



Addendum No. 1

page 1

Project: 2017 Renovations
Dillsboro Elementary
Dillsboro, Indiana

Proj. No: 1649.01

Date: August 11, 2017

This addendum is a part of the bid documents. Acknowledge receipt on the Proposal Form.

General

1. A Pre-Bid Conference was held at Dillsboro Elementary on August 9th. List of those in attendance is attached.

Specifications

1. Section 00210 - Supplementary Instructions to Bidders
Add paragraph 9.14 to read as follows:
Bidders are required to include a copy of their Indiana Certificate of Qualification for Construction Services for Public Works Projects.
2. Section 00220 - Contractors Bid Submittal Checklist
Add this section in its entirety.
3. Section 00301 - Proposal Form: Part 1
Replace this section in its entirety.
4. Section 00305 - Indiana Certificate of Qualifications for Public Works Projects
Add this section in its entirety.
5. Section 01110 - Summary of Work - Single Contract
Add the following paragraphs to 1.06
 - D. Contractor will be permitted to work inside the building during regular school days with some exceptions. During certain times of testing or activities with large groups in attendance, access may be reduced or shut-down to minimize disturbance during those times. Areas like the gymnasium and media center can be closed for construction activity, provided it is scheduled with principal and the time of closure used efficiently.
 - E. Second/Third Shift and/or weekend work will be acceptable and at various times may be necessary for some areas. In those cases, Contractor will be responsible for moving of furniture and equipment as necessary to perform the work. Contractor shall also be responsible for moving furniture and equipment back into it's original locations and all clean up prior to start of the next scheduled school day.
 - F. The school will relocate 2 classrooms on a temporary basis to make 2 rooms available at a time for work during school hours. The school will relocate all the furniture and loose equipment to clear the available rooms for work.
 - G. Provide temporary heating and ventilation, temporary dust partitions, plastic sheeting, plywood sheeting, and any other means required to protect all elements of existing building from damage or deterioration during construction.
6. Section 01130 - General Construction Requirements
Paragraph 1.03 D: As a clarification, this paragraph is a general note referring to site demolition. There are no buildings scheduled to be demolished.



Addendum No. I

page 2

7. Section 01230 - Alternates
J. ALTERNATE NO. 9: FIRE DOORS
1. Give the amount to be ADDED to the Base Bid for the following:
 - a. Remove existing doors, frame, and hardware at Doors A103a and A103b.
 - b. Install new doors, frame, and hardware at Doors A103a and A103b per Drawing A-101
 - c. Relocate existing power and fire alarm connections for electromagnetic hold open at Door A103b as required to reverse door swing per Drawing AD-1c.
 2. Base Bid to include:
 - a. No work at Doors A103a and A103b; existing doors, frame and hardware to remain.
8. Section 01510 - Temporary Utilities
As a clarification, Contractor is only responsible for providing temporary utilities not available from Owner's existing utility services as required to perform work per Contract Documents i.e. special electrical voltage, ventilation, etc.
9. Section 01781 - Closeout Maintenance Materials
Paragraph 1.02 H: Provide (2) unopened gallon containers of each paint color used on project.
10. Section 08110 - Steel Doors and Frames
Add this section in its entirety.
11. Section 08710 - Finish Hardware
Add this section in its entirety.
12. Section 09510 - Acoustical Ceilings
As a clarification, Panel and Suspension System Type "D" is not located on Finish Plans. Refer to Reflected Ceiling Plans for locations.
13. Section 09576 - Terrazzo Vitrefication Finishing System
Add this new section in its entirety.
Vitrefication system applies to all terrazzo within Lobby A102.
14. Section 09680 - Carpeting
Paragraph 2.01 A, Add the following:
 2. "Interface"
15. Section 09900 - Painting
Delete paragraph 1.08 in its entirety.
16. Section 09900 - Painting
Drawing U-101 Site Electrical Demolition Plan Keynote "SD2" refers to section 09900 for paint system for existing rusted light pole hand hole covers. The following preparation and system applies to this portion of work.
- Preparation of existing steel light pole hand hole covers:
1. Remove grease, rust, scale, dirt and dust from steel iron surfaces in accordance with SSPC-SPI.
 2. Where heavy coatings of scale are evident, remove by wire brushing or other means in accordance with SSPC-SP2.
- STEEL LIGHT POLES (exterior, existing and/or previously painted, painted finish):
- 1st Coat – Rust-Inhibitive Metal Primer
"S-W, Kem Bond HS, Universal Metal Primer"
*Color selected as most appropriate beneath finish topcoats.
*Additional coats as required to cover existing color or correct rusting.
*Painter responsible to visit site and field verify surface prep required.
- 2nd Coat – Urethane Alkyd Topcoat
"S-W, Industrial Urethane Alkyd Enamel, B54-150 Series, Gloss"



