SEARHC

SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM

SEARHC-RFP-25-10

ISSUE DATE: September 19, 2025

SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM (SEARHC)

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF SITKA PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

ISSUED BY:

SouthEast Alaska Regional Health Consortium
Supply Chain Management
3100 Channel Drive, Suite 300
Juneau, AK 99801

DATE AND TIME FOR RECEIPT OF PROPOSALS:

Full Proposal:
4:00 p.m. Alaska Time October 17, 2025

SouthEast Alaska Regional Health Consortium
Attn: Erin Kitka
Erink@searhc.org
Construction & Engineering Manager
907-738-6599
3100 Channel Drive, Suite 300
Juneau, AK 99801

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1. BACKGROUND

SEARHC is a consortium of federally-recognized tribes, incorporated as a non-profit corporation under Alaska law, and a tribal organization for purposes of Title V of the Indian Self-Determination and Education Assistance Act, Pub. L. 93-638, as amended ("ISDEAA"). SEARHC provides healthcare services in Southeast Alaska to American Indians, Alaska Natives and other eligible individuals under the Alaska Tribal Health Compact and funding agreement with the Indian Health Service ("IHS") authorized by Section 325 of Pub. L. 105-83 and Title V of the ISDEAA.

SEARHC's corporate headquarters are located at 3100 Channel Drive, Juneau, AK 99801. SEARHC operates two critical access hospital facilities, including Mt. Edgecumbe Medical Center, located at 222 Tongass Drive, Sitka, AK 99835 and Wrangell Medical Center, located at 232 Wood Street, Wrangell, AK 99929, in addition to multiple clinics and additional healthcare facilities across 27 communities throughout Southeast Alaska.

2. SOLICITATION

2.1. GENERAL PROCESS

The process SEARHC will follow for soliciting proposals will be in these general steps.

2.1.1. SEARHC will issue this RFP.

2.1.2. SEARHC accepts the full proposals from all submitting entities.

2.1.3. SEARHC scores submissions and determine a tentative award that best fits the business needs of SEARHC.

2.1.4. A best and final negotiation with the tentative awarded entity (entities) will take place.

2.1.5. Final award(s) will be made.

2.2. QUESTIONS

2.2.1. Questions related to the content of this RFP must be submitted to Erin Kitka, Erink@searhc.org, no later than 4:00 p.m. Alaska Time on October 10, 2025. Questions will be answered only in writing. The only changes to this RFP will be by written addendum to this RFP. Oral and other interpretations or clarifications will be without legal effect.

2.3. PROPOSAL DEADLINE

2.3.1. A proposal in the format requested in Section 5, and separate PDF for pricing must be emailed to the Contracting Officer, Thom Shaffer, tshaffer@searhc.org, and received no later than 4:00 p.m. Alaska Time on October 17, 2025. Email submission only. No hard copy proposals are requested. Proposals received after the deadline will not be accepted.

2.4. PROPOSALS-NEGOTIATION-CONTRACT AWARD

2.4.1. Definitions. As used in this provision.

2.4.1.1. "Discussions" or “Best and Final” are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the proposer being allowed to revise its proposal.

2.4.1.2. "In writing" or "written" means any worded or numbered expression that can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

2.4.1.3. "Proposal modification" is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

2.4.1.4. "Proposal revision" is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

2.4.1.5. "Time," if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

2.4.2. Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Proposers shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

2.4.3. Submission, modification, revision, and withdrawal of proposals.

2.4.3.1. Unless otherwise specified in the solicitation, the proposer may propose to provide any item or combination of items.

2.4.3.2. Proposals submitted in response to this solicitation shall be in English and in U.S. dollars, unless otherwise permitted by the solicitation.

2.4.3.3. Proposers may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

2.4.3.4. Proposers may submit revised proposals only if requested or allowed by the Contracting Officer.

2.4.3.5. Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

2.4.4. Offer expiration date. Proposals in response to this solicitation will be valid for at least 120 days after the closing date for receipt of offers for this RFP.

2.4.5. Contract award.

2.4.5.1. SEARHC intends to award a contract or contracts resulting from this solicitation to the responsible proposer(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

2.4.5.2. SEARHC may reject any or all proposals if such action is in SEARHC's interest.

2.4.5.3. SEARHC may waive informalities and minor irregularities in proposals received.

2.4.5.4. SEARHC intends to evaluate proposals and award a contract after conducting discussions with proposers whose proposals have been determined to be within the competitive range. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly-rated proposals. Therefore, the proposer's initial proposal should contain the proposer's best terms from a price and technical standpoint.

2.4.5.5. SEARHC reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the proposer specifies otherwise in the proposal.

2.4.5.6. SEARHC reserves the right to make multiple awards if, after considering the additional administrative costs, it is in SEARHC's best interest to do so.

2.4.5.7. Exchanges with proposers after receipt of a proposal do not constitute a rejection or counteroffer by SEARHC.

2.4.5.8. SEARHC may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to SEARHC.

2.4.5.9. If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

3. PROJECT OVERVIEW

The scope of work is to construct an addition to the existing patient housing facility located at 201 Tongass Drive, Sitka Alaska. This project will include all divisions of construction with the exception of civil. Civil sheets will be provided for reference and coordination; this scope of work will be a separate contract managed by SEARHC. The contractor awarded this scope of work will need to coordinate with civil Contractor as needed to complete this project in an efficient manner.

4. SCOPE OF SERVICES:

4.1. Cushing Terrell contract documents dated 8.28.2025 including sheets:
G001, G100, G200, S001, S002, S003, S101, SL102, S201, S202, S211, AS100, A101, A111, A201, A301, A302, A303, A501, A601, A701, F001, F100, F300, P001, P002, P100, P200, M001, MD100, M100, E001, E002, E003, E100, E200, E300, FA001, FA100, FA300 , Structural Calculations PDF Dated 08.27.2025. The following sheets are provided for reference only and are not included in this scope of work: C100, C101, C102, C500.

4.2. Permits will be by Owner; Contractor will be required to comply with all permit requirements, and conditions. Contractor is responsible for scheduling all inspections with the CBS building department.

4.3. Project Management

4.3.1. Budget Oversight. Maintain control over costs and ensure expenditures align with the approved budget

.

4.3.2. Schedule Coordination. Develop a CPM schedule in Gantt format that is updated monthly and submitted with a pay application.

4.3.3. Weekly OAC Meeting: Provide regular updates to SEARHC and design team regarding construction progress, procurement log, 2-week schedule review and any issues that arise. Meeting will be scheduled by SEARHC

4.4. Certificate of occupancy and Handover

4.4.1. Contractor conducts pre-punch list inspect to ensure all work aligns with the construction documents and documents all deficiencies

.

4.4.2. Facilitate a final walkthrough with SEARHC representatives.

4.4.3. Coordinate occupancy inspection with AHJ.

4.4.4. Prepare necessary documentation for regulatory approvals and certifications prior to occupancy.

4.5. Post-Construction Support

4.5.1. Address warranty-related issues and facilitate necessary repairs within the warranty period.

4.5.2. Provide guidelines and recommendations for the long-term maintenance and management of the housing facility.

5. PROPOSAL FORMAT AND CONTENT

<u>As a minimum, the following must be included in all responses:</u>

5.1. A cover letter referencing SEARHC-RFP-25-11 that lists the contents of the response.

5.2. Statement of qualifications including similar project experience.

5.3. A concise narrative which addresses each of the selection criteria and the firm's approach to delivering the Scope of Services and preliminary CPM schedule

5.4. Indian Preference Provisions and Representations

5.5. Representations and Certifications of Proposer

5.6. Price proposals via the attached Price Schedule Forms found in this RFP.

6. SCORING AND SELECTION PROCESS

6.1. The scoring committee will be comprised of members from the SEARHC Project Team. Scoring will be weighted as follows:

Selection Criterion	Maximum Points
Statement of Qualifications and Similar Experience	25
Project Approach to Deliver Scope of Services	30
Alaska Native/America Indian Preference	5
Price Proposals	40

Total Possible Points	100

6.2. Responsiveness Evaluation. Proposals will be evaluated for compliance with specifications, and all other requirements including instructions, provisions, terms, and conditions of the solicitation. Proposals which fail to comply with the essential requirements of the solicitation will be rejected as non-responsive and eliminated from further consideration.

6.3. Contract Negotiations. SEARHC reserves the right to enter discussions with any proposer determined by SEARHC to be responsive to this RFP.

6.4. Statement of Basis of Award. Subject to the provisions contained herein, an award will be made to a single or multiple offerors. Award will be made to the responsive responsible offeror(s) whose proposal conforms in all essential respects to the solicitation requirements, price and other factors specifically set forth herein considered.

6.5. Explanation of Matters Reserved to the Judgment of SEARHC for Purposes of Evaluation for Specification Compliance. Proposals will be evaluated based on program features and operating capabilities required in the contract specifications and the extent to which an offeror can be expected to provide and sustain a high-quality service program for SEARHC.

(a) Program Effectiveness and Efficiency. Evidence submitted in accordance with solicitation requirements will be considered as it is perceived to enhance the effectiveness and efficiency of the program. Proposals which SEARHC deems unacceptable for these purposes may be rejected. Proposals which fail to meet the minimum specification requirements of the solicitation will be rejected.

(b) Program Quality. SEARHC and its program beneficiaries will rely upon a high-quality sustained program over the term of the contract. SEARHC may base its evaluation of a proposal's acceptability upon the quality of the program.

6.6. Staffing Qualifications. The staffing elements of a proposal are therefore a paramount consideration. Any offer or offeror which fails in any way to meet the staffing qualifications, experience, documentation, health, safety, license, or other related requirements of the solicitation will be rejected.

6.7. On-Site Inspections. It is not anticipated that SEARHC will perform an on-site inspection of every offeror's supporting facilities. Only those proposals of prospective responsible contractors deemed by SEARHC to be within the competitive range for award may require inspection for determination of capacity to perform in full compliance with the contract specifications. (SEARHC is not obligated to perform any such inspections, when information is otherwise available and deemed sufficient for this purpose.) Offerors are cautioned to be certain that any exceptions to the required specifications or other provisions of the solicitation are listed in the cover letter submitted with their proposal.

7. OTHER

7.1. All costs incurred in responding to this RFP are the responsibility of the Proposer and will not be reimbursed by SEARHC. Furthermore, this RFP does not obligate SEARHC to accept or contract for any services expressed or implied.

7.2. SEARHC reserves the right to: (1) Modify or otherwise alter any or all of the requirements in this RFP. In the event of any modifications, all Proposers will be given an equal opportunity to modify their proposals in the specific areas that are requested; (2) Reject any proposal not adhering to any and all requirements set forth in this RFP; (3) Reject any or all proposals received; and (4) Terminate this RFP at any time, without reason.

7.3. SEARHC reserves the right to waive any formalities in the selection process, and to make any selection based on any factors deemed to be in its own best interest. SEARHC reserves the right

to reject any and/or all proposals which it deems to not be in its best interests and to proceed with the next highest ranked Proposer or to utilize an entirely different procurement process.

7.4. All proposals and other materials submitted by the Proposer to SEARHC become the property of SEARHC. SEARHC may require, seek, and utilize all information it deems appropriate to assess the qualifications of individual Proposers. Unless otherwise clearly specified by Proposer, information in proposals submitted in response to this RFP shall be considered public information and may, at SEARHC's discretion, be released to the public at the conclusion of the evaluation, selection and contract award process. Detailed costs and price information provided will be held in confidence. Any other information related to pricing or capacity that Proposers consider confidential or proprietary and wish to remain unavailable for public disclosure should be clearly identified.

7.5. Any media announcements pertaining to this RFP or Program require SEARHC's prior written approval.

7.6. SEARHC is a consortium of Alaska Native Tribal Governments and, as such, shares the sovereign immunity of its constituent Tribes. Nothing in this RFP is a waiver of sovereign immunity.

7.7. This RFP does not obligate SEARHC or the selected Proposer until a contract is fully executed. The Contract will be fully executed when it is signed by an authorized representative of both parties. SEARHC shall not be responsible for work done, even in good faith, prior to execution of the Contract. If there is any conflict between the Contract and the proposal, the Contract shall control.

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INDEMNIFICATION, MEDICAL LIABILITY, and OTHER INSURANCE

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

(a) It is expressly agreed and understood that this is a non-personal services contract under which the professional services rendered by the Contractor are rendered in its capacity as an independent contractor. SEARHC may evaluate the quality of professional and administrative services provided, but retains no control over professional aspects of the services rendered, including by example, the Contractor's professional judgment and the manner in which the services are performed. SEARHC be added to all the policies below as Additional Insured with a Waiver of Subrogation in favor of SEARHC excluding the Additional Insured requirement for Workers Compensation.

The Contractor shall be solely liable for and expressly agrees to indemnify and defend SEARHC with respect to any liability producing acts or omissions by it or by its employees or agents and SEARHC be named as Additional Insured with a Waiver of Subrogation in favor of SEARHC. The Contractor shall maintain during the term of this contract liability insurance issued by a responsible insurance carrier of **not less** than the following amount(s) per specialty per occurrence: $1,000,000.00 with $2,000,000.00 aggregate per specialty per occurrence.

(b) An apparently successful Offeror shall furnish, prior to contract award, evidence of all required insurance customary in connection with this Offeror’s line of business, including, but not limited to professional, employer’s liability insurance, employee dishonesty / crime coverage, worker’s compensation, commercial and non-commercial automobile, and general liability insurance to cover any liability that may result from performance of the services described in this RFP.

(c) Liability insurance may be on either an occurrences basis or on a claims-made basis. If the policy is on a claims-made basis, an extended reporting endorsement (tail) for a period of not less than 3 years after the end of the contract term must also be provided at the limits described below.

(d) The policies evidencing required insurance shall also contain an endorsement to the effect that any cancellation or material change adversely affecting the SEARHC's interest shall not be effective until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer. If, during the performance period of the contract the Contractor changes insurance providers, the Contractor must provide evidence that SEARHC will be indemnified to the limits specified in paragraph (a) of this clause, for the entire period of the contract, either under the new policy, or a combination of old and new policies. In any case, required insurance coverage shall be continuous without interruption.

Minimum limits and conditions of insurance are required of each party to this agreement.

Workers Compensation Insurance – As required by law. Where applicable, coverage mandated by federal statutes (e.g. Marine and U.S.L. & H. and Jones Acts) must also be included.

Employers Liability Insurance – Not less than the following:

Each Accident	$1,000,000
Disease – Policy Limit	$1,000,000
Disease – Each Employee	$1,000,000

General Liability Insurance – Bodily Injury, Personal Injury and Property Damage with a combined single limit of not less than $1 million each occurrence and $2 million aggregate. The limits of general liability can be obtained with an excess liability policy.

The general liability insurance policy shall be written on an “occurrence” basis Commercial General Liability policy form. The policy shall be endorsed to name the SEARHC as an additional insured.

Automobile Liability Insurance – Bodily Injury and Property Damage coverage with a combined single limit of not less than $1 million for each occurrence. The automobile liability policy shall include coverage for owned automobiles (where applicable) as well as non-owned and hired automobile coverage.

Each policy of insurance as required above shall be written by an insurance company admitted in Alaska with a minimum rating by A. M. Best & Company of A- VI.

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ALASKA NATIVE/AMERICAN INDIAN PREFERENCE PROVISIONS AND REPRESENTATIONS

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

1) DEFINITIONS

The term "Alaska Native/American Indian firm, Alaska Native/American Indian organization or enterprise" means a sole enterprise, partnership, corporation, or other type of business organization owned and controlled by one or more Alaska Natives or American Indians who are members of a tribe, Pueblo, band, group, village, or community that is recognized by the Secretary of the Interior or the Secretary of Health and Human Services, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (85 Stat. 688).

2) ALASKA NATIVE/AMERICAN INDIAN-OWNED, CONTROLLED, AND OPERATED BUSINESS REPRESENTATION

Any firm that misrepresents itself as an Alaska Native/American Indian-preference eligible firm in order to secure the award of a contract or purchase order shall be subject to suspension, debarment and prosecution under applicable law.

(a) Representation: The proposer represents that [_] it is, [_] is not a 51% or more Alaska Native or American Indian-owned, controlled, and operated firm as defined herein.

ALASKA NATIVE/AMERICAN INDIAN

A person who is a member of any Tribe, or is a person recognized by the federal government as eligible for the special programs, services, or rights provided by the federal government to Alaska Natives because of their status as Alaska Natives, including any person who is a "Native" as that term is defined in the Alaska Native Claims Settlement Act, 43 U.S.C. 1601(b), or the lineal descendant of a Native.

INDIAN OWNERSHIP

The specified degree of Alaska Native/American Indian ownership must be maintained during the period covered by this contract.

3) USE OF ALASKA NATIVE/AMERICAN INDIAN BUSINESS CONCERNS

(a) As used in this clause, the term "Alaska Native/American Indian Business Concern" means Alaska Native or American Indian organizations, or Alaska Native or American Indian owned economic enterprise as defined herein.

(b) The contractor agrees to give preference to qualified Alaska Native and American Indian business concerns in the awarding of any subcontracts entered into under the contract consistent with the efficient performance of the contract. The contractor shall comply with any preference requirements regarding Alaska Native and American Indian business concerns established by the entity receiving services under the contract to the extent that such requirements are not inconsistent with the purpose and intent of this paragraph.

4) ALASKA NATIVE/AMERICAN INDIAN PREFERENCE IN TRAINING AND EMPLOYMENT

(a) The contractor shall give preference in employment for all work performed under the contract, including

subcontracts there under, to qualified Alaska Natives and American Indians regardless of age, religion or sex and, to the extent feasible consistent with the efficient performance of the contract, provide employment and training opportunities to Alaska Natives and American Indians, regardless of age, religion or sex that are not fully qualified to perform under the contract. The contractor shall comply with any Indian preference requirements established by the tribe receiving services under the contract to the extent that such requirements are consistent with the purpose and intent of this paragraph.

(b) If the contractor or any of its subcontractors is unable to fill its employment openings after giving full consideration to Alaska Natives and American Indians as required in paragraph (a) above, these employment openings may then be filled by other than Alaska Natives and American Indians under the conditions set forth in the Equal Opportunity clause of this contract.

(c) The contractor agrees to include this clause or one similar thereto in all subcontracts issued under the contract.

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REPRESENTATIONS AND CERTIFICATIONS

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

1. TYPE OF BUSINESS ORGANIZATION

The Bidder/Proposer, by checking the applicable box, represents that:

(a) It operates as:

[_] a corporation incorporated under the laws of the State of _____
[_] an individual,
[_] a partnership,
[_] a nonprofit organization, or
[_] a joint venture; or

(b) If the Bidder/Proposer is a foreign entity, it operates as:

[_] an individual,
[_] a partnership,
[_] a nonprofit organization,
[_] a joint venture, or
[_] a corporation registered for business in the Country of _____

2. PARENT COMPANY INFORMATION

The Bidder/Proposer by checking the applicable box represents that:

[_] It is independently owned and operated, and it is not owned or controlled by a parent company or parent organization.

[_] It is not independently owned and operated; it is owned or controlled by a parent company or parent organization; and the full name and address of the Bidder/Proposer's parent company or parent organization is:

[_] If not independently owned and operated, the parent company or parent organization's Taxpayer Identification Number (TIN) or Employer Identification Number (E.I. No.) is: _____

3. TAXPAYER IDENTIFICATION

(c) Definitions.

"Common parent," as used in this solicitation provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the proposer is a member.

"Corporate status," as used in this solicitation provision, means a designation as to whether the proposer is a corporate entity, an unincorporated entity (e.g., sole proprietorship or partnership), or a corporation providing medical and health care services.

"Taxpayer Identification Number (TIN)," as used in this solicitation provision, means the number required by the IRS to be used by the proposer in reporting income tax and other returns.

(d) All proposers are required to submit the information required in paragraphs (c) through (e) of this solicitation provision in order to comply with reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service (IRS). If the resulting contract is subject to the reporting requirements described in FAR 4.903, the failure or refusal by the proposer to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(e) Taxpayer Identification Number (TIN): _____

[_] TIN has been applied for.

[_] TIN is not required because:

[_] Proposer is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the U.S. and does not have an office or place of business or a fiscal paying agent in the U.S.:

[_] Proposer is an agency or instrumentality of a foreign government;

[_] Proposer is an agency or instrumentality of a Federal, state, or local government;

[_] Other. State basis.

(f) Corporate Status:

[_] Corporation providing medical and health care services, or engaged in the billing and collecting of payments for such services;

[_] Other corporate entity [_] Not a corporate entity [_] Sole proprietorship [_] Partnership

[_] Hospital or extended care facility described in 26 CFR 501(c)(3) that is exempt from taxation under 26 CFR 501(a).

(g) Common Parent. [_] Proposer is not owned or controlled by a common parent as defined in paragraph (a) of this provision. Name and TIN of common parent:

Name _____

TIN _____

5. CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS
(This provision is applicable only if the amount of the bid exceeds $100,000.)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The proposer, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989:

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the proposer shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite' for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

6. PREVIOUS CONTRACTS AND COMPLIANCE REPORTS

The Contractor represents that:

(a) It [_] has [_] has not participated in a previous contract or subcontract subject either to the Equal Opportunity clause of this solicitation, the clause originally contained in Section 310 of federal Executive Order No. 10925, or the clause contained in Section 201 of federal Executive Order No. 1114;

(b) It [_] has [_] has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, by proposed subcontractors, will be obtained before subcontract awards.

7. CERTIFICATION OF NONSEGREGATED FACILITIES

(a) "Segregated facilities", as used in this provision, means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees, that are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin because of habit, local custom, or otherwise.

(b) By submission of this offer, the Bidder/Proposer certifies that it does not and will not maintain or provide for its employees any segregated facilities at any of its establishments, and that it does not and will not permit its employees to perform their services at any location under its control where segregated facilities are maintained. The Bidder/Proposer agrees that a breach of this certification is a violation of the Equal Opportunity clause in the contract.

(c) The Bidder/Proposer further agrees that (except where it has obtained identical certifications from proposed subcontractors for specific time periods) it will:

(1) Obtain identical certifications from proposed subcontractors before the award of subcontracts under which the subcontractor will be subject to the Equal Opportunity clause;

(2) Retain the certifications in the files; and

(3) Forward the following notice to the proposed subcontractors (except if the proposed subcontractors have submitted identical certifications for specific time periods).

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES.

A Certification of Nonsegregated Facilities must be submitted before the award of a subcontract under which the subcontractor will be subject to the Equal Opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semi-annually, or annually).

8. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS

(a) The Proposer certifies, to the best of its knowledge and belief, that:

(1) The Proposer and/or any of its Principals:

a. Are [_] are not [_] presently debarred, suspended, proposed, for debarment, or declared ineligible for the award of contracts by any Federal agency;

b. (b) Have [_] have not [_], within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

c. Are [_] are not [_] presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in subdivision (a)(1)(i)(B) of this provision.

(2) (ii) The Proposer has [_] has not [_], within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(b) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(c) The Proposer shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Proposer learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(d) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Proposer's responsibility. The failure of the Proposer to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Proposer non-responsible.

(e) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of a Proposer is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(d) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Proposer knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the

Contracting Officer may terminate the contract resulting from this solicitation for default.

9. CLEAN AIR AND WATER CERTIFICATION

The Proposer certifies that:

(a) Any facility to be used in the performance of this proposed contract is [_] is not [_] listed on the Environmental Protection Agency (EPA) List of Violating Facilities;

(b) The Proposer will immediately notify the Contracting Officer, before award, of the receipt of any communication from the Administrator, or a designee, of the EPA, indicating that any facility that the Proposer proposes to use for the performance of the contract is under consideration to be listed on the EPA List of Violating Facilities; and

(c) The Proposer will include a certification substantially the same as this certification, including this paragraph (c), in every nonexempt subcontract.

10. ANTI-KICKBACK PROVISIONS

(a) The Contractor assures that regarding this contract, neither the Contractor, nor any of its employees, agents, or representatives has violated the provisions of the "Anti-Kickback" Act of 1986 (41 USC 51-58) which is incorporated by reference and made a part of this contract.

(b) The Contractor warrants that neither the Contractor nor any of its representatives has been required, directly or indirectly as an express or implied condition in obtaining or carrying out this contract, to employ or retain any organization or person or to make a contribution, donation or consideration of any kind.

11. EQUAL EMPLOYMENT OPPORTUNITY AND NON-DISCRIMINATION

(a) By submitting this offer, the Bidder/Proposer agrees that after giving preference under Indian Preference Provisions of this solicitation and contract, the contractor shall not discriminate among Indians on the basis of religion, sex, or tribal affiliation.

(b) By submitting this offer, the Bidder/Proposer agrees that after giving preference under Indian Preference Provisions of this solicitation and contract to comply with all applicable State and Federal rules governing Equal Employment Opportunity and Non-Discrimination. The Bidder/Proposer agrees to include this provision in all subcontracts.

(c) The Contractor shall permit access to its books, records, and accounts by the contracting agency or the Office of Federal Contract Compliance Programs (OFCCP) for the purposes of investigation to ascertain the Contractor's compliance with the applicable rules, regulations and orders.

(d) The Contractor shall include the terms and conditions this clause in every subcontract or purchase order so that these terms and conditions will be binding upon each subcontractor or vendor.

12. CERTIFICATE OF INDEPENDENT PRICE DETERMINATION

(a) The proposer certifies that--

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other proposer or competitor relating to--

(a) Those prices;

(b) The intention to submit an offer, or

(c) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the proposer, directly or indirectly, to any other proposer or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the proposer to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory--

(1) Is the person in the proposer's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision [insert full name of person(s) in the proposer's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the proposer's organization] ;

(a) As an authorized agent, does certify that the principals named in subdivision (b)(2) of this provision have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; and

(b) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the proposer deletes or modifies subparagraph (a)(2) of this provision, the proposer must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

13. DRUG FREE WORKPLACE

To the extent that any facilities, equipment, vessel, or vehicle to be provided under this bid/offer is to be used as a place of work by Contracting Agency employees, the Bidder/Proposer certifies that it does and will maintain such place of work as a drug free workplace in compliance with the Drug Free Workplace Act of 1988 (P.L. 100-690) subject to all the sanctions and penalties in that Act.

14. TOBACCO FREE WORKPLACE

(a) All SEARHC owned campuses are 100% tobacco free. The use of any tobacco product is prohibited in all areas.

(b) All SEARHC owned campuses are 100% tobacco free. The use of any tobacco product is prohibited in all areas.

(c) All employees (including contract employees, volunteers, and students), patients, visitors, and vendors will support the tobacco free campus policy at all SEARHC facilities.

15. COOPERATION FOR REQUIRED DETERMINATION OF RESPONSIBLE PROSPECTIVE CONTRACTOR PRIOR TO AWARD OF CONTRACT

(a) The Bidder/Proposer shall, upon request, promptly furnish SEARHC with a current certified statement of the Bidder/Proposer's financial condition and such data as SEARHC may request with respect to the Bidder/Proposer's operations. SEARHC will use this information to determine the Bidder/Proposer's

financial responsibility and ability to perform under the contract.

(b) Failure of a Bidder/Proposer to comply with a request for information may be cause for rejection of the bid/offer on responsibility grounds.

(c) SEARHC may make such investigations as they deem necessary to determine the ability of the Bidder/Proposer to perform the work, and the Bidder/Proposer shall furnish to SEARHC all such information and data for this purpose as SEARHC may request. SEARHC reserves the right to reject any bid/offer if the evidence submitted by, or investigation of such Bidder/Proposer fails to satisfy SEARHC that such Bidder/Proposer is properly qualified and responsible to carry out the obligations of the contract and to complete the work contemplated therein.

16. BIDDER/PROPOSER CERTIFICATION AND REPRESENTATION SIGNATURE

By signing below, the Bidder/Proposer represents that all of its statements, certifications, and representations, and other information supplied herein are true and correct as of the date of submittal of this bid/offer.

PROPOSER: _____

ADDRESS: _____
(Type or Print Company Name and Address of Proposer)

AUTHORIZED SIGNATURE: _____

DATE:

SEARHC-RFP-25-10

PRICING – SCHEDULE OF VALUES

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

Pay Item No.		Scheduled Value (Lump Sum)
	Insurance and Bonds	
2	Project Management and Submittals	
3	Project Close-Out, Record Docs, O&M Manuals	
4	Transportation, Housing and Subsistence	
5	Mobilization and Freight	
6	Disposal	
7	Utilities (Electrical, DataCom)	
8	Concrete	
9	Exterior Structural Framing	
10	Exterior Envelope; Roofing, Siding and Insulation	
11	Exterior Windows, Doors, Door Hardware	
12	Exterior Paint	
13	Interior Framed Partition Walls and Sound Proofing Insulation	
14	Interior Gyp Wall Board. Paint, Acoustical Ceilings	
15	Flooring	
16	Casework and Solid Surface Countertops or Work Surfaces	
17	Interior Doors and Door Hardware	
18	Interior Finish Carpentry	
19	Mechanical Plumbing and Trim	
20	Electrical Power, Lighting and Trim	
21	Electrical Data, Communications and Trim	
	Subtotal	
	General Contractor Mark Up Overhead and Profit	
	Total	

SEARHC-RFP-25-10

ATTACHMENT A – PERMITS

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

See attached

SEARHC-RFP-25-10

ATTACHMENT B – Construction Documents

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

See attached

SEARHC-RFP-25-10

ATTACHMENT C – Structural Calculations

REQUEST FOR PROPOSALS (RFP) TO PROVIDE CONSTRUCTION OF PATIENT HOUSING EXPANSION FOR SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM. 201 TONGASS DRIVE SITKA ALASKA 99835

See attached

CITY AND BOROUGH OF SITKA (CBS) BUILDING PERMIT

PERMIT NOT VALID UNTIL STAMPED "APPROVED" BELOW

PLEASE VISIT WWW.CITYOFSITKA.COM FOR MORE INFORMATION. PERMIT NO. _____

APPLICATION INFORMATION – PLEASE FILL OUT ALL THAT APPLY

FIELDS MARKED WITH AN ASTERISK (*) ARE REQUIRED

*PROPERTY OWNER SEARHC - Mike Pountney *PROJECT CONTACT NUMBER Brad: 208-577-5696; Mike: 907-966-8413

*PROJECT ADDRESS 201 Tongass Drive *PROJECT CONTACT NAME Bradley Dunbar - Cushing Terrell

EMAIL ADDRESS bradleydunbar@cushingterrell.com *OWNER MAILING ADDRESS 222 Tongass Drive

CONTRACTORS: GENERAL TBD PLUMBING TBD ELECTRICAL TBD

***PROJECT TO INCLUDE:** ☑ BUILDING ☑ ELECTRICAL ☑ PLUMBING ☐ DEMOLITION ☐ GRADING (SEPARATE APPLICATIONS REQUIRED)

TOTAL SQUARE FOOTAGE Addition: 2,555 SF, Total Building: 10,375 *PROJECT VALUE $ 875,000

***2 SETS OF PLANS MUST BE SUBMITTED WITH BUILDING AND/OR GRADING PERMIT APPLICATION.**
(ONE SET WILL BE RETURNED WITH PERMIT, ONE SET WILL BE KEPT AT CBS FOR DURATION OF PROJECT)

WHEN APPLICABLE, OWNER/APPLICANT IS RESPONSIBLE FOR THE FOLLOWING ITEMS:

- CBS UTILITIES CONNECTION / DRIVEWAY CULVERT PERMIT
- AS BUILT SURVEY PRIOR TO FRAMING
- CORPS OF ENGINEERS PERMIT FOR ALL CONSTRUCTION ON TIDELANDS OR WETLANDS
- STATE OF ALASKA DEC SANITARY WASTE DISPOSAL PERMIT
- STATE OF ALASKA DOT HIGHWAY DRIVEWAY PERMIT

IMPORTANT: ALL WORK MUST BE INSPECTED PRIOR TO CONCEALMENT. THE BUILDING DEPARTMENT REQUIRES A MINIMUM OF ONE WORKING DAY'S NOTICE PRIOR TO ALL INSPECTIONS.

***PROJECT DESCRIPTION:**

AN ADDITION TO THE EXISTING PATIENT HOUSING BUILDING FOR SEARHC.

6 NEW PATIENT ROOMS TO BE ADDED WITH MINOR REMODEL TO THE EXISTING SPACES.

EXISTING FIRE SPRINKLER, FIRE ALARM, AND MEP SYSTEMS TO BE MODIFIED

PERMIT NOT VALID UNTIL ALL ASSOCIATED FEES ARE PAID AND APPROVED PERMIT PACKET HAS BEEN COLLECTED.
I HEREBY ACKNOWLEDGE THAT I HAVE READ THIS APPLICATION, STATE THE ABOVE IS CORRECT, AND AGREE TO COMPLY WITH ALL STATE LAWS AND ALL CODES AND ORDINANCES OF THE CITY AND BOROUGH OF SITKA.

_____	_____	8.28.2025
*APPLICANT'S NAME (PRINTED)	*APPLICANT'S SIGNATURE	*DATE

BY SIGNING THIS APPLICATION I HEREBY CERTIFY THAT ALL WORK PROPOSED BY THIS APPLICATION HAS BEEN REVIEWED AND APPROVED BY THE LEGAL OWNER(S) OF THE PROPERTY IDENTIFIED HEREIN AND I HAVE AGREED TO PAY ALL ASSOCIATED PLAN REVIEW AND PERMIT FEES.

*** **FOR OFFICE USE ONLY** ***

ZONING_____ OCCUPANCY_____ FLOOD ZONE_____ PUBLIC WORKS (ENGINEERING)_____

PLANNING_____ PUBLIC WORKS (W/WW)_____ ELECTRIC_____ ADMINISTRATOR_____

COMMENTS: ☐ AS BUILT TO ASSESSING ☐ UTILITIES PERMIT APPLICATION SUBMITTED

ORIGINAL - BUILDING OFFICIAL COPIES - CUSTOMER, ASSESSOR

08.27.2025

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

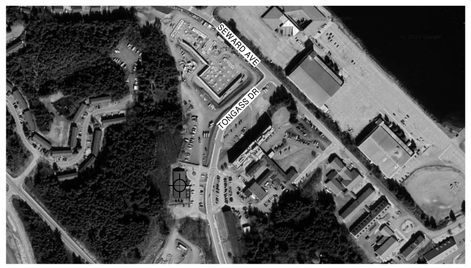
FOR VISUALIZATION PURPOSES ONLY

INTENDED PURPOSE OF PROJECT:
THE PURPOSE OF THIS PROJECT IS TO PROVIDE AN ADDITION OF THE BUILDING AND PROVIDE 6 NEW ADDITIONAL PATIENT ROOMS WITHIN THE FACILITY. THERE IS NO CHANGE TO OCCUPANCY USE.

SCOPE OF PROJECT:
THE SCOPE OF THIS PROJECT INCLUDES AN ADDITION TO THE EXISTING PATIENT HOUSING BUILDING FOR SEARHC. THERE IS NO CHANGE TO THE OCCUPANCY OR CONSTRUCTION TYPE OF THE BUILDING. A TOTAL OF 6 NEW PATIENT ROOMS TO BE ADDED WITH MINOR REMODEL TO THE EXISTING ADJACENT SPACES. EXISTING FIRE SPRINKLER, FIRE ALARM, AND MECHANICIAL, ELECTRICAL, AND PLUMBING SYSTEMS TO BE MODIFIED TO ACCOMODATE THE ADDITION.

PROJECT ADDRESS
201 TONGASS DRIVE, SITKA, AK, 99835

VICINITY MAP: *Locator*



OWNER
SEARHC
3100 Channel Dr, Ste 300
Juneau, AK 99801
907.463.4000

ARCHITECT
Cushing Terrell
800 W Main St, Ste 800
Boise, ID 83702
208.577.5696
Contact: Bradley Dunbar

STRUCTURAL
Cushing Terrell
1201 Western Ave, Ste 700
Seattle, WA 98101
406.500.3544
Contact: Asrade Mengstu

PLUMBING
Cushing Terrell
219 2nd Ave S
Great Falls, MT 59405
406.403.7198
Contact: Tony Krattiger

MECHANICAL
Cushing Terrell
219 2nd Ave S
Great Falls, MT 59405
406.403.7205
Contact: Cory Jassen

ELECTRICAL
Cushing Terrell
800 W Main St, Ste 800
Boise, ID 83702
208.577.5621
Contact: Tyler Victorino

CIVIL
PND Engineers
9360 Glacier Highway, Ste 100
Juneau, AK 99801
907.586.2093
Contact: Sean Sjostedt

SHEET INDEX

Cushing Terrell
cushingterrell.com
800.757.9522

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

8.28.2025

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA
REVISIONS

COVER SHEET, GENERAL INFORMATION

G001

CODE PLAN LEGEND

OCCUPANCY TAG:
ROOM / AREA NAME
ROOM / AREA NUMBER
SPACE AREA
NUMBER OF OCCUPANTS
OCCUPANT LOAD FACTOR

ROOM NAME
101
88888 SF = ###
###

EXIT PATH

60M

UL RATED FIRE DOOR AND FRAME WITH RATING AS INDICATED

FEC

FIRE EXTINGUISHER CABINET AND EXTINGUISHER - SEE SPECIFICATIONS

FE

SURFACE MOUNTED FIRE EXTINGUISHER - SEE SPECIFICATIONS

S#

SURFACE MOUNTED SIGN

NOTE: SEE ELECTRICAL FOR ILLUMINATED EXIT SIGNS.

1-HR FIRE / SMOKE BARRIER

EXISTING FIRE / SMOKE BARRIER

PATTERN INDICATES UNOCCUPIED AREAS

CODE REVIEW INFORMATION

ADOPTED CODES
2021 INTERNATIONAL BUILDING CODE
2021 INTERNATIONAL EXISTING BUILDING CODE
2021 INTERNATIONAL FIRE CODE
2021 UNIFORM PLUMBING CODE
2021 INTERNATIONAL MECHANNICAL CODE
2020 NATIONAL ELECTRIC CODE

CHAPTER 3: USE AND OCCUPANCY CLASSIFICATION
TABLE 504.3
EXISTING BUILDING HEIGHT TO REMAIN: APPROX. 22'-0"
EXISTING BUILDING AREA: 7,820 SF
AREA OF ADDITION: 2,555 SF
TOTAL BUILDING AREA: 10,375 SF
ALLOWABLE BUILDING AREA: 28,000 - FULLY SPRINKLERED

CHAPTER 6: TYPES OF CONSTRUCTION
TABLE 601

BUILDING ELEMENT	HOURS
PRIMARY STRUCTURAL FRAME	0
BEARING WALLS: EXTERIOR	0
BEARING WALLS: INTERIOR	0
NONBEARING WALLS AND PARTITIONS: EXTERIOR	0
NONBEARING WALLS AND PARTITIONS: INTERIOR	0
FLOOR CONSTRUCTION AND SECONDARY MEMBERS	0
ROOF CONSTRUCTION AND SECONDARY MEMBERS	0

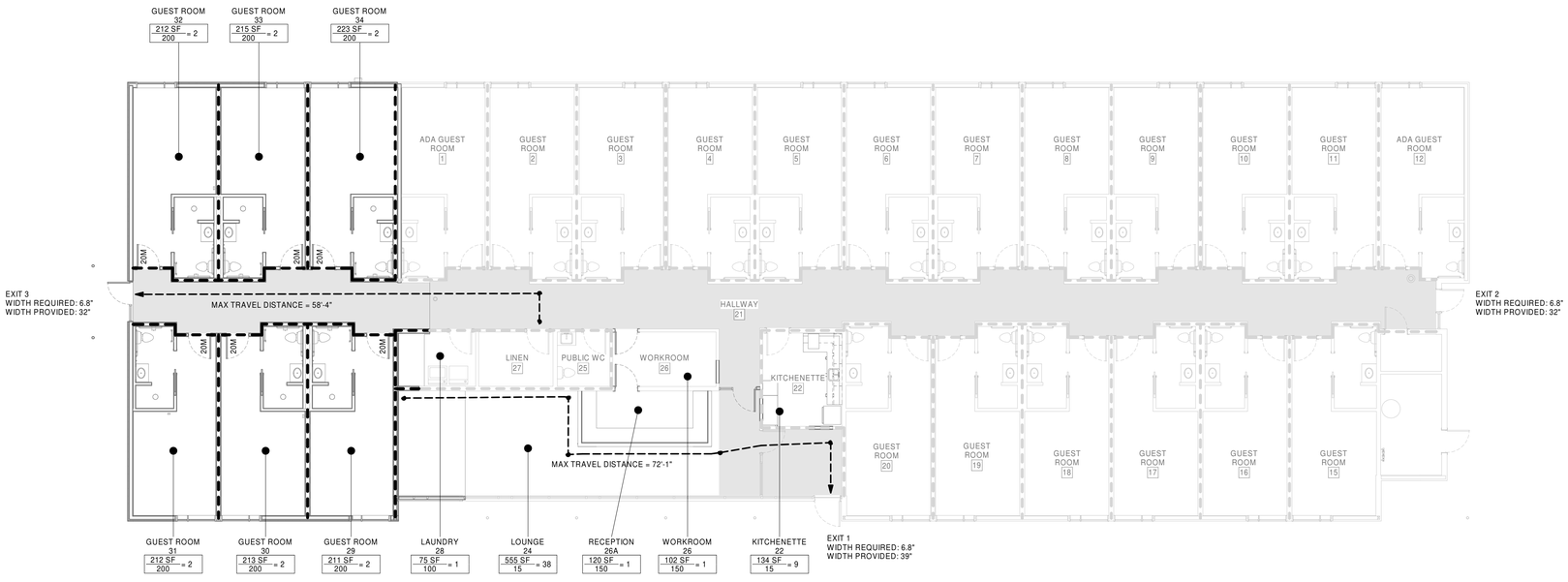
SECTION 602: CONSTRUCTION CLASSIFICATION:
TYPE: VB-COMBUSTIBLE (EXISTING AND NEW)
FULLY SPRINKLERED
FIRE ALARM PROVIDED
FIRE DETECTION PROVIDED

CHAPTER 10: MEANS OF EGRESS
OCCUPANCY CALCULATIONS

R-1 RESIDENTIAL (HOTEL TRANSIENT):	5,149SF / 200 = 26
A-3 ASSEMBLY:	689SF / 15 = 46
BUSINESS (OFFICE / RECEPTION):	222SF / 150 = 2
ACCESSORY / MECHANICAL:	277SF / 300 = 1

EXIT WIDTH CALCULATIONS
75 OCCUPANTS X .2" / OCCUPANCY
REQUIRED EXIT WIDTH = 15"
EXIT WIDTH PROVIDED = 103"

CHAPTER 29: PLUMBING SYSTEMS
RESIDENTIAL
WATER CLOSETS: 1 PER SLEEPING UNIT
LAVATORIES: 1 PER SLEEPING UNIT
BATHTUBS / SHOWERS: 1 PER SLEEPING UNIT



1 G100 FIRST FLOOR CODE PLAN
1/8" = 1'-0"

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SITKA PATIENT HOUSING EXPANSION

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
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8.28.2025

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08.27.2025
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DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA

REVISIONS

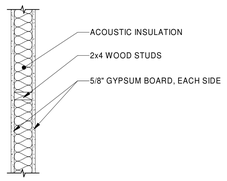
CODE PLAN

G100

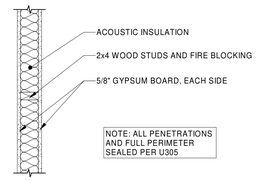
WALL ASSEMBLIES

SCALE: 1" = 1'-0"

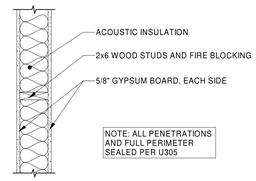
GENERAL WALL TYPE NOTES:
A. SEE INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR WALL FINISHES.
B. PROVIDE BLOCKING AS REQUIRED TO SECURE WALL HUNG COMPONENTS.
C. EXTEND ALL COMPONENTS TO UNDERSIDE OF DECK, UNLESS NOTED OTHERWISE.



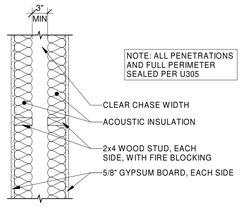
A **PARTITION - NON-RATED**



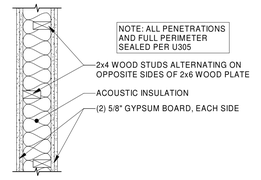
B **PARTITION - 1-HOUR / 30-MIN (UL U305)**



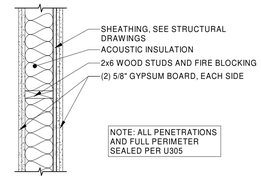
C **PARTITION - 1-HOUR / 30-MIN (UL U305)**



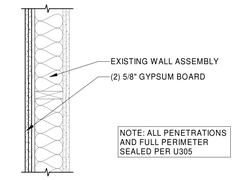
D **PARTITION - 1-HOUR / 30-MIN CHASE (UL U305)**



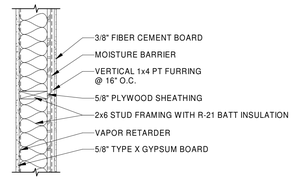
E **PARTITION - 1-HOUR / 30-MIN STAGGERED STUD (UL U305)**



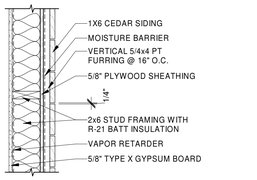
F **PARTITION - SHEAR WALL 1-HOUR / 30-MIN (UL 305)**



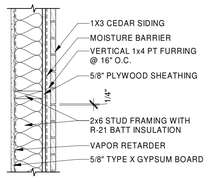
G **PARTITION - EXISTING SHEAR WALL 1-HOUR / 30-MIN (UL 305)**



J **EXTERIOR WALL - CEMENT BOARD**



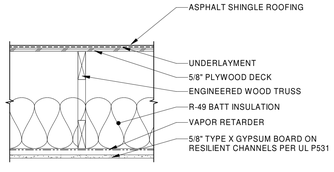
K **EXTERIOR WALL - 1X6 CEDAR SIDING**



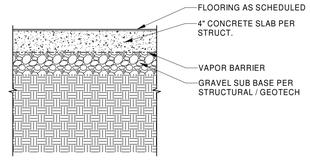
L **EXTERIOR WALL - 1X3 CEDAR SIDING**

HORIZONTAL ASSEMBLIES

SCALE: 1" = 1'-0"



H1 **ROOF ASSEMBLY - WOOD TRUSS AND ASPHALT SHINGLE (UL P531)**



H2 **FLOOR ASSEMBLY - SLAB ON GRADE**

ASSEMBLY TYPE LEGEND

X — ASSEMBLY TYPE
Y — ASSEMBLY MODIFIER, PER TYPE

MODIFIERS:

1.

Cushing Terrell.
cushingterrell.com
800.757.9522

SITKA PATIENT HOUSING EXPANSION

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

STATE OF ALASKA
49TH
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

8.28.2025

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA
REVISIONS

ASSEMBLIES, UL RATING DETAILS

G200

GENERAL NOTES

1. THE LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADDITIONAL UTILITIES MAY BE PRESENT HOWEVER ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS IN THE FIELD AS NECESSARY PRIOR TO BEGINNING WORK. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES ENCOUNTERED IN THE FIELD SHALL BE RECORDED ON THE CONTRACTOR'S RECORD DRAWINGS. CONTACT LOCAL UTILITY COMPANIES PRIOR TO ANY/ALL EXCAVATION AT THE FOLLOWING NUMBERS: WATER/SANITARY SEWER/STORM SEWER – CITY AND BOROUGH OF SITKA PUBLIC WORKS (907) 747–1804; ELECTRIC – SITKA CITY ELECTRIC DEPARTMENT (907) 747–4000; TELECOM – 811 ALASKA DIGLINE.

2. THE PROJECT SITE IS LESS THAN 1 ACRES IN AREA. CONTRACTOR SHALL COMPLY WITH STATE AND NFEDERAL REQUIREMENTS FOR SWPPP PREPARATION FOR PROJECTS OF THIS SIZE. ANY SWPPP SHALL INCLUDE AN EROSION AND SEDIMENT CONTROL PLAN BASED UPON THE CONTRACTOR'S SCHEDULING, EQUIPMENT AND WORK. THE PLAN SHALL FOLLOW ALL REQUIREMENTS AND BEST MANAGEMENT PRACTICES OF THE CURRENT ADEC AND EPA GCP, WHICHEVER IS MORE STRINGENT. THE PLAN MUST ADDRESS THE SITE–SPECIFIC CONTROLS AND MANAGEMENT FOR THE CONSTRUCTION SITE AND AFFECTED AREAS AND MUST INCORPORATE ALL REQUIREMENTS OF THE PROJECT PERMITS.

3. THE SITE IS A DOCUMENTED CONTAMINATED SITE. HISTORICAL REMEDIATION HAS BEEN PERFORMED ALTHOUGH THE EXTENTS OF CONTAMINATION ARE NOT FULLY KNOWN OR MAPPED. ADEC HAS IMPLEMENTED INSTITUTIONAL CONTROLS REGULATING THE TESTING, HANDLING, AND TREATMENT OF SOIL AND WATER AT THE PROJECT SITE. IF INSTITUTIONAL CONTROLS ARE IN PLACE AT THE TIME OF CONSTRUCTION, THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE INSTITUTIONAL CONTROLS.

4. PROPERTY DISTURBED DURING CONSTRUCTION OUTSIDE OF PROJECT LIMITS SHALL BE RESTORED TO ITS PRE–CONSTRUCTION CONDITION. NO VEHICLE OR EQUIPMENT TRAFFIC, MATERIAL STAGING, OR UNNECESSARY CLEARING IS PERMITTED BEYOND THE CLEARING LIMITS DEPICTED ON THE DRAWINGS UNLESS REQUIRED TO CONSTRUCT THE PROJECT AS DESIGNED.

5. TOPOGRAPHY AND EXISTING FEATURES BASED ON SURVEY BY NORTH 57 LAND SURVEYING.

SITE WORK NOTES

EARTHWORK

A: HISTORICAL GEOTECHNICAL DATA INDICATES THAT ORGANIC OVERBURDEN MAY COMPRISE THE UPPER 2–3' OF EXISTING SUBGRADE. CONTRACTOR SHOULD ANTICIPATE EXCAVATING AT LEAST THIS VOLUME OF MATERIAL WITHIN THE LIMITS OF IMPROVEMENTS. EXCAVATION SHALL EXTEND TO THE GREATER DEPTH OF EITHER THE MINIMUM EMBANKMENT SECTION SHOWN I NTHESE DRAWINGS OR TO THE BOTTOM OF ORGANIC OVERBURDEN.

B: CLASS A BORROW SHALL CONSIST OF HARD ANGULAR AND BLASTED QUARRY ROCK MEETING THE FOLLOWING REQUIREMENTS:
   1. PERCENTAGE OF WEAR OF NOT MORE THAN 50 AT 1000 REVOLUTIONS, AS DETERMINED BY ASTM C535.
   2. GRADATION AS DETERMINED BY WAQTC FOP FOR AASHTO T27/T 11

SIEVE SIZE	% PASSING BY WEIGHT
4–INCH	100
2–INCH	60–90
NO. 4	10–40
NO. 200	0–3
*GRADATION SHALL BE DETERMINED ON THAT PORTION PASSING THE 3–INCH SCREEN.	

   3. GREATEST DIMENSION NO LONGER THAN TWICE ITS SMALLEST DIMENSION
   4. CONTAINS NO MUCK, FROZEN MATERIAL, ROOTS, SOD OR OTHER DELETERIOUS MATTER.
   5. CLASS A BORROW SHALL BE PLACED IN LIFTS TO NOT EXCEED 12 INCHES IN LOOSE THICKNESS. COMPACTION SHALL BE ACHIEVED WITH A MINIMUM LEVEL OF EFFORT OF SIX COMPLETE PASSES WITH A 15–TON VIBRATORY DRUM ROLLER

C: BASE COURSE MATERIAL, PROPERTIES, AND PLACEMENT SHALL BE IN ACCORDANCE WITH CBSSS FOR BASE COURSE, GRADING D–1.

STORM DRAIN

A: STORM DRAIN PIPE SHALL BE AS IDENTIFIED ON THE PLANS.
   1. DUAL–WALL CORRUGATED HDPE PIPE COMPLYING WITH CBSSS
   2. PERFORATED CORRUGATED HDPE PIPE FOR FOUNDATION AND DRAINS.

B: PIPE BEDDING SHALL BE BASE COURSE, GRADING D–1, PLACED AND COMPACTED PER CBSSS.
C: DRAIN ROCK FOR FOUNDATION DRAINS SHALL COMPLY WITH GRANULAR BACKFILL FOR UNDERDRAINS PER CBSSS
D: CATCH BASINS, MANHOLES AND INLETS IN TRAFFIC AREAS SHALL BE TRAFFIC–RATED AND COMPLY WITH CBSSS.
E: GEOTEXTILE FOR FOUNDATION DRAIN SHALL BE MIRAFI 140N OR APPROVED EQUAL.
F: NYLOPLAST CATCH BASINS SHALL BE USED WHERE SHOWN ON THE PLANS.

PAVEMENT

A: ASPHALT CONCRETE PAVEMENT SHALL BE TYPE II, CLASS B COMPLYING WITH AKDOT&PF STANDARD SPECS.
B: PLACEMENT, COMPACTION AND TESTING SHALL COMPLY WITH CBSSS ONSITE AND AKDOT&PF IN THE ROW.

CONCRETE

A: SITE CONCRETE FOR CURB & GUTTER, SIDEWALK, RETAINING WALL AND STAIRS SHALL COMPLY WITH THE APPROPRIATE SECTION OF CBSSS.

LEGEND

EXISTING	NEW	
	5	LIGHT POLE / LAYOUT POINTS
		BOLLARD
		BUILDING
EB		ELECTRICAL BOX
FH		FIRE HYDRANT
MH		MAN HOLE LID
		AREA DRAIN
CO	CO	CLEAN OUT
CB		CATCH BASIN
		POWER POLE
WV		WATER VALVE BOX
		PHONE PEDESTAL
△		SURVEY CONTROL
W		WATER
SS	SS	SAN. SEWER
E	E	UNDERGROUND ELECTRIC
TEL	TEL	UNDERGROUND TEL/COMPUTER
SD	SD	STORM (UNDETERMINED SIZE)
		STORM (KNOWN SIZE)
		PROPERTY LINE
		PAVING
UG F/O		UNDERGROUND FIBER OPTIC
		SWALE FLOWLINE

ABBREVIATIONS

ACP	ASPHALT CONCRETE PAVEMENT
ADEC	ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
AKDOT&PF	ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
APP	APPROXIMATELY
BCC	BEGIN CURB CUT
CB	CATCH BASIN
CIP	CAST–IN–PLACE
CBS	CITY AND BOROUGH OF SITKA
CBSSS	CITY AND BOROUGH OF SITKA STANDARD SPECIFICATIOS
CGP	CONSTRUCTION GENERAL PERMIT
CLR	CLEAR
CO	CLEANOUT
CY	CUBIC YARD
DND	DO NOT DISTURB
EA	EACH
(E)/EXIST	EXISTING
EC	EDGE OF CONCRETE
ECC	END CURB CUT
EL	ELEVATION
EP	EDGE OF PAVEMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EW	EACH WAY
FH	FIRE HYDRANT
FL	FLOW LINE
FT	FOOT/FEET
IN.	INCH
LF	LINEAR FEET
MAX	MAXIMUM
ME	MATCH EXISTING
MH	MANHOLE
MIN	MINIMUM
MON	MONUMENT
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
REQ'D	REQUIRED
ROW	RIGHT OF WAY
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
SY	SQUARE YARD
SS	SANITARY SEWER
SSMH	SANITARY SEWER MANHOLE
TOW	TOP OF WALL
TYP	TYPICAL

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PHONE (907) 586–2093
PND Project No.: 252077
C.A.N: AECC250

SITKA PATIENT HOUSING EXPANSION

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

STATE OF ALASKA 49TH Seabert Sjostedt CE-103428 REGISTERED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

PROJ# | SEAHC_SITKAPH
DESIGNED BY | SJOSTEDT
DRAWN BY | GEMLO
REVIEWED BY | SJOSTEDT

REVISIONS

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

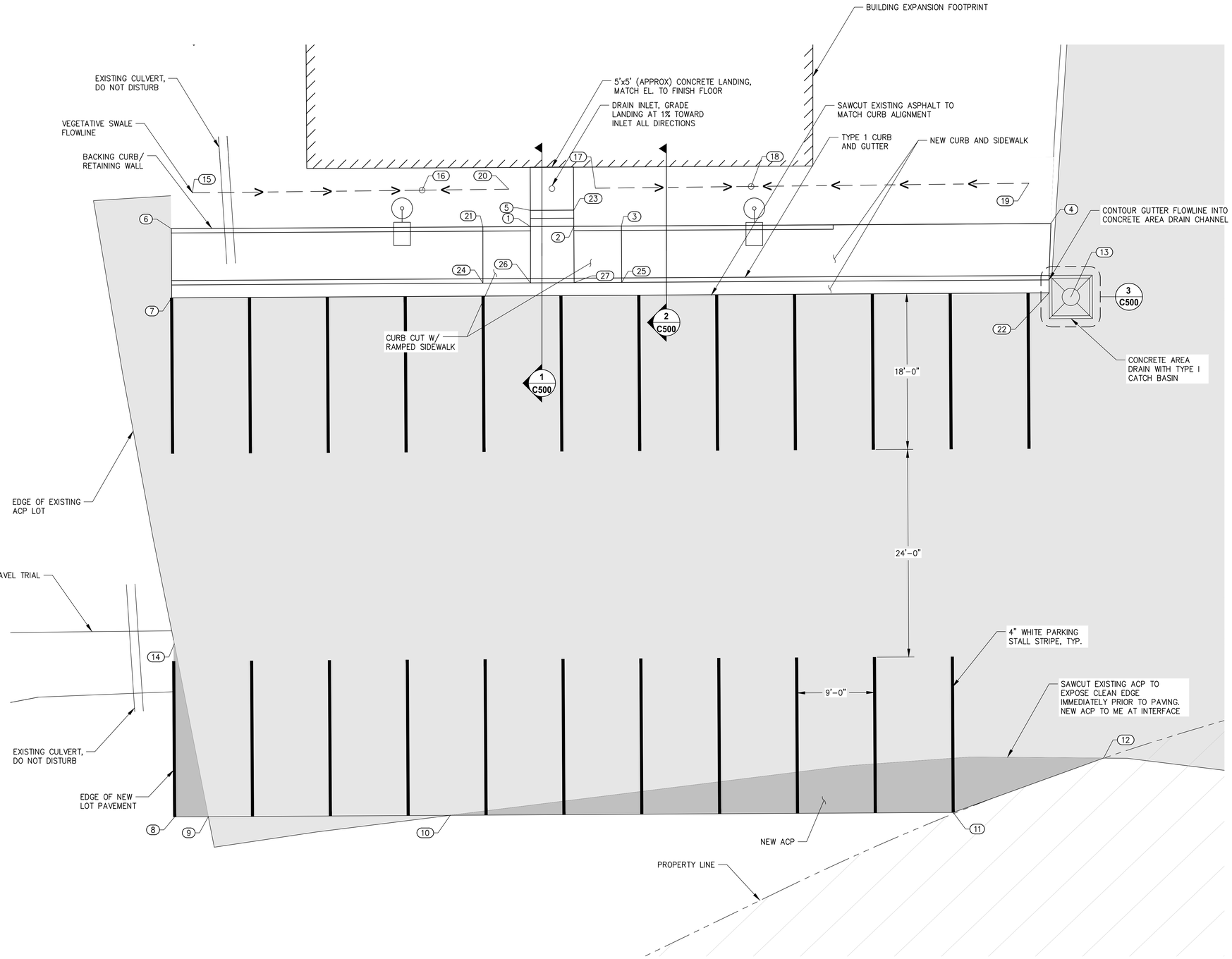
C100

LAYOUT TABLE

POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1909624.97	2349359.89	48.56	TOW
2	1909625.00	2349364.91	48.56	TOW
3	1909625.03	2349370.40	49.02	TOW
4	1909625.32	2349420.04	48.31	TOW
5	1909626.85	2349359.88	46.31	STAIR
6	1909624.73	2349318.37	49.81	TOW
7	1909616.73	2349318.41	49.04	ME, EC
8	1909556.73	2349318.76	49.00	EP
9	1909556.75	2349322.64	48.89	ME,EP
10	1909556.91	2349350.62	48.18	ME,EP
11	1909557.25	2349408.75	47.50	EP
12	1909563.53	2349426.13	47.41	ME,EP
13	1909616.84	2349422.35	46.83	CB
14	1909576.73	2349318.72	49.36	EP, ME
15	1909628.88	2349320.82	46.60	FL
16	1909629.18	2349347.37	45.80	FL, DRAIN
17	1909629.41	2349367.39	45.90	FL
18	1909629.61	2349385.39	45.80	FL, DRAIN
19	1909629.98	2349417.49	46.75	FL
20	1909629.30	2349357.37	45.90	FL
21	1909624.94	2349354.39	49.02	TOW
22	1909617.32	2349419.85	47.00	EC, ME
23	1909626.88	2349364.89	46.31	STAIR
24	1909618.43	2349354.39	48.33	BCC, EP, ME
25	1909618.53	2349370.43	48.08	BCC, EP, ME
26	1909618.46	2349359.89	48.21	ECC, EP, ME
27	1909618.49	2349364.93	48.12	ECC, EP, ME

NOTES:

1. CONTRACTOR SHALL AS-BUILT BLDG THRESHOLD AND ACP AT STAIR LOCATION PRIOR TO PREPARING SHOP DRAWINGS FOR HANDRAIL AND REINFORCEMENT. ELEVATIONS SHALL BE PROVIDED TO ENGINEER FOR CONFIRMATION.
2. CURB AND GUTTER AND SIDEWALK LONGITUDINAL SLOPE TO MATCH SLOPE OF SAWCUT ACP. PROVIDED ELEVATIONS ARE APPROX.



OVERALL SITE PLAN SCALE IN FEET 0 5 10 FT.

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SITKA PATIENT HOUSING EXPANSION

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PROJ# | SEAHC_SITKAPH
DESIGNED BY | SJOSTEDT
DRAWN BY | GEMLO
REVIEWED BY | SJOSTEDT
REVISIONS

OVERALL SITE AND GRADING PLAN

C101

EXISTING CULVERT, DO NOT DISURB

NEW CURB AND SIDEWALK

S1: 8" NYLOPLAST DRAIN
N: 1909629.18
E: 2349347.36
RE: 45.80'
E INV: 43.97' 10" CPP

S2: 8" NYLOPLAST DRAIN
N: 1909629.36
E: 2349362.37
RE: 46.28
E INV: 43.89' 10" CPP
W INV: 43.89' 10" CPP

LIGHT POLE, TYP. OF (2). COORDINATE WITH ELECTRICAL TO ENSURE THAT NEW CONDUCTORS WILL NOT CONFLICT WITH STORM DRAIN

S3: 8" NYLOPLAST DRAIN
N: 1909629.61
E: 2349385.39
RE: 45.80
E INV: 43.78' 10" CPP
W INV: 43.78' 10" CPP

BUILDING EXPANSION FOOTPRINT

INSTALL FOUNDATION DRAIN AROUND EXPANSION, SEE DETAIL. CTE AT DEMOLITION LIMITS. INSTALL CLEANOUTS AT CORNERS

DEMO FOUNDATION DRAIN ALONG SOUTH WALL AT BUILDING CORNERS

EXISTING BUILDING FOOTPRINT

P1

P2

P3

P4

S4: AREA DRAIN
N: 1909616.84
E: 2349422.35
RE: 46.83'
N INV: 43.59' 12" CPP
W INV: 43.59' 10" CPP

EXISTING CONCRETE CURB, DO NOT DISTURB WHERE POSSIBLE. RECONSTRUCT IN KIND IF REMOVAL IS REQD

SAWCUT EXISTING ASPHALT AS REQD. TO INSTALL P4. NEW PAVEMENT TO ME AT LIMITS

EXISTING STORM PIPES

SAWCUT EXISTING ACP AS REQD. TO INSTALL CATCH BASIN AND AREA DRAIN

CONNECT TO EXISTING CATCH BASIN

EXISTING CATCH BASIN
N: 1909734.37
E: 2349436.70
RE: 45.0'
N. INV. 42.5'
W. INV.(4") 43.3'
W. INV.(3") 43.4'
S. INV.(12") 42.5'

PIPE SUMMARY - STORM SEWER

PIPE	DIA	LENGTH	TYPE	SLOPE
P1	10"	15.52	CPP	0.5%
P2	10"	22.93	CPP	0.5%
P3	10"	36.36	CPP	0.5%
P4	12"	123.66	CPP	0.9%

UTILITY SITE PLAN

SCALE IN FEET
0 5 10 FT.

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SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

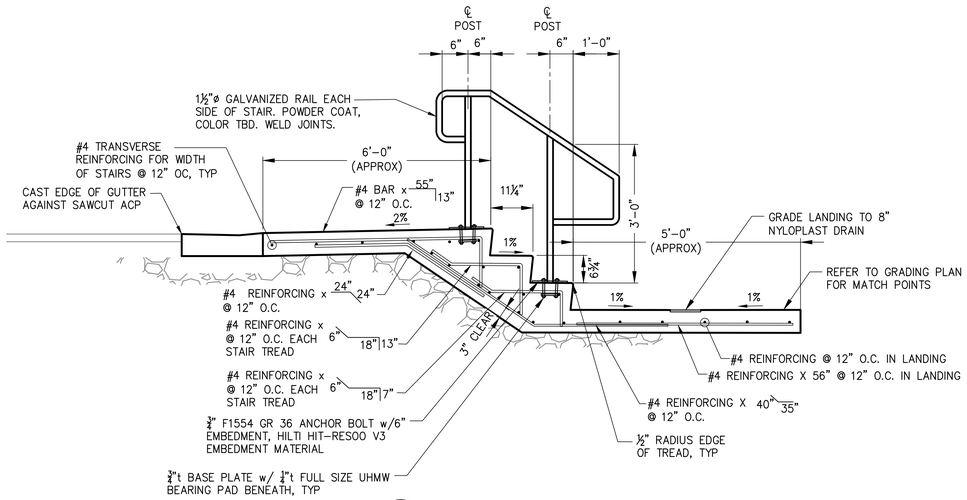
STATE OF ALASKA 49TH
Gregory Sjostedt
CE-10428
REGISTERED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

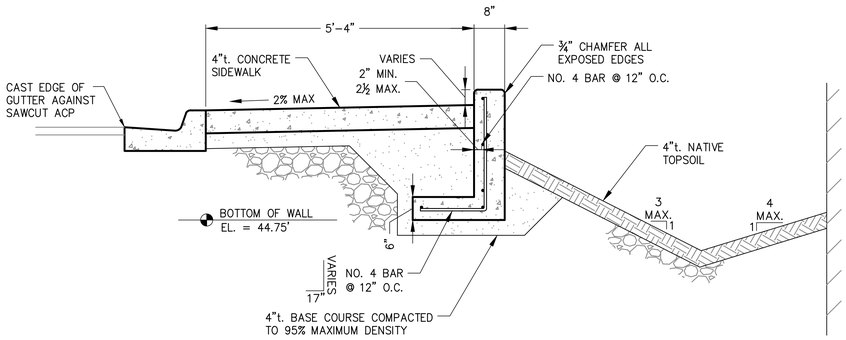
PROJ# | SEAHC_SITKAPH
DESIGNED BY | SJOSTEDT
DRAWN BY | GEMLO
REVIEWED BY | SJOSTEDT
REVISIONS

UTILITY SITE PLAN

C102

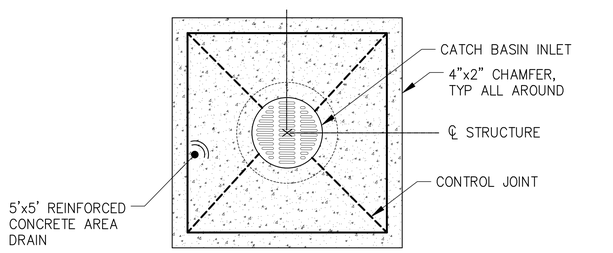


1 / C101 CONCRETE STAIRCASE AND RAILING

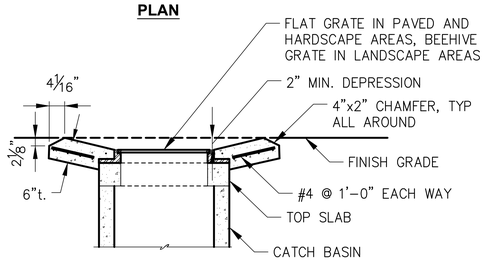


2 / C101 CONCRETE WALL AND SWALE

NOTE:
CONSIDER FUTURE LOCATIONS OF GUARDRAIL ANCHOR BOLTS DURING REBAR PLACEMENT TO PREVENT CONFLICT.

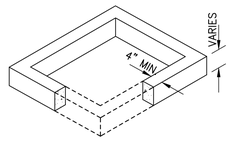


PLAN

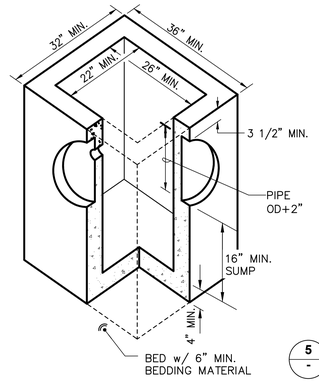


SECTION

3 / C101 AREA DRAIN

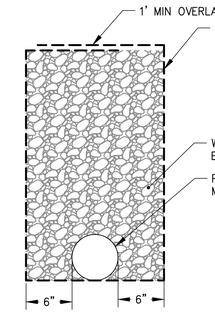


ADJUSTING RING

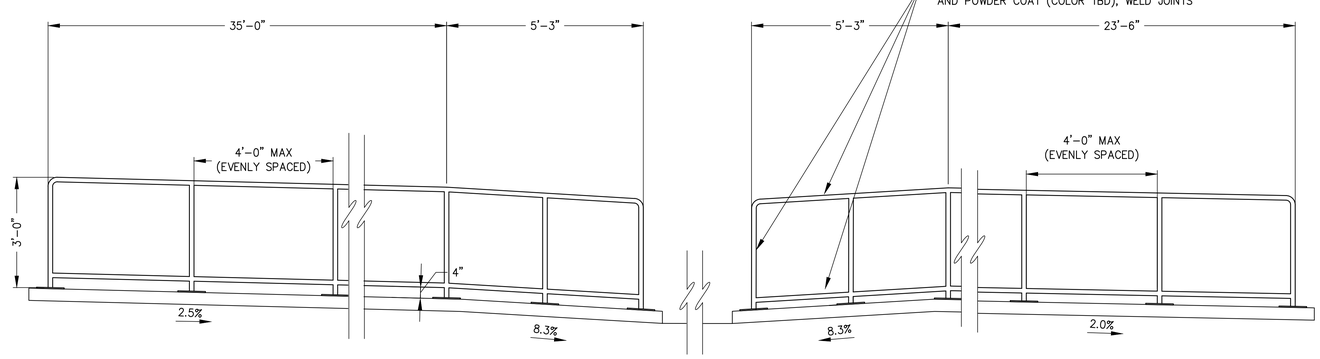


4 CATCHBASIN DETAIL

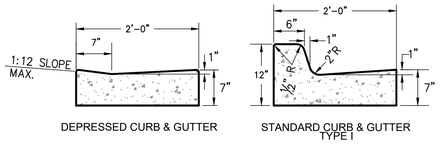
NOTES:
1. FOR USE WITH TWO INLET/OUTLET PIPES OF 12" DIAMETER OR SMALLER. FOR LARGER AND/OR MORE INLET/OUTLET PIPES, OR IF CATCH BASIN IS DEEPER THAN 4', INSTALL A TYPE I OR TYPE II STORM DRAIN MANHOLE (SEE CBS DETAILS 55-3 & 55-4).
2. ENTIRE KNOCKOUT IS TO BE REMOVED AND SEALED SHUT AROUND PIPE. ALL PIPES ARE TO EXTEND 1" MIN. AND 2" MAX. INTO CATCH BASIN. GROUT INTERIOR AND EXTERIOR BETWEEN FRAME, SECTIONS, AND CATCH BASIN.
3. FRAME AND GRATE SHALL BE DUCTILE IRON. FRAME MAY BE CAST INTO THE TOP UNIT OR PLACED OVER THE OPENING AS APPROVED BY THE ENGINEER. FRAME AND GRATE MUST BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.
4. CATCH BASIN SHALL MEET HIGHWAY STANDARD-20 LOAD REQUIREMENTS.
5. MINIMUM STEEL SHALL BE SPECIFIED BY ASTM C-478-69.



5 FOUNDATION DRAIN DETAIL

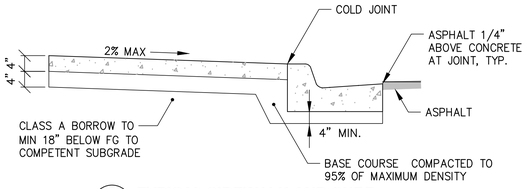


6 CONCRETE WALL GUARDRAIL ELEVATION



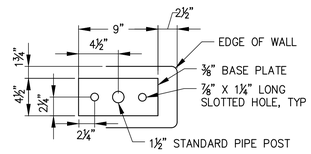
7 CURB & GUTTER CROSS SECTIONS

NOTES:
1. BOTH FRONT AND BACK EDGES OF THE CURB & GUTTER SHALL BE TROWELED TO A RADIUS OF ONE-HALF (1/2) INCH.
2. REBAR IS NOT REQUIRED IN THESE STANDARD CURB SECTIONS EXCEPT AS NOTED.

