Timetable (preliminary) - Overview:

Q2 2018 (now through June 30) - Planning

Including;

1. Assemble team / define roles / clarify project delivery method
2. Organize existing information (in preparation for first official public input event)
    a. Plot plan / survey
    b. Transportation input (road agent, DOT?)
    c. Library planning data (rationale for new space/fit-out allocations)
3. Understand likely schedule / sequencing
4. 1st public input opportunity
5. Project Display in Library (1 each or rotate?) (drawings/model/suggestion box/fundraising progress)

Q3 2018 (7/1 – 9/30) – Project Design

Including;

1. Update/clarify project.
2. Revise project docs.
3. Update displays
4. 2nd (more?) public input opportunity
5. Professional services;
    a. Architectural (?)
    b. Library planning specialist (?)
    c. ADA / accessibility specialist (?)
    d. Site
    e. Structural
    f. Life safety
    g. Mechanical
    h. Landscape(?)
    i. Daylighting/lighting (?)
    j. Commissioning(?)

Q4 2018 (10/1 – 12/31) Assemble final project documentation

Including;

1. 3rd / final public input opportunity
2. Final Plans & Specs
3. Draft Contract language (legal review?)
4. Schedule

Q1 2019 (1/1 through Town Meeting) – Preparation for Town Meeting

Including;

1. Organizing presentation for warrant
    a. Draft warrant article(s)
    b. Lobby display, Slideshow (both?)
    c. Fundraising update
2. "Last chance" adjustment to project docs

Final deliverable to trustees / select board;

1. Drawing/Specification package
2. Contracts

3. Budget
4. Other?

Steve Halleran

From: Atwater Construction [aci.builds@comcast.net]
Sent: Wednesday, April 11, 2018 9:59 AM
To: Steve Halleran; Mary King
Subject: Last night's meerting
Attachments: Timetable v2.docx; Draft OPR Outline.docx

So, my take aways from last night's meeting;

1. We're headed for a building that will look something like the rectangle from Mary & Terry's floorplan.
2. We think we (the town) can run the construction.
3. Shawn will produce a model (models?) for display and work on building details (initial basic – 2 weeks)
4. Bill will make energy related recommendations (shell, mechanicals)
5. I will start the hazardous materials eval. process.
6. Committee will warn bi-monthly meetings. Sub committees will meet as needed. All meetings will forward at least minimal "minutes" and Steve will post on town web site.
7. Other project docs will be forwarded to Steve to be posted on the town site.

Specific requests I didn't make;

1. Will everyone review/ comment on my preliminary timeline? I'd like to have a schedule/deliverables that everyone agrees to align with.
2. Will Mary /other staff complete the analysis of existing/planned space allocations (to feed building design/layout)?
3. Will Mary/others fill in the OPR doc with their must haves/nice to haves? So we all have/agree on the checklist of success?
4. I wasn't prepared the chair the meeting. Did I miss something obvious? The resulting concentration on the building came naturally because of my role. Were the "fundraising" and "outreach" groups expecting to have time last night?

Any comments/thoughts?
Brad

ASBESTOS ABATEMENT PROCESS OUTLINE

STEP 1: The first step is to have a ***site inspection*** or ***survey*** by a qualified inspection consultant, *independent of the asbestos abatement contractor*. The inspection firm should not be the abatement contractor and must have professional liability insurance suitable to environmental site assessments. Site inspections are mandated by several State and Federal regulations prior to any renovation or demolition work in any public or private building. Inspections involve a thorough visual inspection of the affect building space, inventory of suspect material, bulk sample extraction, laboratory analysis and survey reporting. Various industry standards and guidelines establish what materials are suspect asbestos-containing building material (ACBM); however, asbestos was used in the manufacturing of hundreds of common building materials. In some cases, asbestos can still be found in products commercially available even today. Once the survey has been completed, budget estimates for abatement work can be developed.

STEP 2: The second step is to have an ***asbestos work plan*** or ***specification section*** designed as required for abatement work pursuant to state and federal regulations. Pursuant to current EPA requirements, the design consultant must be EPA accredited for asbestos abatement project design. The asbestos work plan should outline the scope of abatement, permitting, responsibilities, engineering controls needed, administrative requirements, recordkeeping and submittals, waste packaging and disposal requirements, and environmental monitoring and clearance inspection criteria. The designer should coordinate with the building owner/manager, architect/engineer, and general contractor as applicable to ensure that all pertinent aspects of the building operation and construction project are taken into consideration.

STEP 3: The third step is to then use the work plan or abatement specification to obtain pricing from qualified, licensed asbestos abatement contractors. Typically, it is recommended that a mandatory pre-bid conference be held by the Owner and design consultant to help ensure apples-to-apples bids are received. Once the project is awarded to an abatement contractor, the design consultant should review the contractor pre-construction submittal package and ensure the contractor submits the necessary regulatory agency notifications.

STEP 4: The fourth step is the actual site abatement phase. The abatement contractor conducts the abatement work, waste packaging, and disposal. The contractor seals the work area off from other portions of the building and installs a negative pressure system to help keep air from migrating out of the work area. The work area also is equipped with air filtration using high efficiency particulate air (HEPA) filters. The monitoring consultant, independent of the abatement contractor, performs air monitoring in and around the work to ensure airborne fibers do not exceed the limits, to conduct spot inspections during abatement, and to complete final clearance testing. The consultant then compiles the necessary project documentation required to be kept on file for State and EPA recordkeeping requirements. It is not uncommon to have this abatement process completed in hospitals, schools, homes and other buildings in a safe manner that does not expose building occupants to asbestos due to the abatement work.

Why perform monitoring? The monitoring and testing is performed to document compliance with regulations and the work plan. In some cases, this is required by state and federal standards and it is also consistent with state of the art, industry guidelines. Without independent monitoring and testing of the contractor's work efforts there is little to no proof that the project was completed in a proper, safe manner. In addition, if the monitoring and testing is not completed by an independent testing firm (versus being performed or hired out by the abatement contractor) then the perception of the fox watching the henhouse can cast doubt on the final reporting and findings.

IN SUMMARY: Having adequate upfront surveys and design along with a solid construction/abatement team will help ensure a successful, safe asbestos abatement project.

RPF Environmental

Asbestos Facts for Renovation/Demolition:

OSHA: OSHA has several rules that directly or indirectly regulate asbestos work.

Pursuant to 29 CFR 1926.1101(k)(2)(i): "...building and facility owners shall determine the presence, location, and quantity of ACM* and PACM at the work site..." This is an OSHA requirement regardless of construction.

Pursuant to 29 CFR 1926.1101(k)(2)(ii), "Building and/or facility owners shall notify the following persons of the presence, location and quantity of ACM or PACM, at the work sites in their buildings and facilities . . . (A) Prospective employers applying or bidding for work . . . (B) Employees of the owner . . . (C) On multi-employer worksites, all employers of employees who will be performing work . . . (D) Tenants." *(Note: EPA Worker Protection Rule extends same requirement to public employees also.)*

OSHA typically requires the inspector collect at least 3 samples of each homogeneous group of suspect material present. Homogeneous means the material is uniform in color and texture.

EPA: The EPA has several rules that directly or indirectly regulate asbestos work.

The EPA's Rule 40 CFR Part 61.145 (a): "...facility owner or operator...prior to commencement of demolition or renovation, thoroughly inspect affected facility or part of the facility...for presence of asbestos...".

The EPA requires multiple samples be collected from each homogeneous material with the minimum number varying based on the type of material and in some cases the quantity of material present. School buildings also have additional requirements under the EPA AHERA rule.

The EPA requires pursuant to 40 CFR Part 763 App C to Subpart E (B) (3): "All persons who inspect for ACBM must be accredited". Individual states also have their own certification requirements.

The EPA has a conflict of interest requirement that essentially is to avoid the fox watching the henhouse. For example, abatement contractors should not be used to do inspections or oversight monitoring, as those tasks should be completed by consultant firms independent of the abatement contractor.

State Regulators: Most states have similar rules requiring inspections and proper certifications.

Schools: Even though most K-12 schools had inspections in 1988/1989, supplemental inspections are required nonetheless, prior to renovation/demolition activity to address hidden material, exterior areas, and to design abatement that may be required. Important note: EPA AHERA Inspection Reports alone are not adequate to address the unique needs of renovation and demolition projects. Additional inspection and design work will be needed to build on the existing AHERA reports.

Note: The above is only a brief summary. ACM means asbestos-containing material. ACBM means asbestos-containing building material. Proper numbers of samples of suspect asbestos must be collected by qualified, accredited inspectors as part of the inspection before starting any renovation or demolition work. It is also important to have the correct analytical methods, as that can also vary.

A simplistic analogy for the reason behind multiple samples of each material type is the "chocolate chip cookie theory": you take a bite of the cookie, but you may or may not actually get a chocolate chip! For ACM, this is due to the manufacturing process for the materials as well as limitations of analytical methods.

RPF Environmental
TESTING & CONSULTING SERVICES
Hazardous Materials Inspection & Assessment
Asbestos, Mold, Lead Paint, Radon, PCBs
Air Quality Testing and Investigations
Industrial Hygiene, Safety & Training

April 16, 2018

Mr. Stephen Halleran
Town of Plainfield
PO Box 380
Meriden, NH 03770

Re: Asbestos Inspection Services
Town of Plainfield, Meriden Library
22 Bean Road, Meriden, NH

Dear Mr. Halleran,

RPF Environmental, Inc. (RPF) is pleased to submit this proposal for Asbestos Inspection Services at the above referenced location. I believe that the scope of services described in this proposal is as we reviewed; however, if you would like any items addressed further please contact me at your earliest convenience. RPF has performed hundreds of similar projects over the past 27 years. We are independent of any abatement or remediation firms and have all the necessary licensing and professional liability insurance. All our sampling approaches, methods, and reports are reviewed or supervised by an ABIH Certified Industrial Hygienist. Attached is a firm brochure and overview of regulatory information for your review.

Scope of Services

RPF proposes to conduct 1 site visit to complete the following tasks as part of the Scope of Services for the Town of Plainfield (Client). The scope of the survey will be limited to accessible portions of the Meriden Library located at 22 Bean Road in Meriden, New Hampshire.

Asbestos

RPF will conduct an inspection for suspect asbestos-containing building material (ACBM) using accredited inspectors. Accessible suspect ACBM observed by RPF will be inventoried, bulk samples will be extracted and the samples will be submitted for asbestos analysis using polarized light microscopy (PLM) in accordance with current regulatory requirements.

The nature of the inspection is investigatory, so it is often not possible to identify the extent of lab work required prior to performing the site inspection. The EPA requires that each different homogeneous group (different types, color, sizes) of suspect material be inventoried, and to then collect and analyze separate sets of samples from each homogeneous group (in lieu of assuming that the material is ACBM). The number of samples to be collected from each suspect material

will be based on current regulatory requirements, and typically requires 3 or more samples per material type. Some individual samples may also be layered materials requiring separate analyses by the laboratory, in accordance with the analytical methodology and regulatory standards. RPF will make every effort to minimize laboratory costs while still meeting the regulatory requirements.

Care will be used to minimize damage to surfaces, however, sampling does require small amounts (approximately 1" x 1") of material extraction at each sample location. Please note that repair to sample locations to restore surfaces to existing conditions is not included in the Scope of Services; however, a suitable encapsulant or temporary covering will be applied to each sample location of friable material.

For roofing and exterior sealants, Client shall be responsible to arrange for proper repairs as Client deems necessary, to prevent possible leaks and related water damage. Sampling will be limited to locations that can be safely accessed using the ladder equipment available on-site at the time of the inspection. Client shall provide a suitable lift equipment on the day of the survey for the inspectors to access the roof areas if required for full access to all roof areas.

Report

A report will be prepared for the survey in accordance with current regulatory requirements and will include the following:

- Inventory of suspect materials identified
- Listing of samples collected and laboratory results
- Listing of ACBM identified and preliminary recommendations
- Overview of regulatory requirements
- Recommendations for abatement design.

Please note that unless otherwise agreed in writing, laboratory analysis may entail 2 to 3 business days from the time that samples are submitted to the laboratory for analysis, at which time preliminary results may be provided upon request. Survey reporting and review may then entail 7 to 15 business days following completion and review of laboratory work. Emergency, expedited turnaround times are available for most analysis for premium fees and must be stated in written agreement between RPF and Client.

Optional Client Conference

Upon request by Client, RPF will provide an overview presentation of the survey data, findings and recommendations. This optional task is not included in the base Scope of Services or cost estimates provided in this proposal.

Pricing

The cost for the survey, testing, expenses, review and reporting is $960 and laboratory analysis will be billed, in addition to the base fee, as follows: $15 per standard PLM analysis.

Payment terms are net due in full 15 days from the invoice date. Costs for any additional services requested by Client outside of the specific scope of services outlined in this proposal will be billed in accordance with RPF professional time and material fees or agreed upon lump sum fees.

Acceptance

By signing below you acknowledge acceptance of the proposed Scope of Services, Pricing and attached terms and conditions. The Pricing is valid for 60 days from the date of the proposal. We appreciate this opportunity and look forward to working with you on this project.

Sincerely,
RPF Environmental, Inc.

Drew A Carter

Drew Carter
Business Development

Client Acceptance:

Stephen Halleran, Town Administrator

4/17/18
Date

Enclosed: Terms & Conditions
RPF Brochure
Asbestos Inspection and Abatement Process Overview

Meriden Library Dem Asb 041618

RPF Environmental
TESTING & CONSULTING SERVICES
Hazardous Materials Inspection & Assessment
Asbestos, Mold, Lead Paint, Radon, PCBs
Air Quality Testing and Investigations
Industrial Hygiene, Safety & Training

June 6, 2018

Mr. Stephen Halleran
Town Administrator
Town of Plainsfield
PO Box 380
Meriden, NH 03770

Re: Meriden Library
Building Survey Findings
RPF File No. 188534

Dear Mr. Halleran:

On April 27, 2018, RPF Environmental, Inc. (RPF) conducted a survey at the Meriden Library located at 22 Bean Road in Meriden, New Hampshire. The survey was performed in the building, as designated by you or your site representative, for accessible asbestos containing building material (ACBM) as indicated herein. Below is a summary of findings, discussion of the results and preliminary recommendations for proper management of the identified ACBM. Attached to this report are the survey data tables, laboratory results, survey methodologies and limitations.

This report is not intended to be used as an abatement specification or work plan. To proceed with abatement work, the following important steps are necessary:

1. A work plan or project design documents must be prepared prior to abatement by a certified abatement project designer. As part of the design, additional site testing and analysis is/may be required as discussed in this report.

2. The abatement specification or work plan should then be used to solicit bids from qualified abatement contractors. Only properly licensed contractors should be used for asbestos abatement and disposal.

3. A qualified industrial hygiene/testing consultant should conduct sufficient testing and inspections of the work, independent of the abatement contractor. The consultant should also prepare final abatement reports for the work.

Summary of Findings

The Meriden Library is a 2-story masonry structure with attached bulkhead access to the 1st floor kids' area. The 2nd floor contains the adult library section and a restroom, while the 1st floor contains the kids' library area, mechanical room, and storage area. RPF was called in by the town to perform this survey prior to demolition activities.

The scope of the survey included accessible asbestos-containing building material in accordance with the initial asbestos inspection requirements prior to renovation or demolition work as stated in the State regulations and applicable federal regulations.

Several types of suspect asbestos-containing building material (ACBM) were observed by RPF, including friable and nonfriable suspect material. Based on the testing performed by RPF asbestos was detected in the following materials:

- 9" Grey Floor Tile
- Hard Grey Caulking
- Hard Tan Caulking
- Tan Window Glaze
- Gypsum Wall Board and Joint Compound
- Mixed Mastics (soft tan and black)

Depending on the extent of renovation and final construction plans, proper abatement and/or management of the materials will be required in accordance with applicable State and federal regulations. Renovation and demolition plans should be reviewed by a certified industrial hygienist and a licensed project designer for possible asbestos impact issues. Based on the impact assessment and planned usage, technical specifications should be prepared for abatement, as applicable. A management plan should also be prepared to address any asbestos or other hazardous material scheduled to remain after construction.

Discussion of Findings

Asbestos is the name for a group of naturally occurring minerals that separate into strong, very fine fibers. The adverse health effects associated with asbestos exposure have been extensively studied for many years. Results of these studies and epidemiological investigations have demonstrated that inhalation of asbestos fibers may lead to increased risk of developing one or more diseases. In all cases, extreme care must be used not to disturb asbestos-containing materials or to create fiber release episodes.

In the accessible locations surveyed, RPF identified twenty (20) homogeneous groups of accessible suspect asbestos-containing building material. Suspect materials were identified based on current industry standards, EPA, and other guideline listings of potential suspect ACBM.

The following is a summary list of the suspect ACBM identified and sampled during this survey:

2'x2' Suspended Ceiling Tile
Grey 9" Floor Tile with Black Mastic
Gypsum Wall Board and Joint Compound
12" Fixed Ceiling Tile
Yellow Carpet Adhesive
Diamond Patter Linoleum with Yellow Mastic
Grey Surfacing
Grey Flue Cement
Tan Flue Cement
Blown-in Insulation
Skim Coat on Foundation
Hard Grey Caulking
Soft White Caulking
Hard Tan Caulking
Black Asphalt Shingle
Mixed Mastics (soft tan and black)
Pressboard
Tan Window Glazing

A total of forty-six (46) samples were extracted from the different groups of suspect material in accordance with EPA sampling protocols. Of the samples collected by RPF, asbestos was detected in six (6) groups of suspect ACBM.

Table 1 of Appendix A includes a list of ACBM identified in the building, EPA category listings, and asbestos content. A listing of the different homogenous groups of suspect material identified, samples collected, and analytical results is included in Appendix A.

The ACBM identified during this survey consists of friable and nonfriable material. The nonfriable ACBM was observed to be in good to fair condition and, left undisturbed and properly managed, is unlikely to cause any major fiber release episodes.

As you can see in the analytical results, some of the composite samples of wallboard and joint compound material were found to have trace amounts (<1%) asbestos present. Current definitions for ACBM include materials found to have greater than 1% asbestos content. Layered analysis of this composite material was performed, and asbestos was not detected in the wallboard layer and 3% asbestos was detected in the joint compound. Therefore, the joint compound is classified as ACBM.

Samples of material found to have trace amounts of asbestos were submitted to undergo further analysis using point count methods in an effort to determine if the concentration of asbestosis actually less than or greater than 1%. Although the gypsum wall board and joint compound was confirmed to contain less than 1% asbestos and, as a composite in New Hampshire, not classified as asbestos waste, the material is still regulated by OSHA for worker exposures, engineering controls and related safe work practices.

In the course of this survey, RPF was unable to gain access to the chimney to see if any caulking or flashing was present. In the course of renovation or demolition activities, additional inspections should be made by a competent person to determine if any suspect material is present other than what has already been identified and sampled. If encountered, contact our office to coordinate proper sampling as appropriate.

The structure was in current use at the time of the survey and full destructive or exploratory survey methods were not feasible. Please reference the attached methodology and limitations.

Conclusions

Based on the survey findings, the building was found to contain ACBM.

In accordance with current regulatory requirements, ACBM that may be impacted or disturbed (such that asbestos fiber release occurs) by renovation, demolition or other such activity must be removed by qualified, licensed firms. Although regulations for removal of nonfriable ACBM are somewhat less stringent than the requirements for friable ACBM, it should be noted that nonfriable ACBM that is subjected to grinding, abrasion, and other forces, could be rendered friable. In this event, the nonfriable ACBM would be re-categorized friable ACBM.

ACBM that will not be impacted by renovation or demolition activity may be left in place if managed properly and if the materials are maintained in good condition. ACBM to remain in the building should be included in an asbestos management plan and operations and maintenance (O&M) program detailing the measures to be used to safely occupy the building until the ACBM is fully removed. An accredited Management Planner should prepare the O&M Program in accordance with the guidelines set forth in 40 CFR Part 763 (AHERA).

Sufficiently in advance of the start of renovation and/or remediation work, abatement project design should be completed. As part the initial design steps any planned renovation and demolition activity should be reviewed for potential impact on ACBM. Asbestos removal is highly regulated at the State and federal level, and in some cases, at the local level also. Notification to NH Air Resources is required 10-days prior to the start of interior abatement work and demolition. Only qualified, trained, and licensed firms, as applicable, should be engaged to complete asbestos removal or other abatement activity. Asbestos abatement work must be designed (abatement specifications or work plan prepared) by accredited personnel.

All employees and contractors that may access or otherwise disturb areas with suspect ACBM present should be notified of the presence of ACBM and possible hidden ACBM, and the need to use caution when proceeding with work. Appropriate notifications, labeling and other hazard communications should be completed to all employees, contractors and others in accordance with US OSHA regulations and other applicable requirements (including asbestos labeling in accordance with 29 CFR Part 1926). The scope of RPF services for this survey did not include labeling of ACBM or hazard communications to other employees, building occupants, contractors, or subcontractors.

Documentation of current ACBM conditions and in-depth hazard assessment is beyond the scope-of-work for this initial survey. With the exception of the specific testing and analysis detailed herein, no other samples of materials, oil, water, ground water, air, or other suspect hazardous materials were collected in the course of this inspection that supports or denies these conclusions. No additional services beyond those explicitly stated herein were performed and none should be inferred or implied. The summary and conclusions are based on reasonably ascertainable information as described in this report. RPF Environmental, Inc. makes no guarantees, warranties, or references regarding this property or the condition of the property after the period of this report.

If you have any questions at this time, or if you would like to discuss the remediation process, please call our office.

Sincerely,
RPF ENVIRONMENTAL, INC.

Brianna Ham
EH&S Consultant
NH Licensed Inspector (Lic. #AI100383)

Enclosures:
Appendix A: Data and Analytical Tables
Appendix B: Example Pictures
Appendix C: Summary of Methodology and Limitations

188534 Meriden Library Asbestos Survey Report

APPENDIX A

TABLE 1

TOWN OF PLAINSFIELD
Meriden Library

SUMMARY OF ACBM IDENTIFIED

Building Material	Location	Approximate Quantity	EPA Category	Asbestos Results
Grey 9" Floor Tile	2nd floor, Throughout 1st floor, under carpet in Kids' Library Room and in the bulkhead entrance	2,225 square feet	Category II Nonfriable	4% Chrysotile
Hard Grey Caulking and Hard Tan Caulking	Around Exterior Windows	200 linear feet	Category II Nonfriable	3-10% Chrysotile
Mixed Mastics (soft tan and black)	Roof of bulkhead building, along edge where it connects to the Library	8 square feet	Category II Nonfriable	10% Chrysotile
Tan Window Glaze	2nd floor, front entrance sidelights	20 linear feet	Category II Nonfriable	3% Chrysotile
Gypsum w/ tape and joint compound.	Throughout Building	5,200 square feet	Non-ACBM	Trace Chrysotile
Joint Compound (as an individual material)	Throughout Building	520 square feet	Category II Nonfriable	3% Chrysotile

Notes:

- Please note that Category 1 and Category 2 nonfriable ACM are recategorized as friable and/or RACM under certain conditions. Current State asbestos regulations are more strict and comprehensive than the EPA NESHAPs requirements.
- All quantities are approximate only and should be confirmed during abatement project design and abatement bidding.
- It is possible that some concealed or inaccessible ACBM is present. Care should be used when renovating/demolishing inaccessible building space. Further explorative survey work may be necessary during design and/or in conjunction with demolition.

TABLE 2

TOWN OF PLAINFIELD
Meriden Library

Polarized Light Microscopy – EPA 600/R-93/116 Method

Samples Collected: April 27, 2018

Sample ID	Description	Asbestos Content	Asbestos Components	Fibrous Components	Non Fibrous Components
042718-HG1a	2'x2' Suspended Ceiling Tile-2nd floor, Library, Northeast side by entryway	None Detected		25% Mineral Wool 55% Cellulose	10% Perlite 10% Other
042718-HG1b	2'x2' Suspended Ceiling Tile-2nd floor, Library, Southwest corner	None Detected		25% Mineral Wool 55% Cellulose	10% Perlite 10% Other
042718-HG2a-A	9" Floor Tile (grey)-2nd floor, Library, North wall under grate	Positive	4% Chrysotile	--	96% Other
042718-HG2a-B	Mastic (black)-2nd floor, Library, North wall under grate	None Detected		--	100% Other
042718-HG2b-A	9" Floor Tile (grey)-1st floor, bulkhead, 1st floor landing	*SFP		--	--
042718-HG2b-B	Mastic (black)-1st floor, bulkhead, 1st floor landing	None Detected		--	100% Other
042718-HG3a	Gypsum Joint Compound-2nd floor, Library, Northeast side by entryway *gypsum board: none detect -- joint compound: 3% chrysotile*	Positive	<1% Chrysotile	5% Cellulose 5% Fiber Glass	90% Other
042718-HG3b	Gypsum Joint Compound-1st floor, Kid's Room closet, wall *gypsum board: none detect -- joint compound: 3% chrysotile*	Positive	<1% Chrysotile	5% Cellulose 5% Fiber Glass	90% Other
042718-HG3c	Gypsum Joint Compound-1st floor, Bulkhead, wall *gypsum board: none detect -- joint compound: 3% chrysotile*	Positive	<1% Chrysotile	5% Cellulose 5% Fiber Glass	90% Other
042718-HG3d	Gypsum Joint Compound-1st floor, Storage Room, under stairs, wall *gypsum board: none detect -- joint compound: 3% chrysotile*	Positive	<1% Chrysotile	5% Cellulose 5% Fiber Glass	90% Other
042718-HG3e	Gypsum Joint Compound-2nd floor, Library, North wall above doorway to stairwell *gypsum board: none detect -- joint compound: 3% chrysotile*	Positive	<1% Chrysotile	5% Cellulose 5% Fiber Glass	90% Other
042718-HG4a	12" Fixed Ceiling Tile-Stairwell, southeast corner	None Detected		98% Cellulose	2% Other
042718-HG4b	12" Fixed Ceiling Tile-1st floor, storage room	None Detected		98% Cellulose	2% Other

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample during the survey work. Please reference the "HG" group number.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

TABLE 2
(continued)

TOWN OF PLAINFIELD
Meriden Library

Polarized Light Microscopy – EPA 600/R-93/116 Method

Samples Collected: April 27, 2018

Sample ID	Description	Asbestos Content	Asbestos Components	Fibrous Components	Non Fibrous Components
042718-HG5a	Carpet Adhesive (yellow)-1st floor, 1st floor landing, Northwest corner by stairs	None Detected		--	100% Other
042718-HG5b	Carpet Adhesive (yellow)-1st floor, 1st floor landing, southwest corner by kid's room	None Detected		--	100% Other
042718-HG6a-A	Vinyl sheet flooring (brown/white)-1st floor, storage room, north edge	None Detected		20% Cellulose	80% Other
042718-HG6a-B	Mastic (yellow)-1st floor, storage room, north edge	None Detected		--	100% Other
042718-HG6b-A	Vinyl sheet flooring (brown/white)-1st floor, storage room, east edge	None Detected		20% Cellulose	80% Other
042718-HG6b-B	Mastic (yellow)-1st floor, storage room, east edge	None Detected		--	100% Other
042718-HG7a	Surfacing (grey)-1st floor, mechanical room, ceiling, by door	None Detected		--	100% Other
042718-HG7b	Surfacing (grey)-1st floor, mechanical room, ceiling, by electric panel	None Detected		--	100% Other
042718-HG7c	Surfacing (grey)-1st floor, mechanical room, ceiling, above heater	None Detected		--	100% Other
042718-HG8a	Flue Cement (grey)-1st floor, mechanical room, North wall, around duct	None Detected		--	100% Other
042718-HG8b	Flue Cement (grey)-1st floor, mechanical room, North wall, around duct	None Detected		--	100% Other
042718-HG9a	Flue Cement (tan)-1st floor, mechanical room, North wall, around pipe	None Detected		--	100% Other
042718-HG9b	Flue Cement (tan)-1st floor, mechanical room, North wall, around pipe	None Detected		--	100% Other
042718-HG10a	Blown-in Insulation (grey)-2nd floor, Library, Northeast side by entryway	None Detected		98% Cellulose	2% Other
042718-HG10b	Blown-in Insulation (grey)-2nd floor, Library, Southwest corner	None Detected		98% Cellulose	2% Other
042718-HG10c	Blown-in Insulation (grey)-2nd floor, Library, North side above doorway to stairwell	None Detected		98% Cellulose	2% Other

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample during the survey work. Please reference the "HG" group number.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

TABLE 2
(continued)

TOWN OF PLAINFIELD
Meriden Library

Polarized Light Microscopy – EPA 600/R-93/116 Method

Samples Collected: April 27, 2018

Sample ID	Description	Asbestos Content	Asbestos Components	Fibrous Components	Non Fibrous Components
042718-HG11a	Skim Coat on Foundation-Interior, 1st floor, storage room, north wall	None Detected		--	100% Other
042718-HG11b	Skim Coat on Foundation-Interior, 1st floor, Bulkhead, west wall	None Detected		--	100% Other
042718-HG11c	Skim Coat on Foundation-Exterior, 1st floor, southeast corner	None Detected		--	100% Other
042718-HG12a	Caulking (hard grey)-2nd floor, west side, center single window	Positive	3% Chrysotile	--	97% Other
042718-HG12b	Caulking (hard grey)-1st floor, east side, southeast window	*SFP		--	--
042718-HG13a	Caulking (soft white)-1st floor, north side northwest window	None Detected		--	100% Other
042718-HG13b	Caulking (soft white)-1st floor, south side, southeast window	None Detected		--	100% Other
042718-HG14a	Caulking (hard tan)-2nd floor, east side, northeast window	Positive	10% Chrysotile	--	90% Other
042718-HG14b	Caulking (hard tan)-2nd floor, west side, center double window	*SFP		--	--
042718-HG15a	Asphalt Shingle (black)-Library, above entryway	None Detected		10% Cellulose	90% Other
042718-HG15b	Asphalt Shingle (black)-Bulkhead roof	None Detected		10% Cellulose	90% Other
042718-HG16a	Mixed Mastics (soft tan and black)-Bulkhead, north side, along wall of library	Positive	10% Chrysotile	--	90% Other
042718-HG16b	Mixed Mastics (soft tan and black)-Bulkhead, south side, along wall of library	*SFP		--	--
042718-HG17a	Pressboard (brown)-Bulkhead, south side, under siding	None Detected		98% Cellulose	2% Other
042718-HG17b	Pressboard (brown)-Bulkhead, west side, under siding	None Detected		98% Cellulose	2% Other
042718-HG18a	Glazing (tan)-Library, east side, main entrance, north side light	Positive	3% Chrysotile	--	97% Other

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample during the survey work. Please reference the "HG" group number.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

TABLE 2
(continued)

TOWN OF PLAINFIELD
Meriden Library

Polarized Light Microscopy – EPA 600/R-93/116 Method

Samples Collected: April 27, 2018

Sample ID	Description	Asbestos Content	Asbestos Components	Fibrous Components	Non Fibrous Components
042718-HG18b 188534	Glazing (tan)-Library, east side, main entrance, south side light	*SFP		--	--

Notes:

- SFP Means analysis was terminated because asbestos was detected on a previous homogenous sample during the survey work. Please reference the "HG" group number.
- Please reference the full report for discussions and additional information and limitations pertaining to these results.

TABLE 3

TOWN OF PLAINFIELD
Meridian Library

SUMMARY OF BULK MATERIAL SAMPLING AND RESU LTS
Point Count Analysis: May 09, 2018

Polarized Light Microscopy – EPA 600/R-93/116 Method

Samples Collected: April 27, 2018

Sample ID	Sample Description	Asbestos Content	Other Content
042718-HG3a	Gypsum Joint Compound – 2nd Floor, Library, Northeast Side by Entryway	<1.0% Chrysotile	100% Other
042718-HG3b	Gypsum Joint Compound – 1st Floor, Kid's Room Closet, Wall	<1.0% Chrysotile	100% Other
042718-HG3c	Gypsum Joint Compound – 1st Floor, Bulkhead, Wall	<1.0% Chrysotile	100% Other
042718-HG3d	Gypsum Joint Compound – 1st Floor, Storage Room, Under Stairs, Wall	<1.0% Chrysotile	100% Other
042718-HG3e	Gypsum Joint Compound – 2nd Floor, Library, North Wall Above Doorway to Stairwell	<1.0% Chrysotile	100% Other

188534

- Please reference the full report for discussions and additional information and limitations pertaining to these results.
- For samples of friable material found to contain trace amount of asbestos, the EPA requires point count method analysis to confirm the quantity of asbestos detected in the sample or such material should be assumed to be asbestos-containing material. For samples of friable material found to contain 1% up to 10% asbestos the EPA also requires point count method or, as often is the case, such materials is assumed to be asbestos-containing material.

APPENDIX B

1. ACBM hard grey and hard tan caulking is present around the windows and vents.

2. ACBM mixed mastics under the metal flashing between the bulkhead and the library building.

3. ACBM window glaze present on the side lights by the front entrance.

4. Gypsum wall board with joint compound containing trace chrysotile.

5. ACBM floor tile present throughout the 2nd floor of the library.

6. ACBM floor tile under the carpet in the kids' section of the library on the 1st floor.

EXAMPLE PICTURES		RPF Environmental TESTING & CONSULTING SERVICES www.airpf.com **888-SAFE AIR**
Site Address: Meriden Library, Town of Plainsfield 22 Bean Road Meriden, NH		**File No. 188534**

APPENDIX C

Summary of Methodology: Asbestos-Containing Building Materials Survey

EPA accredited inspector(s) surveyed accessible space in the building or site areas included within the RPF Scope of Work (SOW) to identify suspect asbestos-containing building material (ACBM). Suspect ACBM was inventoried and categorized into homogeneous groups of materials. To the extent indicated in the report, samples were then extracted from the different groups of homogeneous materials in accordance with applicable State and federal rules and regulations. For surveys in which the SOW included full inspections of the affect space, sampling methodologies were based on the requirements set forth in 40 CFR Part 763 (EPA) and 29 CFR Part 1926.1101 (OSHA). For preliminary or limited surveys, findings apply to only the affected material or space as indicated in the RPF SOW and Report and additional inspection and testing will be required to satisfy regulatory obligations associated with renovation, demolition, maintenance and other occupational safety and health requirements.

Collected samples were individually placed into sealed containers, labeled, and submitted with proper chain of custody forms to the RPF NVLAP-accredited vendor laboratory. Sample containers and tools were cleaned after each sample was collected. Samples were analyzed for asbestos content using polarized light microscopy (PLM). Although PLM is the method currently recognized in State and federal regulations for asbestos identification in bulk samples, PLM may not be sensitive enough to detect all of the asbestos fibers in certain types of materials, such as floor tile and other nonfriable ACBM. In the event that more definitive results are requested in cases of with negative or trace results of asbestos are detected, RPF recommends that confirmation testing be completed using transmission electron microscopy.

For each homogeneous group of suspect material, a "stop at first positive" (SFP) method may have been employed during the analysis. The SFP method is based on current EPA sampling protocols and means that if one sample within a homogeneous group of suspect material is found to contain >1% asbestos, then further analysis of that specific homogenous group samples is terminated and the entire homogeneous group of material is considered to be ACBM regardless of the other sample results. This is based on the potential for inconsistent mix of asbestos in the product yielding varying findings across the different individual samples collected from the same homogeneous group. Unless otherwise noted in the report, sample groups found to have 1% to <10% asbestos content are assumed to be ACBM; to rebut this assumption further analysis with point count methods are required.

Inaccessible and hidden areas, including but not limited to wall/floor/ceiling cavity space, space with obstructed access (such as fiberglass insulation above suspended ceilings), sub floors, interiors of mechanical and process equipment, and similar spaces were not included in the inspection and care should be used when accessing these areas in the future. Unless otherwise noted in the RPF Report, destructive survey techniques were not employed during this survey.

In the event that additional suspect materials are encountered that are not addressed in this report, the materials should be properly tested by an accredited inspector. For example, during renovation and demolition it is likely that additional suspect material will be encountered and such suspect materials should be assumed to be hazardous until proper inspection and testing occurs.

RPF followed applicable industry standards; however, various assumptions and limitations of the methods can result in missed materials or misidentification of materials due several factors including but not limited to: inaccessible space due to physical or safety constraints, space that is difficult to reach to fully inspection, assumptions regarding the determination of homogenous groups of suspect material, assumptions regarding attempts to conduct representative sampling, and potential for varying mixtures and layers of material sampled not being representative of all areas of similar material. Also reference the Limitations document attached to the report.

LIMITATIONS

1. The observations and conclusions presented in the Report were based solely upon the services described herein, and not on scientific tasks or procedures beyond the RPF Environmental, Inc. Scope of Work (SOW) as discussed in the proposal and/or agreement. The conclusions and recommendations are based on visual observations and testing, limited as indicated in the Report, and were arrived at in accordance with generally accepted standards of industrial hygiene practice and asbestos professionals. The nature of this survey or monitoring service was limited as indicated herein and in the report or letter of findings. Further testing, survey, and analysis is required to provide more definitive results and findings.

2. For site survey work, observations were made of the designated accessible areas of the site as indicated in the Report. While it was the intent of RPF to conduct a survey to the degree indicated, it is important to note that not all suspect ACBM material in the designated areas were specifically assessed and visibility was limited, as indicated, due to the presence of furnishings, equipment, solid walls and solid or suspended ceilings throughout the facility and/or other site conditions. Asbestos or hazardous material may have been used and may be present in areas where detection and assessment is difficult until renovation and/or demolition proceeds. Access and observations relating to electrical and mechanical systems within the building were restricted or not feasible to prevent damage to the systems and minimize safety hazards to the survey team.

3. Although assumptions may have been stated regarding the potential presence of inaccessible or concealed asbestos and other hazardous material, full inspection findings for all asbestos and other hazardous material requires the use of full destructive survey methods to identify possible inaccessible suspect material and this level of survey was not included in the SOW for this project. For preliminary survey work, sampling and analysis as applicable was limited and a full survey throughout the site was not performed. Only the specific areas and /or materials indicated in the report were included in the SOW. This inspection did not include a full hazard assessment survey, full testing or bulk material, or testing to determine current dust concentrations of asbestos in and around the building. Inspection results should not be used for compliance with current EPA and State asbestos in renovation/demolition requirements unless specifically stated as intended for this use in the RPF report and considering the limitations as stated therein and within this limitations document.

4. Where access to portions of the surveyed area was unavailable or limited, RPF renders no opinion of the condition and assessment of these areas. The survey results only apply to areas specifically accessed by RPF during the survey. Interiors of mechanical equipment and other building or process equipment may also have asbestos and other hazardous material present and were not included in this inspection. For renovation and demolition work, further inspection by qualified personnel will be required during the course of construction activity to identify suspect material not previously documented at the site or in this survey report. Bordering properties were not investigated and comprehensive file review and research was not performed.

5. For lead in paint, observations were made of the designated accessible areas of the site as indicated in the Report. Limited testing may have been performed to the extent indicated in the text of the report. In order to conduct thorough hazard assessments for lead exposures, representative surface dust testing, air monitoring and other related testing throughout the building, should be completed. This type of in depth testing and analysis was beyond the scope of services for the initial inspection. For lead surveys with XRF readings, it is recommended that surfaces found to have LBP or trace amount of lead detected with readings of less than 4 mg/cm^2 be confirmed using laboratory analysis if more definitive results are required. Substrate corrections involving destructive sampling or damage to existing surfaces (to minimize XRF read-through) were not completed. In some instances, destructive testing may be required for more accurate results. In addition, depending on the specific thickness of the paint films on different areas of a building component, differing amounts of wear, and other factors, XRF readings can vary slightly, even on the same building component. Unless otherwise specifically stated in the scope of services and final report, lead testing performed is not intended to comply with other state and federal regulations pertaining to childhood lead poisoning regulations.

6. Air testing is to be considered a "snap shot" of conditions present on the day of the survey with the understanding that conditions may differ at other times or dates or operational conditions for the facility. Results are also limited based on the specific analytical methods utilized. For phase contrast microscopy (PCM) total airborne fiber testing, more sensitive asbestos-specific analysis using transmission electron microscopy (TEM) can be performed upon request.

7. For asbestos bulk and dust testing, although polarize light microscopy (PLM) is the method currently recognized in State and federal regulations for asbestos identification in bulk samples, some industry studies have found that PLM may not be sensitive enough to detect all of the asbestos fibers in certain nonfriable material, vermiculate type insulation, soils, surface dust, and other materials requiring more sensitive analysis to identify possible asbestos fibers. In the event that more definitive results are requested, RPF recommends that confirmation testing be completed using TEM methods or other analytical methods as may be applicable to the material. Detection of possible asbestos fibers may be made more difficult by the presence of other non-asbestos fibrous components such as cellulose, fiber glass, etc., by binder/matrix materials which may mask or obscure fibrous components, and/or by exposure to conditions capable of altering or transforming asbestos. PLM can show significant bias leading to false negatives and false positives for certain types of materials. PLM is limited by the visibility of the asbestos fibers. In some samples the fibers may be reduced to a diameter so small or masked by coatings to such an extent that they cannot be reliably observed or identified using PLM.

8. For hazardous building material inspection or survey work, RPF followed applicable industry standards; however, RPF does not warrant or certify that all asbestos or other hazardous materials in or on the building has been identified and included in this report. Various assumptions and limitations of the methods can result in missed materials or misidentification of materials due to several factors including but not limited to: inaccessible space due to physical or safety constraints, space that is difficult to reach to fully inspect, assumptions regarding the determination of homogenous groups of suspect material, assumptions regarding attempts to conduct representative sampling, and potential for varying mixtures and layers of material sampled not being representative of all areas of similar material.

