

**ADDENDUM
NO. 2**

October 31, 2023

**HANOVER COMMUNITY SCHOOLS - JANE BALL ELEMENTARY
RENOVATIONS AND HIGH SCHOOL IMPROVEMENTS**

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated October 13, 2023 by Gibraltar Design. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Page ADD 2-1 through ADD 2-3 and attached Addendum No. 2 from Gibraltar Design dated October 30, 2023 and consisting of 5 pages, Specification Sections 09 65 68 - Roll Rubber Flooring, 21 05 00 - Fire Protection/Sprinkler System, 33 40 00 - Storm Sewage Systems, and 26 drawings.

A. SPECIFICATION SECTION 00 00 20 - TABLE OF CONTENTS

1. **Add:**

Specification Section 01 23 00 - Alternates
Specification Section 09 65 68 - Roll Rubber Flooring
Specification Section 21 05 00 - Fire Protection/Sprinkler System
Specification Section 33 40 00 - Storm Sewage Systems

B. SPECIFICATION SECTION 00 10 00 - INSTRUCTIONS TO BIDDERS

1.07 ALTERNATES

1. **Add:**

A. Requested alternatives are listed on the Bid Proposal Form and are described in detail under Section 01 23 00 - Alternates, Division 1 -

General Requirements. They must be bid with base bid. NOTE: The terms "alternate" and "alternative" are used interchangeably to have the same meaning in this Project Manual and on the Drawings.

- B. The cost of each alternate shall include omissions, additions, and adjustments of trades as may be necessary because of each change, substitution, addition, or omission.
- C. Each Bidder shall be responsible for bidding alternates which affect the Work of the base bid he is bidding, regardless of whether listed or not listed on the Supplemental Bid Proposal Form. If an applicable alternate(s) is not listed on the Supplemental Bid Proposal Form, the Bidder shall submit on his letterhead the cost of said alternate(s). No additional costs will be allowed after signing of Contract for failure to bid applicable alternates.
- D. The Owner retains the right to include or exclude work required by Alternates, for the sums established exercisable within one hundred eighty (180) days from and including the date of signing the Contract.

C. SPECIFICATION SECTION 00 31 00 - BID FORM

- 1. Replace:

The Bid Form with the attached revised Bid Form.

D. SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY

A. BID CATEGORY NO. 1 - SITEWORK/GENERAL TRADES

- 1. **Add:**

Specification Section 09 65 68 - Roll Rubber Flooring
Specification Section 21 05 00 - Fire Protection/Sprinkler System
Specification Section 33 40 00 - Storm Sewage Systems

- 2. **Revise:**

Clarification No. 12:

The **Bid Category No. 1 Contractor** is responsible for maintaining the SWPPP as indicated on Drawing Sheets C5.0, **C5.1**, and C6.0 including site inspection and the maintenance log.

E. SPECIFICATION SECTION 01 23 00 - ALTERNATES

1. Add:

The attached Specification Section in its entirety.

CONTRACTOR'S BID FOR PUBLIC WORKS FORM NO. 96

Format (Revised 2013)
(Amended for CPCSC)

**Hanover Community Schools –
Jane Ball Elementary Renovations and
High School Improvements Project**
Hanover Community School Corporation
Crown Point, IN

PART I

(To be completed for all bids. Please type or print)

Date (month, day, year): _____

BIDDER (Firm) _____

Address _____ P.O. Box _____

City/State/Zip _____

Telephone Number: _____ Email Address: _____

Person to contact regarding this Bid _____

Pursuant to notices given, the undersigned offers to furnish labor and/or materials necessary to complete the public works project of:

Insert Category No. (s) and Name(s)

Of public works project, *Hanover Community Schools – Jane Ball Elementary Renovations and High School Improvements Project*, in accordance with Plans and Specifications prepared by *Gibraltar Design, Inc., 9102 N. Meridian Street, Suite 300, Indianapolis, IN 46260*, as follows:

BASE BID

For the sum of _____
(Sum in words)

_____ DOLLARS (\$ _____)
(Sum in figures)

The undersigned acknowledges receipt of the following Addenda:

Receipt of Addenda No. (s) _____

PROPOSAL TIME

Bidder agrees that this Bid shall remain in force for a period of sixty (60) consecutive calendar days from the due date, and Bids may be accepted or rejected during this period. Bids not accepted within said sixty (60) consecutive calendar days shall be deemed rejected.

Attended pre-bid conference YES _____ NO _____

Has visited the jobsite YES _____ NO _____

The Bidder has reviewed the Guideline Schedule in Section 01 32 00 and the intent
Of the schedule can be met. YES _____ NO _____

Bidder has included their Written Drug Testing Plan that covers all employees of the bidder who will perform work on the public work project and meets or exceeds the requirements set in IC 4-13-18-5 or IC 4-13-18-6. YES _____ NO _____

The undersigned further agrees to furnish a bond or certified check with this Bid for an amount specified in the Notice to Bidders. If Alternate Bids apply, submit a proposal for each in accordance with the Plans and Specifications.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit basis, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS

(if applicable)

I, the undersigned bidder, Nor agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ALTERNATE BIDS

A blank entry or an entry of "No Bid", "N/A", or similar entry on any Alternate will cause the bid to be rejected as non-responsive only if that Alternate is selected. If no change in the bid amount is required, indicate "No Change".

****MARK "ADD" OR "DEDUCT" FOR EACH ALTERNATE****

Alternate Bid No. 1 - Rolled Rubber Flooring in Gymnasium.

Change the Base Bid the sum of _____
(sum in words)
_____ DOLLARS (\$ _____)
(sum in figures) ADD
DEDUCT

Alternate Bid No. 2 - New Masonry Mechanical Screen Wall

Change the Base Bid the sum of _____
(sum in words)
_____ DOLLARS (\$ _____)
(sum in figures) ADD
DEDUCT

PART II

(For projects of \$150,000 or more – IC 36-1-12-4)

These statements to be submitted under oath by each bidder with and as a part of his bid. (Attach additional pages for each section as needed.)

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in the process of construction by your organization?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you? _____ If so, where and why?

4. List references from private firms for which you have performed work.

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed Work. (Examples could include a narrative of when you could begin, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)

2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the work, state the name and addresses of each subcontractor, equipment to be used by the subcontractor, and whether you will require a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed Project? Any equipment used by subcontractors may also be required to be listed by the governmental unit.

5. Have you into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which corroborate the process listed.

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of Bidder's financial statement is mandatory. Any Bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the Contract must be specific enough in detail so that said governing body can make a proper determination of the Bidder's capability for completing the Project if awarded.

SECTION IV CONTRACTOR NON-COLLUSION AFFIDAVIT

The undersigned Bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this Bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporations has, have, or will receive directly or indirectly, any rebate, fee, gift, commission, or thing of value on account of such contract.

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including amended General Conditions and other Division 1 Specification Sections, apply to work of this Section.

1.02 PURPOSE

- A. The Bids for the Alternates described herein are required in order for the Owner to obtain information necessary for the proper consideration of the Project in its entirety.

1.03 ALTERNATES

- A. Definitions: Alternates are defined as alternate products, materials, equipment, installations, or systems for the Work, which may, at Owner's option and under terms established by Instructions to Bidders, be selected and recorded in the Owner-Contractor Agreement to either supplement or displace corresponding basic requirements of Contract Documents. Alternates may or may not substantially change scope and general character of the Work; and must not be confused with "allowances", "unit prices", "change orders", "substitutions", and other similar provisions.

1.04 SCHEDULE OF ALTERNATES

- A. ALTERNATE NO. 1: State the cost to provide all work associated with the rubber sports flooring in gymnasium B-104 as indicated on construction documents. **Base Bid:** Existing floor system to remain.
- B. ALTERNATE NO. 2: State the cost to provide all work associated with the masonry mechanical screen wall and gates as indicated on construction documents. **Base Bid:** Existing fencing enclosure to remain.

PART 2 - PRODUCTS, PART 3 - EXECUTION (Not Used)

END OF SECTION 01 23 00

ADDENDUM TWO

Addendum Two (AD.02) to the drawings and specifications prepared by Gibraltar Design for **Hanover CSC – Jane Ball ES Renovation and HS Improvements** for Hanover Community School Corporation, Cedar Lake, Indiana.

All Contractors bidding on this project shall read all of the items covered below and shall comply with all of the requirements as set forth, including any necessary refinements or additions generated by this Addendum and required by the intent of the original contract documents. All Contractors shall acknowledge on their bid form that they have received this Addendum, Addendum One, and include the appropriate content of same within their bid proposal.

SPECIFICATIONS

1. Specification Section 00 01 10

Table of Contents

A. Add the Following Specifications Sections to the Table of Contents:

- | | | |
|----|----------|----------------------------------|
| 1. | 09 65 68 | Roll Rubber Flooring |
| 2. | 21 05 00 | Fire Protection/Sprinkler System |
| 3. | 33 40 00 | Storm Sewage Systems |

2. Specification Section 05 50 00

Miscellaneous Metals

A. Add new Paragraph 3.3.E. as follows:

“E. Downspout Boots: Provide cast iron downspout boots equal to Barry Pattern & Foundry Company, Inc., Birmingham, Alabama, Type B25A, offset, approximately 18 inches high, at downspout locations. Verify size of downspouts prior to ordering. Equal products as manufactured by Neenah Foundry Company, Neenah, Wisconsin; McKinley Iron Works Inc., Ft. Worth, Texas or an approved equal, will be acceptable.”

B. Add new Paragraph 3.3.F. as follows:

“F. Mechanical Yard Gates and Sound Baffles: Provide all steel framing and steel channel jambs required for the gates at the mechanical equipment yard.

1. Mechanical Yard Gates: Provide aluminum panels on the gate; Shadow 100 as manufactured by AMETCO, Vert-A-Cade 700, as manufactured by Construction Specialties, Inc., Cranford, New Jersey; Model ES-200 as manufactured by Industrial Louvers, Inc., Delano, Minnesota; Model SV961 as manufactured by The Airlite Company, Marietta, Ohio; or an equal as approved by the Architect, complete with all trim, clips, and support runners.
 - a. Fabricate blades of 6063-T52 alloy aluminum, 0.081 inch in thickness, without horizontal joints.
 - b. Provide padlock, hasp, hardware, and cane bolts for gate.
 - c. Provide a Kynar 500 or Hylar 5000 finish in one of manufacturer's available colors as selected by the Architect and Owner.
2. Sound Baffles: Mount acoustical panels on the inside surface of masonry wall and aluminum panels on gates at mechanical equipment yard.

- a. Provide wall mounted acoustical panels as manufactured by Alpro Acoustics Division, New Orleans, Louisiana.
 - b. Fabricate of 0.032inch thick stucco-embossed perforated aluminum, pattern F, with baked enamel finish in one of manufacturer's available colors as selected by the Architect.
 - c. Insulation: 2 inches thick fiberglass with a minimum density of 1.5 pounds per cubic foot, wrapped in 0.75 mil polyvinyl-chloride.
 - d. Provide aluminum J-moldings at perimeter of panels. Provide 0.032 inch thick aluminum flashing and 1/8 inch termination bar at top of panels.
3. Gate Holder: Extra heavy duty cane bolt, as sourced through 'HardwareSource' – Zinc coated steel, 17-inch length, 3/4-inch rod diameter, with spring loaded guide and all accessory hardware included.
- 3. Specification Section 07 21 19 Aluminum Fascia's, Copings, Gutters, and Downspouts**
- A. Revise Paragraph 2.1.A.2. to read :
- "2. Copings:
- a. For widths up to 14-inches, provide in 0.050 -inch thickness."
- 4. Specification Section 09 65 68 Roll Rubber Floorings**
- A. Add new Specification Section 09 65 68, Roll Rubber Flooring, included in this Addendum, to the Project Manual.
- 5. Specification Section 21 05 00 Fire Protection/Sprinkler System**
- A. Add new Specification Section 21 05 00, Fire Protection/Sprinkler System, included in this Addendum, to the Project Manual.
- 6. Specification Section 33 40 00 Storm Sewage Systems**
- A. Add new Specification Section 33 40 00, Storm Sewage Systems, included in this Addendum, to the Project Manual.

DRAWINGS

7. Sheet G-101

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
1. Add sheets C-1.2, C-3.1, C-4.1, C-5.1, A-302, A-840, and FP-102 to the sheet index.

8. Sheets C-1.2, C-3.1, C-4.1, and C-5.1

- A. Refer to the new full size drawings showing a proposed storm sewer to be constructed north of the football field at the Hanover High School property.

9. Sheet AD-101

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
1. Add demolition plan notes 28-31
 2. Added Alternate to demo existing mechanical/electrical yard fencing.

10. Sheet AD-102

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
 - 1. Add demolition plan notes 28-33
 - 2. Add plan notes 28 and 29 outside of main entrance.
 - 3. Added notes to denote where there is a load bearing wall where construction is taking place.
 - 4. Added alternate to demo existing gym floor and prepare it for new.

11. Sheet A-101

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
 - 1. Revise Plan note 22 and add plan notes 23-24.
 - 2. Remove ramp dimensions, refer to Civil.
 - 3. Add elevation callouts.
 - 4. Add alternate for new masonry mechanical yard wall with gates.

12. Sheet A-102

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
 - 1. Revise Plan note 22 and add plan notes 23-24.
 - 2. Add elevation callouts.
 - 3. Revise location of Knox Box, card readers, and ADA push pads at the front entrance.
 - 4. Added alternate for new gym floor.

13. Sheet A-103

- A. Refer to revised full-size drawing, included in this Addendum for the following revisions.
 - 1. Revise Plan note 22 and add plan notes 23-24.
 - 2. Add elevation callouts.
 - 3. Infill existing window opening at Classroom C-115.

14. Sheet A-302

- A. Refer to new full-size drawing, included in this Addendum for new exterior elevations showing new louvers and masonry infill.

15. Sheet A-402

- A. Refer to revised full-size drawing, included in this Addendum for the addition of wall section 2/A-402, coping detail 3/A-402, and mechanical yard gate elevation and details 4/A-402.

16. Sheet A-501

- A. Refer to revised full-size drawing, included in this Addendum for revisions to wall section 3/A-501.

17. Sheet A-601

- A. Refer to revised full-size drawing, included in this Addendum for revisions.
 - 1. Add power assisted operator for door 102-A.
 - 2. Revise Door Schedule Notes 7-9.

18. Sheet A-801

- A. Refer to revised full-size drawing, included in this Addendum, for the following revisions:
 - 1. Plan Note change. Change VCT to Carpet for room A-113.

19. Sheet A-802

- A. Refer to revised full-size drawing, included in this Addendum, for the following revisions:
 - 1. Plan Note Add. See Art room B-119 added keynote #8.
 - 2. Added plan note 12.
 - 3. Added alternate for new gym floor.

20. Sheet A-820

- A. Refer to revised full-size drawing, included in this Addendum, for the following revisions:
 - 1. Add B2 (Vinyl Millwork Base) to wall base and RRF (Rolled Rubber Flooring) to Floor Materials.

21. Sheet A-840

- A. Refer to added full size drawing, included in this Addendum, for gym floor striping.

22. Sheet MD-102

- A. Refer to added existing air handler units and ductwork.

23. Sheet MD-103

- A. Refer to added existing hot water supply and return piping.

24. Sheet M-102

- A. Add existing piping.
- B. Revise new piping.
- C. Add existing ductwork.

25. Sheet M-103

- A. Add existing piping.

26. Sheet M-201

- A. Revise mechanical louver details.

27. Sheet FP-102

- A. Added new Full-Size Sheet clarifying the Fire Protection Scope.

28. Sheet ED-102

- A. Revised demolition wall requirements. Refer to revised drawing for additional information.

29. Sheet E-202

- A. Revised electrical power and low voltage device requirements. Refer to revised drawing for additional information.

Pages 1 through 5, inclusive, Specification Sections 09 65 68, 21 05 00, 33 40 00 and Twenty-six (26) Full-Size Drawings, constitute the total makeup of **Addendum Two**.



Joseph P. Briggs

Y:\23-140 Hanover CSC - Jane Ball Elementary School Renovation\Specs\ADDENDUM TWO\AD02.doc

SECTION 09 65 68

ROLL RUBBER FLOORING

1 General

1.1 Section Includes

- A. Vulcanized Rubber Flooring System.
- B. Floor treatment for sealing existing concrete floor due to moisture.
- C. Floor preparation for rubber flooring.
- D. Rubber wall base.

1.2 References

- A. ASTM D395 – Rubber Property – Compression Set.
- B. ASTM D623 – Rubber Property – Heat Generation and Flexing Fatigue in Compression.
- C. ASTM D624 – Tear Strength of Conventional Vulcanized Rubber Thermoplastic Elastomers
- D. ASTM D2047 – Static Coefficient of Friction of Polish-Coated Floor surfaces as Measured by the James Machine.
- E. ASTM D2240 - Rubber Property - Durometer Hardness, Surface Abrasion.
- F. ASTM D3673 – Chemical Analysis of Alpha Olefin Sulfonates.
- G. ASTM F36 – Compressibility and Recovery of Gasket Material.
- H. ASTM F147 – Flexibility of Non-Metallic Gasket Materials.
- I. ASTM F1869: Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

1.3 Qualifications

- A. Flooring Contractor: Experienced in the flooring field and approved by manufacturer.
- B. Applicator: Trained and approved by product manufacturer.

1.4 Submittals

- A. Submit shop drawings.
- B. Submit shop drawings indicating layout and dimensions for game lines.

- C. Submit product data for flooring materials, finishing materials, and game line paint.
- D. Submit samples illustrating colors and textures available, including game line paint.
- E. Submit manufacturer's installation instructions.
- F. Submit manufacturer's certificate that products meet or exceed specified requirements.

1.5 Maintenance Data

- A. Submit cleaning and maintenance data.
- B. Include procedures for stain removal, repairing surface, and cleaning.
- C. Keep information updated through permanent customer mailing list.

1.6 Delivery, Storage, And Handling

- A. Deliver products to site.
- B. Store and protect products.
- C. Store materials in a dry, secure area.
- D. Maintain minimum temperature of 70 degrees F.
- E. Keep products away from fire or open flame.

1.7 Environmental Requirements

- A. Environmental temperatures must average a minimum of 65 degrees F for one full week preceding, throughout, and 72 hours following application.
- B. Restrict traffic from area where flooring is being installed or is curing.
- C. Moisture vapor emission content of the concrete slab must not exceed manufacturer's recommended criteria when using the calcium chloride test as per ASTM F1869.

2 Products

2.1 Materials

- A. Flooring System: The complete installation of resilient vulcanized rubber flooring product, including adhesives and roll rubber product.
 - 1. Basis of Design: Mondo Indoor Sport USA, Conshohocken, PA.
 - a. Advance, Vulcanized Rubber Flooring, 10 mm.
 - 2. Other Acceptable Manufacturers:
 - a. Robbins Sports Surfaces, Cincinnati, Ohio; Galaxy Ultra, 10 mm

b. OSST Sport, Woodstock, Illinois; TeamPlay-Marble, 10 mm.

3. Location: Refer to Documents.

2.2 Rubber Base Materials

A. Acceptable Manufacturers:

1. Armstrong World Industries, Inc., Lancaster, Pennsylvania.
2. Johnsonite, Solon, Ohio.
3. Roppe Rubber Corporation, Fostoria, Ohio.

B. Rubber Base: Basis of Design – Johnsonite Millwork Wall Base, Reveal Style, 4.25-inches; 1/4 inch thick.

1. Colors as selected by Architect.

2.3 Accessories

A. Sub-Floor Filler: White premix latex; type recommended by Epoxy Sealer and Rubber Flooring manufacturers – for depth required to comply with existing material depth.

B. Provide and install moisture mitigation epoxy coating as required and approved by flooring manufacturer.

C. Edge Strips, Doorways and Transitions: Metal or Rubber trim strips for transitions as recommended by the manufacturer.

1. Type and color: To be approved and selected by architect from manufacturers standard systems, or as recommended by manufacturer.

D. Adhesives: Waterproof; types recommended by resilient base manufacturer.

E. Game-Line and Marker Paint: Complete system including primer, if any, compatible with the flooring system and recommended in writing by the Flooring and Paint manufacturers for use indicated.

1. Line work and colors are to match the existing gymnasium floors line of the school, unless noted otherwise.
2. Properly clean new floor and prepare as recommended by the manufacturers.

3 Execution

3.1 Examination

A. Verify that substrate is ready to receive work, and that subfloor surface is clean and free of substances which could affect bond.

B. Prepare existing concrete slab with surface cleaning as required to allow for installation of rolled rubber floor system. Refer to Specification Section 02 41 30.

- C. Concrete Slab Tolerance: Smooth, dense finish, highly compacted with a tolerance of 1/8" in a 10 ft radius.
- D. Installer shall perform tests for moisture and adhesion prior to application and provide remediation as required.
 - 1. It is the responsibility of the Flooring Contractor to treat the concrete slab, to obtain the manufacturer's recommended moisture content and to comply with the product warranty. No extra expense will be allowed. All treatment required shall be included in the Contractor's bid.
- E. Clean substrate surface free of foreign matter as recommended by the manufacturer.
- F. Patch concrete floor substrate with filler to produce smooth, even surface.
- G. Beginning of installation means acceptance of substrate.

3.2 Protection

- A. Protect elements surrounding the work of this Section from damage or disfiguration.

3.3 Installation

- A. General:
 - 1. Apply flooring in accordance with manufacturer's instructions.
 - 2. Lay out all material, making all fittings, cuttings, or corrections according to tolerances in rubber products before applying adhesives,
 - 3. Use extreme care to check and immediately wipe off any excess adhesive squeezing through the seams or any spot showing on the finish surface.
 - 4. Mix two-component Tacky Adhesive according to suppliers directions and spread adhesive using notched trowel.
 - 5. Install flooring into freshly applied adhesive. End seams shall be overlapped and double cut; edge seams shall be factory edge – comply with manufacturers recommendations for all edge conditions.
- B. Clean up all unused materials and debris and remove from the premises. Dispose of empty containers in accordance with federal and local statutes.

3.4 Protection

- A. Cure Time:
 - 1. No traffic or other trades shall be allowed on the surface for a period of one week following completion to allow for complete and proper cure of the finish.

- B. Other Trades:
 - 1. Protect the surface from damage by other trades before acceptance by the Owner or the Owner's Authorized Agent.
- C. Safety:
 - 1. No smoking, open flames, or sparks from electrical equipment or any other source shall be permitted during the installation process, or in areas where materials are stored.

3.5 Installation - Base Material

- A. Fit joints tight and vertical.
- B. Maintain minimum measurement of 18 inches between joints.
- C. Miter internal corners.
 - 1. At external corners, follow manufacturers recommendations.
- D. Install base on solid backing.
 - 1. Bond tight to wall surfaces.
 - 2. Spread adhesive to full coverage with notched trowel.
- E. Scribe and fit to door frames and other interruptions.
- F. Install in and around all recesses, openings, equipment, etc.

3.6 Game Line and Markers

- A. Mark Flooring at lines and markers to comply with rules and diagrams published by the Indiana High School Athletic Association (IHSAA) and/or to match the existing lines.
- B. Layout game-lines and markers to comply with rules and diagrams published by the Indiana High School Athletic Association (IHSAA) and/or to match the existing lines for the athletic activities indicated.

3.7 Cleaning

- A. Provide initial cleaning of floor surface as recommended by the manufacturer.
- B. Remove excess adhesive from base and wall surfaces without damage.
- C. Clean resilient base surfaces in accordance with manufacturer's instructions.

END OF SECTION

DIVISION 21 – FIRE PROTECTION
Section 21 05 00 – Fire Protection/Sprinkler System

1.00 PART 1 – GENERAL

1.01 RELATED DOCUMENTS:

- A. Drawings and General Provisions of Contract, including General Conditions and Special Provisions, Division 1, apply to work of Division 21.
- B. This Section is a part of each Division 21 Section applicable to the work specified therein.

1.02 DESCRIPTION OF WORK:

- A. Extent of fire protection work is indicated on drawings and/or specified in other Division 21 Sections.
- B. Supply labor, equipment, and material required for the complete installation and testing of the Fire Protection systems, as shown on the contract documents.
 - 1. Furnish and install new sprinkler piping complete with valves, overhead piping, pipe supports, pipe sleeves, and sprinkler heads.
 - 2. Do the testing of piping work and necessary cleaning of the fire protection work.
 - 3. Furnish the shop drawings and certificates of inspection.
 - 4. Periodically remove from the job site rubbish or debris resulting from the fire protection work.
- C. Provide necessary hydraulic calculations and drawings indicating pipe sizes, etc. as per latest NFPA Code requirements.

