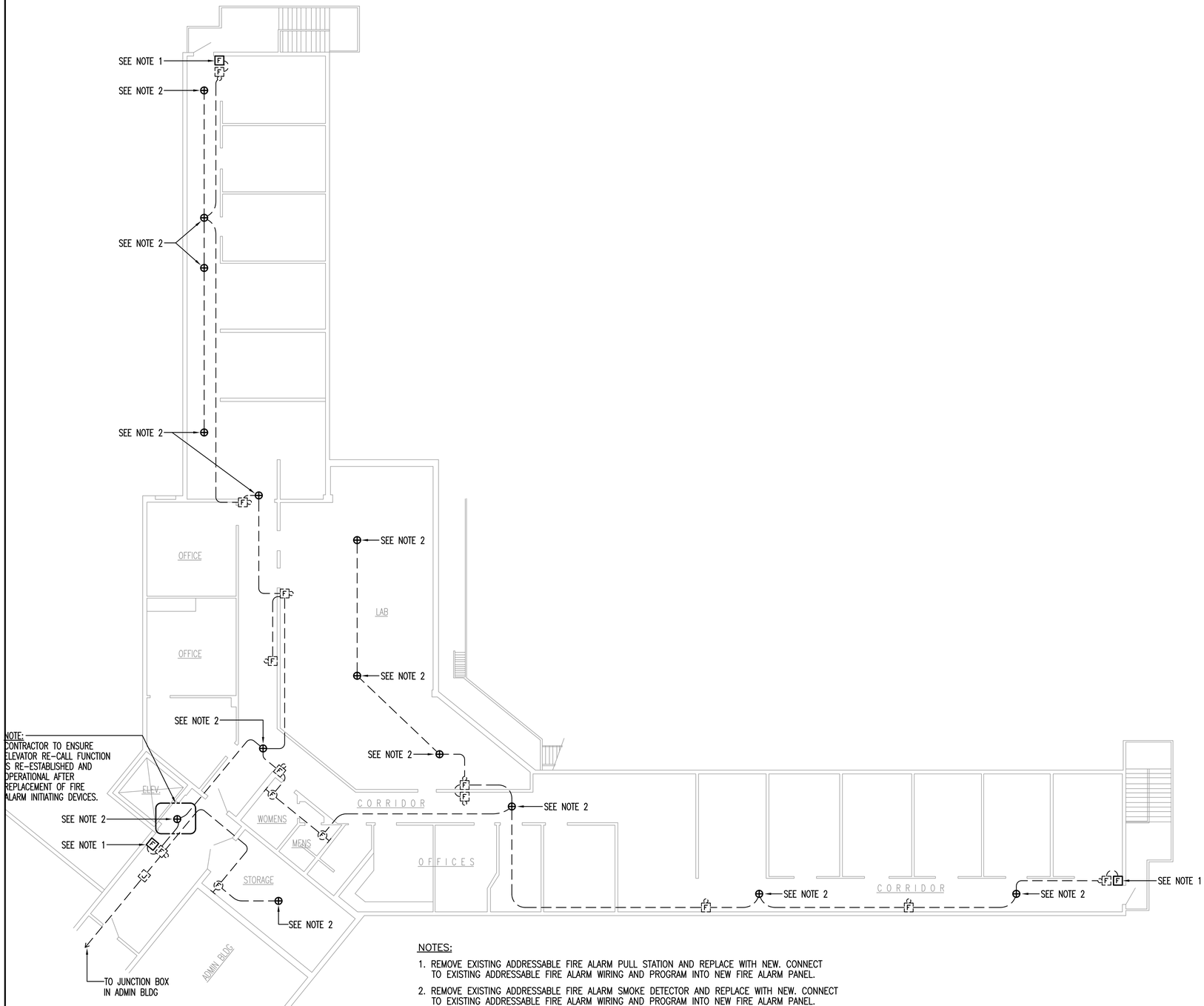
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ATHERTON BUILDING - 1ST FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E301
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF SHTS