9. Full assessments often requires multiple rounds of sampling over a period of time for air, bulk material, surface dust and water. Such comprehensive testing was beyond the scope of RPF services. In addition clearance testing for abatement, as applicable, was based on the visual observations and limited ambient area air testing as indicated in the report and in accordance with applicable state and federal regulations. The potential exists that microscopic surface dust remains with contaminant present even in the event that the clearance testing meets the state and federal requirements. Likewise for building surveys, visual observations are not sufficient alone to detect possible contaminant in settled dust. Unless otherwise specifically indicated in the report, surface dust testing was not included in the scope of the RPF services.

10. For abatement or remediation monitoring services: RPF is not responsible for observations and test for specific periods of work that RPF did not perform full shift monitoring of construction, abatement or remediation activity. In the event that problems occurred or concerns arouse regarding contamination, safety or health hazards during periods RPF was not onsite, RPF is not responsible to provide documentation or assurances regarding conditions, safety, air testing results and other compliance issues. RPF may have provided recommendations to the Client, as needed, pertaining to the Client's Contractor compliance with the technical specifications, schedules, and other project related issues as agreed and based on results of RPF monitoring work. However, actual enforcement, or waiving of, contract provisions and requirements as well as regulatory liabilities shall be the responsibility of Client and Client's Contractor(s). Off-site abatement activities, such as waste transportation and disposal, were not monitored or inspected by RPF.

11. For services limited to clearance testing following abatement or remediation work by other parties: The testing was limited to clearance testing only and as indicated in the report and a site assessment for possible environmental health and safety hazards was not performed as part of the scope of this testing. Client, or Client's abatement contractor as applicable, was responsible for performing visual inspections

of the work area to determine completeness of work prior to air clearance testing by RPF.

12. For site work, including but not limited to air clearance testing services, in which RPF did not provide full site safety and health oversight, abatement design, full shift monitoring of all site activity, RPF expresses no warranties, guarantees or certifications of the abatement work conducted by the Client or other employers at the job site(s), conditions during the work, or regulatory compliance, with the exception of the specific airborne concentrations as indicated by the air clearance test performed by RPF during the conditions present for the clearance testing. Unless otherwise specifically noted in the RPF Report, visual inspections and air clearance testing results apply only to the specific work area and conditions present during the testing. RPF did not perform visual inspections of surfaces not accessible in the work area due to the presence of containment barriers or other obstructions. In these instances, some contamination may be present following RPF clearance testing and such contamination may be exposed during and after removal of the containment barriers or other obstructions following RPF testing services. Client or Client's Contractor is responsible for using appropriate care and inspection to identify potential hazards and to remediate such hazards as necessary to ensure compliance and a safe environment.

13. The survey was limited to the material and/or areas as specifically designated in the report and a site assessment for other possible environmental health and safety hazards or subsurface pollution was not performed as part of the scope of this site inspection. Typically, hazardous building materials such as asbestos, lead paint, PCBs, mercury, refrigerants, hydraulic fluids and other hazardous product and materials may be present in buildings. The survey performed by RPF only addresses the specific items as indicated in the Report.

14. For mold and moisture survey services, RPF services did not include design or remediation of moisture intrusion. Some level of mold will remain at the site regardless of RPF testing and Contractor or Client cleaning efforts. RPF testing associated with mold remediation and assessments is limited and may or may not be representative of other surfaces and locations at the site. Mold growth will occur if moisture intrusion deficiencies have not been fully remedied and if the site or work areas are not maintained in a sufficiently dry state. Porous surfaces in mold contaminated areas which are not removed and disposed of will likely result in future spore release, allergen sources, or mold contamination.

15. Existing reports, drawings, and analytical results provided by the Client to RPF, as applicable, were not verified and, as such, RPF has relied upon the data provided as indicated, and has not conducted an independent evaluation of the reliability of these data.

16. Where sample analyses were conducted by an outside laboratory, RPF has relied upon the data provided, and has not conducted an independent evaluation of the reliability of this data.

17. All hazard communication and notification requirements, as required by U.S. OSHA regulation 29 CFR Part 1926, 29 CFR Part 1910, and other applicable rules and regulations, by and between the Client, general contractors, subcontractors, building occupants, employees and other affected persons were the responsibility of the Client and are not part of the RPF SOW.

18. The applicability of the observations and recommendations presented in this report to other portions of the site was not determined. Many accidents, injuries and exposures and environmental conditions are a result of individual employee/employer actions and behaviors, which will vary from day to day, and with operations being conducted. Changes to the site and work conditions that occur subsequent to the RPF inspection may result in conditions which differ from those present during the survey and presented in the findings of the report.

ENGINEERING VENTURES PC

208 Flynn Avenue, Suite 2A, Burlington, VT 05401 · Tel: 802-863-6225 · Fax: 802-863-6306
85 Mechanic Street, Suite B2-2, Lebanon, NH 03766 · Tel: 603-442-9333 · Fax: 603-442-9331

July 13, 2018

Town of Plainfield, NH
Attn.: Steve Halleran
cc.: Brad Atwater
110 Main St.
Meriden, NH 03770 EV# 18294
plainfield.ta@plainfieldnh.org
cc.: aci.builds@comcast.net

Re: Agreement for Structural Engineering Services
New Town Library – Meriden, NH

Dear Steve:

This letter proposes that Engineering Ventures will provide certain professional engineering services, referred to as the WORK, to the Town of Plainfield, NH for the structural design of the above referenced library facility.

SCOPE OF SERVICES

The Scope of Services to be provided by Engineering Ventures is outlined in Attachment 1. The work is generally described as structural engineering for a new one-story library facility of approximately 3600 square ft. with no basement. Our project understanding is based on UK Architects, PC correspondence and attachments received 6/4/18. It is understood that the new library will be constructed on the same site as the existing library, and that the total project budget is $1M. We anticipate taking direction from a licensed architect on this project.

In order for Engineering Ventures to complete these services, certain requirements for The Town of Plainfield or others may also be included in Attachment 1.

A summary of Assumptions and Excluded Services is also included in Attachment 1. Please review these assumptions and let us know if we have misinterpreted the requirements of the project and should add or delete items from the proposed Scope of Work.

STANDARD TERMS AND CONDITIONS

Refer to Attachment 2 for the Standard Terms and Conditions that govern this contract, in which The Town of Plainfield is referred to as the "CLIENT".

PAYMENT FOR SERVICES

In consideration for the WORK provided by Engineering Ventures, The Town of Plainfield will pay Engineering Ventures a lump sum fees as follows:

Design Phase: $6500 lump sum
Construction Phase: $3500 lump sum

If this proposal is acceptable, please sign and return one executed copy to me. We are pleased to have the opportunity to be of service.

Respectfully,

_____	Miles Stetson, P.E. – Project Manager
Russ Miller-Johnson, P.E. – Sr. Engineer/Principal	

ACCEPTANCE

The Town of Plainfield accepts this Agreement and hereby directs Engineering Ventures to proceed with the Scope of Services and acknowledges that it has the budgeted and approved financial resources for this project and intends to pay for satisfactory completion of the services rendered in accordance with the conditions stated herein.

_____	_____
Signature - Town of Plainfield, NH	Date

_____
Typed/Printed

ATTACHMENT 1
STRUCTURAL ENGINEERING SCOPE OF WORK

BASIC SERVICES

Engineering Ventures will provide WORK consisting of:

Design Phase Services:

1. Review of the Geotechnical report to incorporate geotechnical engineering recommendations into final foundation design.

2. It is understood that the building will be wood/stick framed. If modular framing is to be considered, additional costs for time and travel to the manufacturing facility will need to be considered as an amendment to this proposal.

3. Analysis and design of the primary structural framing and the foundations for the building.

4. Drawings and specifications for our portion of the work.

5. Consultation during bidding and construction will be provided including issuance of addenda and clarifications as required.

Construction Phase Services:

1. Review of specified contract submittals including shop drawings, product data and samples. Review shall only be for conformance with the design concept and for compliance with the information given in the plans and specifications.

2. Site visits at appropriate intervals to review construction in progress. Two visits are anticipated.

ADDITIONAL SERVICES

The Scope of Work has been developed from the preliminary project description. Every attempt has been made to provide a Scope of Work that is consistent with the project requirements. However, as the project develops, the Scope of Work may be altered if agreed upon by the CLIENT and Engineering Ventures in accordance with the Terms and Conditions.

If services are requested for design beyond customary review of options during initial phases of the project, or for redesign after the completion of Design Development, the additional Scope of Work will be provided at Engineering Ventures' customary rates for hourly services and expenses or a negotiated fixed fee in accordance with the Terms and Conditions.

ASSUMPTIONS AND EXCLUDED SERVICES

The following assumptions are presented in order to more clearly delineate Engineering Ventures' Scope of Work.

1. Geotechnical Engineering: It is understood that a geotechnical engineer will be employed on the project by others to provide soil testing and a geotechnical report. The geotechnical report shall be provided to Engineering Ventures and shall include recommendations for bearing capacity, lateral load characteristics, Seismic Site Classification as per the IBC Code, drainage requirements and other relevant subsurface information.

2. Foundation Design: Engineering Ventures' Scope of Work assumes the building will be supported on a conventional spread footing foundation.

3. Construction Cost Estimating and Value Engineering: Cost estimating is not included as part of our work. We anticipate consulting with the project Construction Manager or Professional Cost Estimator to assist them in developing Construction Cost Opinions. Redesign of the project after the Design Development Phase to reduce the project cost is not included.

4. Site Engineering, Site Structures, and Utilities:

    a. Design of cast-in-place concrete retaining walls that are connected to and within 15 feet of the building will be included on Engineering Ventures' drawings. Site retaining walls detached from the building are not included.
    b. Light pole bases, equipment pads, sidewalks, curbing, paving, plazas, and other site features are not included.
    c. Entry sidewalks immediately adjacent to exits are included in our work. We will work to coordinate with the site engineer at the interface between the entry structures and the sidewalks.
    d. Site engineering including grading, drainage, stormwater, and utilities is not

included in our scope of work.

e. It is understood that existing utilities on the site will be identified by others. Where new or existing utilities are located under or near the building, this shall be brought to Engineering Ventures' attention for resolution. Modification of the foundation design to accommodate utilities under the building will be provided as an additional service.

5. Exterior Skin:

    a. Where Light Gage Metal Framing (LGMF) is utilized for exterior wall systems, a performance specification will be developed to allow the selected manufacturer to design and detail wall framing. LGMF shop drawings prepared by the manufacturer's engineer will be reviewed under our work.
    b. The design of exterior walls of wood frame, masonry, or concrete is included in our work.

6. Architectural Features: Design and detailing of miscellaneous light framing including railings, stairs, and custom and specialty framing and features is not included.

7. Panelized Wood Elements: Review of submittals for off-site fabricated wood framed panelized wall, roof, or floor systems is not included.
8. Progression of Design:

    a. Architectural drawings, Architectural background CAD files compatible with AutoCad/REVIT 2017, mechanical engineering, and civil engineering progress prints, reports, sketches, plans, sections, and details as appropriate to describe the intent of the project are to be provided to Engineering Ventures in a timely manner consistent with the project schedule.
    b. Our services include review of a customary range of system options during the schematic phase. Redesign or work beyond customary review of options during initial phases of the project are not included.
    c. It is assumed that all disciplines will be progressing at a similar pace and release of structural drawings prior to architectural drawings or other disciplines will not be required.
    d. In order to allow Engineering Ventures to provide a Final Quality Control/Quality Assurance Review of the structural drawings, adequate time after the completion of other disciplines shall be provided prior to the release of structural drawings for construction.

9. Mechanical Systems/Unique Equipment/Special Loads:

    a. Information regarding special building loads including mechanical equipment to be supported by the structure, elevators, shall be provided to Engineering Ventures in a timely manner. Information shall include: location, weight and/or forces applied to the building, dimensions, and support requirements.
    b. Where Special loads for architectural elements, special equipment, or unique uses are required, they shall be brought to the attention of Engineering Ventures.
    c. Design of supports or seismic bracing for ductwork, piping, or miscellaneous mechanical elements is not included.

10. Steel connections will either be shown on the contract drawings or loads will be provided to allow the steel fabricator to design the connections. Steel connections not detailed on the drawings, or alternate connections to those detailed on the construction drawings shall be designed by the fabricator's engineer. The details and calculations shall be submitted for review and will be required to be stamped by a Professional Engineer.

11. Special Inspections: A Schedule of Special Tests and Inspections in accordance with the International Building Code will be prepared. Testing and Inspection shall be performed by others.

ATTACHMENT 2
STANDARD TERMS AND CONDITIONS
ENGINEERING VENTURES INC

WARRANTY/LIABILITY

ENGINEERING VENTURES warrants that it will exercise reasonable care, skill, competence, and judgment consistent with professional engineering standards in performing the WORK. In consideration of ENGINEERING VENTURES' extension of this warranty to the CLIENT, the CLIENT agrees that this warranty shall be exclusive of all other warranties, whether expressed or implied. In no event shall ENGINEERING VENTURES be liable, at any time, for consequential damages.

In recognition of the relative risks, rewards and benefits of the project to both the Client and Engineering Ventures, the risks have been allocated so that the Client agrees that, to the fullest extent permitted by law, Engineering Ventures' total liability to the Client, for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement, from any cause or causes shall not exceed the total amount of $ 50,000 or the amount of Engineering Ventures' fee (whichever is greater). Such causes include, but are not limited to, Engineering Ventures' negligence, errors, omissions, strict liability, breach of contract, or breach of warranty.

BILLING AND PAYMENT
Invoices will generally be submitted monthly for services and reimbursable expenses and are due when rendered. The CLIENT shall pay ENGINEERING VENTURES for all WORK in accordance with the AGREEMENT. CLIENT agrees that payment will be made and recognizes that on-time payment is a material part of the consideration of this AGREEMENT.

If the CLIENT objects to all or any part of an invoice, the CLIENT shall notify ENGINEERING VENTURES within 7 calendar days of receipt of invoice and shall identify the problem, and shall pay any part of the invoice, not in dispute, on time. Any invoices not objected to within such 7-day period shall be deemed accepted by the CLIENT. Disputed amounts are due upon resolution.

An invoice shall be considered past due if not paid within 30 days after the invoice date and Engineering Ventures may, without waiving any claim or right against Client, and without liability whatsoever to the Client, terminate the performance of the services. Engineering Ventures does not agree to extend credit, however, a service charge will be charged at 1.5% per month on the unpaid balance.

DISPUTE RESOLUTION - MEDIATION
In an effort to resolve any conflicts that arise during the design or construction of the project or following the completion of the project, the CLIENT and ENGINEERING VENTURES agree that all disputes between them arising out of or relating to this AGREEMENT shall be submitted to non-binding mediation unless the parties mutually agree otherwise.

COURT & LEGAL COSTS
If either party fails to meet its obligations hereunder, that party shall pay the other party all its costs, including reasonable attorney fees, court costs, and interest associated with the enforcement of this AGREEMENT.

TERMINATION OR SUSPENSION OF SERVICES
This AGREEMENT may be terminated by either party with or without cause upon not less than seven calendar days written notice. ENGINEERING VENTURES shall be compensated in full for services performed and expenses incurred prior to the date of termination.

If the CLIENT terminates the AGREEMENT or suspends ENGINEERING VENTURES' work on the project for more than 30 days, an equitable adjustment in fees may be required to resume work.

COOPERATION AND ACCESS TO THE SITE
The CLIENT agrees to cooperate fully with ENGINEERING VENTURES and its agents, representatives, and employees in the performance of the WORK and to take any and all such actions as may reasonably be requested by ENGINEERING VENTURES in connection therewith.

Engineering Ventures will have access to the site for activities necessary for the performance of the services. Engineering Ventures will take precautions to minimize damage due to these activities, but has not included in the fee the cost of restoration of any resulting damage. Engineering Ventures is not responsible for such costs.

CHANGES IN THE SCOPE OF WORK
CLIENT may request changes in the WORK of ENGINEERING VENTURES. Such changes, including any increase or decrease in ENGINEERING VENTURES' compensation, which are mutually agreed upon by both parties, shall be incorporated into this AGREEMENT by written amendments signed by both parties.

OWNERSHIP OF DOCUMENTS
Drawings, reports, specifications and other documents (either on paper, or on electronic, magnetic, or other media) as instruments of service, shall remain the property of ENGINEERING VENTURES. The CLIENT shall be permitted to retain copies, including reproducible copies of drawings, reports, specifications and other documents, for information and reference in connection with its use and occupancy of the constructed facility. The documents shall not be used by the CLIENT on other projects, for additions to the project, or for completion of the project by others, provided ENGINEERING VENTURES is not in default under this AGREEMENT, except by AGREEMENT in writing and with appropriate compensation to ENGINEERING VENTURES.

Drawings, reports, specifications and other documents provided on disk are delivered with the understanding that such data is subject to error due to format and disk problems and such data must be checked before use.

SCOPE OF OPINIONS
Unless otherwise specifically stated, any information, documents, records, data, interpretations, or opinions given to the CLIENT by ENGINEERING VENTURES in the course of the performance of the WORK shall be for the CLIENT's sole use and benefit and only in connection with the specific project for which ENGINEERING VENTURES was engaged by the CLIENT, and the same is not intended to be used or relied upon by the CLIENT for any other purpose nor is it intended to benefit or be relied upon by any third party. Any such use or reliance by the CLIENT or third party shall be at the CLIENT's or said third party's own risk.

CONSTRUCTION OBSERVATION
When construction observation is included in the WORK, ENGINEERING VENTURES will visit the project at appropriate intervals or as specifically prescribed to become familiar with the progress and quality of the contractor's work and to determine if the work is proceeding in general accordance with the Contract Documents. ENGINEERING VENTURES is not retained to make detailed inspections or provide exhaustive or continuous project review and observation services, and does not guarantee the performance of, and shall have no responsibility for, the acts or omissions of any contractor, subcontractor, supplier or any other entity furnishing materials or performing any work on the project.

When construction observation is excluded from the work or when the scope of work is modified to exclude these services, the CLIENT waives all claims against ENGINEERING VENTURES for any problems that occur and are due to misinterpretation of ENGINEERING VENTURES' design drawings and specifications.

SHOP DRAWING REVIEW
Corrections or comments made on the shop drawing during this review do not relieve contractor from compliance with requirements of the drawings and specifications. This check is only for review of the general conformance with the design concept of the project and general compliance with the information given in the contract documents. The contractor is responsible for: Confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating his or her work with that of all other trades and performing all work in a safe and satisfactory manner.

JOB SITE SAFETY
Neither the professional activities of ENGINEERING VENTURES nor the presence of any of its employees and sub-consultants at a construction site, shall relieve the General Contractor, Construction Manager, or any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the Work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. ENGINEERING VENTURES and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions.

PERMIT/AGENCY APPROVAL
When permits or public agency reviews may be associated with the WORK, ENGINEERING VENTURES makes no assurances that permits or reviews will be approved.

SCHEDULE & UNEXPECTED CONTINGENCIES
ENGINEERING VENTURES will perform the WORK with due and reasonable diligence consistent with sound professional practice, or as specifically noted in the AGREEMENT, but if delays are caused by labor disputes, fire, unusual delay in transportation, lawfully issued orders, unavailability of materials or equipment, unavoidable casualties or other causes beyond ENGINEERING VENTURES' control, the time for completion shall be extended for reasonable periods of time.

PROJECT BUDGET CONTINGENCIES
The CLIENT shall include a customary contingency in all project construction budgets to cover unforeseen costs in the project.

OPINIONS OF COST
ENGINEERING VENTURES has no control over the costs or price of labor, equipment or materials, or over a contractor's method of pricing. The CLIENT understands that any such opinions of cost provided by ENGINEERING VENTURES are made based on experience and may not accurately compare with bid or

actual costs. If more accurate figures are desired, the CLIENT agrees to engage the services of a Professional Cost Estimator.

HIDDEN CONDITIONS IN STRUCTURES
A structural condition is hidden if concealed by existing finishes or if it cannot be investigated by reasonable visual observation. If Engineering Ventures has reason to believe that such a condition may exist, Engineering Ventures shall notify the Client who shall authorize and pay for all costs associated with the investigation of such a condition and, if necessary, all costs necessary to correct said condition. If (1) the Client fails to authorize such investigation or correction after due notification, or (2) Engineering Ventures has no reason to believe that such a condition exists, the Client is responsible for all risks associated with this condition, and Engineering Ventures shall not be responsible for the existing condition nor any resulting damages to persons or property.

ASBESTOS/HAZARDOUS MATERIALS
ENGINEERING VENTURES has no responsibility to identify and report the presence of asbestos or other hazardous materials and no related services are included in this AGREEMENT.

TIME BAR TO LEGAL ACTION
All legal actions by either party against the other arising out of or in any way connected with the services to be performed hereunder shall be barred and under no circumstances shall any such claim be initiated by either party after five years have passed from the date of the final invoice.

SALES TAX
The price for this work does not include state or local sales tax. If any public authority levies a sales tax on any of the WORK to be provided by ENGINEERING VENTURES, the CLIENT hereby agrees to pay all such sales taxes invoiced to the CLIENT by ENGINEERING VENTURES within 30 days of the date of ENGINEERING VENTURES' invoice.

INDEPENDENT CONTRACTOR STATUS
ENGINEERING VENTURES is an independent contractor and not a partner, employee or agent of the CLIENT for any purpose.

SEVERABILITY
If any term, condition, or provision of this AGREEMENT or the application thereof to any person or circumstance shall to any extent, be held invalid or unenforceable, then the remainder of this AGREEMENT or the application of such term, condition, or provision to persons or circumstances other than those to which it is held invalid or unenforceable, shall be valid and enforced to the fullest extent permitted by law.

ASSIGNMENT
Neither party to this AGREEMENT shall transfer, sublet or assign any rights under or interest in this AGREEMENT (including but not limited to monies that are due or monies that may be due) without the

prior written consent of the other party.

BINDING EFFECT
This AGREEMENT shall be binding and shall inure to the benefit of the parties hereto and their respective heirs, personal and legal representatives, successors, and assigns; provided that neither of the parties hereto shall be entitled to assign any of said party's rights under this AGREEMENT without prior written consent of the other party hereto.

ENTIRE AGREEMENT
This AGREEMENT sets forth the entire AGREEMENT of the parties with respect to the subject matter hereof. ENGINEERING VENTURES and the CLIENT expressly represent to and agree with each other that there are no oral or written representations, warranties, covenants, promises, agreements, conditions, or understandings between them other than as set forth in this AGREEMENT.

GOVERNING LAW
This AGREEMENT has been accepted and executed in accordance with, and shall be governed by and construed in accordance with, the laws of the state of Vermont.

USE OF PROJECT PHOTOS
Engineering Ventures shall have the right to use photographic or artistic representations of the Project for promotional and professional purposes. Engineering Ventures shall endeavor to exclude confidential or proprietary information. Engineering Ventures recommends that the Owner/Client advises Engineering Ventures in writing of the specific information considered to be confidential or proprietary.

CERTIFICATIONS
If Engineering Ventures is requested by the Client to execute certificates, the proposed language shall be submitted to Engineering Ventures for review at least 14 days prior to the requested dates of execution. Engineering Ventures shall not be required to execute certificates that would require knowledge, services, or responsibilities beyond the scope of this agreement.

VERBAL ACCEPTANCE OF AGREEMENT
This agreement's Terms and Conditions have been established to allocate certain risks between the Client and Engineering Ventures. For purposes of convenience, the Client may choose to accept this Agreement verbally or with a written or emailed Notice to Proceed to initiate services. In this event, the Client specifically agrees that verbal acceptance or written or emailed notice to proceed shall be considered by both parties to constitute formal acceptance of all terms and conditions of this Agreement. Unilateral modification of this Agreement subsequent to Engineering Venture's initiation of service is expressly prohibited. All preprinted terms and conditions on Client's purchase order are inapplicable to this Agreement and Engineering Venture's involvement in the project.

-END-

M&W Soils Engineering, Inc. PO Box 1466, Charlestown, NH 03603 ph: 603-826-5873
Randall Rhoades, PE 38 A Street, Wilder, VT 05088 fax:603-826-4210

August 10, 2018

Steve Halleran, Town Administrator
Town of Plainfield
PO Box 380
Meriden, NH 03770

re: Test Pits on August 8-9-18, Meriden Library

Dear Steve,

I was at the Library yesterday morning, to witness three test pits dug in the area of a proposed addition to the existing Library. I was met by Brad Atwater of Atwater Construction, and Rich Collins, the Road Agent. The test pits were dug by a Town employee with a DPW backhoe.

A map is attached which shows the locations of the three test pits. Care was taken to avoid tree roots and the entrance to the rear shed. The test pit descriptions are as follows;

Test Pit 1

Depth	Description
0-8”	Dark brown topsoil
8-24 (average)	Brown loamy fine sand, heavy roots
24”-8’	Clean boney gravel, +/-8” minus with occasional cobble Very dry, difficult digging due to rock content

Test Pit 2

Depth	Description
0-12”	Dark brown topsoil
12-30”	Lt brown loamy sand, some roots
24”-6’	Clean boney gravel, estimated 60% stone content Very dry, compact

Test Pit 3

Depth	Description
0-12”	Dark brown topsoil
12-36”	Lt brown fine sand, little loam
24”-7.5’	Gravel with light brown silt and fine sand, Very dry, few cobbles up to 18”

No groundwater was observed, there was no sign that the groundwater table was imminent. As no basement is being proposed, additional investigation into the groundwater depth was not required.

The underlying gravel layer is well suited to foundation support. The preliminary plan appears to be to set the first floor elevation of the addition a few feet above existing grade, so footings would likely be around 3’ below current grades where the pits were dug. The size of the gravel does not lend itself to an accurate laboratory gradation, so my recommendations are based on my observations.

Recommendations for design and construction:

1) A Seismic Site Class of “D” can be assumed.

2) Exterior strip footings must bear in the underlying gravel layer. Remove all fine sands and loam from beneath footings, extending at least 12” beyond each face of the footing. The size of the rock in the gravel will make it impossible to create a smooth footing subgrade. Plan to excavate 6” deeper than the footing subgrade, and fill the voids and over excavated depth with a layer of compacted ¾” crushed stone. Foundations bearing on the native gravel may be designed for an allowable bearing capacity of 3,000 psf.

3) The excavated soils will not be suitable for backfill. It sounds like the Town can make use of any excavated gravels. Imported material for foundation wall backfill should be a granular backfill, a material meeting the specification of NHDOT 209.4, Granular Backfill (Gravel) would be suitable. This is basically a Bank Run Gravel with no particles larger than 3”. Compact all backfill to a minimum of 95% of maximum dry density, as determined by ASTM D 1557.

4) Strip the surficial loam layer from inside the building footprint. The few feet of interior fill needed to raise the site to slab subbase material shall be a granular backfill as described above. Place in maximum 12” loose lifts, compacted to 95% of ASTM D 1557.

M&W Soils Engineering, Inc. PO Box 1466, Charlestown, NH 03603 ph: 603-826-5873
Randall Rhoades, PE 38 A Street, Wilder, VT 05088 fax:603-826-4210

The layer of material beneath the floor slab should be a fine crushed gravel, a minimum of 6" thick. This layer shall be specified by the Structural Engineer. If thickened slabs or interior column bases are needed, the fill recommendations are still suitable, reduce the allowable bearing capacity to 2,000 psf.

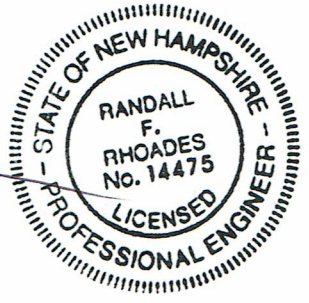
5) There will be no need for a foundation drain, unless a basement is added to the design.

6) Where new walls will intersect the existing, I would recommend dropping the new footings to match existing. This will allow the new footings to bear deeper into the existing gravel, and not add a surcharge to the existing footing (I have no information on existing footing depth or type).

These recommendations should be sufficient for the type of construction currently proposed. If additional information is required, please contact me. We would be available for follow up inspections during construction.

Thank you for your business.

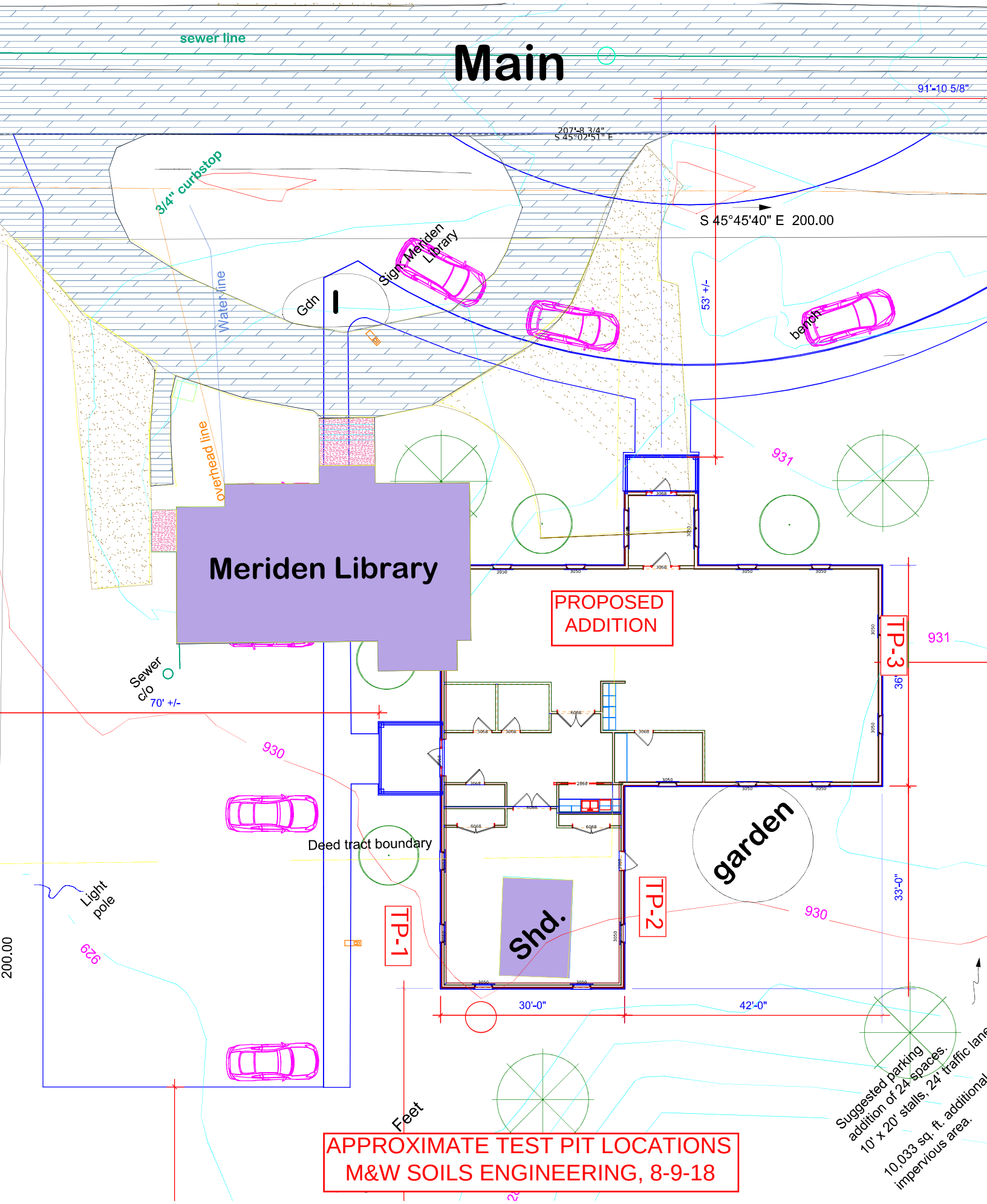
Sincerely,



Randall Rhoades, PE
Principal

Excavated gravels at TP-1

Excavation at TP-2


Main
sewer line
91'-10 5/8"
207'-8 3/4"
S 45°02'51" E
S 45°45'40" E 200.00
3/4" curbstop
Sign: Meriden Library
Gdn
Waterline
overhead line
53' +/-
bench
931
Meriden Library
PROPOSED ADDITION
TP-3
931
Sewer c/o
70' +/-
930
Deed tract boundary
garden
Shd.
TP-2
TP-1
Light pole
926
930
33'-0"
200.00
30'-0"
42'-0"
Feet
Suggested parking addition of 24 spaces. 10' x 20' stalls, 24' traffic lane
10,033 sq. ft. additional impervious area.
APPROXIMATE TEST PIT LOCATIONS
M&W SOILS ENGINEERING, 8-9-18

PATHWAYS CONSULTING, LLC

Planning • Civil & Environmental Engineering • Landscape Architecture • Surveying • Construction Assistance
2060 Hartford Avenue • Post Office Box 1942 — 240 Mechanic Street, Suite 100
Wilder, Vermont 05088 — Lebanon, New Hampshire 03766
(802) 295-5101 — www.pathwaysconsult.com — (603) 448-2200

September 13, 2018

Brad Atwater, Facilities Manager
Town of Plainfield
Post Office Box 380
Meriden, New Hampshire 03770

RE: MERIDEN LIBRARY, 22 BEAN ROAD, MERIDEN, NEW HAMPSHIRE (P5280)

Dear Brad:

Thank you for reaching out to Alan Saucier and chatting with both of us about the Meriden Library. We are very excited about assisting you, the Library Trustees, and the Town of Meriden (Town) with this project. After interacting with you, reviewing the 40-plus page report you posted, speaking with Chris Rollins, and considering our many years of experience assisting KUA, the Meriden Village Water District, the Plainfield Village Water District, and a number of other clients in and around Meriden and Plainfield, we believe that our staff is aligned and equipped to provide the conceptual evaluation you are seeking. In short, we understand that you would like us to assist with a conceptual program evaluation outside the building, which is in the center of the proverbial sweet spot of our corporate skill set. Our "boutique" strength relates to assisting clients with strategic project understanding from viability to funding and implementation, including an array of tasks from graphics and publication support for public voting to construction closeout.

We understand that you have engaged Chris Rollins to provide boundary and topographic information and Randy Rhoades to conduct preliminary geotechnical evaluations. Our experience with both of these local firms is very positive and we assume that you will provide their work (and work by others) in digital format for our use. We would like to note that Chris's work and recent communications with him suggest the likely presence of wetlands on the Library property. We understand that the graphic posted on the website for the project includes a sketch that you generated using Chris's base plan. In short, nice job! We will use this sketch as the basis for meeting with you and the Trustees to affirm program needs and perform a conceptual site evaluation. We propose to designate Alan Saucier, who is gifted with translating site and building needs, as your primary contact. We will dedicate all of the members of our local staff to supporting Alan with other skills and refine our scope and approach as you direct.

Understanding of the Scope of Services

1. We propose to provide hourly services to assist you, the Meriden Library Board of Trustees, and the Town with a conceptual evaluation that considers building program aspirations with site conditions.

2. We assume that you will provide us with available information in a digital format for our use.

3. We understand that the current program consists of:

    a. Removal and disposal of the existing building following appropriate procedures pursuant to your work relative to hazardous materials surveys and solicitation of

proposals for demolition and supervision work.

b. We understand that the summary on the website includes input from various firms without the benefit of the solicitation of proposals for the purpose of macro budgeting considerations. Our experience with both Chris Rollins and Randy Rhoades suggests that you are heading in a positive direction with both of these firms.

c. You have indicated a desire to construct a new facility consisting of approximately 3,600 square feet that "fits the Meriden Village vernacular," which we acknowledge is undefined. That said, our experience with a number of projects in the Village gives us confidence that we can assist you with parking, walkways, signage, lighting, and other site and aesthetic considerations that consider Town regulations and the Library as a public resource and meeting room.

d. We understand that the Town voted to pursue design and documentation of a project that could be completed for less than one million dollars for a 2019 Town meeting warrant article to proceed with construction in the spring of 2019.

e. We understand that the project team is still in flux and may be informed by our conceptual assistance.

f. Given the lump sum and other "costs" in your current summary, we will assist with team evaluation on a pro bono basis to better assist the Town with budget management.

4. We have not included any services to assist with site budget development, but can provide these services based on our catalog of costs for many local projects.

5. We assume that our efforts will be limited to the scope of this proposal and that any changes in scope or additional effort from review comments or site conditions will require additional services and cost.

6. The attached Terms and Conditions and Cost Matrix are incorporated as part of this proposal.

Scope of Services

1. **Scoping Meeting:** Alan will meet with you and the Trustees to discuss project program, permits, expectations, and deliverables, which he will document in writing. This task assumes that Steve Halleran, Town Administrator will be present to review the permit needs you have identified to date.

2. **Wetland Evaluation:** Our staff Certified Wetland Scientist will conduct a brief site visit to evaluate wetlands on or proximate to the project site and will provide a sketch for conceptual project planning.

3. **Site Program Evaluation:** Alan will consider existing conditions, program desires and aspirations, and regulatory considerations to evaluate the site plan. The deliverable for this effort will include a rendered conceptual site plan and brief letter or e-mail report.

4. **Meetings and Coordination:** This task will include a limited budget for meetings and coordination to assist with conceptual evaluation of the project to date.

5. Expenses: Expenses will include out-of-pocket items such as mileage, prints, etc.

In closing, please let us know if you would like us to proceed with our proposal in writing or by e-mailing a signed copy of our proposal as your authorization to proceed. We are excited about assisting you and grateful for the referral from Hunter Ulf, with whom members of our staff have worked over many years wearing different hats.

Sincerely,

PATHWAYS CONSULTING, LLC

Jeffrey S. Goodrich, P.E.
President

JSG:sef

Enclosures

I accept this proposal and authorize Pathways Consulting, LLC to proceed.

Signature: _____ *Date:* 9/24/18

Terms and Conditions

1. **Billings/Payments:** Invoices will be submitted monthly by PATHWAYS, in PATHWAYS' standard format, to the CLIENT for services and reimbursable expenses and, unless other mutually satisfactory arrangements have been made between the CLIENT and PATHWAYS, are due upon receipt. Hours worked in excess of 40/week/individual will be billed at 1.5 times the normal rate. The invoices shall be considered past due if not paid within 30 days after the invoice date and PATHWAYS may, without waiving any claim or right against the CLIENT, and without liability whatsoever to the CLIENT, terminate the performance of the service. A finance charge will be assessed in the amount of 1.5% per month on unpaid balances. In the event any portion of the account remains unpaid 60 days after billing, the CLIENT shall pay PATHWAYS' collection costs, including reasonable attorney's fees. If the CLIENT fails to make payments when due or otherwise is in breach of this Agreement, PATHWAYS may suspend performance of services upon five (5) calendar days' notice to the CLIENT. PATHWAYS shall have no liability whatsoever to the CLIENT caused by any breach of this Agreement by the CLIENT. If the CLIENT fails to make payment to PATHWAYS in accordance with the payment terms herein, this shall constitute a material breach of this Agreement and shall be cause for termination by PATHWAYS. Payment of invoices is in no case subject to unilateral discounting or set-offs by the CLIENT, and payment is due regardless of suspension or termination of the Agreement by either party.

2. **Access to Site:** Unless otherwise stated, PATHWAYS will have access to the Site for activities necessary for the performance of the services. PATHWAYS will take precautions to minimize damage due to these activities, but shall not be held responsible for the restoration of any resulting damage. Arrangements and/or permission for site access shall be made by the CLIENT unless otherwise stated. The CLIENT shall provide for PATHWAYS' right to enter the property owned by the CLIENT and/or others in order for PATHWAYS to fulfill the scope of services included hereunder. The CLIENT understands that use of testing or other equipment may unavoidably cause some damage, the correction of which is not part of this Agreement.

3. **Buried Utilities:** PATHWAYS and/or its authorized subconsultant will conduct the research that in its professional opinion is necessary with respect to the assumed locations of underground improvements. Such services by PATHWAYS or its subconsultant will be performed in a manner consistent with the ordinary standard of care. The CLIENT recognizes that the research may not identify all underground improvements and that the information upon which PATHWAYS relies may contain errors or may not be complete. The CLIENT agrees, to the fullest extent permitted by law, to waive all claims and causes of action against PATHWAYS and anyone for whom PATHWAYS may be legally liable, for damages to underground improvements resulting from subsurface penetration locations established by PATHWAYS.

4. **Hidden Conditions and Hazardous Materials:** A condition is hidden if it cannot be investigated by reasonable visual observation or records reviewed as customary in the performance of the services being rendered. If PATHWAYS has reason to believe that such a condition may exist, PATHWAYS shall notify the CLIENT who shall authorize and pay for costs associated with the investigation of such a condition and, if necessary, costs necessary to correct said condition. If (1) the CLIENT fails to authorize such investigation or correction after due notification, or (2) PATHWAYS has no reason to believe that such a condition exists, the CLIENT is responsible for all risks associated with this condition, and PATHWAYS shall not be responsible for the existing condition nor any resulting damages to persons or property. Unless specifically agreed upon prior to the commencement of service, PATHWAYS shall have no responsibility for the discovery, presence, handling, removal, disposal, or exposure of persons to hazardous materials of any form.

5. **Permits and Approvals:** PATHWAYS shall assist the CLIENT in applying for those permits and approvals normally required by law for projects similar to the one for which PATHWAYS' services are being engaged. It is the CLIENT's responsibility to obtain any and all permits. PATHWAYS shall not be held responsible for the approval or denial of the aforementioned permits or approvals. The CLIENT also agrees not to make resolution of any dispute with PATHWAYS or payment of any amount due to PATHWAYS contingent upon the approval or denial of permits or approvals.

6. **Indemnifications:** The CLIENT shall indemnify and hold harmless PATHWAYS, all of its personnel, and its subconsultants from and against any and all claims, damages, losses and expenses (including reasonable attorneys' fees) arising out of or resulting from the performance of the services, provided that any such claims, damage, loss, or expense is caused in whole or in part by the negligent act or omission and/or strict liability of the CLIENT, anyone directly or indirectly employed by the CLIENT (except PATHWAYS), or anyone for whose acts any of them may be liable. This indemnification shall include any claim, damage, or losses due to the presence of hazardous materials. Accordingly, the CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold PATHWAYS and PATHWAYS' subconsultants harmless from any claim, liability, or cost (including reasonable attorneys' fees and costs of defense) for injury or loss arising or allegedly arising from errors, omissions, or inaccuracies in documents or other information provided by the CLIENT to PATHWAYS.