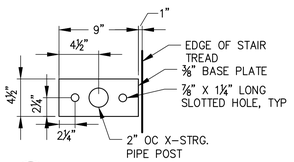


8 TYPICAL SIDEWALK AND CURB

NOTE:
CONCRETE SIDEWALK AND CURB AND GUTTER TO BE FIBER MESH REINFORCED EXCEPT AT STAIR LANDING WHERE REBAR IS REQD. SEE CITY AND BOROUGH OF SITKA STANDARD DETAILS 30-2 AND 30-7 FOR DETAILS NOT CALLED OUT FOR WORK IN CBS ROW.



9 GUARDRAIL BASE PLATE



10 STAIR HANDRAIL BASE PLATE

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PND Project No.: 252077
C.A.N: AECC250

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

PROJ# | SEAHC_SITKAPH
DESIGNED BY | SJOSTEDT
DRAWN BY | GEMLO
REVIEWED BY | SJOSTEDT
REVISIONS

CIVIL DETAILS

C500

STRUCTURAL GENERAL NOTES

STRUCTURAL GENERAL NOTES ARE INTENDED TO HIGHLIGHT OR IN SOME CASES SUPPLEMENT PROJECT SPECIFICATIONS. REFER TO THE PROJECT SPECIFICATIONS FOR COMPLETE WORK COVERAGE.

A. GOVERNING CODES

1) INTERNATIONAL BUILDING CODE (IBC), 2021 EDITION.
2) INTERNATIONAL EXISTING BUILDING CODE (IEBC), 2021 EDITION.
3) MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES, ASCE/SEI 7-16.
4) BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318-19.
5) NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION, ANSI/AWC NDS-2018.

B. DESIGN LOADS AND CRITERIA

1) GRAVITY LOADS:
   a) ROOF LOADS:
      1. ROOF DEAD LOAD: 20 psf
      2. ROOF LIVE LOAD: 20 psf
   b) FLOOR LOADS:
      1. FLOOR LIVE LOAD: 100 psf (STAIRS & EXITWAYS)
      2. FLOOR LIVE LOAD: 40 psf (RESIDENTIAL — ALL OTHER AREAS EXCEPT STAIRS)
      3. FLOOR LIVE LOAD: 60 psf (BALCONIES AND DECKS)
   c) SLABS ON GRADE:
      1. SLABS ON GRADE LIVE LOAD: 40 psf
2) HANDRAIL AND GUARDRAIL SYSTEM LOADS:
   a) CONCENTRATED LOAD: 200 lb (HANDRAIL OR TOP RAIL)
   b) CONCENTRATED LOAD: 50 lb (INTERMEDIATE RAIL)
   c) LINEAR LOAD: 50 lb/ft (HANDRAIL OR TOP RAIL)
3) SNOW LOADS:
   a) GROUND SNOW LOAD: Pg = 50 psf, Is = 1.00, Ce = 1.0, Ct = 1.0, Cs = 1.0
   b) SLOPED ROOF SNOW LOAD: Pf = 35 psf UNIFORM + DRIFT
4) WIND CRITERIA:
   a) 3-SEC PEAK GUST WIND SPEED = 150 mph
   b) RISK CATEGORY = II
   c) Iw = 1.00
   d) EXPOSURE = D
   e) INTERNAL PRESSURE COEFFICIENT (GCpi): ±0.18
   f) EXTERNAL ROOF COMPONENTS & CLADDING: 90 psf MINIMUM (ULTIMATE)
   g) EXTERNAL WALL COMPONENTS & CLADDING: 70 psf MINIMUM (ULTIMATE)
   h) INTERSTORY DRIFT LIMIT = 1/400
5) SEISMIC CRITERIA:
   a) SS = 0.97 g / S1 = 0.6 g MAPPED MCER VALUES
   b) RISK CATEGORY = II
   c) PROJECT SITE CLASS = D
   d) Ie = 1.00
   e) SDS = 0.757 g / SD1 = N/A g DESIGN RESPONSE COEFFICIENT
   f) SEISMIC DESIGN CATEGORY = D
   g) ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   h) SEISMIC FORCE-RESISTING SYSTEM: BUILDING WALL SYSTEMS: LIGHT FRAME WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE, R = 6.5
   i) REDUNDANCY FACTOR: PLAN N-S RHO = 1.3 / PLAN E-W RHO = 1.3
   j) SEISMIC RESPONSE COEFFICIENT Cs = 0.151
   k) SEISMIC BASE SHEAR V = 51.4 kips (ULTIMATE)
   l) ALLOWABLE STORY DRIFT ▲ = 0.020hsx
6) FOOTING BEARING PRESSURE: 2000 psf ON APPROVED SUBGRADE, SEE SECTION FOUNDATIONS
7) FROST DEPTH: 18 INCHES TOP OF FOOTING

C. MATERIALS SECTION

1) CONCRETE MIXTURE: FOOTINGS
   PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
   FLY ASH ASTM C618, CLASS F, 10% - 25% BY WEIGHT
   WATER / CEMENT + FLY ASH = 0.45 MAXIMUM
   f'c = 3000 psi BASED ON 28-DAY TEST
   EXPOSURE CATEGORY F, EXPOSURE CLASS F2
   TOTAL AIR CONTENT = 6% +/- 1.5%
   3/4" OR 1" NORMAL WEIGHT AGGREGATE ASTM C33
2) CONCRETE MIXTURE: INTERIOR SLABS ON GRADE
   PORTLAND-LIMESTONE CEMENT ASTM C595 TYPE IL
   WATER / CEMENT= 0.45 MAXIMUM
   f'c = 3000 psi BASED ON 28-DAY TEST
   EXPOSURE CATEGORY F, EXPOSURE CLASS F0
   3/4" OR 1" NORMAL WEIGHT AGGREGATE ASTM C33
   BALANCE CEMENTITIOUS RATIOS TO ACHIEVE FLOORING FINISH SCHEDULES AND CONCRETE WORKABILITY WITHOUT ADVERSELY AFFECTING CONCRETE SHRINKAGE
3) REINFORCING BARS: ASTM A615, GRADE 60
   ASTM A706, GRADE 60 WHERE INDICATED TO BE WELDED
4) MECHANICAL REBAR SPLICES: LENTON TAPER THREADED SPLICES AS MFD BY NVENT OR APPROVED EQUAL
5) WELDED WIRE FABRIC (WWF): ASTM A1064, PLAIN WIRE REINFORCEMENT, Fy = 65 ksi
6) EPOXY-COATED STEEL WELDED WIRE FABRIC (WWF): ASTM A884
7) ANCHOR RODS: ASTM F1554 GRADE 36 W/ ASTM A563 GRADE A PLAIN HEAVY HEX NUTS
8) HIGH-STRENGTH BOLTS: ASTM F3125 GRADE A325 TYPE 1 THREAD CONDITION N; STEEL TO STEEL CONNECTIONS
9) NUTS: ASTM A563 GRADE DH PLAIN; STEEL TO STEEL CONNECTIONS
10) COUPLER NUTS: ASTM A563 GRADE DH PLAIN; STEEL TO STEEL CONNECTIONS
11) WASHERS: ASTM F436 TYPE 1 PLAIN; STEEL TO STEEL CONNECTIONS
12) BOLTS: ASTM A307 GRADE A; WOOD OR WOOD TO STEEL CONNECTIONS OR ERECTION ONLY
13) EXPANSION ANCHORS: CARBON STEEL STUD, MIN Fy = 84 ksi W/ EXPANSION ELEMENTS (WEDGES) SUCH AS (HILTI KWIK BOLT TZ2) ICC-ES REPORT ESR-4266 OR APPROVED EQUAL
14) ADHESIVE ANCHORS:
   a) CONCRETE: ASTM F1554 GRADE 36 THREADED ROD W/ CHISEL POINT & INJECTABLE ADHESIVE SUCH AS (HILTI HIT-RE 500 V3) ICC-ES REPORT ESR-3814 OR APPROVED EQUAL
   b) SOLID MASONRY: ASTM A36 THREADED ROD W/ CHISEL POINT & INJECTABLE ADHESIVE SUCH AS (HILTI HIT-HY 270) ICC-ES REPORT ESR-4143 W/ SCREEN TUBE OR APPROVED EQUAL
   c) HOLLOW MASONRY: ASTM A36 THREADED ROD W/ CHISEL POINT & INJECTABLE ADHESIVE SUCH AS (HILTI HIT-HY 270) ICC-ES REPORT ESR-4143 W/ SCREEN TUBE OR APPROVED EQUAL
   d) UNREINFORCED BRICK MASONRY: ASTM A307 THREADED ROD W/ CHISEL POINT & INJECTABLE ADHESIVE SUCH AS (HILTI HIT-HY 270) ICC-ES REPORT ESR-4144 W/ SCREEN TUBE OR APPROVED EQUAL
   e) ADHESIVE ANCHORS SHALL BE INSTALLED IN CONCRETE HAVING A MINIMUM AGE OF 21 DAYS AT TIME OF ANCHOR INSTALLATION. FOR INSTALLATIONS SOONER THAN 21 DAYS, CONSULT ADHESIVE MANUFACTURER FOR REQUIREMENTS.
   f) IF TEMPERATURE OF BASE MATERIAL AT TIME OF ADHESIVE INSTALLATION IS 45 F OR LESS AN ACRYLIC ADHESIVE IS REQUIRED.
15) SCREW ANCHORS:
   a) CONCRETE: ASTM B633, CLASS SC1, TYPE III SUCH AS (SIMPSON STRONG-TIE TITEN HD) ICC-ES REPORT ESR-2713 OR APPROVED EQUAL
   b) FULLY GROUTED CMU: ASTM B633, CLASS SC1, TYPE III SUCH AS (SIMPSON STRONG-TIE TITEN HD) ICC-ES REPORT ESR-1056 OR APPROVED EQUAL
16) POWDER DRIVEN FASTENERS: (HILTI X-U FASTENER) ICC-ES REPORT ESR-2269 OR APPROVED EQUAL
17) PREFABRICATED WOOD TRUSSES: ANSI/TPI 1
18) DIMENSION LUMBER: GRADED BY WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) OR WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
   <=4X NOMINAL: DOUGLAS FIR-LARCH #2, UNO
   <=4X NOMINAL: DOUGLAS FIR-LARCH #2 PLATES AND BLOCKING
   >4X NOMINAL: DOUGLAS FIR-LARCH #1, UNO
19) WOOD SHEATHING / PANELS: APA — THE ENGINEERED WOOD ASSOCIATION (APA) RATED "STRUCTURAL I" OR "SHEATHING" AS DESIGNATED BELOW SUITED FOR SPAN & USE
   WALL SHEATHING:
   a) PLYWOOD 15/32” NOMINAL PANEL THICKNESS - 32/16 SHEATHING EXPOSURE 1, SHEATHING
   b) ORIENTED STRAND BOARD (OSB) 7/16” NOMINAL PANEL THICKNESS - 24/16 EXPOSURE 1, SHEATHING
   ROOF SHEATHING:
   a) PLYWOOD 19/32” NOMINAL PANEL THICKNESS - 40/20 SHEATHING EXPOSURE 1, SHEATHING
   b) ORIENTED STRAND BOARD (OSB) 19/32” NOMINAL PANEL THICKNESS - 40/20 SHEATHING EXPOSURE 1, SHEATHING
20) TIMBERS: GRADED BY NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA) AS THEY PERTAIN TO STRUCTURAL TIMBER DOUGLAS FIR-LARCH #1
21) WOOD PANEL DIAPHRAGM SCREWS: (SIMPSON STRONG-TIE WSNTL) ICC-ES REPORT ESR-1472

D. FOUNDATIONS

1) FOUNDATIONS HAVE BEEN DESIGNED BASED UPON ASSUMED SITE SOIL CONDITIONS AND CORRESPONDING PRESUMPTIVE LOAD-BEARING VALUES OF SOILS PER SECTION 1806 OF THE IBC. IT IS RECOMMENDED THAT A PROFESSIONAL GEOTECHNICAL CONSULTANT BE HIRED BY THE OWNER TO VERIFY THESE DESIGN ASSUMPTIONS.
2) PLACE FOOTINGS ON UNDISTURBED NATIVE SOILS OR ENGINEERED FILL PLACED OVER UNDISTURBED NATIVE SOILS. ENGINEERED FILL MATERIAL SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT. PLACE ENGINEERED FILL IN UNIFORM LIFTS AND COMPACT TO MAXIMUM DRY UNIT WEIGHT OF 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698. PLAN LIMITS OF ENGINEERED FILL MUST EXTEND AT LEAST 1'-0" BEYOND ALL FOOTING EDGES, UNLESS NOTED OTHERWISE. IF ENCOUNTERED, EXISTING FILL SHALL BE REMOVED TO AN APPROVED DEPTH AND REPLACED WITH ENGINEERED FILL.
3) DO NOT BACKFILL WALLS WITH UNBALANCED SOIL LEVELS UNLESS ADEQUATELY SHORED OR HAVING PERMANENT FLOOR DIAPHRAGMS INSTALLED WITH CONNECTIONS COMPLETE. WALLS SPECIFICALLY DETAILED AS RETAINING WALLS SHALL HAVE FOOTING TOE SOIL COVERAGE AS DETAILED PRIOR TO BACKFILL. THE CONTRACTOR IS RESPONSIBLE FOR TEMPORARY SHORING DESIGN AND INSTALLATION, WHICH SHALL BE PERFORMED BY A REGISTERED PROFESSIONAL.
4) BACKFILL AND COMPACT BURIED WALLS OR GRADE BEAMS EVENLY ON EACH SIDE TO AVOID UNBALANCED LOADS.
5) BACKFILL SHALL NOT BE PLACED PRIOR TO CONCRETE ELEMENTS REACHING A TESTED COMPRESSIVE DESIGN STRENGTH OF 4500 psi. CONTACT ENGINEER AND COORDINATE REVIEW OF COMPRESSIVE STRENGTH TEST RESULTS TO CONFIRM BACKFILL WORK MAY PROCEED.
6) ALWAYS PROVIDE POSITIVE SURFACE WATER DRAINAGE AWAY FROM THE STRUCTURE.
7) FOUNDATIONS SHALL BE CENTERED UNDER SUPPORTED WALLS AND COLUMNS, UNLESS NOTED OTHERWISE.
8) CONCRETE SHALL NOT BE PLACED IN EXCAVATIONS CONTAINING FROZEN SOIL OR WATER.
9) SHOULD SITE CONDITIONS ENCOUNTERED VARY FROM THOSE INDICATED IN THE CONSTRUCTION DOCUMENTS, CONTACT THE ENGINEER FOR FURTHER GUIDANCE.

E. SLABS ON GRADE

1) PLACE INTERIOR SLABS ON GRADE DIRECTLY ON AN APPROVED VAPOR BARRIER OVER A 6” BASE OF CRUSHED, 3/4" MINUS DRAINAGE COURSE, GRADED FOR COMPACTION WITH LESS THAN 5% PASSING THE NO. 200 SIEVE. PLACE DRAINAGE COURSE ON NATIVE SOILS OR ENGINEERED FILL PLACED OVER UNDISTURBED NATIVE SOILS. WHERE REQUIRED, PLACE ENGINEERED FILL IN UNIFORM LIFTS UNDER SLABS (ABOVE FOOTINGS) AND COMPACT TO MAXIMUM DRY UNIT WEIGHT OF 95% STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698.
2) VAPOR BARRIER SYSTEM SHALL BE POLYOLEFIN SHEET AND SHALL INCLUDE MANUFACTURER'S ADHESIVE SEAM TAPE AND PENETRATION SLEEVES. INSTALL AND SEAL VAPOR BARRIER ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
   a) VAPOR BARRIER INSTALLATION SHALL UTILIZE MATERIALS LISTED WHERE REQUIRED OR SUBMIT EQUIVALENT MATERIALS FOR ENGINEER APPROVAL:
      1. VAPOR BARRIER: STEGO INDUSTRIES, LLC “STEGO WRAP” 15-MILS.
      2. VAPOR BARRIER SEAM TAPE: STEGO INDUSTRIES, LLC "STEGO TAPE".
      3. CHANNEL BAR (TERMINATION BAR): OMG ROOFING PRODUCTS "CHANNEL BAR" PRE PUNCHED AT 12-IN. ON CENTER.
      4. CHANNEL BAR ANCHORS: OMG ROOFING PRODUCTS "MASONRY ANCHOR" 1/4" PIN DIAMETER, 1-1/4" PIN LENGTH.
      5. VAPOR RETARDANT MEMBRANE: STEGO INDUSTRIES, LLC "STEGO MASTIC".
   b) ENGINEER OF RECORD SHALL BE NOTIFIED 48 HOURS IN ADVANCE BY THE CONTRACTOR TO ALLOW FOR INSPECTION OF VAPOR BARRIER PRIOR TO PLACEMENT OF CONCRETE.
3) SLAB ON GRADE CONSTRUCTION JOINT AND CONTRACTION JOINT PLACEMENT SHALL BE APPROVED BY THE ENGINEER IF DIFFERENT THOSE SHOWN ON THE CONSTRUCTION DOCUMENTS. CONTRACTION JOINTS SHALL BE PLACED AT A MAXIMUM SPACING OF 24 TIMES THE THICKNESS OF THE SLAB AND IN NO CASE SHALL JOINT SPACING EXCEED 15’-0’, UNLESS NOTED OTHERWISE. WHERE SLAB ON GRADE CONTRACTION JOINTS ARE SHOWN, CONSTRUCTION JOINTS MAY BE SUBSTITUTED TO ACCOMMODATE THE CONTRACTOR'S PLACEMENT STRATEGY.
4) SLABS ON GRADE SAW-CUT CONTRACTION JOINTS SHALL BE RUN WITHIN 4 TO 12 HOURS AFTER THE CONCRETE HAS BEEN FINISHED.
5) USE PREMOLDED JOINT FILLER 1/2" THICK FOR ISOLATION JOINTS TO SEPARATE SLABS ON GRADE FROM BUILDING WALLS, COLUMNS AND FOOTINGS.
6) WHERE TOP SURFACES OF CONCRETE SLABS ON GRADE ARE SHOWN TO BE RECESSED MORE THAN 1/2", THICKEN SLAB TO MAINTAIN INDICATED SLAB THICKNESS.
7) PROVIDE REBAR SUPPORTS, SPACERS, AND TIE BARS ADEQUATELY TO ENSURE ALL REINFORCEMENT REMAINS AT PROPER DEPTH AND LOCATION WHEN CONCRETE SLABS ON GRADE ARE PLACED. REBAR SUPPORTS AND SPACERS EXPOSED TO EARTH SHALL BE HOT-DIP GALVANIZED G90 OR OTHER APPROVED NON-CORROSIVE MATERIAL.
8) FOLLOW FLOORING MANUFACTURER'S RECOMMENDATIONS FOR SLAB ON GRADE FINISHING WHICH MAY INCLUDE EITHER A BROOM FINISH OR STEEL TROWELLED FINISH. IN AREAS WHERE NO FLOORING OR COATING IS SPECIFIED, FLOAT THE CONCRETE WITH SINGLE PASS FLAT TROWEL AND TEXTURE WITH BROOM FINISH.
9) CURE CONCRETE BY APPLYING POLYETHYLENE SHEETING MATERIAL TO THE TOP SURFACE AFTER FINAL FINISHING FOR A PERIOD OF 3 DAYS. REMOVE POLYETHYLENE SHEETING AFTER NOTED CURING PERIOD. CONTINUE COLD WEATHER PROTECTION OF SLAB ON GRADE AS REQUIRED.
10) THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING DRYING METHODS FOR CONCRETE SLABS WITH APPLIED COATINGS AND FLOORING MATERIALS TO ACHIEVE THE COATING OR FLOORING MANUFACTURER'S CONCRETE SLAB MOISTURE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR TAKING ADEQUATE MOISTURE MITIGATION PROCEDURES IN THE CASE THE SLAB MOISTURE LEVELS ARE ANTICIPATED TO NOT BE WITHIN THE MANUFACTURER'S REQUIREMENTS IN ORDER TO MEET THE PROJECT CONSTRUCTION SCHEDULE. CONTRACTOR SHALL TEST MOISTURE CONTENT OF THE CONCRETE SLABS ON GRADE 10 DAYS PRIOR TO FLOORING INSTALLATIONS TO DETERMINE IF REMEDIAL METHODS NEED TO BE TAKEN TO ENSURE MOISTURE CONTENT IN SLABS IS AT AN ACCEPTABLE LEVEL. REFERENCE FLOORING MANUFACTURER’S SPECIFICATIONS FOR REQUIRED TESTS.
11) ELECTRICAL AND MECHANICAL CONDUITS, RACEWAYS OR OTHER NON-STRUCTURAL ITEMS SHALL NOT BE PLACED WITHIN SLABS ON GRADE WITHOUT WRITTEN CONSENT FROM THE ENGINEER.
12) SLABS ON GRADE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FOLLOWING FLOOR FLATNESS (FF) AND FLOOR LEVELNESS (FL) REQUIREMENTS FOR EACH CLASSIFICATION TYPE LISTED AS DEFINED IN THE LATEST EDITION OF ACI 117 “SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY”. FLOOR SURFACE CLASSIFICATION TYPE SHALL BE MODERATELY FLAT, UNLESS NOTED OTHERWISE.
   a) CONVENTIONAL
      OVERALL: FF = 20, FL = 15, LOCAL MIN: FF = 12, FL = 9
   b) MODERATELY FLAT
      OVERALL: FF = 25, FL = 20, LOCAL MIN: FF = 15, FL = 12
   c) FLAT
      OVERALL: FF = 35, FL = 25, LOCAL MIN: FF = 21, FL = 15
   d) VERY FLAT
      OVERALL: FF = 45, FL = 35, LOCAL MIN: FF = 27, FL = 21
   e) SUPER FLAT
      OVERALL: FF = 60, FL = 40, LOCAL MIN: FF = 36, FL = 24

F. CONCRETE

1) PERFORM CONCRETE WORK INCLUDING HANDLING, PLACING, AND CONSTRUCTING IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE" INCLUDING THE REFERENCED LATEST EDITION OF ACI 117 “SPECIFICATION FOR TOLERANCES FOR CONCRETE CONSTRUCTION AND MATERIALS AND COMMENTARY” UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.
2) CAST-IN-PLACE CONCRETE SPECIFIED COVER FOR REINFORCEMENT SHALL NOT BE LESS THAN THE FOLLOWING:
   a) 3" AT CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH
   b) 2" AT CONCRETE EXPOSED TO EARTH OR WEATHER FOR #6 AND LARGER BARS
   c) 1 1/2" AT CONCRETE EXPOSED TO EARTH OR WEATHER FOR #5 AND SMALLER BARS
   d) 1 1/2" AT CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND FOR REINFORCEMENT OF BEAMS OR COLUMNS
   e) 3/4" AT CONCRETE SLABS, WALLS OR JOISTS NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND
3) SPLICE REINFORCING BARS ACCORDING TO THE REINFORCING BAR LAP SCHEDULE. SPLICE WWF SHEETS BY LAPPING AT LEAST ONE PANEL WIDTH (TWO LONGITUDINAL BARS IN CONTACT) OR 10 INCHES MINIMUM. STAGGER ALTERNATING SPLICES A MINIMUM OF ONE LAP LENGTH. PLACE MECHANICAL REBAR SPLICE CONNECTORS WHERE SHOWN.
4) PLACE CORNER REINFORCING BARS AT ALL WALLS AND GRADE BEAMS WITH SIZE & SPACING TO MATCH HORIZONTAL REINFORCMENT UNLESS SHOWN OTHERWISE.
5) ADD #5X6'-0" DIAGONAL REBAR EACH FACE AT ALL WALL OPENING CORNERS AND #5X6'-0" DIAGONAL REBAR MID-DEPTH AT ALL RE-ENTRANT SLAB CORNERS, UNLESS SHOWN OTHERWISE.
6) PROVIDE REBAR SUPPORTS, SPACERS, AND TIE BARS ADEQUATELY TO ENSURE ALL REINFORCEMENT REMAINS AT PROPER DEPTH AND LOCATION WHEN CONCRETE ELEMENTS ARE PLACED. REBAR SUPPORTS AND SPACERS EXPOSED TO EARTH SHALL BE HOT-DIP GALVANIZED G90 OR OTHER APPROVED NON-CORROSIVE MATERIAL.
7) VERTICAL DOWELS SHALL BE SECURED AND SUPPORTED IN PLACE BEFORE PLACING CONCRETE. DO NOT STAB OR "WET-SET" VERTICAL DOWELS.
8) INSTALL AND SECURE EMBEDMENTS SUCH AS ANCHOR RODS AND EMBEDMENT PLATES WITHIN SPECIFIED TOLERANCES PRIOR TO CONCRETE PLACEMENT.
9) CONCRETE SHALL BE PROPERLY CONSOLIDATED PER THE LATEST EDITION OF ACI 309 USING INTERIOR MECHANICAL VIBRATION, EXCEPT CONCRETE SLABS ON GRADE LESS THAN 5" THICK. DO NOT OVER-VIBRATE CONCRETE.
10) PROTECT AND CURE ALL CONCRETE SURFACES WITH CURING COMPOUND CONFORMING TO ASTM C309, TYPE 2, CLASS B, UNLESS NOTED OTHERWISE. BEGIN CURING WALLS IMMEDIATELY AFTER STRIPPING FORMS.
11) CONCRETE SURFACES TO RECEIVE GROUT UNDER COLUMN BASE PLATES MUST BE PREPARED BY LIGHT BUSH HAMMERING (1/4" AMPLITUDE) THE GROUTED AREA AND PRE-SOAKING. MINIMUM GROUT THICKNESS SHALL BE 1”.
12) CONCRETE WALLS INTERSECTING CONCRETE PILASTERS SHALL BE CAST MONOLITHICALLY WITH PILASTERS, UNLESS NOTED OTHERWISE.
13) CHAMFER EXPOSED EDGES OF CONCRETE BEAMS AND COLUMNS 3/4", UNLESS NOTED OTHERWISE.
14) IN ACCORDANCE WITH THE LATEST EDITION OF ACI 347.3R, PROVIDE FORMED CONCRETE SURFACE CATEGORIES (CSC) AS FOLLOWS PER TABLE 3.1A, UNLESS NOTED OTHERWISE:
   a) CONCRETE SURFACES IN AREAS WITH LOW VISIBILITY USED OR COVERED WITH SUBSEQUENT FINISH MATERIALS INCLUDING BUT NOT LIMITED TO BASEMENT WALLS COVERED BY GRADE: CSC1
   b) CONCRETE SURFACES WHERE VISUAL APPEARANCE IS OF MODERATE IMPORTANCE INCLUDING BUT NOT LIMITED TO INTERIOR SPACES OF ELECTRICAL AND MECHANICAL ROOMS: CSC2
   c) CONCRETE SURFACES THAT ARE IN PUBLIC VIEW OR WHERE APPEARANCE IS SPECIFICALLY DESIGNATED IMPORTANT INCLUDING BUT NOT LIMITED TO INTERIOR AND EXTERIOR ELEMENTS: CSC3
   d) CONCRETE SURFACES WHERE THE EXPOSED CONCRETE IS A PROMINENT FEATURE OF THE COMPLETED STRUCTURE OR VISUAL APPEARANCE IS SPECIFICALLY DESIGNATED IMPORTANT INCLUDING BUT NOT LIMITED TO MONUMENTAL STRUCTURES: CSC4
15) WHEN THE AMBIENT AIR TEMPERATURE HAS FALLEN TO, OR IS EXPECTED TO FALL BELOW 40 F DURING THE PROTECTION PERIOD, IMPLEMENT COLD WEATHER PROCEDURES AND COMPLY WITH COLD WEATHER CONCRETING PROVISIONS OF THE ADOPTED ACI 306R “GUIDE TO COLD WEATHER CONCRETING”. CONTRACTOR SHALL PROVIDE A COLD WEATHER CONCRETE PLACEMENT AND PROTECTION PLAN AS A PROJECT SUBMITTAL IF JOB SITE TEMPERATURES ARE EXPECTED TO DROP BELOW NOTED THRESHOLD VALUE AT ANY TIME DURING THE CONCRETE PLACEMENT. CONTRACTOR IS RESPONSIBLE FOR ALL HEATING AND PROTECTION MATERIALS AND ASSOCIATED LABOR AS REQUIRED IN MAINTAINING COMPLIANCE WITH COLD WEATHER CONCRETING PROCEDURES.
16) WHEN THE AMBIENT AIR TEMPERATURE EXCEEDS 80 F OR THE RATE OF EVAPORATION IS GREATER THAN 0.2 PSF PER HOUR, IMPLEMENT HOT WEATHER PROCEDURES AND COMPLY WITH HOT WEATHER CONCRETING PROVISIONS OF THE ADOPTED ACI 305R “GUIDE TO HOT WEATHER CONCRETING”. CONTRACTOR SHALL PROVIDE A HOT WEATHER CONCRETE PLACEMENT AND PROTECTION PLAN AS A PROJECT SUBMITTAL IF JOB SITE TEMPERATURES ARE EXPECTED TO EXCEED NOTED THRESHOLD VALUES AT ANY TIME DURING THE CONCRETE PLACEMENT.
17) SHOULD SULFATES BE FOUND IN THE SOIL ACCORDING TO THE GEOTECHNICAL REPORT, DO NOT USE CONCRETE CONTAINING CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CALCIUM CHLORIDE.
18) CONCRETE TESTING AND ACCEPTANCE:
   a) CONCRETE PRODUCTION FACILITY SHALL SUBMIT FOR ENGINEER APPROVAL CONCRETE MIX DESIGN A MINIMUM OF FIVE WORKING DAYS PRIOR TO PLACEMENT WHICH INCLUDES STRENGTH TEST RECORDS NOT MORE THAN 24 MONTHS OLD AND CONSISTING OF AT LEAST 30 CONSECUTIVE TESTS OR TWO GROUPS OF CONSECUTIVE TESTS TOTALING AT LEAST 30 TESTS.
   b) OBTAIN SAMPLES IN ACCORDANCE WITH THE LATEST EDITION OF ACI 301 “SPECIFICATIONS FOR STRUCTURAL CONCRETE” SECTION 1.6.4.2. OBTAIN AT LEAST ONE COMPOSITE SAMPLE FOR EACH 100 CUBIC YARDS, OR FRACTION THEREOF, OF EACH CONCRETE MIXTURE PLACED IN ANY ONE DAY.
   c) MOLD AND CURE A MINIMUM OF FIVE CYLINDERS FROM EACH SAMPLE IN ACCORDANCE WITH ASTM C31. TEST ONE CYLINDER AT 7 DAYS, TEST THREE CYLINDERS AT 28 DAYS, AND TEST ONE CYLINDER AT 56 DAYS.
   d) A STRENGTH TEST SHALL BE THE AVERAGE OF THE STRENGTHS OF AT LEAST THREE 4 BY 8 IN CYLINDERS MADE FROM THE SAME SAMPLE OF CONCRETE AND TESTED AT TEST AGE DESIGNATED.
   e) STRENGTH LEVEL OF AN INDIVIDUAL CLASS OF CONCRETE SHALL BE CONSIDERED SATISFACTORY IF BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:
      1. EVERY ARITHMETIC AVERAGE OF ANY THREE CONSECUTIVE STRENGTH TESTS EQUALS OR EXCEEDS f’c.
      2. NO STRENGTH TEST FALLS BELOW f’c BY MORE THAN 500 PSI.

G. WOOD FRAMING

1) PREFABRICATED WOOD TRUSSES SHALL BE FABRICATED BY A CERTIFIED MEMBER OF THE TRUSS PLATE INSTITUTE. TRUSSES SHALL CONFORM TO THE LATEST EDITION OF TRUSS PLATE INSTITUTE “NATIONAL DESIGN STANDARD FOR METAL PLATE CONNECTED WOOD TRUSS CONSTRUCTION” (ANSI/TPI 1). TRUSSES SHALL BE DESIGNED BY THE MANUFACTURER TO SUPPORT ALL SUPERIMPOSED LOADS INDICATED IN SECTION "B", ALL LOADS TRANSFERRED BY FRAMING MEMBERS (I.E. OVERFRAMING, STRUCTURAL FASCIA,...) INDICATED ON ROOF FRAMING PLAN(S) AND ANY ADDITIONAL LOADS REQUIRED.
   a) TRUSS SPACING REQUIREMENTS:
      1. ROOF TRUSS MAXIMUM SPACING: 24" OC
   b) TRUSS LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO THE FOLLOWING:
      1. ROOF TRUSS MEMBERS: L/240 & NOT TO EXCEED 1/2"
      2. HORIZONTAL DEFLECTION SHALL NOT EXCEED 1/2" TOTAL LOAD DEFLECTION
   c) TRUSS DESIGN AND LAYOUT PLANS SHALL BE BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE IN WHICH THEY ARE TO BE INSTALLED. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER AND SHALL INCLUDE FOR EACH TRUSS TYPE: ELEVATIONS, DIMENSIONS, NOMINAL LUMBER SIZE AND GRADE, CONNECTOR PLATE SIZE AND LOCATION FOR EACH JOINT AND TRUSS CAMBER WHERE REQUIRED. SUBMIT SHOP DRAWINGS, DESIGN CALCULATIONS AND ERECTION PLANS FOR APPROVAL PRIOR TO FABRICATION.
   d) HANDLING, ERECTION AND BRACING OF ALL PREFABRICATED WOOD TRUSSES SHALL FOLLOW TPI PUBLICATION BCSI SECTION B1 “GUIDE TO GOOD PRACTICE FOR HANDLING, INSTALLING, RESTRAINING & BRACING OF METAL PLATE CONNECTED WOOD TRUSSES”. TRUSS MANUFACTURER SHALL COORDINATE TRUSS BRACING REQUIREMENTS WITH CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRUSS BRACE MATERIAL AND SHALL ENSURE CONFORMANCE WITH TRUSS MANUFACTURER INSTALLATION REQUIREMENTS.
   e) ALL TRUSS CHORD MEMBERS SHALL BEAR A VISIBLE GRADING STAMP. TRUSS WEB MEMBERS SHALL BEAR A VISIBLE GRADING STAMP ON ONE HALF OF TOTAL MEMBERS.
   f) ALL TRUSSES ABOVE NON-BEARING WALLS SHALL UTILIZE SLIP CONNECTIONS ENSURING PREVENTION OF UNINTENDED LOAD TRANSFER.
2) ENGINEERED WOOD PRODUCTS SHOWN ON THE DRAWINGS ARE THE PRODUCTS OF TRUS JOIST - A WEYERHAEUSER BUSINESS, REDBUILT - AN ATLAS HOLDINGS BUSINESS OR BOISE CASCADE AND ARE DESIGNATED BY THE MANUFACTURER'S STANDARD PRODUCT NUMBERS. THE INTENT OF THE DESIGN IS FOR THESE ITEMS TO BE ATTACHED TO EACH OTHER AND TO THE SURROUNDING STRUCTURE TO BEHAVE AS A SYSTEM. WHETHER SHOWN OR NOT, PROVIDE ACCESSORY ITEMS (BLOCKS, CLIPS, STIFFENERS, STRAPS, ETC) DESIGNED BY THE MANUFACTURER, FOR A COMPLETE SYSTEM. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND USE.
   a) ENGINEERED WOOD PRODUCT SUBSTITUTIONS SHALL REQUIRE WRITTEN APPROVAL FROM THE ENGINEER AND SHALL BE IDENTICAL IN DEPTH AND SPACING WHILE MEETING OR EXCEEDING MOMENT, SHEAR AND STIFFNESS PROPERTIES FOR THE MEMBERS SPECIFIED. FOLLOW ALL MANUFACTURER’S RECOMMENDATIONS FOR INSTALLATION AND USE.
   b) SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER FOR ALL MEMBER SIZING, LAYOUT AND CONNECTION DETAILS. SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION.
   c) ALL ENGINEERED WOOD PRODUCTS ABOVE NON-BEARING WALLS SHALL UTILIZE SLIP CONNECTIONS ENSURING PREVENTION OF UNINTENDED LOAD TRANSFER.
   d) OPEN-WEB TRUSS REQUIREMENTS:
      1. OPEN-WEB TRUSS SPACING REQUIREMENTS:
         a. OPEN-WEB TRUSS MAXIMUM SPACING: 24" OC
      2. OPEN-WEB TRUSS LIVE LOAD DEFLECTIONS SHALL BE LIMITED TO THE FOLLOWING:
         a. OPEN-WEB TRUSS MEMBERS: L/600 & NOT TO EXCEED 1"
      3. SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER AND SHALL INCLUDE FOR EACH TRUSS TYPE: ELEVATIONS, DIMENSIONS, NOMINAL LUMBER SIZE AND GRADE, CONNECTOR PLATE SIZE AND LOCATION FOR EACH JOINT AND TRUSS CAMBER WHERE REQUIRED. SUBMIT SHOP DRAWINGS AND ERECTION PLANS FOR APPROVAL PRIOR TO FABRICATION.
      4. ALL TRUSSES ABOVE NON-BEARING WALLS SHALL UTILIZE SLIP CONNECTIONS ENSURING PREVENTION OF UNINTENDED LOAD TRANSFER.
      5. TRUSS MANUFACTURER SHALL COORDINATE TRUSS BRACING REQUIREMENTS WITH CONTRACTOR PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRUSS BRACE MATERIAL AND SHALL ENSURE CONFORMANCE WITH TRUSS MANUFACTURER INSTALLATION REQUIREMENTS.
3) FRAMING CONNECTORS, ANCHORS, AND HANGERS SHOWN ON THE DRAWINGS ARE THE PRODUCTS OF SIMPSON STRONG-TIE COMPANY, PLEASANTON, CALIFORNIA AND ARE DESIGNATED BY THE MANUFACTURER'S STANDARD PRODUCT NUMBERS. FOLLOW ALL MANUFACTURER'S RECOMMENDATIONS FOR INSTALLATION AND USE. PRODUCTS WITH EQUIVALENT CAPACITY AND QUALITY MAY BE SUBSTITUTED AFTER A SUBMITTAL HAS BEEN PROVIDED BY THE GENERAL CONTRACTOR AND FINAL APPROVAL BY STRUCTURAL ENGINEER. NOTE: "USP" LUMBER CONNECTORS ARE PRIOR APPROVED FOR DIRECT SUBSTITUTION OF SIMPSON PRODUCTS USING THE "USP" REFERENCE NUMBER INDEX. WHERE DIRECT SUBSTITUTION IS NOT AVAILABLE IN THE INDEX, PROVIDE A SUBSTITUTION SUBMITTAL FOR PROPOSED PRODUCT SUBSTITUTION.
4) SAWN LUMBER:
   a) SAWN LUMBER SHALL BE NEW OR RECYCLED STABLED WOOD WITH MAXIMUM MOISTURE CONTENT OF 19%.
   b) PROVIDE HEADERS FOR ALL OPENINGS PER SCHEDULE. WHERE NOT INDICATED, INSTALL 2-2X6 WITH PLATES TOP AND BOTTOM MATCHING STUD WIDTH. INSULATE ALL BOX HEADERS AS INDICATED BY ARCHITECTURAL.
   c) DOUBLE TOP PLATES SHALL HAVE A MINIMUM LAP LENGTH OF 4 FEET. FASTEN WITH 1 ROW OF 0.135”Ø NAILS @ 6" UNLESS NOTED OTHERWISE.
   d) ALL FRAMING ABOVE NON-BEARING WALLS SHALL UTILIZE SLIP CONNECTIONS ENSURING PREVENTION OF UNINTENDED LOAD TRANSFER.
   e) WOOD STUD WALL SHALL BE 2X6 @ 16" OC, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. SILL PLATES SHALL UTILIZE A MINIMUM OF 2 ANCHOR RODS WHICH SHALL BE 5/8” DIAMETER X 8” EMBED WITH 3”X3”X1/4” PLATE WASHERS SPACED A MAXIMUM OF 4’-0” OC, UNLESS NOTED OTHERWISE. SILL PLATE SHALL NOT BE NOTCHED FOR FASTENING AND ANCHOR ROD THREADS SHALL EXTEND A MINIMUM OF 2 THREADS ABOVE NUT. ANCHOR RODS ARE REQUIRED WITHIN 1’-0” OF ALL JAMBS, CORNERS, WALL INTERSECTIONS AND WALL ENDS.

STRUCTURAL SHEET INDEX

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA 49TH
KEVIN JOHN FELDMAN
No. CE 11735
08/25/25
REGISTERED PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN
REVISIONS

STRUCTURAL GENERAL NOTES

S001

f) PROVIDE SOLID STRUCTURAL BLOCKING BELOW ALL WOOD COLUMNS DIRECTLY TO FRAMING BELOW.

g) STRUCTURAL MEMBERS NOT SPECIFICALLY DETAILED FOR PENETRATIONS SHALL NOT BE CUT FOR MECHANICAL PIPES, DUCTS ETC UNLESS APPROVED BY THE ENGINEER.

h) WOOD MEMBERS EXPOSED TO WEATHER OR IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESERVATIVE TREATED WOOD IN ACCORDANCE WITH AMERICAN WOOD PROTECTION ASSOCIATION (AWPA) STANDARDS.

i) ALL LAG SCREWS SHALL HAVE LEAD HOLES DRILLED THE SAME DIAMETER FOR THE SHANK AND 50% OF THE SHANK DIAMETER FOR THE THREADED PORTION. LUBRICATE THREADS BEFORE INSTALLATION.

j) NAILING REQUIREMENTS NOT SPECIFIED ON THE CONSTRUCTION DOCUMENTS SHALL BE IN ACCORDANCE WITH IBC FASTENING SCHEDULE, TABLE 2304.9.1.

k) ALL STEEL PLATE, FASTENERS, ANCHORS AND CONNECTORS IN DIRECT CONTACT WITH WOOD THAT HAS ALKALINE COPPER QUATERNARY (ACQ) WITHOUT AMMONIA PRESERVATIVE TREATMENT SHALL BE ASTM A153, CLASS B HOT-DIP GALVANIZED COATING G185 OR BE STAINLESS STEEL TYPE SS316L. ALL STEEL PLATE, FASTENERS, ANCHORS AND CONNECTORS IN DIRECT CONTACT WITH WOOD THAT HAS ALKALINE COPPER QUATERNARY (ACQ) WITH AMMONIA PRESERVATIVE TREATMENT SHALL BE STAINLESS STEEL TYPE SS316L.

5) WOOD SHEATHING:

a) INSTALL FLOOR & ROOF PLYWOOD PANELS WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER ALL END JOINTS 48" MINIMUM AND PLACE AS INDICATED IN "CASE 1" OF THE LATEST EDITION OF AWC SDPWS TABLE 4.2A FOR ROOF AND FLOOR SHEATHING, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING AS INDICATED ON CONSTRUCTION DOCUMENTS.

b) INSTALL WALL STRUCTURAL PANELS WITH FACE GRAIN EITHER PARALLEL TO OR PERPENDICULAR TO SUPPORTS. IN HORIZONTAL INSTALLATIONS, STAGGER ALL END JOINTS A MINIMUM OF ONE STUD SPACE AND IN VERTICAL INSTALLATIONS, STAGGER ALL END JOINTS A MINIMUM OF THE TYPICAL STUD SPACING, UNLESS NOTED OTHERWISE ON CONSTRUCTION DOCUMENTS. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING AS INDICATED ON CONSTRUCTION DOCUMENTS.

c) PANELS LESS THAN 12 INCHES WIDE SHALL NOT BE USED.

d) FASTENERS ALONG SHEAR PANEL EDGES SHALL NOT BE LESS THAN 3/8" FROM PANEL EDGE.

e) NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING.

f) WOOD SHEATHING FASTENING FRAMING ATTACHMENT, UNLESS NOTED OTHERWISE:

1. WALL SHEATHING:
   a. 0.131"Ø NAIL @ 6" AT PANEL EDGES, UNO — ALL PANEL EDGES SHALL BE BLOCKED
   b. 0.131"Ø NAIL @ 12" AT PANEL FIELD, UNO
2. ROOF SHEATHING:
   a. 0.131"Ø NAIL @ 6" AT PANEL EDGES, UNO
   b. 0.131"Ø NAIL @ 12" AT PANEL FIELD, UNO
3. FLOOR SHEATHING:
   a. 0.131"Ø NAIL @ 6" AT PANEL EDGES, UNO
   b. 0.131"Ø NAIL @ 12" AT PANEL FIELD, UNO

g) ALL SHEATHING SHALL BEAR THE VISIBLE GRADING STAMP OF THE APA — THE ENGINEERED WOOD ASSOCIATION (APA) OR OTHER APPROVED AGENCY.

h) SCREWS SHALL BE FULLY DRIVEN AND SHALL BE OF SUFFICIENT LENGTH TO PENETRATE A MINIMUM OF 1-1/4 INCHES IN FRAMING.

6) TIMBER FRAME CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION OF TIMBER FRAME ENGINEERING COUNCIL (TFEC) "CODE OF STANDARD PRACTICE FOR TIMBER FRAME STRUCTURES" (TFEC 2).

a) TIMBER SHALL BE NEW OR RECYCLED STABLED TIMBER WITH MAXIMUM MOISTURE CONTENT OF 16%.

b) SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE ENGINEER AND SHALL INCLUDE: TIMBER FRAME SYSTEM LAYOUT, DIMENSIONS, NOMINAL LUMBER SIZE AND GRADE, EDGE TREATMENT, SURFACE TREATMENT, FINISHES AND DETAILS FOR TIMBER FRAME CONNECTION JOINERY AND OTHER ACCESSORIES. SUBMIT SHOP DRAWINGS AND ERECTION PLANS FOR APPROVAL PRIOR TO FABRICATION.

c) TIMBER CONNECTION JOINERY SHALL ADHERE TO THE LATEST EDITION OF TIMBER FRAME ENGINEERING COUNCIL (TFEC) "STANDARD FOR DESIGN OF TIMBER FRAME STRUCTURES AND COMMENTARY" (TFEC-1). CONNECTION JOINERY SHALL UTILIZE MORTISE AND TENON JOINTS WITH OAK DOWELS UNLESS NOTED OTHERWISE. CONNECTION JOINERY SHALL BE DESIGNED ACCORDING TO DESIGN LOAD REQUIREMENTS AS INDICATED BY THE ENGINEER AND SHALL MINIMIZE JOINT SEPARATION DUE TO TIMBER SHRINKAGE.

d) TIMBER FRAME FABRICATION AND ERECTION SHALL BE UNDER DIRECT SUPERVISION OF THE PROJECT FOREMAN WITH EXPERIENCE IN 5 PREVIOUS PROJECTS OF SIMILAR SIZE AND SCOPE.

e) TIMBER FRAME MANUFACTURER SHALL COORDINATE TIMBER FRAME INSTALLATION WITH CONTRACTOR INCLUDING BRACING REQUIREMENTS, ERECTION PLANS, SCHEDULE AND OTHER RELEVANT ITEMS PRIOR TO INSTALLATION. WHEN LATERAL LOADS ARE RESISTED BY A SYSTEM OTHER THAN THE TIMBER FRAME, LEAVE TEMPORARY BRACING IN PLACED UNTIL LATERAL SYSTEM IS COMPLETED.

7) STORAGE, HANDLING, AND CONDITIONING OF TIMBER FRAMING: STRUCTURAL MASS TIMBER FRAMING IS INTENDED TO BE THE EXPOSED ARCHITECTURAL FINISH MATERIAL. ALL HANDLING AND STORAGE IS TO BE COORDINATED AND PROVIDED BY CONTRACTOR. THE FOLLOWING BEST PRACTICES ARE RECOMMENDED FOR INTEGRITY AND QUALITY OF INSTALLED, FINISHED FRAMING. THESE RECOMMENDATIONS ARE TO BE USED IN ADDITION TO MANUFACTURER AND SUPPLIER RECOMMENDATIONS.

a) PROTECT WOOD FRAMING FROM WEATHER AND OTHER SOURCES OF WATER AND DIRT TO PREVENT STAINING OF ARCHITECTURAL SURFACES DURING TRANSPORATION, HANDLING, STORAGE, AND ERECTION UNTIL THE BUILDING ENVELOPE IS CONSTRUCTED.

b) STORE ALL MATERALS ON LEVEL SURFACE RASIED OFF THE GROUND A MINIMUM OF 8 INCHES. PROVIDE CONTINUOUS, WATERPROOF COVER WITH SLOTS OR PERFORATIONS ON HORIZONTAL SURFACES TO PROVIDE ADEQUATE AIRFLOW. REMOVE WATER, SNOW, AND ICE ACCUMULATION FROM STORED MATERIALS.

c) PROVIDE CORNER GUARDS ON FRAMING MEMBERS TO PREVENT CRUSHING, MARKING, OR OTHER DEFORMATION OF CUT ENDS DURING TRANSPORTATION, HANDLING, STORAGE, AND ERECTION.

d) MOVE AND ERECT MEMBERS USING FABRIC, NYLON, OR OTHER SOFT, NON-STAINING SLING TO PREVENT SURFACE DEFORMATIONS.

e) ANY ERECTION AIDES OR BOLTS SHOULD BE GALVANIZED AND FREE OF OIL OR OTHER MATERIAL THAT MAY CAUSE STAINING.

f) PROVIDE COVERING ON INSTALLED CONSTRUCTION UNTIL ENVELOPE CONSTRUCTION IS COMPLETE.

g) REMOVE SOURCES OF WATER AND EXCESS HUMIDITY FROM CONSTRUCTED FRAMING.

h) IT IS RECOMMENDED TO APPLY ARCHITECTURAL TREATMENTS AND STAINS PRIOR TO HEATING OR CONDITIONING OF STRUCTURE ENVIRONMENT AFTER ENVELOPE CONSTRUCTION.

i) WOOD CONSTRUCTION WILL SHRINK AS BUILDING HEAT IS APPLIED AND MOISTURE CONTENT REDUCES. CARE SHOULD BE TAKEN TO GRADUALLY RAISE HEAT, OR OTHER CONDITIONED AIR, OVER THE COURSE OF SEVERAL WEEKS TO REDUCE THE RISK OF EXCESSIVE SHRINKING OR CHECKING.

j) MECAHINCAL, ELECTRICAL, AND PLUMBING WORK SHALL BE ATTACHED TO THE STRUCTURE TO ACCOMMODATE EXPECTED WOOD CONSTRUCTION VERTICAL SHRINKAGE OF ¼ INCH MAXIMUM PER FLOOR.

H. PRE-INSTALLATION CONFERENCES

1) SCHEDULING AND CONDUCTING PRE-INSTALLATION CONFERENCES ARE THE RESPONSIBILITY OF THE CONTRACTOR. MEETING ATTENDEES AND FORMAT ARE OUTLINED IN THE PROJECT SPECIFICATIONS. COORDINATE LOCATION, TIME AND AGENDA ITEMS WITH THE ENGINEER. CONDUCT PRE-INSTALLATION CONFERENCES FOR THE FOLLOWING ACTIVITIES RELATED TO STRUCTURAL SYSTEMS:

a) CAST-IN-PLACE CONCRETE

b) SLAB ON GRADE VAPOR BARRIERS

c) SPECIAL INSPECTION REQUIREMENTS

I. SPECIAL INSPECTIONS AND TESTS

1) SPECIAL INSPECTIONS DESCRIBED BELOW ARE REQUIRED BY SECTION 1705 OF THE IBC AND SHALL BE PERFORMED PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ENGINEER APPRISED OF WORK PROGRESS AS IT PERTAINS TO SPECIAL INSPECTIONS AND ENSURING THAT NO WORK REQUIRING SPECIAL INSPECTIONS IS CONCEALED BEFORE SPECIAL INSPECTIONS OCCUR. REFER TO THE PROJECT SPECIFICATIONS FOR OTHER INSPECTIONS AND MATERIALS TESTING REQUIREMENTS.

2) EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND- OR SEISMIC FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND- OR SEISMIC-RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT PER SECTION 1704 OF THE IBC.

3) THE OWNER SHALL EMPLOY QUALIFIED SPECIAL INSPECTORS DURING CONSTRUCTION TO PERFORM STRUCTURAL OBSERVATIONS FOR THE ELEMENTS NOTED BELOW.

a) CONCRETE CONSTRUCTION: THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR CONCRETE CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.3 AND TABLE 1705.3 OF THE IBC. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF VAPOR BARRIERS, MECHANICAL COUPLERS, REINFORCING STEEL AND PRESTRESSING TENDONS, PERIODIC INSPECTION OF ANCHORS CAST IN CONCRETE PRIOR TO CONCRETE PLACEMENT, PERIODIC INSPECTION OF ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS, CONTINUOUS INSPECTION OF CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES EXCEPT PERIODIC INSPECTION FOR SLABS ON GRADE AND ELEVATED COMPOSITE SLABS. VERIFY USE OF REQUIRED MIX DESIGN AND INSPECT CONCRETE FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. MATERIAL TESTING SHALL BE PERFORMED ACCORDING TO THE REQUIREMENTS OF THE LATEST EDITION OF ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" CHAPTERS 3 AND 5.

b) WOOD CONSTRUCTION: THE SPECIAL INSPECTIONS AND VERIFICATIONS FOR WOOD CONSTRUCTION SHALL BE AS REQUIRED BY SECTION 1705.5 OF THE IBC. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF PREFABRICATED WOOD STRUCTURAL ELEMENTS, HIGH-LOAD DIAPHRAGMS AND METAL-PLATE-CONNECTED WOOD TRUSSES SPANNING 60 FEET OR GREATER.

c) SOILS: SPECIAL INSPECTIONS FOR EXISTING SITE SOIL CONDITIONS, FILL PLACEMENT AND LOAD-BEARING REQUIREMENTS SHALL BE AS REQUIRED BY SECTION 1705.6 AND TABLE 1705.6 OF THE IBC. THE APPROVED GEOTECHNICAL REPORT AND THE CONSTRUCTION DOCUMENTS PREPARED BY THE REGISTERED DESIGN PROFESSIONALS SHALL BE USED TO DETERMINE COMPLIANCE. INSPECTIONS INCLUDE BUT ARE NOT LIMITED TO PERIODIC INSPECTION OF MATERIALS BELOW SHALLOW FOUNDATIONS AND EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.

J. DEFERRED SUBMITTALS

1) DOCUMENTATION SUCH AS SHOP DRAWINGS, ERECTION DRAWINGS AND CALCULATIONS FOR DEFERRED SUBMITTAL ITEMS WILL BE REVIEWED BY THE ENGINEER WHEN AVAILABLE AND FORWARDED TO THE BUILDING OFFICIAL. CONTRACTOR SHALL ALLOW FOR A MINIMUM OF FIVE WORKING DAYS FOR ENGINEER REVIEW OF ALL DEFERRED SUBMITTALS.

2) SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS REQUIRED BY THE PROJECT SPECIFICATIONS FOR REVIEW BY THE ENGINEER PRIOR TO FABRICATION. SHOP DRAWINGS FOR PROPRIETARY PRODUCTS DESIGNED BY THE MANUFACTURER SHALL INCLUDE DESIGN CALCULATIONS STAMPED BY AN ENGINEER LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED.

3) THE CONTRACTOR SHALL REVIEW AND STAMP ALL DEFERRED SUBMITTALS TO ENSURE CONFORMANCE WITH CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING FOR ARCHITECTURAL AND ENGINEERING REVIEW. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION AND COORDINATION OF ALL DIMENSIONS AND DETAILS WITH SUBCONTRACTORS. SHOP DRAWINGS OR PRODUCT DATA NOT STAMPED BY THE CONTRACTOR WILL NOT BE REVIEWED.

4) SHOP DRAWINGS SHALL NOT REPLACE THE CONTRACT DRAWINGS. ITEMS OMITTED OR SHOWN INCORRECTLY ARE NOT CONSIDERED AS CHANGES TO THE CONTRACT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR THE CORRECTNESS AND COMPLETENESS OF ALL DEFERRED SUBMITTALS.

5) DEFERRED SUBMITTALS SHALL CLOUD AND NOTE ANY DEVIATIONS OR SUBSTITUTIONS FROM THE CONTRACT DRAWINGS IN ALL INSTANCES. DEVIATIONS NOT CLOUDED ARE CONSIDERED NOT APPROVED, UNLESS NOTED SPECIFICALLY OTHERWISE BY THE ENGINEER.

6) PRODUCT SUBMITTALS SHALL INCLUDE THE FOLLOWING, UNLESS NOTED OTHERWISE:

a) CANOPIES AND AWNINGS

b) MECHANICAL EQUIPMENT SEISMIC SUPPORTS

c) PREFABRICATED WOOD TRUSSES

K. MISCELLANEOUS

1) REFERENCE CIVIL DRAWINGS FOR BUILDING LOCATION AND ORIENTATION ON THE SITE. DRAWING ELEVATION REFERENCE 100'-0" = 46.31 FT CIVIL DATUM.

2) CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS SHOWN ON THE CONSTRUCTION DOCUMENTS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND STRUCTURAL DRAWINGS PRIOR TO PROCEEDING WITH CONSTRUCTION.

3) USE ONLY WRITTEN DIMENSIONS FOR CONSTRUCTION. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ENGINEER FOR CLARIFICATION PRIOR TO CONSTRUCTION.

4) DETAIL MARKS ANNOTATED ON PLANS ARE INTENDED TO INDICATE SPECIFIC CONFIGURATION(S) AND INFORMATION. FOR PLAN CLARITY, NOT EVERY LOCATION WHERE A SPECIFIC DETAIL MAY APPLY IS ANNOTATED. CONTACT THE ENGINEER IF CLARIFICATION IS NEEDED.

5) COORDINATE OPENINGS AND EMBEDDED ITEMS IN CONCRETE AND MASONRY WORK WITH ALL TRADES.

6) NOTIFY ENGINEER OF ANY DISCREPANCIES DISCOVERED WITH OTHER TRADES.

7) CONSTRUCTION LOADS SHALL NOT BE GREATER THAN THE DESIGN LOADS INDICATED IN DESIGN LOADS AND CRITERIA SECTION B.1, UNLESS REVIEWED AND APPROVED BY THE ENGINEER.

8) EQUIPMENT OPENINGS INDICATED ARE FOR REFERENCE ONLY. COORDINATE EXACT LOCATIONS, DIMENSIONS AND DETAILS WITH EQUIPMENT MANUFACTURERS AND TRADES. ALL OPENINGS IN FLOORS, ROOFS OR OTHER STRUCTURAL MEMBERS THAT ARE NOT SPECIFICALLY DETAILED IN THE STRUCTURAL DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF AND REVIEWED BY THE ENGINEER.

9) TEMPORARILY BRACE THE STRUCTURE TO RESIST ALL LOADS OR COMBINATIONS OF LOADS UNTIL ALL PERMANENT ELEMENTS ARE IN PLACE AND ALL CONNECTIONS ARE COMPLETE AS SHOWN. THE DESIGN AND SAFETY OF ALL ERECTION BRACING, SHORING AND TEMPORARY SUPPORTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

10) COSTS ASSOCIATED WITH STRUCTURAL DRAWING CHANGES RESULTING FROM USE OF ALTERNATES OR SUBSTITUTIONS, INCLUDING MECHANICAL EQUIPMENT, IS THE CONTRACTOR'S RESPONSIBILITY.

11) CONTRACTOR IS RESPONSIBLE FOR LOCATING, PROTECTING AND STABILIZING ALL ADJACENT STRUCTURES AND UTILITIES THROUGH ALL PHASES OF CONSTRUCTION.

12) STRUCTURAL GENERAL NOTES SHALL NOT BE A SUBSTITUTE FOR THE PROJECT SPECIFICATIONS. CONFLICTS BETWEEN THE STRUCTURAL GENERAL NOTES AND PROJECT SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OR THE STRICTER OF THE TWO CRITERIA SHALL BE USED.

L. ABBREVIATIONS LIST (SOME OF THE LISTED ABBREVIATIONS MAY NOT APPEAR ON THE DRAWINGS)

1) & AND
2) @ AT
3) AB ANCHOR BOLT
4) ACI AMERICAN CONCRETE INSTITUTE
5) AFF ABOVE FINISH FLOOR
6) AITC AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
7) ALT ALTERNATE
8) ANC ANCHOR
9) ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
10) APPR APPROXIMATE
11) ARCH ARCHITECTURE OR ARCHITECTURAL
12) ASCE AMERICAN SOCIETY OF CIVIL ENGINEERS
13) ASD ALLOWABLE STRESS DESIGN
14) ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
15) AWC AMERICAN WOOD COUNCIL
16) BLDG BUILDING
17) BLK BLOCK
18) BM BEAM
19) BOF BOTTOM OF FOOTING
20) BOSH BOTTOM OF SHEATHING
21) BOT BOTTOM
22) BRG BEARING
23) BRKT BRACKET
24) BTWN BETWEEN
25) CIP CAST-IN-PLACE
26) CJ CONTROL JOINT
27) CL CENTER LINE
28) CLR CLEAR
29) CNJT CONTRACTION JOINT
30) COL COLUMN
31) CONC CONCRETE
32) CONN CONNECTION OR CONNECTOR
33) CONST JT CONSTRUCTION JOINT
34) CONT CONTINUE OR CONTINUOUS
35) CRSI CONCRETE REINFORCING STEEL INSTITUTE
36) DBL DOUBLE
37) DE DECK EDGE
38) DEPR DEPRESSION
39) DET DETAIL
40) DIA DIAMETER
41) DIM DIMENSION OR DIMENSIONS
42) DIR DIRECTION
43) DL DEVELOPMENT LENGTH
44) DWLS DOWELS
45) EA EACH
46) EE EACH END
47) EF EACH FACE
48) EJ EXPANSION JOINT
49) EL ELEVATION
50) ELEC ELECTRIC OR ELECTRICAL
51) EQ EQUAL
52) EQPM EQUIPMENT
53) ES EACH SIDE
54) EW EACH WAY
55) EXIST OR (E) EXISTING
56) EXP EXPANSION
57) EXP BOLT EXPANSION BOLT
58) EXP JT EXPANSION JOINT
59) FF FAR FACE
60) FIN FINISH
61) FL FLOOR
62) FDN FOUNDATION
63) FT FOOT OR FEET
64) FTG FOOTING
65) FT-LB FOOT POUND
66) GA GAUGE OR GAGE
67) GALV GALVANIZED OR GALVANIZE
68) GC GENERAL CONTRACTOR
69) GR GRADE
70) HEF HORIZONTAL EACH FACE
71) HIF HORIZONTAL INSIDE FACE
72) HOF HORIZONTAL OUTSIDE FACE
73) HORZ HORIZONTAL
74) HP HIGH POINT
75) HS HIGH STRENGTH
76) HSS HOLLOW STRUCTURAL SECTION (TUBE STEEL)
77) HT HEIGHT
78) IBC INTERNATIONAL BUILDING CODE
79) ICBO INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
80) ID INSIDE DIAMETER
81) IN INCH OR INCHES
82) INV INVERT
83) ISJT ISOLATION JOINT
84) JB JOIST BEARING
85) JST JOIST
86) JT JOINT
87) K KIP (1000 POUNDS)
88) KSI KIPS PER SQUARE INCH
89) LB(S) POUND OR POUNDS
90) LF LINEAR FEET OR LINEAL FEET
91) LLH LONG LEG HORIZONTAL
92) LLV LONG LEG VERTICAL
93) LONG LONGITUDINAL
94) LP LOW POINT
95) LRFD LOAD AND RESISTANCE FACTOR DESIGN
96) LW LIGHT WEIGHT
97) LWC LIGHT WEIGHT CONCRETE
98) MAX MAXIMUM
99) MC MECHANICAL CONTRACTOR
100) MFG MANUFACTURING
101) MFR MANUFACTURER
102) MECH MECHANICAL
103) MIN MINIMUM
104) MTL METAL
105) (N) NEW
106) N/A NOT APPLICABLE
107) NF NEAR FACE
108) NIC NOT IN CONTRACT
109) NO OR # NUMBER
110) NOM NOMINAL
111) NTS NOT TO SCALE
112) NWC NORMAL WEIGHT CONCRETE
113) OC ON CENTER
114) OD OUTSIDE DIAMETER
115) OPNG OPENING
116) % PERCENT
117) PERP PERPENDICULAR
118) PL PLATE
119) PLMB PLUMBING OR PLUMB
120) PROJ PROJECTION
121) PSF POUNDS PER SQUARE FOOT
122) PSI POUNDS PER SQUARE INCH
123) PVC POLYVINYL CHLORIDE
124) QTY QUANTITY
125) (R) RELOCATE OR RELOCATED
126) R RADIUS
127) RE RIGHT END
128) REINF REINFORCE, REINFORCED, REINFORCEMENT OR REINFORCING
129) REQD REQUIRED
130) RET RETURN
131) RETG RETAINING
132) REV REVISION
133) SC SHEAR CONNECTOR
134) SCHED SCHEDULE
135) SECT SECTION
136) SF STEP FOOTING
137) SF SQUARE FOOT OR SQUARE FEET
138) SFRS SEISMIC FORCE-RESISTING SYSTEM
139) SHT SHEET
140) SIM SIMILAR
141) SL SPLICE LENGTH
142) SLV SHORT LEG VERTICAL
143) SOG SLAB ON GRADE
144) SPA SPACE OR SPACES
145) SPEC SPECIFIED OR SPECIFICATION
146) SQ SQUARE
147) STD STANDARD
148) STIFF STIFFENER
149) STIR STIRRUP
150) STRUCT STRUCTURAL OR STRUCTURE
151) SUP SUPPORT
152) SYM SYMMETRICAL
153) T&B TOP AND BOTTOM
154) TB TRUSS BEARING
155) THK THICK OR THICKNESS
156) THRD THREAD OR THREADED
157) TOB TOP OF WOOD BEAM
158) TOCS TOP OF CONCRETE SLAB
159) TOCW TOP OF CONCRETE WALL
160) TOF TOP OF FOOTING
161) TOSH TOP OF SHEATHING
162) TOW TOP OF WOOD WALL
163) TOWL TOP OF WOOD LEDGER
164) TRANS TRANSVERSE
165) TYP TYPICAL
166) UNO UNLESS NOTED OTHERWISE
167) US UNDERSIDE
168) VEF VERTICAL EACH FACE
169) VERT VERTICAL
170) VIF VERIFY IN FIELD OR VERTICAL INSIDE FACE
171) VOF VERTICAL OUTSIDE FACE
172) W/ WITH
173) W/O WITHOUT
174) WWF WELDED WIRE FABRIC

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SITKA PATIENT HOUSING EXPANSION

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STRUCTURAL GENERAL NOTES

S002

WOOD SHEATHING SHEAR WALL SCHEDULE

WALL TYPE	SHEATHING TYPE & THICKNESS	LOCATION	BLOCKING (ALL JOINTS)	BLOCKING MIN SIZE	MIN STUD SIZE	PANEL FASTENING		SOLE PLATE ATTACHMENT	RIM JOIST ATTACHMENT AT TOP OF DOUBLE TOP PLATE FOR SHEAR WALL INDICATED	SILL PLATE ANCHORAGE (8)	END WALL POST	REMARKS
						PANEL EDGE	INTERMEDIATE (FIELD)					
SW-A	PLYWOOD/OSB 15/32"	1- SIDE	YES	2X4	2X	0.131"Ø @ 6"	0.131"Ø @ 12"	0.148"Ø @ 6"	SIMPSON A35 @ 24"	5/8"Ø ANC ROD @ 48"	2- 2X MATCHING WALL WIDTH	N/A
SW-B	PLYWOOD/OSB 15/32"	1- SIDE	YES	2X4	2X	0.131"Ø @ 4"	0.131"Ø @ 12"	0.148"Ø @ 4"	SIMPSON A35 @ 16"	5/8"Ø ANC ROD @ 24"	2- 2X MATCHING WALL WIDTH	N/A

NOTES:

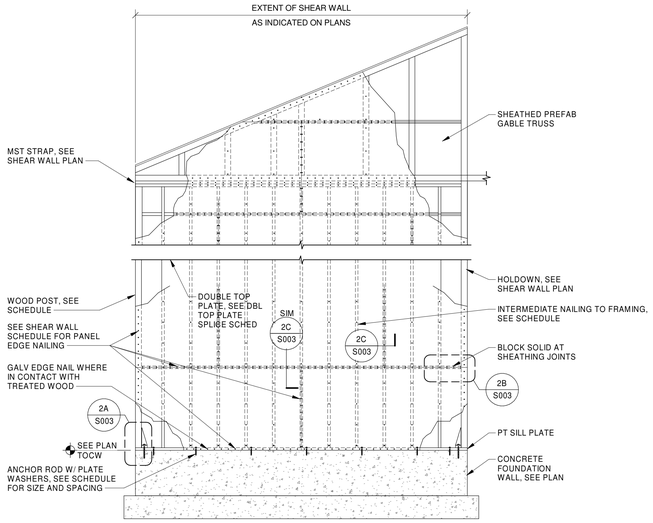
1. ALL EXTERIOR WALLS SHALL BE SHEATHED W/ 15/32" SHEATHING, BLOCKED AT JOINTS, 0.131"Ø @ 6" AT ALL PANEL EDGES & 12" AT INTERMEDIATE SUPPORTS, UNLESS INDICATED OTHERWISE.
2. NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING AND SHALL HAVE 3/8" MIN EDGE DISTANCE.
3. SEE PLANS FOR SHEAR WALL MARK LOCATIONS AND LIMITS.
4. INSTALL WALL PANEL WOOD SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS. STAGGER ALL END PANEL JOINTS 32", MINIMUM. FASTEN PANELS TO SUPPORTING FRAMING AND BLOCKING IN ACCORDANCE WITH SHEAR WALL SCHEDULE AND DETAILS FOR CRITICAL NAILING.
5. NO PANELS LESS THAN 12 INCHES WIDE SHALL BE USED.
6. WHERE BOTH FACES ARE SCHEDULE TO BE SHEATHED, STAGGER VERTICAL PANEL EDGES BY AT LEAST ONE STUD SPACE.
7. IF MULTI-STORY SHEAR WALLS ARE SPECIFIED, PROVIDE SOLID BLOCKING BELOW END POSTS AND ALL BEARING STUDS.
8. ALL SILL PLATES REQUIRE PLATE WASHER 3"X3"X1/4" AT ANCHOR BOLTS.

HOLDOWN SCHEDULE

MARK	TYPE	MINIMUM EMBEDMENT DEPTH FOR INSTALLED ANCHORS	ANCHOR DIA REQD	MINIMUM THICKENED SLAB REQUIRED AT INTERIOR HOLDOWN LOCATIONS (WxLxD) UNO	REMARKS
4	HDU4-SDS2.5	8" AT INTERIOR WALL, 3" MIN FROM EDGE	5/8"Ø	N/A	SIMPSON PAB5H-18 CAST-IN ANCHOR BOLTS

NOTES:

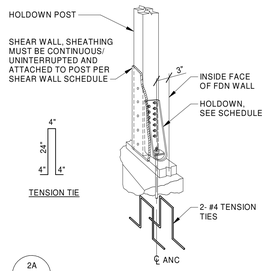
1. EXPANSION ANCHORS ARE NOT ACCEPTABLE FOR USE AT HOLDOWNS AT CONCRETE INTERFACES.
2. WHERE ADHESIVE ANCHORS ARE SPECIFIED CONFIRM THAT REINFORCING STEEL DOES NOT CONFLICT W/ DRILLING HOLDOWN ANCHOR.
3. SEE PLAN FOR HOLDOWN LOCATIONS.
4. POST INSTALLED ANCHORS ARE NOT PERMITTED AT CONCRETE EXTERIOR WALL OR INTERIOR WALLS WITH 12" WIDE STEM WALL OR LESS IN WIDTH. ANCHORS SHALL BE CAST-IN-PLACE ONLY.



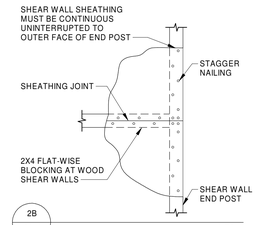
GENERAL SHEAR WALL ELEVATION

NTS

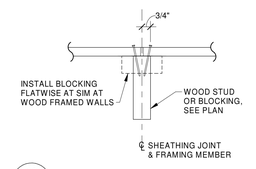
(ILLUSTRATION ABOVE INTENDED TO COVER BASIC FRAMING CRITERIA REQUIRED AT SHEAR WALLS - SEE PLANS AND DETAILS FOR SPECIFIC CONDITIONS.)



2A / S003 NTS



2B / S003 NTS



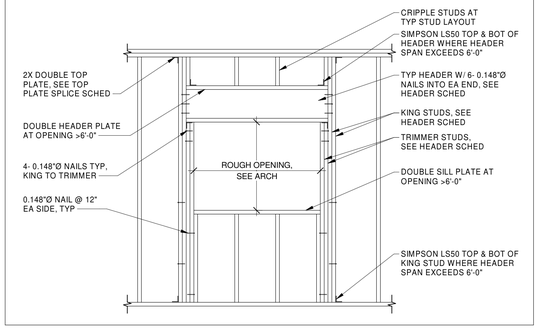
2C / S003 NTS

WOOD HEADER SCHEDULE

MARK	HEADER SIZE	NUMBER OF TRIMMER STUDS REQD [UNLESS NOTED OTHERWISE ON PLAN SHEETS]	# OF KING STUDS REQD (SILL PLATE TO DBL TOP PLATE) [UNLESS NOTED OTHERWISE ON PLAN SHEETS]
H1	4X12	2	2- EXT WALLS 1- INT WALL

NOTES:

1. SEE STRUCTURAL PLAN NOTATION & PLAN LEVEL WHERE STUDS BEGIN FOR NUMBER OF STUDS REQUIRED WHICH VARY FROM SCHEDULE ABOVE.
2. ALL HEADERS SHALL BE 'H1', UNO.