3rd Coat – Urethane Alkyd Topcoat
"S-W, Industrial Urethane Alkyd Enamel, B54-150 Series, Gloss"
*Not less than 3.0 mils dry film thickness.

17. Section 10171 - Solid Plastic Toilet Partitions
Paragraph 2.02 A. Delete words "and Screens". There are no urinal screens included in this project.

Drawings

1. C-101: Fencing Layout Plan
Revise new fencing note as follows:
Install new 5'-0" high galvanized chainlink fence. New fence to be installed approximately 3'-0" inside existing fence line to avoid existing vegetation. Existing fence layout to be marked prior to demolition as reference for new fencing installation. Confirm location with Project Architect before installation. Confirm all dimensions of existing fence. Refer to I/C-101 for fence detail.
2. U-101: Site Electrical Plan
Revise Site Electrical Keynote on East side of building near the Principal's office shown as "SD3" to "SE3".
3. All A-000 Drawings
Revise Demolition Plan Keynote D19 as follows:
D19 Completely remove doors and frame assembly, and all associated hardware. Salvage existing hardware and turn over to Owner for maintenance stock. Prep opening and adjacent areas as required for new doors and frame in this location. (Alternate No. 9)
4. All A-000 Drawings
Add Demolition Plan Keynote D20 as follows:
D20 Remove concealed spline ceiling system from entire room.
5. All A-000 Drawings
Add General Demolition Note #14 as follows:
Contractor is responsible for protecting all existing built-in casework during construction. Take extra precautions with cabinet units directly in front of exterior windows scheduled for replacement.
6. A-001: Area "A" Demolition Plan
Computer - A1 (A143): Add Demolition keynote "D1" to exterior window in Northwest corner of room.
7. A-001: Area "A" Demolition Plan
Conference A15 (A145): Add Demolition keynote "D7" to chalkboard unit on East wall.
8. A-001: Area "A" Demolition Plan
As a clarification, existing wall base in Corridors A103, A113, A129 is 5" high ceramic tile is to be removed. Prep wall surfaces for new rubber wall base.
9. A-003: Area "C" Demolition Plan
Closet in Music (C116): Revise Demolition Plan Keynote "D8" to "D20."
10. A-101 Area "A" Architectural Plan
Replace existing drawing in its entirety with the attached drawing; refer to clouded areas for revisions.