7. **Risk Allocation:** To the maximum extent permitted by law, PATHWAYS' total liability to the CLIENT for any and all injuries, claims, losses, expenses, damages, or claim expenses arising out of this Agreement, from any cause or causes, shall not exceed $10,000 or the total amount of PATHWAYS' fee, whichever is greater. Such causes include PATHWAYS' negligence, errors, omissions, strict liability, or breach of contract.

8. **Termination:** This Agreement may be terminated upon 10 calendar days written notice by either party. In the event of termination, the CLIENT shall pay PATHWAYS for all services rendered to the date of termination, all reimbursable expenses, and reasonable termination expenses.

9. **Ownership of Documents:** All documents produced by PATHWAYS under this Agreement shall remain the property of PATHWAYS and will not be used by the CLIENT for any other endeavor without the consent of PATHWAYS. PATHWAYS also reserves all copyrights to all documents, services and works of authorship that are created or prepared by PATHWAYS.

10. **Information Provided by Others:** The CLIENT agrees, to the fullest extent permitted by law, to indemnify and hold harmless PATHWAYS, all of its personnel, and its subconsultants from and against any and all claims, damages, losses and expenses (including reasonable attorneys' fees) arising out of or resulting from PATHWAYS' use of all information, requirements, reports, data, surveys, and instructions provided by others, which will be relied upon by PATHWAYS for the services PATHWAYS provides for the CLIENT.

11. **Dispute Resolution:** Any claim or dispute between the CLIENT and PATHWAYS shall be submitted to non-binding mediation, subject to the parties agreeing to a mediator(s).

12. **Governing Law:** The CLIENT and PATHWAYS agree that all disputes arising out of or in any way connected to this Agreement, its validity, interpretation and performance, and remedies for breach of contract, or any other claims related to this Agreement shall be governed by the laws of the State of New Hampshire.

13. **Assignment:** Neither party to this Agreement shall transfer, sublet, or assign any rights under or interest in this Agreement (including but not limited to monies that are due or monies that may be due) without the prior written consent of the other party.

14. **Extent of Agreement:** This Agreement comprises the final and complete agreement between the CLIENT and PATHWAYS. It supersedes all prior or contemporaneous communications, representations, or agreements, whether oral or written, relating to the subject matter of this Agreement. Execution of this Agreement signifies that each party has read the document thoroughly, has had any questions explained by independent counsel, and is satisfied. Amendments to this Agreement shall not be binding unless made in writing and signed by both the CLIENT and PATHWAYS.

15. **Additional Services:** Services not explicitly detailed in this Agreement will be considered additional and subject to increased project fees. Additional services will not be provided without the CLIENT's prior authorization to proceed.

16. **Attorney's Fees:** In the event of any litigation arising from or related to the services provided under this Agreement, the prevailing party will be entitled to recovery of all reasonable costs incurred, including staff time, court costs, reasonable attorneys' fees, and other related expenses.

17. **Consequential Damages:** Notwithstanding any other provision of the Agreement, neither party shall be liable to the other for any consequential damages incurred due to the fault of the other party, regardless of the nature of this fault or whether it was committed by the CLIENT or PATHWAYS, their employees, agents, subconsultants, or subcontractors. Consequential damages include, but are not limited to, loss of use and loss of profit.

18. **Delays:** PATHWAYS is not responsible for delays caused by factors beyond PATHWAYS' reasonable control. When such delays beyond PATHWAYS' reasonable control occur, the CLIENT agrees PATHWAYS is not responsible for damages, nor shall PATHWAYS be deemed to be in default of this Agreement.

19. **Jobsite Safety:** Neither the professional activities of PATHWAYS, nor the presence of PATHWAYS or its employees and subconsultants at a construction site, shall relieve the General Contractor and any other entity of their obligations, duties, and responsibilities including, but not limited to, construction means, methods, sequence, techniques, or procedures necessary for performing, superintending, or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. PATHWAYS and its personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The CLIENT agrees that the General Contractor is solely responsible for jobsite safety, and warrants that this intent shall be made evident in the CLIENT's agreement with the General Contractor. The CLIENT also agrees that the CLIENT, PATHWAYS, and PATHWAYS' consultants shall be indemnified and shall be made additional insured under the General Contractor's general liability insurance policy.

20. **Subconsultants:** PATHWAYS may use the services of subconsultants when, in PATHWAYS' sole opinion, it is appropriate and customary to do so.

21. **Severability:** Any provision of this Agreement later held to be unenforceable for any reason shall be deemed void, and all remaining provisions shall continue in full force and effect.

22. **Timeliness:** PATHWAYS will perform its services with due and reasonable diligence consistent with sound professional practices.

23. **Unauthorized Changes:** In the event that the CLIENT consents to, allows, authorizes, or approves of changes to any plans, specifications, or other documents, and these changes are not approved in writing by PATHWAYS, the CLIENT recognizes that such changes and results thereof are not the responsibility of PATHWAYS. Therefore, the CLIENT agrees to release PATHWAYS from any liability arising from the construction, use, or result of such changes.

24. **Titles:** The titles used in this Agreement are for general reference only and are not part of the Agreement.

25. **Photographs:** PATHWAYS has the CLIENT's permission to use any photographs taken for advertising purposes, including on its World Wide Web site or in any other printed publication. No confidential information will be used. PATHWAYS has the right to crop or treat the photograph(s) at its discretion. PATHWAYS agrees to indemnify and hold the CLIENT harmless and free of any liability or claims arising out of the use of any photograph described herein.

COST PROPOSAL
for the
TOWN OF MERIDEN LIBRARY REPLACEMENT PROJECT
22 BEAN ROAD, MERIDEN, NEW HAMPSHIRE
PREPARED BY PATHWAYS CONSULTING, LLC
(P5280)
September 13, 2018

	SCOPE OF SERVICES	Principal	Principal/ Landscape Architect	Project Engineer	Certified Soil/Wetlands Scientist	CAD Operator	Administrative Staff	Estimated Number of Labor Hours	Estimated Cost per Task
	HOURLY RATE PER LABOR CLASSIFICATION	$130	$110	$80	$75	$55	$45		
1	Scoping Meeting		4				1	5	$485 00
2	Wetland Evaluation				3		1	4	$270 00
3	Site Program Evaluation		4	2		12		18	$1,260 00
4	Meetings and Coordination	2	2				1	5	$525 00
5	Expenses								$200 00
	TOTAL ESTIMATED PROJECT COST								**$2,740.00**

CONTRACT
FOR SCHEMATIC DESIGN & PRELIMINARY PROJECT STEWARDSHIP
between Benson Woodworking Company, Inc.
and
The Meriden Trustees

17 September 2018

General Conditions

Bensonwood, a division of Benson Woodworking Company, Inc. (BWC) of Walpole, NH, proposes to provide Design and Project Stewardship services for the Meriden Library which the Town of Plainfield (CLIENT), and Brad Atwater/Atwater Construction (CLIENT'S REP), plan to build in Meriden, NH. BWC will design a library using the tools and standards of BWC's Open-Built® Design System. Our shared goal is to accommodate the CLIENTS' design requirements, site conditions, budgetary constraints, and quality expectations.

Initial Design Guidelines

The Meriden Library is to be based on the meeting with CLIENT on July 26, 2018, CLIENT'S preliminary design and project guidelines dated July 16, 2018, to be built on 22 Bean Road, Plainfield, NH.

- *Target Library building construction budget: $800,000*
- *Refer to "OPR Outline and preliminary design guidelines.pdf"*

Schematic Design Goals

With the completion of this 3 phase schematic design process, the library is designed, and BWC intends for CLIENT to have the information necessary to decide whether to proceed with the project. The schematic drawings, cost estimates, and proposals typically meet the requirements of lending institutions for pre-qualifying construction loans. Upon CLIENT'S confirmation of intent to proceed, BWC will draft and present a BWC fixed price shell package contract.

Compensation

BWC will provide Schematic Design (SD) services as outlined in the scope to CLIENTS under this contract until this contract is terminated or replaced with a BWC Shell Package agreement. The hourly rates for services covered under this contract are:

Services included in Schematic Design and Preliminary Project Stewardship Contract

- $135.00 per hour for BWC associates performing licensed professional services;
- $90.00 per hour for BWC associates performing design and project management;
- $75.00 per hour for BWC associates performing project support services.

We estimate that the total cost of this contract, not including reimbursable expenses, not to exceed the order of $17,500, which represents approximately 185 hours towards the schematic design deliverables.

Changes in scope resulting in additional revision iterations, or anticipated increases in the construction budget, may result in change orders to this contract. Representation at planning board meetings or similar professional services may be billed separately at higher hourly rates. The final value of this contract will be determined by hourly accounting as outlined above.

Upon acceptance of this contract, a retainer of $5,000 is required. An invoice for the retainer will be sent for your records. The retainer will be applied to the final requisition of the Schematic Design process. Requisition for payment will be on a time and expenses basis and will be submitted monthly. Requisitions are due on receipt. Undisputed payments due and unpaid after 20 days will bear interest of 1% per month.

Site Visits

Expenses, including but not limited to travel costs, will be billed separately as Reimbursable Expenses, based on an agreed upon estimate provided by BWC. The hourly rates referenced for Services included in Schematic Design and Preliminary Project stewardship will be applied towards the professional site visit.

Work Exceeding Scope of Contract

Should the CLIENT wish for BWC to execute services that exceed the scope of this contract, the hourly rates, reimbursable expenses, and billing procedures under "Schematic Design and Preliminary Project Stewardship" appended to this contract will

apply with a written change order and budgetary hours from BWC, and the written approval of the CLIENT.

Examples of such additional work include but are not limited to plan changes not outlined in the Initial Conditions above, requested revisions that fall outside the Open-Built® design/build system, additional printed copies of plans (billed at $5.00 per sheet). Design review board submittals are not included in the scope of this contract and will be priced according to estimated costs. Should the scope of this contract be exceeded, BWC will notify CLIENT in writing before proceeding with any additional work.

Additional Professional Services beyond the Schematic Design Goals

Examples of such additional work include but are not limited to planning and approval/planning board meetings, legal proceedings, and design review board review which are not included in the scope of this contract. and will be priced according to estimated costs. BWC will notify CLIENT in writing before the changeover to the higher hourly compensation rate for the specific additional work.

Hourly rates for additional services exceeding scope of Schematic Design Contract

Licensed Professionals – Architects and Engineers.....$225.00/hour
Lead Designer, and Engineering Services.....$150.00/hour
Design Support and Drafting.....$120.00/hour
Project Stewardship Services.....$120.00/hour

Termination of Agreement

This agreement may be terminated by either party, for any reason, and at any time, upon written notification. If CLIENT terminates the contract, the CLIENT will pay BWC for work completed to date. If BWC terminates the contract, no further payments will be billed or due, and any balance in CLIENT'S favor will be refunded.

Resolution of Disputes

1. Negotiations: Both parties agree to negotiate any dispute in good faith. In order to begin the negotiation process, one party must advise the other party, in writing, that a dispute exists and the nature of the said dispute.

2. Mediation: If the dispute remains unresolved 30 calendar days after the dispute notification, both parties agree to non- binding mediation before the American Arbitration Association ("AAA") with a mutually agreeable mediator from the AAA

Commercial Arbitration Panel. If the parties cannot select a mutually agreeable mediator, the AAA shall select the mediator. All mediation fees and costs will be shared equally by the parties.

3. Arbitration: If the dispute cannot be resolved by negotiation or by mediation, then the parties agree to binding arbitration by a single arbitrator from the AAA Commercial Arbitration Panel. The arbitration shall be administered by the AAA and the Rules for Commercial Arbitration shall apply. The arbitrator shall not award punitive or exemplary damages unless specifically authorized by statute. All arbitration fees and costs will be shared equally by the parties.

4: Location: Choice of Law: Mediation and arbitration shall take place in Cheshire County, New Hampshire unless the parties mutually agree otherwise, and the laws of the State of New Hampshire will apply to all disputes, without regard to any choice of law principles.

Agreement:

We agree with the above description of design and stewardship efforts to be undertaken by BWC. With the return of a signed copy of this agreement and the initial retainer, CLIENT authorizes BWC to proceed with the work.

Offered By	Accepted By
	9/24/18
Doug Reitmeyer/Project Development Bensonwood	Steve Halleran/Town Administration - DATE CLIENT

PROJECT INVOICE INFORMATION:
Client name: Steve Halleran
Billing address: PO Box 380
Meriden, NH 03770
Project Name: Meriden Library

Terms and Conditions:

REIMBURSABLE EXPENSES: Such as those incurred for site visits, will be charged at cost plus a 15% markup. Travel time, if any, will be charged at 50% of the hourly rates outlined above. Mileage will be charged at the current federal rate. Approved outside professional services will be charged at cost plus a 12% markup.

SUBCONTRACTED SERVICES: BWC may retain other design professionals with the prior approval of the CLIENTS. Some example services may include but are not limited to, surveyors, landscape architects, soil engineers, wetland experts and traffic consultants. In the event that BWC hires, schedules, coordinates and leads these subcontractor activities, BWC will mark up these invoices 15% and submit for payment to CLIENTS monthly.

PAYMENT: Invoices for prepaid services will be submitted prior to the commencement of work. Invoices for reimbursable expenses or additional services will be submitted at the completion of each service, and are due upon receipt. If payment is not made within 30 days, interest will be charged at the rate of one percent (1%) per month, (12% per annum), from the invoice date. If collection efforts are undertaken or suit is filed to recover monies due, CLIENTS agree to pay all costs of collection, including reasonable attorney's fees.

AGREEMENT: This agreement is solely between BWC and CLIENTS. No other party may claim any rights or benefits under this agreement. In the event of termination, a final billing or settlement shall be tendered within ten working days of the receipt of the termination notice.

COPYRIGHT: The Open-Built® design/build system and resulting plans are the property of BWC. The original purchaser of the design services and plans is granted a limited non-exclusive and non-transferable license to build one and only one home using this plan. The plan may not be reproduced or transferred without the express written permission of BWC. Any modifications to the design require the express written permission of BWC.

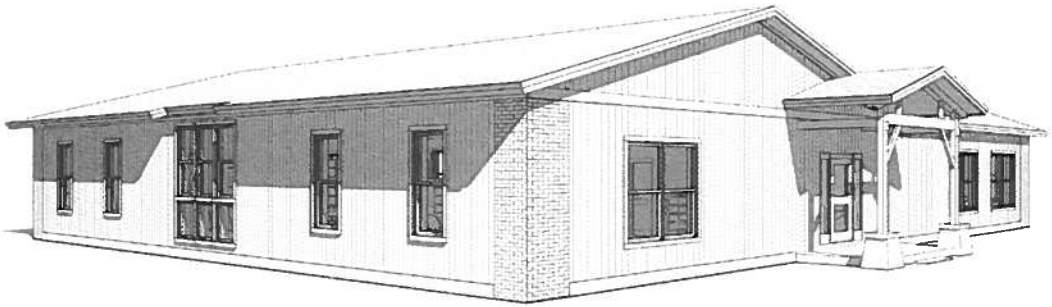
SQUARE FOOTAGE: All floor areas of the building are measured to the outside of the exterior walls and/or structure. Vaulted ceiling areas are included when calculating the potential primary living area. The potential floor area contribution of the vaulted space is calculated by dividing the total volume of the space by an average ceiling height factor of 10 feet. Measurements of all floor areas will be used in calculating the preliminary area-based cost analysis.

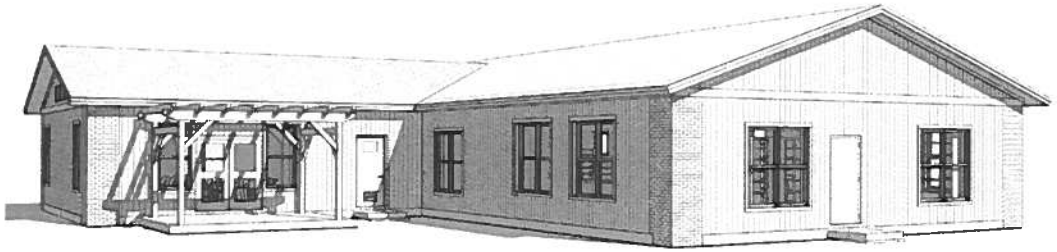
COST ESTIMATING: The accuracy of any estimate is only as good as the information available at the time of the estimate. BWC can provide reasonably accurate estimates of the BWC fabricated components, usually within 3-5% margin of error, once the component specifications are determined.

GOVERNING LAW: This agreement shall be governed by the laws of the State of New Hampshire.

Schematic Design Deliverables

Phase	Design Included	Stewardship Included
SD1 **Conceptual Program**	• Confirm design basis • Preliminary floor plans • Preliminary floor plans confirmed • 3D massing model	• Select wall, floor, roof assemblies, and window/door manufacturer • Energy & utility goals/availability • Establish mechanical, electrical, plumbing (MEP) systems goals • Preliminary project schedule • CSI category cost breakdown & SF analysis by project area
SD2 **Design Development**	• Floor plans for all levels (⅛"scale) • Four exterior elevations (⅛"scale) • Two building sections (⅛" scale) • One exterior 3D view with windows • 3D structural schematic model for pricing and preliminary engineering • Room finish and exterior finishes schedule	• Updated project schedule • Consultation with local GC • Preliminary Shell Package estimate • Preliminary Shell Package specifications • Window and door estimate • CSI-based project control estimate • Manual-J Energy analysis and report • Solar, fenestration, system and mechanical analysis
SD3 **Design Details**	• Updated floor Plans for all levels (¼" scale) • Updated four exterior elevations finishes shown (¼"scale) • Updated building sections (¼"scale) • Wall section 1-1/2"=1'-0" • One 3D structural schematic • Preliminary foundation plan & details • Updated 3D structural schematic model for pricing and engineering • Updated window & door schedule with specifications	• Fixed cost Shell Package proposal • Updated Shell Package specifications • Updated window and door quote and specifications • Updated project Schedule • DRAFT BWC Shell Package contract • Updated CSI-based project control estimate • Updated MEP systems selection • Updated exterior & interior finishes, fixtures, & room finish schedule





MERIDEN LIBRARY

MERIDEN LIBRARY

22 BEAN RD.
MERIDEN, NH

DRAWING LIST	
SHEET NUMBER	SHEET NAME
A.000	COVER
A.002	SITE PLAN
A.101	1ST FLOOR PLAN
A.200	EXTERIOR ELEVATIONS
A.201	EXTERIOR ELEVATIONS

AREA SCHEDULE		
LEVEL	SPACE	AREA (SF)
PUBLIC		
1ST FLOOR	PUBLIC	2621 SF
		2621 SF
OFFICE		
1ST FLOOR	OFFICE	1160 SF
		1160 SF
TOTAL AREA		3781 SF

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WALPOLE, NH 03608 USA
BENSONWOOD

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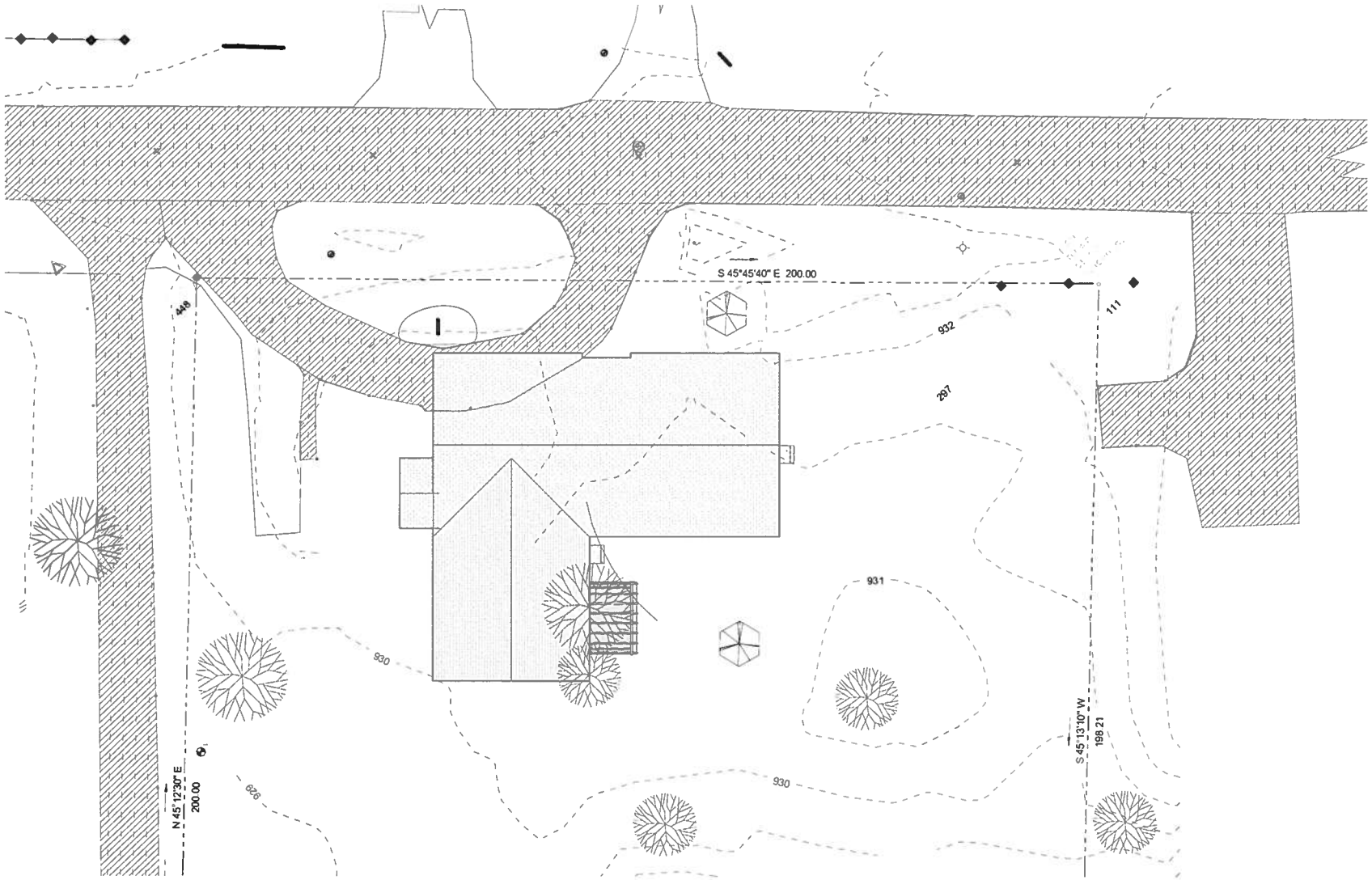

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SITE PLAN
SD2 10/24/18

A.002

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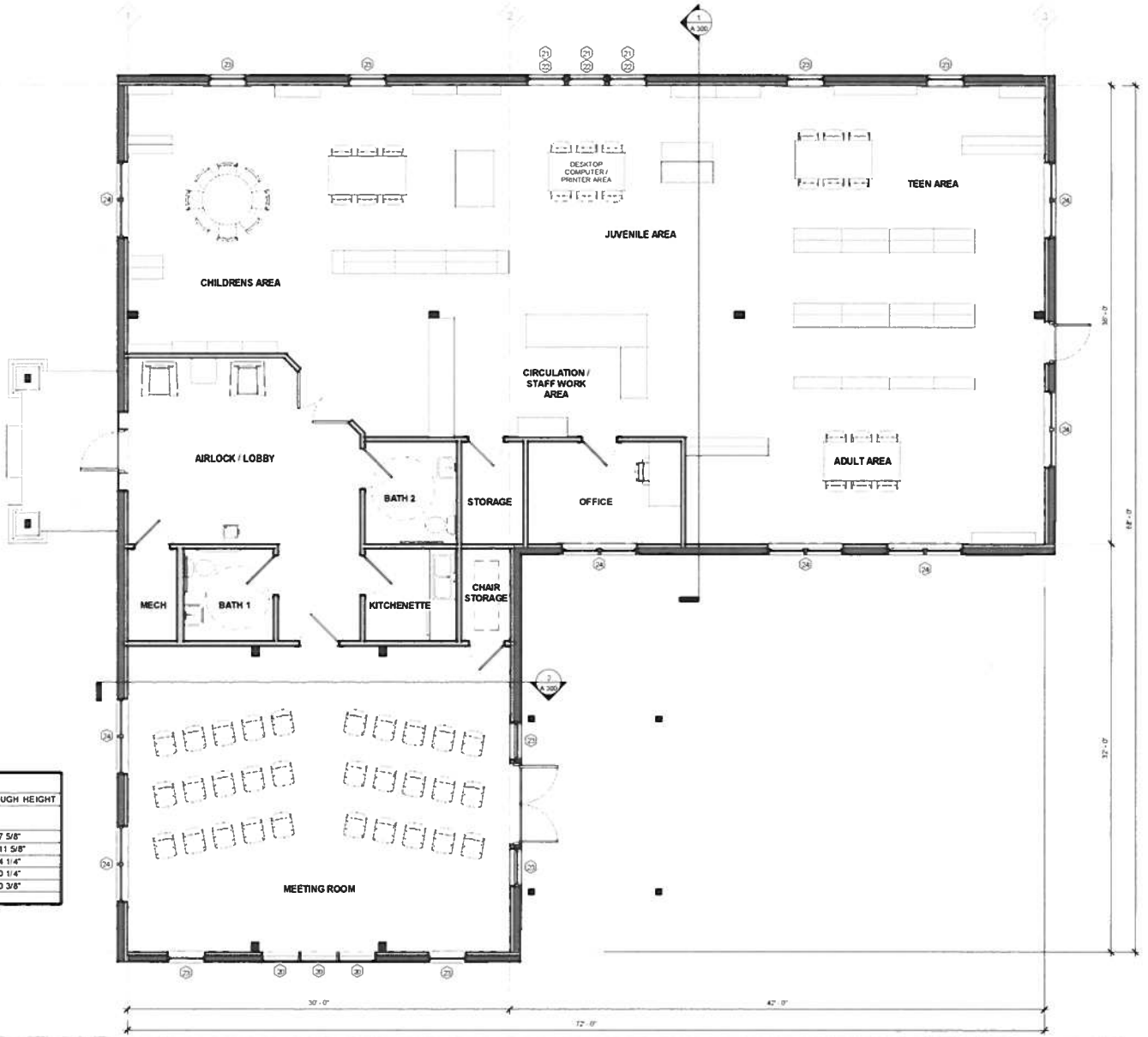

WINDOW SCHEDULE

TAG#	QTY	DESCRIPTION	SPECIAL	LIGHTS	SWING	JAMB	ROUGH WIDTH	ROUGH HEIGHT
INTEGRITY								
20	3	ICAP3719			F		3' - 1"	1' - 7 5/8"
21	3	ICAP3735	T		F		3' - 1"	2' - 11 5/8"
22	3	ITDH3664			DH		3' - 0 1/2"	5' - 4 1/4"
23	8	ITDH3672			DH		3' - 0 1/2"	6' - 0 1/4"
24	8	ITDH3672 2W			DH/DH		6' - 0 1/4"	6' - 0 3/8"
GRAND TOTAL: 25								

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1ST FLOOR PLAN
SD2 10/16/18

A.101

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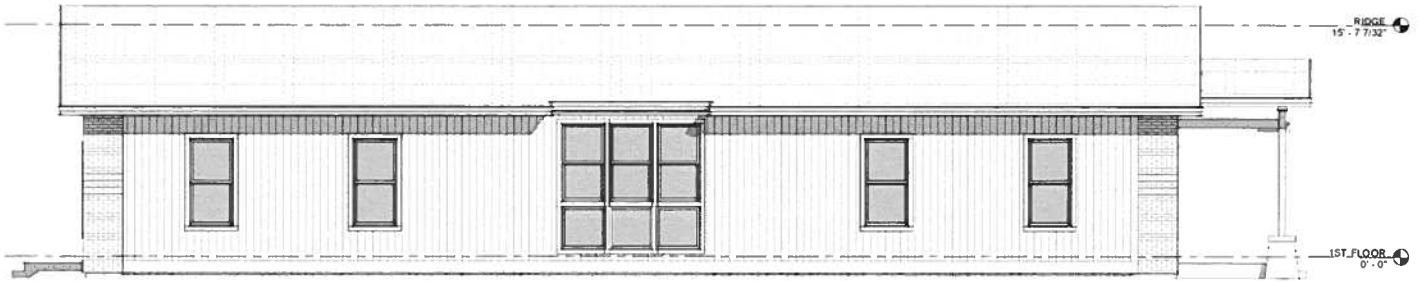
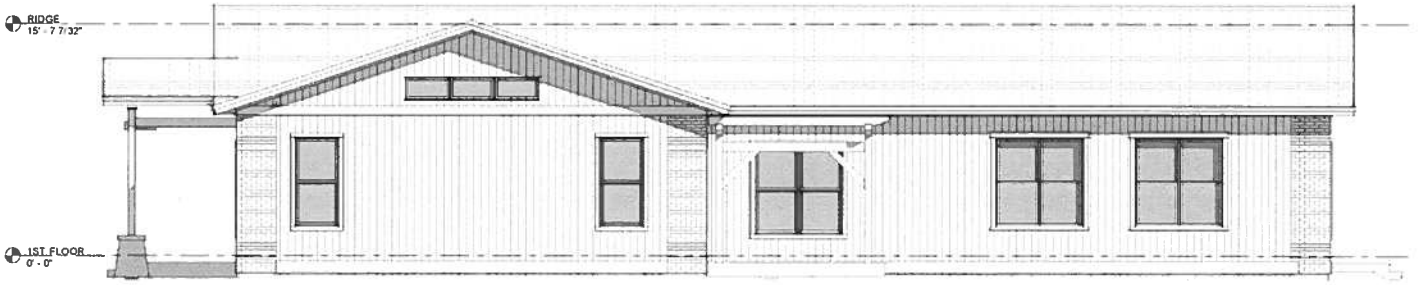


1 SD NORTH
1/4" = 1'-0"



2 SD SOUTH
1/4" = 1'-0"

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EXTERIOR ELEVATIONS
SD2 10/16/18

A.200

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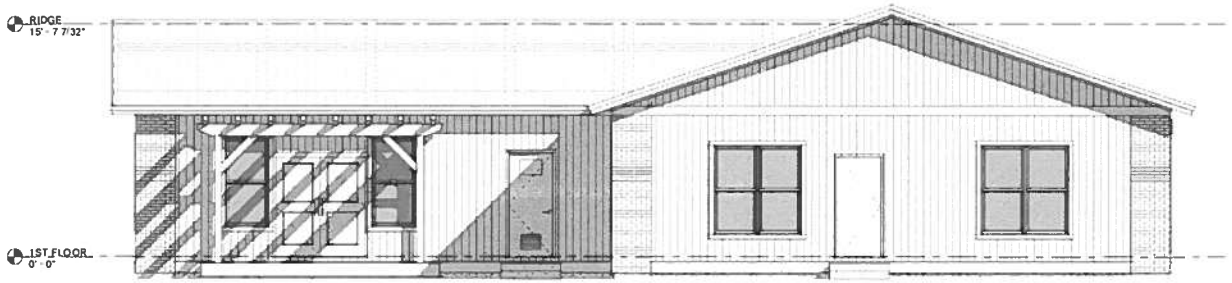

1 SD EAST
1/4" = 1'-0"

2 SD WEST
1/4" = 1'-0"

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EXTERIOR ELEVATIONS
SD2 10/18/18

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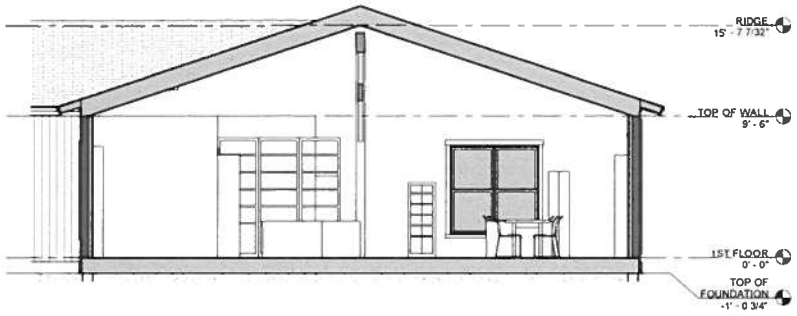
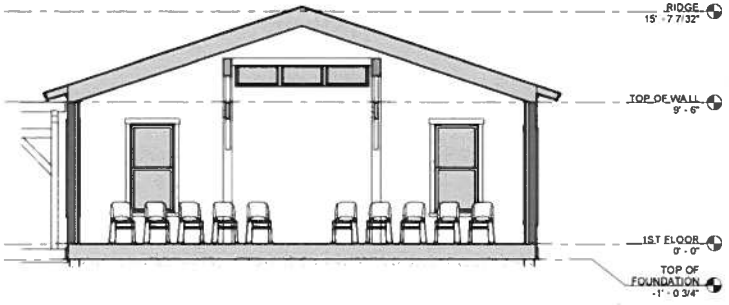


1 Section 4
1/4" = 1'-0"



2 Section 5
1/4" = 1'-0"

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BUILDING SECTIONS
SD2 10/16/18

A.300

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Proposal for **November 2, 2018**

The Meridan Library

Project Control Estimate - 02 Nov 2018

Project Specification:

1	GENERAL CONDITIONS	$133,500.00
	General Conditions for the Project Scope	
	Project Management Services	
	Architectural & Engineering Construction Drawings	
	Shop Drawings & Machine Files	
	Site Supervision	
	Port-o-let, Dumpster, & Cleaning	
	Trucking & Travel Costs for Supplied Components	
	Equipment Rental	
	Contingency	$30,000
2	SITE CONSTRUCTION	$0.00
3	CONCRETE	$56,900.00
	4' Frost Wall	
	4' Insulated Frost Wall	
	Concrete Piers	
	4" Concrete Slab Insulated with R-20 under slab	
4	MASONRY - ALLOWANCE	$18,000.00
5	METALS	$0.00
6A	CARPENTRY - Insulated Shell	$220,800.00
	Rough Carpentry	
	Cavity Porch Roof	Front Porch
	2x4 & 2x6 Interior Partition	
	2 x 6 Flat Ceilings	Bathrooms, Lobby, Office, Kitchenette, Mechanical, Storage, and Coat Closets
	R-35 OB Plus Wall System	Exterior Walls

	Timberframe	Exposed Douglas Fir Interior and Port Orford Cedar Exterior Timbers
	R-49 Cellulose Roof	
6B	**CARPENTRY - Interior Millwork**	**$65,100.00**
	Baseboard Trim - 1x6 Painted	Pine Option at same price
	Roof Boards - Pine with a clear finish	All Interior Ceilings Except in ceiling rooms
	Interior Trim Window - MDF	
	Interior Trim, Exterior Door - Painted	
	Ceiling Trim with a clear finish	
	4 Panel Painted Door w/ Painted Casing	
	Double 4 Panel Painted Double Door w/ Painted Casing	
	4 Panel Painted Pocket Door w/ Painted Casing	
6C	**CARPENTRY - Exterior Millwork**	**$14,800.00**
	Roof Trim - Prefinished Fiber Cement	
	Corner Boards - Prefinished Fiber Cement - 5/4x6	
	Exterior Integrity Provided Window Trim	
	Exterior Trim Door - Prefinished Fiber Cement	
	Decking - Prefinished POC	Meeting Room Deck Finish
7A	**SIDING**	**$41,000.00**
	Siding – Prefinished Fiber Cement Clapboard	Or Shiplap
7B	**ROOFING**	**$22,500.00**
	Roofing - Architectural Shingles	
7C	**INSULATION AND WATERPROOFING**	
	Included in 3 - Concrete & 6A - Insulated Shell	
8	**WINDOWS AND EXTERIOR DOORS**	**$41,100.00**
	Storefront Entry Door	Lobby Entrance
	Masonite Prefinished Fiberglass Painted No Glass	Mechanical Door
	Egress Side Door	
	Integrity Windows - See Specification Sheet	
	Marvin w/ HF - 6068 Glass Door	Meeting Room Patio Door
9A	**GYPSUM WALL BOARD AND PAINTING**	**$51,300.00**
	Sheetrock	Interior Walls
	Bathroom Sound Insulation	
	Painting Interior	
9B	**FLOORING & TILE**	**$21,600.00**
	Lobby Tile Allowance	
	Carpet Flooring Allowance	
10	**SPECIALTIES**	**$28,000.00**
	Mechanical Room - Mop Sink	
	Hand Towel - Soap Dispersed per Bath	
	Coat Closet Shelf and Rod - ADA Grab Bars	

Fire Protection - Sprinkler System - ALLOWANCE

11	APPLIANCE ALLOWANCE	$1,200.00
	Refridgerator	
	Dishwasher	See Kitchenette
12	CABINETS AND COUNTERTOPS	$6,300.00
	Kitchen Cabinet - Base	See Kitchenette
	Kitchen Cabinet - Wall	See Kitchenette
	Casework and Furniture/ FFE is not Included	
	Kitchen Countertop - Laminate	See Kitchenette
15A	PLUMBING	$16,200.00
	Electric Fast Recovery 5 Gal Water Heater	
	Toilet - Tier 1	Qty 2 ADA Toilets
	Kitchen Sink and Fixture - Good	See Kitchenette
	Mop Sink, ADA Pedestal Sinks, 2 Hose bibbs	Water Fountain & Sink Facet sets
15B	HVAC	$43,200.00
	Wall Mounted Mini-Split	Qty 2 Heads
	Air Source Heat Pump Air Handler	Ceiling Areas - Meeting Room
	Med HRV - Lifebreath - 195 ECM	
16	ELECTRICAL - ALLOWANCE	$36,200.00
	Handicap Access - Automatic Button System	
	Electrical Wiring and Installation	Base wiring
	Electrical Fixtures Allowance	$6500 Lighting Cost Allowance

Total Proposal: **$817,700.00**

* Note: This pricing in this proposal is good for 60 days

Annual Fuel Cost Comparison of Double Glazed Windows

Fuel Type	Btu's per Unit	Seasonal Heat Load	Annual Fuel Consumption	Current Cost per Unit	Annual Cost of Fuel
Fuel Oil (No.2)	130,000 Btu / Gallon	124,844,000.00	960.34	$ 3.12	$ 2,996.26
Electricity	3,413 Btu / KWhr	124,844,000.00	36,578.96	$ 0.16	$ 5,852.63
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	124,844,000.00	14,070.10	$ 0.16	$ 2,251.22
Propane	91,330 Btu / Gallon	124,844,000.00	1,366.95	$ 3.18	$ 4,346.92
Wood (Air Dired)	20,000,000 Btu / Cord	124,844,000.00	6.24	$ 285.00	$ 1,779.03
Wood Pellets	16,500,000 Btu / Ton	124,844,000.00	7.57	$ 268.00	$ 2,027.77
Cooling with same ASHP					
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	11,741,000.00	1,323.23	$ 0.16	$ 211.72

Annual Fuel Cost Comparison for Triple Glazed Windows

Fuel Type	Btu's per Unit	Seasonal Heat Load	Annual Fuel Consumption	Current Cost per Unit	Annual Cost of Fuel
Fuel Oil (No.2)	130,000 Btu / Gallon	105,747,000.00	813.44	$ 3.12	$ 2,537.93
Electricity	3,413 Btu / KWhr	105,747,000.00	30,983.59	$ 0.16	$ 4,957.37
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	105,747,000.00	11,917.84	$ 0.16	$ 1,906.85
Natural Gas	1,025,000 Btu / Thousand Cubic Feet	105,747,000.00	103.17	NA	NA
Propane	91,330 Btu / Gallon	105,747,000.00	1,157.86	$ 3.18	$ 3,681.98
Wood (Air Dired)	20,000,000 Btu / Cord	105,747,000.00	5.29	$ 285.00	$ 1,506.89
Wood Pellets	16,500,000 Btu / Ton	105,747,000.00	6.41	$ 268.00	$ 1,717.59
Cooling with same ASHP					
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	15,618,000.00	1,760.17	$ 0.16	$ 281.63

Load Short Form
Entire Building
Benson Woodworking Company, Inc.

Job:
Date:
By:

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Project Information

For: Meriden Library
Meriden, NH

Design Information

	Htg	Clg
Outside db (°F)	***-4***	86
Inside db (°F)	70	75
Design TD (°F)	74	11
Daily range	-	M
Inside humidity (%)	35	45
Moisture difference (gr/lb)	35	27

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure / AVF	50 Pa / 1000 cfm

HEATING EQUIPMENT

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	

Efficiency	9.1 HSPF	
Heating input		
Heating output	47761	Btuh @ 47°F
Temperature rise	28	°F
Actual air flow	1600	cfm
Air flow factor	0.052	cfm/Btuh
Static pressure	0	in H2O
Space thermostat		

Capacity balance point = 4 °F

Backup:
Input = 12 kW, Output = 39781 Btuh, 100 AFUE

COOLING EQUIPMENT

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	

Efficiency	14.7 EER, 18 SEER	
Sensible cooling	33600	Btuh
Latent cooling	14400	Btuh
Total cooling	48000	Btuh
Actual air flow	1600	cfm
Air flow factor	0.048	cfm/Btuh
Static pressure	0	in H2O
Load sensible heat ratio	0.61	

ROOM NAME		Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Library Zone	p	2339	17132	17595	896	852
Central Rooms	p	766	5356	4504	280	218
Meeting Room Zone	p	796	8103	14963	424	725
Entire Building	d	3901	30590	32879	1600	1600
Other equip loads			14858	2188		
Equip. @ 0.91 RSM				31876		
Latent cooling				22742		
TOTALS		3901	45448	54618	1600	1600

Bold/italic values have been manually overridden

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form
Central Rooms
Benson Woodworking Company, Inc.

