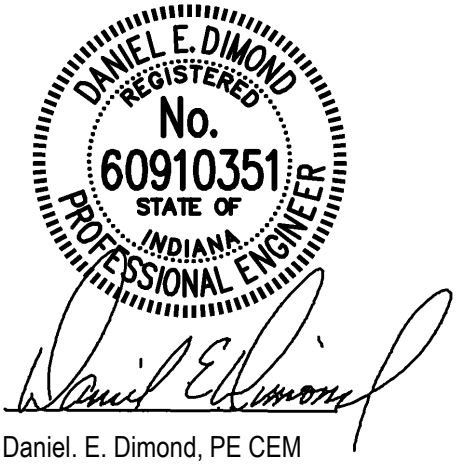
R.E. Dimond and Associates, Inc.
Consulting Engineers

ADDENDUM NO 4

Hines and Jones Hall Refresh
ISU Bid #B0028696

01/12/2026



Daniel. E. Dimond, PE CEM

This Addendum issued prior to bidding, alters, amends, corrects or clarifies the Proposal Documents to the extent stated herein and does hereby become a part of the Proposal Documents, and will become a part of the Contract Documents of the successful bidder.

GENERAL

A. SPECIFICATIONS

1. Section 00 10 41 – Tier II Spend Reporting Form
   a. Add this section in its entirety.

2. Section 00 20 00 – Bid Form
   a. Replace this section in its entirety. Moved Unit Price list to Appendix B and added Alternate 9 for access control work.

3. Section 01 23 00 - Alternates
   a. Replace this section in its entirety. Added Alternate 9 for access control work.

4. Section 28 05 00 – Common Work Results for Electronic Safety and Security
   a. Add this section in its entirety.

A. DRAWINGS

1. Drawing AC202 – First Floor – Access Control
   a. New drawing issue to show new access control scope of work, for Alternate Bid.

2. Drawing A202 – First Floor
   a. Install an electric door strike to the three locations where the card readers are to be installed, on Drawing AC202, note #1. The electric strike will be as Assa Abloy "HES" series 8000. Provide power supply as required and wire to card reader system for control.

   b. Remove the existing Sisal wall covering inside the elevator cabs of Hines Hall. The diamond plate will remain. Patch walls as required for new paint finishes. Paint walls above diamond plate two finish coats. This shall be included in the Base Bid schedule of work.

   c. Delete all references to architectural finish work on the first floor area of Jones Hall. Jones Hall first floor received new finishes in a recent renovation, and no new finishes are required. All work for upper floors remains as noted under the scope of work for allowance costs.

   d. Modify the existing double door in the vestibule area of Hines Hall. Install a new 3' x 7' wood door to best match with existing in finish. Install required metal framing and glazing to the existing frame. Install an electric strike. Reinstall salvaged door hardware. See door elevation detail ("Hine Hall Vestibule Wood Door Modification") on Drawing AC202 as part of this addendum for reference. (Alternate Bid)

3. Drawing P201 – Basement Floor - Plumbing
   a. Reissue drawing to show additional telecom, AV and electrical work.

4. Drawing P202 – First Floor - Plumbing
   a. Reissue drawing to show additional telecom, AV and electrical work.

5. Drawing P203 – Second Thru Ninth Floors - Plumbing
   a. Reissue drawing to show revised plan note 3.

6. Drawing P204 – Tenth Floor – Plumbing
   a. Reissue drawing to show revised plan note 3. No WB, washer box requires.

7. Drawing P401 – Schedules And Details - Plumbing
   a. Reissue drawing to show revised Riser 'A' Waste And Vent Diagram.
   b. Deleted WB-1 Clothes Washer Box from the Fixture Rough-in Schedule.
   c. Added Washer Riser Plan.

8. Drawing Cover – Drawing Index
   a. Added AC202 – First Floor - Access Control - Electrical

END OF ADDENDUM

Business Diversity Spend Reporting Form for Construction/Renovation/Facilities Repair Projects

Date Submitted		**IMPORTANT NOTICE**
Submitter's Name		Tier II & Tier III Reporting must be submitted with each payment request.
Submitter's Phone #		This is a monthly report. Only report the Tier II and Tier III spend for the month you are reporting.
Submitter's Email		In addition to submitting this form with each payment request, please email this EXCEL file to Mike Bonnett (must be in excel format).
Vendor Name		Email: Mike.Bonnett@indstate.edu
Project Name		Phone: 812-237-3600
Project Street Address		The person submitting this report certifies that to the best of their knowledge, it is true and correct and complete.
Project city/state		
ISU Bid/Project Number		
ISU Purchase Order No.		

Actual Spend Dates (MM/DD/YYYY) for the month you are reporting.

Month Beginning	
Month Ending	

Tier II

Subcontractor Name	Total Contract Committed Amount	For This Month Only Spend Against Committed	Total Spend-to-Date Against Committed	Diversity Class (MBE, MWBE, WBE, VBE)
Total Amount	$ -	$ -	$ -	$ -

Tier III

Subcontractor Name	Total Contract Committed Amount	For This Month Only Spend Against Committed	Total Spend-to-Date Against Committed	Diversity Class (MBE, MWBE, WBE, VBE)
Total Amount	$ -	$ -	$ -	$ -

Spend Outside Committed

Subcontractor Name	Invoiced Amount	Diversity Class (MBE, MWBE, WBE, VBE)
Total Amount		$ -

Summary of all spend to date compared to commitment

Total Contract Award		
Total Contract Diversity Spend Committed in $		
Total Contract Percentage of Committed Diversity Spend as %		
Total Contract Spend-to Date		
Total Diversity Spend-to Date in $		
Total Diversity Spend-to Date as %		

Definitions:
Tier II is defined as Minority, Minority Women, Women and Veteran Owned business who are supplying you with goods, or services, as a Subcontractor, or Supplier on this project.
Tier III is defined as Minority, Minority Women, Women and Veteran Owned business who supply materials, goods, or services to your Subcontractors, or your Suppliers on this project.
MBE is defined as a Minority Owned Business, owns 51% or higher.
MWBE is defined as a Minority/Women Owned Business, owns 51% or higher.
WBE is defined as a Women Owned Business, owns 51% or higher.
VBE is defined as a Veteran Owned Business, owns 51% or higher.

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00 20 00
BID FORM

BASED ON BID FORM
FORM NO. 96
REVISED FORMAT 1/14/2013

GENERAL BID FOR PUBLIC BUILDING

PROJECT: **2026 HINES AND JONES REFRESH (ISU Bid Number B0028696)**

TO: INDIANA STATE UNIVERSITY
BOARD OF TRUSTEES
TERRE HAUTE, INDIANA

FROM:

_____
(Name of Bidder) (Company Name)

_____
(Address)

_____
(City, State, Zip)

PHONE NUMBER _____

DATE: _____

SUBMITTED BY: _____ _____
(Signature) (Title)
The Bidder's signature certifies the Bidder is in compliance with all aspects of the Bid Documents

ADDENDA
The following Addenda have been received. The modifications to the bidding documents noted therein have been considered and all costs thereto are included in the Bid Sum(s).

Addendum #_____ Dated _____
Addendum #_____ Dated _____
Addendum #_____ Dated _____
Addendum #_____ Dated _____

OWNER'S RIGHTS REGARDING ACCEPTANCE OF BIDS
It is understood that the Owner reserves the right to accept or reject any Bid and to waive any irregularities in Bidding. It is further understood on Bids with multiple Base Bid Packages the Owner reserves the right to selectively Award individual Base Bid Packages to multiple Prime Bidders submitting the lowest and best Bids for the individual Base Bid Packages.

TAX EXEMPT
Indiana State University is a Tax Exempt Institution and Indiana Sales Tax for products permanently incorporated in work shall not be included as part of the Bid. All other applicable Federal, State and Local taxes shall be included in the Bid sum. Tax exempt certificate available upon request.

OFFER:
Pursuant to and in compliance with 'Instructions to Bidders', and other Bidding Documents prepared by the Indiana State University Facilities Management Department for the above mentioned project, the signer, having become thoroughly familiar with the terms and conditions of the proposed Contract Documents and with local conditions affecting the performance and costs of the Work at the place where the Work is to be completed, and having fully inspected the site in all particulars, hereby proposes and agrees to fully perform the Work within the time stated and in strict accordance with the intent of the proposed Contract Documents, including furnishing bonds, insurance, labor, materials, and to do all the Work required to construct and complete in accordance with the proposed Contract Documents as follows:

BASE BID	**Hines**	**Jones**	**Combination**
Allowances (See 01 23 60)	$70,000	$90,000	
Bid Price	$_____	$_____	
Total Bid Price (Including allowance)	$_____	$_____	$_____
ALTERNATES (see 01 23 00)			
Alternate No. 1 Controls (see 01 23 70)	$_____	$_____	$_____
Alternate No. 2 Clean Plate & Frame Heat Exchanger	$_____	N/A	
Alternate No. 3 Energy Recovery Wheel	$_____	$_____	$_____
Alternate 4 Domestic Water Booster Pump	N/A	$_____	
Alternate 5 Domestic Water Heater WH-A-LP	$_____	$_____	
Alternate 6 Domestic Water Heater WH-A-HP	$_____	$_____	
Alternate 7 Domestic Water Tank Removal Low Pressure	$_____	$_____	
Alternate 8 Domestic Water Heater High Pressure	$_____	$_____	
Alternate 9 Access Controls	$_____	$_____	

ALLOWANCES

1. Allowances shall be included in the Base Bid for Unforeseen Conditions and General Construction Contingency. See 01 23 60 Allowances, for description. For clarity, allowance values are included on the Bid Matrix. It is solely at the discretion of the Architect/Engineer/Owner what costs may be applied to this Allowance.

ACCEPTANCE

This offer shall be opened to acceptance and is irrevocable for the period as follows:

- Base Bid and All Alternates - One Hundred Twenty (120) calendar days from the Bid opening date.

If the Owner accepts the Bid within the time period stated above, Bidder will:

- Furnish the required bonds and insurance certificates within ten (10) calendar days of receipt of the Award Letter
- Commence work within seven (7) calendar days of receipt of the Award Letter or as Directed by the Owner.
- Execute the Contract for Construction Between Indiana State University and Contractor within seven (7) calendar days of receipt of the Contract.

The Bidder agrees to coordinate and expedite their work and that if the Award is given within fourteen (14) calendar days from the Bid opening date the work shall be substantially completed as listed in Section 00 10 10 Instructions to Bidders 1.01 C. If the Award is not made within the stated fourteen (14) calendar days then the substantial completion date may be adjusted as allowed by the Contract Documents or as mutually agreed upon in writing by the Owner and Contractor.

COMPLIANCE WITH LAWS

The Bidder shall comply with all applicable federal, state, and local laws, rules, regulations, and ordinances including but not limited to Indiana Code 5-16 and all provisions required thereby to be included herein are hereby incorporated by reference. Bidder warrants Contractor and any subcontractors shall obtain and maintain all required permissions, permits, licenses, registrations, accreditations, certifications, and approvals, and shall comply with all employment, labor, EEOC, E-verify, health, safety, and environmental statutes, rules, or regulations related to the products and services offered under this agreement. Bidder and any principals of the Contractor certify compliance with the requirements of Indiana Code § 5-16-1-9 Application of Indiana Code 5-22-16.5 (e.g. Company has not and will not participate in any investments or activities in Iran and refrains from engaging in any new investments or activities in Iran).

NON-COLLUSION AFFIDAVIT

The Bidder, by its officers and agents or representatives present at the time of filing their bid, being duly sworn, say on their oaths that neither they nor any of them have in any way, directly or indirectly, entered into any arrangement or agreement with any other bidder, or with any public office of the State of Indiana, of any county or municipality or other public offices whereby such affiance or either of them, has paid or is to pay to such other bidder or public officer any sum of money, or has given or is to vie to such other bidders or public officer anything of value whatever, or such affiance of affiance or either of them has not, directly or indirectly entered into any arrangement or agreement with any other bidder or bidders, which tends to or does lessen or destroy free competition in letting of the contract sought for by the attached bids; that no inducement of any form or character other than which appears upon the face of the bid will be suggested, offered, paid, or delivered to any person whomsoever to influence the acceptance of the said bid or awarding of the contract, nor has this bidder any agreement or understanding of any kind whatsoever, with any person whomsoever to pay, deliver to, or share with any other person in any way or manner, any of the proceeds of the contract sought by this bid.

NON-DISCRIMINATION

The Bidder and its Subcontractors, if any, shall not discriminate against any employee or applicant for employment, to be employed in the performance of this Contract, with respect to their hire, tenure, terms,

conditions or privileges of employment or any matter directly or indirectly related to employment because of their sex, race, natural origin, ancestry or religion or disability as prohibited under the Americans with Disabilities Act. Breach of this covenant may be regarded as a material breach of the Contract.

CERTIFICATION OF UNITED STATES STEEL PRODUCTS

The Bidder certifies that the Bidder and all Subcontractors will comply with the statutory obligations to use steel products made in the United States.

MBE/WBE/VBE BIDDING:

See Section 00 10 30 for requirements for MBE/WBE/VBE Compliance. Section 00 10 40 MBE/WBE/VBE Participation Plan must be completed by **all Bidders** and submitted with the Bid. Failure to submit with the Bid may be sufficient cause to disqualify a Bid.

EXPERIENCE QUESTIONNAIRE

List similar projects completed by your organization:

1. Contract Amount _____

   Description _____

   Date Completed _____

   Owner_____
   (Name and phone #)

2. Contract Amount _____

   Description _____

   Date Completed _____

   Owner _____
   (Name and phone #)

List similar projects currently under construction by your organization

1. Contract Amount _____

   Description _____

   Date Completed _____

   Owner _____
   (Name and phone #)

2. Contract Amount _____

   Description _____

   Date Completed _____

   Owner _____
   (Name and phone #)

Yes ☐ No ☐ Has your organization ever failed to complete any work awarded it?

If yes, where and why?

_____

_____

_____

Yes ☐ No ☐ Does your Organization have any pending litigation or litigation completed within the past five (5) years initiated by your Organization or the Owner as a result of your work on another Project?

If yes, attach a complete listing, with your Bid, of all such litigation(s) and name(s) of Institutions and/or Parties involved with complete contact information. Failure to submit this information may result in disqualification of your Bid.

Yes ☐ No ☐ Has your Organization been cited for violation of State or Federal regulations within the past twelve months?

If yes, what was the violation and resolution?

_____

_____

List references from firms for which your organization has performed work. Provide firm name, contact person name and phone number.

_____

_____

_____

APPENDICES

The following Appendices are submitted with the Bid:
Appendix A - Subcontractors and Material/Supplier Lists
Appendix B - Unit Prices
Appendix C - Wage Rate Schedule

OATH AND AFFIRMATION

Attested to this ____ day of _____, 202____

By _____

ACKNOWLEDGMENT

State of _____
SS:

County of _____

_____ being duly sworn, deposes and
(Name of person)

says that he/she is _____ of
(Title)

_____ and that the
(Name of organization)
statements contained in the foregoing bid, certification and affidavit are true and correct.

Subscribed and sworn to before me by _____

this _____ day of _____, 202___

_____
Notary Public

My Commission Expires _____

County of Residence _____

SUPPLEMENTS TO BID FORM

TO: INDIANA STATE UNIVERSITY

PROJECT: **2026 Hines & Jones Refresh (ISU Bid Number B0028696)**

DATE: _____

SUBMITTED BY:
(full name)

(full address)

In accordance with Instructions to Bidders and Bid Form, we include the Supplements to Bid Form for Appendices listed below. The information provided shall be considered an integral part of the Bid Form.