Addendum No. I

page 4

11. A-103:Alternate No. 4 - Enlarged Plan
Add (1) additional keynote R3 for Sidewall Grab Bar (18" Vertical) in Child ADA Toilet Stall in Girls A138 and Boys A139.
12. All A-400 Drawings
Revise Reflected Ceiling Note #5 to read as follows:
 5. Area "A" portion of existing building is sprinklered. Sprinkler heads located in ceiling panels are concealed. Coordinate new ceiling panel installation as required with existing sprinkler heads. Remainder of building is not sprinklered.
13. A-403 Area "C" Reflected Ceiling Plan
Replace existing drawing in its entirety with the attached drawing; refer to clouded areas for revisions.
14. Q-101:Area "A" Equipment Plan
Conference A15 (A145): Add Equipment keynote "Q1" 8'-0" +/- on East wall. Coordinate location with existing adjacent tackboard.
15. I-101:Area "A" Interior Finish Plan
Revise base type in Lobby A102 shown as "TB" to "ET" (Epoxy terrazzo base).
16. I-101:Area "A" Interior Finish Plan
Revise Base Finish "B1" to 6" high.
17. I-102:Area "B" Interior Finish Plan
Revise Base Finish "B1" to 6" high.
18. I-103:Area "C" Interior Finish Plan
Revise Base Finish "B1" to 6" high.
19. I-103:Area "C" Interior Finish Plan
Delete Specialties (diamond) keynote 8 (Window Shades) in rooms Utilities C101 and Storage C102.
20. All E-000 Drawings
Revise Electrical Demolition Plan Keynote D7 as follows:
 - D7 Completely remove existing light fixtures throughout Gym. Remove all associated contactors and wiring back to source. Prep for the installation of new light fixtures in new locations; see E-100 Drawings for additional information.
21. All E-000 Drawings
Add Electrical Demolition Plan Keynote D16 as follows:
 - D16 Remove light fixture from room. Existing lighting circuit to remain to feed new light fixture. Prep for installation of new light fixture in same location; see E-100 Drawings for additional information regarding switching.
22. E-001 Area "A" Electrical Demolition Plan
Replace existing drawing in its entirety with the attached drawing; refer to clouded areas for revisions.
23. E-003:Area "C" Electrical Demolition Plan
Closet in Music (C116):Add Electrical Demolition Plan Keynote "D16" in room.



Addendum No. I

- 24. All E-100 Drawings
Add Lighting Plan Keynote L8 as follows:
L8 Install new light switch to separate closet light fixture from classroom light fixtures.

- 25. E-101 Area "A" Lighting Plan
Replace existing drawing in its entirety with the attached drawing; refer to clouded areas for revisions.

- 26. E-102
Alternate No. 9: Relocate electrical power and fire alarm for electromagnetic hold opens per attached Drawing AD-1a.

- 27. E-103 Area "C" Lighting Plan
Replace existing drawing in its entirety with the attached drawing; refer to clouded areas for revisions.

Prepared by,

A handwritten signature in black ink, appearing to read "Hal E. Kovert".

Hal E. Kovert, AIA



file: 1649.01/E-1

Attachments: Pre-Bid Sign-in Sheet
Specification sections: 00220, 00301, 00305, 08110, 08710 and 09576
Drawings: AD-1a, A-101, A-403, E-001, E-101, and E-103

Total Pages: (39) Thirty-nine

End of Addendum No. I



SIGN-IN SHEET

Project: Dillsboro Elementary
2017 Renovations
Dillsboro, Indiana

Subject: Pre-Bid Meeting

Date: Wednesday, August 9, 2017 at 4:00 PM

| Name | Company | Email | Phone |
|------------------|---------------------------|--|--------------|
| Doug Leopold | Stapleton Electric | doug@stapletonelectric.com | 513-353-1007 |
| Tom Poole | Poole Group | jpoole@poolegroupinc.com | 812-654-2968 |
| Dan Law | Kenny Glass | danlaw@kennglass.com | 812-343-6404 |
| Allen Kazmierzak | David Construction | allen.kazmierzak@davidcf.com | 502-589-7777 |
| Jim Kemna | Kemna Restoration | jskemna@kemnarestoration.com | 317-927-9253 |
| Jeff Bruns | Bruns-Gutzwiller | jbruns@bruns-gutzwiller.com | 812-934-2105 |
| Benny Grimes | T & G Construction | tg_phyllis@att.net | 812-279-4475 |
| Jeff Laub | J & L Electric | jeff@jlelectricinc.com | 812-654-2187 |
| Keith Rogers | Koch Mechanical | dans@daveomara.com | 812-346-1624 |
| Hal Kovert | Kovert Hawkins Architects | hal.kovert@koverthawkins.com | 812-282-9554 |
| Amanda Hunsucker | Kovert Hawkins Architects | amanda.hunsucker@koverthawkins.com | 812-282-9554 |