1.03 DEFINITIONS:

- A. Phrase "exposed to view" indicates that pipes, and similar items so referenced, are to remain visible (not concealed) in the completed structure.
- B. Phrases "in concealed spaces" or "not exposed to view" indicate that pipes, ducts, and similar items so referenced, insulated or otherwise, are concealed and not exposed to view and are within furred spaces, above suspended ceilings, in pipe chases, or similar enclosures.
- C. Phrases "unfinished spaces" and "unfinished rooms" refer to areas such as Storage Rooms, Mechanical Equipment Rooms, and similar spaces.
- D. Phrases "finished areas" and "finished rooms" refer to rooms or spaces such as offices, corridors, or similar inhabited areas.
- E. Phrase "piping" refers to all piping systems described within Division 21 specifications.
- F. Wherever the term "--this FIRE PROTECTION DIVISION--" is used, such term means this DIVISION 21 and includes every section in DIVISION 21.



- G. Wherever the term "--provide--" is used, such term means that the mechanical trade shall furnish and install the subject equipment and/or material, or both.
- H. Whenever the term "--install--" is used, such term means that the mechanical trade shall install only the subject equipment and/or material, or both. Wherever the term "--furnish--" is used, such term means that the mechanical trade shall furnish only the subject equipment and/or material.
- I. Main Pipe: Pipes supplying Cross Mains, either directly or through risers.
- J. Cross Main Pipe: Pipes supplying branch lines, either directly or through risers.
- K. Branch Line Pipe: Pipes in which sprinklers are placed, either directly or through risers.

1.04 QUALITY ASSURANCE:

- A. Work shall be in complete accordance with codes, rules, or ordinances and regulations of authorities, bodies, associations, governments, etc. having proper and/or legal jurisdiction. Specifically, the following requirements shall be met in their entirety:
 - 1. State, federal, and local rules, regulations, codes, statutes, and ordinances.
 - 2. National Fire Protection Association - all applicable requirements.
 - 3. National Board of Fire Underwriters (U.L., Inc., label).
 - 4. National Electric Code - all applicable requirements.
- B. Other codes and standards as specifically noted in each Section of the contract documents.

1.05 TESTS AND INSPECTIONS:

- A. Conduct tests and inspections as specified and as required to assure proper installation and operation of systems. Do not allow work to be enclosed or concealed prior to required testing or observation. Where testing or inspections are required to be performed by others, cooperate fully therewith, and provide safe access to components and systems as required.

1.06 MATERIALS AND CHANGES:

- A. It is intended that materials or products specified by the name of the manufacturer or the brand or trade name or the catalog reference shall be the basis of the estimate and furnished under the contract unless changed by mutual agreement.
- B. Where there are two (2) or more brands named, the choice of these shall be optional, subject to approval. Costs associated with the choice of equipment shall be covered by the Contractor.
- C. Changes in the work from the contract documents shall not be made unless written authorization for the change has been provided. Claim for an addition to or deduction from the contract sum shall not be valid unless so ordered.



- D. The materials required for the performance of the work shall be new and the best of their respective kinds and of uniform pattern throughout the work.

1.07 LAWS AND ORDINANCES:

- A. Work shall be done in strict accordance with the requirements of the latest standards of the National Fire Protection Association, Pamphlet #13 and is subject to the inspection and approval of the state ISO and state and local fire departments and authorities having jurisdiction.
- B. Work shall be executed and inspected in accordance with rules, regulations, laws, and ordinances of the local, federal, city, county, and state authorities, and the utility companies serving the area in which the installation is to be made.
- C. If there is a discrepancy between the codes and regulations having jurisdiction over the installation and these contract documents, the codes and regulations shall determine method of equipment used.
- D. Install Class I standpipe system, hose connections, valves, alarms, etc. as required to comply with the latest standard of NFPA 14, IBC and local Code requirements.
- E. If there is anything in the contract documents that will not strictly comply with the above laws, ordinances, and rules, a written request for a clarification shall be submitted before proceeding with that part of the work. No changes in the contract documents shall be made without written consent.
- F. All changes in the sprinkler work made after the letting of the contract in order to comply with the applicable codes or requirements of the enforcing inspectors shall be made without additional cost.

1.08 CERTIFICATES AND FEES:

- A. Give all necessary notices, obtain all necessary permits, and pay all fees in order that the work hereinafter specified may be carried out. Furnish all certificates necessary as evidence that the work installed conforms to the laws and regulations of authorities having jurisdiction. Before final certificates are issued, make changes and alterations required by authorized inspector of an authority having jurisdiction.

1.09 DRAWINGS:

- A. The contract documents are not intended to include work and material required for the full completion of the systems outlined. Contract documents are schematic and indicate the intended systems and their function. Materials, work, or details required for the proper execution and completion of the work described or shown and shall be furnished and installed as a part of this contract, without extra charge.
- B. The contract documents indicate the general location of equipment and the route to be followed by the piping which is to be installed. Piping and equipment shall be installed in such a way as to conserve head room and interfere as little as possible with the free use of the space through which they pass. Prepare interference drawings where required or requested.



- C. The contract documents show the schematic layout for sprinkler head locations. Center sprinkler heads in the lay-in ceiling tile or as noted on the accompanying contract documents.
- D. Consult architectural and structural contract documents for necessary changes or additions to accommodate existing or structural conditions. The location of pipes and equipment shall be altered without charge before installation. Obtain written approval before making alteration.
- E. As the work progresses and before installing equipment which may interfere with the interior treatment or use of the building, obtain drawings or instructions for the exact location of such equipment.
- F. Cooperate with other trades so that piping, equipment, etc. will not interfere with the work.

1.10 COORDINATION:

- A. Lay out work to be installed in coordination with each trade engaged on this project. Cooperate with trades in order to coordinate work and eliminate conflicts between this work and that of other trades. Cooperate with trades to coordinate work to maintain maximum accessibility and serviceability to equipment, valves, etc.
- B. Be fully responsible for conflicts between this work and that of other trades engaged on this project.
- C. Piping or equipment which has been installed without checking for interferences and without maintaining maximum accessibility and serviceability shall be modified without additional expense.
- D. Supply, to other trades, equipment to be built-in by them or measurements to allow necessary openings to be left.
- E. Trade priority list shall be as follows unless directed otherwise:
 - 1. Electrical Lighting Fixtures
 - 2. Mechanical Grilles and Diffusers
 - 3. Mechanical Ductwork
 - 4. Electrical Conduit
 - 5. Piping Systems

1.11 JURISDICTION OF WORK:

- A. When it becomes necessary for the complete fulfillment of this work or to furnish labor or materials other than that which is generally accepted by trade agreement or general practice to belong to a particular trade or branch of work, the contractor shall procure to a contractor engaged in the trade or branch of work involved to the end that there shall be no delay to or stoppage of work due to infringement of trade agreements as to jurisdiction.

1.12 WORKMANSHIP:

- A. Only first class workmanship will be accepted - not only as regards to safety, efficiency, durability, etc. - but also as regards to the neatness of detail. Pipe work must be lined up paralleling or at right angles to the building walls. Equipment must be accurately set, plumbed, and leveled, and hanger rods must be in true vertical alignment. In general, the entire work throughout shall present a neat and clean appearance on completion.

1.13 RECORD DRAWINGS:

- A. On a clean set of prints, clearly mark, as the work progresses, changes and deviations from systems, layouts, etc. shown on the contract documents, so that, on completion of the work, there will be a record of the exact location of piping and equipment.
- B. Transfer notes and changes in a neat, clear manner to one (1) complete set of bond documents. Submit one (1) complete set of field documents, two (2) sets of prints, and one (1) electronic file showing complete mechanical contract documents with changes correctly shown for review.

1.14 SUBMITTALS:

- A. Six (6) sets of the final detailed working drawings to the authority having jurisdiction with the request to return five (5) approved copies. They shall retain one (1) set of drawings for their file.
 - 1. In the event additional clarifying details are required by the authority having jurisdiction, the details shall be prepared, and approval of same secured by the contractor at his expense.
 - 2. Provide approval letter from authority having jurisdiction for review.
- B. Prepare drawings of the automatic sprinkler work showing the arrangement of automatic sprinkler piping for equipment, spacing of sprinkler heads, size and elevations of lines and details necessary for the conduct of work. The sprinkler system shall be designed using hydraulically sized pipe based on the applicable occupancy hazard as stated in the latest edition of the NFPA code and as required by local authorities having jurisdiction. Provide hydraulic calculations on entire system as per NFPA Code requirements. Shop drawings shall include the following as a minimum:
 - 1. Reflective ceiling plans with light fixtures and HVAC diffusers.
- C. Before commencing work or providing materials at the job site for this project, submit for review catalog cuts and descriptive matter regarding materials and equipment which he intends to furnish and install. Shop drawings shall be complete in every detail; partial lists of manufacturer's shop drawings and detailed data will not be acceptable.
- D. The submittals shall bear the "Stamp of Approval" of the contractor as evidence that the drawings and materials have been checked and considered satisfactory to the contractor. Drawings and materials submitted which include variations and deviations from the requirements of the contract documents shall include specific mention of such variation in order that, if acceptable, action may be taken for adjustment and proper field installation.



- E. Be responsible for fitting this equipment into the space allotted. No additional charges will be allowed for additional ductwork, pipe, or other appurtenances later required by reason of substitution of equipment. Provide detailed shop drawings showing layout within the space, including details of piping, equipment, etc. for systems under this Division. Be responsible to layout equipment and piping in conjunction with other trades and structure. Be responsible to locate piping so as not to interfere with access to equipment, valves, etc. Be responsible to layout equipment, valves, etc. for maximum accessibility and as per manufacturer's recommendations. Equipment, piping, etc. installed with interference to accessibility is subject to removal and relocation at no additional cost, as directed. Be responsible to provide the proper quantity of valves, equipment, etc.
- F. Review of shop drawings is rendered as a service only and shall not be considered as a guarantee of measurements, quantities or of building conditions, nor shall it be construed as a release of basic responsibilities under the contract. Equipment, piping, etc. installed before submission and review of shop drawings is subject to removal and relocation at no additional cost.
- G. Shop drawings shall be examined prior to submittal. Shop drawings submitted shall be signed or initialed by contractor and shall bear contractor's stamp of approval, evidencing that the shop drawing has been examined and checked to be in accordance with contract requirements. Shop drawings which are submitted, which do not bear such indication or approval, shall be construed as not having been examined, checked, and approved. Reproductions of design drawings submitted as shop drawings will not be acceptable.
- H. Failure to comply with the above mentioned requirements, including failure to indicate approval as indicated above, will be cause for drawings to be returned for resubmission in proper manner.
- I. When the shop drawings show variations from contract requirements because of shop practice or other reasons, specific reference to such variation in the letter of transmittal shall be made in order that, if acceptable, suitable action may be taken for proper adjustment. Otherwise, there will be no relief of the responsibility for executing the work in accordance with contract documents, even though such shop drawings have been reviewed.
- J. Electronic Files:
 - 1. The contractor may request electronic data files containing certain drawing information to assist in the preparation of required shop drawings and/or record drawings. Drawing information available is limited to the contract documents indicating equipment, piping, and sprinkler head locations.
 - 2. The electronic data files will be prepared by the Engineer and are an instrument of service for use solely by the Engineer. Rights of authorship shall be retained by the Engineer. The contractor's permitted use of the electronic data for reference shall not constitute a transfer of ownership nor a sale by the Engineer. The Engineer makes no warranties, express or implied of merchantability or of fitness for a particular purpose. Furthermore, should discrepancies occur between the electronic data files and the printed construction documents, the information contained on the printed construction documents shall govern.



3. The contractor shall agree not to copy, use, reproduce or transmit the information therein contained, in whole or in part, or to suffer such action by others, for purpose other than producing shop drawings or record documents, except with the expressed written permission of the Engineer and further agrees to surrender the same to the Engineer upon demand.
4. The contractor shall agree not to sell, loan, rent or lease information to another person or company other than contractors on this project for the preparation of required shop drawings and/or record drawings for this project. The contractor shall agree to indemnify, hold harmless and defend the Engineer from and against claims or lawsuits, including attorney's fees, which arise or result from the use or distribution of the information provided to the contractor.
5. The contractor shall pay a fee of \$100.00 per sheet for the preparation of these materials.

1.15 SHOP DRAWING SUBMITTALS:

- A. Submittals shall be required for the following items, and for additional items where required for a complete and operational system:
 1. Hydraulic Calculations.
 2. Fire Protection piping plans indicating pipe size, location, and sprinkler heads.
 3. Piping Materials.
 4. Pipe Joints.
 5. Sprinkler Heads.
 6. Completed piping pressure test forms.
 7. Pipe Hangers and Supports
 8. Pipe Service Marking.
 9. Warranty.
 10. Operation and Maintenance Manuals.

1.16 EXISTING CONDITIONS:

- A. Visit site and become fully acquainted with the conditions at the building site, as contract for this work shall be based upon furnishing labor and materials required to complete each installation ready for continuous and satisfactory operation. Carefully examine the site to appraise and become familiar with existing conditions such as locations of existing water main, features affecting working conditions, transportation, and storage facilities. Give due consideration to same in preparing proposals, as no exceptions will be considered after awarding the contract, nor will extra compensation for work resulting from failure to verify conditions at the site.



- B. Before commencing the work, examine the work of other trades and report at once defect or interference affecting the work under this Division or the guarantee of same.
- C. No extras will be allowed on account of a claim that the extent of the work of this Division was not fully understood.
- D. Verify in field exact location of existing piping, ductwork, equipment, etc. indicated on the contract documents as being demolished, reused, or tied into. Adjust work as required to meet field conditions.
- E. Take measurements at the building and be responsible for the correctness of same and the proper fitting of work.
- F. Adjust work to fit actual job conditions.

1.17 DEMOLITION:

- A. Provide demolition of the existing systems as indicated on the contract documents and as required to complete the installation of the new work.
- B. Existing branch piping, etc. to be removed shall be terminated at the main in an approved air and water tight manner.
- C. Unused piping, equipment, etc. not wanted by the Owner shall be removed from the site. Items requested by the Owner shall be stored on site as directed.
- D. Verify exact size, location, and quantities of demolition work in field.
- E. The scheduling of the demolition work shall be coordinated, and temporary materials and/or equipment required to maintain building operation shall be provided at no additional cost.

1.18 OWNER'S OPERATION:

- A. The Owner is presently engaged in his normal business activities at this location and will continue his operations during the work.
- B. The necessity of the Owner maintaining the operation of his business shall be respected. Work, men, material storage, and equipment used shall be conducted so that it will minimize the interference with his operations of that business.
- C. Coordinate phasing of work and provide temporary services (water, sanitary, storm, etc.), equipment, piping, controls, etc. as required for the implementation of work while maintaining services to portions of buildings that are to remain occupied. Provide temporary structures to house services and equipment if necessary. Include necessary costs in bids associated with phasing. No additional cost will be allowed if temporary services were not included in bids.
- D. Provide a minimum of 48 hour notice and obtain authorization from Owner prior to shutdown of systems or service serving occupied portions of the facility.

1.19 USE OF WORK BY OWNER:

- A. The Owner reserves the right of use, or caused to be used, previous to acceptance and final payment, portions of the work which have been observed or tested. The use of such work or equipment shall not be construed, deemed, assumed, or taken as an acceptance of the work in part or as whole.

2.00 PART 2 – PRODUCTS2.01 MATERIALS:

- A. The proposal submitted shall include materials and equipment as specified or shown on the contract documents.
- B. Materials and equipment furnished shall be new and shall conform to the latest standard practices of recognized manufacturers of such items. Materials and equipment shall bear the Underwriters' Laboratories, Inc. label where applicable.

2.02 PENETRATIONS:

- A. When penetrations of fire rated walls are made, the spaces around the penetrations shall be sealed to prevent the spread of smoke, fire, toxic gas, or water through the penetration neither before, during, or after a fire. The fire rating of the penetration seal shall be at least that of the floor or wall into which it is installed, so that the original fire rating of the floor or wall is maintained.
 - 1. When sealant is injected into a penetration, it shall expand to surround items within the penetration and maintain pressure against the walls of the penetration.
- B. Sealant shall meet fire test and hose stream test requirements of ASTM E119-73 and shall be UL classified as a wall opening protective device. Sealant shall be 3M Fire Barrier 2001 Silicone RTV Foam or equal.

2.03 PIPING:

- A. Pipe shall be Schedule 10 for main piping and Schedule 40, Schedule 10, or thin wall for branch piping, designed for 175 pounds working pressure, conforming to ANSI B36-10, and manufactured in the United States. The manufacturer's name and branch shall be on each length of pipe.
- B. Fittings shall be new, 125 pounds cast iron, screwed, FIT®, or slip-locked, conforming to ANSI B16.4, manufactured in the United States and specifically approved for use in automatic sprinkler systems.
- C. Screwed pipe shall have threads cut to American Standard Pipe Thread and shall be clean and free from burrs and fins. Pipe shall be reamed and cleaned internally after cutting. Thread lubricant, white lead in oil, or approved equal, shall be applied to male threads immediately prior to assembly. Completed joints shall be wiped clean of excess lubricant.



- D. Victaulic FIT® fittings and couplings may be used in lieu of threaded piping systems for sizes to 2". Fittings and couplings shall be UL FM approved to 175 psi. FIT® shall be installed in accordance with the latest Victaulic recommendations and installation instructions. Pipe ends shall be square cut, deburred, and cleaned on the OD for 1" from pipe end of mill scale, rust, coatings, and raised weld beads.
- E. Mechanical pipe couplings used in the assembly of the overhead sprinkler piping shall be Victaulic Style 77 and/or Style 75, having ductile iron body, Grade EPDM Type A molded synthetic gasket, and steel nuts and bolts. Pipe grooving for assembly with the coupling shall be done in accordance with the manufacturer's recommendations. Rigid couplings shall be Victaulic Style 07 with angle pattern bolt pads, which permit support and hanging in accordance with NFPA-13.
- F. Piping will be installed in a uniform manner, direct as possible. Horizontal piping shall be run at right angles and shall not run diagonally across rooms or other piping and shall be carefully installed to provide proper slope. In general, piping shall be arranged to pitch back to the riser, pitched 1/4" in 10'-0". The pitch may be reduced only where necessary to clear obstructions. The piping shall be arranged with drain plugs or valves and plugs as required to provide means for drainage of trapped piping. Trapping of piping shall be avoided wherever possible.
- G. Field welding and gas cutting shall not be employed for assembly of pipe and fittings of the fire protection work.
- H. Stainless steel braided flexible hose used for direct connection to the sprinkler head may be used in-lieu of piping listed above, braided hose shall be equivalent to Victaulic AH2. Provide with fittings and bracket system for a complete installation per manufacturers requirements.

2.04 SPRINKLER HEADS:

- A. Sprinkler heads in finished ceiling areas shall be of approved quick response extended coverage design with nominal 1/2" discharge orifice, recessed concealed type with white polyester finish.
 - 1. Sprinkler heads located in suspended lay-in ceiling: Systems shall be centered in each respective tile.
- B. Sprinkler heads shall be as manufactured by Globe, Grinnell, Viking, Reliable or Star Sprinkler Company will be accepted.

2.05 PIPE SLEEVES:

- A. Supply and install sleeves for piping. Where pipes pass through walls, partitions, etc., use pipe sleeves made of standard weight steel pipe. Supply and install, around each pipe passing through sleeve, pre-formed insulation of fire spread, and smoke developed rating as required by Code and acceptable to local authorities to fill out remainder of sleeve. Sealing of openings is to be by others.
- B. Sleeves for piping passing through walls and partitions shall finish flush with surfaces on both faces.



- C. Sleeves may be omitted for piping less than 1-1/4" size that pass through interior partitions. Where sleeves are omitted, piping shall be wrapped with fiberglass insulation at the point where partition occurs.

2.06 PIPE HANGERS:

- A. Hangers, brackets, and clamps shall be of standard weight or malleable iron as specified for each use. Pipes supported from concrete construction shall use approved concrete inserts. Perforated strap hangers are not permitted.
- B. Supports and hangers shall be constructed and adjusted as to allow for proper pitch and expansion of pipes.
- C. Hangers shall not be supported from bottom chord of truss or lightweight metal flooring or roof decking.
- D. Except as noted elsewhere, install pipe hangers equal to Anvil, Midwest Hanger Supply Co., or Bergen-Paterson. Pipe hangers installed in corrosive areas, or exposed to moisture, or exposed to the outside elements shall be galvanized finish. Provide piping hangers as follows:
 - 1. Adjustable clevis hanger for stationary steel pipe lines:
 - a. Anvil Fig. 260
 - b. Erico Fig.400
 - c. Bergen-Paterson Part 6750
- E. Pipe hangers shall be supported by mild steel hanger rods affixed to the building structure with approved steel fasteners. Rods, nuts, and fasteners shall be provided in accordance with hanger manufacturer's requirements. Vertical risers shall be supported by riser clamps at each floor line.
- F. The maximum spacing between hangers and supports, measured along the piping, shall be as follows:

Pipe Material	Pipe Size	Rod Dia.	Max Spacing
Steel Pipe	Up to 1 1/4"	3/8"	8'
	1 1/2" & 2"	3/8"	10'
	2 1/2" & 3"	1/2"	15'
	4" & Up	5/8"	15'

- G. Materials shall be as follows:
 - 1. Trapeze Hangers: 1-1/2 x 1-1/2" x 1/8" angle with 3/4" rods.
 - 2. Beam Clamps, Rods, Supports, etc. for attachment to steel beams and bar joist: Anvil, Erico, or Bergen-Paterson.

2.07 ACCESS DOORS:

- A. Coordinate required size and location of access doors required for services provided under this Division. Access doors in wall or ceilings shall be supplied and installed by this Division.
- B. Access doors shall be of adequate size, not less than 12" x 12" and shall be located to provide for access to concealed equipment dampers, valves, controls, etc. Wherever possible, valves shall be grouped, and larger access doors provided.

2.08 SOUND CONTROL:

- A. Mechanical penetrations into mechanical equipment rooms shall be maintained airtight to prevent sound transfer.
- B. Piping shall pass through sleeves. Sleeves shall be packed tight with glass fiber or oakum and caulked on both sides with non-hardening sealant, Tremco "Acoustical Sealant" J-M "Duxseal" of GEMCO "Tuff-Bond #12."

3.00 PART 3 – EXECUTION3.01 GENERAL ITEMS:

- A. Cutting: Cut pipe accurately to measurements established at the building, work into place without springing or forcing, and properly secure to structure in an approved manner.
- B. Cutting or other weakening of the building structure to facilitate piping installation will not be permitted, unless approved. Ream piping to remove burrs and install so as to permit free expansion and contraction without causing damage. Make changes in direction with fittings and changes in main sizes through eccentric reducing fittings.
- C. Piping conveying water shall be installed with a pitch, in the direction of flow of not less than 1" in 40'. In cases where branches are installed and connected into vertical risers, the branches shall pitch back to the respective risers. Horizontal branches from mains shall be taken off the top of respective risers. Horizontal branches from mains shall be taken off the top of the mains by means of 90° ells. It shall be possible to drain separately each part of the system; drain valves shall be provided in the systems wherever required for this purpose.
- D. Before piping is installed, it shall be opened and pounded to remove foreign matter present. Ends of piping and tubing shall be sealed with caps or plugs during construction. Paper or rags will not be permitted. After installation and before final connections are made, piping systems shall be flushed with a material that is not injurious to either the pipe or material to be conveyed by the pipe.
- E. Threaded pipe shall be cut square and full threaded and shall be made with approved pipe thread compound, applied to the wall threads only, and shall be made up so that no more than two (2) threads will be exposed.

**3.02 CUTTING AND PATCHING:**

- A. Do cutting and patching of building materials, piping, etc., as required for the installation of this work, but no structural members shall be cut without approval and such cutting shall be done in an approved manner.
- B. Patching of, or repairing of damage to, the work in place shall be done in a neat and workmanlike manner, meeting approval. If operations require cutting of work in place or causes damage which entails repairs of such work, employ mechanics of the particular trade whose work must be cut, or which is damaged and shall pay costs of such cutting, patching, or repairs.

3.03 CLEAN-UP:

- A. Exposed metal surfaces shall be free from grease, dirt, and other foreign material.
- B. Debris resulting from execution of this contract, surplus and discarded material, shall be removed from the premises within three (3) days after the accumulation. Remove plaster from piping, equipment, etc.
- C. On completion of the work, tools, surplus, and waste materials shall be removed and the work left in a clean and perfect manner. During work progress, remove debris and excess materials as directed by the job superintendent.

3.04 RETURN AIR PLENUMS:

- A. Return air plenums are being provided above certain ceiling areas in connection with the heating and ventilating systems. See architectural and/or mechanical contract documents for locations.
- B. Air tightness around these plenums shall be maintained.
- C. Pipes shall enter these plenums within steel or sheet metal sleeves which are tightly grouted into the construction and with the space between the duct or pipe (or its continuous insulation) and the sleeve tightly and permanently packed with insulation for a length of at least 4".
- D. Where pipes enter these return plenums, they shall be firmly and tightly embedded into construction to form an airtight joint or be provided with packed sleeves, as required for other piping. Downspouts shall enter through packed sleeves.
- E. No combustible materials will be allowed in return air plenum.