Appendix A - Subcontractor and Manufacturers List (to be submitted at time of Bid)
Failure to submit may be cause to disqualify bid

_____
(Bidder)

_____
(Project)

The following will be performed (or provided) by the Subcontractors and Manufacturers listed herein and coordinated by us.

The Prime Contractor (Bidder) shall list all Subcontractors and Suppliers/Manufacturers called for in Appendix A of this Bid Form at the time of Bid Submission. Failure to provide this information may be sufficient cause to disallow a Bid.

The Prime Contractor (Bidder) shall use the Subcontractors, Suppliers, Materials and Equipment as listed in the Bid Form Appendix "A" submitted at the time of Bid. It is the Prime Contractor's (Bidder's) responsibility to assure they have listed the correct Subcontractors, Suppliers, Materials and Equipment on their Bid Form. THERE SHALL BE NO CHANGES PERMITTED TO THESE LISTS.

Exception: If the Owner determines the Subcontractors, Suppliers, Materials or Equipment are not acceptable, the Owner shall notify the Prime Contractor (Bidder) in writing within two (2) working days after receipt of Bids of the unacceptable Subcontractor(s), Supplier(s), Material(s) and/or Equipment(s).

(Listings begin on next page)

Appendix A - Subcontractors and Material/Supplier Lists

SUBCONTRACTOR LIST
Bidder shall provide the names of all applicable Subcontractors

Description	Subcontractor
General Construction (if not Prime Bidder)	_____
Electrical Work (if not Prime Bidder)	_____
Fire Alarm	_____
IT (voice/data) Work	_____
Mechanical (if not Prime Bidder)	_____
Temperature Control	_____ (Alternate)
Sheetmetal	_____

(Supplier and Manufacturer List begins on next page)

SUPPLIER & MANUFACTURERS LIST

Bidder shall provide the names of all applicable Suppliers and Manufacturers

Product Description	Supplier	Manufacturer
Fan Coils	_____	_____
Condensate Pumps	_____	_____
Energy Recovery Wheels	_____	_____
Domestic Water Heaters	_____	_____
Fan Coils	_____	_____
VFD's	_____	_____

(Appendix B begins on the next page)

Appendix B – Unit Prices (See "Unit Prices" 01 23 70 for description.)

UNIT PRICE 1 – FOR TYPICAL ROOMS
(see 01 23 70)

1A. Fan Coil Unit	$_____
1B. Fan Coil Fan Deck	$_____
1C. Fan Coil Control Valve	$_____
1D. Rebuild Faucet	$_____
1E. Replace Faucet	$_____
1F. Rebuild Flush Valve	$_____
1G. Replace Flush Valve	$_____
1H. Replace Showerhead	$_____
1J. Rebuild Shower Valve	$_____
1K.Replace Shower Valve	$_____
1L. Rebuild Shower Valve Stop/Checks (Hines Only)	$_____
1M. Fan Coil Controller (Control Contractor)	$_____
1N. Fan Coil Valve (Control Contractor)	$_____
1O. Fan Coil Thermostat (Control Contractor)	$_____
UNIT PRICE 2 – Condensate Pump Replacement	$_____

Appendix C – Wage Rate Schedules

By 2:00pm on the next business day after receipt of Bids the Bidder shall submit, a wage rate schedule for the workers of the Prime Bidder and all major Subcontractors involved in the Work. Failure to supply the wage rate schedule(s) as required by the Bidding Documents may be sufficient cause to disallow a Bid

END OF SECTION 00 20 00

01 23 00
ALTERNATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for Alternates.

1.3 DEFINITIONS

A. Alternate: An amount proposed by Bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost or credit for each Alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the Alternate into the Project.

1. Include as part of each Alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of Alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each Alternate. Indicate if Alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to Alternates.

C. Execute accepted Alternates under the same conditions as other work of the Contract.

D. Schedule: A Schedule of Alternates is included at the end of this Section.

1.5 SELECTION AND AWARD OF ALTERNATES

A. Bids will be evaluated on the Base Bid including any or all Alternates accepted by the Owner.

B. The Owner reserves the right to selectively accept or reject Alternates at their discretion and is under no obligation to accept any Alternates.

C. Price of Bid Alternates shall be held for 120 days from Contract Date.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate 1 – Controls

1. The entire Control Package shall be an alternate. The “Base” alternate controls shall include all work as noted on the floor plans including basement dual duct air handling units, checking zone controls for first floor, “Core” and typical unit fan coils as noted on M621H and M621J and penthouse 100% outside air makeup units.

2. Also included with this alternate will be Unit Price break-outs.

B. Alternate 2 – Plate and Frame Heat Exchanger

1. Completely disassemble, clean, and reassemble chilled water plate and frame heat exchanger. Work includes new gaskets and re-insulation of heat exchanger.

C. Alternate 3

1. Alternate 3 includes replacement of the energy recovery wheels in Hines and Jones make-up air unit located in the Penthouse. More information for this Alternate will be by Addendum.

D. Alternate 4

1. Replace domestic water booster pumps with a new domestic water booster pump package. Work includes removal of old pumps with controllers, installation of new pump package and reconnection to existing domestic water system as noted on drawings.

E. Alternate 5

1. Install WH-A-LP instantaneous steam water heater adjacent to abandoned water heater tank, as noted on drawings. Work includes removal of steam (CAP) and condensate serving existing heaters, connecting steam and condensate to new heater, connecting domestic cold water, hot water and hot water return, insulation, 120V power and anything else as required for a complete installation.

F. Alternate 6

1. Install WH-A-HP instantaneous steam water heater adjacent to abandoned water heater tank, as noted on drawings. Work includes removal of steam (CAP) and condensate serving existing heaters, connecting steam and condensate to new heater, connecting domestic cold water, hot water and hot water return, insulation, 120V power and anything else as required for a complete installation.

G. Alternate 7

1. Remove existing approximately 30,000-gallon low-pressure domestic water heater tank, in its entirety. If tank has asbestos, that will be removed by others. If tank is removed, new instantaneous water heater will be installed in its place. Coordinate final location with Engineer.

H. Alternate 8

1. Remove existing approximately 30,000-gallon high-pressure domestic water heater tank, in its entirety. If tank has asbestos, that will be removed by others. If tank is removed, new instantaneous water heater will be installed in its place. Coordinate final location with Engineer.

I. Alternate 9

1. Provide Access Controls in both Hines and Jones Hall, as shown on drawing AC202 – First Floor – Access Control and other related scope indicated in Addendum 4. Work includes scope for electrical, security, architectural, door hardware, CBORD, and Otis Elevator.

END OF SECTION 01 23 00

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Division 28 Specifications and Drawings.

1.02 SUMMARY

A. Basic materials, methods and installation guidelines applicable to the work of all Division 28 documents.

B. The information included in this Section apply too and are additional requirements for all of Division 28 documents.

C. Thoroughly review entire bid documents, including all drawings and specifications prior to bidding and include all indicated work in bid.

1.03 REQUIREMENTS

A. Project Coordination

1. Commence coordination immediately upon award of contract. Coordination includes providing and extracting related information to and from other trades for review. Failure to coordinate in a timely manner shall not result in any subsequent additional reimbursement, special allowances or additional construction time being made for any facet of the project. Work fabricated or installed before properly coordinating with all other trades shall be done at the Contractor's own risk.

2. Work in harmony with all building trades, so as not to cause any delays. Sequence, coordinate, and integrate installations of communications materials and equipment with all other applicable trades for efficient flow of the Work. In addition, contact and coordinate/facilitate work of local communications service providers for incoming communications services. Execute connections with local services providers complete as indicated.

3. The drawings indicate the approximate location and arrangement of required work. The drawings shall be followed as closely as possible in coordination and in execution of the work.

4. Participate in coordination efforts and in preparation of coordination drawings prior to fabrication or installation of any equipment, materials, etc. Coordinate actual clearances of all installed equipment.

5. Conflicts in equipment and materials shall be corrected prior to installation. Should there be a conflict with the drawings of other trades, work with the trades to correct the conflict while coordinating the project. If the conflict cannot be resolved, refer the matter to the owner's representative for a final decision as to method or material. Refer to drawings of all other trades for details, dimensions and locations of other work and route their work so as not to conflict with any other branch. Any work installed or equipment placed in position by this contractor creating a conflict shall be readjusted to the satisfaction of the Owner's representative at the expense of this contractor.

6. All products furnished of a given type shall be by a single manufacturer; shall bear the same brand name; shall be of the same finish color and texture; and shall be from the same product model series, unless otherwise noted.

7. Plans are diagrammatic indicating design intent and indicating required size, points of termination and, in some cases, suggested routes of raceways, etc. However, it is not intended that drawings indicate fully coordinated conduit routing, all necessary offsets, etc. Provide all cable assemblies, etc. as straight as possible and symmetrical (perpendicular to or parallel

with) with architectural items and in a consistent elevation. Do not provide work installed diagonal to building members.

B. Shop Drawings, Product Data, and Samples

1. All submittals shall be submitted electronically in PDF format unless otherwise directed by the A/E or Owner.
2. Provide complete master material list.
3. Provide the following information for each product:
   a. The manufacturer's name (Brand) and full model number.
   b. Product Information Sheets "Datasheets": Include catalog information, sizing, and technical data on each item to be used on the Project.
   c. Each product datasheet must reference the specific paragraph for which the product is being submitted. Each product must be listed in the exact same order as it appears in the Section for which the products are being submitted.
   d. Datasheets shall each include a clearly identifiable label applied in upper corner of each sheet that clearly references the specification section and drawing (as applicable) to which it applies. Labels shall be consistently affixed in the same location on all sheets unless the labels will obstruct pertinent technical information.
4. All datasheets shall be original manufacture datasheets.
5. Where datasheets depict multiple products, versions or options, the Contractor shall highlight (indicate with an arrow) all applicable model(s), version(s) and option(s) applying to the specific product the Contactor will be providing. Exact catalog number must be indicated. The submitted items must be from "approved materials" as specified in each Specification Section.
6. Do not combine with submittals from any other Division.

C. Operation and Maintenance Manuals

a. Prepare Operations and Maintenance Manuals in accordance with Section 01 77 00 Contract Closeout.
b. Operations and Maintenance (O&M) manuals shall be provided for each item of equipment. Flash drives shall be file folder indexed for each piece of equipment. O&M submittals shall include but not be limited to the following:
   a. Installation instructions and schematic drawings.
   b. Operating and maintenance instructions.
   c. Complete parts list with manufacturer's model numbers.
   d. Complete set of approved shop drawings.
   e. Complete wiring diagrams showing all connections and internal wiring diagrams of all equipment, including module diagrams. Factory typical wiring diagrams are not acceptable.

D. Building Codes:

1. National Electrical Code (NFPA 70)
2. Life Safety Code (NFPA 101)
3. Uniform Building Code (Or adopted State Code)
4. Federal Communications Commission (FCC) Part 68
5. State specific agencies:
   a. Administrative Building Council
   b. State Board of Health
   c. State Fire Marshal

d. Local Codes (City, County, etc.)

e. Local Utility Company requirements

E. Standards

1. American National Standards Institute/Telecommunications Industry Association – ANSI/TIA 568C Commercial Building Telecommunications Cabling Standard.
2. American National Standards Institute/Telecommunications Industry Association – ANSI/TIA 569D Commercial Building Standard for Telecommunications Pathways and spaces.
3. American National Standards Institute/Telecommunications Industry Association – ANSI/TIA 606B The Administrative Standard for the Telecommunications Infrastructure of Commercial Buildings.
4. American National Standards Institute/Telecommunications Industry Association – ANSI/TIA 607C Commercial Building Grounding and Bonding Requirements for Telecommunications.
5. American National Standards Institute /Building Industry Consulting Services International – ANSI/BICSI 005-2016, Electronic Safety and Security (ESS) System Design and Implementation Best Practices.
6. ASIS – Security Management Standard: Physical Asset Protection (PAP)
7. ASIS – Facilities Physical Security Measures Guideline (FPSM)

F. Permits

1. Contractor shall obtain and pay for all permits or certificates of inspection and approval required for his branch of the work.
2. Permits shall be posted in a prominent place at the building site properly protected from weather and physical damage.

G. Definitions

1. Wherever the word “Install” appears on the drawings or in these Division 28 specifications it shall mean to supply all labor, tools and incidental materials necessary to handle, store, mount, terminate, program, configure and adjust product as necessary to fulfill project requirements.
2. Wherever the word "Provide" appears on plan drawings or in Division 28 specifications, it shall be interpreted to mean that the Contractor shall "Furnish and Install", including all necessary accessories, miscellaneous materials and labor necessary to render the respective system fully operational.
3. Wherever the word "Work" appears in Division 28 specifications or on communication technology drawings, it shall be interpreted to mean any and all labor, materials, accessories, services, etc. necessary to fulfill project requirements.
4. Wherever the word “Furnish” appears on the drawings or in these Division 28 specifications it shall mean to supply the specified labor or specified product, including all associated shipping, storage and warranty expenses.
5. Wherever the words “Site”, “Project Site”, or “Premises” appears in Division 28 specifications or its related drawings, it shall be interpreted to mean all real estate, buildings and structures where work will be performed and where products will be installed and reside.
6. Wherever the phrase “Standard of Quality” appears in Division 28 specifications or its related drawings, the Contractor shall interpret this to mean that the listed Manufacturer and Catalog number for each item has the physical, functional, and operational attributes to provide the designed functionality.

H. Quality Assurance

1. Contractor shall have a minimum five (5) years of experience in the installation of Communication Technology system(s) of similar size, type, scope and contract value.
2. The lead technician(s) on the Project shall have a thorough understanding of the following:
   a. American National Standards Institute/Telecommunications Industry Association/Electronics Industry Association – ANSI/TIA/EIA 568B Commercial Building Telecommunications Cabling Standard.
   b. American National Standards Institute/Telecommunications Industry Association/Electronics Industry Association – ANSI/TIA/EIA 569A Commercial Building Standard for Telecommunications Pathways and spaces.
   c. American National Standards Institute/Telecommunications Industry Association – ANSI/TIA/EIA 606 The Administrative Standard for the Telecommunications Infrastructure of Commercial Buildings.
   d. American National Standards Institute/Telecommunications Industry Association/Electronics Industry Association – ANSI/TIA/EIA 607 Commercial Building Grounding and Bonding Requirements for Telecommunications.
   e. American National Standards Institute /Building Industry Consulting Services International – ANSI/BICSI 005-2016, Electronic Safety and Security (ESS) System Design and Implementation Best Practices
   f. ASIS – Security Management Standard: Physical Asset Protection (PAP)
   g. ASIS – Facilities Physical Security Measures Guideline (FPSM)
3. Contractor shall be a (factory trained) certified installer for all systems provided in Division 28.
   a. This minimum requirement shall apply to each Division 28 section independently. If Contractor is incapable of meeting the percent of product value requirement for each section, Contractor shall use a Subcontractor that can meet the percent of product value requirement, in whole, for all products and work of that section for which This Contractor is not qualified.
   b. The specific Contractor or Subcontractor meeting the requirements for a specific section shall be responsible for the supply of the products, supplemental engineering services and submittals as well as performing all technical labor associated with the installation, training and warranty servicing of work of that section.
4. Contractor shall have substantial business operations located within a 100-mile radius of the project site with a full-time employee staff actively engaged in the supply, installation and service of systems and equipment of the type and scope herein specified.
5. Contractor shall have full-time employee service staff based within a 100-mile radius of the project site.
6. Contractor shall provide any additional information requested by the Owner as determined appropriate by the Owner to validate a Contractor’s (or its Subcontractor’s) ability to perform and warranty the specified work in the quality, manner and time frame required.
7. Superintendent/Project Manager
   a. This Contractor shall furnish the services of an experienced superintendent/Project Manager who shall be constantly in charge of the work, together with the qualified Foremen and specialists as required to properly install, connect, adjust, start, operate and test the work involved.
   b. The superintendent's/Project Manager’s qualifications shall be subject to the review and acceptance by the A/E and Owner. Unless the A/E or Owner grants prior special permission, the same communication Superintendent/Project Manager shall be utilized throughout the duration of the project and be responsible for the complete scope of the Contract.