SECTION 00220 – CONTRACTOR'S BID SUBMITTAL CHECKLIST

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Section Includes:
1. Submittals required at time of bid.
 2. Submittals required following bid.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

Section 00100 - Notice to Bidders
AIA A701 - Instructions to Bidders
Section 00210 - Supplementary Instructions to Bidders
Section 00410 - Bid Security Form
Section 00430 - Subcontractor List
Section 00600 - Contractor's Bond for Construction
Section 00670 - Escrow Agreement
Section 01370 - Schedule of Values
Proposal Form

1.03 BID SUBMITTALS

- A. The following items are to be submitted by all bidders for all contracts at the time of bidding:
- 1. Proposal Form Parts I and II**
 - 2. Bid Security**
 - 3. Financial Statement (as required by Proposal Form)**
 - 4. Indiana Certificate of Qualification for Public Works Projects**
- B. Submit **two** copies (one signed original and one copy) of above information.

1.04 POST-BID SUBMITTALS

- A. The following items are to be submitted by each successful bidder for all contracts within Twenty-Four (24) hours following the time of bidding:
- 1. Schedule of Values**
 - 2. Unit Prices (except where required as part of Proposal Form Part I)**
 - 3. Subcontractor List**
- B. The following items are to be submitted prior to execution of the Owner-Contractor Agreement:
- 1. Performance Bond**
 - 2. Labor & Material Payment Bond**
 - 3. Certificate of Insurance**
 - 4. Signed Escrow Agreement**
 - 5. Employee Background Check**
(per Section 00810-Supplementary General Conditions, Article 13)
 - 6. Employee Drug and Alcohol Testing**
(per Section 00810-Supplementary General Conditions, Article 13)
 - 7. Employment Eligibility Verification**
(per Section 00810-Supplementary General Conditions, Article 13)
- C. Submit all above items to Architect for review and approval.

END OF SECTION 00220

PROPOSAL FORM: PART I
Form 96 (Revised 2010)

CONTRACTOR'S BID FOR PUBLIC WORKS
Prescribed by the State Board of Accounts

CONTRACTORS BID FOR: Dillsboro Elementary 2017 Renovations
13200 North Street
Dillsboro, IN 47018

PART I
(Part I to be completed for all bids)

Date (Month, Day, Year): _____

Governmental Unit (Owner): *SOUTH DEARBORN COMMUNITY SCHOOLS*

County: _____

Bidder (Firm): _____

Address: _____

City, State, Zip: _____

Telephone No.: _____

Fax No.: _____

E-Mail Address: _____

Agent of Bidder: _____
(if applicable)

Pursuant to notices given, the undersigned offers to furnish labor and/or material necessary to complete the public works project of *SOUTH DEARBORN COMMUNITY SCHOOLS* (Governmental Unit) in accordance with plans and specifications prepared by Kovert Hawkins Architects, Inc. and their consultants for the sum of:

BASE BID

Lump Sum _____ \$ _____

The undersigned further agrees to furnish a bond or certified check with this bid for an amount specified in the notice of the letting. If alternative bids apply, the undersigned submits a proposal for each in accordance with the notice.

ADDENDA

Acknowledges receipt of:

| | |
|------------------------------|-------------|
| Addendum No. _____ () pages | Dated _____ |
| Addendum No. _____ () pages | Dated _____ |
| Addendum No. _____ () pages | Dated _____ |
| Addendum No. _____ () pages | Dated _____ |