FILE ..... DRAWER ..... FOLDER .....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
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4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E302

ATHERTON BUILDING - 2ND FLOOR ELECTRICAL PLAN

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

NORTH

0 2' 4' 8' 16'

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

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE 04/30/26 EXP. DATE

HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

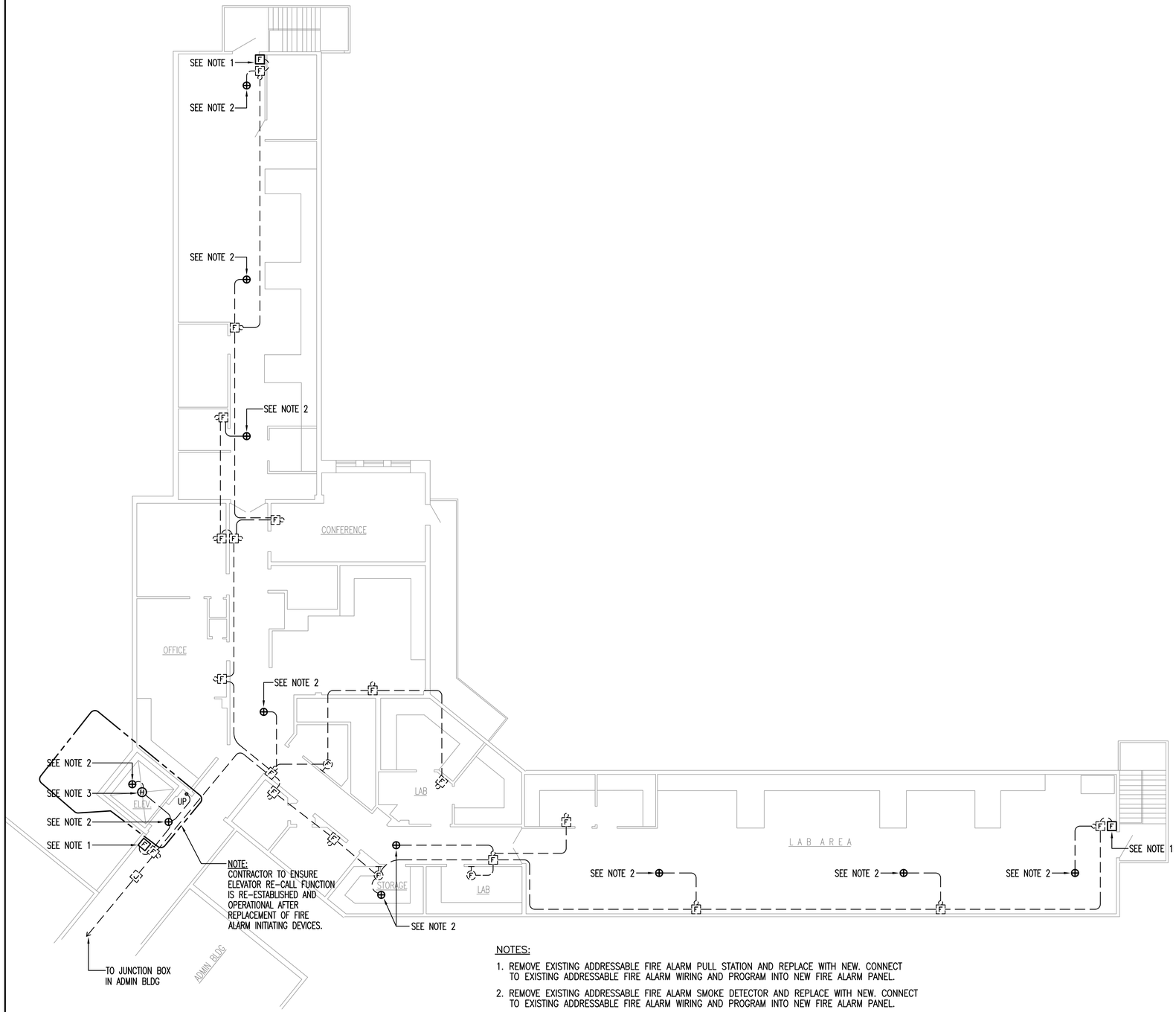
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ATHERTON BUILDING – 2ND FLOOR ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E302
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF ..... SHTS