3 / S003 WOOD HEADER SCHEDULE

1/2" = 1'-0"

WOOD STRUCTURAL PANEL DIAPHRAGM SCHEDULE

MARK	SHEATHING TYPE & THICKNESS	SPAN RATING	BLOCKING (ALL JOINTS)	MIN BLOCKING SIZE	NAILING		REMARKS
					PANEL EDGE SUPPORTS	INTERMEDIATE SUPPORTS	
WD-1	19/32" T&G SHEATHING	40/20, MIN	NONE	N/A	0.148"Ø @ 6"	0.148"Ø @ 12"	N/A

NOTES:

1. LAY PANELS WITH LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS. STAGGER ALL END JOINTS AND PLACE AS INDICATED IN "CASE 1" AS SHOWN IN DIAGRAM, UNLESS NOTED OTHERWISE ON PLAN SHEETS.
2. NAIL HEADS SHALL NOT PENETRATE BEYOND A FLUSH CONDITION WITH FACE OF SHEATHING.
3. FASTENER ATTACHMENT SHALL MAINTAIN 3/8" MINIMUM EDGE DISTANCE. SEE JOINT NAILING DETAIL SHOWN ON WOOD SHEAR WALL SCHEDULE FOR RECOMMENDED JOINT NAILING INSTALLATION.
4. SEE PLANS FOR WOOD SHEATHING MARK LOCATIONS AND LIMITS.
5. STAGGER ALL END JOINTS 32" MINIMUM.
6. MINIMUM PANEL DIMENSION SHALL BE 24" UNLESS ALL EDGES OF THE UNDERSIZED PANELS ARE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
7. SHEATHING GRADE REQUIREMENTS SHALL BE PER THE PROJECT SPECIFICATIONS.

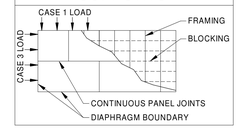
4 / S003 WOOD STRUCTURAL PANEL DIAPHRAGM SCHEDULE

1/8" = 1'-0"

ALLOWABLE UNIT SHEAR CAPACITY (PLF)

MARK	SEISMIC	WIND
WD-1	215	300

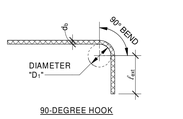
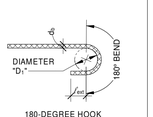
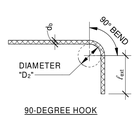
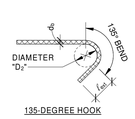
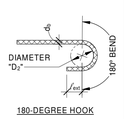
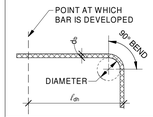
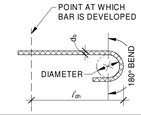
LONG PANEL DIRECTION PERPENDICULAR TO SUPPORTS



FOOTING SCHEDULE

MARK	TYPE (WxLxD)	REINFORCING
A	STRIP FOOTING: 1'-4"XCONTX1'-0"	2-#5 LONG, BOT
B	SPREAD FOOTING: 2'-0"X2'-0"X1'-0"	3-#5 EA WAY, BOT

STANDARD HOOKS DEVELOPMENT LENGTH SCHEDULE

DEFORMED BARS IN TENSION				STIRRUPS, TIES AND HOOPS				"ℓ_{dh}" DEVELOPMENT LENGTH WITH A STANDARD HOOK		
										
90-DEGREE HOOK		180-DEGREE HOOK		90-DEGREE HOOK	135-DEGREE HOOK	180-DEGREE HOOK		SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE		
BAR SIZE #	90° HOOK LENGTH "ℓ_{dt}"	180° HOOK LENGTH "ℓ_{dt}"	INSIDE BEND DIA "D_1"	90° HOOK LENGTH "ℓ_{dt}"	135° HOOK LENGTH "ℓ_{dt}"	180° HOOK LENGTH "ℓ_{dt}"	INSIDE BEND DIA "D_2"	f'c = 2500 PSI	f'c = 3000 PSI	f'c = 4500 PSI
#3	4 1/2"	2 1/2"	2 1/4"	3"	3"	2 1/2"	1 1/2"	0'-6"	0'-6	0'-6"
#4	6"	2 1/2"	3"	3"	3"	2 1/2"	2"	0'-8"	0'-7"	0'-7"
#5	7 1/2"	2 1/2"	3 3/4"	3 3/4"	3 3/4"	2 1/2"	2 1/2"	0'-11"	0'-10"	0'-10"
#6	9"	3"	4 1/2"	9"	4 1/2"	3"	4 1/2"	1'-2"	1'-1"	1'-0"
#7	10 1/2"	3 1/2"	5 1/4"	10 1/2"	5 1/4"	3 1/2"	5 1/4"	1'-6"	1'-5"	1'-3"
#8	1'-0"	4"	6"	1'-0"	6"	4"	6"	1'-9"	1'-8"	1'-7"
#9	1'-2"	4 3/4"	9 1/4"	-	-	-	-	2'-2"	2'-0"	1'-10"
#10	1'-3 1/2"	5 1/4"	10 1/4"	-	-	-	-	2'-6"	2'-5"	2'-3"
#11	1'-5"	5 3/4"	11 1/2"	-	-	-	-	3'-0"	2'-10"	2'-7"

SCHEDULE NOTES:

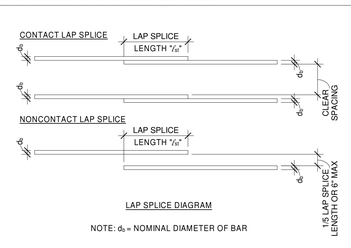
1. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR NORMALWEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE DEVELOPMENT LENGTH BY 33%.
2. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT. WHERE EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED REINFORCEMENT IS USED, INCREASE DEVELOPMENT LENGTH BY 20%.
3. DEVELOPMENT LENGTH INCREASES FOR ITEMS 1-2 ARE CUMULATIVE WHERE MULTIPLE INCREASES ARE REQUIRED.
4. d_b = NOMINAL DIAMETER OF BAR.
5. ℓ_{ext} = STRAIGHT EXTENTION AT THE END OF A STANDARD HOOK.
6. ℓ_{dh} = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR WITH A STANDARD HOOK.

1 / S003 STANDARD HOOKS DEVELOPMENT LENGTH SCHEDULE

1 1/2" = 1'-0"

LAP SPLICE LENGTH OF DEFORMED BARS SCHEDULE

SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE	f'c = 3000 PSI	
SPLICE TYPE	CLASS B	
CASTING POSITION / BAR SIZE #	OTHER BARS "ℓ_d"	>12" FRESH CONCRETE PLACED BELOW HORZ BAR "ℓ_d"
#3	1'-10"	2'-4"
#4	2'-5"	3'-2"
#5	3'-0"	3'-11"
#6	3'-7"	4'-8"
#7	5'-3"	6'-9"
#8	6'-0"	7'-9"
#9	6'-9"	8'-9"
#10	7'-7"	9'-10"
#11	8'-5"	10'-11"



LAP SPLICE DIAGRAM

NOTE: d_b = NOMINAL DIAMETER OF BAR

SCHEDULE NOTES:

1. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR NORMALWEIGHT CONCRETE. WHERE LIGHTWEIGHT CONCRETE IS USED, INCREASE DEVELOPMENT LENGTH BY 33%.
2. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT. WHERE EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED REINFORCEMENT IS USED WITH CLEAR COVER LESS THAN $3d_b$ OR CLEAR SPACING LESS THAN $6d_b$, INCREASE DEVELOPMENT LENGTH BY 50%.
3. DEVELOPMENT LENGTHS IN SCHEDULE ARE FOR UNCOATED OR ZINC-COATED (GALVANIZED) REINFORCEMENT. WHERE EPOXY-COATED OR ZINC AND EPOXY DUAL-COATED REINFORCEMENT IS USED FOR ALL OTHER CONDITIONS, INCREASE DEVELOPMENT LENGTH BY 20%.
4. DEVELOPMENT LENGTH INCREASES FOR ITEMS 1-3 ARE CUMULATIVE WHERE MULTIPLE INCREASES ARE REQUIRED.
5. IF BARS OF DIFFERENT SIZE ARE LAP SPLICED IN TENSION, ℓ_d SHALL BE THE GREATER OF ℓ_d OF THE LARGER BAR AND ℓ_d OF THE SMALLER BAR.
6. d_b = NOMINAL DIAMETER OF BAR.
7. ℓ_d = TENSION LAP SPLICE LENGTH.
8. ℓ_d = DEVELOPMENT LENGTH IN TENSION OF DEFORMED BAR.

2 / S003 LAP SPLICE LENGTH OF DEFORMED BARS SCHEDULE

1/8" = 1'-0"

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08.27.2025

SouthEast Alaska Regional Health Consortium (SEARHC)

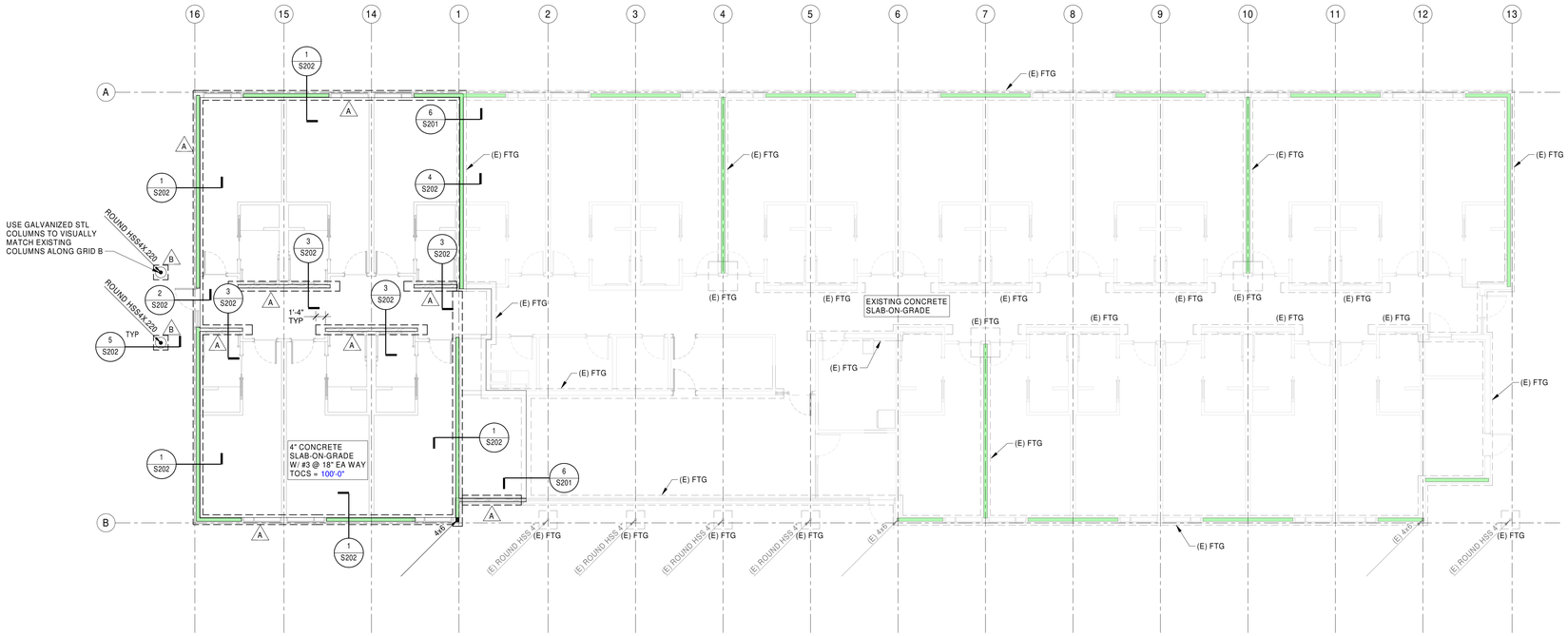
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN
REVISIONS

STRUCTURAL SCHEDULES

S003



1 S101 FOUNDATION PLAN

1/8" = 1'-0"

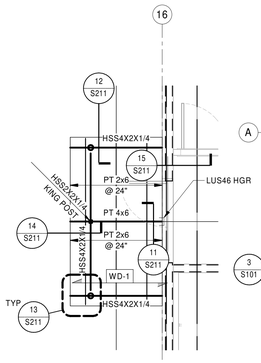
NORTH REF

STRUCTURAL PLAN NOTATION

- XXX'-X" TOCS — INDICATES TOP OF CONCRETE SLAB ELEVATION.
- XXX'-X" TOF — INDICATES TOP OF FOOTING ELEVATION.
- X — INDICATES FOOTING TYPE, SEE SCHEDULE ON SHEET S003.
- HSS?X?X?? — INDICATES HOLLOW STRUCTURAL SECTION-STEEL COLUMN.
- ?X? — INDICATES STRUCTURAL WOOD COLUMN.
- INDICATES WOOD STRUCTURAL STUD WALL, SEE SCHEDULE.

FOUNDATION PLAN NOTES

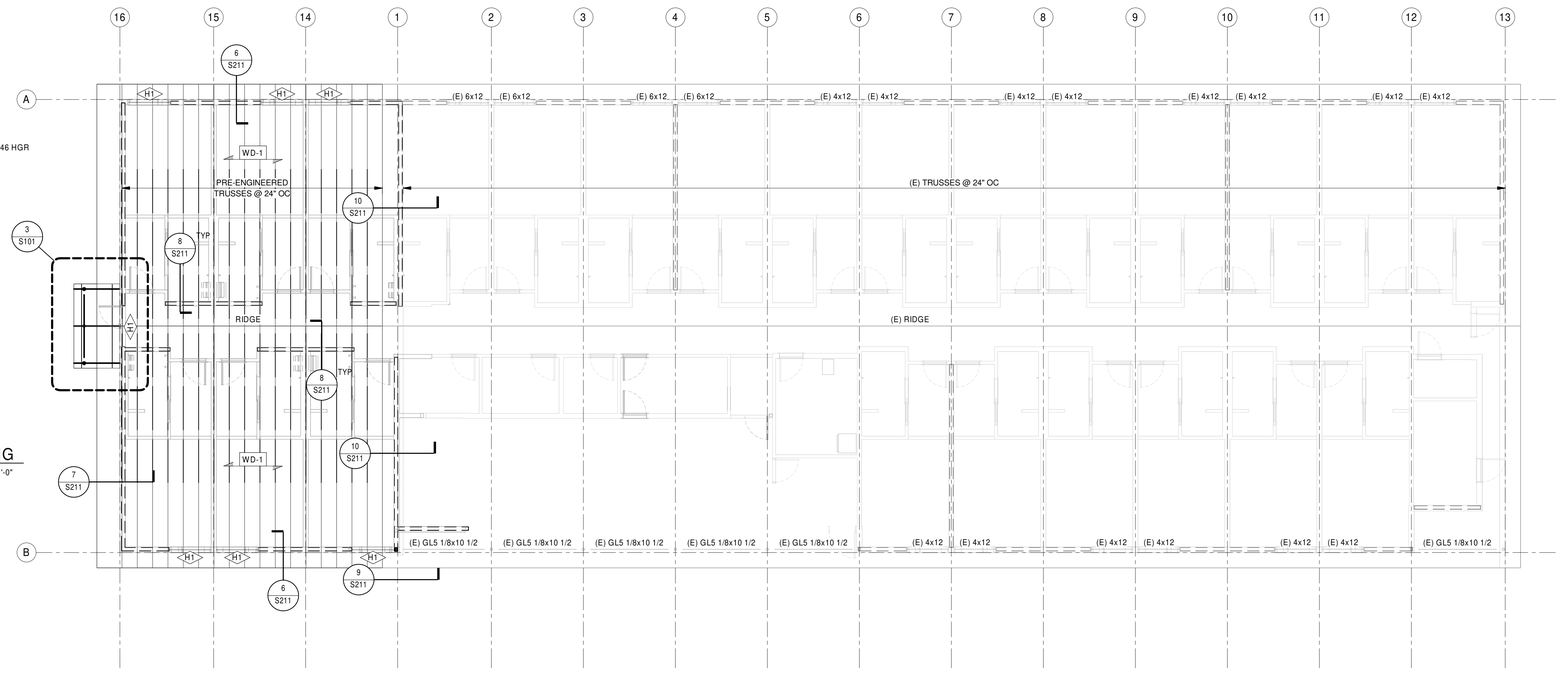
1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/SLAB LEVEL.
3. COORDINATE FOUNDATION WALL PENETRATION SIZE AND LOCATIONS WITH OTHER TRADE(S).
4. COORDINATE ALL REQUIRED SLEEVES FOR WATER, SEWER, STORM, ELECTRICAL, CABLE, AND IRRIGATION.
5. SEE 1/S201 FOR UNDER FOOTING PIPE OR CONDUIT PASSAGE.
6. SEE ELECTRICAL, MECHANICAL AND PLUMBING FOR LOCATION AND SIZE OF EQUIPMENT PADS. SEE 2/S201 ALSO.
7. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR PERIMETER FOUNDATION DRAIN.
8. BLOCK OUT TOP OF FOUNDATION WALL AT ALL EXTERIOR DOORWAYS FOR SLAB POUR IN ACCORDANCE WITH DETAIL 2/S202. COORDINATE LOCATION OF DOORWAYS WITH ARCHITECTURAL PLANS.
9. REFERENCE ARCHITECTURAL/PLUMBING PLANS FOR FLOOR DRAIN LOCATIONS AND SLOPED SLAB LIMITS.
10. TOP OF INTERIOR CONCRETE FOOTING ELEVATION = 100'-0", UNO.
11. UNDER SLAB VAPOR RETARDER:
    A. IF SLAB SUBGRADE PROTECTED FROM WEATHER, LOCATE VAPOR RETARDER UNDER DRAINAGE COURSE - PREFERRED.
    B. IF SLAB SUBGRADE IS NOT PROTECTED FROM WEATHER, LOCATE VAPOR RETARDER ON TOP OF DRAINAGE COURSE (DIRECTLY BENEATH SLAB), AND SUBSEQUENT PRE-CONSTRUCTION MEETING SHOULD TAKE PLACE TO DISCUSS LIKELY SLAB CURLING ISSUE.
12. EXISTING BUILDING INFORMATION WAS OBTAINED FROM RECORD DRAWINGS BY LUND & EVERTON STRUCTURAL ENGINEERING LLC OF KIRKLAND, WA. DATED 08/31/2007. CONTRACTOR TO VERIFY EXISTING STRUCTURE IS AS SHOWN.



3 S101 CANOPY ROOF FRAMING

REF S101

1/4" = 1'-0"



2 S101 ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH REF

STRUCTURAL PLAN NOTATION

- XXX'-X" TOW — INDICATES TOP OF WOOD WALL ELEVATION.
- HX — INDICATES HEADER TYPE, SEE SCHEDULE ON SHEET S003.
- INDICATES BEARING WALL BELOW.
- WD-X — INDICATES DECKING (SHEATHING) REQUIRED AND SPAN DIRECTION. SEE SCHEDULE ON SHEET S003.

BEAM NOTES:

GL?X? (XXX'-X")	
GL?X?	INDICATES GLUED-LAMINATED BEAM SIZE.
PSL?X?	INDICATES PARALLEL STRAND LUMBER SIZE.
LVL?X?	INDICATES LAMINATED VENEER LUMBER SIZE.
(XXX'-X")	INDICATES TOP OF BEAM ELEVATION.

ROOF FRAMING PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/ROOF LEVEL.
3. BEAMS ARE EQUALLY SPACED BETWEEN COLUMNS UNLESS DIMENSIONED.
4. SEE STRUCTURAL GENERAL NOTES SECTION "B" FOR DESIGN LOADS REQUIRED.
5. REFERENCE OTHER DISCIPLINES INDICATING SUSPENDED EQUIPMENT FOR SPECIFIC PLAN LOCATION, LOADING AND CONNECTION DETAILS TO PRIMARY STRUCTURAL FRAMING.
6. SEE 1/S211 SCHEDULE FOR DIAPHRAGM ATTACHMENT REQUIRED AND DECKING/SHEATHING PROPERTIES.
7. EXISTING BUILDING INFORMATION WAS OBTAINED FROM RECORD DRAWINGS BY LUND & EVERTON STRUCTURAL ENGINEERING LLC OF KIRKLAND, WA. DATED 08/31/2007. CONTRACTOR TO VERIFY EXISTING STRUCTURE IS AS SHOWN.

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

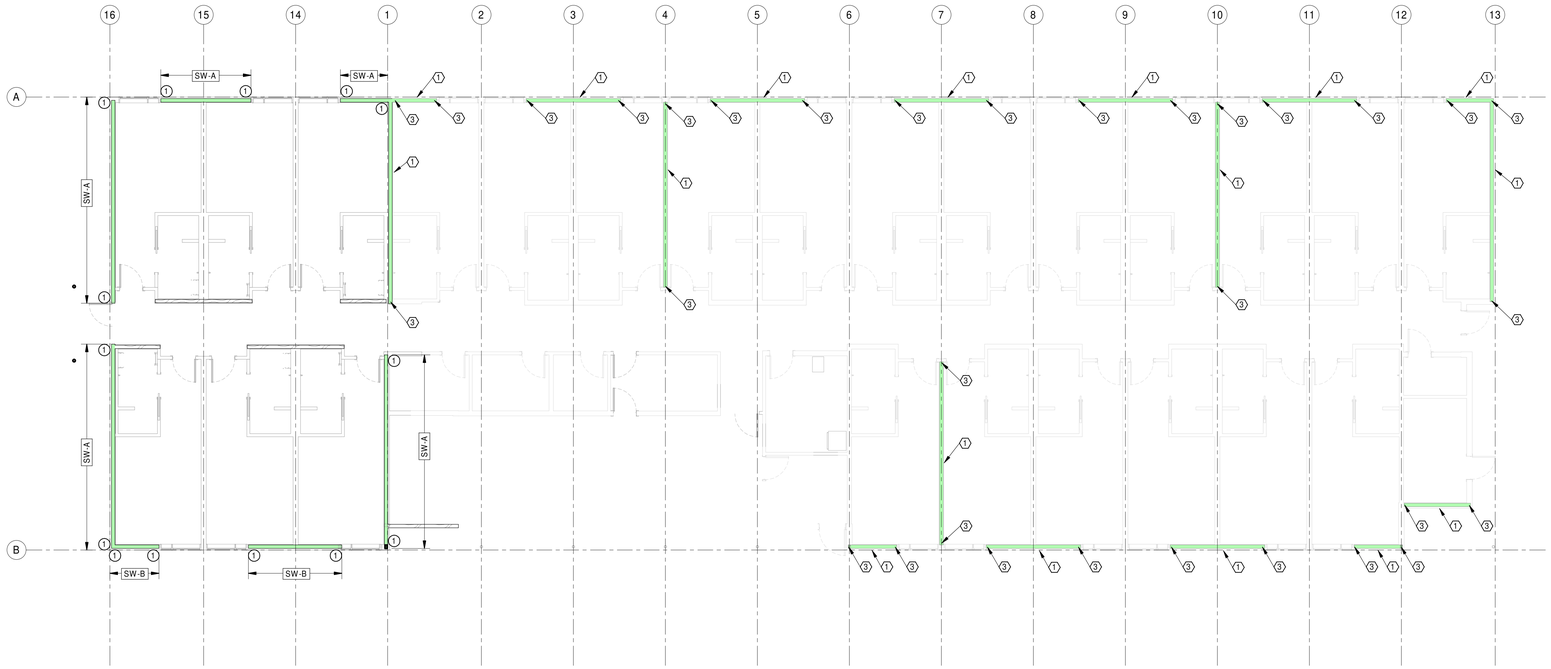
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN
REVISIONS

STRUCTURAL PLANS

S101



1 SL102 LATERAL PLAN
1/8" = 1'-0"

LATERAL PLAN NOTES

1. ALL GRID DIMENSIONS ARE LOCATED AT OUTSIDE FACE OF FOUNDATION WALL OR AT CL OF COLUMN.
2. PLAN SHEET "CUT" PLANE IS ASSUMED TO OCCUR 48" ABOVE FLOOR/SLAB LEVEL.
3. EXISTING BUILDING INFORMATION WAS OBTAINED FROM RECORD DRAWINGS BY LUND & EVERTON STRUCTURAL ENGINEERING LLC OF KIRKLAND, WA, DATED 08/31/2007. CONTRACTOR TO VERIFY EXISTING STRUCTURE IS AS SHOWN.

STRUCTURAL PLAN NOTATION

- INDICATES WOOD STRUCTURAL STUD WALL.
- INDICATES "CFS" STRUCTURAL STUD CURTAIN WALL SYSTEM.
- INDICATES LOAD BEARING MASONRY WALL.
- SW-X — INDICATES SHEAR WALL, SEE SCHEDULE ON SHEET S003.
- ⊗ INDICATES HOLD-DOWN CONNECTION LOCATION.
- (?) INDICATES HOLD-DOWN TYPE REQD. SEE SCHEDULE SHEET S003.

KEYNOTES

1 EXISTING SHEARWALL TO REMAIN
3 EXISTING HOLDOWNS TO REMAIN

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CONSTRUCTION DOCUMENTS

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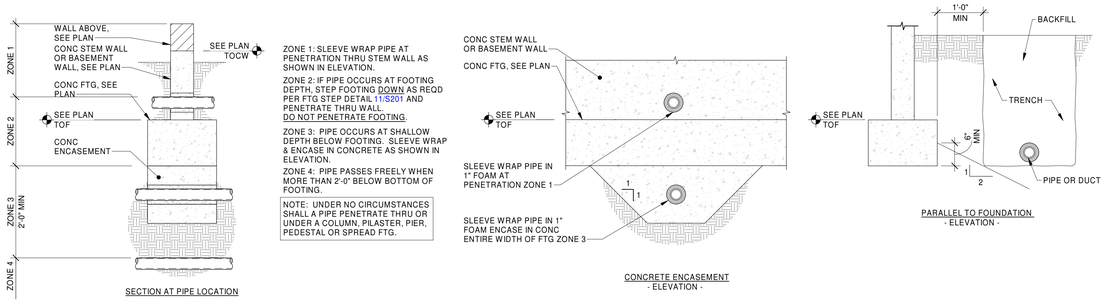
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN

REVISIONS

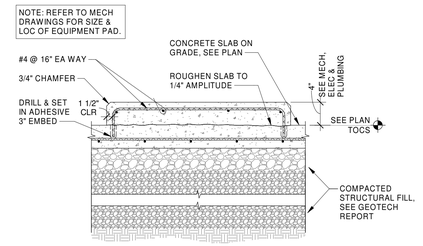
LATERAL PLAN

SL102



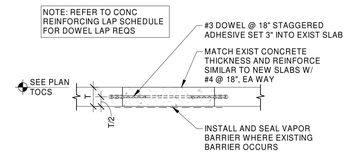
1 S201 **PIPE PENETRATION GUIDE AT FOUNDATIONS**

3/4" = 1'-0"



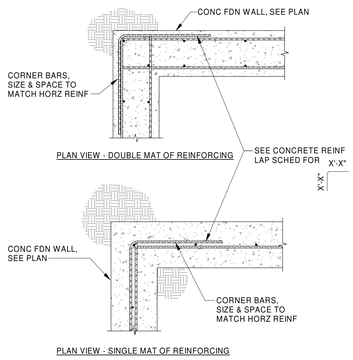
2 S201 **EQUIPMENT PAD**

3/4" = 1'-0"



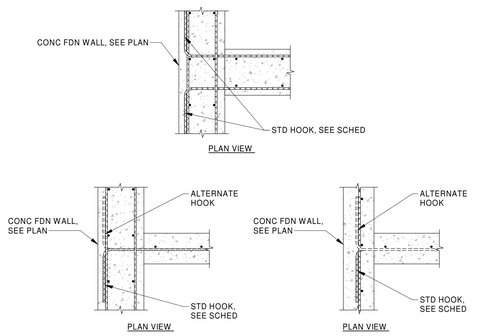
3 S201 **CONC SLAB ON GRADE CUT REPAIR**

3/4" = 1'-0"



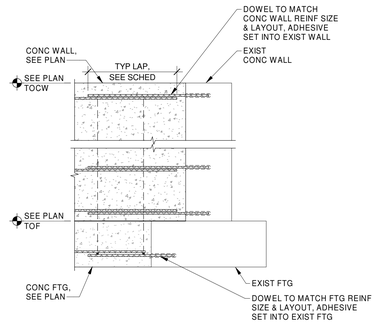
4 S201 **REINFORCING IN FDN WALL CORNER**

3/4" = 1'-0"



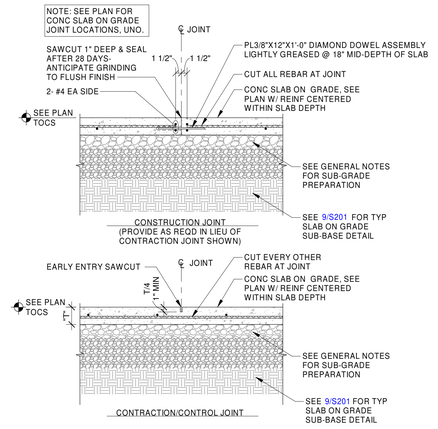
5 S201 **REINFORCING IN FDN WALL INTERSECTION**

3/4" = 1'-0"



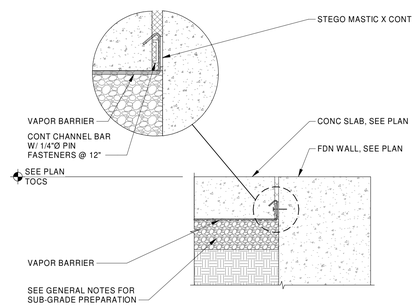
6 S201 **NEW FDN WALL TO EXIST FDN WALL**

REF S101 3/4" = 1'-0"



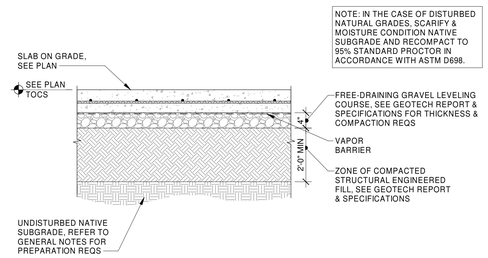
7 S201 **TYP CONC SLAB ON GRADE JOINT**

3/4" = 1'-0"



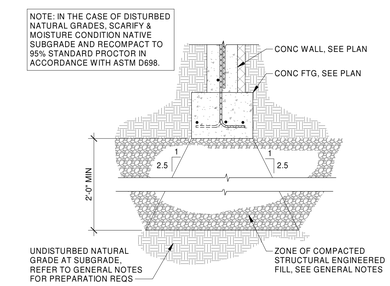
8 S201 **CONC SLAB VAPOR BARRIER TO CONC WALL**

1 1/2" = 1'-0"



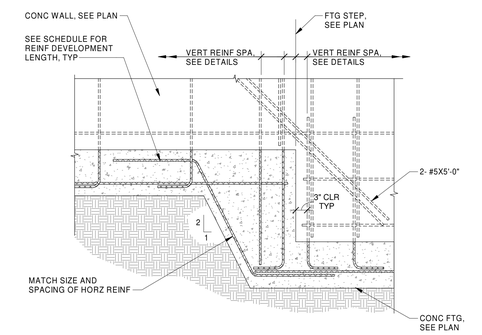
9 S201 **SLAB ON GRADE SUB-BASE & SUBGRADE DETAIL**

3/4" = 1'-0"



10 S201 **FOOTING SUB-BASE & SUBGRADE DETAIL**

3/4" = 1'-0"



11 S201 **FOOTING STEP DETAIL**

3/4" = 1'-0"

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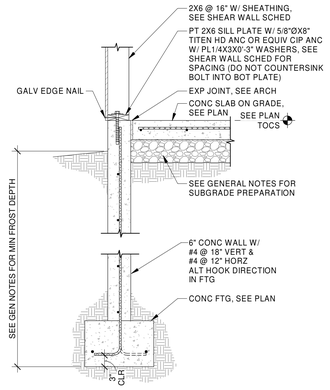
08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN
REVISIONS

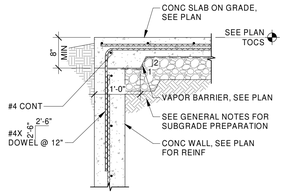
STRUCTURAL FOUNDATION DETAILS

S201



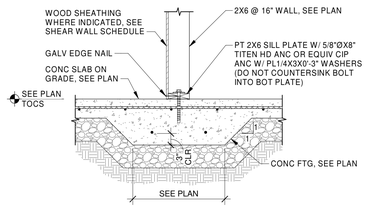
1 S202 **STEM WALL W/ SLAB EQUAL TOW**

REF S101 3/4" = 1'-0"



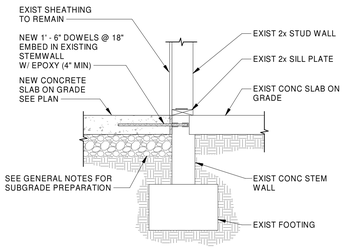
2 S202 **CONC SLAB POUR OVER AT WALL OPENING**

REF S101 3/4" = 1'-0"



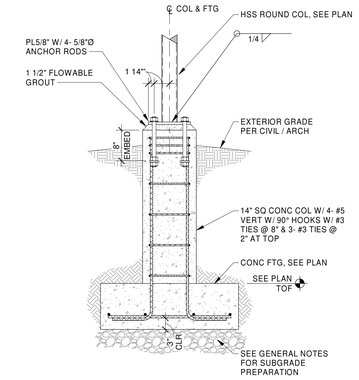
3 S202 **THICKENED SLAB FTG**

REF S101 3/4" = 1'-0"



4 S202 **EXISTING FOOTING CONNECTION**

REF S101 3/4" = 1'-0"



5 S202 **CONC PIER W/ STEEL COL**

REF S101 3/4" = 1'-0"

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08.27.2025

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SITKA PATIENT HOUSING EXPANSION

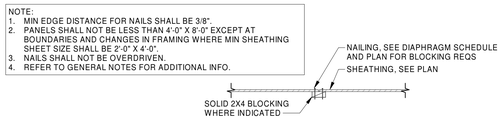
CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN

REVISIONS

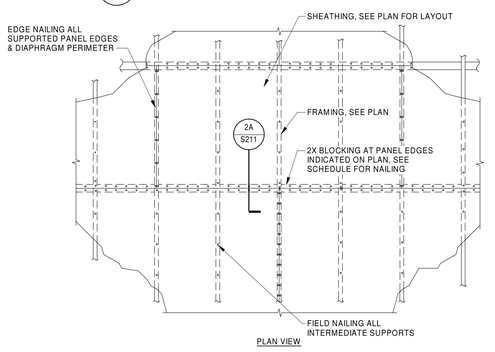
STRUCTURAL FOUNDATION DETAILS

S202



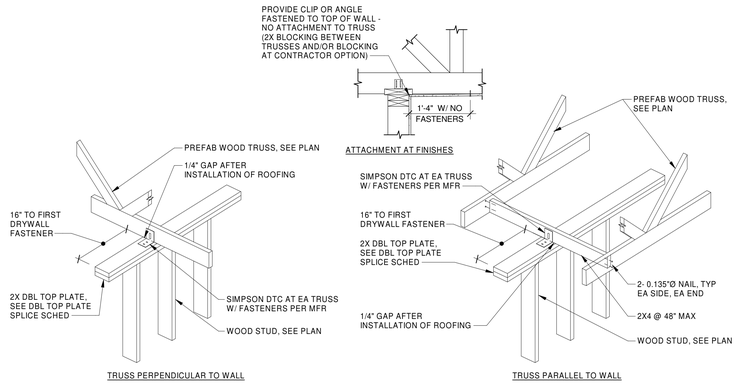
1 S211 DIAPHRAGM SHEATHING ATTACHMENT

3/4" = 1'-0"



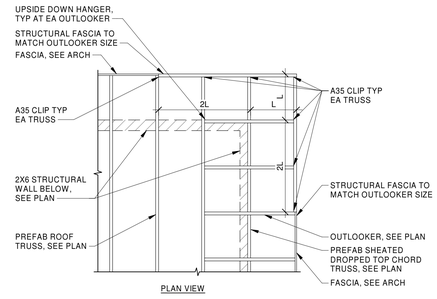
2 S211 PREFAB WOOD TRUSS AT NON-BEARING WALL

3/4" = 1'-0"



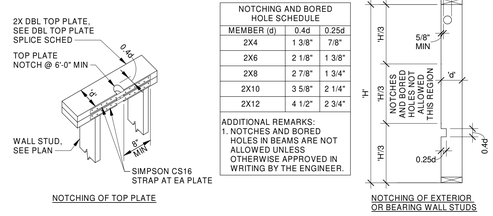
3 S211 TYPICAL TRUSS OUTLOOKER

3/8" = 1'-0"



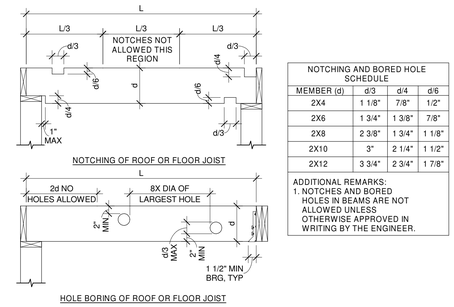
4 S211 ALLOWABLE PENETRATIONS IN WOOD STUD FRAMING

3/4" = 1'-0"



5 S211 ALLOWABLE PENETRATIONS IN SAWN LUMBER JOISTS

3/4" = 1'-0"



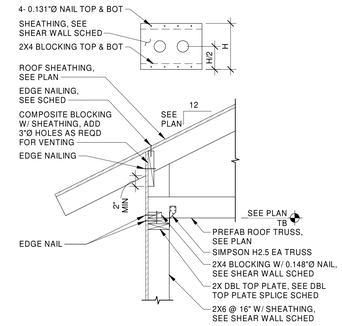
NOTCHING AND BORED HOLE SCHEDULE

MEMBER (d)	d/3	d/4	d/6
2X4	1 1/8"	7/8"	1/2"
2X6	1 3/4"	1 3/8"	7/8"
2X8	2 3/8"	1 3/4"	1 1/8"
2X10	3"	2 1/4"	1 1/2"
2X12	3 3/4"	2 3/4"	1 7/8"

ADDITIONAL REMARKS:
1. NOTCHES AND BORED HOLES IN BEAMS ARE NOT ALLOWED UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.

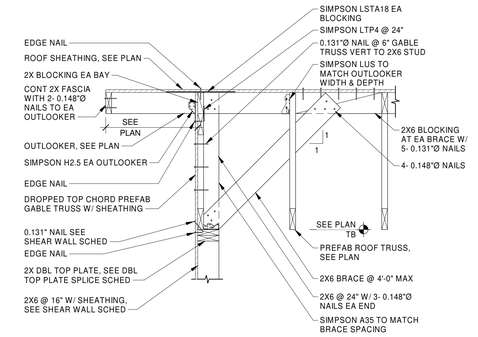
6 S211 PREFAB ROOF TRUSS AT BEARING WALL

REF S101 3/4" = 1'-0"



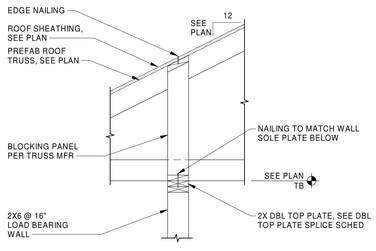
7 S211 PREFAB ROOF TRUSS PARALLEL BRACED

REF S101 3/4" = 1'-0"



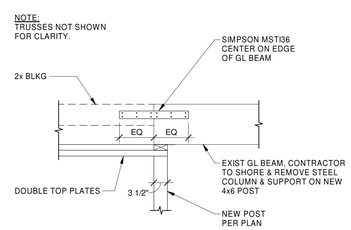
8 S211 INT LOAD BEARING WALL PERP PREFAB ROOF TRUSS

REF S101 3/4" = 1'-0"



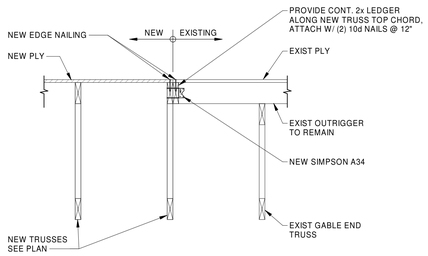
9 S211 (E) GL BEAM CONNECTION

REF S101 3/4" = 1'-0"



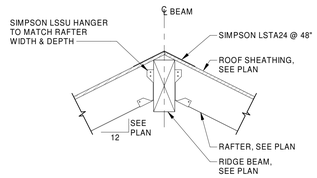
10 S211 NEW TO EXISTING TRUSS ATTACHMENT

REF S101 3/4" = 1'-0"



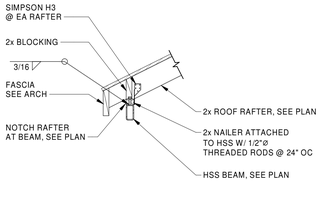
11 S211 RIDGE BEAM W/ HANGERED 2X RAFTER

REF S101 3/4" = 1'-0"



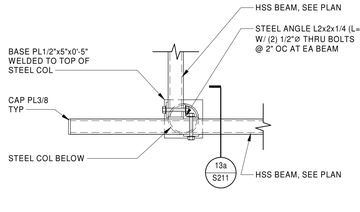
12 S211 ROOF EAVE DETAIL AT CANOPY

REF S101 3/4" = 1'-0"



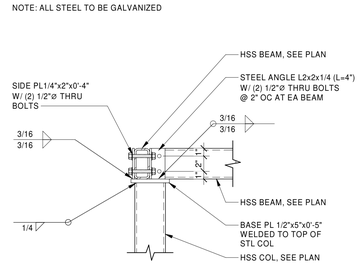
13 S211 CANOPY STEEL DETAIL

REF S101 1 1/2" = 1'-0"



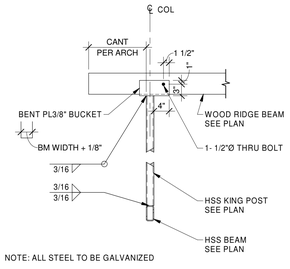
13a S211 SECTION VIEW

REF S211 1 1/2" = 1'-0"



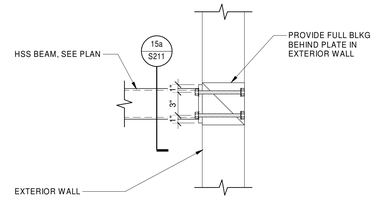
14 S211 CANOPY STEEL DETAIL

REF S101 3/4" = 1'-0"



15 S211 CANOPY STEEL DETAIL

REF S101 1 1/2" = 1'-0"



NOTE: ALL STEEL TO BE GALVANIZED

15a S211 SECTION VIEW

REF S211 1 1/2" = 1'-0"

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

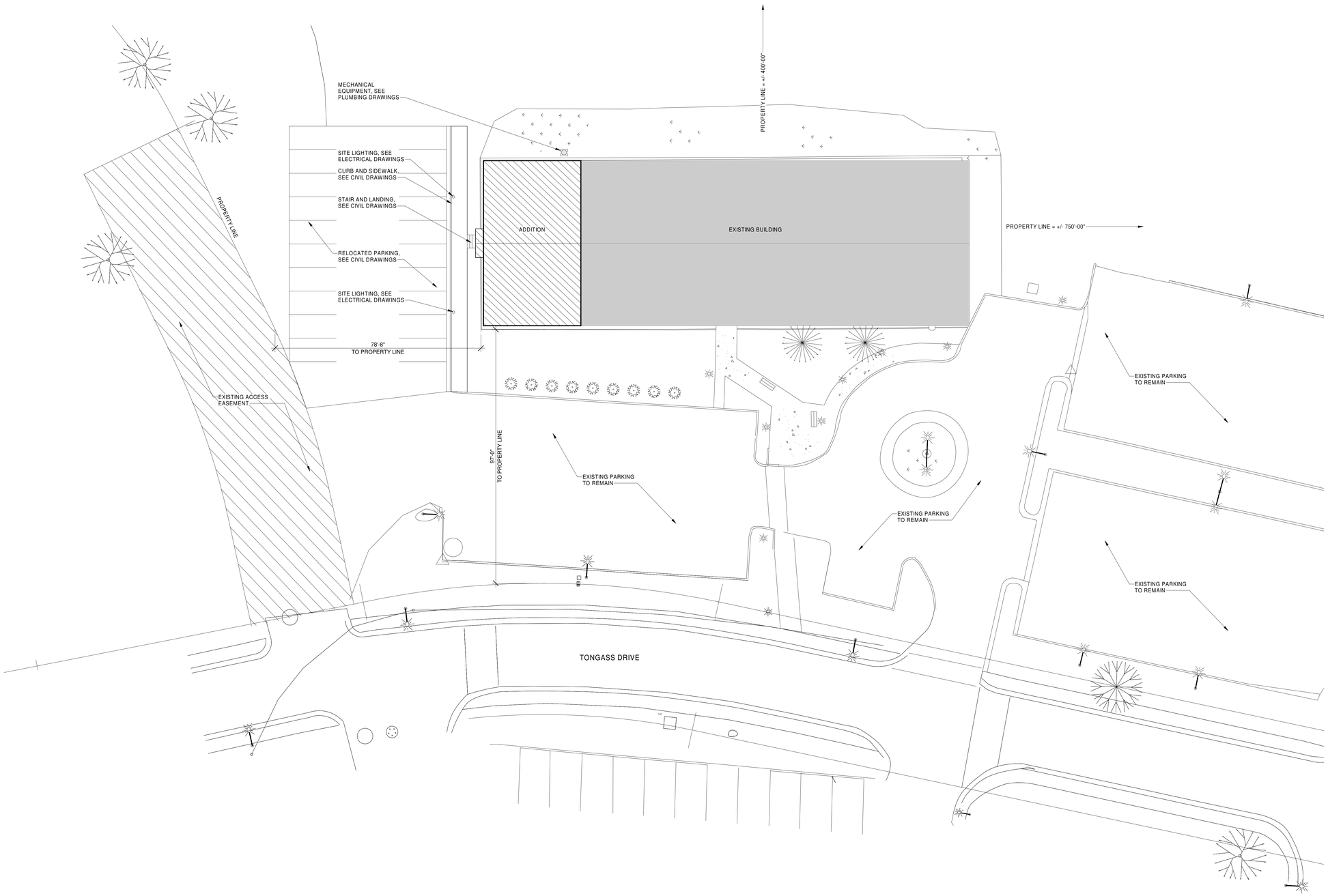
CONSTRUCTION DOCUMENTS

PROJ# | SEARHC_SITKAPH
DESIGNED BY | MENGSTU
DRAWN BY | TUTTY
REVIEWED BY | FELDMAN
REVISIONS

STRUCTURAL FRAMING DETAILS

S211

Cushing Terrell.
cushingterrell.com
800.757.9522



1 AS100 ARCHITECTURAL SITE PLAN
1/16" = 1'-0"

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA
THOMAS M. CALLA
No. 10226
REGISTERED PROFESSIONAL ARCHITECT

8.28.2025

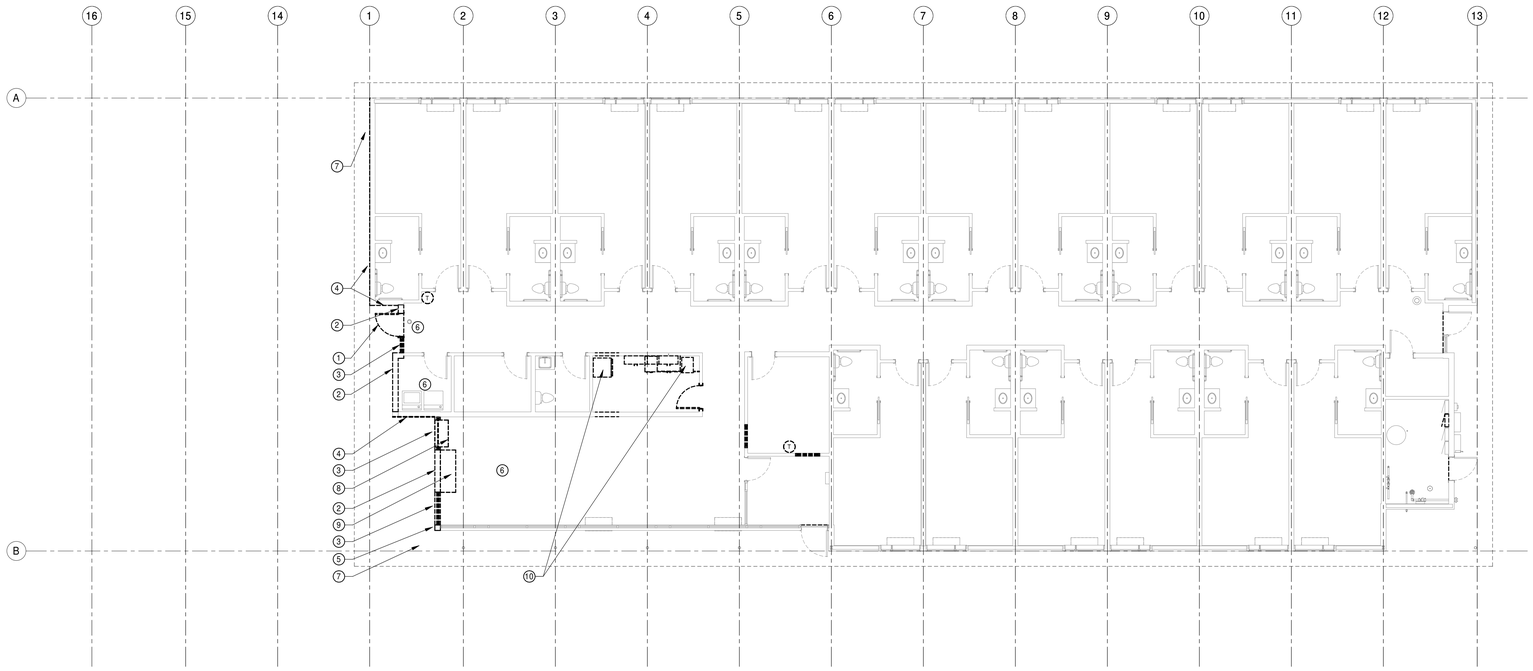
CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA

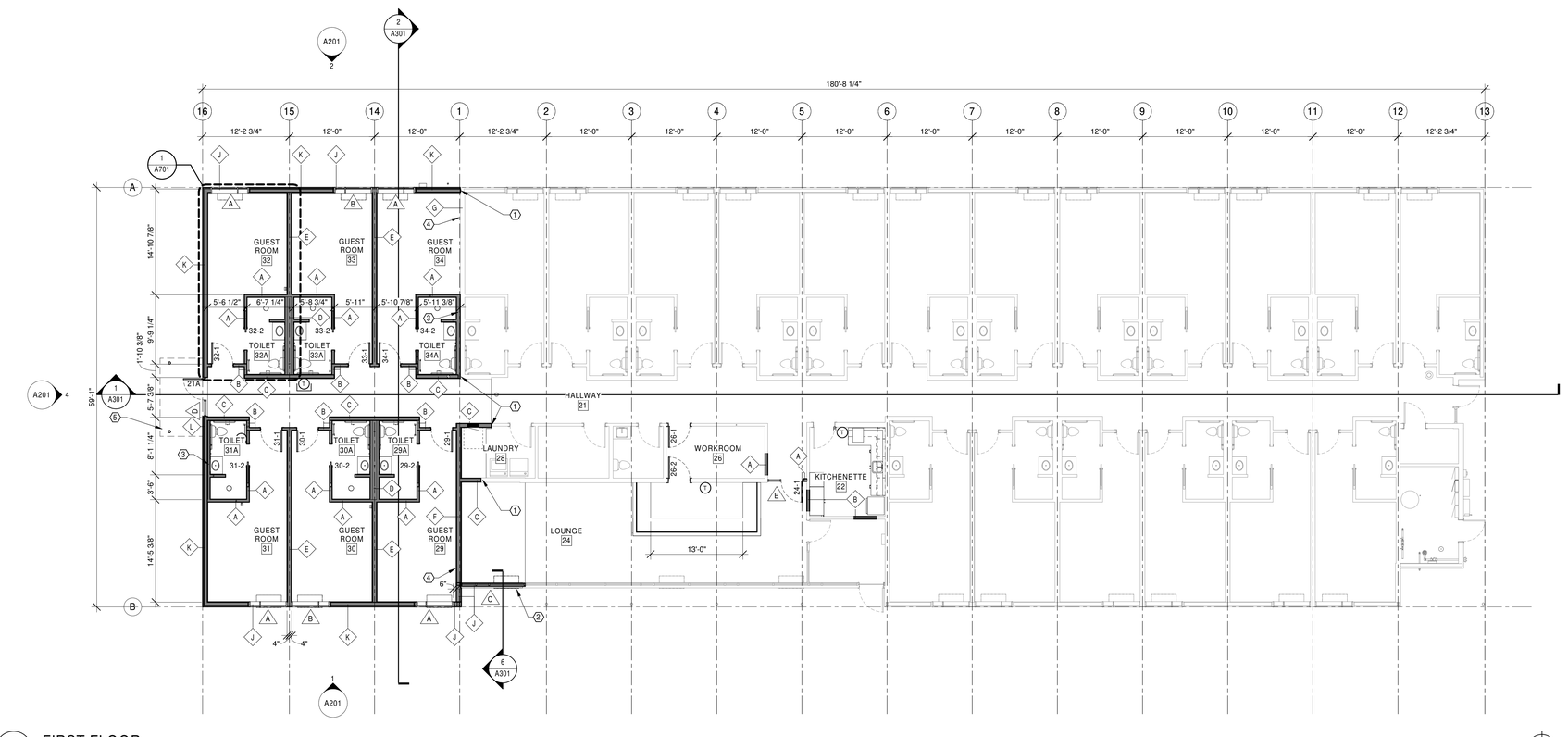
REVISIONS

ARCHITECTURAL SITE PLAN

AS100



1 A101 — FIRST FLOOR DEMO PLAN
1/8" = 1'-0"



2 A101 — FIRST FLOOR
1/8" = 1'-0"

PLAN LEGEND

- W## — ASSEMBLY TYPE (SEE ASSEMBLIES SHEET) / ASSEMBLY MODIFIER, PER TYPE
- NAME / 101 — ROOM NAME AND NUMBER
- X — WINDOW TYPE (SEE A600s)
- (X) — KEYNOTE
- (X) — DEMO NOTE
- SIM / 1 / X000 — DIRECTION OF VIEW, IF APPLICABLE / DRAWING NUMBER / SHEET WHERE DRAWN
- 101-1 — DOOR NUMBER (SEE SHEET A601)
- DIMENSION TO FACE OF FRAMING
- DIMENSION TO GRID LINE
- DIMENSION TO CENTER LINE

DEMO GENERAL NOTES

A. THESE DRAWINGS ARE BASED UPON EXISTING DRAWINGS AND SITE OBSERVATIONS. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING THE WORK.
B. THIS PLAN REPRESENTS ARCHITECTURAL DEMOLITION. IT'S PURPOSE IS TO GRAPHICALLY DEPICT MAJOR ASSEMBLIES THAT MUST BE REMOVED BY THE CONTRACTOR IN ORDER TO ALLOW FOR INSTALLATION OF THE REPROGRAMMED SPACE AND NEW ASSEMBLIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE EXACT LOCATION AND EXTENT OF THESE FINISHES AND ASSEMBLIES. QUANTITY TAKE-OFF MUST BE FIELD VERIFIED. COORDINATE DEMOLITION WITH BUILD-BACK REQUIREMENTS SHOWN ON DRAWINGS AND AS SPECIFIED.
C. SEE FLOOR PLANS AND DETAILS FOR BUILD-BACK OF ASSEMBLIES.
D. COORDINATE WITH STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
E. OWNER SHALL REMOVE AND SALVAGE ALL WALL MOUNTED EQUIPMENT IN ALL SPACES WITH DEMOLITION WORK.
F. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING CONTINUOUS ACCESS TO ENTRIES AND LIFE SAFETY EXITS FOR THE OCCUPANTS AT ALL TIMES. SEE LIFE SAFETY PLANS FOR CODE REQUIREMENTS OF EXISTING BUILDING TO REMAIN.
G. PATCH AND REPAIR ALL WALL FINISHES, FLOOR FINISHES, AND CEILING FINISHES WHERE PARTIAL DEMOLITION OCCURS.
H. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AIR QUALITY, HOUSE ISOLATION, VIBRATION CONTROL, AND UTILITY SUPPORT FOR OCCUPIED AREAS DURING DEMOLITION AND RENOVATION OF THE PROJECT.

(#) DEMO NOTES

1 REMOVE DOOR AND FRAME AND ASSOCIATED HARDWARE.
2 REMOVE PORTION OF WALL AS INDICATED, PREP AREA FOR NEW WORK.
3 REMOVE STOREFRONT SYSTEM.
4 REMOVE EXTERIOR FINISH SYSTEM ONLY, PREP WALL FOR NEW WORK.
5 REMOVE / MODIFY END MULLION AS REQUIRED FOR INSTALL OF NEW MULLION AND GLAZING SYSTEM.
6 EXISTING CEILING TO BE EXTENDED AS REQUIRED FOR NEW WORK.
7 REMOVE / MODIFY SOFFIT AND FASCIA AS REQUIRED FOR NEW ROOF WORK, COORDINATE DEMO EXTENT WITH STRUCTURAL DRAWINGS.
8 REMOVE MECHANICAL UNIT. RETAIN FOR RE-USE AT NEW LOCATION.
9 REMOVE CASEWORK.
10 RETAIN REFRIGERATOR AND ICE MACHINE FOR RE-USE.

GENERAL NOTES

A. VERIFY ALL CONDITIONS AND DIMENSIONS IN FIELD. EXISTING CONDITIONS OF WINDOWS AND OTHER BUILDING ELEMENTS MAY VARY. IF MEASUREMENTS IN FIELD DEVIATE FROM THE DIMENSIONS SHOWN WITHIN THESE DOCUMENTS BY GREATER THAN 6" OR AFFECT DESIGN INTENT COORDINATE AND NOTIFY THE PROJECT ARCHITECT PRIOR TO CONTINUING WORK.
B. COORDINATE OWNER FURNISHED EQUIPMENT, ACCESSORIES, AND FURNITURE WITH OWNER AND/OR OWNER'S VENDOR.
C. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
D. ALL DIMENSIONS ARE TO FACE OF STUD FOR GYPSUM BOARD WALLS OR TO THE FACE OF EXISTING FINISH WALL SURFACE, UNO.
E. ALL DOORS SET WITH 4" STUD RETURN AT HINGE SIDE OF DOOR FRAME TO PERPENDICULAR WALL, UNO.
F. ALL WALLS GO TO UNDERSIDE OF DECK UNO.
G. PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL RESTROOM WALLS, SHOWER ROOM WALLS AND CEILINGS, AND IMMEDIATELY BEHIND ALL SINKS.
H. PROVIDE WOOD BLOCKING IN WALL AS NEEDED FOR ALL MOUNTED EQUIPMENT, CASEWORK, ACCESSORIES, AND HARDWARE. COORDINATE WITH WALL TYPES.
I. ALL TOILET ACCESSORIES TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
J. COORDINATE ALL PENETRATIONS WITH RESPECTIVE TRADES AT BOTH RATED AND NON-RATED WALLS, FLOORS, AND CEILINGS.
K. COORDINATE ALL PLUMBING FIXTURES AND FINAL PLUMBING FIXTURE LOCATIONS WITH PLUMBING DRAWINGS AND SPECIFICATIONS.
L. PROVIDE UNDER LAVATORY GUARD AT ALL LOCATIONS WHERE OPEN KNEE SPACE OCCURS AT SINKS.
M. COORDINATE ALL ELECTRICAL FIXTURES AND FINAL ELECTRICAL FIXTURE LOCATIONS WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS, INCLUDING LIGHT FIXTURES, SWITCHES, AND OUTLETS. ALL RECEPTACLE COVERS SHALL COMPLEMENT WALL COLORS AND FINISHES. CONFIRM FINAL FINISH WITH ARCHITECT.
N. RE A500'S FOR CORNER GUARD AND OTHER WALL PROTECTION LOCATIONS. CORNER GUARDS ARE NOT SHOWN ON ALL ELEVATIONS.
O. FOR ALL CASEWORK DETAILS, REFER TO A.W.I. REFERENCES AND STANDARDS.
P. ALIGN UPPER CABINET SECTIONS WITH BASE CABINET SECTIONS, TYPICAL.
Q. PROVIDE GROMMETS IN ALL WORKSTATION COUNTERTOPS. COORDINATE LOCATIONS WITH DATA AND POWER, RE: ELECTRICAL DRAWINGS.
R. PROVIDE 1" FILLER PANEL AT HINGE SIDE OF CASEWORK WHEN ADJACENT TO WALLS.
S. PROVIDE FINISHED END PANEL AT ALL LOCATIONS WHERE CABINET END IS EXPOSED TO ROOM OR OPEN KNEE SPACE.
T. SEE MATERIALS LIST ON SHEET A501 FOR PRODUCT INFORMATION.
U. SHEET NOTES ARE NOT INTENDED TO BE SEQUENTIAL.

(#) KEYNOTES

1 ALIGN NEW WALL WITH EXISTING. PATCH AND REPAIR EXISTING WALL AS REQUIRED
2 NEW PORTION OF STOREFRONT SYSTEM TO MATCH EXISTING MULLION TYPE, SIZE, LAYOUT, AND FINISH
3 FURR WALL OUT AS REQUIRED FOR PLUMBING FIXTURE INSTALLATION
4 INSTALL ADDITIONAL LAYER OF 5/8" GYPSUM BOARD TO PROVIDE ADDITIONAL SOUND CONTROL AT THIS WALL. 2 TOTAL LAYERS OF 5/8" GYPSUM BOARD THIS SIDE OF WALL. FILL STUD CAVITY WITH SOUND ATTENUATION INSULATION.
5 CANOPY ABOVE AND SUPPORTING COLUMNS. SEE ROOF PLAN AND STRUCTURAL DRAWINGS.

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SITKA PATIENT HOUSING EXPANSION

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

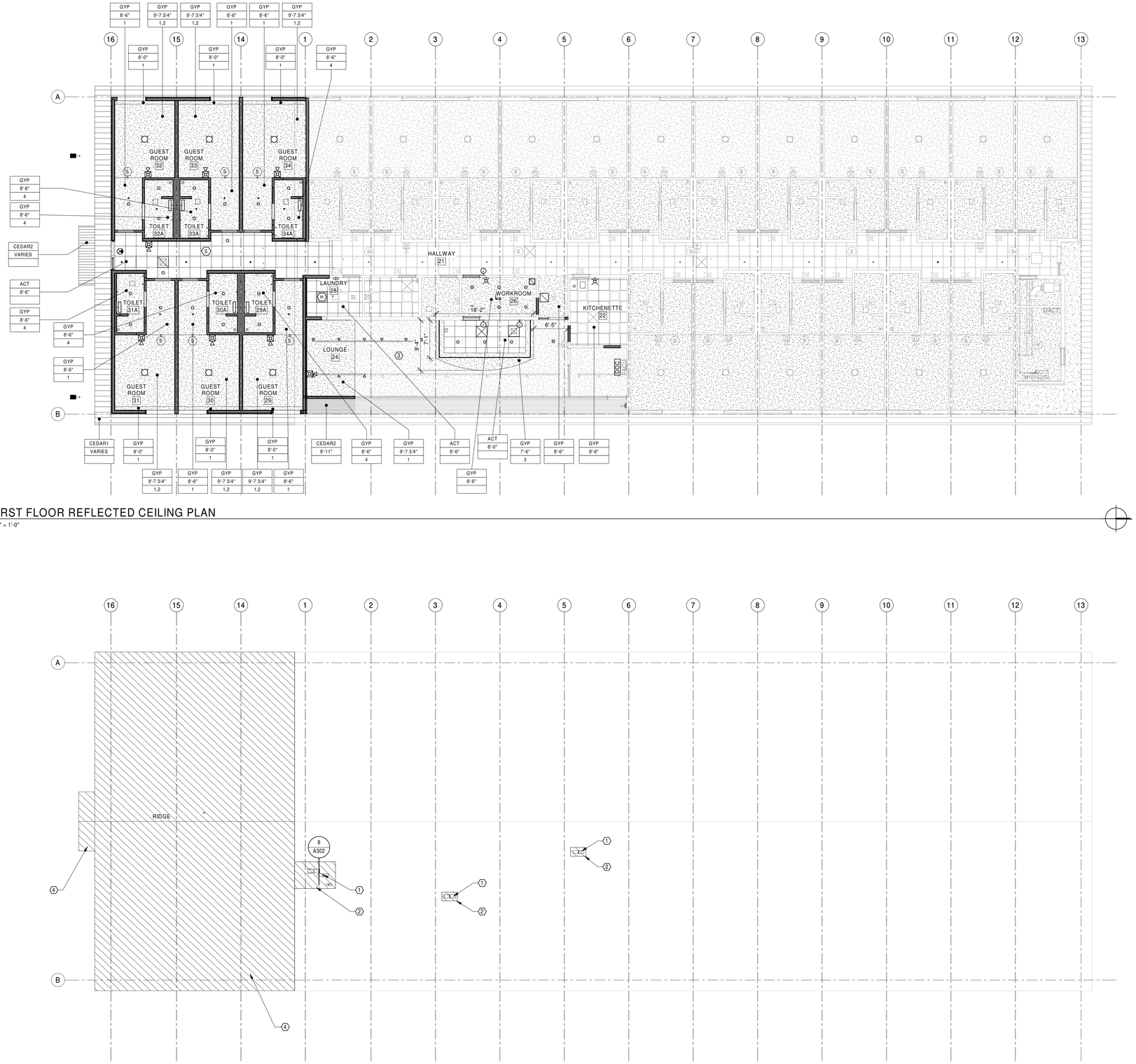
STATE OF ALASKA — 49TH — THOMAS M. CALLA — No. 10226 — REGISTERED PROFESSIONAL ARCHITECT
8.28.2025

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA
REVISIONS

DEMO PLAN AND FIRST FLOOR PLAN

A101



1 A111 FIRST FLOOR REFLECTED CEILING PLAN
1/8" = 1'-0"

2 A111 ROOF
1/8" = 1'-0"

REFLECTED CEILING LEGEND

CEILING MATERIAL — VARIES
CEILING HEIGHT — VARIES
ADDITIONAL NOTES — NOTES

ACT - 2X2 ACOUSTICAL LAY-IN CEILING

GYP - GYPSUM BOARD CEILING - PAINT

CEDAR1 - 1X6 CEDAR BOARDS FINISH TO MATCH EXISTING

CEDAR2 - 1X3 CEDAR BOARDS FINISH TO MATCH EXISTING

LIGHTING - SEE ELECTRICAL

HVAC REGISTERS - SEE MECHANICAL

ADDITIONAL NOTES

1. PAINT GYPSUM CEILING PC1.
2. INSTALL PLYWOOD VALLENCE AT WINDOW WALL. SIZE AND LOCATION TO MATCH EXISTING ROOMS. PAINT TO MATCH WALL FINISH.
3. PAINT GYPSUM CEILING P3.
4. PAINT GYPSUM CEILING EP1.

GENERAL NOTES

A. NEW CONSTRUCTION AND FINISHES TO MATCH EXISTING CONDITIONS. COORDINATE IN FIELD WITH OWNER EXTENT OF NEW TO EXISTING PATCH WORK AND RE-FINISHING.
B. SEE MATERIALS LIST ON SHEET A501 FOR ADDITIONAL INFORMATION.

KEYNOTES

1 THROUGH-ROOF VENTILATION PIPING, SEE MECHANICAL DRAWINGS.
2 PATCH AND REPAIR EXISTING ROOF AS REQUIRED FOR NEW MECHANICAL WORK.
3 PAINT EXISTING CEILING IN THIS ROOM TO MATCH FINISH OF NEW CEILING.
4 ASPHALT ROOF TO MATCH EXISTING.

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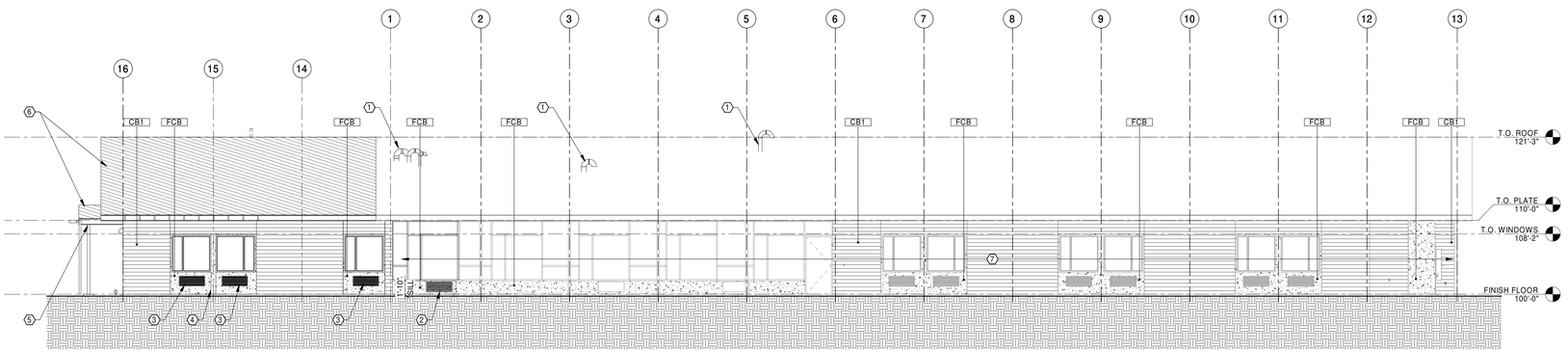
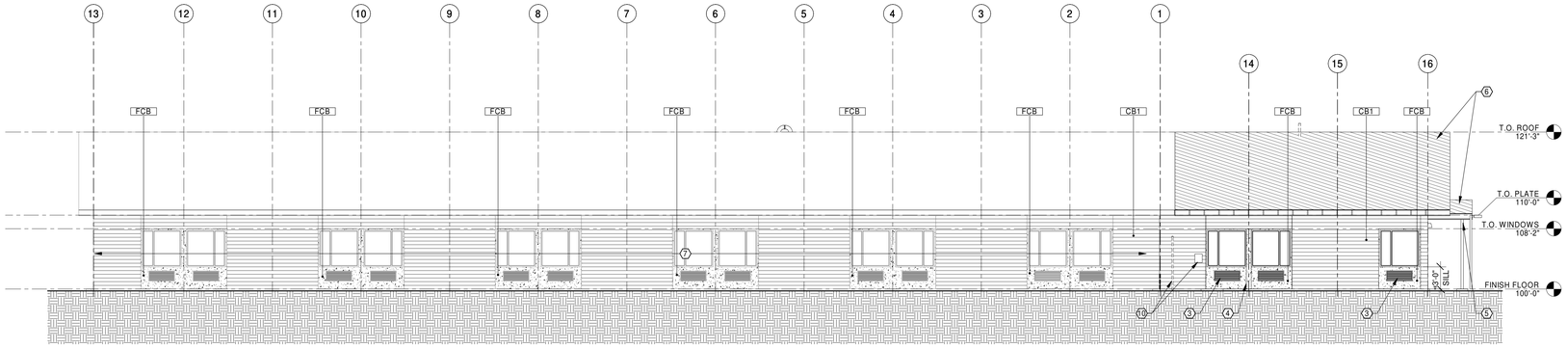
RCP AND ROOF PLAN

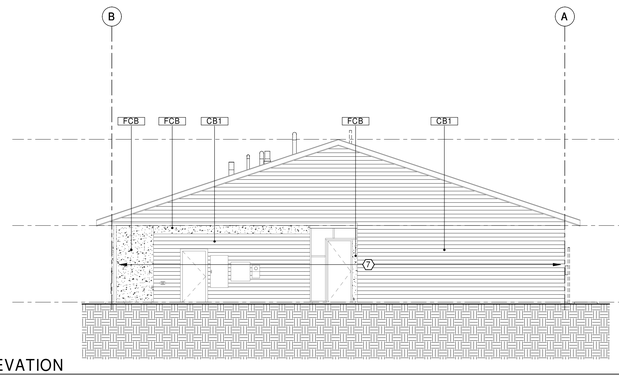
A111



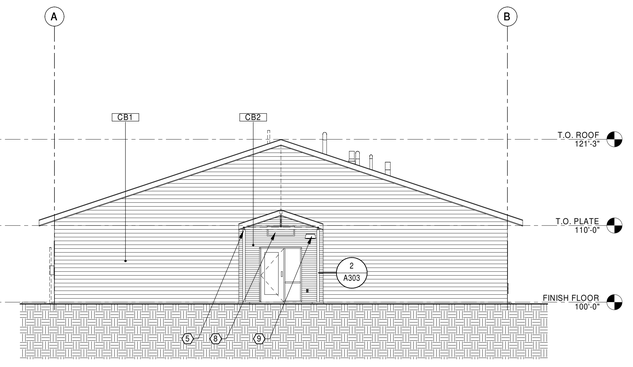
1 A201 EAST ELEVATION
1/8" = 1'-0"



2 A201 WEST ELEVATION
1/8" = 1'-0"



3 A201 NORTH ELEVATION
1/8" = 1'-0"



4 A201 SOUTH ELEVATION
1/8" = 1'-0"

MATERIALS LEGEND

CB1	1X6 CEDAR BOARD SIDING PAINT TO MATCH EXISTING
CB2	1X3 CEDAR BOARD SIDING STAIN TO MATCH EXISITNG
FCB	FIBER CEMENT BOARD PAINT TO MATCH EXISITNG

GENERAL NOTES

A. REPAINT EXTERIOR ENTIRELY. COORDINATE WITH OWNER FOR PAINT COLORS, MATCH EXISTING.
B. ALL EXPOSED MATERIAL FINISHES TO RECEIVE WATER REPELLENT FINISH.