Job:
Date:
By:

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Project Information

For: Meriden Library
Meriden, NH

Design Information

	Htg	Clg
Outside db (°F)	***-4***	86
Inside db (°F)	70	75
Design TD (°F)	74	11
Daily range	-	M
Inside humidity (%)	35	45
Moisture difference (gr/lb)	35	27

Infiltration	
Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure / AVF	50 Pa / 1000 cfm

HEATING EQUIPMENT

Make	n/a		
Trade	n/a		
Model	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Heating input			
Heating output		0	Btuh
Temperature rise		0	°F
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Space thermostat	n/a		

COOLING EQUIPMENT

Make	n/a		
Trade	n/a		
Cond	n/a		
Coil	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Sensible cooling		0	Btuh
Latent cooling		0	Btuh
Total cooling		0	Btuh
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Load sensible heat ratio		0	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Office	119	1307	1776	68	86
Storage	48	196	51	10	2
Bath 2	77	313	82	16	4
Display	206	584	169	31	8
Airlock	121	1735	1327	91	64
Chair Storage	38	517	63	27	3
Kitchenette	60	94	938	5	45
MECH	39	520	64	27	3
Bath 1	58	91	33	5	2

Bold/italic values have been manually overridden

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Central Rooms	p	766	5356	4504	280	218
Other equip loads			0	0		
Equip. @ 0.91	RSM			4094		
Latent cooling				356		
TOTALS		766	5356	4450	280	218

Load Short Form
Library Zone
Benson Woodworking Company, Inc.

Job:
Date:
By:

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Project Information

For: Meriden Library
Meriden, NH

Design Information

	Htg	Clg
Outside db (°F)	***-4***	86
Inside db (°F)	70	75
Design TD (°F)	74	11
Daily range	-	M
Inside humidity (%)	35	45
Moisture difference (gr/lb)	35	27

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure / AVF	50 Pa / 1000 cfm

HEATING EQUIPMENT

Make	n/a		
Trade	n/a		
Model	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Heating input			
Heating output		0	Btuh
Temperature rise		0	°F
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Space thermostat	n/a		

COOLING EQUIPMENT

Make	n/a		
Trade	n/a		
Cond	n/a		
Coil	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Sensible cooling		0	Btuh
Latent cooling		0	Btuh
Total cooling		0	Btuh
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Load sensible heat ratio		0	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Library	2339	17132	17595	896	852
Library Zone p	2339	17132	17595	896	852
Other equip loads		0	0		
Equip. @ 0.91 RSM			15994		
Latent cooling			6492		
TOTALS	2339	17132	22485	896	852

Bold/italic values have been manually overridden

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Short Form
Meeting Room Zone
Benson Woodworking Company, Inc.

Job:
Date:
By:

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Project Information

For: Meriden Library
Meriden, NH

Design Information

	Htg	Clg
Outside db (°F)	***-4***	86
Inside db (°F)	70	75
Design TD (°F)	74	11
Daily range	-	M
Inside humidity (%)	35	45
Moisture difference (gr/lb)	35	27

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure / AVF	50 Pa / 1000 cfm

HEATING EQUIPMENT

Make	n/a		
Trade	n/a		
Model	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Heating input			
Heating output		0	Btuh
Temperature rise		0	°F
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Space thermostat	n/a		

COOLING EQUIPMENT

Make	n/a		
Trade	n/a		
Cond	n/a		
Coil	n/a		
AHRI ref	n/a		
Efficiency		n/a	
Sensible cooling		0	Btuh
Latent cooling		0	Btuh
Total cooling		0	Btuh
Actual air flow		0	cfm
Air flow factor		0	cfm/Btuh
Static pressure		0	in H2O
Load sensible heat ratio		0	

ROOM NAME	Area (ft²)	Htg load (Btuh)	Clg load (Btuh)	Htg AVF (cfm)	Clg AVF (cfm)
Meeting Room	796	8103	14963	424	725
Meeting Room Zone p	796	8103	14963	424	725
Other equip loads		0	0		
Equip. @ 0.91 RSM			13601		
Latent cooling			6241		
TOTALS	796	8103	19842	424	725

Bold/italic values have been manually overridden

Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.

Load Multizone Summary Report

Job:
Date:
By:

Benson Woodworking Company, Inc.

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Infiltration Summary

ZONE NAME	Heating Volume ft³	Heating ACH	Heating AVF cfm	Heating HTM Btuh/ft²	Cooling Volume ft³	Cooling ACH	Cooling AVF cfm	Cooling HTM Btuh/ft²
Library Zone	29231	0.13	61	3.3	29231	0.06	27	0.2
Central Rooms	10110	0.12	19	3.3	10110	0.05	9	0.2
Meeting Room Zone	9555	0.19	30	3.3	9555	0.08	13	0.2
Entire Building	48896	0.14	111	3.3	48896	0.06	49	0.2

Load and AVF Summary

ROOM NAME	Area ft²	Htg load Btuh	Clg load Btuh	Htg AVF cfm	Clg AVF cfm
Library	2339	17132	17595	896	852
Library Zone	2339	17132	17595	896	852
Office	119	1307	1776	68	86
Storage	48	196	51	10	2
Bath 2	77	313	82	16	4
Display	206	584	169	31	8
Airlock	121	1735	1327	91	64
Chair Storage	38	517	63	27	3
Kitchenette	60	94	938	5	45
MECH	39	520	64	27	3
Bath 1	58	91	33	5	2
Central Rooms	766	5356	4504	280	218
Meeting Room	796	8103	14963	424	725
Meeting Room Zone	796	8103	14963	424	725
Entire Building	3901	30590	32879	1600	1600

Project Summary
Entire Building
Benson Woodworking Company, Inc.

Job:
Date:
By:

6 Blackjack Crossing Road, Walpole, NH 03608 Phone: 603-756-3600 Fax: 603-756-9005 Email: rheannon@bensonwood.com Web: www.bensonwood.com

Project Information

For: Meriden Library
Meriden, NH

Notes:

Design Information

Weather: Lebanon Muni, NH, US

Winter Design Conditions

Outside db	***-4***	°F
Inside db	70	°F
Design TD	74	°F

Summer Design Conditions

Outside db	86	°F
Inside db	75	°F
Design TD	11	°F
Daily range	M	
Relative humidity	45	%
Moisture difference	27	gr/lb

Heating Summary

Structure	30590	Btuh
Ducts	0	Btuh
Central vent (SER=65% 532 cfm)	14858	Btuh
Heat recovery		
Humidification	0	Btuh
Piping	0	Btuh
Equipment load	45448	Btuh

Sensible Cooling Equipment Load Sizing

Structure	32879	Btuh
Ducts	0	Btuh
Central vent (SER=65% 532 cfm)	2188	Btuh
Heat recovery		
Blower	0	Btuh
Use manufacturer's data	n	
Rate/swing multiplier	0.91	
Equipment sensible load	31876	Btuh

Infiltration

Method	Blower door
Shielding / stories	3 (partial) / 2
Pressure / AVF	50 Pa / 1000 cfm

	Heating	Cooling
Area (ft²)	3901	3901
Volume (ft³)	48896	48896
Air changes/hour	0.14	0.06
Equiv. AVF (cfm)	111	49

Latent Cooling Equipment Load Sizing

Structure	13089	Btuh
Ducts	0	Btuh
Central vent (532 cfm)	9653	Btuh
Heat recovery		
Equipment latent load	22742	Btuh
Equipment total load	54618	Btuh
Req. total capacity at 0.70 SHR	3.8	ton

Heating Equipment Summary

Make	Generic
Trade	
Model	SEER 18.0, HSPF 9.1
AHRI ref	
Efficiency	9.1 HSPF
Heating input	
Heating output	47761 Btuh @ 47°F
Temperature rise	28 °F
Actual air flow	1600 cfm
Air flow factor	0.052 cfm/Btuh
Static pressure	0 in H2O
Space thermostat	

Capacity balance point = 4 °F

Backup:
Input = 12 kW, Output = 39781 Btuh, 100 AFUE

Cooling Equipment Summary

Make	Generic
Trade	
Cond	SEER 18.0, HSPF 9.1
Coil	
AHRI ref	
Efficiency	14.7 EER, 18 SEER
Sensible cooling	33600 Btuh
Latent cooling	14400 Btuh
Total cooling	48000 Btuh
Actual air flow	1600 cfm
Air flow factor	0.048 cfm/Btuh
Static pressure	0 in H2O
Load sensible heat ratio	0.61

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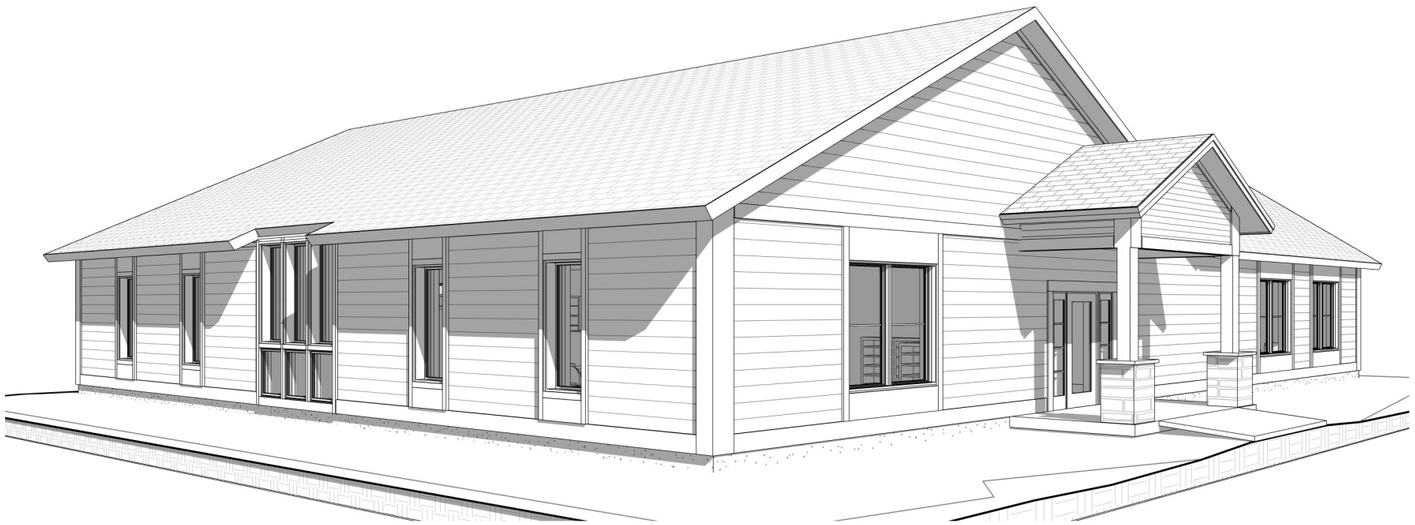
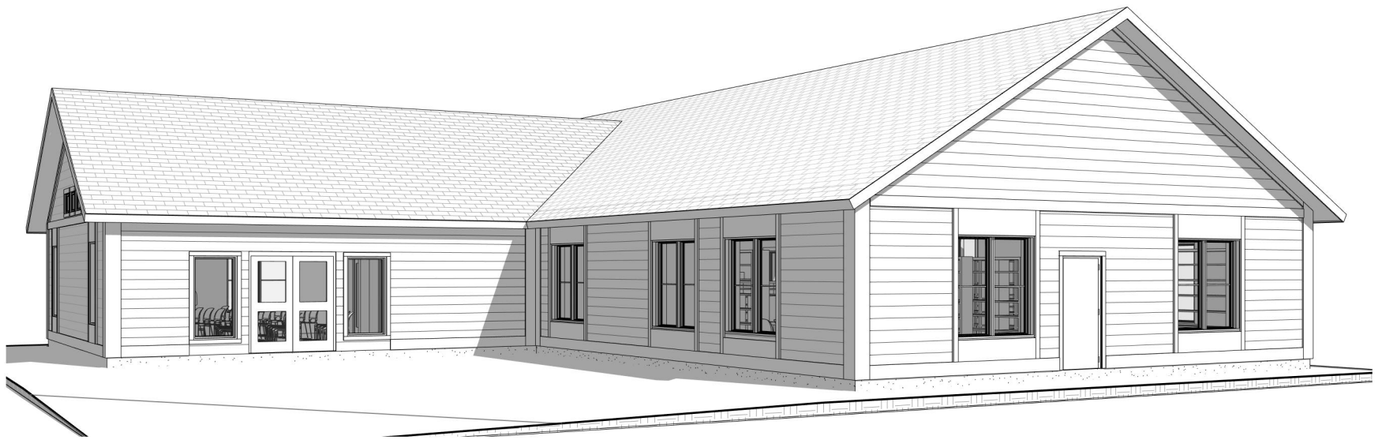
Calculations approved by ACCA to meet all requirements of Manual J 8th Ed.





MERIDEN LIBRARY

22 BEAN RD.
MERIDEN, NH

DRAWING LIST	
SHEET NUMBER	SHEET NAME
A.000	COVER
A.001	SCHEDULES
A.002	SITE PLAN
A.101	1ST FLOOR PLAN
A.200	EXTERIOR ELEVATIONS
A.201	EXTERIOR ELEVATIONS

AREA SCHEDULE

LEVEL	SPACE	AREA (SF)
CONDITIONED BUILDING AREA		
1ST FLOOR	LIBRARY	3781 SF
		3781 SF
TOTAL AREA		3781 SF

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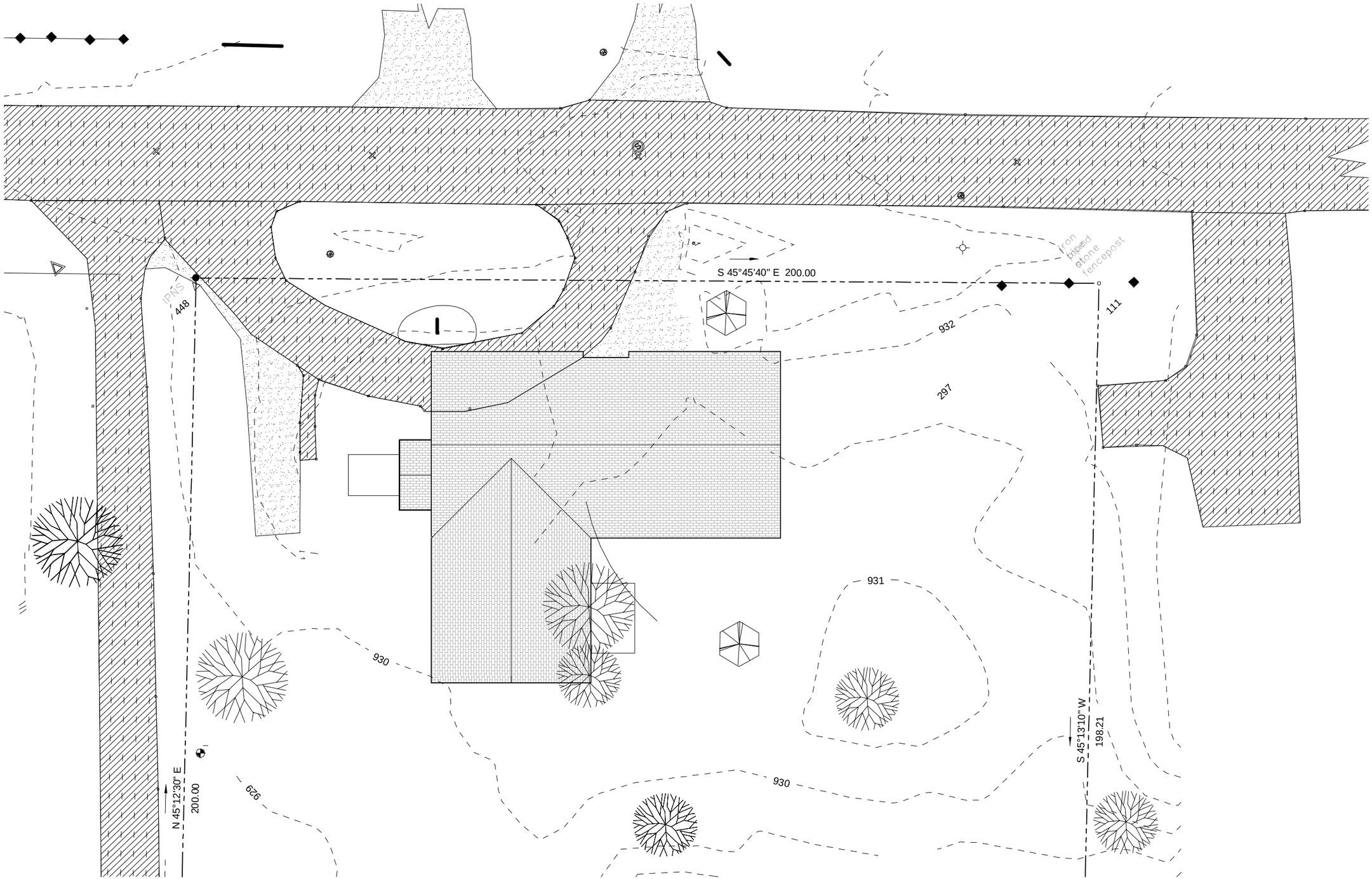

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MERIDEN LIBRARY - MERIDEN, NH

SITE PLAN
SD3 12/17/18

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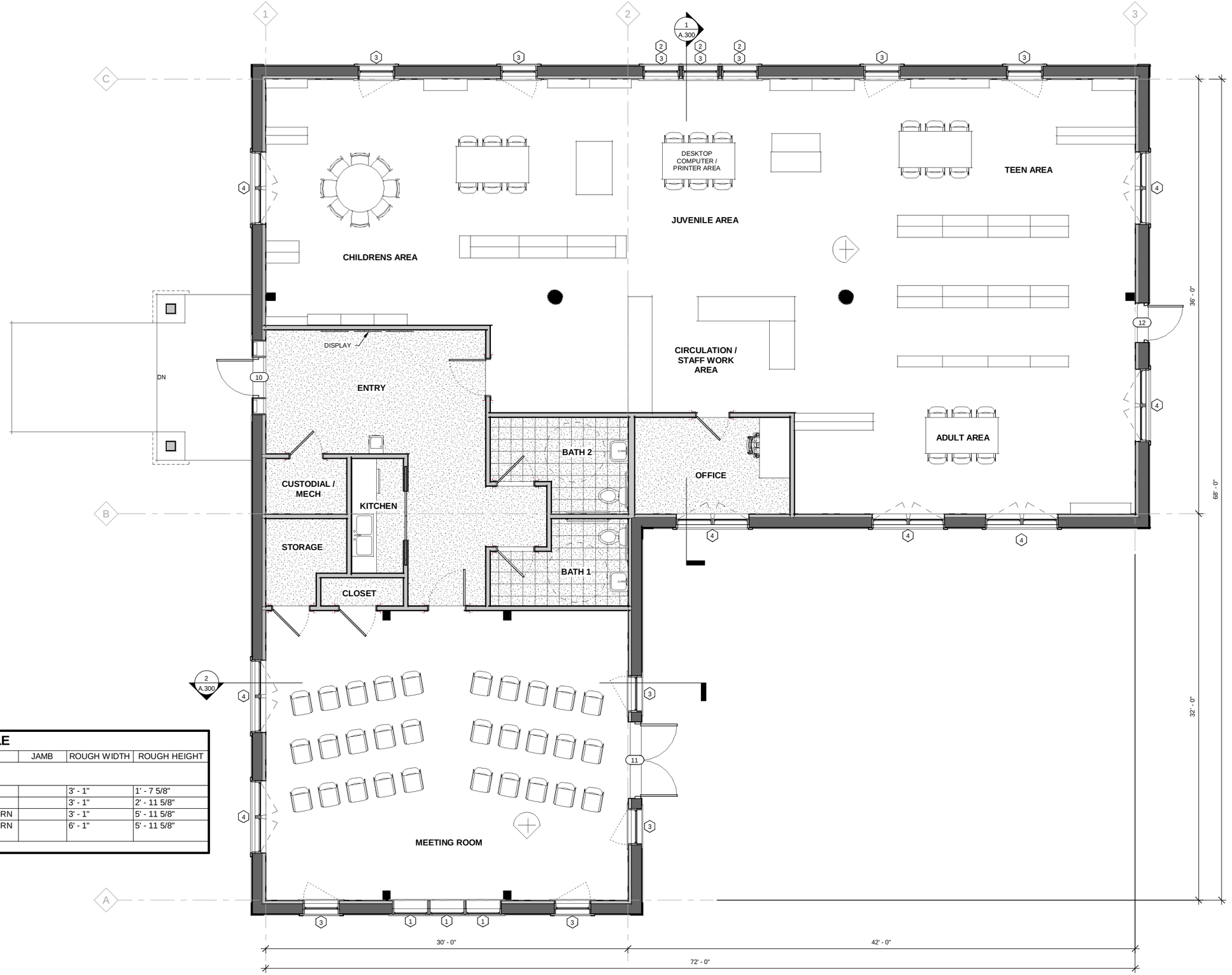

WINDOW SCHEDULE

TAG#	QTY	DESCRIPTION	SPECIAL	LIGHTS	SWING	JAMB	ROUGH WIDTH	ROUGH HEIGHT
INTEGRITY								
1	3	ICAP3719		1W1H	F		3' - 1"	1' - 7 5/8"
2	3	ICAP3735	T	1W1H	F		3' - 1"	2' - 11 5/8"
3	11	ICAP3771		1W1H	TILT/TURN		3' - 1"	5' - 11 5/8"
4	8	ICAP3771 2W		1W1H, 1W1H	TILT/TURN		6' - 1"	5' - 11 5/8"
GRAND TOTAL: 25								

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1ST FLOOR PLAN
SD3 12/17/18

A.101

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1 SD WEST
1/4" = 1'-0"

2 SD EAST
1/4" = 1'-0"

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EXTERIOR ELEVATIONS
SD3 12/17/18

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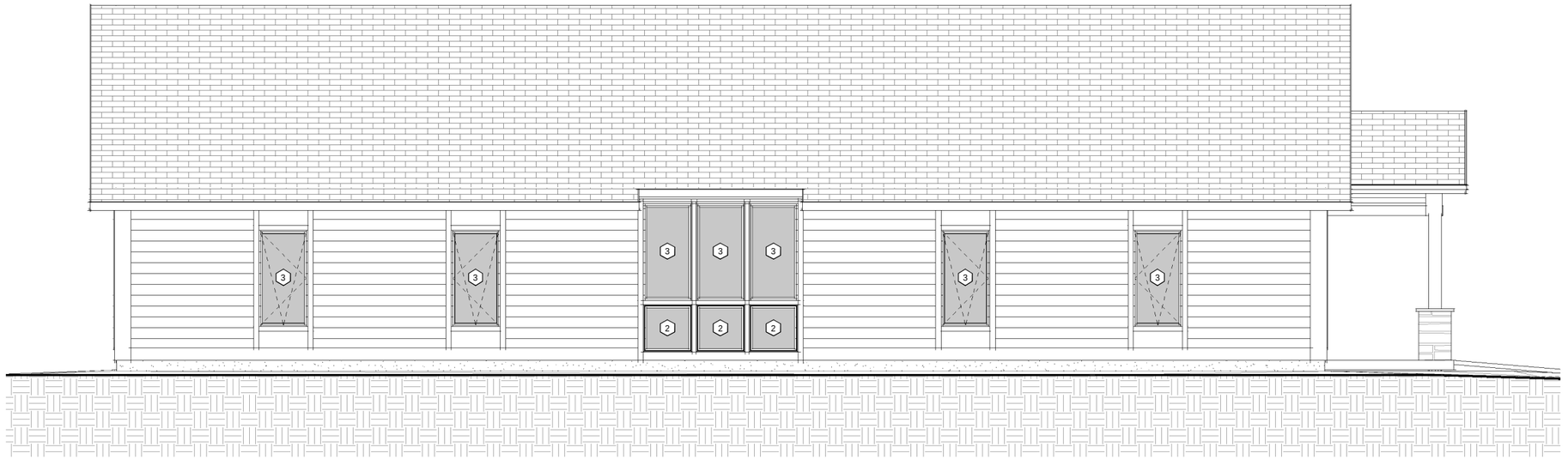

1 SD NORTH
1/4" = 1'-0"

2 SD SOUTH
1/4" = 1'-0"

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EXTERIOR ELEVATIONS
SD3 12/17/18

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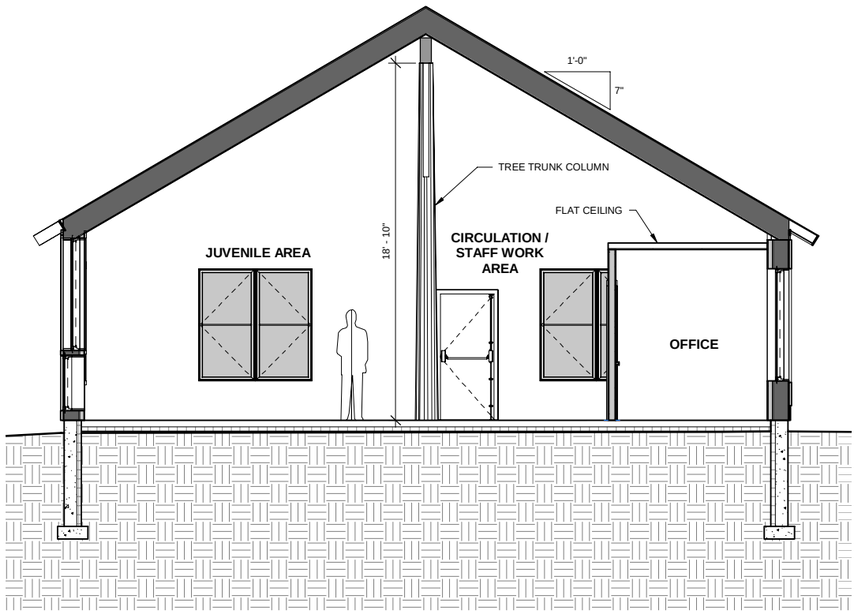
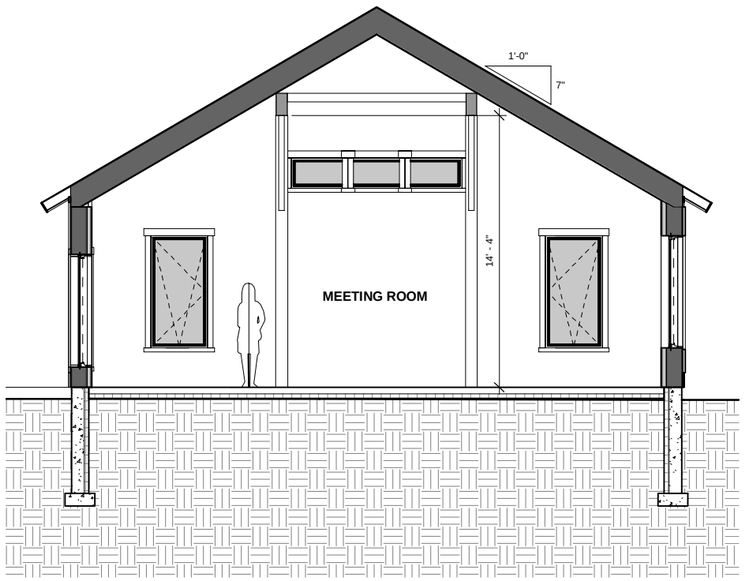


1 LIBRARY BUILDING SECTION
1/4" = 1'-0"



2 MEETING ROOM BUILDING SECTION
1/4" = 1'-0"

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MERIDEN LIBRARY - MERIDEN, NH

BUILDING SECTIONS
SD3 12/17/18

A.300

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BENSONWOOD	Optimal Glazing Comparison					Room Temp	U-Value	Rsi	Outdoor Temp
Scenario	**Cooling**	**Heating**	**Total kWhr/year**	**Difference kWhr/year**	Interior Surface Temperature at 3° F				
Integrity Doubles	1,343.63	10,694.69	12,038.32		55.21	70	0.27	0.74	-4
Wasco Triples	1,841.32	8,686.01	10,527.33	1,510.99	61.24	70	0.16	0.74	-4

Return on Investment Calculator

Scenario:	Double Glazed Windows vs. Triple Glazed Windows				
Year	Initial Investment	Utility Rate	Annual Savings	Annual Avoided Energy Cost	Cashflow
1	$ -	$ 0.14	1,511	$ 211.54	$ 211.54
2		$ 0.15	1,511	$ 222.12	$ 433.65
3		$ 0.15	1,511	$ 233.22	$ 666.87
4		$ 0.16	1,511	$ 244.88	$ 911.76
5		$ 0.17	1,511	$ 257.13	$ 1,168.88
6		$ 0.18	1,511	$ 269.98	$ 1,438.87
7		$ 0.19	1,511	$ 283.48	$ 1,722.35
8		$ 0.20	1,511	$ 297.66	$ 2,020.00
9		$ 0.21	1,511	$ 312.54	$ 2,332.54
10		$ 0.22	1,511	$ 328.17	$ 2,660.71
11		$ 0.23	1,511	$ 344.57	$ 3,005.28
12		$ 0.24	1,511	$ 361.80	$ 3,367.08
13		$ 0.25	1,511	$ 379.89	$ 3,746.98
14		$ 0.26	1,511	$ 398.89	$ 4,145.86
15		$ 0.28	1,511	$ 418.83	$ 4,564.69
16		$ 0.29	1,511	$ 439.77	$ 5,004.47
17		$ 0.31	1,511	$ 461.76	$ 5,466.23
18		$ 0.32	1,511	$ 484.85	$ 5,951.08
19		$ 0.34	1,511	$ 509.09	$ 6,460.17
20		$ 0.35	1,511	$ 534.55	$ 6,994.72
21		$ 0.37	1,511	$ 561.27	$ 7,555.99
22		$ 0.39	1,511	$ 589.34	$ 8,145.33
23		$ 0.41	1,511	$ 618.80	$ 8,764.14
24		$ 0.43	1,511	$ 649.75	$ 9,413.88
25		$ 0.45	1,511	$ 682.23	$ 10,096.11
26		$ 0.47	1,511	$ 716.34	$ 10,812.46
27		$ 0.50	1,511	$ 752.16	$ 11,564.62
28		$ 0.52	1,511	$ 789.77	$ 12,354.39
29		$ 0.55	1,511	$ 829.26	$ 13,183.65
30		$ 0.58	1,511	$ 870.72	$ 14,054.37
		ENERGY SAVINGS	**45,330**	**NET SAVINGS**	**$ 14,054.37**

Proposal for Meriden Library

December 21, 2018

Project Control Estimate

	Project Specification:	Detail Prices For Subcontracted Work	Totals
1	GENERAL CONDITIONS		$133,500
	General Conditions for the Project Scope		
	Project Management Services		
	Architectural & Engineering Construction Drawings		
	Shop Drawings & Machine Files		
	Site Supervision		
	Portolet, Dumpster, & Cleaning		
	Trucking & Travel Costs for Supplied Components		
	Trucking	$5,690	
	Truck Loading Labor	$3,530	
	Truck Unloading Labor	$2,290	
	Travel Time Labor	$1,910	
	Equipment Rental	$18,980	
2	SITE CONSTRUCTION (Not Incl.)		$0
3	CONCRETE		$62,550
	4' Frost Wall for Porch	$2,640	
	4' Insulated Frost Wall for Main Building	$21,780	
	Concrete Piers - Porch	$550	
	4" Concrete Slab Insulated with R-30 under slab	$37,580	
4	MASONRY - ALLOWANCE		$4,500
	Entry Porch Post Piers		
5	METALS (None)		$0
6A	CARPENTRY - Insulated Shell		$215,100
	Rough Carpentry		
	Porch Roof		
	2x4 & 2x6 Interior Walls per plans		
	2 x 6 Flat Ceilings		
			Bathrooms, Lobby, Office, Kitchenette, Mechanical, Storage, and Coat Closets
	R-35 OB Plus Wall Sysyem		Exterior Walls
	Timberframe		Exposed Nordic Interior Timbers, Eastern White Pine Posts (Qty 2), Port Orford Cedar Exterior Posts
	R-49 Cellulose Roof		
6B	CARPENTRY - Interior Millwork		$57,100
	Baseboard Trim - 1x6 Painted		
	Roof Boards - Eastern White Pine with a clear finish		
	Interior Trim Window - MDF with Maple Sills		
	Interior Trim, Exterior Door - Painted		
	Ceiling Trim Eastern White Pine with a clear finish		
	4 Panel Painted Door w/ Painted Casing		
6C	CARPENTRY - Exterior Millwork		$13,000
	Roof Trim - Prefinished Fiber Cement	$9,170	
	Corner Boards - Prefinished Fiber Cement - 5/4x6	$490	
	Exterior Azek Trim for Wasco Windows	$2,980	
	Exterior Trim Door - Prefinished Fiber Cement	$360	

7A	SIDING		$24,800
	Siding - Fiber Cement Clapboard	24,800.00	
7B	ROOFING		$23,500
	Roofing - Architectural Asphalt Shingles	23,500.00	
7C	INSULATION AND WATERPROOFING		$3,800
	Packout Layer 2.5" Fiberglass Insulation	$3,800	
8	WINDOWS AND EXTERIOR DOORS		$55,600
	Storefront Entry Door		
	Masonite Prefinished Fiberglass Painted No Glass		
	Wasco - XL Window, Triple Glazed		
	Egress Side Door		
9A	GYPSUM WALL BOARD AND PAINTING		$51,340
	Sheetrock	$29,520	
	Bathroom Sound Insulation	$1,900	
	Painting Interior	$19,920	
9B	FLOORING & TILE		$21,590
	Lobby, Baths, and Kitchenette Tile Allowance ~$22/SF	$7,110	
	Carpet Flooring Allowance ~$4.50/SF	$14,480	
10	SPECIALTIES		$27,970
	Mechanical Room - Mop Sink		
	Hand Towel - Soap Dispersed per Bath	$1,440	
	Coat Closet Shelf and Rod - ADA Grab Bars	$1,260	
	Fire Protection - Sprinkler System - ALLOWANCE	$25,270	
11	APPLIANCE ALLOWANCE		$1,210
	Fridge (small)	$700	
	Dishwasher	$510	
12	CABINETS AND COUNTERTOPS		$6,260
	Kitchen Cabinet - Base	$2,650	
	Kitchen Cabinet - Wall	$2,230	
	Casework and Furniture/ FFE is not Included	$570	
	Kitchen Countertop - Laminate	$810	
15A	PLUMBING		$16,170
	Electric Fast Recovery 5 Gal Water Heater - base Plumbing	$6,590	
	Toilet - ADA	$3,340	
	Kitchen Sink and Fixture	$1,840	
	Mop Sink, ADA Pedestal Sinks, 2 Hose Bibbs, Drinking Fountain	$4,400	
15B	HVAC		$44,440
	Wall Mounted Mini-Split	$14,540	
	Air Source Heat Pump Air Handler	$19,970	
	Large HRV - Lifebreath - 300 DCS	$8,480	
	Electric Baseboards - Supplemental Heat	$1,450	
16	ELECTRICAL - ALLOWANCE		$36,220
	Handicap Access - Automatic Button System	$5,680	
	Electrical Wiring and Installation	$22,280	
	Electrical Lighting Fixtures Allowance	$8,260	

Total Proposal:	**$798,650**
Contingency included in this Price	**$30,000**

* Note: This pricing in this proposal is good for 60 days
Items Listed in the Detail Column are estimated and to be locally verified

Annual Fuel Cost Comparison for Triple Glazed Windows

**1/16/19 Update estimated to account for increased slab Rvalue (R20 to R30) and added service layer insulation (R35 wall to R42), a 3% savings conservatively.*

Fuel Type	Btu's per Unit	Seasonal Heat Load	Annual Fuel Consumption	Current Cost per Unit	Annual Cost of Fuel	*Annual Fuel Consumption Difference From First Model*	*Annual Cost of Fuel Difference From First Model*
Fuel Oil (No.2)	130,000 Btu / Gallon	102,109,635.03	785.46	$ 3.12	$ 2,450.63	*27.98*	*$ 87.30*
Electricity	3,413 Btu / KWhr	102,109,635.03	29,917.85	$ 0.16	$ 4,786.86	*1,065.74*	*$ 170.52*
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	102,109,635.03	11,507.90	$ 0.16	$ 1,841.26	*409.94*	*$ 65.59*
Natural Gas	1,025,000 Btu / Thousand Cubic Feet	102,109,635.03	99.62	NA	NA	*3.55*	*n/a*
Propane	91,330 Btu / Gallon	102,109,635.03	1,118.03	$ 3.18	$ 3,555.33	*39.83*	*$ 126.65*
Wood (Air Dired)	20,000,000 Btu / Cord	102,109,635.03	5.11	$ 285.00	$ 1,455.06	*0.18*	*$ 51.83*
Wood Pellets	16,500,000 Btu / Ton	102,109,635.03	6.19	$ 268.00	$ 1,658.51	*0.22*	*$ 59.08*
Cooling with same ASHP							
Electricity with a COP of 2.6	8,873 Btu/ Kwhr	15,149,460.00	1,707.37	$ 0.16	$ 273.18	*52.81*	*$ 8.45*


MERIDEN LIBRARY

February 6, 2019

To: Town of Plainfield Select Board

Judy A. Belyea, Chair
Ron C. Eberhardt
Robert W. Taylor

Dear Judy, Ron, and Rob:

We are writing to inform you of the progress the Meriden Library Foundation has made to date with fundraising private money for the Meriden Library building project. As of today, Wednesday, February 6th, the foundation has $252, 855 in pledges. Together, with the savings held by the Trustees of the Plainfield Libraries, there is currently $463, 855 dedicated for the project.

We will receive more pledges from private donors and are awaiting the review of five proposals to foundations. Several of the proposals will not be reviewed until after March. If a warrant article supporting the project receives a positive vote at town meeting the foundation is committed to continue fundraising activities throughout the duration of the project, beyond the 50% threshold. Our goal is to raise as much as we are able to offset funds that would need to be borrowed by the town of Plainfield.

Meriden Library Foundation

Linda Buzzell
Christopher Dye
Joseph Crate
Louisa Howard
Holly McGovern
J Rendahl

Steve Halleran

From: Kevin and Clara McNamara [makstrucking@gmail.com]
Sent: Monday, March 04, 2019 6:06 PM
To: 'Brad Atwater'; aci.builds@comcast.net
Cc: plainfield.ta@plainfieldnh.org
Subject: Revised Bid - Meriden Library Project
Importance: High
Attachments: MAK'S REVISED MERIDEN LIBRARY BID 3-4-2019.pdf

Good Evening,

Our apologies for the delay in your receipt of the revised bid. I have attached is a revised bid based upon the email from Atwater Construction dated 1/28/2019 with the revised scope of services for the Meriden Library Project.

Please note that this bid is contingent upon a firm set of approved site and architectural project plans.

Please let us know if there is anything further that we can do to help.

Warm Regards,

Kevin & Clara McNamara

909 Route 120
Meriden, NH 03770
T| 603.469.3582
F| 603.469.3135

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"Proud 10 Year Member Of NH Better Business Bureau"

MAK'S TRUCKING & EXCAVATION LLC

MERIDEN, NH 603.469.3582

"Successfully Operating Since 1995"

BID

Date	BID #
3/4/2019	608R

Better Business Bureau

BILL TO:
Meriden Library c/o Meriden Trustees 22 Bean Road Meriden, NH 03770

SITE LOCATION:
Meriden Library 22 Bean Road Meriden, NH 03770

Description	Amount
Email dated 1/28/2019 From Atwater Construction: Scope of services: Parking and drive areas now total only 6800sf Walkways total 1500sf as shown, but more likely closer to 1000sf. Demo old building (after hazard material removal) Excavate new building foundation (footprint 3700sf +/-, perimeter: 310+/-lf Trench (es) for utilities (water, sewer, electric, phone/catv) ~120lf street to building Trench perimeter drain to daylight ~50' paved drive /parking area: ~4800sf gravel parking area: ~2000sf curbing: none walkways: ~1500sf exterior lamp posts: 2 Recontour / blending grades Seed & mulch – Trees/shrubs will be separate package. Details pending. Details on the drywell (s) and detention area are in progress. Details pending.	