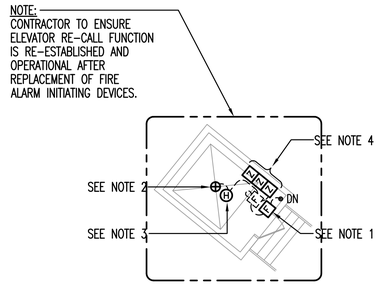
FILE ..... DRAWER ..... FOLDER .....



NOTES:

1. REMOVE EXISTING ADDRESSABLE FIRE ALARM PULL STATION AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
2. REMOVE EXISTING ADDRESSABLE FIRE ALARM SMOKE DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
3. REMOVE EXISTING ADDRESSABLE FIRE ALARM HEAT DETECTOR AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
4. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
5. EXISTING FIRE SPRINKLER TAMPER SWITCH AND/OR FIRE SPRINKLER FLOW SWITCH. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULES AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.
6. EXISTING FIRE ALARM DUCT SMOKE DETECTOR. REMOVE EXISTING ADDRESSABLE FIRE ALARM MONITOR MODULE AND REPLACE WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING AND PROGRAM INTO NEW FIRE ALARM PANEL.

A / E303 **ATHERTON BUILDING - 3RD FLOOR ELECTRICAL PLAN**
SCALE : 1 / 8" = 1' - 0"



B / E303 **ELEVATOR EQUIPMENT ROOM PARTIAL ROOF PLAN**
SCALE : 1 / 8" = 1' - 0"

NORTH

0 2' 4' 8' 16'
GRAPHIC SCALE : 1/8"=1'-0"

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

SIGNATURE Jason Yogi 04/30/26 EXP. DATE

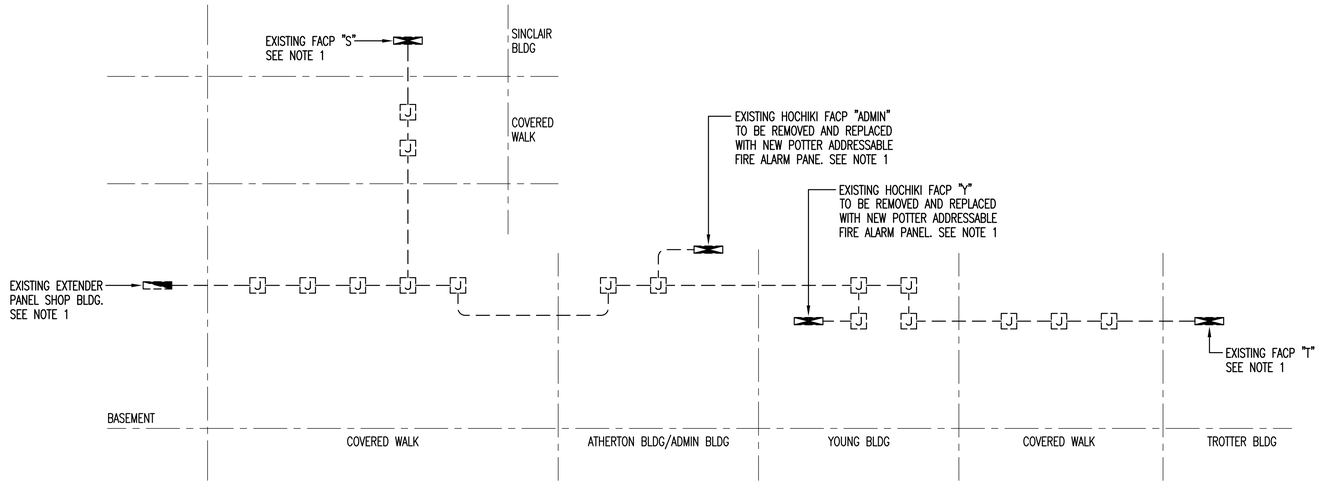
HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

ATHERTON BUILDING – 3RD FLOOR/ROOF ELECTRICAL PLAN

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E303
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY		
SCALE: AS NOTED		DATE: DECEMBER 2025	SHEET OF___SHTS

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. EXISTING NETWORK TO BE REPROGRAMMED TO ACCOMODATE NEW AND EXISTING FIRE ALARM PANELS. NEW PANELS SHALL HAVE VOICE AND DACT.