(#) KEYNOTES

1 MECHANICAL THROUGH-ROOF VENT PIPING, SEE MECHANICAL DRAWINGS.
2 THROUGH WALL MECHANICAL UNIT. INSTALL EXISTING LOUNGE UNIT IN THIS LOCATION. SEE MECHANICAL DRAWINGS.
3 THROUGH WALL MECHANICAL UNIT. SEE MECHANICAL DRAWINGS.
4 JOINT AT FIBER-CEMENT PANEL, TYP.
5 CANOPY AND COLUMN, SEE STRUCTURAL DRAWINGS.
6 ASPHALT SHINGLE ROOF TO MATCH EXISTING.
7 REPAINT ENTIRE BUILDING TO MATCH EXISTING.
8 MECHANICAL LOUVER, SEE MECHANICAL DRAWINGS. CENTERED TO DOOR.
9 BUILDING LIGHT, SEE ELECTRICAL DRAWINGS.
10 PLUMBING EQUIPMENT, SEE PLUMBING DRAWINGS.

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EXTERIOR ELEVATIONS

A201

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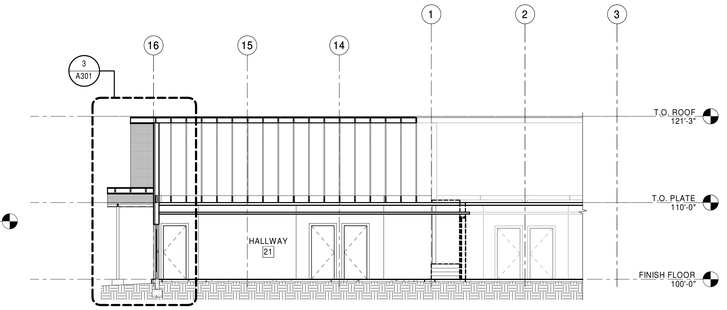
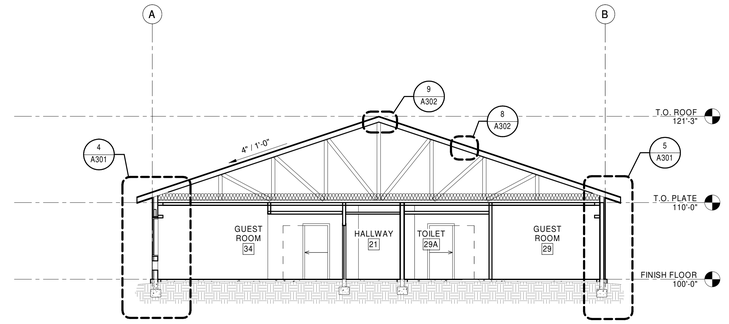
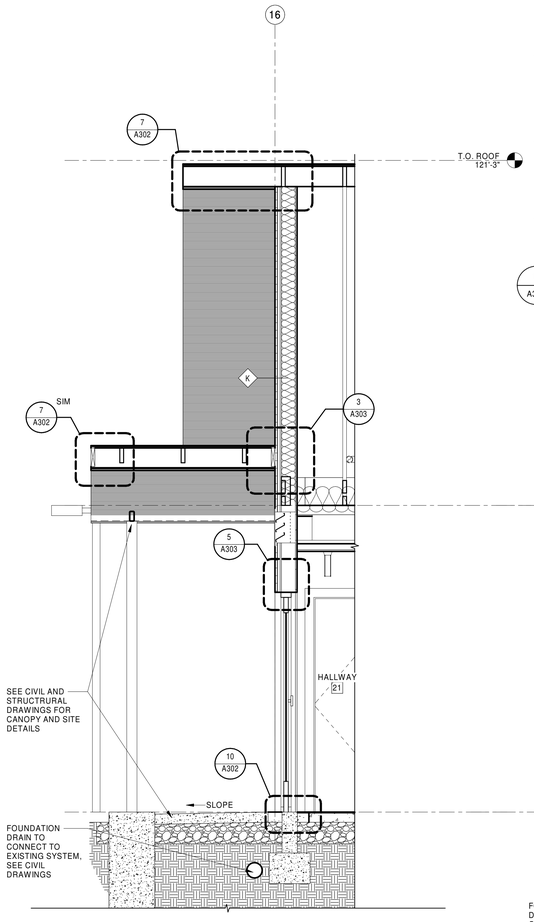


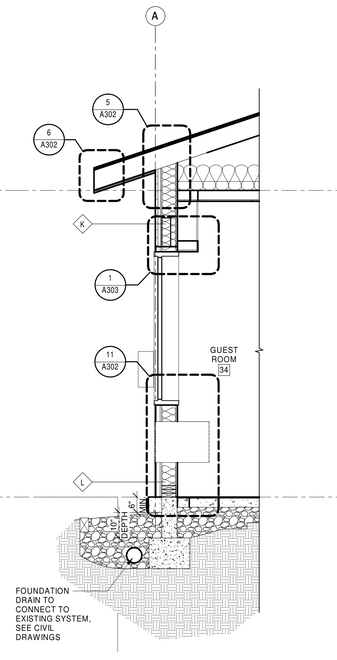
1 A301 BUILDING SECTION 1 - LONGITUDINAL
1/8" = 1'-0"



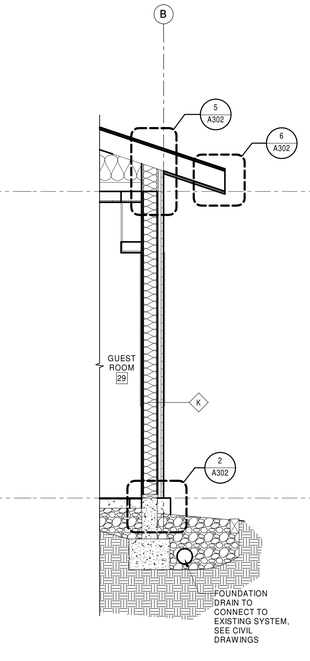
2 A301 BUILDING SECTION 2 - TRANSVERSE
1/8" = 1'-0"



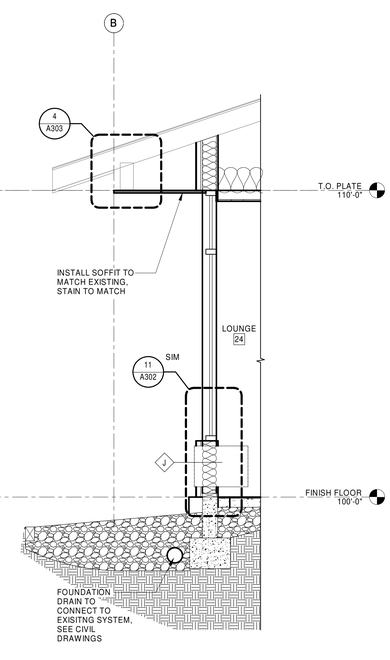
3 A301 WALL SECTION 1
1/2" = 1'-0"



4 A301 WALL SECTION 3
1/2" = 1'-0"



5 A301 WALL SECTION 4
1/2" = 1'-0"



6 A301 WALL SECTION 5
1/2" = 1'-0"

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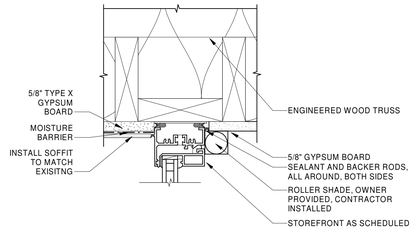
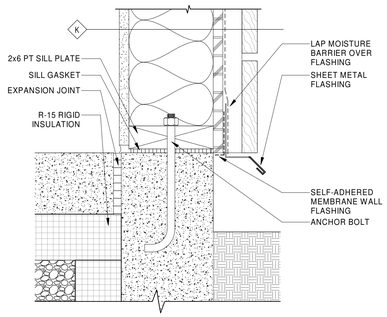
BUILDING SECTIONS & WALL SECTIONS

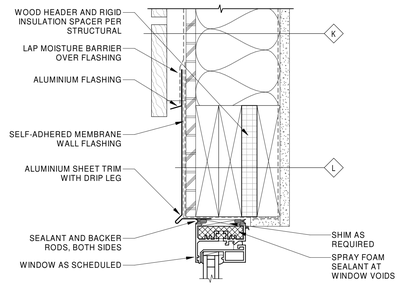
A301



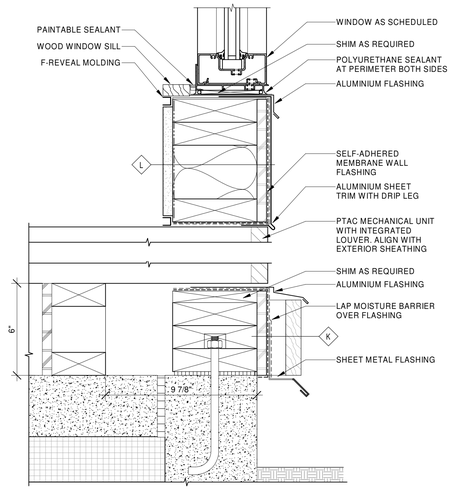
1 A302 STOREFRONT HEAD AND SOFFIT
3" = 1'-0"



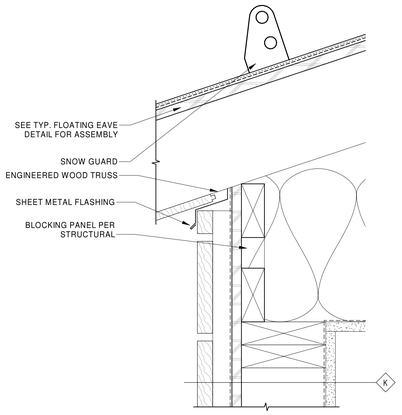
2 A302 CEDAR SIDING AT GRADE
3" = 1'-0"



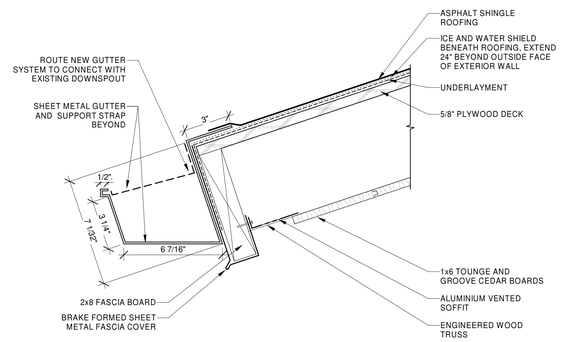
3 A302 WINDOW HEAD AT GUEST ROOM
3" = 1'-0"



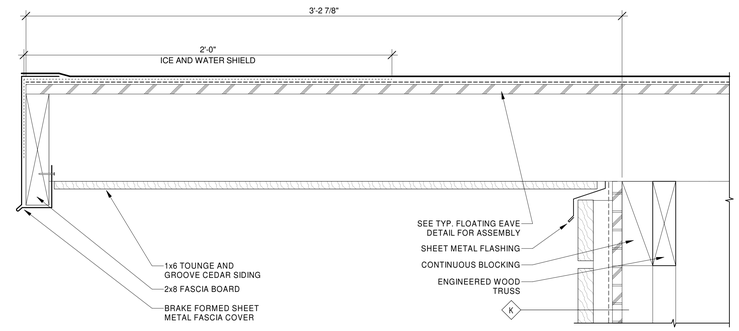
4 A302 WINDOW SILL AND PTAC AT GUEST ROOMS
3" = 1'-0"



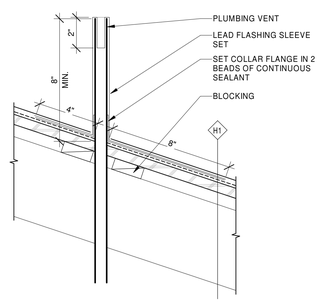
5 A302 TOP OF WALL DETAIL
3" = 1'-0"



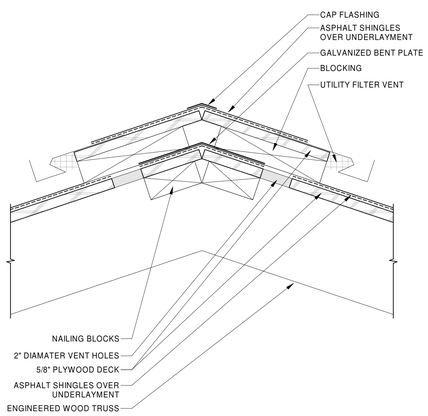
6 A302 TYP. FLOATING EAVE
3" = 1'-0"



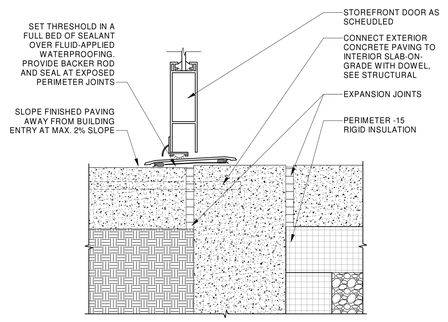
7 A302 RAKE EDGE AND OVERHANG
3" = 1'-0"



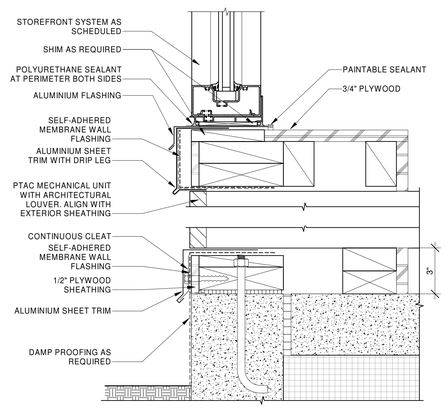
8 A302 TYP. PIPE FLASHING AT ROOF PENETRATION
3" = 1'-0"



9 A302 TYP. FIXED VENTED RIDGE
3" = 1'-0"



10 A302 TYP. SILL AT STOREFRONT DOOR
3" = 1'-0"



11 A302 STOREFRONT SILL AT LOUNGE
3" = 1'-0"

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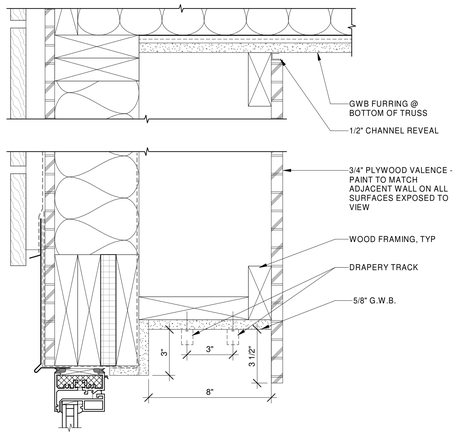
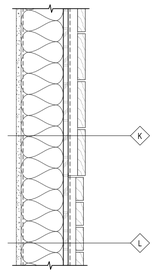
SECTION & ROOF DETAILS

A302



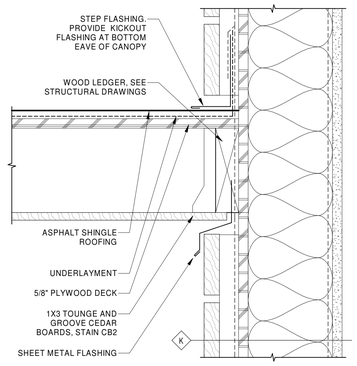
1 A303 DRAPERY POCKET AT GUEST ROOM

3" = 1'-0"



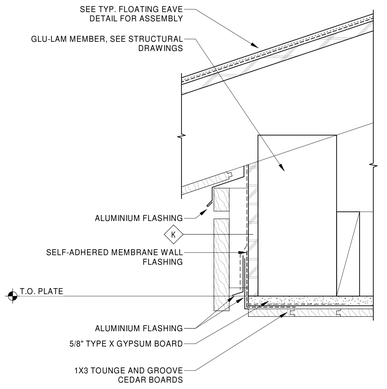
2 A303 JOINTS AT CEDAR SIDING

1 1/2" = 1'-0"



3 A303 AWNING RAKE EDGE AND TIE BACK

3" = 1'-0"



4 A303 SOFFIT TO EAVE CONNECTION

3" = 1'-0"

5 A303 STOREFRONT DOOR HEAD

3" = 1'-0"

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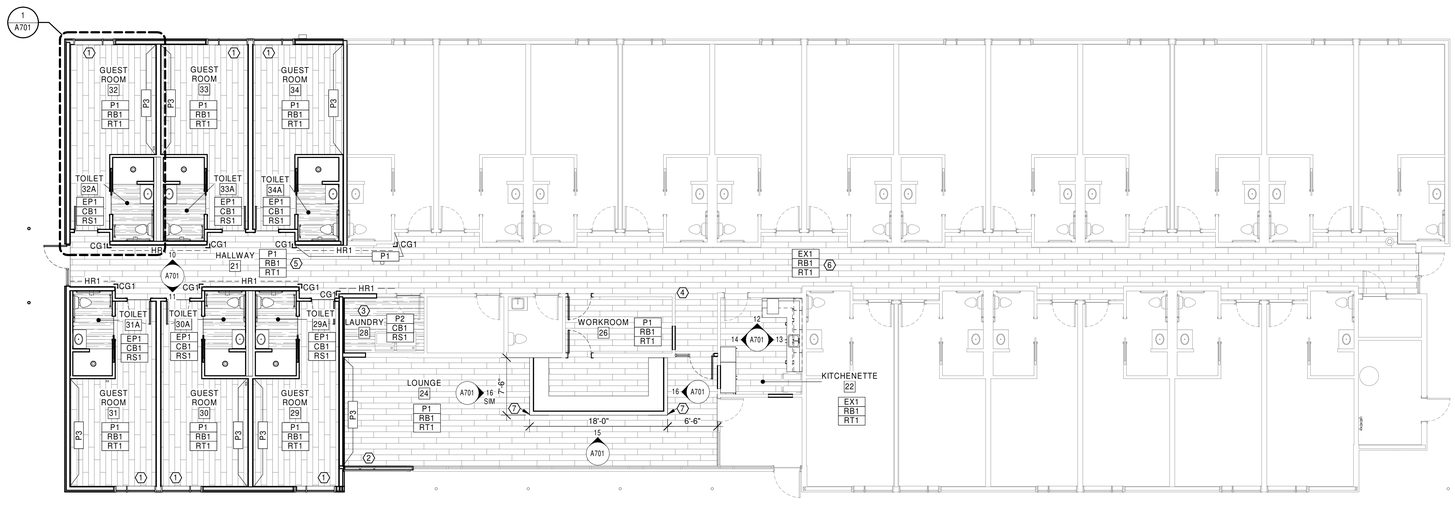
A303

MATERIALS LIST

ITEM NO	PRODUCT TYPE	MANUFACTURER	DESCRIPTION	COLOR	SIZE	NOTES
BASE						
CB1	INTEGRAL COVE BASE		SAME MATERIAL AS FLOORING			INSTALL WITH COVE REINFORCEMENT TRIM AND METAL CAP. HEAT WELD SEAMS
RB1	RESILENT BASE	ROPPE	PINNACLE STANDARD TOE	P129 DOLPHIN	4"	
CEILING						
ACT	ACOUSTIC CEILING TILE	ARMSTRONG	ULTIMA FINE TEXTURE - VECTOR EDGE	WHITE	24"X24"	INSTALL WITH WHITE 15/16" GRID
PC1	PAINTED CEILING	SHERWIN WILLIAMS		SNOWBOUND 7004		FLAT FINISH, LOW VOC
FLOOR						
RS1	RESILIENT SHEET	SHAW	TATAMI SHEET	COLOR TO BE SELECTED FROM MANUFACTURERS FULL RANGE	6'-6" WIDE ROLL	HEAT WELD SEAMS W/ MANUFACTURERS MATCHING WELD ROD
RT1	RESILIENT FLOORING	MOHAWK	HOT AND HEAVY II	COLOR TO BE SELECTED FROM MANUFACTURERS FULL RANGE	7"x48", 2.5mm	1/3 OFF SET INSTALL, LOOSE LAY WITH PERIMETER GLUE
GENERAL						
EX1	EXISTING TO REMAIN					
MILLWORK						
PL1	PLASTIC LAMINATE	WILSONART		WHITE RIVER FOREST 8227		
SS1	SOLID SURFACE	CORAIN		SERENE SAGE	1/4" ROUNDED EDGE, 2CM THICK	
SS2	SOLID SURFACE	FORMICA		BIANCO MINERAL 758	1/2" THICK	
MISC.						
DR1	DRAPERY	FABRICUT	CLUNY FR ONE	SILVER	54"	INSTALL WITH TWO TRACKS PARALLEL, ONE FOR DR1 AND ONE FOR DR2. DR1 TO BE INSTALLED ON THE ROOM-SIDE. FABRIC TO BE PRE-FINISHED WITH BLACKOUT MATERIAL AND READY FOR INSTALL.
DR2	DRAPERY	P/KAUFMANN	QUICK SHIP SHEERS, STREAMING SHEER	WHITE 001M		INSTALL WITH TWO TRACKS AND RUN PARALLEL, ONE FOR DR1 AND ONE FOR DR2. DR2 TO BE INSTALLED ON WINDOW SIDE.
GL1	GLAZING SYSTEM	FHC	TEMPERED GLASS WITH 2.5" U CHANNEL AT TOP, 1/2" U CHANNEL AT BOTTOM	SATIN ANODIZED	SEE DRAWINGS	1/4" THICK TEMPERED GLASS. BUTT JOINT SEAMS, SEAL WITH CLEAR SILICONE.
GL2	GLAZING SYSTEM	FHC	SHANNON FRAMELESS PASS-THRU WINDOW OXXO	SATIN ANODIZED	SEE DRAWINGS	1/4" THICK TEMPERED GLASS. INCLUDE LOCK
WS1	WINDOW SHADE	NYSAN SHADING SYSTEM	GREEN SCREEN ECO 3%	CHARCOAL BRONZE		INSTALLATION METHOD AND HARDWARE TO MATCH EXISTING.
WALL						
EP1	EPOXY PAINT	SHERWIN WILLIAMS	S-W PRO INDUSTRIAL WATERBASED CATALYZED EPOXY, B73 SERIES	SNOWBOUND 7004		EGGSHELL FINISH, LOW VOC
P1	PAINT	SHERWIN WILLIAMS	PROMAR 200 B20-1950 SERIES	SNOWBOUND 7004		EGGSHELL FINISH, LOW VOC
P2	PAINT	SHERWIN WILLIAMS	PROMAR 200 B20-1950 SERIES	SILVERPOINTE 7653		EGGSHELL FINISH, LOW VOC
P3	PAINT	SHERWIN WILLIAMS	PROMAR 200 B20-1950 SERIES	COLOR TO MATCH BENJAMIN MOORE AURA INTUITION CSP-610		EGGSHELL FINISH, LOW VOC
P4	PAINT	SHERWIN WILLIAMS	PRO INDUSTRIAL ACRYLIC, B66-650 SERIES	COLOR AND SHEEN TO MATCH EXISTING DOOR FRAMES.		SEMI GLOSS FINISH, LOW VOC
WALL PROTECTION						
CG1	CORNER GUARD	INPRO	160 HIGH IMPACT CORNER GUARD	COLOR TO BE SELECTED	2"X2"	MATCH HEIGHT AND COLOR OF EXISTING CORNER GUARDS
FRP1	FIBERGLASS REINFORCED PANEL	CRANE COMPOSITES	GLASBORD, EMBOSSED FINISH	WHITE	4' X 8' SHEET	INSTALL WITH MANUFACTURERS MATCHING TRIM FOR COMPLETE INSTALLATION
HR1	HANDRAIL	GC PROVIDED	WOOD HANDRAIL W/ STAINLESS STEEL BRACKET	STAIN TO MATCH EXISTING	1-1/2" DIA.	



1 / A501 FIRST FLOOR FINISH PLAN

1/8" = 1'-0"

FINISH PLAN LEGEND

NAME 101 — ROOM NAME AND NUMBER

A8## # — INTERIOR ELEVATION CALLOUT AND DIRECTION OF ELEVATION VIEW

XX### — FINISH TAG

XX### — EXTENT OF ACCENT PAINT OR WALL FINISHES

FINISH TAGS DISPLAYED IN GROUPING ON FINISH PLAN REPRESENT MAJORITY ROOM FINISH SELECTIONS. ORDER OF GROUPING DEFINED IN EXAMPLE BELOW:

XX### — MAJORITY WALL FINISH
XX### — MAJORITY BASE FINISH
XX### — MAJORITY FLOOR FINISH

— LOCATION AND TYPE OF CORNER GUARDS

HR1 — HANDRAIL LOCATION

FLOOR FINISH 'RT1'

FLOOR FINISH 'RS2'

GENERAL FINISH NOTES

A. VERIFY ALL CONDITIONS AND DIMENSIONS IN FIELD. EXISTING CONDITIONS OF WINDOWS AND OTHER BUILDING ELEMENTS MAY VARY. IF MEASUREMENTS IN FIELD DEVIATE FROM THE DIMENSIONS SHOWN WITHIN THESE DOCUMENTS BY GREATER THAN 6" OR AFFECT DESIGN INTENT COORDINATE AND NOTIFY THE PROJECT ARCHITECT PRIOR TO CONTINUING WORK.
B. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
C. ALL PRODUCTS ARE TO BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS, USING MANUFACTURER'S ADHESIVES, TOOLS, AND METHODS.
D. REFER TO MANUFACTURERS SPECIFICATIONS FOR ALL FINISH MATERIAL PRODUCT INFORMATION.
E. COORDINATE ALL OWNER FURNISHED EQUIPMENT, ACCESSORIES, AND FURNITURE WITH OWNER AND/OR OWNER'S VENDOR.
F. ALL FLOOR TRANSITIONS ARE TO OCCUR DIRECTLY BENEATH DOORS OR CENTERED IN OPENING UNLESS NOTED OTHERWISE.
G. ALL FLOOR TRANSITIONS ARE TO BE ADA COMPLIANT.
H. REFER TO FINISH PLAN FOR LOCATION OF CORNER GUARDS. ALL CORNER GUARDS ARE TO BE INSTALLED WITH BOTTOM OF CORNER GUARD AT TOP OF WALL BASE.
I. ALL GYPSUM WALLS TO BE PAINTED 'P1' UNLESS OTHERWISE NOTED.
J. ALL GYPSUM CEILINGS AND SOFFITS TO BE PAINTED 'P1' UNLESS OTHERWISE NOTED ON REFLECTED CEILING PLAN.
K. ALL HOLLOW METAL FRAMES TO BE PAINTED 'P4' UNLESS OTHERWISE NOTED.
L. ALL METAL ACCESS PANELS, COVER PLATES, VENTS, AND GRILLES TO BE PAINTED TO MATCH THE SURFACE IT IS LOCATED ON.
M. ALL WINDOW TREATMENTS ARE TO BE FIELD MEASURED AND INSTALLED WITH ALL COMPONENTS.

(#) KEYNOTES

1 INSTALL DRAPERY 'DR1' AND 'DR2' AT EXTERIOR WINDOW.
2 INSTALL WINDOW SHADE 'WS1' AT EXTERIOR WINDOW.
3 INSTALL WALL PROTECTION 'FRP1' ON NEW WALLS. HEIGHT TO MATCH EXISTING WALL PROTECTION.
4 REINSTALL EXISTING CORNER GUARDS.
5 HANDRRAIL IN THIS ROOM.
6 MATCH AND PAINT WALLS AS NEEDED.
7 3" RADIUS CORNER.

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SITKA PATIENT HOUSING EXPANSION

201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)

STATE OF ALASKA — THOMAS M. CALLA — No. 10226 — REGISTERED PROFESSIONAL ARCHITECT

8.28.2025

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | DUNBAR
DRAWN BY | STARMAN
REVIEWED BY | CALLA

REVISIONS

FINISH PLANS, SCHEDULES & DETAILS

A501

DOOR, FRAME AND HARDWARE SCHEDULE

DOOR NUMBER	ROOM NUMBER	ROOM NAME	DOOR						FRAME			FIRE RATING	HARDWARE
			SIZE			MTL	TYPE	GLAZE	MTL	TYPE	NOTES		NOTES
			W	H	T								
21A	21	HALLWAY	3'-0"	7'-0"	1 3/4"	ALUM	FG	T	ALUM	D			1, 2, 3, 4
24-1	24	LOUNGE	3'-0"	7'-0"	1 3/4"	ALUM	FG	T	ALUM	E			1, 2, 3, 4
26-1	26	WORKROOM	3'-0"	7'-0"	1 3/4"	WD	SL		HM	F			1, 3, 8
26-2	26	WORKROOM	3'-0"	7'-0"	1 3/4"	WD	SL		HM	F			1, 3, 8
29-1	29	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
29-2	29A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7
30-1	30	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
30-2	30A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7
31-1	31	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
31-2	31A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7
32-1	32	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
32-2	32A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7
33-1	33	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
33-2	33A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7
34-1	34	GUEST ROOM	3'-0"	7'-0"	1 3/4"	WD	F		HM	F		20M	1, 3
34-2	34A	TOILET	3'-0"	7'-0"	1 3/4"	WD	FP		HM	F	POCKET DOOR / FRAME		5, 6, 7

DOOR SCHEDULE INFORMATION

GENERAL NOTES

1. WINDOW PERFORMANCE INFORMATION:
   U-FACTOR = 0.34
   SOLAR HEAT GAIN COEFFICIENT = 0.28
2. ALL GLAZING SHALL BE CERTIFIED AND LABELED WITH ITS U-FACTOR AND SOLAR HEAT GAIN COEFFICIENT BY AN INDEPENDENT AGENCY LICENSED BY THE NFRC
3. ALL DIMESNIONS SHOWN ARE SUBJECT TO FIELD VERIFICATION.
4. UNLESS OTHERWISE NOTED, PAINT HM DOOR FRAMES TO MATCH WALL.
5. ALL DOOR, FRAME, HARDWARE, AND ASSOCIATED ITEMS TO MATCH EXISTING FACILITY. GC TO VERIFY EXISTING CONDITIONS IN FIELD TO MATCH.

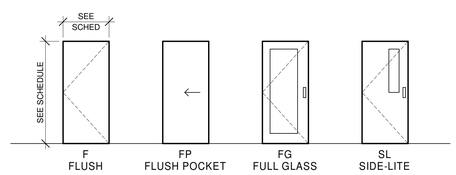
ABBREVIATIONS

AL ALUMINUM
HM HOLLOW METAL
T TEMPERED GLAZING
WD WOOD

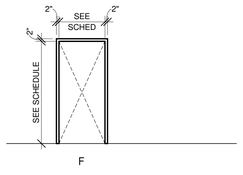
HARDWARE NOTES

1. KEY CARD ACCESS
2. PANIC HARDWARE
3. DOOR CLOSER
4. REF. WINDOW ELEVATION FOR FRAME INFORMATION
5. UNDERCUT DOOR 3/4"
6. U-SHAPED HANDLE - MATCH EXISTING GUEST ROOM DOOR PULLS
7. POCKET DOOR FRAME AND TRACK ASSEMBLY
8. UNDERCUT DOOR 1"

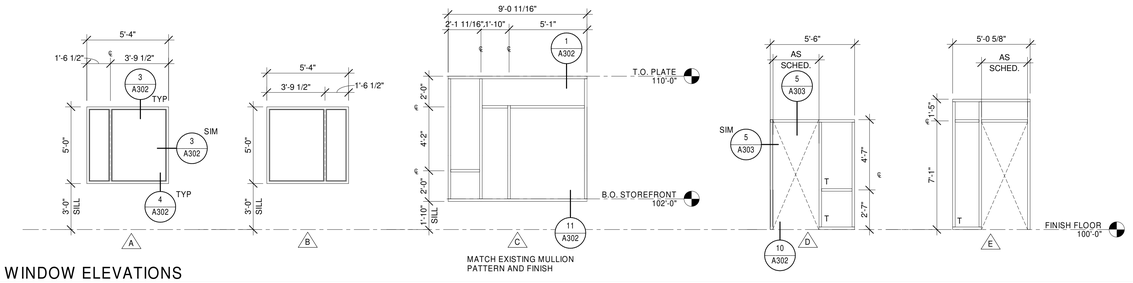
DOOR ELEVATIONS



HOLLOW METAL FRAME



WINDOW ELEVATIONS



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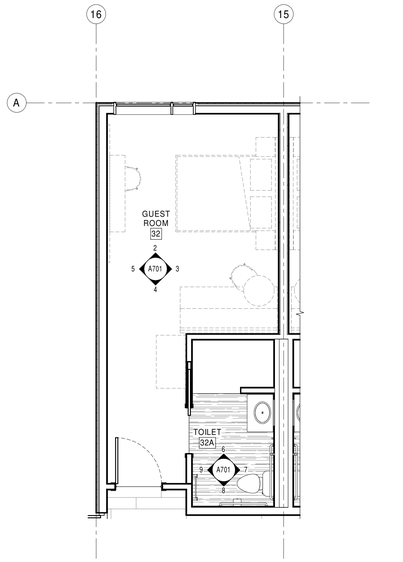
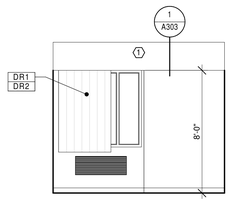
DOOR AND WINDOW SCHEDULES AND DETAILS

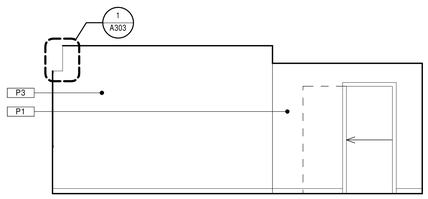
A601



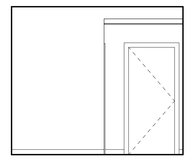
1 A701 TYP. GUEST ROOM ENLARGED PLAN
1/4" = 1'-0"



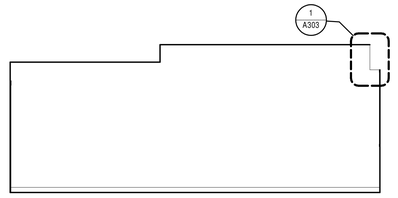
2 A701 GUEST ROOM - WEST
1/4" = 1'-0"



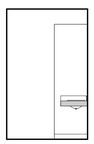
3 A701 GUEST ROOM - NORTH
1/4" = 1'-0"



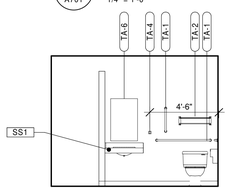
4 A701 GUEST ROOM - EAST
1/4" = 1'-0"



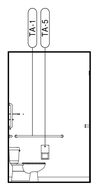
5 A701 GUEST ROOM - SOUTH
1/4" = 1'-0"



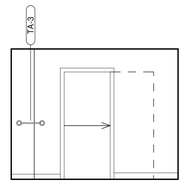
6 A701 TOILET - WEST
1/4" = 1'-0"



7 A701 TOILET - NORTH
1/4" = 1'-0"



8 A701 TOILET - EAST
1/4" = 1'-0"



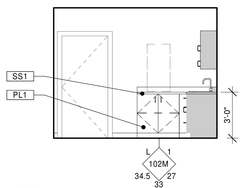
9 A701 TOILET - SOUTH
1/4" = 1'-0"

TOILET ACCESSORIES SCHEDULE

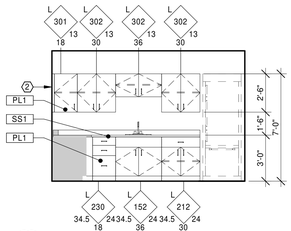
EQ #	MODEL	DESCRIPTION	MFR	SIZE	MOUNTING HEIGHT	FINISH	COUNT
TA-1	6806	GRAB BAR SET	BOBRICK	36", 48", 18"	CFCI	SATIN STAINLESS STEEL	6
TA-2	7311-B	TOWEL SHELF WITH TOWEL BAR, SURFACE MOUNTED	ASI	24"L X 6-1/2"H X 8" D	CFCI	STAINLESS STEEL	6
TA-3	B-673	FURFACE MOUNT SQUARE TOWEL BAR	BOBRICK	24"L X 3/4" SQUARE	CFCI	SATIN STAINLESS STEEL	6
TA-4	B-6727	SURFACE-MOUNTED DOUBLE ROBE HOOK	BOBRICK	4" x 2"	CFCI	SATIN STAINLESS STEEL	6
TA-5	B-2888	SURFACE- MOUNTED TOILET TISSUE PAPER DISPENSER	BOBRICK	6" x 11"	CFCI	SATIN STAINLESS STEEL	6
TA-6	8287	FRAMELESS POLISHED PLATE GLASS MIRROR	ASI	24" x 36", 1/4" THICK	CFCI		6

10 A701 HALLWAY - WEST
1/4" = 1'-0"

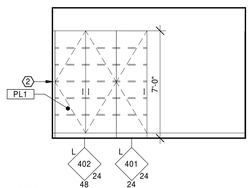
11 A701 HALLWAY - EAST
1/4" = 1'-0"



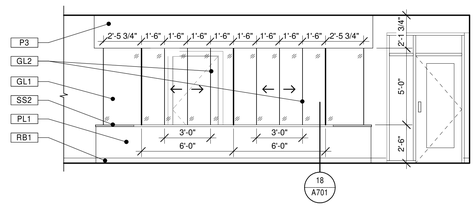
12 A701 KITCHENETTE - NORTH
1/4" = 1'-0"



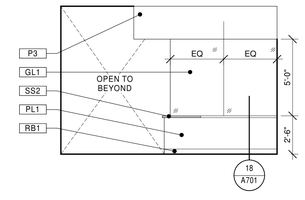
13 A701 KITCHENETTE - EAST
1/4" = 1'-0"



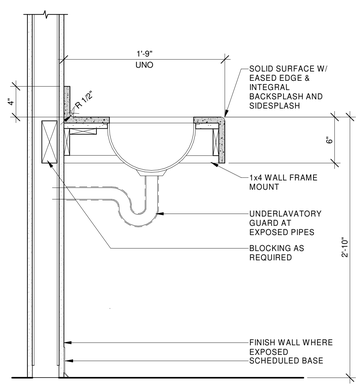
14 A701 KITCHENETTE - WEST
1/4" = 1'-0"



15 A701 LOUNGE/RECEPTION DESK - NORTH
1/4" = 1'-0"

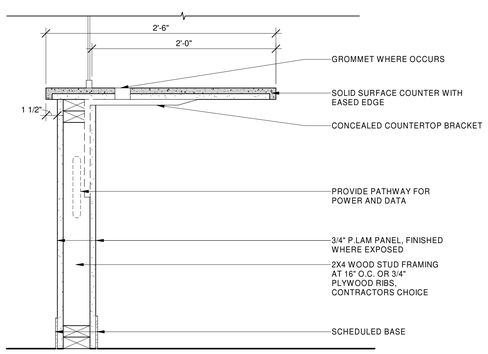


16 A701 LOUNGE/RECEPTION DESK - WEST
1/4" = 1'-0"



REFERENCE ELEVATIONS AND MATERIALS LIST FOR FINISHES

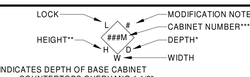
17 A701 BATHROOM VANITY
1 1/2" = 1'-0"



REFERENCE ELEVATIONS AND MATERIALS LIST FOR FINISHES

18 A701 RECEPTION DESK
1 1/2" = 1'-0"

CASEWORK LEGEND



* INDICATES DEPTH OF BASE CABINET - COUNTERTOPS OVERHANG 1 1/2"

** INDICATES APPROXIMATE HEIGHT OF CABINET, SEE ELEVATIONS FOR OVERALL HEIGHT OF CABINET AND COUNTERTOP.

*** "M" INDICATES A DESIGN MODIFICATION TO THE STANDARD CASEWORK DESIGNATED

CASEWORK MODIFICATIONS

1. NO TOE KICK.
2. NOT USED.

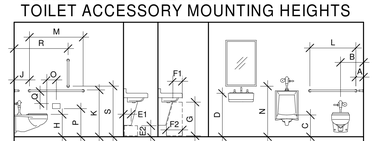
GENERAL NOTES

A. VERIFY ALL CONDITIONS AND DIMENSIONS IN FIELD. EXISTING CONDITIONS OF WINDOWS AND OTHER BUILDING ELEMENTS MAY VARY. IF MEASUREMENTS IN FIELD DEVIATE FROM THE DIMENSIONS SHOWN WITHIN THESE DOCUMENTS BY GREATER THAN 6" OR AFFECT DESIGN INTENT COORDINATE AND NOTIFY THE PROJECT ARCHITECT PRIOR TO CONTINUING WORK.
B. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
C. FOR BUILDING OCCUPANCY PLAN, FIRE-RESISTANVE CONSTRUCTION, AND ALL CODE RELATED INFORMATION, RE: G100'S.
D. FOR INTERIOR WALL/PARTITION ASSEMBLIES AND TYPES, RE: A100'S.
E. FOR ROOM, WALL BASE, AND CASEWORK FINISHES, RE: A500'S.
F. FOR DOOR AND WINDOW FRAME TYPES AND GLAZING TYPES, RE: A600'S.
G. FOR CEILING HEIGHTS AND ADDITIONAL INFORMATION, RE: A100'S.
H. ALL DIMENSIONS ARE TO FACE OF STUD FOR GYPSUM BOARD WALLS OR TO THE FACE OF EXISTING FINISH WALL SURFACE, UNLESS OTHERWISE NOTED.
I. ALL DOORS SET WITH 4" STUD RETURN AT HINGE SIDE OF DOOR FRAME TO PERPENDICULAR WALL, UNLESS OTHERWISE NOTED.
J. ALL WALLS GO TO UNDERSIDE OF DECK UNLESS OTHERWISE NOTED.
K. PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT ALL RESTROOM WALLS, SHOWER ROOM WALLS AND CEILINGS, AND IMMEDIATELY BEHIND ALL SINKS.
L. COORDINATE OWNER FURNISHED EQUIPMENT, ACCESSORIES, AND FURNITURE WITH OWNER AND/OR OWNER'S VENDOR.
M. ALL TOILET ACCESSORIES TO BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS AND IN COMPLIANCE WITH ALL ADA REQUIREMENTS.
N. COORDINATE ALL PENETRATIONS WITH RESPECTIVE TRADES AT BOTH RATED AND NON-RATED WALLS, FLOORS, AND CEILINGS.
O. COORDINATE ALL PLUMBING FIXTURES AND FINAL PLUMBING FIXTURE LOCATIONS WITH PLUMBING DRAWINGS AND SPECIFICATIONS.
P. PROVIDE UNDER LAVATORY GUARD AT ALL LOCATIONS WHERE OPEN KNEE SPACE OCCURS AT SINKS.
Q. COORDINATE ALL ELECTRICAL FIXTURES AND FINAL ELECTRICAL FIXTURE LOCATIONS WITH ELECTRICAL DRAWINGS AND SPECIFICATIONS, INCLUDING LIGHT FIXTURES, SWITCHES, AND OUTLETS.
R. RE A500'S FOR CORNER GUARD AND OTHER WALL PROTECTION LOCATIONS. CORNER GUARDS ARE NOT SHOWN ON ALL ELEVATIONS.
S. FOR ALL CASEWORK DETAILS, REFER TO A.W.I. REFERENCES AND STANDARDS.
T. AT COUNTERTOP LOCATIONS WITH OPEN KNEE SPACE BELOW, PROVIDE HEAVY DUTY STEEL COUNTERTOP BRACKETS WITH MAXIMUM SPACING OF 3'-0" O.C.

KEYNOTES

1 PLYWOOD VALANCE TO MATCH EXISTING GUEST ROOMS. PAINT TO MATCH WALL COLOR.
2 2" FILLER.

PLUMBING FIXTURE AND TOILET ACCESSORY MOUNTING HEIGHTS



NOTE: THIS ELEVATION IS REPRESENTATIVE OF TYPICAL FIXTURE MOUNTING HEIGHTS AND CLEARANCES. REFER TO PLANS FOR FIXTURES TO BE INSTALLED.

FIXTURE	DIM#	MOUNTING HEIGHT
GRAB BAR	A	6" MAX TO CENTER FROM ADJACENT WALL
TOILET (ADA)	B	16" - 18" TO CENTER FROM ADJACENT WALL
URINAL	C	24" TO RIM ABOVE FINISH FLOOR
URINAL (ADA)	C	17" TO RIM ABOVE FINISH FLOOR
SINK (ADA)	D	34" MAX TO SINK RIM ABOVE FINISH FLOOR
SINK (ADA)	E1	6" DEEP MAX TOE CLEARANCE
SINK (ADA)	E2	9" HIGH MIN TOE CLEARANCE
SINK (ADA)	F1	8" DEEP MIN KNEE CLEARANCE
SINK (ADA)	F2	11" DEEP MIN KNEE CLEARANCE
SINK (ADA)	G	27" HIGH MIN KNEE CLEARANCE
TOILET	H	14" TO TOP OF SEAT
TOILET (ADA)	H	17" - 19" TOP OF SEAT
GRAB BAR (ADA)	J	12" TO CENTER FROM ADJACENT WALL
GRAB BAR	K	33" - 36" TO TOP A.F.F.
GRAB BAR	L	36" OUTSIDE TO OUTSIDE
GRAB BAR	M	42" OUTSIDE TO OUTSIDE
MIRROR	N	40" MAX TO BOT OF MIRROR SURFACE
TOILET PAPER HOLDER	O	7" - 9" TO CENTERLINE FROM TOILET
TOILET PAPER HOLDER	P	19" MIN. TO CENTER ABOVE FINISH FLOOR
TOILET PAPER HOLDER	Q	1 1/2" MIN. FROM BOTTOM OF GRAB BAR
18" VERTICAL GRAB BAR	R	39" - 41" FROM WALL
18" VERTICAL GRAB BAR	S	39" - 41" FROM FLOOR

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201 TONGASS DRIVE, SITKA, AK, 99835
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA 49TH
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REVIEWED BY | CALLA
REVISIONS

ENLARGED PLANS / INTERIOR ELEVATIONS

A701

NORTH REF

KEYNOTES

1. EXISTING 6" FIRE SERVICE AND LOCATION OF FIRE RISER ASSEMBLY FOR FIRE SPRINKLER SYSTEM.
2. FDC AND HORN/STROBE ASSEMBLY.
3. LOCATION OF HYDRANT FLOWED.

1 FIRE PROTECTION SITE PLAN
F001

FIRE PROTECTION LEGEND

SYMBOL	DESCRIPTION
	PENDENT SPRINKLER, PLAN - ELEVATION
	UPRIGHT SPRINKLER, PLAN - ELEVATION
	SIDEWALL SPRINKLER, PLAN - ELEVATION
F	FIRE SPRINKLER WET SYSTEM PIPE
	CONNECT TO EXISTING
	NEW PIPING
	EXISTING PIPING
TS	TAMPER SWITCH
FS	FLOW SWITCH
PS	PRESSURE SWITCH
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION, SIAMESE
	HORN/STROBE ASSEMBLY
	FIRE SPRINKLER WET SYSTEM RISER

FIRE PROTECTION ABBREVIATIONS

FL	FLANGED
GR	GROOVED
GALV	GALVANIZED
SF	SQUARE FEET
FDC	FIRE DEPARTMENT CONNECTION
AUX	AUXILIARY
(E)	EXISTING
SCH	SCHEDULE
N.C.	NORMALLY CLOSED

WATER SUPPLY INFORMATION		
TEST PRESSURE HYDRANT:	LOCATION:	Airport Rd. past Penrod Hall
FLOW HYDRANT: # 7823034	LOCATION:	Near First Entrance of 201 Tongass Dr.
BY: City and Borough of Sitka, Sitka Fire Dept.	DATE:	7/29/2025
STATIC PRESSURE: 80 PSI	RESIDUAL PRESSURE:	78 PSI
PITOT PRESSURE: 72 PSI	WITH	1,424 GPM FLOWING

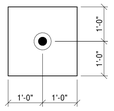
HYDRAULIC CALCULATIONS REQUIRED:

HYDRAULICALLY CALCULATE THE FOUR MOST DEMANDING SPRINKLERS IN RESIDENTIAL AREA.

NOTES:
1. CALCULATED DEMAND INCLUDING HOSE STREAM REQUIREMENTS SHALL FALL NO LESS THAN 10 PSI BELOW THE AVAILABLE WATER SUPPLY CURVE.
2. NO REDUCTIONS FOR QUICK RESPONSE SPRINKLERS WILL BE ALLOWED.
3. VELOCITIES SHALL NOT EXCEED 20 FT/SEC IN ANY PIPE.
4. NO EXTENDED COVERAGE SPRINKLERS WILL BE ALLOWED.

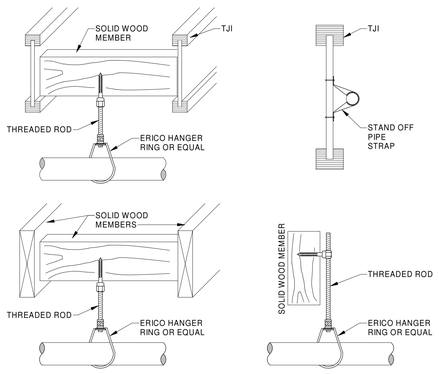
GENERAL NOTES

1. DESIGN AND INSTALLATION SHALL CONFORM TO N.F.P.A. 13R, 2019 EDITION, NFPA 13, INTERNATIONAL FIRE CODE, LOCAL FIRE AND BUILDING DEPARTMENTS.
2. HYDRAULICALLY CALCULATE, IN ACCORDANCE WITH NFPA 13R, ALL OF THE SPRINKLERS WITHIN A COMPARTMENT UP TO A MAXIMUM OF FOUR SPRINKLERS, THAT REQUIRE THE GREATEST HYDRAULIC DEMAND.
3. THE SPRINKLER SYSTEM SHOWN IS CONCEPTUAL ONLY. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM SHOWING ALL REQUIRED PIPING, OFFSETS, SPRINKLERS, RISERS AND DROPS.
4. CONTRACTOR SHALL SECURE ALL PERMITS AND PAY ALL FEES REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND BUILDING DEPARTMENTS.
5. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE FIRE PROTECTION SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND COMPLYING WITH THE STANDARDS OF THE NATIONAL FIRE PROTECTION ASSOCIATION, INDUSTRIAL RISK INSURERS, FACTORY MUTUAL, AND ALL STATE AND LOCAL REGULATIONS.
6. APPROVAL OF THE COMPLETE SYSTEM SHALL BE OBTAINED FROM THE AUTHORITIES HAVING JURISDICTION, AND A COPY OF SAME SHALL BE DELIVERED TO THE OWNER'S REPRESENTATIVE FOR DELIVERY TO THE OWNER.
7. RESTORE ALL DEVICES, FINISHES, ETC. DAMAGED OR ALTERED DURING CONSTRUCTION TO AN ACCEPTABLE CONDITION AS DETERMINED BY THE OWNER, ARCHITECT AND/OR ENGINEER.
8. CONTRACTOR SHALL SCHEDULE ALL SHUTDOWNS THAT AFFECT UTILITIES AND PORTIONS OF THE BUILDING THAT MUST REMAIN IN OPERATION WITH THE OWNER.
9. PROVIDE AND INSTALL SPRINKLERS OF THE PROPER TEMPERATURE RATING AND TYPE PER N.F.P.A. 13.
10. PROVIDE AND INSTALL VALVES OF THE PROPER TYPE, UL LISTED, AND PRESSURE RATING PER N.F.P.A. 13.
11. PROVIDE AND INSTALL SPARE SPRINKLERS, WRENCH AND CABINET PER N.F.P.A. 13.
12. COORDINATE INSTALLATION OF ALL ELECTRICALLY SUPERVISED VALVES, HORN/STROBE, ETC. WITH THE ELECTRICAL CONTRACTOR.
13. PROVIDE AND INSTALL A HYDRAULIC PLACARD WITH THE HYDRAULIC DESIGN DATA FOR EACH ZONE RISER OR SYSTEM CALCULATED.
14. PROVIDE AND INSTALL AUX. DRAINS AND VALVES AS REQUIRED FOR PROPER DRAINING OF THE SYSTEM.
15. COORDINATE SPRINKLER PIPING AND HEAD LOCATIONS WITH DUCTWORK, PIPING, LIGHTING FIXTURES, DIFFUSERS, ETC. AS REQUIRED.
16. ISOLATE, DRAIN AND REFILL EXISTING PIPING SYSTEM AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW WORK.
17. HANGER INSTALLATION AND SPACING SHALL BE IN ACCORDANCE WITH N.F.P.A. 13.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORING AND DRILLING AS REQUIRED.
19. THE CONTRACTOR SHALL SUBMIT SIZE AND LOCATION OF ALL BEAM PENETRATIONS TO THE STRUCTURAL ENGINEER FOR REVIEW AND DETAIL.
20. WHERE PIPING PASSES THROUGH FIRE RATED FLOORS OR WALLS, SLEEVES SHALL BE COMPLETELY SEALED WITH A FIRE STOP MATERIAL THAT IS UL LISTED AND ACCEPTED BY THE BUILDING DEPARTMENT AND FIRE DEPARTMENT. THIS MATERIAL SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER TO MAINTAIN THE FIRE RATING OF THE PENETRATED WALL OR FLOOR.
21. SLEEVES THROUGH WALL AND FLOOR SHALL BE SCH. 10 GALVANIZED AND PACKED WITH NONCOMBUSTIBLE, SMOKEPROOF, AND WATERPROOF FIRE SEALANT.
22. ALL SHUTOFF VALVES IN SPRINKLER, STANDPIPE, AND COMBINED SYSTEMS SHALL BE APPROVED INDICATING TYPE.
23. COORDINATE SPRINKLER HEAD LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS, LIGHTING, AND OTHER CEILING ITEMS AND MAKE MODIFICATIONS TO SUIT.
24. SPRINKLERS INSTALLED IN CEILINGS OF FINISHED AREAS SHALL BE SYMMETRICAL IN RELATION TO CEILING SYSTEM COMPONENTS.
25. THIS LOCATION IS A SEISMIC DESIGN CATEGORY "D". CALCULATE THE SPRINKLER SYSTEM LOAD BASED ON A HORIZONTAL ACCELERATION OF .5G (F=.5W)
26. ALL PIPING 2" AND SMALLER SHALL BE SCHEDULE 40 WITH MALLEABLE-IRON THREADED FITTINGS. PIPING 2 1/2" AND LARGER SHALL BE SCHEDULE 10 PIPE WITH GROOVED FITTINGS.
27. SPRINKLER LAYOUT IN AREAS WITH HARD LID CEILING SHALL BE SYMMETRIC WITHIN ROOM.



ALL SPRINKLERS SHALL BE CENTERED WITH 1" +/- OF CENTER POINTS OF CEILING TILES.

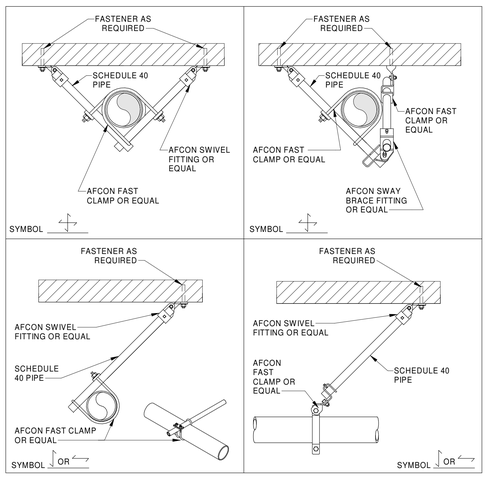
4 SPRINKLER HEAD IN CENTER PLACEMENT
F001 NOT TO SCALE



NOTES:
1. UNSUPPORTED LENGTHS BETWEEN THE END SPRINKLER ON A BRANCH AND THE LAST HANGER SHALL NOT BE GREATER THAN 12".
2. THE LENGTH OF AN UNSUPPORTED ARM OVER MUST NOT BE GREATER THAN 12".
3. ALL HANGERS LOCATED WITHIN 12" OF THE LAST SPRINKLER ON A BRANCH LINE OR ARMOVER MUST BE FITTED WITH A SURGE SUPPRESSOR OR EQUIVALENT.

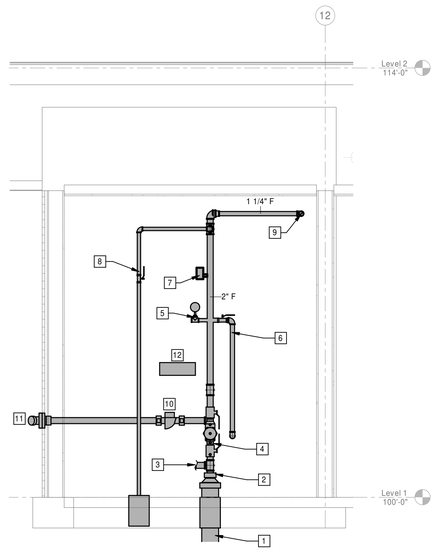
MAXIMUM PIPE/TUBING SUPPORT SPACING, FEET										
NOM. SIZE	THRU 3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"
STEEL	N.A.	12	12	15	15	15	15	15	15	15

2 FIRE SPRINKLER PIPE HANGER DETAILS
F001 NOT TO SCALE



NOTE: ALL BRACE PIPING SHALL BE SCHEDULE 40

3 SWAY BRACING DETAIL
F001 NOT TO SCALE



5 EXISTING FIRE RISER ASSEMBLY
F001 1/2" = 1'-0"

EXISTING FIRE RISER KEYNOTES

1. EXISTING 6" FIRE SPRINKLER SYSTEM WATER SERVICE ENTRANCE.
2. EXISTING FLANGED X GROOVED REDUCER.
3. EXISTING DOMESTIC WATER CONNECTION.
4. EXISTING 2" AMES 2000B DOUBLE CHECK BACKFLOW PREVENTER.
5. EXISTING PRESSURE GAUGE.
6. EXISTING MAIN DRAIN.
7. EXISTING FLOW SWITCH.
8. EXISTING INSPECTOR'S TEST.
9. 1-1/4" FIRE SPRINKLER MAIN PIPE TO EXISTING WET-PIPE FIRE SPRINKLER SYSTEM IN BUILDING.
10. EXISTING CHECK VALVE FOR FIRE DEPARTMENT CONNECTION (FDC).
11. EXISTING FIRE DEPARTMENT CONNECTION (FDC) AND HORN/STROBE ASSEMBLY.
12. EXISTING SPARE SPRINKLER CABINET.

FIRE PROTECTION SHEET INDEX

Cushing Terrell.
cushingterrell.com
800.757.9522

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA
NATHAN H. KOPP
ME 13554
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | SCHAFF
DRAWN BY | SCHAFF
REVIEWED BY | KOPP
REVISIONS

FIRE PROTECTION SITE PLAN, NOTES & DETAILS

F001

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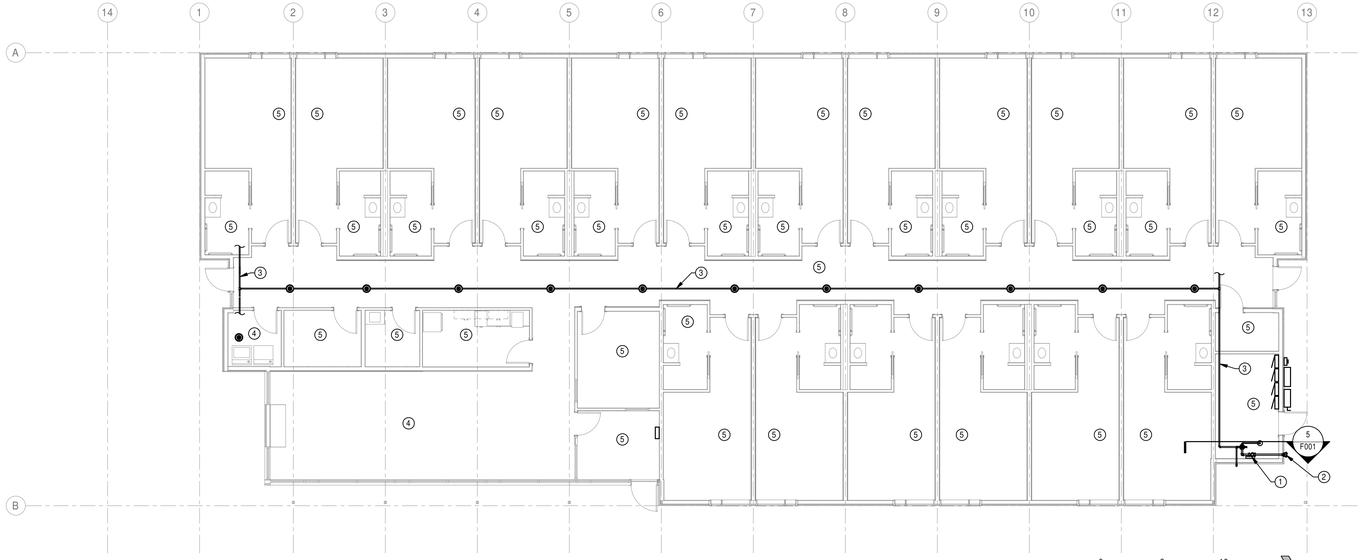


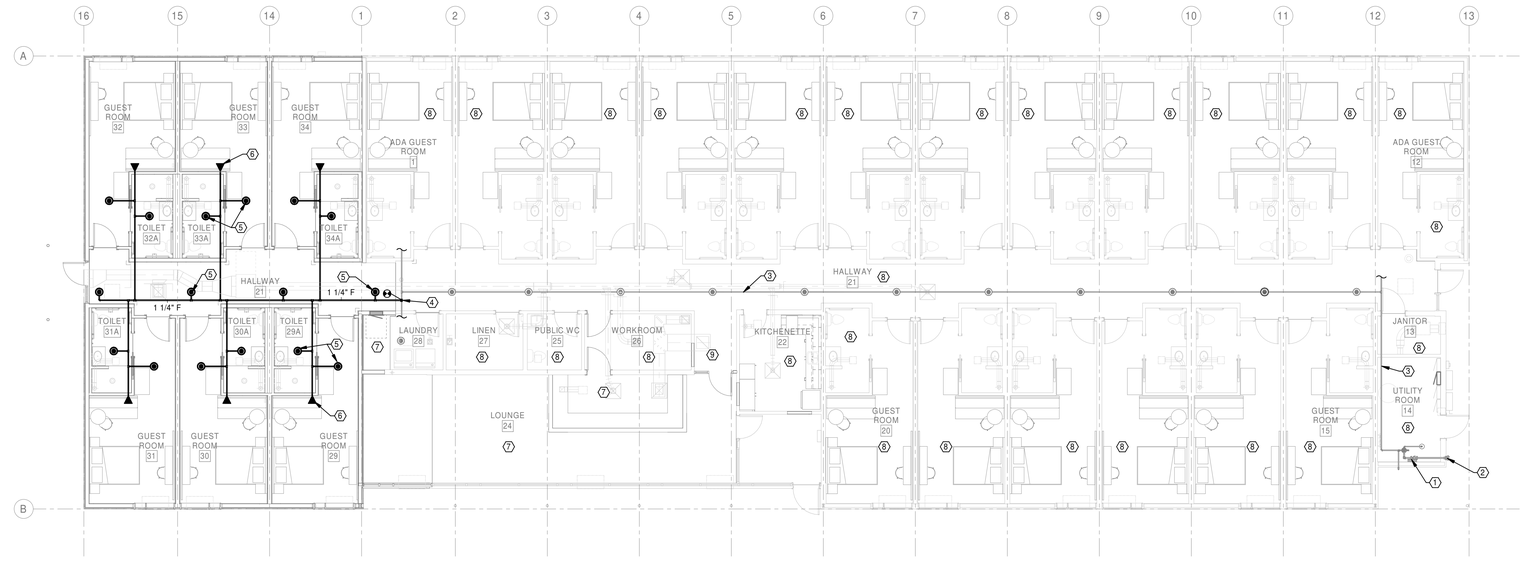
2 F100 FIRE PROTECTION DEMOLITION PLAN
1/8" = 1'-0"

0 8 16
SCALE IN FEET
SCALE: 1/8" = 1'-0"

NORTH REF

⑤ DEMOLITION KEYNOTES

1. FIRE SPRINKLER SYSTEM WATER SERVICE ENTRANCE AND RISER, SEE DETAIL 5/F001.
2. EXISTING FDC AND HORN/STROBE ASSEMBLY.
3. EXISTING 1-1/4" FIRE SPRINKLER PIPE TO EXISTING WET-PIPE FIRE SPRINKLER SYSTEM.
4. DEMOLISH EXISTING SPRINKLER IN THIS ROOM AS REQUIRED IN FOR NEW REMODEL WORK. SPRINKLERS REMOVED SHALL NOT BE REUSED.
5. EXISTING AUTOMATIC FIRE SPRINKLERS IN THIS ROOM SHALL REMAIN.



1 F100 FIRE PROTECTION REMODEL PLAN
1/8" = 1'-0"

0 8 16
SCALE IN FEET
SCALE: 1/8" = 1'-0"

NORTH REF

GENERAL NOTES

A. THE SPRINKLER SYSTEM SHOWN IS CONCEPTUAL ONLY. THE CONTRACTOR SHALL PROVIDE A COMPLETE SPRINKLER SYSTEM SHOWING ALL REQUIRED PIPING, OFFSETS, SPRINKLERS, RISERS AND DROPS.

B. SHOP DRAWINGS MUST BE FIELD VERIFIED AND REVISED BY THE CONTRACTOR PRIOR TO SUBMITTAL FOR REVIEW BY ENGINEER.

C. FIELD INVESTIGATION BEFORE BIDDING IS REQUIRED. BID SHALL BE COMPLETE AND ACCOUNT FOR ALL REQUIRED PIPE, ROUTING, SPRINKLERS, ETC.

⑥ REMODEL KEYNOTES

1. FIRE SPRINKLER SYSTEM WATER SERVICE ENTRANCE AND RISER, SEE DETAIL 5/F001.
2. EXISTING FDC AND HORN/STROBE ASSEMBLY.
3. EXISTING 1-1/4" FIRE SPRINKLER PIPE TO EXISTING WET-PIPE FIRE SPRINKLER SYSTEM.
4. POINT OF CONNECTION OF NEW 1-1/4" PIPE TO EXISTING 1-1/4" PIPE IN EXISTING BUILDING.
5. PROVIDE PENDENT SPRINKLER IN ACCORDANCE WITH NFPA 13R. MATCH NEW PENDENT SPRINKLERS TO EXISTING MANUFACTURER AND TYPE USED IN EXISTING GUEST ROOMS. COORDINATE LOCATION ON NEW PENDENT SPRINKLER WITH ALL OTHER TRADES. (TYPICAL)
6. PROVIDE SIDEWALL SPRINKLER IN GUEST ROOM IN ACCORDANCE WITH NFPA 13R. MATCH NEW SPRINKLER TO EXISTING SIDEWALL SPRINKLER MANUFACTURER AND TYPE USED IN EXISTING GUEST ROOMS. (TYPICAL)
7. ADD/ADJUST SPRINKLER IN THIS ROOM AS REQUIRED IN ACCORDANCE WITH NFPA 13R FOR NEW REMODELWORK. SPRINKLERS REMOVED SHALL NOT BE REUSED.
8. EXISTING AUTOMATIC FIRE SPRINKLERS IN THIS ROOM SHALL REMAIN.
9. ADD/ADJUST SPRINKLERS IN COORIDOR AS REQUIRED FOR INSTALLATION OF NEW DOOR IN ACCORDANCE WITH NFPA 13R. SPRINKLERS REMOVED SHALL NOT BE REUSED.

SITKA PATIENT HOUSING EXPANSION

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

STATE OF ALASKA
NATHAN H. KOPP
ME 13554
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | SCHAFF
DRAWN BY | SCHAFF
REVIEWED BY | KOPP
REVISIONS

FIRE PROTECTION DEMOLITION & REMODEL PLAN

F100

FIRE SPRINKLER SPECIFICATIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES:

1. PIPES, FITTINGS, AND SPECIALTIES.
2. FIRE-PROTECTION VALVES.
3. SPRINKLERS.
4. SEISMIC BRACING AND HANGING.

1.3 DEFINITIONS

A. STANDARD-PRESSURE SPRINKLER PIPING: WET-PIPE SPRINKLER SYSTEM PIPING DESIGNED TO OPERATE AT WORKING PRESSURE OF 175 PSIG MAXIMUM.

1.4 SYSTEM DESCRIPTIONS

A. WET-PIPE SPRINKLER SYSTEM: AUTOMATIC SPRINKLERS ARE ATTACHED TO PIPING CONTAINING WATER AND THAT IS CONNECTED TO WATER SUPPLY. WATER DISCHARGES IMMEDIATELY FROM SPRINKLERS WHEN THEY ARE OPENED. SPRINKLERS OPEN WHEN HEAT MELTS FUSIBLE LINK OR DESTROYS FRANGIBLE DEVICE.

1.5 PERFORMANCE REQUIREMENTS

A. STANDARD-PRESSURE PIPING SYSTEM COMPONENT: LISTED FOR 175-PSIG MINIMUM WORKING PRESSURE.

B. DELEGATED DESIGN: DESIGN SPRINKLER SYSTEM(S), INCLUDING COMPREHENSIVE ENGINEERING ANALYSIS BY A LICENSED FIRE PROTECTION ENGINEER, OR NICET LEVEL IV TECHNICIAN USING PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA INDICATED.

C. SPRINKLER SYSTEM DESIGN SHALL BE APPROVED BY AUTHORITIES HAVING JURISDICTION.

1. SPRINKLER OCCUPANCY HAZARD CLASSIFICATIONS:
   a. AS INDICATED IN THE PROJECT DOCUMENTS.
2. MINIMUM DENSITY FOR AUTOMATIC-SPRINKLER PIPING DESIGN:
   a. RESIDENTIAL OCCUPANCY: 0.05 GPM/SF OR THE SPRINKLER LISTING, WHICHEVER IS GREATER, TO THE DESIGN SPRINKLERS.
3. MAXIMUM PROTECTION AREA PER SPRINKLER: PER UL LISTING.

D. SEISMIC PERFORMANCE: SEISMIC DESIGN CATEGORY "D". CALCULATE THE SPRINKLER SYSTEM LOAD BASED ON A HORIZONTAL ACCELERATION OF .5G (F=.5W)

1.6 SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED. INCLUDE RATED CAPACITIES, OPERATING CHARACTERISTICS, ELECTRICAL CHARACTERISTICS, AND FURNISHED SPECIALTIES AND ACCESSORIES.

B. SHOP DRAWINGS: FOR WET-PIPE SPRINKLER SYSTEMS SHALL INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK.

C. COORDINATION DRAWINGS: SPRINKLER SYSTEMS, DRAWN TO SCALE, ON WHICH THE FOLLOWING ITEMS ARE SHOWN AND COORDINATED WITH EACH OTHER, USING INPUT FROM INSTALLERS OF THE ITEMS INVOLVED:

1. DOMESTIC WATER PIPING.
2. HVAC HYDRONIC PIPING.
3. ITEMS PENETRATING FINISHED CEILING INCLUDE THE FOLLOWING:
   a. LIGHTING FIXTURES.
   b. AIR OUTLETS AND INLETS.

E. APPROVED SPRINKLER PIPING DRAWINGS: WORKING PLANS, PREPARED ACCORDING TO NFPA 13R, THAT HAVE BEEN APPROVED BY AUTHORITIES HAVING JURISDICTION.

F. FIELD TEST REPORTS AND CERTIFICATES: INDICATE AND INTERPRET TEST RESULTS FOR COMPLIANCE WITH PERFORMANCE REQUIREMENTS AND AS DESCRIBED IN NFPA 13R. INCLUDE "CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING."

G. FIELD QUALITY-CONTROL REPORTS.

1.7 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS:

1. INSTALLER'S RESPONSIBILITIES INCLUDE DESIGNING, FABRICATING, AND INSTALLING SPRINKLER SYSTEMS AND PROVIDING PROFESSIONAL ENGINEERING SERVICES NEEDED TO ASSUME ENGINEERING RESPONSIBILITY.
   a. ENGINEERING RESPONSIBILITY: PREPARATION OF WORKING PLANS BY A LICENSED FIRE PROTECTION ENGINEER OR NICET LEVEL IV TECHNICIAN.

B. WELDING QUALIFICATIONS: QUALIFY PROCEDURES AND OPERATORS ACCORDING TO ASME BOILER AND PRESSURE VESSEL CODE.

C. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES: LISTED AND LABELED AS DEFINED IN NFPA 70, BY A QUALIFIED TESTING AGENCY, AND MARKED FOR INTENDED LOCATION AND APPLICATION.

D. NFPA STANDARDS: SPRINKLER SYSTEM EQUIPMENT, SPECIALTIES, ACCESSORIES, INSTALLATION, AND TESTING SHALL COMPLY WITH THE FOLLOWING:

1. NFPA 13R, "INSTALLATION OF SPRINKLER SYSTEMS IN LOW-RISE RESIDENTIAL OCCUPANCIES."

1.8 PROJECT CONDITIONS

A. INTERRUPTION OF EXISTING SPRINKLER SERVICE: DO NOT INTERRUPT SPRINKLER SERVICE TO FACILITIES OCCUPIED BY OWNER OR OTHERS UNLESS PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE TEMPORARY SPRINKLER SERVICE ACCORDING TO REQUIREMENTS INDICATED. NOTIFY MILES CITY FIRE DEPARTMENT AND AIG (PROPERTY INSURANCE CARRIER) AT THE START AND COMPLETION OF THE SYSTEM IMPAIRMENT. MAINTAIN A DEDICATED FIRE WATCH THROUGHOUT THE FIRST FLOOR OF THE BUILDING UTILIZING QUALIFIED PERSONNEL. SYSTEM IMPAIRMENTS SHALL ALSO BE PERFORMED IN ACCORDANCE WITH 2010 NFPA 25 CHAPTER 15, AND DURATION OF IMPAIRMENT SHALL NOT EXCEED 8 HOURS IN A 24 HOUR PERIOD. SYSTEM SHALL BE RESTORED TO OPERATION WITHOUT LEAKAGE PRIOR TO THE END OF THE WORK SHIFT. DO NOT LEAVE SPRINKLER SYSTEM OUT OF SERVICE OVERNIGHT.

1. NOTIFY OWNER NO FEWER THAN TWO DAYS IN ADVANCE OF PROPOSED INTERRUPTION OF SPRINKLER SERVICE.
2. DO NOT PROCEED WITH INTERRUPTION OF SPRINKLER SERVICE WITHOUT OWNER'S WRITTEN PERMISSION.