I. Product Delivery Requirements

1. The Contractor shall not procure, deliver or install any product until after the contractor's submittal has been reviewed by the A/E and Owner and the submittal has been returned to the Contractor's marked "Reviewed No Exceptions Taken", "Reviewed as Noted" or "Rejected Resubmit". Advance procurement, delivery or installation of product prior to the return of submittal is entirely at the Contractor's own risk. Contractor should schedule its work and procurement accordingly.
2. Prior to procurement of any equipment or materials, Contractor shall review the model numbers, compatibility and interoperability of all products.
3. Prior to procurement, Contractor shall, through coordination with other trades and through field measurements and project site inspections, verify that products to be supplied can be physically installed as planned.
4. No claim for additional payment will be considered for the return of any equipment determined incompatible, or procured without adhering to the aforementioned conditions, including claim for reimbursement of manufacturer's "restock" fees.
5. Contractor shall factor all of these conditions into its bid and plan its scheduling and resource needs accordingly to ensure that all work shall be performed according to the Owner's schedule and requirements of this Contract.

J. Product Storage and Handling Requirements

1. The Contractor is responsible for receiving, handling, storing, and protecting all materials used on this Project until Substantial Completion.
2. Pack components in factory-fabricated protective containers.
3. Units shall be delivered in sections of such size as will pass through available openings.
4. Until ready for installation, store products in original factory containers.
5. Products shall be stored in a clean, dry space and as additionally recommended by the product manufacturer.
6. Keep products out of the weather and away from construction traffic and debris, including drywall finish dust.
7. Do not exceed structural capacity of the floor or platform on which the products are stored.
8. Until final acceptance of the system, protect all supplied products from damage resulting from moisture, fumes, dirt, dust and debris or any other source of potential damage.
9. Handle all products with care before, during and after installation so as to prevent damage.
10. Replace any products damaged prior to final acceptance with new replacement products.
11. Replacement shall be at Contractor's expense.
12. Contractor is responsible for the safety and good condition of the materials and equipment installed until final acceptance by the Owner.
13. Save original product shipping containers and related packaging materials for major products until final acceptance.
14. Prior to disposal, check with owner to determine if the owner wishes any of the packaging materials.

K. Examination and Preparation

1. Contractor shall visit the Site to familiarize himself with the local conditions under which the work is to be performed and correlate his observations with the requirements of the Contract

Documents. No allowance shall be made for claims for concealed conditions which the Contractor, in exercise or reasonable diligence in observations of the Site and review of the local conditions under which the work is to be performed, learned or should have learned of, unless otherwise specifically agreed by A/E and Owner in writing.

2. Before ordering any materials or doing any work, the Contractor shall verify all measurements and be responsible for correctness of same. No extra charge or compensation will be allowed for duplicate work or material required because of an unverified difference between an actual dimension and the measurement or size indicated in the drawings or specifications. Any discrepancies found shall be submitted in writing to the A/E and Owner for consideration before proceeding with the work.
3. This Contractor must verify all dimensions locating the work and its relation to existing work, all existing conditions and their relation to the work and all man made obstructions and conditions, etc. affecting the completion and proper execution of the work as indicated in the Contract Documents.

L. Installation

1. Provide all required labor, materials, equipment and Contractor's services necessary for complete installation of systems required to comply with the requirements of authorities having jurisdiction, as indicated on Drawings, and as specified.
2. Work shall be functional and complete in every detail, including any and all items required to complete the system, whether or not these items have been enumerated or shown on the Drawings.
3. Special attention shall be given to access to working and controlling parts. Adjustable parts shall be within easy reach. Removable parts shall have space for removal.
4. Each Contractor shall be fully knowledgeable of the details of all Work to be performed by other trades and take necessary steps to integrate and coordinate his Work with other trades.
5. Wherever tables or schedules show quantities of materials, they shall not be used as a final count. These figures serve only as a guide for the Contractor. Each Contractor shall be responsible for furnishing all materials on the Drawings or as specified.
6. The Consultant and Owner's Representative have full power to condemn or reject any Work, materials or equipment not in accordance with these Specifications and Construction Drawings or the manufacturer's specifications or drawings approved by the Owner or Consultant.
7. Work or equipment that is rejected shall be removed and replaced to the satisfaction of the A/E and Owner at the Contractor's expense. Work or equipment that is rejected shall be so stated in writing by the A/E or Owner.
8. Such decisions that the A/E or Owner may make with respect to questions concerning the quality, fitness of materials, equipment, and workmanship shall be binding upon the parties thereto.
9. All Work shall fully comply with these specifications and related Drawings and all manufacturers recommended installation practices.
10. All Work shall be performed with the best practices of the trade for performance, functionality, safety, endurance, and aesthetics.
11. Coordinate ordering and installation of all equipment with long lead times or having a major impact on work by other trades so as not to delay the job or impact the schedule.
12. Where mounting heights are not detailed or dimensioned, install systems, materials and equipment to provide the maximum headroom possible, as appropriate to the application.

13. Set all equipment to accurate line and grade, level all equipment and align all equipment components.
14. Provide all scaffolding, rigging, hoisting and services necessary for erection and delivery of equipment and apparatus furnished into the premises. These items shall be removed from premises when no longer required.
15. No equipment shall be hidden or covered up prior to inspection by the owner's representative. All work that is determined to be unsatisfactory shall be corrected immediately.
16. All work shall be installed level and plumb, parallel and perpendicular to other building systems and components.
17. Install all equipment and materials in strict accordance with manufacturer's written instructions. Bring any conflicts between the manufacturer's written instructions and these specifications to the attention of the A/E for recommendations.
18. Upon completion of installation of equipment and communication circuitry, energize circuitry and demonstrate capability and compliance with requirements. Where possible, correct malfunctioning units at site, then retest to demonstrate compliance; otherwise, remove and replace with new units, and proceed with re-testing.

M. Cutting and Patching

1. Where demolition of existing surfaces are required by the Work, the same shall be restored to at least as good a condition as they were before.
2. Contractor shall be responsible for painting, patching, repairing and replacing any building surface, furnishing, wall/floor/ceiling covering that is damaged or penetrated in the process of performing work on the project site.
3. Additional work required to repair work performed under this Contract shall be at the expense of This Contractor.
4. The Division 28 contractor shall do all cutting as required for the admission of Division 28 work. Unless directed otherwise in field, provide all related patching and painting to match surrounding methods, materials and colors. Any damage done by this contractor to the building during the progress of this contractor's work shall be made good at this contractor's expense.

N. Site Maintenance

1. During the progress of the work, the Contractor shall clean and leave the premises and all portions of the building in a clean and safe condition. This cleaning shall occur on a daily basis.

O. Final Cleaning

1. Clean all parts of the apparatus and equipment. Exposed parts, which are to be painted, shall be cleaned of cement, plaster and other materials and all oil and grease spots shall be removed. Such surfaces shall be carefully wiped and all corners and cracks scraped out.

P. Closeout Requirements

1. Upon the Designer's receipt of and approval of the Contractor's pre-test submittal, the Contractor shall contract the Designer to schedule acceptance testing. Contractor shall allow not less than 10-business days of advance notice to the Owner.
2. In the presence of the Owner, the Contractor shall demonstrate the presence of all specified products, cabling and installation methods. The Contractor shall demonstrate the operation of the system (and any requested sub-component thereof) and shall be prepared to make any electronic, physical or software related adjustments to the system or any of its sub-components to the satisfaction of the Owner, as required to achieve full compliance with the specifications.

3. The contactor shall have available at the project site all test equipment, cables, tools and personnel necessary to demonstrate full compliance with these specifications as determined necessary by the designer.
4. During the acceptance testing the Contractor shall have a clean and fresh copy of the contractor's most up to date as-built record documentation, printed to scale.
5. This Contractor shall provide all required labor services required to completely verify and test the systems in the presence of the Owner.
6. Verify that each system, as a whole system, meets these Specifications and complies with all applicable standards.
7. Rectify deficiencies indicated by tests and completely retest work affected by such deficiencies at Contractor's expense.

Q. Warranties

1. Specified materials and workmanship provided shall be fully guaranteed by the Contractor for one year from the transfer of title via notice of substantial completion against any defects in materials or workmanship.
2. Extended (additional) warranty(s) may be required and will be identified in the individual Specification Section and will be considered additive to this base Contractor Warranty.
3. Requirements for Manufacturer's Warranties, required by a Specification Section, shall run concurrent to this base Warranty by the Contractor but may exceed the Contractor's Warranty Period.
4. Manufacturer's Warranties shall also begin upon Substantial Completion.
5. The Warranty shall begin upon Substantial Completion.
6. This warranty shall in no manner cover equipment that has been damaged or rendered unserviceable due to negligence, misuse, acts of vandalism, or tampering by the Owner or anyone other than employees or agents of the Contractor.
7. The Contractor's obligation under its warranty is limited to the cost of repair of the warranted item or replacement thereof, at the Contractor's option.
8. Insurance covering said equipment from damage or loss is to be borne by the Contractor until full acceptance of equipment and services.
9. Individual specification sections may have additional warranty requirements for the work in that section. The warranty above will cover all materials and work where not covered by an extended warranty listed in the individual specification section.
10. Specified materials and workmanship provided shall be fully guaranteed by the Contractor against any defects in materials or workmanship.
11. Contractor shall provide a full "System Warranty" which shall cover all materials, labor and related product shipping expenses for a period of five years from the date of Owner acceptance.
12. Supplied products with manufacturer's warranties of less than the System Warranty term shall be extended by the Contractor for the full specified term.
13. During this period the Contractor will remedy (at no cost to the owner) any problem with the system, or any of its related components that is the result of defective materials, settings, workmanship, or loss or programming.
14. Any defective items or work shall be removed and replaced at the Contractor's expense to the satisfaction of the owner's representative and the Owner.

15. The period of the Contractor warranty(s) for any items herein are not exclusive remedies, and the Owner has recourse to any warranties of additional Scope given by the Contractor to the Owner and all other remedies available by law or in equity.
16. Additional Warranty requirements may be added by an individual Specification Section.
17. Scope of these extended (additional) warranty(s) will be identified in the individual Specification Section and will be considered additive to this base Contractor Warranty.
18. Requirements for Manufacturer's Warranties, required by a Specification Section, shall run concurrent to this base Contractor Warranty by the Contractor.
19. Manufacturer's Warranties shall also begin on Substantial Completion.

R. Demonstration and Training

1. Each Division 28 section may specify special Training requirements.
2. Training requirements will be for a quantity of hours, allow for multiple trips.
3. If no special requirements are specified in the individual section, provide for 4 hours and 2 trips for basic overview, operation and maintenance information per section.
4. Train Owner's maintenance personnel on the procedures and schedules involved in operating, general troubleshooting, and preventative maintenance of the system.
5. Contractor shall require all attendees to sign-in for each training session. The sign-in form shall summarize the training to be conducted, specification section and subsection being trained on, as well as the starting time and duration of training. Following training, a representative of the owner shall sign the form, acknowledging the same. Contractor shall retain the original copy of these forms and turn over a photo copy of the form to the owner's representative as evidence of training. Training conducted without this official record of training shall not be considered as part of the Contractor's training obligation.
6. Schedule training with the Owner's representative, at least 14 days in advance.

PART 2 - PRODUCTS

2.01 ASSIGNMENT OF MISCELLANEOUS WORK

A. Excavating and backfilling for telecommunications work shall be by telecommunications contractor.

1. Properly support banks of excavation with safety sheet pile. Install necessary guards. Provide adequate pumping equipment and keep excavation free of water.
2. Excavate pipe trenches to proper depth. Where rock is encountered, excavate to 6 inches below pipe and refill to 6 inches above pipe with compacted granular fill. Granular fill shall consist of dune sand, gravel or other suitable material containing not more than 10 percent by weight passing #200 sieve and 100 percent passing 1-inch sieve.
3. Excavation for utilities shall not be backfilled until all required tests are performed and approved by Engineer and the utility company.
4. Whenever underground feeders are run below footings and grade beams, contractor shall backfill the void with poured, steel-reinforced concrete to elevation of bottom of footing or grade beam. Backfill within building lines shall be made with granular fill or compacted backfill material laid in 6-inch layers and tamped to specified compaction after each layer.
5. Backfill under paved area shall be made with granular fill compacted backfill material laid in 12-inch layers and tamped to compaction after each layer.
6. Backfill under open yards or fields shall be made with non-compacted backfill laid in layers not to exceed 24 inches deep. Sand trenches may be allowed to settle naturally and shall be refilled back to grade as required during first year after final acceptance.

7. Contractor shall refill, regrade and refinish any area that becomes unsatisfactory due to settlement within one year after final acceptance.
8. Contractor shall verify all existing grades, inverts, utilities, obstacles and topographical conditions prior to any trenching, excavation or underground installation. In event existing conditions are such as to prevent installation in accordance with Drawings, contractor shall immediately notify Engineer.
9. Provide appropriate plastic marker tape buried directly above underground electric and communication lines continuously along length of lines. Marker tape shall be located 12 inches below finished grade, but no closer than 12 inches above underground lines. Tape shall be a minimum of 6 inches wide.
10. Refer to Division 31 Section “Earth Moving,” for additional requirements. In event of conflict between this section and Division 31 Section “Earth Moving,” Division 31 Section “Earth Moving” shall apply, unless otherwise indicated by A/E.

B. Provide sleeved penetrations for all cabling access where applicable.

1. Where conduits pass through walls, roofs, ceilings, or floors, contractor shall set sleeves when floors, walls, ceilings or roofs are constructed. If any holes are cut in finished work where sleeves have been omitted, cutting shall be done with a concrete coring machine or other approved means and only with consent of Engineer. All such holes are to be carefully cut and shall not be larger than necessary. These holes are to be entirely covered by escutcheon plates when work is completed. Sleeves shall be made of pipe or rolled sheet steel no lighter than No. 18 gauge.
2. Where conduits pass through sleeves in exterior walls above grade, annular space shall be caulked with oakum and filled inside and out with non-hardening, waterproof sealant finished off flush with both faces of wall.
3. Provide penetration seals for all conduits penetrating the building wall below grade.
    a. Description: The pipe to wall penetration closures shall be "Link-Seal" or equal, as manufactured by PSI/Thunderline Corporation – Houston, TX. Seals shall be modular type, consisting of synthetic rubber shaped to continuously fill the annular space between the pipe and wall opening. After the seal assembly is positioned in the sleeve, the rubber sealing elements shall provide an absolutely water-right seal between the pipe and wall opening. The seal shall be constructed as to provide insulation between the pipe and wall, thus reducing changes of cathodic reaction between these two members.
    b. Wall Opening: Provide “Century-Line” sleeves or equal as manufactured by PSI/Thunderline Corporation – Houston, TX. Contractor shall determine the required inside diameter of each individual wall opening of sleeve before ordering, fabricating or installing. The inside diameter of each wall opening shall be sized as recommended by the manufacturer to fit the pipe and Link-Seal to assure a water- tight joint. Sizing (correct Link-Seal model and number of links per seal) may be obtained through manufacturer's catalog. If pipe O.D is non-standard due to coating, insulation, etc. consult Thunderline's factory for engineering assistance and recommendation before proceeding with wall opening detail.
    c. Holes through Structural members: Holes required for conduit of size 5-inches and smaller shall be cut in field at expense of this contractor. Obtain structural engineer’s approval in writing prior to any cutting.
    d. Pitch Pockets: Required for conduit penetrating roof. Seal sleeves and provide flashing.
    e. Painting of telecommunications cabling and components is not permitted. Notify painting contractor that painting of telecommunications cabling and components is not permitted. Protect cabling as necessary to avoid painting.