3.05 SCAFFOLDING:

- A. Furnish necessary scaffolding, staging, or cribbing required for the completion of the work. Such scaffoldings, etc., shall be removed from the premises when its use is no longer required on the job.

3.06 FINAL COMPLETION:

- A. Clean equipment, restore damaged materials, remove grease, oil, chemicals, paint spots, and/or stains, and generally leave the work in new condition.

- B. Retouch and/or repaint factory painted prime and/or finish coats where scratched or damaged. Whenever retouching will not be satisfactory, complete repainting of equipment until the desired appearance is obtained may be required.
- C. On completion of work, remove from the site tools, equipment, surplus materials, and rubbish pertaining to operations for removal and disposition at no additional cost.

3.07 WARRANTY AND MAINTENANCE:

- A. During the warranty period, the entire system shall be adjusted to maintain the operating conditions specified in the contract documents. Equipment furnished shall be warranted in writing for one (1) year after Substantial Completion has been issued (unless noted otherwise). Warranty shall include equipment, system operation, workmanship, and materials.
 - 1. Equipment or parts proving defective shall be replaced without cost.
 - 2. Visit the building at the 11-month warranty period, and thoroughly inspect the complete system and make repairs or adjustments. At the same time, instruct the maintenance supervisor in its care and operation.

3.08 OPERATION AND MAINTENANCE MANUALS:

- A. Compile and submit, at completion of the work, two (2) neatly bound booklets and one (1) digital copy containing operation and maintenance instructions for equipment and systems
- B. The cover of each manual shall state the section of work covered (i.e.: "Fire Protection").
- C. Each manual shall contain the following information:
 - 1. Complete written operating and maintenance instructions for each equipment item.
 - 2. Complete parts list for each equipment item.
 - 3. Print, shop, and record documents.
 - 4. Certified equipment drawings and/or catalog data. Specific model number of equipment installed shall be clearly noted on catalog data.
 - 5. Emergency operating instructions and/or list of service organizations (including address and telephone numbers) capable of rendering emergency service on 24-hour call.
 - 6. Copy of maintenance warranty.
 - 7. Copies of manufacturers' warranties for equipment.

3.09 INSTALLATION:

- A. Employ on the job a competent superintendent who shall be responsible for the progress and execution of the work. Workmanship shall be of high quality conforming to standard practice as stipulated by NFPA, ASTM, and ANSI recommendations by skilled workmen during their regular working hours.

- B. Piping Installation:
 - 1. Install piping as required for a complete and operational system. Provide accessories as required based on actual field pipe routing and system requirements.
 - 2. Piping shall be brought to equipment connections in such a manner so as to prevent the possibility of loads or stresses being applied to the connections.
 - 3. No cutting of, or welding of, attachments to structural members shall be done without prior written approval.

- C. Inspection and Tests:
 - 1. Conduct and bear the cost of necessary tests of the fire protection work, furnishing labor, power, and equipment. Piping shall be tested with water.
 - 2. The automatic sprinkler piping shall be tested under a hydrostatic pressure of not less than 200 psig for a duration of not less than two (2) hours.
 - 3. The piping subjected to the hydrostatic test shall be filled with water and thoroughly checked for the elimination of air. The control valves of existing risers shall be closed during pressure testing of the new connection to the main. Joints shall be proven tight or acceptable by the tests. Defective work or materials shall be corrected or replaced in an approved manner. If necessary, piping shall be dismantled and reassembled with the use of new pipe or fittings as no caulking or makeshift method of temporary repair of defective work will be permitted. Tests shall be repeated until the particular line or system receives the approval.
 - 4. Acceptance of the automatic sprinkler work shall be based upon the inspection and tests of the completed installation by the authority having jurisdiction.
 - 5. Be responsible during the installation and testing periods for the automatic sprinkler work, for damage to the work of others, to the building, and property/materials of others caused by leaks in automatic sprinkler equipment, unplugged or disconnected pipes or fittings, and shall pay for necessary replacement or repair of work or items so damaged.

END OF SECTION 21 05 00

SECTION 33 40 00

STORM SEWAGE SYSTEMS

1 General

1.1 Section Includes

- A. Storm drainage piping, fittings, and accessories.
- B. Connection to building storm water drainage system.
- C. Catch basins, inlets, and manholes.
- D. Culverts and accessories.

1.2 Related Sections

- A. Section 31 20 00 - Earthwork: Trenching and Backfill.

1.3 References

- A. ANSI A21.11 - Rubber Gasket Joints for Mechanical Joint Ductile-Iron Pressure Pipe and Fittings.
- B. ASTM A74 - Cast Iron Soil Pipe and Fittings.
- C. ASTM A760 - Corrugated Steel Pipe, Metallic-Coating for Sewers and Drains.
- D. ASTM C14 - Concrete Sewer, Storm Drain, and Culvert Pipe.
- E. ASTM C76 - Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
- F. ASTM C443 - Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets.
- G. ASTM C478 - Precast Reinforced Concrete Manhole Sections.
- H. ASTM C506 - Reinforced Concrete Arch Culvert, Storm Drain and Sewer Pipe.
- I. ASTM C507 - Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe.
- J. ASTM C789 - Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers.
- K. ASTM C850 - Precast Reinforced Concrete Box Sections for Culverts, Storm Drains, and Sewers with Less Than 2 Feet (0.6 m) of Cover Subjected to Highway Loadings.
- L. ASTM D3034 - Type PSM Poly(Vinyl Chloride) (PVC) Sewer Pipe and Fittings.

- M. ASTM F667 - Large Diameter Corrugated Polyethylene Tubing and Fittings.
- N. AWWA C151 - Ductile Iron Mechanical Joint Pressure Pipe.
- O. AWWA C600 - Installation of Ductile Iron Water Mains.
- P. INDOT Standards – Latest Edition Indiana Department of Transportation Standard Specifications, including Supplements.

1.4 Regulatory Requirements

- A. Conform to Indiana BOCA plumbing code for materials and installation of the Work of this Section.
- B. Conform to Town of Lowell Standards and Specifications.

1.5 Submittals

- A. Submit product data under provisions of Division 1.
- B. Submit product data and precast shop drawings indicating pipe and pipe accessories, manholes, catch basins, frames and grates.
- C. Submit written certification that materials meet these specifications.

1.6 Project Record Documents

- A. Submit documents under provisions of Division 1.
- B. Accurately record location of pipe runs, connections, catch basins, manholes, cleanouts, and invert elevations.
 - 1. Maintain accurate as-built drawings as project progresses, on a set of project drawings.
- C. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.
- D. Within 10 days of this installation, submit one electronic file and one mylar drawing, certified by licensed engineer or surveyor, indicating date, and labeled "As-Built Drawings."

2 Products

2.1 Sewer Pipe Materials

- A. Reinforced Concrete Pipe: ASTM C76, Class I II III IV V with Wall Type A; B; C; mesh reinforcement; bell and spigot or tongue and groove end joints.
 - 1. Storm sewer pipe within the right-of-way shall be Class I.
 - 2. Culvert pipe within the right-of-way shall be Class II.
- B. Plastic Pipe: ASTM D3034, SDR 26, Type PSM, PolyVinyl Chloride (PVC) material; bell and spigot end joints.

2.2 Pipe Accessories

- A. Fittings: Same material as pipe, molded or formed to suit pipe size and end design, in required 'T', bends, elbows, cleanouts, reducers, traps, and other configurations required.

2.3 End Section

- A. Precast, reinforced concrete, flared, sized to fit pipe, INDOT Standard Sheet ME-2.

2.4 Catch Basins

- A. Basin Lid and Frame: Two piece heavy duty cast iron construction, Neenah or approved equal, model number as shown on Drawings.
- B. Shaft Construction and Eccentric Cone or Flat Top Section: Reinforced precast concrete pipe sections, lipped male/female joints.
 - 1. Cast steel plastic covered, 10 inch ladder rungs, properly anchored into shaft on 16 inches centers for structures 48 inches in diameter or larger.
- C. Base Pad: Reinforced precast, cast-in-place concrete leveled top surface to receive concrete shaft sections.
- D. Precast Reinforced Concrete Inlet Box: Constructed in accordance with applicable provisions of Indiana Department of Highway Standards.

2.5 Manholes

- A. Lid and Frame: Heavy duty cast iron construction, removable lid, "STORM SEWER" in 2 inch high letters cast in top, model number as noted on Drawings.
- B. Shaft Construction and Eccentric Cone or Flat Top Section: ASTM C478, reinforced precast concrete pipe sections, lipped male/female joints.
 - 1. Cast steel plastic covered, 10 inch ladder rungs, properly anchored into shaft, on 16 inches centers for structures 48 inches in diameter or larger.
- C. Base Pad: Precast reinforced concrete leveled top surface to receive concrete shaft sections.

2.6 Adjusting Rings

- A. Precast concrete adjusting rings with a minimum nominal thickness of 2 inches.

2.7 Spacers

- A. Precast concrete spacers with a minimum nominal thickness of 6 inches.

3 Execution

3.1 Examination

- A. Verify that trench cut is ready to receive work, and excavations, dimensions, and elevations are as indicated on Drawings.
- B. Beginning of installation means acceptance of existing conditions.

3.2 Preparation For Storm Sewage Systems

- A. Hand trim excavations to required elevations.
 - 1. Correct over excavation with granular fill material.
- B. Remove large stones or other hard matter which could damage sewer pipe or impede consistent backfilling or compaction.

3.3 Installation - Pipe

- A. Install pipe, fittings, gaskets, and accessories in accordance with applicable codes and manufacturer's instructions.
 - 1. Seal joints watertight.
 - 2. Install concrete pipe in accordance with INDOT Section 715.
- B. Lay pipe to slope gradients noted on Drawings, beginning at the low point of a system.
- C. Connect to building storm drain and sewer as indicated.
- D. Install bell and spigot pipe with bell end facing upstream, and spigot end facing downstream.
- E. Increase compaction of each successive lift.
 - 1. Refer to Section 31 20 00 for backfill and compaction requirements.
 - 2. Do not displace or damage pipe when compacting.
- F. Water lines, storm, and sanitary sewers shall not be laid in the same trench.
 - 1. Maintain a horizontal separation of 10 feet.
- G. Avoid crossings of buried sewers and water lines.
 - 1. However, where crossings are necessary, maintain a minimum of 18 inches vertical clearance (measured from the bottom of the upper pipe to the top of the lower pipe), preferably with the water main above the sewer.

- H. When it is impossible to maintain proper horizontal and vertical separation, construct the sewer of waterworks grade ductile iron pipe with mechanical joints, and pressure test to assure water tightness prior to backfilling.
 - 1. Install in accordance with AWWA C600.

3.4 Installation - Catch Basins And Manholes

- A. Form bottom of excavation clean and smooth to correct elevation.
- B. Place concrete base pad.
- C. Openings in drainage structures required for the installation of piping shall be either cast into the structure or cut with a mechanical saw or core drill.
 - 1. Breaking holes for connection to, or of, piping will not be permitted.
 - 2. Inspect structures prior to any interior grouting work.
 - 3. Any breaking or cracking discovered will be cause for rejection of the work.
- D. Size of Openings in Drainage Structures: No larger than necessary to allow a maximum of one inch clearance around the pipe.
 - 1. Sealed with masonry mortar on inside and outside of structure.
 - 2. Unless otherwise shown, install inside ends of pipe as close to flush with the inside walls of the structure as possible.
- E. Establish elevations and pipe inverts for inlets and outlets as indicated.
- F. Construct semi-circular flow channel with change in direction having as large a radius as possible by formed concrete.
 - 1. Slope floor of manhole outside channels not less than 1/2 inch per foot nor more than 2 inches per foot.
- G. Mount lid and frame level in grout, secured to top section to elevation indicated.
- H. Install adjusting rings or spacers where required to meet grade shown on Drawings, but not to exceed 12 inches maximum.
 - 1. Provide adjusting ring or spacer with circular or square openings as required to match clear opening in catch basin or manhole frame.
 - 2. Provide a soil tight seal between the precast manhole and riser ring, each adjoining riser ring, and between the riser ring and casting by the use of either two rows of 1/2 inch extrudable preformed gasket material, non asphaltic mastic, or trowelable grade butyl rubber.

3.5 Field Quality Control

- A. Perform field inspection under provisions of Division 1.
- B. Variation From Specified Invert Elevation: Within 1/2 inch.
- C. Provide infiltration or exfiltration tests in accordance with Ten States Standards and Marion County Standards for design and construction of storm and sanitary sewers.

3.6 Protection

- A. Protect finished installation under provisions of Division 1.
- B. Protect pipe from damage or displacement until backfilling operation is in progress.

3.7 Cleaning Storm Drainage System

- A. Clear interior of piping of dirt and other superfluous material as work progresses.
 - 1. Maintain swab or drain in line and pull past each joint as it is completed.
- B. In large, accessible piping, brushes and brooms may be used for cleaning.
- C. Flush lines between manholes if required to remove collected debris.
- D. Keep installed system clean and clear from debris and blockage during construction and perform a final cleaning upon completion and before acceptance of system.

END OF SECTION

- 26 REMOVE EXISTING ACT AND GRID SYSTEM IN ITS ENTIRETY.
- 27 MODIFY EXISTING ACT AND GRID SYSTEM AS REQUIRED FOR NEW CONSTRUCTION. **AD-2**
- 28 REMOVE AND SALVAGE KNOX BOX FOR REUSE, REFER TO NEW FLOOR PLAN FOR LOCATION.
- 29 REMOVE EXISTING ADA PUSH PAD, REFER TO ELECTRICAL.
- 30 REMOVE EXISTING CARD READER, REFER TO ELECTRICAL.
- 31 REMOVE EXISTING MECHANICAL YARD FENCE AND GATES IN ITS ENTIRETY.

DEMOLITION PLAN NOTES:

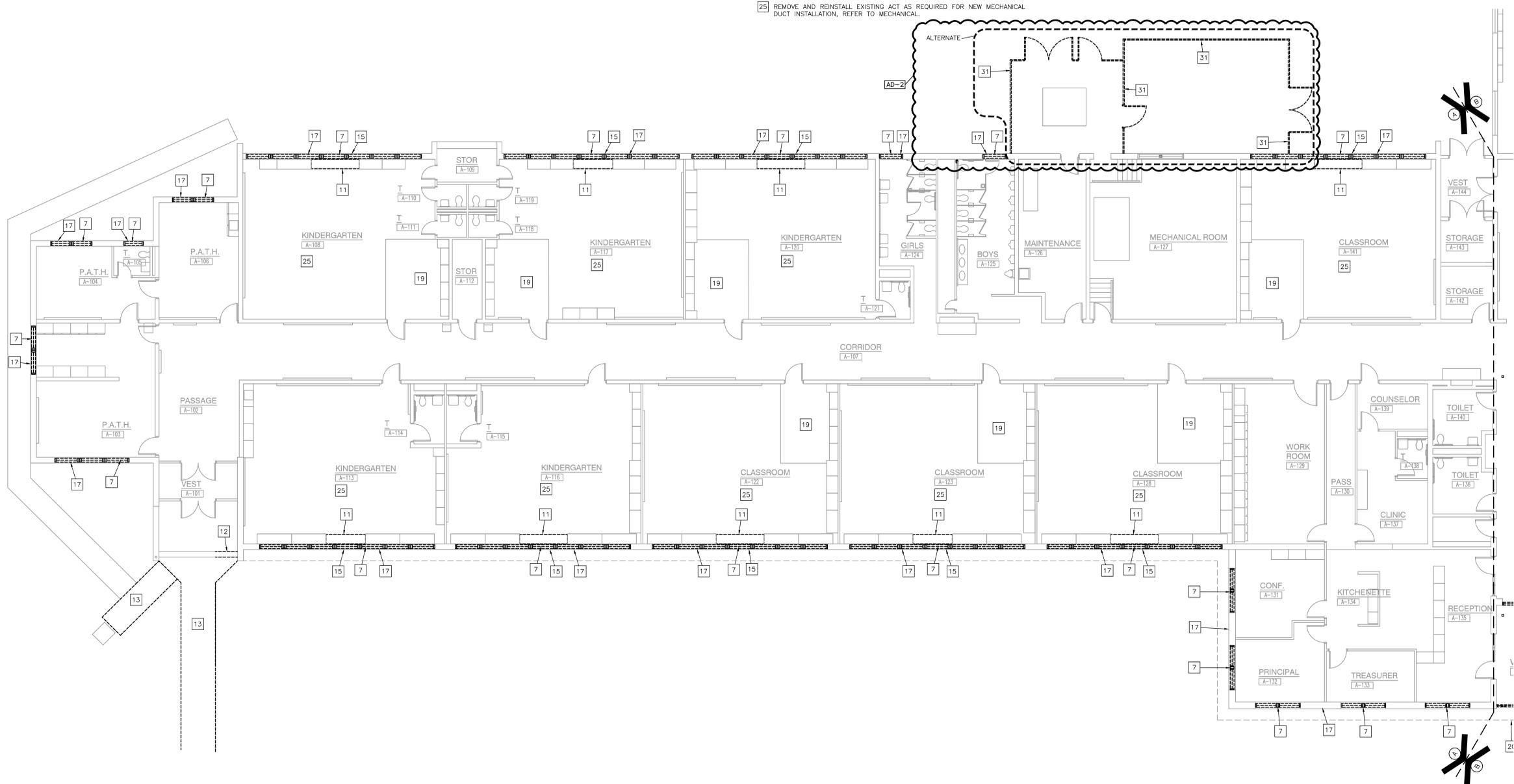
(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)

- 1 REMOVE CARPET FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
- 2 REMOVE VCT/SHEET VINYL FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
- 3 REMOVE ROLLED RUBBER FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
- 4 REMOVE MASONRY WALL (AS REQUIRED FOR NEW CONSTRUCTION) PATCH AND REPAIR FLOOR AND WALL AS REQUIRED TO ACCEPT NEW FINISHES.
- 5 REMOVE PORTION OF MASONRY WALL AS REQUIRED TO INSTALL NEW DOOR.
- 6 REMOVE WOOD DOOR, HOLLOW METAL FRAME AND HARDWARE IN THEIR ENTIRETY. SALVAGE DOOR AND HARDWARE FOR REUSE. REFER TO NEW AND DOOR SCHEDULE FOR NEW LOCATION.
- 7 REMOVE WINDOW SYSTEM IN ITS ENTIRETY. **AD-1**
- 8 REMOVE ALUMINUM STOREFRONT FRAMING, DOORS, AND HARDWARE IN ITS ENTIRETY. REFER TO ELECTRICAL.
- 9 REMOVE PLUMBING FIXTURES IN THEIR ENTIRETY. CUT AND CAP LINE BELOW WALL OR FLOOR SURFACE. UNLESS OTHERWISE NOTED ON PLUMBING DRAWINGS PATCH AND REPAIR FLOOR AND/OR WALL AS REQUIRED TO ACCEPT NEW FINISHES.
- 10 REMOVE TOILET ACCESSORIES AND TURN OVER TO THE OWNER.
- 11 REMOVE MECHANICAL UNIT. PATCH AND REPAIR WALL AND FLOOR TO RECEIVE NEW FINISHES. REFER TO MECHANICAL DRAWINGS.
- 12 REMOVE PORTION OF STAIR AS REQUIRED FOR NEW RAMP. PATCH AND REPAIR EXISTING STAIR TO REMAIN AS REQUIRED TO MAKE LIKE NEW. REFER TO CIVIL.
- 13 REMOVE EXISTING CONCRETE SIDEWALK AND PREPARE FOR NEW CONCRETE SIDEWALK SAME LOCATION, REFER TO CIVIL.
- 14 REMOVE DISPLAY WALL, CHALK, MARKER, AND/OR TACKBOARD IN IT'S ENTIRETY. PATCH AND REPAIR AS REQUIRED TO RECEIVE NEW FINISHES.
- 15 REMOVE EXISTING LOUVER IN ITS ENTIRETY, REFER TO MECHANICAL.
- 16 REMOVE DAMAGED LIMESTONE SILL SECTION AND PREPARE AS REQUIRED FOR NEW SEALANT.
- 17 REMOVE SEALANT AROUND EXISTING LIMESTONE AND PREPARE AS REQUIRED FOR NEW SEALANT.
- 18 REMOVE AND SALVAGE PROJECTOR AND SMARTBOARD AND ALL RELATED EQUIPMENT, REFER TO EQUIPMENT AND ELECTRICAL DRAWINGS.
- 19 REMOVE ALL RED VCT TILES AND PREPARE FLOOR FOR NEW TILES TO REPLACE RED TILES.
- 20 REMOVE EXISTING FASCIA AND GUTTER AS REQUIRED TO CONSTRUCT NEW CANOPY.
- 21 REMOVE EXISTING EIFS SYSTEM REFER TO SECTIONS AND ELEVATIONS.
- 22 REMOVE PORTION OF MASONRY WALL AS REQUIRED FOR NEW LOUVER. SALVAGE BRICK FOR REUSE.
- 23 REMOVE AND SALVAGE ALUMINUM LETTERS FOR REUSE, REFER TO ELEVATIONS FOR NEW LOCATION.
- 24 REMOVE AND SALVAGE DOWNSPOUT AND BOOT, PATCH AND REPAIR CONCRETE, REFER TO PLANS AND ELEVATIONS FOR NEW LOCATION.
- 25 REMOVE AND REINSTALL EXISTING ACT AS REQUIRED FOR NEW MECHANICAL DUCT INSTALLATION, REFER TO MECHANICAL.

- L. EACH CONTRACTOR IS RESPONSIBLE FOR CUTTING, PATCHING, AND DISCONNECTION OF ITEMS APPLICABLE TO THEIR SCOPE OF WORK. WHERE EXISTING SERVICES ARE ABANDONED, CAP AT LEAST 1" BEHIND NEW FINISHES AND/OR EXISTING SURFACE AND PATCH AS REQUIRED TO RECEIVE NEW FINISHES OR MATCH EXISTING FINISH.
- M. ON WALLS THAT ARE TO RECEIVE NEW FINISHES, REMOVE AND REINSTALL EXISTING EQUIPMENT TO REMAIN AS REQUIRED FOR INSTALLATION OF NEW FINISHES.
- N. WHERE WALLS OR BULKHEADS ARE REMOVED, PATCH FLOORS, CEILINGS, AND ADJACENT WALLS AS REQUIRED TO MATCH EXISTING OR RECEIVE NEW FINISHES WHERE APPLICABLE. WHERE EXISTING DUCTWORK, PIPING, OR EQUIPMENT IS REMOVED, PATCH OPENINGS AND/OR SURFACES AS REQUIRED TO MATCH ADJACENT SURFACES OR RECEIVE NEW FINISHES WHERE APPLICABLE. REFER TO ALL DEMOLITION DRAWINGS FOR EXTENT OF ITEMS TO BE REMOVED.
- O. OVER CUT NEW OPENINGS IN EXISTING WALL AS REQUIRED FOR NEW CONSTRUCTION. PATCH AND REPAIR WALLS AS REQUIRED TO MATCH EXISTING. WHERE APPLICABLE, TOOTH NEW MASONRY INTO EXISTING MASONRY.
- P. ALL EQUIPMENT AND FURNITURE WHICH ARE CONSIDERED LOOSE FURNISHING SHALL BE REMOVED BY THE OWNER PRIOR TO DEMOLITION.
- Q. MASONRY WALLS TO BE REMOVED SHALL BE REMOVED TO A POINT 2" MINIMUM BELOW THE EXISTING FLOOR SLAB UNLESS SETTING ON A SLAB OR SPECIFICALLY NOTED OTHERWISE. PATCH WITH NEW CONCRETE TO BE FLUSH WITH THE EXISTING FLOOR SLAB.
- R. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL REVIEW OF DEMOLITION NOTES AND GENERAL DEMOLITION NOTES AS THEY APPLY TO THEIR SCOPE OF WORK.
- S. THE OWNER SHALL RESERVE THE RIGHT TO CLAIM ANY MATERIALS THAT ARE BEING DEMOLISHED PRIOR TO THE CONTRACTOR DISPOSING OF THEM OFF SITE.
- T. REFER TO THE STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DOCUMENTS FOR COMPLETE SCOPE OF DEMOLITION WORK.
- U. "FLOORING" DENOTES FLOOR COVERING MATERIALS INCLUDING BACKING, ADHESIVES, AND BASES DOWN TO BUT EXCLUSIVE OF FLOOR SLABS AND STRUCTURAL MATERIALS UNLESS NOTED OTHERWISE.
- V. DEMOLITION IS TO FOLLOW ESTABLISHED CONSTRUCTION SEQUENCE. REFER TO SPECIFICATIONS AND DRAWINGS FOR REQUIREMENTS AND SPECIAL CONDITIONS.
- W. WHERE APPLICABLE SALVAGE EXISTING MASONRY (FACE BRICK, GLAZED CMU, FACING TILE) AS REQUIRED FOR PATCHING AND INFILL IN RENOVATED AREAS WHERE INDICATED. DISCARD UNUSED PORTION OFF SITE.