B. SYSTEM IMPAIRMENTS: ALL WORK THAT WILL IMPAIR SPRINKLER SYSTEMS SHALL FOLLOW CHAPTER 15 OF NFPA 25. PROVIDE DEDICATED FIRE WATCH AND NOTIFY ALL DEPARTMENTS REGARDLESS OF THE LENGTH OF THE SYSTEM IMPAIRMENT.

1.9 COORDINATION

A. COORDINATE LAYOUT AND INSTALLATION OF SPRINKLERS WITH OTHER CONSTRUCTION THAT PENETRATES CEILINGS, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT, AND PARTITION ASSEMBLIES.

1.10 EXTRA MATERIALS

A. FURNISH EXTRA MATERIALS THAT MATCH PRODUCTS INSTALLED AND THAT ARE PACKAGED WITH PROTECTIVE COVERING FOR STORAGE AND IDENTIFIED WITH LABELS DESCRIBING CONTENTS.

1. INCLUDE NUMBER OF SPRINKLERS REQUIRED BY NFPA 13 AND SPRINKLER WRENCH. PLACE IN EXISTING CABINET, SPRINKLERS WITH WRENCH FOR EACH TYPE OF SPRINKLER USED ON PROJECT, TAG USING CARDBOARD TAG AND COTTON STRING TIED TO FRAME ARMS. TAG WITH AREA INSTALLED AND DATE OF INSTALLATION.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

A. COMPLY WITH REQUIREMENTS IN "PIPING SCHEDULE" ARTICLE FOR APPLICATIONS OF PIPE, TUBE, AND FITTING MATERIALS, AND FOR JOINING METHODS FOR SPECIFIC SERVICES, SERVICE LOCATIONS, AND PIPE SIZES.

2.2 STEEL PIPE AND FITTINGS

A. SCHEDULE 40, BLACK-STEEL PIPE: ASTM A 53; TYPE E, GRADE B. PIPE ENDS MAY BE FACTORY OR FIELD FORMED TO MATCH JOINING METHOD.

B. BLACK-STEEL PIPE NIPPLES: ASTM A 733, MADE OF ASTM A 53/A 53M, STANDARD-WEIGHT, SEAMLESS STEEL PIPE WITH THREADED ENDS.

C. UNCOATED, STEEL COUPLINGS: ASTM A 865, THREADED.

D. UNCOATED, MALLEABLE-IRON THREADED FITTINGS: ASME B16.4, CLASS 125, STANDARD PATTERN.

E. MALLEABLE- OR DUCTILE-IRON UNIONS: UL 860.

2.3 SPRINKLER SPECIALTY PIPE FITTINGS

A. BRANCH OUTLET FITTINGS:

1. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
   a. ANVIL INTERNATIONAL, INC.
   b. TYCO FIRE & BUILDING PRODUCTS LP.
   c. VICTAULIC COMPANY.
2. STANDARD: UL 213.
3. PRESSURE RATING: 175 PSIG MINIMUM.
4. BODY MATERIAL: DUCTILE-IRON HOUSING WITH EPDM SEALS AND BOLTS AND NUTS.
5. TYPE: MECHANICAL-T AND -CROSS FITTINGS.
6. CONFIGURATIONS: SNAP-ON AND STRAPLESS, DUCTILE-IRON HOUSING WITH BRANCH OUTLETS.
7. SIZE: OF DIMENSION TO FIT ONTO SPRINKLER MAIN AND WITH OUTLET CONNECTIONS AS REQUIRED TO MATCH CONNECTED BRANCH PIPING.
8. BRANCH OUTLETS: GROOVED, OR THREADED.

2.4 SPRINKLERS

A. MANUFACTURERS: CONTRACTOR SHALL VERIFY MANUFACTURER OF EXISTING SPRINKLERS AND SHALL USE SAME MANUFACTURER. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:

1. GLOBE FIRE SPRINKLER CORPORATION.
2. RELIABLE AUTOMATIC SPRINKLER CO., INC.
3. TYCO FIRE & BUILDING PRODUCTS LP.
4. VICTAULIC COMPANY.
5. VIKING CORPORATION.

B. GENERAL REQUIREMENTS:

1. STANDARD: UL'S "FIRE PROTECTION EQUIPMENT DIRECTORY" LISTING OR "APPROVAL GUIDE," PUBLISHED BY FM GLOBAL, LISTING.
2. PRESSURE RATING FOR AUTOMATIC SPRINKLERS: 175 PSIG MINIMUM.

C. AUTOMATIC SPRINKLERS WITH HEAT-RESPONSIVE ELEMENT:

1. CHARACTERISTICS: NOMINAL 1/2-INCH ORIFICE WITH DISCHARGE COEFFICIENT K OF 5.6, AND FOR "ORDINARY" TEMPERATURE CLASSIFICATION RATING UNLESS OTHERWISE INDICATED OR REQUIRED BY APPLICATION.

D. SPRINKLER FINISHES:

1. WHITE POLYESTER PAINTED.

E. SPRINKLER ESCUTCHEONS: MATERIALS, TYPES, AND FINISHES FOR THE FOLLOWING SPRINKLER MOUNTING APPLICATIONS. ESCUTCHEONS FOR CONCEALED, FLUSH, AND RECESSED-TYPE SPRINKLERS ARE SPECIFIED WITH SPRINKLERS.

1. CEILING MOUNTING: WHITE, RECESSED.
2. WALL MOUNTING: WHITE, HORIZONTAL SIDEWALL.

2.5 HANGERS AND SUPPORTS

A. SPACE PIPE HANGERS IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13. CONSTRUCT HANGERS, HANGER RODS, INSERTS AND CLAMPS AS APPROVED BY THE SAME.

2.6 EARTHQUAKE BRACING

A. FURNISH AND INSTALL ALL EARTHQUAKE BRACING AS REQUIRED BY NFPA 13, AUTHORITY HAVING JURISDICTION, OWNER'S INSURER, AND AS FOLLOWS.

1. SEISMIC COEFFICIENT (Cp) FORCE FACTOR REQUIREMENTS ARE PROVIDED AND SHOWN ON THE PRELIMINARY. WORKING PLANS.
2. IN STRUCTURES OF SEISMIC DESIGN CATEGORIES D THE REQUIREMENTS FOR THE HANGERS AND PIPING SHALL FOLLOW THE REQUIREMENTS OF ASCE STANDARD 7-16.
3. INSTALL SEISMIC RESTRAINTS ON PIPING. COMPLY WITH NFPA 13 REQUIREMENTS FOR SEISMIC- RESTRAINT DEVICE MATERIALS AND INSTALLATION.
4. SEISMIC EXPANSION LOOPS SHALL BE METRAFLEX OR EQUAL WITH A MINIMUM OF 4" OF MOVEMENT LISTED FORE FIRE SPRINKLER SYSTEMS.

PART 3 - EXECUTION

3.1 WATER-SUPPLY CONNECTIONS

A. CONNECT SPRINKLER PIPING TO BUILDING'S INTERIOR FIRE PROTECTION PIPING.

3.2 PIPING INSTALLATION

A. LOCATIONS AND ARRANGEMENTS: DRAWING PLANS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING. INSTALL PIPING AS INDICATED, AS FAR AS PRACTICAL.

1. DEVIATIONS FROM APPROVED WORKING PLANS FOR PIPING REQUIRE WRITTEN APPROVAL FROM AUTHORITIES HAVING JURISDICTION. FILE WRITTEN APPROVAL WITH ARCHITECT BEFORE DEVIATING FROM APPROVED WORKING PLANS.

B. PIPING STANDARD: COMPLY WITH REQUIREMENTS FOR INSTALLATION OF SPRINKLER PIPING IN NFPA 13.

C. USE LISTED FITTINGS TO MAKE CHANGES IN DIRECTION, BRANCH TAKEOFFS FROM MAINS, AND REDUCTIONS IN PIPE SIZES.

D. WHERE MECHANICAL TEE OR CROSS FITTINGS ARE INSTALLED, ATTACH COUPON TO BOLT OF FITTING USING NYLON TIE WRAP.

E. INSTALL SPRINKLER PIPING WITH DRAINS FOR COMPLETE SYSTEM DRAINAGE.

F. INSTALL HANGERS AND SUPPORTS FOR SPRINKLER SYSTEM PIPING ACCORDING TO NFPA 13. COMPLY WITH REQUIREMENTS FOR HANGER MATERIALS IN NFPA 13.

G. FILL SPRINKLER SYSTEM PIPING WITH WATER.

3.3 JOINT CONSTRUCTION

A. PLAIN END JOINTS SHALL NOT BE USED.

B. INSTALL COUPLINGS, FLANGES, FLANGED FITTINGS, UNIONS, NIPPLES, AND TRANSITION AND SPECIAL FITTINGS THAT HAVE FINISH AND PRESSURE RATINGS SAME AS OR HIGHER THAN SYSTEM'S PRESSURE RATING FOR ABOVEGROUND APPLICATIONS UNLESS OTHERWISE INDICATED.

C. REAM ENDS OF PIPES AND TUBES AND REMOVE BURRS. BEVEL PLAIN ENDS OF STEEL PIPE.

D. REMOVE SCALE, SLAG, DIRT, AND DEBRIS FROM INSIDE AND OUTSIDE OF PIPES, TUBES, AND FITTINGS BEFORE ASSEMBLY.

E. THREADED JOINTS: THREAD PIPE WITH TAPERED PIPE THREADS ACCORDING TO ASME B1.20.1. CUT THREADS FULL AND CLEAN USING SHARP DIES. REAM THREADED PIPE ENDS TO REMOVE BURRS AND RESTORE FULL ID. JOIN PIPE FITTINGS AND VALVES AS FOLLOWS:

1. APPLY APPROPRIATE TAPE OR THREAD COMPOUND TO EXTERNAL PIPE THREADS.
2. DAMAGED THREADS: DO NOT USE PIPE OR PIPE FITTINGS WITH THREADS THAT ARE CORRODED OR DAMAGED.

F. STEEL-PIPING, ROLL-GROOVED JOINTS: ROLL ROUNDED-EDGE GROOVE IN END OF PIPE ACCORDING TO AWWA C606. ASSEMBLE COUPLING WITH HOUSING, GASKET, LUBRICANT, AND BOLTS. JOIN STEEL PIPE AND GROOVED-END FITTINGS ACCORDING TO AWWA C606 FOR STEEL-PIPE GROOVED JOINTS.

3.4 VALVE AND SPECIALTIES INSTALLATION

A. INSTALL LISTED FIRE-PROTECTION VALVES, TRIM AND DRAIN VALVES, SPECIALTY VALVES AND TRIM, CONTROLS, AND SPECIALTIES ACCORDING TO NFPA 13 AND AUTHORITIES HAVING JURISDICTION.

3.5 SPRINKLER INSTALLATION

A. INSTALL SPRINKLERS IN SUSPENDED CEILINGS IN CENTER OF ACOUSTICAL CEILING PANELS.

3.6 IDENTIFICATION

A. INSTALL LABELING AND PIPE MARKERS ON EQUIPMENT AND PIPING ACCORDING TO REQUIREMENTS IN NFPA 13.

B. IDENTIFY SPARE SPRINKLERS IN EXISTING SPRINKLER CABINET TO INDICATE YEAR INSTALLED AND AREA SPRINKLERS ARE INSTALLED IN. USE CARDBOARD TAG AND COTTON STRING ATTACHED TO FRAME ARM.

3.7 FIELD QUALITY CONTROL

A. PERFORM TESTS AND INSPECTIONS.

B. TESTS AND INSPECTIONS:

1. LEAK TEST: AFTER INSTALLATION, CHARGE SYSTEMS AND TEST FOR LEAKS. REPAIR LEAKS AND RETEST UNTIL NO LEAKS EXIST.
2. COORDINATE WITH FIRE-ALARM TESTS. OPERATE AS REQUIRED.

C. SPRINKLER PIPING SYSTEM WILL BE CONSIDERED DEFECTIVE IF IT DOES NOT PASS TESTS AND INSPECTIONS.

D. PREPARE TEST AND INSPECTION REPORTS.

3.8 CLEANING

A. CLEAN DIRT AND DEBRIS FROM SPRINKLERS.

B. REMOVE AND REPLACE SPRINKLERS WITH PAINT OTHER THAN FACTORY FINISH.

3.9 PIPING SCHEDULE

A. SPRINKLER SPECIALTY FITTINGS MAY BE USED, DOWNSTREAM OF CONTROL VALVES, INSTEAD OF SPECIFIED FITTINGS.

B. STANDARD-PRESSURE, WET-PIPE SPRINKLER SYSTEM, NPS 2 AND SMALLER, SHALL BE THE FOLLOWING:

1. SCHEDULE 40, BLACK-STEEL PIPE WITH THREADED ENDS; UNCOATED, GRAY-IRON THREADED FITTINGS; AND THREADED JOINTS.

3.10 SPRINKLER SCHEDULE

A. USE SPRINKLER TYPES IN SUBPARAGRAPHS BELOW FOR THE FOLLOWING APPLICATIONS:

1. ROOMS WITH CEILINGS: PENDENT SPRINKLER OR HORIZONTAL SIDEWALL SPRINKLER WITH WHITE ESCUTCHEON.

END OF FIRE SPRINKLER SPECIFICATIONS

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | SCHAFF
DRAWN BY | SCHAFF
REVIEWED BY | KOPP

REVISIONS

FIRE PROTECTION SPECIFICATIONS

F300

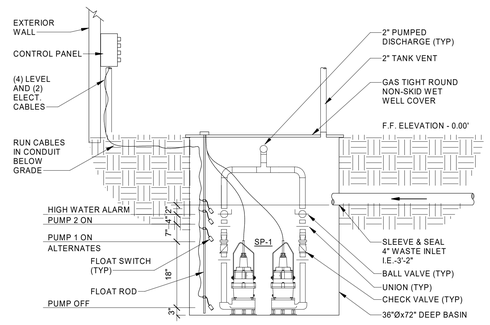
PLUMBING FIXTURE & CONNECTION SCHEDULE

PLAN CODE	ADA	FIXTURE						TRIM			ACCESSORIES			CONNECTIONS				NOTES	PLAN CODE
		ITEM	MANUFACTURER	MODEL	TYPE	MATERIAL	COLOR	TRIM	MANUFACTURER	MODEL	ITEM	MANUFACTURER	MODEL	COLD	HOT	WASTE	VENT		
LAV-1	Y	LAVATORY	AMERICAN STANDARD	0476.028	COUNTER MOUNT	VIT. CHINA	WHITE	FAUCET	MOEN	66410, LEVER HANDLES, 1.2 GPM FLOW, POP-UP WASTE ASSEMBLY	1 1/4" x 1 1/2" CHROME PLATED TRAP WITH CLEANOUT, POP-UP DRAIN, QUARTER TURN SUPPLY STOPS, BRAIDED RISERS	-	-	1/2"	1/2"	2"	1 1/2"		LAV-1
SD-1		SHOWER DRAIN	SIOUX CHIEF	827-2B	4.25" ROUND	BRASS	-	-	-	-	STAINLESS STEEL STRAINER, NO CAULK GASKET	-	-	-	-	2"	1 1/2"		SD-1
SH-1	Y	SHOWER	BEST BATH	LCS26337W75 B.V2	ONE PIECE SLIDE IN	GELCOAT FIBERGLASS	WHITE	SHOWER HEAD	MOEN	TL2368EP SHOWER TRIM WITH 62300 SERIES VALVE	1.75 GPM FLOW, SHOWER ARM AND FLANGE, LEVER STYLE HANDLE, PRESSURE BALANCE VALVE	-	-	1/2"	1/2"	-	-		SH-1
SK-1		SINK	ELKAY	LR2022	COUNTER MOUNT	STAINLESS STEEL	-	FAUCET	MOEN	87891 SINGLE LEVER, 1.5 GPM FLOW, PULLDOWN SPRAY	1 1/2" x 1 1/2" CHROME PLATED TRAP WITH CLEANOUT, QUARTER TURN 3-WAY SUPPLY STOPS, BRAIDED RISERS, GRID DRAIN STRAINER	-	-	1/2"	1/2"	2"	1 1/2"	HOLE CONFIGURATION 4 FOR FAUCET AND HOT WATER DISPENSER FAUCET	SK-1
WC-1	Y	WATER CLOSET	AMERICAN STANDARD	215AA.004	FLOOR MOUNTED	VIT. CHINA	WHITE	-	-	-	SEAT	BEMIS	2155C OPEN FRONT ELONGATED, LESS COVER, STAINLESS STEEL CHECK HINGES	1/2"	-	3"	2"	16.5" RIM, 1.6 GPF	WC-1

SEWAGE PUMP SCHEDULE

PLAN CODE	MANUFACTURER	MODEL	LOCATION	SERVICE	PUMP DATA		ELECTRICAL DATA				OPTIONS & NOTES
					GPM	HEAD PRESS. (FT)	AMPS	RPM	VOLTS	PH	
SP-1	LIBERTY	LE41M	BUILDING EXTERIOR	SIX RESIDENCE ROOMS	20	15	12	1725	120	1	1, 2, 3, 4

NOTES:
(1) PROVIDE LIBERTY DUPLEX CONTROL PANEL, NEMA 4X ENCLOSURE WITH ALARM LIGHT AND ALARM BUZZER. MODEL AE24K=4. MOUNT 5'-0" ABOVE GRADE
(2) PROVIDE LIBERTY TETHERED LEVEL CONTROL FLOATS WITH ALARM FLOAT TO CONTROL PUMP OPERATION. START, STOP AND ALTERNATE
(3) PUMP OPERATION SHALL BE AUTOMATIC
(4) PROVIDE 36" DIAMETER BY 72" DEEP FIBERGLASS SUMP BASIN WITH COMPOSITE ACCESS COVER BOLTED TO TOP



1 P001 SEWAGE EJECTOR DETAIL
NOT TO SCALE

GENERAL PLUMBING NOTES

A. REVIEW ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, AND ELECTRICAL PLANS THOROUGHLY TO BECOME FAMILIAR WITH THIS PROJECT. ALL PLANS AND ALL SPECIFICATIONS COMPRISE ONE DOCUMENT OF WHICH THESE SHEETS ARE ONLY A PART.

B. PIPING SHOWN IS DIAGRAMMATIC ONLY. ANY MAJOR DEVIATION FROM THESE PLANS SHOULD BE COORDINATED WITH THE ENGINEER OF RECORD BEFORE PROCEEDING.

C. ALL NEW PIPING ON MAIN FLOOR SHALL BE CONCEALED IN WALLS, ABOVE CEILING, OR UNDER GROUND UNLESS OTHERWISE NOTED ON THESE PLANS. COORDINATE ROUTING WITH OTHER DISCIPLINES.

D. ALL WORK SHALL COMPLY WITH THE CURRENT ACCEPTED EDITION OF THE 2018 UPC AND ALL APPLICABLE CODES OF LOCAL JURISDICTION.

E. SLOPE SOIL PIPE 1/4" PER FOOT IN DIRECTION OF FLOW, UNLESS NOTED OTHERWISE ON PLANS. SLOPE VENT PIPE 1/8" PER FOOT BACK TO FIXTURES.

PLUMBING LEGEND

SYMBOL	DESCRIPTION
—·—·—CW—·—·—	DOMESTIC COLD WATER
—·—·—HW—·—·—	DOMESTIC HOT WATER
—·—·—HWC—·—·—	DOMESTIC HOT WATER CIRC.
——SS——	SANITARY SEWER
——W——	PUMPED WASTE
——V——	VENT
CO/WCO	CLEANOUT/ WALL CLEANOUT
FCO	FLOOR CLEANOUT
GCO	GRADE CLEANOUT
——CD——	CONDENSATE DRAIN
——D——	DRAIN
——F——	FIRE SERVICE WATER
	TEE UP
	TEE DOWN
	ELBOW UP
	ELBOW DOWN
	PIPE CAP
	CONNECT TO EXISTING
	NEW PIPING
	EXISTING PIPING
	BALL VALVE
	BACKFLOW PREVENTER (TYPE INDICATED)
	UNION
	AUTOMATIC FLOW BALANCING VALVE

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REVIEWED BY | MURRAY
REVISIONS

PLUMBING SCHEDULES AND LEGENDS

P001

PLUMBING SPECIFICATIONS, DIVISION 22

REGULATORY REQUIREMENTS, GENERAL

A. CONSTRUCT THE BUILDING SYSTEMS IN FULL COMPLIANCE WITH ALL APPLICABLE LOCAL BUILDING CODES, LATEST EDITION. COMPLY WITH THE FOLLOWING AS MODIFIED BY THE LOCAL JURISDICTION: 2018 UNIFORM PLUMBING CODE OR CODES ENFORCED BY LOCAL AUTHORITY HAVING JURISDICTION.

B. IN ADDITION, COMPLY WITH THE FOLLOWING: THE LATEST VERSION OF THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND THE UNIFORM FEDERAL ACCESSIBILITY STANDARD, WHICHEVER IS MORE STRINGENT. ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS. OBTAIN REQUIRED PERMITS, PLAN REVIEW AND INSPECTIONS FROM AUTHORITIES HAVING JURISDICTION.

BASIC MECHANICAL REQUIREMENTS

GENERAL

A. SCOPE: THE CONTRACTOR SHALL, INSTALL AND COORDINATE ALL PLUMBING WORK TO PROVIDE COMPLETE AND OPERATIONAL PLUMBING INSTALLATIONS.

B. SUPPLY AND INSTALL COMPLETE PLUMBING SYSTEMS THROUGHOUT TO COMPLETE PROJECT FOR PLUMBING SYSTEMS DESCRIBED HEREIN AND INDICATED ON DRAWINGS. DRAWINGS ARE IN-PART DIAGRAMMATIC.

C. PROVIDE SHOP DRAWINGS FOR ALL PIPING AND EQUIPMENT PRIOR TO ORDERING. CONTRACTOR SHALL BE RESPOSNIBLE FOR SCHEDULING WORK FOR A TWO WEEK SHOP DRAWING REVIEW PERIOD.

D. CONTRACTOR SHALL GUARANTEE THAT ALL MATERIAL FURNISHED BE ACCEPTABLE IN EVERY RESPECT AND, IF NOT FOUND ACCEPTABLE, SHALL REPLACE THE SAME IMMEDIATELY. ALL WORK AND MATERIAL SHALL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

E. CONTRACTOR SHALL PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS TO OWNER AT COMPLETION OF PROJECT. O&M MANUALS SHALL CONTAIN ALL APPROVED EQUIPMENT SUBMITTAL SHEETS; WIRING DIAGRAMS; FACTORY PUBLISHED INSTALLATION, OPERATION, AND MATINENANCE INSTRUCTIONS; AND PARTS LIST.

F. AT PROJECT COMPLETION, THE CONTRACTOR SHALL PROVIDE TRAINING TO THE OWNER THAT DESCRIBES THE CORRECT OPERATIONAND MAINTENANCE OF ALL EQUIPMENT FIXTURES AND EQUIPMENT USING THE O&M MANUAL.

G. PLUMBING PERFORMANCE REQUIREMENTS: PROVIDE COMPONENTS AND INSTALLATION CAPABLE OF PRODUCING PIPING SYSTEMS WITH THE FOLLOWING:
   a. MINIMUM WORKING PRESSURE RATINGS, UNLESS OTHERWISE INDICATED: DOMESTIC WATER PIPING: 125 PSIG
   b. SANITARY WASTE AND VENT PIPING: 10 FT. HEAD OF WATER.

H. PLUMBING DESIGN REQUIREMENTS: COMPLY WITH THE REQUIREMENTS OF THE CITY OF SITKA AND AUTHORITIES HAVING JURISDICTION.

INSULATION

(VALUES BASED ON IECC)

A. ALL FIBERGLASS INSULATION TO INCLUDE WHITE ALL SERVICE JACKET AND PVC FITTING COVERS.

B. DOMESTIC COLD WATER, ABOVE GRADE: 1" PRE-FORMED FIBERGLASS.

C. DOMESTIC HOT WATER AND RECIRCULATING WATER
   a. WATER TEMPERATURES 140°F AND BELOW:
      - PIPE SIZES 1-1/2" AND SMALLER: 1" PRE-FORMED FIBERGLASS.

D. VENT: INSULATE PIPING AT VENT THRU ROOF FROM ROOF PENETRATION TO 6 FEET FROM PENETRATION WITH 1" PRE-FORMED FIBERGLASS.

PLUMBING PIPING

MATERIALS

A. DRAIN, WASTE AND VENT PIPING:
   a. BELOW GRADE: PVC PIPE, ASTM D2665 OR ASTM D3034, WITH PVC FITTINGS AND ASTM D2564 SOLVENT WELDED JOINTS. INCLUDE PRIMER ACCORDING TO ASTM F656.
   b. ABOVE GRADE:
      - PVC PIPE, ASTM D2729 OR ASTM D2665, WITH PVC FITTINGS AND ASTM D2564 SOLVENT WELDED JOINTS. INCLUDE PRIMER ACCORDING TO ASTM F656.
      - CAST IRON PIPE, CISPI 301, HUBLESS, WITH CAST IRON FITTINGS AND CISPI 310 JOINTS WITH NEOPRENE GASKETS AND STAINLESS STEEL CLAMP-AND-SHIELD ASSEMBLIES.

B. DOMESTIC WATER PIPING, ABOVE GRADE:
   a. TYPE L COPPER TUBE, ASTM B88 WITH ONE OF THE FOLLOWING FITTINGS:
      - ASME B16.18 CAST COPPER ALLOY OR ASME B16.22 WROUGHT COPPER AND BRONZE FITTINGS.
      - MECHANICAL PRESS-SEAL FITTINGS. DOUBLE-PRESSED TYPE, NSF 61 AND NSF 372 APPROVED OR CERTIFIED, UTILIZING EPDM, NON-TOXIC, SYNTHETIC RUBBER SEALING ELEMENTS.

C. VALVES:
   a. DOMESTIC WATER: BALL VALVES, 2" AND SMALLER, ASTM B 584, BRONZE BODY AND BONNET, 2-PIECE CONSTRUCTION, CHROME-PLATED BRASS BALL, FULL PORT, BLOWOUT PROOF. BRASS OR BRONZE STEM, TEFLON SEAT AND SEALS, STEM EXTENSION FOR VALVES INSTALLED IN INSULATED PIPING. THREADED ENDS.

HANGERS AND SUPPORTS

A. PIPE HANGER AND SUPPORT INSTALLATION: COMPLY WITH MSS SP-69 AND MSS SP-89. INSTALL HANGERS, SUPPORTS, CLAMPS, AND ATTACHMENTS AS REQUIRED TO PROPERLY SUPPORT PIPING FROM BUILDING STRUCTURE.

B. PROVIDE COPPER-COATED HANGERS FOR DIRECT CONTACT WITH COPPER TUBING.

C. PROVIDE POLYISOCYANURATE THERMAL INSULATION SHIELDS AT HANGER LOCATIONS ON ALL INSULATED PIPING.

D. PROVIDE STRUCTURAL WORK AND EQUIPMENT AS REQUIRED TO CONTROL THERMAL AND SEISMIC MOVEMENT OF PIPING SYSTEMS. VERIFY THAT ALL ANCHORS, GUIDES, AND EXPANSION JOINTS PROVIDED ADEQUATELY PROTECT SYSTEM.

PLUMBING PIPING CONTINUED

CLEANING AND DISINFECTING FOR POTABLE DOMESTIC WATER PIPING

A. PURGE NEW PIPING AND PARTS OF EXISTING PIPING THAT HAVE BEEN ALTERED, EXTENDED, OR REPAIRED BEFORE USING.

B. USE PURGING AND DISINFECTING PROCEDURES PRESCRIBED BY AUTHORITIES HAVING JURISDICTION. IF METHODS ARE NOT PRESCRIBED, USE PROCEDURES DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR FOLLOW PROCEDURES DESCRIBED BELOW:
   a. FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS.
   b. FILL AND ISOLATE SYSTEM ACCORDING TO EITHER OF THE FOLLOWING:
      - PROVIDE NECESSARY CONNECTIONS THROUGHOUT THE PIPING SYSTEM TO INJECT CHLORINE SOLUTION FOR STERILIZATION.
      - STERILIZATION SHALL NOT OCCUR UNTIL ALL PIPING SYSTEMS HAVE BEEN FLUSHED.
      - MEASURE INCOMING WATER PH AND ADJUST AS NECESSARY USING AN ALKALI (CAUSTIC SODA OR SODA ASH) OR AN ACID (HYDROCHLORIC ACID) TO MAINTAIN PH IN THE RANGE OF 7.4 TO 7.6.
      - INJECT CHLORINE DISINFECTANT (FREE CHLORINE IN LIQUID, POWDER, OR TABLET FORM) INTO THE SYSTEM UNTIL RESIDUAL CHLORINE OF 50 TO 80 mg/L OCCURS IN EACH BRANCH LINE.
      - BLEED WATER FROM SYSTEM TO ENSURE CHLORINE DISTRIBUTION IN EACH BRANCH AND OBTAIN TEST SAMPLES FROM 15 PERCENT OF SPRINKLER LOCATIONS FOR EACH ZONE.
      - MAINTAIN CHLORINE SOLUTION IN SYSTEM FOR 24 HOURS.
      - MEASURE CHLORINE CONTENT AT END OF 24 HOUR PERIOD. REDOSE AND BLEED WATER FROM EACH BRANCH IF RESIDUAL CHLORINE CONTENT IS LESS THAN 25 mg/L, OR EQUAL TO THE CHLORINE CONTENTE OF THE INCOMING WATER.
      - ONCE SYSTEM RESIDUAL MEETS OR EXCEEDS 25 mg/L AFTER 24 HOURS, FLUSH ALL SYSTEM PIPING UNTIL RESIDUAL CHLORINE LEVEL IS 1 mg/L OR EQUAL TO THE CHLORINE CONTENT OF THE INCOMING WATER.
      - TAKE WATER SAMPLES FROM TWO PERCENT OF THE SPRINKLER LOCATIONS FOR EACH ZONE AND AT THE WATER ENTRY POINT. ANALYZE SAMPLES IN ACCORDANCE WITH AWWA C651 AND REPORT RESULTS TO OWNER.
   c. REPEAT PROCEDURES IF BIOLOGICAL EXAMINATION SHOWN CONTAMINATION.

C. PREPARE AND SUBMIT REPORTS OF PURGING AND DISINFECTING ACTIVITIES. INCLUDE COPIES OF WATER-SAMPLE APPROVALS FROM AUTHORITIES HAVING JURISDICTION.

D. CLEAN INTERIOR OF DOMESTIC WATER PIPING SYSTEM. REMOVE DIRT AND DEBRIS AS WORK PROGRESSES.

E. CLEAN FIXTURES, FAUCETS AND OTHER FITTINGS WITH MANUFACTURER'S RECOMMENDED CLEANING METHODS AND MATERIALS.

TESTING

A. GENERAL: THE PURPOSE OF PIPE TESTING IS TO OBTAIN EVIDENCE OF SATISFACTORY WORKMANSHIP AND MATERIALS. REMAKE OR REPAIR ALL SYSTEMS WHICH DO NOT PRODUCE SATISFACTORY RESULTS. SHOW A SIGNATURE FROM OWNER, CODE OFFICIAL, OR ENGINEER'S ASSIGNEE THAT EACH TEST WAS WITNESSED.

B. DOMESTIC WATER: INSTALL ALL PIPING TO THE POINT OF CONNECTION TO MAIN BUT DO NOT MAKE THE TIE-IN. USE THE STANDARD 2-HOUR AIR PRESSURE TST WITH NO LOSS OF AIR PRESSURE. MAKE THE TIE-IN TO EXISTING, PRESSURIZE, AND INSPECT FOR LEAKS. FLUSH NEW PIPING THOROUGHLY, OPERATING ALL VALVES AND FAUCETS DURING FLUSH.

C. DRAIN, WASTE, VENT, RAINLEADER, AND RAINLEADER OVERFLOW: INSTALL ALL PIPING TO THE POINT OF CONNECTION TO MAIN BUT DO NOT MAKE TIE-IN. USE THE STANDARD AIR PRESSURE TEST AND SOAP ALL JOINTS. INSPECT FOR LEAKS. MAKE THE TIE-IN TO EXISTING AND INSPECT FOR LEAKS, OPERATING ALL FIXTURES DISCHARGING INTO THE PIPING BEING TESTED FOR AT LEAST 5 MINUTES CONTINUOUSLY.

D. TEST INSTALLED FIXTURES AFTER WATER SYSTEMS ARE PRESSURIZED FOR PROPER OPERATION. REPLACE MALFUNCTIONING FIXTURES AND COMPONENTS, THEN RETEST. REPEAT PROCEDURE UNTIL UNITS OPERATE PROPERLY.

PLUMBING EXECUTION

A. SLOPE DRAIN AND WASTE PIPING IN DIRECTION OF FLOW UNLESS NOTED OTHERWISE ON PLANS:
   a. PIPE SIZE 4" OR SMALLER: 1/4" PER FOOT

B. SLOPE VENT PIPE 1/8" PER FOOT BACK TO FIXTURES.

C. INSTALL ALL EQUIPMENT, ACCESSORIES AND SPECIALTIES ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND PROVIDE ACCESS FOR PERIODIC MAINTENANCE, CLEANING AND SERVICING. PROVIDE MANUFACTURER'S RECOMMENDED CLEARANCES.

D. INSTALL PIPING TO PERMIT VALVE SERVICING.

E. FOR WALL-HANGING FIXTURES, INSTALL OFF-FLOOR SUPPORTS AFFIXED TO BUILDING SUBSTRATE.

F. INSTALL WOOD-BACKING REINFORCEMENT FOR WALL MOUNTING AND RECESSED-TYPE PLUMBING SPECIALTIES. FASTEN RECESSED-TYPE PLUMBING SPECIALTIES TO REINFORCEMENT BUILT INTO WALLS.

G. INSTALL BUILDING ATTACHMENTS WITHIN CONCRETE SLABS OR ATTACHED TO STRUCTURAL STEEL.

H. INSTALL AND SECURE FIXTURES IN PLACE WITH WALL CARRIERS AND BOLTS. SEAL FIXTURES TO WALL AND FLOOR SURFACES WITH SEALANT, COLOR TO MATCH FIXTURE.

I. INSTALL EQUIPMENT AND COMPONENTS LEVEL AND PLUMB. SET SERVICE SINKS IN A LEVELING BED OF CEMENT GROUT.

J. INSULATE AND COVER ALL DRAINAGE AND WATER SUPPLY PIPING LOCATED UNDER LAVATORIES AND SINKS.

K. EXTEND CLEANOUTS TO FINISHED FLOOR OR WALL SURFACE. INSTALL CHROME PLATED ROUND COVER. DO NOT INSTALL FLOOR CLEANOUTS IN TRAFFIC AREAS OF FINISHED CORRIDORS.

L. PROVIDE PROTECTIVE COVERING OF INSTALLED FIXTURES. DO NOT ALLOW USE OF FIXTURES FOR TEMPORARY FACILITIES UNLESS APPROVED IN WRITING BY OWNER.

M. INSTALL PIPING IN CONCEALED LOCATIONS, UNLESS OTHERWISE INDICATED AND EXCEPT IN EQUIPMENT ROOMS AND SERVICE AREAS. INSTALL PIPING TO PERMIT REMOVAL OF CEILING PANELS.

N. MAINTAIN INDICATED FIRE RATING OF WALLS, PARTITIONS, CEILINGS, AND FLOORS AT PIPE PENETRATIONS. SEAL PIPE PENETRATIONS WITH UL LISTED FIRE STOP MATERIALS.

O. BRANCH SHUT-OFF VALVES SHALL BE PROVIDED FOR ALL DOMESTIC WATER TAKEOFFS.

P. INSTALL PIPING FREE OF SAGS AND BENDS.

Q. INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS.

R. INSTALL PIPING TO ALLOW APPLICATION OF INSULATION.

S. INSTALL COPPER WATER TUBE ACCORDING TO CDA'S "COPPER TUBE HANDBOOK" LATEST EDITION.

T. INSTALL PVC SOIL AND WASTE DRAINAGE VENT PIPING ACCORDING TO ASTM D 2665.

U. INSTALL UNDERGROUND PVC SOIL AND WASTE DRAINAGE PIPING ACCORDING TO ASTM D 2321.

V. PROVIDE DIELECTRIC NIPPLES AT CONNECTIONS BETWEEN DISSIMILAR METALS. DIELECTRIC COUPLINGS OR UNIONS ARE NOT ACCEPTABLE.

W. INSTALL EACH FIXTURE WITH TRAP, EASILY REMOVABLE FOR SERVICING AND CLEANING. FOR LAVATORIES AND SINKS SUBJECT TO ADA REQUIREMENTS, PROVIDE MANUFACTURED FORMED INSULATING JACKETS FOR ALL EXPOSED WASTES, P-TRAPS, AND WATER SUPPLY RISER FITTINGS AND PIPING.

X. PROVIDE STAINLESS STEEL, BRAIDED, FLEXIBLE SUPPLIES TO FIXTURES WITH BALL-TYPE STOPS, REDUCERS, AND CHROME PLATED ESCUTCHEONS.

Y. INSTALL CHROME PLATED ESCUTCHEONS AT WALL PENETRATIONS IN EXPOSED FINISHED LOCATIONS AND WITHIN CABINETS AND MILLWORK.

Z. PIPING ROUTING SHOWN IS EXPANDED FOR CLARITY. EXACT ROUTING MAY VARY TO ACCOMODATE EQUIPMENT AND ACCESSIBILITY REQUIREMENTS.

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SITKA PATIENT HOUSING EXPANSION

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CONSTRUCTION DOCUMENTS

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DESIGNED BY | KRAT
DRAWN BY | KRAT
REVIEWED BY | MURRAY

REVISIONS

PLUMBING SPECIFICATIONS

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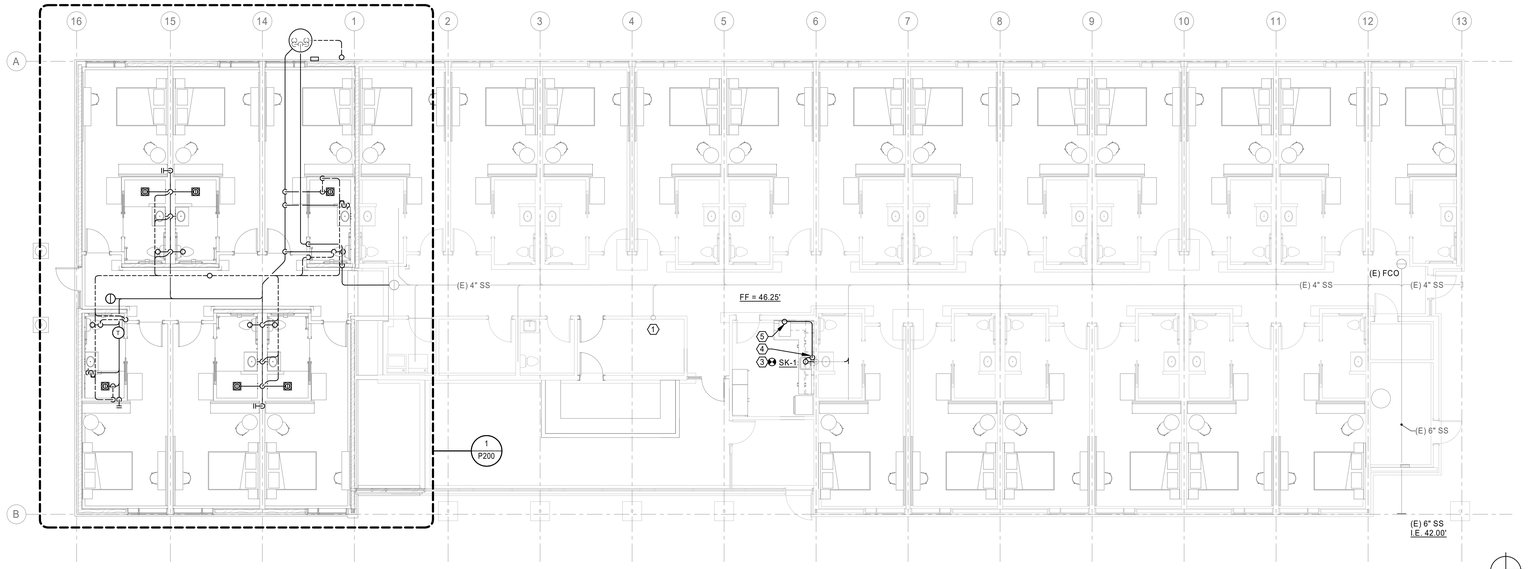
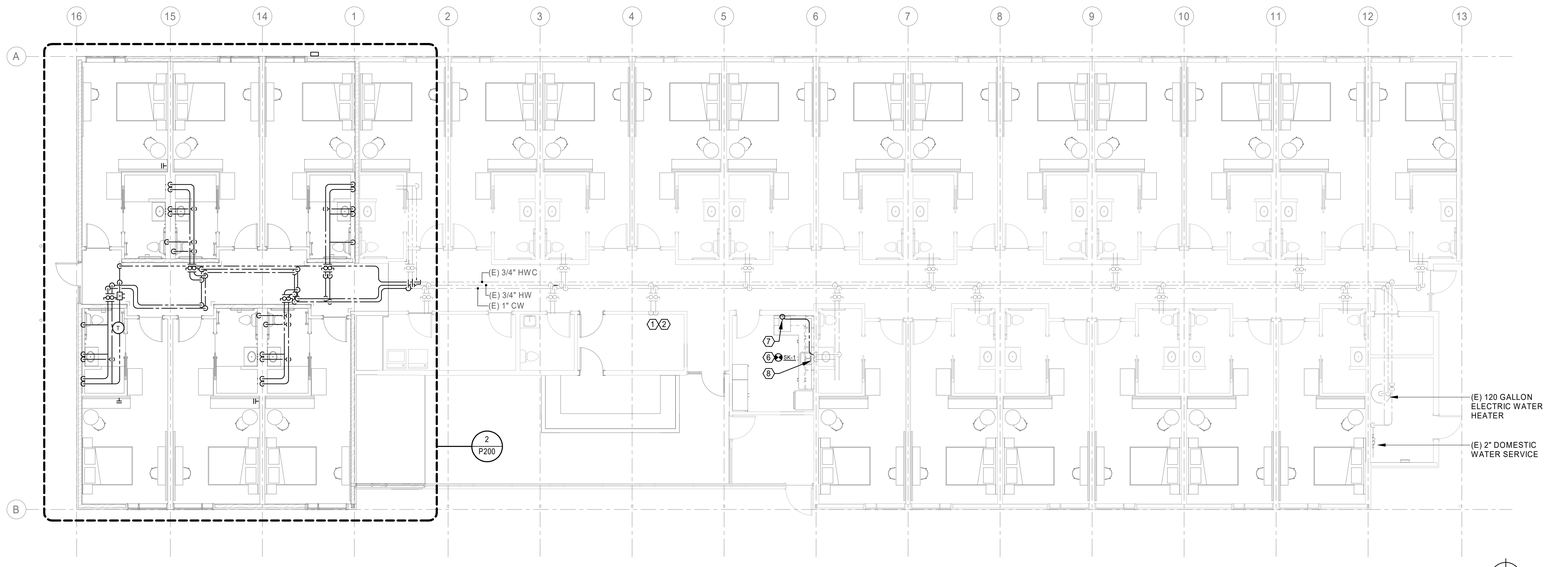


1 P100 PLUMBING PLAN - WASTE & VENT
1/8" = 1'-0"

NORTH REF

KEYNOTES

1. REMOVE EXISTING SINK, FAUCET AND ALL ASSOCIATED ACCESSORIES. REMOVE WASTE, HW AND CW LINES TO INSIDE WALL AND CAP.
2. REMOVE AND RELOCATE EXISTING ICE MACHINE AND HOT WATER DISPENSER.
3. CONNECT NEW 2" WASTE TO EXISTING LAV WASTE INSIDE WALL.
4. CONNECT 1 1/2" DRAIN TO SINK TAILPIECE. ROUTE UNDER COUNTER TO A 3" HUB DRAIN.
5. RUN 1/2" DRAIN FROM RELOCATED ICE MACHINE BELOW COUNTER AND TERMINATE OVER HUB DRAIN PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
6. CONNECT NEW 1/2" HW AND 1/2" CW TO EXISTING INSIDE WALL. PROVIDE 3-WAY SUPPLY STOPS AT BOTH HW AND CW ROUGH-INS FOR NEW SINK.
7. RUN 3/8" CW FROM 3-WAY SUPPLY STOP TO SINK FAUCET AND 3/8" CW BELOW COUNTER TO RELOCATED ICE MAKER. CONNECT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
8. RUN 3/8" HW FROM 3-WAY SUPPLY STOP TO SINK FAUCET AND 1/4" HW BELOW COUNTER TO RELOCATED HOT WATER DISPENSER. CONNECT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.



2 P100 PLUMBING PLAN - WATER & GAS
1/8" = 1'-0"

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PLUMBING PLANS

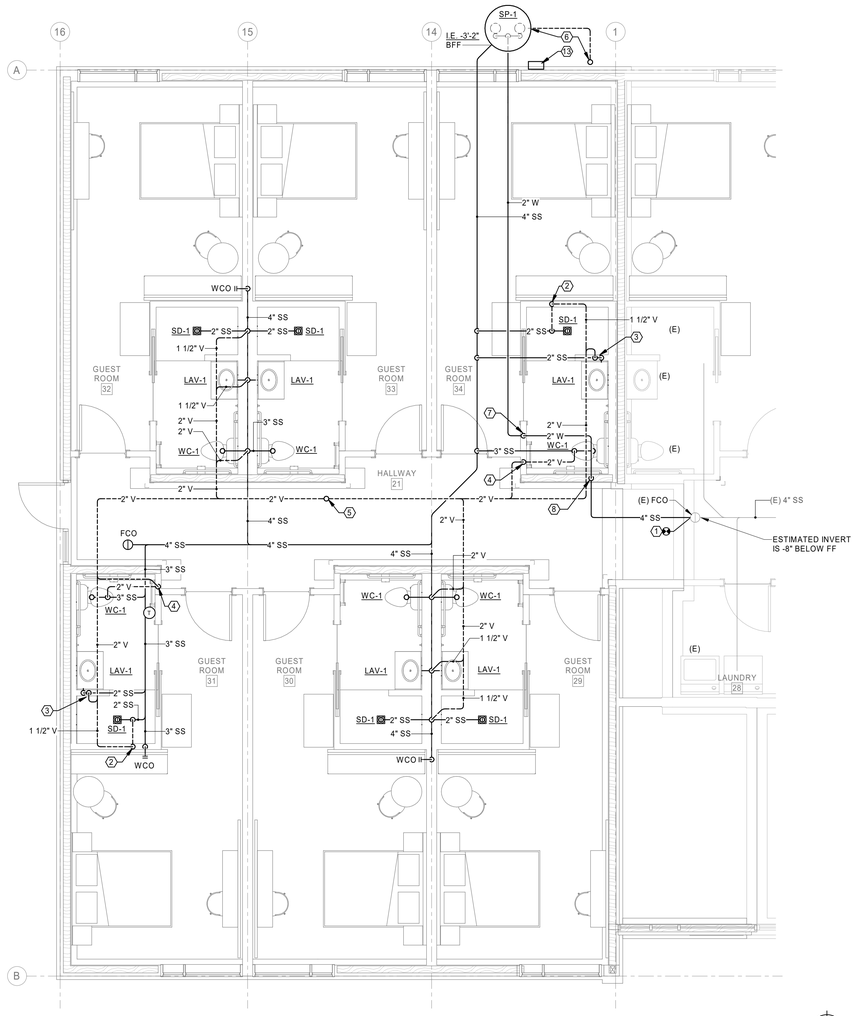
P100

DEMOLITION KEYNOTES

1. DISCONNECT EXISTING HW AND CW AT THE ELBOW. PREP AND SAVE PIPE AT BOTH ENDS FOR RECONNECTION.
2. DISCONNECT EXISTING HWC AT THE ELBOW. CAP AND ABANDON IN PLACE EXISTING HWC BRANCH. PREP AND SAVE MAIN FOR RECONNECTION.

KEYNOTES

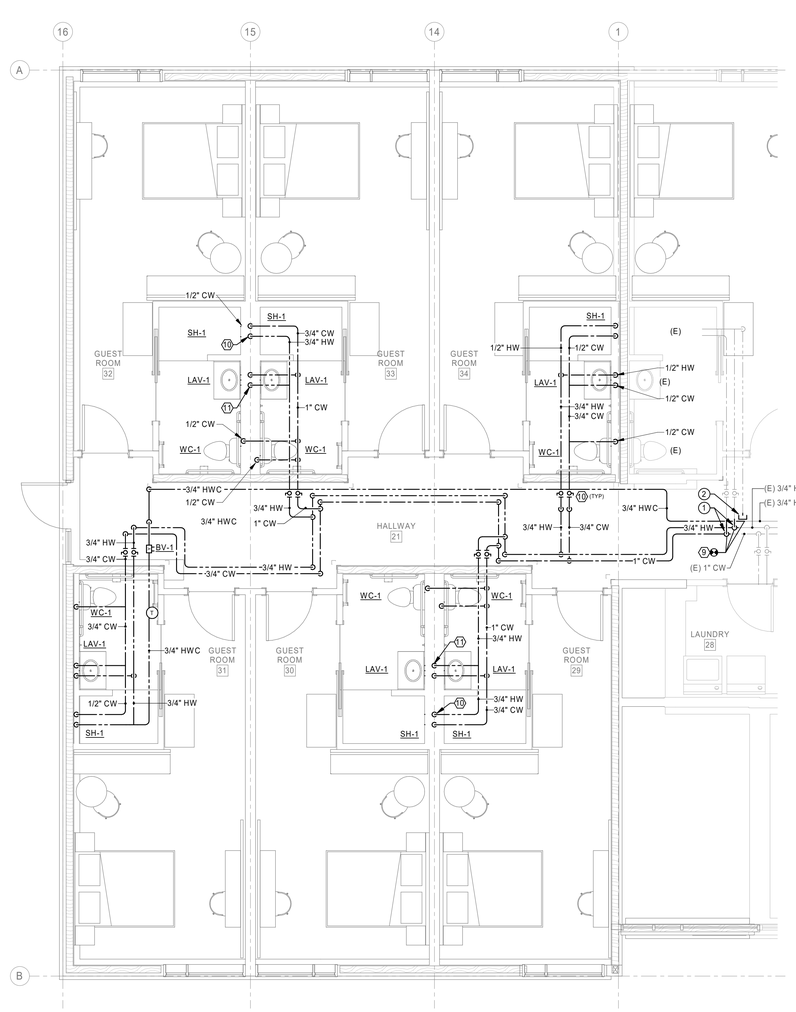
1. POINT ON CONNECTION 4" WASTE TO EXISTING AT THE CLEANOUT. FILED VERIFY EXACT INVERT ELEVATION. MODIFY EXISTING CLEANOUT AS REQUIRED FOR NEW CONNECTION.
2. 1 1/2" VENT BELOW GRADE AND UP IN WALL TO ABOVE CEILING.
3. OFFSET 1 1/2" IN WALL TO CLEAR MECHANICL DUCT ABOVE.
4. 2" VENT BELOW GRADE AND UP IN WALL TO ABOVE CEILING.
5. 2" VENT UP. TRANSITION TO 3" AND RUN UP TO 3" VTR.
6. 2" SUMP BASIN VENT BELOW GRADE. RUN UP ALONG BUILDING EXTERIOR AND TERMINATE 8'-0" ABOVE GRADE.
7. 2" PUMPED WASTE BELOW GRADE AND UP IN WALL TO ABOVE CEILING.
8. 2" PUMPED WASTE DOWN. TRANSITION TO 4" GRAVITY WASTE 6'-0" ABOVE FLOOR. 4" WASTE DOWN IN WALL TO BELOW GRADE. COORDINATE WITH STRUCTURAL FOOTING.
9. POINT OF CONNECTION 1" CW, 3/4" HW AND 3/4" HWC TO EXISTING ABOVE CEILING.
10. SHUT-OFF VALVES ABOVE LOCATED ABOVE ACCESSIBLE CEILING.
11. 1/2" HW AND 1/2" CW DOWN IN WALL WITH CONNECTIONS TO EACH LAV-1.
12. 3/4" HW AND 3/4" CW DOWN IN WALL WITH 1/2" CONNECTIONS TO EACH SH-1.
13. DUPLEX SEWAGE PUMP CONTROL PANEL MOUNTED ON WALL OR UNISTRUT PIPE SUPPORTS.



1 P200 ENLARGED PLUMBING PLAN - WASTE & VENT

1/4" = 1'-0"

NORTH REF



2 P200 ENLARGED PLUMBING PLAN - WATER

1/4" = 1'-0"

Cushing Terrell.
cushingterrell.com
800.757.9522

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | KRAT
DRAWN BY | KRAT
REVIEWED BY | MURRAY
REVISIONS

ENLARGED PLUMBING PLANS

P200

MECHANICAL SPECIFICATIONS

PART 1 - GENERAL

1. The scope of work is to provide labor, materials, services, supplies, tools, equipment, permits, transportation and facilities necessary for demolition and removal of existing systems not noted to be reused and to furnish and install the complete and operable systems as called for.

2. The complete installation shall be in compliance with the applicable latest or accepted edition of the International Building Code as adopted by the State of Alaska and amended by the City/Town of SITKA, NFPA and other applicable rules and regulations as prescribed by the administrative authority.

3. These drawings are diagrammatic only and indicate the general arrangement of systems and equipment. Basic design concepts must be followed or bettered. Do not scale drawings, field verify dimensions and field conditions.

4. It is not intended that drawings show every detail. Provide offsets, changes in elevation and items necessary for proper installation and operation of system so that work will be complete and ready for operation.

5. Coordinate work with other trades, verify building conditions and structural conditions prior to installation.

6. In the event of a discrepancy, immediately notify the owner's representative. Do not proceed with installation in areas of discrepancy until such discrepancies have been resolved.

7. Execute work in a neat and workmanlike manner in conformance with best modern trade practice, (i.e.: ASME, SMACNA, ANSI, ASHRAE, ASPE, AGA, API) by competent, experienced mechanics, presenting a neat appearance when completed. Replace work not approved by owner's representative without additional charge.

8. Submit complete electronic PDF copy of catalog information for materials and equipment. Information required includes manufacturer, capacity, type, curves, certification, accessories, physical and performance data, finishes, materials and location. Confirm dimensions at job site to insure that items to be furnished fit the space available. Submit shop drawing prior to installation or purchase with the date, contractors stamp and signature provided. No installation is permitted prior to review.

9. Maintain at the site one record set of drawings, specifications, addenda, change orders, accepted shop drawings and accepted submittals to remain as record drawings of the work as installed. Provide one full size set of the corrected record drawings and a PDF plot files to the owner.

10. Operating and maintenance manuals: before final acceptance of project submit three (3) copies of complete operating instructions and service manuals neatly bound and consisting of the following: Neatly typewritten index, instructions on all equipment operation, parts replacement information, guarantees and warranties, testing and balancing reports, service manuals, automatic temperature control drawings and diagrammatic charts.

11. Equipment shall meet UL and NEC standards. Equipment and materials for which there is a listing service shall bear a UL label. Materials shall have a flame spread rating of 25 or less and a smoke development rating of 50 or less. Material shall be asbestos free.

12. Conceal contract work above ceilings and in wall chases unless otherwise called for.

13. Provide cutting and patching as required for the installation of contract work. Patching materials and methods shall match adjacent materials.

14. Prime coat and paint exposed metal pipe, supports and equipment except those items with galvanized or factory finish.

PART 2 - TESTING ADJUSTING AND BALANCING (TAB)

1. QUALITY ASSURANCE:

   A. TAB Firm Qualifications: Engage a TAB firm certified by either AABC or NEBB.
   B. The Test and Balance Contractor shall be an independent consultant. The firmshall be independent of all Contractors including the Mechanical and Temperature Controls Contractor.

2. GENERAL

   A. Submittals: After testing and balancing is complete submit a report bearing the signature of the test and balance engineer or technician. The reports shall be certified proof that the systems have been tested, adjusted and balanced in accordance with NEBB and ASHRAE standards. Submit two copies of the report to the engineer for approval.
   B. Report Contents: Provide test and balancing agency, contractor, owner and contractor addresses. Include listing of instrumentation used for procedures along with proof of calibration. The remainder of the report shall contain the appropriate forms containing as a minimum the information indicated on the standard report forms prepared by the NEBB, for each respective system.
   C. Procedure: Balance all air systems to the air flow values indicated on the plans using procedures recommended by ASHRAE and NEBB, including:
      a. Ducted Fan Coil Unit: All Diffusers (new and existing), Return grille, and Outside air Louver.

PART 3 - SHEETMETAL AND SHEET METAL ACCESSORIES

1. Ductwork shall be constructed for a minimum pressure class of 2 in. wg. hangers, supports, bracing, gauges (26 gauge minimum) and weights shall be per SMACNA and NFPA. Materials new, marked with manufacturer's name and comply with applicable ASTM and ANSI standards. Transverse and longitudinal joints shall be sealed with duct joint sealant or be of welded construction.

2. Rectangular duct shall have corner closures as described and illustrated by SMACNA Duct Construction Standards. Throat radius of elbow not less than dimension of duct in plane of radius; where this cannot be maintained, use shorter radius with internal guide vanes.

3. Round ductwork shall be spiral lock seam or continuous fusion-welded longitudinal seam. Fittings shall be press formed continuous welded seams. Adjustable elbows may be used for round duct up to 12 inches, seal adjustable joint after installation. Pipe to pipe joints shall be made with sleeve couplings, pipe to fitting joints shall be slip-fit.

4. Seal duct joints with sealant, water based mastic, fiber reinforced. Air Seal 33 or approved equal.

5. Configuration and sizes of ductwork are the basis of design, rectangular aspect or round ductwork may be used that maintains equivalent hydraulic diameter, static loss and duct velocity. Contractor is responsible for coordination of sizes of ductwork and locations to maintain clearances to allow proper installation of work of other trades and building systems.

6. Provide seismic restraint for all ductwork except where hangers are 12 inch long or less or have a cross-sectional area of 6 sq. ft. or less. Where seismic restraints are required space at 40 ft. for transverse bracing and at 80 ft. for longitudinal bracing, submit certified engineered shop drawings prior to installation.

7. Duct liner shall be flexible elastomeric thermal insulation, self-adhering sheets. UL No 181 and NFPA 90A. Increase duct dimensions to accommodate lining. Adhere to interior side of duct. Abutting edges shall be sealed with manufacturer's approved coating, exposed edges shall be provided with sheet metal nosing. Armacell AAP/Armaflex SA Duct Liner.

8. Flexible ductwork shall be in compliance with NFPA Bulletin 90A, ASTM C1071, UL Standard 181, Class I air duct. Consist of corrosion resistant spring steel helix, acoustical rated internal material, laminated multilayer reinforced aluminum foil fabric, suitable for static pressure in ductwork, minimum 4 inch w.g. Factory applied, R-6 fiberglass exterior insulation, sheathed in seamless reinforced exterior vapor barrier jacket, with vapor cuffs both ends. 200 degrees F temperature, UL listed. Design Equipment: Thermaflex G-KM. Make: Clevelflex, Flexmaster, Genflex, Technaflex or Thermaflex.

9. Flexible connectors shall be fire retardant, water and mildew resistant and comply with UL standard 214. Make connections with 1 inch of excess material between equipment collars. Fabric shall be 20 oz. per square yard. Vent Fabrics Inc. "Ventfab."

PART 4 - EQUIPMENT AND ACCESSORIES

1. Packaged Terminal Air conditioners: Self-contained packaged air cooled air conditioning heat pump unit with supplemental electric heating coil. Wall Sleeve, 16 gauge zinc coated steel, phosphatized and coated with a corrosion resistant finish and four sided heavy duty neoprene seals. Room Cabinets, 16 gauge steel, welded construction. Phosphatized and finished in baked enamel. Four-way adjustable discharge grilles. Factory installed hinged access door to control compartment. Removal of front panel for access to filters and coil. Heating Coil, nickel-chrome wire embedded in refractory encased in steel sheath with spiral wound steel fins. Each element protected from overheating with high temperature limit switch of automatic reset, snap-action thermostat type. Supporting brackets attached to back to provide longitudinal movement for expansion and contraction. Fan delay switch to dissipate coil heat after element de-energized. Cooling and Heating Chassis, manual reset overload protection. Completely self-contained hermetically sealed air-cooled refrigeration system, including evaporator and fan controls. Provision shall be made for easy removal or insertion of the chassis as a unit without removal or disconnection of heating coil, heating controls, or room-side fan assembly. Compressor shall be mounted on vibration isolators. Cooling coils shall be copper tubes tested at twice maximum operating pressure. Provide means whereby the cooling cycle cannot be damaged when the heating coil is hot. Precharged factory tested refrigeration circuit. Room-Side Fan, two double inlet aluminum centrifugal blowers. Direct connected to resiliency mounted, PSC motor with built-in overload protection. Two speed, permanently lubricated. Controls, factory installed and wired controls and control panel. Three-position selector switch. Self-contained adjustable unit mounted thermostat controlling both heating and cooling mode of operation. Reversing valve and changeover controls. Completely factory wire the unit, provide a field wiring terminal junction box of size to comply with NEC to accept field wiring. Filter: Permanent cleanable type air filters. Condensate Disposal System, guaranteed to eliminate moisture without drip, splash, or spray on building exterior. Louver, extruded anodized aluminum outside air louver with 1/8 in. thick horizontal bars assembled in extruded aluminum struts and frame suitable for installation in type of wall installed. Filter, permanent cleanable type air filters. Manufacturer's Warranty, room unit: Twelve months. Hermetic refrigerant system: Sixty months. Approved manufacturers: Friedrich, Amana, LG, GE.

2. Ceiling Exhaust Fans: Acoustically insulated housing constructed of heavy gauge steel, phosphatized and finished in baked-on enamel, adjustable mounting brackets, permanently lubricated resiliently mounted motor, integral junction box with disconnect switch, backdraft damper at fan discharge, aluminum or plastic inlet grille, with outlet duct collars. Multi-speed controller with adjustable delay timer. Ceiling radiation damper where installed in rated ceilings. Fans shall have ECM motors and low sound rating. Soffit eave vent air terminal as called for. Approved manufacturers: Panasonic or ACME, Carnes, Cook, Greenheck, ILG, Penn.

3. Electric Unit Heater: Totally enclosed lifetime-lubricated ball bearing fan motor with fan delay to purge residual heat. High-temperature limit control with automatic reset. With white epoxy/polyester powder paint finish. Arrangement as called for. Approved manufacturers: Trane, Reznor, Qmark, King, Modine, Vulcan.

4. Louvers: Factory constructed aluminum louvers. 4 in. deep stormproof blades. With 1/2 in. mesh, 14 gauge wire, aluminum bird screen secured in removable frame, secured to back of louver, extruded sections 6063-T5 alloy, 0.8 in. minimum thickness, 4 in. deep, unless otherwise called for. One piece structural head. Sill extension and sill style as required. Stainless steel fasteners: Anodized finish color as selected at review of submittal. Approved manufacturers: American Warming & Ventilating Inc., Arrow, Carnes, Louvers & Dampers, Inc., Ruskin, Greenheck, Pottoroff.

DUCTED ELECTRIC HEAT FAN COIL UNIT

1. All units shall be Direct Drive – Draw Through configuration and completely factory assembled, tested and shipped as one piece. All units shall be capable of meeting or exceeding the scheduled capacities for cooling, heating and air delivery. All unit dimensions, for each model and size, shall be considered maximums. Units shall be UL or ETL, listed in compliance with UL 1995, and be certified as complying with the latest edition of AHRI Standard 440. Must meet the requirements of NFPA 90A and UL 181.

2. All unit chassis shall be fabricated of heavy gauge galvanized steel panels able to meet 125-hour salt spray test per ASTM B-117. All panels surrounding the coil shall be insulated with 3/4" (19) thick closed cell fiber-free liner and rated for air velocity of 6000 f.p.m. Insulation must meet all requirements of ASTM C1071 (including C665), UL 181 for erosion, and carry a 25/50 rating for flame spread/smoke developed per ASTM E-84, UL 723 and NFPA 90A. All other panels, surrounding the units, must also be acoustically and thermally insulated with a minimum of ¾" (19) insulation with dual density insulation fiber glass insulation where all exposed edges are coated to prevent air erosion.Unit cabinet shall have side and bottom full size access panels for ease of maintenance and service and motor blower removal. Access panels shall be attached to casing with screws.

3. Casing leakage shall not exceed 2% of rated airflow @ .5" w.g. (125 Pa).

4. Unit shall be draw through type with fan dynamically balanced, forwardly curved; DWDI centrifugal type constructed of 18-gauge zinc coated galvanized steel for corrosion resistance. The fan assembly shall be easily removable for servicing the motor and blower at, or away from the unit. The entire fan assembly shall be able to come out of the unit by removing four nuts per fan and disconnecting the motor(s) wires.

5. Motor shall be direct drive, isolated from blower and fan housing in at least four (4) locations with rubber isolators to eliminate any motor vibration being transmitted to the fan housing and duct. Motor shall be capable to be serviced through the bottom or side panel. Provide isolation between fan motor assembly and unit casing in at least four (4) locations to eliminate any vibration from the fan to the terminal unit casing. Motors shall be high efficiency, permanently lubricated sleeve bearing. Single speed motors are not acceptable. Motor wires shall be brought into external hinged door control enclosure to facilitate wiring and service. Motors shall be ECM, Electronic Commutated Motors with UL and CSA listed automatic reset thermal overload protection and factory-programmed and run-tested in assembled units with fully variable speed capability. The motor designed for use with single phase power shall have a controller mounted in a control box with a built-in integrated user interface. If adjustments are needed, motor parameters can be adjusted without factory service personnel at the motor control board. Motors shall soft-ramp to programmed specific to minimize the acoustics due to sudden speed changes. Motors can be operated at the established range of airflows with a factory or field-supplied variable speed controller. All motors have integral thermal overload protection with a maximum ambient operating temperature of 104°F. Motors are capable of starting at 50 percent of rated voltage and operating at 90 percent of rated voltage on all speed settings. Motors can operate up to 10 percent over voltage.

6. Sound: Units shall have discharge and radiated sound power levels published and tested in accordance with AHRI Standard 880.

7. Filters: Unit to be furnished with a minimum 1" nominal glass fiber throwaway filter. Filters shall be tight fitting to prevent air bypass. Unit shall be furnished with the FFR Ducted Filter Rack to facilitate the installation of inlet duct. FFR Filter Rack shall have hinged door flap with latch on the side and bottom to facilitate filter replacement.

8. Electrical: Units shall be furnished with a hinged door control enclosure and wired single point power connection. All power and control wiring shall conform to National Electric Code Standards. Within the control enclosure it shall include all required devices, including but not limited to, service switch, relay, control power transformers and control packages, low voltage remote shutdown relays, etc.

9. Electric heat: Furnish an electric resistance heating assembly as an integral part of the fan coil unit, with the heating capacity, voltage and kilowatts scheduled. The heater assembly shall be designed and rated for installation on the fan coil unit and be located in the unit as to not expose the fan assembly to excessive leaving air temperatures that could affect motor performance. The heater and unit assembly shall be listed for zero clearance and meet all NEC requirements and be ETL listed with the unit as an assembly in compliance with UL 1995. A NEMA 1 enclosure with hinges shall be placed at the side of the fan coil to provide easy access. All motor wiring and heater terminates in the enclosure for single point electrical connection. All heating elements shall be open coil high grade Class A 80/20 nickel/chrome element wire mounted in ceramic insulators and located in an insulated heavy gauge galvanized steel housing. All elements shall terminate in a machine staked stainless steel terminal secured with stainless steel hardware for corrosion resistance. The element support brackets shall be spaced no greater than 3-1/2" on center. All internal wiring shall be rated for 105°C minimum. All heaters shall include over temperature protection consisting of an automatic reset primary thermal limit. All units with electric heat shall be provided with an incoming line power distribution block, designated to accept single point power wiring capable of carrying 125% of the calculated load current. A Class 2 transformer shall be provided for low voltage control. All devices shall be serviceable through the hinged enclosure and without removing heating element from the unit. Heating coils shall be controlled with the SCR option and proportional control to provide infinite heater control. With positive pressure air flow switch.

10. Controls: Controller and sensors provided by others but mounted and wired during unit assembly at the fan coil manufacturing facility.

PTAC HEAT PUMP UNIT SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	COOLING CAPACITY (BTU/HR)	EER RATING	REFRIG.	SCFM (LOW/HIGH SPEED)	OUTSIDE AIR CFM	HEAT SOURCE	REVERSE HEATING CAPACITY (MBH)	ELECTRIC HEATER (KW)	POWER	MCA	MOCP	NOTES
PTHP-22	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4
PTHP-23	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4
PTHP-24	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4
PTHP-25	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4
PTHP-26	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4
PTHP-27	FRIEDRICH	PDH12K	12,100	11.6	R-32	306 / 340	52	ELECTRIC	10.7	3.12	208 / 1 / 60	19.9	20	1, 2, 3, 4

NOTES:
1) PROVIDE WITH ARCHITECTURAL ALUMINUM WALL LOUVER
2) PROVIDE WITH UNIT MOUNTED ELECTRONIC CONTROLS AND INTEGRAL THERMOSTAT
3) PROVIDE WITH NEMA DISCONNECT
4) PROVIDE WITH WALL SLEEVE AND CONDENSATE DRAIN KIT FOR EXTERNAL DRAINING
5) PROVIDE WITH SUB-BASE KIT

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

PLAN CODE	MFGR	MODEL	FACE SIZE			NECK SIZE			MAX CFM	NOISE CRITERIA (NC)	TOTAL PRESSURE (IN WC)	STYLE	MATERIAL	FINISH	NOTES
			WIDTH	HEIGHT	Ø	WIDTH	HEIGHT	Ø							
S-1	TITUS	MCD	24	24	-	6	6	6	150	-	0.05	LAY-IN	ALUMINUM	WHITE	
S-2	TITUS	MCD	9	9	-	6	6	6	100	-	0.02	SURFACE	ALUMINUM	WHITE	
S-3	TITUS	MCD	11	11	-	8	8	8	200	-	0.03	SURFACE	ALUMINUM	WHITE	
S-4	TITUS	MCD	24	24	-	8	8	8	250	16	0.05	LAY-IN	ALUMINUM	WHITE	
R-1	TITUS	50F	24	24	-	14	14	-	700	-	0.05	LAY-IN	ALUMINUM	WHITE	
T-1	TITUS	50F	24	24	-	12	12	-	520	-	0.015	LAY-IN	ALUMINUM	WHITE	
T-2	TITUS	50F	13	13	-	10	10	-	200	-	0.015	SURFACE	ALUMINUM	WHITE	
T-3	TITUS	50F	19	19	-	16	16	-	450	-	0.01	SURFACE	ALUMINUM	WHITE	

NOTES:

EXHAUST FAN SCHEDULE

PLAN CODE	MANUFACTURER	MODEL	TYPE	DRIVE	CFM	RPM	ESP (" H2O)	MOTOR WATTS	POWER (V/PH/HZ)	WEIGHT (LBS)	NOTES
EF-23	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-24	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-25	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-26	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-27	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-28	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	90	650	0.32	30	115/1/60	10	1, 2, 3
EF-29	GREENHECK	SP-B110ES	CEILING	DIRECT, ECM	100	650	0.32	30	115/1/60	10	1, 2
EF-30	GREENHECK	SP-A250	CEILING	DIRECT, ECM	250	1000	0.25	83	115/1/60	24	1, 2, 4

NOTES:
1) MANUFACTURER'S DISCONNECT
2) WITH BACKDRAFT DAMPER
3) FAN CONTROLLED BY LIGHT SWITCH. COORDINATE WITH EC.
4) FAN CONTROLLED BY WALL TIMER. COORDINATE WITH EC.

LOUVER SCHEDULE

PLAN CODE	MFGR	MODEL	SERVICE	SIZE (W"xH")	CFM	VELOCITY (FPM)	FREE AREA (SF)	PRESSURE DROP (IN WG)	MATERIAL	DEPTH	NOTES
L-1	RUSKIN	ELF375DX	FCU-1 INTAKE	40x12	700 / 350	810 / 400	0.74	0.14 / 0.03	ALUMINUM	5"	1, 2

NOTES:
1) WITH BIRD SCREEN
2) WITH DRAINABLE STATIONARY LOUVER BLADES

FAN COIL SCHEDULE

PLAN CODE	MFGR	MODEL	CFM	HP	POWER	MCA	MOP	ESP (IN. WC)	DRIVE	HEAT CAPACITY (KW)	WEIGHT (LBS)	NOTES
FCU-1	NAILOR	D37FHE	700	1/8	208 / 1 / 60	54.9	60	0.4	DIRECT	8.59	111	1, 2, 3, 4, 5, 6, 7, 8

NOTES:
1) PROVIDE WITH FULL ACCESS BOTTOM SERVICE PANEL FOR SERVICEABILITY.
2) PROVIDE WITH DISCONNECT SWITCH
3) MAXIMUM UNIT HEIGHT SHALL BE 11" TO FIT IN CEILING SPACE
4) PROVIDE WITH SINGLE POINT POWER CONNECTION
5) WITH SCR CONTROLS AND MODULATING ELECTRIC HEAT CONTROL
6) WITH AUTO RESET PRIMARY HIGH TEMP LIMIT, WITH MANUAL RESET SECONDARY HIGH TEMP LIMIT
7) WITH DUCTED RETURN AIR FILTER RACK WITH 1" FILTERS.
8) PROVIDE WITH TERMINAL STRIP FOR LOW VOLTAGE CONTROL BY OTHERS.

