



**Boulder County Purchasing**  
**1325 Pearl Street**  
**Boulder, CO 80302**  
[purchasing@bouldercounty.org](mailto:purchasing@bouldercounty.org)

**INVITATION TO BID**  
**COVER PAGE**

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**BID Number:** **7204-21**

**BID Title:** **Boulder County Courthouse Third Floor Remodel Mechanical HVAC and Plumbing**

**Optional Site Visit:** Please email Keith Emrick at [kemrick@bouldercounty.org](mailto:kemrick@bouldercounty.org) by end of day February 12, 2021 to schedule a site visit.

**BID Questions Due:** February 16, 2021 – 2:00 p.m.

**Submittal Due Date:** February 26, 2021 – 2:00 p.m.

**Email Address:** [purchasing@bouldercounty.org](mailto:purchasing@bouldercounty.org)

**Documents included in this package:**

- Bid Instructions
- Terms and Conditions
- Specifications
- Insurance and W-9 Requirements
- Bid Tab Section
- Submittal Checklist
- Signature Page
- Sample Contract
- Plans and specifications



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## **INSTRUCTIONS**

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### **1. Purpose/Background**

Boulder County Building Services is seeking proposals to provide Mechanical HVAC and Plumbing work for the Boulder County Courthouse Third Floor Remodel located at 1325 Pearl Street in Boulder.

### **2. Optional Site Visit**

The county will accept and schedule requests for site visits. All site visits must be scheduled by the end of the day **February 12, 2021**. Please email Keith Emrick at [kemrick@bouldercounty.org](mailto:kemrick@bouldercounty.org).

During onsite visits the guidelines are as follows:

Nothing can change hands. No documents, business cards, sign in sheets, etc.

All participants are required to wear face coverings at all times.

All participants are required to maintain at least 6 feet of physical distancing at all times.

Group sizes must stay within recommended guidelines as issued by the state and local authorities.

Participants will be allowed to take photos or videos of the site in order to review with subs.

In order to keep a level playing field, and in the interest of transparency, no discussion is allowed during onsite visits. **ANYTHING** that is discussed during the course of visits must be submitted in writing to the bid.

### **3. Written Inquiries**

All inquiries regarding this BID will be submitted via email to the Boulder County Purchasing Office at [purchasing@bouldercounty.org](mailto:purchasing@bouldercounty.org) on or before 2:00 p.m. **February 16, 2021**. A response from the county to all inquiries will be posted and sent via email no later than **February 19, 2021**.

**Please do not contact any other county department or personnel with questions or for information regarding this solicitation.**

#### **4. Submittal Instructions**

BIDs are due at the email box only, listed below, for time and date recording on or before **2:00 p.m. Mountain Time on February 26, 2021**. A bid opening will be conducted at 3:00 p.m. via email by sending a copy of the bid tab to all who have submitted a bid.

**Please note that email responses to this solicitation are limited to a maximum of 50MB capacity. NO ZIP FILES OR LINKS TO EXTERNAL SITES ALLOWED. Electronic submittals must be received in the email box listed below. Submittals sent to any other box will NOT be forwarded or accepted. This email box is only accessed on the due date of your questions or proposals. Please use the Delivery Receipt option to verify receipt of your email. It is the sole responsibility of the proposer to ensure their documents are received before the deadline specified above. Boulder County does not accept responsibility under any circumstance for delayed or failed email or mailed submittals.**

Email [purchasing@bouldercounty.org](mailto:purchasing@bouldercounty.org); identified as **BID # 7204-21** in the subject line.

All BIDs must be received and time and date recorded by authorized county staff by the above due date and time. Sole responsibility rests with the bidder to see that their BID response is received on time at the stated location(s). Any BIDs received after due date and time will be returned to the bidder.

The Board of County Commissioners reserves the right to reject any and all BIDs, to waive any informalities or irregularities therein, and to accept the proposal that, in the opinion of the Board, is in the best interest of the Board and of the County of Boulder, State of Colorado.

**Americans with Disabilities Act (ADA):** If you need special services provided for under the Americans with Disabilities Act, contact the ADA Coordinator or the Human Resources office at (303) 441-3525 at least 48 hours before the scheduled event.



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## **TERMS AND CONDITIONS**

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1. Bidders are expected to examine the drawing, specifications, schedule of delivery, and all instructions. Failure to do so will be at the bidder's risk.
2. Each bidder will furnish the information required in the Invitation to Bid.
3. The Contract/Purchase Order will be awarded to that responsible bidder whose submittal, conforming to the Invitation to Bid, will be most advantageous to the County of Boulder, based on best value not only price.
4. The County of Boulder reserves the right to reject any or all bids and to waive informalities and minor irregularities in bids received, and to accept any portion of or all items proposed if deemed in the best interest of the County of Boulder to do so.
5. No submittal will be withdrawn for a period of thirty (30) days subsequent to the opening of bids without the consent of the County Purchasing Agent or delegated representative.
6. A signed purchase order or contract furnished to the successful bidder results in a binding contract without further action by either party.
7. Late or unsigned bids will not be accepted or considered. It is the responsibility of bidders to ensure that the bid arrives at the Administrative Services Information Desk prior to the time indicated in the "Invitation to Bid."
8. The proposed price will be exclusive of any Federal or State taxes from which the County of Boulder is exempt by law.
9. Any interpretation, correction or change of the bid documents will be made by Addendum. Interpretations, corrections and changes of the bid documents made in any other manner will not be binding, and bidder will not rely upon such interpretations, corrections and changes. The County's Representative will not be responsible for oral



clarification.

10. Confidential/Proprietary Information: Bids submitted in response to this “Invitation to Bid” and any resulting contract are subject to the provisions of the Colorado Public (Open) Records Act, 24-72-201 et.seq., C.R.S., as amended. Any restrictions on the use or inspection of material contained within the bid and any resulting contract will be clearly stated in the bid itself. Confidential/proprietary information must be readily identified, marked and separated/packaged from the rest of the bid. **Co-mingling of confidential/proprietary and other information is NOT acceptable. Neither a bid, in its entirety, nor bid price information will be considered confidential/proprietary. Any information that will be included in any resulting contract cannot be considered confidential.**

**The Boulder County Attorney’s Office retains sole authority for determining whether the Colorado Open Records Act requires or permits Boulder County to disclose proposal or bid documents, or any information contained therein, pursuant to an open records request.**

11. Boulder County promotes the purchase/leasing of energy efficient, materials efficient and reduced toxic level products where availability, quality and budget constraints allow. Bidders are expected whenever possible to provide products that earn the ENERGY STAR and meet the ENERGY STAR specifications for energy efficiency with power management features enabled. Bidders are encouraged to offer products and equipment with post-consumer recycled-content materials. Products should be packaged and delivered with a minimum amount of recycled packaging that adequately protects the product, but is not excessive.
12. Pursuant to Colorado law (House Bill 1292), in any bidding process for public works in which a bid is received from a non-resident bidder who is from a state that provides a percentage bidding preference, a comparable percentage disadvantage will be applied to the bid of that bidder. Bidders may obtain additional information from the Department of Personnel’s website: <http://www.colorado.gov/dpa/>.



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## **SPECIFICATIONS**

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**Please reference the plans and specifications in Attachment A.**

**Note:**

**Boulder County will act as the temperature controls subcontractor, please exclude pricing for this scope from your bid.**



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## **INSURANCE AND W-9 REQUIREMENTS**

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### **PAYMENT & PERFORMANCE BONDS**

**Both a payment and a performance bond are required for this project and must each equal 100% of the proposed cost. Please include the cost of this bonding into the total proposed cost.**

### **INSURANCE REQUIREMENTS**

#### **Commercial General Liability**

This coverage should be provided on an Occurrence Form, ISO CG001 or equivalent, with Minimum limits of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products Completed Operations Aggregate.

#### **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

#### **Workers' Compensation and Employer's Liability**

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease- Policy Limit/\$100,000 Disease-Each Employee.

#### **Umbrella / Excess Insurance**

Umbrella/Excess Liability insurance in the amount \$1,000,000.00, following form.

**Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.**

**THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS: County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insureds.**

**In regards to General Liability, Umbrella/Excess Liability, and Pollution Liability: If any or all of these coverages are required above, additional insured status will be required prior to beginning any and all tasks or work.**

**Note that the above insurance amounts are the minimum required for this project. Proof of current insurance must be provided with your proposal in the form of a sample certificate. You are NOT required to include additional insured status until the time a contract is executed.**

**If you require a waiver of insurance requirements you may request one in your response with an explanation.**

#### **W-9 REQUIREMENT**

Provide a copy of your business's W-9 with your proposal.



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## SUBMITTAL SECTION

The bidder’s attention is especially called to the items listed below, which must be submitted in full as part of the BID. Failure to submit any of the documents listed below as a part of your BID, or failure to acknowledge any addendum in writing with your BID, or submitting a bid on any condition, limitation or provision not officially invited in this Invitation to Bid (BID) may be cause for rejection of the BID.

**THIS CHECKLIST MUST BE SUBMITTED AS PART OF YOUR BID PACKAGE:** Bidder will check each box indicating compliance:

| INCLUDED | ITEM   |
|----------|--|
|          | Name and Address of the Partners and Subcontractors if applicable  |
|          | A detailed project schedule with an all-inclusive total cost   |
|          | Information on the relevant experience of key personnel  |
|          | State your compliance with the Terms and Conditions in the Sample Contract contained in this BID. Specifically list any deviations and provide justification for each deviation. |
|          | Submit three references for similar projects your company has completed within the last three years and contact information  |
|          | Insurance Certificate  |
|          | W-9  |
|          | Signature Page   |
|          | Addendum Acknowledgement(s) (If Applicable)  |



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**BID TAB**

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Provide a price for one and/or each item as listed below. Work shall be awarded based on the most responsible Bid that best satisfies the requirements of the project, not necessarily on the lowest price. Boulder County reserves the right to make the award on the basis of the Bid deemed most favorable to the County, to waive any informalities, or to reject any or all Bids.

**All work described in the Drawings, Specifications and Addenda for this project:**

**ITEM #1: Mechanical HVAC** - Work consists of all labor and materials required for mechanical HVAC work including hydronic heat piping requirements. **Excluding temperature controls**

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

Duration\_\_\_\_\_ Working Days

**ITEM #2: Plumbing** - Work consists of all labor and materials required for Plumbing work including all fixtures and domestic hot and cold piping requirements.

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

Duration\_\_\_\_\_ Working Days

**Item #3 –Combine Mechanical HVAC and Plumbing are awarded to same contractor.**

\_\_\_\_\_ dollars (\$\_\_\_\_\_)

**Alternates:** Provide a separate page for any proposed alternates, with description of alternate and impact to cost or timing of work.



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**SIGNATURE PAGE**

| Contact Information   | Response |
|---|----------|
| Company Name including DBA  |          |
| List Type of Organization (Corporation, Partnership, etc.)                          |          |
| Name, Title, and Email Address of Person Authorized to Contract with Boulder County |          |
| Company Address   |          |
| Company Phone Number  |          |
| Company Website   |          |

**By signing below I certify that:**

I am authorized to bid on my company's behalf.

I am not currently an employee of Boulder County.

None of my employees or agents is currently an employee of Boulder County.

I am not related to any Boulder County employee or Elected Official.

(Sole Proprietorships Only) I am not a Public Employees' Retirement Association (PERA) retiree.

\_\_\_\_\_  
**Signature of Person Authorized to Bid on  
 Company's Behalf**

\_\_\_\_\_  
**Date**

Note: If you cannot certify the above statements, please explain in a statement of explanation.

## BOULDER COUNTY SAMPLE CONTRACT

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THIS CONTRACT ("Contract") is entered into by and between the County of Boulder, State of Colorado, a body corporate and politic, acting by and through its Board of County Commissioners for the benefit of the [Department] ("County") and [Supplier] ("Contractor"). County and Contractor are each a "Party," and collectively the "Parties."

In consideration of the mutual covenants contained in this Contract, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Incorporation into Contract: The **Details Summary** is incorporated into this Contract. The **Contract Documents** are incorporated into this Contract by reference, except to the extent that the Proposal, if any is incorporated, contains any obligations placed upon County and not otherwise contained in this Contract.

2. Work to be Performed: Contractor will provide all labor and equipment and do all tasks necessary and incidental to performing the work as described in the **Details Summary** and **Contract Documents** (the "Work"). Contractor will perform the Work (i) in a good and workmanlike manner, (ii) at its own cost and expense, (iii) in accordance with recognized industry standards of care, skill and diligence for the type of work being performed, and (iv) in strict accordance with the Contract. County and its representatives shall have access to the Work at all times.

a. Contractor shall supervise and direct the Work and shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract.

b. Contractor shall provide and pay for all labor, materials, equipment, tools, construction equipment and machinery, transportation, and other facilities and services necessary for the proper execution and completion of the Work. Contractor warrants that all materials incorporated into the Work will be new unless otherwise specified.

c. Contractor shall at all times enforce good order among its employees and shall not employ on the Work any unfit person or anyone not skilled in the task assigned to such person. Contractor shall initiate, maintain, and supervise all safety precautions and programs in connection with the Work to ensure safe conditions on the premises at all times. Contractor shall comply with all laws, regulations, ordinances, rules, and orders of any public authority bearing on the safety of persons and property. In the event that County notifies Contractor of any unsafe conditions or practices, Contractor shall immediately take all actions required to remediate them at no expense to County. County reserves the right to immediately suspend the Work in the event of imminent hazard, as determined by County.

d. At all times, Contractor shall keep the premises free from accumulation of waste materials or rubbish caused by Contractor's operations. Upon completion of the Work, Contractor shall remove all of its waste materials and rubbish from the premises, as well as its tools, construction equipment, machinery and surplus materials.

e. Contractor shall confine operations on the premises to areas permitted by law, ordinances, permits, this Contract, and as directed by County, including storage of any materials or equipment.

f. Any claim for an increase in the **Contract Amount** shall be made and generally described by Contractor in writing and delivered to County promptly, in no event later than thirty (30) days after the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered to County within sixty (60) days after such occurrence and shall be accompanied by Contractor's written statement that the amount claimed covers all known amounts to which Contractor is



entitled as a result of the occurrence of said event. All claims for increase in the **Contract Amount** shall be determined by County if the Parties are unable to otherwise reach agreement on the claim.

g. Before ordering any materials or doing any Work, Contractor shall verify all measurements for the Work and shall be responsible for the correctness of same.

3. Term of Contract: The Contract Term begins on the Start Date and expires on the Expiration Date, unless terminated sooner. All the Work must be performed during the Contract Term.

4. Payment for Work Performed: In consideration of the Work performed by Contractor, and subject to conditions contained in this Contract, County will pay an amount not to exceed the Contract Amount to Contractor in accordance with the Contract Documents.

5. Invoicing: Contractor will promptly provide a copy of its Form W-9 and invoice template to County upon request. Contractor must submit an invoice to the County by the fifteenth (15th) day of the month following completion of the Work. All invoices submitted require the following components: Contractor's name and address (submitted W-9 address must match remit address), detailed description of services, dates of services, itemization of labor and materials costs, "Bill to: Boulder County" language, payment remittance address, payer, name and address, date of invoice, unique invoice number, and total amount due. Contractor must send all completed invoices to the **Invoice Contact** in the **Details Summary**. Email delivery is preferred by the County; County may require delivery of invoices by email. Failure to submit invoices in a timely manner and in accordance with the terms of this Contract may cause a delay in payment. County may recoup any damages incurred because of Contractor's failure to submit invoices pursuant to the terms of this paragraph. County's acceptance or payment of an invoice will not constitute acceptance of any Work performed under this Contract.

6. Extra Time to Complete the Work: Upon mutual agreement of the Parties, this Contract may be extended until the **Final End Date**. During any extended **Contract Term**, the terms of this Contract will remain in full force and effect, unless otherwise amended in writing by the Parties. Where the Contractor will provide additional services for additional compensation beyond the initial **Contract Amount**, the Parties must execute a written amendment before the then-current **Expiration Date**. If necessary, the written amendment will incorporate an updated Scope of Work and updated Fee Schedule as exhibits. Contractor must provide a current Certificate of Insurance to the County that complies with the **Insurance Requirements** of this Contract, if any, prior to any extended **Contract Term**.

7. Extension of Contract Term (Additional Work): Upon mutual agreement of the Parties, this Contract may be extended until the **Final End Date**. During any extended **Contract Term**, the terms of this Contract will remain in full force and effect, unless otherwise amended in writing by the Parties. Where the Contractor will provide additional services for additional compensation beyond the initial **Contract Amount**, the Parties must execute a written amendment before the then-current **Expiration Date**. If necessary, the written amendment will incorporate an updated Scope of Work and updated Fee Schedule as exhibits. Contractor must provide a current Certificate of Insurance to the County that complies with the **Insurance Requirements** of this Contract, if any, prior to any extended **Contract Term**.

8. Schedule of Work: County may designate the hours (on a daily or weekly basis) during which Contractor can perform the Work, strictly for the purposes of minimizing inconvenience to the County and interference with County operations. Contractor will otherwise set its own work schedule. Contractor shall promptly notify County of any aspect of the Work that will not be delivered or accomplished according to the initial schedule.

9. Indemnity: Contractor will be liable for any damages to persons or property caused by or arising out of the actions, obligations, or omissions of Contractor, its employees, agents, representatives or other persons acting under Contractor's direction or control in performing or failing to perform the Work under this Contract. Contractor will indemnify and hold harmless County, its elected and appointed officials, and its employees, agents and representatives (the "indemnified parties"), from any and all liability, claims, demands, actions, damages, losses, judgments, costs or expenses, including attorneys' fees, which may be made or brought or which may result against any of the indemnified parties as a result or on account of the actions or omissions of Contractor, its employees, agents or representatives, or other persons acting under Contractor's direction or control. This indemnification obligation will extend to claims based on Contractor's

unauthorized use or disclosure of confidential information and intellectual property infringement. County will not be obligated to indemnify or defend Contractor under any circumstances. Contractor's obligations under this provision shall survive expiration or termination of this Contract.

10. Nondiscrimination: Contractor will comply with the letter and spirit of the Colorado Anti-Discrimination Act, C.R.S. § 24-34-401, et seq., as amended, and all applicable local, State and Federal laws concerning discrimination and unfair employment practices. County prohibits unlawful discrimination on the basis of race, color, religion, gender, gender identity, national origin, age 40 and over, disability, socio-economic status, sexual orientation, genetic information, or any other status protected by applicable Federal, State or local law. Contractor must require that its subcontractors, if any, similarly comply with all applicable laws concerning discrimination and unfair employment practices.

11. Information and Reports: Contractor will provide to authorized County, State, and Federal government representatives all information and reports that may be required for any purpose authorized by law. Contractor will permit access to such representatives to Contractor's facilities, books, records, accounts, and any other relevant sources of information. Where information required by a representative is in the exclusive possession of a person or entity other than Contractor, Contractor must so certify to the County and explain what efforts it has made to obtain the information.

12. Independent Contractor: Contractor is an independent contractor for all purposes in performing the Work. Contractor is not an employee of the County for any purpose, including the Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, the Colorado Workers' Compensation Act, the Colorado Unemployment Insurance Act, and the Public Employees Retirement Association. Accordingly, County will not withhold or pay any income tax, payroll tax, or retirement contribution of any kind on behalf of Contractor or Contractor's employees. As an independent contractor, Contractor is responsible for employing and directing such personnel and agents as it requires to perform the Work. Contractor will exercise complete authority over its personnel and agents and will be fully responsible for their actions.

13. Termination for Non-Appropriation: The other provisions of this Contract notwithstanding, the County is prohibited by law from making commitments beyond the current fiscal year. Payment to Contractor beyond the current fiscal year is contingent on the appropriation and continuing availability of funding in any subsequent year. County has reason to believe that sufficient funds will be available for the full **Contract Term**. Where, however, funds are not allocated for any fiscal period beyond the current fiscal year, County may terminate this Contract without penalty by providing seven (7) days' written notice to Contractor.

14. Termination for Breach: Either Party's failure to perform any of its material obligations under this Contract, in whole or in part or in a timely or satisfactory manner, will be a breach. The institution of proceedings under any bankruptcy, insolvency, reorganization or similar law, by or against Contractor, or the appointment of a receiver or similar officer for Contractor or any of its property, which is not vacated or fully stayed within thirty (30) days after the institution of such proceeding, will also constitute a breach. In the event of a breach, the non-breaching Party may provide written notice of the breach to the other Party. If the notified Party does not cure the breach, at its sole expense, within thirty (30) days after delivery of notice, the non-breaching Party may exercise any of its remedies provided under this Contract or at law, including immediate termination of this Contract.

15. Termination for Convenience: County may terminate this Contract, in whole or in part, for any reason, upon seven (7) days' advance written notice to Contractor.

16. Remedies for Non-Performance: If Contractor fails to perform any of its obligations under this Contract, County may, at its sole discretion, exercise one or more of the following remedies, which shall survive expiration or termination of this Contract:

a. Suspend Performance: County may require that Contractor suspend performance of all or any portion of the Work pending necessary corrective action specified by the County and without entitling Contractor to an increase in compensation or extension of the performance schedule. Contractor must promptly stop performance and incurring costs upon delivery of a notice of suspension by the County.

b. Withhold Payment Pending Corrections: County may permit Contractor to correct any rejected Work at the County's discretion. Upon County's request, Contractor must correct rejected work at Contractor's sole expense within the time frame established by the County. Upon completion of the corrections satisfactory to the County, County will remit payment to Contractor.

c. Deny Payment: County may deny payment for any Work that does not comply with the requirements of the Contract or that Contractor otherwise fails to provide or complete, as determined by the County in its sole discretion. Upon County request, Contractor will promptly refund any amounts prepaid by the County with respect to such non-compliant Work.

d. Removal: Upon County's request, Contractor will remove any of its employees or agents from performance of the Work, if County, in its sole discretion, deems any such person to be incompetent, careless, unsuitable, or otherwise unacceptable.

17. Binding Arbitration Prohibited: County does not agree to binding arbitration by any extra-judicial body or person.

18. Conflicts of Interest: Contractor must not engage in any business or personal activities or practices or maintain any relationships that conflict in any way with the full performance of Contractor's obligations.

19. Notices: All notices provided under this Contract must be in writing and sent by Certified U.S. Mail (Return Receipt Requested), electronic mail, or hand-delivery to the other Party's **Contact** at the address specified in the **Details Summary**. For certified mailings, notice periods will begin to run on the day after the postmarked date of mailing. For electronic mail or hand-delivery, notice periods will begin to run on the date of delivery.

20. Statutory Requirements: This Contract is subject to all statutory requirements that are or may become applicable to counties or political subdivisions of the State of Colorado generally, including but not limited to: C.R.S. § 38-26-107, which requires withholding funds where the County receives a claim for payment from a supplier or subcontractor of Contractor upon notice of final settlement (required for public works contracts that exceed \$150,000); C.R.S. § 8-17-101 et seq.; C.R.S. § 18-8-301, et seq.; and C.R.S. § 18-8-401, et seq.

21. Public Contracts for Services (C.R.S. §§ 8-17.5-101, et seq.): Contractor hereby certifies, warrants, and agrees that it does not knowingly employ or contract with an illegal alien who will perform work under this Contract and further certifies that it will confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Contract by participating in the E-Verify Program established under Pub. L. 104-28 or the department verification program established under C.R.S. § 8-17.5-102(5)(c). Contractor (i) shall not knowingly employ or contract with an illegal alien to perform work under this Contract; (ii) shall not enter into a contract with a subcontractor that fails to certify to the contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Contract; (iii) has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Contract through participation in the E-Verify program or department program; (iv) is prohibited from using either the E-Verify program or department program procedures to undertake preemployment screening of job applicants while this Contract is being performed; and (v) shall comply with any reasonable request by the department made in the course of an investigation that the Colorado Department of Labor and Employment is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5). If Contractor obtains actual knowledge that a subcontractor performing work under this Contract knowingly employs or contracts with an illegal alien, Contractor shall (a) notify the subcontractor and County within three (3) days that Contractor has actual knowledge that subcontractor is employing or contracting with an illegal alien; and (b) terminate the subcontract if, within three (3) days of receiving notice hereunder, subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien. Contractor's violation of this provision will constitute a material breach of this Contract, entitling the County to terminate the contract for breach. If this Contract is so terminated, Contractor shall be liable for actual and consequential damages to the County.

22. Entire Agreement/Binding Effect/Amendments: This Contract represents the complete agreement between the Parties and is fully binding upon them and their successors, heirs, and assigns, if any. This Contract terminates any prior agreements, whether written or oral in whole or in part, between the Parties relating to the Work. This Contract may be amended only by a written agreement signed by both Parties.
23. Assignment/Subcontractors: This Contract may not be assigned or subcontracted by Contractor without the prior written consent of the County. If Contractor subcontracts any of its obligations under this Contract, Contractor will remain liable to the County for those obligations and will also be responsible for subcontractor's performance under, and compliance with, this Contract.
24. Governing Law/Venue: The laws of the State of Colorado govern the construction, interpretation, performance, and enforcement of this Contract. Any claim relating to this Contract or breach thereof may only be brought exclusively in the Courts of the 20<sup>th</sup> Judicial District of the State of Colorado and the applicable Colorado Appellate Courts.
25. Breach: The failure of either Party to exercise any of its rights under this Contract will not be deemed to be a waiver of such rights or a waiver of any breach of the Contract. All remedies available to a Party in this Contract are cumulative and in addition to every other remedy provided by law.
26. Severability: If any provision of this Contract becomes inoperable for any reason but the fundamental terms and conditions continue to be legal and enforceable, then the remainder of the Contract will continue to be operative and binding on the Parties.
27. Third-Party Beneficiary: Enforcement of the terms and conditions and all rights and obligations of this Contract are reserved to the Parties. Any other person receiving services or benefits under this Contract is an incidental beneficiary only and has no rights under this Contract. Notwithstanding, where the beneficiary **Department** is led by an Elected Official, such Elected Official shall be considered a third-party beneficiary.
28. Colorado Open Records Act: County may disclose any records that are subject to public release under the Colorado Open Records Act, C.R.S. § 24-72-101, et seq.
29. Conflict of Provisions: If there is any conflict between the terms of the main body of this Contract and the terms of any of the **Contract Documents**, the terms of the main body of the Contract will control.
30. Governmental Immunity: Nothing in this Contract shall be construed in any way to be a waiver of the County's immunity protection under the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, et seq., as amended.
31. Representations and Warranties: Contractor represents and warrants the following:
- a. Execution of this Contract and performance thereof is within Contractor's duly authorized powers;
  - b. The individual executing this Contract is authorized to do so by Contractor;
  - c. Contractor is authorized to do business in the State of Colorado and is properly licensed by all necessary governmental and public and quasi-public authorities having jurisdiction over the Work and the Contractor; and
  - d. Contractor and its subcontractors, if any, are financially solvent, able to pay all debts as they mature, and have sufficient working capital to complete the Work and perform all obligations under the Contract.
32. Legal Compliance: Contractor assumes full responsibility for obtaining and maintaining any permits and licenses required to perform the Work. Contractor's performance under this Contract and the Work itself will comply with all Federal, State, and local laws, regulations, ordinances and codes.
33. Litigation Reporting: Contractor is not currently involved in any action before a court or other administrative decision-making body that could affect Contractor's ability to perform the Work. Contractor will promptly notify the County if Contractor is served with a pleading or other document in connection with any such action.

34. Tax Exemption: County is exempt from payment of Federal, State, and local government taxes. Contractor shall collect no tax from the County, and the County shall not be liable to pay any taxes imposed on Contractor. County shall provide its tax exemption status information to Contractor upon request.

35. Delegation of Authority: The Parties acknowledge that the Board of County Commissioners has delegated authority to the Department Head or Elected Official that leads the beneficiary **Department** and their designees to act on behalf of the County under the terms of this Contract, including but not limited to the authority to terminate this Contract.

36. Ownership of Work Product: All work product, property, data, documentation, information or materials conceived, discovered, developed or created by Contractor pursuant to this Contract ("Work Product") will be owned exclusively by the County. To the extent possible, any Work Product will be deemed to be a work made for hire. Contractor unconditionally and irrevocably transfers and assigns to the County all right, title and interest in and to any Work Product.

37. Publicity Releases: Contractor will not refer to this Contract or the County in commercial advertising without prior written consent of the County. This provision shall survive expiration or termination of this Contract.

38. Execution by Counterparts; Electronic Signatures: This Contract may be executed in multiple counterparts, each of which will be deemed an original, but all of which will constitute one agreement. The Parties approve the use of electronic signatures, governed by the Uniform Electronic Transactions Act, C.R.S. §§ 24 71.3 101 to 121. The Parties will not deny the legal effect or enforceability of this Contract solely because it is in electronic form or because an electronic record was used in its creation. The Parties will not object to the admissibility of this Contract in the form of electronic record, or paper copy of an electronic document, or paper copy of a document bearing an electronic signature, because it is not in its original form or is not an original.

39. Limitation on Public Statements and Lobbying Activity. During the term of this Contract, Contractor may receive from the County its confidential data, work product, or other privileged or confidential information that is protected by law. To maintain the fact and appearance of absolute objectivity, Contractor shall not, without the prior written consent of the County, which shall not be unreasonably withheld, do any of the following: (a) disclose information obtained because of this contractual relationship to any third party; (b) lobby any State or Federal agency on any pending matter while this Contract is effective; or (c) make any public statements or appear at any time to give testimony at any public meeting on the subject matters regarding which Contractor is or was retained by the County. County may set reasonable conditions on any disclosure authorized by the County under this provision. Notwithstanding, Contractor may make disclosures as required by law, and to law enforcement officials in connection with any criminal justice investigation.

40. Sustainability: County encourages Contractor to consider the procurement and use of environmentally preferable products and services while performing services under this Contract. "Environmentally preferable purchasing" means making purchasing choices for products and services that have a lesser or reduced adverse effect on human health and the environment when compared with competing products and services that serve the same purpose. Environmentally preferable purchasing is consistent with the County's commitment to protecting our air, water, soil, and climate for current and future generations. County encourages Contractor to incorporate the following actions into Contractor's performance of the Work: environmentally preferable supplies and services; conservation of water; efficient energy use; waste prevention; reuse and recycle construction and de-construction materials in a manner that maximizes reuse of materials; sustainable transportation choices, including consideration to business communication software such as Skype alternative to air travel and public transit or carpooling for in-person meetings; pollution prevention; low toxicity for public health & safety; and reduced emissions to address climate change.

41. Limitation of Liability: COUNTY SHALL NOT BE LIABLE TO CONTRACTOR FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES ARISING FROM OR RELATING TO THIS CONTRACT, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. COUNTY'S AGGREGATE LIABILITY, IF ANY, ARISING FROM OR RELATED TO THIS CONTRACT, WHETHER IN CONTRACT, OR IN TORT, OR OTHERWISE, IS LIMITED TO, AND SHALL NOT EXCEED,

THE AMOUNTS PAID OR PAYABLE HEREUNDER BY COUNTY TO CONTRACTOR. ANY CONTRACTUAL LANGUAGE LIMITING CONTRACTOR'S LIABILITY SHALL BE VOID.

42. County Opportunity to Review: Contractor shall provide County with the opportunity to review and approve or take other appropriate action upon the Contractor's submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with the design concept of the Work and with the information given in the Contract Documents.

43. Notice to Proceed: The Parties agree that time is of the essence and work shall after a "Notice to Proceed" has been issued by the County and in accordance with the terms therein.

44. Retainage: County may retain partial payment pending completion and County acceptance of the Work as satisfactory and complete. For contracts that exceed \$150,000, the retention rate shall not exceed five percent (5%). C.R.S. § 24-91-103. Contractor is responsible for submitting a final invoice for any retainage held by County. If it becomes necessary for County to take over completion of the Work, all of the amounts owing to Contractor, including the withheld percentage, shall be applied: First, towards completion of the Work; second, towards performance of the withholding requirement set forth in C.R.S. § 38-26-107; third, to the surety furnishing bonds for the Work, to the extent such surety has incurred liability or expense in competing the Work or made payments pursuant to C.R.S. § 38-26-106; then, to Contractor. Such retained percentage as may be due to Contractor shall be due and payable as provided by C.R.S. § 38-26-107.

45. Bonds: Upon County's request, Contractor shall obtain and deliver to County payment and performance bonds each equal to 100% of the total Contract. Bonds shall be executed by a qualified corporate surety and must be acceptable to County. County reserves the right to accept other acceptable forms of surety in lieu of a bond, and to reduce the bond requirements set forth herein consistent with C.R.S. § 38-26-106.

46. Change Orders: If unforeseen modifications or changes are required, Contractor may submit a Change Order request to County, which must include a complete description, timeline, and fee schedule for the proposed work. Change Orders are not effective until approved by County in writing.

47. No Suspension or Debarment: Contractor certifies, and warrants for the duration of this Contract, that neither it nor its principals nor any of its subcontractors are debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this Contract by any Federal or State department or agency. Contractor shall comply, and shall require its subcontractors to comply, with subpart C of 2 C.F.R. § 180.

48. Permits/Licenses/Code Compliance: Prior to starting the Work, Contractor will identify and obtain, and maintain during this Contract, all permits and licenses necessary to perform the Work. Contractor shall comply with all State and local codes. Contractor is responsible for locating all public utilities, as necessary. Contractor shall require its subcontractors to comply with this provision. HVAC, roofing, and general contractors must be licensed through Boulder County Land Use. Electricians and plumbers must be licensed through the State and registered with Boulder County Land Use Building Safety and Inspection Division. Architects, Professional Engineers and Professional Land Surveyors must be fully-licensed through the State. All required permits and licenses must be provided to County prior to Contractor beginning the Work.

49. Stormwater Quality Protection Requirements: Contractor will take all measures necessary to prevent pollutants from entering storm drains and watercourses. To eliminate stormwater pollution, Contractor shall implement effective Best Management Practices (BMPs). BMPs include general good housekeeping practices, appropriate scheduling of activities, operational practices, maintenance procedures and other measures to prevent the discharge of pollutants directly or indirectly to the storm drain system. These BMPs shall be maintained for the duration of this Contract. Contractor shall also be responsible for proper disposal of all waste materials, including wastes generated by the implementation of BMPs. Contractor shall otherwise comply with the Federal Clean Water Act, Colorado Water Quality Control Act, and Boulder County's local Clean Water Act, Illegal Discharge Ordinance (No. 2012-4). For work performed

in urbanized areas, Contractor must comply with the requirements of MS4 permit (COR090000), which is available through the Colorado Department of Public Health and Environment.

50. Guaranties and Warranties: Upon completion of the Work, Contractor will provide County with a written guaranty covering all labor, materials and workmanship incorporated into the Work for one (1) year, or within any such longer period of time as may be prescribed by law, the specifications, or any other applicable special warranty required by the **Contract Documents**. Final payment upon completion of the Work will not relieve Contractor of responsibility for faulty material or workmanship, which County may require Contractor to fix at Contractor's sole expense, in addition to County's other remedies. This provision shall apply to Work completed by Contractor's employees and subcontractors.

51. Substantial Completion: Substantial completion shall be achieved where the Work has progressed to the point where, in the opinion of County, it is sufficiently complete, in accordance with the **Contract Documents**, so that the Work (or specified part) can be utilized for the purposes for which it was intended.

a. When Contractor considers the entire Work ready for its intended use, Contractor shall notify County in writing that the entire Work is substantially complete (except for items that may be listed by Contractor as incomplete).

b. Within a reasonable time thereafter, County and Contractor shall make an inspection of the Work to determine the status of completion.

c. If County does not consider the Work substantially complete, County will notify Contractor in writing giving the reasons therefore. If County considers the Work substantially complete, County will provide notice to Contractor of the date of Substantial Completion. Notice of substantial completion may include a list of items to be completed or corrected before final payment; unless Contractor objects in writing and so informs County within seven (7) days, County's recommendations of Work to be completed and corrected shall be binding on Contractor until final payment.

52. Final Payment: A final inspection of the Work shall be conducted by County. If a list of deficiencies results from such final inspection, Contractor shall promptly rectify all items appearing thereon before final payment will be made. When County indicates acceptance of the Work, Contractor may request final payment from County, including any retained amounts. Final payment shall be subject to C.R.S. § 38-26-107.

53. Notice of Final Settlement: Prior to remitting final payment to Contractor, County shall publish a Notice of Final Settlement in accordance with C.R.S. § 38-26-107. Final payment will be rendered in accordance with the statute and the other terms of this Contract. Final payment will not be rendered until County, in its sole discretion, determines satisfactory completion of the Work.

54. Geographic Information System (GIS) Data: Contractors agree that the following, specified data formats, shall be used and/or adhered to when submitting required data to the County:

a. All GIS data must be ArcGIS 10.x compatible. Shapefiles may be accepted with written, pre-approval, from the County.

b. All GIS data must have complete metadata, following Boulder County GIS Metadata Standards located at: <https://assets.bouldercounty.org/wpcontent/uploads/2018/03/metadata-standards-contractors.pdf>

c. All Computer Aided Design (CAD) files must have an assigned real world coordinate system to ensure compatible conversion into the County's GIS system, if necessary.

d. All spatial or georeferenced data will be provided to the county in the following coordinate system:

i. Name:

NAD 1983 HARN State Plane Colorado  
North FIPS 0501 Feet

ii. Unit:

Foot US

iii. Projection:

Lambert Conformal Conic

iv. Horizontal Datum:  
North American Datum 1983 HARN

v. Vertical Datum:  
North American Vertical Datum 1988

vi. Spheroid:  
GRS 1980

e. Contractors are responsible for capturing section corners or quarter corners for specific projects to be added into the Public Land Survey System (PLSS) project for updating the section corners. Contractors shall provide high-accuracy PLSS monument coordinates for each corner section or quarter corner section monument used as control points or that occur within the project area (“putting it on the cap”) as is reasonable, depending on the difficulty to access the point. All positions to be collected shall be required to use (at a minimum) the Real-Time Kinematic (RTK) method.

55. State Specifications: The Standard Specifications for Road and Bridge Construction 2017, either in whole or as set forth in the Bid Documents, are expressly incorporated into this Contract by reference.

56. Determination of Unit Prices: County will determine the actual quantities and classifications of Unit Price Work performed by Contractor. The Parties will review the County’s preliminary determinations before County renders a written decision thereon (by recommendation of an Application for Payment or otherwise), which shall be final and binding upon Contractor. The value of any Unit Price Work covered by a Change Order or claim for an increase or decrease in the Contract Amount shall be determined by applying the unit prices to the quantities of items.

a. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, the Parties agree that the Contract Amount includes the total cost of Unit Price Work, determined by multiplying the quantity of each item by its unit price. Initial quantity determinations are estimates, which must be adjusted to reflect actual quantities. Contractor shall make a claim in writing to County for any additional amounts owed where actual quantities exceed estimated quantities. Contractor shall provide such written claim within twenty (20) days of providing the items and shall be accompanied by supporting documentation. The written claim shall include a statement that the claimed amount covers all known amounts (direct, indirect and consequential) to which Contractor is owed. County shall only pay Contractor for actual quantities of items provided hereunder.

b. The Parties agree that each unit price adequately covers Contractor’s overhead and profit for each item.

57. Records Retention/Access/Audits: Contractor shall maintain all records and documents pertaining to this Contract in accordance with the requirements prescribed by County. Such records shall be maintained for a period of five (5) calendar years after the date of Contractor’s final payment from County under this Contract. Contractor agrees that County or their designated representative shall have the right to review and to copy any records and supporting documentation pertaining to the performance of this Contract as necessary and upon request, throughout the term of this Contract, and for five (5) calendar years after the date of the final payment hereunder. Contractor agrees to allow the auditor(s) access to such records during normal business hours and to allow interviews of any employees who might reasonably have information related to such records. County and Contractor acknowledge that protected information is exempt from this requirement without proper client release.

58. Insurance Requirements: Prior to commencing the Work, Contractor will provide a Certificate of Insurance to the County demonstrating adequate insurance coverage as required by this paragraph. All policies evidencing coverage required by the Contract will be issued by insurance companies satisfactory to the County. Contractor will forward Certificates of Insurance directly to the **County Department and Contact** listed in the **Details Summary**.

a. For the entire duration of this Contract including any extended or renewed terms, and longer as may be required by this Contract, Contractor shall procure and maintain at its own expense, and without cost to the County, the following kinds and minimum amounts of insurance to insure the liability risks that Contractor has assumed under this Contract:



i. **Commercial General Liability**

***Non-Construction contracts use the following language:***

This coverage should be provided on an Occurrence Form, ISO CG001 or equivalent, with Minimum limits of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products Completed Operations Aggregate.

***Construction Contracts only – include the following paragraph:***

Coverage should be provided on an Occurrence form, ISO CG0001 or equivalent. The policy shall be endorsed to include Additional Insured Owners, Lessees or Contractors endorsements CG 2038 (or equivalent), Designated Construction Project(s) General Aggregate Endorsement CG2503 (or equivalent) and Additional Insured Completed Operations for Owners, Lessees or Contractors CG 2037 (or equivalent). Minimum limits required of \$1,000,000 Each Occurrence, \$2,000,000 General Aggregate and \$2,000,000 Products/Completed Operations Aggregate. The County requires the Products/Completed Operations coverage to be provided 3 years after completion of construction. An endorsement must be included with the certificate.

ii. **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of the Contract. Minimum limits \$1,000,000 Each Accident.

***This coverage may not be required if Contractor is not using a vehicle as part of its performance under the contract. Contact Risk Management with any questions.***

iii. **Workers' Compensation and Employer's Liability**

Workers' Compensation must be maintained with the statutory limits. Employer's Liability is required for minimum limits of \$100,000 Each Accident/\$500,000 Disease-Policy Limit/\$100,000 Disease-Each Employee.

***This coverage may not be required if contractor is not mandated under State law to maintain this coverage. A waiver is available on the contracts routing website.***

iv. **Umbrella / Excess Insurance**

Umbrella/Excess Liability insurance in the amount \$[X],000,000.00, following form.

***This insurance is a broad, high-limit policy, which acts more than the underlying primary insurance policy. This coverage is designed to provide additional liability limits beyond the primary insurance limits and is triggered upon the underlying limits becoming exhausted. Umbrella / Excess insurance is most commonly required when an exposure to the County could potentially create liabilities in excess of the basic insurance limits. The most common limits for these policies range from \$2,000,000 to \$5,000,000.***

***Please consult with Risk Management if you feel this coverage should be required.***

**IN ADDITION TO THE ABOVE, ONE OR MORE OF THE FOLLOWING FOUR (4) INSURANCE COVERAGES MAY BE REQUIRED. CONTACT RISK MANAGEMENT IF YOU HAVE QUESTIONS ABOUT WHICH INSURANCE COVERAGE TO INCLUDE. DELETE THIS INSTRUCTION (AND ANY INAPPLICABLE INSURANCE PARAGRAPHS) WHEN FINALIZING THE CONTRACT:**

v. **Professional Liability (Errors and Omissions)**

***All contractors required to be professionally certified by the State of Colorado (i.e., architects, engineers, doctors, nurses, etc.) and/or any consultants whose errors in***

***judgment, planning, design, etc. could result in economic loss to the County must provide proof of professional liability coverage. This also applies to anyone managing or overseeing construction.***

Professional liability coverage with minimum limits of \$1,000,000 Per Loss and \$1,000,000 Aggregate. Professional Liability provisions indemnifying for loss and expense resulting from errors, omission, mistakes or malpractice is acceptable and may be written on a claims-made basis. The contractor warrants that any retroactive date under the policy shall precede the effective date of this Contract; and that either continuous coverage will be maintained or an extended discovery period will be exercised for a period of two (2) years beginning at the time work under this Contract is completed.

vi. **Pollution Liability**

***This coverage is required whenever work under the contract involves pollution risk to the environment or losses caused by pollution conditions (including asbestos) that may arise from the operations of the Contractor described in the Contractor's scope of services.***

Coverage pay for those sums the Contractor becomes legally obligated to pay as damages because of Bodily Injury, Property Damage or environmental Damage arising out of a pollution incident caused by the Contractor's work including Completed Operations. Coverage shall include emergency response expenses, pollution liability during transportation (if applicable) and at Non-Owned Waste Disposal Site (if applicable). The Minimum limits required are \$1,000,000 Per Occurrence/Loss and \$1,000,000 Policy Aggregate. If the coverage is written on a claims-made basis, the Contractor warrants that any retroactive date applicable to coverage under the policy precedes the effective date of this Contract; and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of three (3) years beginning from the time that work under this contract is completed. County shall be named as an additional insured for ongoing operations and completed operations.

vii. **Third Party Commercial Crime Insurance / Third Party Fidelity Bond**

***Crime / Third Party Fidelity covers the contractor and the contractor's employees when engaged in work for a client on behalf of the County. This coverage is for employee dishonesty, theft, embezzlement, forgery and alteration. Coverage is required when the contractor will be handling money or collecting fees on behalf of the County or when the contractor has access to client's personal property and/or documentation***

The Crime limit shall be \$1,000,000 Per Loss and include an endorsement for "Employee Theft of Client Property". In order to provide coverage to County during the course of this contract, Commercial Crime policies must be endorsed to cover Third Party Fidelity. Third party fidelity covers the vendor's employees when engaged in work for a client. In addition, the County will be listed as loss payee on the commercial crime coverage. This third-party coverage can also be provided by obtaining a third-party fidelity bond.

viii. **Privacy / Cyber Liability Insurance**

As a provider of a service which *may* require the knowledge and retention of personal identifiable information including but not limited to, names, dates of birth, social security numbers, usernames, and passwords, and/or HIPAA sensitive personal information of clients served, the following minimum insurance limits are required:

|   |             |
|---|-------------|
| Contractors with 10 or fewer County clients:  | \$50,000    |
| Contractors with 11 – 15 County clients:      | \$500,000   |
| Contractors with more than 25 County clients: | \$1,000,000 |

***If the scope does not pertain to clients directly, contact Risk Management for appropriate language.***

ix. **Sexual Abuse and Molestation Coverage**

As a provider of a service which has contact with individuals that are part of a sensitive population and are in a position of trust the following minimum insurance limits are required:

|   |             |
|---|-------------|
| Contractors with 5 or fewer County clients: | \$100,000   |
| Contractors with 6-10 County clients:       | \$250,000   |
| Contractors with 11-15 County clients:      | \$500,000   |
| Contractors with 16 or more County clients: | \$1,000,000 |

If the number of clients increases during the contract period, the required coverage limit will increase to correspond accordingly.

***If the scope does not pertain to clients directly, contact Risk Management for appropriate language.***

**THE STATED INSURANCE LIMITS FOR ALL COVERAGES ARE MINIMUM AMOUNTS; DEPENDING ON THE CONTRACT, HIGHER LIMITS MAY BE REQUIRED OR ADVISABLE. CONTACT RISK MANAGEMENT IF YOU HAVE ANY QUESTIONS ABOUT MINIMUM LIMITS. DELETE THIS PARAGRAPH WHEN FINALIZING THE CONTRACT.**

b. Boulder County as Additional Insured: Boulder County shall be named as an additional insured for General Liability, Umbrella/Excess Liability, and Pollution Liability, as designated in this Contract. Additional insured shall be endorsed to the policy.

**THE ADDITIONAL INSURED WORDING SHOULD BE AS FOLLOWS**: *County of Boulder, State of Colorado, a body corporate and politic, is named as Additional Insured.*

c. Notice of Cancellation: Each insurance policy required by this Contract shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days' prior written notice has been given to the County except when cancellation is for non-payment of premium, then ten (10) days' prior notice may be given. If any insurance company refuses to provide the required notice, Contractor or its insurance broker shall notify the County any cancellation, suspension, or nonrenewal of any insurance policy within seven (7) days of receipt of insurers' notification to that effect.

d. Insurance Obligations of County: County is not required to maintain or procure any insurance coverage beyond the coverage maintained by the County in its standard course of business. Any insurance obligations placed on the County in any of the **Contract Documents** shall be null and void.

e. Deductible: Any and all deductibles contained in any insurance policy shall be assumed by and at the sole risk of Contractor.

f. Primacy of Coverage: Coverage required of Contractor and its subcontractors, if any, shall be primary over any insurance or self-insurance program carried by the County.

g. Subrogation Waiver: All insurance policies in any way related to this Contract secured or maintained by Contractor as required herein shall include clauses stating that each carrier shall waive all rights of recovery, under subrogation or otherwise, against County, its organizations, officers, agents, employees, and volunteers.