ALTERNATES

The undersigned also proposes to furnish or to omit all labor and materials necessary to complete work as required by the Alternate Bids, as provided in the specifications as follows:

| | | | |
|-------------------|-----------------------------------|-----|----------|
| Alternate No. 1: | <i>Gym Entry Landscape</i> | ADD | \$ _____ |
| Alternate No. 2: | <i>Playground Painting</i> | ADD | \$ _____ |
| Alternate No. 3: | <i>Gym Windows</i> | ADD | \$ _____ |
| Alternate No. 4: | <i>Restroom ADA Modifications</i> | ADD | \$ _____ |
| Alternate No. 5: | <i>Window Shades</i> | ADD | \$ _____ |
| Alternate No. 6: | <i>UV Removal</i> | ADD | \$ _____ |
| Alternate No. 7: | <i>Lighting</i> | ADD | \$ _____ |
| Alternate No. 8a: | <i>Lighting Controls</i> | ADD | \$ _____ |
| Alternate No. 8b: | <i>Lighting Controls</i> | ADD | \$ _____ |
| Alternate No. 9: | <i>Fire Doors</i> | ADD | \$ _____ |

ALLOWANCES

By initialing adjacent to amounts below, bidder acknowledges allowance amounts are included in the forgoing bid:

Cash Allowances within the **Base Bid** per Section 01210:

| | | |
|----------------|-----------------|----------------|
| Chair Glides | \$ 3,000 | initials _____ |
| Classroom Rugs | \$ 3,000 | initials _____ |

Contingency Allowance within the **Base Bid** per Section 01220

\$ 80,000 initials _____

COMPLETION OF WORK

Undersigned guarantees, if awarded contract, to complete the work by August 1, 2018.

DISCRIMINATION

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

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS (if applicable)

I, the undersigned bidder or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel products on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

NON-COLLUSION AFFIDAVIT

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

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

GENERAL CONTRACTOR CERTIFICATION

I hereby certify that we have obtained a complete set of construction documents, including all Drawings, Specifications and Addenda, and have reviewed the jobsite to sufficiently familiarize ourselves with the existing conditions.

Dated at _____ this _____ day of _____, 20____.

(Name of Organization)

BY _____

(Title of Person Signing)

OATH AND AFFIRMATION

I hereby affirm under the penalties for perjury that the facts and information contained in the foregoing bid for public works are true and correct.

Dated at _____ this _____ day of _____, 20____.

(Name of Organization)

BY _____

(Title of Person Signing)

ACKNOWLEDGEMENT

STATE OF _____

COUNTY OF _____

Before me, a Notary Public, personally appeared the above-named _____ and
(Name of Person Signing)
swore that the statements contained in the foregoing document are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20 ____.

Notary Public

My Commission Expires: _____

County of Residence: _____

ACCEPTANCE

The above bid is accepted this _____ day of _____, 20____,

subject to the following conditions: _____
_____.

Contracting Authority Members:

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

END OF SECTION 00301

SECTION 00305 – INDIANA CERTIFICATE OF QUALIFICATIONS FOR PUBLIC WORKS PROJECTS

1.01 PROJECT MANUAL

- A. All requirements of the Project Manual apply to this Section.

1.02 SCOPE

- A. All contractors shall have Indiana Certificate of Qualification for Public Works Projects per Indiana Code IC 5-16-13 prior to beginning construction on site.
- B. A “contractor” requiring certification generally refers to a contractor in any contractor tier.
1. “Tier 1 contractor” has a direct contract with the government agency (Owner). This is also known as the “prime contractor” or “general contractor”.
 2. “Tier 2 contractor” has a direct contract with a Tier 1 contractor. This is also known as a subcontractor.
 3. “Tier 3 contractor” has a direct contract with a Tier 2 contractor. This is also known as a sub-subcontractor.
 4. “Lower tier contractor” has a direct contract with a Tier 3 contractor or lower tier contractor
 5. A supplier or firm not performing any work on site is not required to be qualified.
- C. A contractor of any tier is EXEMPT from requirements of this section if the total amount of their work awarded is less than Three Hundred Thousand dollars (\$300,000).