ELECTRIC UNIT HEATER SCHEDULE

PLAN CODE	MFGR	MODEL	AIR FLOW	ELECTRICAL				WEIGHT	GRILLE	NOTES
			CFM	KW	V/PH/HZ	MCA	MOP	LBS	COLOR	
EUH-1	REZNOR	ECR-2	310	2	208 / 3 / 60	N/A	N/A	31	WHITE	1, 2, 3
EUH-2	QMARK	QCH	N/A	1	120 / 1 / 60	8.3	N/A	N/A	WHITE	4, 5, 6

NOTES:
1. CONTROL VOLTAGE IS 24V. PROVIDE WITH THERMOSTAT, TRANSFORMER, AND RELAY.
2. PROVIDE MOUNTING BRACKET.
3. PROVIDE WITH UNIT MOUNTED 3 POLE DISCONNECT
4. SET HEATER TO 500 WATT HEATING OUTPUT
5. PROVIDE WITH REMOTE SINGLE POLE WALL MOUNTED THERMOSTAT.
6. WITH DISCONNECT SWITCH

MECHANICAL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
HWS	HEATING WATER SUPPLY		ACOUSTICALLY LINED SHEET METAL DUCT
HWR	HEATING WATER RETURN		MANUAL BALANCING DAMPER
CWS	CONDENSER WATER SUPPLY		FLEX CONNECTOR
CWR	CONDENSER WATER RETURN	AD	ACCESS DOORS
CHWS	CHILLED WATER SUPPLY	FD	FIRE DAMPER
CHWR	CHILLED WATER RETURN	F/SD	FIRE/SMOKE DAMPER
RS	REFRIGERANT SUCTION LINE	M M	MOTORIZED DAMPERS
RL	REFRIGERANT LIQUID LINE		TURNING VANE ELBOW
HG	REFRIGERANT HOT GAS LINE		HIGH EFFICIENCY BRANCH TAKE-OFF HETO" WITH VOLUME DAMPER & FLEXIBLE DUCT
HPS	HEAT PUMP SUPPLY		HIGH EFFICIENCY BRANCH TAKE-OFF "HETO" WITH VOLUME DAMPER & RIGID DUCT
HPR	HEAT PUMP RETURN		SUPPLY DIFFUSER, 4-WAY THROW UNLESS INDICATED OTHERWISE (W/ FLEXIBLE DUCT)
LPS	LOW PRESS. STEAM SUPPLY	S-1 (PLAN CODE) 200 (CFM)	
LPR	LOW PRESS. CONDENSATE RETURN		RETURN GRILLE
MPS	MEDIUM PRESS. STEAM SUPPLY	R-1 (PLAN CODE) 200 (CFM)	
MPR	MEDIUM PRESS. CONDENSATE RETURN		EXHAUST GRILLE (W/ RIGID BRANCH DUCT)
CD	CONDENSATE DRAIN	E-1 (PLAN CODE) 200 (CFM)	
	GATE VALVE		CONNECT NEW WORK TO EXISTING
	BALL VALVE		POINT OF DISCONNECT
	BUTTERFLY VALVE	(E)	EXISTING
	GLOBE VALVE	(R)	RELOCATE / RELOCATED
	TRIPLE DUTY VALVE	T	THERMOSTAT/TEMPERATURE SENSOR
	SWING CHECK VALVE	T_R	REVERSE ACTING THERMOSTAT
	STRAINER	T_G	THERMOSTAT/TEMPERATURE SENSOR W/ GUARD
	FLEX CONNECTOR	H	HUMIDISTAT
	HOSE END DRAIN VALVE	CO	CARBON MONOXIDE SENSOR
	PRESSURE REDUCING VALVE	CO2	CARBON DIOXIDE SENSOR
	SAFETY RELIEF VALVE	NO2	NITROGEN DIOXIDE SENSOR
	UNION		
	MOTORIZED TC VALVE / 2-WAY		
	MOTORIZED TC VALVE / 3-WAY		
	ECCENTRIC PLUG BALANCING VALVE		
	VALVE IN RISER		
	TEE UP		
	TEE DOWN		
	ELBOW UP		
	ELBOW DOWN		
	PIPE SIZE CHANGE		
	DIRECTION OF FLOW		
	MANUAL FLOW BALANCING VALVE (CIRCUIT SETTER)		
	AUTOMATIC FLOW BALANCING VALVE		
	PIPE GUIDE		
	PIPE ANCHOR		
	PRESSURE / TEMP. TEST PLUG		
T	DIAL THERMOMETER		
P	PRESSURE GAUGE W/ SNUBBER		

HVAC ABBREVIATIONS

%	PERCENT	MAX	MAXIMUM
ACFM	ACTUAL CFM	MBH	BTU PER HOUR (THOUSAND)
AFF	ABOVE FINISHED FLOOR	MC	MECHANICAL CONTRACTOR
AHU	AIR HANDLING UNIT	MIN	MINIMUM
AMP	AMPERE (AMP, AMPS)	N/A	NOT APPLICABLE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	NC	NORMALLY CLOSED
APD	AIR PRESSURE DROP	NIC	NOT IN CONTRACT
APPROX	APPROXIMATE	NO	NORMALLY OPEN
BHP	BRAKE HORSEPOWER, BOILER HORSEPOWER	NO	NUMBER
BOD	BOTTOM OF DUCT	NTS	NOT TO SCALE
BTU	BRITISH THERMAL UNIT	OA	OUTSIDE AIR
C	COMMON	OBD	OPPOSED BLADE DAMPER
CFM	CUBIC FEET PER MINUTE	OD	OUTSIDE DIAMETER
COD	CENTER OF DUCT	PD	PRESSURE DROP
CU FT	CUBIC FEET	PH	PHASE (ELECTRICAL)
CU IN	CUBIC INCH	PSI	POUNDS PER SQUARE INCH
DB	DECIBEL	PSIA	PSI ABSOLUTE
DBT	DRY-BULB TEMPERATURE	PSIG	PSI GAUGE
DIA	DIAMETER	R/O	RUN OUT
EAT	ENTERING AIR TEMPERATURE	RA	RETURN AIR
EC	ELECTRICAL CONTRACTOR	RH	RELATIVE HUMIDITY
EDR	EQUIVALENT DIRECT RADIATION	RPM	REVOLUTIONS PER MINUTE
EWT	ENTERING WATER TEMPERATURE	SA	SUPPLY AIR
EXP	EXPANSION	SCFM	CFM, STANDARD CONDITIONS
F	FAHRENHEIT	SH	SENSIBLE HEAT
FPM	FEET PER MINUTE	SP	STATIC PRESSURE
FPS	FEET PER SECOND	SP VOL	SPECIFIC VOLUME
FT	FOOT OR FEET	SPEC	SPECIFICATION
GA	GAGE OR GUAGE	STD	STANDARD
GAL	GALLONS	SUCT	SUCTION
GC	GENERAL CONTRACTOR	T STAT	THERMOSTAT
GPD	GALLONS PER DAY	TC	TEMPERATURE CONTROL
GPH	GALLONS PER HOUR	TD	TEMPERATURE DIFFERENCE
GPM	GALLONS PER MINUTE	TEMP	TEMPERATURE
HD	HEAD	TOD	TOP OF DUCT
HGT	HEIGHT	TONS	TONS OF REFRIGERATION
HP	HORSEPOWER	V	VOLT
HZ	FREQUENCY	VAC	VACUUM
ID	INSIDE DIAMETER	VAV	VARIABLE AIR VOLUME
KW	KILOWATT	VEL	VELOCITY
KWH	KILOWATT HOUR	VFD	VARIABLE FREQUENCY DRIVE
LAT	LEAVING AIR TEMPERATURE	VOL	VOLUME
LBS	POUNDS	W/	WITH
LF	LINEAR FEET	WPD	WATER PRESSURE DROP
LWT	LEAVING WATER TEMPERATURE		

MECHANICAL SHEET INDEX

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA — 49 — REGISTERED PROFESSIONAL ENGINEER — R. SHAWN C. MURRAY — 12010 — MECHANICAL

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | BLAKE
DRAWN BY | BOWMAN
REVIEWED BY | MURRAY
REVISIONS

MECHANICAL SCHEDULES & LEGENDS

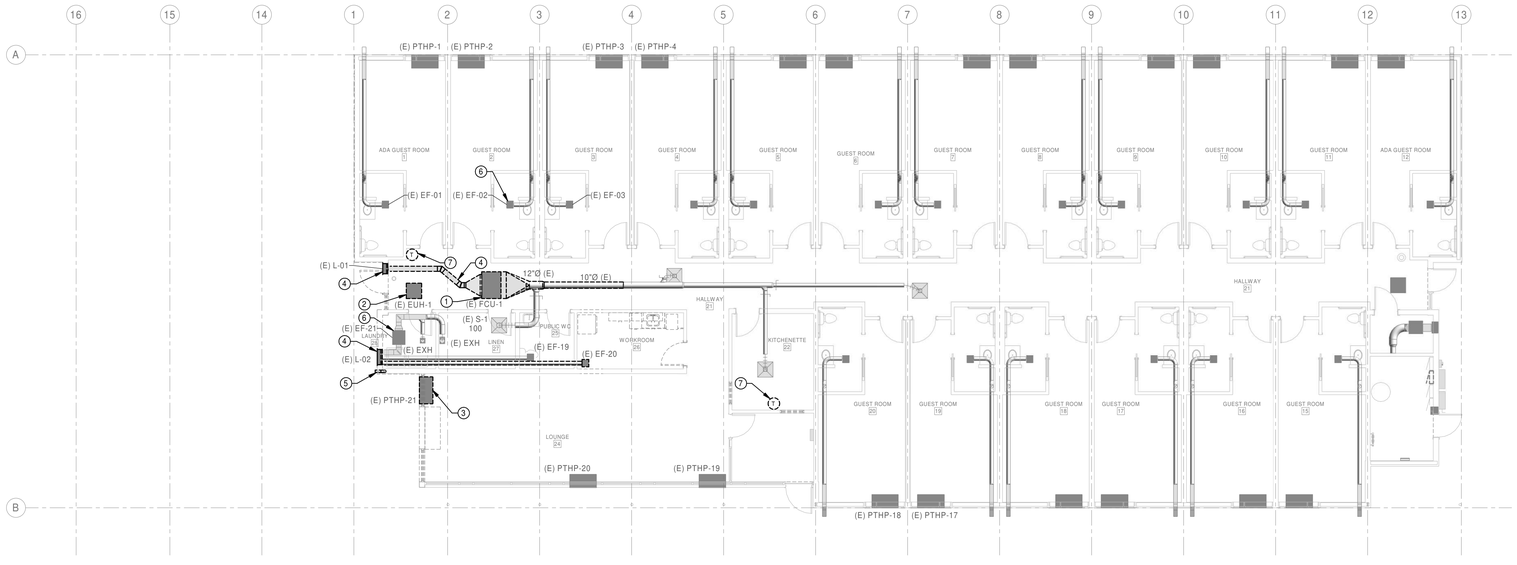
M001

GENERAL DEMOLITION NOTES

A. THIS CONTRACTOR SHALL BE AWARE THAT THIS IS A REMODELING PROJECT AND AS SUCH, CERTAIN ITEMS AND SIZES CANNOT BE FULLY ILLUSTRATED NOR EXPLAINED WITHOUT FIELD OBSERVATION. THEREFORE, THIS CONTRACTOR IS ADVISED TO VISIT AND EXAMINE THE JOB SITE AND BUILDING IN EVERY DETAIL AS PERTAINS TO THIS PROJECT. IF CONTRACTOR DISCOVERS ITEMS THAT ALTER THE SCOPE OF WORK SHOWN IN THE CONSTRUCTION DOCUMENTS, FINDINGS ARE TO BE PRESENTED TO ENGINEER OF RECORD FOR REVIEW.
B. SEE ARCHITECTURAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL REMOVAL ITEMS.
C. MECHANICAL EQUIPMENT, DUCTWORK, AND PIPING SHOWN IN DARK BOLD DASHED LINES IS TO BE DEMOLISHED. ALL REMOVED ITEMS, EXCEPT THOSE NOTED TO BE REUSED OR TO REMAIN THE PROPERTY OF THE OWNER, SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE JOB SITE. THE OWNER RESERVES THE RIGHT TO KEEP ANY REMOVED ITEMS EVEN THOUGH NOT NOTED ON DRAWINGS.
D. WHERE EXISTING EQUIPMENT, DUCTS, ETC. ARE TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, BASES, HANGERS, ETC.
E. THIS CONTRACTOR MUST MEET WITH THE OWNER OR HIS REPRESENTATIVE AND DISCUSS THE PROPOSED WORK SCHEDULE FOR REMOVAL, AND REMODELED WORK WITHIN CONTRACT DRAWINGS PRIOR TO PERFORMING ANY WORK. THE CONTRACTOR SHALL INFORM THE OWNER OR HIS REPRESENTATIVE, OF THE INTENT TO DO SO AT LEAST 48 HOURS BEFORE SUCH WORK BEGINS.
F. THIS CONTRACTOR SHALL BE AWARE THAT CERTAIN AREAS OF REMOVAL AND REMODELED WORK MUST BE DONE AFTER NORMAL BUSINESS HOURS. REFER TO ARCHITECTURAL PHASING AND SCHEDULING DOCUMENTS FOR DETAILS.
G. THIS CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING REQUIRED IN ACCORDANCE WITH DIVISION 1 "CUTTING AND PATCHING", OF SPECIFICATIONS.

ⓟ KEYNOTES

1. REMOVE EXISTING FAN COIL. PREP DUCT FOR RECONNECTION. SEE REMODEL PLANS.
2. REMOVE EXISTING ELECTRIC CEILING HEATER.
3. REMOVE EXISTING PTAC HEAT PUMP UNIT AND WALL SLEEVE. STORE FOR REUSE IN REMODEL. PROTECT AGAINST DAMAGE. SEE 1/M100 FOR NEW LOCATION.
4. REMOVE EXISTING LOUVER AND EXTENTS OF DUCT AS SHOWN BY BOLD DASHED LINES, TYPICAL.
5. REMOVE DRYER VENT TERMINATION AND VENT DUCT BACK TO VERTICAL. SEE REMODEL PLAN FOR RECONNECTION TO NEW.
6. EXHAUST FAN SHALL BE REUSED AND REMAIN IN OPERATION, TYPICAL ALL EXISTING EXHAUST FANS.
7. REMOVE EXISTING THERMOSTAT. PATCH AND REPAIR WALL.



1 MD100 HVAC DEMO PLAN
1/8" = 1'-0"

NORTH REF

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

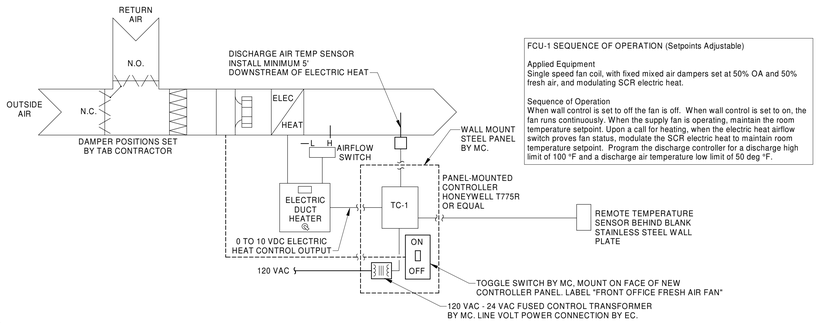
08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | BLAKE
DRAWN BY | BOWMAN
REVIEWED BY | MURRAY
REVISIONS

MECHANICAL DEMOLITION PLANS

MD100

KEYNOTES

1. NEW PTAC HEAT PUMP UNIT INSTALLED BELOW WINDOW IN WALL PER MANUFACTURERS REQUIREMENTS. 3" MIN - 5" MAX AFF. SEAL AND INSULATE ALL PENETRATIONS WEATHERTIGHT. MAINTAIN 2% SLOPE TO EXTERIOR. TYPICAL.
2. NEW OA INTAKE LOUVER. INSTALL 9' 3" ABOVE FINISHED FLOOR - COORDINATE WITH GC. INSTALL PER DETAIL 2/M100.
3. BALANCE ALL GRILLES AND DIFFUSERS TO CFM INDICATED ON PLAN, TYPICAL.
4. ELBOW EXHAUST DUCT UP TO STAY ABOVE GYP CEILING. TYPICAL.
5. TERMINATE RESTROOM EXHAUST IN NEW SOFFIT WITH NEW ALUMINUM EXHAUST GRILLE BY MC. GRILLE TO BE 8" x 4" NECK EQUAL TO PRICE 610 OR EQUAL. TYPICAL.
6. NEW BATHROOM EXHAUST FAN INSTALLED IN GYP CEILING. CONTROLLED VIA LIGHT SWITCH. COORDINATE WITH EC. TYPICAL.
7. REROUTE DRYER EXHAUST VENT UP TO GOOSENECK ON ROOF WITH SHINGLE BOOT. SEAL WEATHERTIGHT. GOOSENECK DISCHARGE TO BE MINIMUM 12" ABOVE ROOF SURFACE. NO BIRDSCREEN. PAINT GOOSENECK TO MATCH ROOF COLOR. INSTALL DRYER VENT IN COMPLIANCE WITH 2021 IMC REQUIREMENTS.
8. RELOCATED PTAC UNIT. INSTALLED IN ORIGINAL RELOCATED WALL SLEEVE SEAL AND INSULATE WEATHERTIGHT PER MANUFACTURER REQUIREMENTS.
9. NEW ELECTRIC CEILING HEATER INSTALLED IN ACT CEILING.
10. THERMOSTAT WITH LOCKING PLASTIC COVER FURNISHED BY MC INSTALLED BY MC.
11. ROUTE EXHAUST DUCT UP TO GOOSENECK ON ROOF. FLASH DUCT PENETRATION WITH STEP FLASHING UNDER SHINGLES AND COUNTERFLASHING, SEALED WEATHERTIGHT. GOOSENECK DISCHARGE TO BE MINIMUM 12" ABOVE ROOF SURFACE WITH BIRDSCREEN. PAINT GOOSENECK TO MATCH ROOF COLOR.
12. MANUAL VOLUME DAMPER, WITH LOCKING QUADRANT, TYPICAL.
13. FCU SERVICE AREA. KEEP CLEAR.
14. NEW ELECTRIC CEILING HEATER INSTALLED IN GYP CEILING.
15. BLANK OFF PORTION OF BACKSIDE OF LOUVER WITH SHEET METAL.
16. NEW CEILING EXHAUST FAN MOUNTED IN ACT CEILING TILE.
17. ROUTE NEW ROUND EXHAUST DUCT UP TO GOOSENECK ON ROOF WITH SHINGLE BOOT. SEAL WEATHERTIGHT. GOOSENECK DISCHARGE TO BE MINIMUM 12" ABOVE ROOF SURFACE WITH BIRDSCREEN. PAINT GOOSENECK TO MATCH ROOF COLOR.
18. NEW REVERSE ACTING LINE VOLTAGE THERMOSTAT BY MC TO CONTROL EXHAUST FAN OPERATION.
19. NEW CEILING EXHAUST FAN INSTALLED IN ACT CEILING TILE. CONTROLLED VIA TIMER SWITCH BY EC. COORDINATE WITH EC.
20. REMOTE TEMPERATURE SENSOR BEHIND BLANK STAINLESS STEEL WALL PLATE. WIRE TO CONTROLLER AT NOTE 21.
21. NEW HONEYWELL T775R CONTROLLER, MOUNT ON WALL IN NEW PANEL BY MC. SEE 3/M100 FOR ADDITIONAL REQUIREMENTS & TC DIAGRAM FOR CONTROL OF FCU-1.
22. TRANSFER DUCTS ABOVE CEILING - LINE WITH 1 ACOUSTIC DUCT LINER.

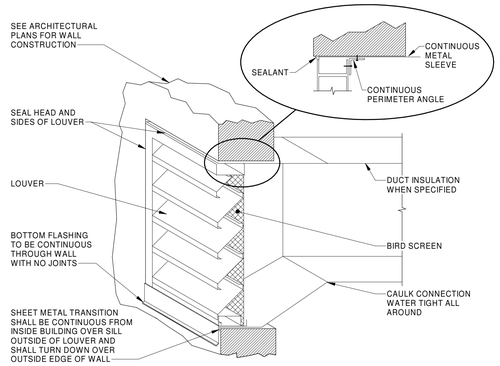


FCU-1 SEQUENCE OF OPERATION (Setpoints Adjustable)

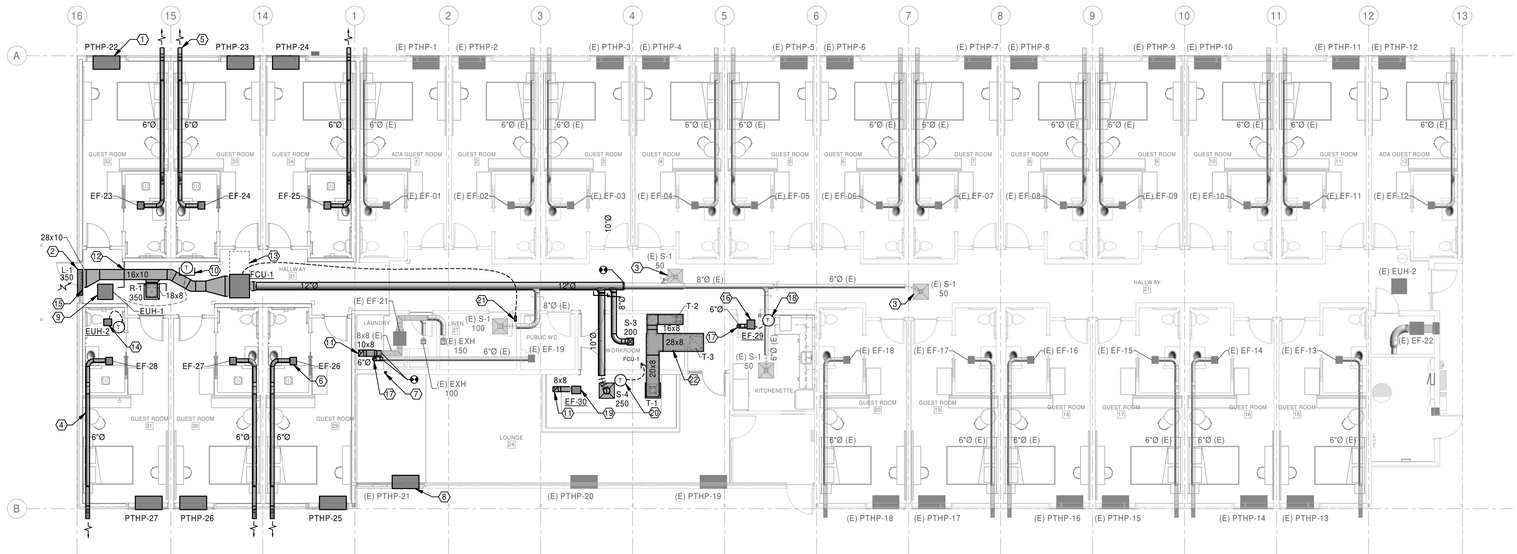
Applied Equipment
Single speed fan coil, with fixed mixed air dampers set at 50% OA and 50% fresh air, and modulating SCR electric heat.

Sequence of Operation
When wall control is set to off the fan is off. When wall control is set to on, the fan runs continuously. When the supply fan is operating, maintain the room temperature setpoint. Upon a call for heating, when the electric heat airflow switch proves fan status, modulate the SCR electric heat to maintain room temperature setpoint. Program the discharge controller for a discharge high limit of 100 °F and a discharge air temperature low limit of 50 deg °F.

3 M100 FCU-1 CONTROL DIAGRAM
NOT TO SCALE



2 M100 LOUVER INSTALLATION DETAIL
NOT TO SCALE



1 M100 HVAC REMODEL PLAN
1/8" = 1'-0"

NORTH REF

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SITKA PATIENT HOUSING EXPANSION

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

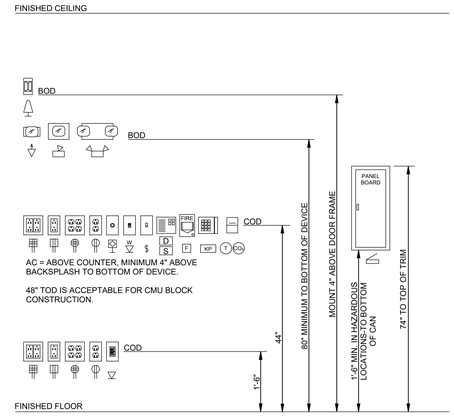
CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | BLAKE
DRAWN BY | BOWMAN
REVIEWED BY | MURRAY
REVISIONS

HVAC PLANS

M100

INTERIOR BOX MOUNTING HEIGHTS



ELECTRICAL LEGEND

SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS

LIGHTING

SYMBOL	DESCRIPTION
	LAY-IN OR RECESSED FIXTURE, SIZE ON PLANS
	WALL MOUNTED FIXTURE, SIZE ON PLANS
	SHADED FIXTURE INDICATES FIXTURE IS UNSWITCHED AND ALSO INDICATES EMERGENCY POWER.
	RECESSED DOWNLIGHT FIXTURE
	SURFACE MOUNTED FIXTURE
	WALL MOUNTED FIXTURE
	LV CABLE LIGHT FIXTURE, SEE PLAN FOR SIZE AND HEADS
	CEILING MOUNTED, WALL MOUNTED EXIT LIGHT (W/ DIRECTIONAL ARROWS)
	SQUARE POLE MOUNTED FIXTURE, EXTERIOR

COMMUNICATIONS

SYMBOL	DESCRIPTION
	CATV JACK, WALL MOUNTED
	VOICE/DATA JACK # NUMERICAL SUBSCRIPT INDICATES NUMBER OF CABLES/JACKS, NO SUBSCRIPT ASSUMES ONE CABLES/JACKS WAP WIRELESS ACCESS POINT
	EXISTING VOICE/DATA JACK

ABBREVIATIONS AND MISCELLANEOUS

SYMBOL	DESCRIPTION
AC	ABOVE COUNTER, 4" BACK SPLASH
AFG	ABOVE FINISHED GRADE
AFF	ABOVE FINISHED FLOOR
BLG	BELOW GRADE
BOD	BOTTOM OF DEVICE
C	CONDUIT
CCTV	CLOSED CIRCUIT TV
CLG	CEILING
COD	CENTER OF DEVICE
CU	COPPER
(E)	EXISTING
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
GC	GENERAL CONTRACTOR
GND	GROUND
MC	MECHANICAL CONTRACTOR
(N)	NEW
QTY	QUANTITY
(R)	RELOCATED
SF	SURFACE
TC	TEMPERATURE CONTROL CONTRACTOR
TTB	TELEPHONE TERMINAL BOARD
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
W/	WITH
WM	WIRE MOLD
WP	WEATHER PROOF (WHILE IN USE)
XFMR	TRANSFORMER
a,b,c etc	SWITCH DESIGNATION
BN1L-2,4,6	CIRCUIT DESIGNATION, PANEL BN1L, CIRCUITS 2,4,6
1/E501	INDICATES DETAIL 1 ON SHEET E501
(#)	SHEET WORK NOTE

SURVEILLANCE SYSTEM

SYMBOL	DESCRIPTION
	CAMERA, CEILING AND WALL MOUNTED DOME, PTZ
	OUTDOOR CAMERA

DEVICES AND POWER

SYMBOL	DESCRIPTION
$	SWITCH - SPST
	RECEPTACLE - DUPLEX USB DEVICE RECEPTACLE W/ USB-A & USB-C PORTS DC DROP CORD WP WEATHERPROOF COVER & WEATHER RESISTANT RECEPTACLE TR TAMPER RESISTANT S SURGE PROTECTED IG ISOLATED GROUND FILLED CENTER INDICATES HOSPITAL GRADE EMERGENCY RECEPTACLE
1	RECEPTACLE - DUPLEX WITH TOP HALF CONTROLLED AND PERMANENTLY MARKED "CONTROLLED" - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	GFI RECEPTACLE - DUPLEX (GROUND FAULT INTERRUPT) - SAME INDICATORS AS SHOWN FOR DUPLEX RECEPTACLE
	RECEPTACLE - DOUBLE DUPLEX
	RECEPTACLE - 208V R RANGE - NEMA 14-50R D DRYER - NEMA 14-30R W WELDER - NEMA 14-50R * NEMA CONFIGURATION AS NOTED
J J J	J-BOX - BOX INDICATES FLOOR MOUNTING -4"X4"X2-1/8" DEEP UNLESS OTHERWISE NOTED
T	THERMOSTAT/TEMPERATURE SENSOR BY MC OR TC, J-BOX AND CONDUIT TO CEILING BY EC
	SPECIAL PURPOSE CONNECTION - BOX INDICATES FLOOR MOUNTING - WORK AS NOTED
	ELECTRIC MOTOR CONNECTION
	DISCONNECT SWITCH
	CIRCUIT BREAKER
LCP	CONTROL PANEL LIGHTING CONTROL PANEL
	EXISTING PANELBOARD, SURFACE MOUNTED
	PANELBOARD, FLUSH MOUNTED
or	ELECTRIC METER, BUILDING MOUNTED
000	TRANSFORMER, INTERIOR
	TRANSFORMER, EXTERIOR

LIGHTING FIXTURE SCHEDULE

NOTES:
1) PROVIDE WITH IOTA 10W CONSTANT POWER EMERGENCY DRIVER WITH T-GRID MOUNTING KIT (MODEL # ILB CP10A - TBMK)
2) MOUNT REMOTE EMERGENCY BATTERY PACK IN INTERIOR CORRIDOR ABOVE ACCESSIBLE CEILING
3) PROVIDE WITH (3) LED MR16 5W 80CRI 3000K LAMPS (SYLVANIA RefLED SUPERIA RETRO MR16 V2 345LM DIM 830 36 SL)...

TYPE	FIXTURE									LIGHT SOURCE			OPTIONS		NOTES
	DESCRIPTION	MANUFACTURER	CATALOG NUMBER	MOUNTING LOCATION	MOUNTING TYPE	MOUNTING HEIGHT	VOLTAGE	VA	FINISH	CRI	KELVIN	LUMENS	EMERGENCY	DIMMABLE	
G1	2' X 2' LED TROFFER W/ ACRYLIC LENS	LITHONIA	2GTL 2 33L A12125 GZ10 LP835	CEILING	RECESSED	-	120 V	27.61	WHITE	85	3500	3275 lm		-	
P1	SQUARE LED POLE MOUNTED LIGHT FIXTURE WITH HOUSESIDE SHIELD	LITHONIA	DSX1 LED P4 40K 70CRI T3M MVOLT SPA HAS DDBXD	POLE	POLE	20' 0"	208 V	277.00	DARK BRONZE	70	4000	16030 lm		-	4
R1	6" WAFER LED DOWNLIGHT W/ NEW CONSTRUCTION MOUNTING PAN	JUNO	WF6 SWW5 90CRI MW - WF8643 PAN	CEILING	RECESSED	-	120 V	13.00	MATTE WHITE	90	3000	<varies>		-	
R1E	6" WAFER LED DOWNLIGHT W/ NEW CONSTRUCTION MOUNTING PAN & CONSTANT POWER EMERGENCY DRIVER	JUNO	WF6 SWW5 90CRI MW - WF8643 PAN	CEILING	RECESSED	-	120 V	13.00	MATTE WHITE	90	3000	970 lm	X	-	1
S1	14" LED FLUSH SURFACE MOUNT ROUND	PROGRESS LIGHTING	P350101 009 30	CEILING	SURFACE	-	120 V	25.00	BRUSHED NICKEL	90	3000	1770 lm		-	
T1	10' LOW VOLTAGE CABLE LIGHTING SYSTEM	VISUAL COMFORT & CO	800CBL5P N LED	CEILING	SURFACE	-	120 V	24.00	MATTE NICKEL	80	3000	345 lm		-	3
V1	24" LED BATHROOM VANITY FIXTURE	VISUAL COMFORT & CO	700BCNYR 25 B LED930	WALL	SURFACE	6' 2"	120 V	24.20	NIGHTSHADE BLACK-	90	3000	1590 lm		-	
W1	5" SQUARE EXTERIOR WALL MOUNT W/ REMOTE EMERGENCY BATTERY	LUMINIS	SQ502 L2L10 FLDU WDD 35K 120 LSLU LSLD REM7 MST MG	WALL	SURFACE	MATCH EXISTING EXTERIOR LIGHT FIXTURES	120 V	25.00	MATTE SILVER	80	3500	1850 lm	X	-	2
X1	CEILING MOUNT RED LED EXIT SIGN WITH EMERGENCY BATTERY	LITHONIA	LQM S W RG MVOLT EL HO	CEILING	SURFACE	-	120 V	5.00	WHITE	0	-	0 lm	X	-	

ELECTRICAL SHEET INDEX

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

LEGENDS, SCHEDULES AND PANELS

E001

PANEL: SHLN2 — NEW

LOCATION: LAUNDRY 28 | **AMPS:** 225 A | **TYPE OF MAIN:** MCB
MOUNTING TYPE: RECESSED | **VOLTAGE:** 120/208 Wye | **MINIMUM AIC RATING:** SEE ONE-LINE DIAGRAM
MANUFACTURER: SEE SPECIFICATIONS | **PHASES:** 3 | **FED FROM:** SHLN1(SEC 3)
MODEL TYPE: PANELBOARD | **WIRES:** 4 | **ENCLOSURE:** NEMA 1
NOTES:

LOAD NAME	CKT NO	BKR AMP	POLE	A		B		C		POLE	BKR AMP	CKT NO	LOAD NAME
GUEST RM 29 - RECEPTACLE (NOTE 1)	1	20	1	1720	1400					1	20	2	GUEST RM 32 - MICROWAVE/FRIDGE (NOTE 1)
GUEST RM 29 - MICROWAVE/FRIDGE (NOTE 1)	3	20	1			1400	1720			1	20	4	GUEST RM 32 - RECEPTACLE (NOTE 1)
GUEST RM 30 - RECEPTACLE (NOTE 1)	5	20	1					1720	1400	1	20	6	GUEST RM 33 - MICROWAVE/FRIDGE (NOTE 1)
GUEST RM 30 - MICROWAVE/FRIDGE (NOTE 1)	7	20	1	1400	1720					1	20	8	GUEST RM 33 - RECEPTACLE (NOTE 1)
GUEST RM 31 - MICROWAVE/FRIDGE (NOTE 1)	9	20	1			1400	1400			1	20	10	GUEST RM 34 - MICROWAVE/FRIDGE (NOTE 1)
GUEST RM 31 - RECEPTACLE (NOTE 1)	11	20	1					1720	1720	1	20	12	GUEST RM 34 - RECEPTACLE (NOTE 1)
GUEST RM 29 THRU 34 - LIGHTING (NOTE 1)	13	20	1	565	720					1	20	14	LOUNGE 24 - SOUTH RECEPTACLES
HALLWAY 21 - RECEPTACLE	15	20	1			640	803			1	20	16	RECEPTION - RECEPT
SUMP PUMP CONTROL PANEL	17	20	2					1440	720	1	20	18	RECEPTION - RECEPT
--	19	--	--	1440	940					1	20	20	WORKROOM 22 - RECEPT; EQUIP - EF-30
S. CORRIDOR - EUH-1	21	20	3			667	1000			1	20	22	WORKROOM 22 - PRINTER
--	23	--	--					667	0	1	20	24	SPARE
--	25	--	--	667	1000					1	20	26	GUEST RM 31 BATHROOM - EUH-2
LOUNGE 24 - PTPH-21	27	20	2			1606	4568			2	60	28	S. CORRIDOR - FCU-1
--	29	--	--					1606	4568	--	--	30	--
GUEST RM 33 - PTPH-23	31	20	2	1800	1800					2	20	32	GUEST RM 34 - PTPH-24
--	33	--	--			1800	1800			--	--	34	--
GUEST RM 29 - PTPH-25	35	20	2					1800	1800	2	20	36	GUEST RM 32 - PTPH-22
--	37	--	--	1800	1800					--	--	38	--
GUEST RM 31 - PTPH-27	39	20	2			1800	1800			2	20	40	GUEST RM 30 - PTPH-26
--	41	--	--					1800	1800	--	--	42	--
				18771.9		22403.1		22760.1		**TOTAL CONNECTED PHASE VA**			
				156.4		191.3		194.3		**TOTAL CONNECTED PHASE AMPS**			

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	PANEL TOTALS
EQUIPMENT	2100	100.00%	2100	**TOTAL CONNECTED LOAD:** 63935.1
HVAC	24812	100.00%	24812	**TOTAL CONNECTED AMPS:** 177.5
HVAC HEATING	3000	100.00%	3000	
Lighting - Hotel	529	50.00%	265	**TOTAL EST. DEMAND:** 60274.3
MOTORS	2999	100.00%	2999	**TOTAL EST. DEMAND AMPS:** 167.3
Motor	9135	125.00%	11419	
RECEPTACLES	21360	73.41%	15680	

NOTES: 1. PROVIDE AFCI TYPE CIRCUIT BREAKER.

LOAD SUMMARY (EXISTING MDP - 400 AMP, 208 VOLT SERVICE)

LOAD TYPE	KVA	COMMENTS
NEW LOADS		
ADDED EQUIPMENT	2.78	PER NEC 22O (LOADS AT 100%)
ADDED LIGHTING	0.27	PER NEC 220.45 (TABLE 220.45)
ADDED RECEPTACLES	15.68	PER NEC 220.44 (TABLE 220.42(A))
ADDED MOTORS	15.30	REFLECTS LARGEST MOTOR PER NEC
ADDED HVAC	27.81	PER NEC 220.50
SUBTOTAL NEW LOADS:	61.84	
DEMAND LOAD		
DEMAND	61.60	ONE YEAR MAX DEMAND
DEMAND ADJUSTMENT (+25% OF EXISTING DEMAND)	15.40	REFLECTS NEC 220.87 ADJUSTMENT
TOTAL EXISTING DEMAND LOAD	77.00	USED FOR SERVICE SIZING
ESTIMATED BUILDING DEMAND (EXISTING + NEW)	138.84	KVA
MINIMUM SERVICE SIZE	385.67	AMPS AT 208V/120/3PH/4W

PANEL: SHLN1(SEC 1) — EXISTING

LOCATION: UTILITY ROOM 14 | **AMPS:** 400 A | **TYPE OF MAIN:** MLO
MOUNTING TYPE: SURFACE | **VOLTAGE:** 120/208 Wye | **MINIMUM AIC RATING:** SEE ONE-LINE DIAGRAM
MANUFACTURER: SQUARE D | **PHASES:** 3 | **FED FROM:**
MODEL TYPE: PANELBOARD | **WIRES:** 4 | **ENCLOSURE:** NEMA 1
NOTES:

LOAD NAME	CKT NO	BKR AMP	POLE	A		B		C		POLE	BKR AMP	CKT NO	LOAD NAME
(MULTI) GUESTROOM #1	1	20	1							1	20	2	LIGHTING GUESTROOMS #1-#10
RECEPT GUESTROOM #1	3	20	1							1	20	4	LTG-CORRIDOR, UTILITY, OFFICE
RECEPT GUESTROOM #2	5	20	1							1	20	6	LTG-GUESTROOMS #11,#12,#15-#20
(MULTI) GUESTROOM #2	7	20	1							1	20	8	LTG-LINEN, LAUNDRY, KIT, EXIT
(MULTI) GUESTROOM #3	9	20	1							1	20	10	LTG-LOUNGE TRACK
RECEPT GUESTROOM #3	11	20	1							1	20	12	LTG-LOUNGE, ENTRY TRACK
RECEPT GUESTROOM #4	13	20	1							1	20	14	EQUIP LAUNDRY WASHER
(MULTI) GUESTROOM #4	15	20	1							1	20	16	RECEPT UTILITY, JANITOR
(MULTI) GUESTROOM #5	17	20	1							1	20	18	REEPT TELEPHONE TERMINAL
RECEPT GUESTROOM #5	19	20	1							1	20	20	RECEPT SOUTH CORRIDOR
RECEPT GUESTROOM #6	21	20	1							1	20	22	RECEPT SOUTH CORRIDOR
(MULTI) GUESTROOM #6	23	20	1							1	20	24	MOTORS EF-22, STORAGE
(MULTI) GUESTROOM #7	25	20	1							1	20	26	RECEPT LOUNGE, LINEN
RECEPT GUESTROOM #7	27	20	1				0			2	20	28	**SPARE (NOTE 1)**
RECEPT GUESTROOM #8	29	20	1						0	--	--	30	--
(MULTI) GUESTROOM #8	31	20	1							1	20	32	RECEPT LOUNGE, PUB, TOILET
(MULTI) GUESTROOM #9	33	20	1							2	20	34	EQUIP PTPH-20 LOUNGE
RECEPT GUESTROOM #9	35	20	1							--	--	36	--
EQUIP SURGE PROTECTION	37	30	3							1	20	38	RECEPT LOUNGE, KITCHENETTE
--	39	--	--							2	20	40	EQUIP PTPH-19 LOUNGE
--	41	--	--							--	--	42	--
				0		0		0		**TOTAL CONNECTED PHASE VA**			
				0		0		0		**TOTAL CONNECTED PHASE AMPS**			

NOTES: LOADS INDICATED ARE ONLY NEW LOADS BEING ADDED/REMOVED.
1. PROVIDE UPDATED PANEL SCHEDULE TO REFLECT REMOVED CIRCUIT.

PANEL: SHLN1(SEC 2) — EXISTING

LOCATION: UTILITY ROOM 14 | **AMPS:** 400 A | **TYPE OF MAIN:** MLO
MOUNTING TYPE: SURFACE | **VOLTAGE:** 120/208 Wye | **MINIMUM AIC RATING:** SEE ONE-LINE DIAGRAM
MANUFACTURER: SQUARE D | **PHASES:** 3 | **FED FROM:**
MODEL TYPE: PANELBOARD | **WIRES:** 4 | **ENCLOSURE:** NEMA 1
NOTES:

LOAD NAME	CKT NO	BKR AMP	POLE	A		B		C		POLE	BKR AMP	CKT NO	LOAD NAME
(MULTI) GUESTROOM #10	1	20	1							1	20	2	AUTO DOORS
RECEPT GUESTROOM #10	3	20	1			780				1	20	4	**KITCHENETTE 22 - HOT WTR DISP (NOTE 1)**
RECEPT GUESTROOM #11	5	20	1						0	1	20	6	**SPARE (NOTE 1)**
(MULTI) GUESTROOM #11	7	20	1							1	20	8	MECH HWCP-1, UTILITY
(MULTI) GUESTROOM #12	9	20	1							2	30	10	MECH EUH-4, UTILITY
RECEPT GUESTROOM #12	11	20	1							--	--	12	--
RECEPT GUESTROOM #13	13	20	1							1	20	14	EQUIP TVP-1, LINEN
(MULTI) GUESTROOM #13	15	20	1			1000				1	20	16	**KITCHENETTE 22 - REFRIGERATOR (NOTE 2)**
(MULTI) GUESTROOM #14	17	20	1						1260	1	20	18	**KITCHENETTE 22 - ICE MACHINE (NOTE 2)**
RECEPT GUESTROOM #14	19	20	1							1	20	20	MOTORS EF-21, LAUNDRY
RECEPT GUESTROOM #15	21	20	1							1	20	22	MOTORS EF-17, PUBLIC TOILET
(MULTI) GUESTROOM #15	23	20	1						480	1	20	24	**KITCHENETTE 22 - MOTOR (N) EF-29 (NOTE 1)**
(MULTI) GUESTROOM #16	25	20	1	720						1	20	26	**KITCHENETTE 22 - RECEPT (NOTE 3)**
RECEPT GUESTROOM #16	27	20	1			0				1	20	28	**SPARE (NOTE 3)**
RECEPT GUESTROOM #17	29	20	1							2	30	30	EQUIP CLOTHES DRYER, LAUND
(MULTI) GUESTROOM #17	31	20	1							--	--	32	--
SITE LIGHTING - SOUTH PARKING (NOTE 1)	33	20	2			277				2	20	34	EQUIP EUH-2, NO. CORRIDOR
--	35	--	--					277		--	--	36	--
SPARE	37	20	2							2	40	38	**SPARE (NOTE 1)**
--	39	--	--							--	--	40	--
SPARE	41	20	1							1	20	42	ATTIC LIGHT
				720		2057		2017		**TOTAL CONNECTED PHASE VA**			
				6		18.8		18.5		**TOTAL CONNECTED PHASE AMPS**			

NOTES: LOADS INDICATED ARE ONLY NEW LOADS BEING ADDED/REMOVED.
1. PROVIDE UPDATED PANEL SCHEDULE TO REFLECT PANEL UPDATES.
2. NEW LOAD ON EXISTING CIRCUIT BREAKER AND HOMERUN CIRCUIT.
3. REMOVE EXISTING 20A2P CIRCUIT BREAKER AND REPLACE WITH (2) NEW 20A1P CIRCUIT BREAKERS. NEW CIRCUIT BREAKERS SHALL BE SQUARE D QO TYPE CIRCUIT BREAKERS WITH AIC RATING EQUAL TO THE EXISTING PANELBOARD AIC RATING.

PANEL: SHLN1(SEC 3) — NEW

LOCATION: UTILITY ROOM 14 | **AMPS:** 400 A | **TYPE OF MAIN:** MLO
MOUNTING TYPE: SURFACE | **VOLTAGE:** 120/208 Wye | **MINIMUM AIC RATING:** SEE ONE-LINE DIAGRAM
MANUFACTURER: SQUARE D | **PHASES:** 3 | **FED FROM:**
MODEL TYPE: PANELBOARD | **WIRES:** 4 | **ENCLOSURE:** NEMA 1
NOTES: **SEE ONE-LINE DIAGRAM FOR ADDITIONAL INFORMATION**

LOAD NAME	CKT NO	BKR AMP	POLE	A		B		C		POLE	BKR AMP	CKT NO	LOAD NAME
EQUIP FIRE ALARM PANEL (NOTE 3)	1	20	1							2	20	2	EQUIP PTHP, RM #11
EQUIP PTHP, RM #1	3	20	2							--	--	4	--
--	5	--	--							2	20	6	EQUIP PTHP, RM #12
EQUIP PTHP, RM #2	7	20	2							--	--	8	--
--	9	--	--							2	50	10	50A RECEPT - OUTSIDE FOR TEMP.
EQUIP PTHP, RM #3	11	20	2							--	--	12	--
--	13	--	--							1	20	14	(MULTI) GUESTROOM #18
EQUIP PTHP, RM #4	15	20	2							1	20	16	RECEPT GUESTROOM#18
--	17	--	--							2	20	18	EQUIP EUH-13, VESTIBULE
EQUIP PTHP, RM #5	19	20	2							--	--	20	--
--	21	--	--							1	20	22	RECEPT OFFICE
EQUIP PTHP, RM #6	23	20	2							1	20	24	RECEPT OFFICE
--	25	--	--							3	100	26	SHLN1(SEC.4) 100A3P
EQUIP PTHP, RM #7	27	20	2							--	--	28	--
--	29	--	--							--	--	30	--
EQUIP PTHP, RM #8	31	20	2							3	125	32	125A MECH, EWH2, UTILITY
--	33	--	--							--	--	34	--
EQUIP PTHP, RM #9	35	20	2							--	--	36	--
--	37	--	--							3	125	38	125A MECH, EWH2, UTILITY
EQUIP PTHP, RM #10	39	20	2							--	--	40	--
--	41	--	--							--	--	42	--
SHLN2 (SUBFEED) (NOTE 1,2)	43	225	3	18772						1	--	44	SPACE - SUB FEED BREAKER KIT
--	45	--	--			22403				1	--	46	SPACE - SUB FEED BREAKER KIT
--	47	--	--					22760		1	--	48	SPACE - SUB FEED BREAKER KIT
				18771.9		22403.1		22760.1		**TOTAL CONNECTED PHASE VA**			
				156.4		191.3		194.3		**TOTAL CONNECTED PHASE AMPS**			

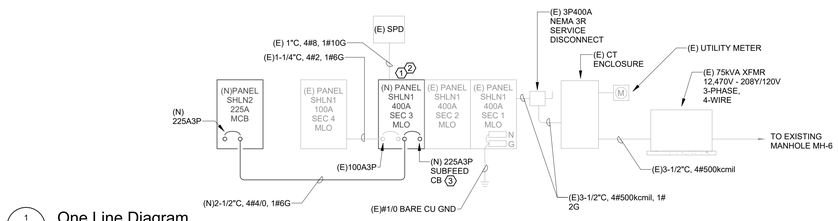
NOTES: LOADS INDICATED ARE ONLY NEW LOADS BEING ADDED/REMOVED.
1. PROVIDE NEW 225A3P SQUARE D QO CIRCUIT BREAKER UTILIZING SUB FEE BREAKER KIT.
2. PROVIDE UPDATED PANEL SCHEDULE TO REFLECT UPDATED CIRCUIT(s).
3. EXISTING CIRCUIT. MAINTAIN OPERATION OF FIRE ALARM SYSTEM THROUGHOUT ENTIRE PROJECT OR COORDINATE A FIRE WATCH WITH THE AHJ/OWNER AS REQUIRED.

PANEL: SHLN1(SEC 4) — EXISTING

LOCATION: UTILITY ROOM 14 | **AMPS:** 100 A | **TYPE OF MAIN:** MLO
MOUNTING TYPE: SURFACE | **VOLTAGE:** 120/208 Wye | **MINIMUM AIC RATING:** SEE ONE-LINE DIAGRAM
MANUFACTURER: SQUARE D | **PHASES:** 3 | **FED FROM:**
MODEL TYPE: PANELBOARD | **WIRES:** 4 | **ENCLOSURE:** NEMA 1
NOTES:

LOAD NAME	CKT NO	BKR AMP	POLE	A		B		C		POLE	BKR AMP	CKT NO	LOAD NAME
HEAT-ROOM 13	1	--	2							2	20	2	HEAT-ROOM 14
--	3	--	--							--	--	4	--
HEAT-ROOM 15	5	20	2							2	20	6	HEAT-ROOM 16
--	7	--	--							--	--	8	--
HEAT-ROOM 17	9	20	2							2	20	10	HEAT-ROOM 18
--	11	--	--							--	--	12	--
FIRE ALARM DIALER	13	20	1							2	20	14	SOUTH PARKING LOT LIGHTS/OUTLETS
REFRIGERATOR/MICROWAVE RM 1	15	20	1							--	--	16	--
REFRIGERATOR/MICROWAVE RM 2	17	20	1							1	20	18	REFRIGERATOR/MICROWAVE RM 9
REFRIGERATOR/MICROWAVE RM 3	19	20	1							1	20	20	REFRIGERATOR/MICROWAVE RM 10
REFRIGERATOR/MICROWAVE RM 4	21	20	1							1	20	22	REFRIGERATOR/MICROWAVE RM 11
REFRIGERATOR/MICROWAVE RM 5	23	20	1							1	20	24	REFRIGERATOR/MICROWAVE RM 12
REFRIGERATOR/MICROWAVE RM 6	25	20	1							1	20	26	REFRIGERATOR/MICROWAVE RM 13,14
REFRIGERATOR/MICROWAVE RM 7	27	20	1							1	20	28	REFRIGERATOR/MICROWAVE RM.15,16
REFRIGERATOR/MICROWAVE RM 8	29	20	1							1	20	30	REFRIGERATOR/MICROWAVE RM 17,18
				0		0		0		**TOTAL CONNECTED PHASE VA**			
				0		0		0		**TOTAL CONNECTED PHASE AMPS**			

NOTES: LOADS INDICATED ARE ONLY NEW LOADS BEING ADDED/REMOVED.



1 / E002 One Line Diagram
NOT TO SCALE

LINE LEGEND

EXISTING
NEW

KEYNOTES

1. REMOVE EXISTING PANELBOARD "SHNL1 (SEC.3)" AND REPLACE WITH NEW 400A, 208Y/120V, MAIN LUG ONLY, 42 CIRCUIT SQUARE D NQOD PANELBOARD WITH BACK CAN ENCLOSURE DIMENSIONS OF 74"H X 20"W X 5.75"D TO ALLOW FOR NEW SUB-FEED CIRCUIT BREAKER KIT (SEE NOTE 3.).
2. RETAIN EXISTING CIRCUIT BREAKERS AND HOME RUN CIRCUITS DURING REMOVAL OF PANELBOARD FOR REUSE WITH NEW PANELBOARD.
3. PROVIDE NEW 225A SUB-FEED CIRCUIT BREAKER KIT TO FEED NEW PANELBOARD "SHLN2". SUB-FEED CIRCUIT BREAKER KIT SHALL BE COMPATIBLE WITH PANELBOARD MANUFACTURER.

Cushing Terrell.
cushingterrell.com
800.757.9522

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

PANEL SCHEDULES, POWER ONE-LINE, & LOAD SUMMARY

E002

ELECTRICAL SPECIFICATIONS

DIVISION 26 - ELECTRICAL

SCOPE

The provisions, terms and requirements of Division 1 and 2, the applicable Drawings and Technical Specifications herein shall apply to work under this Division.

This Work consists of, but is not necessarily limited to, the furnishing of all labor, equipment, appliances and materials and the performance of all operations in connection with the installation of all electrical work completed, in strict accordance with Specifications and/or Drawings, applicable codes, including incidental materials necessary and required for their completion.

"PROVIDE" = Furnished and installed complete. "OR EQUAL" = Or equal as approved to quote by Engineer, 10 days prior to Bid via addendum.

260000 - COMMON WORK RESULTS

A. Intent of Drawings: Drawings are partly diagrammatic and do not show exact location of conduit unless specifically dimensioned.

B. Workmanship:
1. Work shall be accomplished by workmen skilled in particular trade, in conformance with best practices and accepted standards.
2. Work shall contribute to efficiency of operation, accessibility, maintenance and appearance. No part of installation shall interfere with operation of any other system or part of building.
3. Non-satisfactory work shall be corrected at no additional expense to Owner.

C. Responsibility:
1. The Electrical Contractor is responsible for installation of satisfactory and complete work in accordance with the intent of Drawings and Specifications. Provide, at no extra cost, incidental items required for completion of work even though not specifically mentioned or indicated in Specifications or on Drawings.
2. If, at any time, and in any case, change in location of conduit, outlets, fixtures, switches, panels, electrical equipment or associated components, etc., becomes necessary due to obstacles or installation of other trades, such required changes shall be made by Contractor at no extra cost.
3. Conflicts discovered during construction shall be immediately called to the attention of the Engineer for decision. Do not proceed with installation in area of question until conflict has been fully resolved.
4. Coordinate all electrical work with other trades to prevent unnecessary delays in the construction schedule.
5. Excavation and backfill required by electrical installations shall be accomplished in accordance with Division 2 by this Contractor.
6. Provide temporary electrical power and lighting for all trades that require service during the course of this Project. Provide temporary service and distribution as required. Comply with the NFPA 70 and OSHA requirements. (Energy costs by General Contractor.)

D. Guarantee-Warranty: This Contractor shall and hereby does warrant and guarantee:
1. That all work executed under this Section will be free from defects of materials and workmanship for a period of one year from the date of final acceptance of this work.
2. The Contractor agrees to, at the Contractor's own expense, repair and replace all such defective materials and work and all other work damaged thereby which becomes defective during the term of warranty. Agreement does not include damages done by Owner.

E. Permits, Tests, Codes and Standards:
1. Electrical Contractor to pay for all permits and fees in connection with this work.
2. WORK SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITIONS OF ADOPTED LOCAL, STATE AND NATIONAL CODES AND ORDINANCES, THE STATE FIRE MARSHAL, AND UTILITY COMPANY REGULATIONS.
3. Electrical work shall conform to National Electrical Codes, latest editions, as a minimum requirement.
4. All material to conform with applicable standards.

F. Discrepancies: Prior to submitting Bid, Contractor shall refer any apparent discrepancies or omissions to engineer for clarification.

G. Prior Approvals: All proposed substitutions shall be received by the Engineer **10 days prior to Bid. Priors received after 3 p.m. of the 10th day will be rejected**. Supply technical data, photometrics and dimensional Drawings showing that substitutes are equal to product specified.

H. Shop Drawing Submittals:
1. In addition to distribution requirements for submittals specified in Division 1 Section "Submittals," submit Electronic Drawings in pdf format for final and official approval through the General Contractor as listed below. **Provide pdf bookmark tabs for each type and section.** Provide separate pdf for each spec section; do not combine sections together unless they are 5 pages or less. If the Authority Having Jurisdiction requires Shop Drawings to have a Registered Engineers Stamp Affixed, this shall be the sole responsibility of the Contractor to acquire such stamp at Contractor's cost.

   Additional copies may be required by individual Sections of these Specifications. Copies of price list sheets are not acceptable. Manufacturer's name and address must appear on each sheet. All copies shall be legible.

   Shop Drawings shall include a completed specification sheet of all equipment along with fabrication, installation drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Installation drawings for fire alarm shall be done with a computer cadd program and include no other system. A basic floor plan in pdf electronic format can be obtained through the General Contractor. Autocad .dwg format will not be available.

I. Project Close-Out Record Documents:
1. Provide three full size sets, unless more are called for under Division 1 (one for Engineer and one for Owner). In addition to requirements called for under Division 1, indicate the following installed conditions:
   a. Actual location of all electrical service gear/feeders, panel/motor/special equipment feeders, all major underground or underslab conduits, all conduit stubs for future use, any change in branch circuitry from Drawings, key junction boxes and pull boxes not indicated on Drawings, any control locations or indicator lights not shown on Drawings.
   b. Addendum items, change order items and all changes made to Drawings from Bidding phase through to Project completion.
   c. Actual equipment and materials installed. Where manufacturer and catalog number are indicated on Drawings, generally or in fixture or equipment schedules, change to reflect actual products installed.
   d. Change service panel and branch panel breaker locations and schedules to reflect actual installed conditions.

J. Project Close-out Maintenance Manuals:
1. Prepare 3 copies, unless more are called for under Division 1 (one for Engineer, two for Owner). In addition to requirements under Division 1, provide heavy duty, durable 3-ring vinyl covered loose-leaf binder for each manual sized to receive 8.5 inch by 11 inch paper. Provide a clear plastic sleeve on the spine to hold labels and pockets in the cover to receive folded sheets. In manual, include all Shop Drawings, installation/operation/maintenance data furnished with electrical equipment, voice/data test reports, and letters from manufacturer's representatives that the fire alarm, has been completed and tested to satisfy requirements/codes. List project name, date, and Contractor's name, address and telephone number. Include index sheet for each Specification Section indicating equipment, with supplier and supplier's telephone number. Provide tabbed dividers indicating major groupings of equipment.
2. Turn over to Owner all spare equipment and devices specified and shown.

K. Supporting Equipment:
1. Unless otherwise indicated, fasten electrical items and their supporting hardware securely to the building structure, including conduits, raceways, cables, cable trays, busways, cabinets, panelboards, transformers, boxes, disconnect switches, and control components. Fasten by means of wood screws or screw-type nails on wood, toggle bolts on hollow masonry units, concrete inserts or expansion bolts on concrete or solid masonry, and machine screws, welded threaded studs, or spring-tension clamps on steel. Threaded studs driven by a power charge and provided with lock washers and nuts may be used instead of expansion bolts and machine or wood screws. Do not weld conduit, pipe straps, or items other than threaded studs to steel structures. In partitions of light steel construction, use sheet metal screws. All device boxes in sheetrock walls will be tight before, during and after installation of sheetrock.
2. Provide supports for electrical items in accordance with NFPA 70 and all other applicable codes.
3. Contractor responsible for providing watertight conduit penetrations at all watertight walls, floors roofs and membranes. Contractor also responsible to maintain fire rating of walls, floors, roofs and membranes penetrated.
4. When applicable, center within insulation any electrical conduit routed in attic space. Provide sealing as per NFPA 70 300-7 for all conduits exposed to different temperatures.

260000 - COMMON WORK RESULTS (continued)

L. Electrical Identification:
1. Apply circuit/control/item designation labels of engraved plastic laminate for disconnect switches, breakers, pushbuttons, pilot lights, FA duct detection, motor starters, panelboards and main control panel and similar systems.
2. Identify all 120 VAC and 208 VAC power receptacle cover plates with panel and circuit number utilizing a clear label with black designations. Designation example: L1-38.
3. Identify underground exterior electrical circuits by installation of continuous underground plastic marker, 6 - 8 inches below grade.

260300 - REMODEL WORK

A. The Contractor shall carefully examine the Drawings and Specifications, visit the project site, and make note of all existing conditions, dimensions and limitations prior to Bid and make allowances thereto.

B. No Change Orders will be issued for Contractor's failure to visit site, remodel work necessary for a complete installation of systems shown, and due to Contractor's lack of understanding of amount or difficulty of work involved.

C. The Contractor shall also notify all corporations, companies, individuals or local authorities owning, or having jurisdiction over existing utilities and services which interfere in any manner with the execution of the work under this Contract, and shall remove, relocate or protect such utilities or equipment as required by the parties having jurisdiction over same.

D. If existing active or non-active services (which may not be shown on plans) are encountered that require relocation or disconnecting, the Electrical Contractor shall make written request for decision on proper handling of the services. The Electrical Contractor shall not proceed with the work until so authorized by the Architect.

E. When areas of the existing buildings are adjacent to the area of construction in which work is going on and are occupied, then this Contractor shall arrange the work so as to reduce to a minimum the periods of interruption or outages in the various services.

F. Not less than one week before any system is to be put out of service, the Contractor shall notify and coordinate with other trades and the Owner of such necessity including the extent of the work to be done during the outage, possible length of time required for that phase of the work, and the desired time at which the outage is to begin.

G. Balance additional loads to existing circuitry between phases. Furnish a revised, typed panel directory on existing panelboards where loads have been added or changed on this project.

H. Carefully lay out all work in advance to minimize cutting, channeling or drilling. Where necessary, all cutting and patching shall be done in a manner approved by the Architect. Do not endanger the stability of the structure. Restore any damaged surfaces to original conditions. Contractor at fault to assume all costs.

I. Remove or relocate existing conduits, wires, equipment, devices or fixtures indicated on Drawings and as required by remodel operations. Where the reuse of existing conduits, wires, devices, or fixture is permitted, verify that wiring is continuous. Existing outlets or junction boxes shall not be rendered inaccessible by structural changes made to the building.

J. Where existing walls are being furred out or refinished, extend existing outlets and devices to new surface as required.

K. Existing equipment which is indicated as being removed and not indicated for re-use shall be disposed of unless stated otherwise. Light fixture ballasts may contain PCB's and shall be disposed of according to environmental regulations.

260519 - CONDUCTORS AND CABLES

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Feeders: Copper THHN-THWN. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

C. Branch Circuits: Copper THHN-THWN. Solid for No. 10 AWG and smaller; stranded for No. 8 AWG and larger.

D. Multi-conductor Cable: Copper Type AC and Type MC with separate insulated ground wire.
1. **Healthcare Patient Care areas: In addition to the separate ground wire, the metallic cable armor, or sheath assembly shall also qualify as an equipment grounding conductor per NEC 250.118.**
2. **MC and AC cable are not permitted for emergency Life safety and Critical branch circuits or for any homerun circuit.**

E. Aluminum conductors are not acceptable. Aluminum conductors are acceptable for sizes #1 Awg and larger.

F. Conductor Insulation: Comply with NEMA WC 70 for types THHN-THWN. Utilize other types of insulation only where specifically noted or required by code for the installed condition.

G. Tighten electrical connectors and terminals, including screws and bolts, in accordance with manufacturer's published torque tightening valves or as specified in UL Codes.

H. Color code secondary service, feeder, and branch circuit conductors with factory applied color as follows:

208y/120 Volts	Phase
Black	A
Red	B
Blue	C
White	Neutral
Green	Ground

260526 - GROUNDING AND BONDING

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Install separate insulated equipment grounding conductors for feeder and branch circuits in compliance with NFPA 70 Article 250.

C. Provide #6 AWG minimum green insulated copper conductor in raceway from grounding electrode system to each telephone, alarm and communications system's terminal board, cabinet or equipment location.

260533 - RACEWAYS AND BOXES

A. Submit Shop Drawings in accordance with the "Common Work Results" section.

B. Conduit Raceway:
1. Indoors, use the following, unless otherwise stated:
   a. Concealed: EMT or MC cable.
   b. Exposed: EMT, IMC or RMC.
   c. Connection to vibrating equipment: Flexible metal conduit.
2. Outdoors, use the following, unless otherwise stated:
   a. Concealed: RMC or IMC.
   b. Exposed: RMC or IMC.
   c. Underground: Schedule 40 PVC with Schedule 80 PVC fittings.
   d. Connection to Vibrating Equipment: Liquid tight flexible metal conduit.
3. **ENT IS NOT ALLOWED**.
4. Conceal conduit and cable, unless otherwise noted; conduit is permitted to be exposed in equipment rooms. All conduits shall have insulated ground wire installed. Do not install conduit embedded in slabs. EMT fittings shall be steel, compression or set screw type. All raceways shall be installed and supported in accordance with NFPA 70 and applicable codes.

260533 - RACEWAYS AND BOXES (continued)

C. Outlet Boxes:
1. Conform to UL 514A, "Metallic Boxes, Electrical," and UL 514B, "Fittings for Conduit and Outlet Boxes." Outlet boxes shall be metallic and installed flush in all areas, except mechanical rooms, above lay-in ceilings, or as otherwise indicated. Minimum size to be 4 inches square by 2-1/8 inches deep. Boxes shall be of type, shape, size and depth to suit each location and application. All fittings shall be steel.

D. Pull and Junction Boxes:
1. Comply with UL 50, "Electrical Cabinets and Boxes," for boxes over 100 cubic inches volume. Boxes shall have screwed or bolt-on covers, shall be suitable for the intended application and shall be labeled.

E. All materials shall be UL listed, appropriate for intended application. Entire raceway system shall be in accordance with NFPA 70, ANSI, NEMA, UL, and all other applicable codes.

260573 – COORDINATION AND ARC FLASH STUDY

A. Submit study as Shop Drawings in accordance with the "Common Work Results" section.

B. The software used shall be SKM Systems Analysis, Inc and shall comply with IEEE 399.

C. Comply with IEEE 242, IEEE 399, 2017 NEC and 2018 NFPA 70E. Comply with ANSI Z535.4 1998 for Arc Flash label designs.

D. Short Circuit Study: Calculate the maximum available short-circuit current in RMS symmetrical amperes for each switchboard, distribution panelboard, branch panelboard, enclosed circuit breaker or switch, bus of each generator and bus of the load side of each UPS. Evaluate the results in comparison to the equipment ratings.

E. Coordination Study: Produce time current curves that show coordination of all overcurrent and ground fault devices (maximum of five devices per time current curve). Adjust overcurrent settings to achieve the maximum amount of coordination and produce settings for the contractor to set each device. Evaluate results in comparison to NEC requirements, state codes and local area codes.

F. Arc Flash Study: Calculate Arc Flash incident energy in joules/second and determine the flash hazard level, flash hazard boundaries, approach boundaries and require PPE. Produce Self Adhesive vinyl arc flash label for each piece of switchgear, switchboard, panelboard, enclosed breaker and enclosed switch.

G. Produce a complete report that includes an introduction, summaries, analysis, full report of the studies noted above, recommended settings for overcurrent devices. Include, in a separate tab, resources used to produce the study including utility primary AIC, utility primary X/R ratios, utility transformer impedance, generator reactance and time constants, overcurrent device information from gear shop drawings, feeder distances/types, motor amperage information and transformer impedances.

260923 – LIGHTING CONTROL DEVICES

A. Submit Shop Drawings in accordance with the "Common Work Results" Section. Shop drawings shall include background floor plans with device layouts and wiring/wire types, and coverages to demonstrate how this system will function to meet the design intent and the energy code.

B. Manufacturer: As scheduled on the drawings.

C. Perform the following tests and inspections:
1. Operational Test: After installing time switches and sensors, and after electrical circuitry has been energized, start units to confirm proper unit operation.
2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Occupancy Adjustments: When requested within 12 months from date of Substantial Completion, provide on-site assistance in adjusting lighting control devices to suit actual occupied conditions. Provide up to two visits to Project during other-than-normal occupancy hours for this purpose.

E. Provide letter of verification that the system has been completed and successfully tested. Letter to be included in As-Built manuals.

262416 - PANELBOARDS

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Manufacturer: Siemens, Square-D, GE or Cutler Hammer.

C. Load centers are not acceptable unless specifically noted.

D. Branch Panelboards shall have aluminum bus including neutral and ground bars. Breakers shall be bolt on type. Main breakers shall have minimum of **an adjustable instantaneous feature**. Provide hinged front cover and hinged door (door in door) and feed through lugs. If indicated on the Panel Schedule, provide internal SPD with a 120 kA per phase surge rating and protect L-N, L-G and N-G modes; include status indicator. All panels shall be fully rated for the available AIC; series ratings are not allowed.

E. Distribution Panelboards shall have aluminum bus including neutral and ground bars. Breakers shall be bolt on type for 125A and smaller. Breakers larger than 125A shall be bolt-on circuit breakers or plug-in circuit breakers where individual positive-locking device requires mechanical release for removal. All 3-pole breakers 50 amp and larger shall have minimum feature of a thermal magnetic adjustment. Breakers with 1200 amp frame or larger shall be equipment with an Arc Flash Energy-reducing maintenance switching with local status indicator. Provide hinged front cover and hinged door (door in door). If indicated on the Panel Schedule, provide internal SPD with a 120 kA per phase surge rating and protect L-N, L-G and N-G modes; include status indicator. All panels shall be fully rated for the available AIC; series ratings are not allowed.

F. Provide typed circuit schedules for existing panelboards where loads have changed and framed, typed circuit schedules for all new panelboards with identification of items controlled by each individual breaker. Indicate room numbers of items controlled or room name where appropriate for Owner's convenience.

262726 - WIRING DEVICES

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Acceptable Manufacturers: Pass & Seymore, Bryant, GE, Hubbell, Leviton.

C. Devices:
1. General light switches shall be 20 amp, 120/277 volt AC rated and **Commercial Grade**.
2. General receptacles shall be self-grounding 5-20R and Comercial Grade.
   a. GFCI receptacles shall be 20 amp feed through type with two utilization points. Do not connect downstream devices to load side of GFCI.
1. Tamper-Resistance receptacles shall comply with NFPA 70 tamper-resistant requirements.
2. General device color shall be **white**.

A. Device Plates:
1. Device plates shall have opening for device intended and shall be **Lexan**. General device color shall be **white**.
2. All device plates shall have a clear label with the panel and circuit number designation in black.

B. Weatherproof receptacle covers shall be a corrosion resistant die cast metal, minimum 3 inch deep, flip cover with latch and with pad locking provisions.

262813 - OVER CURRENT PROTECTION DEVICES

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Manufacturer: Bussman, Gould, Littlefuse or Brush.

C. Fuses:
1. Motor or combination motor/branch circuit: UL listed RK-5.
2. Feeder Loads: UL listed RK-1.
3. Plug fuses shall be dual element Type S with adapter.

262816 - CIRCUIT AND MOTOR DISCONNECTS

A. Submit Shop Drawings in accordance with the "Common Work Results for Electrical" Section.

B. Manufacturer: Same as panelboard manufacturer.

C. Disconnects shall be heavy duty type with Class R rejection feature when required to be fusible. Voltage rating shall be at or greater than the application voltage. Provide NEMA 3R enclosure for exterior locations. Service switches shall be UL listed for use as service equipment.

262913 - MANUAL AND MAGNETIC MOTOR CONTROLLERS

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Manufacturer: Same as panelboard manufacturer.

C. Unless scheduled otherwise, 3/4 horsepower or less single-phase motors shall have 1 HP rated manual toggle starters with thermal overload protection sized for the motor in accordance with NFPA 70. Provide pilot light for manual starters not in sight from motor. Units located at the exterior of the building shall be NEMA 3R rated.

D. Starters shall be across-the-line magnetic type, combination starter/disconnect, FVNR, and HP rated, unless otherwise scheduled. Starter shall have solid state adjustable and resetable overload protection on all phases, constructed of one-piece Class 20 construction. Provide 120 volt control, H-O-A and interlocks where indicated on schedules. Provide two N/O auxiliary contacts. Units located at the building exterior shall be NEMA 3R rated.

E. All motor controllers shall be UL listed and installed in accordance with NFPA 70, NEMA, and manufacturer's recommendations.

265100 - LIGHTING

A. Submit Shop Drawings in accordance with the "Common Work Results" Section.

B. Manufacturer, model, style, color, size, etc., as scheduled. If no color has been selected, provide fixture with the standard finish as published by the manufacturer. All fixtures to be supplied as complete, housing, sockets, lamp holders, internal working, wire guards, lens guards, diffusing materials or lenses, pendants, hangers, canopies, aligners, end caps, ballasts and emergency battery packs, plaster frames, recessing boxes, hold down clips, anchor bolts, etc. Install plumb and true, free of light leaks, warps, dents and other irregularities.

C. Support for Recessed and semi-recessed Grid-type Fixtures:
1. All lighting fixtures shall be positively attached to the suspended ceiling system by mechanical means as specified in the National Electric Code, Section 410-36 (b) unless independently supported. The attachment device, a minimum of two per fixture, shall have a capacity of 100 percent of the lighting fixture weight acting in any direction.

D. Lighting fixtures weighing less than 56 pounds shall have, in addition to the requirements outlined above, two No. 12-gage hangers connected from opposite corners of the fixture housing to the structure above. These wires may be slack.

E. Surface-mounted light fixtures attached to a ceiling grid shall be attached with positive clamping devices surrounding the supporting members. Attach safety wires between the clamping device and the adjacent ceiling hanger or to the structure above.

F. LED Modules:
1. Comply with ANSI C78.377, UL 8750, IES LM-79 and IES LM-80.
2. CRI minimum of 80 or as scheduled.
3. Efficancy: 75 Lumens per watt minimum for down lights and 100 lumens minimum per watt minimum for other fixture types or as schedule on the drawings.
4. Rated life of minimum 50,000 hours minimum or as scheduled.
5. Fully serviceable and upgradable Light Engine.
6. Warranty: 5-year minimum for all fixture components.