A / E400 FIRE ALARM RISER DIAGRAM - NETWORK PLAN

NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
LICENSED PROFESSIONAL ENGINEER
No. 9062-E
HAWAII, U.S.A.

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HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL

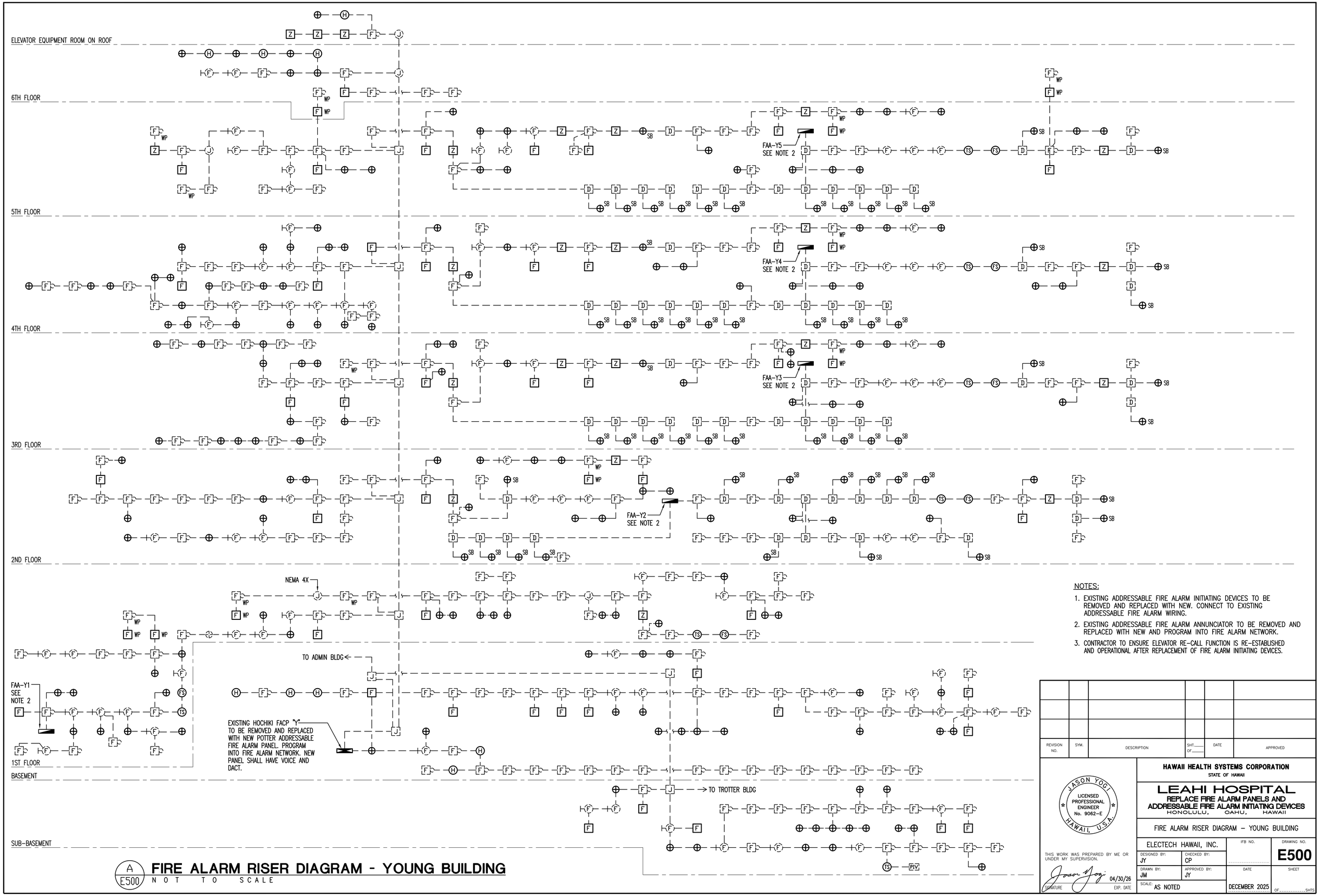
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