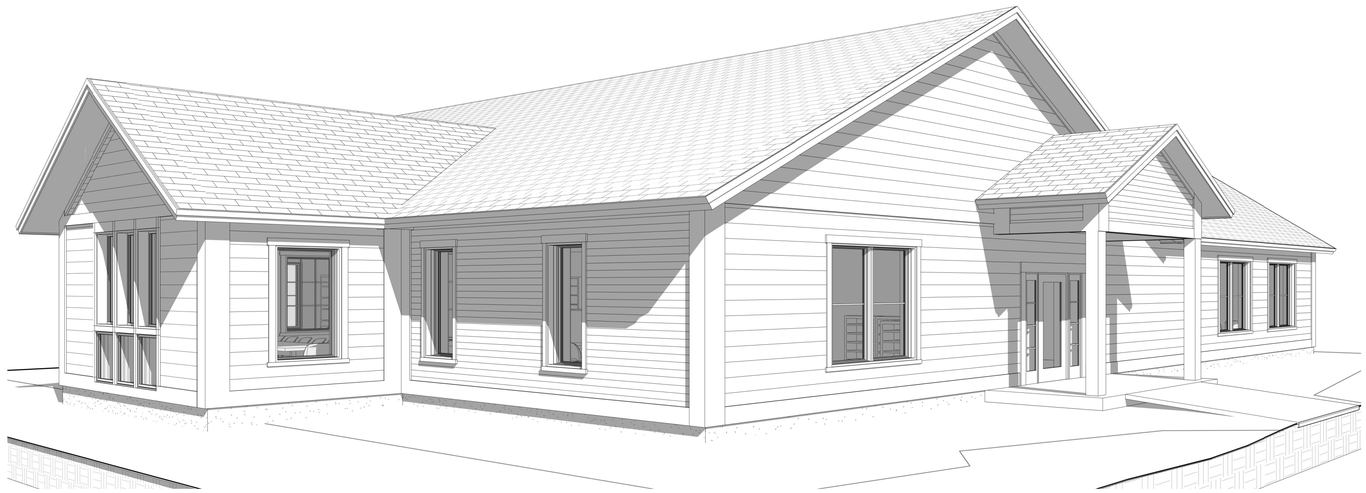
Acceptance Of This Bid Amount:

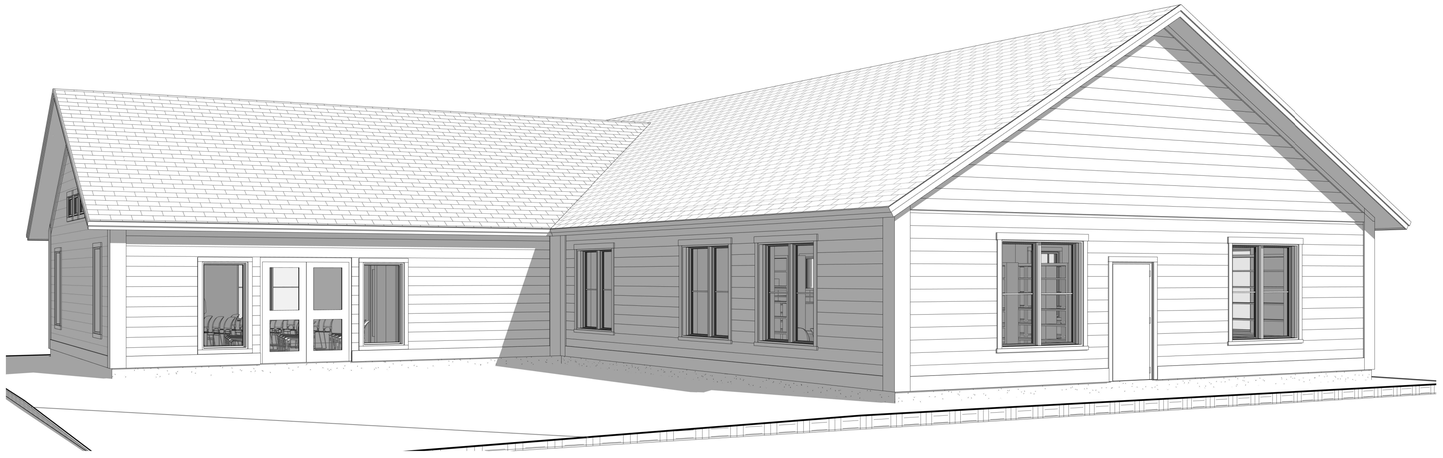
The Above Prices, Specifications And Conditions Are Satisfactory And Are Hereby Accepted. MAK's Is Authorized To Perform The Work As Specified. MAK's Personnel Will Work With The Appropriate Persons To Develop A Mutually Agreeable Construction Schedule. This Bid Is Based On Information Provided At The Date And Time Of This Bid. Any Revisions After This Date May Be Subject To A Change In Bid. MAK's Reserves The Right To Withdraw This Bid If It Is Not Accepted Within 30 Days. A Formal Construction Agreement Will Be Issued Upon Acceptance Of This Bid Amount And Will Need To Be Signed By Both Authorized Signee's.

Bid Prepared By|
Kevin J. McNamara | Member-Owner
Authorized Signee

909 Route 120 | Meriden, NH 03770 | makstrucking@gmail.com PH| 603.469.3582

Bid Total **$137,000.00**





MERIDEN LIBRARY

MERIDEN LIBRARY

22 BEAN RD.
MERIDEN, NH

DRAWING LIST	
SHEET NUMBER	SHEET NAME
A.000	COVER
A.001	SCHEDULES
A.002	SITE PLAN
A.101	1ST FLOOR PLAN
A.200	EXTERIOR ELEVATIONS
A.201	EXTERIOR ELEVATIONS
A.301	WALL SECTION

AREA SCHEDULE

LEVEL	SPACE	AREA (SF)
CONDITIONED BUILDING AREA		
1ST FLOOR	LIBRARY	4073 SF
		4073 SF
TOTAL AREA		4073 SF

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(603) 756-3600
www.bensonwood.com
BLACKJACK CROSSING
WALPOLE, NH 03608 USA

5/23/2019 10:57:10 AM

EXTERIOR DOOR SCHEDULE

TAG#	QTY	DESCRIPTION	MANUFACTURER	MODEL	COMENTS	FIRE RATING	SWING	ROUGH WIDTH	ROUGH HEIGHT
12	1	NBS_AssaAbloyLtd_DrsetSym_AASDMetalFireExitDoor_Single		EMERGENCY EXIT				3' - 3 3/8"	6' - 10 11/16"
10	1	Door-Passage-Single-Full_Lite_2SL						3' - 4"	7' - 0"
11	1	Door-Exterior-Double-Two_Lite						6' - 4"	7' - 4"
GRAND TOTAL	3								

WINDOW SCHEDULE

TAG#	QTY	DESCRIPTION	SPECIAL	LIGHTS	SWING	JAMB	ROUGH WIDTH	ROUGH HEIGHT
INTEGRITY								
1	3	ICAP3719		1W1H	F		3' - 1"	1' - 7 5/8"
2	3	ICAP3735	T	1W1H	F		3' - 1"	2' - 11 5/8"
35	2	ICA3763					3' - 1"	5' - 3 5/8"
42	3	ICAP3763					3' - 1"	5' - 3 5/8"
3	10	ICAP3771		1W1H	TILT/TURN		3' - 1"	5' - 11 5/8"
4	8	ICAP3771 2W		1W1H, 1W1H	TILT/TURN		6' - 1"	5' - 11 5/8"
GRAND TOTAL: 29								

ROOM SCHEDULE

NAME	AREA (sf)	DIMENSIONS (width X height)
1ST FLOOR		
ADULT AREA	508 SF	28'-2" x 18'-0"
BATH 1	68 SF	8'-8" x 7'-3"
BATH 2	77 SF	8'-8" x 8'-0"
CHILDRENS AREA	585 SF	24'-0" 18'-0"
CIRCULATION / STAFF WORK AREA	132 SF	13'-9" x 9'-7"
CLOSET	14 SF	6'-10" x 2'-0"
CONFERENCE ROOM	280 SF	14'-0" 20'-0"
CUSTODIAL / MECH	31 SF	6'-8" x 4'-7"
ENTRY	293 SF	18'-2" x 10'-3"
ENTRY PORCH	106 SF	7'-9" x 13'-8"
KITCHEN	42 SF	4'-9" x 9'-6"
MEETING ROOM	720 SF	30'-0" x 24'-0"
OFFICE	103 SF	12'-10" x 8'-0"
PATIO	191 SF	12'-0" x 16'-0"
STORAGE	42 SF	6'-8" x 6'-2"
TEEN AREA	432 SF	24'-0" 18'-0"
	3625 SF	

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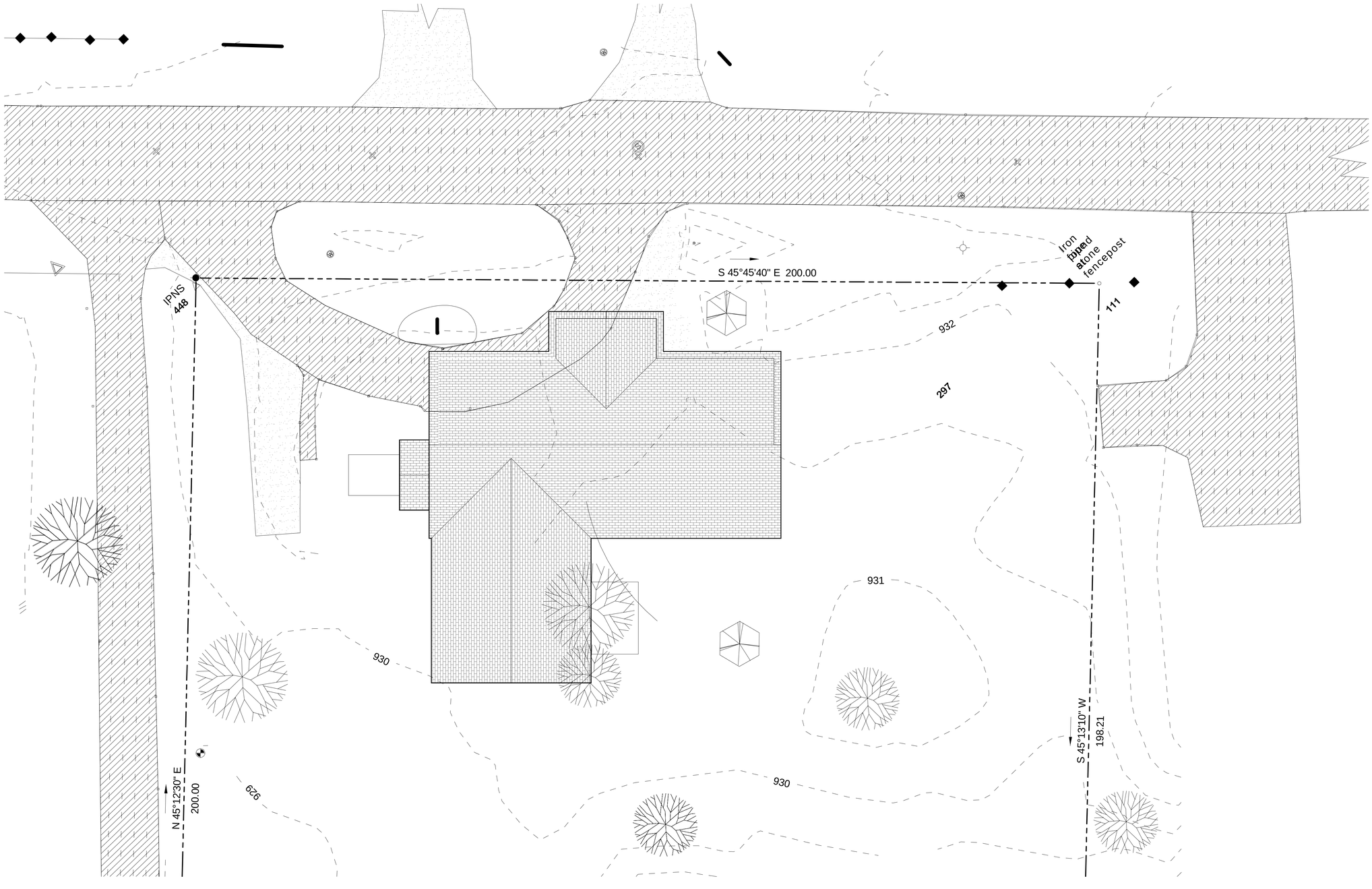

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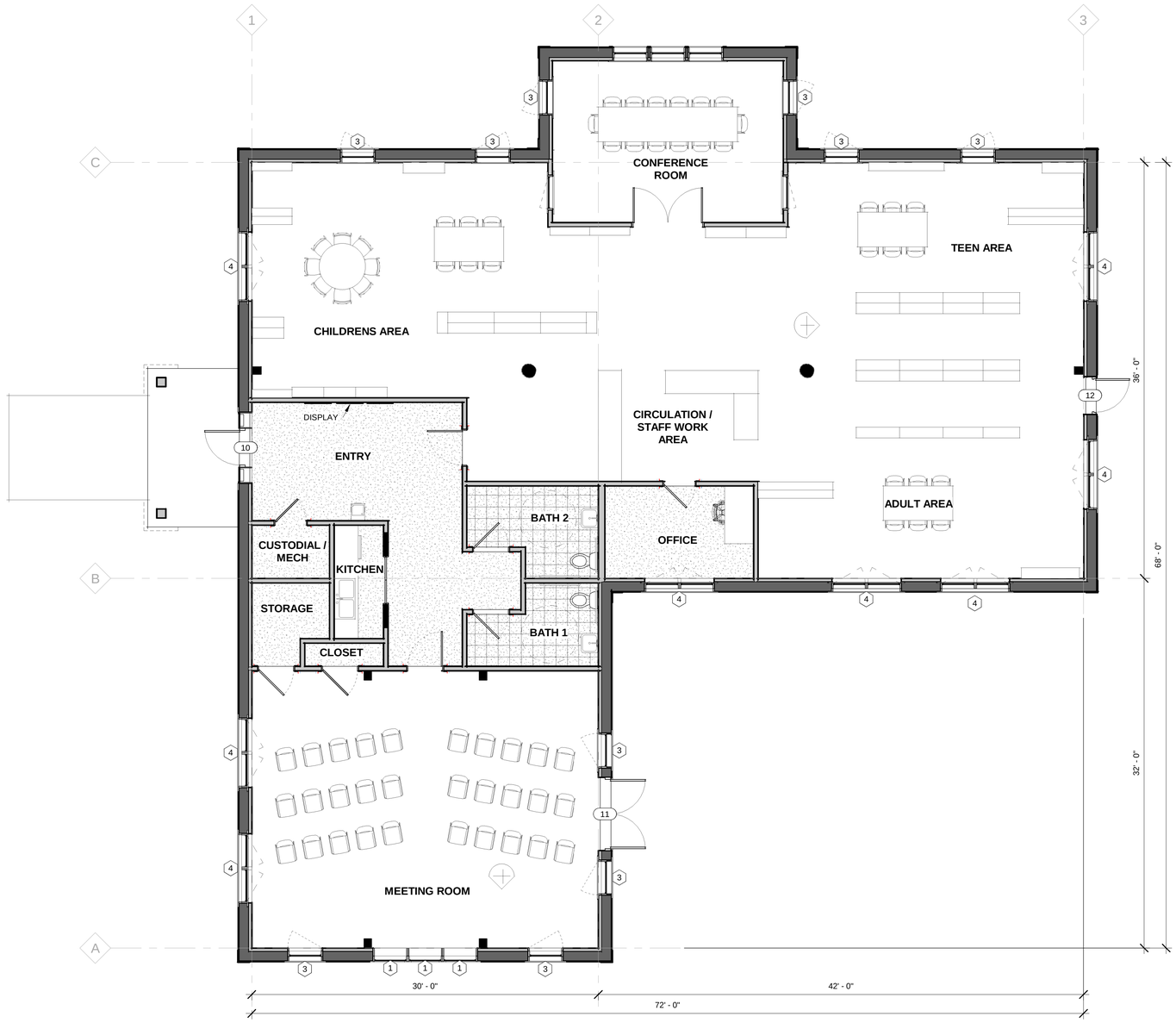
MERIDEN LIBRARY - MERIDEN, NH

SITE PLAN
SD3 1/9/19

A.002

5/23/2019 10:57:12 AM



WINDOW SCHEDULE

TAG#	QTY	DESCRIPTION	SPECIAL	LIGHTS	SWING	JAMB	ROUGH WIDTH	ROUGH HEIGHT
INTEGRITY								
1	3	ICAP3719		1W1H	F		3' - 1"	1' - 7 5/8"
2	3	ICAP3735	T	1W1H	F		3' - 1"	2' - 11 5/8"
35	2	ICA3763					3' - 1"	5' - 3 5/8"
42	3	ICAP3763					3' - 1"	5' - 3 5/8"
3	10	ICAP3771		1W1H	TILT/TURN		3' - 1"	5' - 11 5/8"
4	8	ICAP3771 2W		1W1H, 1W1H	TILT/TURN		6' - 1"	5' - 11 5/8"
GRAND TOTAL: 29								

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MERIDEN LIBRARY - MERIDEN, NH

1ST FLOOR PLAN
SD3 1/9/19

A.101

5/23/2019 10:57:15 AM

1 SD WEST
1/4" = 1'-0"

2 SD EAST
1/4" = 1'-0"

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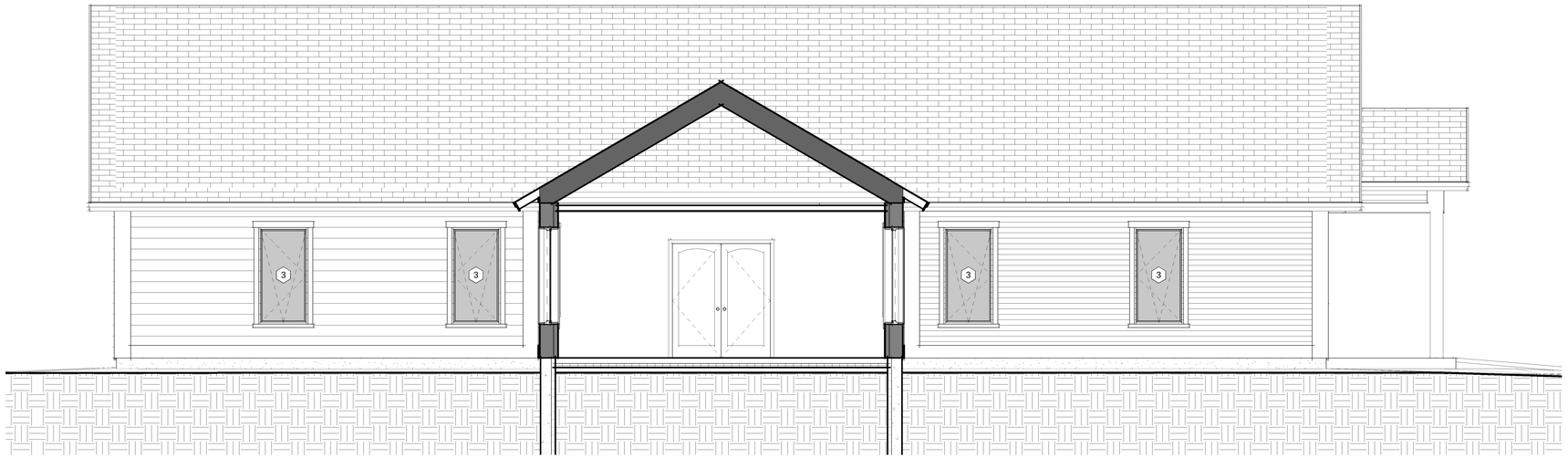
MERIDEN LIBRARY - MERIDEN, NH

EXTERIOR ELEVATIONS
SD3 1/9/19

A.200

5/23/2019 10:57:18 AM



1 SD NORTH
1/4" = 1'-0"

2 SD SOUTH
1/4" = 1'-0"

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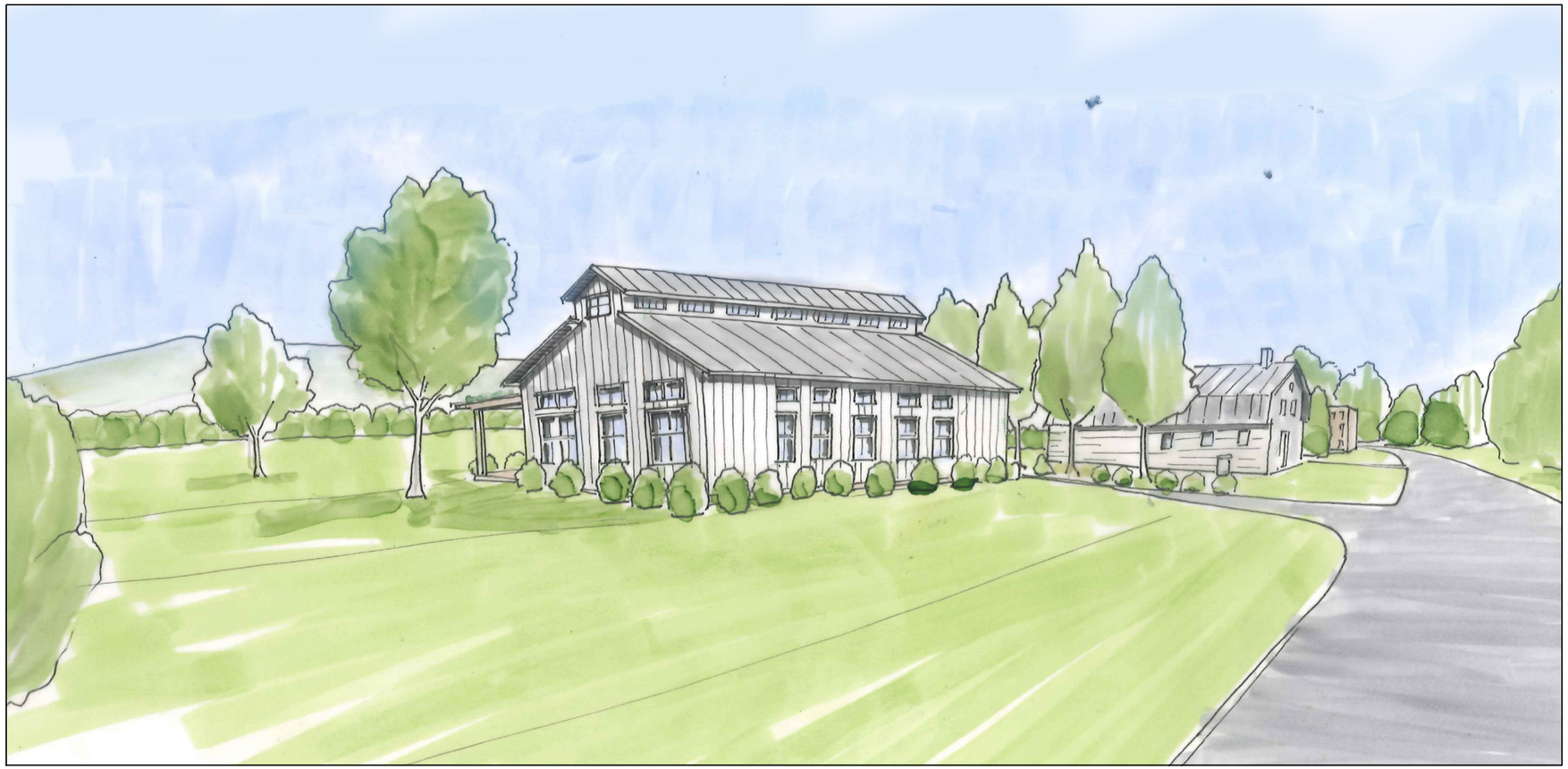
MERIDEN LIBRARY - MERIDEN, NH

EXTERIOR ELEVATIONS
SD3 1/9/19

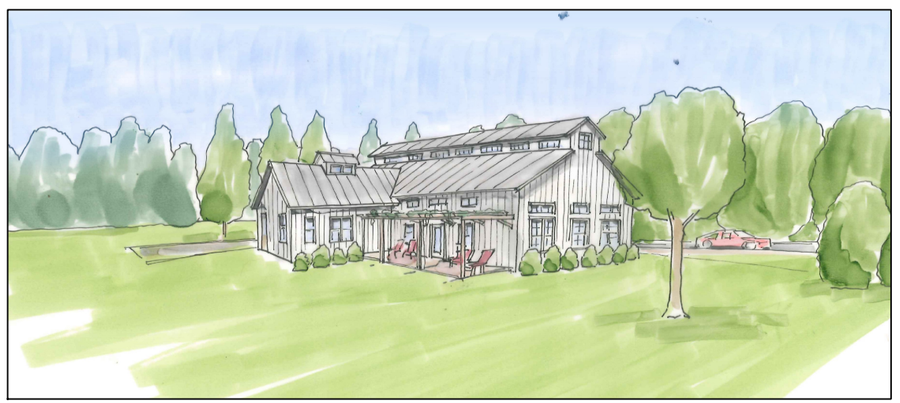
A.201

5/23/2019 10:57:21 AM



View from Bean Street

Entry View from Parking



Rear View to Pergola / Patio

DESIGN CONSULTANT

Geobarns, LLC
923 Kings Highway
White River Junction, Vermont
05001
(603) 359-1912

PROJECT

Meriden Library Replacement
Plainfield, New Hampshire

ARCHITECT OF RECORD

MEP ENGINEER

STRUCTURAL ENGINEER

REVISIONS:

No.	DATE	DESCRIPTION
–		CONCEPT SKETCHES

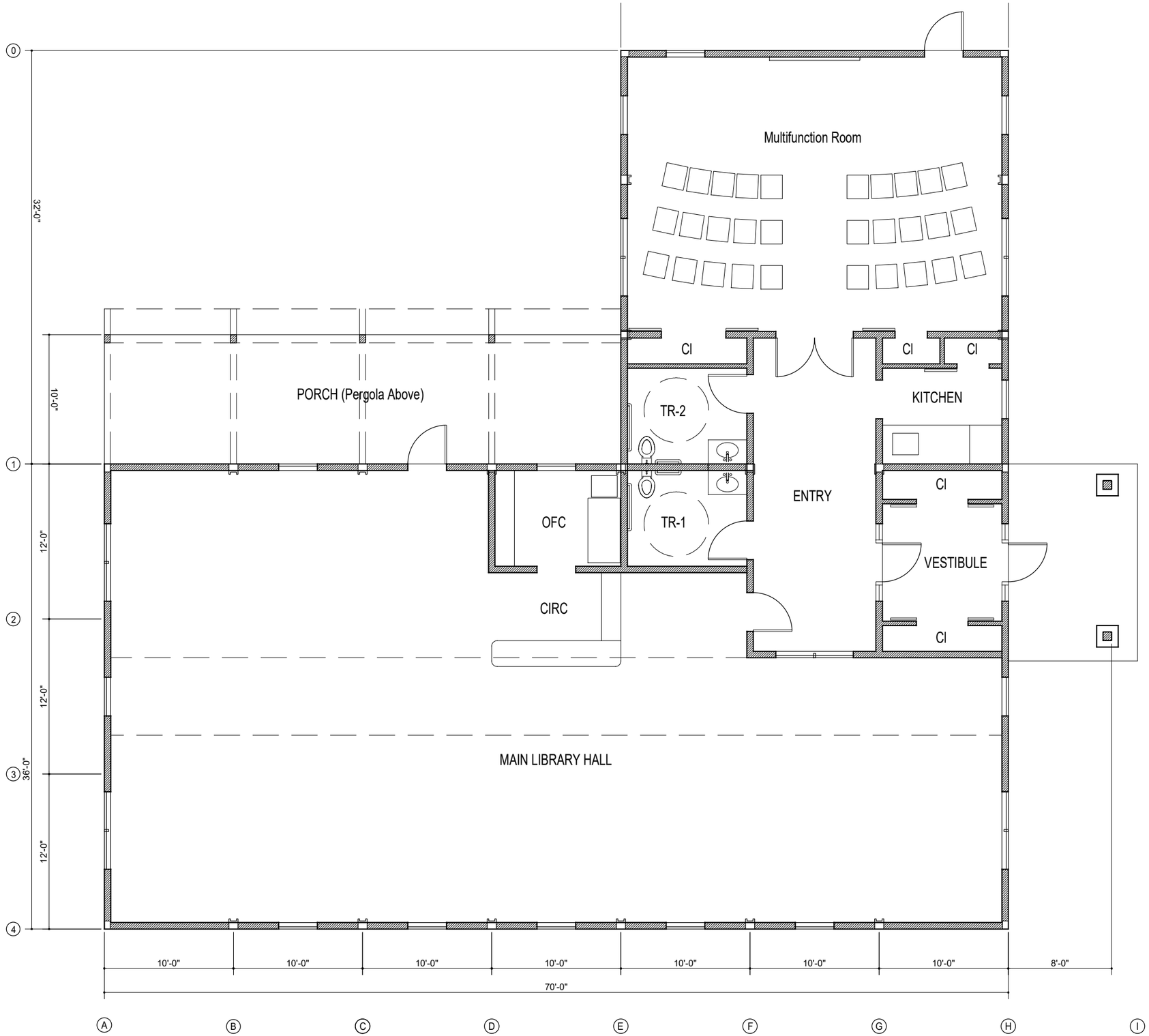
DRAWING TITLE:

CONCEPT PLANS

DATE: 11-17-2020
DRAWN: -
SCALE: 1/8" = 1'-0"

SHEET No.

Cvr



FLOOR PLAN

DESIGN CONSULTANT
Geobarns, LLC
923 Kings Highway
White River Junction, Vermont
05001
(603) 359-1912

PROJECT

Meriden Library Replacement
Plainfield, New Hampshire

ARCHITECT OF RECORD

MEP ENGINEER

STRUCTURAL ENGINEER

REVISIONS:

No.	DATE	DESCRIPTION
–		CONCEPT SKETCHES

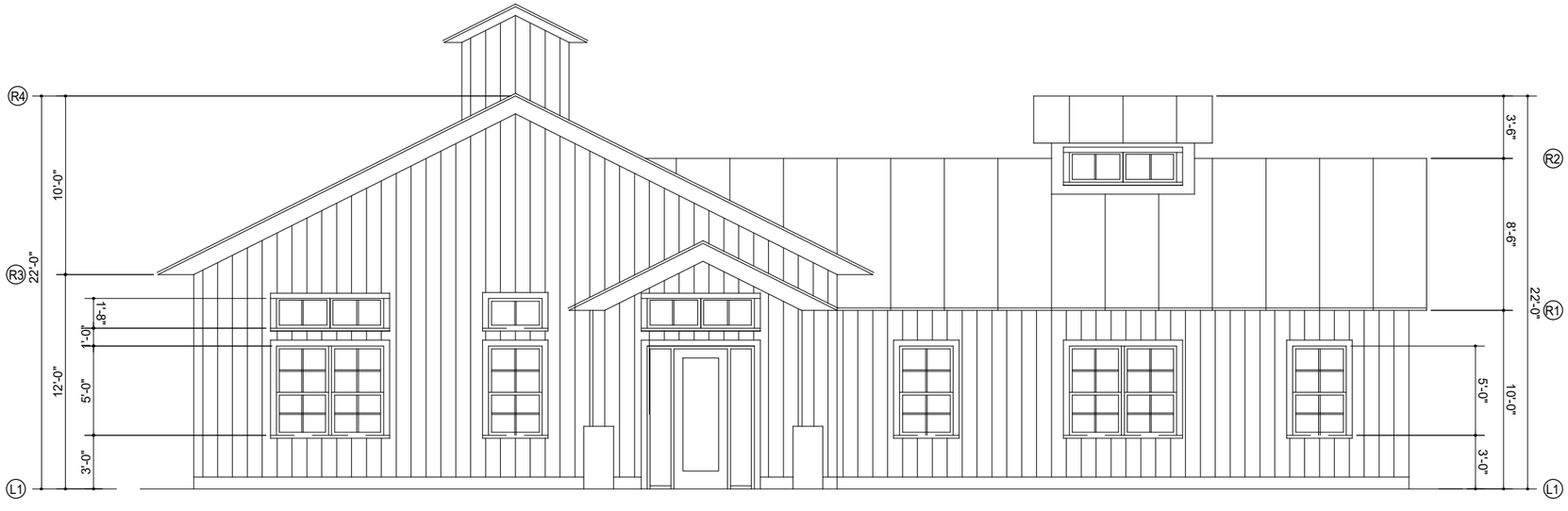
DRAWING TITLE:

CONCEPT PLANS

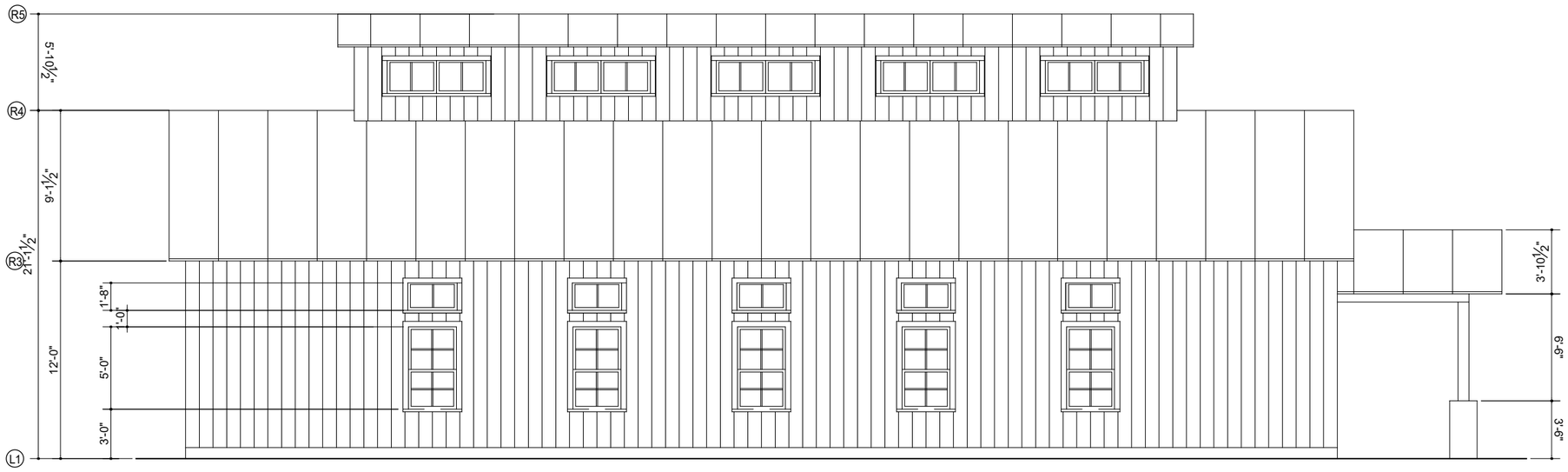
DATE: 11-17-2020
DRAWN: -
SCALE: 1/8" = 1'-0"

SHEET No.

A1.1



WEST ELEVATION: Option B



NORTH ELEVATION: Option B

DESIGN CONSULTANT

Geobarns, LLC
923 Kings Highway
White River Junction, Vermont
05001
(603) 359-1912

PROJECT

Meriden Library Replacement
Plainfield, New Hampshire

ARCHITECT OF RECORD

MEP ENGINEER

STRUCTURAL ENGINEER

REVISIONS:

No.	DATE	DESCRIPTION
–		CONCEPT SKETCHES

DRAWING TITLE:

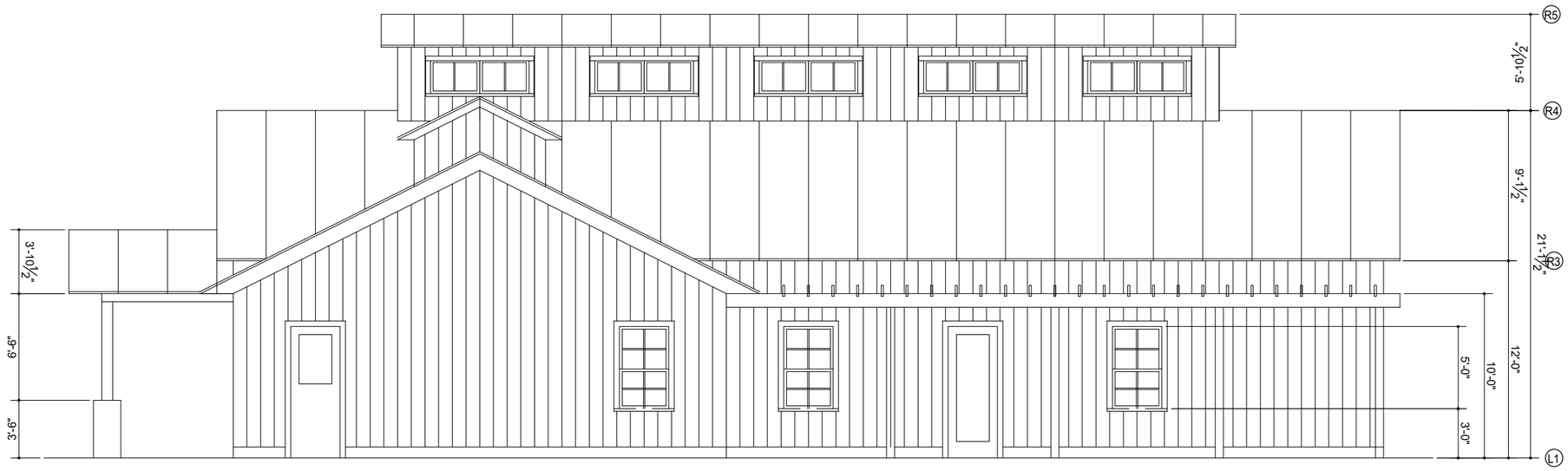
CONCEPT PLANS

DATE:	11-17-2020
DRAWN:	-
SCALE:	1/8" = 1'-0"

SHEET No.

A2.1b

EAST ELEVATION: Option B



SOUTH ELEVATION: Option B

DESIGN CONSULTANT

Geobarns, LLC
923 Kings Highway
White River Junction, Vermont
05001
(603) 359-1912

PROJECT

Meriden Library Replacement
Plainfield, New Hampshire

ARCHITECT OF RECORD

MEP ENGINEER

STRUCTURAL ENGINEER

REVISIONS:

No.	DATE	DESCRIPTION
–		CONCEPT SKETCHES

DRAWING TITLE:

CONCEPT PLANS

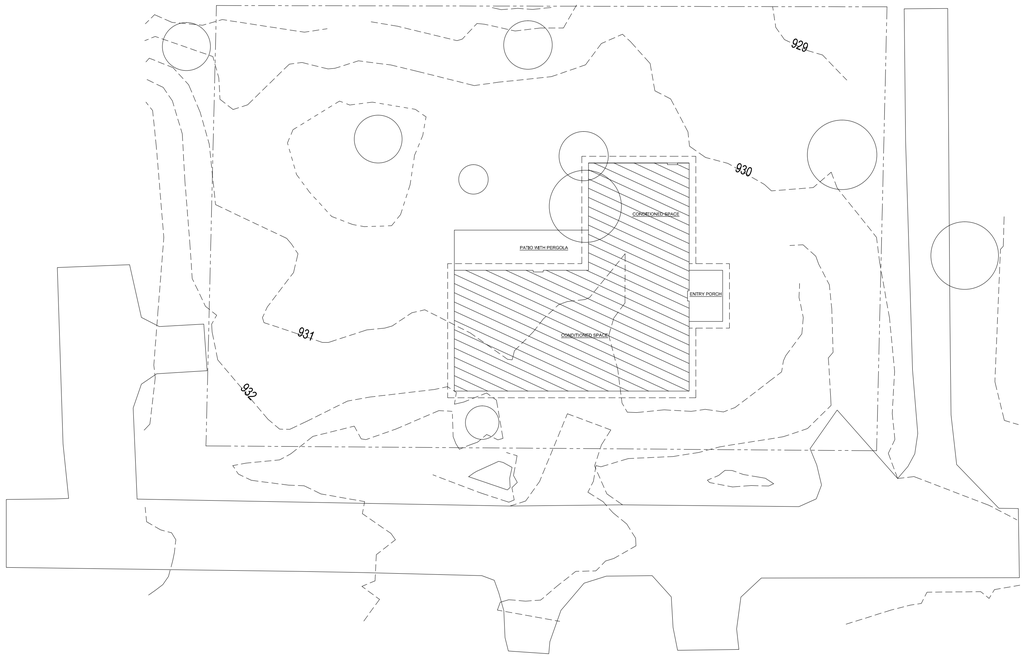
DATE: 11-17-2020
DRAWN: -
SCALE: 1/8" = 1'-0"

SHEET No.