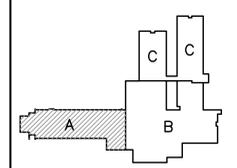
GENERAL DEMOLITION NOTES:

- A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.
- B. UNLESS NOTED OTHERWISE ON THIS SHEET, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL WORK INDICATED ON THIS SHEET.
- C. CONTRACTORS ENCOUNTERING EXISTING MATERIAL WHICH IS SUSPECTED OF CONTAINING ASBESTOS SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND THE OWNERS REPRESENTATIVE.
- D. BOLD DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXTENT OF DEMOLITION WORK PRIOR TO BIDDING AND FOR COORDINATING THE EXTENT OF DEMOLITION WITH THE INSTALLATION OF NEW SYSTEMS.
- E. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION APPLICABLE TO THEIR SCOPE OF WORK AND AS REQUIRED FOR INSTALLATION OF NEW WORK WHETHER OR NOT IT IS SPECIFICALLY INDICATED OR NOTED IN THESE DOCUMENTS.
- F. REMOVE ALL ITEMS AND FINISHES MADE OBSOLETE BY NEW CONSTRUCTION. VERIFY ITEMS DEEMED OBSOLETE WITH ARCHITECT PRIOR TO REMOVAL. REFER TO NEW CONSTRUCTION DRAWINGS FOR DEMOLITION REQUIRED NOT SHOWN ON DEMOLITION PLANS.
- G. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR OFF SITE REMOVAL OF ALL DEMOLITION MATERIALS AND/OR ITEMS UNLESS NOTED OTHERWISE OR DIRECTED BY THE OWNER.
- H. PRIOR TO STARTING DEMOLITION, CONSTRUCT DUST CONTROL BARRIERS AS REQUIRED TO PREVENT THE SPREAD OF DUST INTO SURROUNDING AREAS (WHERE APPLICABLE).
- I. WHERE BUILDING EGRESS IS REQUIRED TO PASS THROUGH DEMOLITION AREAS, PROVIDE APPROVED BARRIERS, ETC. TO ENSURE SAFETY OF THE PUBLIC.
- J. RELOCATED ITEMS SHALL BE CLEANED AND PLACED IN STORAGE, PER OWNERS' DIRECTION, UNTIL ITEMS ARE READY TO BE INSTALLED. IF ITEMS ARE DAMAGED DURING DEMOLITION OR RELOCATION, THEY SHALL BE REPAIRED OR REPLACED WITH NEW ITEMS AS APPROVED.
- K. DEMOLITION SHALL BE PERFORMED WITHOUT DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. WHERE SUCH DAMAGE OCCURS, PATCH, REPAIR, OR RESTORE WALLS, FLOORS, CEILING, ETC. NEATLY TO MATCH EXISTING ADJACENT SURFACE. PROVIDE SHORING, BRACING, OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING STRUCTURES.



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

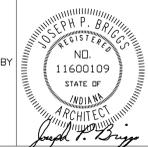
PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB DJW



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

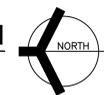
REVISIONS	MARK	DATE	ISSUED FOR
AD-2		10/30/23	ADDENDUM NO.2

DRAWING
UNIT "A" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

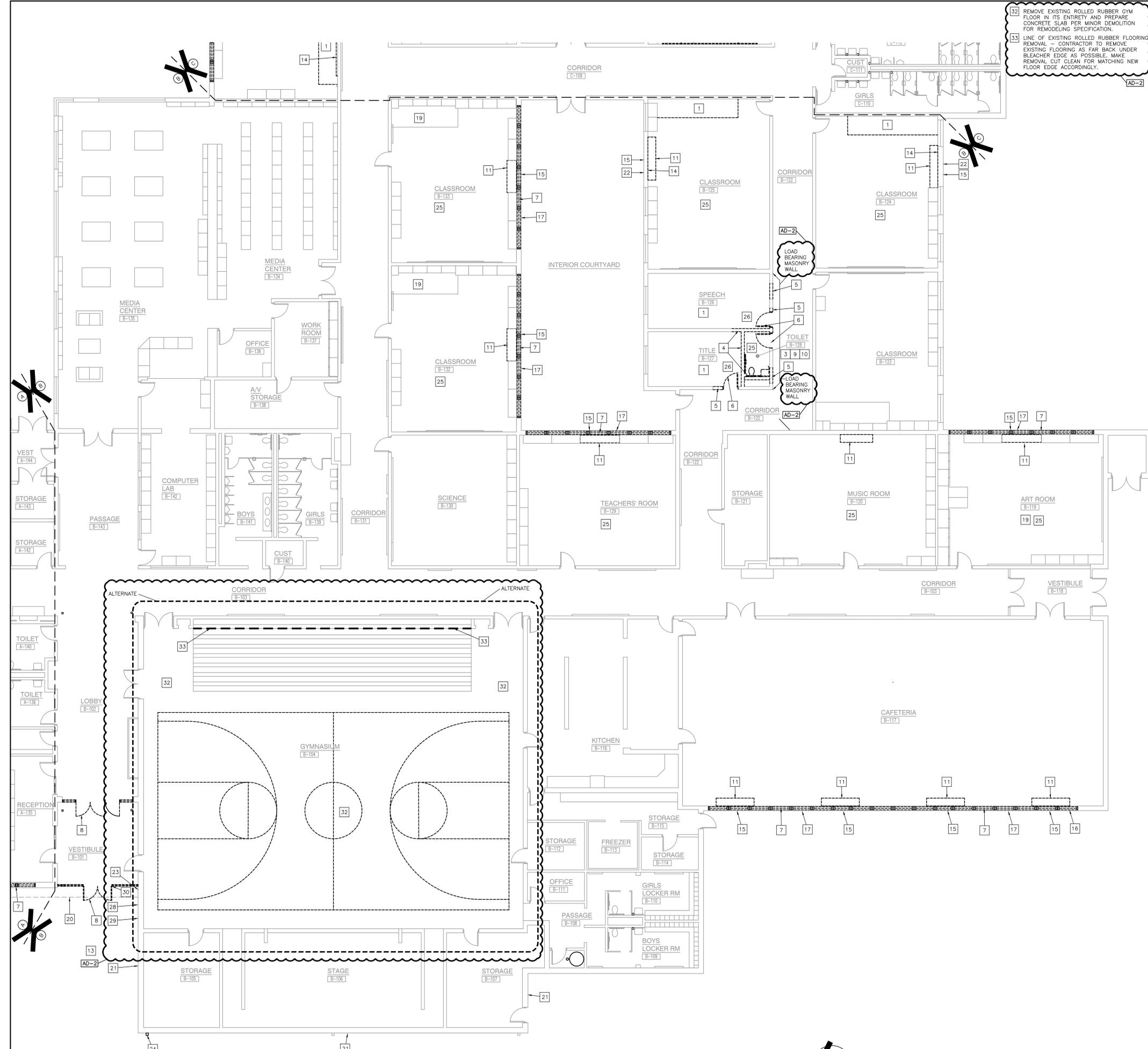
GIBRALTAR DESIGN SHEET
JB AD101

UNIT "A" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



Tuesday, 10/31/2023 11:46 AM - LAST SAVED BY: DTB
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY SCHOOL RENOVATION\23-140 DRAWINGS\05 ARCH\010.DWG

Tuesday, 10/31/2023 12:23 PM - LAST SAVED BY: DBURNS
 Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
 SCHOOL RENOVATION\23-140 DRAWINGS\05
 ARCH\AD102.DWG



UNIT "B" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN

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



- 32 REMOVE EXISTING ROLLED RUBBER GYM FLOOR IN ITS ENTIRETY AND PREPARE CONCRETE SLAB PER MINOR DEMOLITION FOR REMODELING SPECIFICATION.
- 33 LINE OF EXISTING ROLLED RUBBER FLOORING REMOVAL - CONTRACTOR TO REMOVE EXISTING FLOORING AS FAR BACK UNDER BLEACHER EDGE AS POSSIBLE. MAKE REMOVAL CUT CLEAN FOR MATCHING NEW FLOOR EDGE ACCORDINGLY.

GENERAL DEMOLITION NOTES:

- A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.
- B. UNLESS NOTED OTHERWISE ON THIS SHEET, THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL WORK INDICATED ON THIS SHEET.
- C. CONTRACTORS ENCOUNTERING EXISTING MATERIAL WHICH IS SUSPECTED OF CONTAINING ASBESTOS SHALL STOP WORK IMMEDIATELY AND NOTIFY THE OWNER AND THE OWNERS REPRESENTATIVE.
- D. BOLD DASHED LINES INDICATE EXISTING ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING THE EXTENT OF DEMOLITION WORK PRIOR TO BIDDING AND FOR COORDINATING THE EXTENT OF DEMOLITION WITH THE INSTALLATION OF NEW SYSTEMS.
- E. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEMOLITION APPLICABLE TO THEIR SCOPE OF WORK AND AS REQUIRED FOR INSTALLATION OF NEW WORK WHETHER OR NOT IT IS SPECIFICALLY INDICATED OR NOTED IN THESE DOCUMENTS.
- F. REMOVE ALL ITEMS AND FINISHES MADE OBSOLETE BY NEW CONSTRUCTION. VERIFY ITEMS DEEMED OBSOLETE WITH ARCHITECT PRIOR TO REMOVAL. REFER TO NEW CONSTRUCTION DRAWINGS FOR DEMOLITION REQUIRED NOT SHOWN ON DEMOLITION PLANS.
- G. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR OFF SITE REMOVAL OF ALL DEMOLITION MATERIALS AND/OR ITEMS UNLESS NOTED OTHERWISE OR DIRECTED BY THE OWNER.
- H. PRIOR TO STARTING DEMOLITION, CONSTRUCT DUST CONTROL BARRIERS AS REQUIRED TO PREVENT THE SPREAD OF DUST INTO SURROUNDING AREAS (WHERE APPLICABLE).
- I. WHERE BUILDING EGRESS IS REQUIRED TO PASS THROUGH DEMOLITION AREAS, PROVIDE APPROVED BARRIERS, ETC. TO ENSURE SAFETY OF THE PUBLIC.
- J. RELOCATED ITEMS SHALL BE CLEANED AND PLACED IN STORAGE, PER OWNERS' DIRECTION, UNTIL ITEMS ARE READY TO BE INSTALLED. IF ITEMS ARE DAMAGED DURING DEMOLITION OR RELOCATION, THEY SHALL BE REPAIRED OR REPLACED WITH NEW ITEMS AS APPROVED.
- K. DEMOLITION SHALL BE PERFORMED WITHOUT DAMAGE TO EXISTING CONSTRUCTION TO REMAIN. WHERE SUCH DAMAGE OCCURS, PATCH, REPAIR, OR RESTORE WALLS, FLOORS, CEILING, ETC. NEATLY TO MATCH EXISTING ADJACENT SURFACE. PROVIDE SHORING, BRACING, OR SUPPORT AS REQUIRED TO PREVENT MOVEMENT OR SETTLEMENT OF EXISTING STRUCTURES.
- L. EACH CONTRACTOR IS RESPONSIBLE FOR CUTTING, PATCHING, AND DISCONNECTION OF ITEMS APPLICABLE TO THE SCOPE OF WORK. WHERE EXISTING SERVICES ARE ABANDONED, CAP AT LEAST 1" BEHIND NEW FINISHES AND/OR EXISTING SURFACE AND PATCH AS REQUIRED TO RECEIVE NEW FINISHES OR MATCH EXISTING FINISH.
- M. ON WALLS THAT ARE TO RECEIVE NEW FINISHES, REMOVE AND REINSTALL EXISTING EQUIPMENT TO REMAIN AS REQUIRED FOR INSTALLATION OF NEW FINISHES.
- N. WHERE WALLS OR BULKHEADS ARE REMOVED, PATCH FLOORS, CEILINGS, AND ADJACENT WALLS AS REQUIRED TO MATCH EXISTING OR RECEIVE NEW FINISHES WHERE APPLICABLE. WHERE EXISTING DUCTWORK, PIPING, OR EQUIPMENT IS REMOVED, PATCH OPENINGS AND/OR SURFACES AS REQUIRED TO MATCH ADJACENT SURFACES OR RECEIVE NEW FINISHES WHERE APPLICABLE. REFER TO ALL DEMOLITION DRAWINGS FOR EXTENT OF ITEMS TO BE REMOVED.
- O. OVER CUT NEW OPENINGS IN EXISTING WALL AS REQUIRED FOR NEW CONSTRUCTION. PATCH AND REPAIR WALLS AS REQUIRED TO MATCH EXISTING. WHERE APPLICABLE, TOOTH NEW MASONRY INTO EXISTING MASONRY.
- P. ALL EQUIPMENT AND FURNITURE WHICH ARE CONSIDERED LOOSE. FURNISHING SHALL BE REMOVED BY THE OWNER PRIOR TO DEMOLITION.
- Q. MASONRY WALLS TO BE REMOVED SHALL BE REMOVED TO A POINT 2" MINIMUM BELOW THE EXISTING FLOOR SLAB UNLESS SETTING ON A SLAB OR SPECIFICALLY NOTED OTHERWISE. PATCH WITH NEW CONCRETE TO BE FLUSH WITH THE EXISTING FLOOR SLAB.
- R. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR GENERAL REVIEW OF DEMOLITION NOTES AND GENERAL DEMOLITION NOTES AS THEY APPLY TO THEIR SCOPE OF WORK.
- S. THE OWNER SHALL RESERVE THE RIGHT TO CLAIM ANY MATERIALS THAT ARE BEING DEMOLISHED PRIOR TO THE CONTRACTOR DISPOSING OF THEM OFF SITE.
- T. REFER TO THE STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND TECHNOLOGY DOCUMENTS FOR COMPLETE SCOPE OF DEMOLITION WORK.
- U. "FLOORING" DENOTES FLOOR COVERING MATERIALS INCLUDING BACKING, ADHESIVES, AND BASES DOWN TO BUT EXCLUSIVE OF FLOOR SLABS AND STRUCTURAL MATERIALS UNLESS NOTED OTHERWISE.
- V. DEMOLITION IS TO FOLLOW ESTABLISHED CONSTRUCTION SEQUENCE. REFER TO SPECIFICATIONS AND DRAWINGS FOR REQUIREMENTS AND SPECIAL CONDITIONS.
- W. WHERE APPLICABLE SALVAGE EXISTING MASONRY (FACE BRICK, GLAZED CMU, FACING TILE) AS REQUIRED FOR PATCHING AND INFILL IN RENOVATED AREAS WHERE INDICATED. DISCARD UNUSED PORTION OFF SITE.

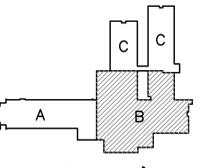
DEMOLITION PLAN NOTES:

- (ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)
- 1 REMOVE CARPET FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
 - 2 REMOVE VCT/SHEET VINYL FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
 - 3 REMOVE ROLLED RUBBER FLOORING SYSTEM IN ITS ENTIRETY. PREPARE FLOOR FOR NEW FINISHES.
 - 4 REMOVE MASONRY WALL (AS REQUIRED FOR NEW CONSTRUCTION.) PATCH AND REPAIR FLOOR AND WALL AS REQUIRED TO ACCEPT NEW FINISHES.
 - 5 REMOVE PORTION OF MASONRY WALL AS REQUIRED TO INSTALL NEW DOOR.
 - 6 REMOVE WOOD DOOR, HOLLOW METAL FRAME AND HARDWARE IN THEIR ENTIRETY. SALVAGE DOOR AND HARDWARE FOR REUSE. REFER TO NEW AND DOOR SCHEDULE FOR NEW LOCATION.
 - 7 REMOVE WINDOW SYSTEM IN ITS ENTIRETY.
 - 8 REMOVE ALUMINUM STOREFRONT FRAMING, DOORS, AND HARDWARE IN ITS ENTIRETY. REFER TO ELECTRICAL.
 - 9 REMOVE PLUMBING FIXTURES IN THEIR ENTIRETY. CUT AND CAP LINE BELOW WALL OR FLOOR SURFACE. UNLESS OTHERWISE NOTED ON PLUMBING DRAWINGS PATCH AND REPAIR FLOOR AND/OR WALL AS REQUIRED TO ACCEPT NEW FINISHES.
 - 10 REMOVE TOILET ACCESSORIES AND TURN OVER TO THE OWNER.
 - 11 REMOVE MECHANICAL UNIT. PATCH AND REPAIR WALL AND FLOOR TO RECEIVE NEW FINISHES. REFER TO MECHANICAL DRAWINGS.
 - 12 REMOVE PORTION OF STAIR AS REQUIRED FOR NEW RAMP, PATCH AND REPAIR EXISTING STAIR TO REMAIN AS REQUIRED TO MAKE LIKE NEW. REFER TO CIVIL.
 - 13 REMOVE EXISTING CONCRETE SIDEWALK AND PREPARE FOR NEW CONCRETE SIDEWALK SAME LOCATION. REFER TO CIVIL.
 - 14 REMOVE DISPLAY WALL, CHALK, MARKER, AND/OR TACKBOARD IN IT'S ENTIRETY. PATCH AND REPAIR AS REQUIRED TO RECEIVE NEW FINISHES.
 - 15 REMOVE EXISTING LOUVER IN ITS ENTIRETY, REFER TO MECHANICAL.
 - 16 REMOVE DAMAGED LIMESTONE SILL SECTION AND PREPARE AS REQUIRED FOR NEW SILL.
 - 17 REMOVE SEALANT AROUND EXISTING LIMESTONE AND PREPARE AS REQUIRED FOR NEW SEALANT.
 - 18 REMOVE AND SALVAGE PROJECTOR AND SMARTBOARD AND ALL RELATED EQUIPMENT. REFER TO EQUIPMENT AND ELECTRICAL DRAWINGS.
 - 19 REMOVE ALL RED VCT TILES AND PREPARE FLOOR FOR NEW TILES TO REPLACE RED TILES.
 - 20 REMOVE EXISTING FASCIA AND GUTTER AS REQUIRED TO CONSTRUCT NEW CANOPY.
 - 21 REMOVE EXISTING EIFS SYSTEM REFER TO SECTIONS AND ELEVATIONS.
 - 22 REMOVE PORTION OF MASONRY WALL AS REQUIRED FOR NEW LOUVER. SALVAGE BRICK FOR REUSE.
 - 23 REMOVE AND SALVAGE ALUMINUM LETTERS FOR REUSE, REFER TO ELEVATIONS FOR NEW LOCATION.
 - 24 REMOVE AND SALVAGE DOWNSPOUT AND BOOT, PATCH AND REPAIR CONCRETE, REFER TO PLANS AND ELEVATIONS FOR NEW LOCATION.
 - 25 REMOVE AND REINSTALL EXISTING A/C AS REQUIRED FOR NEW MECHANICAL DUCT INSTALLATION. REFER TO MECHANICAL.
 - 26 REMOVE EXISTING A/C AND GRID SYSTEM IN ITS ENTIRETY.
 - 27 MODIFY EXISTING A/C AND GRID SYSTEM AS REQUIRED FOR NEW A/C INSTALLATION.
 - 28 REMOVE AND SALVAGE KNOX BOX FOR REUSE, REFER TO NEW FLOOR PLAN FOR LOCATION.
 - 29 REMOVE EXISTING ADA PUSH PAD, REFER TO ELECTRICAL.
 - 30 REMOVE EXISTING CARD READER, REFER TO ELECTRICAL.
 - 31 REMOVE EXISTING MECHANICAL YARD FENCE AND GATES IN ITS ENTIRETY.



GIBRALTAR DESIGN
 ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
 HANOVER COMMUNITY SCHOOL CORPORATION
 CEDAR LAKE, INDIANA



KEY PLAN

GIBRALTAR DESIGN
 9102 N. Meridian St., Ste. 300
 Indianapolis, IN 46260
 Homepage: www.GibraltarDesign.com
 Email: info@GibraltarDesign.com
 Phone: 317.580.5777 Fax: 317.580.5778

PROJECT
 23-140
 DATE
 10/13/23
 COORDINATED BY
 DTB
 DRAWN BY
 DTB
 CHECKED BY
 DTB DJW

COPYRIGHT NOTICE:
 THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

MARK	DATE	ISSUED FOR
AD-1	10/24/23	ADDENDUM NO.1
AD-2	10/30/23	ADDENDUM NO.2

MARK	DATE	ISSUED FOR
AD-1	10/24/23	ADDENDUM NO.1
AD-2	10/30/23	ADDENDUM NO.2

DRAWING
UNIT "B" ARCHITECTURAL FIRST FLOOR DEMOLITION PLAN

PROJECT
 HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
JB AD102



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA

KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB DJW

COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO.2	

DRAWING
UNIT "A" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

© GIBRALTAR DESIGN SHEET
JB A-101

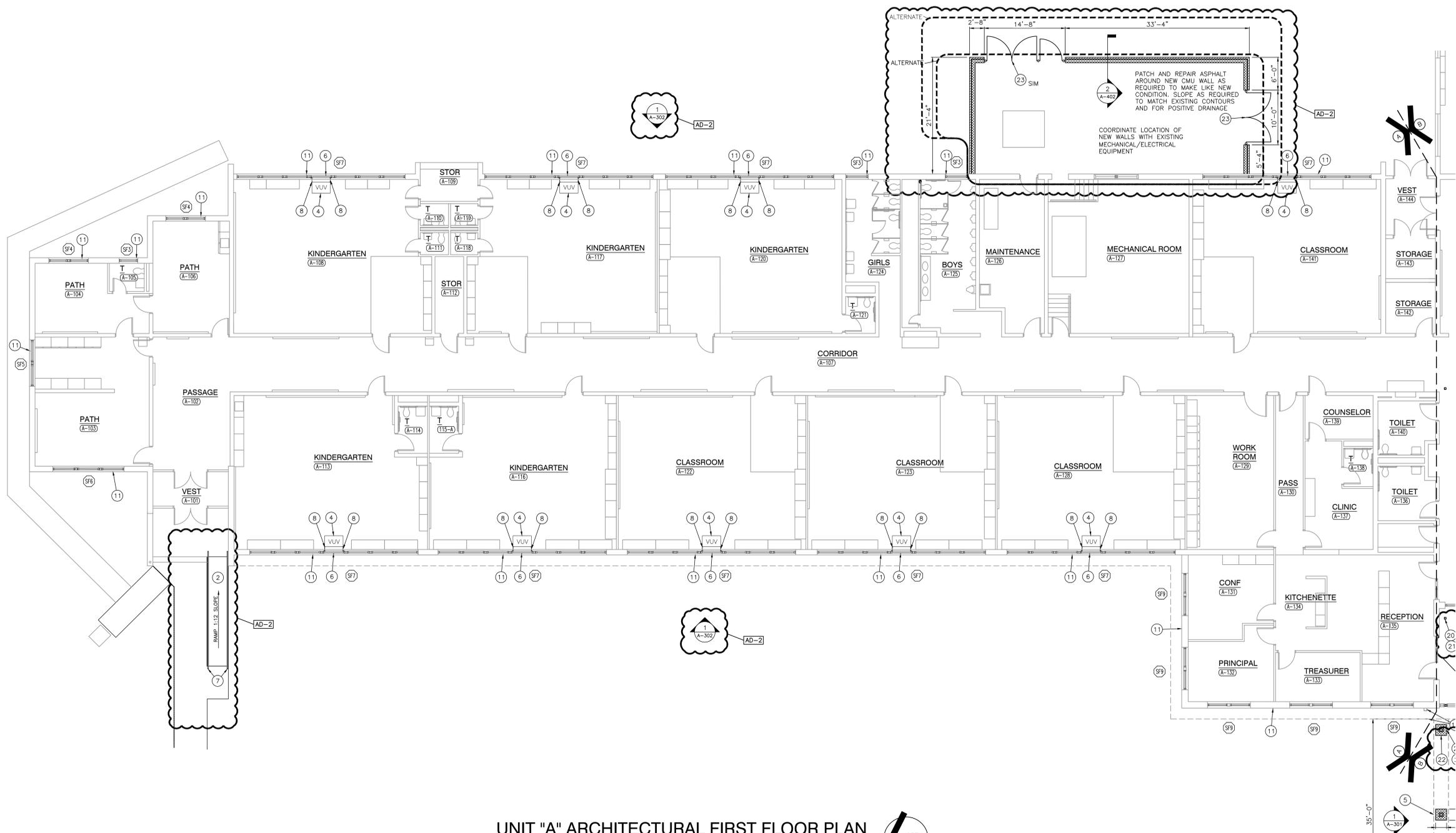
- 1 CASEWORK AND/OR MILLWORK, REFER TO EQUIPMENT PLANS.
- 2 NEW CONCRETE RAMP, REFER TO CIVIL.
- 3 FLOOR FINISH TRANSITION, REFER TO FINISH PLANS.
- 4 UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
- 5 LINE OF NEW CANOPY, REFER TO SECTIONS.
- 6 INFILL EXISTING LOUVER OPENING BY TOOTHING IN NEW CMU AND BRICK VENEER MATCHING EXISTING IN SIZE, SHAPE, COLOR, AND PROFILE.
- 7 NEW 1 1/2" O.D. PAINTED ALUMINUM HANDRAIL WITH ALUMINUM BRACKETS AT 35" ABOVE SLOPE OF RAMP AND FLOOR, EXTEND RAIL 12" PAST TOP AND BOTTOM OF RAMP AND RETURN ENDS TO WALL.
- 8 UNIT VENTILATOR HEAVY GAUGE PAINTED METAL CLOSURE TO MATCH UNIT VENTILATOR. COORDINATE EACH CONDITION IN FIELD WITH WALL, FLOOR AND CEILING CONDITION.
- 9 TOOTH IN NEW CMU INTO EXISTING.
- 10 NEW LOUVER TOOTH IN NEW CMU AND SALVAGED BRICK AROUND NEW LOUVER WHERE EXISTING LOUVER WAS REMOVED, REFER TO MECHANICAL.
- 11 NEW BACKER ROD AND SEALANT AROUND STONE SILLS AND CLEAN SILL FOR ENTIRE BAY OF WINDOWS OR ENTIRE LENGTH OF WALL AT ADMIN.
- 12 RESET SAGGED STONE SILL ABOVE EXISTING LOUVER SO THAT IT IS BACK INLINE WITH ADJACENT SILLS.
- 13 REPLACE CRACKED SECTION OF STONE SILL WITH NEW MATCHING COLOR AND PROFILE OF EXISTING.
- 14 CLEAN EXISTING CMU WALL.
- 15 NEW ALUMINUM DOWNSPOUT AND BOOT CONNECTED INTO STORM SEWER. ADJUST GUTTER TO WORK WITH NEW DOWNSPOUT LOCATION, REFER TO CIVIL.
- 16 RELOCATE EXISTING ALUMINUM DOWNSPOUT AND BOOT AND CONNECT INTO STORM SEWER, REFER TO CIVIL.
- 17 EXISTING GUTTER AND DOWNSPOUT. MODIFY AS REQUIRED TO CONNECT NEW CANOPY GUTTER SYSTEM AND MAINTAIN POSITIVE DRAINAGE.
- 18 SALVAGED WOOD DOOR AND HARDWARE WITH NEW HOLLOW METAL FRAME.
- 19 RELOCATED SMART BOARD.
- 20 PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS.
- 21 CARD/FOE READER, REFER TO ELECTRICAL DRAWINGS.
- 22 INSTALL SALVAGED KNOX BOX, REPLACE IF DAMAGED.
- 23 MECHANICAL YARD GATE.
- 24 INFILL EXISTING WINDOW OPENING WITH NEW CMU AND BRICK TO MATCH ADJACENT WALLS. COORDINATE WITH NEW LOUVER OPENING.