FIRE ALARM RISER DIAGRAM – NETWORK PLAN

ELECTECH HAWAII, INC.

DESIGNED BY:	CHECKED BY:	IFB NO.	DRAWING NO.
JY	CP		E400
DRAWN BY:	APPROVED BY:	DATE	SHEET
JM	JY	DECEMBER 2025	OF SHTS
SCALE: AS NOTED			

FILE ..... DRAWER..... FOLDER.....



A
E500

FIRE ALARM RISER DIAGRAM - YOUNG BUILDING

N O T T O SCALE

NOTES:

1. EXISTING ADDRESSABLE FIRE ALARM INITIATING DEVICES TO BE REMOVED AND REPLACED WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING.
2. EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR TO BE REMOVED AND REPLACED WITH NEW AND PROGRAM INTO FIRE ALARM NETWORK.
3. CONTRACTOR TO ENSURE ELEVATOR RE-CALL FUNCTION IS RE-ESTABLISHED AND OPERATIONAL AFTER REPLACEMENT OF FIRE ALARM INITIATING DEVICES.

REVISION NO.	SYM.	DESCRIPTION	SHT.___ OF___	DATE	APPROVED

JASON YOGI
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HAWAII, U.S.A.

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HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

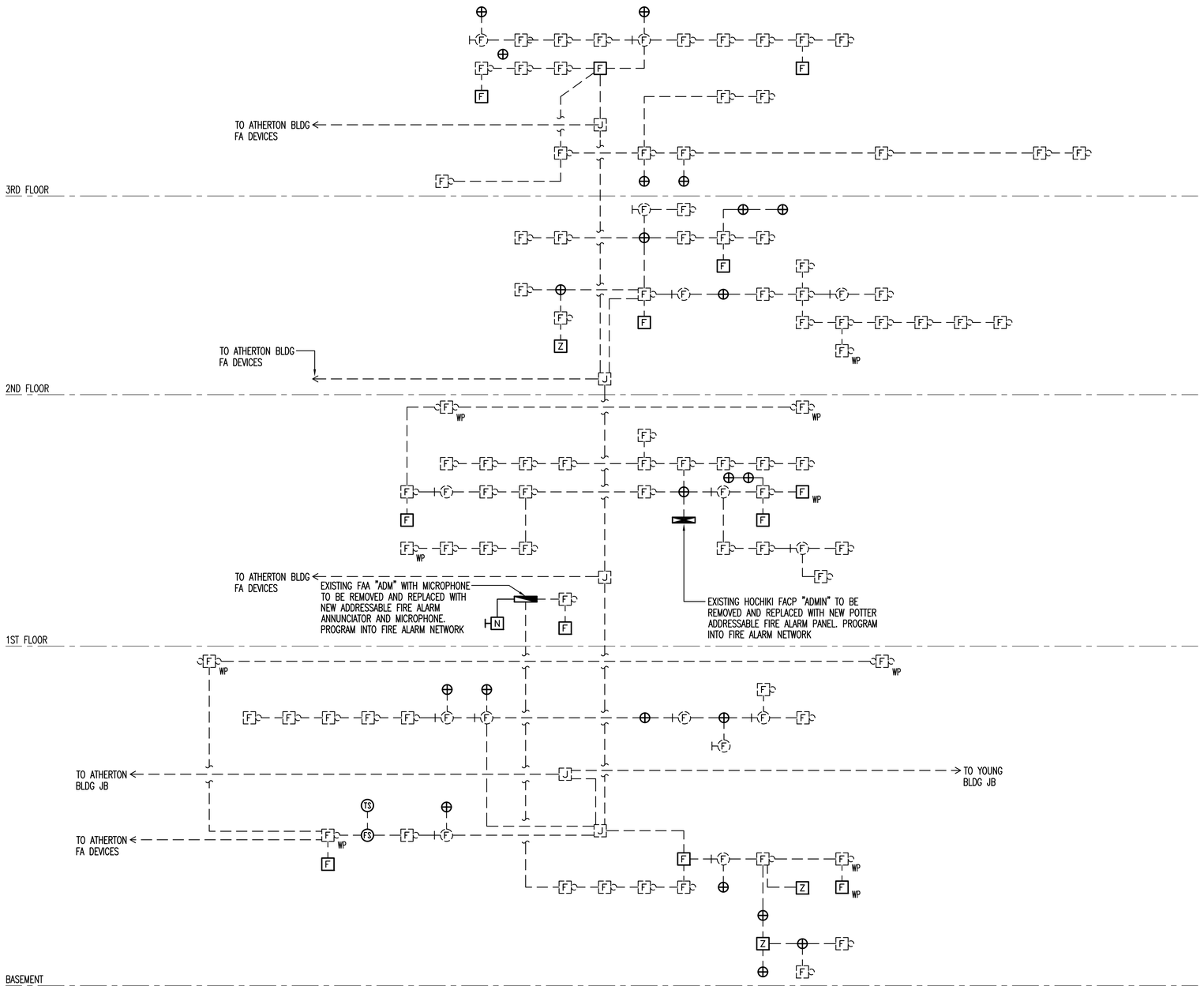
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