**[Signature Page to Follow]**

IN WITNESS WHEREOF, the Parties have executed and entered into this Contract as of the latter day and year indicated below.

| <b>SIGNED for and on behalf of Boulder County</b> |  | <b>SIGNED for and on behalf of Contractor</b> |  |
|---|--|---|--|
| Signature:  |  | Signature:                                    |  |
| Name:   |  | Name:   |  |
| Title:  |  | Title:  |  |
| Date:   |  | Date:   |  |
| <i>↓↓ For Board-signed documents only ↓↓</i>      |  |   |  |
| Attest:   |  | <i>Initials</i>                               |  |
| Attestor Name:                                    |  |   |  |
| Attestor Title:                                   |  |   |  |









BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

**SECTION 230000 - BASIC MECHANICAL REQUIREMENTS**

- 1.1 SUMMARY
  - A. COORDINATE ALL SERVICES SHUTDOWN WITH THE OWNER.
- 1.2 PROJECT CONDITIONS
  - A. BE RESPONSIBLE FOR ALL DAMAGE TO THE PROPERTY OF THE OWNER OR TO THE WORK OF OTHER CONTRACTORS DURING THE CONSTRUCTION AND GUARANTEE PERIOD. REPAIR OR REPLACE ANY PART OF THE WORK WHICH MAY SHOW DEFECT DURING ONE (1) YEAR FROM THE FINAL ACCEPTANCE OF ALL WORK PROVIDED SUCH DEFECT IS, IN THE OPINION OF THE ARCHITECT, DUE TO IMPERFECT MATERIAL OR WORKMANSHIP AND NOT DUE TO THE OWNER'S CARELESSNESS OR IMPROPER USE.
- 1.3 ACCESSIBILITY
  - A. INSTALL EQUIPMENT AND MATERIALS TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE. COORDINATE THE FINAL LOCATION OF CONCEALED EQUIPMENT AND DEVICES REQUIRING ACCESS WITH FINAL LOCATION OF REQUIRED ACCESS PANELS AND DOORS. ALLOW AMPLE SPACE FOR REMOVAL OF ALL PARTS THAT REQUIRE REPLACEMENT OR SERVICING.
  - B. FURNISH HINGED STEEL ACCESS DOORS WITH CONCEALED LATCH, WHETHER SHOWN ON DRAWINGS OR NOT, IN ALL WALLS AND CEILINGS FOR ACCESS TO ALL CONCEALED VALVES, SHOCK ABSORBERS, AIR VENTS, MOTORS, FANS, BALANCING COCKS, AND OTHER OPERATING DEVICES REQUIRING ADJUSTMENT OR SERVICING. REFER TO DIVISION 1 FOR ACCESS DOOR SPECIFICATION AND DIVISION 23 FOR DUCT ACCESS DOOR REQUIREMENTS.
  - C. THE MINIMUM SIZE OF ANY ACCESS DOOR SHALL NOT BE LESS THAN THE SIZE OF THE EQUIPMENT TO BE REMOVED OR 24-INCH X 24-INCH IF USED FOR SERVICE ONLY, UNLESS SIZE IS INDICATED ON DRAWINGS.
  - D. ACCESS DOORS IN FIRE-RATED WALLS AND CEILINGS SHALL HAVE EQUIVALENT UL LABEL AND FIRE RATING.
- 1.4 ROUGH-IN
  - A. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED.
  - B. REFER TO EQUIPMENT SHOP DRAWINGS AND MANUFACTURER'S REQUIREMENTS FOR ACTUAL PROVIDED EQUIPMENT FOR ROUGH-IN REQUIREMENTS.
  - C. EXECUTE AND INSPECT ALL WORK IN ACCORDANCE WITH ALL UNDERWRITERS, LOCAL AND STATE CODES, RULES AND REGULATIONS APPLICABLE TO THE TRADE AFFECTED AS A MINIMUM. BUT IF THE PLANS AND/OR SPECIFICATIONS CALL FOR REQUIREMENTS THAT EXCEED THESE RULES AND REGULATIONS, THE GREATER REQUIREMENT SHALL BE FOLLOWED. FOLLOW RECOMMENDATIONS OF NFPA, EPA, OSHA AND ASHRAE.
- 1.5 PERMITS AND FEES
  - A. CONTRACTOR SHALL ARRANGE FOR AND PAY FOR ALL PERMITS, INSPECTIONS, LICENSES AND CERTIFICATES REQUIRED IN CONNECTION WITH THE WORK.
- 1.6 MECHANICAL INSTALLATIONS
  - A. DRAWINGS ARE DIAGRAMMATIC IN CHARACTER AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, VALVE, FITTING, ETC.
  - B. DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. WHATEVER IS CALLED FOR IN EITHER IS BINDING AS THOUGH CALLED FOR IN BOTH.
  - C. DRAWINGS SHALL NOT BE SCALED FOR ROUGH-IN MEASUREMENTS OR USED AS SHOP DRAWINGS. WHERE DRAWINGS ARE REQUIRED FOR THESE PURPOSES OR HAVE TO BE MADE FROM FIELD MEASUREMENT, TAKE THE NECESSARY MEASUREMENTS AND PREPARE THE DRAWINGS.
  - D. BEFORE ANY WORK IS INSTALLED, DETERMINE THAT EQUIPMENT WILL PROPERLY FIT THE SPACE; THAT REQUIRED PIPING GRADES CAN BE MAINTAINED AND THAT DUCTWORK CAN BE RUN AS CONTEMPLATED WITHOUT INTERFERENCES BETWEEN SYSTEMS, WITH STRUCTURAL ELEMENTS OR WITH THE WORK OF OTHER TRADES.
  - E. EXECUTE AND INSPECT ALL WORK IN ACCORDANCE WITH ALL UNDERWRITERS, LOCAL AND STATE CODES, RULES AND REGULATIONS APPLICABLE TO THE TRADE AFFECTED AS A MINIMUM. BUT IF THE PLANS AND/OR SPECIFICATIONS CALL FOR REQUIREMENTS THAT EXCEED THESE RULES AND REGULATIONS, THE GREATER REQUIREMENT SHALL BE FOLLOWED. FOLLOW RECOMMENDATIONS OF NFPA, SMACNA, EPA, OSHA AND ASHRAE.
  - F. DELIVERY, STORAGE, AND HANDLING: HANDLE MECHANICAL EQUIPMENT AND COMPONENTS CAREFULLY TO PREVENT DAMAGE, BREAKING, DENTING AND SCORING. DO NOT INSTALL DAMAGED EQUIPMENT; REPLACE WITH NEW. STORE MECHANICAL EQUIPMENT AND COMPONENTS IN CLEAN DRY PLACE. PROTECT FROM WEATHER, DIRT, FUMES, WATER, CONSTRUCTION DEBRIS, AND PHYSICAL DAMAGE.
  - G. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. INSTALL EQUIPMENT PLUMB AND LEVEL, FIRMLY ANCHORED IN INDICATED LOCATION AND MAINTAIN MANUFACTURER'S RECOMMENDED CLEARANCES. EQUIPMENT SHALL NOT BE INSTALLED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. VERIFY STRUCTURE, MOUNTING SUPPORTS, AND MEMBRANE INSTALLATIONS ARE COMPLETED TO THE PROPER POINT TO ALLOW FOR INSTALLATION OF ROOF MOUNTED EQUIPMENT. COORDINATE INSTALLATION OF ROOF MOUNTING CURBS WITH ROOF STRUCTURE. COORDINATE ROOF OPENING LOCATIONS AND OPENINGS FOR ELECTRICAL AND MECHANICAL CONNECTIONS. PROVIDE ACCESS SPACE AROUND EQUIPMENT FOR SERVICE AS INDICATED, BUT IN NO CASE LESS THAN THAT RECOMMENDED BY MANUFACTURER.
  - H. COORDINATE THE INSTALLATION OF MECHANICAL MATERIALS AND EQUIPMENT ABOVE AND BELOW CEILINGS WITH SUSPENSION SYSTEM, LIGHT FIXTURES, AND OTHER BUILDING COMPONENTS.
  - I. FLUSH AND CLEAN ANY HYDRONIC SYSTEM AND/OR SYSTEM EQUIPMENT AND ACCESSORIES UPON COMPLETION OF INSTALLATION.
  - J. REFER TO ELECTRICAL SPECIFICATION SECTIONS FOR THE FOLLOWING WORK:
    1. POWER SUPPLY WIRING FROM POWER SOURCE TO POWER CONNECTION ON MECHANICAL EQUIPMENT. INCLUDE STARTERS, DISCONNECTS, AND REQUIRED ELECTRICAL DEVICES, EXCEPT WHERE SPECIFIED AS FURNISHED, OR FACTORY-INSTALLED, BY MANUFACTURER.
    2. INTERLOCK WIRING BETWEEN ELECTRICALLY OPERATED EQUIPMENT UNITS AND BETWEEN EQUIPMENT AND FIELD-INSTALLED CONTROL DEVICES.
    3. INTERLOCK WIRING SPECIFIED AS FACTORY-INSTALLED IS WORK OF THIS SECTION.
    4. INSTALL ELECTRICAL DEVICES FURNISHED BY MANUFACTURER BUT NOT SPECIFIED TO BE FACTORY-MOUNTED. FURNISH COPY OF MANUFACTURER'S WIRING DIAGRAM SUBMITTAL TO ELECTRICAL INSTALLER. VERIFY THAT ELECTRICAL WIRING INSTALLATION IS IN ACCORDANCE WITH MANUFACTURER'S SUBMITTAL AND INSTALLATION REQUIREMENTS OF ELECTRICAL SPECIFICATION SECTIONS. DO NOT PROCEED WITH EQUIPMENT START-UP UNTIL WIRING INSTALLATION IS ACCEPTABLE TO EQUIPMENT INSTALLER.
  - K. INSTALL ELECTRICAL DEVICES FURNISHED BY MANUFACTURER BUT NOT SPECIFIED TO BE FACTORY-MOUNTED. FURNISH COPY OF MANUFACTURER'S WIRING DIAGRAM SUBMITTAL TO ELECTRICAL INSTALLER.
    1. VERIFY THAT ELECTRICAL WIRING INSTALLATION IS IN ACCORDANCE WITH MANUFACTURER'S SUBMITTAL AND INSTALLATION REQUIREMENTS OF DIVISION 26 SECTIONS. ENSURE THAT ROTATION IS IN DIRECTION INDICATED AND INTENDED FOR PROPER PERFORMANCE. DO NOT PROCEED WITH CENTRIFUGAL FAN START-UP UNTIL WIRING INSTALLATION IS ACCEPTABLE TO CENTRIFUGAL FAN INSTALLER.
    2. TEMPERATURE CONTROL WIRING AND INTERLOCK WIRING ARE SPECIFIED IN DIVISION 23.
    3. GROUNDING: CONNECT UNIT COMPONENTS TO GROUND IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
- 1.7 EXTRA STOCK
  - A. PROVIDE ONE (1) COMPLETE EXTRA SET OF FILTERS FOR ALL NEW MECHANICAL EQUIPMENT. INSTALL NEW FILTERS AT COMPLETION OF AIR HANDLING SYSTEM WORK, AND PRIOR TO TESTING, ADJUSTING, AND BALANCING WORK. OBTAIN RECEIPT FROM OWNER THAT NEW FILTERS HAVE BEEN INSTALLED. PROVIDE ONE (1) SPARE SET OF BELTS FOR EACH BELT-DRIVEN FAN, OBTAIN RECEIPT FROM OWNER THAT BELTS HAVE BEEN RECEIVED. STORE EXTRA SETS AT OWNER'S DESIGNATED LOCATION.
- 1.8 CUTTING AND PATCHING

- A. PROTECT THE STRUCTURE, FURNISHINGS, FINISHES, AND ADJACENT MATERIALS NOT INDICATED OR SCHEDULED TO BE REMOVED.
- 1.9 TEMPORARY FACILITIES
  - A. USE OF PERMANENT BUILDING EQUIPMENT FOR TEMPORARY HEATING OR COOLING; PERMANENT BUILDING EQUIPMENT SHALL NOT BE USED WITHOUT WRITTEN PERMISSION FROM THE OWNER.
- 1.10 PRODUCT OPTIONS AND SUBSTITUTIONS
  - A. MATERIALS AND EQUIPMENT OF EQUIVALENT QUALITY MAY BE SUBSTITUTED FOR THOSE SCHEDULED OR IDENTIFIED BY NAME ON THE DRAWINGS IF SO, REVIEWED BY THE ARCHITECT AND OWNER PRIOR TO BIDDING. THIS MAY BE DONE BY SUBMITTING TO THE ARCHITECT, AT LEAST SEVEN (7) WORKING DAYS PRIOR TO THE BID DATE. THIS SUBMITTAL SHALL INCLUDE ALL DATA NECESSARY FOR COMPLETE EVALUATION OF THE SUBSTITUTION AND PUBLICATION IN WRITTEN ADDENDA.
- 1.11 MECHANICAL SUBMITTALS
  - A. THE CONTRACTOR IS TO PREPARE A SUBMITTAL SCHEDULE THAT COINCIDES WITH THE OVERALL CONSTRUCTION SCHEDULE. THIS SUBMITTAL SCHEDULE SHOULD INCLUDE A LIST OF INDIVIDUAL PRODUCTS TO BE SUBMITTED UNDER EACH SPECIFICATION SECTION. THIS SUBMITTAL SCHEDULE SHALL ALSO INCLUDE DATES FOR ANTICIPATED REVIEW, SHIPMENT AND ON-SITE DELIVERY TIMES OF THE SUBMITTED PRODUCT.
  - B. SUBMIT SHOP DRAWINGS DETAILING DIMENSIONS, REQUIRED CLEARANCES, METHODS OF ASSEMBLY OF COMPONENTS, AND MOUNTING AND CONNECTION DETAILS. PROVIDE EQUIPMENT AND ACCESSORIES OF SIZES AND HAVING CAPACITIES AND PERFORMANCE CHARACTERISTICS AS SPECIFIED ON THE DRAWINGS. SUBMIT MANUFACTURER'S TECHNICAL PRODUCT DATA, SHOWING RATED CAPACITIES OF SELECTED MODEL CLEARLY INDICATED, WEIGHTS (SHIPPING, INSTALLED, AND OPERATING), DIMENSIONS, CAPACITIES, RATINGS, PERFORMANCE CHARACTERISTICS, GAUGES AND FINISHES OF MATERIALS, FURNISHED SPECIALTIES AND ACCESSORIES, AND INSTALLATION AND START-UP INSTRUCTIONS.
  - C. THE ENGINEER SHALL BE GIVEN A SUBMITTAL REVIEW TIME OF TEN (10) WORKING DAYS UPON RECEIPT OF SUBMITTAL. PREVIOUS SUBMITTAL REJECTION OR REVISION SHALL NOT COMPRESS THIS REVIEW TIME. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE REVIEW AND/OR RE-REVIEW TIMES ARE INCORPORATED INTO THE SUBMITTAL SCHEDULE WITH ENOUGH LEAD TIME AS NOT TO AFFECT OVERALL CONSTRUCTION SCHEDULE.
  - D. THE MANUFACTURER'S MATERIAL OR EQUIPMENT LISTED IN THE SCHEDULE OR IDENTIFIED BY NAME ON THE DRAWINGS ARE THE TYPES TO BE PROVIDED FOR THE ESTABLISHMENT OF SIZE, CAPACITY, GRADE AND QUALITY. IF ALTERNATES ARE USED IN LIEU OF THE SCHEDULED NAMES, THE COST OF ANY CHANGES IN CONSTRUCTION REQUIRED BY THEIR USE SHALL BE BORNE BY CONTRACTOR.
  - E. ALL EQUIPMENT SHALL CONFORM TO THE STATE AND/OR LOCAL ENERGY CONSERVATION STANDARDS.
  - F. SUBMITTAL OF SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES WILL BE ACCEPTED ONLY WHEN SUBMITTED BY AND STAMPED BY THE CONTRACTOR. DATA SUBMITTED FROM SUBCONTRACTORS AND MATERIAL SUPPLIERS DIRECTLY TO THE ARCHITECT WILL NOT BE PROCESSED UNLESS PRIOR WRITTEN APPROVAL IS OBTAINED BY THE CONTRACTOR.
  - G. IF MORE THAN ONE (1) RE-SUBMITTALS (EITHER FOR SHOP DRAWINGS OR FOR AS-BUILT DRAWINGS) ARE MADE BY THE CONTRACTOR, THE OWNER RESERVES THE RIGHT TO CHARGE THE CONTRACTOR FOR SUBSEQUENT REVIEWS BY THEIR CONSULTANTS. SUCH EXTRA FEES SHALL BE DEDUCTED FROM PAYMENTS BY THE OWNER TO THE CONTRACTOR.
- 1.12 REQUESTS FOR INFORMATION
  - A. ALL "REQUESTS FOR INFORMATION" SUBMITTED BY THE CONTRACTOR SHALL INCLUDE A PROPOSED SOLUTION AND AN ESTIMATED COST/SCHEDULE IMPACT. ANY RFIs THAT DO NOT CONTAIN THIS REQUIRED INFORMATION WILL BE SENT BACK TO THE CONTRACTOR UNANSWERED.
  - B. SCHEDULE THE WORK TO PROVIDE THE ENGINEER A MINIMUM REVIEW TIME OF FIVE (5) BUSINESS DAYS UPON RECEIPT OF RFIs TO PROVIDE A RESPONSE.
- 1.13 MECHANICAL COORDINATION DRAWINGS
  - A. REVIEW IN DETAIL ALL FLOOR PLANS, REFLECTED CEILING PLANS, ELEVATIONS, SECTIONS, AND DETAILS TO CONCLUSIVELY COORDINATE WITH ALL TRADES AND INTEGRATE ALL INSTALLATIONS. INDICATE LOCATIONS WHERE SPACE IS LIMITED, AND WHERE SEQUENCING AND COORDINATION OF INSTALLATIONS ARE OF IMPORTANCE TO THE EFFICIENT FLOW OF THE WORK.
- 1.14 RECORD DRAWINGS
  - A. AT PROJECT CLOSEOUT, SUBMIT RECORD DRAWINGS OF INSTALLED SYSTEMS.
- 1.15 DEMONSTRATION
  - A. UPON COMPLETION OF INSTALLATION OF MECHANICAL EQUIPMENT, START-UP AND OPERATE EQUIPMENT TO DEMONSTRATE CAPABILITY AND COMPLIANCE WITH REQUIREMENTS. FIELD CORRECT MALFUNCTIONING UNITS, THEN RETEST TO DEMONSTRATE COMPLIANCE. PROVIDE THE SERVICES OF A FACTORY AUTHORIZED SERVICE REPRESENTATIVE TO PROVIDE START-UP SERVICE AND TO DEMONSTRATE AND TRAIN THE OWNER'S MAINTENANCE PERSONNEL.
- 1.16 OPERATION AND MAINTENANCE DATA
  - A. IN ADDITION TO THE INFORMATION REQUIRED BY DIVISION 1 FOR MAINTENANCE DATA, INCLUDE THE FOLLOWING INFORMATION:
    - B. THE TESTING AND BALANCING REPORT SHALL BE SUBMITTED AND RECEIVED BY THE ENGINEER AT LEAST FIVE (5) CALENDAR DAYS PRIOR TO THE CONTRACTOR'S REQUEST FOR FINAL OBSERVATION TIME FRAME REQUIREMENTS. FINAL OBSERVATIONS WILL NOT PROCEED WITHOUT T&B REPORT. INCLUDE IN THE O&M MANUAL AFTER REVIEW WITH "REVIEW" OR "MAKE CORRECTIONS NOTED" HAS BEEN ACCOMPLISHED.
    - C. ALSO INCLUDE THE FOLLOWING INFORMATION:
      1. DESCRIPTION OF MECHANICAL EQUIPMENT, FUNCTION, NORMAL OPERATING CHARACTERISTICS AND LIMITATIONS, PERFORMANCE CURVES, ENGINEERING DATA AND TESTS, AND COMPLETE NOMENCLATURE AND COMMERCIAL NUMBERS OF ALL REPLACEABLE PARTS.
      2. MANUFACTURER'S PRINTED OPERATING PROCEDURES TO INCLUDE START-UP, BREAK-IN, ROUTINE AND NORMAL OPERATING INSTRUCTIONS, REGULATION CONTROL, STOPPING, SHUTDOWN, AND EMERGENCY INSTRUCTIONS; AND SUMMER AND WINTER OPERATING INSTRUCTIONS.
      3. MAINTENANCE PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS.
      4. SERVICING INSTRUCTIONS AND LUBRICATION CHARTS AND SCHEDULES.
      5. MANUFACTURER'S SERVICE MANUALS FOR ALL MECHANICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT.
      6. INCLUDE THE VALVE TAG LIST: NAME, ADDRESS AND TELEPHONE NUMBER OF PARTY TO BE CONTACTED FOR TWENTY-FOUR (24) HOUR SERVICE FOR EACH ITEM OF EQUIPMENT.
      7. STARTING, STOPPING, LUBRICATION, EQUIPMENT IDENTIFICATION NUMBERS AND ADJUSTMENT CLEARLY INDICATED FOR EACH PIECE OF EQUIPMENT.
      8. COMPLETE PARTS LIST.
      9. MECHANICAL WARRANTIES.
    - D. THIS CONTRACT WILL NOT BE CONSIDERED COMPLETED, NOR WILL FINAL PAYMENT BE MADE, UNTIL ALL SPECIFIED MATERIAL, INCLUDING TESTING AND BALANCING REPORT, IS RECEIVED IN THIS OPERATING AND MAINTENANCE REPORT.
- 1.17 DEMOLITION
  - A. DURING THE DEMOLITION PHASE OF THIS CONTRACT, IT IS THE RESPONSIBILITY OF THIS CONTRACTOR TO CAREFULLY REMOVE EXISTING EQUIPMENT, PIPING, FIXTURES AND RELATED ITEMS EITHER AS SHOWN ON THE DEMOLITION DRAWINGS AS BEING REMOVED, OR AS REQUIRED FOR THE WORK. THESE ITEMS SHALL BE REMOVED FROM THE PREMISES.
  - B. THE LOCATION OF EXISTING EQUIPMENT, PIPES, AND OTHER COMPONENTS SHOWN ON THE DRAWINGS HAS BEEN TAKEN FROM EXISTING DRAWINGS AND IS, THEREFORE, ONLY AS ACCURATE AS THAT INFORMATION. ALL EXISTING CONDITIONS SHALL BE VERIFIED FROM FIELD MEASUREMENTS WITH NECESSARY ADJUSTMENT BEING MADE TO THE DRAWING INFORMATION.

- 1.18 WARRANTIES
    - A. THE ENTIRE MECHANICAL SYSTEM SHALL BE WARRANTED NO LESS THAN ONE (1) YEAR FROM THE TIME OF ACCEPTANCE BY THE OWNER.
    - B. PROVIDE COMPLETE WARRANTY INFORMATION FOR EACH ITEM TO INCLUDE PRODUCT OR EQUIPMENT TO INCLUDE DATE OR BEGINNING OF WARRANTY OR BOND; DURATION OF WARRANTY OR BOND; AND NAMES, ADDRESSES, AND TELEPHONE NUMBERS AND PROCEDURES FOR FILING A CLAIM AND OBTAINING WARRANTY SERVICES.
- END OF SECTION 230000

**SECTION 230100 - M&E COORDINATION**

- 1.1 SUMMARY
  - A. CAREFULLY COORDINATE THE INTERFACE BETWEEN DIVISION 23 (MECHANICAL) AND DIVISION 26 (ELECTRICAL) BEFORE SUBMITTING ANY EQUIPMENT FOR REVIEW OR COMMENCING INSTALLATION.
  - B. RESPONSIBILITY: UNLESS OTHERWISE INDICATED, ALL MOTOR AND CONTROLS FOR DIVISION 23 EQUIPMENT SHALL BE FURNISHED, SET IN PLACE AND WIRED IN ACCORDANCE WITH THE FOLLOWING SCHEDULE:

| COORDINATION SCHEDULE   |                 |                    |                    |                      |
|---|-----------------|--------------------|--------------------|----------------------|
| ITEM  | FURNISHED UNDER | SET IN PLACE UNDER | POWER WIRING UNDER | CONTROL WIRING UNDER |
| CONTROL RELAYS (NOTE 2)   | 23              | 23                 | 26                 | 23                   |
| CONTROL TRANSFORMERS  | 23              | 23                 | 26                 | 23                   |
| CONTROL CIRCUIT OUTLETS   | 26              | 26                 | 26                 | --                   |
| THERMOSTATS (NOTE 2)  | 23              | 23                 | --                 | 23                   |
| THERMOSTAT AND CONTROLS INTEGRAL WITH EQUIPMENT OR DIRECTLY ATTACHED TO DUCTS, PIPES, ETC. (NOTE 2) | 23              | 23                 | 26                 | 23                   |
| EQUIPMENT IN TEMPERATURE CONTROL PANELS (NOTE 2)  | 23              | 23                 | 26                 | 23                   |
| STANDALONE CONTROL PANELS (NOTE 2)  | 23              | 23                 | 26                 | 23                   |
| VALVE MOTORS DAMPER MOTORS, SOLENOID VALVES, ETC. (NOTE 2)  | 23              | 23                 | --                 | 23                   |

**NOTES:**

- (1) IF FURNISHED AS PART OF FACTORY WIRED EQUIPMENT, FURNISH AND SET IN PLACE UNDER DIVISION 23, WIRING AND CONNECTIONS UNDER DIVISION 26.
- (2) IF FLOAT SWITCHES, LINE THERMOSTATS, P.E. SWITCHES, TIME SWITCHES, OR OTHER CONTROLS CARRY THE FULL LOAD CURRENT TO ANY MOTOR, THEY SHALL BE FURNISHED AND SET IN PLACE UNDER DIVISION 23, BUT THEY SHALL BE CONNECTED UNDER DIVISION 26. IF THEY DO NOT CARRY THE FULL LOAD CURRENT TO ANY MOTOR, THEY SHALL BE FURNISHED, SET IN PLACE AND WIRED UNDER DIVISION 23.
- (3) WIRING FROM ALARM CONTACTS TO ALARM SYSTEM BY DIVISION 26; ALL CONTROL FUNCTION WIRING BY DIVISION 23. DIVISION 23 TO COORDINATE LOCATIONS WITH DIVISION 26.

- C. FULLY COORDINATE THE REQUIREMENTS OF EACH DIVISION WITH REGARD TO SUPPLYING A COMPLETE DDC CONTROL SYSTEM. J-BOXES AND CONTROL TRANSFORMER CONNECTIONS SHALL BE PROVIDED UNDER DIVISION 26. THE TRANSFORMERS SHALL BE FURNISHED AND SET IN PLACE UNDER DIV. 23.
  - D. VOLTAGE AND PHASE OF MOTORS AS SCHEDULED ON THE ELECTRICAL DRAWINGS SHALL TAKE PRECEDENCE IN THE CASE OF A CONFLICT BETWEEN THE MECHANICAL AND ELECTRICAL DRAWINGS OR GENERAL CONDITIONS 2.1 A., ABOVE.
- END OF SECTION 230100

**SECTION 230500 - COMMON WORK RESULTS FOR HVAC**

- 1.1 PIPE ESCUTCHEONS
  - A. APPROVED MANUFACTURERS: CHICAGO SPECIALTY MFG, PRODUCERS SPECIALTY & MFG., SANITARY-DASH MFG.
  - B. PROVIDE PIPE ESCUTCHEONS AS SPECIFIED HEREIN WITH INSIDE DIAMETER CLOSELY FITTING PIPE OUTSIDE DIAMETER, OR OUTSIDE OF PIPE INSULATION WHERE PIPE IS INSULATED. SELECT OUTSIDE DIAMETER OF ESCUTCHEON TO COMPLETELY COVER PIPE PENETRATION HOLE IN FLOORS, WALLS, OR CEILINGS; AND PIPE SLEEVE EXTENSION, IF ANY. FURNISH PIPE ESCUTCHEONS WITH NICKEL OR CHROME FINISH FOR OCCUPIED AREAS, PRIME PAINT FINISH FOR UNOCCUPIED AREAS.
  - C. INSTALL PIPE ESCUTCHEONS ON EACH PIPE PENETRATION THROUGH FLOORS, WALLS, PARTITIONS, AND CEILINGS WHERE PENETRATION IS EXPOSED TO VIEW, AND ON EXTERIOR OF BUILDING. SECURE ESCUTCHEON TO PIPE OR INSULATION SO ESCUTCHEON COVERS PENETRATION HOLE AND IS FLUSH WITH ADJOINING SURFACE.
  - D. FLASH AND COUNTER-FLASH WHERE MECHANICAL EQUIPMENT PASSES THROUGH WEATHER OR WATER-PROOFED WALLS, FLOORS, AND ROOFS PER ROOF MANUFACTURER'S INSTRUCTIONS.
- 1.2 DIELECTRIC FITTINGS
  - A. PROVIDE DIELECTRIC CONNECTIONS TO ISOLATE DISSIMILAR METALS, PREVENT GALVANIC ACTION, AND PREVENT CORROSION. WATERWY FITTING SHALL BE: ASTM A53 ZINC ELECTROPLATED STEEL PIPE CASING WITH INERT, NON-CORROSIVE THERMOPLASTIC LINING (NSF/FDA LISTED) AND LISTED BY IAPMO/IPC AND SBCC PST AND ESI. DIELECTRIC UNIONS ARE NOT AN APPROVED SUBSTITUTE FOR DIELECTRIC WATERWY FITTINGS. FOR A FLANGED CONNECTION, PROVIDE A DIELECTRIC GASKET AND BOLT KIT.
- 1.3 FIRE AND SMOKE BARRIER PENETRATION SEALS
  - A. APPROVED MANUFACTURERS: 3M, DOW CORNING, FLAME STOP, METACAULK, HILTI, HOLDRITE

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
MECHANICAL SPECIFICATION

FILE NAME  
72620022-0000-0000-0000-0000-0000  
3d/rev0000/0000-0000-0000-0000-0000

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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SHEET  
M002



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BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
MECHANICAL SPECIFICATION

FILE NAME  
72620022-boccc3rdfloorremodel  
3rdFloorRemodelMech-02.dwg

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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SHEET  
M003



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- E. ACCESS PANEL MARKERS: PROVIDE MANUFACTURER'S STANDARD 1/16-INCH THICK ENGRAVED PLASTIC LAMINATE ACCESS PANEL MARKERS, WITH ABBREVIATIONS AND NUMBERS CORRESPONDING TO CONCEALED VALVE. INCLUDE 1/8-INCH-CENTER HOLE TO ALLOW ATTACHMENT.
- F. ENGRAVED PLASTIC-LAMINATE SIGNS: PROVIDE ENGRAVING STOCK MELAMINE PLASTIC LAMINATE, COMPLYING WITH FS L-P-387, BLACK WITH WHITE CORE (LETTER COLOR) EXCEPT AS OTHERWISE INDICATED. PUNCHED FOR MECHANICAL FASTENING EXCEPT WHERE ADHESIVE MOUNTING IS NECESSARY BECAUSE OF SUBSTRATE. TAG THICKNESS SHALL BE 1/8-INCH, EXCEPT AS OTHERWISE INDICATED. FASTENERS SHALL BE SELF-TAPPING STAINLESS-STEEL SCREWS, EXCEPT CONTACT-TYPE PERMANENT ADHESIVE WHERE SCREWS CANNOT OR SHOULD NOT PENETRATE THE SUBSTRATE.
  1. INSTALL MINIMUM 2-INCH X 4-INCH ENGRAVED PLASTIC LAMINATE EQUIPMENT MARKER ON EACH INDIVIDUAL ITEM OF MECHANICAL EQUIPMENT.
- G. DUCTWORK IDENTIFICATION: PROVIDE MANUFACTURER'S STANDARD LAMINATED PLASTIC, DUCT MARKERS. INCLUDE THE FOLLOWING: DIRECTION OF AIR FLOW, DUCT SERVICE (SUPPLY, RETURN, EXHAUST, ETC.), DUCT ORIGIN (FROM), DUCT DESTINATION (TO), AND DESIGN CFM.
  1. LOCATE DUCT MARKERS IN EACH SPACE WHERE DUCTWORK IS EXPOSED, OR CONCEALED ONLY BY REMOVABLE CEILING SYSTEM.
  2. LOCATE DUCT MARKERS NEAR POINTS WHERE DUCTWORK ORIGINATES OR CONTINUES INTO CONCEALED ENCLOSURES (SHAFT, UNDERGROUND OR SIMILAR CONCEALMENT).
  3. LOCATE DUCT MARKERS AT 50-FOOT MAXIMUM SPACING ALONG EXPOSED RUNS.
- H. TERMINAL EQUIPMENT: IDENTIFICATION ON CEILING GRID SHALL BE PROVIDED DIRECTLY BELOW EQUIPMENT USING PLASTIC LAMINATE TAG WITH PLAN CODE ONLY.

END OF SECTION 230553

**SECTION 230593 - TESTING, ADJUSTING & BALANCING**

- 1.1 DESCRIPTION OF WORK
  - A. THIS SECTION COVERS TESTING AND BALANCING OF ENVIRONMENTAL SYSTEMS INCLUDING BUT NOT LIMITED TO AIR DISTRIBUTION SYSTEMS, HYDRONIC DISTRIBUTION SYSTEMS, AND THE EQUIPMENT AND APPARATUS CONNECTED THERETO. THE TESTING AND BALANCING OF ALL ENVIRONMENTAL SYSTEMS SHALL BE THE RESPONSIBILITY OF ONE (1) TESTING, BALANCING AND ADJUSTING FIRM.
    1. TEST, ADJUST, AND BALANCE ALL OF THE FOLLOWING MECHANICAL SYSTEMS: SUPPLY AIR SYSTEMS, RETURN AIR SYSTEMS, EXHAUST AIR SYSTEMS, HYDRONIC SYSTEMS, PUMPS, TEMPERATURE CONTROL SYSTEM
    2. REPORT ANY SYSTEMS FOR EXCESSIVE SOUND AND VIBRATION LEVELS.
  - 1.2 QUALIFICATIONS OF CONTRACTOR AND QUALIFICATIONS REVIEW
    - A. PROCURE THE SERVICES OF AN INDEPENDENT NEBB OR TABB CERTIFIED TESTING AND BALANCING AGENCY. TESTING AND BALANCING WORK SHALL BE DIRECTLY SUPERVISED BY A NEBB CERTIFIED SUPERVISOR OR PROFESSIONAL ENGINEER ON THE TESTING AND BALANCING AGENCY'S STAFF. THE SUPERVISOR SHALL REPRESENT THE TESTING AND BALANCING AGENCY IN PROGRESS MEETINGS AS REQUESTED AND SHALL BE AVAILABLE FOR INTERPRETING ALL MATERIAL FOUND IN THE BALANCE REPORT.
    - B. ACCEPTABLE TAB AGENCIES ARE TO BE APPROVED BY CLIENT.
    - C. UPON AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT THE NAME OF THE TEST AND BALANCE AGENCY WHO WILL BE PERFORMING THE WORK. THE SUBMITTAL SHALL INCLUDE A COMPLETE LIST OF ALL TECHNICIANS WHO WILL BE PERFORMING THE FIELD WORK AND INCLUDE A PHOTOCOPIY OF THEIR CURRENT CERTIFICATION BY EITHER NEBB OR TABB CERTIFICATION AGENCIES.
  - 1.3 PROJECT CONDITIONS
    - A. AIR AND WATER TESTING AND BALANCING SHALL NOT BEGIN UNTIL THE SYSTEM HAS BEEN COMPLETED AND IS IN FULL WORKING ORDER.
  - 1.4 REQUIREMENTS OF WORK
    - A. PROVIDE ALL NECESSARY FAN BELTS AND SHEAVES TO BALANCE ALL FANS TO THE SPECIFIED AIR DELIVERY FOR THE ACTUAL FIELD CONDITIONS. TEST AND BALANCE AGENCY SHALL PROVIDE MOTOR SHEAVE REPLACEMENT AND FAN BELT AND SHEAVE REPLACEMENT NECESSARY FOR FINAL BALANCE CONDITION FOR SPECIFIED AIR QUANTITY WHEN THE VFD IS OPERATING AT DESIGN CONDITIONS. MOTOR SHEAVES SHALL BE REPLACED SO MOTORS OPERATE AT RATED RPM AT 60HZ, THEN FAN SHEAVES SHALL BE REPLACED TO MEET DESIGN REQUIREMENTS AT 60HZ, WITHOUT PLACING THE MOTOR OVER ITS NAMEPLATE AMP RATING.
    - B. BALANCE ALL AIR AND WATER FLOWS AT TERMINALS WITHIN +6 PERCENT TO -6 PERCENT OF DESIGN FLOW QUANTITIES FOR INDIVIDUAL TERMINALS. AND +10 PERCENT TO -6 PERCENT OF INDIVIDUAL AIR OUTLETS OR INLETS. MEASURE AND RECORD THE FOLLOWING DATA:
      - C. AIR BALANCE:
        1. AIR SUPPLY, RETURN, AND EXHAUST SYSTEMS WITH AIR QUANTITIES FOR EACH AIR DEVICE: AIR HANDLING UNITS INCLUDING SUPPLY, RETURN, MIXED, AND OUTSIDE TEMPERATURES AND FAN DATA INCLUDING CFM, STATIC PRESSURE, FAN RPM, VOLTAGE, RATED MOTOR AMPERAGE, MOTOR RUNNING AMPERAGE BEFORE AND AFTER FINAL BALANCE, LISTED MOTOR POWER FACTOR AND MOTOR RUNNING POWER FACTOR READING. AIR DIFFUSION PATTERNS SHALL BE SET TO MINIMIZE OBJECTIONABLE DRAFTS, NOISE, AND LOCAL SMOKE DETECTION DEVICE RATINGS.
        2. THE SUPPLY, RETURN, AND EXHAUST FAN STATIC PRESSURE SHALL BE SET BY THE BALANCING FIRM AND THE CONTROL CONTRACTOR IF THE SYSTEMS HAVE FAN VOLUME CONTROL. THE DUCT STATIC PRESSURE AND FAN BELT AND SHEAVE REPLACEMENT NECESSARY FOR FINAL BALANCE CONDITION FOR SPECIFIED AIR QUANTITY WHEN THE VFD IS OPERATING AT DESIGN CONDITIONS. MOTOR SHEAVES SHALL BE REPLACED SO MOTORS OPERATE AT RATED RPM AT 60HZ, THEN FAN SHEAVES SHALL BE REPLACED TO MEET DESIGN REQUIREMENTS AT 60HZ, WITHOUT PLACING THE MOTOR OVER ITS NAMEPLATE AMP RATING.
        3. PROVIDE FULL PITOT TRAVERSE AND CFM MEASUREMENTS AT EACH FAN IN ADDITION TO TERMINAL DEVICE MEASUREMENTS.
        4. MEASURE, ADJUST, SET, BALANCE AND RECORD OUTSIDE AIR, RETURN AIR AND EXHAUST/RELIEF AIR QUANTITIES FOR ALL AIR HANDLING SYSTEMS AND SUPPLY FANS.
      - D. FINAL ADJUSTMENTS SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
        1. BELT DRIVE FAN: INCLUDE SHEAVE AND BELT EXCHANGE TO DELIVER AIR FLOW WITHIN LIMITS OF INSTALLED MOTOR HORSEPOWER AND MECHANICAL STRESS LIMITS OF THE FAN. DETERMINE THE LIMITING FAN TIP SPEED BEFORE INCREASING RPM. FINAL FAN SPEED SETTING SHALL ALLOW FOR PREDICTED FILTER LOADING AND SHALL ESTABLISH PROPER DUCT PRESSURES FOR OPERATION OF ZONE CFM REGULATORS.
        2. DIRECT DRIVE FAN WITH SPEED TAPS: SET FAN SPEED ON TAP WHICH MOST CLOSELY APPROACHES DESIGN CFM. REPORT TAP SETTING ON EQUIPMENT DATA SHEET AS HIGH, MEDIUM, OR LOW.
        3. DIRECT DRIVE FAN WITH SPEED CONTROL, RHEOSTAT: SET OUTPUT OF FAN AT DESIGN CFM BY ADJUSTING THE SCR. AFTER ADJUSTMENT, CHECK FANS ABILITY TO RE-START AFTER POWERING DOWN. INCREASE SETTING IF REQUIRED FOR PROPER STARTING.
        4. TERMINAL BOXES WITH REHEAT: SET REGULATORS TO PROVIDE DESIGN MAXIMUM, MINIMUM, HEATING AND COOLING CFM.
        5. AIR DEVICES: ALL DIFFUSERS AND REGISTERS SHALL BE MEASURED AND BALANCED.
        6. VARIABLE FREQUENCY DRIVES: TEST, MEASURE AND RECORD TRUE RMS AMPERAGE, THD FOR VOLTAGE AND AMPERAGE FOR EACH VARIABLE FREQUENCY DRIVE AT BOTH THE INPUT POWER TO THE DRIVE AND THE OUTPUT POWER TO THE MOTOR IN BOTH THE DRIVE MODE AND THROUGH THE ACROSS THE LINE BY-PASS MODE.

- E. HYDRONIC BALANCE:
  1. CONVERTOR INLET AND OUTLET WATER TEMPERATURES AND PRESSURES WITH CORRESPONDING SYSTEM STEAM PRESSURE OR HEATING WATER TEMPERATURES AND PRESSURES.
  2. INLET AND OUTLET WATER TEMPERATURES AND PRESSURES (OR SYSTEM STEAM PRESSURE) OF ALL AIR HANDLING UNIT COILS, REHEAT COILS, UNIT HEATERS, CONVECTORS, FINNED TUBE RADIATION, AND OTHER HEAT TRANSFER EQUIPMENT, AS WELL AS THE CORRESPONDING MEDIA FLOWS, AND AIR TEMPERATURE RISE OR DROPS.
  3. CIRCULATING PUMP FLOW RATES, PRESSURES, RUNNING AMPERAGE, AND FULL LOAD AMPERAGE AT DESIGN FLOW AND SHUT-OFF CONDITIONS.

- D. PROVIDE 100-PSI AVERAGE COMPRESSIVE STRENGTH THERMAL SHIELD INSERTS, WATERPROOF, ASBESTOS FREE CALCIUM SILICATE ENCASED WITH A SHEET METAL ENCLOSURE OR OTHER LISTED SYSTEM MANUFACTURERS. INSERT AND SHIELD SHALL COVER THE ENTIRE CIRCUMFERENCE ON VERTICAL PIPES, OR THE BOTTOM HALF CIRCUMFERENCE OF THE PIPE ON HORIZONTAL MOUNTING SUPPORTS, AND SHALL BE OF LENGTH RECOMMENDED BY THE MANUFACTURER FOR PIPE SIZE AND THICKNESS OF INSULATION OR THE THICKNESS OF THE WALL, ROOF OR FLOOR CONSTRUCTION.
- E. THERMAL MECHANICAL PIPE SHIELDS: SELF-LOCKING INSULATED PIPE SUPPORTS/SHIELDS SHALL BE PROVIDED AT HANGER, SUPPORT, AND GUIDE LOCATIONS ON PIPE REQUIRING INSULATION. THE INSERT SHALL CONSIST OF EITHER HYDROUS CALCIUM SILICATE OR POLYISOCYANURATE FOAM INSULATION (URETHANE) ENCASED WITH THE ENTIRE CIRCUMFERENCE OF THE PIPE. PROVIDE WITH A 380-DEGREE PVC OR GALVANIZED STEEL JACKET WHICH COMPLIES WITH THE INTERNATIONAL MECHANICAL CODE FOR INSTALLATION IN PLENUM CEILING WHERE APPLICABLE. THE LENGTH OF THE JACKET SHALL BE SIZED FOR PIPE EXPANSION.
- 1.3 PIPE EXPANSION CONTROL ANCHORS
  - A. INSTALL ANCHORS AT PROPER LOCATIONS TO PREVENT STRESSES FROM EXCEEDING THOSE PERMITTED BY ANSI B31.9, AND TO PREVENT TRANSFER OF LOADING AND STRESSES TO CONNECTED EQUIPMENT.
  - B. FABRICATE AND INSTALL ANCHOR BY WELDING STEEL SHAPES, PLATES AND BARS TO PIPING AND TO STRUCTURE. COMPLY WITH ANSI B31.9 AND WITH AWS STANDARDS D1.1.
  - C. WHERE EXPANSION COMPENSATORS ARE INDICATED, INSTALL ANCHORS IN ACCORDANCE WITH EXPANSION UNIT MANUFACTURER'S WRITTEN INSTRUCTIONS, TO CONTROL MOVEMENT TO COMPENSATORS.
  - D. ANCHOR SPACINGS: WHERE NOT OTHERWISE INDICATED, INSTALL ANCHORS AT ENDS OF PRINCIPAL PIPE-RUNS, AT INTERMEDIATE POINTS IN PIPE-RUNS BETWEEN EXPANSION LOOPS AND BENDS, MAKE PROVISIONS FOR PRESET OF ANCHORS AS REQUIRED TO ACCOMMODATE BOTH EXPANSION AND CONTRACTION OF PIPING.
- 1.4 SHEET METAL DUCT HANGERS AND SUPPORTS
  - A. PROVIDE SUPPORT OF MINIMUM SIZES AND MAXIMUM SPACING PER THE TABLE ON THE DRAWING DETAILS, OR PER SMACNA (LATEST EDITION) WHICHEVER IS MORE STRINGENT.
  - B. PROVIDE SWAY BRACING ON ALL DUCTWORK IN ACCORDANCE WITH LOCAL CODES AND REGULATIONS.
  - C. ADDITIONAL HANGER REQUIREMENTS:
    1. 2 TO 24-INCH FROM FLEXIBLE CONNECTIONS OF FANS.
    2. 2 TO 24-INCH FROM THE OUTLETS OR FLEXIBLE CONNECTIONS OF VAV CONTROL UNITS OR MIXING BOXES.
    3. 12 TO 36-INCH FROM THE MAIN DUCT TO THE FIRST HANGER OF LONG BRANCH DUCTS.
    4. 2 TO 12-INCH FROM THE ENDS OF ALL BRANCH DUCTS AND LINEAR DIFFUSER PLENUMS.
    5. 2 TO 24-INCH FROM FIRE OR FIRE/SMOKE DAMPER BREAK-AWAY JOINTS.
    6. HANGERS AT THROAT AND HEAL OF ROUND OR SQUARE ELBOWS 48-INCHES OR GREATER IN WIDTH.
  - 1.5 PREFABRICATED ROOFTOP EQUIPMENT SUPPORTS
    - A. EQUIPMENT BASES:
      1. EQUIPMENT BASE SHALL BE SOLID TOP EQUIPMENT BASE AND STEPPED CANT TO MATCH ROOF INSULATION. BASE SHALL PITCH TO MATCH ROOF PITCH AND PROVIDE LEVEL UNIT INSTALLATION.
      2. BASE SHALL BE CONSTRUCTED OF REINFORCED 18-GAUGE GALVANIZED STEEL WITH ALL WELDED COMPONENTS, FULL MITERED CORNERS, FACTORY INSTALLED 1-1/2-INCH-THICK RIGID FIBERGLASS INSULATION WOOD NAILER, AND GALVANIZED STEEL COUNTER-FLASHING. BASE SHALL BE SHIPPED AS ONE (1) PIECE.
    - B. ALL SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - 1.6 EQUIPMENT SUPPORTS
    - A. FABRICATE STRUCTURAL STEEL STANDS TO SUSPEND EQUIPMENT FROM STRUCTURE ABOVE OR SUPPORT EQUIPMENT ABOVE FLOOR.
    - B. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SIZE AND LOCATION OF ALL BASES AND SHALL FURNISH ALL REQUIRED ANCHOR BOLTS AND SLEEVES. IF BASES ARE PROVIDED BY THE GENERAL CONTRACTOR, FURNISH THEM WITH TEMPLATES SHOWING THE BOLT LOCATIONS.
    - C. EQUIPMENT SHALL BE SECURED TO THE BASES WITH ANCHOR BOLTS OF AMPLIFIED SIZE. BOLTS SHALL HAVE BOTTOM PLATES AND PIPE SLEEVES AND SHALL BE SECURELY IMBEDDED IN THE CONCRETE. ALL MACHINERY SHALL BE GROUTED UNDER THE ENTIRE BEARING SURFACE. AFTER GROUT HAS SET, ALL WEDGES, SHIMS AND JACK BOLTS SHALL BE REMOVED, AND THE SPACE FILLED WITH NON-SHRINKING GROUT. THIS CONTRACTOR SHALL PROVIDE WASHERS AT ALL EQUIPMENT ANCHOR BOLTS.
    - D. CONSTRUCT EQUIPMENT SUPPORTS MOUNTED ABOVE FLOOR OF STRUCTURAL STEEL MEMBERS OR STEEL PIPE AND FITTINGS. BRACE AND FASTEN WITH FLANGES BOLTED TO STRUCTURE.

END OF SECTION 230529

**SECTION 230553 - MECHANICAL IDENTIFICATION**

- A. ACCEPTABLE MANUFACTURERS: ALLEN SYSTEMS, BRADY, BRIMAR INDUSTRIES, INDUSTRIAL SAFETY SUPPLY, SETON.
- B. IDENTIFICATION SHALL COMPLY WITH:
  1. EXISTING BUILDING STANDARDS: COMPLY WITH THE EXISTING LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS AND IDENTIFICATION METHOD AS PRESENTLY EXISTS IN THE EXISTING BUILDING UNLESS OTHERWISE INDICATED.
- C. PIPE MARKERS SHALL BE:
  1. SNAP-ON TYPE: PROVIDE MANUFACTURER'S STANDARD PRE-PRINTED, SEMI-RIGID SNAP-ON, COLOR-CODED PIPE MARKERS COMPLYING WITH ANSI A13.1
  2. TAPED TO PIPE (OR INSULATION) WITH COLOR-CODED, 3-MIL THICK, PLASTIC ADHESIVE TAPE, NOT LESS THAN 3/4-INCH WIDE; FULL CIRCLE AT BOTH ENDS OF PIPE MARKER, TAPE LAPPED 1-1/2-INCH.
  3. INCLUDE ARROWS IN THE DIRECTION OF FLOW
  4. LOCATE PIPE MARKERS WHEREVER PIPING IS EXPOSED TO VIEW IN OCCUPIED SPACES, MACHINE ROOMS, ACCESSIBLE MAINTENANCE SPACES (SHAFTS, TUNNELS, PLENUMS) AND EXTERIOR NON-CONCEALED LOCATIONS.
  5. LOCATE PIPE MARKERS NEAR EACH VALVE AND CONTROL DEVICE, NEAR EACH BRANCH, EXCLUDING SHORT TAKE-OFFS FOR FIXTURES.
  6. LOCATE PIPE MARKERS AT EACH PIPE BRANCH, WHERE THERE COULD BE QUESTION OF FLOW PATTERN, NEAR LOCATIONS WHERE PIPES PASS THROUGH WALLS OR FLOORS/CEILINGS, OR ENTER NON-ACCESSIBLE ENCLOSURES, AT ACCESS DOORS, MANHOLES AND SIMILAR ACCESS POINTS WHICH PERMIT VIEW OF CONCEALED PIPING.
  7. LOCATE PIPE MARKERS NEAR MAJOR EQUIPMENT ITEMS AND OTHER POINTS OF ORIGIN AND TERMINATION.
  8. PIPE MARKERS SHALL BE SPACED INTERMEDIATELY AT MAXIMUM SPACING OF 25-FOOT ALONG EACH PIPING RUN, EXCEPT REDUCE SPACING TO 15-FOOT IN CONGESTED AREAS OF PIPING AND EQUIPMENT, ON PIPING ABOVE REMOVABLE ACOUSTICAL CEILINGS.
- D. BRASS VALVE TAGS: PROVIDE 19-GAUGE POLISHED BRASS VALVE TAGS WITH STAMP-ENGRAVED PIPING SYSTEM ABBREVIATION IN 1/4-INCH HIGH LETTERS AND SEQUENCED VALVE NUMBERS 1/2-INCH HIGH, VALVE NORMAL POSITION 1/4-INCH HIGH LETTERS, AND WITH 5/32-INCH HOLE FOR FASTENER.
  1. PROVIDE 1-1/2-INCH DIAMETER TAGS, EXCEPT AS OTHERWISE INDICATED.
  2. FILL TAG ENGRAVING WITH BLACK ENAMEL.
  3. PROVIDE VALVE TAG ON VALVES IN EACH PIPING SYSTEM.

- B. PROVIDE UL LISTED FIRESTOPPING SYSTEMS COMPOSED OF COMPONENTS THAT ARE COMPATIBLE WITH EACH OTHER, THE SUBSTRATES FORMING OPENINGS, AND THE ITEMS, IF ANY, PENETRATING THE FIRESTOPPING UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY THE FIRESTOPPING MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE. INSTALL WHERE PIPE PENETRATION OCCURS IN FIRE OR FIRE/SMOKE RATED WALLS, PROVIDE A COMPLETE LISTED PROTECTION ASSEMBLY EQUAL TO THE RATING OF THE WALL/FLOOR.
- 1.2 PIPE SLEEVES
  - A. PROVIDE PIPE SLEEVES OF ONE OF THE FOLLOWING:
    1. SHEET METAL: AT INTERIOR PARTITIONS AND CEILINGS OTHER THAN SUSPENDED CEILINGS FABRICATE FROM GALVANIZED SHEET METAL, ROUND TUBE CLOSED WITH SNAP LOCK JOINT, WELDED SPIRAL SEAMS, OR WELDED LONGITUDINAL JOINT. FABRICATE FROM THE FOLLOWING GAUGES: 3-INCH AND SMALLER, 20 GAUGE; 4-INCH TO 6-INCH, 16 GAUGE; OVER 6-INCH, 14 GAUGE.
    2. IRON PIPE: AT EXTERIOR PENETRATIONS; BOTH ABOVE AND BELOW GRADE, FABRICATE FROM CAST IRON OR DUCTILE IRON PIPE, REMOVE BURRS.
    3. STEEL PIPE: AT ALL OTHER LOCATIONS; FABRICATE FROM SCHEDULE 40 GALVANIZED STEEL PIPE, REMOVE BURRS.
    4. WHERE PIPE PENETRATIONS OCCUR IN NON-FIRE RATED FLOORS, ROOF SLABS, OR WALLS, THE SPACE BETWEEN PIPE INSERT AND THE SLEEVE SHALL BE PACKED ON EACH END WITH MINERAL WOOL OR OTHER NON-COMBUSTIBLE MATERIAL, POSITIVELY FASTENED IN PLACE, USE PLENUM RATED CAULK TO SEAL PACKING AROUND PIPE.
    5. INSTALL PIPE SLEEVES OF TYPES INDICATED WHERE PIPING PASSES THROUGH WALLS, FLOORS, CEILINGS, AND ROOFS. DO NOT INSTALL SLEEVES THROUGH STRUCTURAL MEMBERS OF WORK, EXCEPT AS DETAILED ON DRAWINGS OR AS REVIEWED BY ARCHITECT. INSTALL SLEEVES ACCURATELY CENTERED ON PIPE RUNS. SIZE SLEEVES SO THAT PIPING AND INSERT WILL HAVE FREE MOVEMENT IN SLEEVE, INCLUDING ALLOWANCE FOR THERMAL EXPANSION; BUT NOT LESS THAN TWO (2) PIPE SIZES LARGER THAN PIPING RUN. INSTALL LENGTH OF SLEEVE EQUAL TO THICKNESS OF CONSTRUCTION PENETRATED, AND FINISH FLUSH TO SURFACE, EXCEPT FLOOR SLEEVES.
    6. EXTEND FLOOR SLEEVES IN ALL LOCATIONS 3/4-INCH ABOVE FLOOR FINISH SLOPED TO DRAIN AND 4-INCH ABOVE FINISHED FLOOR IN ALL MECHANICAL EQUIPMENT ROOMS AND PIPE CHASES.