A2.2b

FRONT ENTRANCE VIEW

BEAN ROAD VIEW



CODE / DESIGN CRITERIA

	LIVE	DEAD	DEFLECTION
FLOOR LOADING:	40	12	L/480
ROOF LOADING:	30	12	L/240
WIND SPEED:	110 MPH		
SEISMIC ZONE:	C		
CODE USED:	IBC 2018	(W/ STATE ADMENDMENTS)	

2.1. Uniform Floor Live Loads (reduced as allowed by the Building Code):

Uninhabitable attics without storage	10 psf
Uninhabitable attics with limited storage	20 psf
Habitable attics and sleeping	30 psf
Rooms other than sleeping rooms	40 psf
Decks & stairs	40 psf

2.2. Uniform Roof Live Loads:

Ground Snow Load, Pg (Per SENH)	80 psf
Flat Roof Snow Load, Pf	38 psf
Snow Exposure Coefficient, Ce	= 1.0
Importance Factor, I	= 1.0
Thermal Factor, Ct	= 1.0
Roof Slope Factor	= 1.0
Plus Drifting & Unbalanced Snow Loads per ASCE-7	

2.3. Dead Loads (in addition to structure self-weight):

Roof: Roofing	5 psf
Plywood Sheathing	3 psf
Insulation & Miscellaneous	7 psf

3. Wind Loads:

Basic Wind Speed (3 second gust)	= 95 mph
Importance Factor	= 1.00
Exposure B	
Component & Cladding Design Pressure (10 s.f.)	= 20 psf

4. Earthquake Loads:

Seismic Design Category	B
Occupancy Category	II
Spectral Response Coefficient, Sds	= 0.308
Spectral Response Coefficient, Sd1	= 0.118
Site Class D (Assumed)	
Basic Structural System: Bearing Wall System	
Seismic Resisting System: Light-framed Wood Walls with Shear Panels	
Response Modification Factor, R	= 6
Deflection Amplification Factor, Cd	= 4
Analysis Procedure: Equivalent Lateral Force Procedure	

5. No provisions have been made for future horizontal or vertical expansion.

DRAWING INDEX

SPECS = SPECIFICATIONS SHEETS

A = ARCHITECTURAL DRAWINGS

P = PLUMBING

COMMONLY USED ABBREVIATIONS:

@	AT	GALV.	GALVANIZED	SIM.	SIMILAR
A/C	AIR CONDITIONING	G.C.	GENERAL CONTRACTOR	S.I.P.	STRUCTURAL INSULATING PANEL
A.F.F.	ABOVE FINISH FLOOR	GWB	GYPSUM WALL BOARD	S.F.	SQUARE FOOT
ALT.	ALTERNATE	HDR.	HEADER	SFS	SURFACE FOUR SIDES
ALUM.	ALUMINUM	HDWD	HARDWOOD	SHT	SHEET
BRG.	BEARING	HT.	HEIGHT	SS	SINGLE SPLINE
C/C	CENTER TO CENTER	INSUL.	INSULATION	STD	STANDARD
℄	CENTERLINE	INT.	INTERIOR	STL	STEEL
CLG.	CEILING	LAM.	LAMINATE	T.O.B.	TOP OF BEAM
C.T.	CERAMIC TILE	L.F.	LINEAL FEET	T.O.D.	TOP OF DECK
CMU	CONCRETE MASONRY UNIT	LVL	LAMINATED VENEER LUMBER	T.O.S.	TOP OF SLAB
CONC.	CONCRETE	MAX.	MAXIMUM	T.O.W.	TOP OF WALL
CONT.	CONTINUOUS	MECH.	MECHANICAL	TYP.	TYPICAL
COL.	COLUMN	MIN.	MINIMUM	U.N.O.	UNLESS NOTED OTHERWISE
DBL.	DOUBLE	M.O.	MASONRY OPENING	U.O.S.	UNLESS OTHERWISE SPECIFIED
DN.	DOWN	N.I.C.	NOT IN CONTRACT	V.I.F.	VERIFY IN FIELD
DW	DISH WASHER	N.T.S.	NOT TO SCALE	W.H.	WATER HEATER
DWG.	DRAWING	NOM.	NOMINAL	W.I.C.	WALK IN CLOSET
DS.	DOUBLE SPLINE	N.R.O.	NORTHERN RED OAK	WWF	WELDED WIRE FABRIC
EA.	EACH	O.C.	ON CENTER	WT.	WEIGHT
E.I.F.S.	EXTERIOR INSULATING FINISH SYSTEM	OSB	ORIENTED STRAND BOARD	W	WITH
ELEC.	ELECTRICAL	℗	PLATE	W/O	WITHOUT
ELEV.	ELEVATION	PSF	POUNDS PER SQUARE FOOT		
EQ.	EQUAL	PLF	POUNDS PER LINEAL FOOT		
EPS	EXPANDED POLYSTYRENE	P.T.	PRESSURE TREATED		
FLR.	FLOOR	PSL	PARALLEL STRAND LUMBER		
FDN	FOUNDATION	REINF.	REINFORCEMENT		
FR	FULL ROUT	REQ.	REQUIRED		
		R.O.	ROUGH OPENING		

JAMES D. SMITH, ARCHITECT
522 BAY LANE, CENTERVILLE, MA 02632
PH: 508-367-8920 EMAIL: JAMESDSMITH11@COMCAST.NET

923 Kings Highway
White River Jct, VT
www.geobarns.com
PH: 802-222-1212
RYAN@GEOBARNS.COM

REVISIONS

NO.	DESCRIPTION	BY	DATE
	90% Set	JDS	04/15/21

JOB LOCATION:
New Building for the Meriden Library
22 Bean Road Meriden, New Hampshire

MERIDEN LIBRARY

SHEET
SPECS-1

FILE#: JDS-Geo1
DATE: 04/15/21
PROJ. MGR. JDS
C.M. Geobarns LLC

FRONT ENTRANCE VIEW

BEAN ROAD VIEW

LIFE SAFETY REVIEW

Building Code Review

Project Location

22 Bean Road
Meriden, New Hampshire
Tax Map 000104 / Lot 000023

As per the *Town of Plainfield, N. H. Zoning and Building Ordinances*, last revised March 2019, this property is located within the following zoning land use district:

- The Village Residential "VR" Zoning District.
- This property is not located within a historic district.
- This property is not located within a TIF district.
- This property is not located in any flood, conservation, or airport overlay districts.
- The lot area is approximately 0.962 acre.

Owner of Record

Town of Plainfield, New Hampshire, Owner.
Meriden Library, Co-Owner.
O. O. Box 380
Meriden, NH 03773
(603) 469-3252

Applicable Codes and Standards

As per the New Hampshire State Building Code:

- International Building Code, 2015 Edition (IBC) with NH amendments.
- NFPA 101 Life Safety Code, 2015 Edition (NFPA) with NH amendments.
- National Electrical Code, 2017 edition (NEC) with NH amendments.
- International Mechanical Code, 2015 edition (IMC) with NH amendments.
- International Energy Conservation Code, 2015 edition (IECC) with NH amendments.
- International Plumbing Code, 2015 edition (IPC) with NH amendments.

Other Applicable Codes and Standards:

- New Hampshire Fire Code including NFPA 1, 2015 edition.
- *Town of Plainfield, N. H. Zoning and Building Ordinances*, last revised March 2019.

Project Scope

The scope of this project is the complete demolition of the existing Meriden Library structure; and to construct a new single story library structure essentially in the same location; and complete related site improvements on the lot.

Building Risk Category

As per IBC Table 1604.5 *Risk Category of Buildings and Other Structures*:

- Category II.

Proposed Building Use

Primary Use:
- IBC: Assembly Group A-3 (public library).
- NFPA: New Assembly Occupancies (Chapter 12).

Accessory Uses:
- None.

Incidental Uses as per IBC Section 509:
- None.

Classification of Hazard of Contents (NFPA 6.2 and 12.1.5):
- Ordinary Hazard.

Gross Building Square Foot Areas

First Floor: 4,094 s/f.

Building Construction Type and Required Fire Ratings

Building Construction Type:
- IBC Table 601: Type VB = Combustible/ Unprotected. Structure.
- NFPA Table 4.1.1: V (000) = Combustible / Unprotected.

Is the building proposed to be equipped with an automatic sprinkler system?
- No.

Is the building required to be equipped with an automatic sprinkler system?
- No.

Allowable Building Height in Feet Above the Grade Plane as per IBC Table 504.3:
- A-3 / VB Non- Sprinklered = 40-Feet.

Allowable Number of Stories Above the Grade Plane as per IBC Table 504.4:
- A-3/VB Non-Sprinklered = One (1) Story.

Allowable Area factor as per IBC Table 506.2:
- A-3 /VB Non-Sprinklered = 6,000 s/f.

Incidental uses as per IBC Table 509 that require fire ratings:
- None.

Separation of uses that require fire rated construction:
- None.

Special detailed fire rating requirements based upon use and occupancy:
- None.

Applicable exterior wall fire ratings required (IBC Table 602 and Tables 705.2 and 705.8):
- None

Interior stairwell / exit fire rating required (IBC Section 1023):
- None.

Shaft enclosure fire rating requires (IBC Section 713):
- None.

Exit access corridor fire rating:
- None.

Building Occupant Load and Egress

Occupant Load

The maximum total occupant load for this building, as per the individual adopted IBC (Table 1004.5) and NFPA (Table 7.3.1.2) codes, break the building down into two (2) spaces, as follows:

- Library Reading Room:
  - 1,896 net square feet divided by 50-feet per person = 38 Persons.
- Assembly Room:
  - 673 net square feet:
    - Divided by 5-feet per persons standing = 135 persons.
    - Divided by 7-feet per person seated in loose chairs = 96 persons.
    - Divided by 15-feet per person at tables and chairs = 45 persons.

Total building occupant load under highest circumstances = 173 persons.

Average mean building occupant load: 38 persons in the library + 68 persons in the Assembly Room = 106 persons.

Egress

Building Egress (non-sprinklered building / A-3 Assembly use):
- Exit access travel distance:
  - IBC= 200 Feet (Table 1017.2).
  - NFPA = 200 Feet (NFPA12.2.6).
- Common path of travel:
  - IBC = 75 Feet (Table 1006.2.1).
  - NFPA = 75 Feet (Section 12.2.5.1.2).
- Dead end corridors and aisles:
  - IBC = 20 Feet (Section 1020.4.2).
  - NFPA = 20 Feet (Section 12.2.5.1.3).
- Minimum Corridor Width:
  - IBC = 36-inches clear with an occupant load less than 50 (Table 1020.2).
  - NFPA = 44-inches clear as per Section 12.2.3.8.
- Number of Building Exits:
  - IBC = Two (Table 1006.3.2).
  - NFPA = Two (2) as per Section 28.2.4.1(2).
- Spaces with a Single Exist:
  - IBC = 49 persons maximum occupant load (Table 1006.2.1).
- Secondary Means of Escape:
  - None required.
- Areas of Refuge:
  - None required.
- Steps and Stairs (IBC):
  - Maximum Riser Height: 7"
  - Minimum Tread Depth: 11"
  - Minimum Width: 3' - 8"
  - Minimum Landing Width: 3' - 8"
  - Minimum Headroom: 6' - 8"
- Handrails requirements:
  - Required on both sides of steps and stair.
  - Mounting height: Between 34" minimum and 38" maximum.
  - Diameter: Between 1 ¼" and 1 ½".
- Minimum Stair Width: 3' - 0"
- Minimum Landing Width: 3' - 0"
- Minimum Headroom: 6' - 8"

Sound Transmission

- No requirements.

Interior Finishes

As per IBC Table 803.9 (A-3 non-sprinklered building):
- In interior front exit area = A Rating.
- In rooms and enclosed spaces = C Rating.

Accessibility Requirements

All areas of the building and site must be HC accessible as per IBC Chapter 12 Accessibility; and as per ICC A117.1.

As per IBC Table 1106.1 *Accessible Parking Spaces*, and Section 1106.5 *Van Spaces*, there shall be one (1) van accessible parking space provided adjacent to the front entrance.

As per IBC 1105.1 *Accessible Entrances*, at least 60-percent of all building entrances shall be accessible. Therefore, the following entrances into the building will be full accessible:

- The front entrance.
- The exit door from the Assembly Room.

The door from the main library area out to the terrace / pergola area need not be accessible.

Minimum Plumbing Fixture Requirements

Based upon an average mean total building occupant load of 106 persons, split evenly male and female, A-3 Assembly Occupancy Classification, the minimum fixture requirements are as follows:

- Male (53 occupants):
  - At one (1) water closet per 125 male occupants = one (1) water closet.
  - At one (1) lavatory per 200 male occupants = one (1) lavatory.
- Female (53 occupants):
  - At one (1) water closet per 65 female occupants = one (1) water closet.
  - At one (1) lavatory per 200 female occupants = one (1) lavatory.
- Other (based on 106 occupants):
  - One (1) janitor's service sink for the entire building.
  - One (1) accessible drinking fountain for the entire building.

These plumbing fixture must meet applicable accessibility standards; and so too should the kitchen sink.

End of Building Code Review

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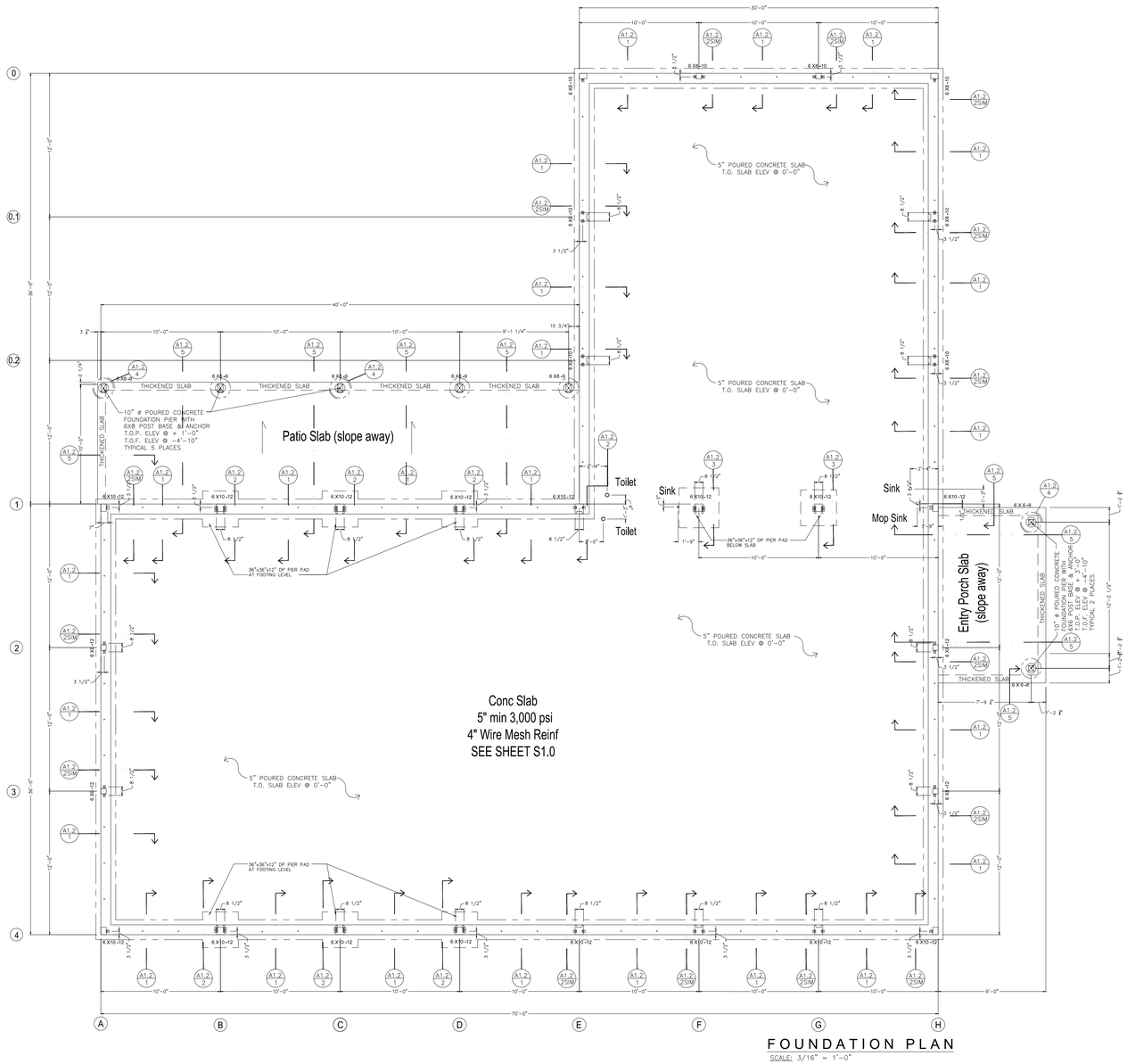


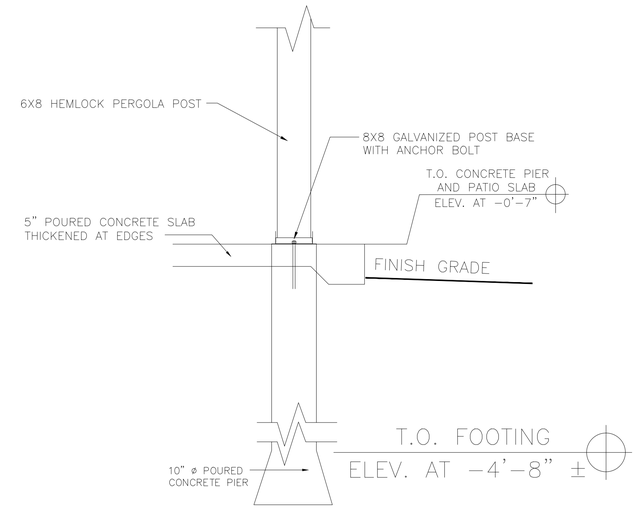
FOUNDATION PLAN

SCALE: 3/16" = 1'-0"

PROVIDED FOR REFERENCE ONLY, SEE SHEET S1.0

FOUNDATION PLAN NOTES:

1. ALL HEIGHTS ARE MEASURED FROM T.O. 5" THICK POURED CONCRETE SLAB OF FIRST FLOOR WHICH IS AT 0'-0" DATUM.
2. FOUNDATION FOOTINGS ARE 20" X 10" POURED CONCRETE. TOP OF FOOTING HEIGHT IS -4'-10" OR MINIMUM 4'-0" BELOW FINISH GRADE.
3. FOUNDATION WALLS ARE 10" THICK POURED CONCRETE. TOP OF WALL HEIGHT IS 0'-0" EXCEPT AT DOOR CUTS AS NOTED ON PLANS.
4. ANCHOR BOLTS SHALL BE 1/2" x 12" J-BOLTS SPACED A A MAXIMUM 4'-0" APART AND AT POST LOCATIONS. THEY SALL BE CENTERED 3 1/2" IN FROM THE OUTER EDGE OF THE WALL.
5. PORCH PIERS ARE 10" DIAMETER POURED CONCRETE. TOP OF PIER HEIGHTS ARE +1'-0", UNLESS NOTED OTHERWISE. TOP OF PIER FOOTING HEIGHTS ARE -4'-10" OR MINIMUM 4'-0" BELOW FINISH GRADE.
6. CONCRETE PORCH SLABS ARE 5" THICK WITH 8" THICKENED SLAB AT SLAB PERIMETERS. TOP OF SLAB SHALL BE THE LEVEL OF THE ADJACENT INTERIOR SLAB. THE SLAB SHALL BE SLOPED 1/8" IN 12" AWAY FROM THE BUILDING.



AT REAR PATIO
WITH PERGOLA

DETAIL 1

SCALE: 1/2" = 1'-0"

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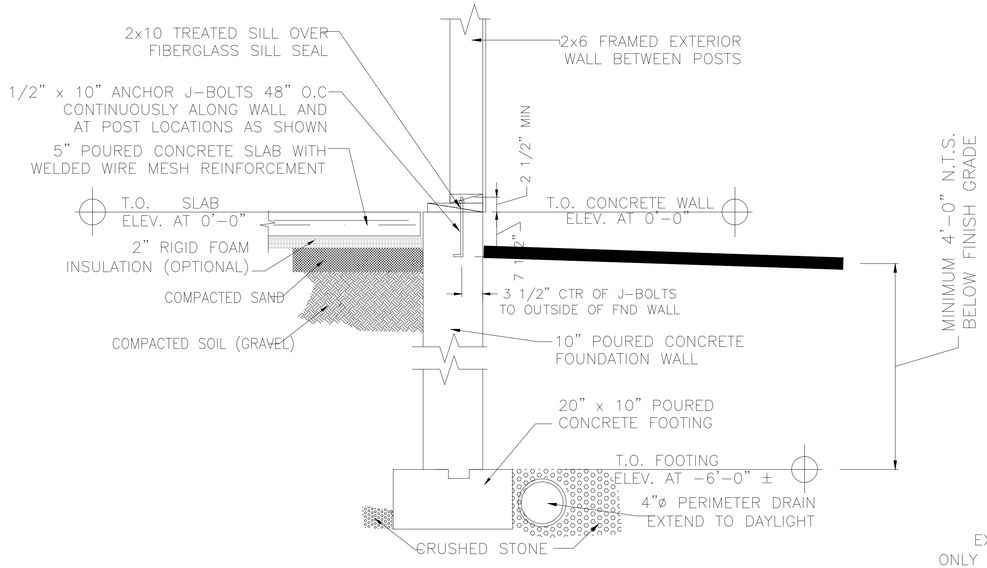
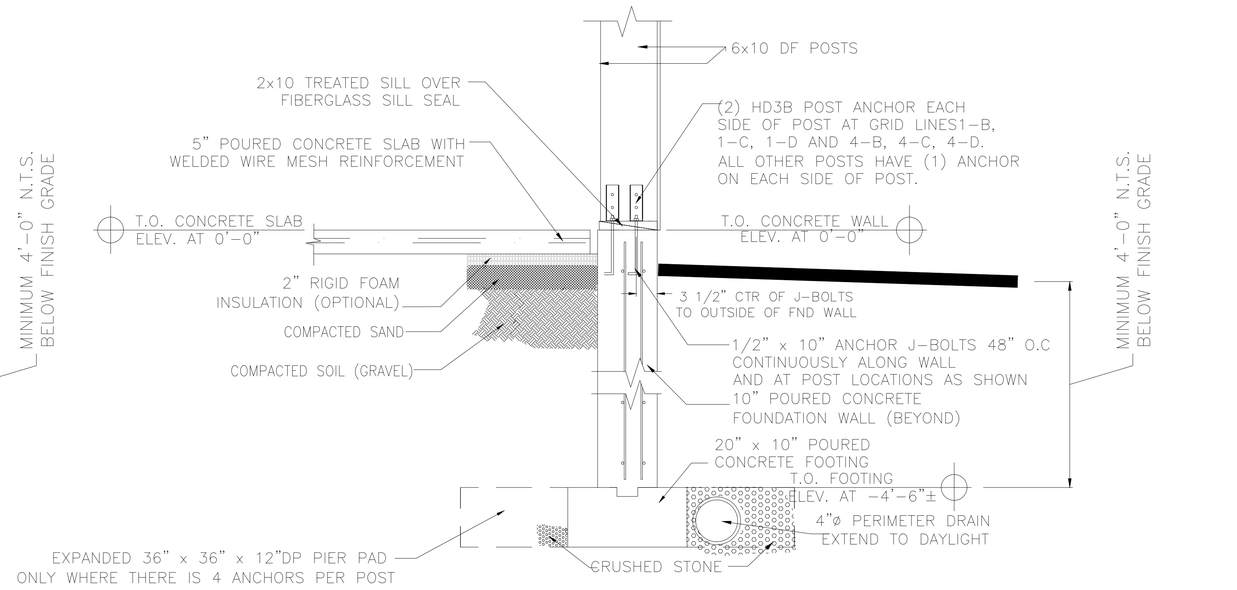


TYPICAL FOUNDATION DETAIL

DETAIL 1

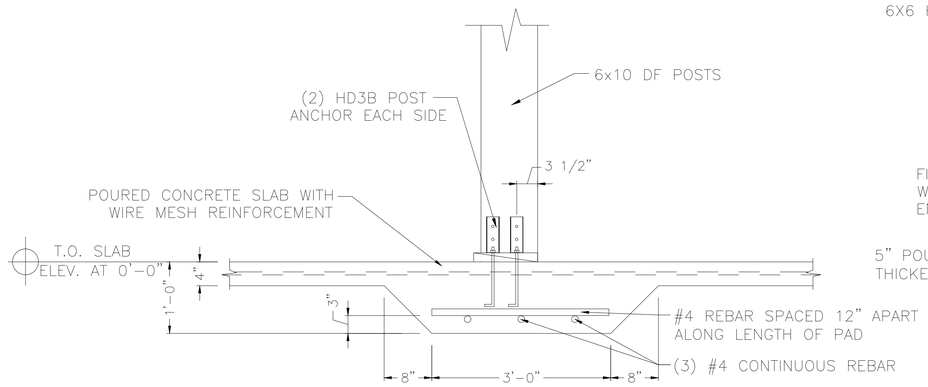
SCALE: 1/2" = 1'-0"



AT POST / CONCRETE CONNECTION

DETAIL 2

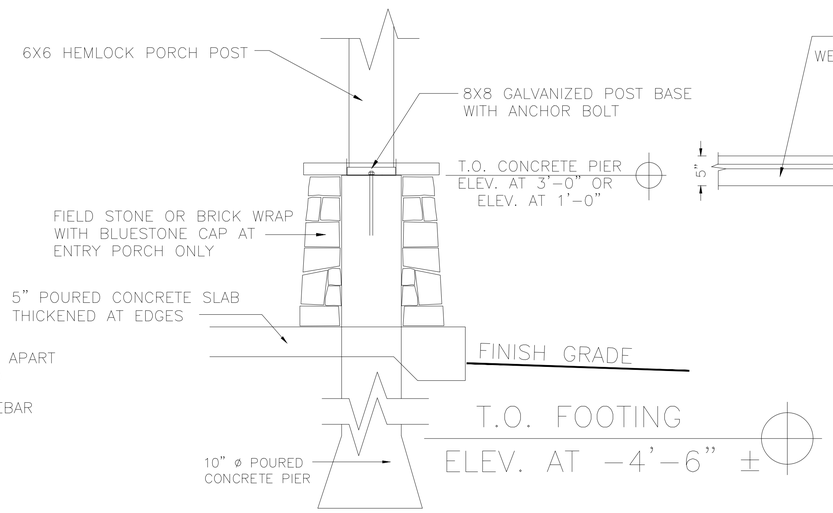
SCALE: 1/2" = 1'-0"



36" x 36"MONOLITHIC FOUNDATION PAD AT COLUMN GRID LINES 1-F AND 1-G

DETAIL 3

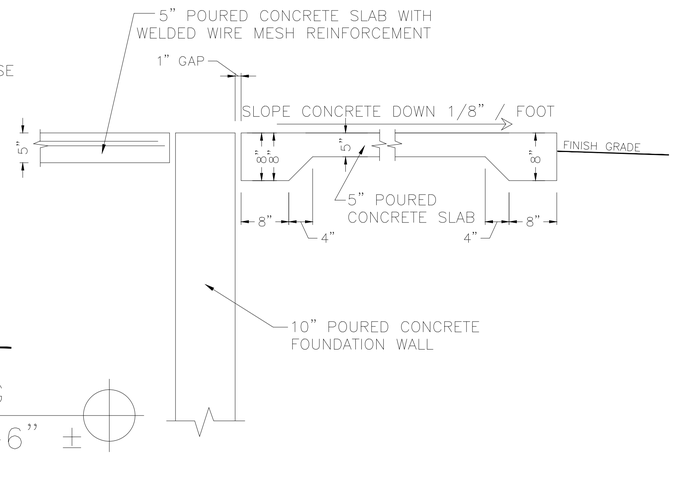
SCALE: 1/2" = 1'-0"



AT ENTRY PORCH

DETAIL 4

SCALE: 1/2" = 1'-0"



THICKENED SLAB AT PERIMETER OF PORCH SLABS

DETAIL 5

SCALE: 1/2" = 1'-0"

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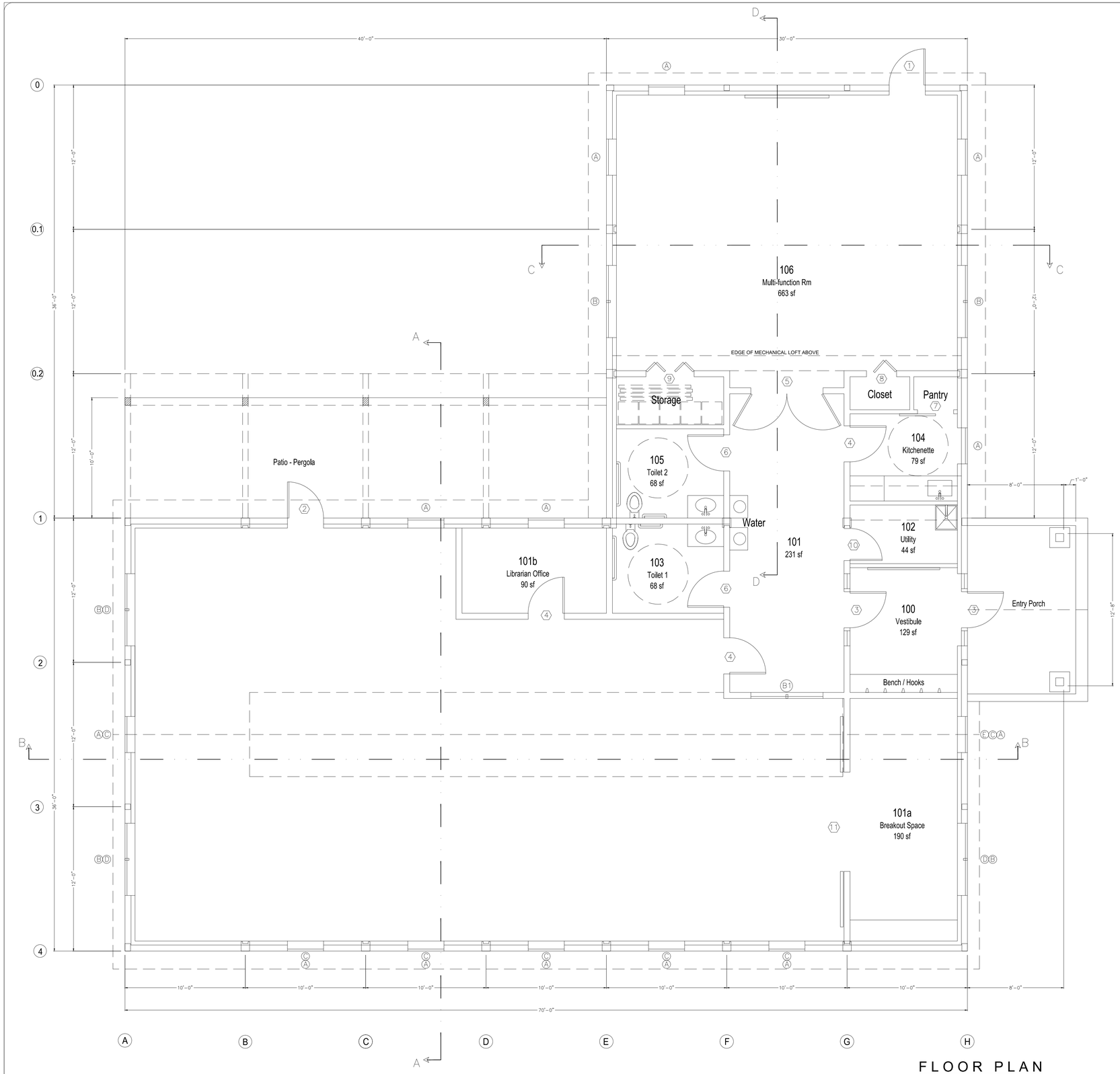
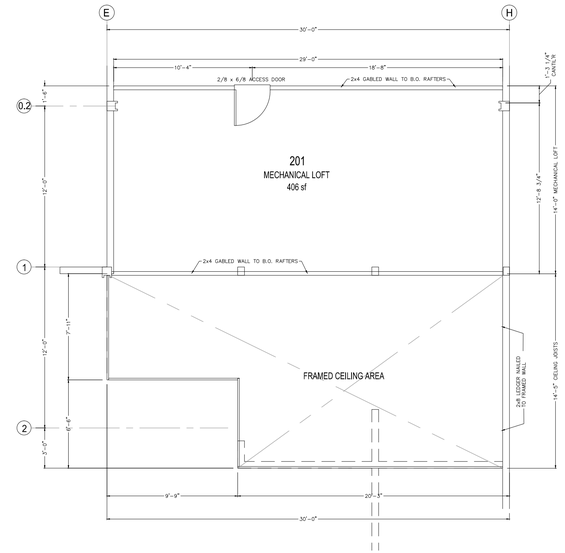


FLOOR PLAN

SCALE: 1/4" = 1'-0"



MECHANICAL LOFT FLOOR PLAN

SCALE: 3/16" = 1'-0"

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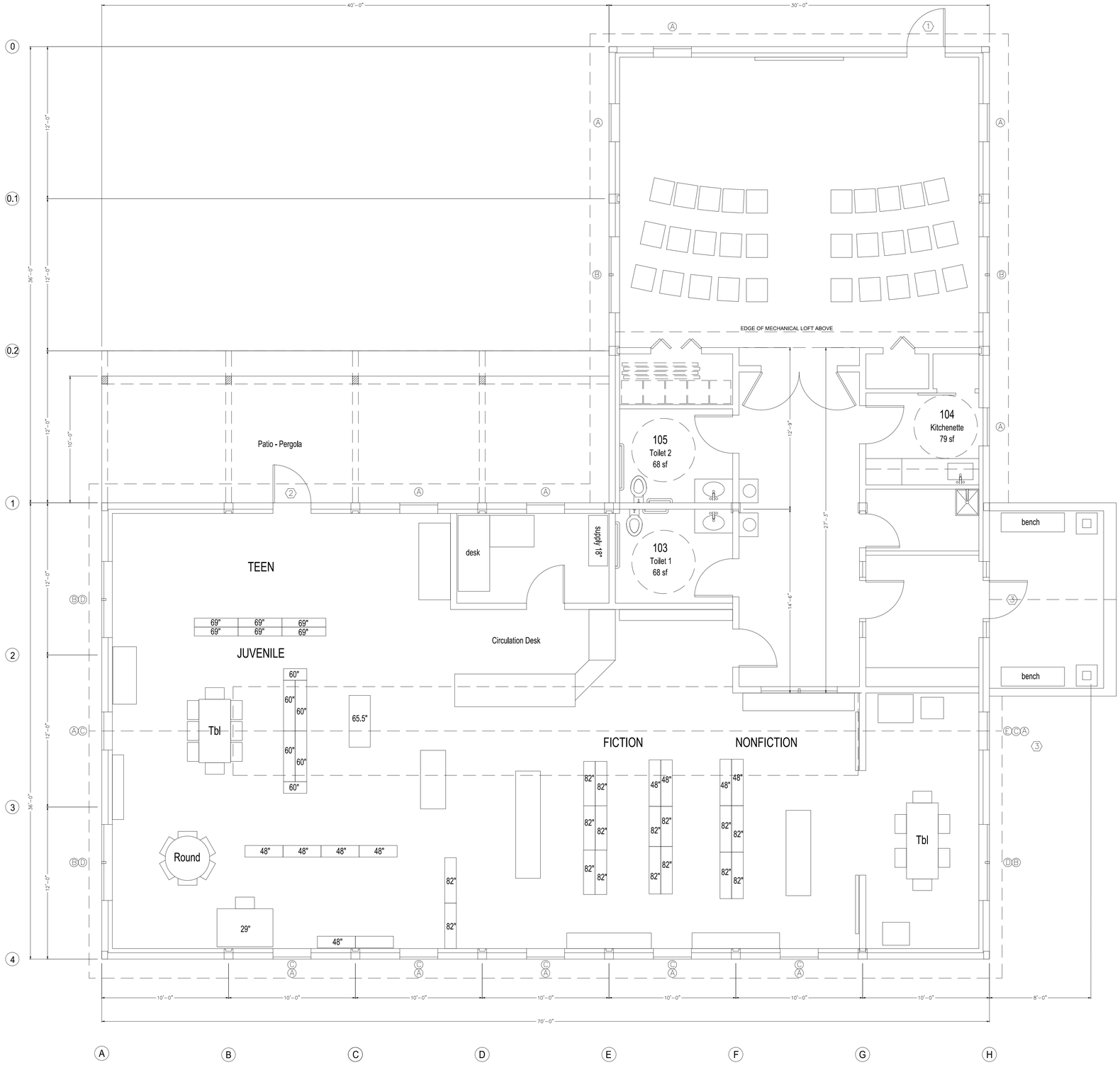

FURNITURE PLAN

SCALE: 1/4" = 1'-0"

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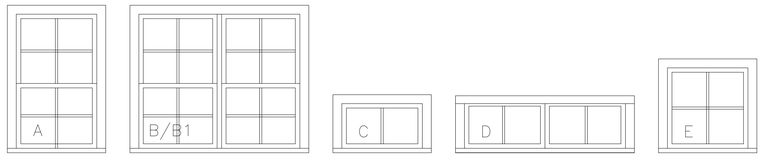

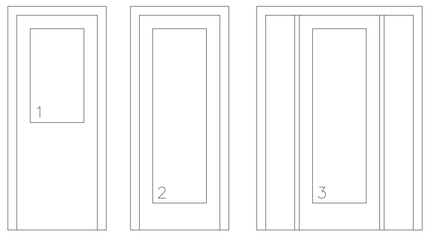

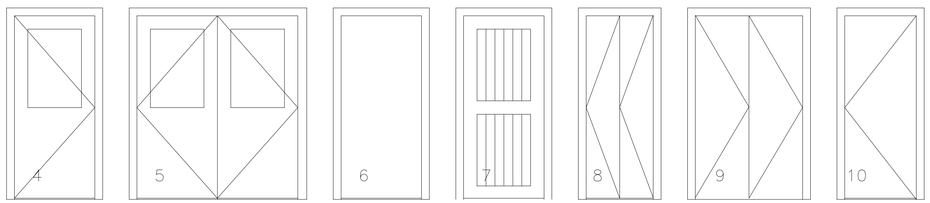

WINDOW SCHEDULE

SYMBOL	QUANTITY	MANUFACTURER	TYPE	MODEL #	ROUGH OPENING	NOTES
A	13	WYTHE	Stuyvesant Csmt	36x60 tilt/turn	–	TRIPLE PANE, LOW-E, ARGON, SCREENS
B	5		Stuyvesant Csmt	72x60 tilt/turn		DBL UNIT
B1	1		TBD	72x60 INTERIOR		DBL UNIT NON-THERMAL
C	7		Stuyvesant Picture	36x20 FIXED		Fixed Transom
D	16		Stuyvesant Picture	33x60 RH		Fixed Divided Transom
E	1	〃	Stuyvesant Picture	36x36 RH		〃 Fixed Transom

EXTERIOR DOOR SCHEDULE

SYMBOL	QUANT.	MANUFACTURER	TYPE	MODEL #	ROUGH OPENING	NOTES
1	1	WYTHE	STUYVESANT INSWING HALF LITE	3696 HALF VIEW RH	see order	TRIPLE PANE LOW-E ARGON
2	1		STUYVESANT INSWING FULL LITE	3696 FULL VIEW RH		
3	1	〃	STUYVESANT OUTSWING FULL LITE	3696 FULL VIEW RH		〃 W/ SIDELITES

INTERIOR DOOR SCHEDULE

SYMBOL	QUANT.	MANUFACTURER	TYPE	MODEL #	ROUGH OPENING	NOTES
4	1	BROSCO	HALF-LITE RH Solid Wd	SINGLE 36x80	–	PINE
5	1		HALF-LITE FRENCH PAIR	DOUBLE 36x80		PINE
6	3	〃	SOLID Wd	SINGLE 36x80		PINE
7	1	Custom Geobarns	Sliding Barn Door	Solid Wd 36x80		PINE
8	1	TBD	BI-FOLD LEFT HINGE 2/6 x 6/8	Solid Wd		PINE
9	1	TBD	BI-FOLD 4/0 x 6/8	LOUVER		PINE
10	1	TBD	BI-FOLD RIGHT HINGE 2/6 x 6/8	LOUVER		PINE
11	1	Custom Geobarns	DOUBLE Sliding Barn Door	Double 48x80 Wd		PINE
–						

ROOM FINISH SCEDULE

ROOM & NUMBER	WALLS	CEILING	FLOOR	WINDOWS	DOORS
VESTIBULE 100	PTD 1/2" GWB	1x6 T&G PINE BOARDS	VINYL TILE – TBD	SHEETROCK RETURN, 1x6 PINE SILL & APRON	1x6 PINE JAMBS & 1x3 PINE CASING
CORRIDOR 101					
BREAK OUT 101A					
OFFICE 101B					
UTILITY 102					
TOILET 1 103					
KITCHENETTE 104					
TOILET 2 105			〃		
ALL PURPOSE 106			CARPET – TBD		
LIBRARY HALL 107	〃	〃	CARPET – TBD	〃	〃
NOTE:	ALL ROOMS SHALL HAVE 1X8 PINE BASEBOARDS				

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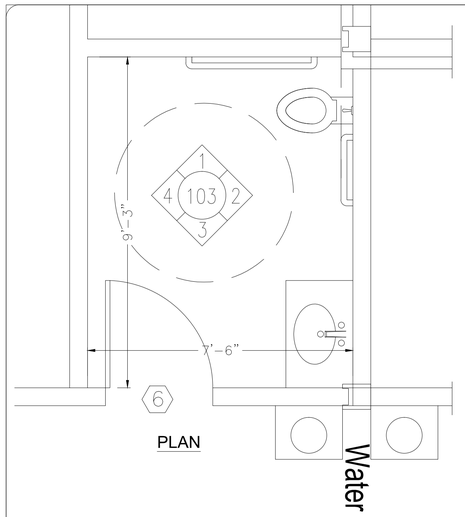
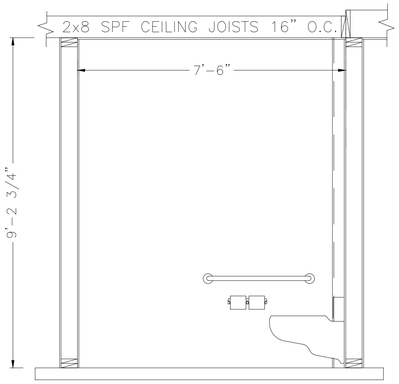
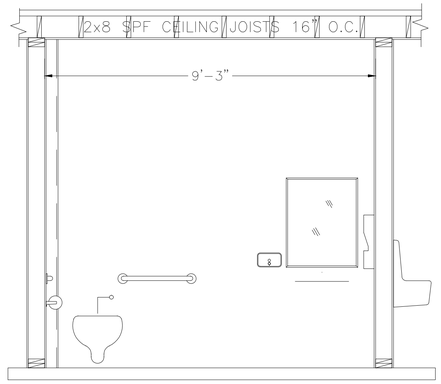


PLAN



WALL 1



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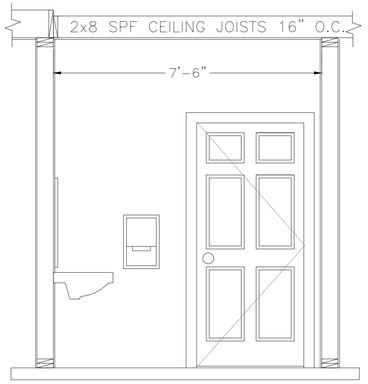