GENERAL PLAN NOTES:

- A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.
- B. PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.
- C. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
- D. MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.
- E. THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
- F. HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
- G. PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
- H. REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.
- I. INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.
- J. WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.
- K. REFER TO FINISH PLANS FOR LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL.
- L. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.
- M. REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

PLAN LEGEND:

- ◻ INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.
- ◊ INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.
- INDICATES CASEWORK ELEVATION SYMBOL - REFER TO A-501 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.



UNIT "A" ARCHITECTURAL FIRST FLOOR PLAN

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

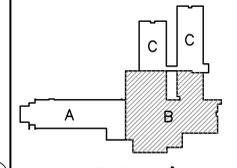


Tuesday, 10/31/2023 11:44 AM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-101.DWG



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA



GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB DJW

JOSEPH P. BRICK
REGISTERED ARCHITECT
STATE OF INDIANA
NO. 11600109
Joseph P. Brick

COPYRIGHT NOTICE: THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-1	10/24/23	ADDENDUM NO.1	
AD-2	10/30/23	ADDENDUM NO.2	

DRAWING
UNIT "B" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

SHEET
JB A-102

GENERAL PLAN NOTES:

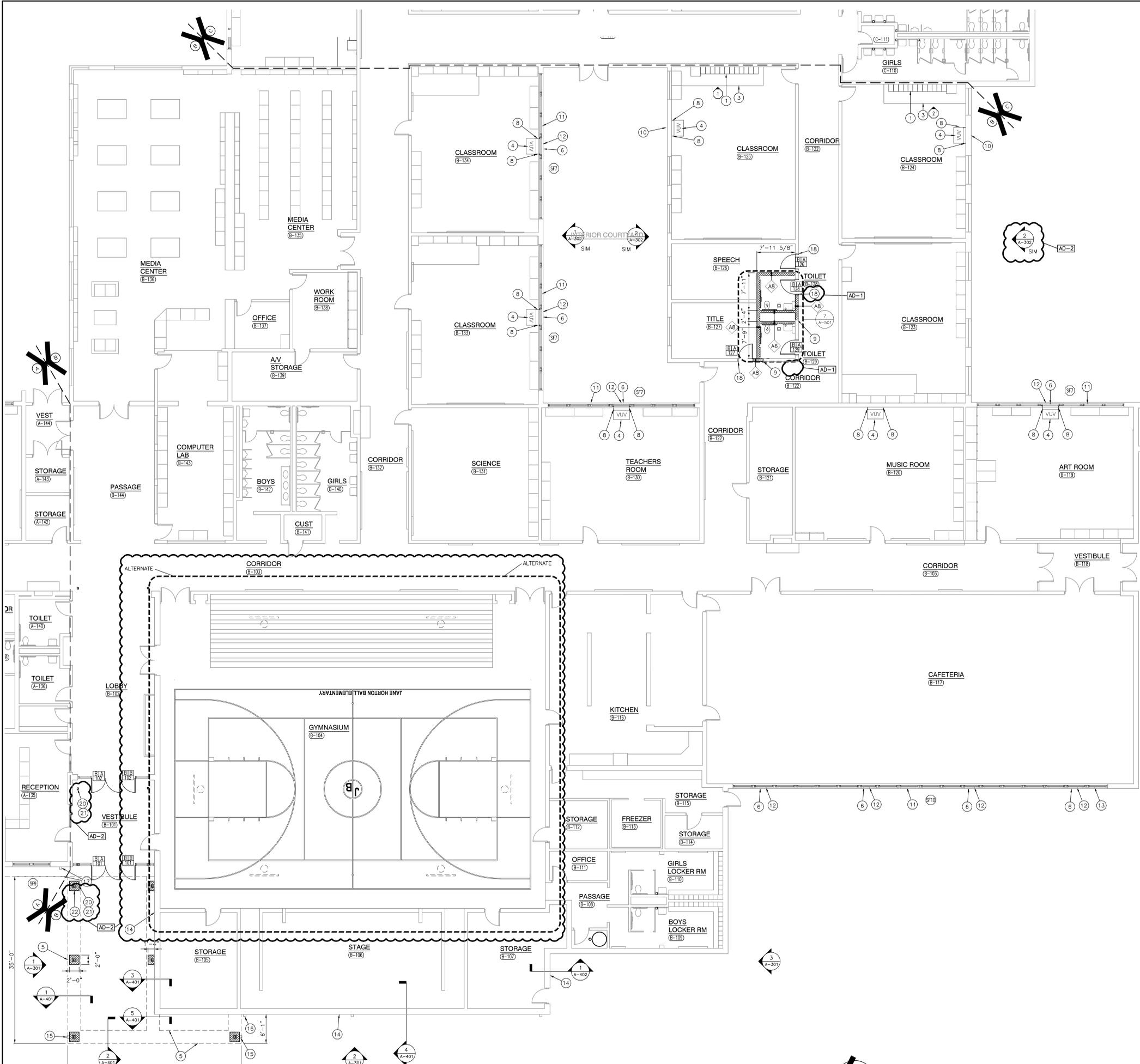
- FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.
- PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.
- ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
- MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.
- THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
- HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
- PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
- REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.
- INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.
- WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.
- REFER TO FINISH PLANS FOR LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL.
- ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.
- REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

PLAN LEGEND:

- ⊖ INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.
- ◊ INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.
- ⊕ INDICATES CASEWORK ELEVATION SYMBOL - REFER TO A-501 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

PLAN NOTES:

- (ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)
- CASEWORK AND/OR MILLWORK, REFER TO EQUIPMENT PLANS.
 - NEW CONCRETE RAMP, REFER TO CIVIL.
 - FLOOR FINISH TRANSITION, REFER TO FINISH PLANS.
 - UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
 - LINE OF NEW CANOPY, REFER TO SECTIONS.
 - INFILL EXISTING LOUVER OPENING BY TOOTHING IN NEW CMU AND BRICK VENEER MATCHING EXISTING IN SIZE, SHAPE, COLOR, AND PROFILE.
 - NEW 1 1/2" O.D. PAINTED ALUMINUM HANDRAIL WITH ALUMINUM BRACKETS AT 35" ABOVE SLOPE OF RAMP AND FLOOR. EXTEND RAIL 12" PAST TOP AND BOTTOM OF RAMP AND RETURN ENDS TO WALL.
 - UNIT VENTILATOR HEAVY GAUGE PAINTED METAL CLOSURE TO MATCH UNIT VENTILATOR. COORDINATE EACH CONDITION IN FIELD WITH WALL, FLOOR AND CEILING CONDITION.
 - TOOTH IN NEW CMU INTO EXISTING.
 - NEW LOUVER TOOTH IN NEW CMU AND SALVAGED BRICK AROUND NEW LOUVER WHERE EXISTING LOUVER WAS REMOVED. REFER TO MECHANICAL.
 - NEW BACKER ROD AND SEALANT AROUND STONE SILLS AND CLEAN SILL FOR ENTIRE BAY OF WINDOWS OR ENTIRE LENGTH OF WALL AT ADMIN.
 - RESET SAGGED STONE SILL ABOVE EXISTING LOUVER SO THAT IT IS BACK IN LINE WITH ADJACENT SILLS.
 - REPLACE CRACKED SECTION OF STONE SILL WITH NEW MATCHING COLOR AND PROFILE OF EXISTING.
 - CLEAN EXISTING CMU WALL.
 - NEW ALUMINUM DOWNSPOUT AND BOOT CONNECTED INTO STORM SEWER. ADJUST GUTTER TO WORK WITH NEW DOWNSPOUT LOCATION, REFER TO CIVIL.
 - RELOCATE EXISTING ALUMINUM DOWNSPOUT AND BOOT AND CONNECT INTO STORM SEWER, REFER TO CIVIL.
 - EXISTING GUTTER AND DOWNSPOUT. MODIFY AS REQUIRED TO CONNECT NEW CANOPY GUTTER SYSTEM AND MAINTAIN POSITIVE DRAINAGE.
 - SALVAGED WOOD DOOR AND HARDWARE WITH NEW HOLLOW METAL FRAME.
 - RELOCATED SMART BOARD.
 - PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS.
 - CARD/FOUR READER, REFER TO ELECTRICAL DRAWINGS.
 - INSTALL SALVAGED KNOX BOX. REPLACE IF DAMAGED.
 - MECHANICAL YARD GATE.
 - INFILL EXISTING WINDOW OPENING WITH NEW CMU AND BRICK TO MATCH ADJACENT WALLS. COORDINATE WITH NEW LOUVER OPENING.



UNIT "B" ARCHITECTURAL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"



Tuesday, 10/31/2023 11:46 AM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-102.DWG



GIBRALTAR
DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA

GENERAL PLAN NOTES:

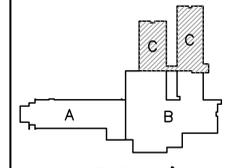
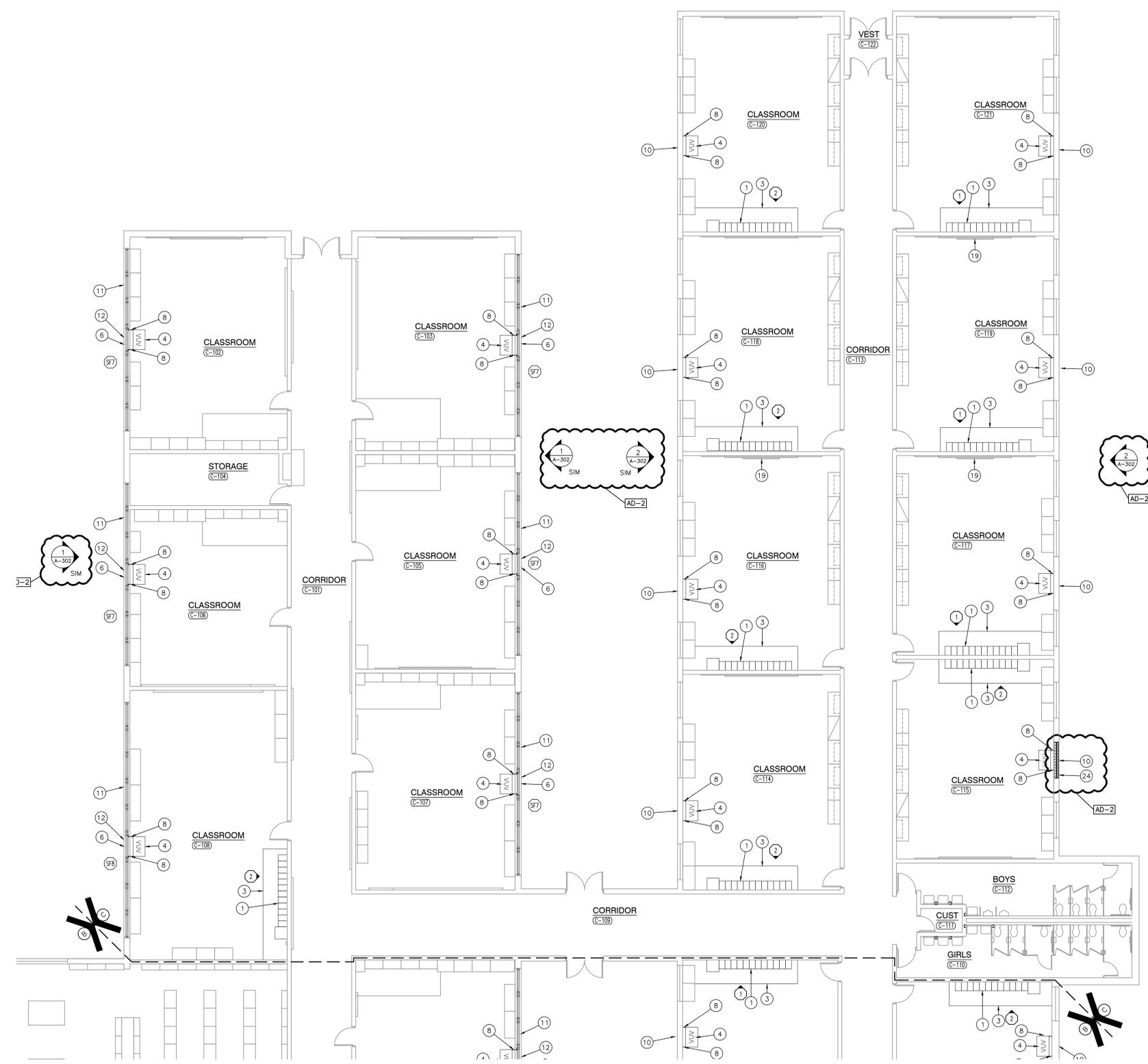
- A. FOR GENERAL PROJECT NOTES, MATERIAL INDICATIONS LEGEND, SYMBOL LEGEND, ABBREVIATIONS, ETC., REFER TO GI SERIES SHEETS.
- B. PLAN DIMENSIONS TO MASONRY WALLS ARE TO FACE OF ROUGH MASONRY. PLAN DIMENSIONS TO STUD WALLS ARE TO FACE OF FINISHED GYPSUM BOARD OR PLASTER. PLAN DIMENSIONS TO STUD WALLS WITH CERAMIC TILE FINISH ARE TO THE FACE OF TILE BACKER BOARD.
- C. ALL CMU WALLS THAT DO NOT LAY OUT IN FULL OR HALF LENGTHS SHOULD BE BALANCED SO AS NOT TO HAVE ANY PIECES LESS THAN 4" IN SIZE EXPOSED TO VIEW.
- D. MASONRY WALLS BEARING ON A THICKENED SLAB AT SLAB DEPRESSIONS REQUIRE CUT MASONRY UNITS SO THAT COURSING BEGINS AT THE FLOOR LINE.
- E. THE BASE FIRST FLOOR ELEVATION INDICATED FOR THE PROJECT IS 100'-0". REFER TO SITE PLAN FOR CORRELATION TO USGS DATUM.
- F. HINGE SIDE OF DOOR JAMB AT CMU WALLS SHALL BE LOCATED 8" MINIMUM FROM ADJACENT WALL AND HINGE SIDE OF DOOR JAMB AT GYPSUM BOARD WALLS SHALL BE LOCATED 4" MINIMUM FROM ADJACENT WALL UNLESS NOTED OTHERWISE.
- G. PROVIDE WOOD BLOCKING (OR METAL STRAPPING WHERE APPLICABLE) AS REQUIRED WITHIN METAL STUD WALLS FOR WALL MOUNTED ITEMS.
- H. REFER TO LIFE SAFETY PLANS REGARDING FIRE RATED WALL LOCATIONS AND OTHER CODE INFORMATION.
- I. INTERIOR CMU WALLS ARE TO BE RUNNING BOND UNLESS NOTED OTHERWISE.
- J. WHERE NEW CMU WALLS INTERSECT EXISTING CMU WALLS AT A CORNER OR ARE ALIGNED WITH EXISTING CMU WALLS, TOOTH NEW CMU INTO EXISTING CMU UNLESS NOTED OTHERWISE.
- K. REFER TO FINISH PLANS FOR LOCATION AND EXTENT OF FINISHED FLOOR AND WALL MATERIAL.
- L. ALL EXPOSED CONCRETE MASONRY UNITS (CMU) CORNERS ARE TO BE BULLNOSED, EXCEPT AT MASONRY BULKHEADS AND EXTERIOR WINDOW JAMBS.
- M. REFER TO DEMOLITION SHEETS FOR ADDITIONAL PATCHING AND REPAIR WORK.

PLAN LEGEND:

- ☐ INDICATES STOREFRONT, CURTAIN WALL, OR WINDOW SYSTEM. REFER TO A-600 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.
- ◊ INDICATES WALL TYPES REFER TO G-201 FOR WALL THICKNESS, HEIGHT, AND COMPOSITION.
- ☉ INDICATES CASEWORK ELEVATION SYMBOL - REFER TO A-501 SERIES DRAWINGS FOR ELEVATIONS AND DETAILS.

PLAN NOTES:

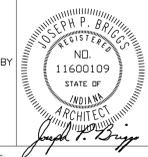
- (ALL PLAN NOTES MAY NOT BE INDICATED ON THIS SHEET.)
- 1 CASEWORK AND/OR MILLWORK, REFER TO EQUIPMENT PLANS.
 - 2 NEW CONCRETE RAMP, REFER TO CIVIL.
 - 3 FLOOR FINISH TRANSITION, REFER TO FINISH PLANS.
 - 4 UNIT VENTILATOR, REFER TO MECHANICAL DRAWINGS.
 - 5 LINE OF NEW CANOPY, REFER TO SECTIONS.
 - 6 INFILL EXISTING LOUVER OPENING BY TOOTHING IN NEW CMU AND BRICK VENEER MATCHING EXISTING IN SIZE, SHAPE, COLOR, AND PROFILE.
 - 7 NEW 1 1/2" O.D. PAINTED ALUMINUM HANDRAIL WITH ALUMINUM BRACKETS AT 35" ABOVE SLOPE OF RAMP AND FLOOR. EXTEND RAIL 12" PAST TOP AND BOTTOM OF RAMP AND RETURN ENDS TO WALL.
 - 8 UNIT VENTILATOR HEAVY GAUGE PAINTED METAL CLOSURE TO MATCH UNIT VENTILATOR. COORDINATE EACH CONDITION IN FIELD WITH WALL, FLOOR AND CEILING CONDITION.
 - 9 TOOTH IN NEW CMU INTO EXISTING.
 - 10 NEW LOUVER TOOTH IN NEW CMU AND SALVAGED BRICK AROUND NEW LOUVER WHERE EXISTING LOUVER WAS REMOVED, REFER TO MECHANICAL.
 - 11 NEW BACKER ROD AND SEALANT AROUND STONE SILLS AND CLEAN SILL FOR ENTIRE BAY OF WINDOWS OR ENTIRE LENGTH OF WALL AT ADMIN.
 - 12 RESET SAGGED STONE SILL ABOVE EXISTING LOUVER SO THAT IT IS BACK IN LINE WITH ADJACENT SILLS.
 - 13 REPLACE CRACKED SECTION OF STONE SILL WITH NEW MATCHING COLOR AND PROFILE OF EXISTING.
 - 14 CLEAN EXISTING CMU WALL.
 - 15 NEW ALUMINUM DOWNSPOUT AND BOOT CONNECTED INTO STORM SEWER. ADJUST GUTTER TO WORK WITH NEW DOWNSPOUT LOCATION, REFER TO CIVIL.
 - 16 RELOCATE EXISTING ALUMINUM DOWNSPOUT AND BOOT AND CONNECT INTO STORM SEWER, REFER TO CIVIL.
 - 17 EXISTING GUTTER AND DOWNSPOUT. MODIFY AS REQUIRED TO CONNECT NEW CHIMNEY FLUE SYSTEM AND MAINTAIN POSITIVE DRAINAGE.
 - 18 SALVAGED WOOD DOOR AND HARDWARE WITH NEW HOLLOW METAL FRAME.
 - 19 RELOCATED SMART BOARD.
 - 20 PUSH PAD FOR ADA OPERATOR, REFER TO ELECTRICAL DRAWINGS. AD-1
 - 21 CARD/FOB READER, REFER TO ELECTRICAL DRAWINGS. AD-2
 - 22 INSTALL SALVAGED KNOX BOX. REPLACE IF DAMAGED.
 - 23 MECHANICAL YARD GATE. L-107
 - 24 INFILL EXISTING WINDOW OPENING WITH NEW CMU AND BRICK TO MATCH ADJACENT WALLS. COORDINATE WITH NEW LOUVER OPENING.