END OF SECTION 230500

**SECTION 230529 - SUPPORTS AND ANCHORS**

- 1.1 PIPE HANGERS AND SUPPORTS
  - A. APPROVED MANUFACTURERS: B-LINE, CARPENTER AND PATTERSON, FEE & MASON, PHD MANUFACTURING, ELCEM METAL PRODUCTS COMPANY, ERICO/CADDY, UNISTRUT, HILTI, ANVIL.
  - B. HANGERS AND SUPPORT COMPONENTS SHALL BE FACTORY FABRICATED OF MATERIALS, DESIGN, AND MANUFACTURE. COMPONENTS SHALL HAVE GALVANIZED COATINGS WHERE INSTALLED FOR PIPING AND EQUIPMENT THAT WILL NOT HAVE FIELD-APPLIED FINISH. PIPE ATTACHMENTS SHALL HAVE NONMETALLIC COATING FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT CONTACT WITH COPPER TUBING.
  - C. PROVIDE FACTORY-FABRICATED GUIDES, OF CAST SEMI-STEEL OR HEAVY FABRICATED STEEL, CONSISTING OF BOLTED TWO-SECTION OUTER CYLINDER AND BASE WITH TWO-SECTION GUIDING SPIDER BOLTED TIGHT TO PIPE. SIZE GUIDE AND SPIDERS TO CLEAR PIPE AND INSULATION (IF ANY), AND CYLINDER, PROVIDE GUIDES OF LENGTH RECOMMENDED BY MANUFACTURER TO ALLOW INDICATED TRAVEL.
  - D. FIELD ASSEMBLED EXPANSION ANCHORS REQUIRE SUBMITTED SHOP DRAWINGS FOR REVIEW BY MECHANICAL AND STRUCTURAL ENGINEERS.
  - E. PRIOR TO INSTALLATION OF HANGERS, SUPPORTS, ANCHORS AND ASSOCIATED WORK, INSTALLER SHALL MEET AT PROJECT SITE WITH CONTRACTOR, INSTALLER OF EACH COMPONENT OF ASSOCIATED WORK, INSPECTION AND TESTING AGENCY REPRESENTATIVES (IF ANY), INSTALLERS OF OTHER WORK REQUIRING COORDINATION WITH WORK OF THIS SECTION AND ARCHITECT FOR PURPOSE OF REVIEWING MATERIAL SELECTIONS AND PROCEDURES TO BE FOLLOWED IN PERFORMING THE WORK IN COMPLIANCE WITH REQUIREMENTS SPECIFIED. PROVIDE SHOP DRAWING SHOWING METHOD AND SUPPORT LOCATIONS FROM STRUCTURE.
  - F. INSTALL BUILDING ATTACHMENTS WITHIN CONCRETE OR ON STRUCTURAL STEEL. SPACE ATTACHMENTS WITHIN MAXIMUM PIPING SPAN LENGTH INDICATED IN MSS SP-89 AND TABLES THIS SECTION. INSTALL ADDITIONAL ATTACHMENTS AT CONCENTRATED LOADS, INCLUDING VALVES, FLANGES, GUIDES, STRAINERS, EXPANSION JOINTS, AND WITHIN ONE FOOT OF CHANGES IN DIRECTION OF PING. INSTALL ANCHORS AND FASTENERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - G. INSTALL HANGERS, SUPPORTS, CLAMPS AND ATTACHMENTS TO SUPPORT PIPING PROPERLY FROM BUILDING STRUCTURE. ARRANGE FOR GROUPING OF PARALLEL RUNS OF HORIZONTAL PIPING TO BE SUPPORTED TOGETHER ON FIELD FABRICATED, HEAVY-DUTY TRAPEZE HANGERS WHERE POSSIBLE.
  - H. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS AND SIMILAR UNITS AND WITHIN ONE FOOT OF EACH HORIZONTAL ELBOW.
  - I. INSTALL HANGERS AND SUPPORTS TO ALLOW CONTROLLED MOVEMENT OF PIPING SYSTEMS, TO PERMIT FREEDOM OF MOVEMENT BETWEEN PIPE ANCHORS, TO FACILITATE ACTION OF EXPANSION JOINTS, EXPANSION LOOPS, EXPANSION BENDS AND SIMILAR UNITS AND WITHIN ONE FOOT OF EACH HORIZONTAL ELBOW.
  - J. INSTALL PIPING WITH THE MINIMUM ROD SIZED AND MAXIMUM SPACING AS INDICATED IN THE DETAIL ON THE DRAWINGS.
  - K. SUPPORT STEAM SUPPLY AND CONDENSATE RETURN PIPE RUNS ON STEEL YOKE AND PIPE ROLL HANGERS WITH PROTECTION SADDLES.
  - L. HANG ALL INSULATED PIPE AT THE POINT OF SUPPORT IN THE FOLLOWING MANNER:
    1. ALL INSULATED PIPES (2 INCH) SHALL HAVE THERMAL SHIELD INSERT AT ALL SUPPORT POINTS. ALL PIPING SHALL HAVE THERMAL SHIELD INSERTS AT EACH PENETRATION THROUGH WALL, FLOOR AND ROOF.
    2. CLEVIS HANGERS: INSTALL 180-DEGREE WATERPROOF, ASBESTOS FREE, CALCIUM SILICATE THERMAL SHIELD INSERT WITH 180-DEGREE GALVANIZED STEEL PROTECTION SHIELD.
    3. STEEL YOKE AND PIPE ROLL HANGERS: PROVIDE STEEL PROTECTION SADDLE WELDED TO THE PIPE. FILL THE VOIDS WITH FIBERGLASS INSULATION.

- 1.2 SADDLES AND THERMAL SHIELD INSERTS AND PROTECTIVE SHIELDS
  - A. APPROVED MANUFACTURERS: B-LINE, PIPE SHIELDS, INSULATION PIPE SUPPORTS MANUFACTURING, INSULATED SADDLE SHIELD INSERT PRODUCT, ERICO/CADDY, COMPONENT PRODUCTS CO., VALUE ENGINEERED PRODUCTS, MECHANICAL PIPE SHIELDS, ANVIL.
  - B. PROVIDE SADDLES AND THERMAL SHIELD INSERTS UNDER ALL INSULATED PIPING HANGERS. PROVIDE THERMAL SHIELD INSERTS ON ALL PIPING THROUGH FLOORS, WALL, AND ROOF CONSTRUCTION PENETRATIONS. SIZE SADDLES AND THERMAL SHIELD INSERTS FOR EXACT FIT TO MATE WITH PIPE INSULATION.
  - C. FILL INTERIOR VOIDS AT PROTECTION SADDLES WITH SEGMENTS OF INSULATION MATCHING ADJOINING INSULATION. FOR USE WITH ROLLER HANGERS.

















BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercountry.org



**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302  
SHEET  
MECHANICAL SCHEDULES

FILE NAME  
7262002-BoilerRoomSchedule  
3df\Facilities\Mech-02.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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SHEET  
**M007**



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| FINNED-TUBE RADIATION SCHEDULE (HOT WATER) |        |         |           |       |                  |                  |          |                       |     |                     |                          |              |              |             |                 |                     |
|--|--------|---------|-----------|-------|------------------|------------------|----------|-----------------------|-----|---------------------|--------------------------|--------------|--------------|-------------|-----------------|---------------------|
| PLAN CODE                                  | MFR.   | MODEL   | INSTALLED |       | BTUHL.F. ELEMENT | GPM/L.F. ELEMENT | NO. ROWS | AVG. WATER TEMP. (°F) | EAT | ELEMENT             |                          |              | ENCLOSURE    |             | DAMPER REQUIRED | NOTES               |
|  |        |         | MFR.      | MODEL |                  |                  |          |                       |     | PIPE SIZE, MATERIAL | FIN SIZE, MATERIAL       | FIN PER FOOT | HEIGHT (IN.) | DEPTH (IN.) |                 |                     |
| FT-1                                       | MODINE | MODEL S |           |       | 850              | 0.05             | 1        | 160                   | 65  | 3/4" COPPER         | 4-1/4" x 4-1/4" ALUMINUM | 42           | 12           | 5.25        | NO              | (1) (2) (3) (4) (5) |
| FT-2                                       | MODINE | MODEL S |           |       | 850              | 0.05             | 1        | 160                   | 65  | 3/4" COPPER         | 4-1/4" x 4-1/4" ALUMINUM | 42           | 12           | 5.25        | NO              | (1) (2) (3) (4) (5) |
| FT-3                                       | MODINE | MODEL S |           |       | 850              | 0.05             | 1        | 160                   | 65  | 3/4" COPPER         | 4-1/4" x 4-1/4" ALUMINUM | 42           | 12           | 5.25        | NO              | (1) (2) (3) (4) (6) |

**FINNED-TUBE RADIATION SCHEDULE PROJECT SPECIFIC NOTES**

- PROVIDE FULL BACK PLATE.
- PROVIDE NEOPRENE CRADLE HANGERS.
- PROVIDE WITH CONTROL VALVE, AUTOMATIC AIR VENT, AND THERMOSTAT
- REFER TO DRAWINGS FOR LENGTH OF ELEMENT.
- PROVIDE FULL LENGTH COVER FOR FT-1 AND FT-2 (WALL TO WALL) AND INCLUDE ACCESS PANELS FOR VALVES AND AIR VENTS.
- PROVIDE COVER FOR ELEMENT LENGTH OF FT-3 AND INCLUDE ACCESS PANELS FOR VALVES AND VENTS.

| TERMINAL BOX (VARIABLE AIR VOLUME) SCHEDULE (HW) |       |       |           |       |            |                   |                   |                   |                                      |                        |                   |          |          |          |          |          |      |      |                             |                     |       |
|--|-------|-------|-----------|-------|------------|-------------------|-------------------|-------------------|--------------------------------------|------------------------|-------------------|----------|----------|----------|----------|----------|------|------|-----------------------------|---------------------|-------|
| PLAN CODE  | MFR.  | MODEL | INSTALLED |       | INLET SIZE | AIRFLOW SETPOINTS |                   |                   | MAXIMUM AIR PRESSURE DROP (IN. W.C.) | MAXIMUM DISCHARGE N.C. | HEATING COIL DATA |          |          |          |          |          |      |      |                             |                     | NOTES |
|  |       |       | MFR.      | MODEL |            | COOLING MAX (CFM) | AIRFLOW MIN (CFM) | HEATING MAX (CFM) |                                      |                        | EAT (°F)          | LAT (°F) | EWT (°F) | LWT (°F) | COIL MBH | GLYCOL % | GPM  | ROWS | MAXIMUM WATER P.D. FT. W.C. |                     |       |
| TB 3-1   | PRICE | SDV   |           |       | 7          | 600               | 150               | 300               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 10.7     | 30       | 0.75 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-2   | PRICE | SDV   |           |       | 5          | 200               | 60                | 100               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 3.6      | 30       | 0.30 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-3   | PRICE | SDV   |           |       | 6          | 480               | 145               | 240               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 8.5      | 30       | 0.60 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-4   | PRICE | SDV   |           |       | 6          | 255               | 80                | 130               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 4.6      | 30       | 0.33 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-5   | PRICE | SDV   |           |       | 6          | 410               | 130               | 205               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 7.3      | 30       | 0.52 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-6   | PRICE | SDV   |           |       | 5          | 210               | 80                | 105               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 3.7      | 30       | 0.26 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-7   | PRICE | SDV   |           |       | 7          | 675               | 205               | 375               | 1.0                                  | 30                     | 55                | 80       | 180      | 130      | 8.3      | 30       | 0.59 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-8   | PRICE | SDV   |           |       | 6          | 255               | 150               | 135               | 1.0                                  | 30                     | 55                | 80       | 180      | 130      | 3.0      | 30       | 0.21 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-9   | PRICE | SDV   |           |       | 8          | 950               | 285               | 475               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 16.9     | 30       | 1.19 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-10  | PRICE | SDV   |           |       | 7          | 525               | 160               | 265               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 9.4      | 30       | 0.67 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-11  | PRICE | SDV   |           |       | 7          | 610               | 185               | 305               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 10.9     | 30       | 0.77 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-12  | PRICE | SDV   |           |       | 5          | 200               | 100               | 100               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 3.6      | 30       | 0.25 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-13  | PRICE | SDV   |           |       | 7          | 615               | 185               | 375               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 13.4     | 30       | 0.94 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-14  | PRICE | SDV   |           |       | 6          | 485               | 150               | 240               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 8.5      | 30       | 0.60 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-15  | PRICE | SDV   |           |       | 7          | 555               | 170               | 275               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 9.8      | 30       | 0.69 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-16  | PRICE | SDV   |           |       | 7          | 675               | 205               | 375               | 1.0                                  | 30                     | 55                | 90       | 180      | 130      | 11.7     | 30       | 0.83 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-17  | PRICE | SDV   |           |       | 4          | 150               | 60                | 75                | 1.0                                  | 30                     | 55                | 80       | 180      | 130      | 3.3      | 30       | 0.24 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-18  | PRICE | SDV   |           |       | 7          | 500               | 150               | 275               | 1.0                                  | 30                     | 55                | 80       | 180      | 130      | 6.1      | 30       | 0.43 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-19  | PRICE | SDV   |           |       | 10         | 1450              | 435               | 725               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 25.8     | 30       | 1.82 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-20  | PRICE | SDV   |           |       | 6          | 485               | 150               | 240               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 8.5      | 30       | 0.60 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |
| TB 3-21  | PRICE | SDV   |           |       | 7          | 625               | 190               | 310               | 1.0                                  | 30                     | 55                | 95       | 180      | 130      | 11.0     | 30       | 0.78 | 1    | 1.0                         | (1) (2) (3) (4) (5) |       |

**TERMINAL BOX SCHEDULE GENERAL NOTES**

- PERFORMANCE DATA IS CALCULATED BASED ON THE MIN HEAT REQUIRED TO HEAT THE PRIMARY AIR AND SPACE. ACTUAL SUPPLY AIR TEMPERATURE, LEAVING AIR TEMPERATURE, AND GPM MUST NOT BE LESS THAN SHOWN.
- THE HEATING COIL IS LOCATED AT THE DISCHARGE OF THE BOX. THE MIXED AIR TEMPERATURE IS A COMBINATION OF RETURN AIR AND PRIMARY AIR PRIOR TO ENTERING THE HEATING COIL.
- PROVIDE EACH BOX WITH CONTROLS TO MATCH THE MAINTENANCE ACCESS LOCATION INDICATED ON THE DRAWING.
- CONTRACTOR TO FIELD VERIFY LEFT OR RIGHT HAND COIL CONNECTION.
- PROVIDE WITH 2-WAY CONTROL VALVE.

| GRILLES, REGISTERS, AND DIFFUSERS SCHEDULE |       |                            |       |           |       |                |          |           |             |                         |  |
|--|-------|----------------------------|-------|-----------|-------|----------------|----------|-----------|-------------|-------------------------|--|
| PLAN CODE                                  | MFR.  | TYPE                       | MODEL | INSTALLED |       | FRAME          | MATERIAL | FINISH    | DAMPER TYPE | LEGEND                  | NOTES  |
|  |       |                            |       | MFR.      | MODEL |                |          |           |             |                         |  |
| EG-1                                       | PRICE | CEILING PERFORATED EXHAUST | PDDR  |           |       | REFER TO RCP   | STEEL    | OFF-WHITE | NONE        | SEE PLANS FOR NECK SIZE | 24"x24" FACE OR 24"x12". SEE PLANS FOR FACE SIZE |
| RG-1                                       | PRICE | CEILING PERFORATED FACE    | PFRF  |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | SEE PLANS FOR NECK SIZE | 24"x24" FACE OR 24"x12". SEE PLANS FOR FACE SIZE |
| SD-1                                       | PRICE | CEILING LOUVERED FACE      | SCD   |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | 6"                      | 24"x24" FACE                                     |
| SD-2                                       | PRICE | CEILING LOUVERED FACE      | SCD   |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | 8"                      | 24"x24" FACE                                     |
| SD-3                                       | PRICE | CEILING LOUVERED FACE      | SCD   |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | 10"                     | 24"x24" FACE                                     |
| SD-4                                       | PRICE | CEILING LOUVERED FACE      | SCD   |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | 12"                     | 24"x24" FACE                                     |
| SD-5                                       | PRICE | CEILING LOUVERED FACE      | SCD   |           |       | LAY-IN         | STEEL    | OFF-WHITE | NONE        | 8"                      | 12"x12" FACE                                     |
| SG-1                                       | PRICE | SIDEWALL GRILLE            | 510   |           |       | SIDEWALL MOUNT | STEEL    | OFF-WHITE | OBD         | SEE PLANS FOR NECK SIZE |  |

| EXISTING AIR HANDLING UNIT SCHEDULE |      |             |           |                  |           |                        |                    |                   |       |       |     |           |           |              |        |           |           |     |           |           |     |        |
|-------------------------------------|------|-------------|-----------|------------------|-----------|------------------------|--------------------|-------------------|-------|-------|-----|-----------|-----------|--------------|--------|-----------|-----------|-----|-----------|-----------|-----|--------|
| PLAN CODE                           | MFR. | MODEL       | TYPE      | SUPPLY FAN DATA  |           |                        |                    | COOLING DATA      |       |       |     |           |           | HEATING DATA |        |           |           |     |           |           |     |        |
|                                     |      |             |           | CFM TOTAL @ ALT. | MIN. O.A. | E.S.P. IN. W.C. @ ALT. | ENTERING AIR °F DB | LEAVING AIR °F WB | °F DB | °F WB | MBH | EWT °F DB | LWT °F DB | GPM          | WPD FT | EAT °F DB | LAT °F DB | MBH | EWT °F DB | LWT °F DB | GPM | WPD FT |
| AHU-1                               | YORK | YCM-140X108 | DRAW-THRU | 45,000           | 20%       | 2.0                    | 80                 | 60                | 53    | 53    | 525 | 45        | 55        | 110          | 15.5   | 55        | 85        | 545 | 180       | 160       | 55  | 6.5    |

**NOTES (ALL APPLY):**  
(1) PROJECT ALTITUDE IS 5,335 FT.  
(2) INFORMATION IN THIS SCHEDULE IS BASED ON THE ORIGINAL CONSTRUCTION DRAWINGS. IT HAS NOT BEE VERIFIED IN THE FIELD AND IS PROVIDED FOR REFERENCE ONLY FOR TAB.



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**Commercial Mandatory Measures Checklist**

Applies to: All New Buildings, Additions, Alterations and Repairs which require a permit from the City.

Project Address: 1325 Pearl Street, Boulder, CO 80302 Date: 11/18/2020

**DIRECTIONS:** Compliance with these Mandatory Measures is required whether the project is demonstrating compliance through the Performance or Prescriptive Path. Please complete this checklist and include it on an "Energy Conservation Code" sheet within the plans being submitted for permit application.

| Code Section                                      | Focus Area                                 | Code Description   | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. if "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs) | Plans Examiner Notes (in office use)  |
|---|--|--|---|---|---------------------------------------|
| C401.2  | Check compliance path applicable           | New Construction < 5500,000  | <input type="checkbox"/> NA   | No new building construction  | Mandatory and Prescriptive Compliance |
|   |  | New Construction >= 5500,000   | <input type="checkbox"/> NA   | No new building construction  | Mandatory and Performance Modeling    |
|   |  | Addition > 1,000sf   | <input type="checkbox"/> NA   |   | Mandatory and Performance Modeling    |
|   |  | Addition < 1,000sf   | <input type="checkbox"/> NA   |   | Mandatory and Prescriptive Compliance |
|   |  | Alteration Level 1   | <input type="checkbox"/> NA   |   | Mandatory and Prescriptive Compliance |
|   |  | Alteration Level 2   | <input checked="" type="checkbox"/> All drawing sheets                        |   | Mandatory and Prescriptive Compliance |
|   |  | Alteration Level 3   | <input type="checkbox"/> NA   |   | Mandatory and Performance Modeling    |
|   |  | Alteration Level 4   | <input type="checkbox"/> NA   |   | Mandatory and Performance Modeling    |
| <b>HEATING, VENTILATING, AND AIR CONDITIONING</b> |  |  |   |   |                                       |
| C403.2.1  | Zone isolation required                    | HVAC systems serving zones that are over 25,000 square feet in floor area or that span more than one floor and are designed to operate or be occupied nonsimultaneously shall be divided into isolation areas. | N/A   | No zones over 25,000sqft.   |                                       |
| C403.2.2  | Ventilation                                | Ventilation, either natural or mechanical, shall be provided in accordance with Chapter 4 of the International Mechanical Code.  |   |   |                                       |
| C403.3  | Heating and cooling equipment efficiencies | Heating and cooling equipment installed in mechanical systems shall be sized in accordance with Section C403.3.1.  | M009  |   |                                       |
| C403.3.1  | Equipment sizing                           | The output capacity of heating and cooling equipment shall be not greater than that of the smallest available equipment size that exceeds the loads calculated in accordance with Section C403.3.1.            | M008  |   |                                       |
| C403.3.2  | HVAC equipment performance requirements    | Equipment shall meet the minimum efficiency requirements of Tables C403.3.2(1) through C403.3.2(9) when tested and rated in accordance with the applicable test procedure.                                     | N/A   | No equipment of this type provided  |                                       |

| Code Section | Focus Area   | Code Description  | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. if "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs) | Plans Examiner Notes (in office use) |
|--------------|--|---|---|---|--------------------------------------|
| C403.4.2.2   | Automatic setback and shutdown                       | Automatic time clock or programmable controls shall be capable of starting and stopping the system for seven different daily schedules per week and retaining their programming and time setting during a loss of power for not fewer than 10 hours.  | N/A   | No equipment of this type on project  |                                      |
| C403.4.2.3   | Automatic start                                      | Automatic start controls shall be provided for each HVAC system.  | N/A   | No equipment of this type on project  |                                      |
| C403.5.5     | Economizer fault detection and diagnostics           | Air-cooled unitary direct expansion units listed in Tables C403.3.2(1) through C403.3.2(9) and variable refrigerant flow (VRF) units that are equipped with an economizer shall include a fault detection and diagnostics.  | N/A   | No equipment of this type on project  |                                      |
| C403.7.1     | Demand control ventilation                           | Demand control ventilation shall be provided for spaces larger than 500 square feet and with an average occupant load of 25 people or greater per 1,000 square feet of floor area.  | M203  |   |                                      |
| C403.7.2     | Enclosed parking garage ventilation controls         | Enclosed parking garages shall employ contamination-sensing devices and automatic controls configured to stage fans or modulate fan average airflow rates to 50 percent or less of design capacity, or intermittently operate fans less than 20 percent of the occupied time or as required to maintain acceptable contamination levels.        | N/A   | No spaces of this type on project   |                                      |
| C403.7.3     | Ventilation air heating control                      | Units that provide recirculation air to multiple zones and operate in conjunction with zone heating and cooling systems shall not use heating or heat recovery to warm supply air to a temperature greater than 65°F (19°C) when representative building loads or outdoor air temperatures indicate that the majority of zones require cooling. | N/A   | No equipment of this type on project  |                                      |
| C403.7.4     | Energy recovery ventilation systems                  | Where the supply airflow rate of a fan system exceeds the values specified in Table C403.7.4, the system shall include an energy recovery system.   | N/A   | No equipment of this type on project  |                                      |
| C403.7.5     | Kitchen exhaust systems                              | Replacement air introduced directly into the exhaust hood cavity shall not be greater than 10 percent of the hood exhaust airflow rate.   | N/A   | No equipment of this type on project  |                                      |
| C403.7.6     | Automatic control of HVAC systems serving guestrooms | In Group B-1 buildings containing more than 50 guestrooms, each guestroom shall be provided with controls complying with the provisions of this Section.  | N/A   | No spaces of this type on project   |                                      |
| C403.7.7     | Shutoff dampers                                      | Outdoor air intake and exhaust openings and stairway and shaft vents shall be provided with Class I motorized dampers.  | N/A   | No equipment of this type on project  |                                      |
| C403.8.1     | Allowable fan horsepower                             | Each HVAC system having a total fan system motor nameplate horsepower exceeding 3 hp (2.2 kW) or fan system design conditions shall not exceed the allowable fan system motor nameplate hp (Option 1) or fan system bhp (Option 2) shown in Table C403.8.1(1).  | N/A   | No equipment of this type on project  |                                      |
| C403.8.2     | Motor nameplate horsepower                           | For each fan, the fan brake horsepower shall be indicated on the construction documents and the selected motor shall be not larger than the first available motor size greater than this section above.   | N/A   | No equipment of this type on project  |                                      |

| Code Section | Focus Area   | Code Description  | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. if "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs) | Plans Examiner Notes (in office use) |
|--------------|--|---|---|---|--------------------------------------|
| C403.3.2.1   | Water-cooled centrifugal chiling packages                      | Equipment not designed for operation at AHRI Standard 550/590 test conditions of 44°F leaving chilled-water temperature and 2.4 gpm/ton evaporator fluid flow and 85°F entering condenser water temperature with 3 gpm/ton condenser water flow shall have maximum full-load kW/ton and part-load ratings as identified in Section C403.3.2.1.      | N/A   | No equipment of this type provided  |                                      |
| C403.3.2.2   | Positive displacement (air- and water-cooled) chiling packages | Equipment with a leaving fluid temperature higher than 32°F and water-cooled positive displacement chiling packages with a condenser leaving fluid temperature below 115°F shall meet the requirements of Table C403.3.2(7).  | N/A   | No equipment of this type provided  |                                      |
| C403.4.1     | Thermostatic controls  | The supply of heating and cooling energy to each zone shall be controlled by individual thermostatic controls capable of responding to temperature within the zone.   | M203/303  |   |                                      |
| C403.4.1.1   | Heat pump supplementary heat                                   | Heat pumps having supplementary electric resistance heat shall have controls that, except during defrost, prevent supplementary heat operation where the heat pumps can provide the heating load.   | N/A   | No equipment of this type provided  |                                      |
| C403.4.1.2   | Deadband   | Where used to control both heating and cooling, zone thermostatic controls shall be configured to provide a temperature range or deadband of not less than 5°F within which the supply of heating and cooling energy to the zone is shut off or reduced to a minimum.   | M001  |   |                                      |
| C403.4.1.3   | Setpoint overlap restriction                                   | Where a zone has a separate heating and a separate cooling control located within the zone, a limit switch, mechanical stop or direct digital control system with software programming shall be configured to prevent the heating setpoint from exceeding the cooling setpoint and to maintain a deadband in accordance with Section C403.4.1.2.    | N/A   | No system of this type provided   |                                      |
| C403.4.1.4   | Heated or cooled vestibule                                     | The heating system for heated vestibules and air curtains with integral heating shall be provided with controls configured to shut off the source of heating when the outdoor air temperature is greater than 45°F.   | N/A   | No system of this type provided   |                                      |
| C403.4.1.5   | Hot water boiler outdoor temperature setback control           | Hot water boilers that supply heat to the building through one- or two-pipe heating systems shall have an outdoor setback control that lowers the boiler water temperature based on the outdoor temperature.  | N/A   | No equipment of this type provided  |                                      |
| C403.4.1.6   | Mechanical system shutoff                                      | Operable wall or roof openings, overhead doors, cargo doors, sliding doors, folding and accordion-style wall systems, and other loading dock-style doors that open to the outdoors shall be equipped with interlock controls that disable the heating, cooling and humidity control equipment that serves the area or zone adjacent to the opening. | N/A   | No equipment of this type on project  |                                      |
| C403.4.2     | Off-hour controls  | Each zone shall be provided with thermostatic setback controls that are controlled by either an automatic time clock or programmable control system.  | M203/303  |   |                                      |
| C403.4.2.1   | Thermostatic setback   | Thermostatic setback controls shall be configured to set back or temporarily operate the system to maintain zone temperatures down to 55°F (13°C) or up to 85°F.  | N/A   | No equipment of this type on project  |                                      |

| Code Section                | Focus Area  | Code Description  | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. if "N/A" Please explain why requirement does not apply or is not demonstrated on plans/specs) | Plans Examiner Notes (in office use) |
|-----------------------------|---|---|---|---|--------------------------------------|
| C403.8.3                    | Fan efficiency  | Fans shall have a fan efficiency grade (FEG) of not less than 67, as determined in accordance with AMCA 205 by an approved, independent testing laboratory and labeled by the manufacturer.   | N/A   | No equipment of this type on project  |                                      |
| C403.8.4                    | Fractional hp fan motors  | Motors for fans that are not less than 1/2 hp (0.368 kW) and less than 1 hp (0.746 kW) shall be electronically commutated motors or shall have a minimum motor efficiency of 70 percent.  | N/A   | No equipment of this type on project  |                                      |
| C403.10                     | Walk-in coolers, walk-in freezers, refrigerated warehouse coolers and refrigerated warehouse freezers | Refrigerated warehouse coolers and refrigerated warehouse freezers shall comply with this Section.  | N/A   | No equipment of this type on project  |                                      |
| C403.11                     | Construction of HVAC system elements  | Ducts, plenums, piping and other elements that are part of an HVAC system shall be constructed and insulated in accordance with Sections C403.11.1 through C403.11.3.   | M002-M006   |   |                                      |
| C403.11.3                   | Piping insulation   | Piping serving as part of a heating or cooling system shall be thermally insulated in accordance with Table C403.11.3.  | M002-M006   |   |                                      |
| C403.12                     | Mechanical systems located outside of the building thermal envelope                                   | Mechanical systems providing heat outside of the thermal envelope of a building shall comply with Sections C403.12.1 through C403.12.3.   | N/A   | No equipment of this type on project  |                                      |
| <b>SYSTEM COMMISSIONING</b> |   |   |   |   |                                      |
| C408.1                      | Mechanical System Commissioning and Completion Requirements   | Prior to the final mechanical and plumbing inspections, the registered design professional or approved agency shall provide evidence of mechanical system commissioning and completion in accordance with the provisions of this section. |   |   | Building Condition: Commissioning    |



BUILDING SERVICES DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO 80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
MECHANICAL ENERGY  
COMPLIANCE

FILE NAME  
72620022-0000-0000-0000-0000-0000  
3rdFloorRemodel-Mech-02.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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SHEET  
M010



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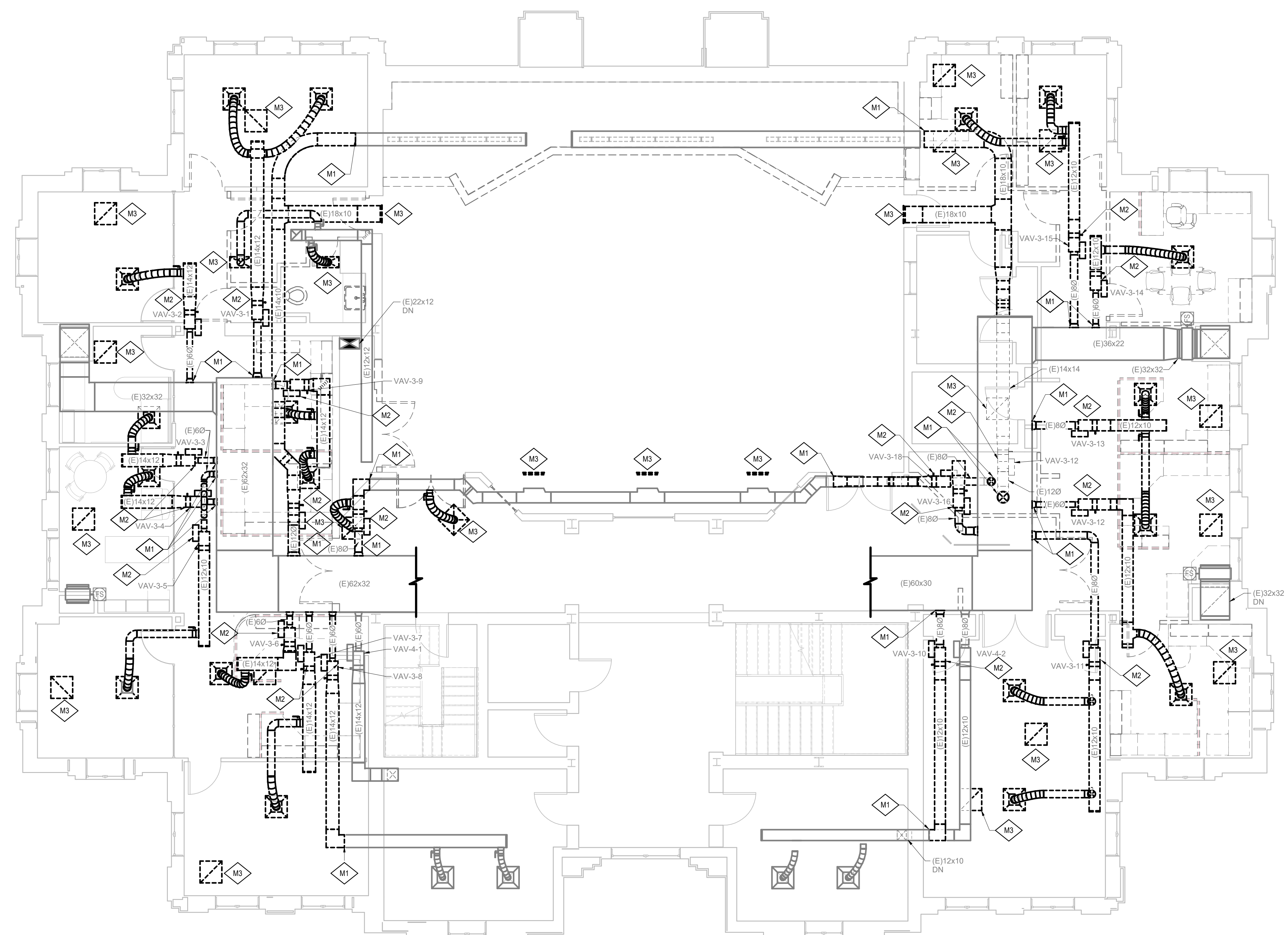




BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



| WORK NOTES |   |
|------------|---|
| M1         | DISCONNECT EXISTING DUCT AT THIS LOCATION.  |
| M2         | EXISTING VAV BOX, ASSOCIATED DUCT, ASSOCIATED AIR DEVICES, AND ASSOCIATED CONTROLS TO BE REMOVED. |
| M3         | EXISTING AIR DEVICE TO BE REMOVED.  |



**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

1 BOCC THIRD FLOOR MECHANICAL DEMOLITION PLAN  
3/16" = 1'-0"  
6' 3' 0' 6'

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
BOCC THIRD FLOOR  
MECHANICAL DEMOLITION  
PLAN  
FILE NAME  
72620022-BOCC-3rdFloorMech-DEM-2020.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |
|     |             |

SHEET  
MD203

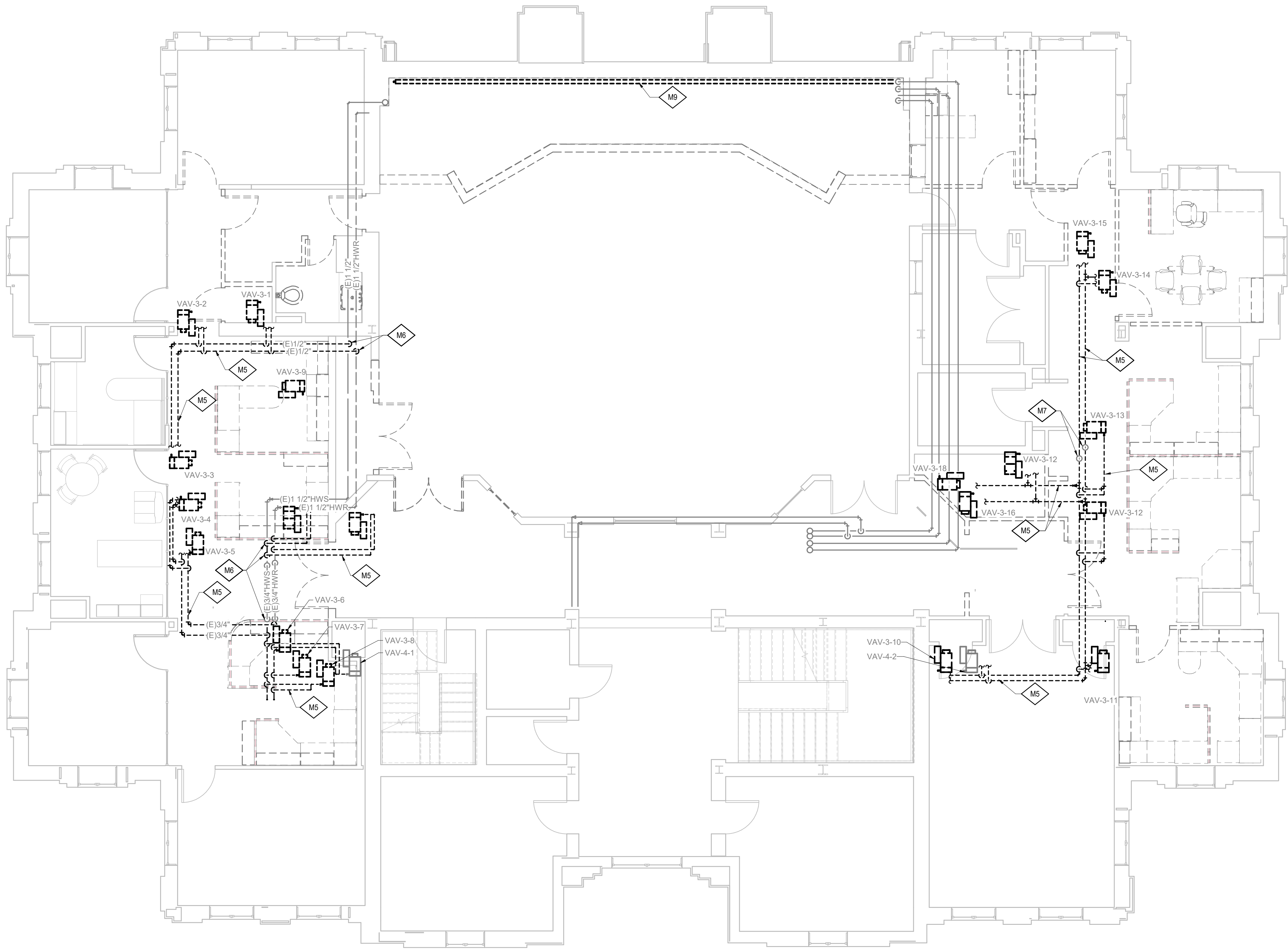


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| WORK NOTES |  |
|------------|--|
| M5         | EXISTING HWS/R PIPING TO BE REMOVED.   |
| M6         | DISCONNECT DEMOLISHED HWS/R PIPING FROM EXISTING AT THIS LOCATION.                     |
| M7         | EXISTING HWS/R PIPING UP TO VALVES. DISCONNECT EXISTING HWS/R PIPING AT THIS LOCATION. |
| M9         | EXISTING FINNED TUBE BASEBOARD TO BE REMOVED.  |



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DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
BOCC THIRD FLOOR  
MECHANICAL PIPING  
DEMOLITION PLAN  
FILE NAME  
1325PearlRemodel-Mech-303.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

| NO. | DESCRIPTION |
|-----|-------------|
|     |             |
|     |             |
|     |             |
|     |             |

SHEET  
MD303

1 BOCC THIRD FLOOR PIPING DEMOLITION PLAN  
3/16" = 1'-0"  
6' 3' 0' 6'



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2020 13TH ST.  
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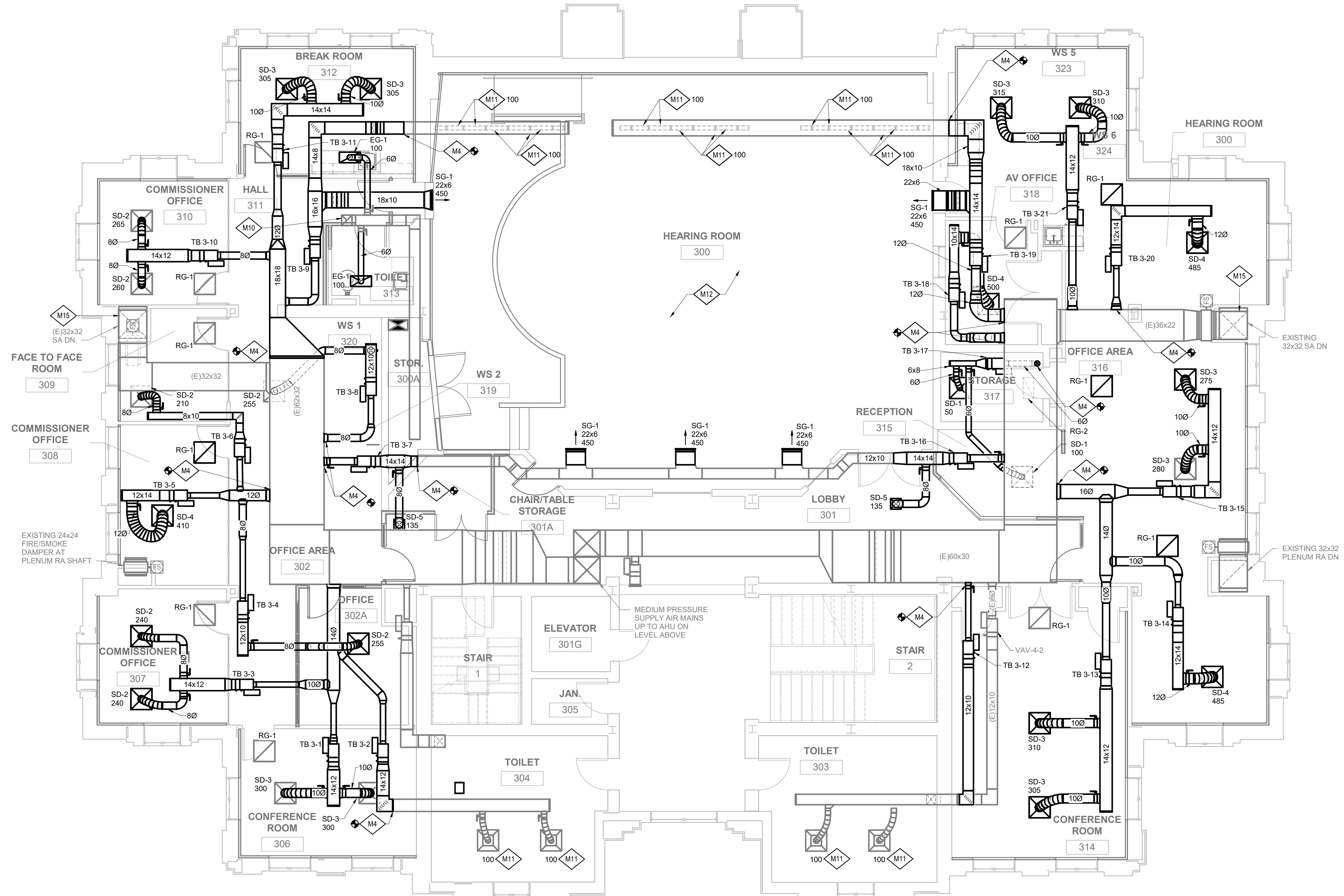


**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

- GENERAL NOTES**
- CONTRACTOR SHALL PROVIDE PRECONSTRUCTION TAB READINGS AT ALL AIR DEVICES AS PART OF PROJECT. PROVIDE PRECONSTRUCTION TAB REPORT TO ARCHITECT/ENGINEER.
  - PATCH, SEAL, AND INSULATE EXISTING DUCT WHERE DEMOLISHED DUCTS HAVE BEEN REMOVED.
  - ALL AIR DEVICES SHALL BE PROVIDED WITH A MANUAL BALANCE DAMPER IN THE BRANCH DUCT UNLESS SCHEDULED TO BE PROVIDED WITH A MANUAL BALANCE DAMPER.
  - FLEX DUCT SHALL BE LIMITED TO 5'-0" IN LENGTH OR LESS. NO FLEX DUCT ABOVE DRYWALL CEILINGS.

- WORK NOTES**
- M4 NEW DUCT CONNECTED TO EXISTING DUCT.
  - M10 EXISTING EXHAUST DUCT UP TO EXHAUST FAN ON ROOF.
  - M11 REBALANCE EXISTING AIR DEVICE TO INDICATED AIRFLOW.
  - M12 EXISTING PLENUM RETURN IN HEARING ROOM TO BE REUSED.
  - M15 LOCATION OF PRE CONSTRUCTION TAB TO 2ND LEVEL.

- PRE CONSTRUCTION TAB NOTES**
- CONTRACTOR SHALL PROVIDE PRE CONSTRUCTION TAB SERVICES TO MEASURE EXISTING AIRFLOWS AT 5TH LEVEL BRANCH SUPPLY DUCT UPSTREAM OF TERMINAL BOXES, 4TH LEVEL BRANCH SUPPLY DUCT UPSTREAM OF TERMINAL BOXES, AND MEDIUM PRESSURE SUPPLY DUCTS DOWN TO SECOND LEVEL. THESE FLOWS SHALL BE REPORTED TO ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION WORK BEGINNING.
  - CONTRACTOR SHALL PROVIDE PRE CONSTRUCTION TAB SERVICES TO MEASURE THE SUPPLY AIRFLOW, RETURN AIRFLOW, AND OUTSIDE AIRFLOW OF THE EXISTING AIR HANDLER AT FULL FLOW. THESE FLOWS SHALL BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO CONSTRUCTION WORK BEGINNING.
  - CONTRACTOR SHALL REBALANCE EXISTING AIR HANDLER TO PROVIDE EXISTING SUPPLY AIRFLOWS TO THE 5TH LEVEL, 4TH LEVEL AND 2ND LEVEL AFTER NEW WORK HAS BEEN BALANCED.



**1 BOCC THIRD FLOOR MECHANICAL PLAN**  
3/16" = 1'-0"  
6' 3' 0' 6'

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
BOCC THIRD FLOOR  
MECHANICAL PLAN

FILE NAME  
72620022-BOCC-3rdFloorMechanical-2023.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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SHEET  
**M203**



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BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



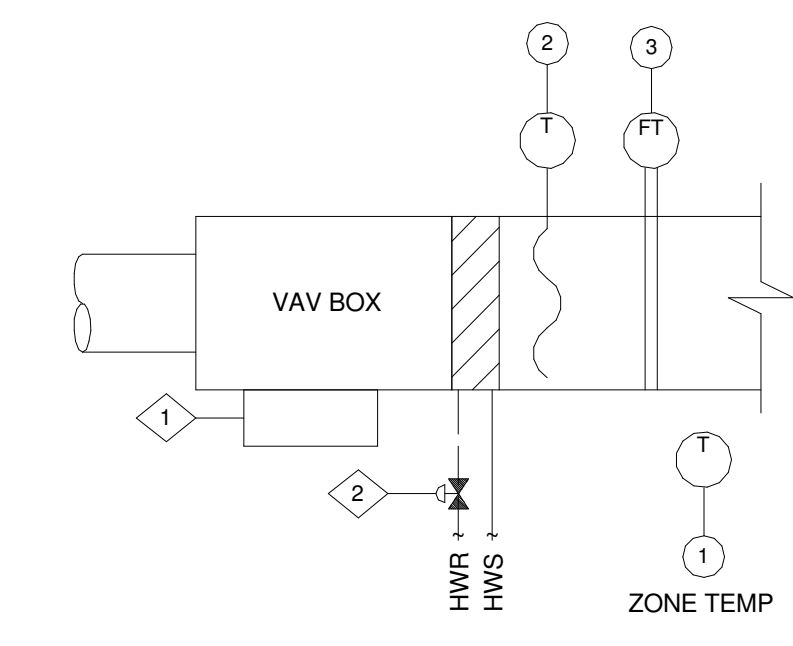
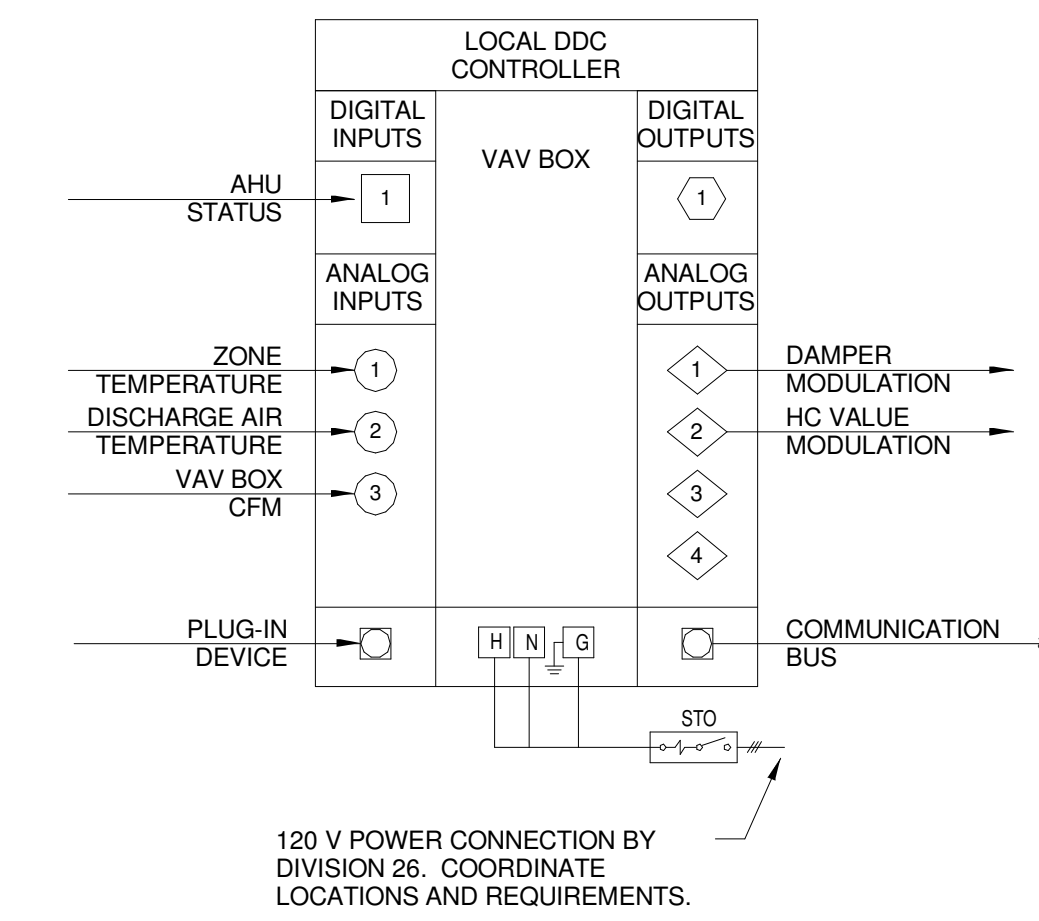
**TERMINAL (VAV) BOX TB-1-1 CONTROL SCHEMATIC**

THE EXISTING TERMINAL BOX SHALL BE REPLACED.

IN THE COOLING MODE, THE VAV BOX SHALL MODULATE FROM A MINIMUM CFM TO A MAXIMUM CFM TO MAINTAIN THE SPACE TEMPERATURE COOLING SETPOINT OF 73°F (ADJ). THE REHEAT CONTROL VALVE SHALL BE CLOSED.

IN THE HEATING MODE, THE VAV BOX SHALL MODULATE TO THE MAX HEATING CFM. REFER TO THE MECHANICAL SCHEDULES FOR THE HEATING CFM.

MODULATE THE REHEAT VALVE TO MAINTAIN THE SPACE TEMPERATURE HEATING SETPOINT OF 70°F (ADJ).

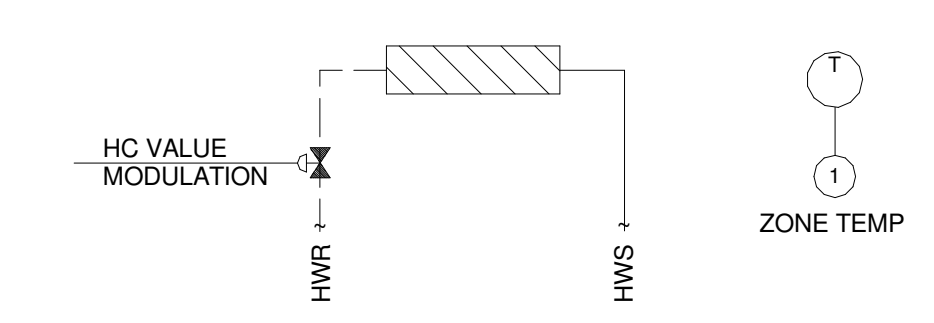


**1** TERMINAL (VAV) BOX TB-1-1 CONTROL SCHEMATIC  
NOT TO SCALE

**FINNED TUBE RADIATION SEQUENCE OF OPERATION**

THE EXISTING FINNED TUBE BASEBOARD SHALL BE REPLACED.

UPON A DROP IN SPACE TEMPERATURE SETPOINT 2-WAY VALVE SHALL MODULATE. MODULATE THE REHEAT VALVE TO MAINTAIN THE SPACE TEMPERATURE HEATING SETPOINT OF 70°F (ADJ).