2.02 MATERIALS AND EQUIPMENT

A. Equipment shall be new, listed by UL and shall conform to NEMA and ICEA standards.

B. Materials used for like service shall be by same manufacturer.

C. All materials and equipment, including any hangers, supports, fastenings or accessory fittings, shall have corrosion protection suitable for atmosphere in which they are installed, whether located indoors or out. Care shall be taken during installation to assure integrity of corrosion protection.

D. All screws, bolts, nuts, clamps, fittings or other fastening devices shall be made up tight. All bolts, screws, nuts and other threaded devices shall have standard threads and heads so they may be installed and replaced when necessary without special tools.

2.03 PRODUCT AND MATERIAL APPROVAL

A. A Specification followed by one or more manufacturers is limited to those manufacturers. Names of other manufacturers may be submitted for approval to A/E and Owner a minimum of ten (10) days prior to receiving bids. Approval will be issued by Addendum if granted.

B. A Specification followed by one or more manufacturers and "or approved equal" is open to all equal products or materials; however, Contractor shall supply one of listed manufacturers at no additional cost if Engineer finds substituted product unsatisfactory.

2.04 CAULKING AND FIRESTOPPING

A. In addition to the requirements in Division 07 Section “Penetration Firestopping,” comply with this Article.

B. All raceway and sleeve penetrations of fire barriers shall be sealed to achieve fire resistance equivalent to fire separation.

1. Maintain fire rating per ASTM E-814 and UL 1479.

2. This assembly must also maintain a watertight seal between floor or wall and pipe.

C. For other penetrations through non-rated walls, partitions, floors and ceilings, caulk the space between raceways and raceway sleeves with non-staining, waterproof gun grade compound. Apply caulking compound by the gun method using nozzles of a proper size to fit the width of joint. Prepare the joint for caulking by packing it tightly with a resilient foam or rope yarn.

D. Products: Subject to compliance with requirements, provide one of the following:

1. Maintain fire rating per ASTM E-814 and UL 1479.

2. Penetration sealant:
   a. 3M Brand "Moldable Putty Pads": and "Moldable Putty Stix"
   b. 3M Brand "Fire Barrier" Caulk, Putty or Penetrating Sealing Systems
   c. Dow Corning "Fire Stop Foam: and "Fire Stop Sealant" systems
   d. Insta-Foam Products, Inc. "Insta-Fire Seal Silicone RTV Foam"
   e. Standard Oil Engineering Materials Company, "Frye Putty"
   f. Chase technology "Chase Foam #CTC PR-855"

3. Intumescent Sealant for use at openings and sleeves involving flexible cable.
   a. 3M Brand "Fire Barrier" caulk or putty, FS-195 Wrap Strip and CS-195 Composite Sheet.
   b. Dow Corning "Fire Stop Intumescent Wrap Strip"
   c. Fox Couplings, Inc. "The Fox Cast-in-Place Coupling"

4. Performance Characteristic: Firestopping materials shall conform to both Flame (F) and Temperature (T) ratings as tested by nationally accepted test agencies per ASTM E814 or UL 1479 fire test.
    a. ^{O}F Rating shall be a minimum of one hour but not less than the fire resistance rating of the assembly being penetrated.
    b. Conduct the fire test with a minimum positive pressure differential of 0.01 inches of water column.
5. Quality Assurance: Installer qualifications – a firm specializing in firestopping installation with not less than two years of experience or trained and approved by firestopping manufacturer.

PART 3 - EXECUTION

3.01 INSTALLATION OF ELECTRONIC SAFEFTY AND SECURITY SYSTEMS

A. General

1. All work installed in finished areas shall be concealed.
2. Install systems, materials, and equipment to conform with approved documents.
3. Install equipment to facilitate servicing, maintenance, and repair or replacement of equipment components. Connect equipment for ease of disconnecting, with minimum of interference with other installations.
4. Protect the structure, furnishings, finishes, and adjacent materials not indicated or scheduled to be removed.
5. Verify all dimensions by field measurements. Take measurements and be responsible for exact size and locations of all openings required for the installation of work. Proposed dimensions are reasonably accurate and should govern in setting out work. Where detailed method of installation is not indicated or where variations exist between described work and approved practice, direction of the owner's representative on job shall be followed.
6. Workmanship throughout shall conform to the standards of best practice. Marks, dents or finish scratches will not be permitted on any exposed materials, fixtures or fittings. Inside of panels and equipment boxes shall be left clean.
7. Use caution not to exceed the allowed bend radius for respective cables and not to compromise the integrity of the cables during installation by pulling cable management devices too tightly, damaging cables, etc. Raceway/Cabling bending radii shall be minimum as directed by cable manufacturer. Use pulling compound or lubricant, where necessary; compound must not deteriorate conductor or insulation.

B. Cable

1. Provide color-coded jackets to identify different systems.
2. Neatly comb out multiple cable bundled runs to remove tangling and crossing of cables within the bundles. Neatly dress all cable work and provide vertical and horizontal cable management (or other approved method) for properly dressing all work at racks, control panels, backboards etc.
3. Provide spacing between cable bundles to help dissipate heat. Do not cinch cables into tight bundles.
4. Nylon cable ties are not permitted. Bundle cables with “Velcro” style cable straps with a minimum of 1-inch width.
5. All cables shall be supported every 5 feet (or less) and within 12" of device boxes, outlets, racks/cabinets and cable tray.

6. Use separate J-Hook cable support systems for cables belonging to different systems and for cables carrying different operating levels.
7. Loosely secure cables at each J-Hook.
8. Cables shall not be directly or indirectly supported by a suspended ceiling or any other surface, support, material or structure not permissible for this use by all applicable codes and standards.
9. Cables carrying signals of different nominal operating level shall be kept separated to reduce the risk of undesirable cross-talk interference between cables.
10. Keep length of parallel runs to a minimum. Cross cables of different nominal levels at 90 degrees.
11. Provide additional separation as necessary to prevent and remedy any crosstalk.
12. Contractor shall take all precautions necessary to keep low-voltage cable away from sources of EMI and RF interference. Where close proximity is absolutely necessary to satisfactory appearance, performance or installation of the Work, provide all necessary shielding necessary to ensure that ingress interference is minimal and has no negative impact of the Work.
13. Provide a minimum of 12 inches cable slack where terminating at a device outlet to facilitate installation and servicing of devices. Longer working lengths shall be provided as appropriate to the application.
14. All termination types shall correctly match the cable and device termination point. Connectors of the appropriate type, size, color and rating shall be used to match with the mating equipment.
15. Tools as recommended by each specific connector manufacturer shall be used in attachment of all connectors.
16. When spade connectors are the required to be used for audio circuits operating at <= +8dBv nominal, solder type spade connectors only shall be permitted.
17. No more than two spade connectors shall be permitted under a single terminal. Fewer should be used when recommended by the specific manufacturer’s equipment or connector.
18. Wire Nuts
    a. Wire nuts shall not be used in any audio circuit, except when necessary in the following:
        1) 25 Volt Constant-Voltage loudspeaker circuits.
        2) 70.7 Volt Constant-Voltage loudspeaker circuits.
    b. Wire nuts shall not be used in any data or voice communications or remote control circuit.
    c. Wire nuts shall not be used in any circuit which radiates RF energy.
    d. Contractor must advise and gain prior approval of the Owner for any circuit which the Contractor desires to use wire nuts as the means of termination.
19. Drain Wires, Non-insulated Ground Wires and Shields
    a. Drain or non-insulated ground conductors shall be insulated with appropriately sized heat-shrinkable insulated sleeving immediately upon exit from the jacket of the cable. Contractor shall use GREEN colored sleeving unless otherwise necessary to resolve specific color coding conflicts on a given cable. This methodology shall apply to ALL methods of termination, including inline connectors, device plates, direct equipment terminations etc… Sleeving shall be applied to twisted and braided shields once the internal conductors have been combed out or otherwise removed from the center of the shield.

b. Wherever a cable contains a non-insulated conductor within a jacketed cable, the conductors, as they exit the manufacturer's jacket, shall have a piece of heat shrinkable sleeving applied equally over the jacket and the exposed insulated conductors. The length of this sleeving shall be 1" for all cable diameters of .250" or less. For cables diameters larger than .250" the length of the sleeving shall be approximately equal to 4 times the diameter of the cable jacket. Note: This added sleeving is recommended but not mandatory when cable termination occurs fully within the confines of a fully insulated and strain relieved connector. Black shall be used unless otherwise necessary for specific cosmetic or cable identification purposes.

c. A heat-gun of the appropriate temperature, size, type and rating for shrinking the tubing shall be used as recommended by the manufacturer of the sleeving used. Open flame (i.e. matches, cigarette lighters, torches) and direct metal conduction (i.e. soldering iron) methods to shrink the sleeving shall not be permitted. Sleeving which is burnt or otherwise marred shall be removed and replaced.

d. There shall not be any non-insulated exposed conductors within a device backbox, junction box, or equipment rack/cabinet.

20. Unused Conductors

a. Unused conductors shall not be "clipped" or removed from any jacketed cable. Conductors which are not required or used at the end of a jacketed cable shall be kept intact. Conductors shall be fully insulated from one and other to prevent shorts which could occur at either end of the cable. Conductor ends shall also be insulated to prevent shorts to other conductive materials which could come in contact with the conductor.

b. Unused conductors shall be kept the same length as the longest conductor of the cable being used.

c. Attention shall be paid to the proper preparation of all cables and all conductors of these cables. There shall not be nicks to cable jackets, conductor insulation, or the conductors themselves.

d. Special attention should be paid to nicked conductors. Should a conductor be nicked during preparation or termination the cable shall be reworked/replaced to remove the nick.

e. Any voice, data, or coaxial cable that is cut, disconnected, or not terminated at both ends shall be completely removed end to end. Any labels at either end shall be erased. Record drawings shall reflect the removal of these cables.

3.02 ATTACHING TO BUILDING CONSTRUCTION

A. Attach supports to structural members (beams, joists, etc.) rather than to floor or roof slabs. Do not attach to ceiling support wires.

B. Where equipment and raceway are suspended from existing concrete or masonry construction, use expansion shields to attach supports to construction. Expansion shield bolt diameter shall be same size as support rod diameter, hereinafter specified. Expansion shields shall be Star Double, Star Gloxin, Star Loxin or approved equal.

C. Where existing masonry is not suitable to receive and hold expansion shield or where other means of attachment is advantageous, submit alternate method for approval by Engineer.

D. Equipment to be installed in groups shall not be mounted directly to masonry or concrete walls. Mount 1- by 1-inch structural channel such as Unistrut, to wall and secure equipment to these channels.

E. Where raceways are suspended from structural steel building framing or supporting members, provide beam clamps for attaching piping device to building member.

F. Obtain approval from Owner and structural engineer before cutting or welding to structural members, or before hanging heavy equipment.

3.03 ESCUTCHEONS

A. Provide chrome plated escutcheons on material, leaving and entering walls, floors, ceilings, etc.

3.04 EQUIPMENT INSTALLATION

A. All equipment must be installed such that maintenance and service may be properly accomplished. If necessary, the Owner, at their option, may require the contractor to demonstrate the service on any piece of equipment to determine sufficient service space exists. If the service space is not adequate, the equipment shall be relocated at no additional cost to the Owner such that sufficient service space is achieved.

3.05 OCCUPATIONAL SAFETY & HEALTH STANDARDS

A. All work shall comply with current requirements of U.S. Department of Labor-Occupational Safety & Health Administration, entitled Occupational Safety and Health Standards; National Consensus Standards and Established Federal Standards.

3.06 DEMOLITION

A. In addition to the requirements in Division 02 Section “Selective Demolition,” comply with this Article.

1. Scope of Work: Provide demolition required for removal of systems and equipment made obsolete by this Project and as determined by the Architect/Engineer.

2. Work Included:

a. Non-destructive removal of systems, materials, and equipment for reuse or salvage as shown on Drawings or requested by Owner.

b. Removal of all debris from site and legal disposal of same.

c. Removal of all abandoned or obsolete exposed materials and equipment for a clean and finished installation.

d. Removal of all abandoned or obsolete raceways, wiring, cabling, or electrical devices of any kind.

B. Conditions

1. Coordination: Adjacent areas need to remain in operation and services to these areas need to be maintained. A schedule will be worked out prior to beginning work and as many criteria for operation as possible will be explained. Contractor cooperation shall be expected in all conditions.

a. Phasing: Prior to commencing demolition in any area of the work, notify the Owner and Architect/Engineer five (5) working days in advance to insure that no adjacent occupied areas will be disrupted.

b. Demolition phasing must be approved by Architect/Engineer prior to commencement of operations.

c. Removal of debris and construction traffic will be limited to specified areas. Confirm all operations with Architect/Engineer prior to commencement of work.

2. Adjacent Materials:

a. During the execution of the work, primary consideration shall be given to protecting from damaging the structure, furnishings, finishes, and the like which are not specifically indicated to be removed and disposed.

b. Existing items or surfaces to remain which are damaged as a result of this work shall be refinished, repaired, or replaced to the satisfaction of the Architect/Engineer and Owner at no additional cost.

C. Materials

1. Patching: Materials used for patching shall be in conformance with the applicable sections of the Project Manual. Where materials are not specifically described but required for proper completion of the work, they shall be as selected by the Contractor subject to approval of the Architect/Engineer. Materials used and workmanship shall match surrounding areas as much as possible, unless otherwise directed.

D. Demolition

1. Site Inspection
   a. The Contract Documents do not propose to show all systems, materials, or equipment existing on the project that will require demolition.
   b. Before commencing the work of this Section, verify with the Architect/Engineer and Owner all systems, materials, and equipment to be removed and those to be preserved.
2. Scheduling
   a. Schedule all work in a careful manner with all necessary considerations for public and adjacent areas.
   b. Avoid interference with the use of adjacent areas and passage to and from these areas.
3. Abandoned Materials and Equipment: Items so indicated on Contract Documents to be removed and not indicated or specified to be saved or retained, shall be demolished, removed, demounted, or disconnected in the best possible manner to ensure that no damage will result to other adjacent items or surfaces to remain.
4. Salvage
   a. During removal of items so indicated, caution shall be used to eliminate damage to any equipment having salvage value.
   b. All reusable salvaged material shall remain the property of the Owner and be retained for his inspection. Only items so inspected and rejected by the Owner shall be disposed by the Contractor. All other such items shall be turned over and deposited as directed by the Owner.
5. Disposal and Clean Up
   a. Areas in which demolition and salvage work is being done shall be cleaned daily.
   b. Dirt, dust, debris, unsalvageable and reusable items, and the like shall be totally removed from the project site daily. Under no circumstances shall such refuse be allowed to collect for longer periods.
   c. Refuse shall not be allowed to block, or otherwise impair, circulation in corridors, stairs, sidewalks, or other traffic areas.