FIRE ALARM RISER DIAGRAM – YOUNG BUILDING

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO.
DESIGNED BY: JY	CHECKED BY: CP		**E500**
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF SHTS

FILE ..... DRAWER ..... FOLDER .....



NOTES:

1. EXISTING ADDRESSABLE FIRE ALARM INITIATING DEVICES TO BE REMOVED AND REPLACED WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING.

A / E501 **FIRE ALARM RISER DIAGRAM - ADMIN BUILDING**

NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT____ OF____	DATE	APPROVED

JASON YOGI
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HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

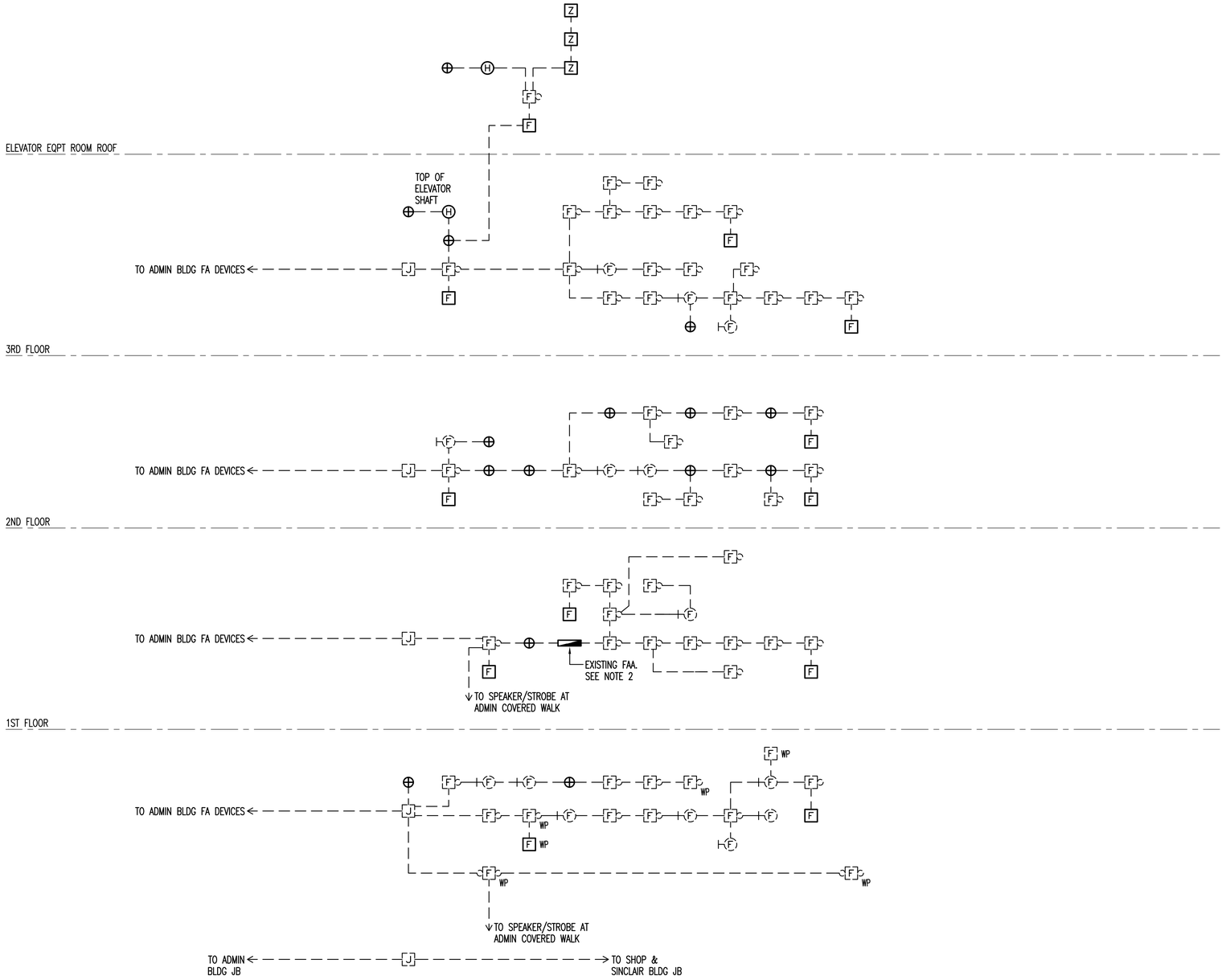
LEAHI HOSPITAL

REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

FIRE ALARM RISER DIAGRAM – ADMIN BUILDING

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E501
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF _____ SHTS

FILE ..... DRAWER..... FOLDER.....



NOTES:

1. EXISTING ADDRESSABLE FIRE ALARM INITIATING DEVICES TO BE REMOVED AND REPLACED WITH NEW. CONNECT TO EXISTING ADDRESSABLE FIRE ALARM WIRING.
2. EXISTING ADDRESSABLE FIRE ALARM ANNUNCIATOR TO BE REMOVED AND REPLACED WITH NEW AND PROGRAM INTO FIRE ALARM NETWORK.
3. CONTRACTOR TO ENSURE ELEVATOR RE-CALL FUNCTION IS RE-ESTABLISHED AND OPERATIONAL AFTER REPLACEMENT OF FIRE ALARM INITIATING DEVICES.

A / E502 **FIRE ALARM RISER DIAGRAM - ATHERTON BUILDING**
NOT TO SCALE

REVISION NO.	SYM.	DESCRIPTION	SHT____ OF____	DATE	APPROVED

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HAWAII HEALTH SYSTEMS CORPORATION
STATE OF HAWAII

LEAHI HOSPITAL
REPLACE FIRE ALARM PANELS AND ADDRESSABLE FIRE ALARM INITIATING DEVICES
HONOLULU, OAHU, HAWAII

FIRE ALARM RISER DIAGRAM – ATHERTON BUILDING

ELECTECH HAWAII, INC.		IFB NO.	DRAWING NO. E502
DESIGNED BY: JY	CHECKED BY: CP		
DRAWN BY: JM	APPROVED BY: JY	DATE	SHEET
SCALE: AS NOTED		DECEMBER 2025	OF_____ SHTS

FILE ..... DRAWER..... FOLDER.....