**2** FINNED TUBE RADIATION CONTROL SCHEMATIC  
NOT TO SCALE

**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
MECHANICAL CONTROLS

FILE NAME  
1325PearlStreetCourthouse  
3rdFloorRemodel-Mech-001.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

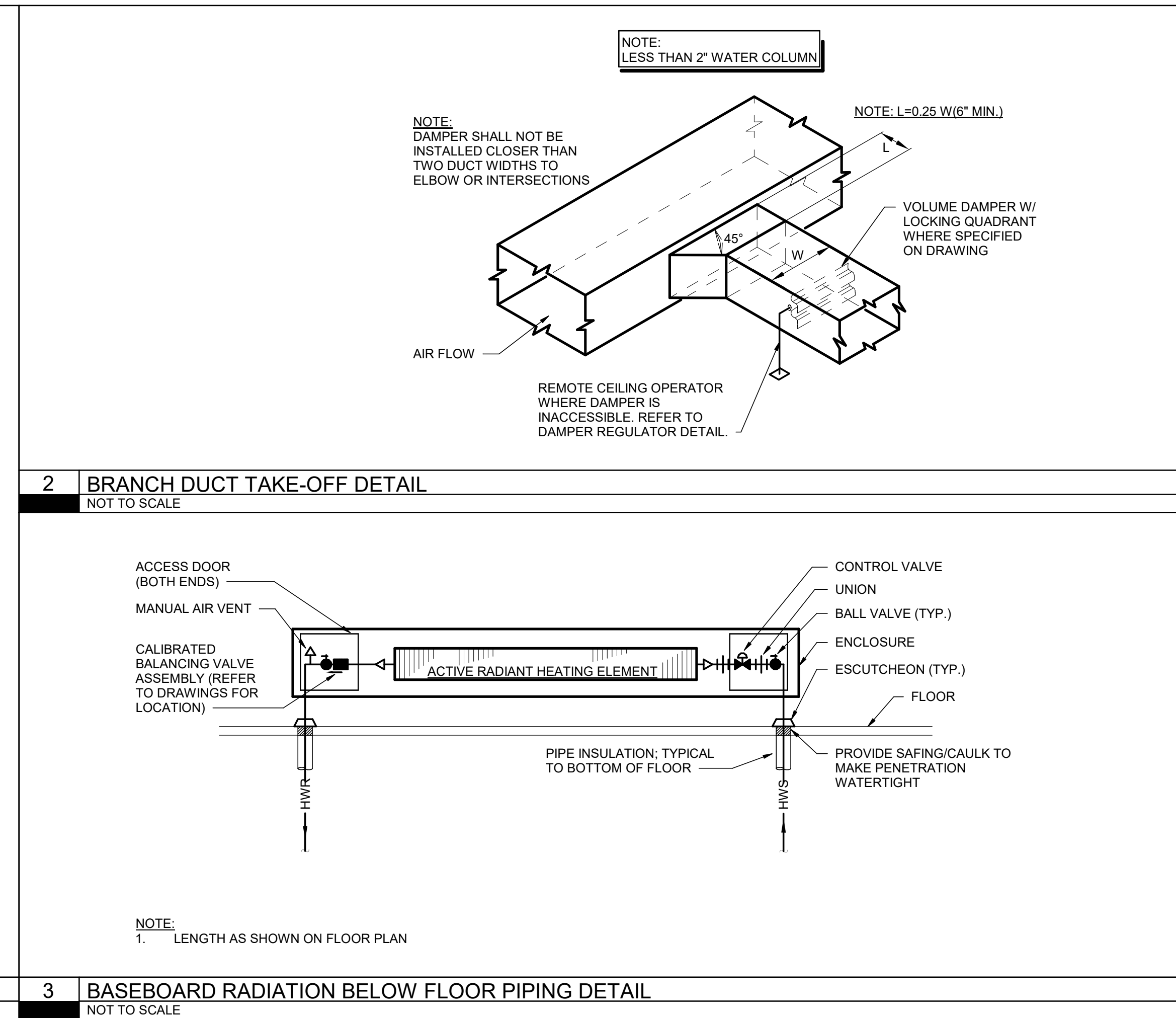
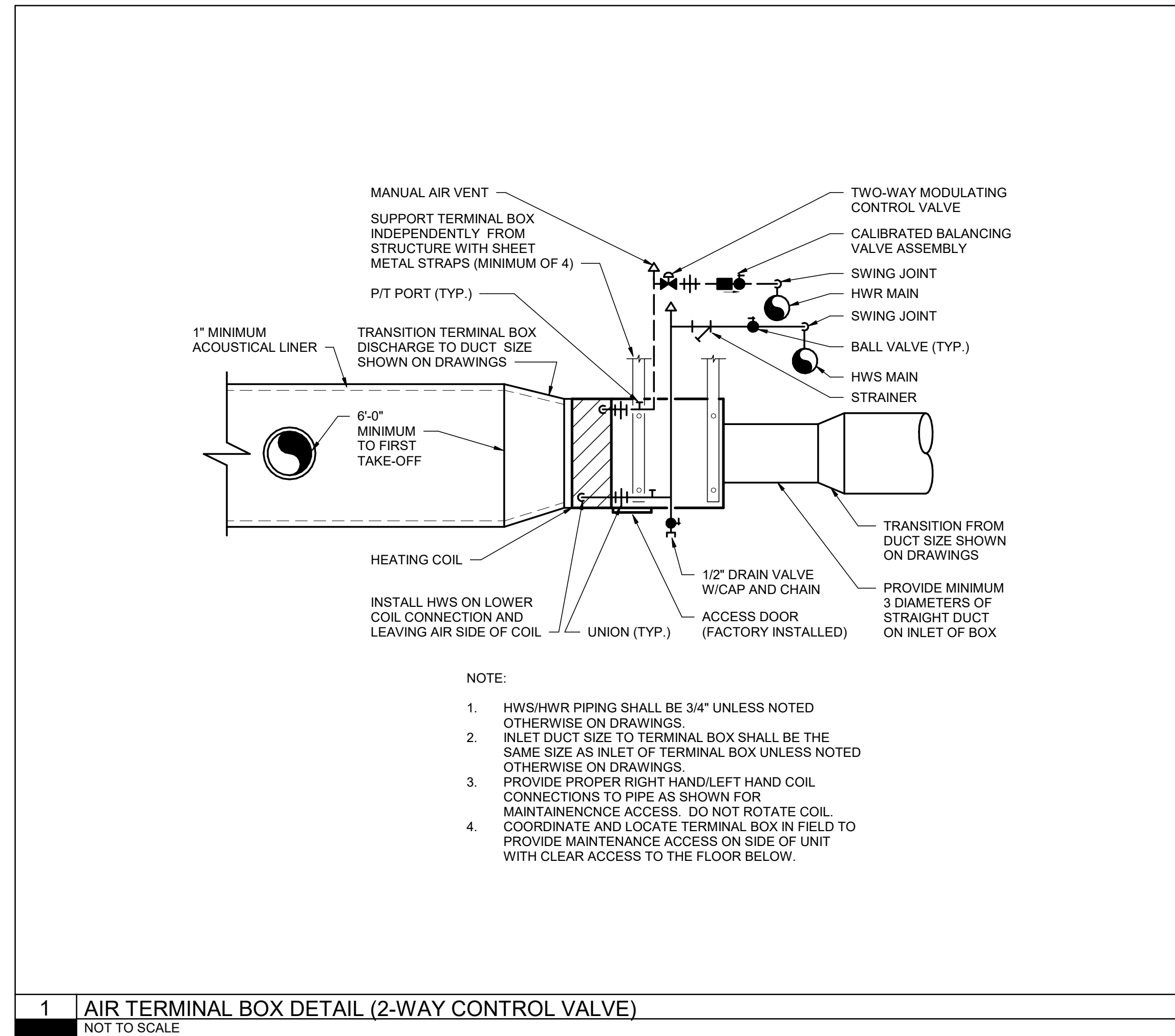
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SHEET  
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BUILDING SERVICES DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO 80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



**BOULDER COUNTY**  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
MECHANICAL DETAILS

FILE NAME  
72620022-3rdFloorRemodel-Mech-001.rvt

ACCT 100103  
DATE: 12/23/2020  
DRAWN BY: SBN  
CHECKED BY: BEB

REVISIONS

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ENGINEERING | TECHNOLOGY | LIFE SAFETY  
BCER PROJECT 72620022

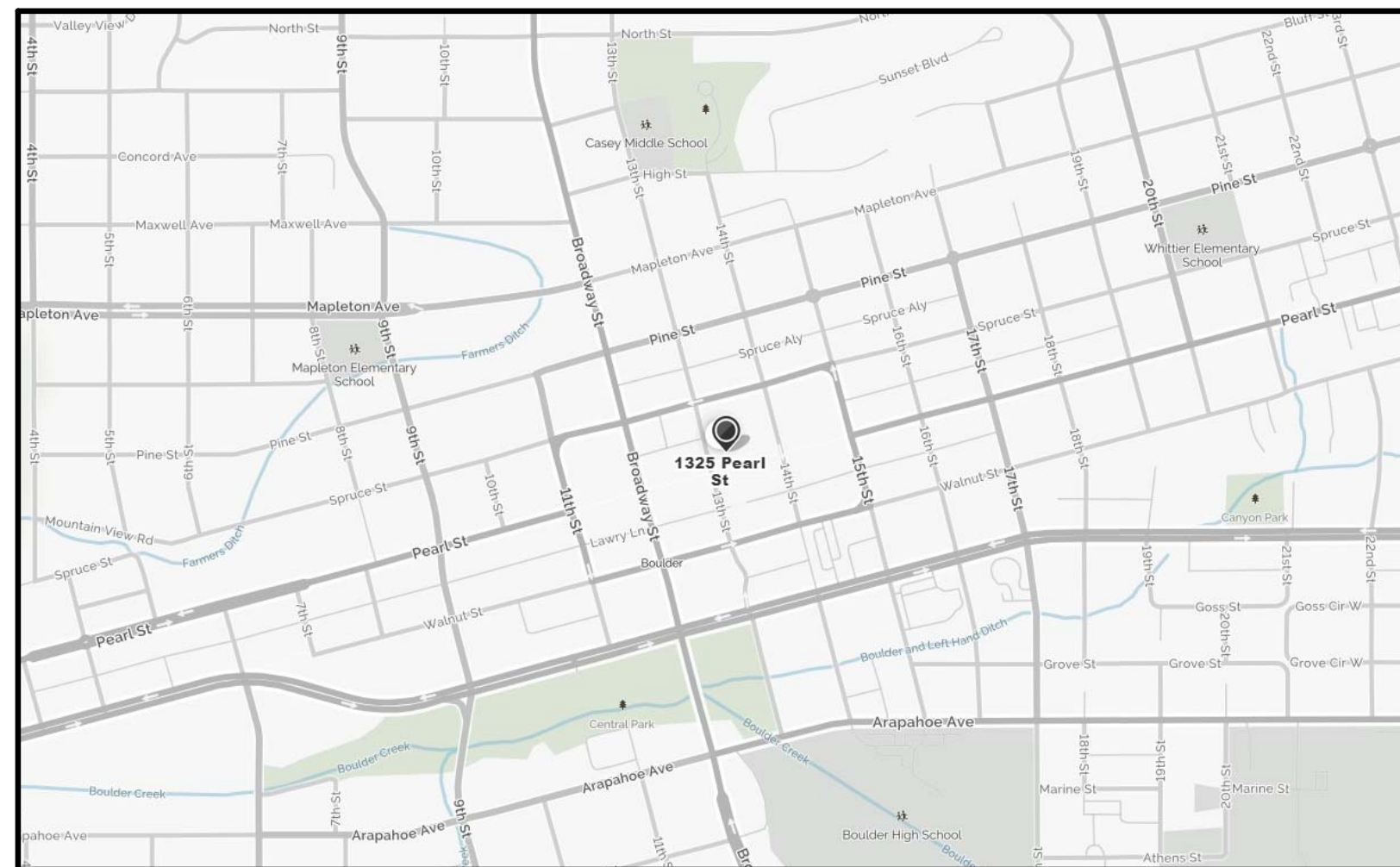
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# 3RD FLOOR BOCC REMODEL

1325 PEARL STREET  
BOULDER, COLORADO 80302

## Building Permit Submittal



### VICINITY MAP

### TYPICAL ABBREVIATIONS

|         |   |         |                              |
|---------|---|---------|------------------------------|
| A-      | ASSEMBLY OCCUPANCY                      | MAN.    | MANUFACTURER                 |
| AC      | ACOUSTIC ONLY HERMAN MILLER             | MAT.    | MATERIAL                     |
| AC/GL   | ACOUSTIC AND GLASS HERMAN MILLER        | MAX.    | MAXIMUM                      |
| ADA     | AMERICAN DISABILITY ACT (COMPLIES WITH) | MECH.   | MECHANICAL                   |
| A.F.F.  | ABOVE FINISHED FLOOR                    | MET.    | METAL                        |
| ARCH.   | ARCHITECT                               | MIR.    | MIRROR                       |
| B       | BUSINESS OCCUPANCY                      | MIN.    | MINIMUM                      |
| B.O.    | BOTTOM OF                               | N.I.C.  | NOT IN CONTRACT              |
| BLDG.   | BUILDING                                | O.C.    | ON CENTER                    |
| BM      | BEAM                                    | OCC.    | OCCUPANCY                    |
| CA      | CARD ACCESS                             | O. DIA. | OUTSIDE DIAMETER             |
| C.L.    | CENTER LINE                             | OPP.    | OPPOSITE                     |
| CLG.    | CEILING                                 | OTS.    | OPEN TO STRUCTURE            |
| CONC.   | CONCRETE                                | P-E     | PUBLIC ESTABLISHED ZONING    |
| CONTR.  | CONTINUOUS                              | PL.     | PLATE                        |
| CONST.  | CONSTRUCTION                            | PH.     | PHASE                        |
| COORD.  | COORDINATE                              | PRMT.   | PERMIT                       |
| CPT.    | CARPET                                  | PROP.   | PROPERTY                     |
| CT      | CERAMIC TILE                            | P.T.D.  | PAPER TOWEL DISPENSER        |
| D.E.B.  | DRY ERASE BOARD                         | PTD.    | PAINTED                      |
| D.F.    | DRINKING FOUNTAIN                       | R.      | RISER                        |
| DIA.    | DIAMETER                                | R.C.P.  | REFLECTED CEILING PLAN       |
| EA.     | EACH                                    | RE.     | REFERENCE                    |
| EQUIPT. | EQUIPMENT                               | RB      | RUBBER BASE                  |
| ES      | ELECTRONIC STRIKE                       | S.A.C.  | SUSPENDED ACOUSTICAL CEILING |
| ETC.    | ET CETERA                               | SB      | SOUND BOARD                  |
| EX      | EXISTING                                | S.C.    | SOLID CORE                   |
| EXP.    | EXPOSED                                 | SIM.    | SIMILAR                      |
| EXT.    | EXTERIOR                                | SPEC.   | SPECIFICATION                |
| F.E.    | FIRE EXTINGUISHER                       | SS      | STAINLESS STEEL              |
| F.D.    | FLOOR DRAIN                             | STL.    | STEEL                        |
| FR      | FIRE RATED                              | STO.    | STORAGE                      |
| G.C.    | GENERAL CONTRACTOR                      | STRUCT. | STRUCTURAL                   |
| GA.     | GAGE                                    | THICK.  | THICKNESS                    |
| GALV.   | GALVANIZED                              | T.      | TREAD                        |
| G.W.B.  | GYPSTUM WALL BOARD                      | T.O.    | TOP OF                       |
| HDWR.   | HARDWARE                                | T.P.    | TOILET PAPER DISPENSER       |
| HGHT.   | HEIGHT                                  | TYP.    | TYPICAL                      |
| I.B.C.  | INTERNATIONAL BUILDING CODE             | U.N.O.  | UNLESS NOTED OTHERWISE       |
| INS.    | INSULATION                              | V.B.    | VAPOR BARRIER                |
| INT.    | INTERIOR                                | V.I.F.  | VERIFY IN FIELD              |
| I.T.    | INFORMATION TECHNOLOGY                  | W/      | WITH                         |
| J       | JOINT                                   | WC      | WATER CLOSET                 |
| KIT.    | KITCHEN                                 | WD.     | WOOD                         |
| LNM     | LINOLEUM                                | WP      | WORK POINT                   |

### PROJECT DATA

**PROJECT ADDRESS:**  
1325 Pearl Street, Boulder, CO 80302

**PROJECT DESCRIPTION:** Third Floor of County Courthouse Remodel: Renovation of office spaces and hearing room. Demolition of non-load bearing walls. Upgrading one small toilet room to meet ADA requirements. New ADA dais to be constructed for new layout of hearing room. Insulation and furr out of exterior walls. Upgrading lighting and controls, AV Equipment, and addition of floor boxes. New floor finishes.

**VERTICAL DATUM:**  
100'-0" = First Floor Finish

No additional square footage is added with this remodel.

**PARCEL INFORMATION:**  
Property Address 1325 Pearl Street  
City Boulder  
Owner County of Boulder, Jeff Maxwell, Public Works Director  
Parcel Number 146330324001  
Mailing Address PO Box 471  
City, State, Zip Boulder CO 80306-0471  
Sec-Town-Range 30-1N-70  
Subdivision Boulder O T East & West & North - B0  
Jurisdiction Boulder  
Legal Description Public Square Blk Between Blk 94 & 95 Boulder O T  
Square Feet 89,506  
Acres 2.05

**RENOVATION SQUARE FOOTAGE:**  
BUILDING TOTAL: 32,368 SF  
REMODEL: 6,450 SF

### PROJECT DIRECTORY

**OWNER:**  
BOULDER COUNTY  
P.O. BOX 471  
BOULDER, CO 80306

**ARCHITECT OF RECORD:**  
BOULDER COUNTY PUBLIC WORKS  
BUILDING SERVICES DIVISION  
2525 13TH ST, 2ND FLOOR  
BOULDER, CO 80302  
MACKENZIE SCHOOFS, 303-441-3187  
mschoofs@bouldercounty.org

**GENERAL CONTRACTOR:**  
BOULDER COUNTY PUBLIC WORKS  
BUILDING SERVICES DIVISION  
2525 13TH ST, 2ND FLOOR  
BOULDER, CO 80302  
JOE MAY, 303-441-1263  
jmayer@bouldercounty.org  
GC License #LIC0099057

**ELECTRICAL CONTRACTOR:**  
BOULDER COUNTY PUBLIC WORKS  
BUILDING SERVICES DIVISION  
2525 13TH ST, 2ND FLOOR  
BOULDER, CO 80302  
MARTIN MARINO, 303-434-4834  
mmarino@bouldercounty.org

**INFORMATION TECHNOLOGY:**  
BOULDER COUNTY IT  
SHAWN BLEAM, 303-441-4537  
sbleam@bouldercounty.org

**MECHANICAL ENGINEER:**  
BCER ENGINEERING  
5420 WARD ROAD, SUITE 200  
ARVADA, CO 80002-1838  
MECH. ENGINEER: SHANE NEWMAN  
PROJECT MANAGER: JEFF ADAMS  
snewman@bcer.com  
303-405-2862  
jadams@bcer.com  
303-422-7400

**ELECTRICAL ENGINEER:**  
BCER ENGINEERING  
5420 WARD ROAD, SUITE 200  
ARVADA, CO 80002-1838  
ELECTRICAL DESIGNER: GREG MONDRAGON  
PROJECT MANAGER: JEFF ADAMS  
gmondragon@bcer.com  
303-405-2878  
jadams@bcer.com  
303-422-7400

**PLUMBING ENGINEER:**  
BCER ENGINEERING  
5420 WARD ROAD, SUITE 200  
ARVADA, CO 80002-1838  
PLUMBING ENGINEER: JUSTIN PATTERSON  
PROJECT MANAGER: JEFF ADAMS  
jpatterson@bcer.com  
303-405-2856  
jadams@bcer.com  
303-422-7400

### CODE INFORMATION

CONSTRUCTION SHALL COMPLY WITH THE 2018 IBC.

**OCCUPANCY TYPE:** B - BUSINESS (OFFICE AREAS)  
A - ASSEMBLY (CONFERENCE AND HEARING ROOMS)

**TYPE OF (NEW) CONSTRUCTION:** 2B

**ZONE:** P(Public)

THIS PROJECT WILL BE CONSTRUCTED TO MEET THE ADA CODE REQUIREMENTS.

BUILDING USAGE OR SQUARE FOOTAGE IS NOT CHANGING.

SHOULD WE PENETRATE ANY RATED WALL ASSEMBLIES THE PENETRATION WILL BE IN COMPLIANCE WITH IBC 2015 CHAPTER 7 REQUIREMENTS FOR WALL PENETRATIONS.

THIS PROJECT WILL REMAIN FULLY SPRINKLERED, MEETING IBC AND CITY OF BOULDER REQUIREMENTS. ANYTHING ENTERING/EXITING RATED ASSEMBLIES WILL BE IN COMPLIANCE.

**STAIR CALCULATION**  
MAXIMUM NUMBER OF OCCUPANTS THROUGH A STAIRWAY = 101 X .3 INCHES PER OCCUPANT = 30.3 INCHES MIN < 37 INCH WIDTH OF EXISTING STAIR #1. (PER 1005.3.1 STAIRWAY)

**EXIT DOOR CALCULATION**  
MAXIMUM NUMBER OF OCCUPANTS THROUGH AN EXIT DOOR / OTHER MEANS OF EGRESS = 101 X .2 INCHES PER OCCUPANT = 20.2 INCHES MIN WIDTH < CLEAR DOOR WIDTH OF STANDARD PROJECT DOOR CLEAR WIDTH OF 36 INCHES. (PER 1005.3.1 OTHER EGRESS COMPONENTS) PLEASE NOTE:  
W EXIT: 101 X .2 = 20.2' < 36"  
N EXIT: 23 X .2 = 4.6' < 60"  
E EXIT: 20 X .2 = 4' < 36"  
S EXIT: 96 X .2 = 19.2' < 60"

SOUTH & WEST DOORS HAVE LARGEST OCC LOAD FROM 3RD FLOOR (101 OCC.)  
NORTH & EAST DOORS ARE SIZED FROM 1ST FLOOR LOADS.

### PROJECT ESTIMATE

|                    |                 |
|--------------------|-----------------|
| AREA OF REMODEL    |                 |
| FIRST FLOOR        | 0 SF            |
| SECOND FLOOR       | 0 SF            |
| <b>THIRD FLOOR</b> | <b>6,450 SF</b> |
| FOURTH FLOOR       | 0 SF            |
| FIFTH FLOOR        | 0 SF            |

### GENERAL NOTES:

- A: The contract documents include these drawings. Any discrepancies found among the drawings, these general notes, and the site conditions shall be reported to the Architect who shall address such inconsistencies in writing. Any work done by the contractor after discovery of such error shall be done at the contractor's risk. The contractor shall verify and familiarize themselves with all drawings prior to proceeding with any work or fabrication.
- B: Mechanical, electrical, and plumbing to conform to work requirements indicated herein and suitable for the intended uses of the spaces.
- C: If there is a conflict between a large scale drawings and smaller scale drawing of the same area, the larger scale drawing is to be considered more precise.
- D: Architectural plans show the desired layout of furniture and ceiling grid. Notify architect immediately in writing if there is a discrepancy between Architectural, Mechanical, and Electrical.

### PLUMBING FIXTURE COUNT (ENTIRE BUILDING)

FIXTURE COUNT BELOW VERIFIES EXISTING COMPLIANCE

**APPLICABLE CODE REFERENCES**  
TABLE 2902.1-  
BUSINESS: (County Government offices)

1 WC PER 25 FOR THE FIRST 50 AND 1 PER 50 FOR REMAINDER EXCEEDING 50.

1 LAV PER 40 FOR FIRST 80 AND 1 PER 80 REMAINING AFTER 80

1 DRINKING FOUNTAIN PER 100 (Required for occupant loads>15)

1 MOP SINK (required for occupant loads>15)

AUDITORIUMS WITHOUT PERMANENT SEATING: 1 PER 125 FOR MEN, 1 PER 65 WOMEN. LAVS= 1 PER 200

419.2 IPC = SUBSTITUTION FOR WATER CLOSETS. IN EACH BATHROOM OR TOILET ROOM, URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 67 PERCENT OF THE REQUIRED WATER CLOSETS IN ASSEMBLY AND EDUCATIONAL OCCUPANCIES. URINALS SHALL NOT BE SUBSTITUTED FOR MORE THAN 50 PERCENT OF THE REQUIRED WATER CLOSETS IN ALL OTHER OCCUPANCIES.

**FIRST FLOOR**  
1ST FLOOR (2 public toilets and 1 unisex staff toilet)  
8750 SF  
8750/100 = 88 OCCUPANTS

2ND FLOOR (No Public toilets)  
8750 SF  
8750/100 = 88 OCCUPANTS

FIXTURE COUNT 1st + 2nd  
88+88 = 176 OCCUPANTS  
176/2 = 88 MALE / 88 FEMALE

REQUIRED WOMEN'S TOILETS = 88 FEMALE = 2  
REQUIRED MEN'S TOILETS = 88 MALE = 2

EXISTING WOMEN'S TOILETS = 3 IN PUBLIC TOILET  
EXISTING MEN'S TOILETS = 2 = 1 + 2 URINALS (WE ARE EXCEEDING REQUIRES WC'S, >50% URINALS IS OK)

EXISTING STAFF ONLY UNISEX = 1 UNISEX IN OFFICES

EXISTING MOP SINK = 1 MOP SINK

**THIRD FLOOR**  
2ND FLOOR (no toilets)  
8750/100 = 88

3RD FLOOR (public toilets)  
6450 SF  
6450/100 = 65 OCCUPANTS  
\*ASSEMBLY SPACES ON 3RD FLOOR = 1798 + 419 = 2217 SF (1 PER 125 FOR MEN, 1 PER 65 FOR WOMEN. LAVS = 1 PER 200)  
2217/15 = 148 = 74 MEN/74 WOMEN = 1 TOILET MEN'S & 1 TOILET WOMEN'S

FOURTH FLOOR (no toilets)  
1441 SF  
1441/100 = 15 OCCUPANTS

FIXTURE COUNT FOR THIRD FLOOR = 2ND + 3RD + 4TH  
(1 toilet each for assembly) + 88 + 65 + 15 = 168

168/2 = 84 MALE / 84 FEMALE

REQUIRED WOMEN'S TOILETS = 84 FEMALE = 1 FOR ASSEMBLY + 1 FOR FIRST 25 + 2 FOR NEXT 59 = 4 TOTAL  
REQUIRED MEN'S TOILETS = 84 MALE = 1 FOR ASSEMBLY + 1 FOR FIRST 25 + 2 FOR NEXT 59 = 4 TOTAL

EXISTING WOMEN'S TOILETS = 4 IN PUBLIC TOILET  
EXISTING MEN'S TOILETS = 4 = 2 + 2 URINALS (50% URINALS IS OK)

EXISTING STAFF ONLY UNISEX TOILET = 1 UNISEX IN OFFICES

**FIFTH FLOOR**  
4620 SF  
4620/100 = 46.2 = 47 OCCUPANTS

FIXTURE COUNT 5TH (No public interface)  
47/2 = 24 MALE/24 FEMALE

24 MALE = 1 TOILET REQUIRED = 1 FOR FIRST 25  
24 FEMALE = 1 TOILET REQUIRED = 1 FOR FIRST 25

TOILETS PROVIDED = 2 UNISEX

| FLOOR:   | EXISTING FIXTURES COUNT: |         |            |                    |       |          |              | FIXTURES BEING REMOVED: |         |            |                    |       |          |              | FIXTURES BEING ADDED: |         |            |                    |       |          |              |  |
|----------|--------------------------|---------|------------|--------------------|-------|----------|--------------|-------------------------|---------|------------|--------------------|-------|----------|--------------|-----------------------|---------|------------|--------------------|-------|----------|--------------|--|
|          | WATER CLOSET             | URINALS | DISHWASHER | DRINKING FOUNTAINS | SINKS | MOP SINK | FLOOR DRAINS | WATER CLOSET            | URINALS | DISHWASHER | DRINKING FOUNTAINS | SINKS | MOP SINK | FLOOR DRAINS | WATER CLOSET          | URINALS | DISHWASHER | DRINKING FOUNTAINS | SINKS | MOP SINK | FLOOR DRAINS |  |
| BASEMENT |                          |         |            |                    |       |          |              |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |
| FIRST    | 6                        | 2       |            | 1                  | 8     |          | 3            |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |
| SECOND   |                          |         |            | 1                  | 1     | 1        |              |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |
| THIRD    | 6                        | 2       |            | 1                  | 7     | 1        | 2            |                         |         |            |                    |       | 3        |              |                       |         |            |                    |       | 3        |              |  |
| FOURTH   |                          |         |            |                    | 1     |          |              |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |
| FIFTH    | 2                        |         |            | 1                  | 1     | 3        |              |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |
| TOTALS   | 13                       | 4       | 1          | 4                  | 18    | 2        | 7            |                         |         |            |                    |       |          |              |                       |         |            |                    |       |          |              |  |

NOTE: SEE A101 FOR FIXTURE LOCATIONS ON THIRD FLOOR

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| AD102 | BOCC THIRD FLOOR DEMOLITION REFLECTED CEILING PLAN |
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| P202  | BOCC SECOND FLOOR PLUMBING PLAN                    |
| P203  | BOCC THIRD FLOOR PLUMBING PLAN                     |
| P601  | PLUMBING DETAILS                                   |

### NOTES TO BOULDER COUNTY ELECTRICAL:

CONFERENCE ROOMS  
ADD FLOORBOX IN CENTER OF ROOM (UNDER TABLE).  
ADD POWER TO CODE AND DATA JACKS ON OPPOSITE WALLS, TYP.  
ADD WAP PER BOULDER COUNTY I.T.  
TV WITH POWER & DATA ON SHORT WALL AWAY FROM DOOR, OR AS NOTED ON FLOOR PLAN.

OPEN OFFICE  
ADD WHIP PER EACH RUN OF HERMAN MILLER.  
ADD ONE OUTLET ON WALL PER STATION.

BREAK ROOMS  
2-3 CIRCUITS DEPENDING ON FRIDGE.  
GFCI'S ABOVE COUNTER PER CODE.

WAPS & SWITCHES  
WORK IT MANAGER TO LOCATE WAPS.  
CONFIRM WITH IT MANAGER ACTIVE PORTS.



BUILDING SERVICES  
DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO  
80306  
PHONE: 303. 441.3187  
mschoofs@bouldercounty.org



12.29.20

BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
TITLE SHEET

FILE NAME  
G:\ASSET MANAGEMENT\1009-  
Courthouse\PROJECTS\10120- BOCC  
HEARING ROOM &  
SECURITY SCREEN DRAWINGS\RYTCR1  
3RD FLOOR REMODEL 2020 PERMIT SET  
12-29-20.rvt  
ACCT 100103  
DATE: 12/29/20  
DRAWN BY: MS  
CHECKED BY: JB

REVISIONS

SHEET  
A001

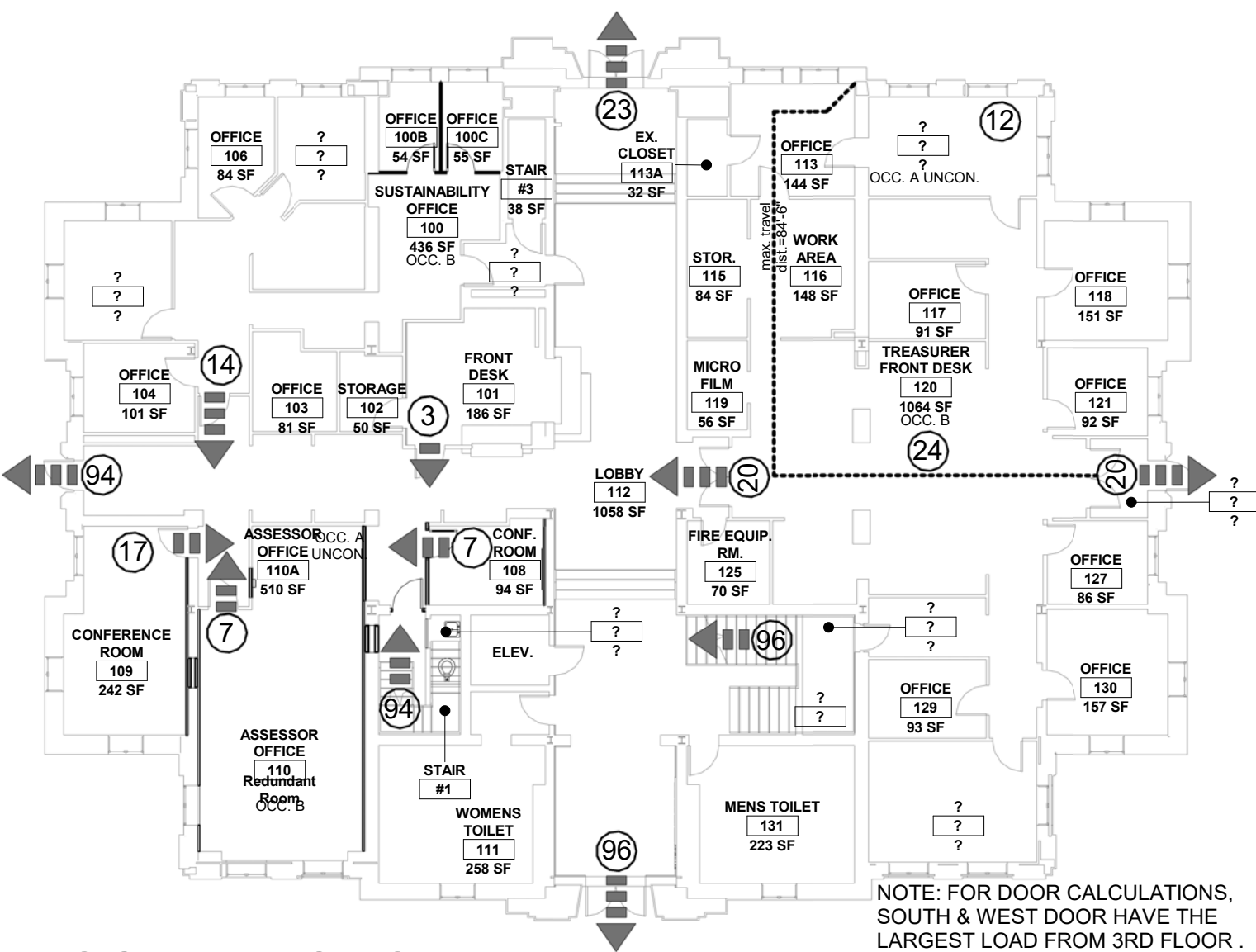




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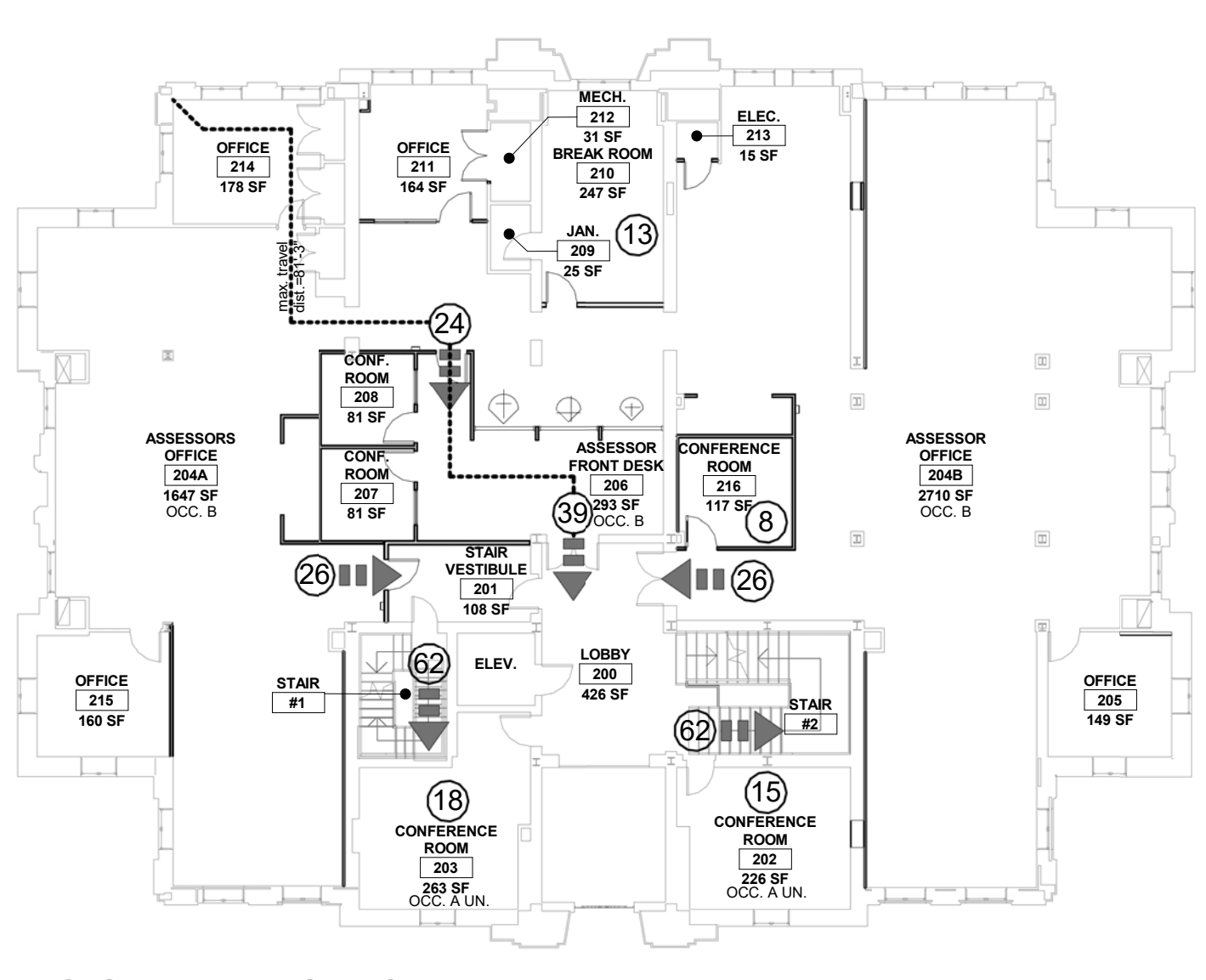


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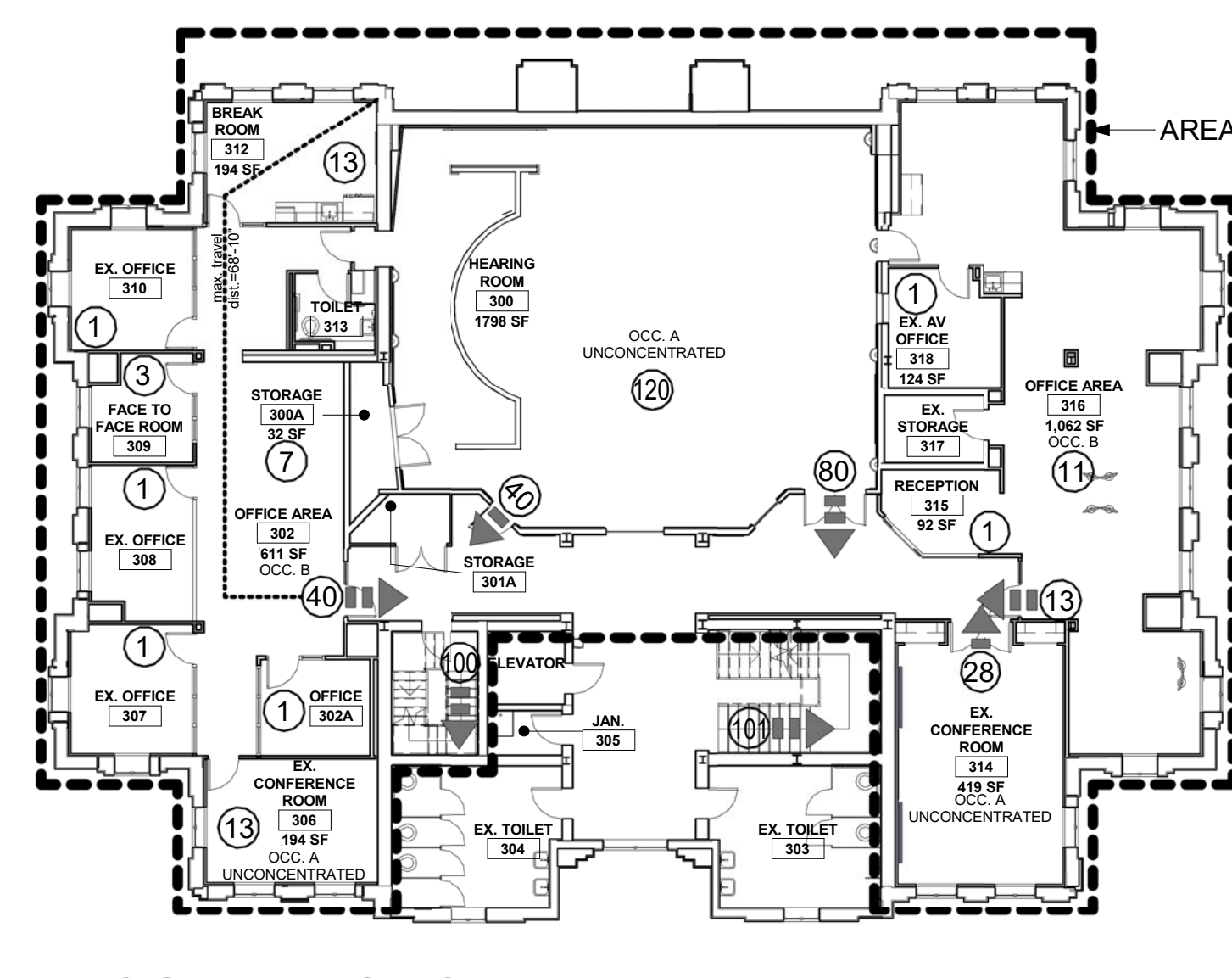
3  
A002

COURTHOUSE  
EMERGENCY EGRESS  
PLAN - FIRST FLOOR  
1/16" = 1'-0"



5  
A002

COURTHOUSE  
EMERGENCY EGRESS  
PLAN - SECOND FLOOR  
1/16" = 1'-0"



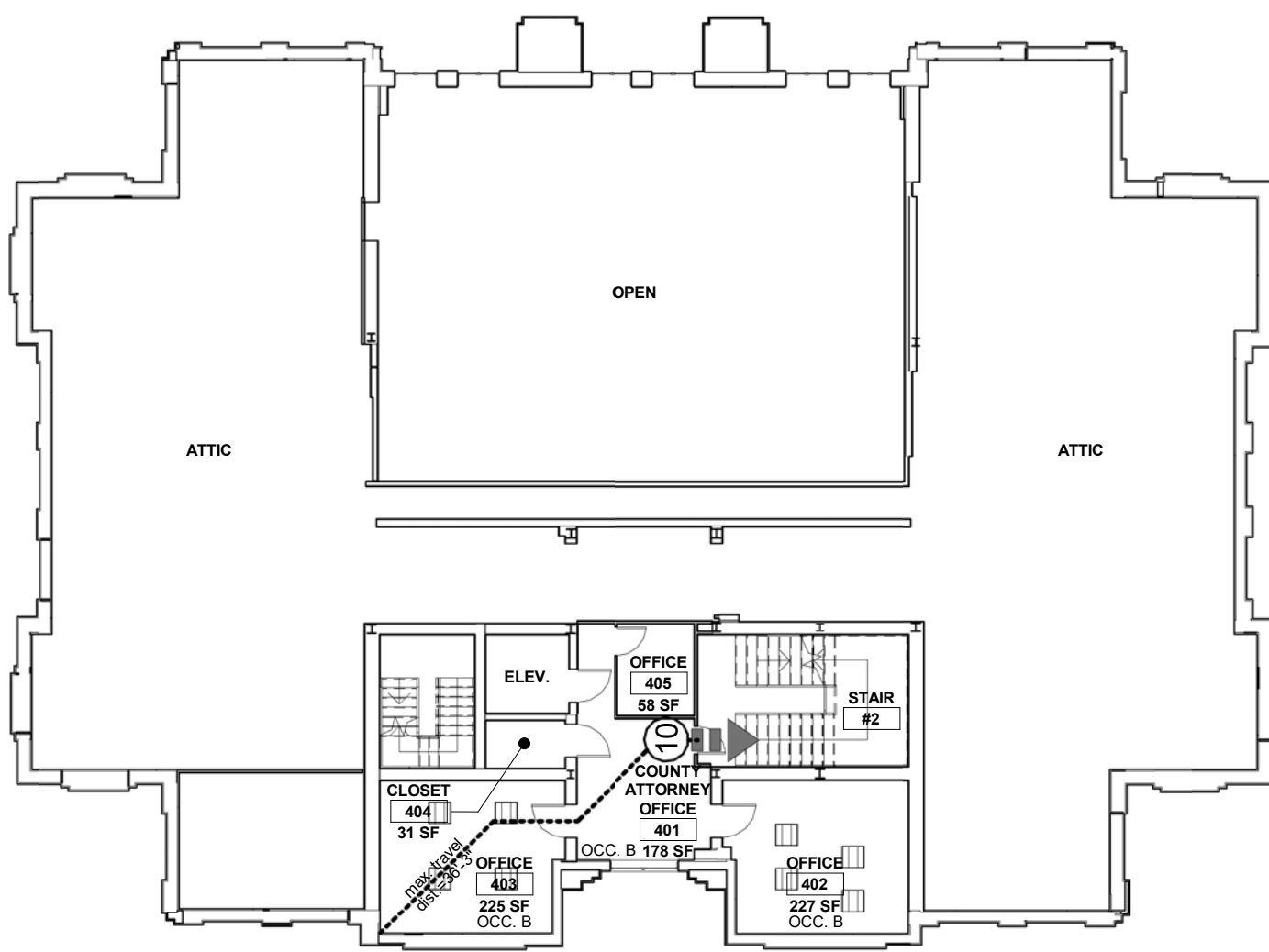
6  
A002

COURTHOUSE  
EMERGENCY EGRESS  
PLAN - THIRD FLOOR  
1/16" = 1'-0"

THIRD FLOOR OCCUPANCY  
ASSEMBLY=1 OCC. PER 15 SF  
BUSINESS=1 OCC. PER 100 SF

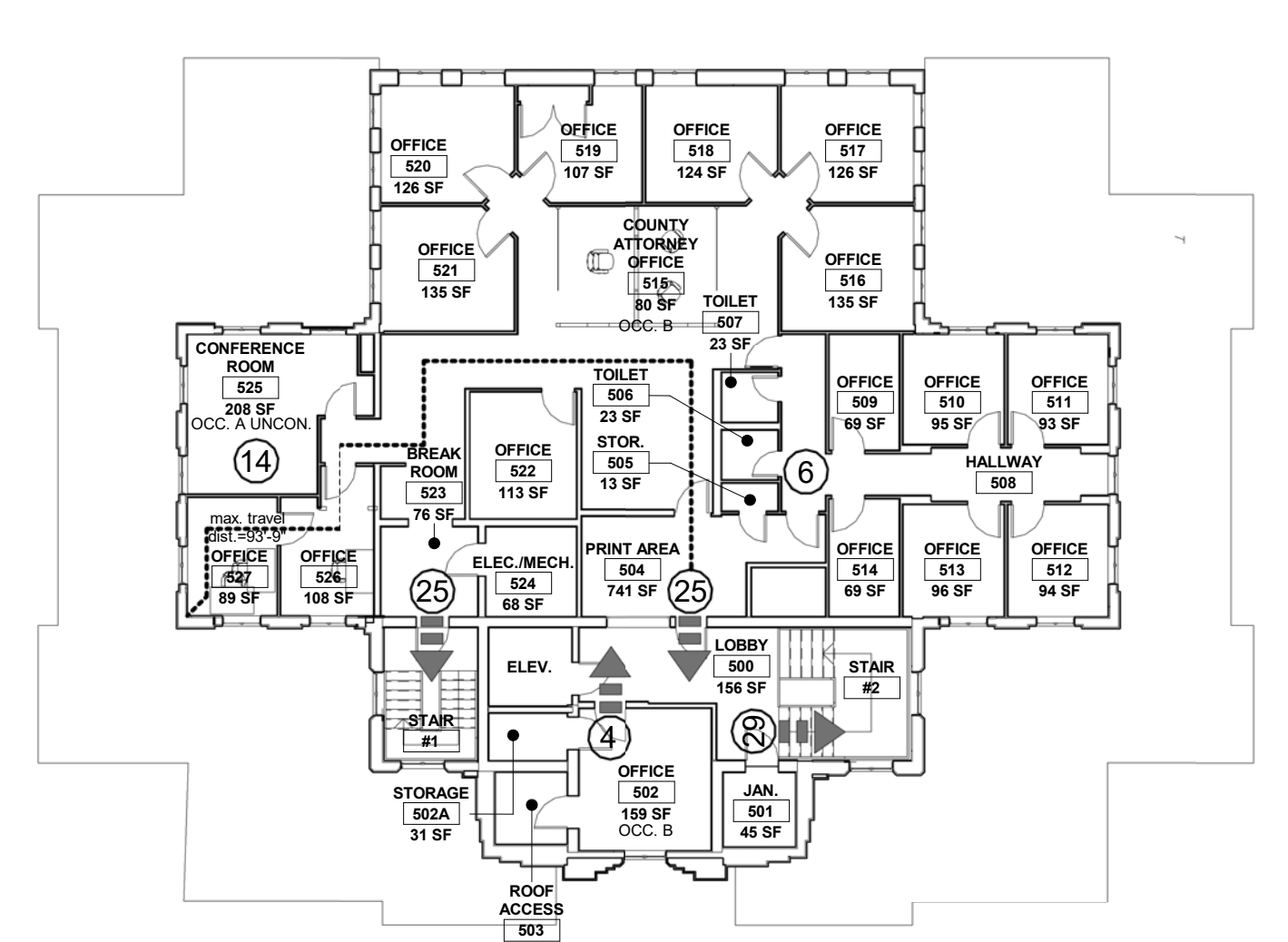
| SPACE               | LOAD FACTOR | SF   | OCC.       |
|---------------------|-------------|------|------------|
| 300 HEARING ROOM    | 15          | 1798 | 120        |
| 308 EX. CONF. ROOM  | 15          | 194  | 13         |
| 309 FACE TO FACE RM | 15          | 42   | 3          |
| 312 BREAK ROOM      | 15          | 194  | 13         |
| 314 EX. CONF. ROOM  | 15          | 419  | 28         |
| 302 OFFICE AREA     | 100         | 611  | 7          |
| 307 OFFICE          |             |      | 1          |
| 308 OFFICE          |             |      | 1          |
| 310 OFFICE          |             |      | 1          |
| 315 RECEPTION       |             |      | 1          |
| 318 OFFICE AREA     |             |      | 11         |
| 318 OFFICE          |             |      | 1          |
| <b>TOTAL</b>        |             |      | <b>201</b> |

TWO STAIRS = 201/2 = 100.5 OCCUPANTS PER STAIR



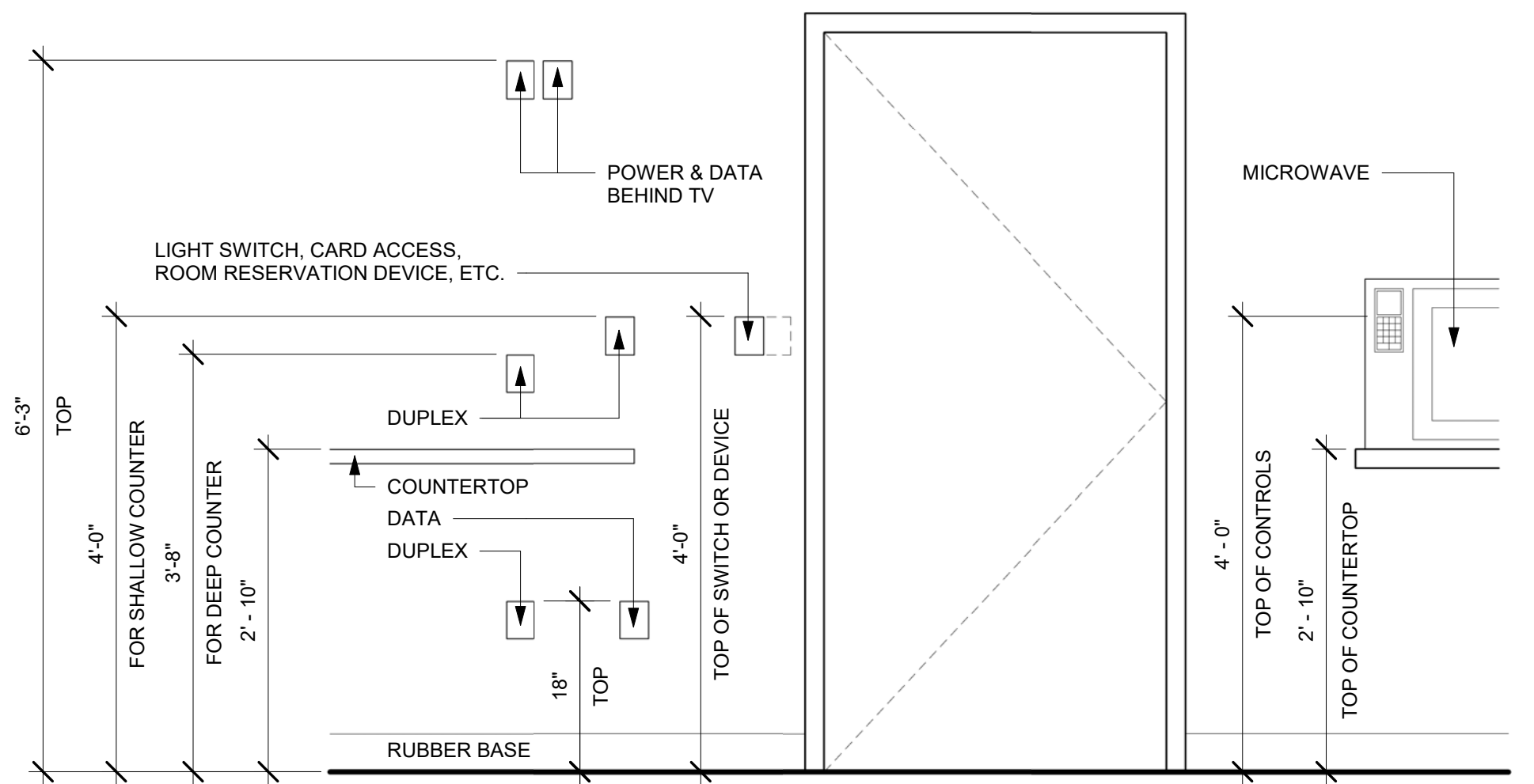
4  
A002

COURTHOUSE  
EMERGENCY EGRESS  
PLAN - FOURTH FLOOR  
1/16" = 1'-0"