END OF SECTION 28 05 00

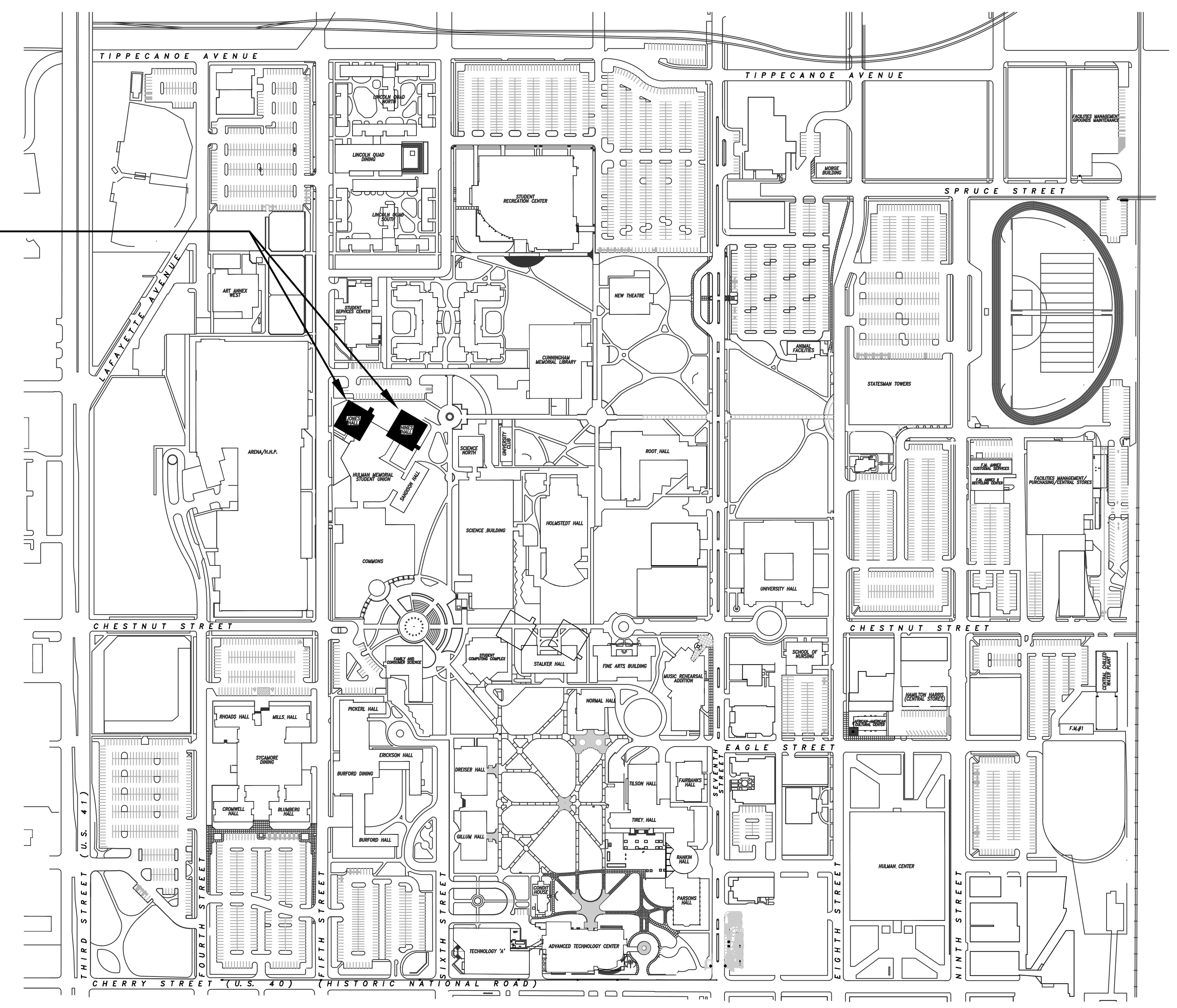
INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH

TERRE HAUTE, INDIANA

ISU BID #B0028696

BID SET
12/10/2025

PROJECT LOCATION
(HINES AND JONES HALL)



CAMPUS MAP
NO SCALE
NORTH

DRAWING INDEX:

SITE			
S100	STAGING SITE PLAN	-	SITE
ARCHITECTURAL			
A202	FIRST FLOOR PLAN	-	ARCHITECTURAL
A203	2ND THRU 9TH FLOORS	-	ARCHITECTURAL
PLUMBING			
PM001	SYMBOLS, ABBREVIATIONS, GENERAL NOTES	-	PLUMBING & MECHANICAL
P201	BASEMENT PLAN - FOR REFERENCE ONLY	-	PLUMBING
P202	FIRST FLOOR PLAN - FOR REFERENCE ONLY	-	PLUMBING
P203	2ND THRU 9TH FLOORS	-	PLUMBING
P204	TENTH FLOOR PLAN	-	PLUMBING
P301H	HINES BASEMENT FLOOR	-	PLUMBING
P301J	JONES BASEMENT FLOOR	-	PLUMBING
P401	SCHEDULES AND DETAILS	-	PLUMBING
P621H	HINES WORK SCHEDULE	-	PLUMBING
P621J	JONES WORK SCHEDULE	-	PLUMBING
MECHANICAL			
M201	BASEMENT FLOOR	-	MECHANICAL
M202	FIRST FLOOR PLAN	-	MECHANICAL
M203	2ND THRU 9TH FLOORS	-	MECHANICAL
M204	TENTH FLOOR	-	MECHANICAL
M205	ROOF & PENTHOUSE FLOOR - FOR REFERENCE ONLY	-	MECHANICAL
M301H	HINES BASEMENT FLOOR	-	MECHANICAL
M301J	JONES BASEMENT FLOOR	-	MECHANICAL
M302H	HINES PENTHOUSE FLOOR	-	MECHANICAL
M302J	JONES PENTHOUSE FLOOR	-	MECHANICAL
M311	TYPICAL ROOM FLOOR - FOR REFERENCE ONLY	-	MECHANICAL
M401	SCHEDULES AND DETAILS	-	MECHANICAL
M621H	HINES WORK SCHEDULE	-	MECHANICAL
M621J	JONES WORK SCHEDULE	-	MECHANICAL
M701	CONTROLS	-	MECHANICAL
ELECTRICAL			
AC202	FIRST FLOOR - ACCESS CONTROL	-	ELECTRICAL

2

CERTIFIED BY:
DANIEL E. DIMOND REGISTERED No. PE60910351 STATE OF INDIANA PROFESSIONAL ENGINEER
12/10/25

DA #25104

INDIANA STATE UNIVERSITY - 2026 HINES AND JONES HALL REFRESH

ADDENDUM NO 4 - 01/12/26

DA #25104

GENERAL DESCRIPTION OF PROPOSED ACCESS CONTROLS OPERATION

THE FOLLOWING IS A GENERAL DESCRIPTION OF HOW THE PROPOSED ACCESS CONTROL SYSTEM COMPONENTS SHALL OPERATE AT THE CONCLUSION OF THIS PROJECT. COORDINATE ALL WORK WITH THE OWNER, CBORD, AND OTIS ELEVATOR.

PROPOSED OPERATION:

1. EXTERIOR SLIDING ENTRY DOORS AT VESTIBULES ALLOW FOR FREE ACCESS.
2. PRESENTING CREDENTIALS TO THE EXISTING CARD SWIPE READER OR THE PROXIMITY READER IN THE VESTIBULE ALLOWS ACCESS THRU THE ASSOCIATED INTERIOR SLIDING ENTRY DOOR.
3. FREE ACCESS ONTO THE ELEVATOR. ALSO, PRESENTING CREDENTIALS TO THE PROXIMITY READER AT THE ELEVATOR LOBBY ON THE 1ST FLOOR WILL BRING THE ELEVATOR TO THAT FLOOR AND OPEN THE DOORS.
4. PRESENTING CREDENTIALS TO THE CARD SWIPE READER IN THE ELEVATOR ELEVATOR CAR WILL ALLOW ACTIVATION OF A FLOOR BUTTON ON THE C.O.P.
5. PRESENTING CREDENTIALS TO THE PROXIMITY READER IN THE ELEVATOR ELEVATOR CAR WILL SEND THE ELEVATOR TO THE ALTERNATE FLOOR AND OPEN THE DOORS.
6. PRESENTING CREDENTIALS TO THE CARD SWIPE READER AT THE RECEPTION OR MAIL ROOM DOOR ALLOWS ACCESS THRU THE ASSOCIATED DOOR.

SPECIAL NOTES

1. OTIS ELEVATOR WILL HAVE COSTS ASSOCIATED WITH THEIR SCOPE OF WORK FOR THIS PROJECT, WHICH INCLUDES MATERIALS, INSTALLING THE REQUIRED TRAVELER CABLES FOR THE NEW ACCESS CONTROLS IN THE ELEVATOR CAR, RE-PROGRAMMING THE ELEVATOR OPERATION, ASSISTING THE CONTRACTOR WITH ELEVATOR OPERATION, MAKING CONNECTIONS TO ELEVATOR EQUIPMENT, FINAL TESTING OF ELEVATOR OPERATION, COORDINATION WITH CBORD, ETC. THE BIDDING CONTRACTOR SHALL INCLUDE ALL SUCH COSTS REQUIRED BY OTIS ELEVATOR IN THEIR BID.
   CONTACT RACHEL EDWARDS AT OTIS ELEVATOR, PHONE: (463) 202-5608;
   EMAIL: RACHEL.EDWARDS@OTIS.COM
2. CBORD GROUP WILL HAVE COSTS ASSOCIATED WITH THEIR SCOPE OF WORK FOR THIS PROJECT, WHICH INCLUDES MATERIALS, PROGRAMMING, ASSISTING WITH TESTING AND FINAL ACCEPTANCE, COORDINATION WITH OTIS ELEVATOR, ETC. THE BIDDING CONTRACTOR SHALL INCLUDE ALL SUCH COSTS REQUIRED BY CBORD IN THEIR BID.
   CONTACT RYAN WAGNER AT CBORD, PHONE: (317) 501-4116;
   EMAIL: RPW@CBORD.COM
3. THE OWNER WILL HELP COORDINATE WORK AND PROGRAMMING FOR THE A ACCESS CONTROLS WITH CBORD.
4. THE BIDDING CONTRACTOR SHALL HAVE A MINIMUM OF 5-YEARS OF INSTALLATION EXPERIENCE WITH CBORD AND MERCURY ACCESS CONTROL SYSTEMS AND PRODUCTS AT THIS CAMPUS OR OTHER SIMILAR CAMPUSES. IT WOULD BE A PLUS TO BE CBORD CERTIFIED, INCLUDING WITH MERCURY PANELS. COORDINATE ALL WORK WITH CBORD, INCLUDING HOW PORTS AND READERS ARE ASSIGNED ON THE PANEL.
5. THE BIDDING CONTRACTOR SHALL PROVIDE THE APPROPRIATE ACCESS CONTROL SYSTEM CABLES TO THE EXISTING OTIS ELEVATOR EQUIPMENT LOCATED IN THE PENTHOUSE (ROOF) ELEVATOR MACHINE ROOM. COORDINATE WITH OTIS.
6. THE BIDDING CONTRACTOR SHALL INSTALL CBORD EQUIPMENT (CONTROLLERS, POWER SUPPLIES, ETC.) INSIDE THE EXISTING TELECOM ROOM LOCATED ON THE FIFTH FLOOR (REF. DWG. P203). PROVIDE A DEDICATED 120V EMERGENCY CIRCUIT FROM EXISTING PANEL 'X' LOCATED IN BASEMENT MECHANICAL ROOM.
7. THE BIDDING CONTRACTOR SHALL OBTAIN PRODUCT SUBMITTALS, SHOP DRAWINGS AND WIRING SCHEMATICS FROM CBORD AND SUBMIT FOR OWNER, OTIS AND ENGINEER REVIEW PRIOR TO BEGINNING WORK.

GENERAL NOTES - ELECTRICAL

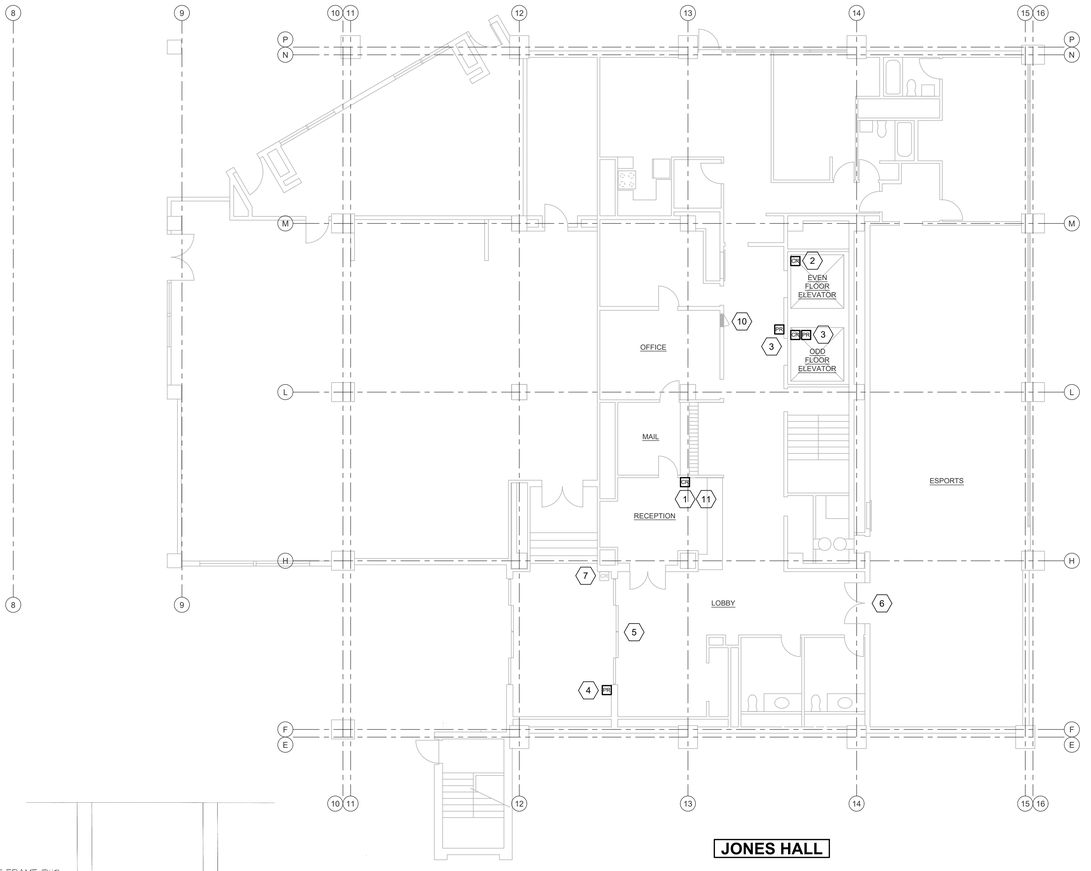
1. ALL POWER WIRING SHALL BE MINIMUM #12 AWG IN 3/4" EMT CONDUIT.
2. PROVIDE LOW VOLTAGE CABLING PER MANUFACTURER'S RECOMMENDATIONS. INSTALL WIRING IN RACEWAYS WHEN EXPOSED OR ABOVE INACCESSIBLE CEILINGS. PLENUM-RATED CABLES MAY BE USED ABOVE ACCESSIBLE CEILINGS. PROVIDE APPROPRIATE J-HOOK SUPPORTS. THE FOLLOWING CABLES HAVE BEEN USED ON PREVIOUS PROJECTS AND SHALL BE CONSIDERED AS A GUIDE:
   SWIPE OR PROX CARD DATA = 8-CONDUCTOR, #18 AWG, STRANDED/SHIELDED W/DRAIN. WINDY CITY WIRE #002352-S-PL
   PROX POWER = 2-CONDUCTOR, #18 AWG, STRANDED/TWISTED. WINDY CITY WIRE #442360-S-PL
   VERIFY WITH PROJECT CONDITIONS (VOLTAGE DROP, ETC.)
3. CONTRACTOR SHALL REMOVE AND REINSTALL EXISTING CEILINGS AS REQUIRED. REPLACE ANY CEILING COMPONENTS DAMAGED DURING CONSTRUCTION.
4. SELECT SURFACE RACEWAY COLOR TO CLOSELY MATCH FINISH COLOR OF THE MOST PROMINENT SURFACE ITS MOUNTED TO, OR PAINT TO MATCH.
5. REPAIR ANY WALL OR FINISHES DAMAGED DURING CONSTRUCTION. THIS INCLUDES TOUCH UP PAINTING.
6. FIRESTOP ALL WALL AND FLOOR PENETRATIONS.
7. UTILIZE EXISTING TELECOM RISER CONDUITS FOR NEW CABLING AS MUCH AS POSSIBLE. PROVIDE NEW PATHWAYS AS REQUIRED.
8. PROPERLY IDENTIFY ALL CABLES OVER THEIR ENTIRE LENGTH TO IDENTIFY FUNCTION AND TERMINATIONS.
9. ALL WORK ON THIS DRAWING IS ALTERNATE BID.