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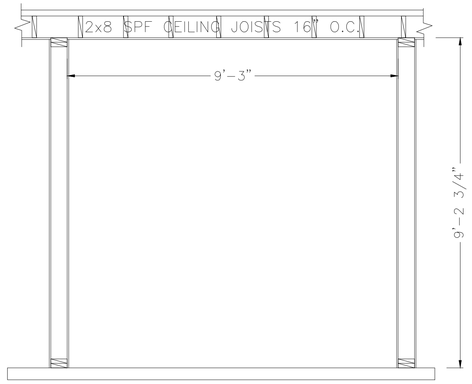
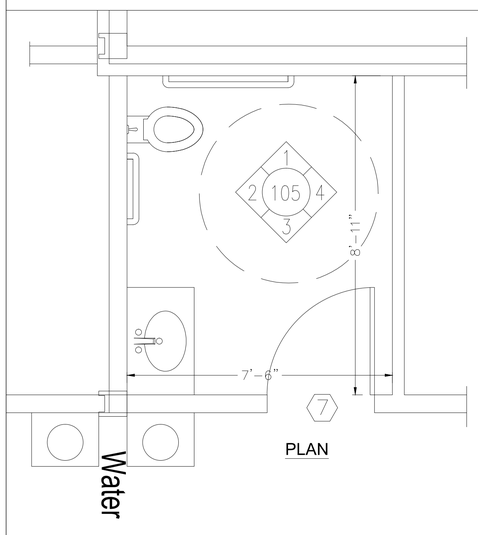


WALL 4

BATHROOM 103 ELEVATIONS

SCALE: 1/2" = 1'-0"



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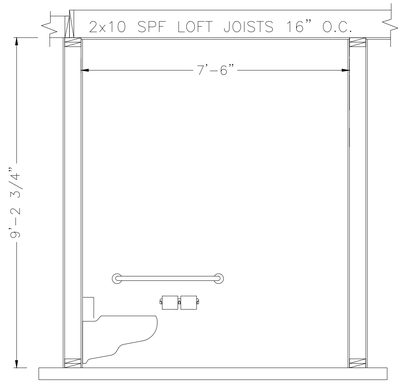

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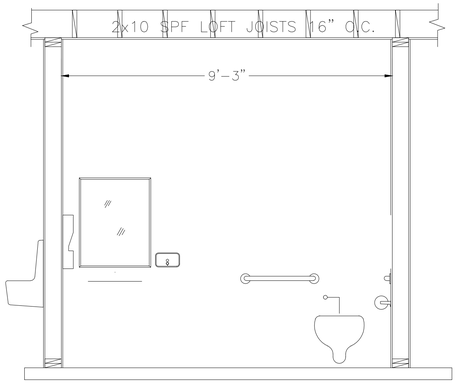

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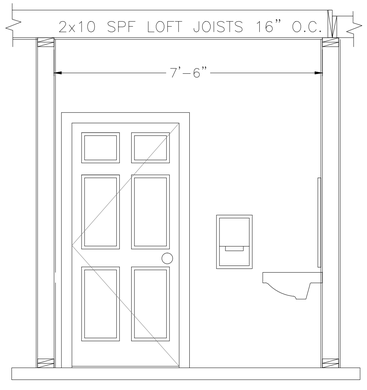

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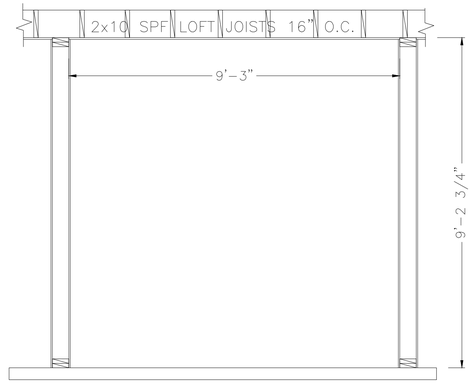
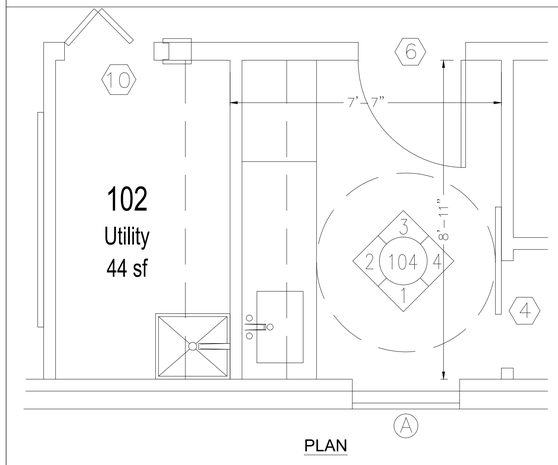


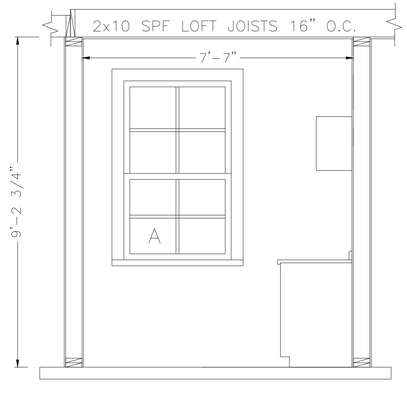
WALL 4

BATHROOM 105 ELEVATIONS

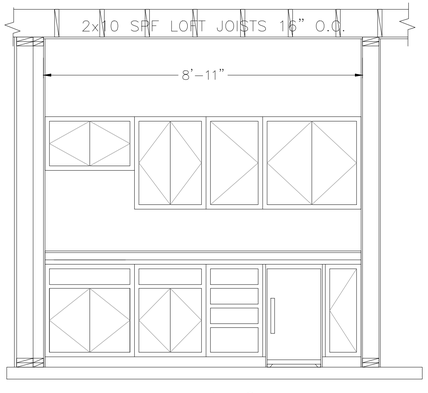
SCALE: 1/2" = 1'-0"



PLAN



WALL 1



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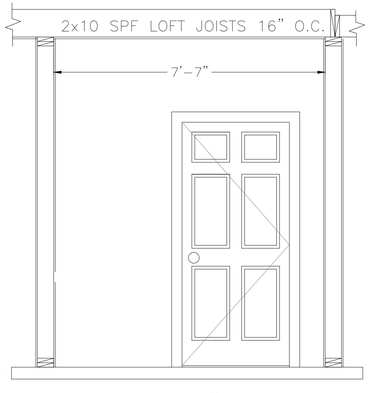

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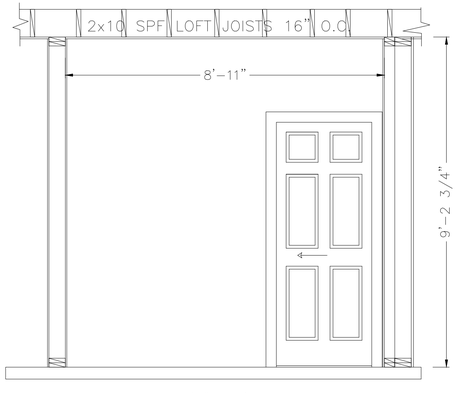

WALL 4

KITCHEN 104 ELEVATIONS

SCALE: 1/2" = 1'-0"

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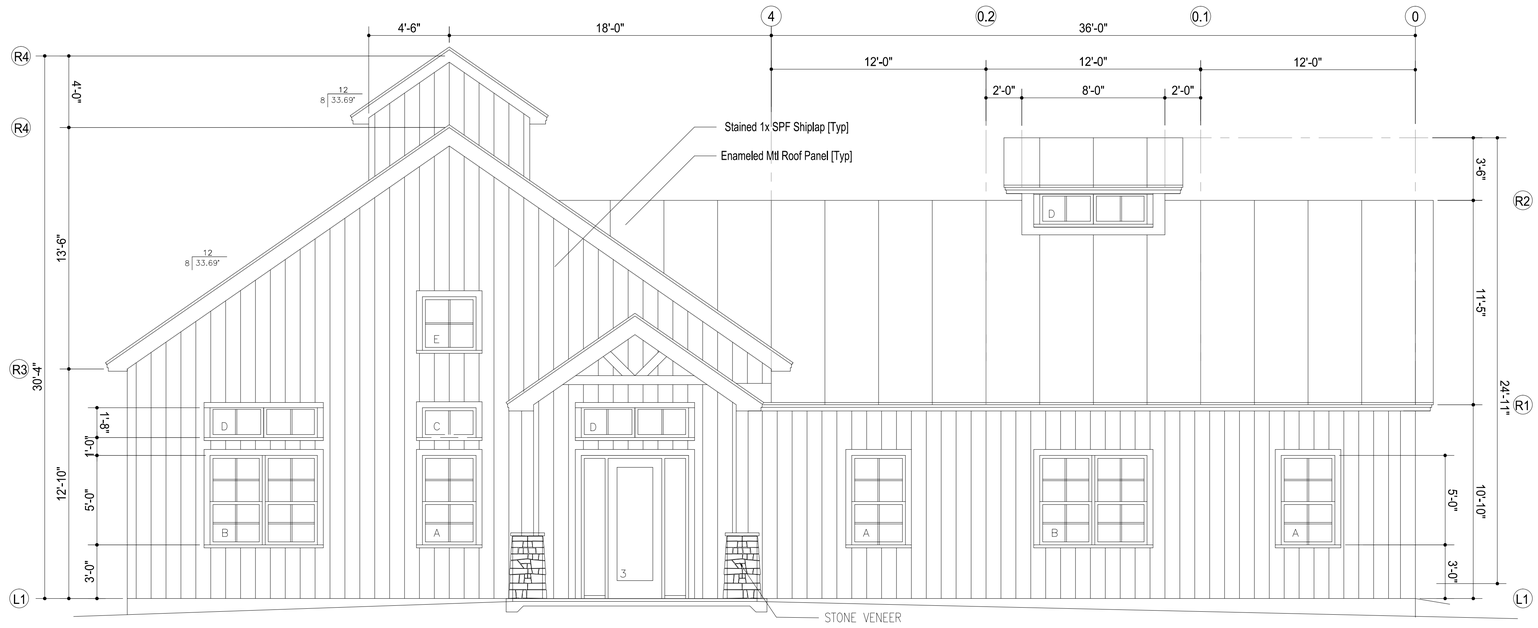

WEST ELEVATION

SCALE: 1/4" = 1'-0"

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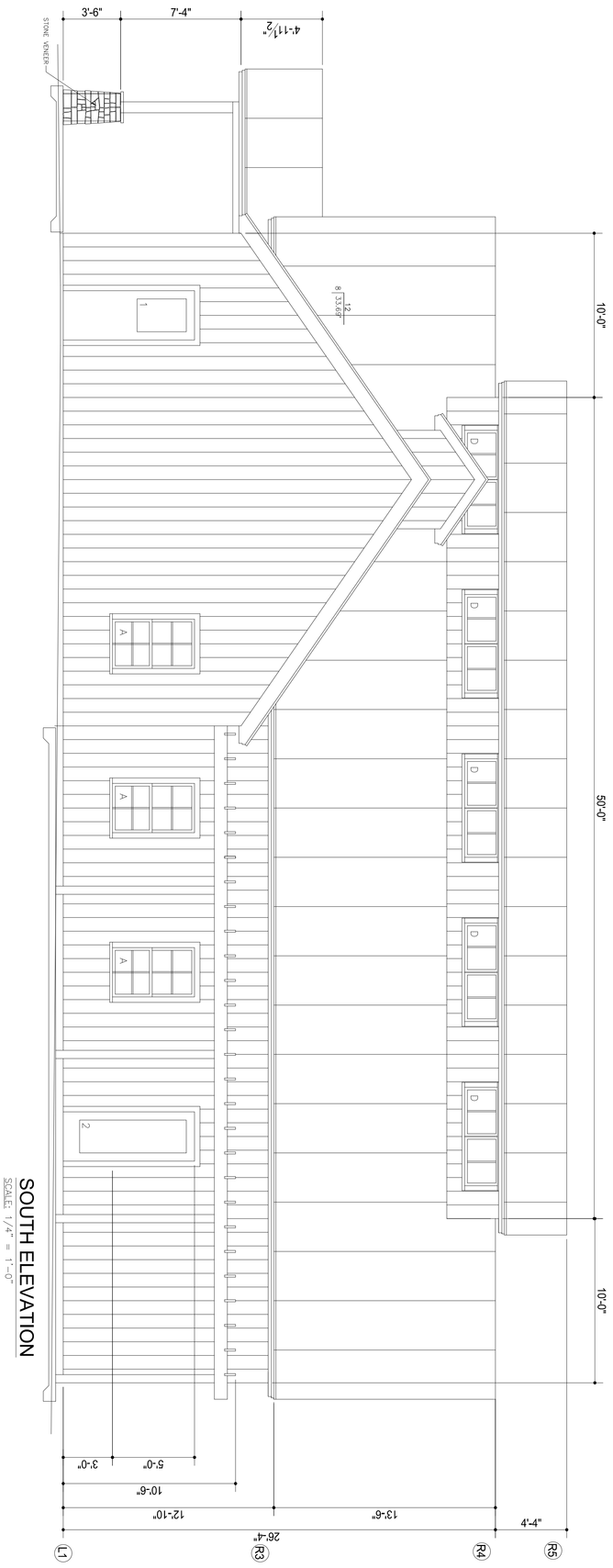

SOUTH ELEVATION

SCALE: 1/4" = 1'-0"

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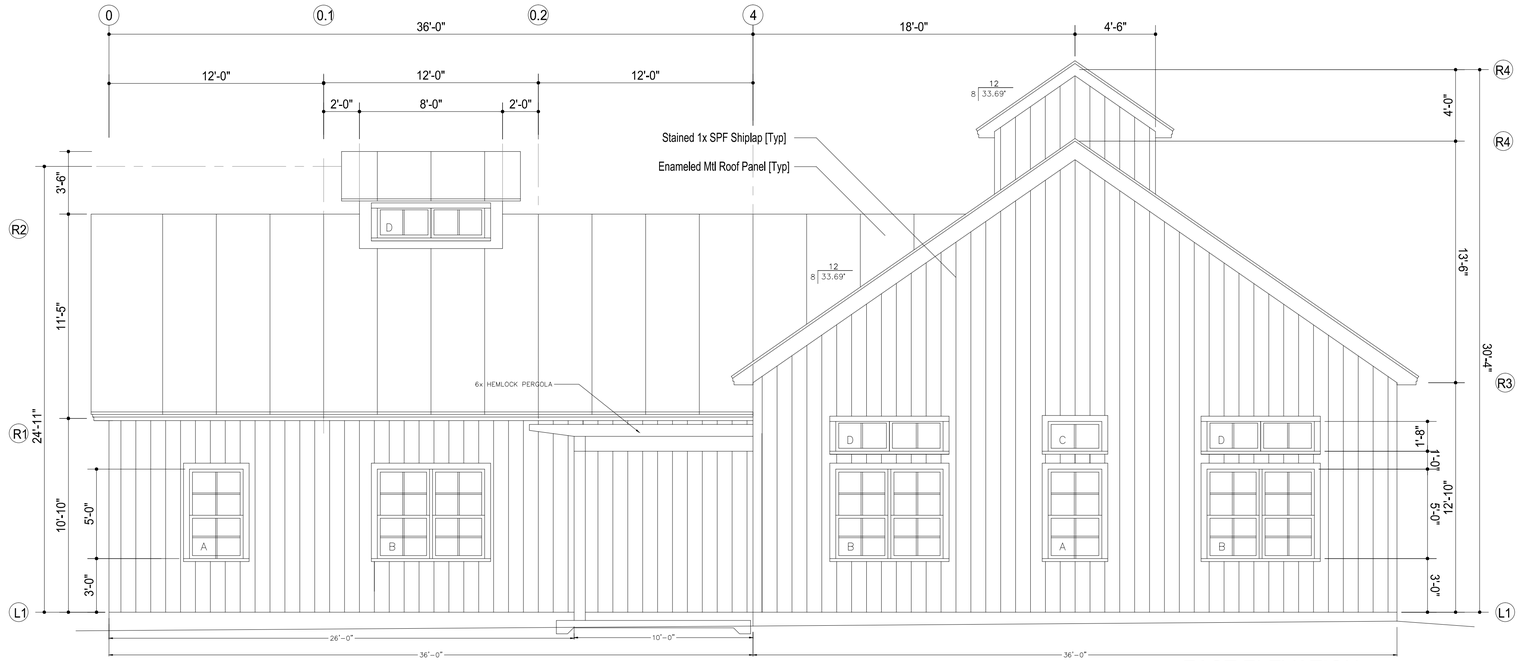
PH: 508-367-8920 EMAIL: JAMESDSMITH11@COMCAST.NET



EAST ELEVATION

SCALE: 1/4" = 1'-0"

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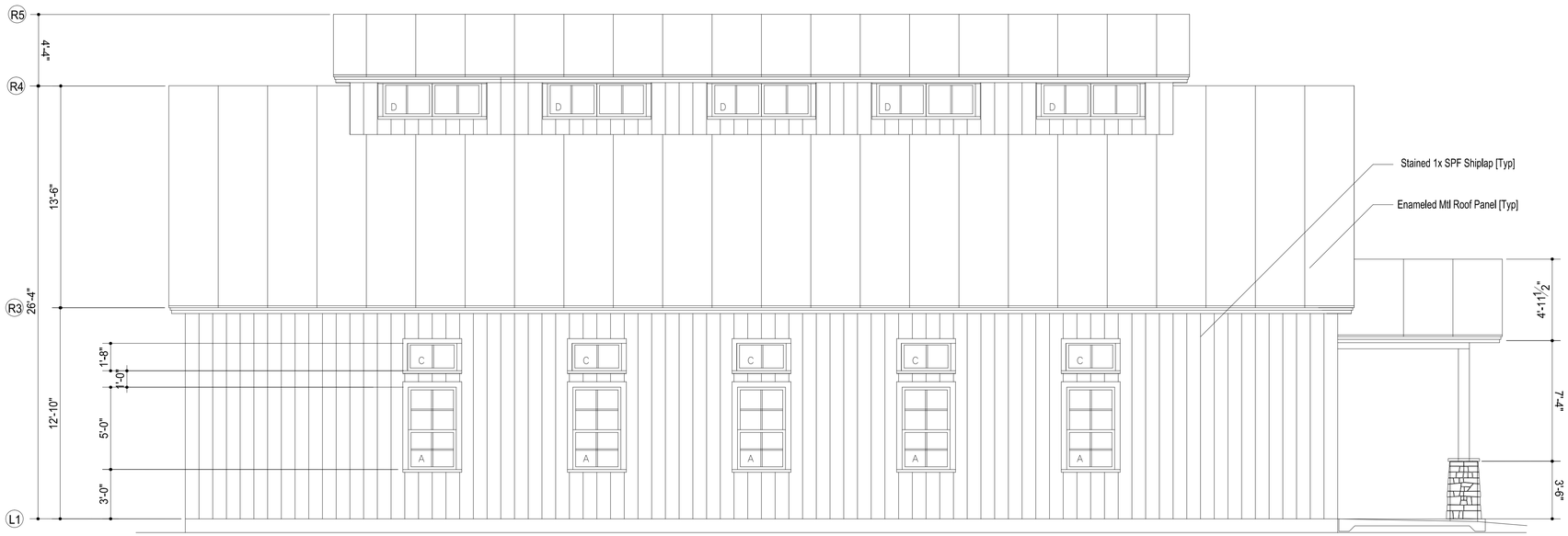

NORTH ELEVATION

SCALE: 1/4" = 1'-0"

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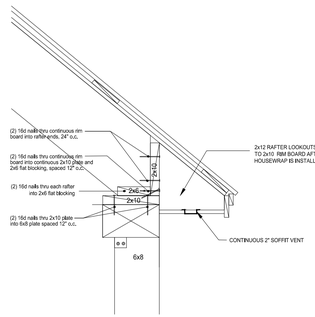
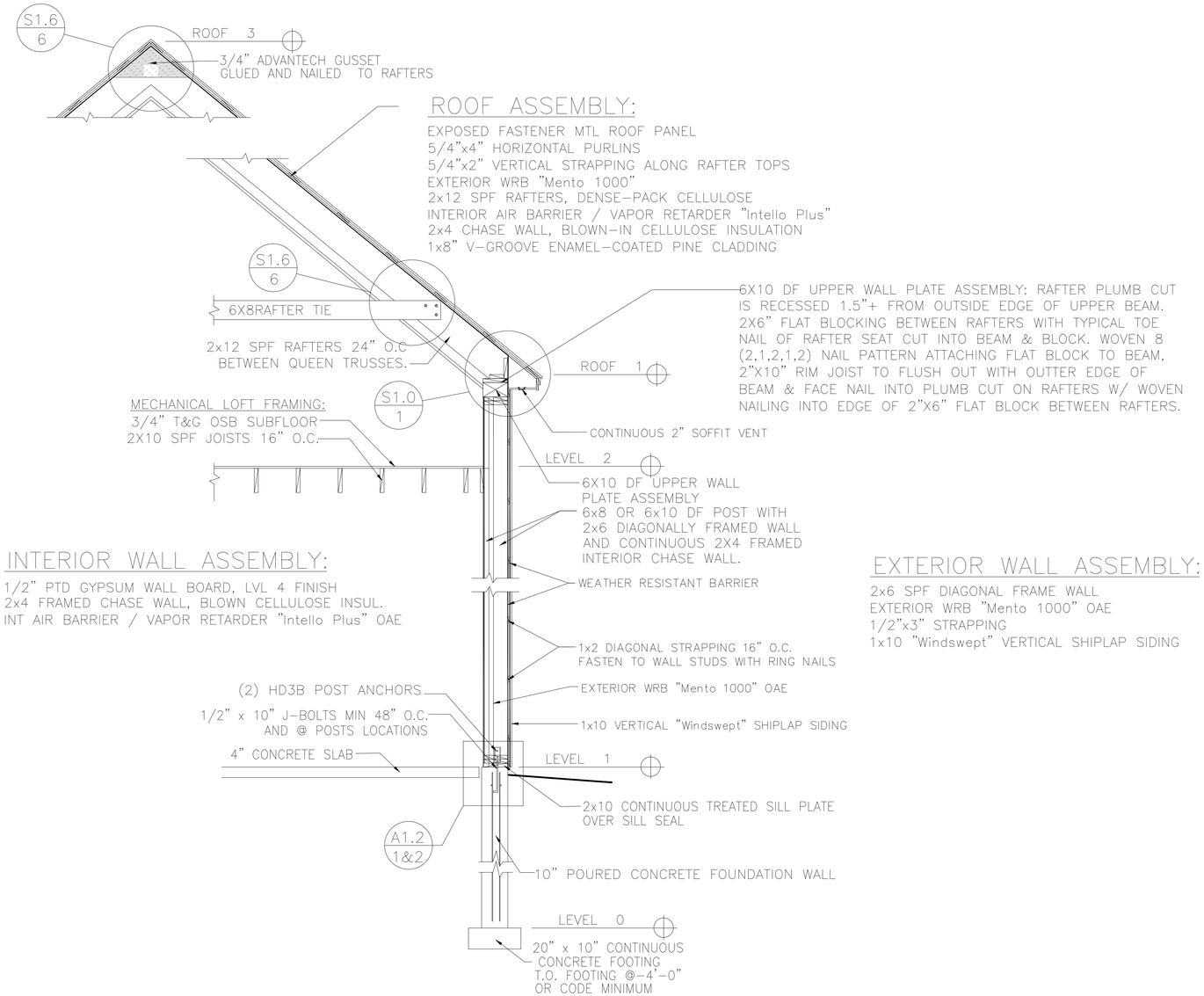


DETAIL 1: ROOF – BEAM ATTACHMENT

SCALE: 1/2" = 1'–0"



INTERIOR WALL ASSEMBLY:

1/2" PTD GYPSUM WALL BOARD, LVL 4 FINISH
2x4 FRAMED CHASE WALL, BLOWN CELLULOSE INSUL.
INT AIR BARRIER / VAPOR RETARDER "Intello Plus" OAE

EXTERIOR WALL ASSEMBLY:

2x6 SPF DIAGONAL FRAME WALL
EXTERIOR WRB "Mento 1000" OAE
1/2"x3" STRAPPING
1x10 "Windswept" VERTICAL SHIPLAP SIDING

TYPICAL EXTERIOR WALL DETAIL

SCALE: 1/2" = 1'–0"

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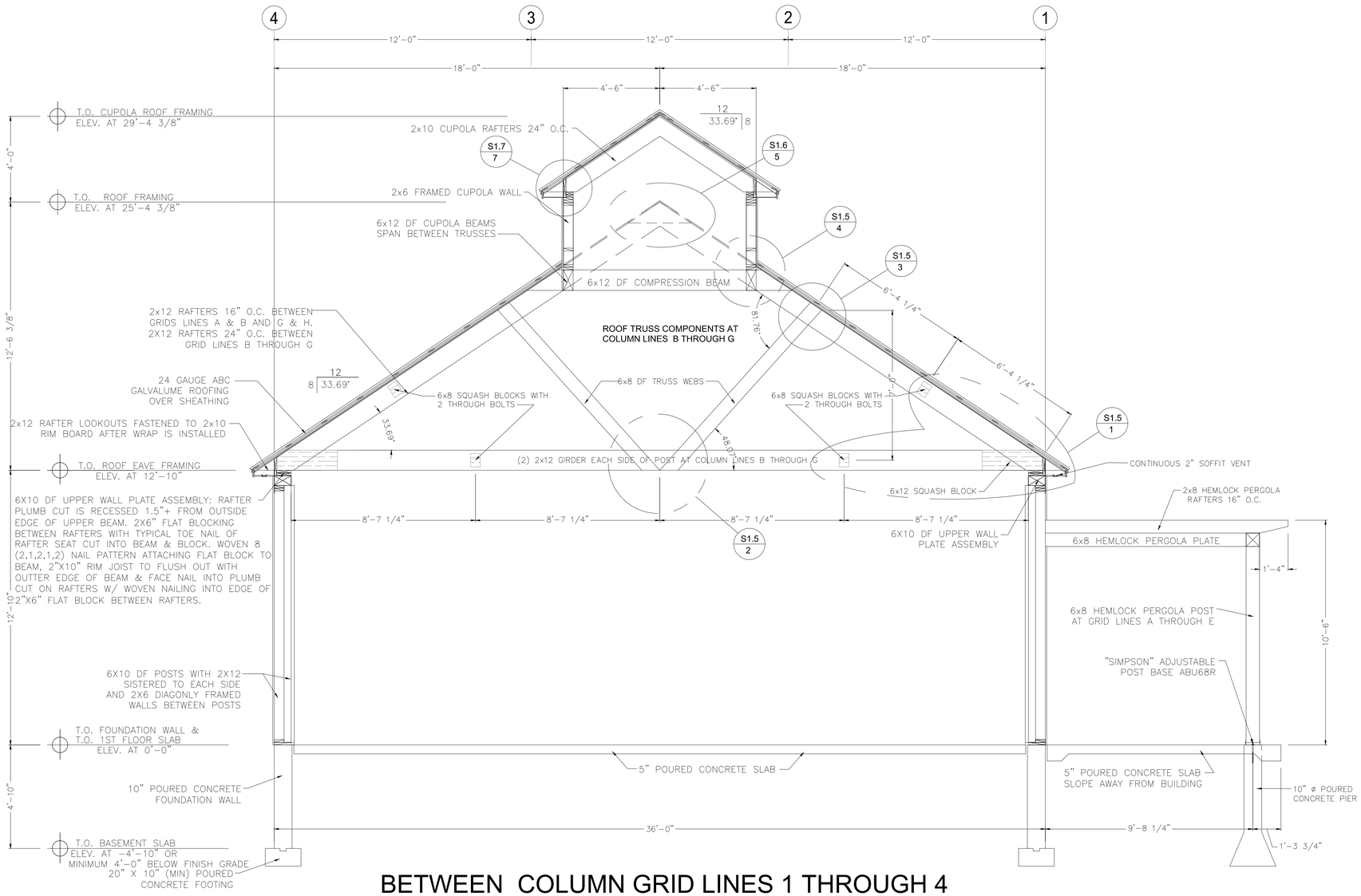

BETWEEN COLUMN GRID LINES 1 THROUGH 4 AT COLUMN GRIDLINES B THROUGH G

SECTION A-A

SCALE: 3/8" = 1'-0"

PATIO WITH PERGOLA

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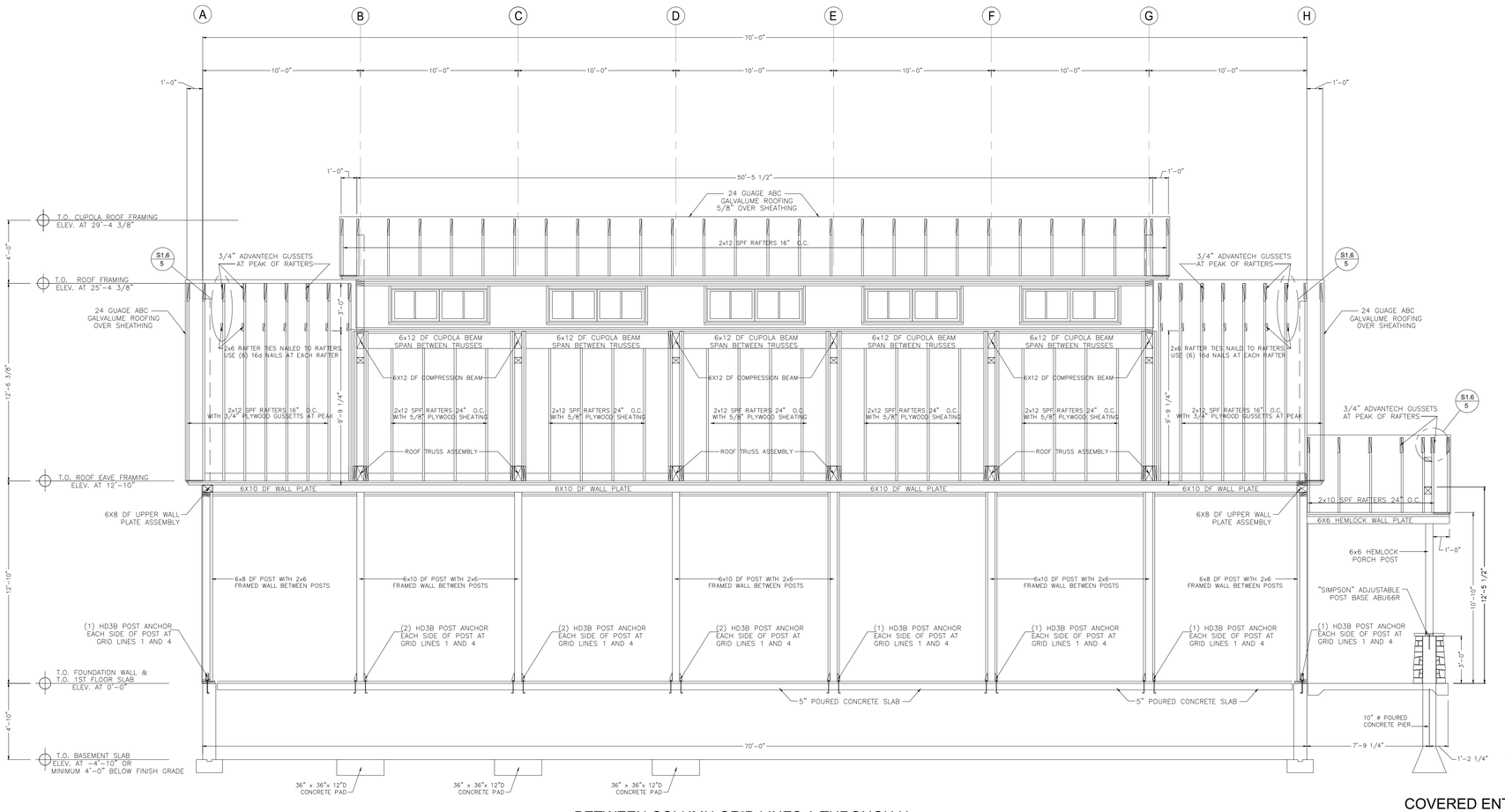
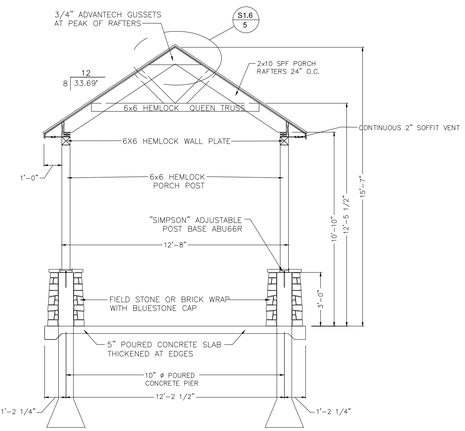


BETWEEN COLUMN GRID LINES A THROUGH H
AT COLUMN GRID LINE 1 VIEWED FROM GRID LINE 3

SECTION B-B

SCALE: 1/4" = 1'-0"



COVERED ENTRY PORCH

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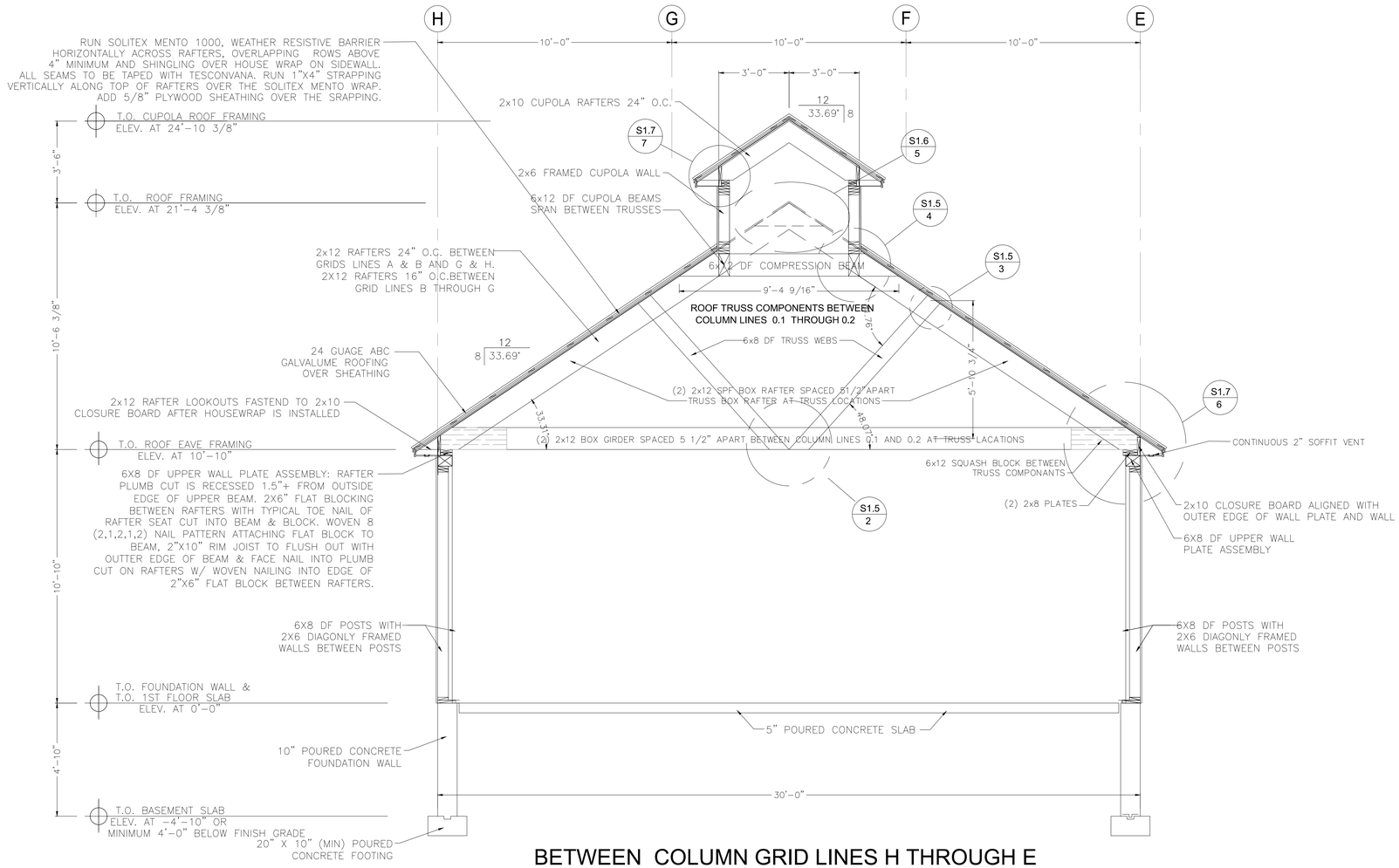

BETWEEN COLUMN GRID LINES H THROUGH E

BETWEEN COLUMN GRID LINES O.1 THROUGH 1.2

SECTION C-C

SCALE: 3/8" = 1'-0"

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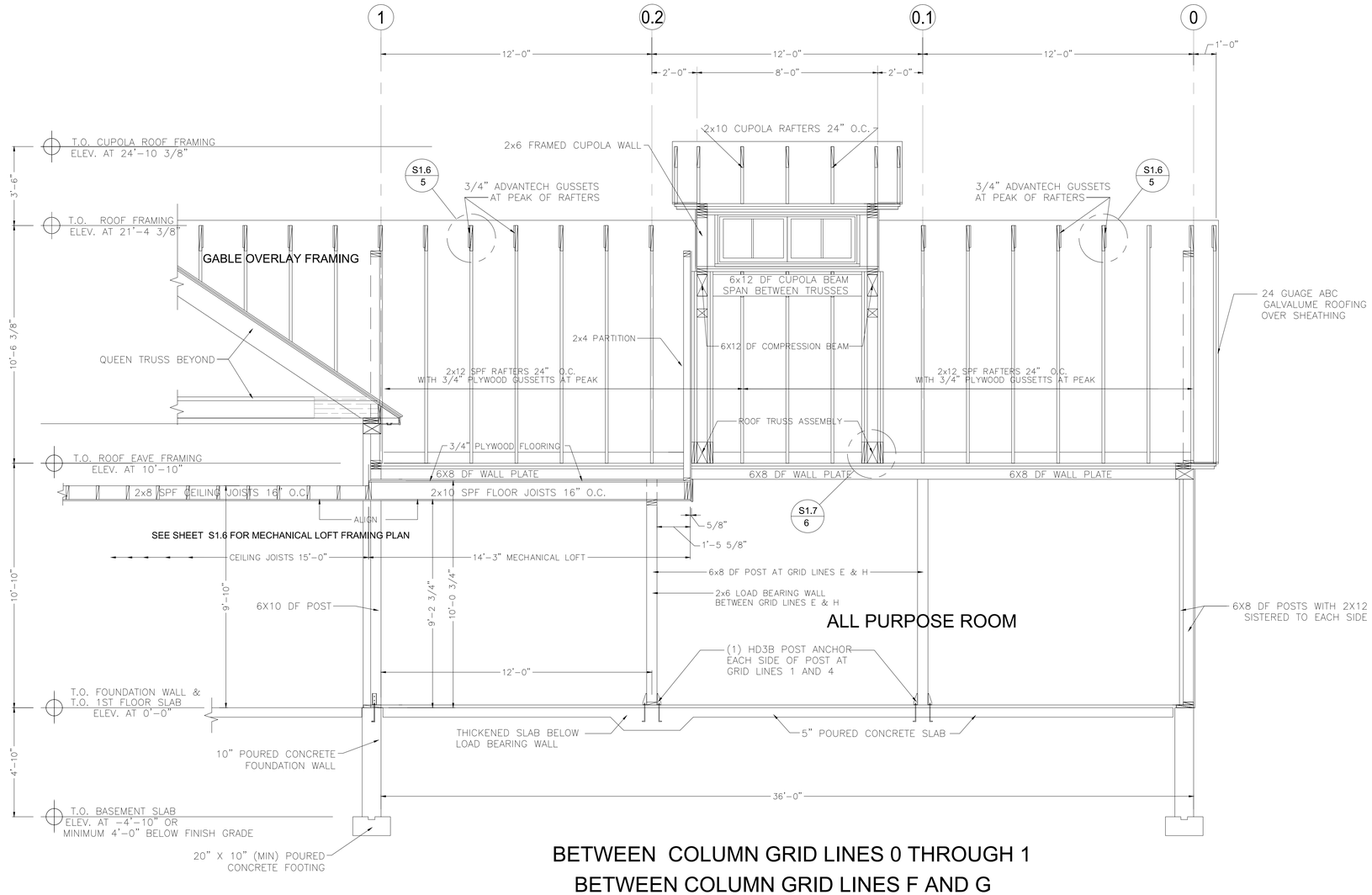

BETWEEN COLUMN GRID LINES 0 THROUGH 1

BETWEEN COLUMN GRID LINES F AND G

MECHANICAL LOFT FRAMING / CEILING JOISTS

SECTION D-D

SCALE: 3/8" = 1'-0"