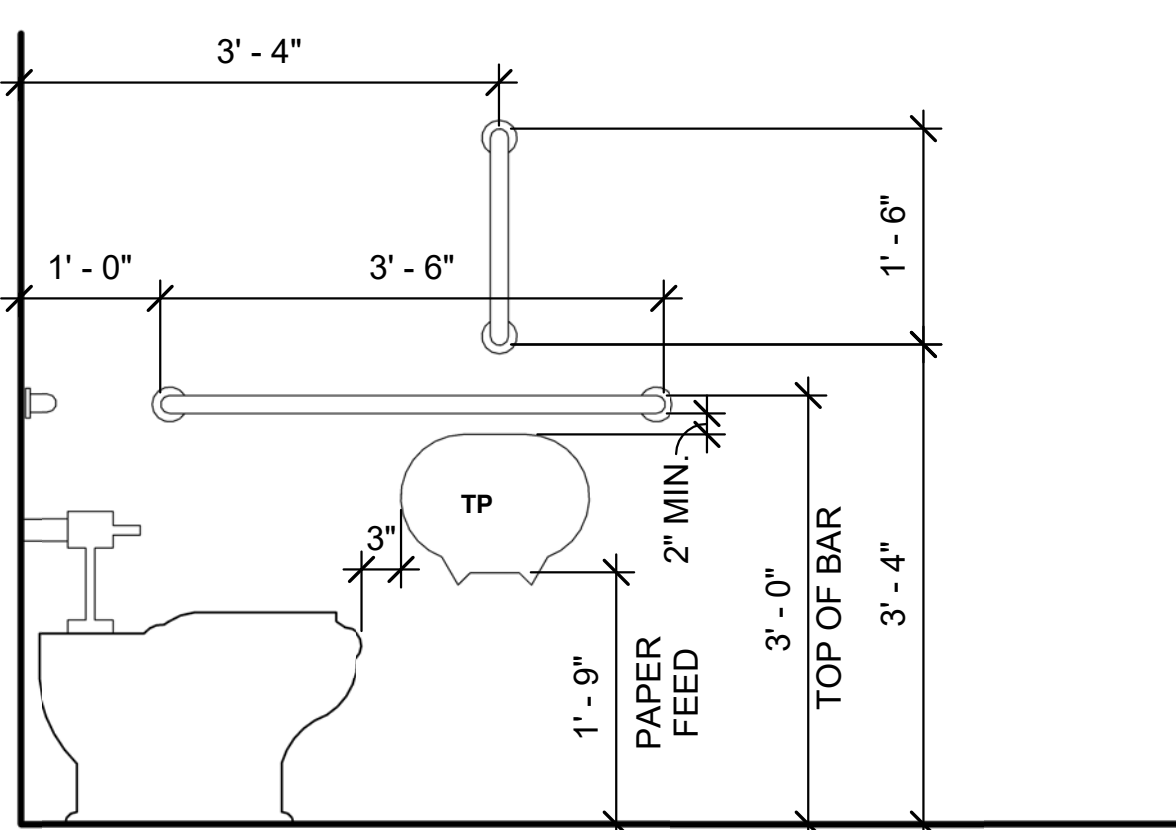


2  
A002

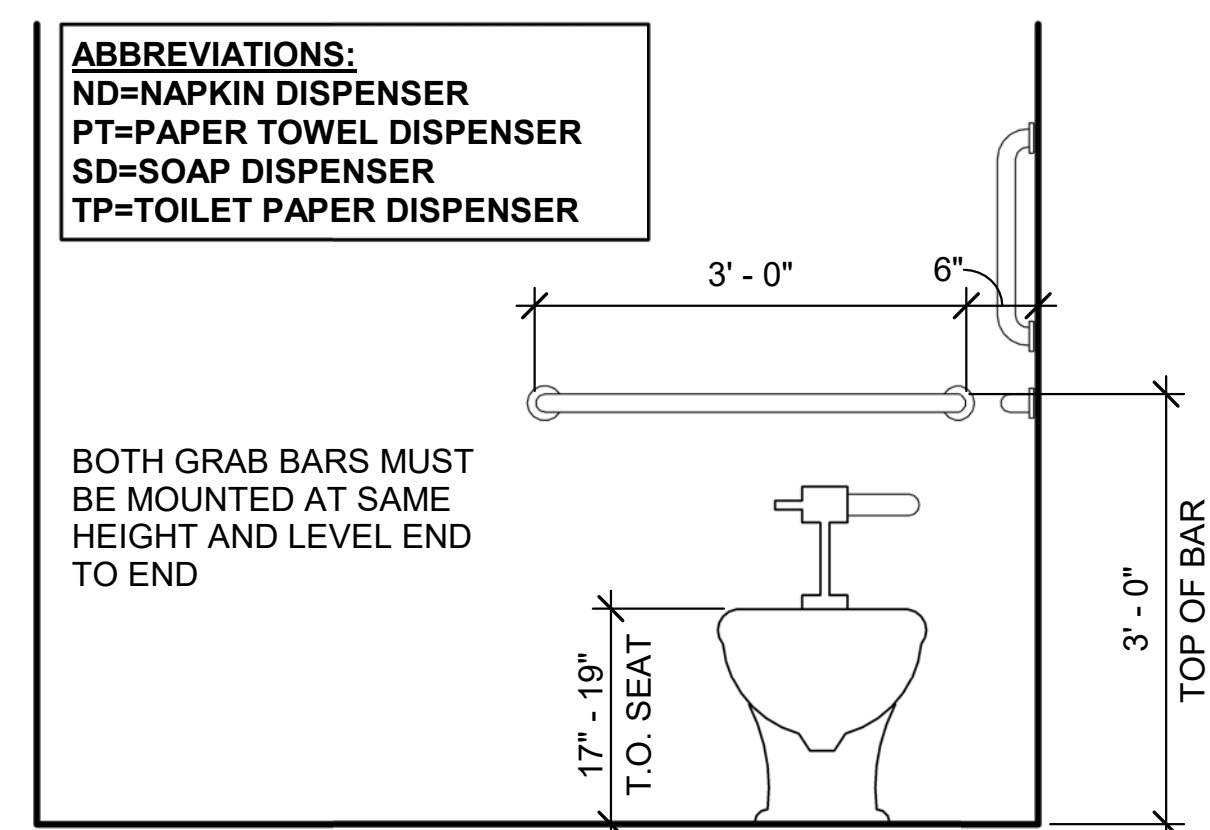
COURTHOUSE  
EMERGENCY EGRESS  
PLAN - FIFTH FLOOR  
1/16" = 1'-0"



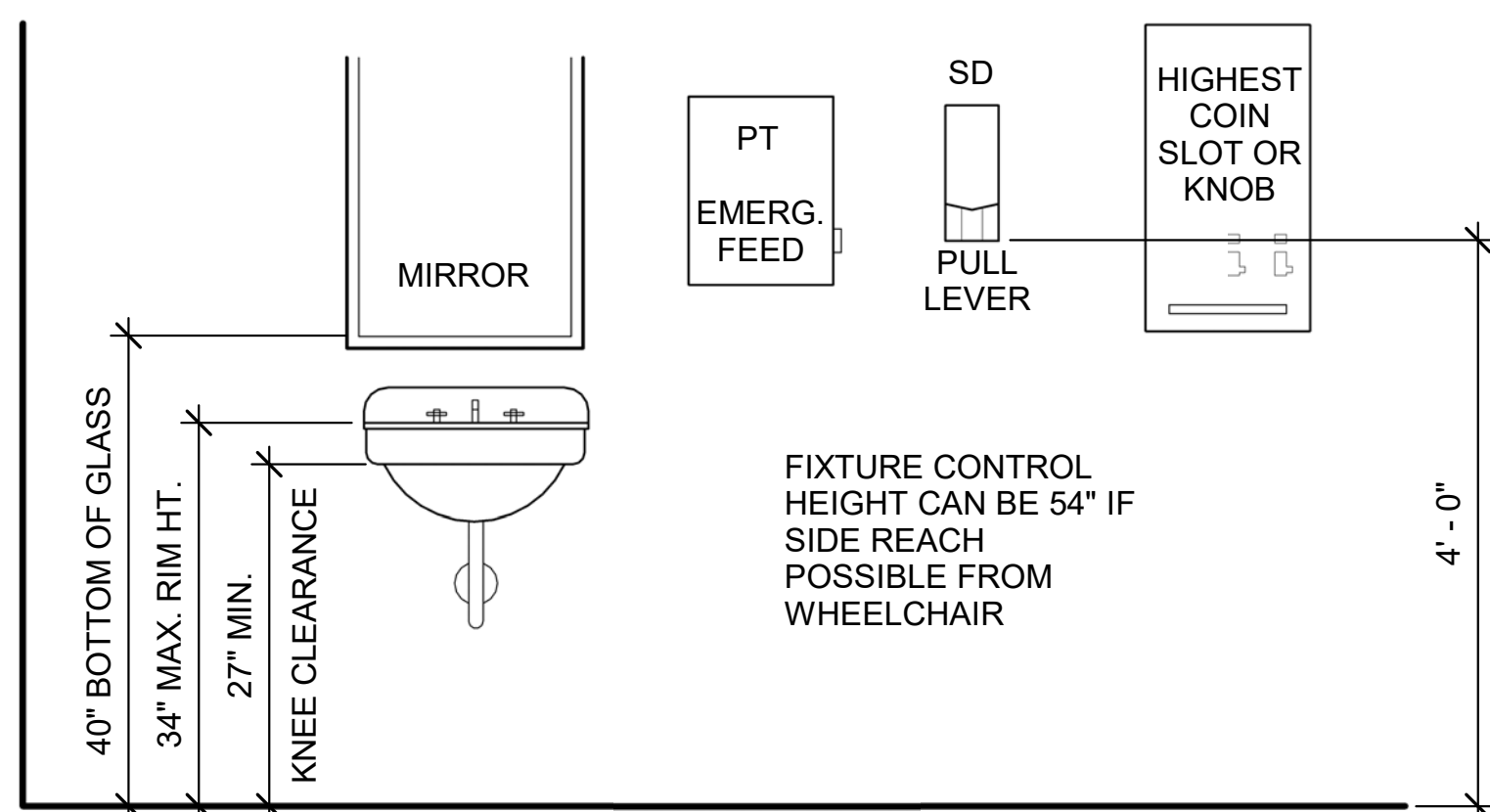
TYP. SWITCH & OUTLET HEIGHTS



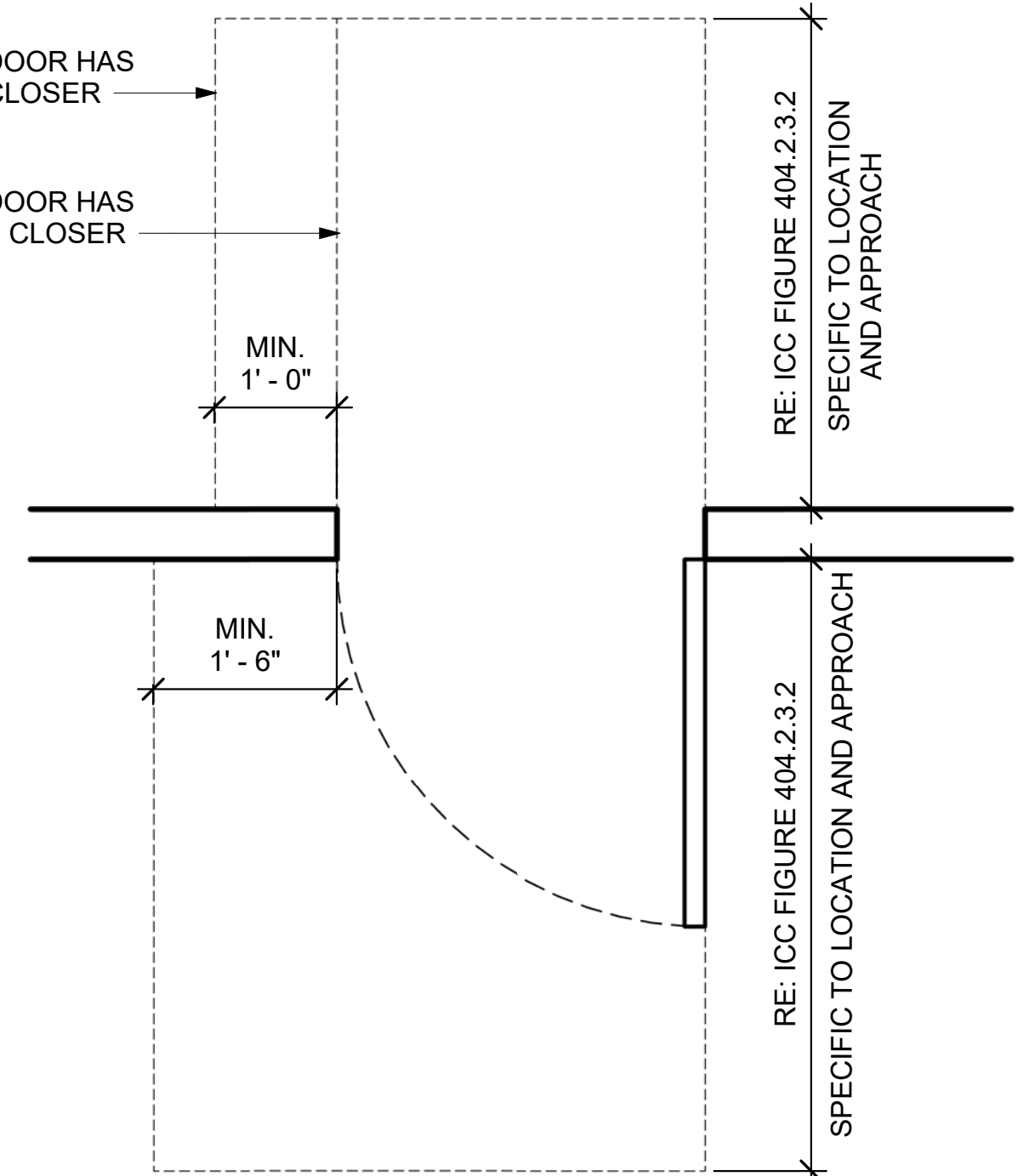
TOILET SIDE ELEVATION



TOILET FRONT ELEVATION



LAV, MIRROR & ACCESSORIES



DOOR CLEARANCES

1  
A002

ADA MOUNTING HEIGHTS AND CLEARANCES  
3/4" = 1'-0"

BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
CODE AND EGRESS SHEET

FILE NAME  
G:\ASSET MANAGEMENT\1009-  
Courthouse\PROJECTS\101420-BOCC  
HEARING ROOM &  
SECURITY SCREENING\SYTCRT  
3RD FLOOR REMODEL 2020 PERMIT SET  
12-29-20.rvt

ACCT 100103  
DATE: 12/29/20  
DRAWN BY: MS  
CHECKED BY: JB

REVISIONS

SHEET  
A002



**Commercial Prescriptive Measures Checklist**

Applies to: New Buildings and Additions with a construction valuation of < \$500,000 and Level 1 & 2 Alterations

Project Address: 1325 Pearl Street



2020 City of Boulder Energy Conservation Code

Date:

DIRECTIONS: Compliance with these measures is required if the project uses the Prescriptive Compliance Path. Please complete this checklist and include it on an "Energy Conservation Code" sheet within the plans being submitted for permit application. Projects complying prescriptively also must meet Mandatory Measures and should include the Mandatory Measures Checklist as well.

| Code Section             | Focus Area         | Code Description                                 | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/spec) | Plans Examiner Notes (in office use) |                        |                        |
|--------------------------|--------------------|--|---|---|--------------------------------------|------------------------|------------------------|
| <b>BUILDING ENVELOPE</b> |                    |  |   |   |                                      |                        |                        |
| TABLE C401.1             | Roof               | Insulation entirely above deck                   | All Other: Min R-31 continuous<br>Group R (Mixed Use): Min R-31 continuous    | N/A   | No changes to exterior               |                        |                        |
|                          |                    | Metal buildings (w/RS thermal breaks)            | Min R-19 - R-11 linear system<br>Min R-15 - R-11 linear system                |   |                                      |                        |                        |
|                          |                    | Attic and other                                  | Min R-53  | Min R-53  |                                      |                        |                        |
|                          |                    | Mass   | Min R-11.3 continuous   | Min R-11.3 continuous   | N/A                                  | No changes to exterior |                        |
|                          |                    | Metal building                                   | Min R-11 - R-15.5 continuous  | Min R-11 - R-11 continuous  |                                      |                        |                        |
|                          |                    | Metal framing                                    | Min R-11 - R-11 continuous  | Min R-11 - R-11 continuous  |                                      |                        |                        |
|                          | Walls, Above Grade | Wood framed and other                            | Min R-13 - R-5 continuous or R-19 - R5 continuous                             | Min R-13 - R-5 continuous or R-19 - R5 continuous   |                                      |                        |                        |
|                          |                    | Walls, Below Grade                               | Below grade wall  | Min R-7.5 continuous  | Min R-7.5 continuous                 | N/A                    | No changes to exterior |
|                          |                    | Floors   | Mass  | Min R-15 continuous   | Min R-17 continuous                  | N/A                    | No new floors          |
|                          |                    |  | Joist/framing   | Min R-30  | Min R-30                             |                        |                        |
|                          |                    | Slab-on-Grade Floors                             | Unheated slabs  | Min R-15 for 24" below  | Min R-15 for 24" below               | N/A                    | No new floors          |
|                          |                    |  | Heated slabs  | Min R-20 for 48" below  | Min R-20 for 48" below               |                        |                        |
| Opaque Doors             | Swinging           | Max U-0.37                                       | Max U-0.37  | N/A   | No new exterior doors                |                        |                        |
|                          | Roll-up or sliding | Min R-4.75                                       | Min R-4.75  |   |                                      |                        |                        |
| C402.2.1                 | Radiant Heating    | Radiant Panels, associated U-benets, and headers | Min R-1.5   | N/A   | No radiant heating                   |                        |                        |

| Code Section | Focus Area                               | Code Description  | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable)  | Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/spec) | Plans Examiner Notes (in office use) |  |
|--------------|--|---|--|---|--------------------------------------|--|
| C402.4.1     | Vertical Fenestration                    | Area  | Not to exceed 30% gross above-grade wall area  | N/A   | No new fenestrations                 |  |
| C402.4       |  | U-factor  | Fixed  | Max U-0.36  |                                      |  |
|              |  |   | Operable   | Max U-0.45  |                                      |  |
|              |  |   | Entrance doors >50% glass area   | Max U-0.63  |                                      |  |
|              |  |   | SHGC   | Max V 0.51-0.63 / SHGC 0.38-0.61  |                                      |  |
| C402.4       | Skylights                                | U-factor  | Max U-0.50   | N/A   | No new skylights                     |  |
|              |  | SHGC  | Max 0.40   |   |                                      |  |
|              |  | Area  | Not to exceed 3% gross floor area  |   |                                      |  |
|              |  | Curb insulation   | Skylight curbs shall be insulated to the level of roofs with insulation entirely above deck or R-5, whichever is less. |   |                                      |  |
| C402.4.2     | Minimum Skylight Fenestration            | For enclosed spaces greater than 2,500 square feet, directly under a roof with ceiling heights greater than 15 feet, plan submitter must include supporting documentation showing the total daylight zone under skylights shall be not less than half the floor area and shall provide a minimum daylightness to daylight zone under skylights of either:<br>1. Not less than 3 percent with a skylight VT of at least 0.40; or<br>2. Provide a minimum skylight effective aperture of at least 1 percent or<br>3. Provide exception documentation. | N/A  | No new skylights  |                                      |  |
| C402.4.2     | Maze factor                              | Skylights in office, storage, automotive service, manufacturing, non-refrigerated warehouse, retail store and distribution/whoring area spaces shall have a glazing material or diffuse with a haze factor greater than 90 percent when tested in accordance with ASTM D1003.   | N/A  | No new skylights  |                                      |  |
| C402.5.3     | Rooms containing fuel-burning appliances | Where combustion air is supplied through openings in an exterior wall to a room or space containing a space-conditioning fuel-burning appliance, one of the following shall apply:<br>1. The room or space containing the appliance shall be located outside of the building thermal envelope.<br>2. The room or space containing the appliance shall be enclosed and isolated from conditioned spaces inside the building thermal envelope.  | N/A  | No changes to fuel-burning appliances and no new fuel-burning appliances  |                                      |  |

**Commercial Mandatory Measures Checklist**

Applies to: All New Buildings, Additions, Alterations and Repairs which require a permit from the City.



2020 City of Boulder Energy Conservation Code

Project Address: 1325 Pearl Street

Date: 12/29/20

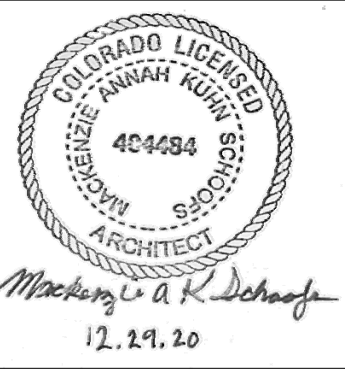
DIRECTIONS: Compliance with these Mandatory Measures is required whether the project is demonstrating compliance through the Performance or Prescriptive Path. Please complete this checklist and include it on an "Energy Conservation Code" sheet within the plans being submitted for permit application.

| Code Section   | Focus Area   | Code Description   | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/spec) | Plans Examiner Notes (in office use)  |                        |
|----------------|--|--|---|---|---------------------------------------|------------------------|
| C401.2         | Check compliance path applicable   | New Construction < \$500,000   | <input type="checkbox"/>  |   | Mandatory and Prescriptive Compliance |                        |
|                |  | New Construction >= \$500,000  | <input type="checkbox"/>  |   | Mandatory and Performance Modeling    |                        |
|                |  | Addition > 3,000sf   | <input type="checkbox"/>  |   | Mandatory and Performance Modeling    |                        |
|                |  | Addition < 3,000sf   | <input type="checkbox"/>  |   | Mandatory and Prescriptive Compliance |                        |
|                |  | Alteration Level 1   | <input type="checkbox"/>  |   | Mandatory and Prescriptive Compliance |                        |
| ADMINISTRATIVE |  | 1. Insulation materials and their R-values.  | N/A   | No new exterior fenestrations   |                                       |                        |
|                |  | 2. Fenestration U-factors and solar heat gain coefficients.                                  | N/A   | No new exterior fenestrations   |                                       |                        |
|                |  | 3. Area-weighted U-factor and solar heat gain coefficient (SHGC) calculations.               | N/A   | No new exterior fenestrations   |                                       |                        |
|                |  | 4. Mechanical system energy criteria.  | M001-4008   |   |                                       |                        |
| C103.2         | Construction documents shall clearly indicate the location, nature and extent of the work proposed, and show in detail pertinent data and features of the building, systems and equipment. | 5. Mechanical and service water heating systems and equipment types, sizes and efficiencies. | M001-4008   |   |                                       |                        |
|                |  | 6. Equipment description.  | N/A   | Only reconfiguration of existing mechanical   |                                       |                        |
|                |  | 7. Equipment and system controls.  | M001-4001   |   |                                       |                        |
|                |  | 8. Fan motor horsepower (hp) and controls.   | N/A   | Only reconfiguration of existing mechanical   |                                       |                        |
|                |  | 9. Duct sealing, duct and pipe insulation and location.                                      | M001-4003   |   |                                       |                        |
|                |  | 10. Lighting fixture schedule with wattage and control narratives.                           | M003  |   |                                       |                        |
|                |  | 11. Location of daylight zones on floor plans.   | M003-4501   |   |                                       |                        |
|                |  | 12. Air sealing details.   | N/A   | No new exterior fenestrations   |                                       |                        |
|                |  | C103.2.1   | Building thermal envelope depiction   | The building thermal envelope shall be represented on the construction drawings.                                | N/A                                   | No changes to exterior |

| Code Section             | Focus Area  | Code Description  | Plan Drawing or Reference # to demonstrate compliance (N/A if not applicable) | Submitter Notes (e.g. "N/A" Please explain why requirement does not apply or is not demonstrated on plans/spec) | Plans Examiner Notes (in office use)               |
|--------------------------|---|---|---|---|--|
| C303.1.3                 | Fenestration and Doors                              | U-factors of fenestration products shall be determined for windows, doors and skylights. U-factor ratings in accordance with NFRC 100. Drawings shall indicate NFRC labels or certificates must be provided to the building official prior to Certificate of Occupancy in compliance with NFRC 100.   | N/A   | No new exterior fenestrations   | Building Condition: NFRC Label Certificate         |
| <b>BUILDING ENVELOPE</b> |   |   |   |   |  |
| C402.5.1                 | Air Barrier   | The entire building envelope shall be designed and constructed with a continuous air barrier.   | N/A   | No changes to exterior  |  |
| C402.5.1.1               | Air Barrier Design/Construction                     | The air barrier shall be designed and noted in an approved manner per the specified code - joints, seams, penetrations, and recessed light fixtures sealed.   | N/A   | No changes to exterior  |  |
| C402.5.1.2               | Building Test                                       | The completed building shall be tested and the air leakage rate of the building envelope shall not exceed 0.40 cfm/ft <sup>2</sup> at a pressure differential of 0.3 inches water gauge (2.0 U.S. + m2 at 75 Pa) in accordance with ASTM E 779 or an equivalent method approved by the code official. | N/A   | No changes to exterior  | Building Condition: Commercial Air Leakage Testing |
| C402.5.1.3               | Dwelling Unit Air Infiltration                      | A sampling of dwelling units shall be tested and results shall not exceed 0.25cfm/ft <sup>2</sup> . See code for more details.  | N/A   | No dwelling units   | Building Condition: Commercial Air Leakage Testing |
| C402.5.2                 | Fenestration  | Factory-built fenestration and doors are labeled as meeting air leakage requirements.   | N/A   | No new exterior fenestrations   |  |
| C402.4.6                 | Air Intakes, Exhaust Openings, Stairways and Shafts | Stairway enclosures, elevator shaft vents and other outdoor air intakes and exhaust openings integral to the building envelope shall be provided with dampers in accordance with Section C402.7.7.  | N/A   | Only reconfiguration of existing interior mechanical  |  |
| C402.5.6                 | Loading Dock Weather Seals                          | Cargo doors and loading dock doors are equipped with weather seals to restrict infiltration when vehicles are parked in the doorway.  | N/A   | No loading dock   |  |
| C402.5.7                 | Vestibules  | Building entrances shall be protected with an enclosed vestibule, with all doors opening into and out of the vestibule equipped with self-closing devices.  | N/A   | No changes to exterior  |  |
| C402.5.8                 | Recessed Lighting                                   | Recessed luminaires installed in the building thermal envelope shall be IC-rated and labeled as having an air leakage rate of not more 2.0 cfm.   | N/A   | No changes to exterior  |  |



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12.29.20

BOULDER COUNTY  
1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302  
SHEET  
ENERGY CONSERVATION  
CODE COMPLIANCE

FILE NAME  
G:\ASSET MANAGEMENT\1009 -  
Courthouse\PROJECTS\101420 - BOCC  
HEARING ROOM &  
SECURITY SCREENING\SYTCR1  
3RD FLOOR REMODEL 2020 PERMIT SET  
12-29-2020.rvt  
ACCT 100103  
DATE: 12/29/20  
DRAWN BY: MS  
CHECKED BY: JB

REVISIONS

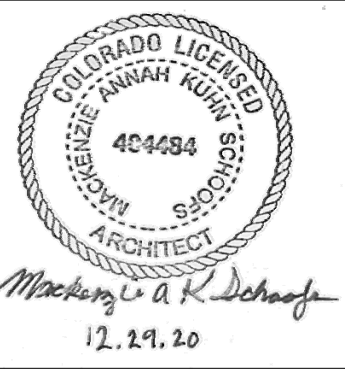
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SHEET  
A003





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 BOULDER, CO 80302  
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 PHONE: 303.441.3187  
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**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302  
 SHEET  
 BOCC THIRD FLOOR  
 REMODEL PLAN

FILE NAME  
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 Courthouse\PROJECTS\101420 - BOCC  
 HEARING ROOM &  
 SECURITY RISER DRAWINGS\RYTCRT  
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 ACC'T 100103  
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 CHECKED BY: JB

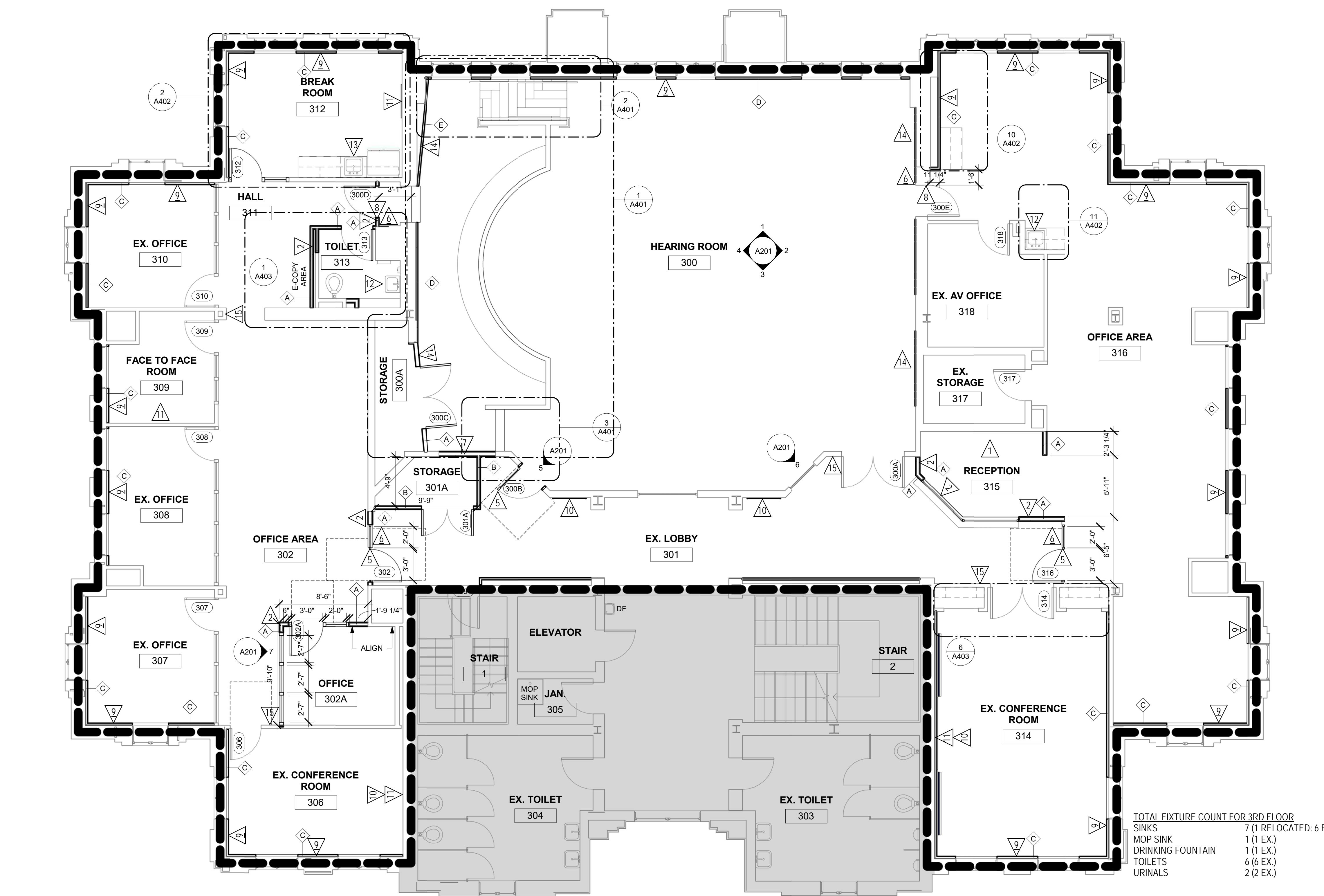
REVISIONS

SHEET  
**A101**

**REMODEL LEGEND**

- PROJECT BOUNDARY
- NEW DOOR
- NEW WALL
- EXISTING WALL TO REMAIN.
- AREA NOT IN SCOPE. TO REMAIN AS IS.
- NEW RECEPTION DESK. SEE PERMIT BLD-NRE2020-00029
- INSULATE WALL FOR SOUND SEPARATION.
- FIRE RATED ASSEMBLY. RE:3/A501
- FIRE RATED ASSEMBLY. RE:3/A501
- NEW EXIT DOOR WITH PANIC HARDWARE.
- NEW CARD ACCESS.
- FILL IN AND INSULATE DOOR OPENING FOR SOUND SEPARATION.
- INSTALL SOUND SEAL ON DOOR.
- FURR OUT AND INSULATE EXTERIOR WALL.
- FLAT SCREEN TV'S FOR OVERFLOW SEATING, LINKED TO HEARING ROOM 300
- FLAT SCREEN TV WITH AV FOR VIRTUAL MEETINGS, LINKED TO HEARING ROOM 300
- REPLACED SINK.
- NEW SINK.
- TV'S FOR HEARING ROOM PRESENTATIONS
- ROOM SCHEDULER

NOTE: SEE A501 FOR WALL TYPES.



TOTAL FIXTURE COUNT FOR 3RD FLOOR

|                   |                        |
|-------------------|------------------------|
| SINKS             | 7 (1 RELOCATED; 6 EX.) |
| MOP SINK          | 1 (1 EX.)              |
| DRINKING FOUNTAIN | 1 (1 EX.)              |
| TOILETS           | 6 (6 EX.)              |
| URINALS           | 2 (2 EX.)              |

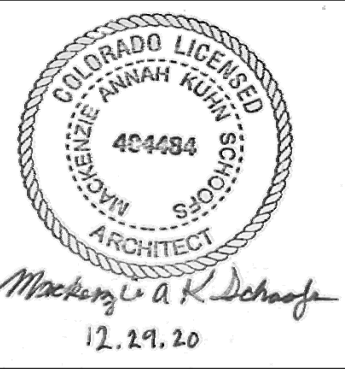
**1**  
 BOCC THIRD FLOOR  
 REMODEL PLAN  
 3/16" = 1'-0"

A101





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 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302

SHEET  
 BOCC THIRD FLOOR  
 REMODEL REFLECTED  
 CEILING PLAN

FILE NAME  
 G:\ASSET MANAGEMENT\1009-  
 Courthouse\PROJECTS\101420 - BOCC  
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 CHECKED BY: JB

REVISIONS

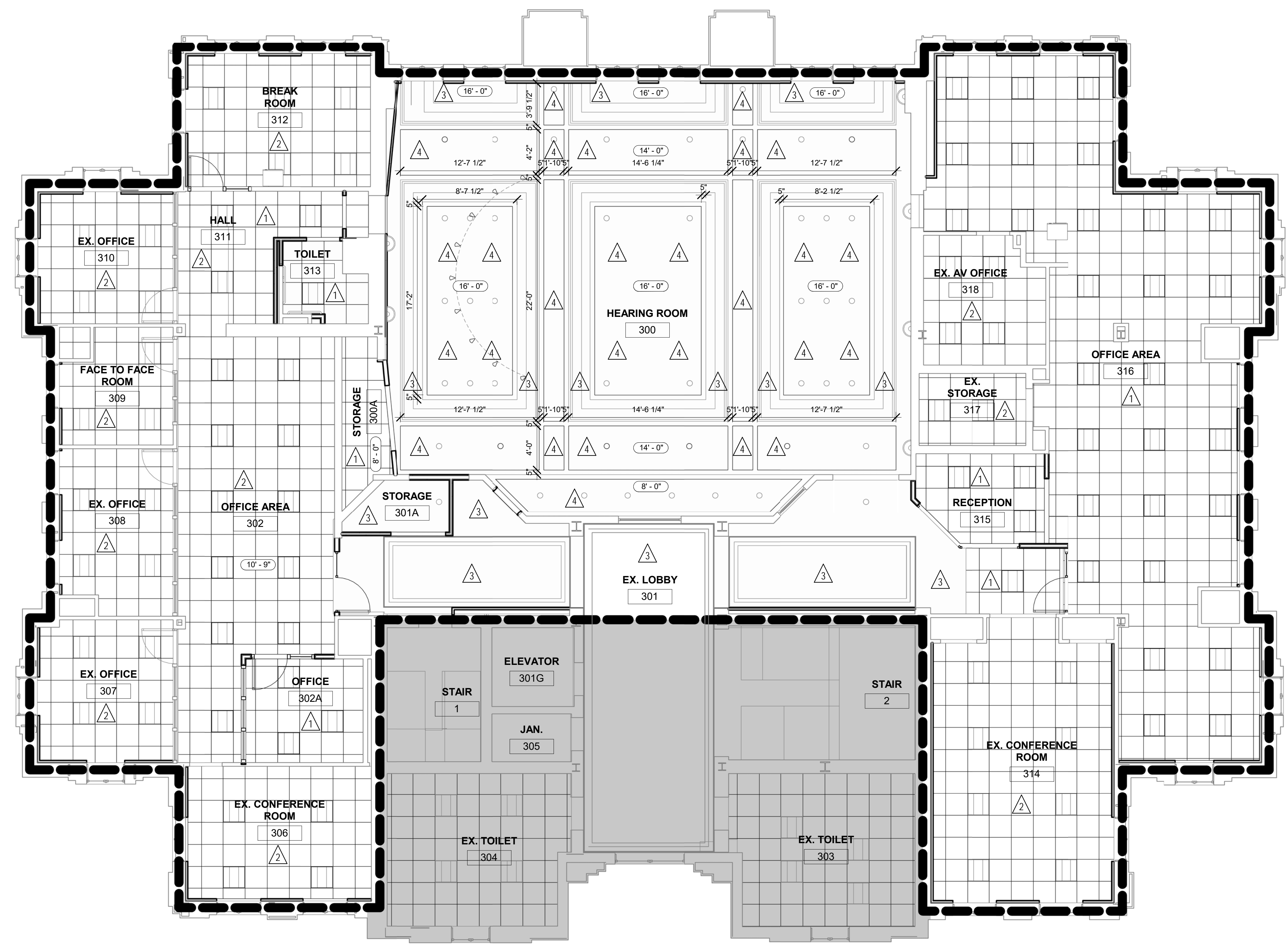
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SHEET  
**A102**

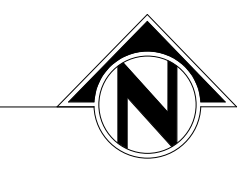
**REMODEL RCP LEGEND**

- PROJECT BOUNDARY
- NEW 2X2 LIGHT
- NEW CAN LIGHT
- EXISTING 2X2 LIGHT
- EXISTING CAN LIGHT
- NEW SCONCE LIGHT
- NEW MINI SPOTLIGHT ON SUSPENDED TRACK
- AREA NOT IN SCOPE. TO REMAIN AS IS.
- NEW SUSPENDED ACOUSTIC CEILING TILES
- EXISTING SUSPENDED ACOUSTIC CEILING TILES TO REMAIN. CLEAN GRID AND REPLACE ANY TILES THAT ARE STAINED OR DAMAGED.
- EXISTING PLASTER CEILING. TOUCH UP AS NEEDED.
- NEW DESIGNTEX "GAMUT" 3468-801 ACOUSTIC PANELS, ATTACHED TO EXISTING, TOUCHED-UP PLASTER CEILING.

NOTE: SEE MECHANICAL, ELECTRICAL, FIRE PROTECTION, AND PLUMBING FOR ALL LIGHTING, MECHANICAL, AND PLUMBING.

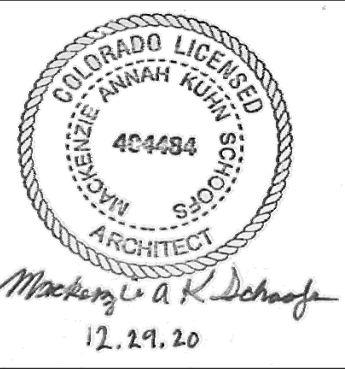


**1** BOCC THIRD FLOOR REFLECTED CEILING PLAN  
 A102 3/16" = 1'-0"





Boulder County  
 BUILDING SERVICES  
 DIVISION  
 2020 13TH ST.  
 BOULDER, CO 80302  
 P.O. BOX 471 BOULDER, CO  
 80306  
 PHONE: 303.441.3187  
 mschoofs@bouldercounty.org



**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL  
 LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302  
 SHEET  
 BOCC THIRD FLOOR  
 REMODEL FINISH PLAN

FILE NAME  
 G:\ASSET MANAGEMENT\1009-  
 Courthouse\PROJECTS\101420 - BOCC  
 HEARING ROOM &  
 SECURITY SERVICES DRAWINGS\TYC\TRT  
 3RD FLOOR REMODEL 2020 PERMIT SET  
 12-29-2024  
 ACCT 100103  
 DATE: 12/29/20  
 DRAWN BY: MS  
 CHECKED BY: JB

REVISIONS

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SHEET  
**A103**

**REMODEL RCP LEGEND**

- PROJECT BOUNDARY
- NEW PLANK STYLE CARPET
- NEW VINYL ENHANCED TILE
- AREA NOT IN SCOPE. TO REMAIN AS IS.
- NEW CARPET. TYPE A.
- NEW CARPET. TYPE B.
- NEW VINYL ENHANCED TILE.
- EXISTING FLOORING TO REMAIN. PROTECT DURING CONSTRUCTION.

**SELECTED FINISHES**

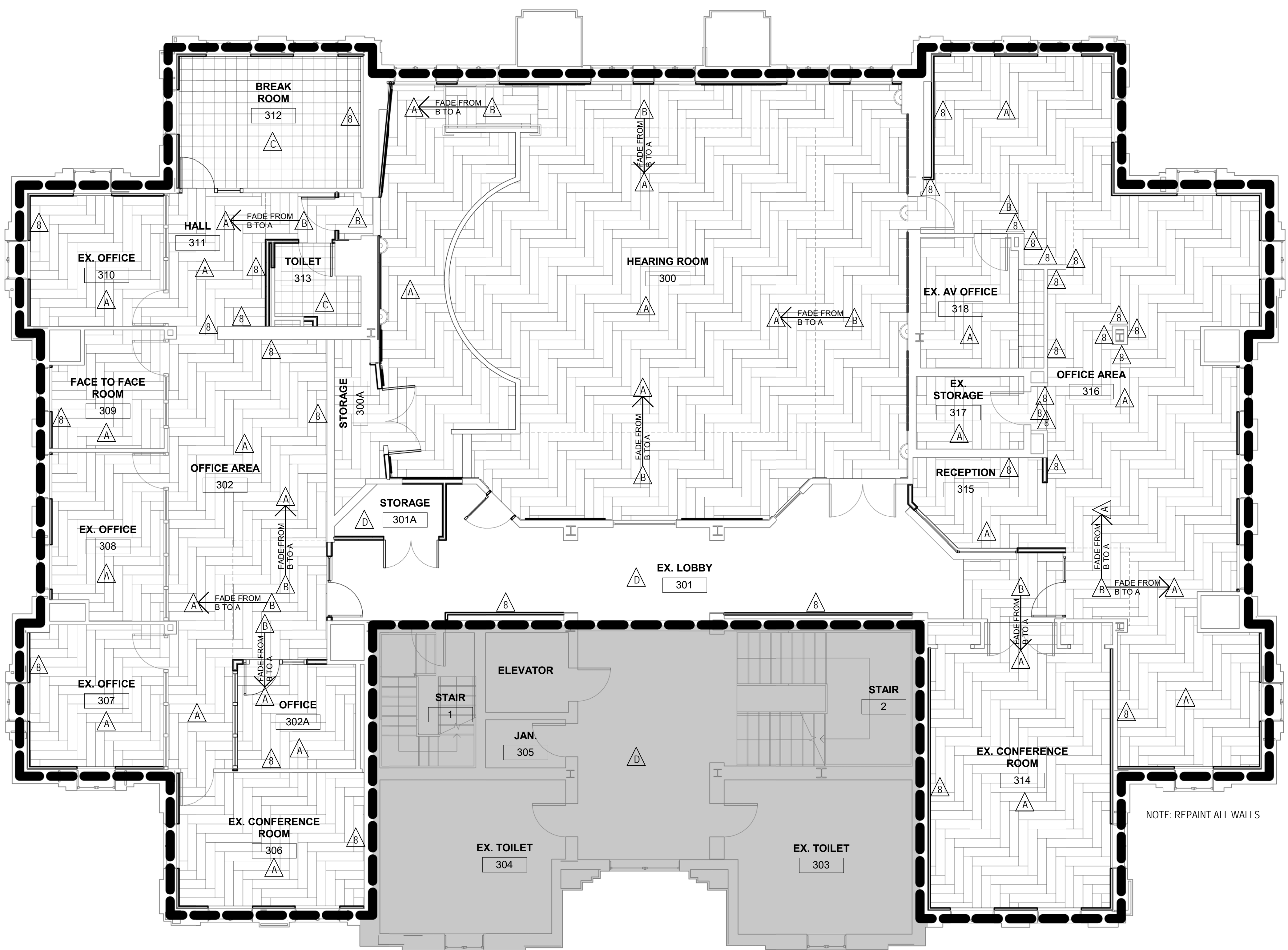
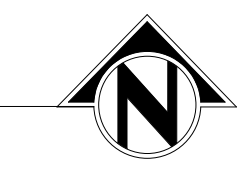
- CARPET TYPE A:**  
 MOHAWK  
 EXPEDITION COLLECTION  
 SEISMIC WAVE 12INX36IN  
 739 GLACIER  
 HERRINGBONE INSTALLATION  
 FADE AT DOORWAYS TO:  
 DIGITAL TERRAIN 12INX36IN  
 739 GLACIER  
 HERRINGBONE INSTALLATION
- CARPET TYPE B:**  
 MOHAWK  
 EXPEDITION COLLECTION  
 DIGITAL TERRAIN 12INX36IN  
 739 GLACIER  
 HERRINGBONE INSTALLATION
- VINYL ENHANCED TILE**  
 JOHNSONITE TARKETT  
 AZTERRA COLLECTION  
 BLACK EARTH 12INX12IN  
 AT114  
 QUARTER TURN INSTALLATION
- RUBBER BASE**  
 JOHNSONITE TARKETT  
 40 BLACK B 4IN

**PAIN T COLORS**

- PAINT "LIGHT MOVES" SW 1053
- PAINT "KEY WEST ZENITH" DV 0646
- PAINT "DANCING IN THE RAIN" DV 0644
- PAINT "CAULIFLOWER CREAM" DV 0880
- PAINT "DOWAGER" DV 0442
- PAINT "FAIR MAIDEN" DV 0456
- PAINT "FUNCTIONAL GREY" SW 7024
- PAINT "SMOKE"
- PAINT "3A LATTE" DV 0175
- PAINT "DUSTY PATH" DV 0191
- PAINT "EMPERORS ROBE" DV 0074

NOTE: ANY WALL NOT TAGGED WITH A SPECIFIC ACCENT COLOR WILL BE PAINTED "LIGHT MOVES" SW 1053

NOTE: REPAINT ALL WALLS



1  
 A103

**BOCC THIRD FLOOR  
 FINISH PLAN**  
 3/16" = 1'-0"









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PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302

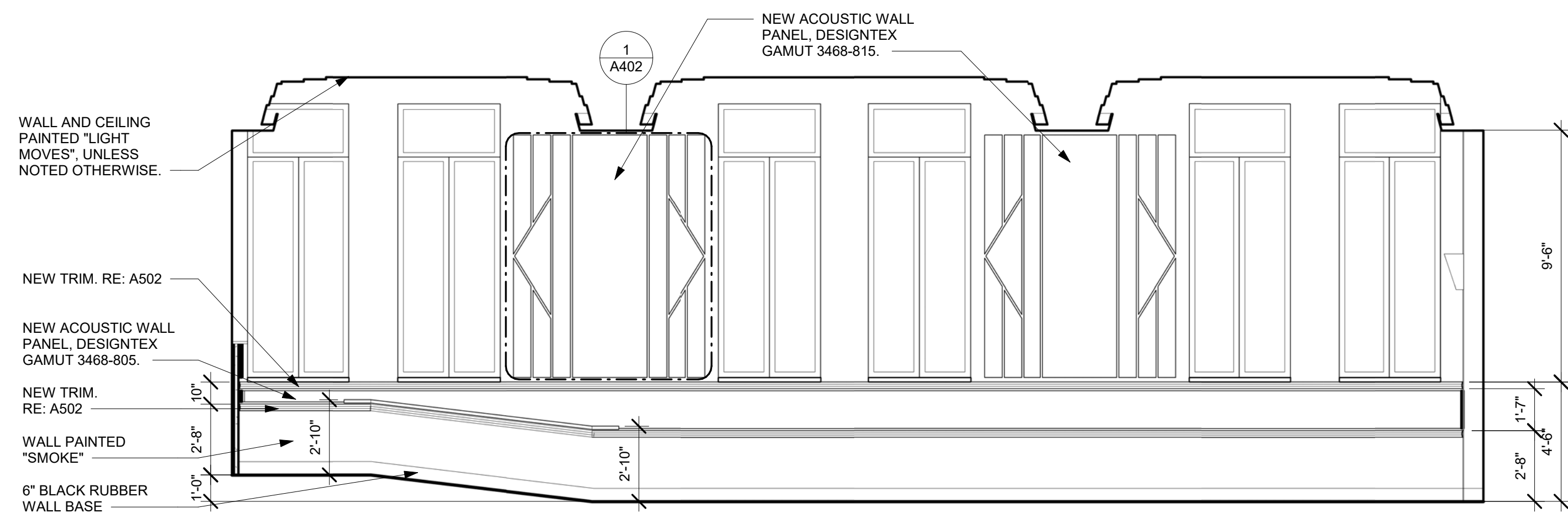
SHEET  
 INTERIOR ELEVATIONS

FILE NAME  
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 Courthouse\PROJECTS\101420 - BOCC  
 HEARING ROOM &  
 SECURITY SCREEN DRAWINGS\TYC\CR  
 3RD FLOOR REMODEL 2020 PERMIT SET  
 12-29-2020.rvt

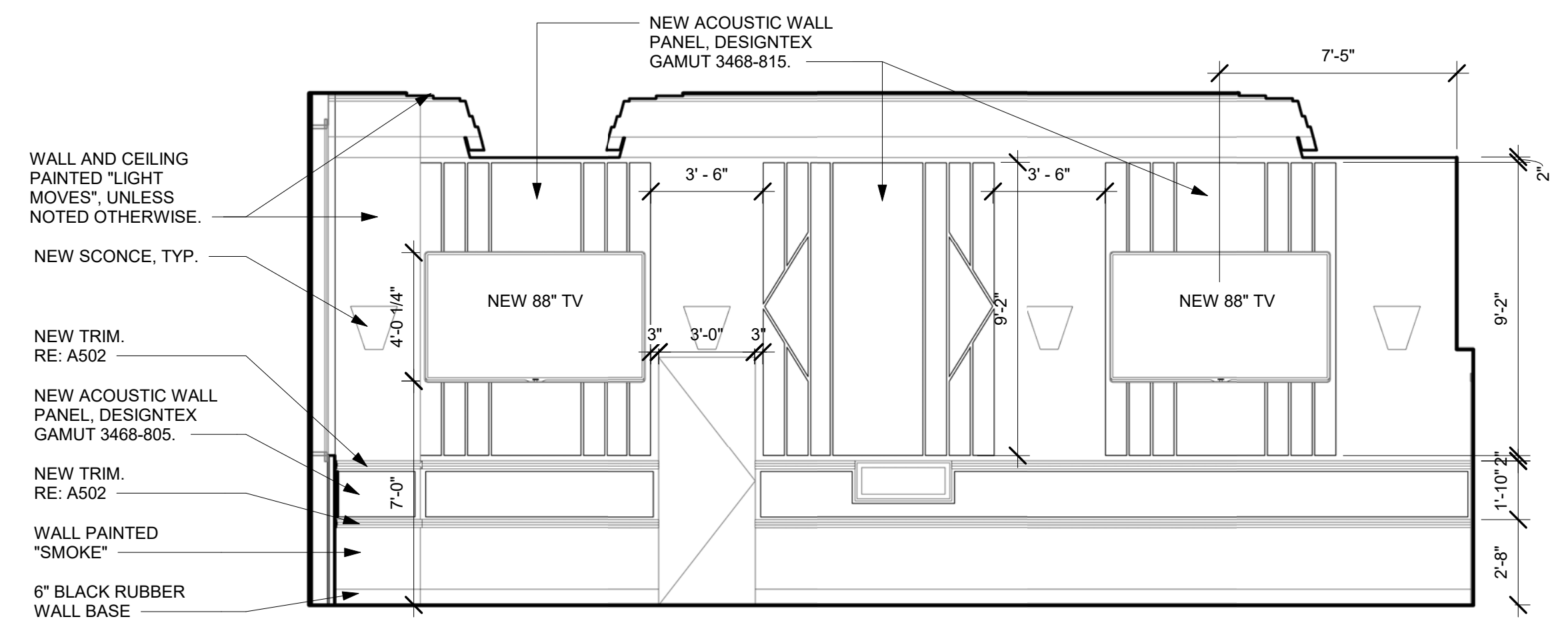
ACCT 100103  
 DATE: 12/29/20  
 DRAWN BY: Author  
 CHECKED BY: Checker