PLAN NOTES - ELECTRICAL

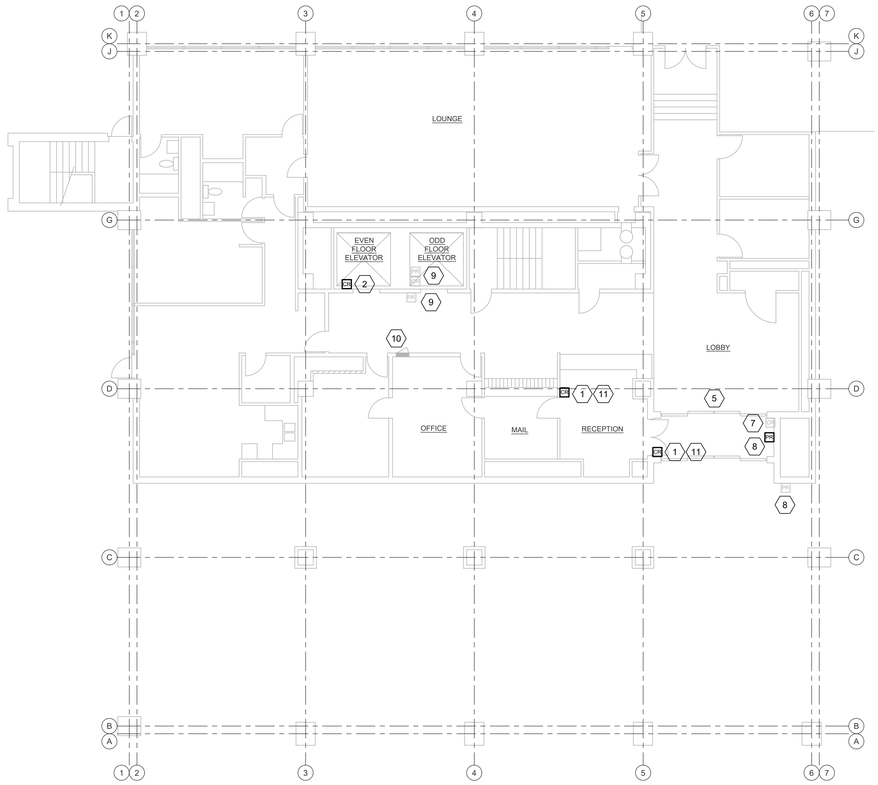
1. PROVIDE A MR-5 CARD SWIPE READER ON WALL AND CONNECT TO CONTROL DOOR STRIKE TO ALLOW ACCESS THRU DOOR. COORDINATE WITH FIELD CONDITIONS.
2. PROVIDE A MR-5 CARD SWIPE READER ON ELEVATOR C.O.P. PROVIDE ACCESS CONTROL CABLES TO THE PENTHOUSE ELEVATOR MACHINE ROOM. PROVIDE PATHWAYS AS REQUIRED. COORDINATE WITH OTIS.
3. PROVIDE A MR-5 CARD SWIPE READER ON ELEVATOR C.O.P. AND A MAXI-PROXIMITY READER BELOW THE ELEVATOR C.O.P. AND ANOTHER MAXI-PROXIMITY READER IN ELEVATOR LOBBY. PROVIDE CABLES TO THE PENTHOUSE ELEVATOR MACHINE ROOM. PROVIDE PATHWAYS AS REQUIRED. COORDINATE WITH OTIS. (MATCH INSTALLATION AT HINES ELEVATOR.
4. PROVIDE A MAXI-PROXIMITY READER ON WALL. VERIFY EXACT LOCATION WITH OWNER PRIOR TO BEGINNING WORK. CONNECT TO CONTROL VESTIBULE'S INTERIOR SLIDING DOOR.
5. EXISTING INTERIOR POWER OPERATED SLIDING ENTRY DOOR TO REMAIN. REWORK AS REQUIRED SO THAT BOTH THE EXISTING CARD SWIPE READER AND NEW PROXIMITY READER WILL ACTIVATE THE DOOR OPERATOR.
6. CONNECT NEW ADA DOOR OPERATOR FOR ESPORTS TO EXISTING CIRCUIT LOCATED ABOVE CEILING. INSTALL WALL MOUNTED BUTTON OPERATORS AT LOCATIONS AS DIRECTED BY OWNER.
7. EXISTING MR-5 CARD SWIPE READER LINKED TO ACTIVATE INTERIOR POWER OPERATED SLIDING ENTRY DOOR, TO REMAIN. REWORK AS REQUIRED.
8. REMOVE EXISTING EXTERIOR MAXI-PROXIMITY READER AND PROVIDE NEW MAXI-PROXIMITY READER ON WALL IN VESTIBULE. EXTEND WIRING TO ACTIVATE INTERIOR POWER OPERATED SLIDING ENTRY DOOR.
9. EXISTING CARD READERS TO REMAIN.
10. EXISTING PANEL '1L' TO REMAIN.
11. PROVIDE 120V CIRCUIT FROM PANEL '1L' FOR DOOR STRIKE POWER SUPPLY. INSTALL POWER SUPPLY ABOVE CEILING.

RENOVATION LEGEND:

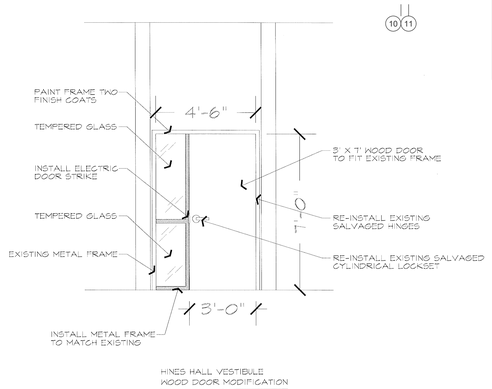
- WORK TO BE INSTALLED
- WORK TO REMAIN



JONES HALL



HINES HALL



HINES HALL VESTIBULE WOOD DOOR MODIFICATION

FIRST FLOOR - ACCESS CONTROL

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

NORTH

0 2 4 6 8 16 24 32

1 2 3 4

D&A #25104

R.E. Dimond and Associates, Inc.

Consulting Engineers

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Indianapolis, IN 46204
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CERTIFIED BY:

DANIEL E. DIMOND REGISTERED No. PE60910351 STATE OF INDIANA PROFESSIONAL ENGINEER

12/10/25

REVISIONS:

NO.	DESCRIPTION	DATE
1	ISSUE IN ADDENDUM NO. 4	01/12/2026

PROJECT DESCRIPTION:

INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH
ISU BID #B0028696
TERRE HAUTE, INDIANA

KEYPLAN

DRAWN BY: DW	DESIGNED BY: DW
SCALE: REFER TO DRAWING	CHECKED BY: DED
DATE: 12/10/25	JOB NO.: D&#25104

SHEET DESCRIPTION:

FIRST FLOOR - ACCESS CONTROL

SHEET NUMBER:

AC202

PLAN NOTES - ELECTRICAL

2 PROVIDE AND INSTALL THE FOLLOWING AV EQUIPMENT WITHIN THE MEETING ROOM. VERIFY EXACT LOCATIONS WITH OWNER.

- (1) SONY BRAVIA, FW-55EZ20L, 55" UHD 4K HDR COMMERCIAL MONITOR
- (1) GABOR TILTING MOUNT, TMP-X, TV WALL MOUNT
- (1) SCREENBEAM FLEX, 1100F, WIRELESS DISPLAY DEVICE
- (LOT) MISCELLANEOUS CABLES AND HARDWARE, NETWORK AND HDMI CABLES

PLAN NOTES - ELECTRICAL

1 PROVIDE FOUR DEDICATED CAT. 6A DATA CABLES TO MEETING ROOM; TWO FOR CEILING MOUNTED WIRELESS ACCESS POINT AND TWO FOR WALL MOUNTED SMART TV. EXTEND TO THE EXISTING TELECOM ROOM ON THE FIFTH FLOOR. PROVIDE A 20'-0" SERVICE LOOP ABOVE THE CEILING AND RUN THE CABLE DOWN THE WALL FOR TV IN SURFACE RACEWAY AND PROVIDE A JACK. COORDINATE EXACT LOCATION AND REQUIREMENTS IN THE FIELD WITH OWNER. UTILIZE EXISTING CABLE RISER SLEEVES THRU UPPER FLOORS TO THE FIFTH FLOOR TELECOM ROOM. REPLACE FIRE STOPPING INSIDE SLEEVES. PROVIDE PENETRATION THRU FIRST FLOOR SLAB AS REQUIRED. PROVIDE DUPLEX RECEPTACLE FOR TV. CONNECT TO EXISTING ROOM RECEPTACLE CIRCUIT.

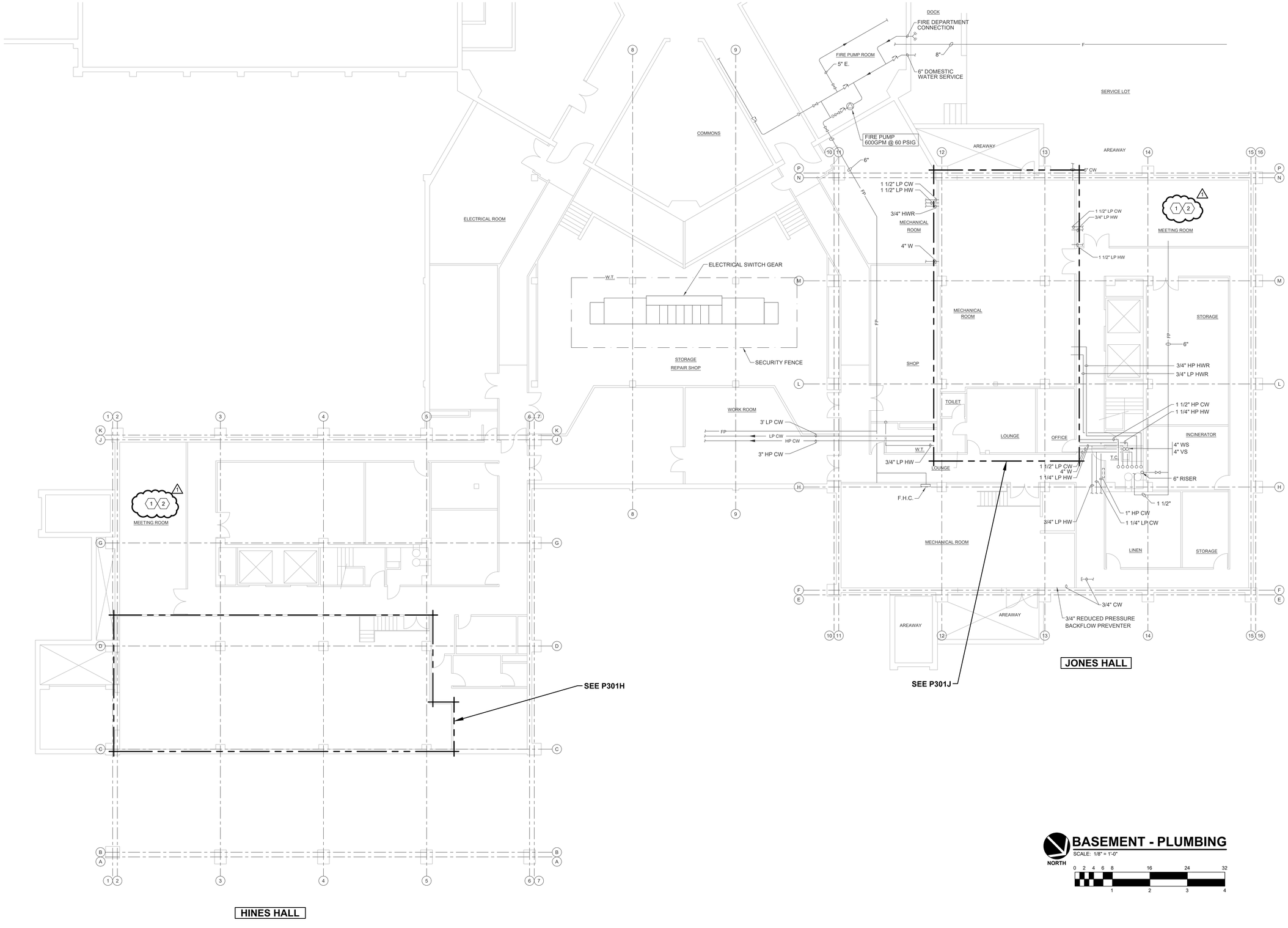
RENOVATION LEGEND:

WORK TO BE INSTALLED

WORK TO REMAIN

GENERAL NOTES

1. ALL PIPING ON THIS SHEET SHOWN IS EXISTING, FOR COORDINATION PURPOSES ONLY.
2. SEE ALSO PM001.



BASEMENT - PLUMBING

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

NORTH

0 2 4 6 8 16 24 32

1 2 3 4

D&A #25104

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CERTIFIED BY:

DANIEL E. DIMOND REGISTERED No. PE60910351 STATE OF INDIANA PROFESSIONAL ENGINEER

12/10/25

REVISIONS:

NO.	DESCRIPTION	DATE
1	ADDENDUM NO. 4	01/12/2026

INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH
ISU BID #B0028696

TERRE HAUTE, INDIANA

PROJECT DESCRIPTION:

KEYPLAN

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DRAWN BY: AMB	DESIGNED BY: AMB
SCALE: REFER TO DRAWING	CHECKED BY: DED
DATE: 12/10/25	JOB NO.: DA#25104

SHEET DESCRIPTION:

BASEMENT - PLUMBING

SHEET NUMBER:

P201

PLAN NOTES - ELECTRICAL

2 PROVIDE AND INSTALL THE FOLLOWING AV EQUIPMENT WITHIN THE LOUNGE ROOM. VERIFY EXACT LOCATIONS WITH OWNER.

- (1) GABOR TILTING MOUNT, TMP-X, TV WALL MOUNT
- (1) FSR, 1-GANG, SMWB-4G-BLK, SURFACE MOUNT WALL BOX
- (1) COMPREHENSIVE HDMI FACEPLAT, WP-HM1PT, CAT 6 SNANGLESS SHIELDED ETHERNET CABLE (10' BLACK)
- (LOT) MISCELLANEOUS CABLES AND HARDWARE, NETWORK AND HDMI CABLES

PLAN NOTES - ELECTRICAL

1 PROVIDE FOUR DEDICATED CAT. 6A DATA CABLES TO LOUNGE ROOM. EXTEND TO THE EXISTING TELECOM ROOM ON THE FIFTH FLOOR. PROVIDE A 20'-0" SERVICE LOOP ABOVE THE CEILING AND RUN THE CABLE DOWN THE WALL IN SURFACE RACEWAY AND PROVIDE A JACK. COORDINATE EXACT LOCATIONS AND REQUIREMENTS IN THE FIELD WITH OWNER. UTILIZE EXISTING CABLE RISER SLEEVES THRU UPPER FLOORS TO THE FIFTH FLOOR TELECOM ROOM. REPLACE FIRE STOPPING INSIDE SLEEVES.