G. LED Drivers:
1. LED Driver/Power Supply: Integral high efficiency driver with power supply of 120V-277v input 60HZ. Power factor greater than 0.9 at full load. Drive current at 1,000ma maximum for interior applications, 1,400ma maximum for exterior applications. Class 2 power supply. Dimming utilizing 0-10V dimming control. Provide continuous flicker free dimming from 100 percent to 10 percent. The driver shall be capable of being serviced through the aperture for down light applications.
2. Warranty: 5-year minimum for all fixture components.

DIVISION 27 - COMMUNICATIONS

270500 - TELE-DATA COMMUNICATIONS

A. Submit Shop Drawings in accordance with DIVISION 01 requirements.

B. Approved manufacturers:
1. Siemon
2. ICC
3. Leviton
4. Ortronics
5. Hubbell
6. Commscope
7. OCC.

C. Applicable Standards:
1. NFPA 70 – "National Electrical Code"
2. NECA 1-2015 – "Standard for Good Workmanship in Electrical Construction"
3. UL910 – "Standard for Safety Test for Flame-Propagation and Smoke-Density"
4. UL 969-2017 – "Standard for Marking and Labeling Systems"
5. TIA-569-D – "Telecommunications Pathways and Spaces"
6. TIA-568-D – "Telecommunications Structured Cabling Standards"
7. TIA-604 – "Fiber Optic Intermateability Standard"
8. TIA-607-C – "Telecommunications Bonding and Grounding for Customers Premises"
9. TIA-526-14-B – "Optical Power Loss Measurements of Installed Multimode Fiber"
10. TIA-606-C – "Administration Standard for Telecommunications Infrastructure"

D. Voice/Data Workstation Rough-Ins: Provide 4 inch square, 2-1/8-inch deep 1-gang rough-in with 1-inch conduit stubbed to ceiling space with a 90 degree bend and insulated throat bushing, unless otherwise stated.

E. Workstation Outlet Assemblies: (Modules shall be color coded for service type, faceplate/jack color same as specified in the Wiring Devices Section). See construction drawings for number of jacks.
1. Wall Mount Telephone Assembly: Stainless Steel wall mount plate with flat, Category 6, RJ45 module.
2. Voice only Wall Jack Assemblies: **Category 6**, T568A terminated RJ45 module and blank module in a modular style faceplate. Faceplate shall have clear view label covers.
3. Data only Wall Jack Assemblies: **Category 6**, T568A terminated RJ45 module and blank module in a modular style faceplate. Faceplate shall have clear view label covers.
4. Combination Voice/Data Wall Jack Assemblies: **Category 6**, T568A terminated RJ45 modules and blank modules (minimum 2) in a modular style faceplate. Faceplate shall have clear view label covers.

F. Cables:
1. Horizontal Workstation Cabling: **Category 6** unshielded twisted pair (UTP) cable. Plenum rated cable shall be used in spaces used for air handling.

G. Workstation Wiring Installation:
1. Install cable without damaging conductors or jacket. Do not bend cable to a smaller radius than minimum recommended by manufacturer. Do not exceed manufacturer's recommended pulling tensions. Pull cables simultaneously where more than one is being installed in the same raceway or at the same location. Use pulling compound or lubricant where necessary. Compound used must not damage conductor or insulation. Use pulling methods that will not damage cable or raceway, including fish tape, cable, rope, and wire-cable grips.
2. Wiring shall be a minimum of 48 inches from Transformers and motors >= 5 HP and minimum of 5 inches from light fixtures.
3. Wiring Support Methods:
   a. UTP Wiring Method: Install wiring above accessible ceilings exposed and supported to structure with Erico Cable Cat or Bline 2-inch-wide J hooks, supported to structure every 30 inches to 60 inches. Install all other wiring in EMT conduit concealed. Conceal raceway except in unfinished spaces as indicated.
1. Wiring in Wire Closets and Cabinets: Install conductors parallel to and at right angles to walls. Bundle, lace, and train the conductors to terminal points with no excess. Use wire distribution spools at points where cables are fanned or conductors turned. Connect conductors that are terminated, spliced, or interrupted to terminal blocks. Label each terminal with designations approved in accordance with EIA/TIA Standards.
2. Conductor Terminations: Terminate conductors of cables on terminal blocks, patch panels and devices using tools recommended by manufacturer.

H. Identification:
1. Cable/Workstation Labels: Match existing labeling scheme. Label cables within workstation outlet boxes, where accessible in cabinets or junction boxes, at rear of patch panels, at termination blocks and elsewhere as indicated. Place labels with 4 inches of cable termination point. Cable labels shall be vinyl or vinyl cloth, self adhesive, wraparound markers with preprinted numbers and letters. Label each workstation jack on workstation faceplate under clear view covers with preprinted label.
2. Patch Panel Labeling: Label each workstation panel with self-adhesive preprinted single letter designation (01 through 24). Label patch panels used as a patch to telephone cross connect blocks as "Telephone Patch." If more than one telephone patch panel, include designation. Example: Telephone Patch 02.
3. Cable Schedule/Map: Post at a prominent location in each equipment room. List incoming and outgoing cables and their designations, origins, and destinations. Protect with a rigid frame and clear plastic cover. Obtain printed floor plan from Engineer and indicate each workstation jack, rack, and communications room designations. Send copy to engineer and include with as-built manuals/Drawings.

B. Field Quality Control:
1. Testing Agency: Provide a qualified NRTL, BICSI certified testing agency to perform tests and inspections.
2. Perform tests and inspections as follows:
   a. Visually inspect UTP and optical fiber cable jacket materials for NRTL certification markings. Inspect cabling terminations in communications equipment rooms for compliance with color-coding for pin assignments, and inspect cabling connections for compliance with TIA-568-D.
   b. Visually confirm **Category 6,** marking of outlets, cover plates, outlet/connectors, and patch panels.
   c. Visually inspect cable placement, cable termination, grounding and bonding, equipment and patch cords, and labeling of all components.
   d. UTP Performance Tests: Test for each outlet and multi-user outlet assembly. Perform the following tests in accordance with TIA-568-0.D.
3. Retesting: Correct deficiencies indicated by tests and completely retest work affected by such deficiencies. Verify that the total system meets the Specifications and complies with applicable standards. Contractor will be reimbursed for replacement of existing cable upon approval of engineer.
4. Report of Tests and Inspections: Prepare a written record of inspections, tests, and detailed test results in the form of a test log.All tests (pass and failed) shall be submitted in native format of the tester being used. Retested links shall be identified as retest when corrected. Names of technicians performing tests shall be reported in the test report.

C. Commissioning:
1. Acceptance: This is to be a certified EIA/TIA 568 **Category 6** Data System. Submit system certificates prior to final acceptance.

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)
SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA
49TH
Jeffrey L. Haidle
EE No. 11564
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

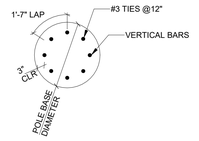
08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE

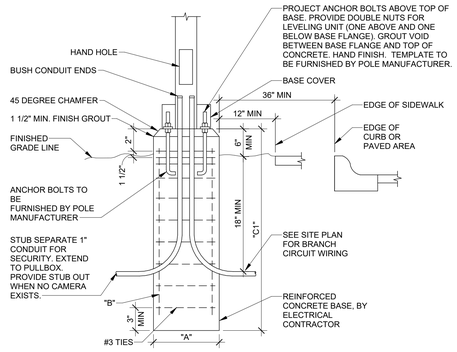
REVISIONS

ELECTRICAL SPECIFICATIONS

E003

POLE HEIGHT	POLE BASE DIAMETER	VERTICAL BARS	DEPTH BELOW GRADE RESTRAINED	DEPTH BELOW GRADE UNRESTRAINED
	"A"	"B"	"C"	"C1"
20' OR LESS	"20"	5-#5	4'-6"	6'-0"
30' OR LESS	"24"	6-#6	5'-6"	7'-0"
40' OR LESS	"30"	8-#6	6'-6"	9'-0"





UNRESTRAINED AT BASE

NO RIGID SURFACE AT GROUNDLINE

(MIN. 3" LARGER THAN OUTER MOST PORTION OF BASE COVER)

NOTE: PROVIDE 8' OF #6 AWG BARE COPPER WIRE WITHIN POLE BASE AND TIE TO VERTICAL/HORIZONTAL BARS AND BOND TO POLE AS REQUIRED.

3 / E100 SITE POLE BASE DETAIL

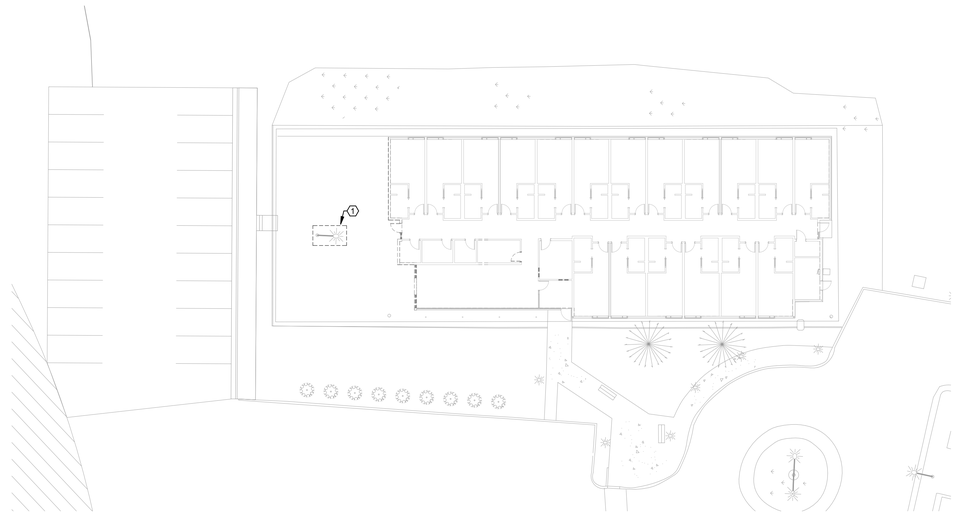
NOT TO SCALE

GENERAL NOTES

A. COMPLY WITH LATEST ADOPTED NEC AND APPLICABLE CODES/STANDARDS.
B. SHARED NEUTRALS ARE NOT ALLOWED FOR SINGLE PHASE BRANCH CIRCUITS.

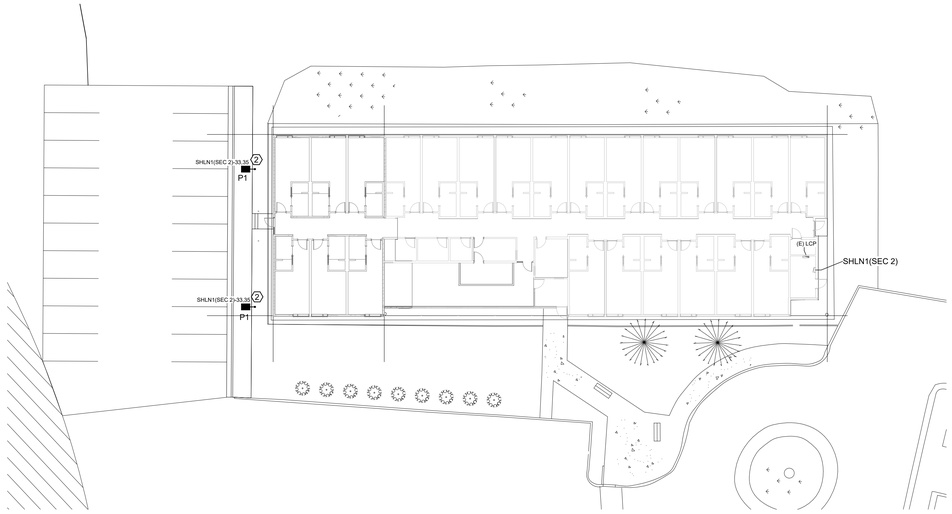
KEYNOTES

1. REMOVE EXISTING LIGHT POLE FIXTURE AND POLE IN ITS ENTIRETY. RETURN FIXTURE TO OWNER.
2. ROUTE HOMERUN THROUGH LIGHTING CONTROL PANEL IN UTILITY ROOM (SEE 2/E200 FOR LCP LOCATION).



1 / E100 ELECTRICAL SITE DEMO PLAN

1" = 20'-0"



2 / E100 ELECTRICAL SITE PLAN

1" = 20'-0"

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA
49TH
Jeffrey L. Haidle
EE No. 11564
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

SITE PLAN

E100

GENERAL DEMOLITION NOTES

A. ALL DASHED ITEMS ON DEMOLITION PLANS ARE TO BE REMOVED; SOLID ITEMS ARE TO REMAIN UNLESS NOTED OTHERWISE. ITEMS SHOWN IN THE DEMOLITION PLANS ARE BASED ON FIELD OBSERVATIONS. ADDITIONAL ELECTRICAL ITEMS MAY BE ENCOUNTERED THAT ARE NOT SHOWN - ALL GENERAL ELECTRICAL ITEMS ARE TO BE REMOVED THAT ARE NOT SHOWN, BUT ARE IN AREAS OF COMPLETE REMODEL.

B. PRIOR TO BID, CONTRACTOR SHALL VISIT THE JOB SITE AND VERIFY ALL EXISTING CONDITIONS ASSOCIATED WITH DEMOLITION; CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN FUNCTIONALITY OF ALL DOWNSTREAM EQUIPMENT, DEVICES, FIXTURES, ETC. THAT ARE TO REMAIN.

C. ELECTRICAL EQUIPMENT AND CONNECTIONS SHOWN FOR DEMOLITION SHALL BE REMOVED BACK TO SOURCE OR NEAREST UPSTREAM DEVICE THAT IS TO REMAIN, U.N.O.

D. WHERE REMOVED ITEMS AFFECT DOWNSTREAM CONNECTIONS, CONTRACTOR IS RESPONSIBLE TO PROVIDE BOXES, RACEWAYS, CONDUCTORS, ETC. AS REQUIRED TO MAINTAIN FUNCTIONALITY OF DOWNSTREAM DEVICES.

E. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF REQUIRED PATCHING AND PAINTING WITH THE GENERAL CONTRACTOR.

F. EXISTING LIGHT FIXTURES WHICH ARE NOT REUSED SHALL BE DELIVERED TO THE OWNER.

G. EXISTING CONDUITS IN THE FLOOR WHICH ARE NOT USED AND WHICH ARE ABANDONED SHALL BE TRIMMED TO FLOOR SURFACE, GROUND FLUSH AND FILLED WITH GROUT, AND FINISHED TO MATCH ADJACENT FLOOR SURFACE.

H. WORK SHALL BE PERFORMED WITH NO DISRUPTION OF THE OWNER'S BUSINESS. ALL ELECTRICAL POWER DISRUPTIONS SHALL BE SCHEDULED AND APPROVED BY THE OWNER.

GENERAL NOTES

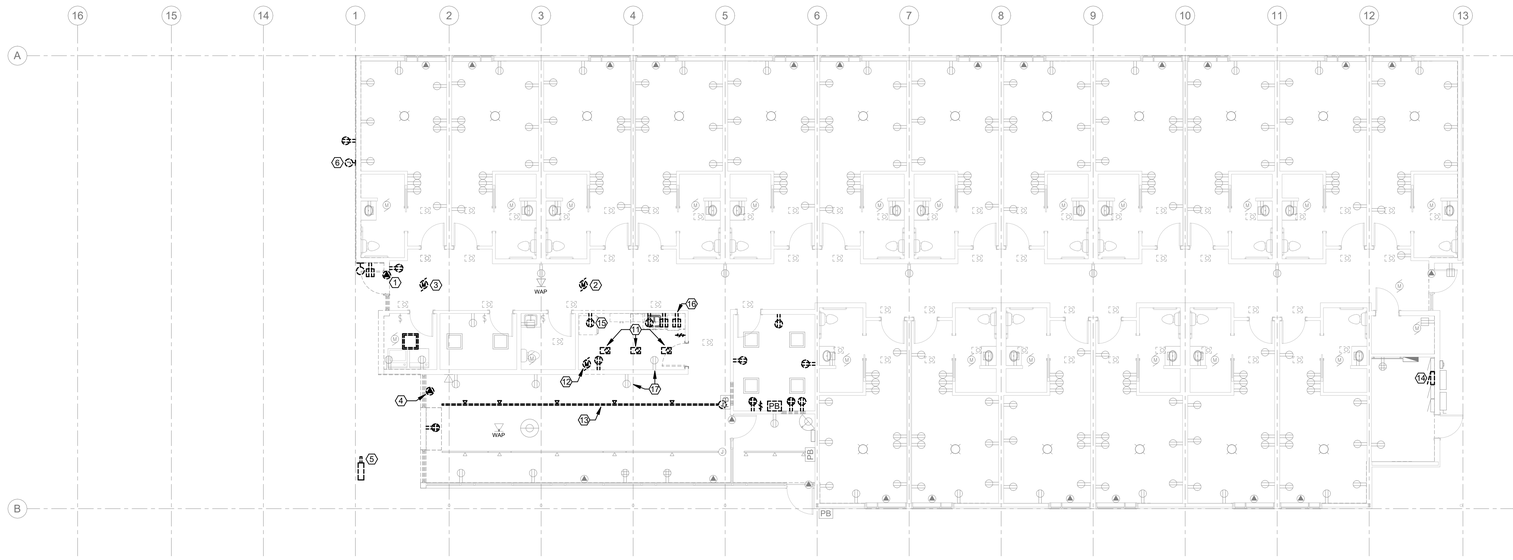
A. COELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE: ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE ELECTRICAL CONTRACTOR.

B. ALL CONDUIT AND JUNCTION BOXES IN FINISHED AREAS ARE TO BE CONCEALED IN WALLS, FUR OUTS, AND CEILINGS. ANY USE OF SURFACE MOUNTED RACEWAY IN FINISHED AREAS MUST BE APPROVED BY THE ARCHITECT. WHERE APPROVED, UTILIZE WIREMOLD OR APPROVED EQUAL SURFACE MOUNTED RACEWAYS PAINTED TO MATCH SURROUNDING WALLS.

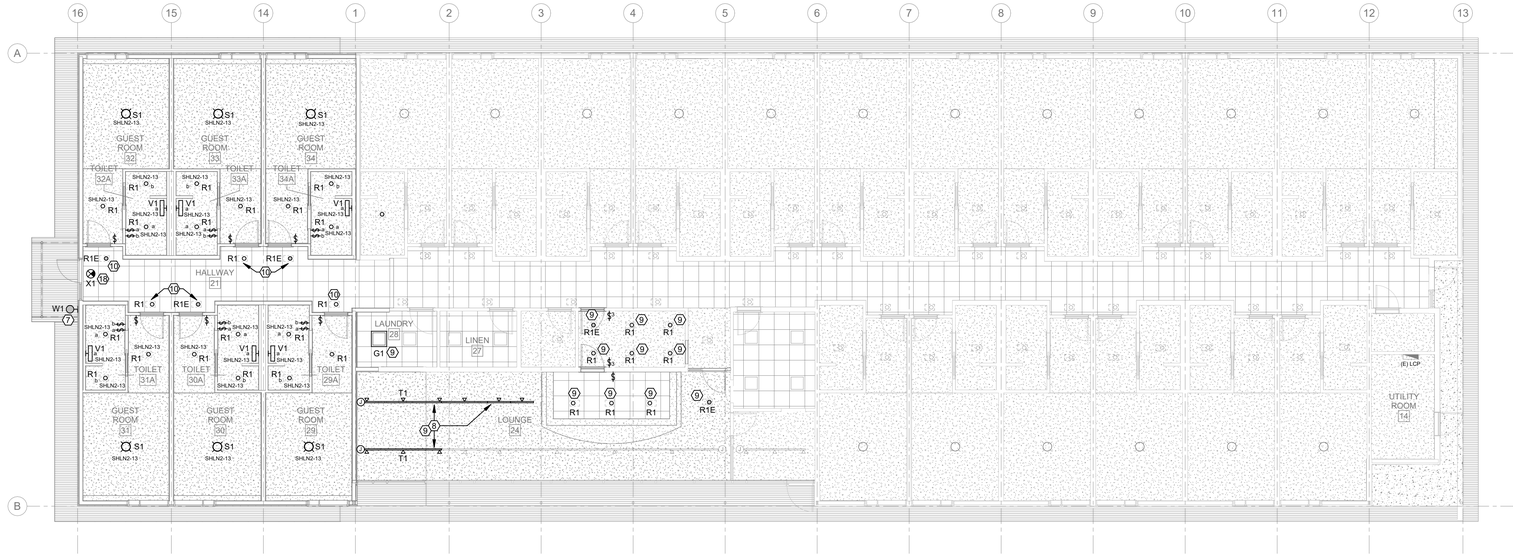
C. WHERE LIGHTING CIRCUITS ARE INDICATED FOR AUTOMATIC CONTROL BY RELAY PANEL, ROUTE SEPARATE CONDUCTOR DIRECTLY TO RESPECTIVE CIRCUIT BREAKER TO PROVIDE UNSWITCHED CIRCUIT FOR CONNECTION TO EMERGENCY BALLASTS/BATTERY PACKS.

KEYNOTES

1. EXISTING POWERED DOOR CONNECTION. DISCONNECT AND EXTEND CIRCUITRY TO NEW POWERED DOOR CONNECTION. SEE 1/E300 FOR NEW DOOR LOCATION.
2. DISCONNECT EXISTING FAN COIL UNIT. REMOVE EXISTING CIRCUITRY BACK TO SOURCE. RELABEL EXISTING BREAKER FEEDING EQUIPMENT AS SPARE.
3. DISCONNECT EXISTING ELECTRIC UNIT HEATER. REMOVE EXISTING CIRCUITRY BACK TO SOURCE. RELABLE EXISITNG BREAKER FEEEDING EQUIPMENT AS SPARE.
4. DISCONNECT EXISTING PTAC UNIT. REMOVE EXISITNG CIRCUITRY BACK TO SOURCE (PANEL SHLN1(SEC 1) CIRCUIT (28,30)). RELABEL EXISTING BREAKER FEEDING EQUIPMENT AS SPARE AT PANEL SCHEDULE.
5. EXISTING CCTV CAMERA TO BE REMOVED AND RELOCATED. SEE SHEET 1/E400 FOR NEW LOCATION. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
6. DISONNECT AND REMOVE EXTERIOR MOUNTED CONDUIT AND JUNCTION BOX. REINSTALL IN NEW INTERIOR WALL. MAINTAIN CIRCUIT CONTINUITY THROUGHOUT PROJECT. COORDINATE WITH OWNER FOR ANY DOWNTOWN EXPECTED.
7. CONNECT TO EXISTING EXTERIOR LIGHTING CIRCUIT ROUTED THROUGH EXISTING LIGHTING CONTROL PANEL ((E) LCP) IN UTILITY ROOM 14.
8. MOUNT NEW LOW VOLTAGE CABLE LIGHTING FIXTURE (T1) TO BE IN LINE WITH EXISTING IN THIS ROOM. MATCH FIXTURE HEAD SPACING WITH EXISTING. CONNECT NEW LIGHT FIXTURES TO EXISTING SWITCH LEG OF LIGHTING CIRCUIT IN THIS ROOM.
9. CONNECT NEW LIGHT FIXTURE TO EXISTING SWITCH LEG OF LIGHTING CIRCUIT IN THIS ROOM.
10. CONNECT TO EXISTING "SOUTH COORIDOR" SWITCHLEG OF LIGHTING CIRCUIT IN HALLWAY 21.
11. REMOVE EXISITNG DOWN LIGHTS AND GIVE BACK TO OWNER. RETAIN LIGHTING CIRCUIT IN THIS ROOM FOR REUSE.
12. DISCONNECT EXHAUST FAN AND RETAIN CIRCUIT FOR REUSE. SEE SHEET 1/E300 FOR LOCATION OF (N) EF-20 IN RELOCATED KITCHENETTE WHERE EXISTING CIRCUIT IS TO BE REUSED.
13. REMOVE LOW VOLTAGE CABLE LIGHT FIXTURE AND GIVE BACK TO OWNER. RETAIN LIGHTING CIRCUIT AND JUNCTION BOX FOR REUSE. SEE 2/E200 FOR ADDITIONAL INFROMATION.
14. SHNL-1 (SEC. 3) TO BE REMOVED AND REPLACED. SEE ONE-LINE DIAGRAM ON SHEET 1/E002 FOR ADDITIONAL INFORMATION.
15. RE-ROUTE EXISTING REFRIGERATOR CIRCUIT (SHLN1(SEC. 2) - TO NEW KITCHENETTE 22 (SEE SHEET 1/E300).
16. RE-ROUTE EXISTING ICE MACHINE CIRCUIT (SHLN1(SEC. 2) - TO NEW KITCHENETTE 22 (SEE SHEET 1/E300).
17. MAINTAIN CIRCUIT CONTINUITY FOR EXISTING RECPETACLE.
18. CONNECT NEW EXIT SIGN TO UNSWITCHED "HOT" LEG OF OF LIGHTING CIRCUIT THIS ROOM.



1 E200 ELECTRICAL DEMO PLAN
1/8" = 1'-0"



2 E200 REMODEL/ADDITION LIGHTING PLAN
1/8" = 1'-0"

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

DEMO & LIGHTING PLANS

E200

POWER GENERAL NOTES

A. REFER TO ARCHITECTURAL ELEVATIONS FOR OUTLET HEIGHTS WHERE THE SPECIFIC OUTLET HEIGHT IS NOT INDICATED ON THIS SHEET. REFER TO THE ELECTRICAL LEGEND FOR THE DEFAULT OUTLET HEIGHT WHEN NOT INDICATED ON ELEVATIONS OR ON THIS SHEET.

B. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE CONTRACTOR.

C. ALL CONDUIT AND JUNCTION BOXES ARE TO BE CONCEALED IN WALLS, FUR OUTS, AND ACCESSIBLE CEILINGS. USE OF SURFACE MOUNTED RACEWAYS MUST BE APPROVED BY THE ARCHITECT FOR EACH LOCATION. WHERE APPROVED, UTILIZE WIREMOLD OR APPROVED EQUAL SURFACE MOUNTED RACEWAYS PAINTED TO MATCH SURROUNDING WALLS.

D. WHERE NEW DEVICES ARE SHOWN FOR INSTALLATION ON EXISTING WALLS, ELECTRICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE CUTTING, PATCHING, AND REPAIR OF EXISTING WALL WITH OTHER TRADES AS REQUIRED TO PROVIDE FLUSH MOUNTED INSTALLATION.

E. ALL MULTI-WIRE BRANCH CIRCUITS SHALL BE PROVIDED WITH SEPARATE NEUTRAL CONDUCTORS. LABEL NEUTRAL CONDUCTORS WITH RESPECTIVE CIRCUIT AT ALL PULL BOXES, JUNCTION BOXES, TERMINATIONS, ETC.

SPECIAL SYSTEMS GENERAL NOTES

A. COMPLY WITH LATEST ADOPTED NEC, NFPA 72 AND LATEST ADOPTED IBC/IFC.

B. REFER TO ARCHITECTURAL ELEVATIONS FOR OUTLET HEIGHTS WHERE THE SPECIFIC OUTLET HEIGHT IS NOT INDICATED ON THIS SHEET. REFER TO THE ELECTRICAL LEGEND FOR THE DEFAULT OUTLET HEIGHT WHEN NOT INDICATED ON ELEVATIONS OR ON THIS SHEET.

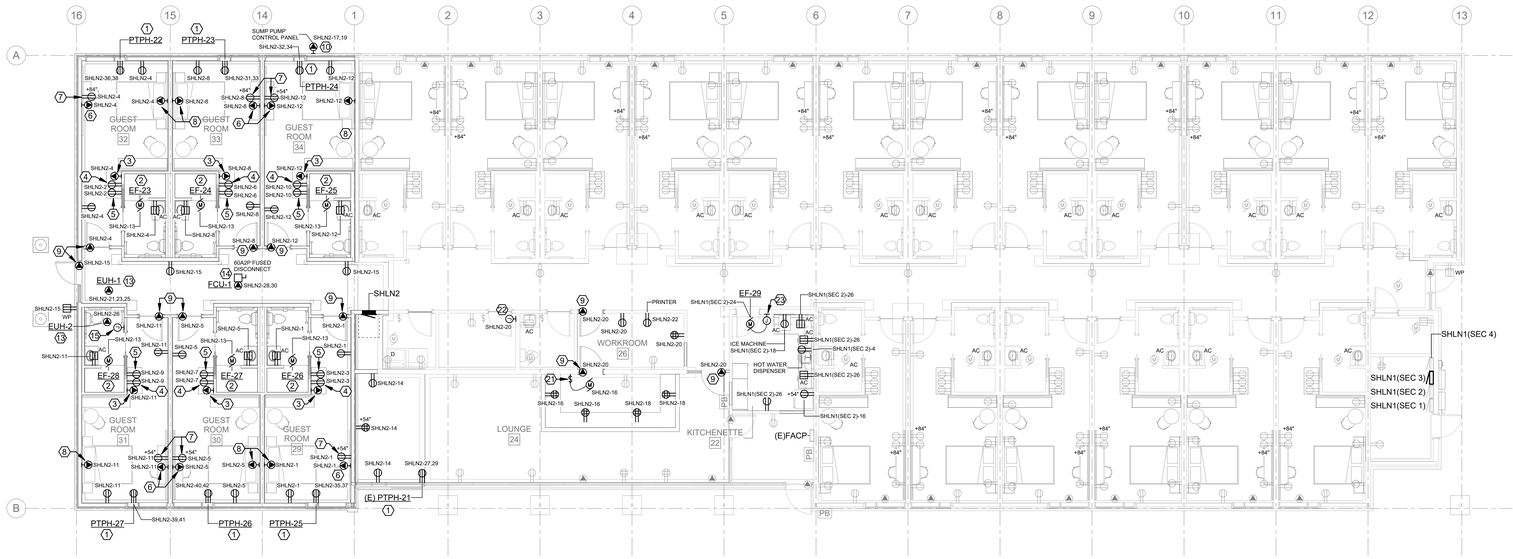
C. THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE CONTRACTOR.

D. ALL CONDUIT AND JUNCTION BOXES ARE TO BE CONCEALED IN WALLS, FUR OUTS, AND EXISTING ACCESSIBLE CEILINGS. USE OF SURFACE MOUNTED RACEWAYS MUST BE APPROVED BY THE ARCHITECT FOR EACH LOCATION. WHERE APPROVED, UTILIZE WIREMOLD OR APPROVED EQUAL SURFACE MOUNTED RACEWAYS PAINTED TO MATCH SURROUNDING WALLS.

E. WHERE NEW DEVICES ARE SHOWN FOR INSTALLATION ON EXISTING WALLS, ELECTRICAL CONTRACTOR IS RESPONSIBLE TO COORDINATE CUTTING, PATCHING, AND REPAIR OF EXISTING WALL WITH OTHER TRADES AS REQUIRED TO PROVIDE FLUSH MOUNTED INSTALLATION.

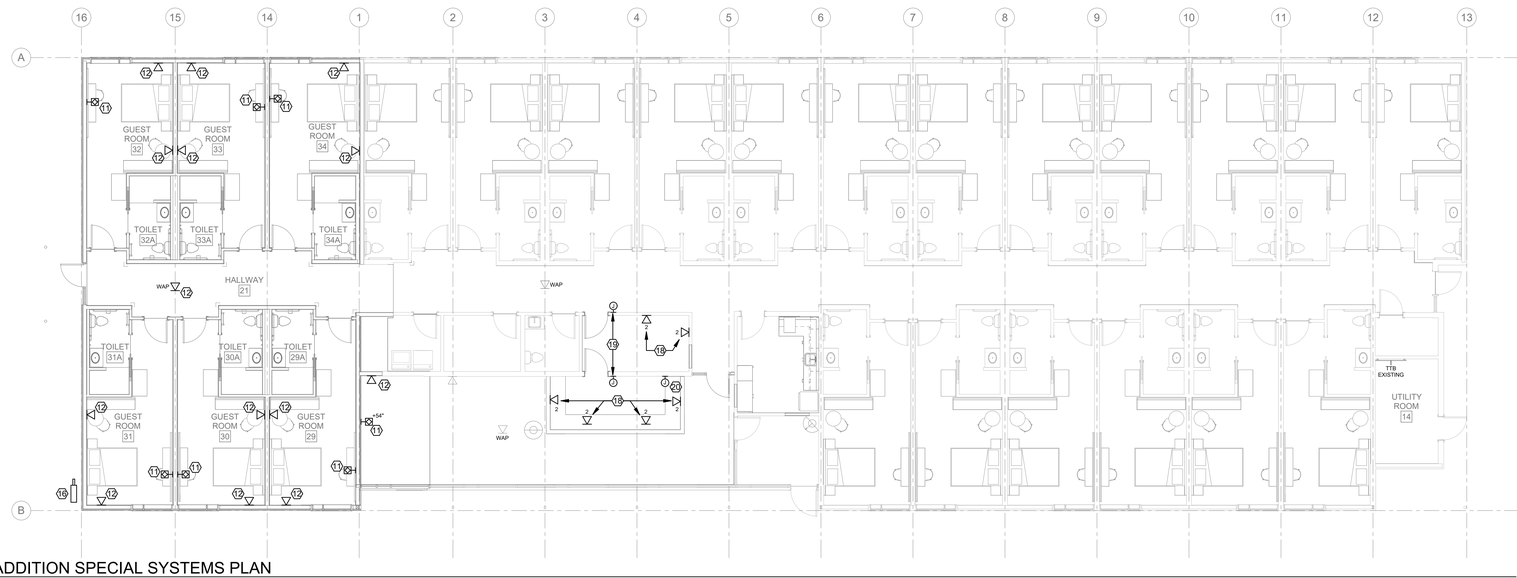
KEYNOTES

1. PROVIDE 6-20R RECEPTACLE AS DISCONNECTING MEANS OF UNIT. COORDINATE WITH MECHANICAL CONTRACTOR ON EXACT LOCATION OF RECEPTACLE.
2. CONNECT EXHAUST FAN TO SWITCH LEG 'A' OF LIGHTING CIRCUIT OF THIS ROOM.
3. COORDINATE REQUIREMENTS OF SINGLE POINT CONNECTION FOR POWERED SNACK STATION FUNITURE WITH FURNITURE SUPPLIER.
4. COORDINATE EXACT LOCATION OF MICROWAVE RECEPTACLE WITH FURNITURE SUPPLIER.
5. COORDIANTE EXACT LOCATION OF MINIFRIGDE RECEPTACLE WITH FURNITURE SUPPLIER.
6. COORDINATE REQUIREMENTS OF SINGLE POINT CONNECTION FOR POWERED ENTERTAINMENT FUNITURE WITH FURNITURE SUPPLIER.
7. COORDINATE EXACT LOCATION OF TELEVISION RECEPTACLE WITH FURNITURE SUPPLIER.
8. COORDINATE REQUIREMENTS OF SINGLE POINT CONNECTION FOR POWERED HEADBOARD FUNITURE WITH FURNITURE SUPPLIER.
9. POWERD DOOR CONNECTION. COORDINATE EXACT ELECTRICAL CONNECTION REQUIREMENTS WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN.
10. PROVIDE SINGLE POINT 208V, 1-PHASE CONNECTION TO SUMP PUMP CONTROL PANEL. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MC PRIOR TO ROUGH-IN.
11. COORDIANTE EXACT LOCATION OF RG-6 COAX OUTLET AT ENTERTAINMENT WALLBOARD WITH FURNITURE SUPPLIER. ROUTE COAX CABLING BACK TO EXISTING TTB IN UTILITY ROOM 14.
12. ROUTE (1) CAT6 CABLE BACK TO EXISTING TTB IN UTILITY ROOM 14 AND TERMINATE AT EXISTING PATCH PANEL.
13. DISCONNECTING MEANS PROVIDED BY MC. COORDINATE CONNECTION OF UNIT WITH MC.
14. PROVIDE NEMA 1, 60A2P, HEAVY DUTY FUSED DISCONNECT SWITCH WITH (2) 60A DUAL ELEMENT TIME DELAY FUSE(S) ABOVE ACCESSIBLE CEILING. COORDINATE CONNECTION OF UNIT WITH MC.
15. CONNECT LINE-VOLTAGE THERMOSTAT FOR EUH-2 FURNISHED BY MC. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH MC AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.
16. RELOCATED EXTERIOR CAMERA MOUNTED IN SOFFIT. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
17. CONNECT TO "SWITCH LEG" OF LIGHTING CIRCUIT IN THIS ROOM FOR CONTROL.
18. ROUTE (2) CAT6 CABLE BACK TO EXISTING TTB IN UTILITY ROOM 14 AND TERMINATE AT EXISTING PATCH PANEL.
19. OWNER PROVIDED CARD READER LOCATION. PROVIDE 4" SQUARE JUNCTION BOX, MUDRING, AND 3/4" CONDUIT WITH BUSHING STUBBED INTO ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
20. OWNER PROVIDED BUTTON FOR CORRIDOR ACCESS. PROVIDE 4" SQUARE JUNCTION BOX, MUDRING, AND 3/4" CONDUIT WITH BUSHING STUBBED INTO ACCESSIBLE CEILING SPACE. COORDINATE EXACT LOCATION WITH OWNER PRIOR TO ROUGH-IN.
21. PROVIDE WHITE INDOOR IN-WALL DIGITAL TIMER SWITCH WITH MAX TIMER OPTION OF 4 HOURS (GE MODEL# 15318 OR EQUAL). INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
22. PROVIDE RECESSED J-BOX FOR FCU-1 CONTROLLER. CAP OFF ALL CONDUCTORS AND PROVIDE BLANK COVER PLATE. COORDINATE EXACT REQUIREMENTS AND LOCATION WITH MC PRIOR TO ROUGH-IN.
23. CONNECT LINE-VOLTAGE THERMOSTAT FOR EF-29 FURNISHED BY MC. COORDINATE EXACT LOCATION AND CONNECTION REQUIREMENTS WITH MC AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.



1 E300 REMODEL/ADDITION POWER PLAN

1/8" = 1'-0"



2 E300 REMODEL/ADDITION SPECIAL SYSTEMS PLAN

1/8" = 1'-0"

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA 49TH
Jeffrey L. Haidle
EE No. 11564
PROFESSIONAL ENGINEER

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | CLARK
DRAWN BY | CLARK
REVIEWED BY | HAIDLE
REVISIONS

POWER & SPECIAL SYSTEMS PLANS

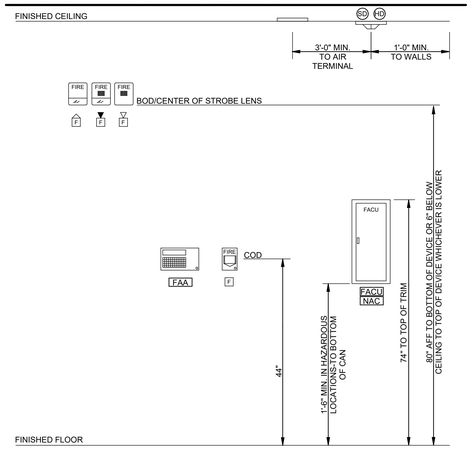
E300

	FACU FIRE ALARM SYSTEM OPERATIONAL MATRIX — INPUT / OUTPUT	CONTROL UNIT (PANEL) & ANNUNCIATOR				REPORTING			OCCUPANT NOTIFICATION		
		AUDIBLE INDICATION	VISIBLE "ALARM" INDICATION (LED/DESCRIPTIVE TEXT)	VISIBLE "SUPERVISORY" INDICATION (LED/DESCRIPTIVE TEXT)	VISIBLE "TROUBLE" INDICATION (LED/DESCRIPTIVE TEXT)	TRANSMIT SYSTEM "ALARM" SIGNAL TO SUPERVISING STATION	TRANSMIT SYSTEM "SUPERVISORY" SIGNAL TO SUPERVISING STATION	TRANSMIT SYSTEM "TROUBLE" SIGNAL TO SUPERVISING STATION	ACTIVATE ALL SYSTEM AUDIBLE NOTIFICATION APPLIANCES	ACTIVATE ALL SYSTEM VISIBLE NOTIFICATION APPLIANCES	ACTIVATE EXTERIOR WATERFLOW INDICATOR (BELL)
ALARM	SMOKE DETECTOR (ANY)	X	X			X			X	X	
	HEAT DETECTOR (ANY)	X	X			X			X	X	
	MANUAL PULL STATION	X	X			X			X	X	
	WET SPRINKLER SYSTEM WATERFLOW SWITCH	X	X			X			X	X	X
SUPER-VISORY	WET SPRINKLER SYSTEM VALVE SUPERVISORY SWITCH	X		X			X				
	LOW TEMPERATURE SIGNAL (FIRE RISER ROOM)	X		X			X				
	--										
TROUBLE	FACU - LOW BATTERY	X			X			X			
	FACU- CIRCUIT FAULT (SHORT/OPEN/GROUND)	X			X			X			
	FACU - CHARGER FAILURE	X			X			X			
	FACU - PRIMARY (AC) POWER FAILURE	X			X			X			
	FACU - COMMUNICATIONS FAILURE (DACT)	X			X			X			
	ANY CIRCUIT BY-PASS BUTTON ACTIVATION	X			X			X			

* DESCRIPTIVE TEXT SHALL INCLUDE DEVICE ADDRESS, DEVICE TYPE AND UP TO 40-CHARACTER DESCRIPTION
** COORDINATE SENSOR TEMPERATURE THRESHOLDS WITH FIRE SPRINKLER CONTRACTOR

NOTE: OPERATIONAL FUNCTIONS ASSUMED EXISTING BASED ON AVAILABLE DOCUMENTATION. FIRE ALARM CONTRACTOR SHALL FIELD VERIFY AND RE-PROGRAM SYSTEM AS REQUIRED TO ACCOMMODATE TENANT IMPROVEMENT MODIFICATIONS.

FIRE ALARM MOUNTING HEIGHTS



FIRE ALARM LEGEND

SYMBOLS APPLY ONLY WHEN USED ON DRAWINGS

SYMBOL	DESCRIPTION
	VISUAL NOTIFICATION DEVICE (# INDICATES CANDELA RATING)
	COMBINATION AUDIO & VISUAL NOTIFICATION DEVICE (# INDICATES CANDELA RATING)
F	AUDIO NOTIFICATION DEVICE (# INDICATES CANDELA RATING)
LF	AUDIBLE/VISIBLE ROOM SOUNDER - 520 Hz LOW-FREQUENCY
	EXTERIOR WATERFLOW ALARM BELL
F	ADDRESSABLE MANUAL PULL STATION
AIM	ADDRESSABLE INPUT (MONITOR) MODULE
AOM	ADDRESSABLE OUTPUT (CONTROL) MODULE
S	ADDRESSABLE SYSTEM SMOKE DETECTOR
H	ADDRESSABLE SYSTEM HEAT DETECTOR
VS	CONNECTION TO TAMPER SWITCH, SWITCH BY OTHERS
WF	CONNECTION TO FLOW SWITCH, SWITCH BY OTHERS
PS	CONNECTION TO PRESSURE SWITCH, SWITCH BY OTHERS
FACU	FIRE ALARM CONTROL UNIT
DACT	FIRE ALARM COMMUNICATOR - LTE (CELLULAR)
DOC	FIRE ALARM RECORD DOCUMENTS STORAGE BOX

FIRE ALARM SHEET INDEX

GENERAL NOTES - FIRE ALARM

A. COMPLY WITH LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL FIRE CODE (IFC), FIRE ALARM AND SIGNALING CODE (NFPA 72) AND NATIONAL ELECTRICAL CODE (NFPA 70) INCLUDING ANY LOCAL AMENDMENTS. ALL REFERENCES TO CODES AND STANDARDS SHALL BE AS NOTED IN THE FIRE ALARM CODE SUMMARY.

B. ALL FIRE ALARM CIRCUITS WITHIN ACCESSIBLE CEILING SPACE SHALL BE FREE-RUN IN A DEDICATED J-HOOK SYSTEM PROPERLY SUPPORTED IN ACCORDANCE WITH NFPA 70. FIRE ALARM CIRCUITS LOCATED WITHIN INACCESSIBLE CONCEALED SPACES (WALLS AND GYPSUM CEILINGS) SHALL BE INSTALLED IN EMT (3/4" MIN.) AND STUBBED TO THE NEAREST ACCESSIBLE SPACE. ALL FIRE ALARM CABLES IN FINISHED SPACES SHALL BE CONCEALED. FIRE ALARM CABLES IN UNFINISHED SPACES SUCH AS MECHANICAL/ELECTRICAL SPACES SHALL BE ALLOWED TO BE EXPOSED. ALL EXPOSED CABLES BELOW 8'-0" SHALL BE IN EMT AND PAINTED WITH A RED ENAMEL PAINT.

C. ALL FIRE ALARM CIRCUIT TERMINATIONS SHALL UTILIZE SCREW-TERMINALS. WIRE NUTS SHALL NOT BE ALLOWED IN J-BOXES.

D. ALL FIRE ALARM CIRCUITS WITHIN J-BOXES SHALL INCLUDE ADEQUATE SERVICE LOOPS.

E. STANDBY BATTERY CALCULATIONS SHALL BE PROVIDED FOR EACH INDIVIDUAL SYSTEM POWER SUPPLY.

F. VOLTAGE DROP CALCULATIONS SHALL BE PROVIDED FOR EACH STANDARD NOTIFICATION APPLIANCE CIRCUIT.

G. ALL FIRE ALARM DEVICES SHALL BE MOUNTED TO A STEEL BACKBOX OR ELECTRICAL BOX. SURFACE MOUNT LOCATIONS SHALL INCLUDE A FACTORY MATCHED BOX SPECIFIC TO THE DEVICE.

H. REMOTE POWER SUPPLIES (NAC PANELS) SHALL BE PROVIDED IN SUFFICIENT QUANTITIES AND SHALL BE DETERMINED BY THE CONTRACTOR'S FINAL SHOP DRAWING DESIGN. PANEL LOCATIONS NOTED ON THESE DRAWINGS MERELY INDICATE ACCEPTABLE LOCATIONS.

I. CONTRACTOR SHALL COORDINATE WITH OWNER UPON SUBSTANTIAL COMPLETION TO PROVIDE CONNECTION TO REMOTE SUPERVISING STATION AS APPROVED BY THE OWNER AND AHJ.

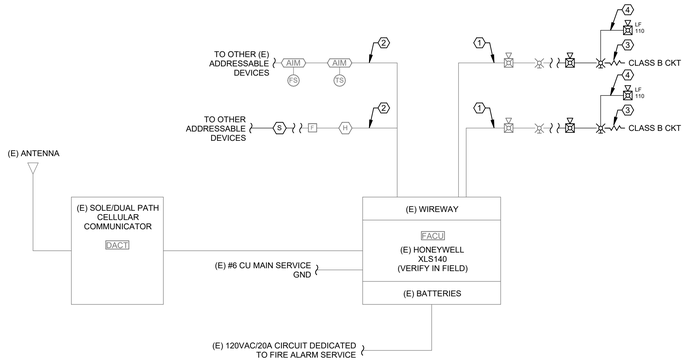
J. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND LOCAL AHJ BEFORE PROGRAMMING FINAL DEVICE DESCRIPTIONS IN SYSTEM MEMORY. OBTAIN APPROVAL FROM BOTH PRIOR TO FINAL COMPLETION.

K. NEW FIRE ALARM DEVICES SHALL MATCH EXISTING DEVICE MAKE/MANUFACTURER AS CLOSELY AS POSSIBLE.

L. DEVICES SHOWN HALFTONE ARE EXISTING TO REMAIN.

FIRE ALARM CODE SUMMARY

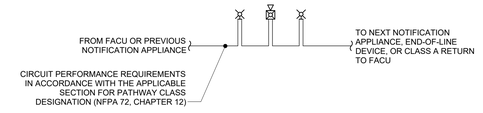
1. GROUP A-3, B, R-1 OCCUPANCY
   - TOTAL OCCUPANT LOAD: 77
   - SINGLE-STORY BUILDING - 1 STORIES ABOVE GROUND
   - SINGLE SLEEPING ROOM TRANSIENT DWELLING UNITS
   - NO GAS-FIRED EQUIPMENT CONTAINED WITHIN BUILDING ENVELOPE.
2. CONSTRUCTION:
   - TYPE V-B (TABLE 601 OF THE IBC)
3. REFERENCED CODES (INCLUDES ALL LOCAL ADOPTED AMENDMENTS):
   - INTERNATIONAL BUILDING CODE (IBC) 2021 EDITION
   - INTERNATIONAL FIRE CODE (IFC) 2021 EDITION
   - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS IN LOW-RISE RESIDENTIAL OCCUPANCIES - (NFPA 13R) 2019 EDITION
   - NATIONAL ELECTRICAL CODE (NFPA 70) 2020 EDITION
   - NATIONAL FIRE ALARM AND SIGNALING CODE (NFPA 72) 2019 EDITION
   - INTERNATIONAL MECHANICAL CODE (IMC) 2021 EDITION
4. SYSTEM SCOPE:
   - EXPANSION OF EXISTING FIRE ALARM SYSTEM WITH AUTOMATIC DETECTION COVERAGE IN ALL EGRESS CORRIDORS SERVING SLEEPING UNITS.
   - STANDARD AUDIBLE/VISIBLE NOTIFICATION THROUGHOUT ALL COMMON AREAS (CORRIDORS, COMMON AREAS).
   - MONITORING OF EXISTING AUTOMATIC SPRINKLER SYSTEM AND NEW AUTOMATIC DRY SPRINKLER SYSTEM.
   - GENERAL EVACUATION HORN/STROBES IN EACH SLEEPING UNIT (LOW-FREQUENCY SOUNDERS).
   - SYSTEM SMOKE DETECTORS IN EACH DWELLING UNIT.



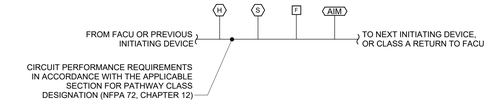
KEYNOTES

1. TYPICAL EXISTING NOTIFICATION APPLIANCE CIRCUIT (NAC).
2. TYPICAL EXISTING SIGNALING LINE CIRCUIT (SLC).
3. TYPICAL END OF LINE DEVICE (EOL) CLASS 'B' CIRCUIT.
4. 3/4" CONDUIT TO SLEEPING ROOM J-BOX (TYPICAL ALL SLEEPING ROOMS).

1 FA001 — FIRE ALARM RISER DIAGRAM (TYPICAL)
NOT TO SCALE



2 FA001 — FIRE ALARM NFPA 72 NAC PATHWAY DESIGNATION DETAIL
NOT TO SCALE



3 FA001 — FIRE ALARM NFPA 72 SLC PATHWAY DESIGNATION DETAIL
NOT TO SCALE

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SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

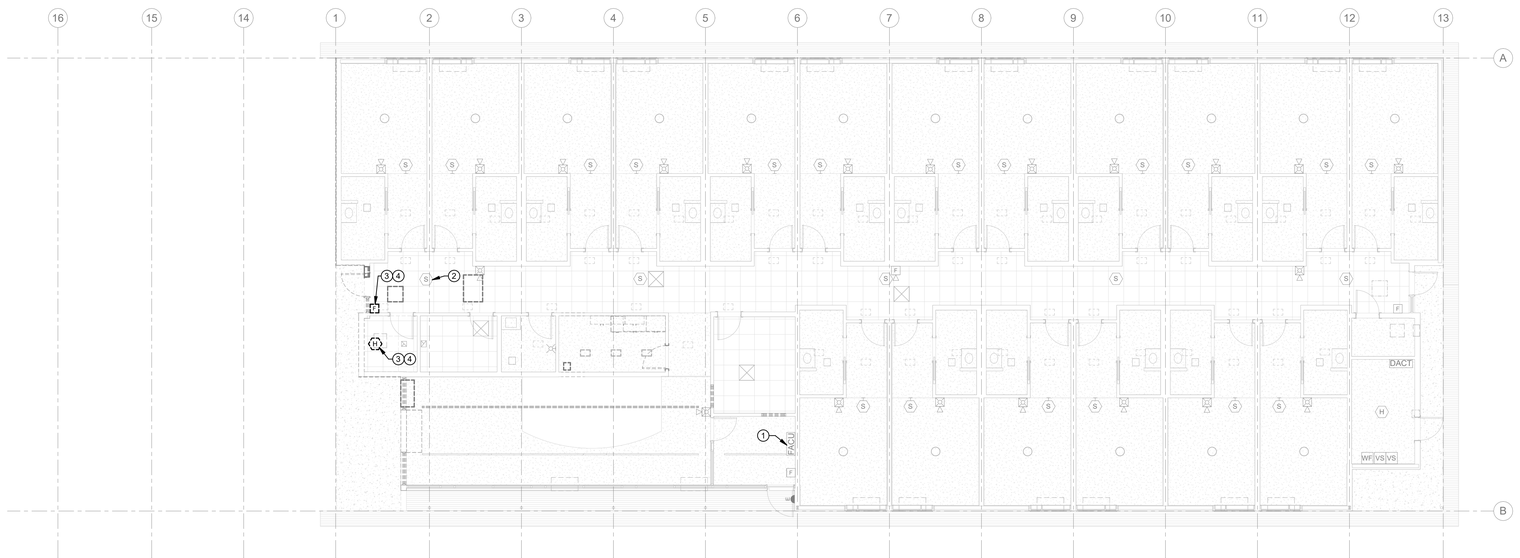
CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | ARNESON
DRAWN BY | ARNESON
REVIEWED BY | HAIDLE

REVISIONS

GENERAL FIRE ALARM SYSTEM INFORMATION

FA001



1 FA100 FIRE ALARM DEMO PLAN

1/8" = 1'-0"

N

GENERAL NOTES - FIRE ALARM

A. COMPLY WITH LATEST ADOPTED EDITION OF THE INTERNATIONAL BUILDING CODE (IBC), INTERNATIONAL FIRE CODE (IFC), FIRE ALARM AND SIGNALING CODE (NFPA 72) AND NATIONAL ELECTRICAL CODE (NFPA 70) INCLUDING ANY LOCAL AMENDMENTS. ALL REFERENCES TO CODES AND STANDARDS SHALL BE AS NOTED IN THE FIRE ALARM CODE SUMMARY.

B. ALL FIRE ALARM CIRCUITS WITHIN ACCESSIBLE CEILING SPACE SHALL BE FREE-RUN IN A DEDICATED J-HOOK SYSTEM PROPERLY SUPPORTED IN ACCORDANCE WITH NFPA 70. FIRE ALARM CIRCUITS LOCATED WITHIN INACCESSIBLE CONCEALED SPACES (WALLS AND GYPSUM CEILINGS) SHALL BE INSTALLED IN EMT (3/4" MIN.) AND STUBBED TO THE NEAREST ACCESSIBLE SPACE. ALL FIRE ALARM CABLES IN FINISHED SPACES SHALL BE CONCEALED. FIRE ALARM CABLES IN UNFINISHED SPACES SUCH AS MECHANICAL/ELECTRICAL SPACES SHALL BE ALLOWED TO BE EXPOSED. ALL EXPOSED CABLES BELOW 8'-0" SHALL BE IN EMT AND PAINTED WITH A RED ENAMEL PAINT.

C. ALL FIRE ALARM CIRCUIT TERMINATIONS SHALL UTILIZE SCREW-TERMINALS. WIRE NUTS SHALL NOT BE ALLOWED IN J-BOXES.

D. ALL FIRE ALARM CIRCUITS WITHIN J-BOXES SHALL INCLUDE ADEQUATE SERVICE LOOPS.

E. STANDBY BATTERY CALCULATIONS SHALL BE PROVIDED FOR EACH INDIVIDUAL SYSTEM POWER SUPPLY.

F. VOLTAGE DROP CALCULATIONS SHALL BE PROVIDED FOR EACH STANDARD NOTIFICATION APPLIANCE CIRCUIT.

G. ALL FIRE ALARM DEVICES SHALL BE MOUNTED TO A STEEL BACKBOX OR ELECTRICAL BOX. SURFACE MOUNT LOCATIONS SHALL INCLUDE A FACTORY MATCHED BOX SPECIFIC TO THE DEVICE.

H. REMOTE POWER SUPPLIES (NAC PANELS) SHALL BE PROVIDED IN SUFFICIENT QUANTITIES AND SHALL BE DETERMINED BY THE CONTRACTOR'S FINAL SHOP DRAWING DESIGN. PANEL LOCATIONS NOTED ON THESE DRAWINGS MERELY INDICATE ACCEPTABLE LOCATIONS.

I. CONTRACTOR SHALL COORDINATE WITH OWNER UPON SUBSTANTIAL COMPLETION TO PROVIDE CONNECTION TO REMOTE SUPERVISING STATION AS APPROVED BY THE OWNER AND AHJ.

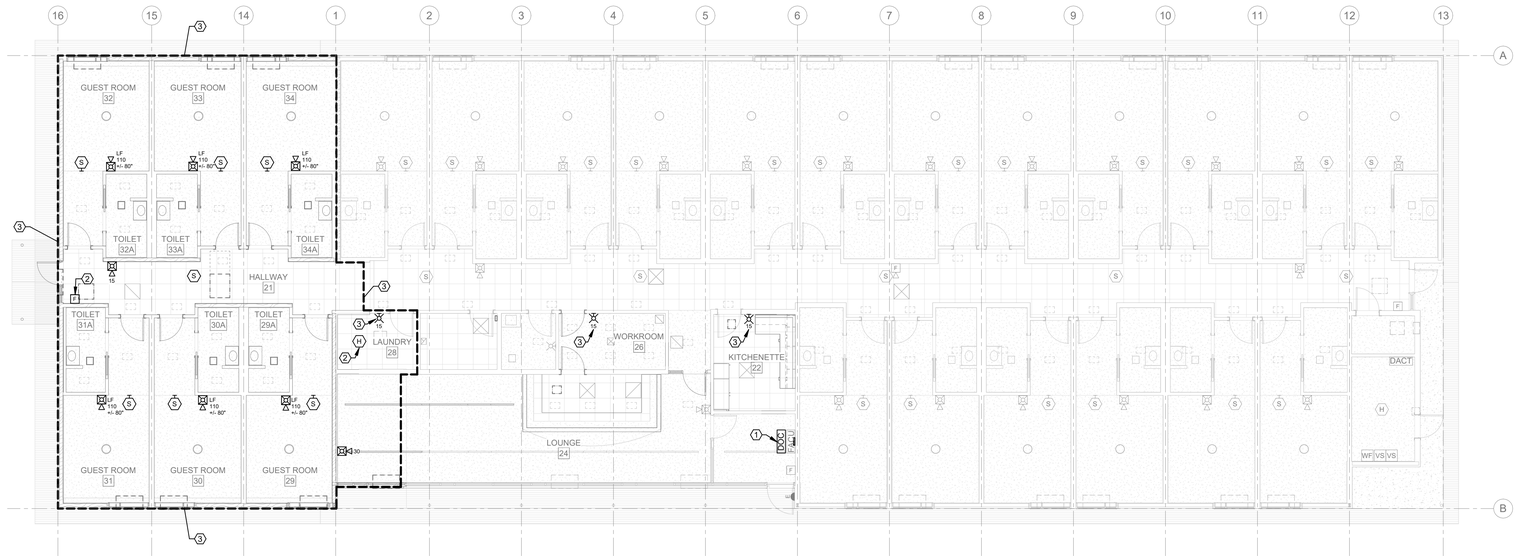
J. CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND LOCAL AHJ BEFORE PROGRAMMING FINAL DEVICE DESCRIPTIONS IN SYSTEM MEMORY. OBTAIN APPROVAL FROM BOTH PRIOR TO FINAL COMPLETION.

K. NEW FIRE ALARM DEVICES SHALL MATCH EXISTING DEVICE MAKE/MANUFACTURER AS CLOSELY AS POSSIBLE.

L. DEVICES SHOWN HALFTONE ARE EXISTING TO REMAIN.

(#) SHEET DEMO NOTES

1. EXISTING HONEYWELL XLS140 FIRE ALARM CONTROL UNIT.
2. EXISTING APPLIANCE/DEVICE TO REMAIN, VERIFY LOCATION IN FIELD. DEVICE LOCATIONS SHOWN FOR REFERENCE ONLY.
3. EXISTING APPLIANCES/DEVICES WITHIN SCOPE OF WORK AREA SHALL BE REMOVED TO ACCOMMODATE NEW TENANT IMPROVEMENT CEILINGS AND WALLS. DEACTIVATE AND DISCONNECT FROM EXISTING FIRE ALARM SYSTEM. RETAIN REMOVED APPLIANCES/DEVICES FOR RELOCATION / PROPERLY DISPOSE OF REMOVED DEVICES.
4. FIRE ALARM CONTRACTOR SHALL FIELD VERIFY CIRCUIT ROUTING AND TEMPORARILY RE-ROUTE CIRCUITS TO NEAREST EXISTING DEVICE NOT WITHIN SCOPE OF WORK AREA TO MAINTAIN OPERATIONAL STATUS OF EXISTING APPLIANCES/DEVICES ON THE ASSOCIATED CIRCUIT OUTSIDE OF TENANT IMPROVEMENT SCOPE.



2 FA100 FIRE ALARM PLAN

1/8" = 1'-0"

N

(#) SHEET NOTES

1. PROVIDE DOCUMENT STORAGE BOX IN ACCORDANCE WITH NFPA 72 AND LOCATE ADJACENT TO FACU.
2. DEVICES TEMPORARILY REMOVED / RELOCATED TO ACCOMMODATE NEW CEILING AND WALLS SHALL BE REINSTALLED. FIRE ALARM CONTRACTOR SHALL REACTIVATE AND RECONNECT TO ASSOCIATED EXISTING FIRE ALARM CIRCUIT(S).
3. EXTEND EXISTING CIRCUITS TO NEW DEVICES WITHIN TENANT IMPROVEMENT AREA.

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08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

STATE OF ALASKA 49TH
Jeffrey L. Haidle
EE No. 11564
REGISTERED ELECTRICAL ENGINEER

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | ARNESON
DRAWN BY | ARNESON
REVIEWED BY | HAIDLE
REVISIONS

FIRE ALARM DEMO & FLOOR PLANS

FA100

283100 - ADDRESSABLE FIRE ALARM SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Referenced Codes and Standards:
1. International Building Code (IBC) 2021 Edition.
2. International Fire Code (IFC) 2021 Edition.
3. International Mechanical Code (IMC), 2021 Edition.
4. NFPA 13R Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies 2019 Edition.
5. NFPA 70 National Electrical Code, 2020 Edition
6. NFPA 72 National Fire Alarm and Signaling Code, 2019 Edition.

1.2 SUMMARY

A. Section Includes:
1. Existing fire-alarm system to be modified.
2. Notification Appliance Circuit (NAC) remote power supplies.
3. Manual fire-alarm boxes.
4. System smoke detectors.
5. Heat detectors.
6. Enclosures for fire alarm conductor termination.
7. Fire alarm cabling and conductors.
8. Fire-alarm notification appliances.
9. System record documents storage cabinet/box.

1.3 DEFINITIONS

A. CD: Candela
B. DACT: Digital alarm communicator transmitter.
C. ECS: Emergency Communications System.
D. EMT: Electrical metallic tubing.
E. EVACS: Emergency Voice Alarm Communications System.
F. FACU: Fire Alarm Control Unit.
G. LED: Light-Emitting Diode.
H. LOC: Local Operator's Console.
I. MNS: Mass Notification System.
J. NICET: National Institute for Certification in Engineering Technologies.
K. NAC: Notification Appliance Circuit.
L. NRTL: Nationally Recognized Testing Laboratory
M. PC: Personal computer.

1.4 VOLTAGE CLASSES:

A. For specified circuits and equipment, voltage classes are defined as follows:
1. Control Voltage: Listed and labeled for use in remote-control, signaling, and power-limited circuits supplied by a Class 2 or Class 3 power supply having rated output not greater than 150 V and 5 A, allowing use of alternate wiring methods complying with NFPA 70, Article 725.
2. Low Voltage: Listed and labeled for use in circuits supplied by a Class 1 or other power supply having rated output not greater than 1000 V, requiring use of wiring methods complying with NFPA 70, Article 300, Part I.

1.5 SEQUENCING AND SCHEDULING

A. Existing Fire-Alarm Equipment: Maintain existing equipment fully operational until new equipment has been tested and accepted. When new equipment is installed, label it "NOT IN SERVICE" until it is accepted. Remove labels from new equipment when put into service, and label existing fire-alarm equipment "NOT IN SERVICE" until removed from building.

B. Equipment Removal: After acceptance of new fire-alarm system, remove existing disconnected fire-alarm equipment and wiring. Existing cabinets shall be removed completely and shall not be used as a splice point or junction box.
1. If existing circuits are to be re-used, replace existing fire alarm panel/cabinet with an approved termination cabinet which includes screw-terminals and means of labeling and indexing each circuit.

C. If a system impairment (degraded operation) is unavoidable, the contractor is responsible for providing Fire Watch activities in accordance with requirements of the IBC. The contractor shall also notify the local authorities prior to such activities with anticipated start and end dates of activities.

1.6 ACTION SUBMITTALS

A. Approved Permit Submittal: Submittals must be approved by authorities having jurisdiction prior to submitting them to Architect.
1. Contractor shall submit to 3rd Party Reviewer if required by the AHJ. Contractor shall be responsible for all associated fees.

B. Submittals shall be complete and include all information required in parts C, D and E below. Partial submittals will not be reviewed and automatically stamped "REVISE & RESUBMIT" and returned to the contractor.

C. Submittals provided in digital (.pdf) format will be acceptable.
1. Digital file names shall include project name and revision number and in the following format: [PROJECTNAME]_283100 FIRE ALARM_R[0].pdf

D. Product Data: For each type of product, including furnished options and accessories.
1. Include construction details, material descriptions, dimensions, profiles, and finishes.
2. Include rated capacities, operating characteristics, and electrical characteristics.
3. Model-specific information shall be highlighted for clarity on documents encompassing multiple types of devices.

E. Shop Drawings: For fire-alarm system.
1. Comply with recommendations and requirements in "Documentation" section of NFPA 72 for Shop Drawings (Installation Documentation).
2. Include plans, elevations, sections, and details, including details of attachments to other Work.
3. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and locations. Indicate conductor sizes, indicate termination locations and requirements, and distinguish between factory and field wiring.
4. Annunciator panel details as required by authorities having jurisdiction.
5. Detail assembly and support requirements.
6. Include voltage drop calculations for notification-appliance circuits.
7. Include wire routing of all notification-appliance circuits and the locations of all end-of-line devices.
8. Include stand-by battery-size calculations and battery sizes being provided for each power supply.
9. Include system input/output operational matrix specific to the submitted design.
10. Include performance parameters and installation details for each detector.
11. Include floor plans to indicate final outlet locations showing address of each addressable device. Show size and route of cable and conduits and point-to-point wiring diagrams.
12. Include system one-line riser diagram identifying cable/conductor types, connections to devices, general arrangement of system equipment, addressable device identifiers and rated light output of notification devices.
13. Include list of initiating devices indicating device type (i.e. Detector, pull station or input/output module) and program identification/description.
14. Plans shall be developed in AutoCAD® or compatible software.
15. Plan title block and all informational notes shall be specific to the project and the contractor performing the work.
a. Duplication of signed and sealed engineering (Cushing Terrell) plans for the use of shop drawings is prohibited and will be immediately rejected.

F. Re-submittals
1. Submittals returned and requiring revisions or corrections shall be re-submitted in their entirety with all revisions applied and highlighted. Partial submittal documents will be rejected.

1.7 INFORMATIONAL SUBMITTALS

A. Provide certificates (copies of):
1. Valid contractor's license as required by the state project is located in.
2. Valid manufacturer's certification for system designer and installing personnel for equipment supplied.
3. Valid NICET Certification (Fire Alarm Systems Level II minimum) for system designer and installing technicians.

B. Field quality-control reports.
1. Fire-Watch plans and documented activity (if required).

C. Sample Warranty: Submittal must include line item pricing for replacement parts and labor which will be valid for a minimum of 12 months following system acceptance.

1.8 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.
1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
a. Comply with "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
b. Provide "Fire-Alarm and Emergency Communications System Record of Completion Documents" in accordance with "Completion Documents" Article in "Documentation" section of "Fundamentals" chapter in NFPA 72.
c. Complete wiring diagrams showing connections between devices and equipment. Each conductor must be numbered at every junction point with indication of origination and termination points.
d. Riser diagram.
e. List of device addresses, descriptions and device type as programmed in the system.
f. Record copy of site-specific software.
g. Provide "Inspection and Testing Form" in accordance with "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:
1) Equipment tested.
2) Frequency of testing of installed components.
3) Frequency of inspection of installed components.
4) Requirements and recommendations related to results of maintenance.
5) Manufacturer's user training manuals.
h. Manufacturer's required maintenance related to system warranty requirements.
i. Abbreviated operating instructions for mounting at FACU and each annunciator unit.

B. Software and Firmware Operational Documentation:
1. Software operating and upgrade manuals.
2. Program Software Backup: On USB media.
3. Printout of software application and graphic screens.

1.9 MAINTENANCE MATERIAL SUBMITTALS

A. Extra Stock Material: Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Smoke Detectors, Fire Detectors: Quantity equal to 10 percent of amount of each type installed, but no fewer than one unit of each type.
2. Detector Bases: Quantity equal to two percent of amount of each type installed, but no fewer than one unit of each type.
3. Keys and Tools: Three (3) extra sets for access to locked or tamper-proofed components.
4. Audible and Visual Notification Appliances: One of each type installed.
5. Filters for Air-Sampling Detectors: Two of each type installed, but no fewer than one unit of each type.

1.10 QUALITY ASSURANCE

A. Installer Qualifications:
1. Personnel must be trained and certified by manufacturer for installation of units required for this Project.
2. Installation must be by personnel certified by NICET as fire-alarm Level II (minimum) technician.
3. Obtain certification by NRTL in accordance with NFPA 72.
4. Licensed or certified by authorities having jurisdiction.

B. Designer Qualifications (one of the following):
1. System designer shall be certified by the manufacturer of the product being supplied.
2. System designer shall be NICET certified in Fire Alarm Systems Level III minimum.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail because of defects in materials or workmanship within specified warranty period.
1. Warranty Period: One year from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 EXISTING FIRE-ALARM SYSTEM TO BE MODIFIED

A. Description: Existing Honeywell XLS140 main fire alarm control unit.

B. Source Limitations for Fire-Alarm System and Components: Components must be compatible with, and operate as extension of, existing system. Provide system manufacturer's certification that components provided have been tested as, and will operate as, a system.
1. New peripherals shall match make/style of existing devices as closely as possible.

2.2 NEW ADDRESSABLE FIRE-ALARM SYSTEM

A. Acceptable system manufacturers:
1. Silent Knight by Honeywell
2. Fire-Lite by Honeywell
3. Gamewell/FCI by Honeywell
4. Notifier by Honeywell

B. Description:
1. Noncoded, UL-certified addressable system, with multiplexed signal transmission and horn-and-strobe notification for evacuation.

C. Performance Criteria:
1. Regulatory Requirements:
a. Fire-Alarm Components, Devices, and Accessories: Listed and labeled by a NRTL in accordance with NFPA 70 for use with selected fire-alarm system and marked for intended location and application.

2. General Characteristics:
a. Automatic sensitivity control of smoke detectors.
b. Fire-alarm signal initiation must be by one or more of the following devices:
1) Manual stations.
2) Heat detectors.
3) Smoke detectors.
4) Automatic sprinkler system water flow.
c. Fire-alarm signal must initiate the following actions: (Reference operational matrix on plans)
1) Continuously operate alarm notification appliances.
2) Identify alarm and specific initiating device at FACU.
3) Transmit alarm signal to remote alarm receiving station.
4) Record events in system memory.
d. Supervisory signal initiation must be by one or more of the following devices and actions:
1) Valve supervisory switch in abnormal condition.
2) Zones or individual devices have been disabled.
3) FACU has lost communication with network.
e. Supervisory signal must initiate the following actions: (Reference operational matrix on plans)
1) Identify specific device initiating event at FACU.
2) After time delay of 200 seconds, transmit trouble or supervisory signal to remote alarm receiving station.
3) Transmit system status to remote alarm receiving station.
4) Display system status on FACU.
f. System trouble signal initiation must be by one or more of the following devices and actions:
1) Open circuits, shorts, and grounds in any fire alarm circuit.
2) Opening, tampering with, or removing alarm-initiating and signaling devices.
3) Loss of communication with addressable sensor, input module, relay control module, remote annunciator, printer interface, or Ethernet module.
4) Loss of primary power at FACU.
5) Ground or single break in internal circuits of FACU.
6) Abnormal ac voltage at FACU.
7) Break in standby battery circuitry.
8) Failure of battery charging unit.
9) Abnormal position of switch at FACU or annunciator.
g. Document Storage Box:
1) Description: Enclosure to accommodate standard 8-1/2-by-11 inch (216-by-279 mm) manuals and loose document records. Legend sheet will be permanently attached to door for system required documentation, key contacts, and system information. Provide two key ring holders with location to mount standard business cards for key contact personnel.
2) Material and Finish: 18-gauge cold-rolled steel; four mounting holes.
3) Color: Red powder-coat epoxy finish.
4) Labeling: Permanently screened with 1 inch (25 mm) high, white lettering "FIRE ALARM SYSTEM RECORD DOCUMENTS".
5) Security: Locked with 3/4 inch (19 mm) barrel lock. Provide solid 12 inch (304 mm) stainless steel piano hinge.