REVISIONS

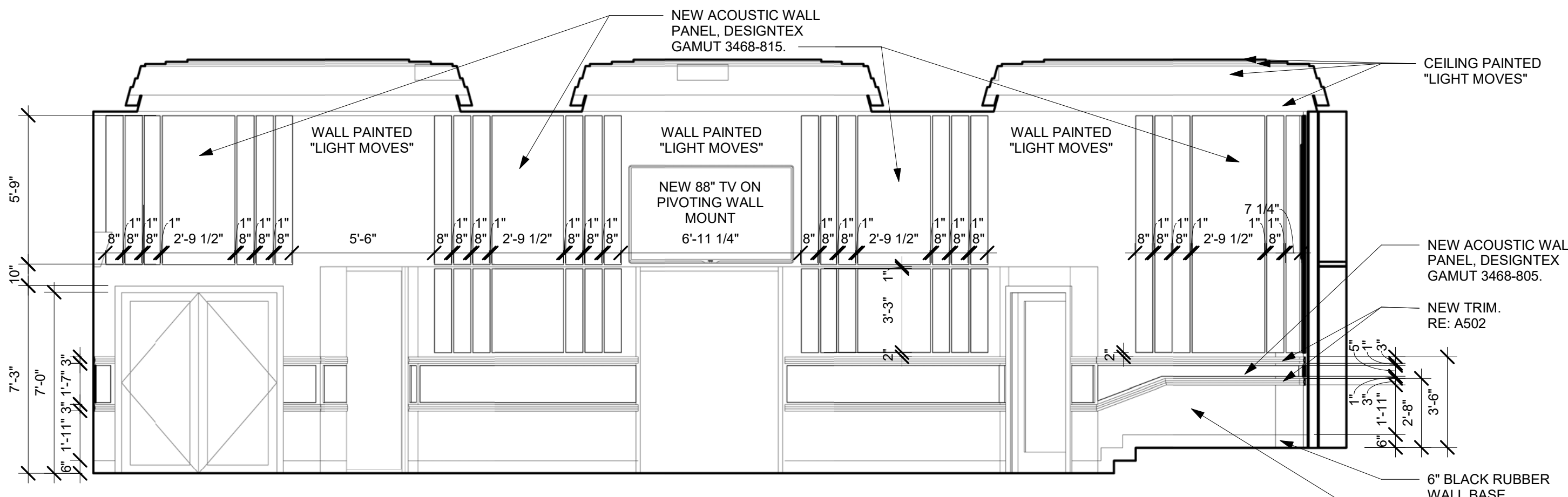
SHEET  
**A201**



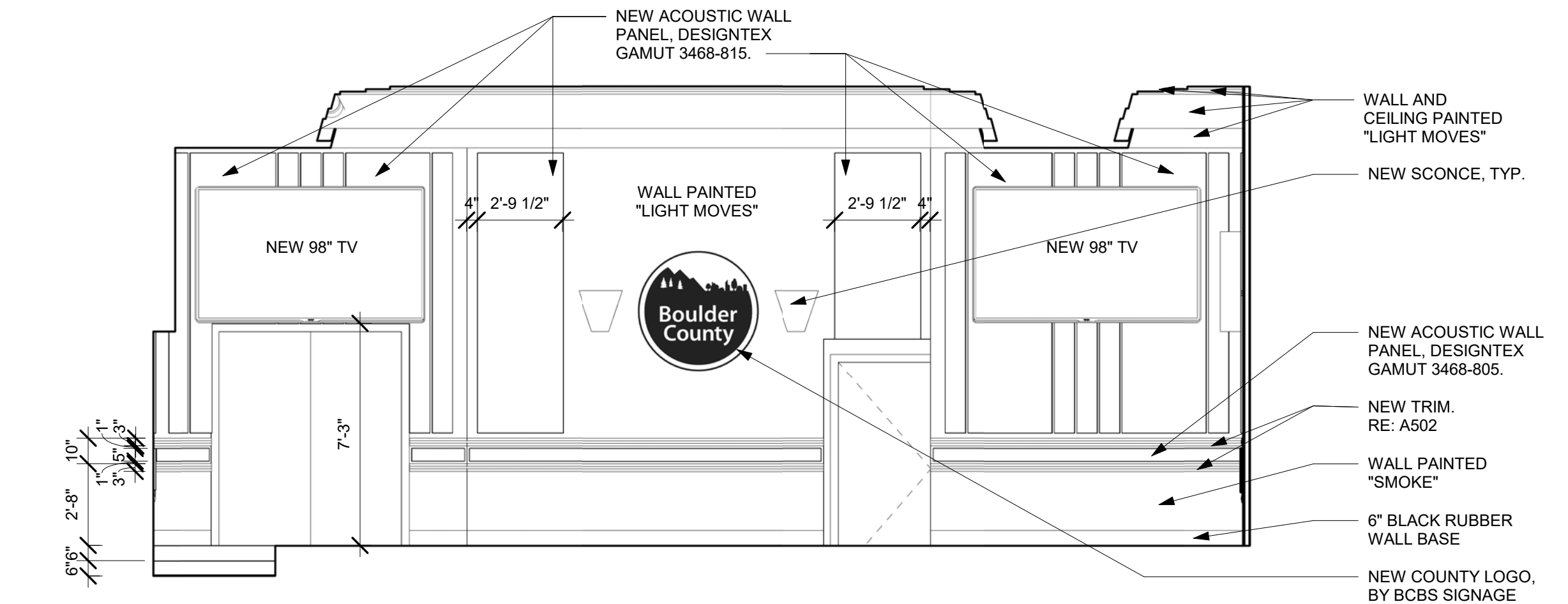
**1**  
**A201**  
**BOCC THIRD FLOOR REMODEL HEARING ROOM**  
**NORTH ELEVATION**  
 1/4" = 1'-0"



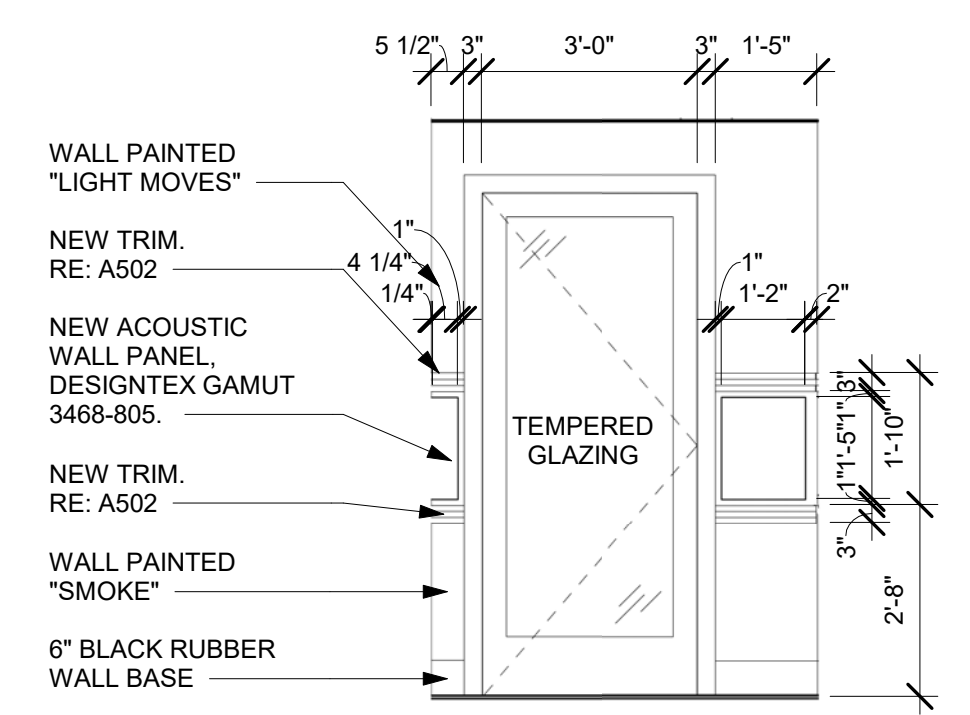
**2**  
**A201**  
**BOCC THIRD FLOOR REMODEL HEARING ROOM**  
**EAST ELEVATION**  
 1/4" = 1'-0"



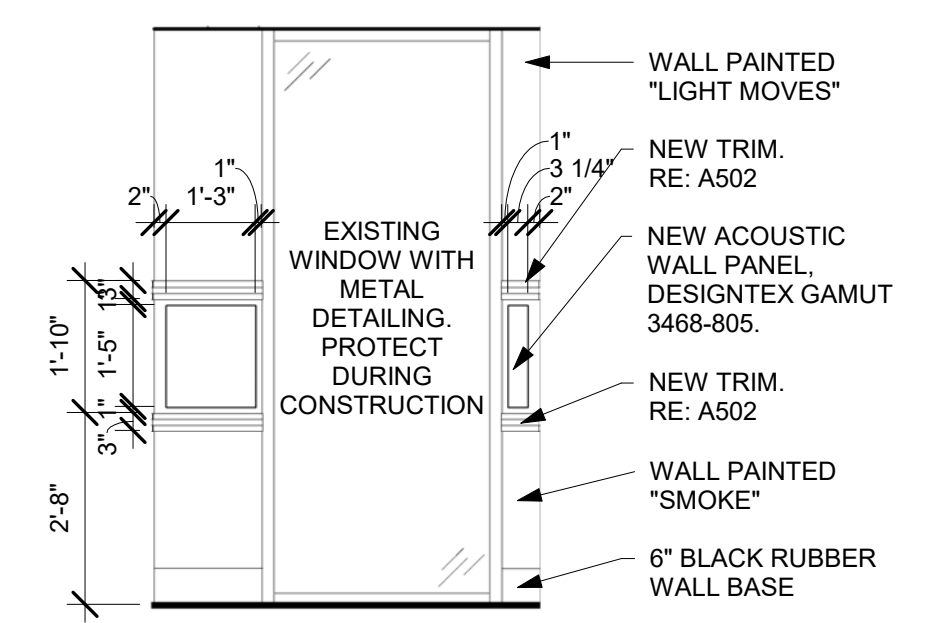
**3**  
**A201**  
**BOCC THIRD FLOOR REMODEL HEARING ROOM**  
**SOUTH ELEVATION**  
 1/4" = 1'-0"



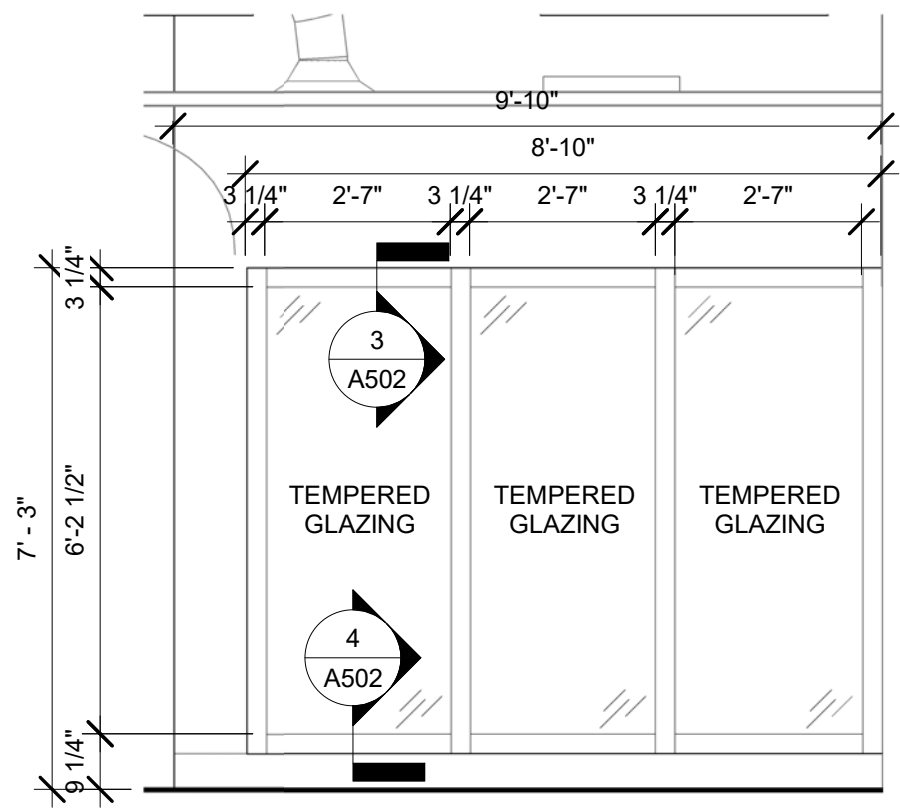
**4**  
**A201**  
**BOCC THIRD FLOOR REMODEL HEARING ROOM**  
**WEST ELEVATION**  
 1/4" = 1'-0"



**5**  
**A201**  
**BOCC THIRD FLOOR REMODEL**  
**NEW DOOR TO HEARING ROOM**  
 3/8" = 1'-0"



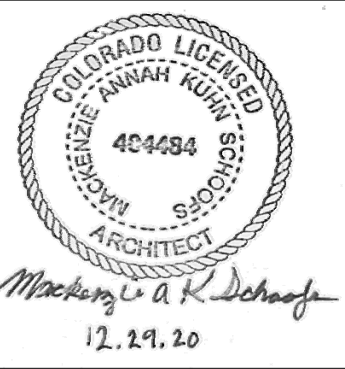
**6**  
**A201**  
**BOCC THIRD FLOOR REMODEL**  
**EXISTING GLASS WALL ELEVATION**  
 3/8" = 1'-0"



**7**  
**A201**  
**BOCC THIRD FLOOR REMODEL**  
**NEW OFFICE HALLWAY ELEVATION**  
 3/8" = 1'-0"



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 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302

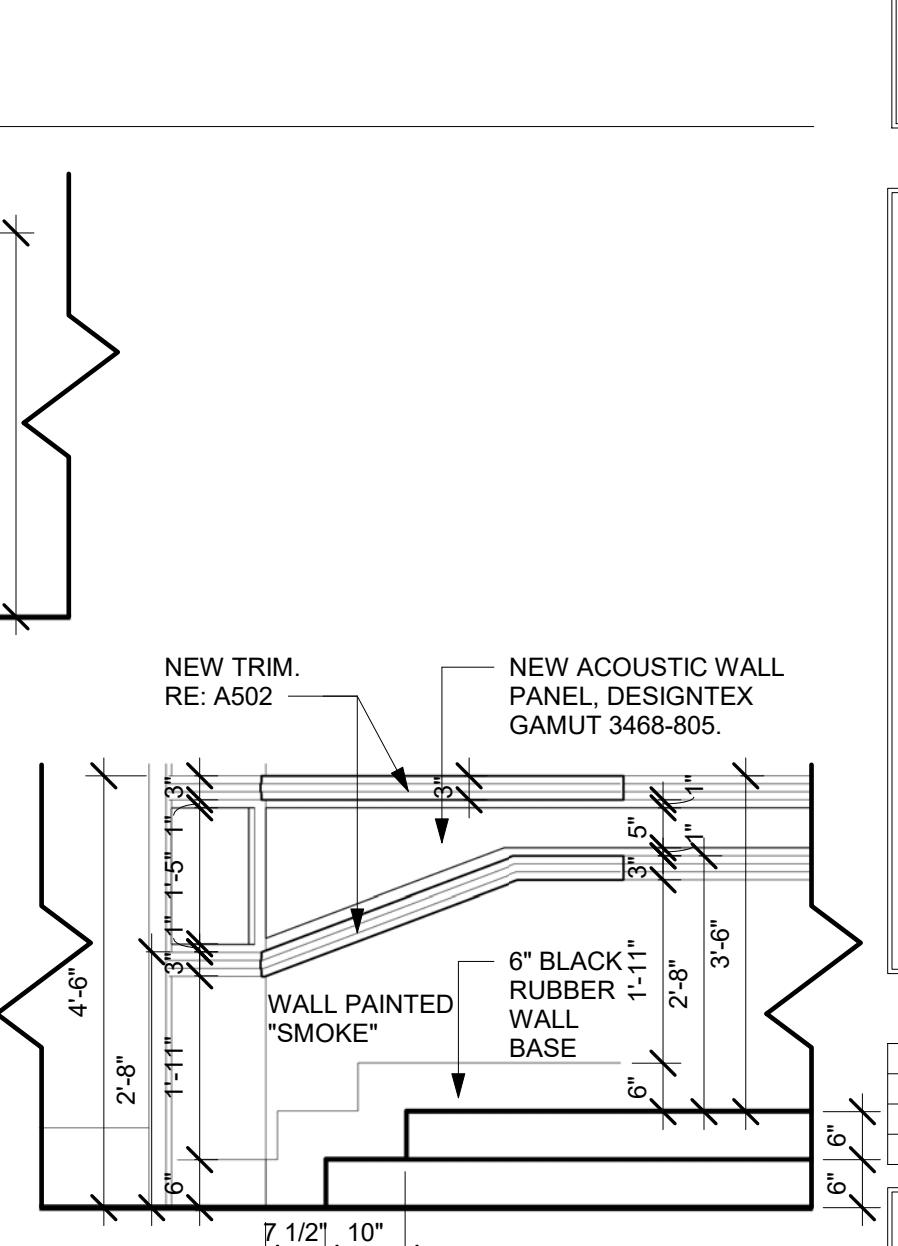
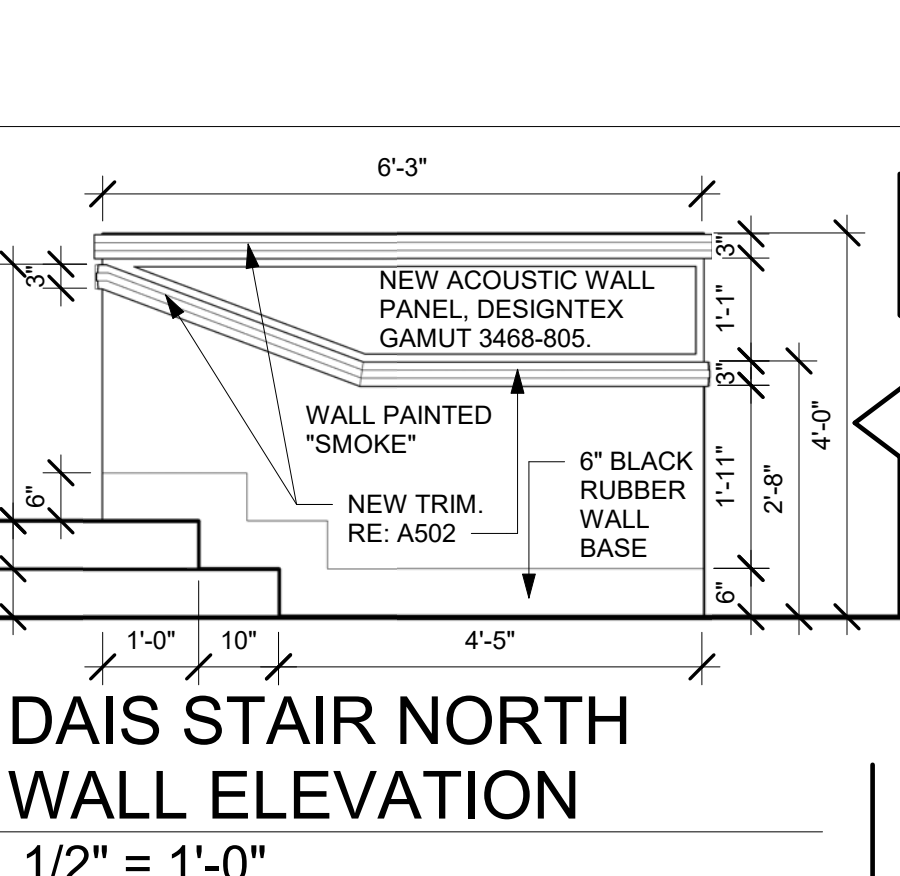
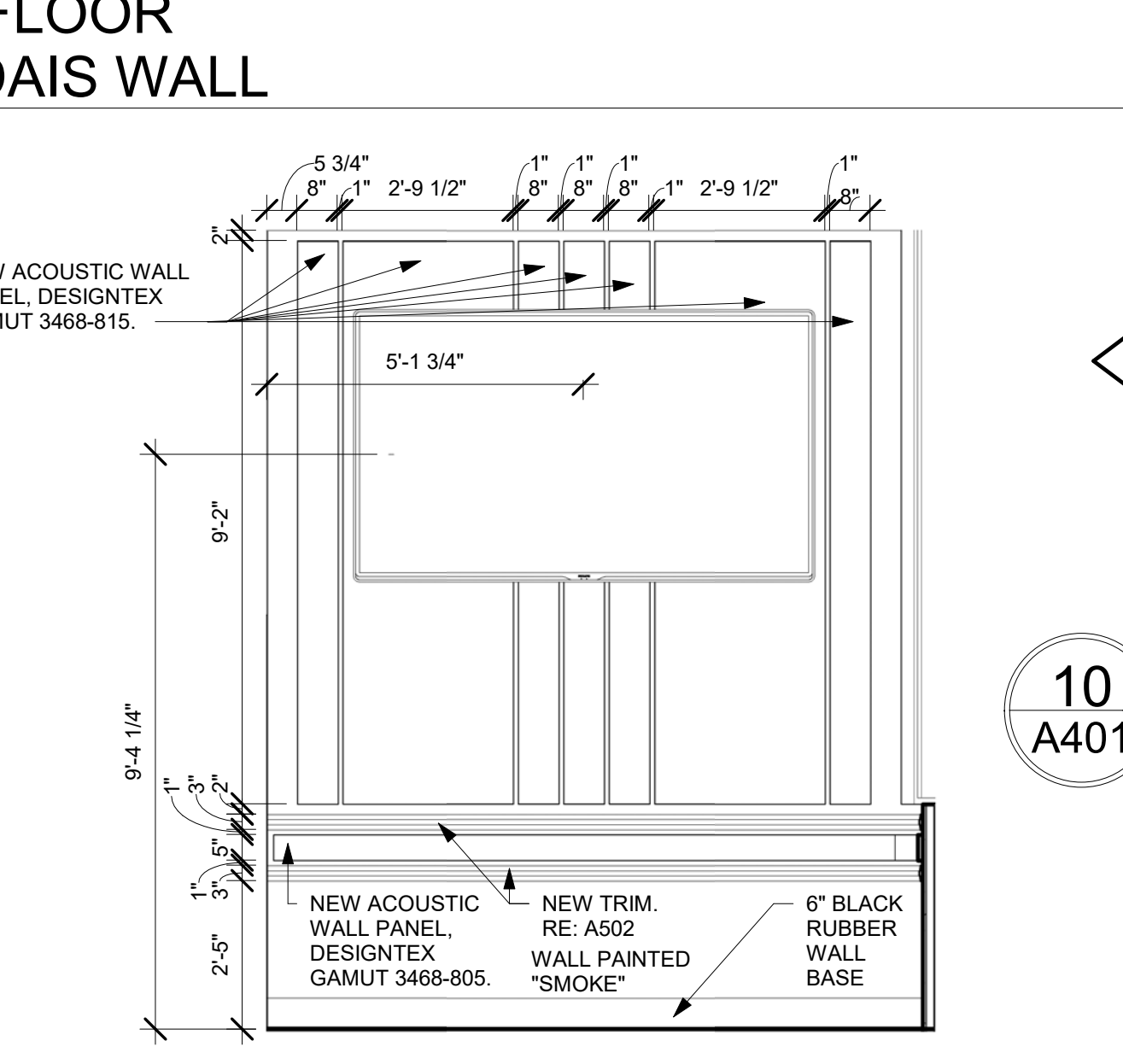
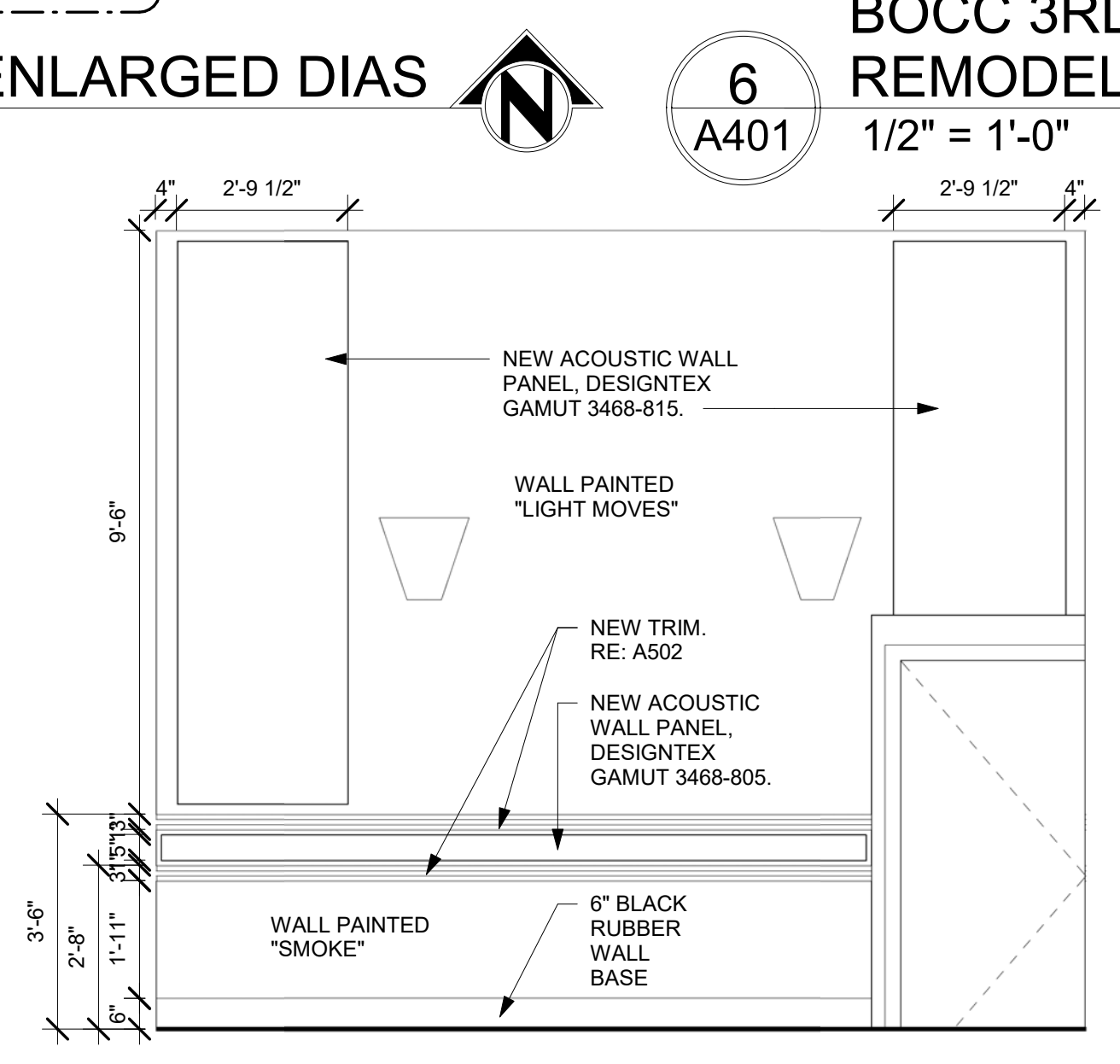
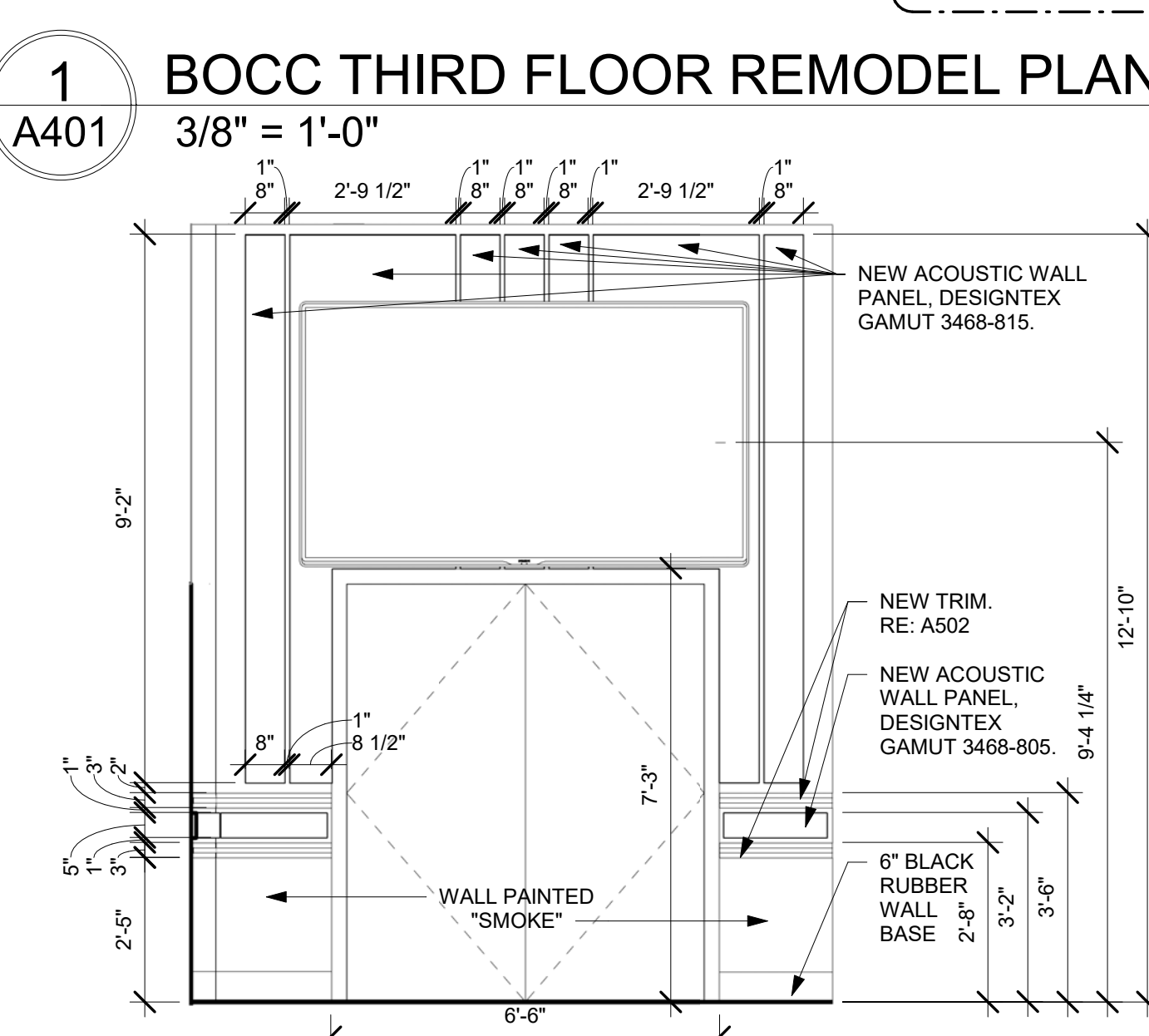
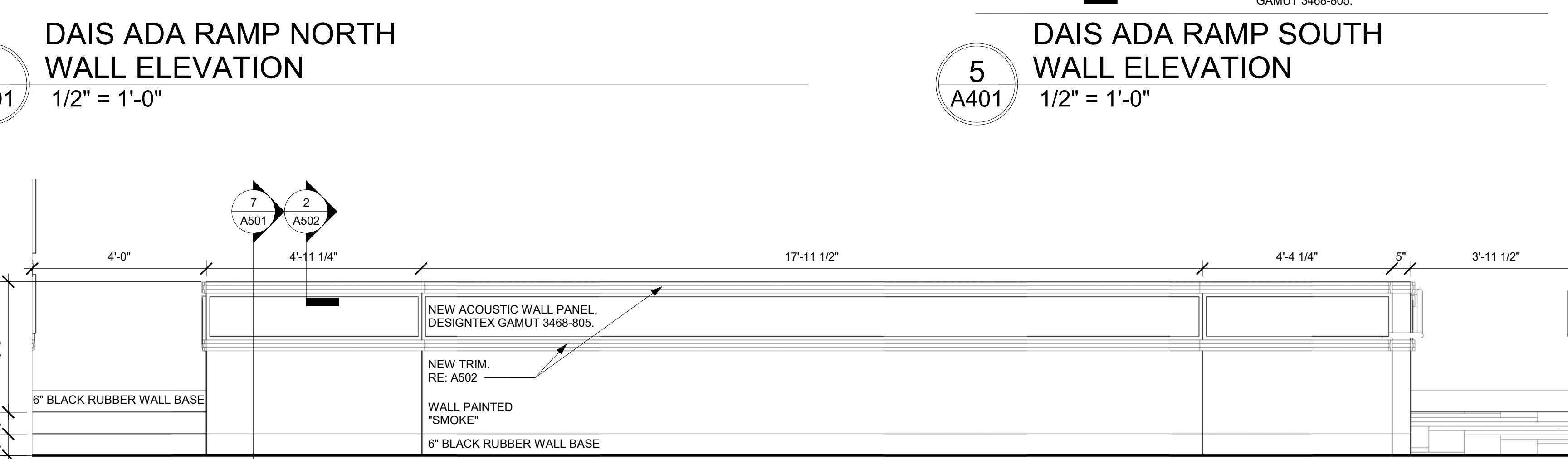
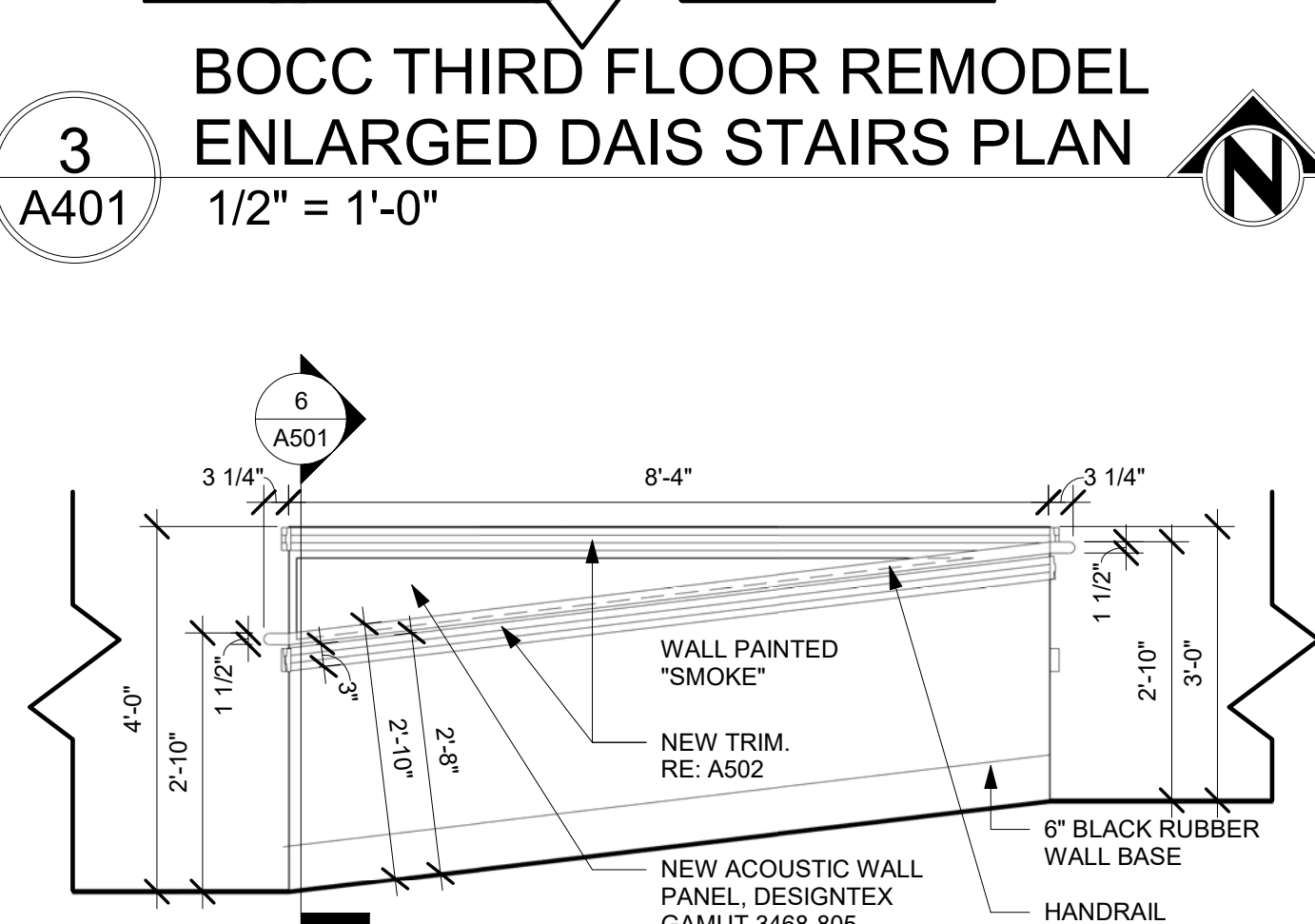
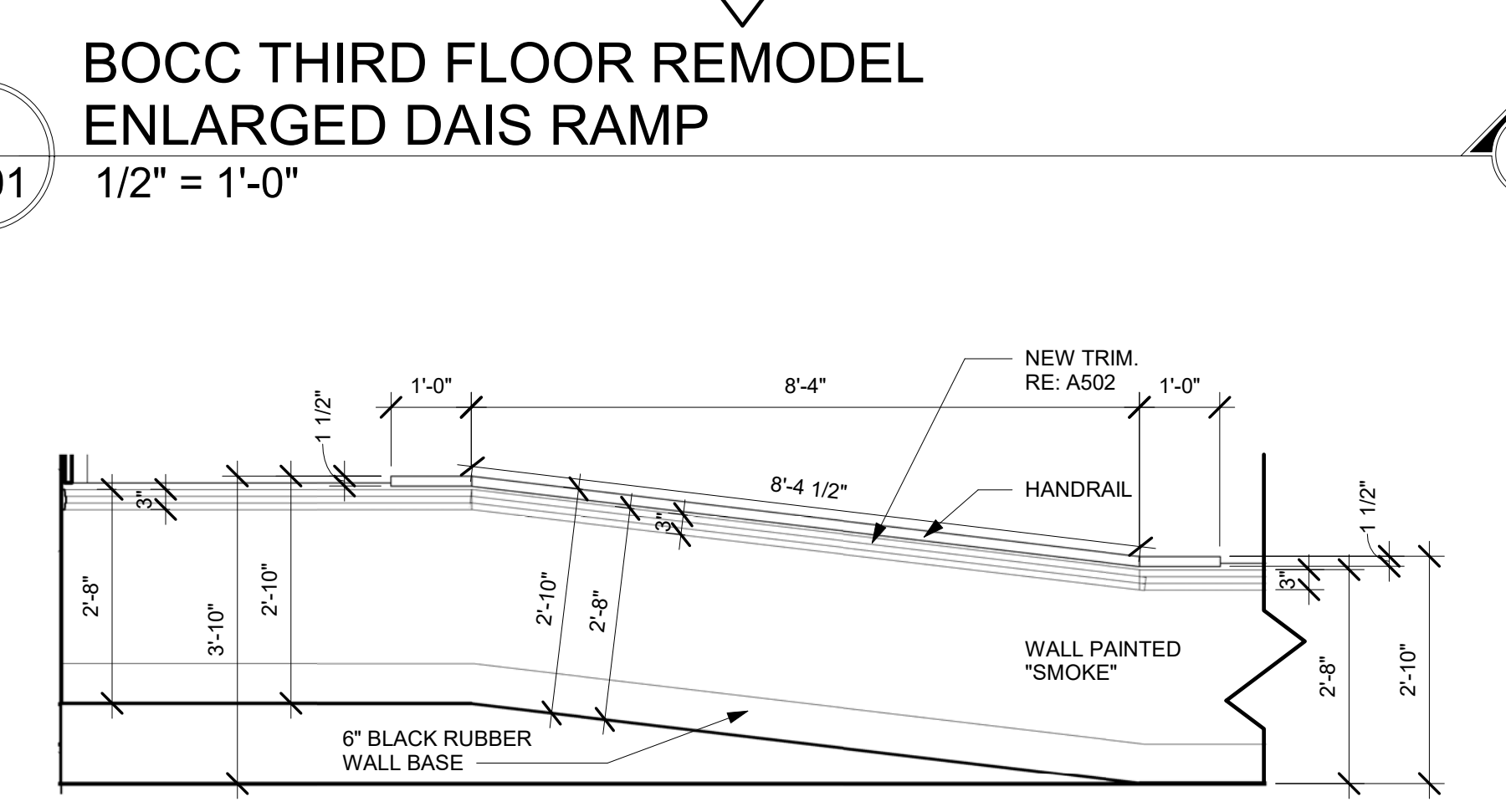
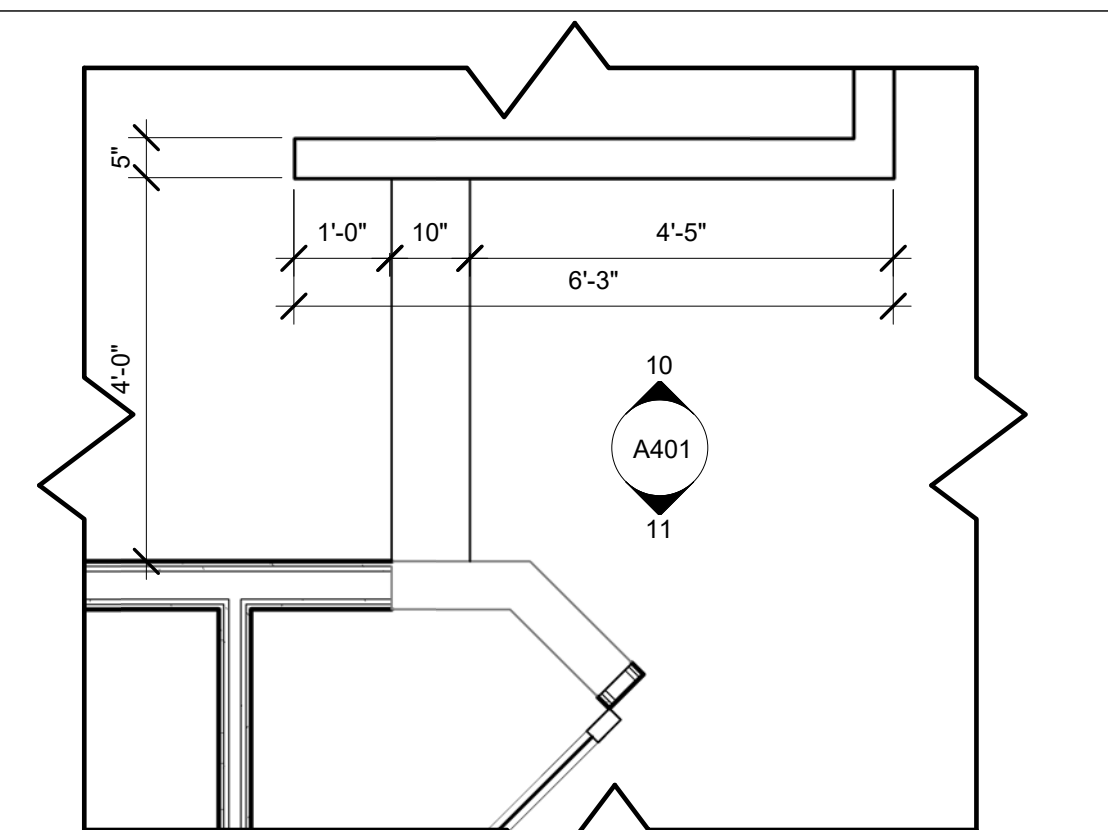
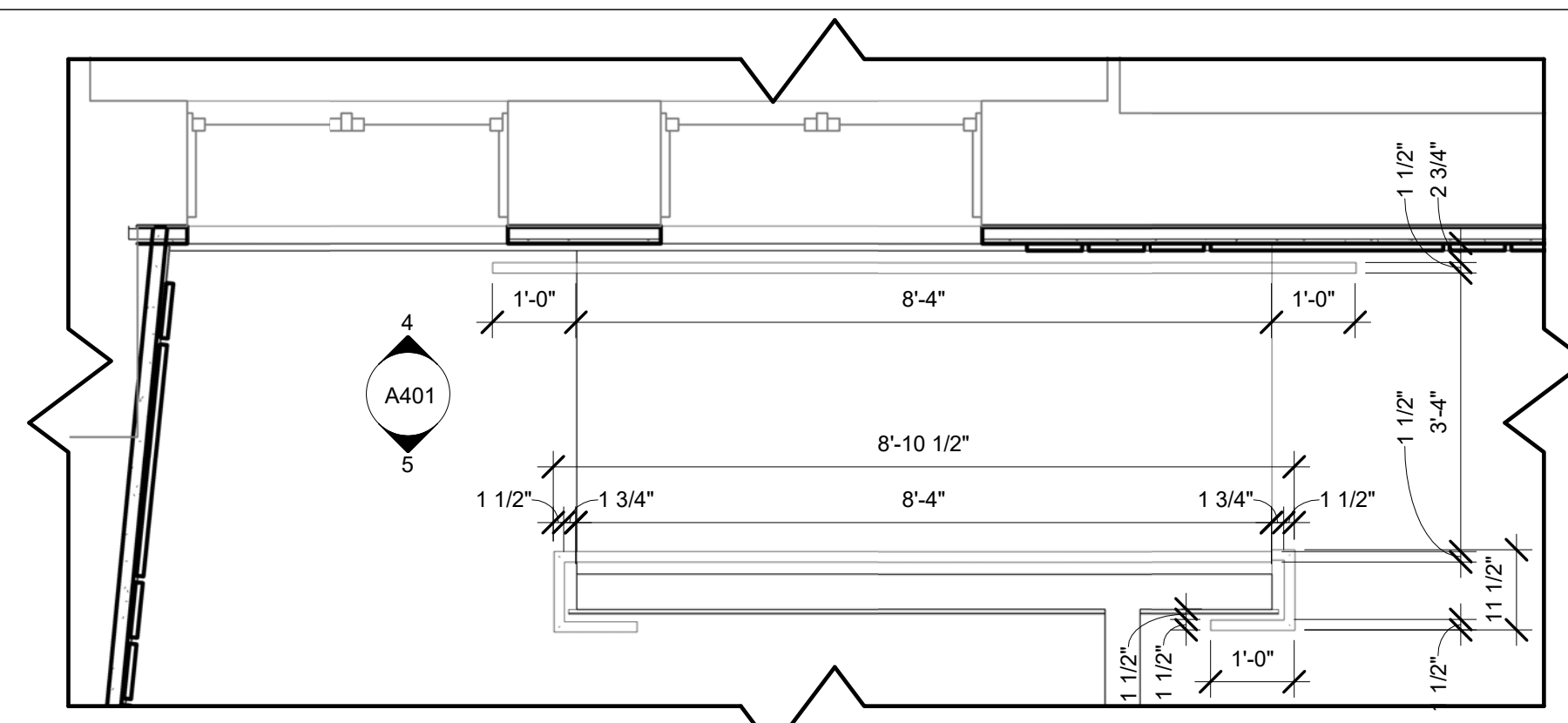
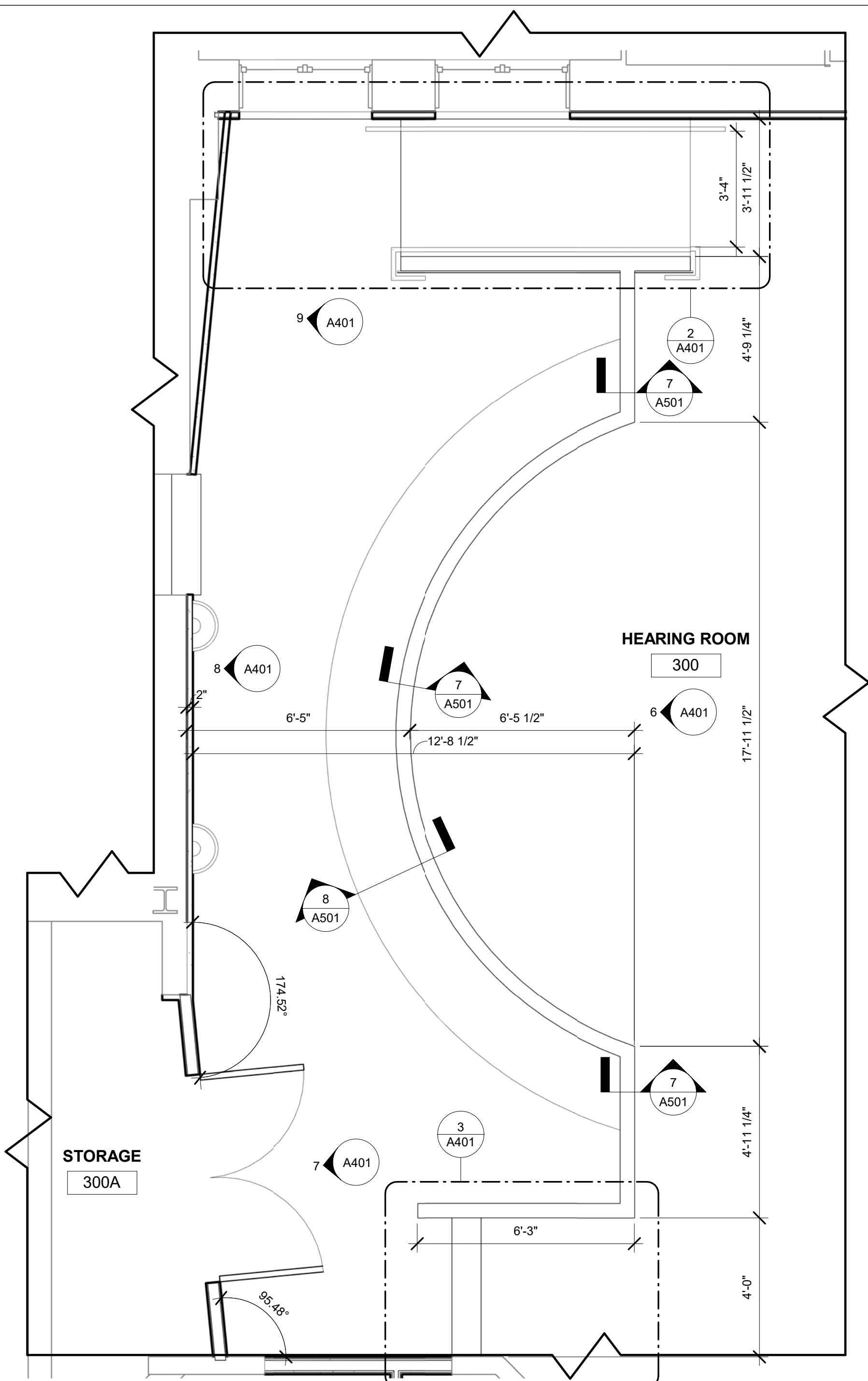
SHEET  
 ENLARGED PLANS &  
 INTERIOR ELEVATIONS

FILE NAME  
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 Courthouse\PROJECTS\101420- BOCC  
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 SECURITY VESTIBULE\DRAWINGS\SYTCRT  
 3RD FLOOR REMODEL 2020 PERMIT SET  
 12-29-20.rvt

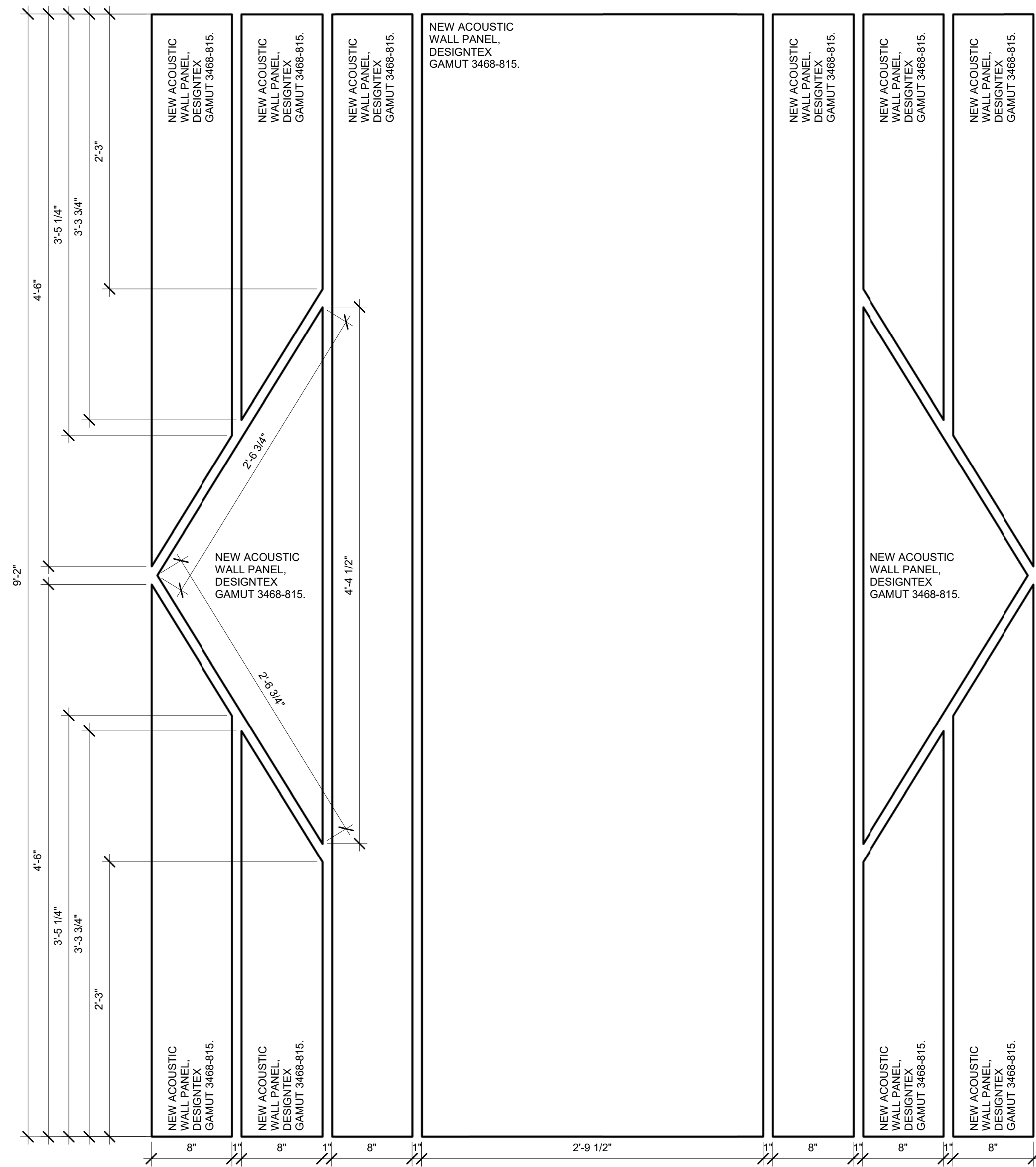
ACCT 100103  
 DATE: 12/29/20  
 DRAWN BY: MS  
 CHECKED BY: JB