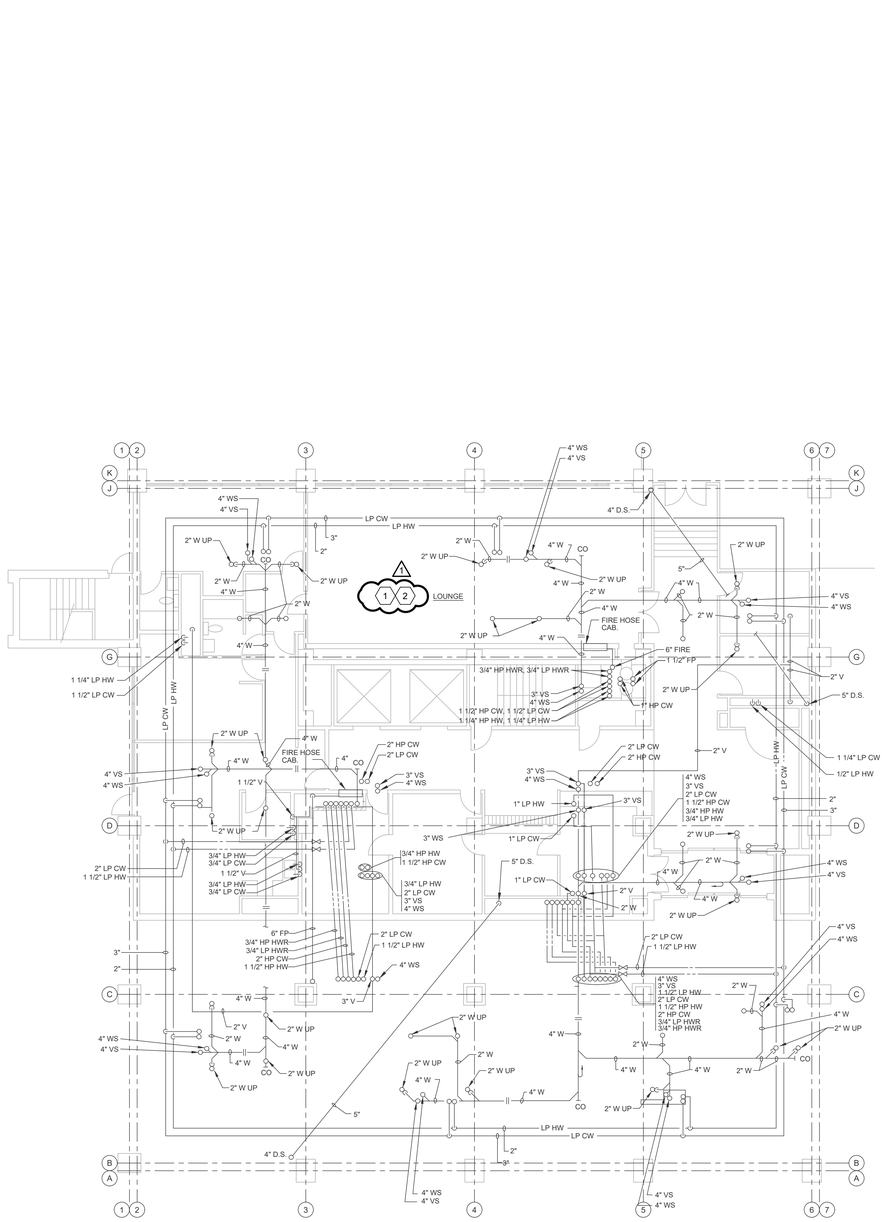
RENOVATION LEGEND:

WORK TO BE INSTALLED

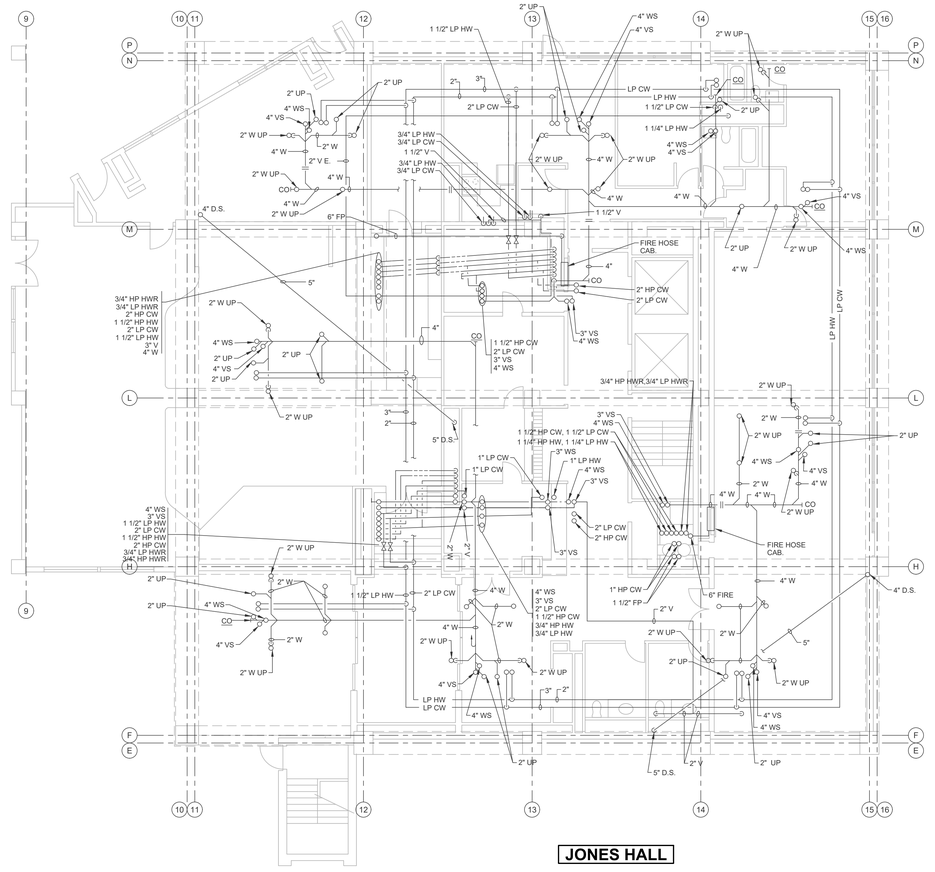
WORK TO REMAIN

GENERAL NOTES

1. ALL PIPING ON THIS SHEET SHOWN IS EXISTING, FOR COORDINATION PURPOSES ONLY.
2. SEE ALSO PM001.



HINES HALL



JONES HALL

FIRST FLOOR - PLUMBING

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

NORTH

0 2 4 6 8 16 24 32

1 2 3 4

D&A #25104

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CERTIFIED BY:

DANIEL E. DIMOND REGISTERED No. PE60910351 STATE OF INDIANA PROFESSIONAL ENGINEER

12/10/25

REVISIONS:

NO.	DESCRIPTION	DATE
1	ADDENDUM NO. 4	01/12/2026

PROJECT DESCRIPTION:

INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH

ISU BID #B0028696

TERRE HAUTE, INDIANA

KEYPLAN

DRAWN BY: AMB	DESIGNED BY: AMB
SCALE: REFER TO DRAWING	CHECKED BY: DED
DATE: 12/10/25	JOB NO.: D&A#25104

SHEET DESCRIPTION:

FIRST FLOOR - PLUMBING

SHEET NUMBER:

P202

PLAN NOTES - ELECTRICAL

1. EXISTING TELECOM ROOM LOCATED ON THE FIFTH FLOOR. PROVIDE A PATCH PANEL FOR ALL THE NEW LAUNDRY ROOM DATA CABLES. COORDINATE WITH OWNER.
2. PROVIDE DEDICATED CAT. 6A DATA CABLES FROM EACH LAUNDRY ROOM ON EACH FLOOR 2 THRU 9 TO THE EXISTING TELECOM ROOM ON THE FIFTH FLOOR. PROVIDE A 20'-0" SERVICE LOOP ABOVE THE CEILING AND RUN THE CABLE DOWN THE WALL IN SURFACE RACEWAY AND PROVIDE A JACK FOR USE BY THE LAUNDRY EQUIPMENT SERVICE PROVIDER. COORDINATE EXACT LOCATION AND REQUIREMENTS IN THE FIELD. UTILIZE EXISTING CABLE RISER SLEEVES THRU FLOORS TO THE FIFTH FLOOR TELECOM ROOM. REPLACE FIRE STOPPING INSIDE SLEEVES. (FOR MONITORING OF USAGE AND BILLING)

RENOVATION LEGEND:

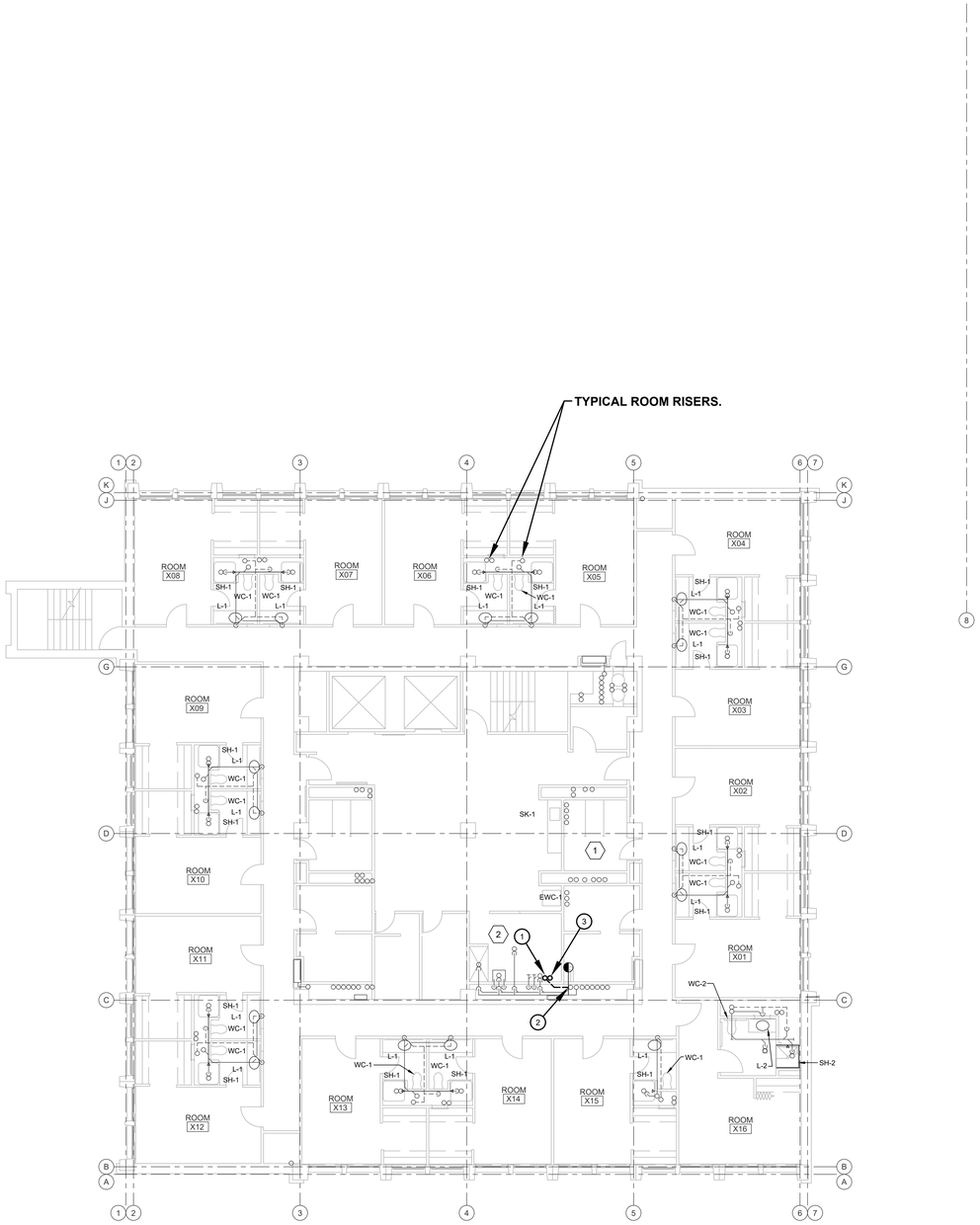
- WORK TO BE INSTALLED
- WORK TO REMAIN

GENERAL NOTES

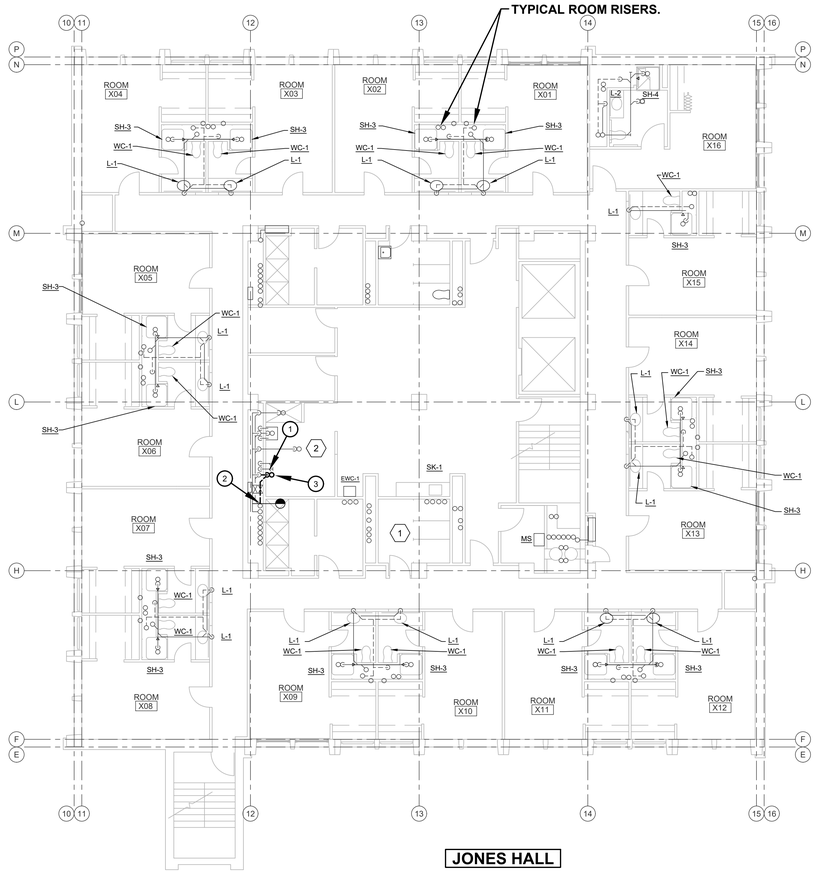
1. UNLESS SPECIFICALLY NOTED WITH PLAN NOTE, ALL WORK ON FLOORS 2 THRU 10 IS LIMITED TO WATER CLOSET (WC) FLUSH VALVES, SHOWER (SH) VALVES, AND LAVATORY (LAV) VALVES.
2. ALL CORE DRILL HOLES THRU SLAB BY M.C.
3. SHUT-OFF'S FOR TYPICAL ROOM HW AND CW RISERS ARE LOCATED ON 2ND (LOW PRESSURE) FLOOR AND 7TH (HIGH PRESSURE) FLOOR. EXERCISE ALL RISER SHUT-OFF VALVES. REPORT ANY NON-OPERATIONAL / FROZEN VALVES.
4. REFERENCE P621H AND P621J FOR SPECIFIC ROOM DESCRIPTION REQUIREMENTS.
5. SEE ALSO PM001.