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB DJW



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO.2

DRAWING
UNIT "C" ARCHITECTURAL FIRST FLOOR PLAN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

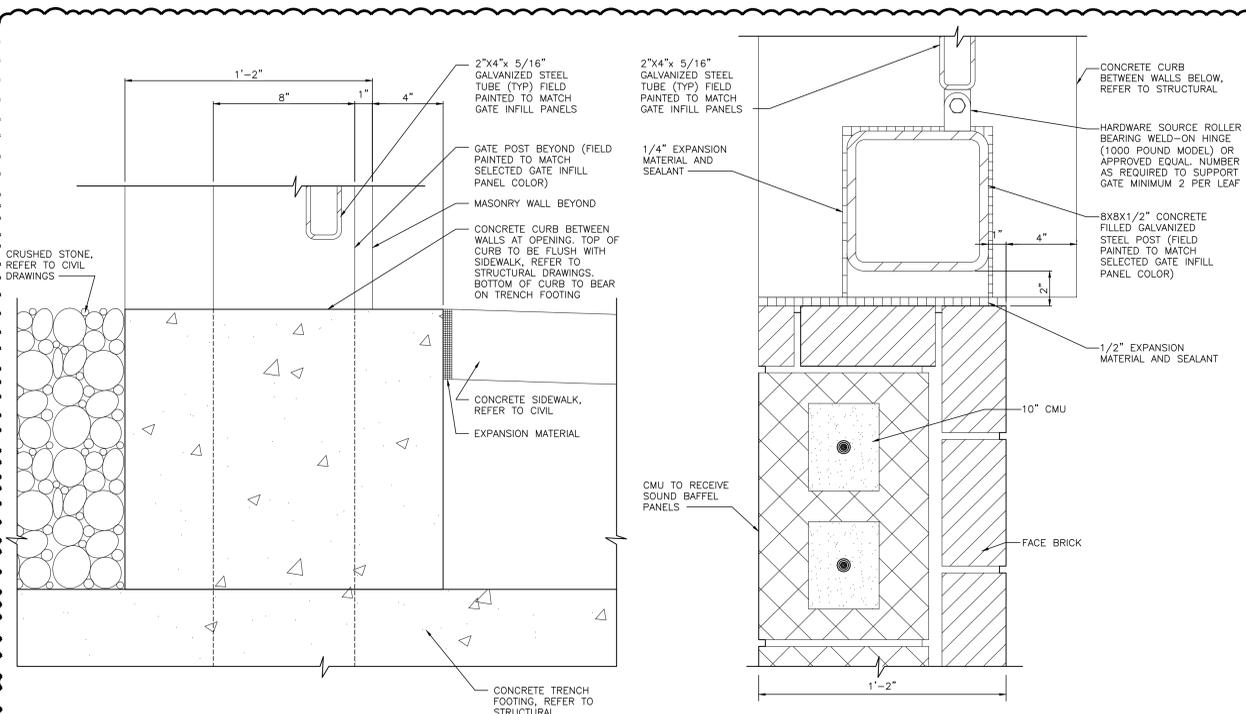
© GIBRALTAR DESIGN SHEET
JB A-103

UNIT "C" ARCHITECTURAL FIRST FLOOR PLAN

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

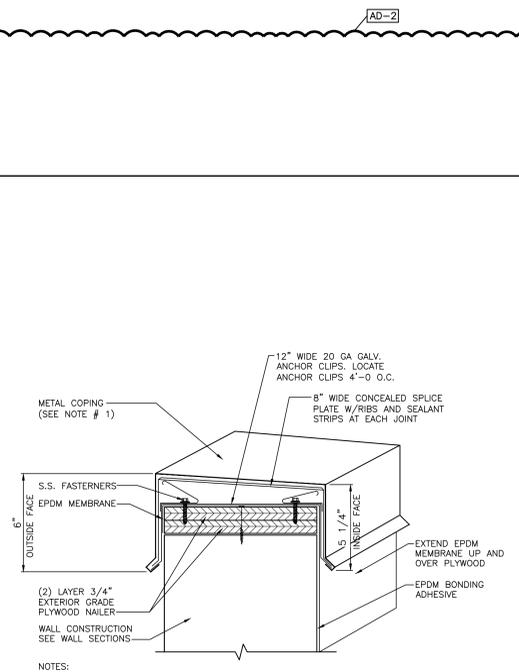


Monday, 10/30/2023 - 2:42 PM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-103.DWG

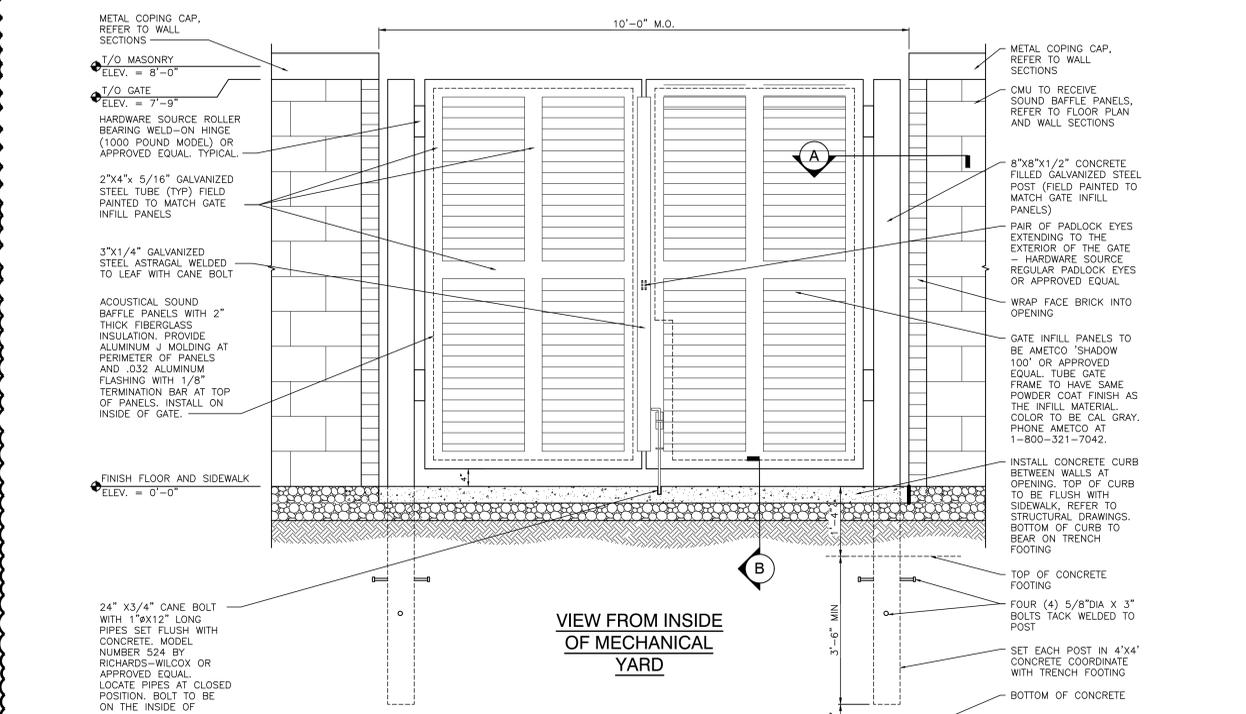


MECHANICAL YARD GATE DETAIL B
SCALE: 3/4" = 1'-0"

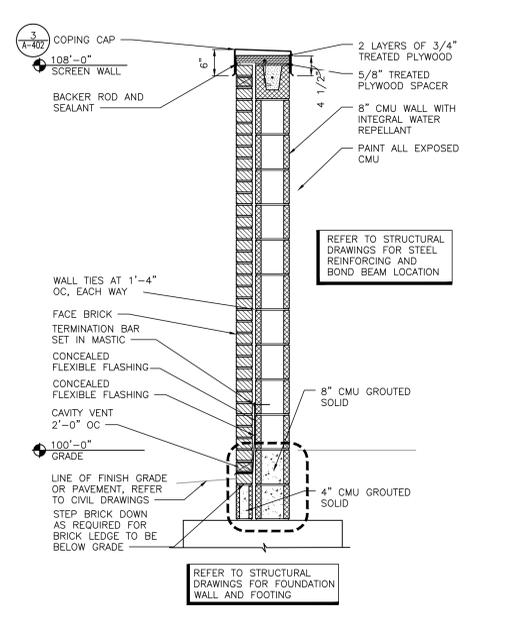
MECHANICAL YARD GATE DETAIL A
SCALE: 3/4" = 1'-0"



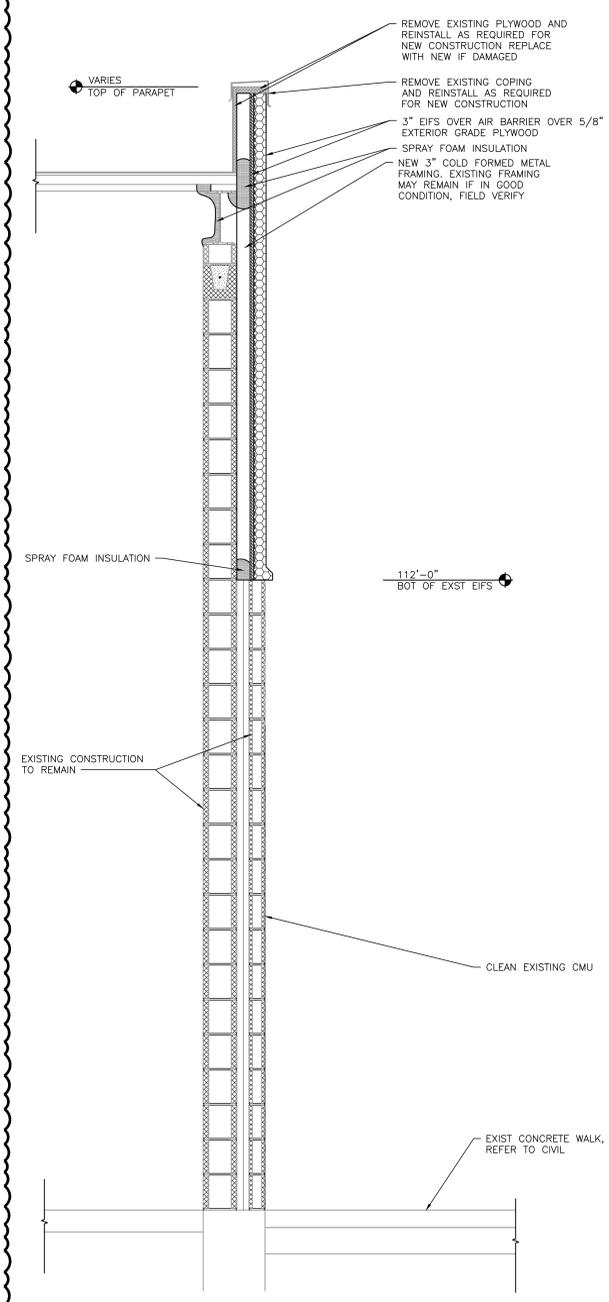
COPING CAP DETAIL
SCALE: 3/4" = 1'-0"



VIEW FROM INSIDE OF MECHANICAL YARD
SCALE: 3/4" = 1'-0"



WALL SECTION
SCALE: 3/4" = 1'-0"



WALL SECTION
SCALE: 3/4" = 1'-0"

GIBRALTAR DESIGN

9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB, DJW



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO.2	

DRAWING	WALL SECTIONS
PROJECT: HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS	

Monday, 10/30/2023 5:39 PM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-402.DWG



GIBRALTAR
DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

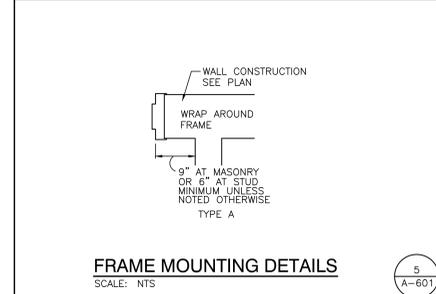
PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA

GLASS SCHEDULE		LOUVER SCHEDULE	
MK	GLASS TYPES	MK	LOUVER SIZE
A	1/4" CLEAR TEMPERED		
B	1" INSUL. GLASS		
C	1/2" LAMINATED SAFETY GLASS		

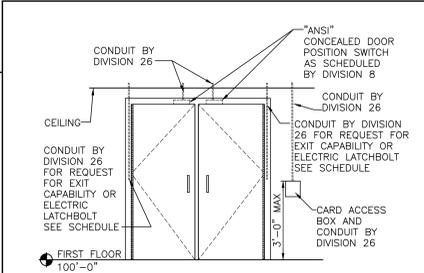
DOOR AND FRAME SCHEDULE																	
NO.	DESCRIPTION	TYPE	DOOR SIZE (WxH) (INCHES)	MATERIAL	GLASS			FRAME			LABEL	HARDWARE		NOTES			
					LOU	DOOR	TRA	MAT'L	WIDTH	JAMB		HEAD	SILL		ELEV	EXIT DEVICE	CLOSER
101-A	DOUBLE	3	PR 36 x 84	AL		B	B	B	AL	6"	SEE ELEV	SEE ELEV	SEE ELEV	SF1	YES	YES	1,2,3,4,5,6
101-B	SINGLE	3	36 x 84	AL		B	B	B	AL	6"	SEE ELEV	SEE ELEV	SEE ELEV	SF1	YES	YES	4,6
102-A	DOUBLE	3	PR 36 x 84	AL		C	C	C	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF1	YES	YES	1,2,3,5,6
102-B	SINGLE	3	36 x 84	WD		C	C	C	AL	4 1/2"	SEE ELEV	SEE ELEV	SEE ELEV	SF3	YES	YES	6
126-A	EXISTING SINGLE	2	36 x 84	EXIST WD					HM	8 3/4"	J1	H1		HM1			7
127-A	EXISTING SINGLE	2	36 x 84	EXIST WD					HM	8 3/4"	J1	H1		HM1			8
128-A	EXISTING SINGLE	1	36 x 84	EXIST WD					HM	8 3/4"	J1	H1		HM1			9
129-A	SINGLE	1	36 x 84	WD					HM	8 3/4"	J1	H1		HM1			

GENERAL DOOR NOTES:
A. JAMB, HEAD, AND SILL DO NOT SHOW WALL CONSTRUCTION. SEE FLOOR PLAN FOR WALL MATERIALS. REFER TO A800 SERIES DRAWINGS FOR WALL FINISHES.
B. SEAL ALL JAMBS AND HEADS WHERE FRAMES MEET EXPOSED MASONRY AND/OR GYPSUM BOARD.
C. PROVIDE A SCRIBE MOLD AT ALL EXTERIOR DOOR FRAMES AND WHERE NOTED ON DRAWINGS. SCRIBE MOLD TO BE 3/4" X 3/4" METAL AT EXTERIOR OF METAL FRAMES AND AT BOTH SIDES OF ALUMINUM FRAMES. SET SCRIBE MOLDS IN SEALANT.
D. PROVIDE GLAZING AND GLASS STOPS AS REQUIRED.
E. FIELD VERIFY ALL DIMENSIONS AND CONDITIONS, BOTH NEW AND EXISTING.
F. SHIM SPACE IS NOT SHOWN ON DOOR FRAME ELEVATIONS FOR ALUMINUM STOREFRONT. TAKE THESE DIMENSIONS INTO ACCOUNT AND ADJUST DIMENSIONS ACCORDINGLY.
G. FOR DOOR POSITION WITHIN WALL REFER TO FRAME MOUNTING DETAIL 5-A601.
H. FOR ELECTRICAL ROUGH-IN AT DOORS REFER TO DETAIL 3-A601.
I. FOR HOLLOW METAL FRAME ELEVATIONS (HM) REFER TO 1-A601. FOR HOLLOW METAL (HM) FRAME PROFILES REFER TO 2-A601.
J. FOR ALUMINUM STOREFRONT ELEVATIONS (SF) REFER TO 1-A610. FOR STOREFRONT (SF) FRAME PROFILES REFER TO 2-A610.
K. GLASS NOTED IN SIDELIGHT COLUMN FOR STOREFRONT WITH NO DOOR APPLIES TO ALL OPENINGS IN FRAME UNLESS NOTED OTHERWISE.
L. REFER TO FLOOR PLANS FOR LOCATIONS OF NEW AND EXISTING ADA PUSH PADS FOR POWER ASSISTED OPERATORS.
M. WHERE FRAMES INDICATE 2 OF MORE OPENINGS FOR DOORS, EACH SINGLE OR PAIR OF DOORS IS SCHEDULED SEPARATELY AND FRAME INDICATED.

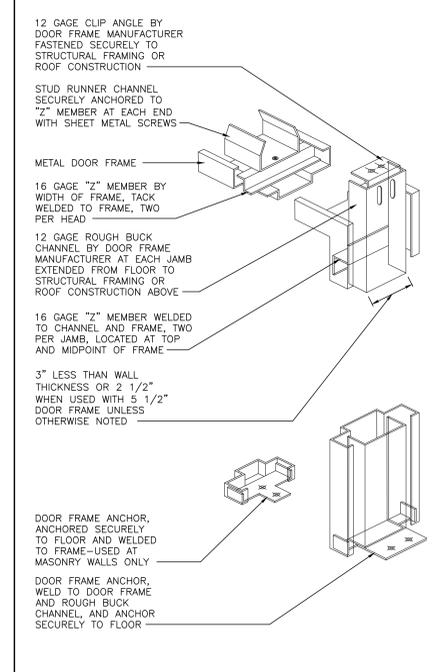
DOOR SCHEDULE NOTES (REMARKS):
1. PANIC DEVICE TO HAVE ELECTRIC LATCH BOLT. PREPARE FRAME FOR ELECTRIFIED HINGE.
2. DOOR TO BE CONTROLLED BY CARD READER/FOB. REFER TO ELECTRICAL DRAWINGS FOR ROUGH IN.
3. PROVIDE POWER ASSISTED OPERATOR ON ONE LEAF OF DOUBLE DOORS.
4. PROVIDE ALUMINUM THRESHOLD SET IN FULL BED OF MASTIC.
5. KEYED REMOVABLE MULLION.
6. PREPARE DOOR AND FRAME FOR DOOR POSITION SWITCH.
7. DOOR AND HARDWARE SALVAGED FROM SLEEP B-126.
8. DOOR AND HARDWARE SALVAGED FROM TITLE B-127.
9. DOOR AND HARDWARE SALVAGED FROM TOILET B-128.



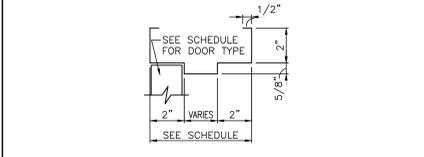
FRAME MOUNTING DETAILS
SCALE: NTS



ELECTRICAL ROUGH-IN AT DOOR FRAMES
SCALE: NTS



TYPICAL HEAD & JAMB ANCHORAGE
SCALE: NTS



HOLLOW METAL (HM) FRAME PROFILES
SCALE: 3/4" = 1'-0"

NOTES - HOLLOW METAL (HM)
1. FOR HOLLOW METAL HEAD, JAMB AND SILL DETAILS REFER TO WALL SECTIONS AND HOLLOW METAL (HM) FRAME PROFILES.
2. PROVIDE SEALANT AROUND PERIMETER OF ALL FRAMES.
3. DIMENSIONS SHOWN ARE NOMINAL. FIELD VERIFY ALL DIMENSIONS SHOWN PRIOR TO FABRICATION AND INSTALLATION.
4. JAMB, HEAD, AND SILL DO NOT SHOW WALL CONSTRUCTION. SEE FLOOR PLAN FOR WALL MATERIALS. SEE ROOM FINISH SCHEDULE FOR WALL FINISHES.
5. PROVIDE GLAZING AND GLASS STOPS AS REQUIRED.

HOLLOW METAL FRAME ELEVATIONS (HM)
SCALE: 1/4" = 1'-0"

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB DJW

COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

MARK	DATE	ISSUED FOR
AD-1	10/24/23	ADDENDUM NO.1
AD-2	10/30/23	ADDENDUM NO.2

DRAWING
DOOR SCHEDULE, FRAME PROFILES, ELEVATIONS, AND DETAILS

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
JB A-601

Monday, 10/30/2023 - 3:36 PM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-601.DWG



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA

KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: CLN, ACS
CHECKED BY: NAS

COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND ARE NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO.2

DRAWING
UNIT "A" FIRST FLOOR FINISH PLAN

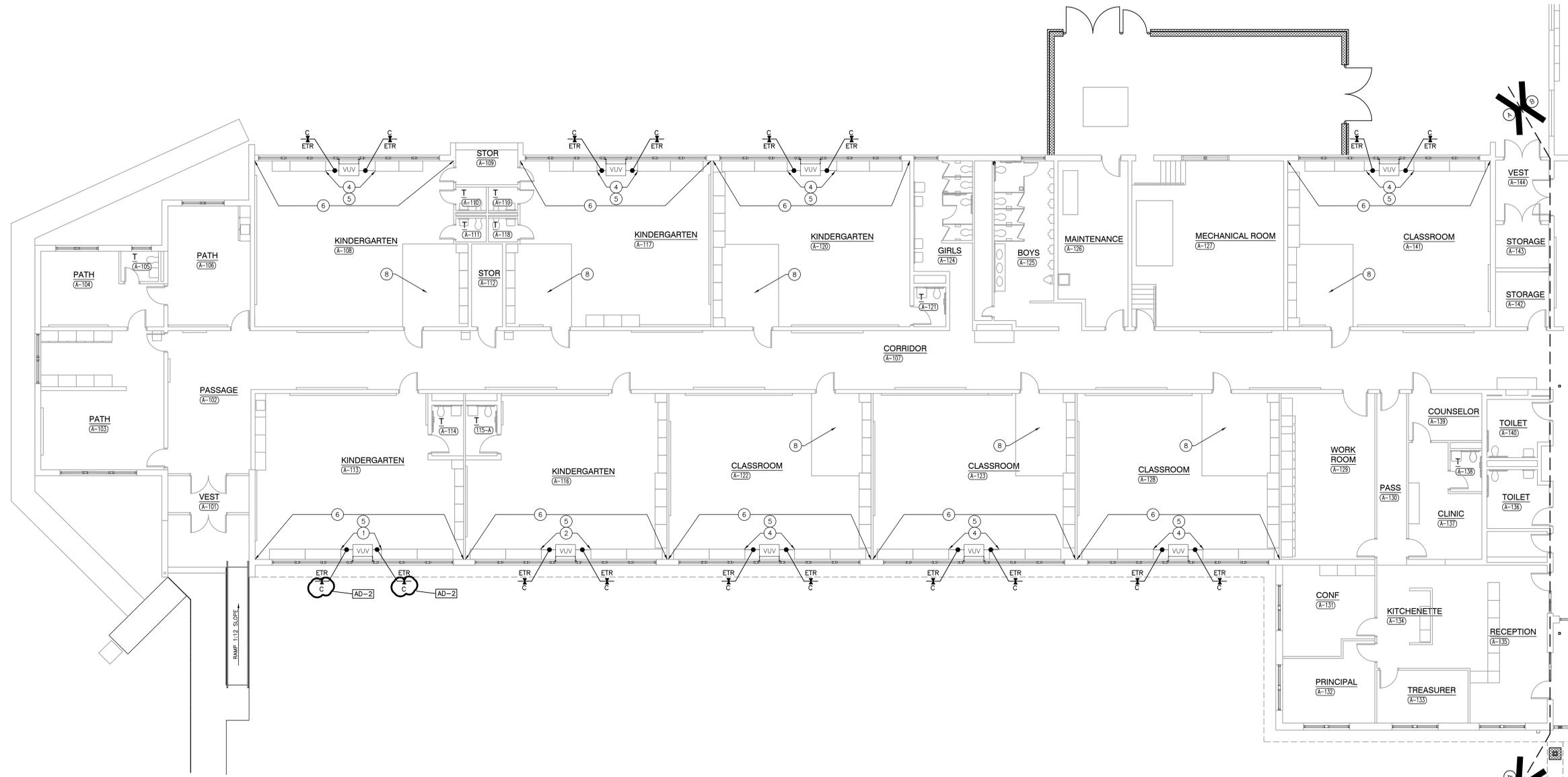
PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
JB A-801

- FINISH PLAN NOTES:**
(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)
- VINYL TILE, VCT1 AND TRIM1
 - CARPET, C1. FILL IN WITH OWNER ATTIC STOCK.
 - CARPET, C2. FILL IN WITH OWNER ATTIC STOCK.
 - CARPET, C3. FILL IN WITH OWNER ATTIC STOCK.
 - WALL BASE, B1
 - PAINT, P1. FEATHER INTO EXISTING.
 - PAINT, W1.
 - REMOVE EXISTING "RED" VCT ONLY AND REPLACE WITH VCT2.
 - PAINT, W1, FEATHER INTO EXISTING.
 - LV11. FILL IN WITH OWNER ATTIC STOCK.
 - NEW CLEANABLE ACT TILE (ACT1) AND GRID; HEIGHT AND LAYOUT TO MATCH EXISTING.

- GENERAL FINISH PLAN NOTES:**
- REFERENCE FINISH LEGEND FOR FINISH INFORMATION.
 - REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.
 - PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSIDERED THAT THE INSTALLER AND/OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.
 - PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURER'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.
 - ALL FLOORING IS TO BE LEVELLED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.
 - FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.
 - ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.
 - ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC. THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYD TYPE PAINT. COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.
 - CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON THE FLOOR PATTERN PLANS, WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.
 - ALL FLOOR FINISH TRANSITIONS AT DOORS SHALL BE CENTERED UNDER DOOR UNLESS NOTED OTHERWISE.
 - FOR FLOOR FINISH TRANSITION DETAILS REFER TO XX/A-500.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 603.
 - PAINT ALL SIDES OF NEW AND EXISTING DOOR FRAMES PX UNLESS NOTED OTHERWISE.
 - EXPOSED SURFACES OF DUCTWORK TO BE PAINTED TO MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE.