REVISIONS

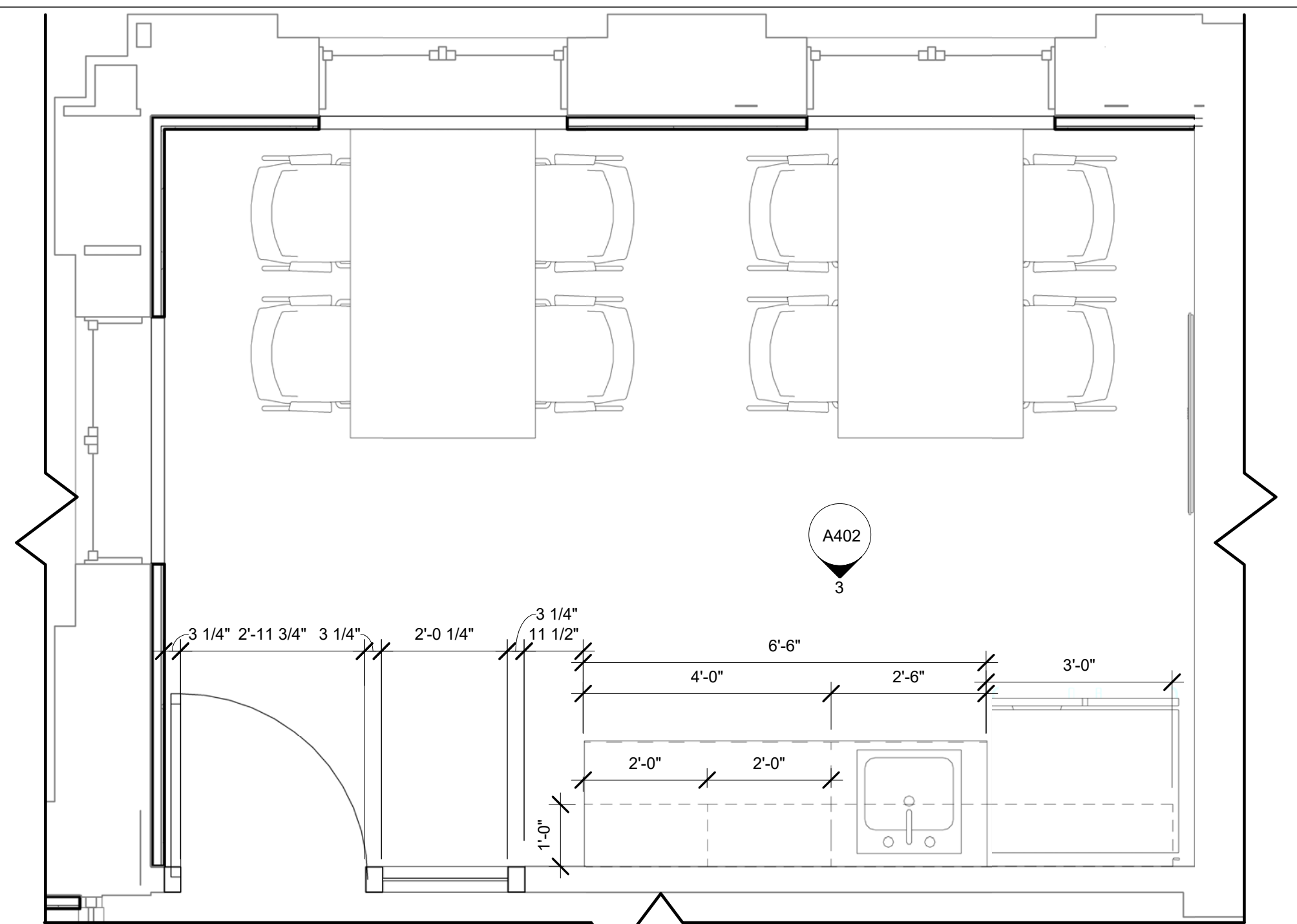
SHEET  
**A401**



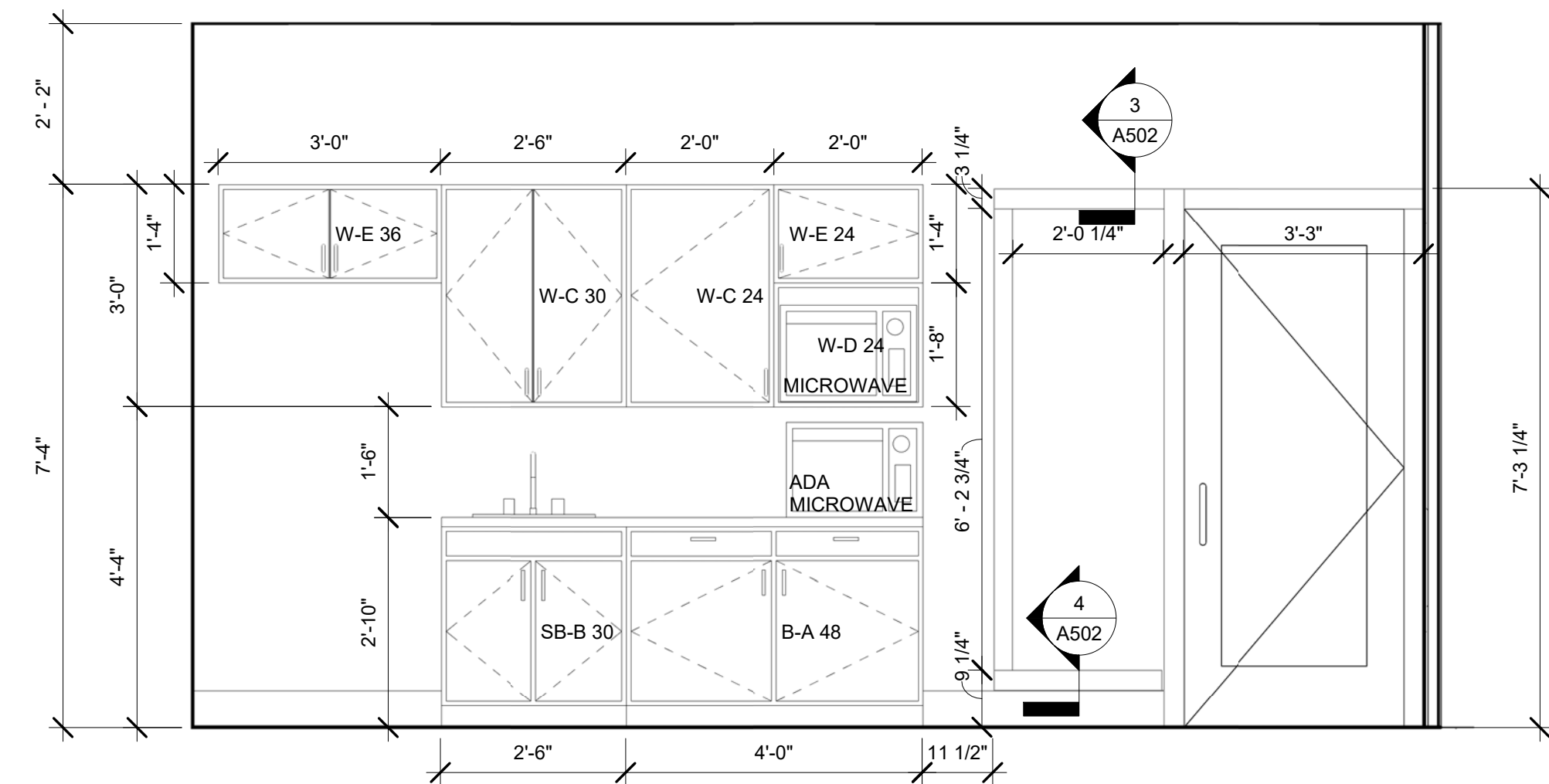




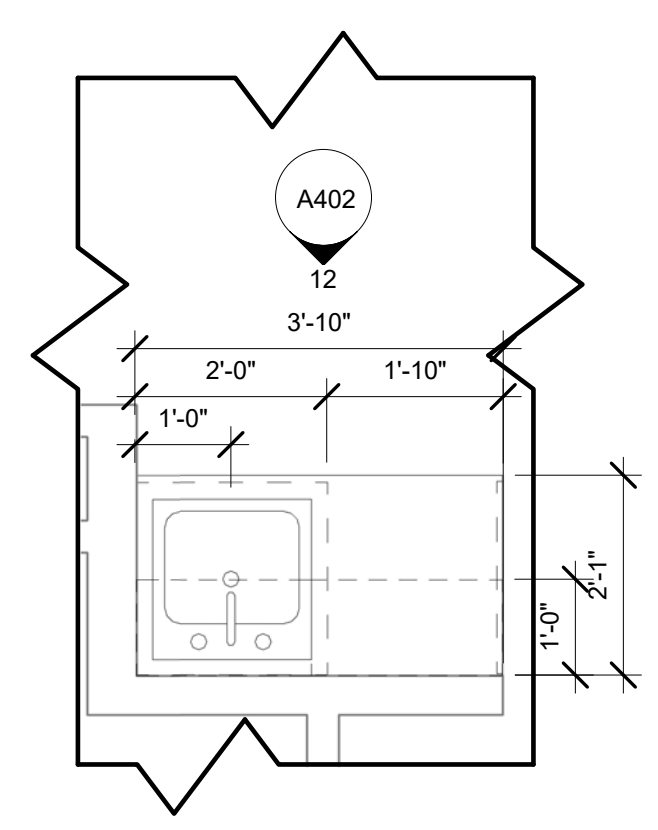
**1**  
A402  
BOCC THIRD FLOOR REMODEL HEARING ROOM  
ACOUSTIC WALL PANEL 1 ELEVATION  
1 1/2" = 1'-0"



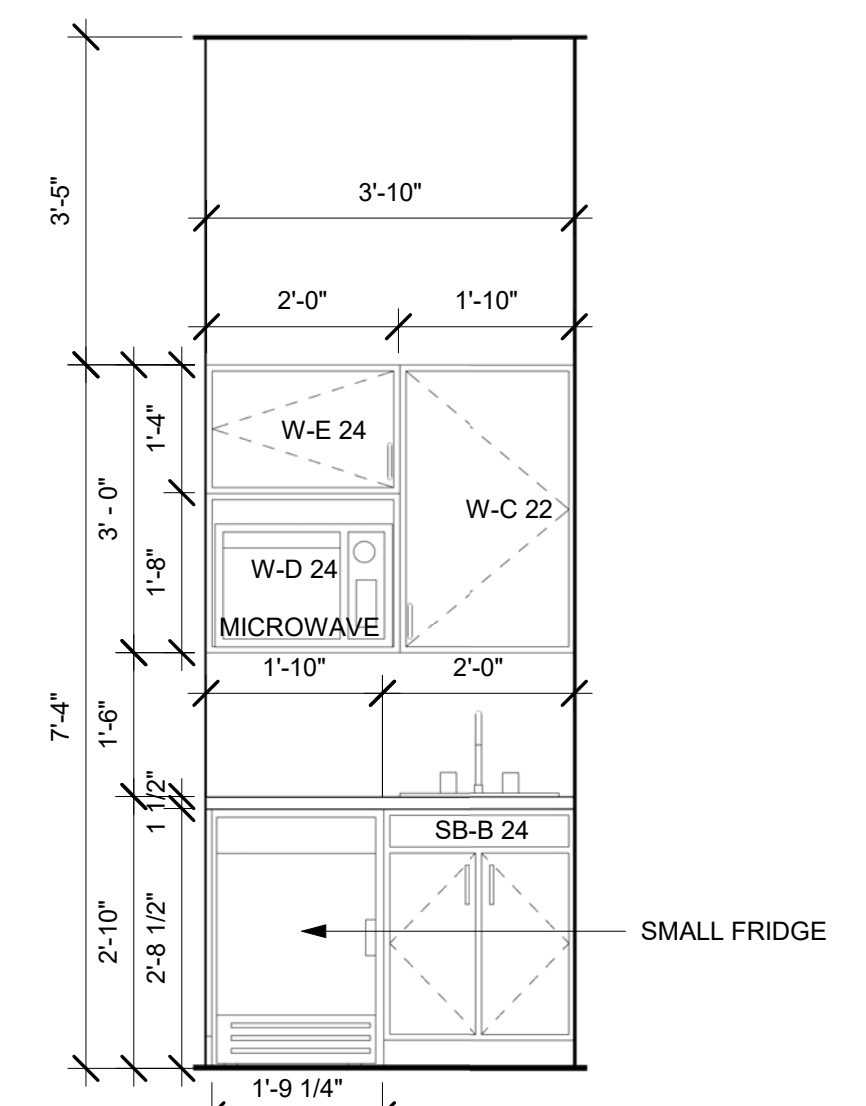
**2**  
A402  
BOCC THIRD FLOOR REMODEL  
ENLARGED BREAK ROOM PLAN  
1/2" = 1'-0"



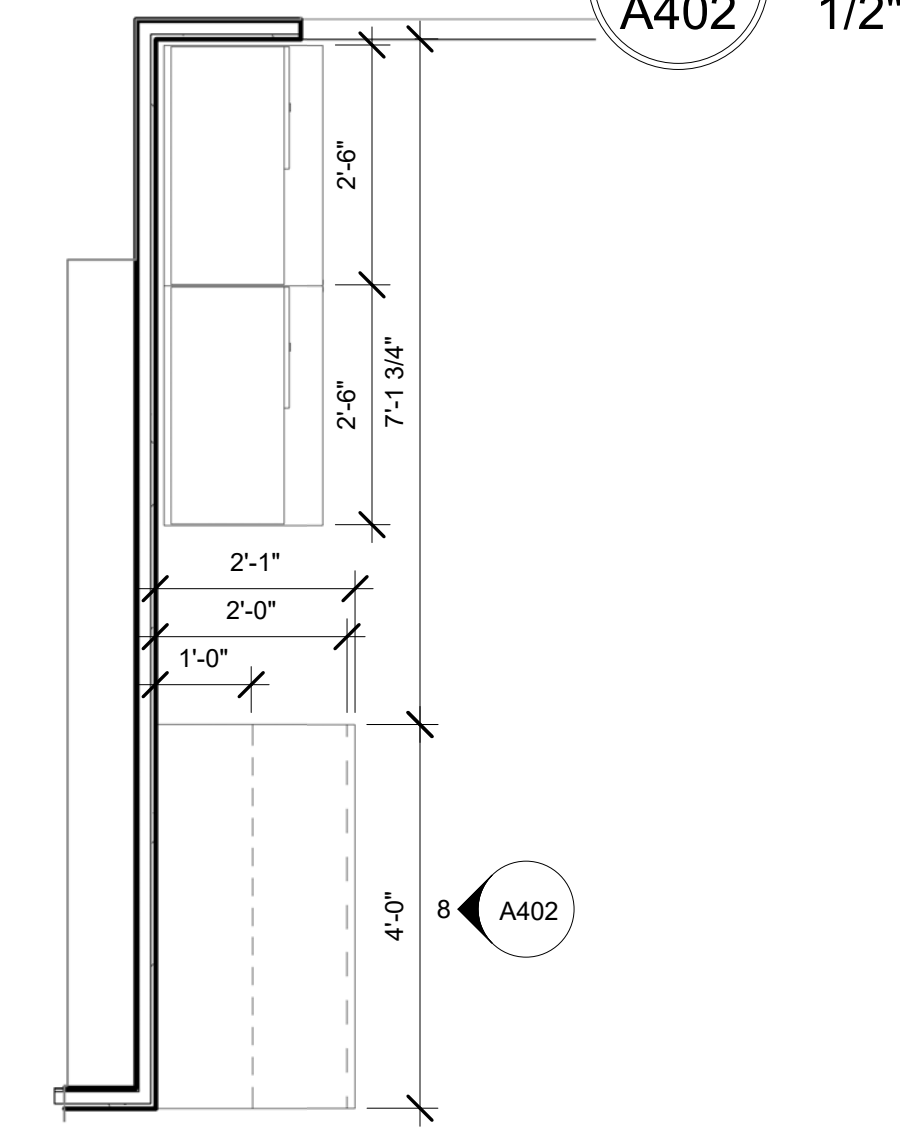
**3**  
A402  
BOCC THIRD FLOOR REMODEL  
BREAK ROOM ELEVATION  
1/2" = 1'-0"



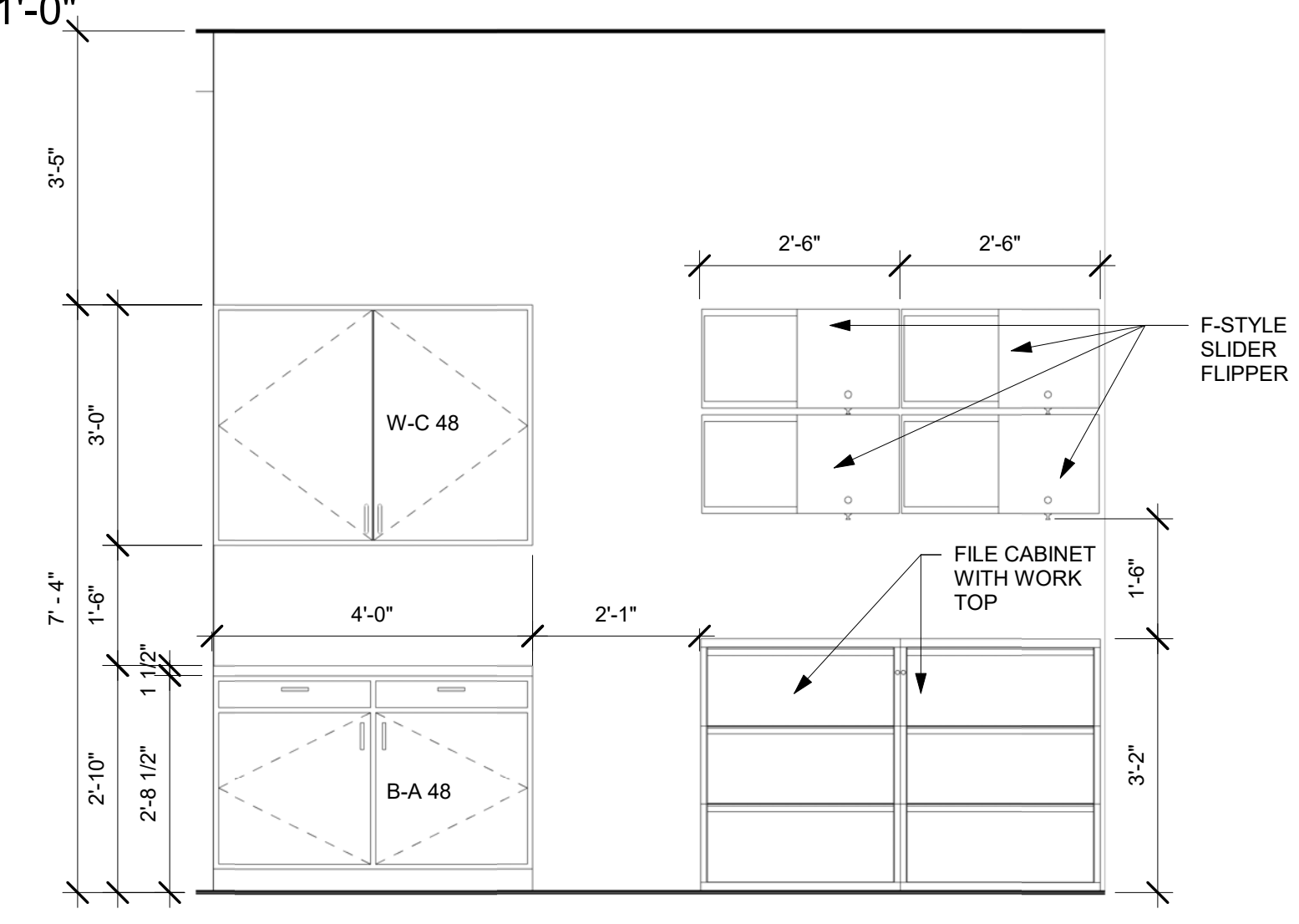
**11**  
A402  
EAST SIDE  
KITCHENETTE  
1/2" = 1'-0"



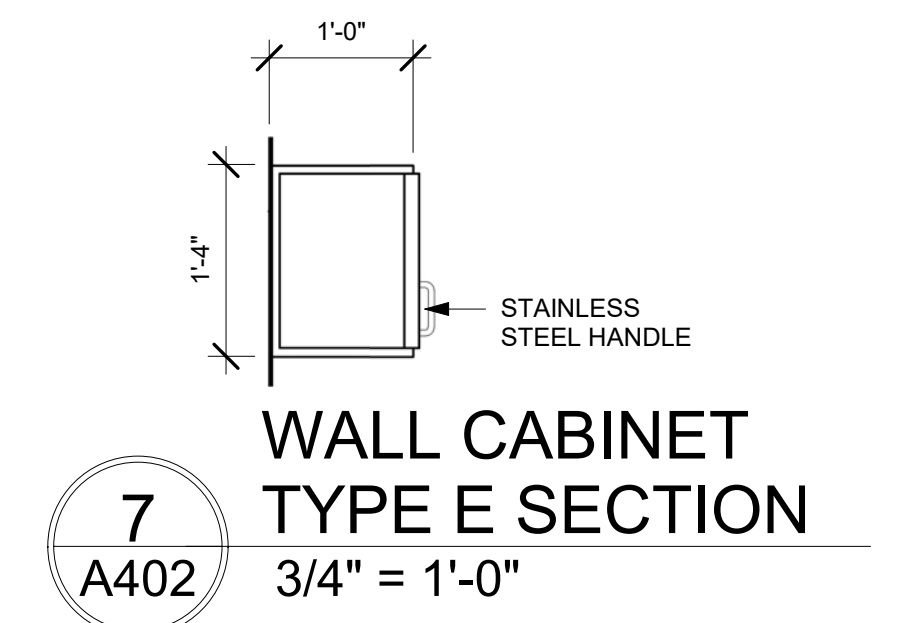
**12**  
A402  
EAST SIDE  
KITCHENETTE  
1/2" = 1'-0"



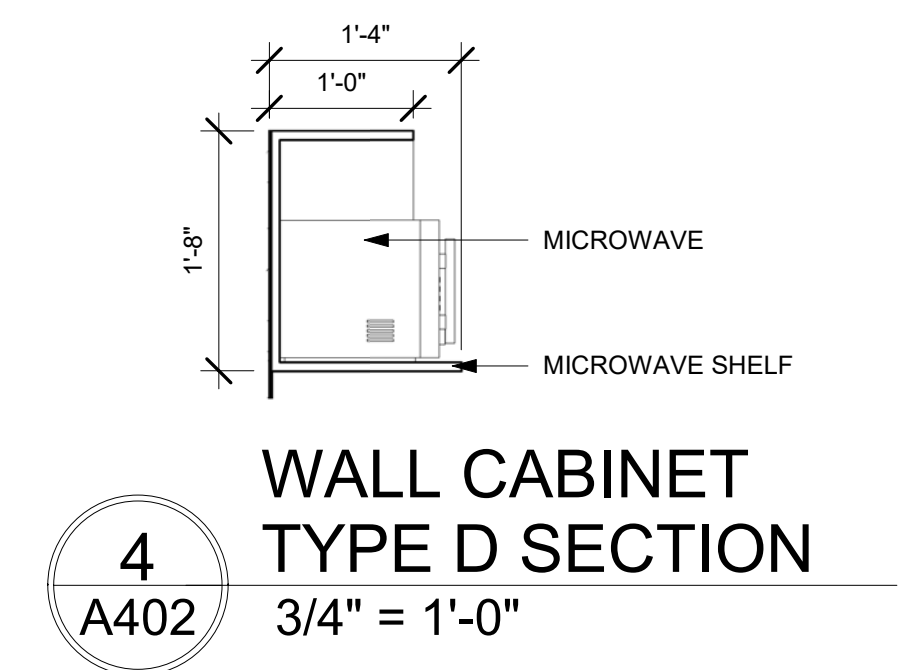
**10**  
A402  
EAST SIDE ECOPY  
ENLARGED PLAN  
1/2" = 1'-0"



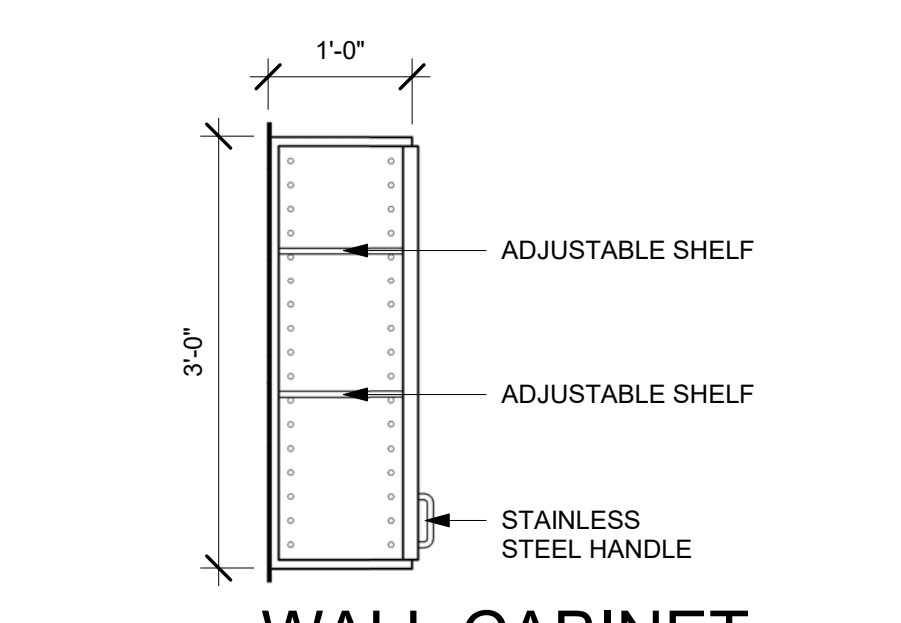
**8**  
A402  
ECOPY AREA ELEVATION  
1/2" = 1'-0"



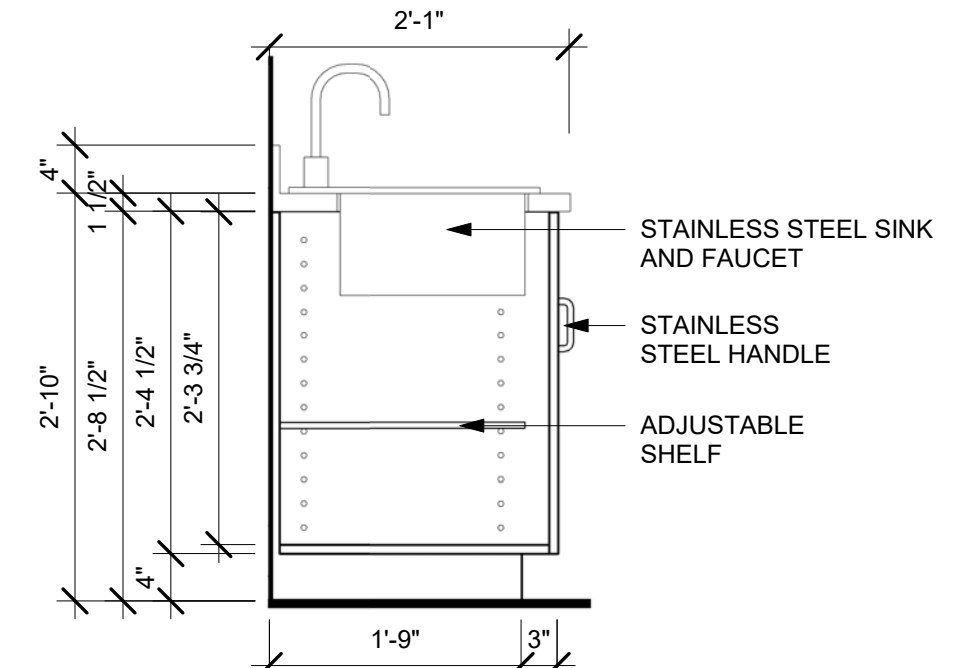
**7**  
A402  
WALL CABINET  
TYPE E SECTION  
3/4" = 1'-0"



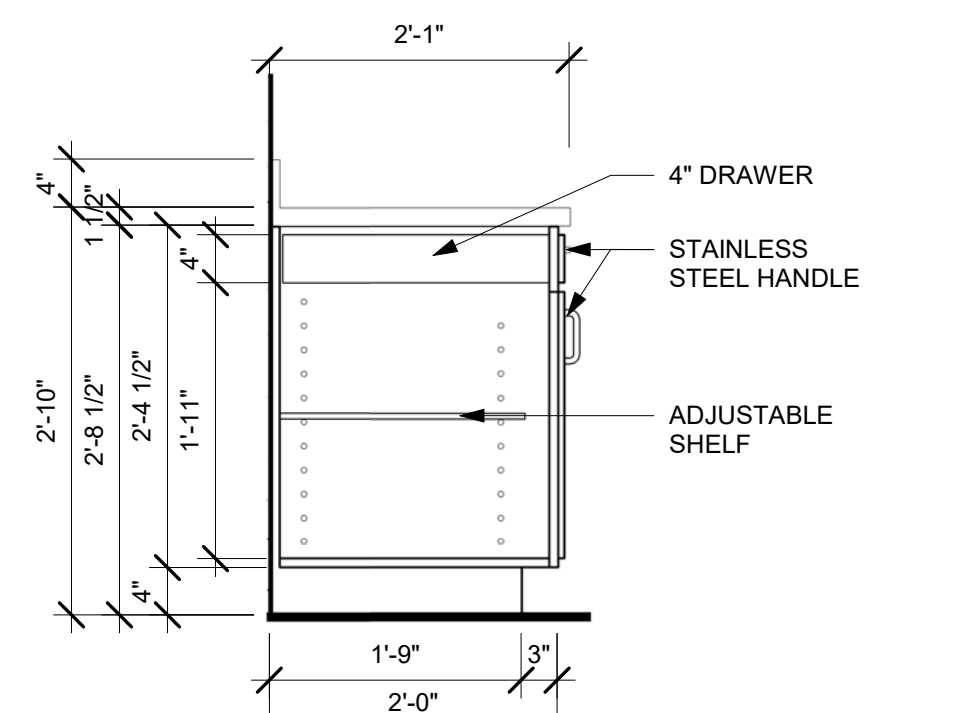
**4**  
A402  
WALL CABINET  
TYPE D SECTION  
3/4" = 1'-0"



**5**  
A402  
WALL CABINET  
TYPE C SECTION  
3/4" = 1'-0"



**6**  
A402  
SINK BASE CABINET  
TYPE B SECTION  
3/4" = 1'-0"



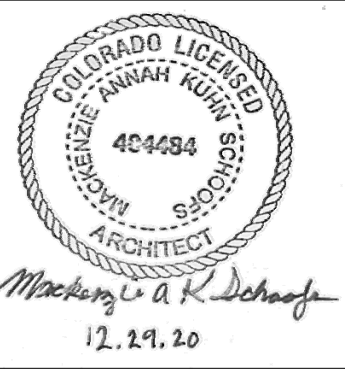
**9**  
A402  
BASE CABINET  
TYPE A SECTION  
3/4" = 1'-0"







BUILDING SERVICES DIVISION  
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**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302

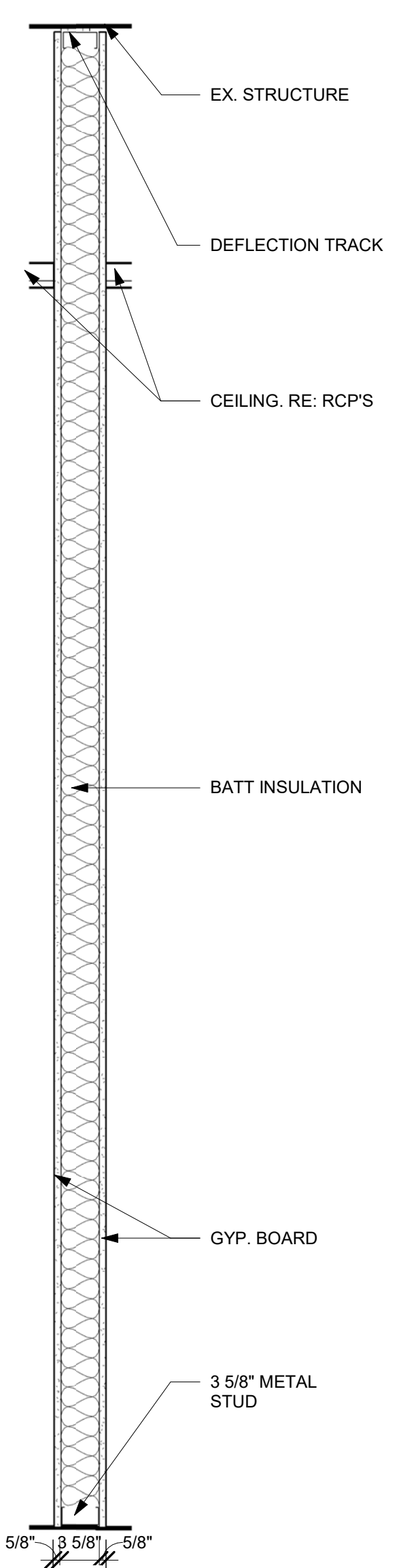
SHEET  
 WALL SECTIONS

FILE NAME  
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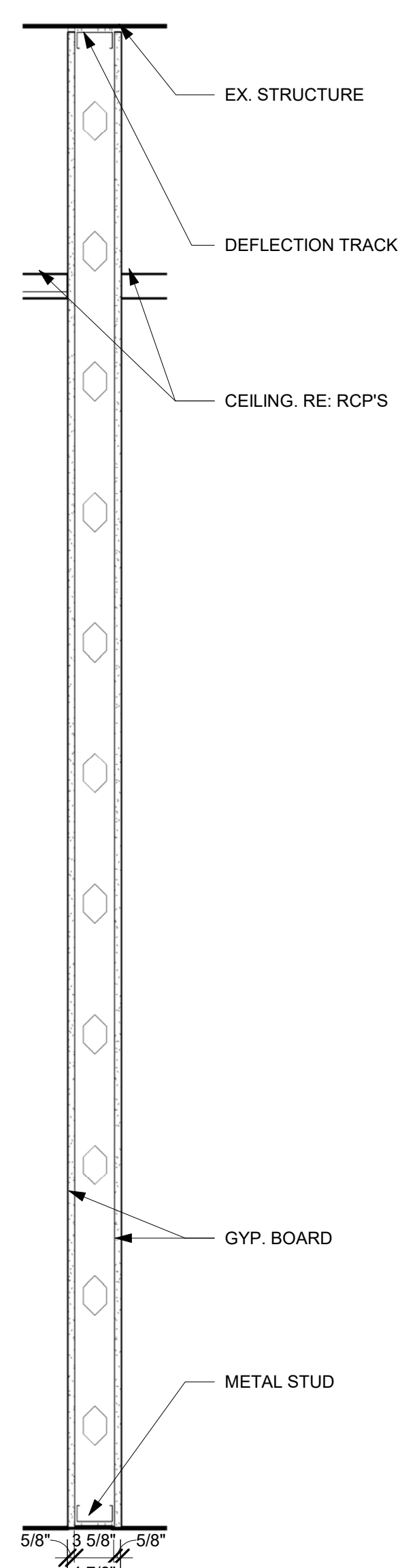
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 DATE: 12/29/20  
 DRAWN BY: MS  
 CHECKED BY: JB

REVISIONS

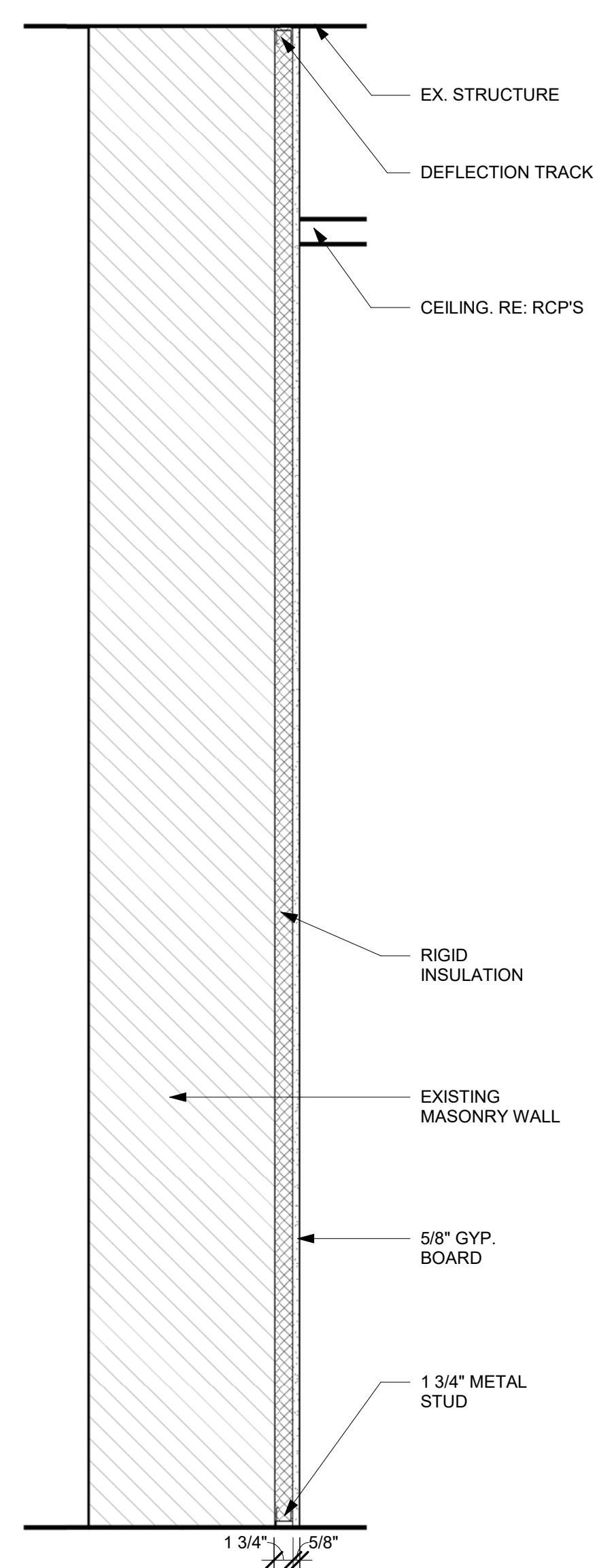
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**A501**



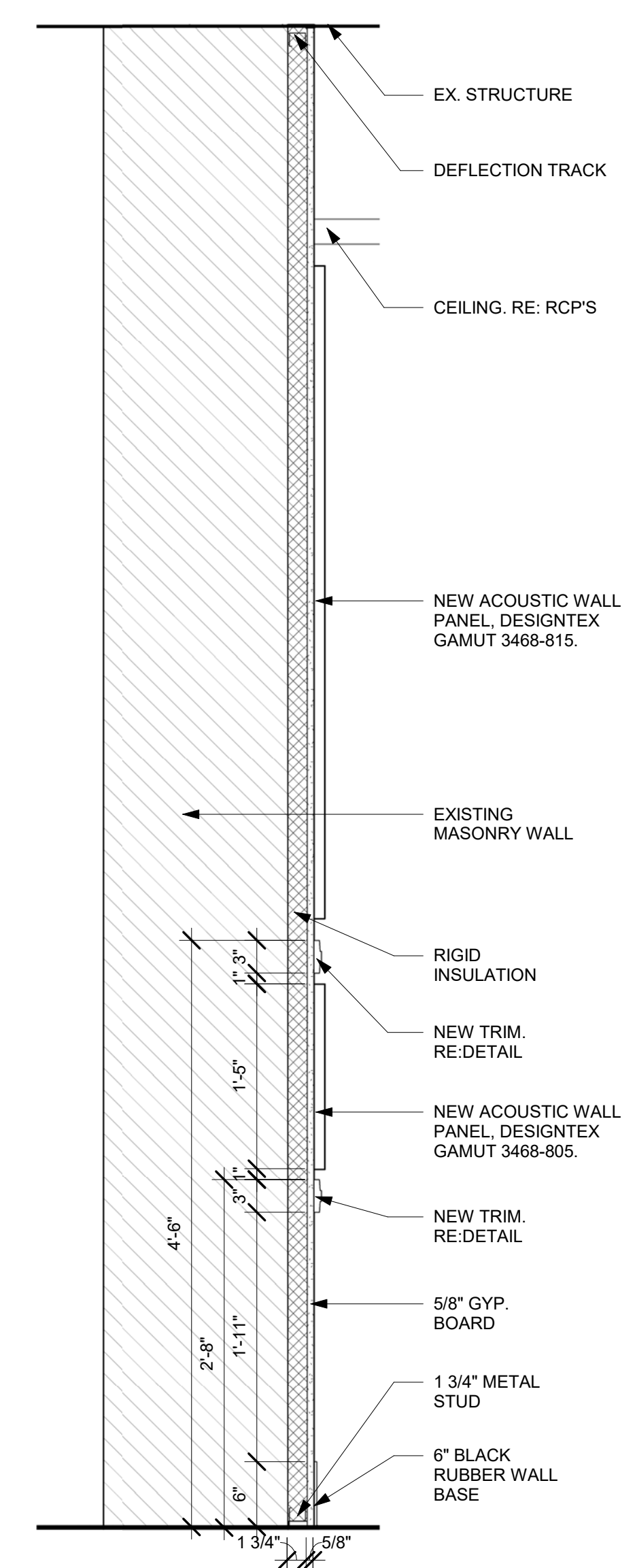
**1 WALL TYPE A**  
 A501 1" = 1'-0"



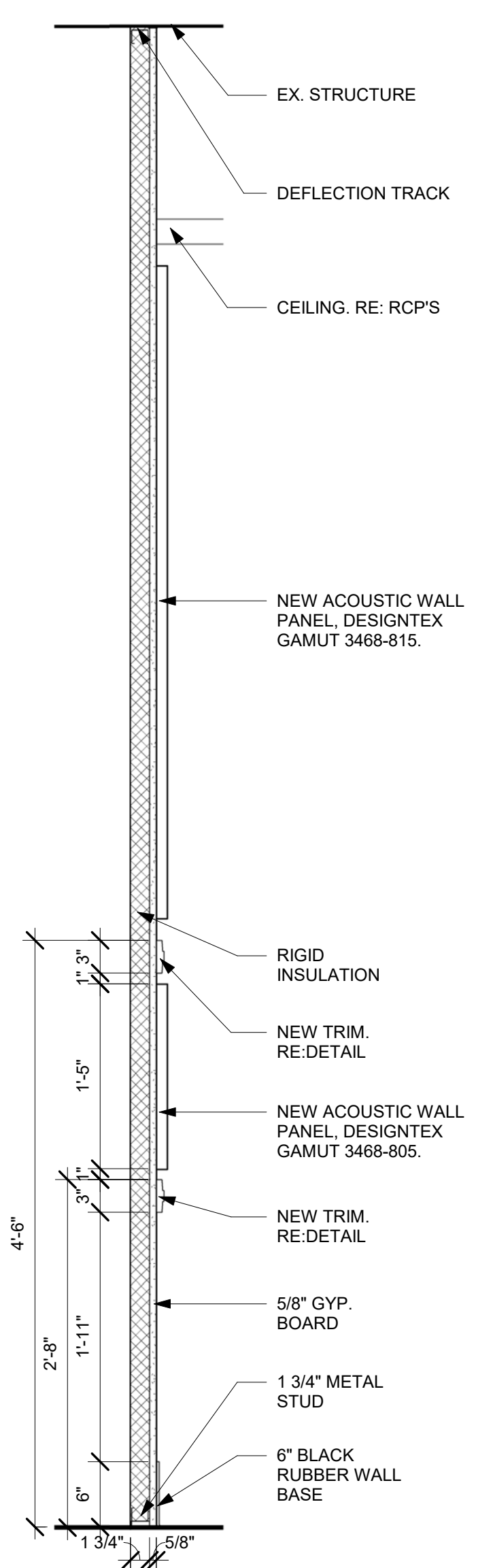
**2 WALL TYPE B**  
 A501 1" = 1'-0"



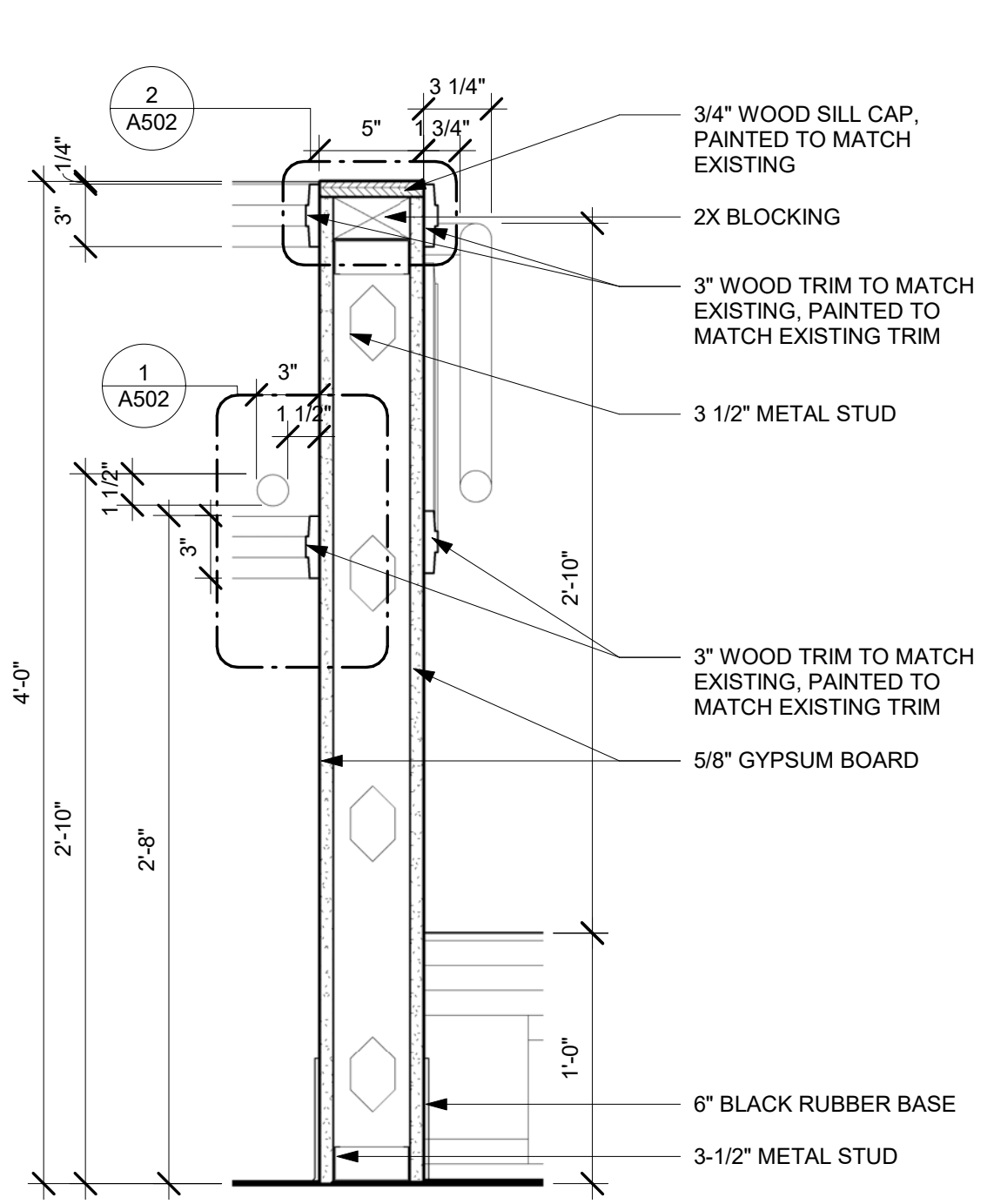
**3 WALL TYPE C**  
 A501 1" = 1'-0"



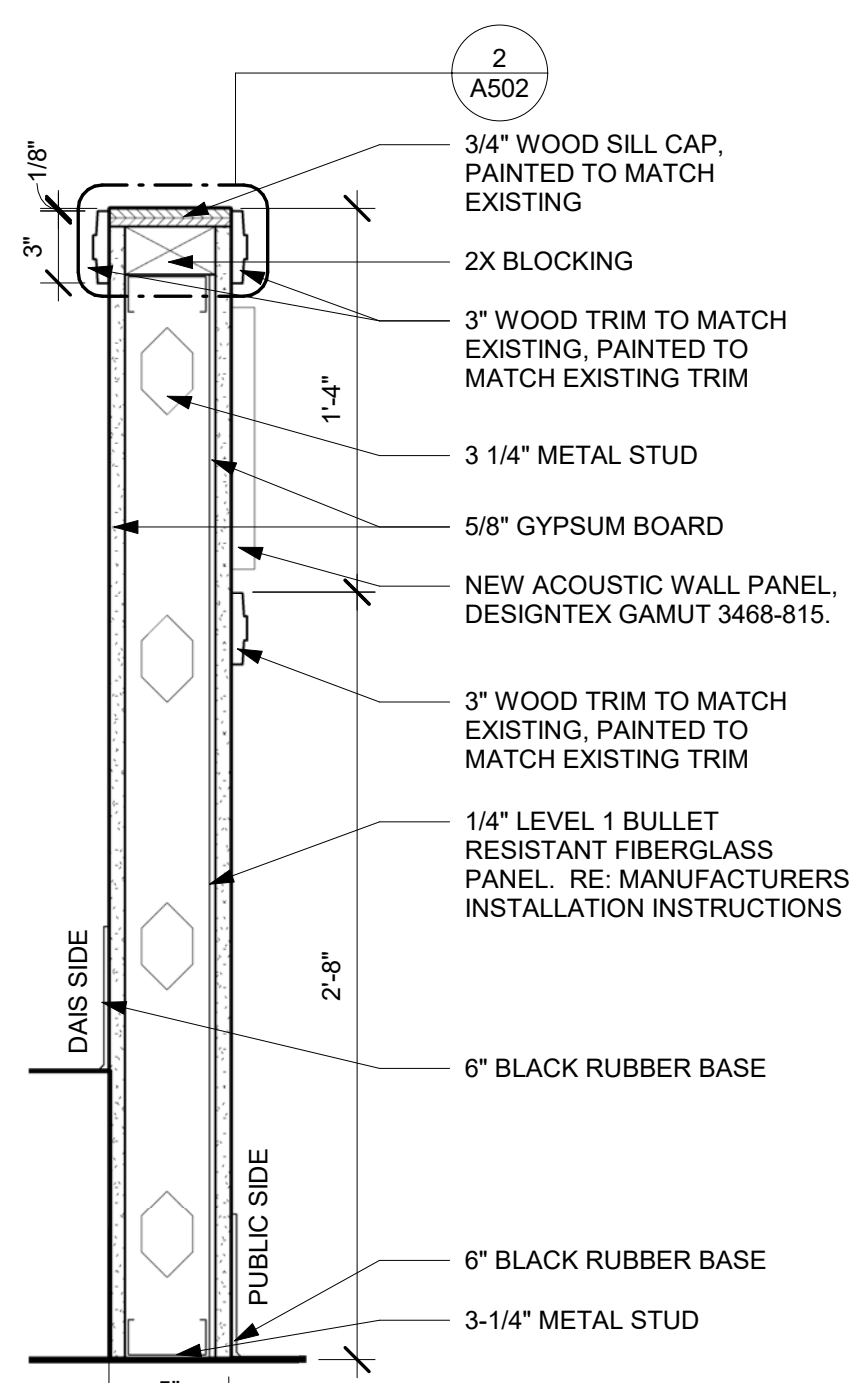
**4 WALL TYPE D**  
 A501 1" = 1'-0"