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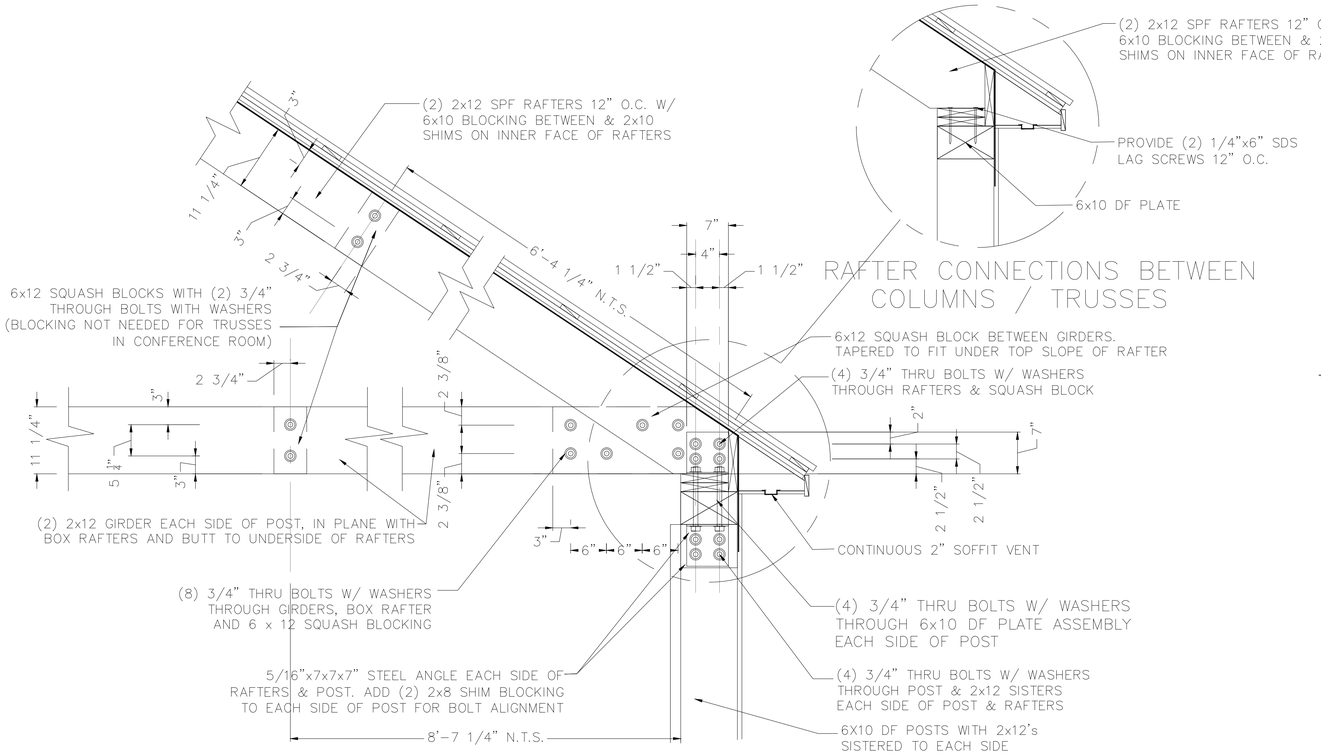
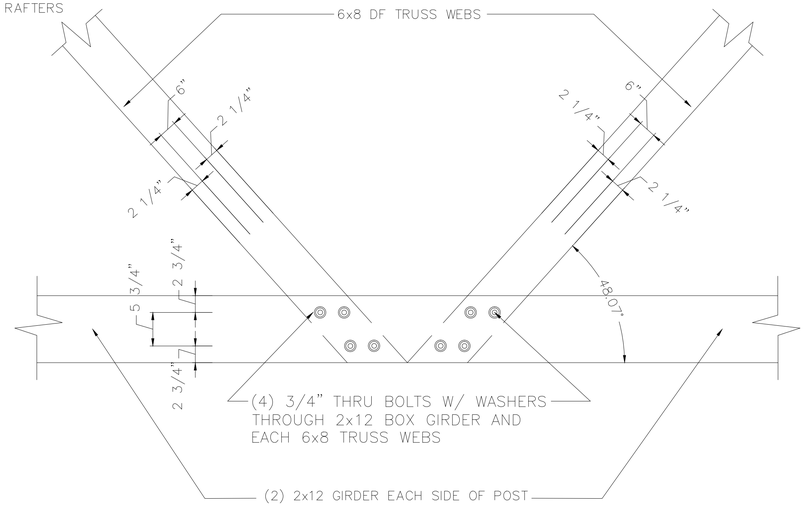


RAFTER CONNECTIONS BETWEEN COLUMNS / TRUSSES

TRUSS CONNECTIONS AT EAVE AT COLUMN LINES B THROUGH G

DETAIL 1

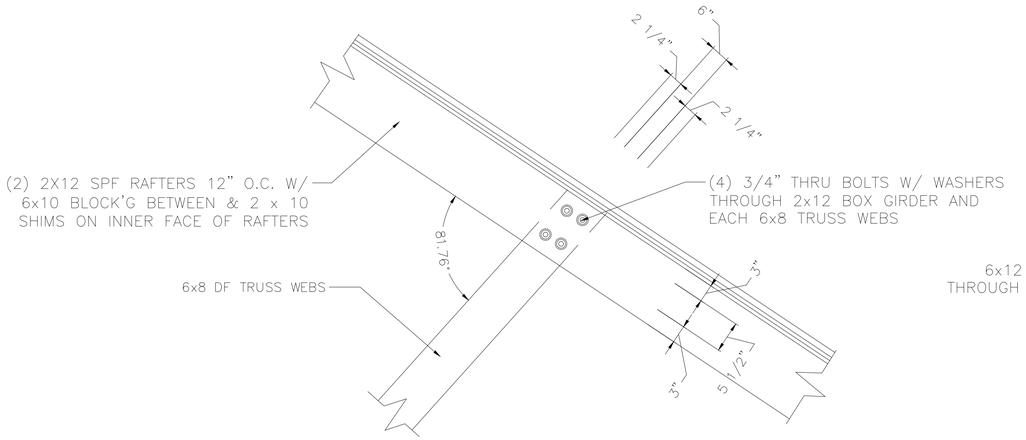
SCALE: 1/2" = 1'-0"



TRUSS WEB CONNECTIONS TO BOTTOM GIRDER AT COLUMN LINES B THROUGH G

DETAIL 2

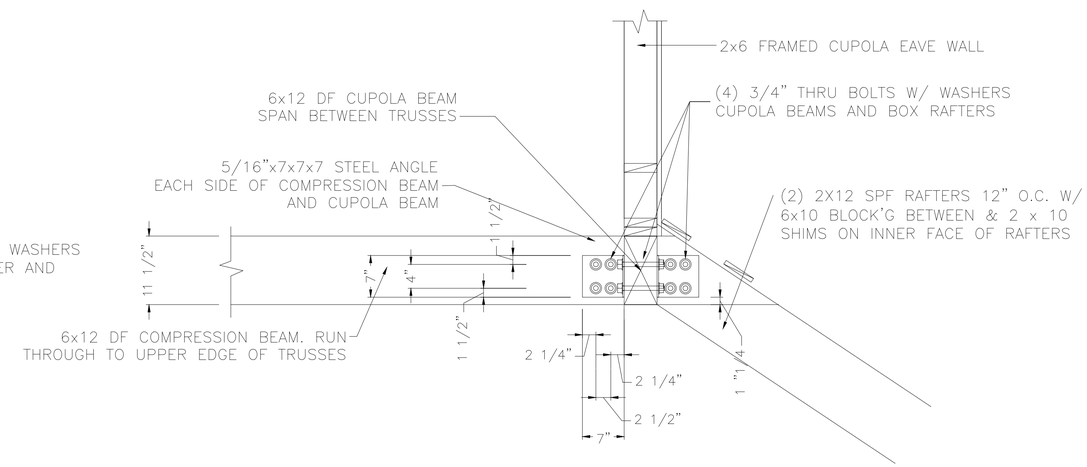
SCALE: 1/2" = 1'-0"



TRUSS CONNECTIONS AT WEB TO RAFTER AT COLUMN LINES B THROUGH G

DETAIL 3

SCALE: 1/2" = 1'-0"



TRUSS CONNECTIONS AT RAFTER TO CUPOLA BEAMS AT COLUMN LINES B THROUGH G

DETAIL 4

SCALE: 1/2" = 1'-0"

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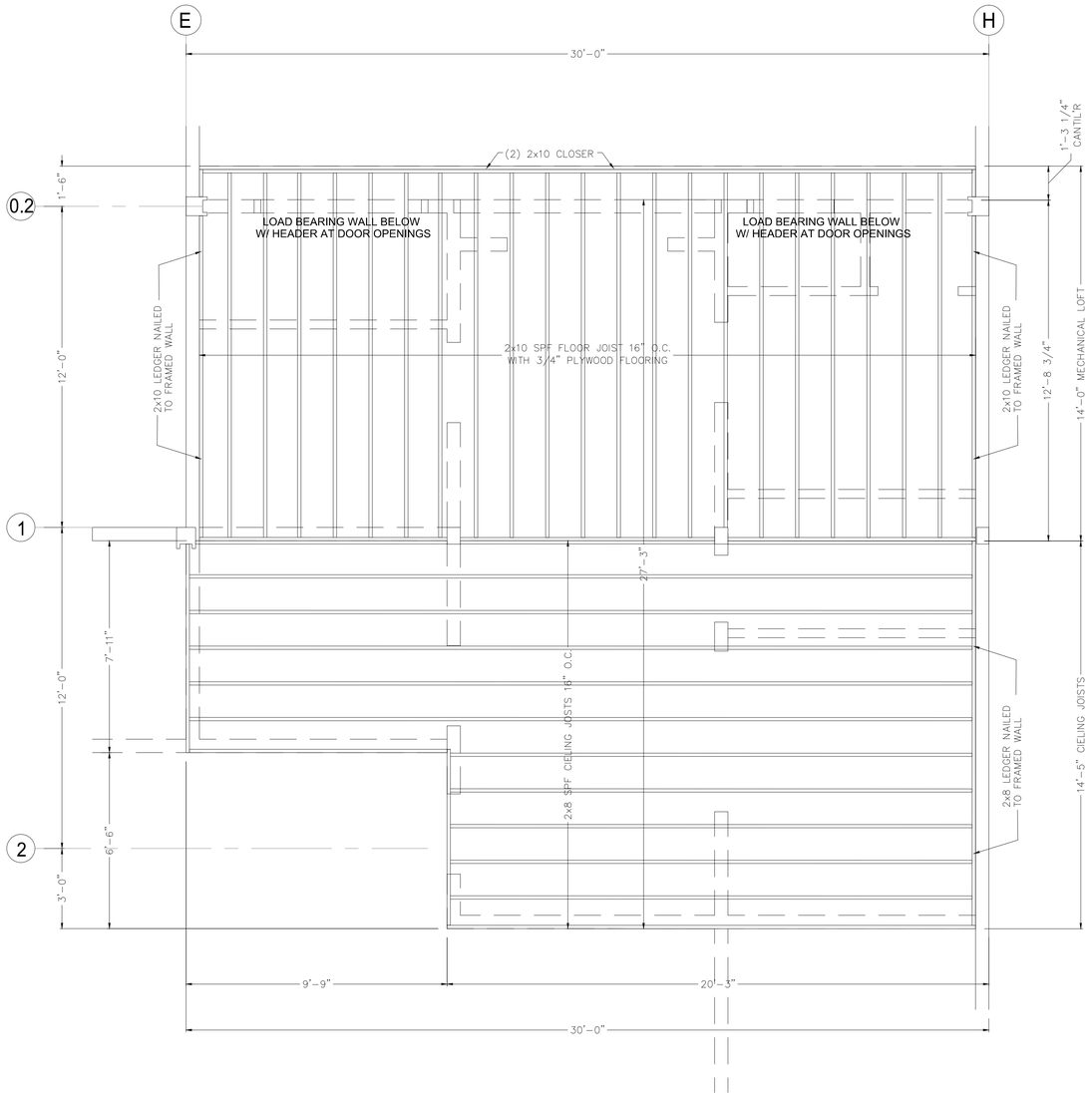
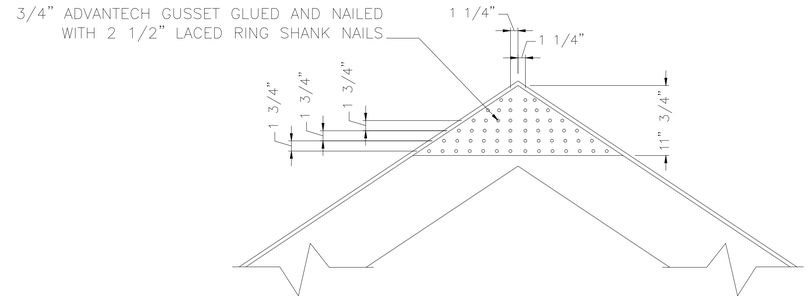
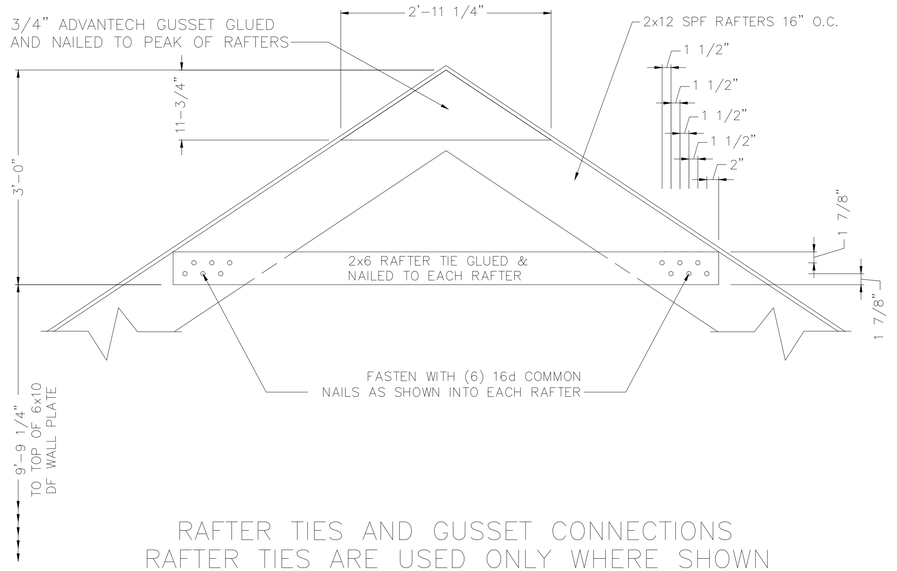


MECHANICAL LOFT AND CIELING JOIST FRAMING

SCALE: 3/8" = 1'-0"





RAFTER TIES AND GUSSET CONNECTIONS
RAFTER TIES ARE USED ONLY WHERE SHOWN
IN SECTION B-B ON SHEET S1.2

DETAIL 5

SCALE: 1/2" = 1'-0"

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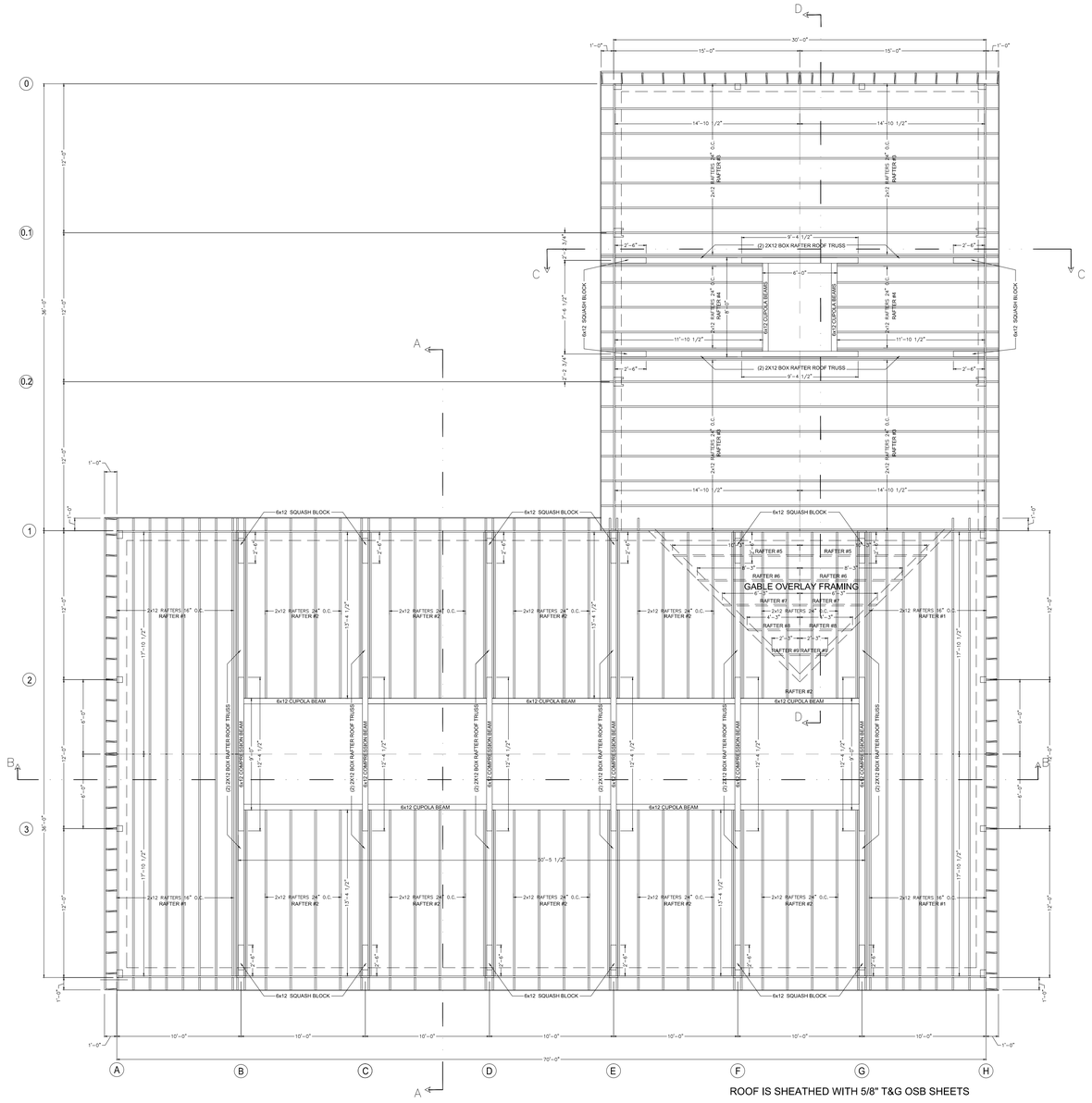
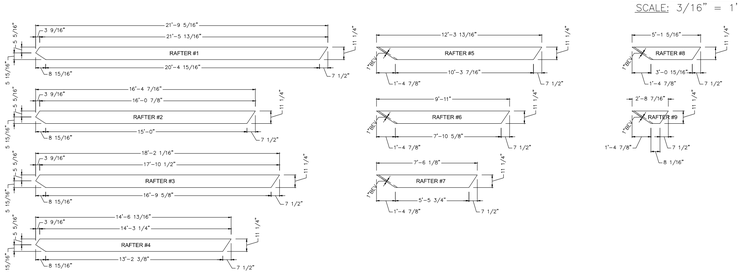


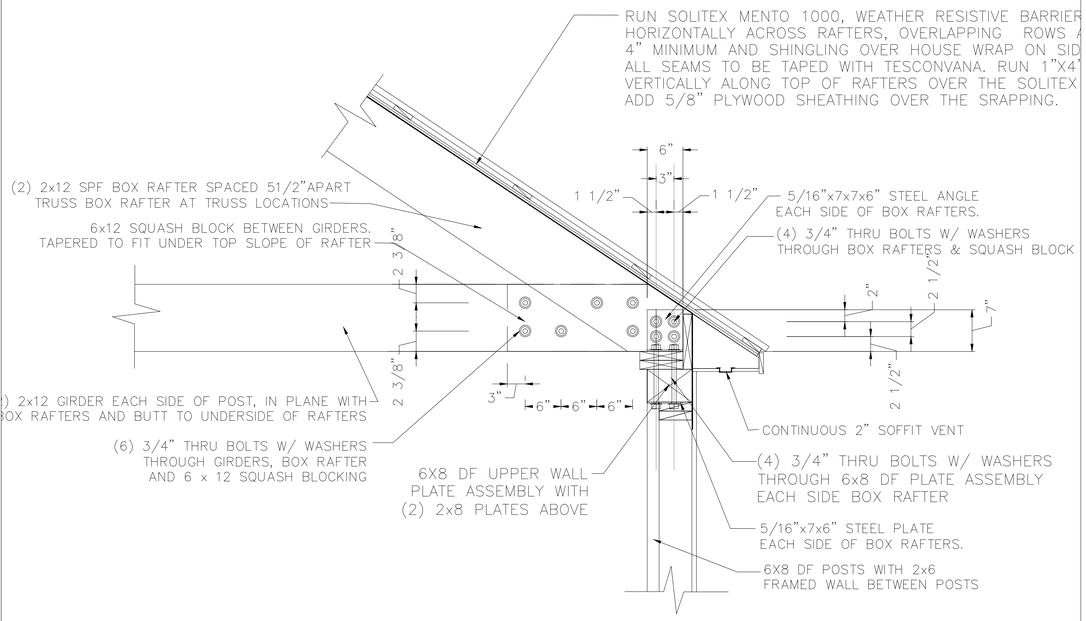
ROOF IS SHEATHED WITH 5/8" T&G OSB SHEETS

LOWER ROOF FRAMING

SCALE: 3/16" = 1'-0"



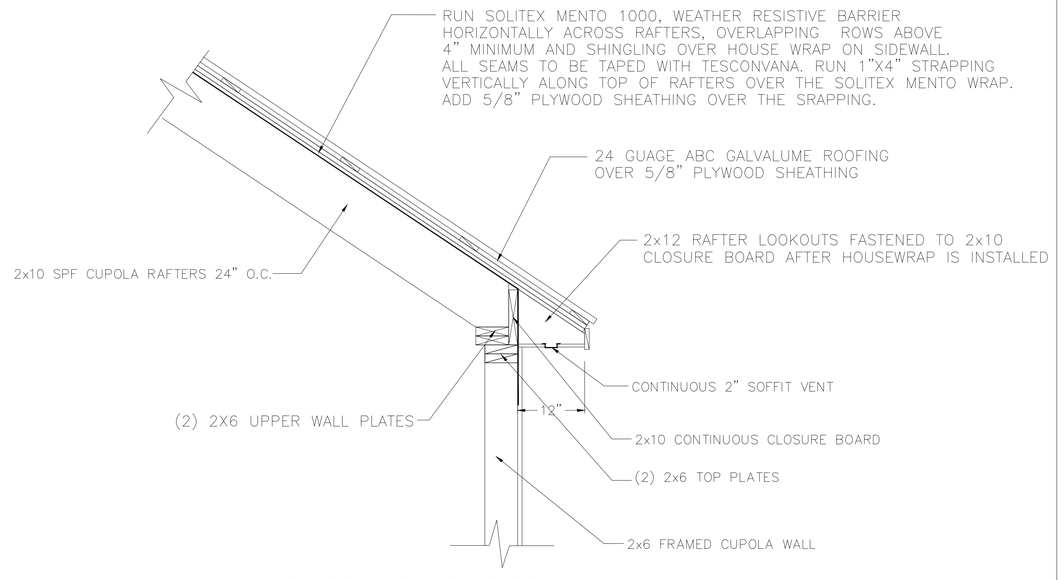
RAFTER CUTS



TRUSS CONNECTION AT ALL PURPOSE WING

DETAIL 6

SCALE: 1/2" = 1'-0"



CUPOLA EAVE DETAIL

DETAIL 7

SCALE: 1/2" = 1'-0"

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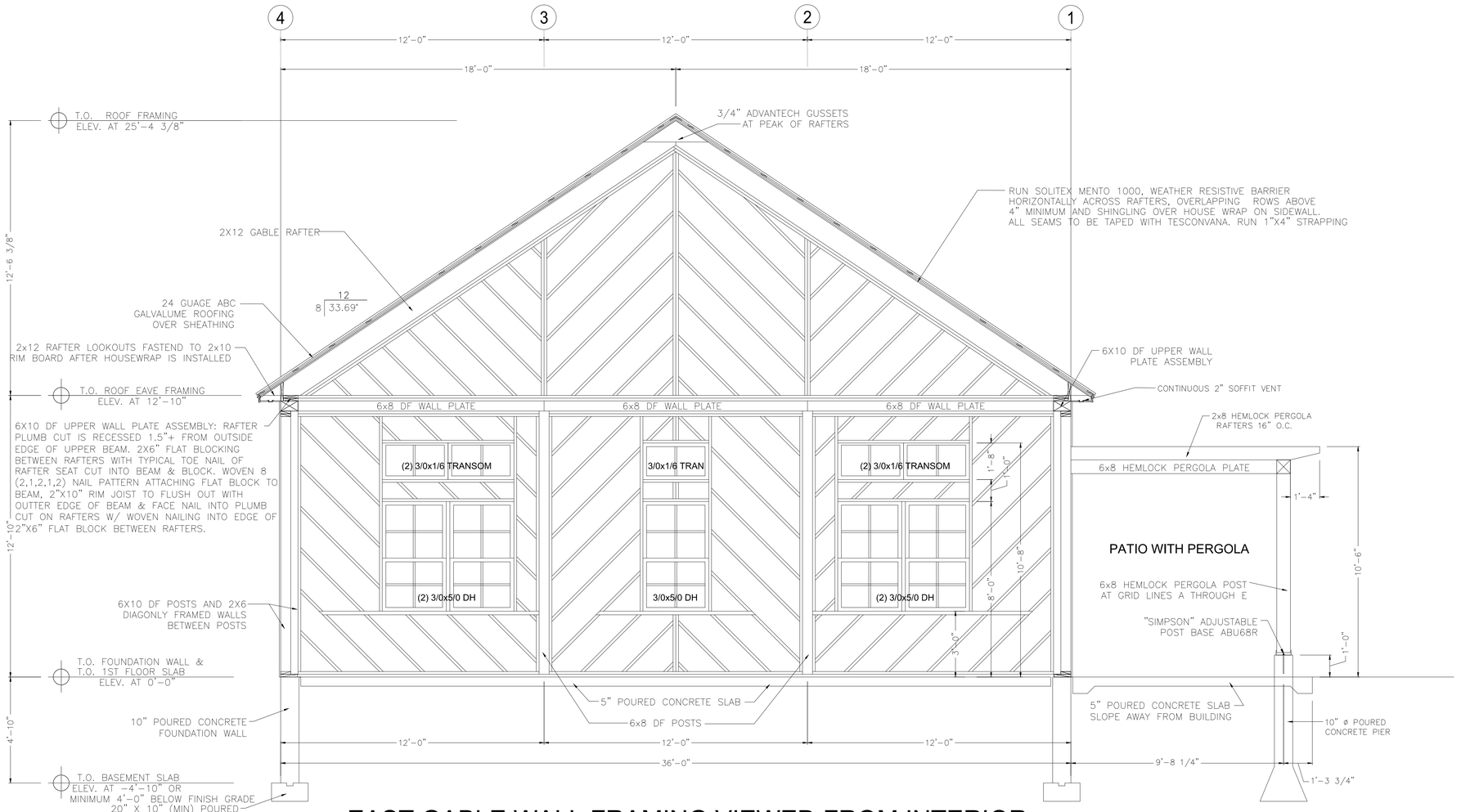

EAST GABLE WALL FRAMING VIEWED FROM INTERIOR

SCALE: 3/8" = 1'-0"

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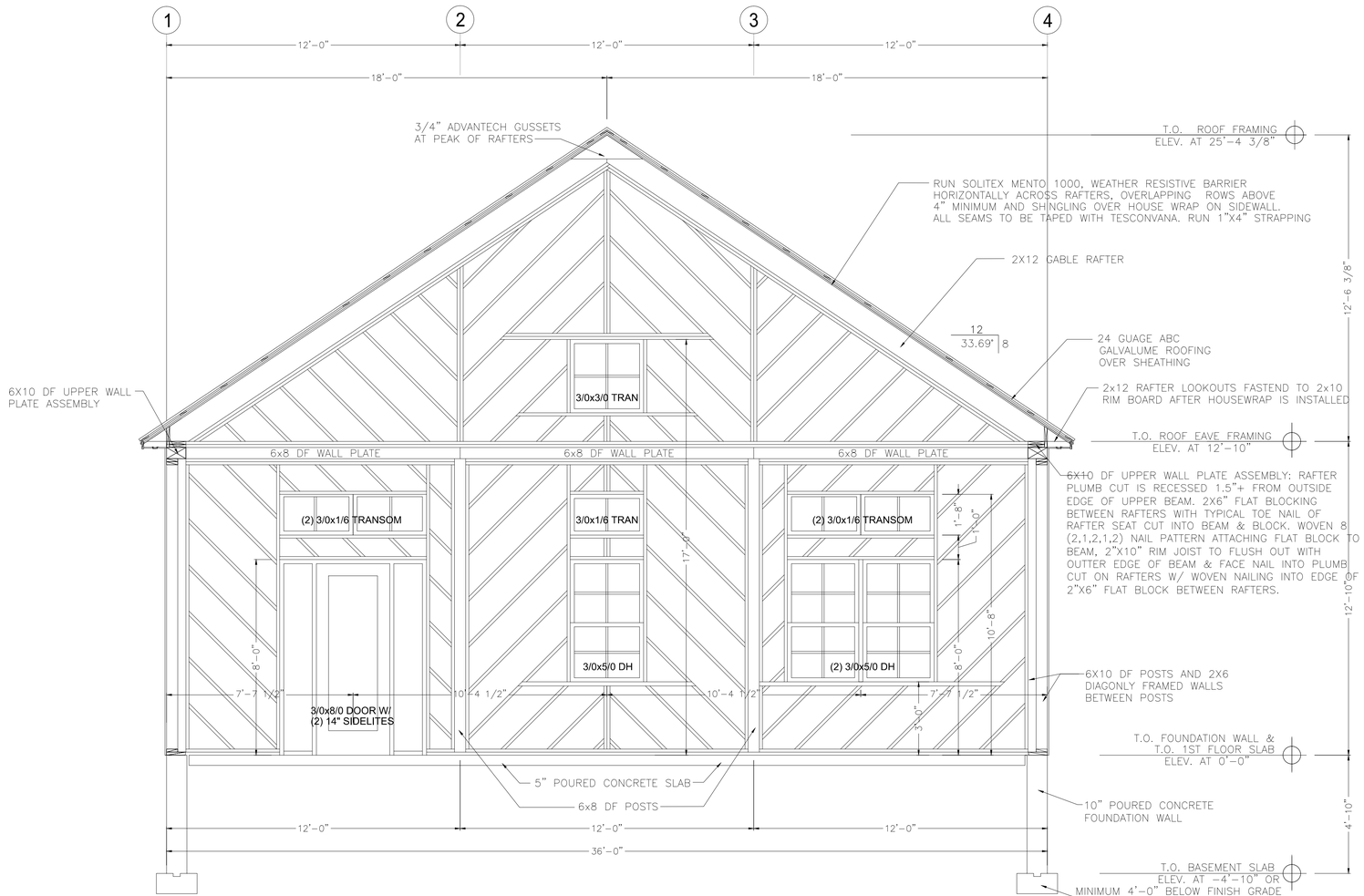

WEST GABLE WALL FRAMING VIEWED FROM INTERIOR

SCALE: 3/8" = 1'-0"

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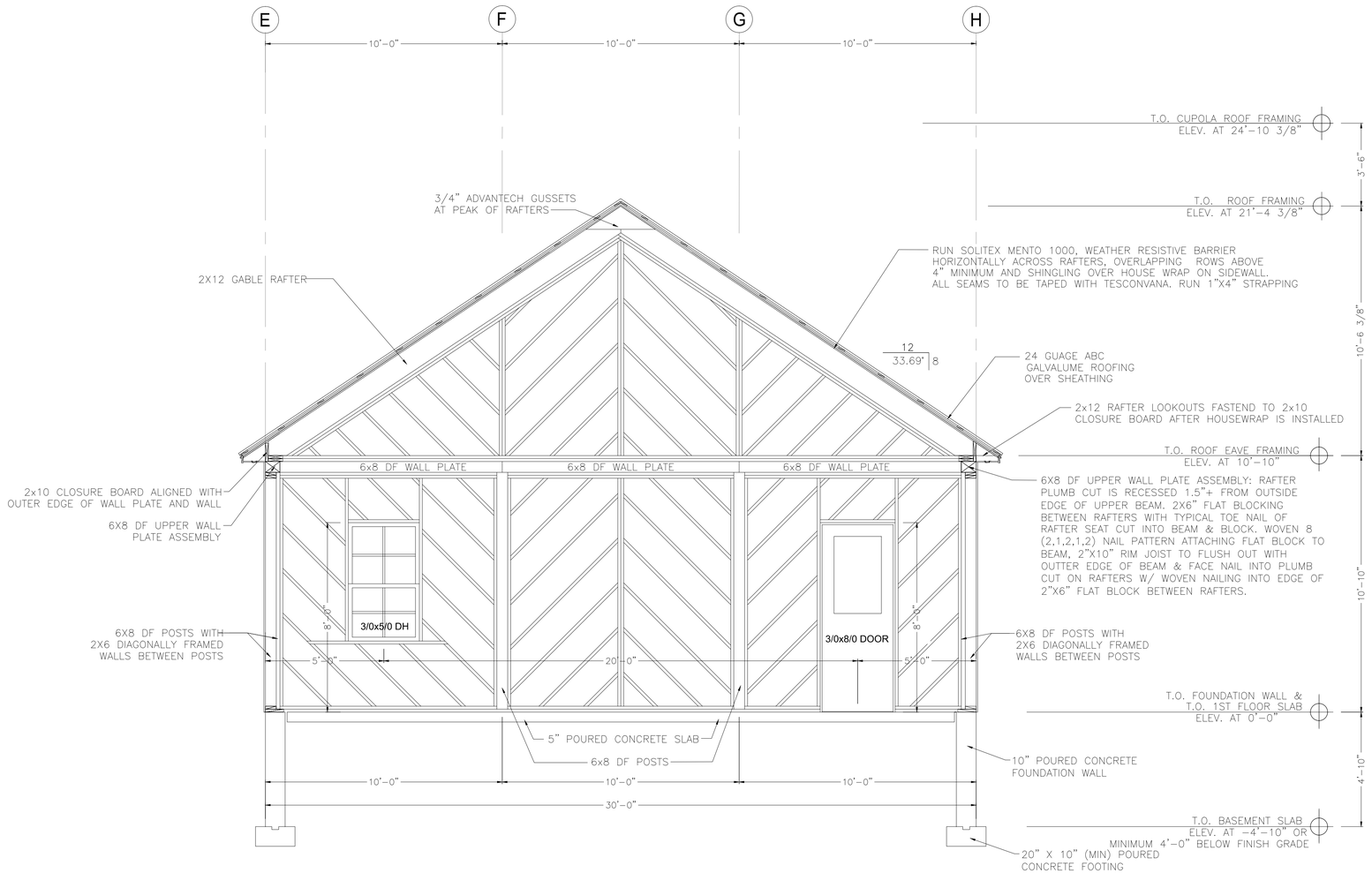

SOUTH GABLE WALL FRAMING VIEWED FROM INTERIOR

SCALE: 3/8" = 1'-0"

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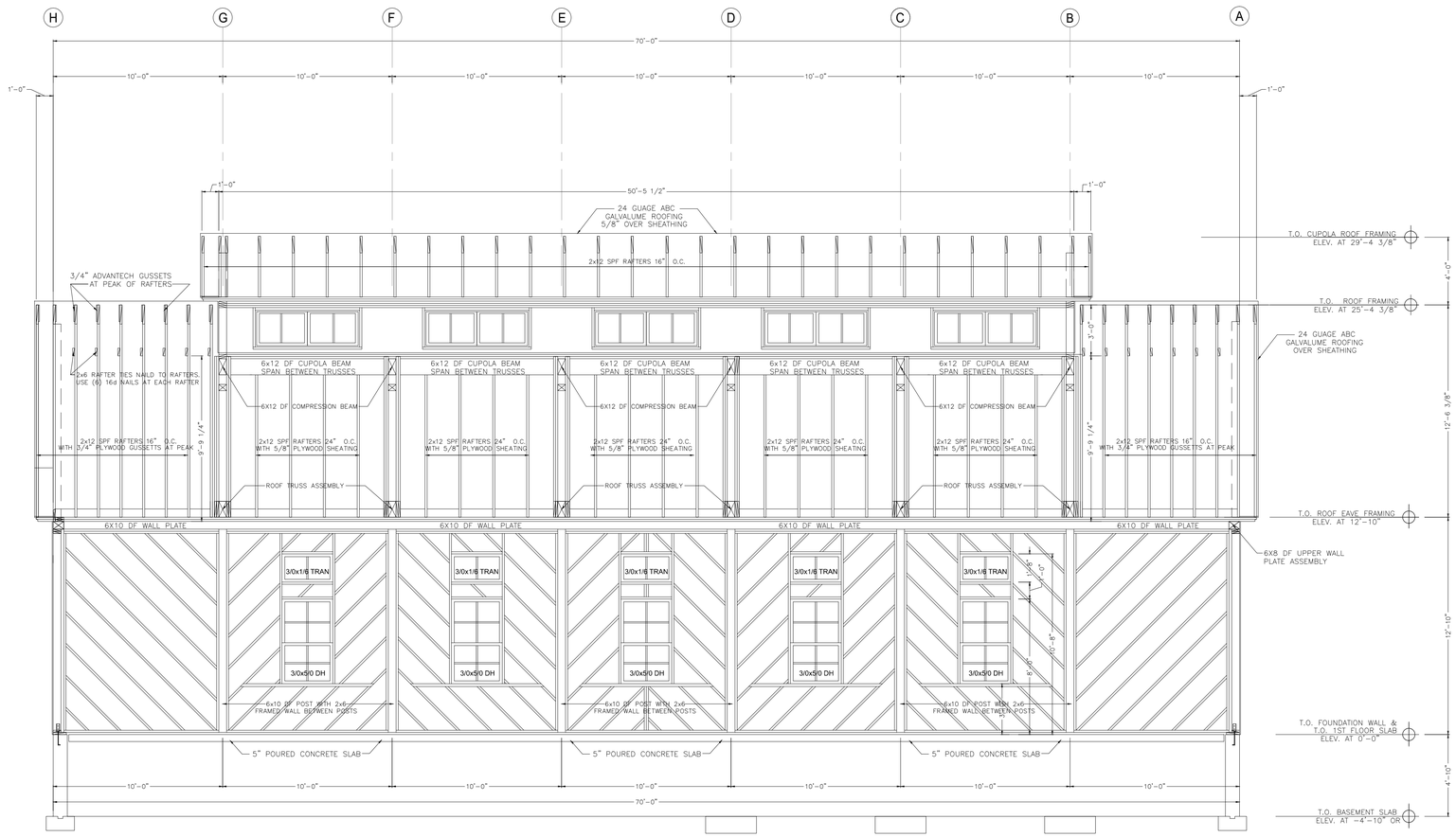

NORTH EAVE WALL FRAMING VIEWED FROM INTERIOR

SCALE: 1/4" = 1'-0"

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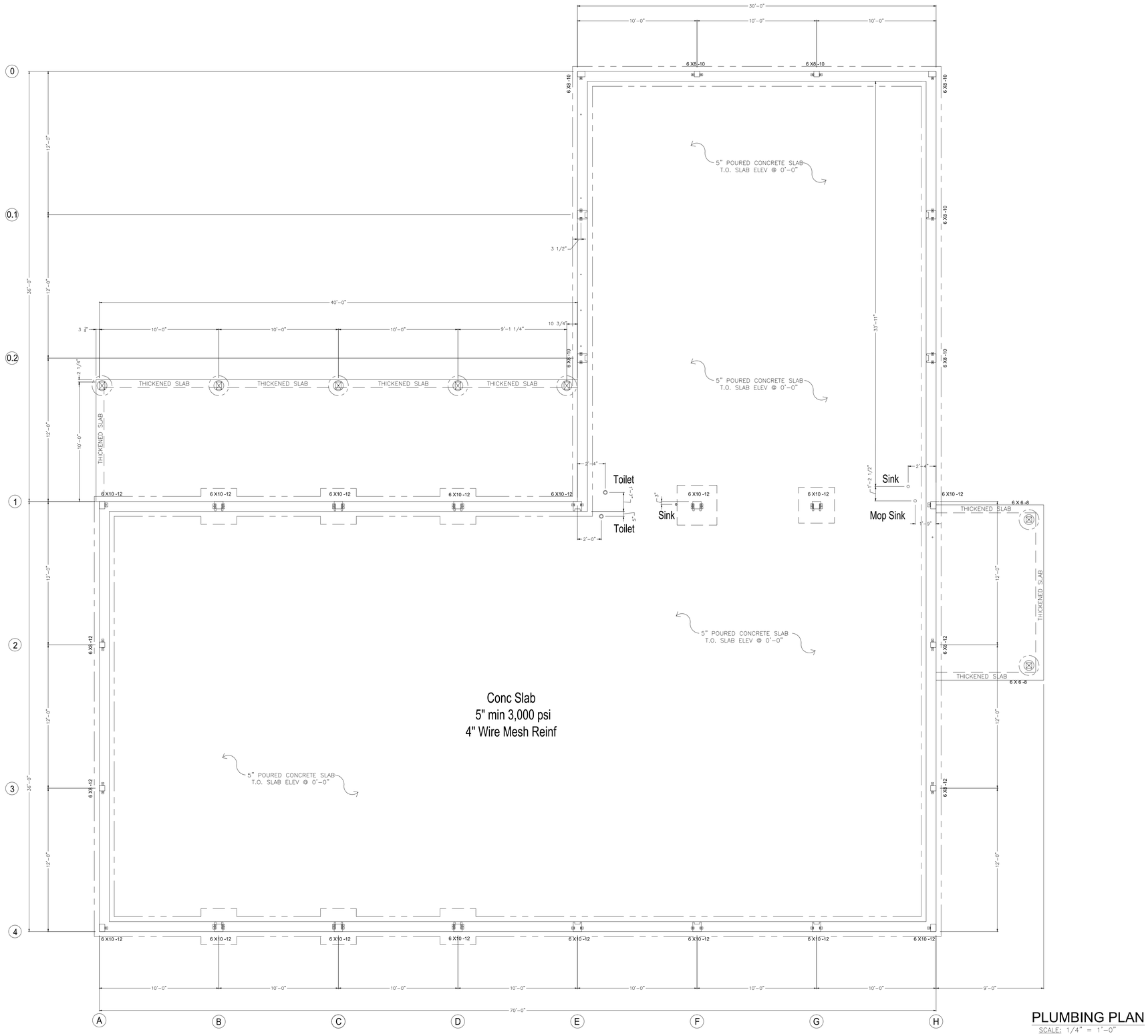

PLUMBING PLAN

SCALE: 1/4" = 1'-0"

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