- FINISH SYMBOL LEGEND:**
- | | |
|----|-------------------------|
| P1 | WALL FINISH |
| C1 | FLOOR FINISH |
| B1 | BASE FINISH |
| -- | MISC FINISH INFORMATION |
- FLOOR TRANSITION STRIP AS REQUIRED
 INDICATES DIRECTION OF MATERIAL GRAIN



UNIT "A" FIRST FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

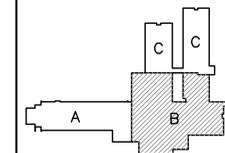


Monday, 10/30/2023 - 10:34 AM - LAST SAVED BY: GIBRALTAR DESIGN
 Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY SCHOOL RENOVATION\23-140 DRAWINGS\05 ARCH\A-801.DWG



GIBRALTAR
DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

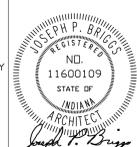
PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA



KEY PLAN

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: DTB
DRAWN BY: CLN, ACS
CHECKED BY: NAS



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO.2	

DRAWING
UNIT "B" FIRST FLOOR FINISH PLAN

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
JB A-802

GENERAL FINISH PLAN NOTES:

- REFERENCE FINISH LEGEND FOR FINISH INFORMATION.
- REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.
- PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND/OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.
- PREPARE ALL WALL CONSTRUCTION, NEW AND EXISTING, TO RECEIVE NEW FINISHES AS PER MANUFACTURER'S RECOMMENDED INSTALLATION METHODS AND MATERIALS FOR ALL FINISHES.
- ALL FLOORING IS TO BE LEVELLED WITHIN 1/4" IN 10'-0" WITH LATEX MATERIAL. MOISTURE CONTENT IN AREA IS TO BE TESTED PRIOR TO INSTALLATION OF FLOORING MATERIAL. CONTRACTOR TO INSTALL FLOORING PER MANUFACTURER'S RECOMMENDED METHOD.
- FLOORING CONTRACTOR TO SUBMIT A SEAMING DIAGRAM FOR FLOORING MATERIAL INCLUDING NOTATION OF MATERIAL DIRECTION.
- ALL FLOORING TRANSITIONS SHALL COMPLY WITH ADA GUIDELINES.
- ALL EXPOSED METAL SURFACES, SUCH AS GRILLES, FIRE EXTINGUISHER CABINETS, ETC. THAT ARE NOTED TO BE PAINTED, SHALL BE PAINTED WITH ALKYLID TYPE PAINT, COLOR TO BE COORDINATED WITH DESIGNER UNLESS OTHERWISE NOTED.
- CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON THE FLOOR PATTERN PLANS, WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.
- ALL FLOOR FINISH TRANSITIONS AT DOORS SHALL BE CENTERED UNDER DOOR UNLESS NOTED OTHERWISE.
- FOR FLOOR FINISH TRANSITION DETAILS REFER TO XX/A-500.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY THAT ALL NEW INTERIOR WALL AND CEILING FINISHES WILL BE CLASS B MINIMUM, WITH A FLAME SPREAD RATING OF 75 MAXIMUM, AND A SMOKE DEVELOPED INDEX OF 450 MAXIMUM, PER IBC SECTION 603.
- PAINT ALL SIDES OF NEW AND EXISTING DOOR FRAMES PX UNLESS NOTED OTHERWISE.
- EXPOSED SURFACES OF DUCTWORK TO BE PAINTED TO MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE.

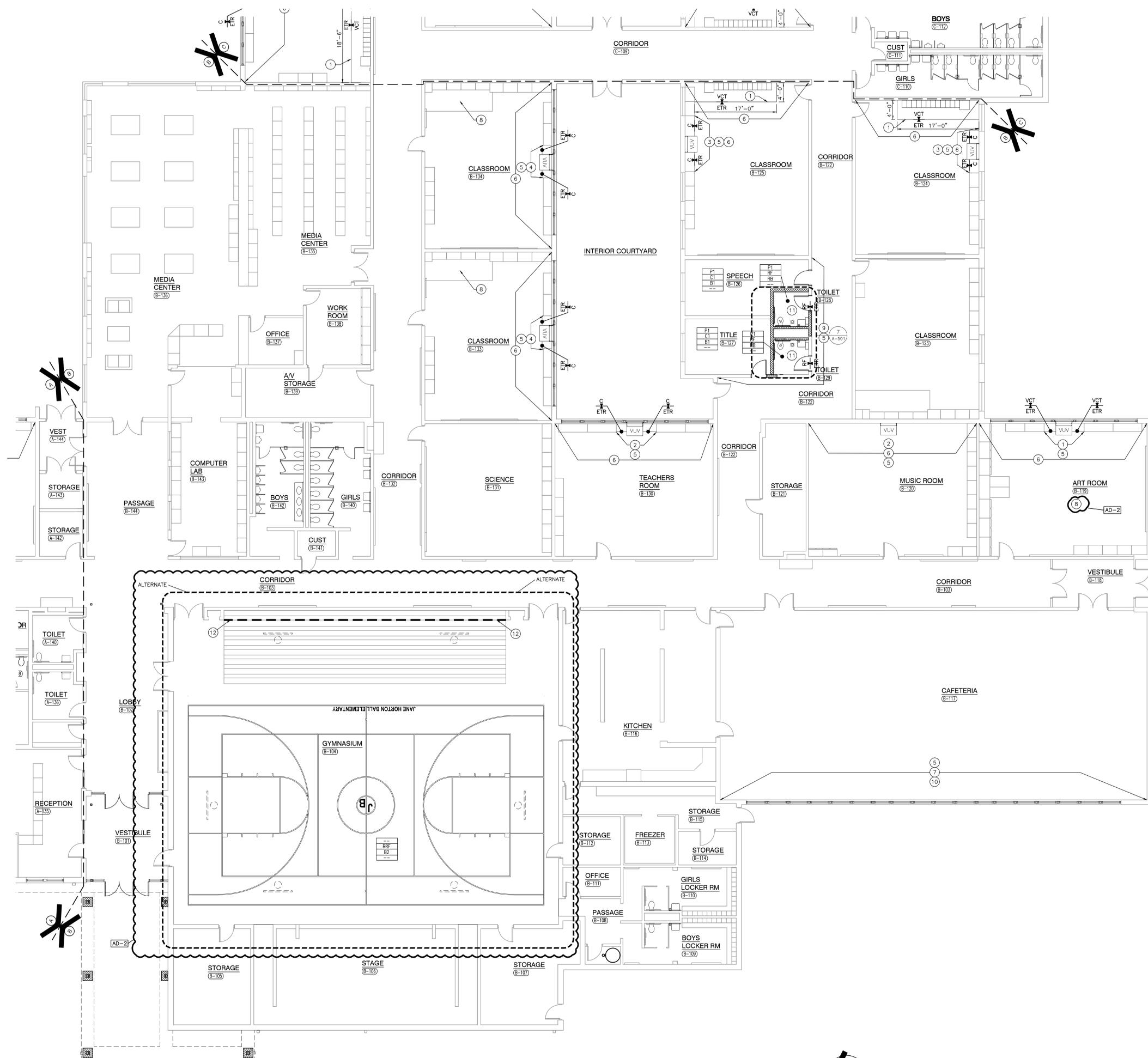
FINISH SYMBOL LEGEND:

- | | |
|----|-------------------------|
| P1 | WALL FINISH |
| C1 | FLOOR FINISH |
| B1 | BASE FINISH |
| -- | MISC FINISH INFORMATION |
- FLOOR TRANSITION STRIP AS REQUIRED
 INDICATES DIRECTION OF MATERIAL GRAIN

FINISH PLAN NOTES:

(ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)

- VINYL TILE, VCT1 AND TRIM1
- CARPET, C1. FILL IN WITH OWNER ATTIC STOCK.
- CARPET, C2. FILL IN WITH OWNER ATTIC STOCK.
- CARPET, C3. FILL IN WITH OWNER ATTIC STOCK.
- WALL BASE, B1
- PAINT, P1. FEATHER INTO EXISTING.
- PAINT, W1.
- REMOVE EXISTING "RED" VCT ONLY AND REPLACE WITH VCT2.
- PAINT, W1. FEATHER INTO EXISTING.
- LVT1, FILL IN WITH OWNER ATTIC STOCK.
- NEW CLEANABLE ACT TILE (ACT1) AND GRID; HEIGHT AND LAYOUT TO MATCH EXISTING.
- ALIGN AND JOIN NEW ROLLED RUBBER FLOOR TO EXISTING ROLLED RUBBER FLOOR UNDER EDGE OF BLEACHER - HIDDEN FROM VIEW.



UNIT "B" FIRST FLOOR FINISH PLAN
SCALE: 1/8" = 1'-0"

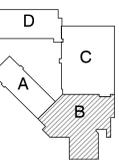


Tuesday, 10/31/2023 4:12:27 PM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-802.DWG



GIBALTAR
DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

PROJECT
**DOUGLAS
MACARTHUR
ES ADDITIONS
AND
RENOVATIONS**
CROWN POINT COMMUNITY
SCHOOL CORPORATION
CEDAR LAKE, INDIANA



KEY PLAN

GIBALTAR DESIGN

9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 21-113
DATE: 01/31/22
COORDINATED BY: DTB
DRAWN BY: DTB
CHECKED BY: DTB



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
	AD-2	10/30/23	ADDENDUM NO.2

DRAWING
GYMNASIUM COURT MARKING PLAN

PROJECT
**DOUGLAS MACARTHUR ES
ADDITIONS AND RENOVATIONS**

© GIBALTAR DESIGN SHEET
A-840

GENERAL COURT MARKING PLAN NOTES:

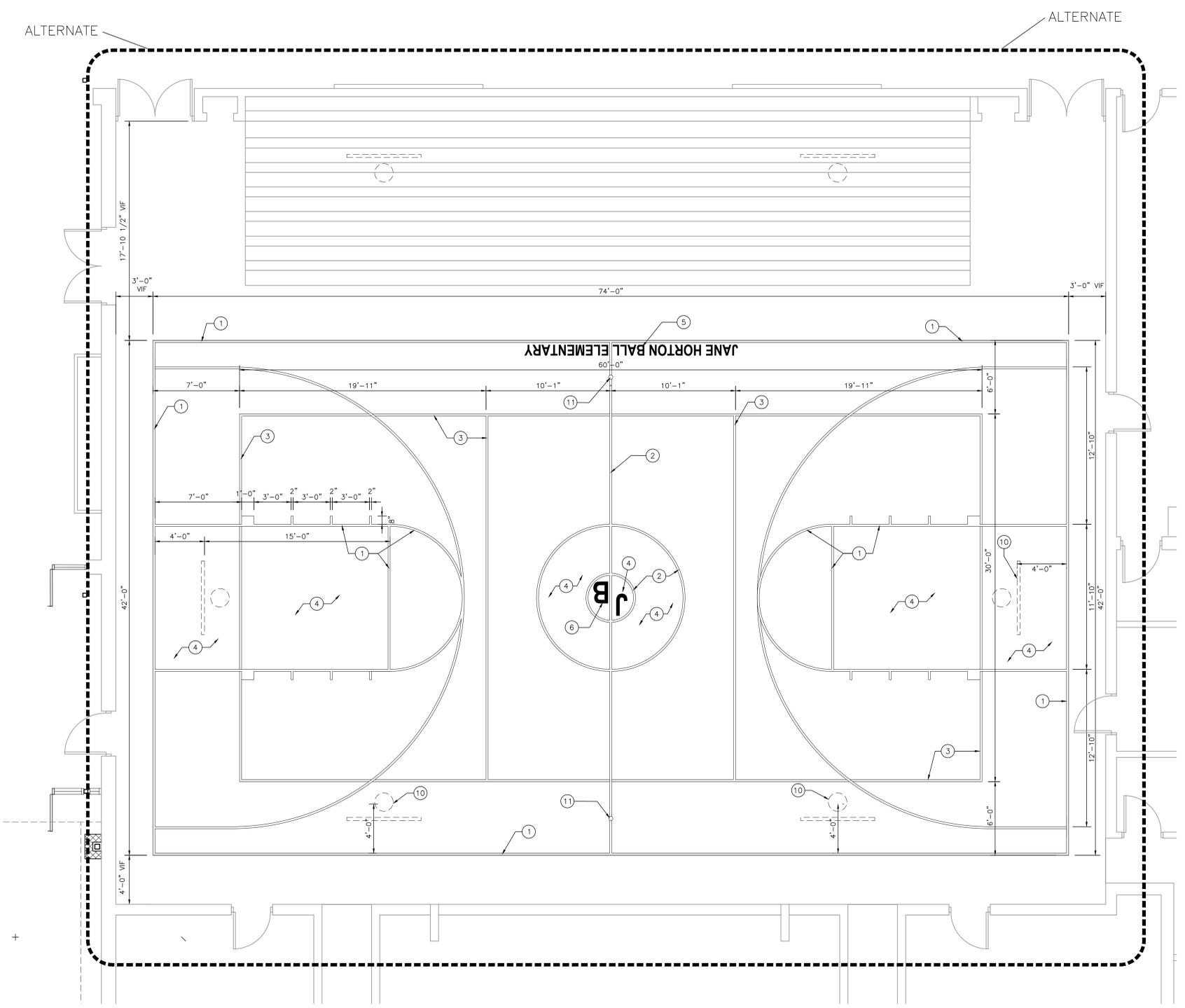
- A. REFERENCE FINISH LEGEND FOR FINISH INFORMATION.
- B. REFERENCE FLOOR PATTERN PLANS, EQUIPMENT PLANS, INTERIOR ELEVATIONS, REFLECTED CEILING PLANS AND WRITTEN SPECIFICATIONS FOR ADDITIONAL FINISH INFORMATION.
- C. PRIOR TO INSTALLATION OF NEW FINISHES CONTRACTOR SHALL INSPECT ALL SUBSTRATES. IF A SUBSTRATE IS DEEMED UNACCEPTABLE THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO RECTIFY THE SITUATION OR CONTACT THE ARCHITECT WITH THE CONCERN. PROCEEDING WITH THE INSTALLATION OF FINISHES WILL BE CONSTRUED THAT THE INSTALLER AND /OR FINISHER HAS ACCEPTED SAID SUBSTRATE. NO CHANGE ORDER WILL BE ISSUED TO RECTIFY CONCEALED, OR UNSATISFACTORY SUBSTRATE ONCE FINISH WORK HAS PROCEEDED.
- D. CONTRACTOR TO PROVIDE AND INSTALL FLOORING TRANSITIONS AS INDICATED ON THE FLOOR PATTERN PLANS. WHERE NONE ARE NOTED, CONTRACTOR SHALL VERIFY REQUIRED TYPE/COLOR WITH ARCHITECT.
- E. VERIFY DIMENSIONS AND LINE THICKNESS SHOWN WITH CURRENT INDIANA HIGH SCHOOL ATHLETIC ASSOCIATION (IHSA) STANDARDS.
- F. PRIMARY FINISH IS CLEAR STAIN COAT.
- G. PROVIDE ACCENT STAIN COLOR WHERE NOTED.
- H. VERIFY FINAL LAYOUT AND FINISH COLOR WITH OWNER PRIOR TO INSTALLATION.

COURT MARKING FINISH NOTES:

- (ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)
- ① 2" MAIN BASKETBALL COURT LINES, NAVY.
 - ② CENTER COURT LINES, NAVY.
 - ③ 2" VOLLEYBALL COURT LINES, WHITE
 - ④ INTERIOR OF CIRCLES AND FREE THROW LANES, TO BE SCHOOL RED.
 - ⑤ SCHOOL RED SIDELINE TEXT "JANE HORTON BALL ELEMENTARY" CONFIRM TEXT, FONT, AND SIZE WITH OWNER
 - ⑥ WHITE "JB" LOGO, CONFIRM FONT AND SIZE WITH OWNER.

COURT MARKING PLAN NOTES:

- (ALL PLAN NOTES MAY NOT BE INDICATED ON THIS PLAN)
- ⑩ BASKETBALL BACKSTOP REFER TO EQUIPMENT PLANS.
 - ⑪ FLOORPLATE/SLEEVE FOR VOLLEYBALL

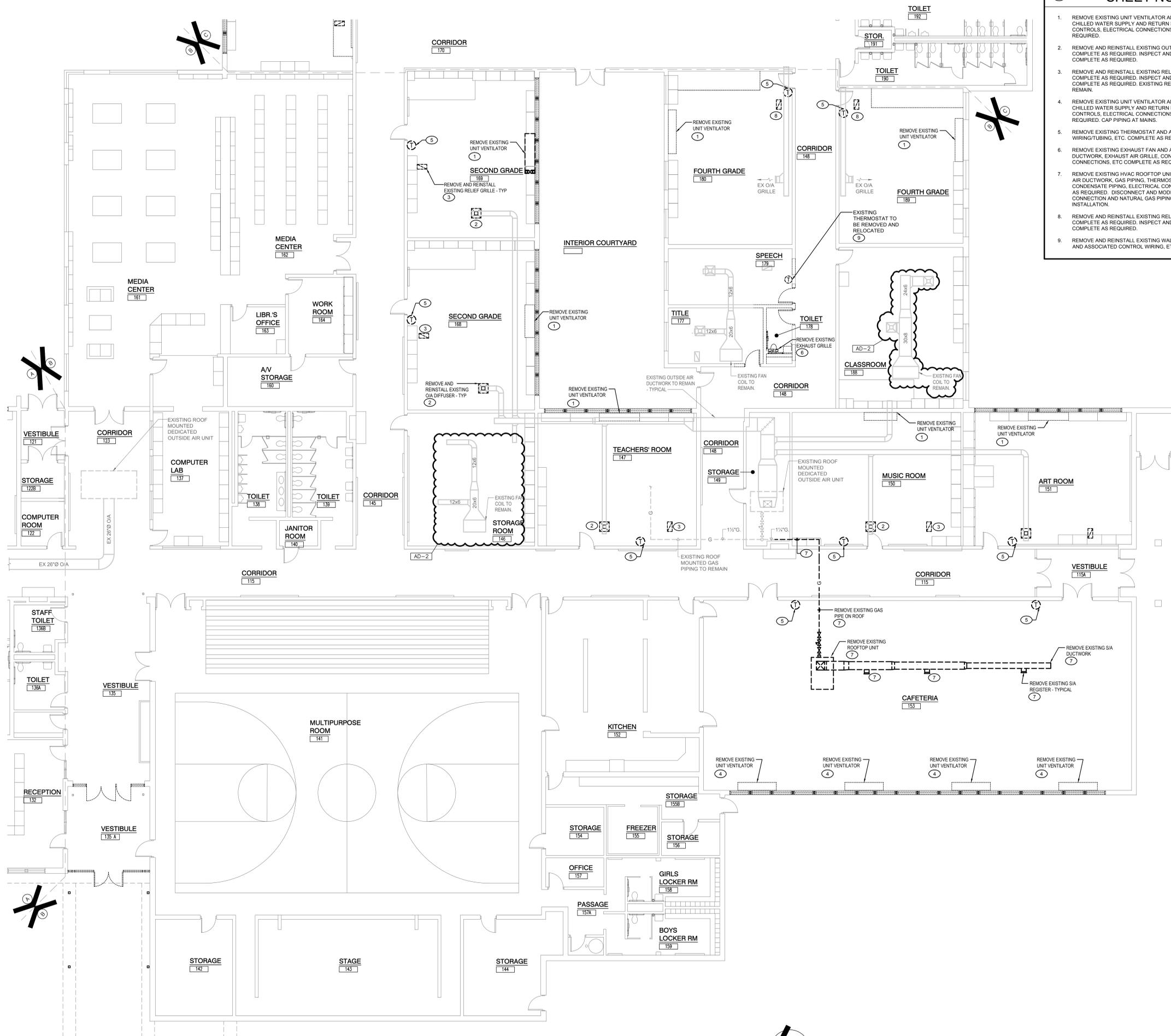


GYMNASIUM COURT MARKING PLAN
SCALE: 1/4" = 1'-0"

1
A-840

AD-2
ENTIRE SHEET ADDED
IN THIS ADDENDUM

Tuesday, 10/31/2023 12:25 PM - LAST SAVED BY: DBURNS
Y:\23-140 HANOVER CSC - JANE BALL ELEMENTARY
SCHOOL RENOVATION\23-140 DRAWINGS\05
ARCH\A-840.DWG



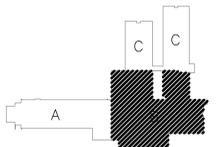
- ### SHEET NOTES
1. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED HOT AND CHILLED WATER SUPPLY AND RETURN PIPING, THERMOSTAT, CONTROLS, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED.
 2. REMOVE AND REINSTALL EXISTING OUTSIDE AIR DIFFUSER COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED.
 3. REMOVE AND REINSTALL EXISTING RELIEF AIR GRILLE AND COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED. EXISTING RELIEF AIR DUCTWORK TO REMAIN.
 4. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED HOT AND CHILLED WATER SUPPLY AND RETURN PIPING, THERMOSTAT, CONTROLS, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED. CAP PIPING AT MAINS.
 5. REMOVE EXISTING THERMOSTAT AND ASSOCIATED CONTROL WIRING/TUBING, ETC. COMPLETE AS REQUIRED.
 6. REMOVE EXISTING EXHAUST FAN AND ASSOCIATED EXHAUST AIR DUCTWORK, EXHAUST AIR GRILLE, CONTROLS, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED.
 7. REMOVE EXISTING HVAC ROOFTOP UNIT AND ASSOCIATED SUPPLY AIR DUCTWORK, GAS PIPING, THERMOSTAT, CONTROL WIRING, CONDENSATE PIPING, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED. DISCONNECT AND MODIFY EXISTING ELECTRICAL CONNECTION AND NATURAL GAS PIPING CONNECTION FOR NEW UNIT INSTALLATION.
 8. REMOVE AND REINSTALL EXISTING RELIEF AIR GRILLE AND COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED.
 9. REMOVE AND REINSTALL EXISTING WALL MOUNTED THERMOSTAT AND ASSOCIATED CONTROL WIRING, ETC. COMPLETE AS REQUIRED.



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

MILLIES ENGINEERING GROUP
(219) 924-8400
www.milliesengineeringgroup.com

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA



GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: JC
DRAWN BY: JC, RH
CHECKED BY: DJ

DAVID G. JANNIE
REGISTERED PROFESSIONAL ENGINEER
NO. 10302590
STATE OF INDIANA

COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO. 2	

DRAWING
UNIT "B" FIRST FLOOR DEMOLITION PLAN - MECHANICAL

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
JB MD102

UNIT "B" FIRST FLOOR DEMOLITION PLAN - MECHANICAL
1/8" = 1'-0"

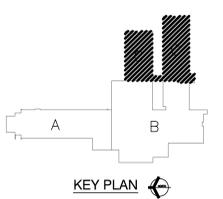
- SHEET NOTES**
1. REMOVE EXISTING UNIT VENTILATOR AND ASSOCIATED HOT AND CHILLED WATER SUPPLY AND RETURN PIPING, THERMOSTAT, CONTROLS, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED.
 2. REMOVE AND REINSTALL EXISTING OUTSIDE AIR DIFFUSER COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED.
 3. REMOVE AND REINSTALL EXISTING RELIEF AIR GRILLE AND COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED. EXISTING RELIEF AIR DUCTWORK TO REMAIN.
 4. REMOVE EXISTING SELF-CONTAINED COOLING UNIT VENTILATOR AND ASSOCIATED HOT WATER SUPPLY AND RETURN PIPING, THERMOSTAT, CONTROLS, ELECTRICAL CONNECTIONS, ETC. COMPLETE AS REQUIRED.
 5. REMOVE EXISTING THERMOSTAT AND ASSOCIATED CONTROL WIRING/TUBING, ETC. COMPLETE AS REQUIRED.
 6. REMOVE AND REINSTALL EXISTING RELIEF AIR GRILLE AND COMPLETE AS REQUIRED. INSPECT AND CLEAN EXISTING GRILLE COMPLETE AS REQUIRED.