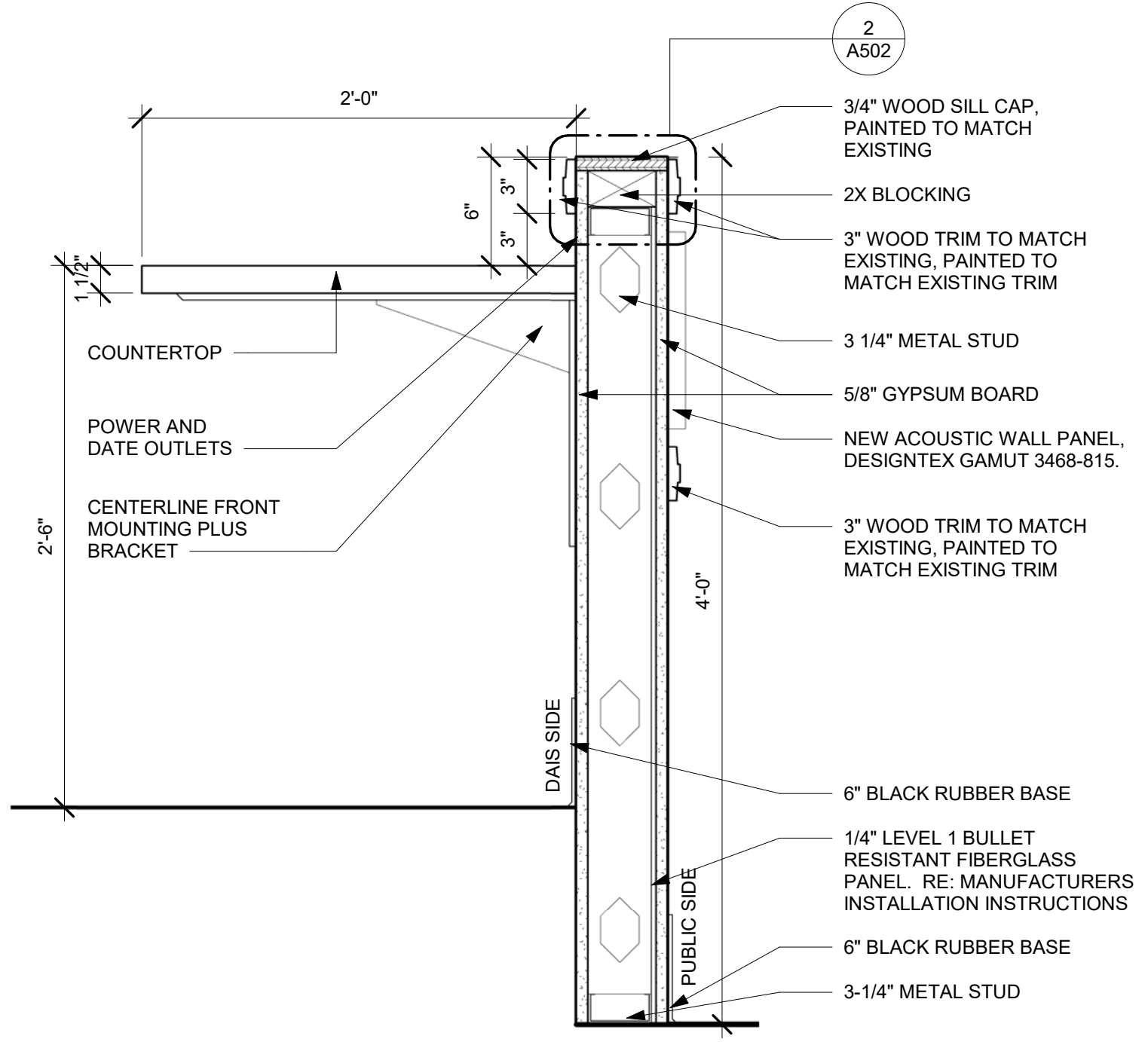
**5 WALL TYPE E**  
 A501 1" = 1'-0"



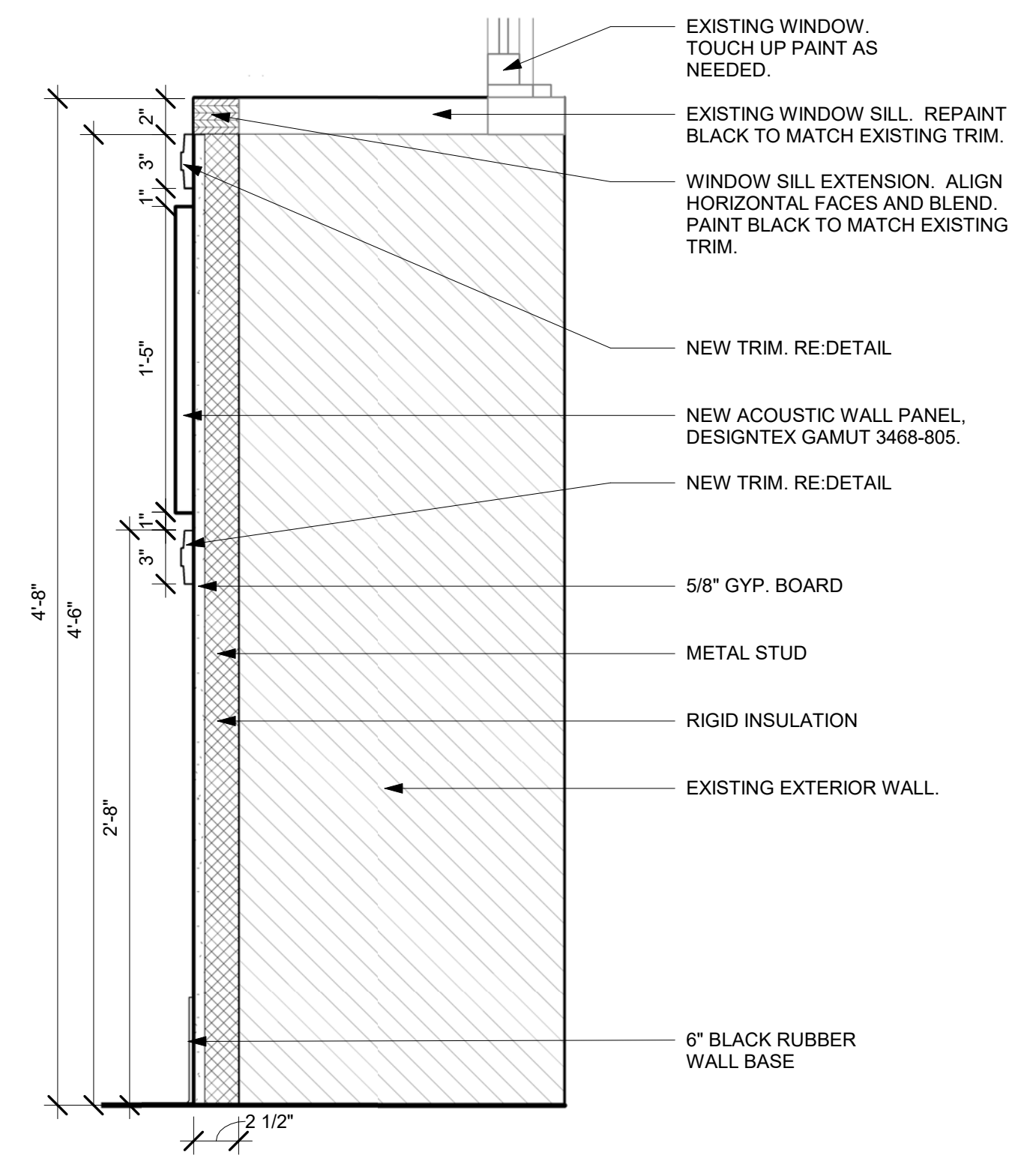
**6 HEARING ROOM DAIS RAMP WALL SECTION**  
 A501 1 1/2" = 1'-0"



**7 HEARING ROOM DAIS HALF WALL SECTION**  
 A501 1 1/2" = 1'-0"

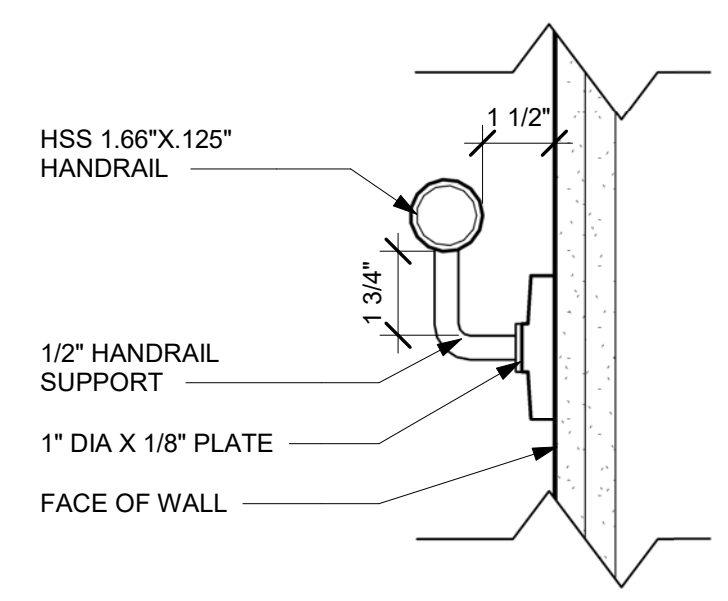


**8 HEARING ROOM DAIS COUNTERTOP SECTION**  
 A501 1 1/2" = 1'-0"

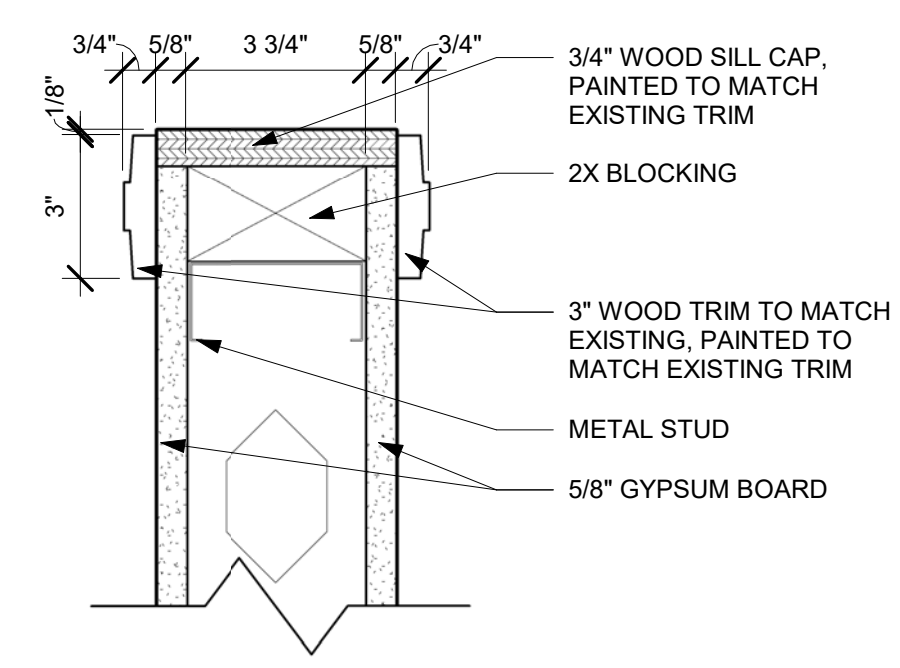


**9 EXTERIOR HEARING ROOM WALL SECTION @ EXISTING WINDOW**  
 A501 1 1/2" = 1'-0"

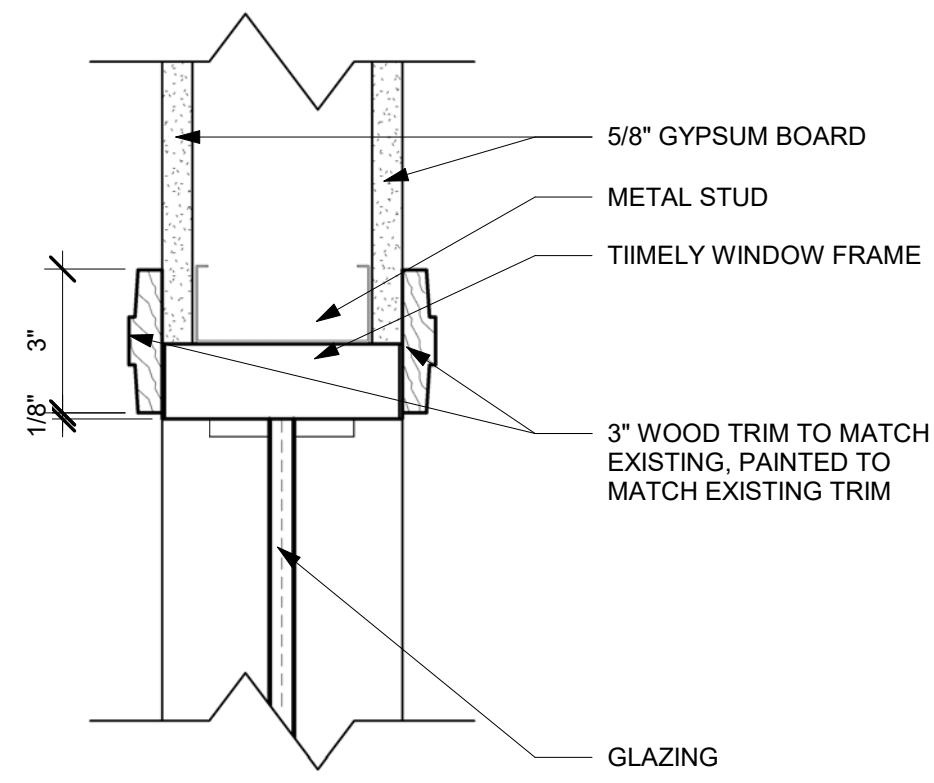




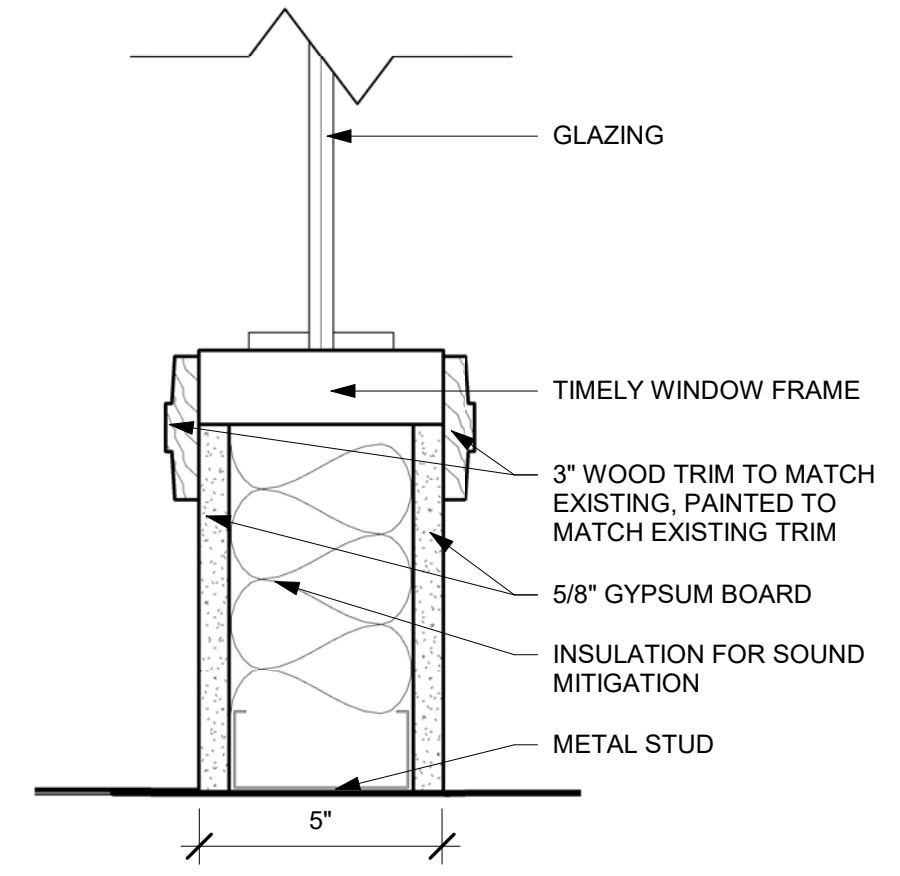
**1**  
A502  
**HANDRAIL DETAIL**  
3" = 1'-0"



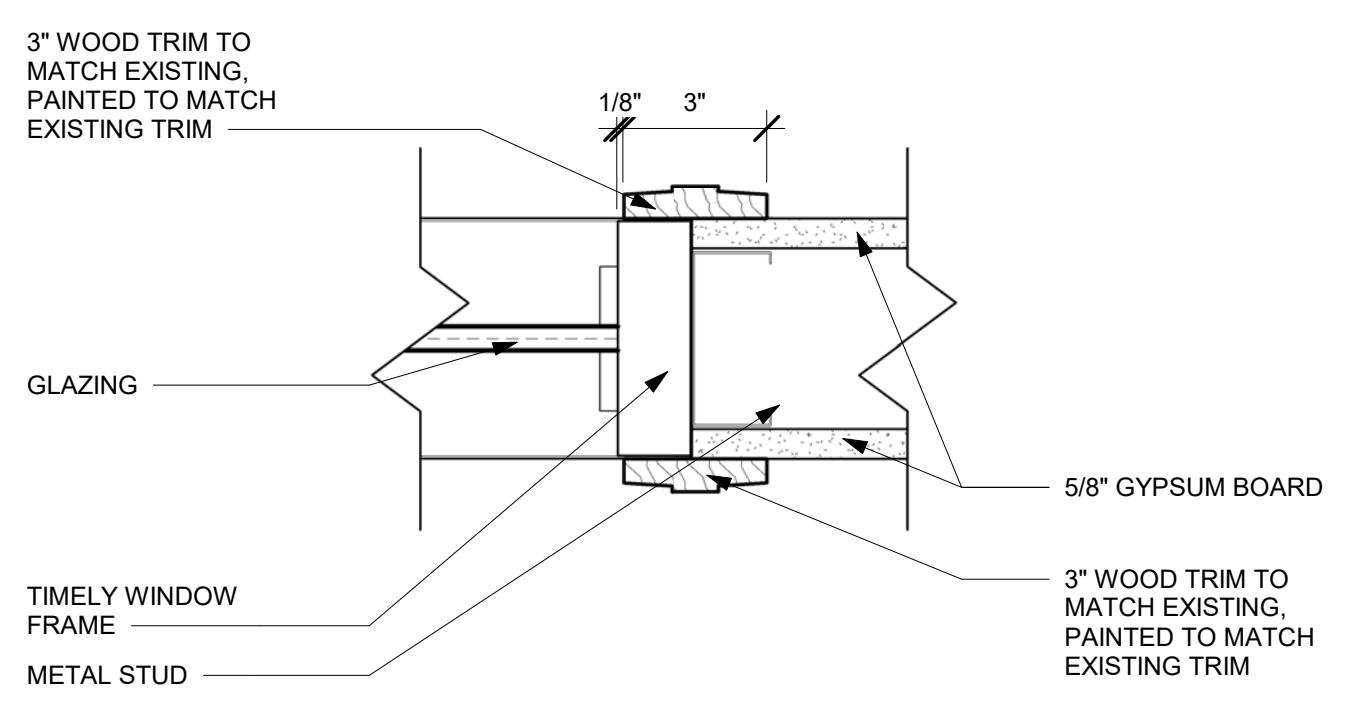
**2**  
A502  
**LOW WALL CAP TYPICAL DETAIL**  
3" = 1'-0"



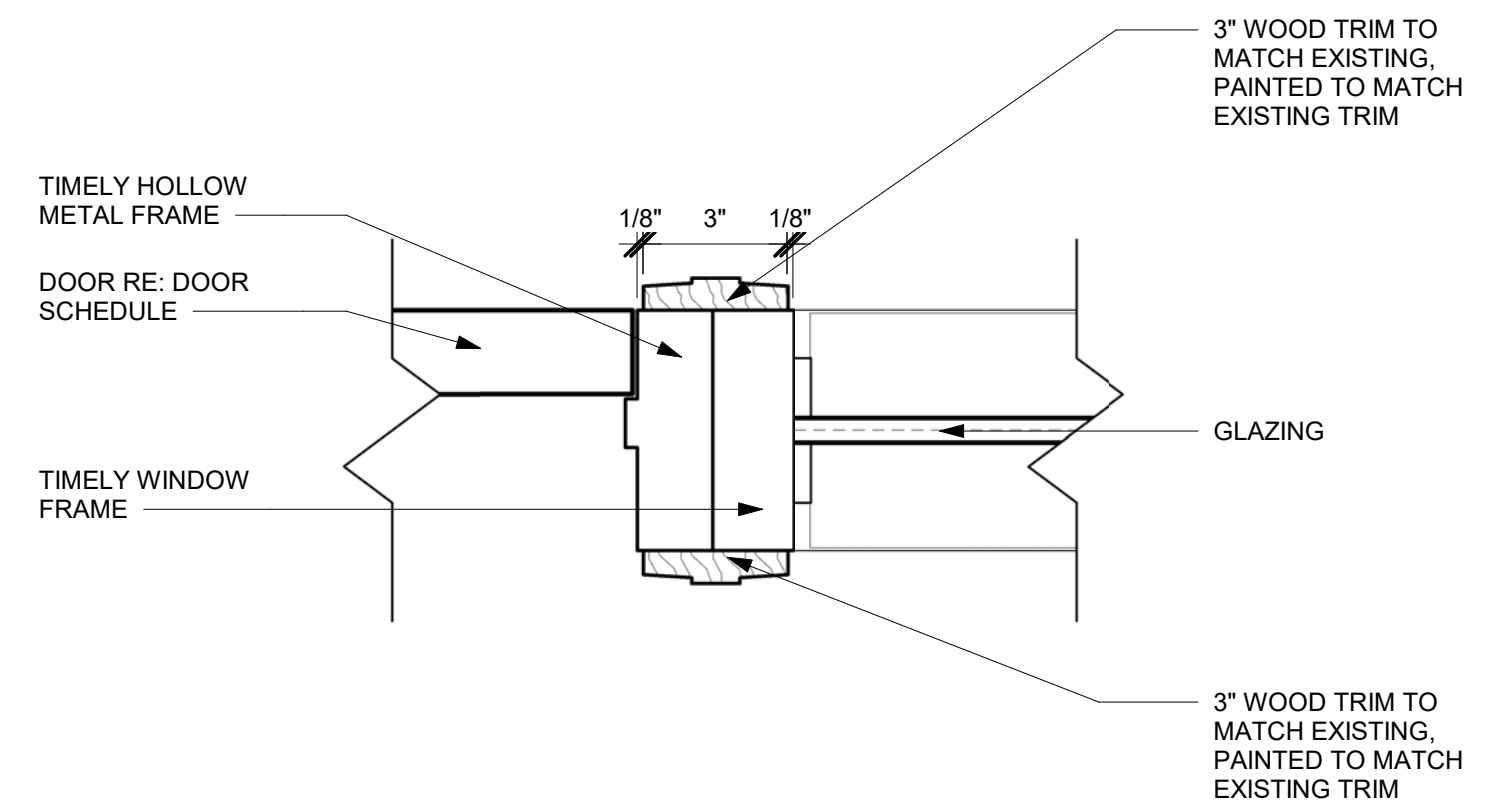
**3**  
A502  
**GLAZING HEAD TYPICAL DETAIL**  
3" = 1'-0"



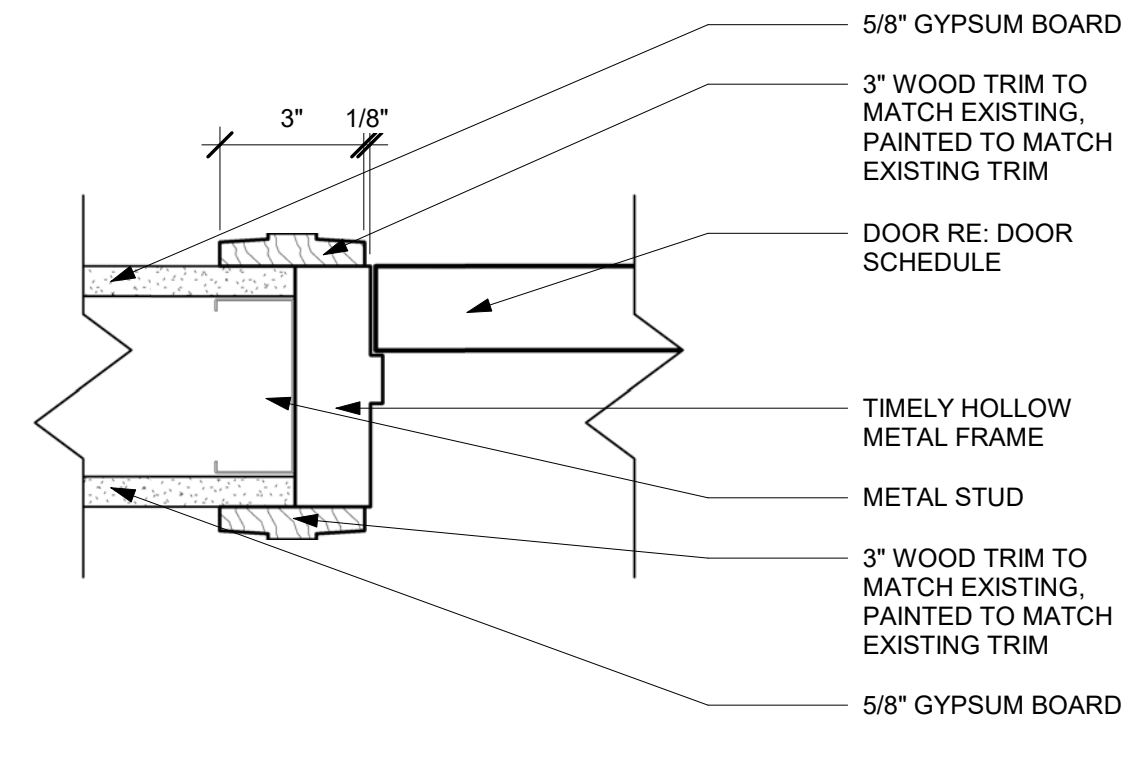
**4**  
A502  
**GLAZING SILL TYPICAL DETAIL**  
3" = 1'-0"



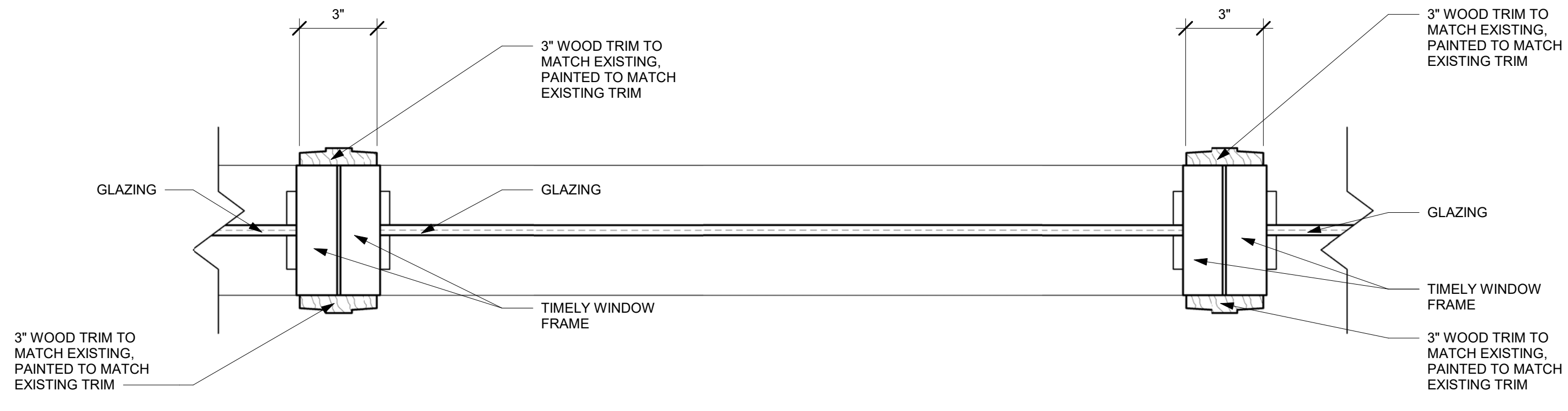
**5**  
A502  
**GLAZING JAMB TYPICAL DETAIL**  
3" = 1'-0"



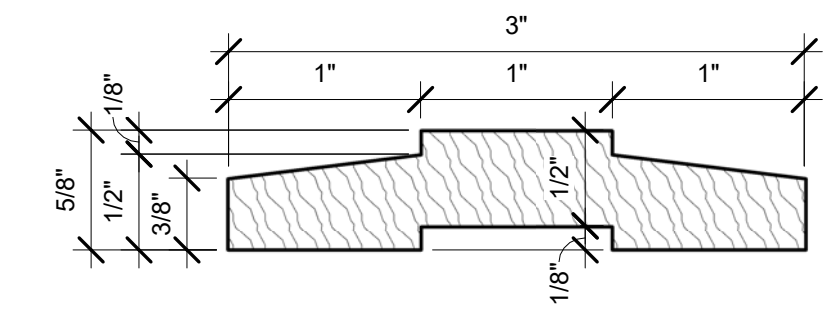
**6**  
A502  
**DOOR TO GLAZING JAMB TYPICAL DETAIL**  
3" = 1'-0"



**7**  
A502  
**DOOR JAMB/HEAD TYPICAL DETAIL**  
3" = 1'-0"



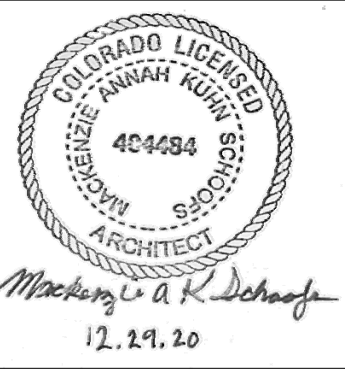
**8**  
A502  
**GLAZING TO GLAZING MULLION TYPICAL DETAIL**  
3" = 1'-0"



**9**  
A502  
**TRIM DETAIL**  
12" = 1'-0"



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1325 PEARL STREET  
COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC  
REMODEL

LOCATION  
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80302

SHEET  
DETAILS

FILE NAME  
G:\ASSET MANAGEMENT\1009-  
Courthouse\PROJECTS\101420 - BOCC  
HEARING ROOM &  
SECURITY RESOURCES\DRAWINGS\TYC\TRT  
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ACCT 100103  
DATE: 12/29/20  
DRAWN BY: Author  
CHECKED BY: Checker

REVISIONS

|  |
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SHEET  
A502

# BOCC 3RD FLOOR REMODEL DOOR AND FRAME SCHEDULE

| OPG. NO. | DOORS |        |        |           |        |      | FRAMES |        |      |        | HDWE. GROUP | REMARKS  |
|----------|-------|--------|--------|-----------|--------|------|--------|--------|------|--------|-------------|--|
|          | WIDTH | HEIGHT | THICK  | MAT.      | FINISH | TYPE | MAT.   | FINISH | TYPE | DEPTH  |             |  |
| 300A     | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 4           | TOUCH UP   |
| 300B     | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | B    | WOOD   | PAINT  | B    | 4 7/8" | 4           | PAINT TO MATCH OTHER EXISTING DOORS                      |
| 300C     | 6'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | E    | WOOD   | PAINT  | E    | 4 7/8" | 6           | PAINT TO MATCH OTHER EXISTING DOORS                      |
| 300D     | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | C    | WOOD   | PAINT  | C    | 4 7/8" | 2           | CARD ACCESS; CLOSER; PAINT TO MATCH OTHER EXISTING DOORS |
| 300E     | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 2           | CARD ACCESS; CLOSER; PAINT TO MATCH OTHER EXISTING DOORS |
| 301A     | 5'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | E    | WOOD   | PAINT  | E    | 4 7/8" | 6           | PAINT TO MATCH OTHER EXISTING DOORS                      |
| 302      | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | A    | WOOD   | PAINT  | A    | 5 1/2" | 2           | CARD ACCESS; CLOSER; PAINT TO MATCH OTHER EXISTING DOORS |
| 302A     | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | A    | WOOD   | PAINT  | A    | 4 7/8" | 5           | PAINT TO MATCH OTHER EXISTING DOORS                      |
| 306      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 8           | TOUCH UP   |
| 307      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 5           | TOUCH UP   |
| 308      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 5           | TOUCH UP   |
| 309      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 8           | TOUCH UP   |
| 310      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 5           | TOUCH UP   |
| 312      | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | A    | WOOD   | PAINT  | A    | 4 7/8" | 8           | PAINT TO MATCH OTHER EXISTING DOORS                      |
| 313      | EX.   | EX.    | EX.    | EX.       | PAINT  | A    | EX.    | PAINT  | A    | EX.    | 7           | TOUCH UP   |
| 314      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 8           | TOUCH UP   |
| 316      | 3'-0" | 84"    | 1-3/4" | S.C. WOOD | PAINT  | A    | WOOD   | PAINT  | A    | 4 7/8" | 2           | CARD ACCESS; CLOSER; PAINT TO MATCH OTHER EXISTING DOORS |
| 317      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 6           | TOUCH UP   |
| 318      | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 3           | TOUCH UP   |
| 318A     | EX.   | EX.    | EX.    | EX.       | PAINT  | EX.  | EX.    | PAINT  | EX.  | EX.    | 6           | TOUCH UP   |

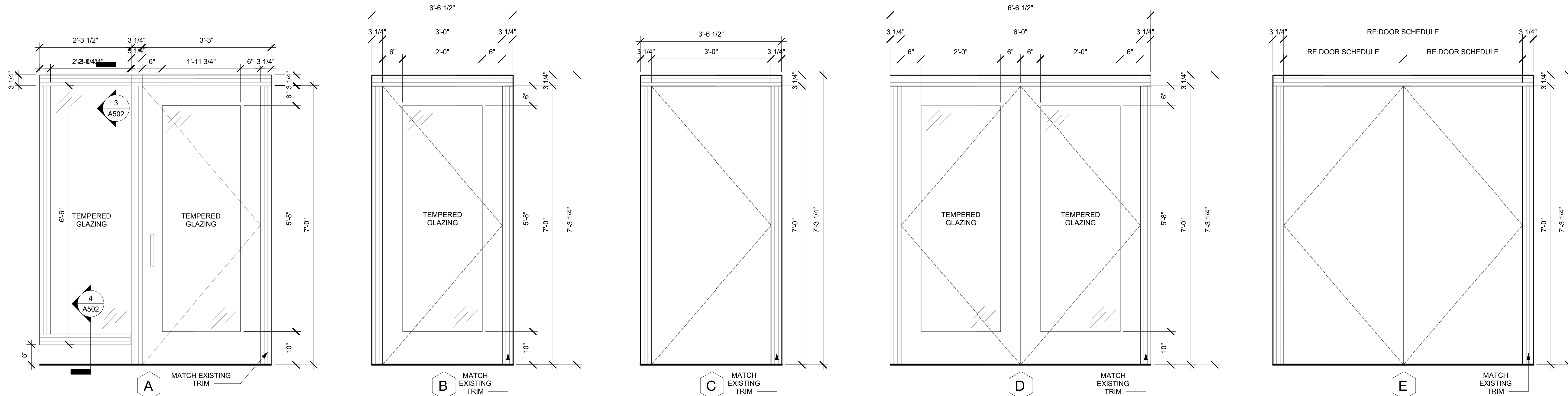
# ASSESSORS REMODEL ROOM FINISH SCHEDULE

| ROOM NUMBER | ROOM NAME          | FLOOR | BASE | WALLS  |          |        |          |        |          |        |          | CEILING |       |        | REMARKS |   |
|-------------|--------------------|-------|------|--------|----------|--------|----------|--------|----------|--------|----------|---------|-------|--------|---------|---|
|             |                    |       |      | NORTH  |          | EAST   |          | SOUTH  |          | WEST   |          | FINISH  | MAT.  | HEIGHT |         |   |
|             |                    |       |      | FINISH | MAT.     | FINISH | MAT.     | FINISH | MAT.     | FINISH | MAT.     |         |       |        |         |   |
| 300         | EX. HEARING ROOM   | CPT   | RB   | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | GYP.     | PAINT   | EX.   | EX.    | EX.     | TOUCH UP  |
| 300A        | STORAGE            | CPT   | RB   | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | GYP.     | PAINT   | SAC   | SAC    | 8'-0"   | -   |
| 301         | EX. LOBBY          | EX.   | RB   | EX.    | EX.      | EX.    | EX.      | EX.    | EX.      | EX.    | EX.      | EX.     | PAINT | EX.    | EX.     | TOUCH UP; REPLACE DAMAGED CEILING TILES; CLEAN GRID |
| 301A        | STORAGE            | EX.   | RB   | PAINT  | EX.      | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | EX.      | PAINT   | EX.   | EX.    | -       | -   |
| 302         | OFFICE AREA        | CPT   | RB   | PAINT  | EX.      | PAINT  | GYP. EX. | PAINT  | GYP. EX. | PAINT  | EX.      | SAC     | SAC   | 10'-9" | REPAINT |   |
| 302A        | OFFICE             | CPT   | RB   | PAINT  | GYP. EX. | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP. EX. | SAC     | SAC   | 10'-9" | -       |   |
| 306         | EX. CONFERENCE RM. | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | EX.     | EX.   | EX.    | EX.     | TOUCH UP; REPLACE DAMAGED CEILING TILES; CLEAN GRID |
| 307         | EX. OFFICE         | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP.     | PAINT  | GYP.     | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 308         | EX. OFFICE         | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP.     | PAINT  | GYP.     | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 309         | FACE TO FACE RM.   | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP. EX. | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 310         | EX. OFFICE         | CPT   | RB   | PAINT  | GYP.     | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP.     | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 311         | HALL               | CPT   | RB   | PAINT  | EX.      | PAINT  | GYP.     | PAINT  | GYP. EX. | PAINT  | EX.      | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 312         | BREAK ROOM         | RET   | RB   | PAINT  | GYP.     | PAINT  | EX.      | PAINT  | EX.      | PAINT  | GYP.     | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 313         | TOILET             | RET   | RB   | PAINT  | GYP. EX. | PAINT  | EX.      | PAINT  | GYP. EX. | PAINT  | GYP. EX. | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 314         | EX. CONFERENCE RM. | CPT   | RB   | PAINT  | EX.      | PAINT  | GYP.     | PAINT  | GYP.     | PAINT  | GYP.     | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 315         | RECEPTION          | CPT   | RB   | PAINT  | EX.      | PAINT  | GYP. EX. | PAINT  | GYP. EX. | PAINT  | GYP. EX. | SAC     | SAC   | EX.    | VARIES  | TOUCH UP AS NEEDED                                  |
| 316         | OFFICE AREA        | CPT   | RB   | PAINT  | GYP. EX. | PAINT  | GYP. EX. | PAINT  | GYP. EX. | PAINT  | GYP. EX. | EX.     | EX.   | EX.    | EX.     | REPAINT; REPLACE DAMAGED CEILING TILES; CLEAN GRID  |
| 317         | EX. STORAGE        | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | EX.     | EX.   | EX.    | EX.     | TOUCH UP AS NEEDED                                  |
| 318         | EX. AV OFFICE      | CPT   | RB   | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | PAINT  | EX.      | EX.     | EX.   | EX.    | EX.     | TOUCH UP AS NEEDED                                  |

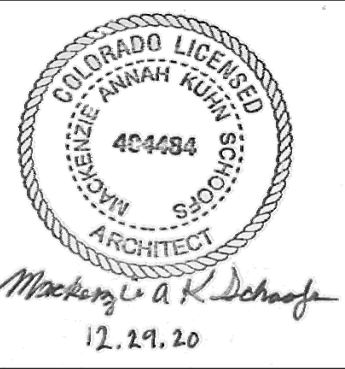
## HARDWARE GROUPS

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|--|---|---|---|
| 1. ENTRANCE EXISTING   | 3. OFFICE LOCKING<br>1 ENTRANCE (AB) SET<br>1 WALL DOOR STOP          | 5. OFFICE<br>1 PASSAGE SET<br>1 WALL DOOR STOP      | 7. PRIVACY<br>1 PRIVACY SET<br>1 SURFACE CLOSER     |
| 2. CARD ACCESS<br>1 PASSAGE SET<br>1 WALL DOOR STOP<br>1 SURFACE CLOSURE | 4. PUSH/PULL<br>1 PUSH/PULL PLATE SET<br>1 WALL DOOR STOP<br>1 CLOSER | 6. STOREROOM<br>1 STOREROOM SET<br>1 WALL DOOR STOP | 8. CLASSROOM<br>1 CLASSROOM SET<br>1 SURFACE CLOSER |

NOTE: ALL DOOR HARDWARE TO BE REPLACED WITH NEW LEVER SETS AS APPLICABLE. TOUCH UP OR REPAINT ALL FRAMES, AS NEEDED. CONSULT ARCHITECT FOR TOUCH UP/REPAINT COLORS.



BUILDING SERVICES DIVISION  
2020 13TH ST.  
BOULDER, CO 80302  
P.O. BOX 471 BOULDER, CO 80306  
PHONE: 303.441.3187  
mschoofs@bouldercounty.org



12.29.20

**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
3RD FLOOR BOCC REMODEL

LOCATION  
1325 PEARL STREET  
BOULDER, COLORADO  
80302

SHEET  
DOOR & FINISH SCHEDULES

FILE NAME  
G:\ASSET MANAGEMENT\1009 - Courthouse\PROJECTS\101420 - BOCC HEARING ROOM & SECURITY\REVIEWS\REVIEWS\TRCT 3RD FLOOR REMODEL 2020 PERMIT SET 12-29-2020.rvt

ACCT 100103  
DATE: 12/29/20  
DRAWN BY: MS  
CHECKED BY: JB

REVISIONS

SHEET  
**A601**



Boulder County  
 BUILDING SERVICES DIVISION  
 2020 13TH ST.  
 BOULDER, CO 80302  
 P.O. BOX 471 BOULDER, CO 80306  
 PHONE: 303.441.3187  
 mschoofs@bouldercounty.org



**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302

SHEET  
 BOCC THIRD FLOOR  
 DEMOLITION PLAN

FILE NAME  
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 Courthouse\PROJECTS\101420 - BOCC  
 HEARING ROOM &  
 SECURITY SERVICES DRAWINGS\3RD FLOOR  
 3RD FLOOR REMODEL 2020 PERMIT SET  
 12-29-2020.rvt

ACCT 100103  
 DATE: 12/29/20  
 DRAWN BY: MS  
 CHECKED BY: JB

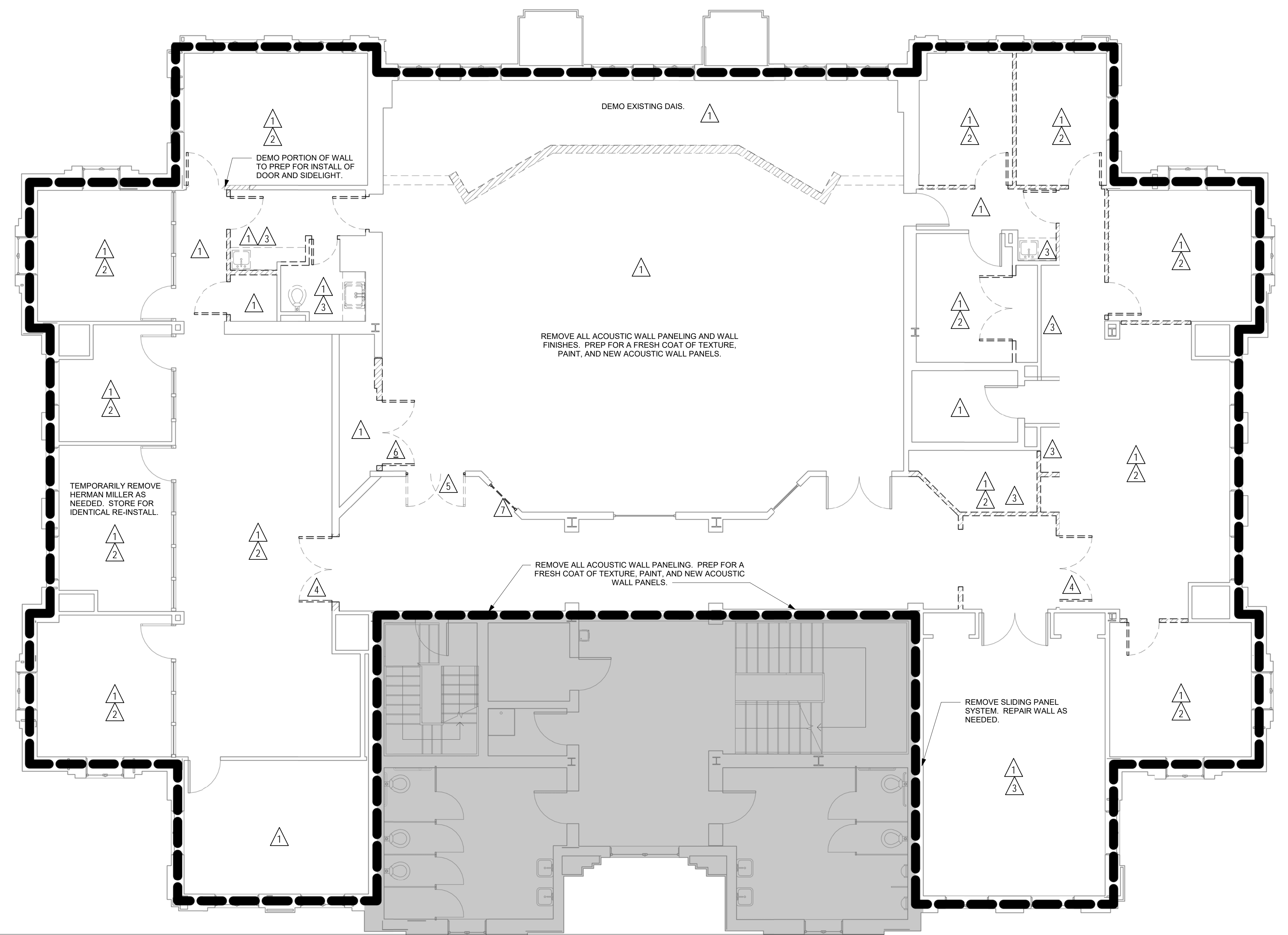
REVISIONS

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SHEET  
 AD101

**DEMOLITION LEGEND**

- PROJECT BOUNDARY
- EXISTING DOOR AND FRAME TO REMAIN. PROTECT DURING CONSTRUCTION.
- EXISTING DOOR AND FRAME TO BE REMOVED.
- EXISTING WALL TO REMAIN.
- EXISTING WALL TO REMAIN.
- EXISTING WALL TO BE REMOVED.
- AREA NOT IN SCOPE. TO REMAIN AS IS.
- FLOORING & BASE TO BE REMOVED. PREP FOR NEW FLOORING.
- REMOVE EXISTING HERMAN MILLER FURNITURE.
- REMOVE EXISTING CASEWORK.
- REMOVE EXISTING DOUBLE DOORS. PREP FOR SINGLE DOOR AND SIDELIGHT.
- REMOVE DOUBLE DOOR. PREP FOR INFILLING OPENING.
- REMOVE DOUBLE DOOR.
- REMOVE GLAZING AND METAL DETAILING. PREP OPENING FOR NEW DOOR. SAVE METAL DETAILING FOR INSTALL ON NEW DOOR.



**BOCC THIRD FLOOR  
 DEMOLITION PLAN**  
 1 AD101 3/16" = 1'-0"







Boulder County  
 BUILDING SERVICES DIVISION  
 2020 13TH ST.  
 BOULDER, CO 80302  
 P.O. BOX 471 BOULDER, CO 80306  
 PHONE: 303.441.3187  
 mschoofs@bouldercounty.org



**BOULDER COUNTY**  
 1325 PEARL STREET  
 COURTHOUSE 3RD FLOOR REMODEL

PROJECT  
 3RD FLOOR BOCC  
 REMODEL

LOCATION  
 1325 PEARL STREET  
 BOULDER, COLORADO  
 80302  
 SHEET  
 BOCC THIRD FLOOR  
 DEMOLITION REFLECTED  
 CEILING PLAN

FILE NAME  
 G:\ASSET MANAGEMENT\1009-  
 Courthouse\PROJECTS\101420 - BOCC  
 HEARING ROOM &  
 SECURITY VESTIBULE\DRAWINGS\RYTCRT  
 3RD FLOOR REMODEL 2020 PERMIT SET  
 12-29-20.rvt  
 ACCT 100103  
 DATE: 12/29/20  
 DRAWN BY: MS  
 CHECKED BY: JB

REVISIONS

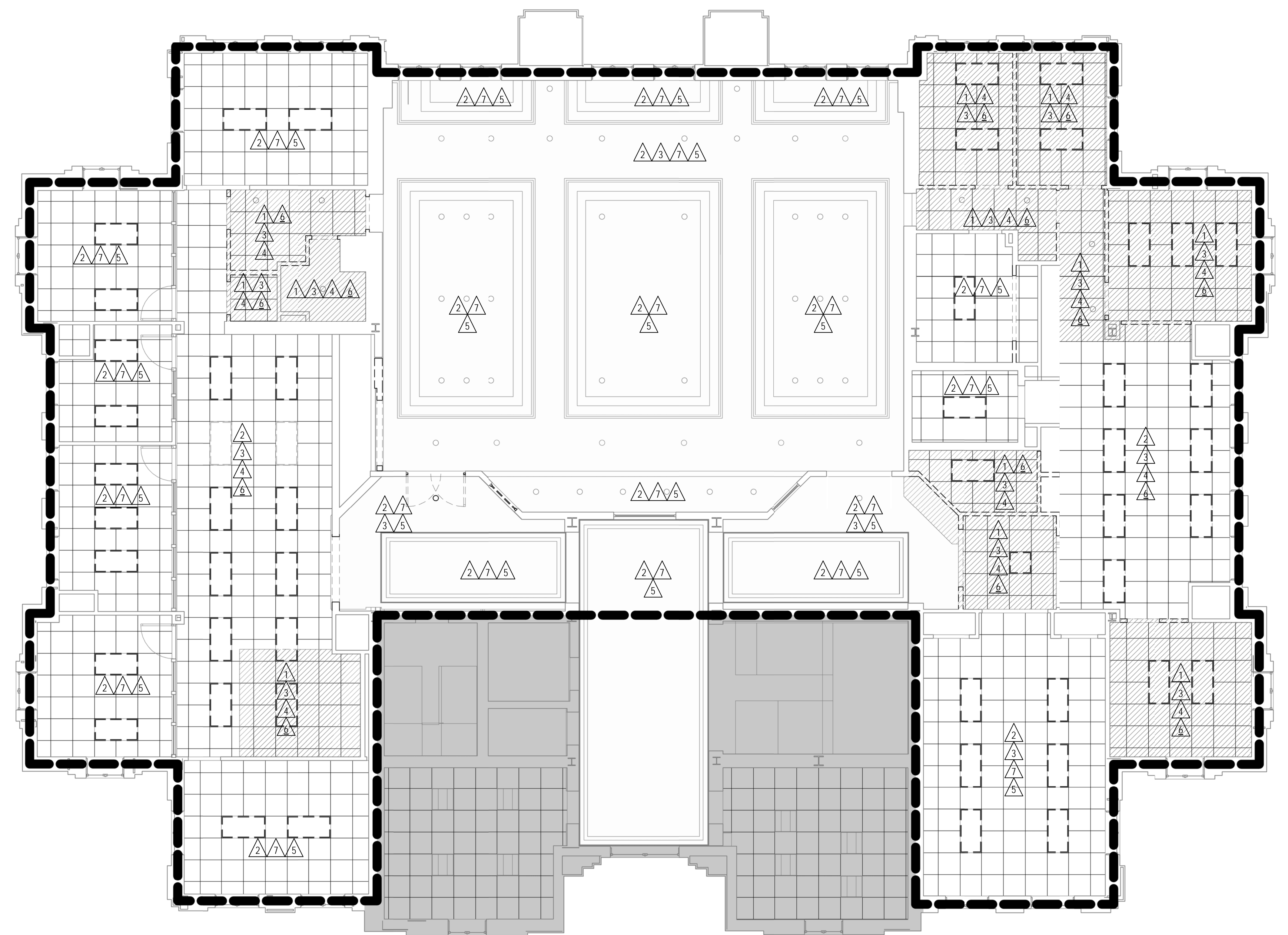
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SHEET  
 AD102

**DEMOLITION LEGEND**

- PROJECT BOUNDARY
- EXISTING CEILING TO BE REMOVED.
- EXISTING CEILING TO REMAIN. PROTECT DURING CONSTRUCTION.
- EXISTING WALL TO REMAIN.
- EXISTING WALL TO REMAIN.
- EXISTING WALL TO BE REMOVED.
- EXISTING LIGHT TO BE REMOVED.
- EXISTING LIGHT TO REMAIN.
- EXISTING CAN LIGHT TO REMAIN.
- AREA NOT IN SCOPE. TO REMAIN AS IS.
- EXISTING CEILING TO BE REMOVED.
- EXISTING CEILING TO REMAIN. PROTECT DURING CONSTRUCTION. CLEAN GRID. REPLACE DAMAGED/STAINED TILES.
- RECONFIGURE EXISTING MECHANICAL. RE:MECHANICAL
- EXISTING LIGHTING TO BE REMOVED, RECONFIGURED, AND UPDATED TO NEW STANDARD 2X2. RE:ELECTRICAL
- EXISTING SPRINKLER LAYOUT TO REMAIN AS IS.
- EXISTING SPRINKLER LAYOUT TO BE RECONFIGURED. RE: FIRE PROTECTION
- EXISTING LIGHTING TO BE REPLACED WITH NEW LED STANDARD FIXTURE. RE: ELECTRICAL

NOTE: SEE MECHANICAL, ELECTRICAL, FIRE PROTECTION, AND PLUMBING FOR ALL LIGHTING, MECHANICAL, AND PLUMBING.



**1**  
 AD102 BOCC THIRD FLOOR  
 DEMOLITION REFLECTED CEILING PLAN  
 3/16" = 1'-0"