PLAN NOTES

1. WASTE AND VENT STACK - SEE A/P401
2. CONNECT TO 4" EXISTING WASTE STACK ON 2ND FLOOR
3. WASHER STACK RISER - SEE WASHER RISER PLAN - P401.



HINES HALL



JONES HALL

SECOND THRU NINTH FLOORS - PLUMBING

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

NORTH

0 2 4 6 8 16 24 32

1 2 3 4

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12/10/25

REVISIONS:

NO.	DESCRIPTION	DATE
1	ADDENDUM NO. 2	12/23/2025
2	ADDENDUM NO. 4	01/12/2026

PROJECT DESCRIPTION:

INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH
ISU BID #B0028696
TERRE HAUTE, INDIANA

KEYPLAN

N

DRAWN BY: AMB	DESIGNED BY: AMB
SCALE: REFER TO DRAWING	CHECKED BY: DED
DATE: 12/10/25	JOB NO.: DA#25104

SHEET DESCRIPTION:

SECOND THRU NINTH FLOORS - PLUMBING

SHEET NUMBER:

P203

PLAN NOTES - ELECTRICAL

1. EXISTING TELECOM ROOM LOCATED ON THE FIFTH FLOOR. PROVIDE A PATCH PANEL FOR ALL THE NEW LAUNDRY ROOM DATA CABLES. COORDINATE WITH OWNER.
2. PROVIDE A DEDICATED CAT. 6A DATA CABLE FROM THE LAUNDRY ROOM ON FLOOR 10 TO THE EXISTING TELECOM ROOM ON THE FIFTH FLOOR. PROVIDE A 20'-0" SERVICE LOOP ABOVE THE CEILING AND RUN THE CABLE DOWN THE WALL IN SURFACE RACEWAY AND PROVIDE A JACK FOR USE BY THE LAUNDRY EQUIPMENT SERVICE PROVIDER. COORDINATE EXACT LOCATION AND REQUIREMENTS IN THE FIELD.
UTILIZE EXISTING CABLE RISER SLEEVES THRU FLOORS TO THE FIFTH FLOOR TELECOM ROOM. REPLACE FIRE STOPPING INSIDE SLEEVES. (FOR MONITORING OF USAGE AND BILLING)

RENOVATION LEGEND:

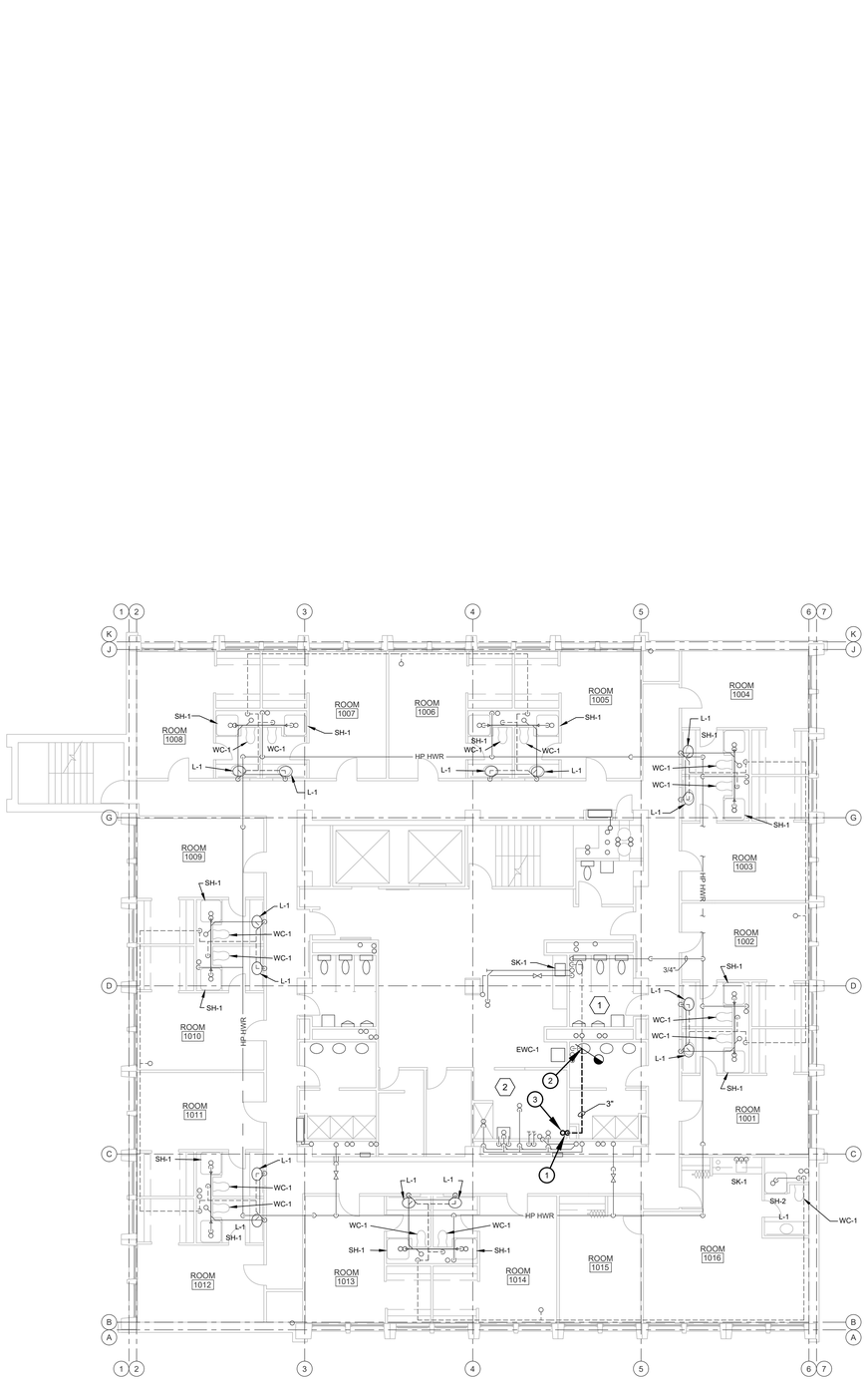
- WORK TO BE INSTALLED
- WORK TO REMAIN

GENERAL NOTES

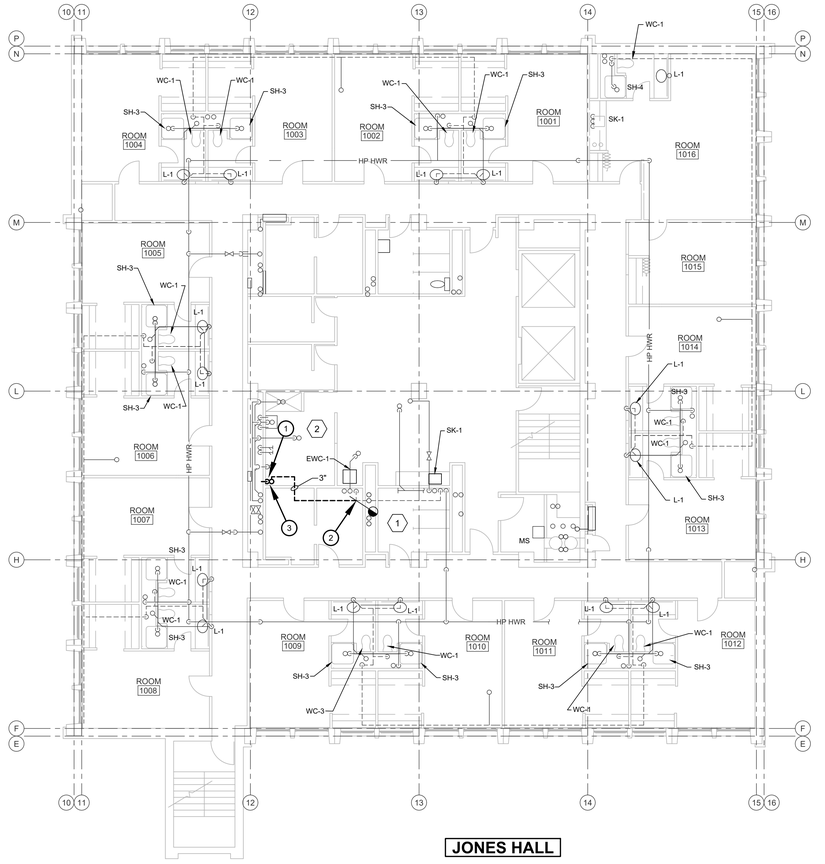
1. SEE P203 FOR GENERAL NOTES,
2. SEE ALSO PM001 FOR ADDITIONAL GENERAL NOTES.

PLAN NOTES

1. WASTE AND VENT STACK - SEE A/P401
2. CONNECT TO 4" EXISTING WASTE STACK ON 2ND. FLOOR.
3. WASHER STACK RISER - SEE WASHER RISER PLAN - P401.



HINES HALL



JONES HALL

TENTH FLOOR - PLUMBING

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

NORTH

0 2 4 6 8 16 24 32

1 2 3 4

D&A #25104

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Consulting Engineers

732 North Capitol Avenue
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CERTIFIED BY:

DANIEL E. DIMOND REGISTERED No. PE60910351 STATE OF INDIANA PROFESSIONAL ENGINEER

12/10/25

REVISIONS:

NO.	DESCRIPTION	DATE
1	ADDENDUM NO. 2	12/23/2025
2	ADDENDUM NO. 4	01/12/2026

INDIANA STATE UNIVERSITY
2026 HINES AND JONES HALL REFRESH
ISU BID #B0028696
TERRE HAUTE, INDIANA

PROJECT DESCRIPTION:

KEYPLAN

DRAWN BY: AMB	DESIGNED BY: AMB
SCALE: REFER TO DRAWING	CHECKED BY: DED
DATE: 12/10/25	JOB NO.: D&#25104

SHEET DESCRIPTION:

TENTH FLOOR - PLUMBING

SHEET NUMBER:

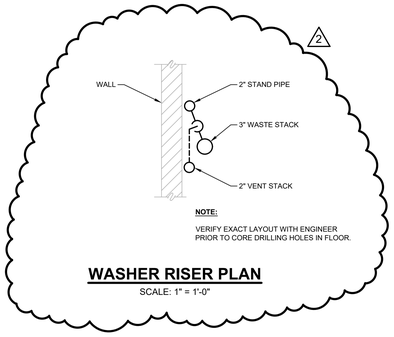
P204

PLUMBING EQUIPMENT SCHEDULE

MARK NO.	SPECIFICATION NAME	MANUFACTURER & MODEL NO.	ELECTRICAL DATA			GAS LOAD (BTU)	CAPACITY	REMARKS
			LOAD	VOLTS	PHASE			
BP-A	DOMESTIC BOOSTER PUMP	GRUNDFOS HYDRO-MPC 3CRE 45-2	(3) 15 HP	480	3 PH	-	175 GPM PER PUMP, 50 PSI BOOST, 2 ACTIVE, 1 STAND-BY	-
ET-A	EXPANSION TANK	WELL-X-TROL #WX-405C	-	-	-	-	TANK VOLUME = 90 GALLONS	-
TMV-A	THERMOSTATIC MIXING VALVE	BRADLEY NAVIGATOR #S59-2130	-	-	-	-	52 GPM @ 8 PSI DROP	MOUNT AT 24" A.F.F.
CP-#	CIRCULATION PUMP	BELL AND GOSSET	-	-	-	-	REPLACE PUMP WITH SIMILAR CAPACITY AS EXISTING PUMP	AQUASTAT SET POINTS ON: 110°F OFF: 117°F
WH-A	INSTANTANEOUS STEAM WATER HEATER	ARMSTRONG #DF665DW50	20A	120	1 PH	-	63 GPM @ 100° Δt, 2" WATER CONNECTIONS	3" STEAM INLET AT 15 PSIG

FIXTURE ROUGH-IN SCHEDULE & MOUNTING HEIGHTS

MARK NO.	FIXTURE DESCRIPTION	CW	HW	TRAP	W	V	MOUNTING HEIGHTS
WC-1	WATER CLOSET - REPLACEMENT FLUSH VALVE	1"	-	-	-	-	-
L-1	LAVATORY - COUNTERTOP, REPLACEMENT FAUCET	1/2"	1/2"	-	-	-	-
SH-1	SHOWER	1/2"	1/2"	-	-	-	-
SH-2	SHOWER - ADA, WITH HAND WAND	1/2"	1/2"	-	-	-	-
SH-3	SHOWER	1/2"	1/2"	-	-	-	-
SH-4	SHOWER - ADA, WITH HAND WAND	1/2"	1/2"	-	-	-	-

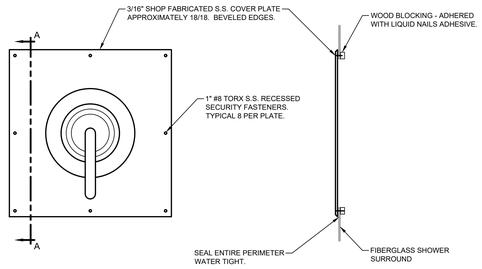


NOTE:

VERIFY EXACT LAYOUT WITH ENGINEER PRIOR TO CORE DRILLING HOLES IN FLOOR.

WASHER RISER PLAN

SCALE: 1" = 1'-0"



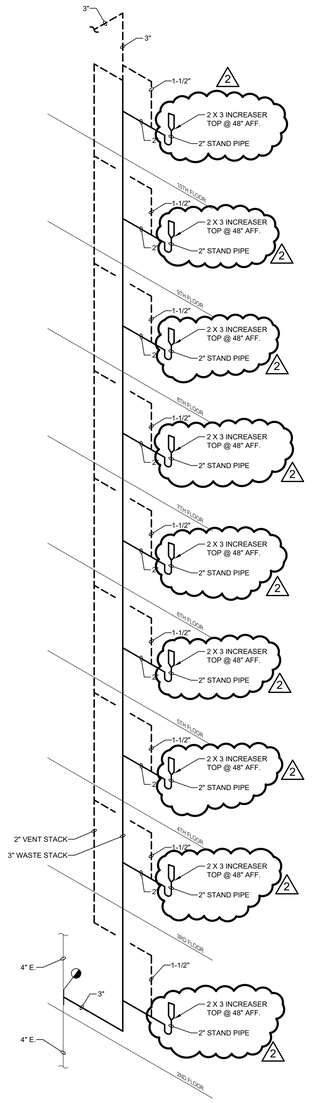
SECTION A-A

NOTES:

1. VERIFY COVER SIZE REQUIRED TO ALLOW INSTALLATION OF NEW SHOWER VALVE.
2. HOLES IN COVER PLATE FOR SHOWER VALVE SHALL BE LARGE ENOUGH TO ACCESS STOP VALVES AND SHALL BE CENTERED.

DETAIL 'A'
SHOWER VALVE COVER PLATE

NO SCALE



RISER 'A'
WASTE AND VENT DIAGRAM

NO SCALE

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KEYPLAN

N

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SHEET DESCRIPTION:

SCHEDULES AND DETAILS - PLUMBING

SHEET NUMBER:

P401