2.3 NOTIFICATION APPLIANCE CIRCUIT (NAC) REMOTE POWER SUPPLY

A. General requirements for remote power supplies: Compatible with and listed for use with FACU. Listed by NRTL. Comply with UL 864, 10th Edition and UL 1481.
1. Constructed of heavy gauge steel, powder-coated, corrosion resistant and chip resistant finish matching that of the FACU.
2. Lockable enclosure matched with other system keyed components and enclosures.
3. Enclosure to have pre-installed knockouts and removeable door for ease of installation.
4. Able to be installed flush or semi-flush in a standard 16-inch stud space.
5. Minimum total output capacity of 6 amps.
6. Minimum number of PLFA outputs: Four (4) at 24VDC.
7. Outputs configurable as Class A or Class B.
8. Provides auxiliary 24VDC output signal configurable by panel programming.
9. Capable of synchronizing all NAC outputs.
10. Ample space inside cabinet for backup batteries sized per calculations.
11. Integral battery charger and automatic transfer switch.
12. Accommodations for up to 12 AWG conductor termination.

2.4 MANUAL FIRE-ALARM BOXES

A. General Requirements for Manual Fire-Alarm Boxes: Comply with UL 38. Boxes must be finished in red with molded, raised-letter operating instructions in contrasting color; must show visible indication of operation; and must be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.
1. Double-action mechanism requiring two actions to initiate alarm, push & pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to FACU.
2. Station Reset: Key- or wrench-operated switch.
3. Indoor Protective Shield: Factory-fabricated, clear plastic enclosure hinged at top to permit lifting for access to initiate alarm. Lifting cover actuates integral battery-powered audible horn intended to discourage false-alarm operation.
4. Weatherproof Protective Shield: Factory-fabricated, clear plastic enclosure hinged at top to permit lifting for access to initiate alarm.
5. Able to perform at up to 90 percent relative humidity at 90 deg F (32 deg C).
6. Material: Manual stations made of Lexan polycarbonate.
7. Suitable for the expected environment of the device location.

2.5 SYSTEM SMOKE DETECTORS

A. Photoelectric Smoke Detectors:
1. Performance Criteria:
a. Regulatory Requirements:
1) NFPA 72.
2) UL 268.
b. General Characteristics:
1) Detectors must be two-wire type.
2) Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
3) Base Mounting: Detector and associated electronic components must be mounted in twist-lock module that connects to fixed base. Provide terminals in fixed base for connection to building wiring.
4) Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
5) Integral Visual-Indicating Light: LED type, indicating detector has operated and power-on status.
6) Detector address must be accessible from FACU and must be able to identify detector's location within system and its sensitivity setting.
7) Operator at FACU, having designated access level, must be able to manually access the following for each detector:
a) Primary status.
b) Device type.
c) Present average value.
d) Present sensitivity selected.
e) Sensor range (normal, dirty, etc.).
8) Detector must have functional humidity range within 10 to 90 percent relative humidity.
9) Remote Control: Unless otherwise indicated, detectors must be digital-addressable type, individually monitored at FACU for calibration, sensitivity, and alarm condition and individually adjustable for sensitivity by FACU.
10) Rate-of-rise temperature characteristic of combination smoke- and heat-detection units must be selectable at FACU for 15 or 20 deg F (8 or 11 deg C) per minute.
11) Fixed-temperature sensing characteristic of combination smoke- and heat-detection units must be independent of rate-of-rise sensing and must be settable at FACU to operate at 135 or 155 deg F (57 or 68 deg C).
12) Multiple levels of detection sensitivity for each sensor.
13) Sensitivity levels based on time of day.

2.6 HEAT DETECTORS

A. Combination-Type Heat Detectors:
1. Performance Criteria:
a. Regulatory Requirements:
1) NFPA 72.
2) UL 521.
b. General Characteristics:
1) Temperature sensors must test for and communicate sensitivity range of device.
c. Actuated by fixed temperature of 135 deg F (57 deg C) or rate of rise that exceeds 15 deg F (8 deg C) per minute unless otherwise indicated.
d. Mounting: Twist-lock base interchangeable with smoke-detector bases.
e. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
f. Detector must have functional humidity range of 10 to 90 percent relative humidity.

B. Fixed-Temperature-Type Heat Detectors:
1. Performance Criteria:
a. Regulatory Requirements:
1) NFPA 72.
2) UL 521.
b. General Characteristics:
1) Actuated by temperature that exceeds fixed temperature of 190 deg F (88 deg C).
2) Mounting: Twist-lock base interchangeable with smoke-detector bases.
3) Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACU.
4) Detector must have functional humidity range of 10 to 90 percent.

2.7 FIRE-ALARM NOTIFICATION APPLIANCES

A. Acceptable manufacturers: Listed for use with and compatible with FACU.
1. System Sensor
2. Gentex
3. Matching the manufacture of FACU being provided.

B. Fire-Alarm Audible Notification Appliances:
1. Description: Horns, bells, or other notification devices that cannot output voice messages.
2. Performance Criteria:
a. Regulatory Requirements:
1) NFPA 72.
b. General Characteristics:
1) Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.
2) Horns: Electric-vibrating-polarized type, 24 V(dc); with provision for housing operating mechanism behind grille. Comply with UL 464. Horns must produce sound-pressure level of 90 dB(A-weighted), measured 10 ft. (3 m) from horn, using coded signal prescribed in UL 464 test protocol.
a) Sleeping area horns must be low frequency 520hz type.
3) Combination Devices: Factory-integrated audible and visible devices in single-mounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.

C. Fire-Alarm Visible Notification Appliances:
1. Performance Criteria:
a. Regulatory Requirements:
1) NFPA 72.
2) UL 1971.
b. General Characteristics:
1) Rated Light Output:
a) 15/30/75/110 cd, selectable in field.
2) Clear or nominal white polycarbonate lens mounted on aluminum faceplate.
3) Mounting: Wall mounted unless otherwise indicated.
4) For units with guards to prevent physical damage, light output ratings must be determined with guards in place.
5) Flashing must be in temporal pattern, synchronized with other units.
6) Strobe Leads: Factory connected to screw terminals.
7) Mounting Faceplate: Factory finished, red.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.
1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.

B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Preinstallation Testing: Perform verification of functionality of installed components of existing system prior to starting work. Document equipment or components not functioning as designed.

B. Interruption of Existing Fire-Alarm Service: Do not interrupt fire-alarm service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary guard service in accordance with requirements indicated:
1. Notify Construction Manager and/or Owner no fewer than two days in advance of proposed interruption of fire-alarm service.
2. Do not proceed with interruption of fire-alarm service without Construction Manager's and Owner's written permission.

C. Protection of In-Place Conditions: Protect devices during construction unless devices are placed in service to protect facility during construction.

3.3 INSTALLATION OF EQUIPMENT

A. Comply with NECA 305, NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire-alarm equipment. Install electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."
1. Devices placed in service before other trades have completed cleanup must be replaced.
2. Devices installed, but not yet placed, in service must be protected from construction dust, debris, dirt, moisture, and damage in accordance with manufacturer's written storage instructions.

B. Connecting to Existing Equipment: Verify that existing fire-alarm system is operational before making changes or connections.
1. Connect new equipment to existing control panel in existing part of building.
2. Connect new equipment to existing monitoring equipment at supervising station.
3. Expand, modify, and supplement existing control and monitoring equipment as necessary to extend existing control and monitoring functions to new points. New components must be capable of merging with existing configuration without degrading performance of either system.

C. Install wall-mounted equipment, with tops of cabinets not more than 78 inch (1980 mm) above finished floor.

D. Manual Fire-Alarm Boxes:
1. Install manual fire-alarm box in normal path of egress within 60 inch (1520 mm) of exit doorway.
2. Mount manual fire-alarm box on background of contrasting color.
3. Operable part of manual fire-alarm box must be between 42 and 48 inches (1060 and 1220 mm) above floor level. Devices must be mounted at same height unless otherwise indicated.

E. Smoke- and Heat-Detector Spacing:
1. Comply with "Smoke-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.
2. Comply with "Heat-Sensing Fire Detectors" section in "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
3. Smooth ceiling spacing must not exceed 30 ft. (9 m).
4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas must be determined in accordance with Annex A or Annex B in NFPA 72.
5. HVAC: Locate detectors not closer than 36 inch (910 mm) from air-supply diffuser or return-air opening.
6. Lighting Fixtures: Locate detectors not closer than 12 inch (300 mm) from lighting fixture and not directly above pendant mounted or indirect lighting.

F. Install cover on each smoke detector that is not placed in service during construction. Cover must remain in place except during system testing. Remove cover prior to system turnover.

G. Remote Status and Alarm Indicators: Install in visible and accessible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.

H. Audible Alarm-Indicating Devices: Install not less than 6 inch (150 mm) below ceiling. Install bells and horns on flush-mounted back boxes with device-operating mechanism concealed behind grille. Install devices at same height unless otherwise indicated.

I. Visible Alarm-Indicating Devices: Install as shown on plans. Install devices in accordance with NFPA 72 requirements and at same height unless otherwise indicated.

J. Device Location-Indicating Lights: Locate in accessible space, easily viewed from floor level near device they monitor.

3.4 ELECTRICAL CONNECTIONS

A. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

B. Install electrical devices furnished by manufacturer, but not factory mounted, in accordance with NFPA 70 and NECA 1.

C. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.
1. Nameplate must be laminated acrylic or melamine plastic signs with red background and engraved white letters at least 1/2 inch (13 mm) high.

3.5 PATHWAYS

A. Pathways above recessed ceilings and in inaccessible locations may be routed exposed.
1. Exposed pathways located less than 96 inch (2440 mm) above floor must be installed in EMT.

B. Pathways in inaccessible space (above gypsum ceilings and within walls) must be installed in EMT and stubbed to nearest accessible space.

C. Exposed EMT must be painted using red enamel paint.

3.6 IDENTIFICATION

A. Identify system components, wiring, cabling, and terminals.

B. Install framed instructions in location visible from FACU.

3.7 GROUNDING

A. Ground FACU and associated circuits in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

B. Ground shielded cables at control panel location only. Insulate shield at device location.

3.8 FIELD QUALITY CONTROL

A. Field tests must be witnessed by authorities having jurisdiction.

B. Administrant for Tests and Inspections:
1. Engage factory-authorized service representative to administer and perform tests and inspections on components, assemblies, and equipment installations, including connections.

C. Tests and Inspections:
1. Visual Inspection: Conduct visual inspection prior to testing.
a. Inspection must be based on completed record Drawings and system documentation that is required by "Completion Documents, Preparation" table in "Documentation" section of "Fundamentals" chapter in NFPA 72.
b. Comply with "Visual Inspection Frequencies" table in "Inspection" section of "Inspection, Testing and Maintenance" chapter in NFPA 72; retain "Initial/Reacceptance" column and list only installed components.
2. System Testing: Comply with "Test Methods" table in "Testing" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Test audible appliances for public operating mode in accordance with manufacturer's written instructions. Perform test using portable sound-level meter complying with Type 2 requirements in ASA S1.4 Part 1/IEC 61672-1.
4. Test audible appliances for private operating mode in accordance with manufacturer's written instructions.
5. Test visible appliances for public operating mode in accordance with manufacturer's written instructions.
6. Factory-authorized service representative must prepare "Fire Alarm System Record of Completion" in "Documentation" section of "Fundamentals" chapter in NFPA 72 and "Inspection and Testing Form" in "Records" section of "Inspection, Testing and Maintenance" chapter in NFPA 72.

D. Reacceptance Testing: Perform reacceptance testing to verify proper operation of added or replaced devices and appliances.

E. Fire-alarm system will be considered defective if it does not pass tests and inspections.

F. Prepare test and inspection reports.

G. Annual Test and Inspection: One year after date of Substantial Completion, test fire-alarm system complying with visual and testing inspection requirements in NFPA 72. Use forms developed for initial tests and inspections.

3.9 DEMONSTRATION

A. Train Owner's maintenance personnel to adjust, operate, and maintain fire-alarm system. Allow Owner to record training.

3.10 MAINTENANCE

A. Maintenance Service: Beginning at Substantial Completion, maintenance service must include 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation. Parts and supplies must be manufacturer's authorized replacement parts and supplies.
1. Include visual inspections in accordance with "Visual Inspection Frequencies" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.
2. Perform tests in "Test Methods" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.
3. Perform tests per "Testing Frequencies" table in "Testing" paragraph of "Inspection, Testing and Maintenance" chapter in NFPA 72.

3.11 SOFTWARE SERVICE AGREEMENT

A. Comply with UL 864.

B. Technical Support: Beginning at Substantial Completion, service agreement must include software support for two years.

C. Upgrade Service: At Substantial Completion, update software to latest version. Install and program software upgrades that become available within two years from date of Substantial Completion. Upgrading software must include operating system and new or revised licenses for using software.
1. Upgrade Notice: At least 30 days to allow Owner to schedule access to system and to upgrade computer equipment if necessary.

END OF SECTION 283100

Cushing Terrell.
cushingterrell.com
800.757.9522

08.27.2025
SouthEast Alaska Regional Health Consortium (SEARHC)

SITKA PATIENT HOUSING EXPANSION

CONSTRUCTION DOCUMENTS

08.27.2025
PROJ# | SEARHC_SITKAPH
DESIGNED BY | ARNESON
DRAWN BY | ARNESON
REVIEWED BY | HAIDLE
REVISIONS

FIRE ALARM SPECIFICATIONS

FA300

Cushing Terrell

08.27.2025

Structural Calculations for

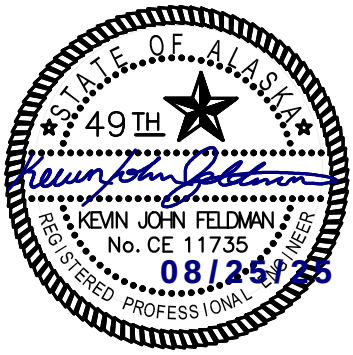
SOUTHEAST ALASKA REGIONAL HEALTH CONSORTIUM

SITKA PATIENT HOUSING EXPANSION

201 Tongass Drive, Sitka AK 99835

Prepared by:
Asrade Mengstu PE

Reviewed by:
Kevin Feldman PE



DESIGN LOADS AND CRITERIA

1) GRAVITY LOADS:
   a) ROOF LOADS:
      1. ROOF DEAD LOAD: 20 psf
      2. ROOF LIVE LOAD: 20 psf
   b) FLOOR LOADS:
      1. FLOOR LIVE LOAD: 100 psf (STAIRS & EXITWAYS)
      2. FLOOR LIVE LOAD: 40 psf (RESIDENTIAL — ALL OTHER AREAS EXCEPT STAIRS)
      3. FLOOR LIVE LOAD: 60 psf (BALCONIES AND DECKS)
   c) SLABS ON GRADE:
      1. SLABS ON GRADE LIVE LOAD: 40 psf
2) HANDRAIL AND GUARDRAIL SYSTEM LOADS:
   a) CONCENTRATED LOAD: 200 lb (HANDRAIL OR TOP RAIL)
   b) CONCENTRATED LOAD: 50 lb (INTERMEDIATE RAIL)
   c) LINEAR LOAD: 50 lb/ft (HANDRAIL OR TOP RAIL)
3) SNOW LOADS:
   a) GROUND SNOW LOAD: Pg = 50 psf, Is = 1.00, Ce = 1.0, Ct = 1.0, Cs = 1.0
   b) SLOPED ROOF SNOW LOAD: Pf = 35 psf UNIFORM + DRIFT
4) WIND CRITERIA:
   a) 3-SEC PEAK GUST WIND SPEED = 150 mph
   b) RISK CATEGORY = II
   c) Iw = 1.00
   d) EXPOSURE = D
   e) INTERNAL PRESSURE COEFFICIENT (GCpi): ±0.18
   f) EXTERNAL ROOF COMPONENTS & CLADDING: 90 psf MINIMUM (ULTIMATE)
   g) EXTERNAL WALL COMPONENTS & CLADDING: 70 psf MINIMUM (ULTIMATE)
   h) INTERSTORY DRIFT LIMIT = 1/400
5) SEISMIC CRITERIA:
   a) SS = 0.946 g / S1 = 0.6 g MAPPED MCER VALUES
   b) RISK CATEGORY = II
   c) PROJECT SITE CLASS = D
   d) Ie = 1.00
   e) SDS = 0.757 g / SD1 = N/A g DESIGN RESPONSE COEFFICIENT
   f) SEISMIC DESIGN CATEGORY = D
   g) ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE PROCEDURE
   h) SEISMIC FORCE-RESISTING SYSTEM: BUILDING WALL SYSTEMS: LIGHT FRAME WOOD WALLS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE, R = 6.5
   i) REDUNDANCY FACTOR: PLAN N-S RHO = 1.3 / PLAN E-W RHO = 1.3
   j) SEISMIC RESPONSE COEFFICIENT Cs = 0.151
   k) SEISMIC BASE SHEAR V = 51.4 kips (ULTIMATE)
   l) ALLOWABLE STORY DRIFT ▲ = 0.020hsx
6) FOOTING BEARING PRESSURE: 2000 psf ON APPROVED SUBGRADE, SEE SECTION FOUNDATIONS
7) FROST DEPTH: 18 INCHES TOP OF FOOTING

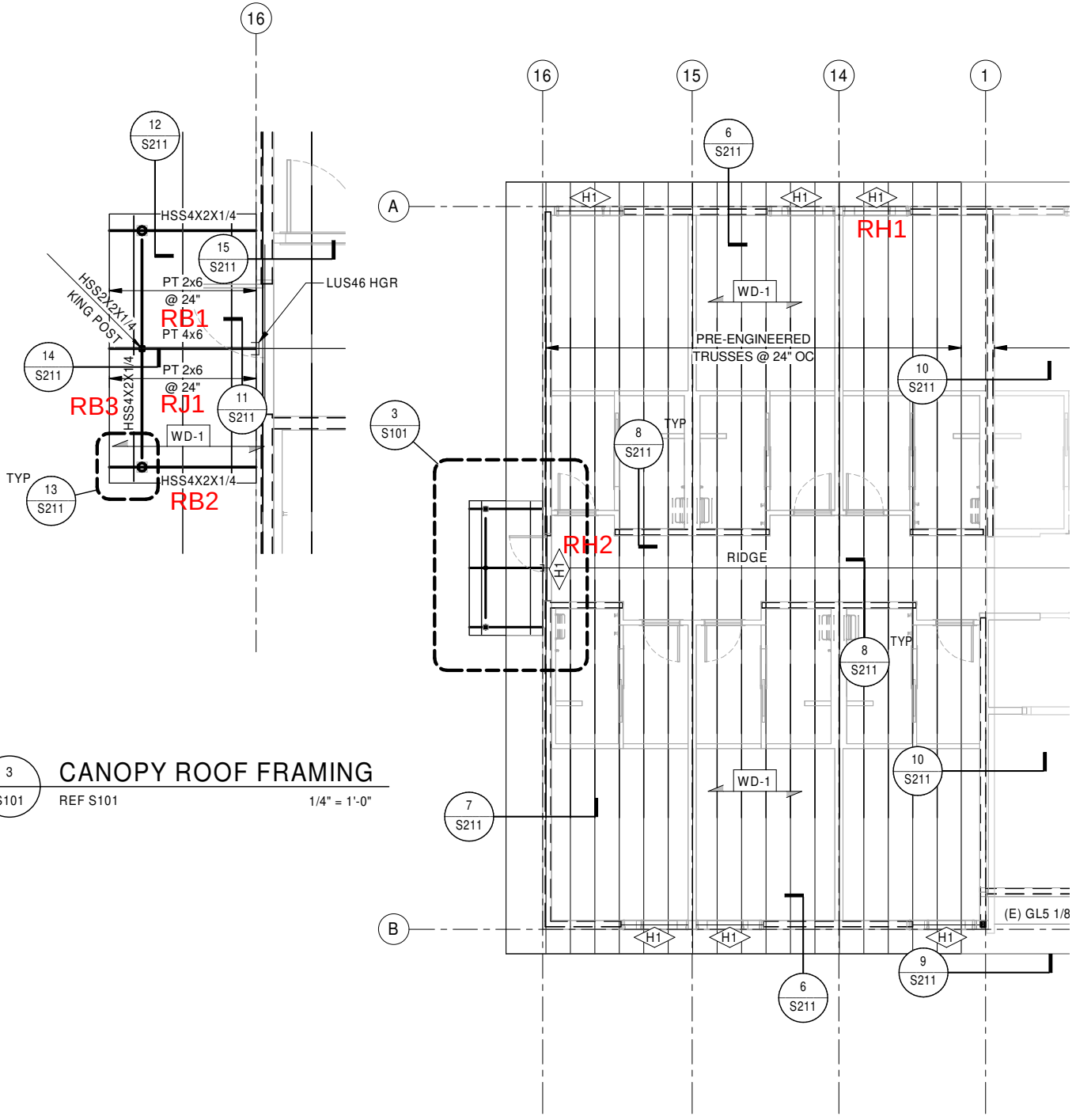
Snow Loads : ASCE 7- 16

Nominal Snow Forces

Roof slope		=	18.4 deg
Horiz. eave to ridge dist (W)		=	29.5 ft
Roof length parallel to ridge (L)		=	180.0 ft
Type of Roof			Hip and gable w/ trussed systems
Ground Snow Load	Pg	=	50.0 psf
Risk Category		=	II
Importance Factor	I	=	1.0
Thermal Factor	Ct	=	1.00
Exposure Factor	Ce	=	1.0
Pf = 0.7*Ce*Ct*I*Pg		=	35.0 psf
Unobstructed Slippery Surface			no
Sloped-roof Factor	Cs	=	1.00
Balanced Snow Load		**=**	**35.0 psf**
Rain on Snow Surcharge Angle			0.59 deg
Code Maximum Rain Surcharge			5.0 psf
Rain on Snow Surcharge		=	0.0 psf
Ps plus rain surcharge		=	35.0 psf
Minimum Snow Load	Pm	=	0.0 psf
Uniform Roof Design Snow Load		=	**35.0 psf**

Near ground level surface balanced snow load = **50.0 psf**

NOTE: Alternate spans of continuous beams shall be loaded with half the design roof snow load so as to produce the greatest possible effect - see code for loading diagrams and exceptions for gable roofs..



3 / S101 CANOPY ROOF FRAMING

REF S101 1/4" = 1'-0"

2 / S101 ROOF FRAMING PLAN

1/8" = 1'-0"

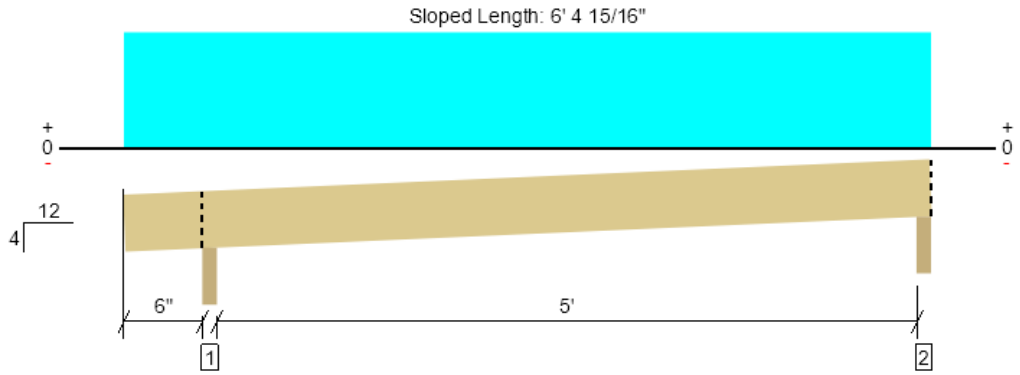
FORTEWEB

MEMBER REPORT

PASSED

Roof, Roof: Joist RJ1

1 piece(s) 2 x 6 HF No.2 @ 24" OC



Drawing is Conceptual. All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal (typ.).

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	315 @ 7 3/4"	2241 (3.50")	Passed (14%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	198 @ 1' 2 11/16"	949	Passed (21%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	319 @ 3' 3 7/16"	921	Passed (35%)	1.15	1.0 D + 1.0 S (Alt Spans)
Live Load Defl. (in)	0.048 @ 3' 3 3/16"	0.276	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.064 @ 3' 3 1/4"	0.367	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

Member Length : 6' 6 13/16"
System : Roof
Member Type : Joist
Building Use : Residential
Building Code : IBC 2021
Design Methodology : ASD
Member Pitch : 4/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- A 15% increase in the moment capacity has been added to account for repetitive member usage.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Factored	
1 - Beveled Plate - SPF	3.50"	3.50"	1.50"	83	132	231	315	Blocking
2 - Beveled Plate - SPF	3.50"	3.50"	1.50"	70	112	196	267	Blocking

• Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 5" o/c	
Bottom Edge (Lu)	6' 5" o/c	

•Maximum allowable bracing intervals based on applied load.
•Dimensions for lateral bracing intervals are measured along the length of the member for sloped conditions.

Vertical Load	Location (Side)	Spacing	Dead (0.90)	Roof Live (1.25)	Snow (1.15)	Comments
1 - Uniform (PSF)	0 to 6' 1"	24"	12.0	20.0	35.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Asrade Mengstu Cushing Terrell (406) 500-3544 asrademengstu@cushingterrell.com	4

Weyerhaeuser

8/12/2025 9:27:10 PM UTC
ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3
File Name: SEARHC Sitka Addition

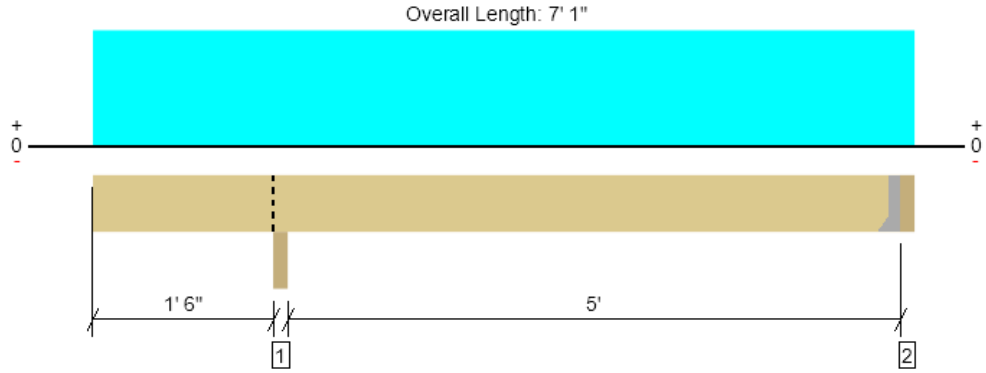
FORTEWEB

MEMBER REPORT

PASSED

Roof, Roof Ridge Beam RB1

1 piece(s) 4 x 6 DF No.2



Drawing is Conceptual. All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal (typ.).

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	577 @ 6' 9 1/2"	3281 (1.50")	Passed (18%)	--	1.0 D + 1.0 S (Alt Spans)
Shear (lbs)	535 @ 2' 3"	2657	Passed (20%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	694 @ 4' 4 5/8"	1979	Passed (35%)	1.15	1.0 D + 1.0 S (Alt Spans)
Live Load Defl. (in)	0.031 @ 4' 3 1/4"	0.257	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)
Total Load Defl. (in)	0.041 @ 4' 3 7/16"	0.343	Passed (L/999+)	--	1.0 D + 1.0 S (Alt Spans)

Member Length : 6' 9 1/2"
System : Roof
Member Type : Drop Beam
Building Use : Residential
Building Code : IBC 2021
Design Methodology : ASD
Member Pitch : 0/12

- Deflection criteria: LL (L/240) and TL (L/180).
- Overhang deflection criteria: LL (2L/240) and TL (2L/180).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)				Accessories
	Total	Available	Required	Dead	Roof Live	Snow	Factored	
1 - Column - HF	3.50"	3.50"	1.50"	291	448	784	1075	Blocking
2 - Hanger on 5 1/2" HF beam	3.50"	Hanger[1]	1.50"	167	273	478	646	See note [1]

- Blocking Panels are assumed to carry no loads applied directly above them and the full load is applied to the member being designed.
- At hanger supports, the Total Bearing dimension is equal to the width of the material that is supporting the hanger
- [1] See Connector grid below for additional information and/or requirements.

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' 10" o/c	
Bottom Edge (Lu)	6' 10" o/c	

•Maximum allowable bracing intervals based on applied load.

Connector: Simpson Strong-Tie

Support	Model	Seat Length	Top Fasteners	Face Fasteners	Member Fasteners	Accessories
2 - Face Mount Hanger	LUS46	2.00"	N/A	4-10dx1.5	4-10d	

- Refer to manufacturer notes and instructions for proper installation and use of all connectors.

Vertical Loads	Location (Side)	Tributary Width	Dead (0.90)	Roof Live (1.25)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6' 9 1/2"	N/A	4.9	--	--	
1 - Uniform (PSF)	0 to 7' 1" (Front)	5'	12.0	20.0	35.0	Default Load

- Side loads are assumed to not induce cross-grain tension.

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

ForteWEB Software Operator	Job Notes
Asrade Mengstu Cushing Terrell (406) 500-3544 asrademengstu@cushingterrell.com	5

Weyerhaeuser

8/12/2025 9:27:14 PM UTC
ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3
File Name: SEARHC Sitka Addition

Project Title: Sitka Patient Housing Expansion
Engineer: Asrade Mengstu PE
Project ID: SEARHC_SITKAPH
Project Descr: Front Canopy Structure

Steel Beam

Project File: Calculations.ec6

DESCRIPTION: Canopy Beam RB2

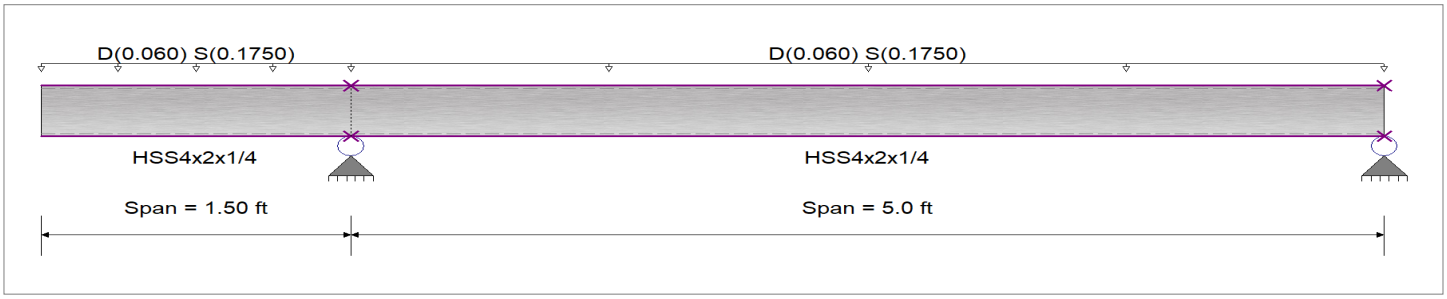
CODE REFERENCES

Calculations per AISC 360-16, IBC 2021, ASCE 7-16
Load Combination Set : IBC 2021

Material Properties

Analysis Method : Allowable Strength Design
Beam Bracing : Beam is Fully Braced against lateral-torsional buckling
Bending Axis : Major Axis Bending

Fy : Steel Yield : 46.0 ksi
E: Modulus : 29,000.0 ksi



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight NOT internally calculated and added
Load for Span Number 1
Uniform Load : D = 0.060, S = 0.1750 k/ft, Tributary Width = 1.0 ft

Load for Span Number 2
Uniform Load : D = 0.060, S = 0.1750 k/ft, Tributary Width = 1.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.090 : 1	Maximum Shear Stress Ratio =	0.025 : 1
Section used for this span	HSS4x2x1/4	Section used for this span	HSS4x2x1/4
Ma : Applied	0.608 k-ft	Va : Applied	0.6404 k
Mn / Omega : Allowable	6.749 k-ft	Vn/Omega : Allowable	25.423 k
Load Combination	+D+S	Load Combination	+D+S
		Location of maximum on span	1.500 ft
Span # where maximum occurs	Span # 2	Span # where maximum occurs	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.015 in	Ratio =	4,021	>=360	Span: 2 : S Only
Max Upward Transient Deflection	-0.010 in	Ratio =	3,550	>=360	Span: 2 : S Only
Max Downward Total Deflection	0.020 in	Ratio =	2995	>=180	Span: 2 : +D+S
Max Upward Total Deflection	-0.014 in	Ratio =	2644	>=180	Span: 2 : +D+S

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	Summary of Moment Values Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Summary of Shear Values Va Max	Vnx	Vnx/Omega
D Only													
Dsgn. L = 1.50 ft	1	0.010	0.006		-0.07	0.07	11.27	6.75	1.00	1.00	0.16	42.46	25.42
Dsgn. L = 5.00 ft	2	0.023	0.006	0.16	-0.07	0.16	11.27	6.75	1.00	1.00	0.16	42.46	25.42
+D+S													
Dsgn. L = 1.50 ft	1	0.039	0.025		-0.26	0.26	11.27	6.75	1.00	1.00	0.64	42.46	25.42
Dsgn. L = 5.00 ft	2	0.090	0.025	0.61	-0.26	0.61	11.27	6.75	1.00	1.00	0.64	42.46	25.42
+D+0.750S													
Dsgn. L = 1.50 ft	1	0.032	0.020		-0.22	0.22	11.27	6.75	1.00	1.00	0.52	42.46	25.42
Dsgn. L = 5.00 ft	2	0.073	0.020	0.49	-0.22	0.49	11.27	6.75	1.00	1.00	0.52	42.46	25.42
+0.60D													
Dsgn. L = 1.50 ft	1	0.006	0.004		-0.04	0.04	11.27	6.75	1.00	1.00	0.10	42.46	25.42
Dsgn. L = 5.00 ft	2	0.014	0.004	0.09	-0.04	0.09	11.27	6.75	1.00	1.00	0.10	42.46	25.42

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
	1	0.0000	0.000	+D+S	-0.0136	0.000
+D+S	2	0.0200	2.600		0.0000	0.000

Steel Beam

DESCRIPTION: Canopy Beam RB2

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	Support 3
Max Upward from all Load Conditions		0.993	0.535
Max Upward from Load Combinations		0.993	0.535
Max Upward from Load Cases		0.739	0.398
D Only		0.254	0.137
+D+S		0.993	0.535
+D+0.750S		0.808	0.435
+0.60D		0.152	0.082
S Only		0.739	0.398

Project Title: Sitka Patient Housing Expansion
Engineer: Asrade Mengstu PE
Project ID: SEARHC_SITKAPH
Project Descr: Front Canopy Structure

Steel Beam

Project File: Calculations.ec6

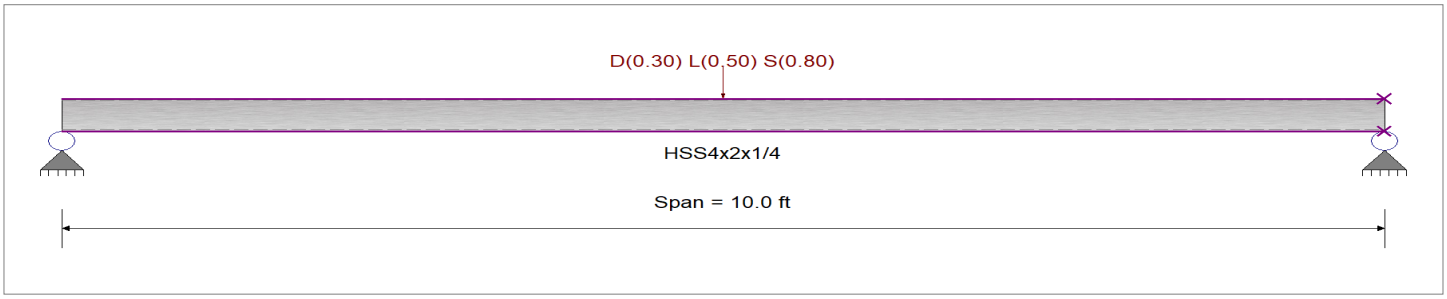
DESCRIPTION: Canopy Beam RB3

CODE REFERENCES

Calculations per AISC 360-16, IBC 2021, ASCE 7-16
Load Combination Set : IBC 2021

Material Properties

Analysis Method :	Allowable Strength Design	Fy : Steel Yield :	46.0 ksi
Beam Bracing :	Beam is Fully Braced against lateral-torsional buckling	E: Modulus :	29,000.0 ksi
Bending Axis :	Major Axis Bending		



Applied Loads

Service loads entered. Load Factors will be applied for calculations.

Beam self weight calculated and added to loading
Load(s) for Span Number 1
Point Load : D = 0.30, L = 0.50, S = 0.80 k @ 5.0 ft

DESIGN SUMMARY

Design OK

Maximum Bending Stress Ratio =	0.489 : 1	Maximum Shear Stress Ratio =	0.027 : 1
Section used for this span	HSS4x2x1/4	Section used for this span	HSS4x2x1/4
Ma : Applied	3.297 k-ft	Va : Applied	0.6814 k
Mn / Omega : Allowable	6.749 k-ft	Vn/Omega : Allowable	25.423 k
Load Combination	+D+0.750L+0.750S	Load Combination	+D+0.750L+0.750S
		Location of maximum on span	0.000 ft
Span # where maximum occurs	Span # 1	Span # where maximum occurs	Span # 1

Maximum Deflection

Max Downward Transient Deflection	0.222 in	Ratio =	540	>=360	Span: 1 : S Only
Max Upward Transient Deflection	0 in	Ratio =	0	<360	n/a
Max Downward Total Deflection	0.369 in	Ratio =	325	>=180	Span: 1 : +D+0.750L+0.750S
Max Upward Total Deflection	0 in	Ratio =	0	<180	n/a

Maximum Forces & Stresses for Load Combinations

Load Combination / Segment Length	Span #	Max Stress Ratios M	V	Summary of Moment Values Mmax +	Mmax -	Ma Max	Mnx	Mnx/Omega	Cb	Rm	Summary of Shear Values Va Max	Vnx	Vnx/Omega
D Only													
Dsgn. L = 10.00 ft	1	0.127	0.008	0.86		0.86	11.27	6.75	1.00	1.00	0.19	42.46	25.42
+D+L													
Dsgn. L = 10.00 ft	1	0.313	0.017	2.11		2.11	11.27	6.75	1.00	1.00	0.44	42.46	25.42
+D+S													
Dsgn. L = 10.00 ft	1	0.424	0.023	2.86		2.86	11.27	6.75	1.00	1.00	0.59	42.46	25.42
+D+0.750L													
Dsgn. L = 10.00 ft	1	0.266	0.015	1.80		1.80	11.27	6.75	1.00	1.00	0.38	42.46	25.42
+D+0.750L+0.750S													
Dsgn. L = 10.00 ft	1	0.489	0.027	3.30		3.30	11.27	6.75	1.00	1.00	0.68	42.46	25.42
+0.60D													
Dsgn. L = 10.00 ft	1	0.076	0.005	0.52		0.52	11.27	6.75	1.00	1.00	0.12	42.46	25.42

Overall Maximum Deflections

Load Combination	Span	Max. "-" Defl	Location in Span	Load Combination	Max. "+" Defl	Location in Span
+D+0.750L+0.750S	1	0.3693	5.029		0.0000	0.000

Vertical Reactions

Support notation : Far left is #: Values in KIPS

Load Combination	Support 1	Support 2		
Max Upward from all Load Conditions	0.681	0.681	8	0.398
Max Upward from Load Combinations	0.681	0.681		0.398

Steel Beam

DESCRIPTION: Canopy Beam RB3

Vertical Reactions

Support notation : Far left is #1 Values in KIPS

Load Combination	Support 1	Support 2	
Max Upward from Load Cases	0.400	0.400	0.398
Max Downward from all Load Conditions (Resis			0.398
Max Downward from Load Combinations (Resi			0.398
Max Downward from Load Cases (Resisting Up			0.398
D Only	0.194	0.194	0.398
+D+L	0.444	0.444	0.398
+D+S	0.594	0.594	0.398
+D+0.750L	0.381	0.381	0.398
+D+0.750L+0.750S	0.681	0.681	0.398
+0.60D	0.116	0.116	0.398
L Only	0.250	0.250	0.398
S Only	0.400	0.400	0.398

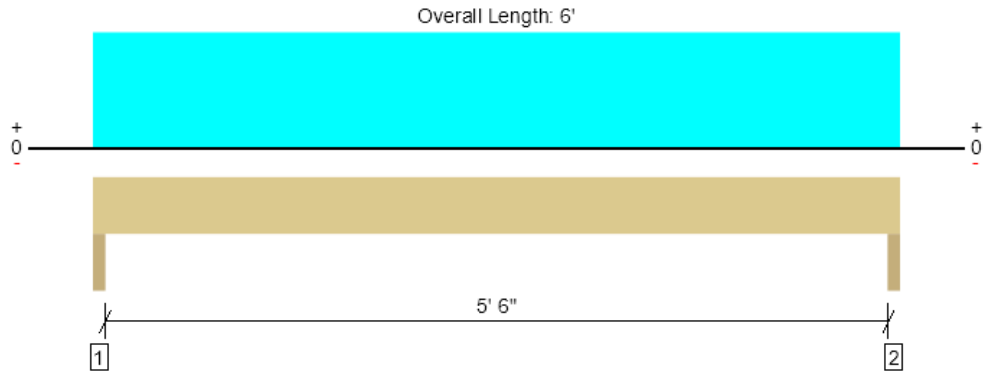
FORTEWEB

MEMBER REPORT

PASSED

Roof, Wall: Header RH1

1 piece(s) 4 x 12 DF No.2



Drawing is Conceptual. All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal (typ.).

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	3000 @ 1 1/2"	6563 (3.00")	Passed (46%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	1812 @ 1' 2 1/4"	5434	Passed (33%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	4133 @ 3'	7004	Passed (59%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.023 @ 3'	0.144	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.037 @ 3'	0.287	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

Member Length : 6'
System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2021
Design Methodology : ASD

- Deflection criteria: LL (L/480) and TL (L/240).
- Allowed moment does not reflect the adjustment for the beam stability factor.
- Applicable calculations are based on NDS.

Supports	Bearing Length			Loads to Supports (lbs)			Accessories
	Total	Available	Required	Dead	Snow	Factored	
1 - Trimmer - DF	3.00"	3.00"	1.50"	1110	1890	3000	None
2 - Trimmer - DF	3.00"	3.00"	1.50"	1110	1890	3000	None

Lateral Bracing	Bracing Intervals	Comments
Top Edge (Lu)	6' o/c	
Bottom Edge (Lu)	6' o/c	

•Maximum allowable bracing intervals based on applied load.

Vertical Loads	Location	Tributary Width	Dead (0.90)	Snow (1.15)	Comments
0 - Self Weight (PLF)	0 to 6'	N/A	10.0	--	
1 - Uniform (PSF)	0 to 6'	18'	20.0	35.0	Default Load

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The product application, input design loads, dimensions and support information have been provided by ForteWEB Software Operator

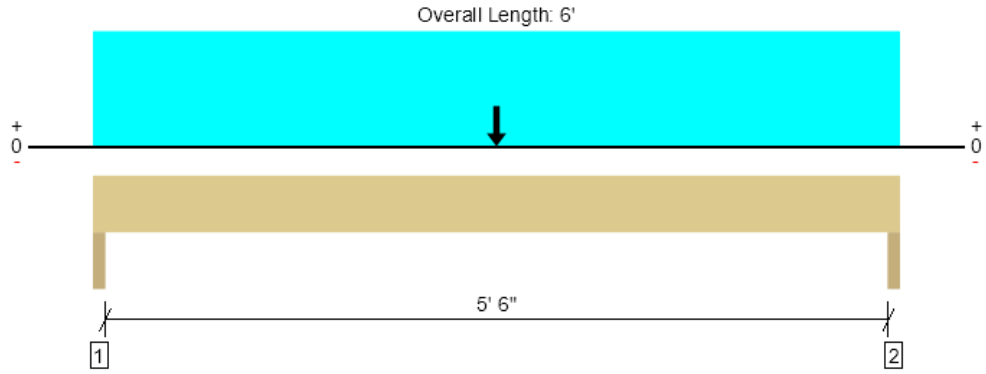
ForteWEB Software Operator	Job Notes
Asrade Mengstu Cushing Terrell (406) 500-3544 asrademengstu@cushingterrell.com	10

Weyerhaeuser

8/5/2025 11:30:07 PM UTC
ForteWEB v3.9, Engine: V8.4.3.94, Data: V8.1.7.3
File Name: SEARHC Sitka Addition

Roof, Wall: Header RH2

Current Solution: 1 piece(s) 4 x 12 DF No.2



Drawing is Conceptual. All locations are measured from the outside face of left support (or left cantilever end). All dimensions are horizontal (typ.).

Design Results	Actual @ Location	Allowed	Result	LDF	Load: Combination (Pattern)
Member Reaction (lbs)	847 @ 1 1/2"	6563 (3.00")	Passed (13%)	--	1.0 D + 1.0 S (All Spans)
Shear (lbs)	640 @ 1' 2 1/4"	5434	Passed (12%)	1.15	1.0 D + 1.0 S (All Spans)
Moment (Ft-lbs)	1650 @ 3'	7004	Passed (24%)	1.15	1.0 D + 1.0 S (All Spans)
Live Load Defl. (in)	0.009 @ 3'	0.144	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)
Total Load Defl. (in)	0.013 @ 3'	0.287	Passed (L/999+)	--	1.0 D + 1.0 S (All Spans)

Member Length : 6'
System : Wall
Member Type : Header
Building Use : Residential
Building Code : IBC 2021
Design Methodology : ASD

All Product Solutions			
Depth	**Series**	**Plies**	**Cost Index**
9 1/2"	1 1/4" 1.3E TimberStrand® LSL	1	15.44 *
11 1/4"	4 x DF No.2	1	63.00

The purpose of this report is for product comparison only. Load and support information necessary for professional design review is not displayed here. Please print an individual Member Report for submittal purposes.

ForteWEB Software Operator	Job Notes
Asrade Mengstu Cushing Terrell (406) 500-3544 asrademengstu@cushingterrell.com	11

SEARHC SITKA - SHORT TERM HOUSING ADDITION

222 TONGASS DR, SITKA, ALASKA 99835

LATERAL ANALYSIS

WIND ANALYSIS

$V = 150$ mph, Exp 'D', $K_{zt} = 1.0$

SEE ATTACHED WIND PRESSURE CALCULATIONS (STRUWARE)

→ WIND IN N-S DIRECTION:

$$\text{ROOF} = (59' \times 5' + 11.25' \times 59'/2) \times 33.6\,psf = 21{,}063\,\#$$

→ WIND IN E-W DIRECTION:

$$\text{ROOF} = 185.5' \times 11.25' \times 8.8 + 180' \times 5' \times 33.5\,psf$$
$$= 18{,}365 + 30{,}150 = 48{,}515\,\#$$

SEISMIC ANALYSIS

SEISMIC DEAD LOAD:

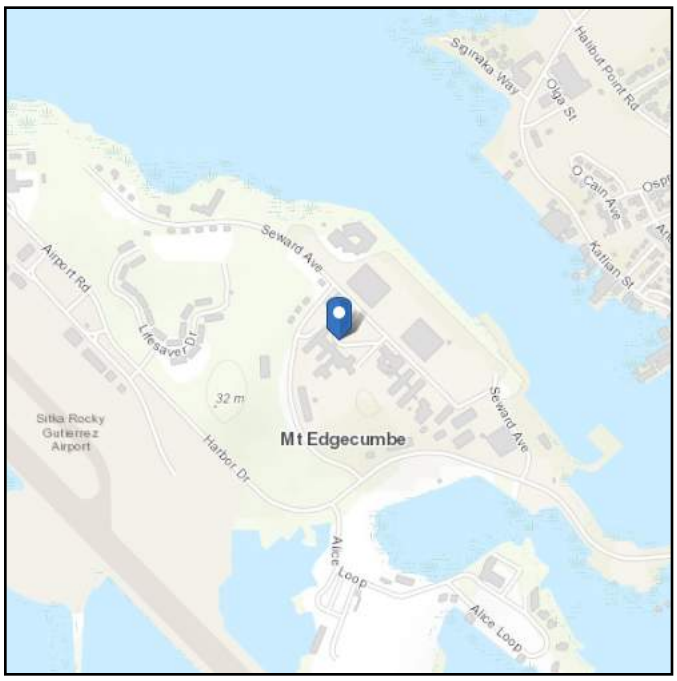
$$\text{ROOF DL} = 11{,}698 \times 20 + 2(180+59) \times 5' \times 10\,psf + 11698 \times 35 \times 0.2$$
$$= 233{,}960 + 23{,}900 + 81{,}886 = 339{,}746\,\#$$

FROM ATTACHED CALCULATIONS, $V = 0.109W = 36.9k$ (ASD)

ASCE Hazards Report

Address:
222 Tongass Drive
Sitka, Alaska
99835

Standard:	ASCE/SEI 7-16	**Latitude:**	57.051884
Risk Category:	II	**Longitude:**	-135.354796
Soil Class:	D - Default (see Section 11.4.3)	**Elevation:**	62.72965729606288 ft (NAVD 88)



Wind

Results:

Wind Speed	150 Vmph
10-year MRI	104 Vmph
25-year MRI	113 Vmph
50-year MRI	122 Vmph
100-year MRI	130 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Thu Jul 31 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings shall be protected against wind-borne debris as specified in Section 26.12.3.

Seismic

Site Soil Class: D - Default (see Section 11.4.3)

Results:

S_S :	0.946	S_{D1} :	N/A
S_1 :	0.6	T_L :	12
F_a :	1.2	PGA :	0.324
F_v :	N/A	PGA_M :	0.413
S_{MS} :	1.135	F_{PGA} :	1.276
S_{M1} :	N/A	I_e :	1
S_{DS} :	0.757	C_v :	1.273

Ground motion hazard analysis may be required. See ASCE/SEI 7-16 Section 11.4.8.

Data Accessed: Thu Jul 31 2025

Date Source: USGS Seismic Design Maps

Snow

Results:

Ground Snow Load, p_g:	50 lb/ft^2
Mapped Elevation:	62.7 ft
Data Source:	ASCE/SEI 7-16, Table 7.2-8
Date Accessed:	Thu Jul 31 2025

Values provided are ground snow loads. In areas designated "case study required," extreme local variations in ground snow loads preclude mapping at this scale. Site-specific case studies are required to establish ground snow loads at elevations not covered.

Snow load values are mapped to a 0.5 mile resolution. This resolution can create a mismatch between the mapped elevation and the site-specific elevation in topographically complex areas. Engineers should consult the local authority having jurisdiction in locations where the reported ‘elevation’ and ‘mapped elevation’ differ significantly from each other.

Sitka's Structural Design Criteria

(For use with the International Building Code 2021 or the American Society of Civil Engineers - Minimum Design Loads for Buildings and Other Structures ASCE 7-16.)

- **Wind Load**:
Basic wind speed, V (3-second gust wind speed) = 150 miles per hour
- **Snow Load:**
Ground snow load, pg = 50 pounds per square foot
- **Earthquake Load:**
Maximum considered earthquake ground motion-
0.2 second spectral response, Ss = 0.97 g
1.0 second spectral response, S1 = 0.60 g
- **Frost Depth:**
Minimum of 18 inches required from finish grade to base of footing or base of non-frost susceptible fill.
- Wind Exposure Definitions

Codes in effect in Sitka:

Residential (adopted by Sitka General Code):

- 2021 International Residential Code (not including plumbing and electrical)
- 2021 Uniform Plumbing Code
- 2020 National Electrical Code

Commercial (adopted by State statute and Sitka General Code)

- 2021 International Building, Fire, and Mechanical Codes
- 2021 Uniform Plumbing Code
- 2020 National Electrical Code
- 2021 International Existing Building Code

STRUCTURAL CALCULATIONS

FOR

SEARHC Alaska

Sitka, Alaska

Code Search

Code: International Building Code 2021

Occupancy:

Occupancy Group = I Institutional

Risk Category & Importance Factors:

Risk Category =	II	
Wind factor =	1.00	use 0.60 NOTE: Output will be nominal wind pressures
Snow factor =	1.00	
Seismic factor =	1.00	

Type of Construction:

Fire Rating:

Roof =	1.0 hr
Floor =	1.0 hr

Building Geometry:

Roof angle (θ)	4.00 / 12	18.4 deg
Building length	180.0 ft	
Least width	59.0 ft	
Mean Roof Ht (h)	15.5 ft	
Parapet ht above grd	0.0 ft	
Minimum parapet ht	0.0 ft	

Live Loads:

Roof

0 to 200 sf: 20 psf
200 to 600 sf: 24 - 0.02Area, but not less than 12 psf
over 600 sf: 12 psf

Floor:

Typical Floor	100 psf
Partitions	15 psf
	0 psf
0	0 psf
Stairs and exit ways	100 psf

Cushing Terrell

JOB TITLE	SEARHC Alaska		
	Short Term Housing Addition		
JOB NO.	SEARHC_SITKAPH	SHEET NO.	
CALCULATED BY	AM	DATE	8/5/25
CHECKED BY	KF	DATE	8/5/25

Wind Loads : ASCE 7- 16

Ultimate Wind Speed	150 mph
Nominal Wind Speed	116.2 mph
Risk Category	II
Exposure Category	D
Enclosure Classif.	Enclosed Building
Internal pressure	+/-0.18
Directionality (Kd)	0.85
Kh case 1	1.036
Kh case 2	1.036
Type of roof	Hip

Topographic Factor (Kzt)

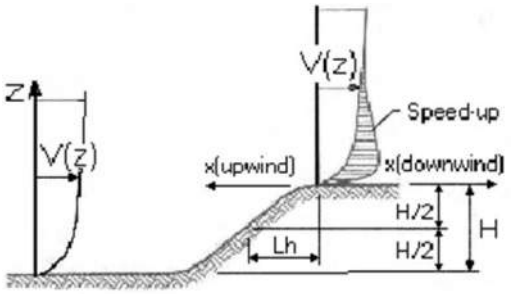
Topography		2D Escarpment
Hill Height	(H)	20.0 ft
Half Hill Length (Lh)		300.0 ft
Actual H/Lh	=	0.07
Use H/Lh	=	0.00
Modified Lh	=	300.0 ft
From top of crest: x =		50.0 ft
Bldg up/down wind?		downwind

H/Lh<0.2
∴ Kzt=1.0

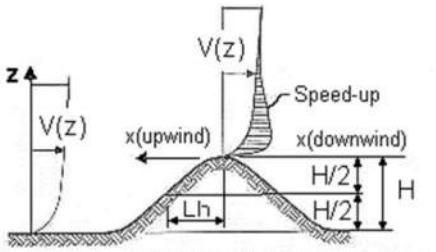
H/Lh= 0.00	K_1 = 0.000
x/Lh = 0.17	K_2 = 0.958
z/Lh = 0.05	K_3 = 0.879

At Mean Roof Ht:

$Kzt = (1+K_1K_2K_3)^2$ = 1.00



ESCARPMENT



2D RIDGE or 3D AXISYMMETRICAL HILL

Gust Effect Factor

h =	15.5 ft
B =	59.0 ft
/z (0.6h) =	9.3 ft

Flexible structure if natural frequency < 1 Hz (T > 1 second).
If building h/B>4 then may be flexible and should be investigated.
h/B = 0.26 Rigid structure (low rise bldg)

G = 0.85 Using rigid structure default

Rigid Structure

$\bar{e}$ =	0.13
ℓ =	650 ft
z_{min} =	7 ft
c =	0.15
g_Q, g_v =	3.4
L_z =	554.8 ft
Q =	0.92
I_z =	0.19
G =	**0.89** use G = 0.85

Flexible or Dynamically Sensitive Structure

Natural Frequency (η_1) =	0.0 Hz				
Damping ratio (β) =	0				
/b =	0.80				
/α =	0.11				
Vz =	152.9				
N_1 =	0.00				
R_n =	0.000				
R_h =	28.282	η =	0.000	h =	15.5 ft
R_B =	28.282	η =	0.000		
R_L =	28.282	η =	0.000		
g_R =	0.000				
R =	0.000				
Gf =	0.000				

Enclosure Classification

Test for Enclosed Building: Ao < 0.01Ag or 4 sf, whichever is smaller

Test for Open Building: All walls are at least 80% open.
Ao ≥ 0.8Ag

Test for Partially Enclosed Building: Predominately open on one side only

	Input			Test	
Ao	500.0	sf	Ao ≥ 1.1Aoi	NO	
Ag	600.0	sf	Ao > 4' or 0.01Ag	YES	
Aoi	1000.0	sf	Aoi / Agi ≤ 0.20	YES	Building is NOT
Agi	10000.0	sf			Partially Enclosed

Conditions to qualify as Partially Enclosed Building. Must satisfy all of the following:
Ao ≥ 1.1Aoi
Ao > smaller of 4' or 0.01 Ag
Aoi / Agi ≤ 0.20
Where:
Ao = the total area of openings in a wall that receives positive external pressure.
Ag = the gross area of that wall in which Ao is identified.
Aoi = the sum of the areas of openings in the building envelope (walls and roof) not including Ao.
Agi = the sum of the gross surface areas of the building envelope (walls and roof) not including Ag.

Test for Partially Open Building: A building that does not qualify as open, enclosed or partially enclosed.
(This type building will have same wind pressures as an enclosed building.

Reduction Factor for large volume partially enclosed buildings (Ri) :

If the partially enclosed building contains a single room that is unpartitioned , the internal pressure coefficient may be multiplied by the reduction factor Ri.

Total area of all wall & roof openings (Aog): 0 sf
Unpartitioned internal volume (Vi) : 0 cf
Ri = 1.00

Ground Elevation Factor (Ke)

Grd level above sea level = 0.0 ft Ke = 1.0000
Constant = 0.00256 Adj Constant = 0.00256

Cushing Terrell

JOB TITLE	SEARHC Alaska		
	Short Term Housing Addition		
JOB NO.	SEARHC_SITKAPH	SHEET NO.	
CALCULATED BY	AM	DATE	8/5/25
CHECKED BY	KF	DATE	8/5/25

Wind Loads - MWFRS all h (Except for Open Buildings)

Kh (case 2) =	1.04			GCpi =	+/-0.18
Base pressure (q_h) =	**30.4 psf**	Bldg dim parallel to ridge =	180.0 ft	G =	0.85
Roof Angle (θ) =	18.4 deg	Bldg dim normal to ridge =	59.0 ft	qi = qh	
Roof tributary area:		h =	15.5 ft		
Wind normal to ridge =(h/2)*L:	1395 sf	ridge ht =	20.4 ft		
Wind parallel to ridge =(h/2)*L:	457 sf				

Nominal Wind Surface Pressures (psf)

	Wind Normal to Ridge				Wind Parallel to Ridge				
	L/B = 0.33		h/L = 0.26			L/B = 3.05		h/L = 0.09	
Surface	Cp	q_hGC_p	w/+q_iGC_{pi}	w/-q_hGC_{pi}	Dist.*	Cp	q_hGC_p	w/ +q_iGC_{pi}	w/ -q_hGC_{pi}
Windward Wall (WW)	0.80	20.7	see table below			0.80	20.7	see table below	
Leeward Wall (LW)	-0.50	-12.9	-18.4	-7.5		-0.25	-6.4	-11.9	-0.9
Side Wall (SW)	-0.70	-18.1	-23.6	-12.6		-0.70	-18.1	-23.6	-12.6
Leeward Roof (LR)	-0.57	-14.7	-20.2	-9.2		Included in windward roof			
Neg Windward Roof pressure	-0.37	-9.6	-15.0	-4.1	0 to h/2*	-0.90	-23.3	-28.8	-17.8
Pos/min Windward Roof press.	0.13	3.3	-2.2	8.8	h/2 to h*	-0.90	-23.3	-28.8	-17.8
					h to 2h*	-0.50	-12.9	-18.4	-7.5
					> 2h*	-0.30	-7.8	-13.2	-2.3
					Min press.	-0.18	-4.7	-10.1	0.8

*Horizontal distance from windward edge

Parapet

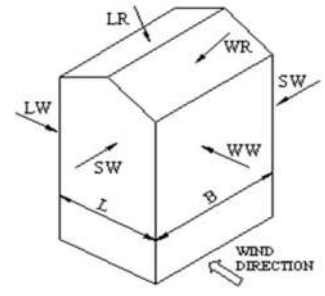
z	Kz	Kzt	qp (psf)
0.0 ft	1.03	1.00	0.0

Windward parapet: 0.0 psf (GCpn = +1.5)
Leeward parapet: 0.0 psf (GCpn = -1.0)

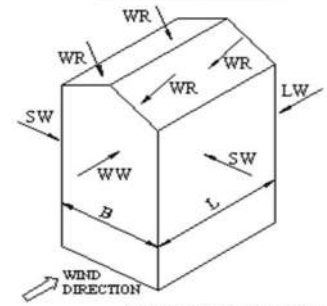
Windward roof overhangs : 20.7 psf (upward - add to windward roof pressure)

Windward Wall Pressures at "z" (psf)

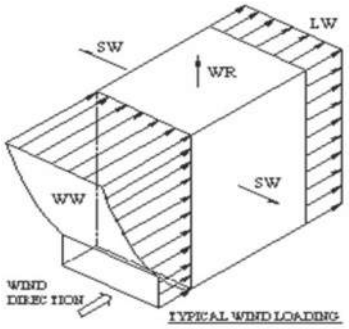
	z	Kz	Kzt	Windward Wall q_zGC_p	Windward Wall w/+q_iGC_{pi}	Windward Wall w/-q_hGC_{pi}	Combined WW + LW Wind Normal to Ridge	Combined WW + LW Wind Parallel to Ridge
	0 to 15'	1.03	1.00	20.6	15.1	26.1	33.5	27.0
h=	15.5 ft	1.04	1.00	20.7	15.2	26.2	33.6	27.1
ridge =	20.4 ft	1.09	1.00	21.7	16.2	27.2	34.6	28.1



WIND NORMAL TO RIDGE

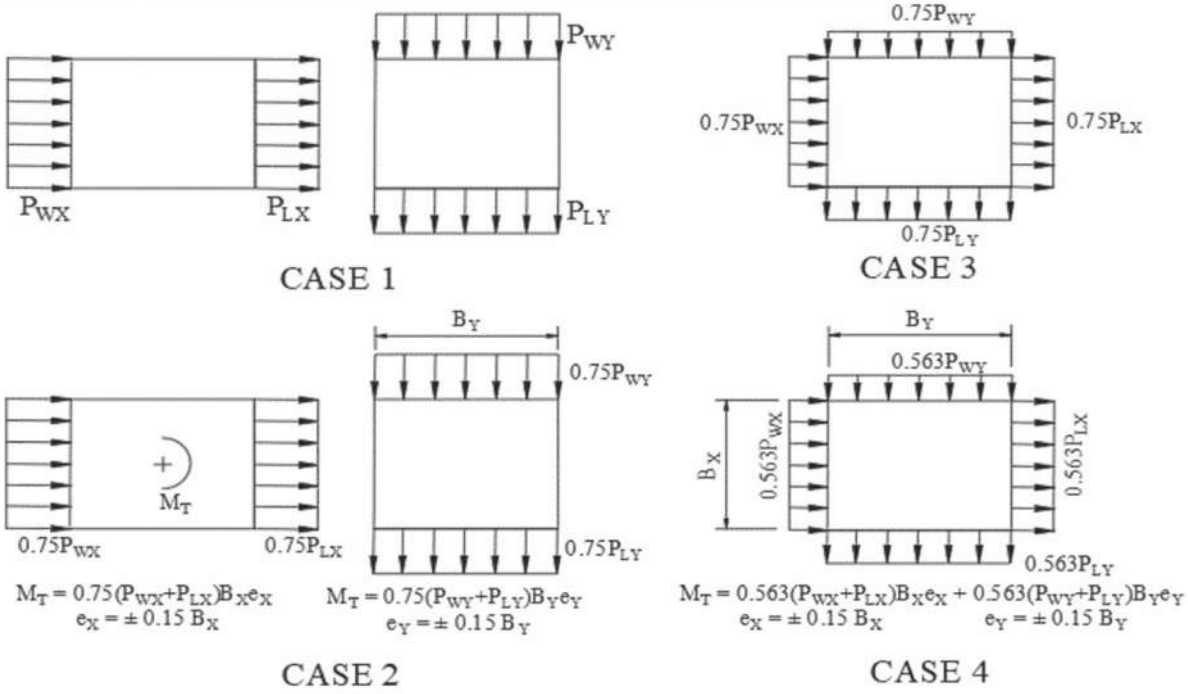


WIND PARALLEL TO RIDGE



TYPICAL WIND LOADING

NOTE: ASCE 7 requires the application of full and partial loading of the wind pressures per the 4 cases below.



Wind Forces at Floors

		Building dimension (parallel with ridge) =	180.0 ft	e =	27.00 ft
Total Floors =	1	Building dimension (normal to ridge) =	59.0 ft	e =	8.85 ft
T/Fdn (dist below grade) =	2.0 ft	L is the building dimension parallel to the wind direction			

	Elevation Above	Height of Centroid	Wind Normal to Ridge						Wind Parallel to Ridge			
Level	Grade (ft)	to Fdn (ft)	L	B	Area (sf)	Applied Force (k)	Story Shear (k)	Overturning Moment ('k)	Area	Applied Force (k)	Story Shear (k)	Overturning Moment ('k)
Equip,etc		0.00	wind on equip, screenwalls, etc =					0.0				
Parapet	0.00	0.00				0.0		0.0		0.0		
T/Ridge	0.00	0.00			0.0	0.0		0.0	0.0	0.0		0.0
Roof	15.00	17.00	59.0	180.0	1,350.0	45.2	45.2	0.0	442.5	11.9	11.9	0.0
1	0.00	2.00	59.0	180.0	1,350.0	45.2	90.5	678.7	442.5	11.9	23.9	179.1
FDN		0.00						859.7				226.8

SEISMIC BASE SHEAR: ASCE 7-16

SEARHC SITKA ADDITION

Occupancy Category	1
Site Class =	D
Lat.	57.052
Long.	-135.355
Ss =	97 % g
S1 =	60 % g
Seismic Design Category (SDC) =	D 4
Fa =	1.200
Fv =	N/A
Sds =	0.776
Sd1 =	N/A

Occupancy Category	
I & II (1)	Ordinary Buildings
III (2)	High Occupancy Buildings
IV (3)	Hazardous/Essential Bldgs

Fa	Ss <	Ss =	Ss =	Ss =	Ss >
	0.25	0.5	0.75	1	1.25
A	0.8	0.8	0.8	0.8	0.8
B	1	1	1	1	1
C	1.2	1.2	1.1	1	1
D	1.6	1.4	1.2	1.1	1
E	2.5	1.7	1.2	0.9	0.9
F	**a**	**a**	**a**	**a**	**a**

Fv	S1 <	S1 =	S1 =	S1 =	S1 >
	0.1	0.2	0.3	0.4	0.5
A	0.8	0.8	0.8	0.8	0.8
B	1	1	1	1	1
C	1.7	1.6	1.5	1.4	1.3
D	2.4	2	1.8	1.6	1.5
E	3.5	3.2	2.8	2.4	2.4
F	**a**	**a**	**a**	**a**	**a**

Vmin = 0.044*Sds W = 0.03

V = $\frac{Sds * I}{R}$ W = 0.12

Vmax = $\frac{Sd1 * I}{R * T}$ W = 0.59

Sms =Fa*Ss =	1.164
Sm1 = Fv*S1 =	N/A
SDC Sds =	D 4
SDC Sd1 =	D 4

T exponer	Ct	
0.75	0.02	default
0.75	0.03	Ecc Braced Frames
0.8	0.016	Concrete Moment Frames
0.9	0.028	Steel Moment Frames

Where:

Sds =	0.776	T expo'	0.75
Sd1 =	0.600	Ct =	0.02
I =	1	Hn =	15.5
R =	6.5	T =	0.156
		Total W =	339.8 kips

WOOD SW

Common Values	R	omega	
Wood SW	6.5	3	bearing wall system
Special Conc SW	5	2.5	bearing wall system
Special CMU SW	5	2.5	bearing wall system
Steel OMRF	3.5	3	building frame system
Steel SMRF	8	3	building frame system
Steel OBF	5	2	building frame system
Steel SBF	6	2	building frame system
Cant Col			building frame system

Therefore:

V.ult= 0.119 W V= 40.6 kips

V.service= 0.084 W V= 28.4 kips

E = ρ Eh + Ev

where ρ = 1.0 or 1.3

ρ.y.= 1.3

ρ.x= 1.3

INCREASE SEISMIC

V.ult= 0.155 W V= 52.7 kips

V.service= 0.109 W V= 36.9 kips

Note: IBC Ax and r are evaluated at each floor

Therefore: **pEx = 52.7** kips **pEy = 52.7** kips

pEx = 36.9 kips **pEy = 36.9** kips

static distribution is relative to building period T = 0.156 sec ------> linear distribution ----> k (exponent)= 1.00

SEISMIC DISTRIBUTION: X-Direction

level	W (kips)	h (ft)	Wh^k (kip-ft)	Wh^k / Σ Wh^k	STRENGTH / LRFD story shear (kips)	Σ (kips)	ALLOW. STRESS DESIGN story shear (kips)	Σ (kips)	Scaled Seismic	Fx (kips)	Diaphragm Scaled Seismic
Roof	339.8	10	3398	1.00	52.7	52.7	36.9	36.9	0.084	28.4	0.084
Σ	339.8		3398	1	52.7		36.9			28.4	
							.7E		.7E	.7E	.7E

SEISMIC DISTRIBUTION: Y-Direction

level	W (kips)	h (ft)	Wh^k (kip-ft)	Wh^k / Σ Wh^k	STRENGTH / LRFD story shear (kips)	Σ (kips)	ALLOW. STRESS DESIGN story shear (kips)	Σ (kips)	Scaled Seismic	Fx (kips)	Diaphragm Scaled Seismic
Roof	339.8	10	3398	1.00	52.7	52.7	36.9	36.9	0.084	28.4	0.084
Σ	339.8		3398	1	52.7		36.9			28.4	
							.7E		.7E	.7E	.7E

SEARHC SITKA ADDITION

V in N-S Roof shear (k) = 36.90 (Seismic)

Wall	TW (ft)	V (k)	L (ft)	**v (plf)**	SW Type	h (ft)	Mot (k-ft)	TW (ft)	DLroof (psf)	Wfl (plf)	DLwall (psf)	Wwall (plf)	Mr (k-ft)	.6Mr (k-ft)	FS	**T (lbs)**	Holdowns	Wall
A	30	18.45	85.25	**216**	SWA													A
B	30	18.45	64	**288**	SWB													B
	60																	

* Shearwall capacity reduced by 1.25-0.125h/b

Holdowns

V in N-S Roof

Wall	L (ft)	h (ft)	Mot (k-ft)	TW (ft)	DLfloor (psf)	Wfl (plf)	DLwall (psf)	Wwall (plf)	Mr (k-ft)	.47Mr (k-ft)	FS	**T (lbs)**	Holdowns	Wall	**C (lbs)**
v=	216	plf													
A1	11.5	10	24.89	15	20	300	10	100	26	12.4	0.50	**1083**	4	A1	2164
A2	12.5	10	27.05	15	20	300	10	100	31	14.7	0.54	**989**	4	A2	2164
A3	12.25	10	26.51	15	20	300	10	100	30	14.1	0.53	**1013**	4	A3	2164
A4	12.25	10	26.51	15	20	300	10	100	30	14.1	0.53	**1013**	4	A4	2164
A5	12.25	10	26.51	15	20	300	10	100	30	14.1	0.53	**1013**	4	A5	2164
A6	12.25	10	26.51	15	20	300	10	100	30	14.1	0.53	**1013**	4	A6	2164
A7	12.25	10	26.51	15	20	300	10	100	30	14.1	0.53	**1013**	4	A7	2164
v=	288	plf													
B1	6.25	10	18.02	15	20	300	10	100	8	3.7	0.20	**2295**	4	B1	2883
B2	12.25	10	35.31	15	20	300	10	100	30	14.1	0.40	**1731**	4	B2	2883
B3	6.25	10	18.02	15	20	300	10	100	8	3.7	0.20	**2295**	4	B3	2883
B4	12.25	10	35.31	15	20	300	10	100	30	14.1	0.40	**1731**	4	B4	2883
B5	12.25	10	35.31	15	20	300	10	100	30	14.1	0.40	**1731**	4	B5	2883
B6	6.25	10	18.02	15	20	300	10	100	8	3.7	0.20	**2295**	4	B6	2883
B7	8.5	10	24.50	15	20	300	10	100	14	6.8	0.28	**2084**	4	B7	2883

SEARHC SITKA ADDITION

V in E-W Roof shear (k) = 48.52 (Wind)

Wall	TW (ft)	V (k)	L (ft)	**v (plf)**	SW Type	h (ft)	Mot (k-ft)	TW (ft)	DLfloor(psf)	Wfl (plf)	DLwall (psf)	Wwall (plf)	Mr (k-ft)	.6Mr (k-ft)	FS	**T (lbs)**	Holdowns	Wall
16	18	4.85	53.5	**91**	SWA													16
1	36	9.70	51.75	**188**	SWA													1
4	36	9.70	49.75	**195**	EXISTING													4
7	36	9.70	49.75	**195**	EXISTING													7
10	36	9.70	49.75	**195**	EXISTING													10
13	18	4.85	49.75	**98**	EXISTING													13
	180																	

Holdowns

V in E-W Roof

Wall	L (ft)	h (ft)	Mot (k-ft)	TW (ft)	DLroof (psf)	Wfl (plf)	DLwall (psf)	Wwall (plf)	Mr (k-ft)	.6Mr (k-ft)	FS	**T (lbs)**	Holdowns	Wall	**C (lbs)**
v=	91	plf													
16a	26.75	10	24.26	4	20	80	10	100	64	38.6	1.59	**0**	N/A	16a	907
16b	26.75	10	24.26	4	20	80	10	100	64	38.6	1.59	**0**	N/A	16b	907
v=	188	plf													
1a	26.25	10	49.22	3	20	60	10	100	55	33.1	0.67	**615**	4	1a	1875
1b	25.5	10	47.82	3	20	60	10	100	52	31.2	0.65	**651**	4	1b	1875