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN



PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA



GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: JC
DRAWN BY: JC, RH
CHECKED BY: DJ



COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS

MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO. 2

DRAWING
UNIT "C" FIRST FLOOR DEMOLITION PLAN - MECHANICAL

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

© GIBRALTAR DESIGN SHEET
JB MD103



UNIT "C" FIRST FLOOR DEMOLITION PLAN - MECHANICAL
1/8" = 1'-0"
NORTH

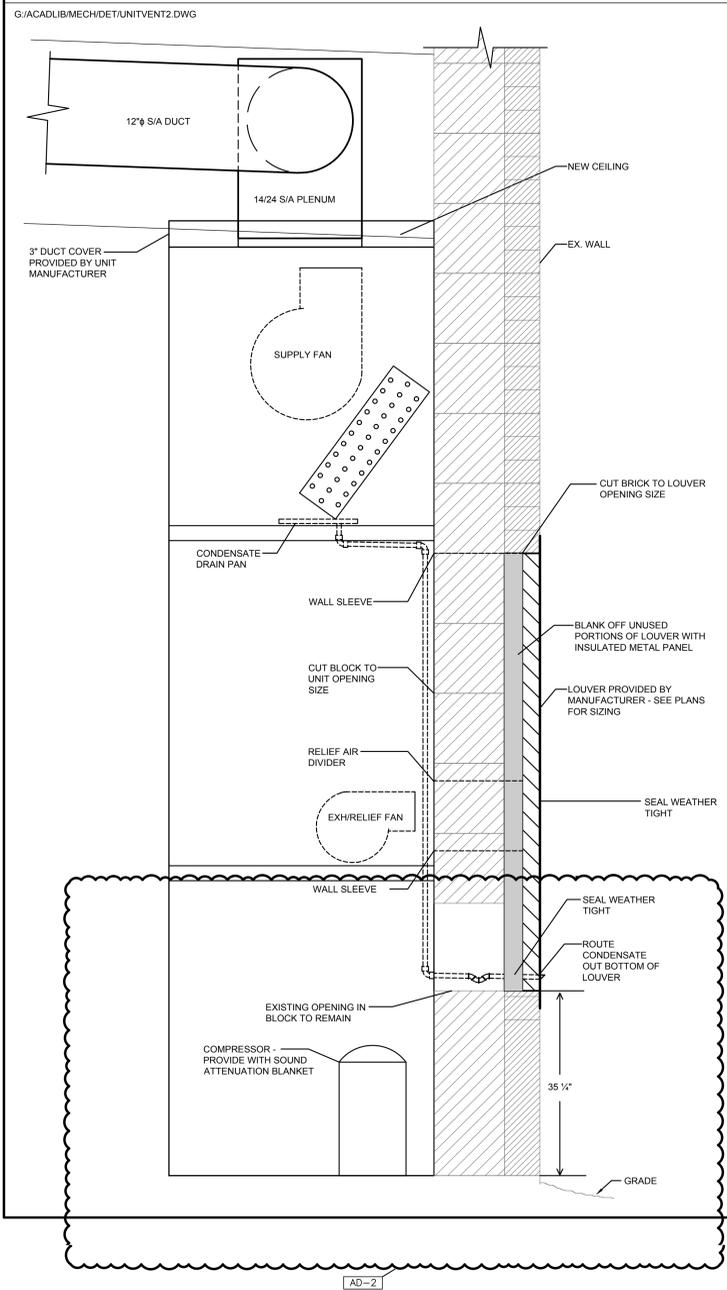
GENERAL NOTES

- A. WORK SHALL COMPLY WITH LOCAL, MUNICIPAL, AND STATE HVAC CODES.
- B. COMMISSIONING: THE OWNER WILL HIRE A COMMISSIONING AGENCY (CXA) TO COMMISSION THE MECHANICAL SYSTEMS FOR THIS PROJECT. THE CXA WILL DEVELOP A COMMISSIONING PLAN THAT WILL OUTLINE THE REQUIREMENTS AND PROCEDURES FOR EACH COMMISSIONED SYSTEM AND WILL BE RESPONSIBLE FOR THE COMMISSIONING MEETS THE REQUIREMENTS OF THE CURRENT ENERGY CODE. THE COMMISSIONING PLAN WILL BE DEVELOPED AFTER CONTRACTS HAVE BEEN AWARDED AND PRIOR TO COMPLETION OF THE SYSTEMS TO BE COMMISSIONED.
- C. THE SCOPE OF WORK SPECIFIED HEREIN AND IN THE SPECIFICATIONS SHALL BE PERFORMED UNDER THE DIRECTION OF A CONSTRUCTION MANAGER REFER TO THE CONSTRUCTION MANAGER'S INSTRUCTIONS AND DIRECTIONS FOR DETAILS RELATING TO THE EXACT SCOPE OF EACH TRADE. ANY DISCREPANCIES BETWEEN THE CONSTRUCTION DOCUMENTS AND CONSTRUCTION MANAGER'S DIRECTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER FOR CLARIFICATION. THE ARCHITECT/ENGINEER'S DECISION SHALL BE FINAL.
- D. LAYOUT IS DIAGRAMMATIC AND CONTRACTOR SHALL INSTALL DUCTWORK, PIPING AND EQUIPMENT TO MEET ACTUAL FIELD CONDITIONS. REVIEW PROJECT SPECIFICATIONS BEFORE STARTING ANY WORK. SUBMIT SHOP DRAWINGS OF WORK AS PER SPECIFICATIONS.
- E. LAYOUT WORK TO AVOID CONFLICTS BETWEEN DUCTWORK, LIGHTING, CEILING, PIPING AND BUILDING STRUCTURE.
- F. COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS (VOLTAGES, PHASE, LOAD, ETC.) BEFORE ORDERING ANY EQUIPMENT.
- G. COORDINATE EXACT LOCATION OF CEILING REGISTERS, GRILLES AND CEILING GRID. SEE ARCHITECTURAL REFLECTED CEILING PLAN. VERIFY EXACT LOCATION IN FIELD PRIOR TO INSTALLATION. VERIFY CEILING STYLES AND TYPES BEFORE ORDERING REGISTERS, GRILLES AND DIFFUSERS. PROVIDE APPROPRIATE FRAME STYLES AS REQUIRED TO MATCH CEILING STYLE AND TYPES. SET ADJUSTABLE BLADES AS REQUIRED FOR OPTIMUM AIR PATTERN AND TO PREVENT DRAFTS. THE MINIMUM DISTANCE BETWEEN SUPPLY DIFFUSERS/REGISTERS AND SMOKE OR HEAT DETECTORS IS TO BE A MINIMUM OF 3'. COORDINATE WITH FIRE ALARM SYSTEM AS REQUIRED.
- H. ROUTE DUCTWORK AS HIGH AS POSSIBLE TO AVOID CONFLICTS WITH OTHER TRADES. ROUTE DUCTWORK BETWEEN AND THROUGH JOIST SPACES AND BETWEEN LIGHT FIXTURES AS REQUIRED. VERIFY CONDITIONS AND DUCTWORK ROUTING IN FIELD PRIOR TO INSTALLATION.
- I. DUCTWORK, PIPING, EQUIPMENT, ETC. SHALL NOT BE SUPPORTED FROM THE BOTTOM CHORD OF ENGINEERED JOISTS WITHOUT WRITTEN APPROVAL FROM THE STRUCTURAL ENGINEER.
- J. ACOUSTICAL FLEXIBLE DUCTWORK AT THE INLET TO AIR DIFFUSERS MAY BE USED. FLEXIBLE CONNECTIONS SHALL BE 5'-0" MAXIMUM LENGTH, AND SHALL BE SUPPORTED WHERE REQUIRED TO PREVENT MOVEMENT.
- K. PROVIDE MANUAL BALANCING DAMPERS AT EACH LOW PRESSURE SUPPLY AIR, RETURN AIR AND EXHAUST DUCTWORK TAKE-OFF INCLUDING TAKEOFFS TO EACH AIR DISTRIBUTION DEVICE. DAMPERS SHALL HAVE LOCKING QUADRANT REGULATORS WITH SPRING LOADED END BEARING. INSTALLATION SHALL BE RATTLE FREE. BE RESPONSIBLE FOR LOCATING BALANCING DEVICES AND COORDINATE LOCATIONS FOR TESTING AND BALANCING.
- L. VERIFY EXACT THERMOSTAT AND SENSOR LOCATIONS IN FIELD PRIOR TO ROUGH-IN OR INSTALLATION. CONTROL WIRING TO BE ROUTED IN CONDUIT.
- M. COORDINATE PHASING OF WORK AND PROVIDE TEMPORARY EQUIPMENT. DUCTWORK AND PIPING AS REQUIRED FOR THE IMPLEMENTATION OF WORK WHILE MAINTAINING SERVICES TO PORTIONS OF BUILDING TO REMAIN OCCUPIED.
- N. SCHEDULE WORK TO AVOID DOWNTIME AND INCONVENIENCE TO OWNER. OWNER'S EXISTING FACILITY SHALL REMAIN IN OPERATION AT ALL TIMES. REQUIRED SHUTDOWN OF EXISTING UTILITIES SHALL BE SCHEDULED WITH OWNER'S OPERATING PERSONNEL. NOTIFY OWNER'S REPRESENTATIVE 48 HOURS IN ADVANCE PRIOR TO ANY SHUTDOWN OF EXISTING MECHANICAL SYSTEMS.
- O. VERIFY IF EXISTING ASBESTOS WILL BE ENCOUNTERED PRIOR TO STARTING ANY WORK. IF ASBESTOS IS PRESENT, THE OWNER WILL PROVIDE FOR THE REMOVAL OF ANY MATERIAL CONTAINING ASBESTOS. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS.
- P. VISIT SITE PRIOR TO BIDDING TO FULLY DETERMINE FIELD CONDITIONS AND TO VERIFY EXISTING MECHANICAL SYSTEMS INCLUDING QUANTITIES AND LOCATIONS TO DETERMINE THE FULL EXTENT OF NEW AND DEMOLITION WORK.
- Q. COORDINATE NEW INSTALLATIONS WITH EXISTING SYSTEMS. ANY EXISTING CONDUIT, PIPING, DUCTWORK, EQUIPMENT, ETC., SHALL BE REWORKED AS REQUIRED TO AVOID CONFLICTS WITH THE INSTALLATION OF THE NEW MECHANICAL SYSTEMS. NO EXTRAS WILL BE ALLOWED AFTER BIDDING FOR ANY REWORK OF EXISTING FIELD CONDITIONS TO RESOLVE ANY CONFLICTS OR NOT FULLY UNDERSTANDING THE SCOPE OF THE WORK REQUIRED.
- R. EXISTING INFORMATION IDENTIFIED ON THE CONTRACT DOCUMENTS IS SCHEMATIC ONLY. BE RESPONSIBLE TO PROPERLY ADDRESS EXISTING CONDITIONS FOR A COMPLETE AND PROPER INSTALLATION OF NEW SYSTEMS. EXISTING EQUIPMENT NOT IDENTIFIED SHALL BE REVIEWED AS TO WHETHER THE EQUIPMENT SHALL REMAIN AND BE RECONNECTED TO THE NEW SERVICES, BE RELOCATED, BE ABANDONED, ETC.
- S. ANY HIDDEN CONDITIONS IDENTIFIED THROUGH THE COURSE OF CONSTRUCTION SHALL BE IMMEDIATELY REPORTED IN WRITTEN FORM FOR REVIEW AND DIRECTION. OTHERWISE, BE RESPONSIBLE FOR ANY AND REQUIRED CHANGES AND COSTS TO CORRECT SAID HIDDEN CONDITION.
- T. EXISTING EQUIPMENT SHALL REMAIN PROPERTY OF THE OWNER AND OWNER SHALL DETERMINE IF EQUIPMENT IS TO BE STORED ON SITE AT OWNER SELECTED LOCATION OR IF EQUIPMENT IS TO BE ABANDONED OR REMOVED FROM SITE.
- U. PATCH EXISTING CEILING, FLOOR, WALL AND ROOF OPENINGS AND SURROUNDING FINISHES RESULTING FROM REMOVAL OF EXISTING MATERIALS SO THAT FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.
- V. PROVIDE FINISHING OF EXISTING CEILING, FLOOR, AND WALL SURFACES AT LOCATIONS AFFECTED BY REMOVAL OF EXISTING MATERIALS SO THAT NEW FINISH WILL MATCH EXISTING IN SURROUNDING AREAS.
- W. REMOVE EXISTING CEILING AND LIGHT FIXTURES REQUIRED FOR INSTALLATION OF NEW WORK. REINSTALL CEILING AND LIGHT FIXTURES UPON COMPLETION OF WORK. REPLACE DAMAGED CEILING MATERIALS TO MATCH EXISTING.
- X. PROVIDE CUTTING, CORE DRILLING AND PATCHING OF EXISTING WALL AND ROOF CONSTRUCTIONS REQUIRED FOR THE INSTALLATION OF NEW DUCTWORK, PIPING AND EQUIPMENT. SEAL PENETRATIONS THROUGH WALL AND ROOF STRUCTURE WATER TIGHT AND WITH AN APPROVED FIRE STOPPING MATERIAL, INCLUDING APPROVED FIRE RATED SLEEVE.
- Y. PROVIDE STEEL LINTELS FOR NEW OPENINGS THROUGH EXISTING MASONRY WALLS AS REQUIRED. LINTELS TO BE AS FOLLOWS UNLESS NOTED OTHERWISE ON ARCHITECTURAL DRAWINGS: TWO (2) 3'-12"x3'-12"x 5/16" ANGLES WITH 5/16" PLATE (1/2" LESS THAN WALL THICKNESS). PROVIDE W8x10 WITH 5/16" PLATE FOR OPENINGS ABOVE 48" WIDE.
- Z. MOUNT NEW THERMOSTATS IN EXISTING SPACES AT LOCATIONS VACATED BY OLD THERMOSTAT WHEN POSSIBLE. REUSE EXISTING CONDUIT IF FOUND TO BE IN GOOD CONDITION.
- AA. PROVIDE AN APPROVED SURFACE MOUNTED RACEWAY AS REQUIRED FOR INSTALLATION OF NEW THERMOSTATS ON EXISTING WALLS TO CONCEAL CONTROL WIRING. SUBMIT SAMPLE OF RACEWAY FOR REVIEW. COORDINATE ROUTING OF RACEWAYS WITH EXISTING BUILDING CONDITIONS AND ADJUST ROUTING TO AVOID CONFLICTS AND TO MINIMIZE THE AMOUNT OF EXPOSED SURFACE MOUNTED RACEWAY.
- BB. REPAIR AND/OR REPLACE DAMAGED PIPE INSULATION THAT OCCURS AS THE RESULT OF THIS CONSTRUCTION.
- CC. MINIMUM SIZE FOR HOT WATER HEATING SUPPLY AND RETURN PIPING TO BE 3/4".
- DD. JANE BALL ELEMENT ONLY. DRAIN AND REFILL EXISTING PIPING SYSTEMS AS REQUIRED FOR INSTALLATION OF NEW WORK. PROVIDE CHEMICAL TREATMENT, GLYCOL/ANTI-FREEZE MIXTURE FOR WATER PIPING SYSTEM ACCORDING TO OWNER'S REQUIREMENTS AFTER SYSTEM IS FILLED AND VENTED. PROPERLY VENT PIPING SYSTEMS.
- EE. PROVIDE APPURTENANCES (I.E. EXPANSION COMPENSATORS, FLEXIBLE CONNECTIONS, EXPANSION LOOPS, JUNCTION BOXES, ETC.) NECESSARY TO CROSS EXPANSION JOINTS IN BUILDING CONSTRUCTION WITH CONDUIT, PIPING, DUCTWORK, ETC. REFER TO ARCHITECTURAL DRAWINGS FOR LOCATION AND QUANTITY OF EXPANSION JOINTS.
- FF. REMOVE EXISTING DOORS AND PORTIONS OF WALLS, CEILING, ETC. AS REQUIRED TO INSTALL NEW MATERIAL AND EQUIPMENT IN EXISTING LOCATIONS. REBUILD WALLS, CEILING AND REINSTALL EXISTING DOORS AS REQUIRED AFTER INSTALLATION OF NEW MATERIAL AND EQUIPMENT. PATCH AND FINISH TO MATCH EXISTING.
- GG. WORK ON THE ROOF SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE EXISTING ROOFING MANUFACTURER'S RECOMMENDATIONS. ROOF WORK SHALL BE PERFORMED BY CERTIFIED INSTALLERS AS TO MAINTAIN THE EXISTING ROOF WARRANTY. PRIOR TO THE START OF ANY WORK ON THE ROOF, EXISTING ROOF SHALL BE INSPECTED AND CERTIFIED BY THE EXISTING ROOFING MANUFACTURER. ANY DEFICIENCIES WHICH OCCUR BETWEEN THE INITIAL AND FINAL INSPECTIONS SHALL BE CORRECTED AT NO COST TO THE OWNER. CORRECTIVE MEASURES SHALL BE PERFORMED BY CERTIFIED INSTALLERS TO MAINTAIN THE EXISTING ROOF WARRANTY.
- HH. ADJUST NEW ROOF-TOP EQUIPMENT LOCATIONS BEING INSTALLED ON EXISTING ROOF AS REQUIRED TO COORDINATE WITH EXISTING STRUCTURAL CONDITIONS. PROVIDE OUTSIDE AIR-INTAKE EXTENSIONS WITH DUCTWORK SUPPORTS AS REQUIRED TO MAINTAIN MINIMUM 10 FEET CLEARANCE BETWEEN OUTSIDE AIR INTAKE OPENING AND ANY EXHAUST OR VENT LOCATION. EXISTING CEILING SPACES ARE MINIMAL HEIGHT - COORDINATE DUCTWORK INSTALLATION BETWEEN STRUCTURAL JOISTS, CEILING AND LIGHT FIXTURES AS REQUIRED. PROVIDE INCREASE HEIGHT ROOF CURBS AS REQUIRED TO DUCTWORK TRANSITIONS TO ALLOW INSTALLATION BETWEEN EXISTING STRUCTURAL COMPONENTS.
- II. PROVIDE ROOF PIPING SUPPORTS FOR PIPING ROUTED ALONG ROOF. SINGLE PIPE SUPPORTS TO BE EQUIVALENT TO PORTABLE PIPE HANGER, INC. TYPE PP-10 ROLLER GUIDE SUPPORT. MULTIPLE PIPE SUPPORTS TO BE EQUIVALENT TO PORTABLE PIPE HANGER, INC. TYPE PP10 CHANNEL GUIDE SUPPORT. SUPPORTS ARE TO BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS. SUPPORTS TO BE COMPATIBLE WITH AND MAINTAIN THE INTEGRITY (AND EXISTING WARRANTY IF APPLICABLE) OF THE EXISTING OR NEW ROOF SYSTEM.

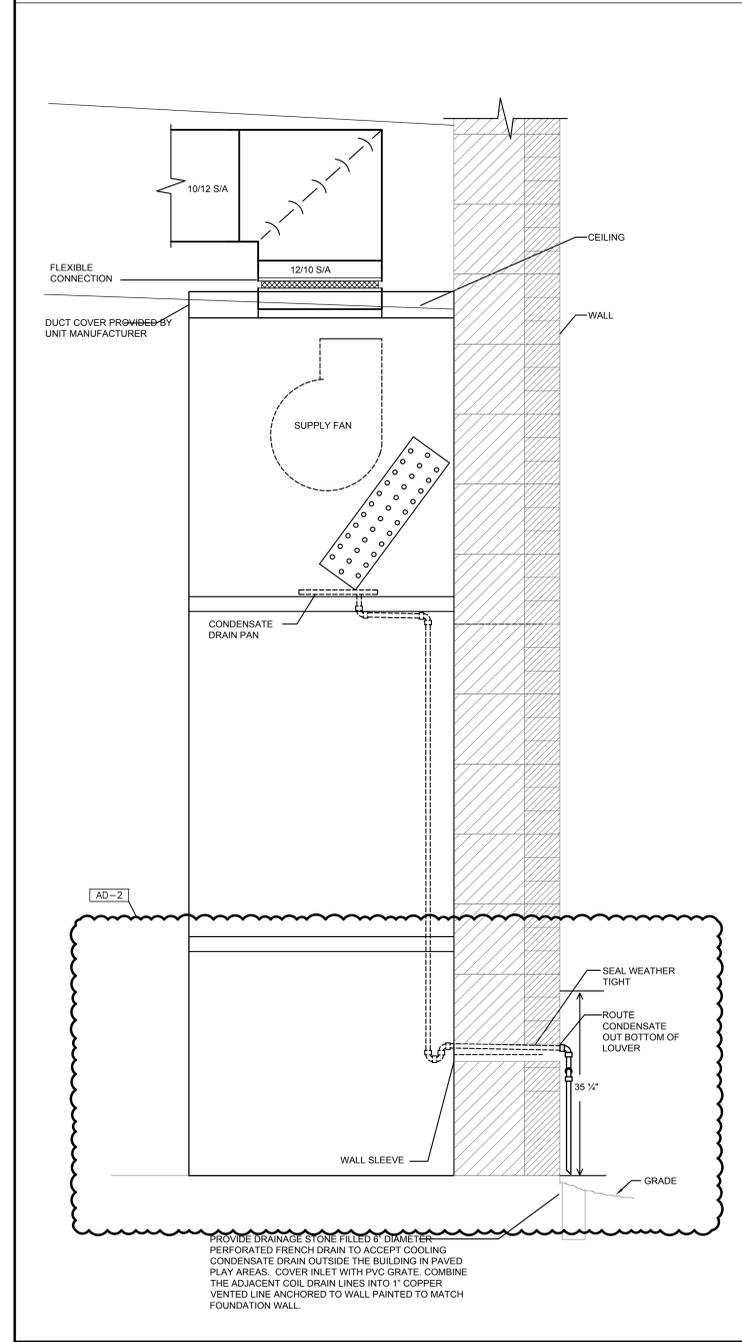
SYMBOLS/ABBREVIATIONS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATIONS	DESCRIPTION
	EXISTING DUCTWORK		FLEXIBLE DUCTWORK	AD	AUTOMATIC (MOTORIZED) DAMPER
	NEW DUCTWORK		FLEXIBLE DUCTWORK	CAT	CONDENSING AIR TEMPERATURE
	DUCTWORK TO BE REMOVED		AUTOMATIC (MOTORIZED) DAMPER	CD	CONDENSATE DRAIN
	DUCT TRANSITION		FD	CFH	CUBIC FEET PER HOUR
	CAP EXISTING DUCTWORK AS REQUIRED		FIRE DAMPER	CFM	CUBIC FEET PER MINUTE
	NEW DUCTWORK TO THE INTO EXISTING DUCTWORK		SEE SCHEDULES	CHWS	CHILLED WATER SUPPLY
	EXISTING DUCTWORK		SHEET NOTE	CHWR	CHILLED WATER RETURN
	NEW DUCTWORK		①	CTE	CONNECT TO EXISTING
	DUCTWORK TO BE REMOVED		①	DN	DOWN
	DUCT TRANSITION		①	DV	DRAIN VALVE
	CAP EXISTING DUCTWORK AS REQUIRED		①	DX	DIRECT EXPANSION
	NEW DUCTWORK TO THE INTO EXISTING DUCTWORK		①	EAT	ENTERING AIR TEMPERATURE
	SUPPLY OR OUTSIDE AIR DUCT DOWN		①	EC	ELECTRICAL CONTRACTOR
	SUPPLY OR OUTSIDE AIR DUCT UP		①	EDB	ENTERING DRY BULB TEMPERATURE
	RETURN OR EXHAUST OR RELIEF DUCT DOWN		①	ERV	ENERGY RECOVERY VENTILATOR
	RETURN OR EXHAUST OR RELIEF DUCT UP		①	ESP	EXTERNAL STATIC PRESSURE
	RETURN OR EXHAUST REGISTER		①	EWB	ENTERING WET BULB TEMPERATURE
	SUPPLY AIR DIFFUSER		①	EWT	ENTERING WATER TEMPERATURE
			①	EX	EXISTING
			①	G	NATURAL GAS
			①	GPM	GALLONS PER MINUTE
			①	HP	HORSE POWER
			①	HZ	HERTZ
			①	LAT	LEAVING AIR TEMPERATURE
			①	LDB	LEAVING DRY BULB TEMPERATURE
			①	LWB	LEAVING WET BULB TEMPERATURE
			①	LWT	LEAVING WATER TEMPERATURE
			①	MBH	1,000 BTU/HOUR
			①	MC	MECHANICAL CONTRACTOR
			①	MOD	MODULATING
			①	NTS	NOT TO SCALE
			①	O/A	OUTSIDE AIR
			①	OAI	OUTSIDE AIR INTAKE
			①	PRV	PRESSURE REDUCING VALVE
			①	PSI	POUNDS PER SQUARE INCH
			①	R/A	RETURN AIR
			①	RPM	REVOLUTIONS PER MINUTE
			①	RT	ROOF TOP UNIT
			①	S/A	SUPPLY AIR
			①	SHC	SENSIBLE HEAT CAPACITY
			①	TSP	TOTAL STATIC PRESSURE
			①	TYP	TYPICAL
			①	UV	UNIT VENTILATOR
			①	WC	WATER COLUMN
			①	WPD	WATER PRESSURE DROP

TYPICAL SELF-CONTAINED UNIT VENTILATOR SECTION N.T.S.



TYPICAL UNIT VENTILATOR SECTION N.T.S.



GIBRALTAR DESIGN
ARCHITECTURE • ENGINEERING • INTERIOR DESIGN

MILLIES ENGINEERING GROUP
(317) 924-8400
www.milliesengineeringgroup.com

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS
HANOVER COMMUNITY SCHOOL CORPORATION
CEDAR LAKE, INDIANA

GIBRALTAR DESIGN
9102 N. Meridian St., Ste. 300
Indianapolis, IN 46260
Homepage: www.GibraltarDesign.com
Email: info@GibraltarDesign.com
Phone: 317.580.5777 Fax: 317.580.5778

PROJECT: 23-140
DATE: 10/13/23
COORDINATED BY: JC
DRAWN BY: JC, RH
CHECKED BY: DJ

COPYRIGHT NOTICE:
THE CONCEPTS, DESIGNS, PLANS, DETAILS, ETC. SHOWN ON THIS DOCUMENT ARE THE PROPERTY OF GIBRALTAR DESIGN AND WERE CREATED FOR USE ON THIS SPECIFIC PROJECT. NONE OF THIS INFORMATION SHALL BE USED BY ANY PERSON OR FIRM FOR ANY PURPOSE WITHOUT THE EXPRESS WRITTEN CONSENT OF GIBRALTAR DESIGN. THE OWNER MAY RETAIN COPIES FOR INFORMATION AND REFERENCE IN CONNECTION ONLY WITH THIS PROJECT.

REVISIONS	MARK	DATE	ISSUED FOR
AD-2	10/30/23	ADDENDUM NO. 2	

DRAWING
MECHANICAL NOTES, SCHEDULES AND DETAILS

PROJECT
HANOVER CSC - JANE BALL ES RENOVATIONS AND HS IMPROVEMENTS

GIBRALTAR DESIGN SHEET
M-201