1.03 TIER 1 CONTRACTOR

- A. Must contribute a minimum of 15% of the initial contract amount by any combination of items 1, 2 or 3 listed below:
1. Work performed directly by Tier 1 contractor’s employees
 2. Materials supplied directly by Tier 1 contractor
 3. Services supplied directly by the Tier 1 contractor’s employees

1.04 INSURANCE REQUIREMENTS

- A. Minimum requirements for each individual or firm in any contractor tier:
- B. See Supplementary General Conditions, Section 00810, Article 11

1.05 DRUG TESTING

- A. Per Indiana Code, IC-4-13-18
1. Required of all contractors, regardless of tier.
 2. Written plan for employee drug testing program that complies with IC-4-13-18

1.06 EMPLOYEE VERIFICATION

- A. Per Indiana Code, IC-22-5-1.7-3
1. Required of all contractors, regardless of tier.
 2. Participate in the E-Verify Program

1.07 APPRENTICESHIP & TRAINING PROGRAM

- A. Per Indiana Code, IC-5-16-13-12
- B. Contractors with 10 or more employees
1. Provide access to training program applicable to tasks performed in normal course of employment.

2. Compliance may be accomplished through any of the following:
 - a. Apprenticeship program
 - b. Programs offered by Ivy Tech Community College of Indiana
 - c. Programs offered by Vincennes University
 - d. Programs established by or for the contractor
 - e. Programs offered by an entity sponsored by the US Dept of Labor
 - f. Programs that results in the award of industry recognized portable certification
 - g. Programs approved by US Dept of Transportation or INDOT.

C. Tier 1 and tier 2 contractors with 50 or more employees

1. Must participate in an apprenticeship or training program which meets the standards of any of the following:
 - a. The US Department of Labor, Bureau of Apprenticeship and Training
 - b. The Indiana Department of Labor
 - c. The US Department of Transportation, Federal Highway Administration
 - d. INDOT

1.08 RECORDS

- A. Per Indiana Code, IC-5-16-13-13
- B. Payroll and related records of a contractor in any contractor tier must be:
 1. Preserved by the contractor for a period of three (3) years after completion
 2. Open to inspection by the department of workforce development

END OF SECTION 00305

SECTION 08110 - STEEL DOORS AND FRAMES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Hollow metal doors and frames as shown on the Drawings and specified herein, including:
1. Hollow steel doors and frames.
 2. Rough bucks, frame reinforcing, door reinforcing, door insulation, closer reinforcements, clip angles and anchorage.
 3. Factory prime paint finish.
 4. Grouting of hollow metal frames with masonry mortar where not covered under other Sections.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- Section 03300 - Cast-In-Place Concrete.
Section 04220 - Concrete Unit Masonry.
Section 06100 - Rough Carpentry.
Section 08710 - Finish Hardware.
Section 09900 - Painting.

1.03 REFERENCES

- A. The following standards, tests and publications may be referred to herein and are applicable to this Section:
1. ANSI A250.8-1998/SDI-100 - Recommended Specifications - Standard Steel Doors and Steel Door Institute, unless herein specified.
 2. UL 10C-98 and UBC 7-2 – Positive Pressure Fire Tests of Door Assemblies.
 3. NFPA-80-1999 – Standard for Fire Doors and Windows.
 4. NFPA-101-1997 – Life Safety Code.
 5. NFPA-105 – Standard for Smoke and Draft Control Assemblies.
 6. ASTM-A 366-95A – Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality.
 7. ASTM-A 568-95 – Specification for Steel, Sheet, Carbon, and High Strength, Low-Alloy, Hot-Rolled, and Cold-Rolled.
 8. ASTM-A 569-91a – Specification for Steel, Carbon, (0.15 maximum percent), Hot-Rolled Sheet and Strip Commercial Quality.
 9. ASTM-A 924-95 – General Requirements for Steel Sheet, Metallic Coated by the Hot-Dip Process.
 10. SDI-105-92 – Recommended Erection Instructions for Steel Frames.
 11. ANSI A115.1-.18 - Specification for Door and Frame Preparation for Hardware.
 12. ANSI A156.7 - Standard Template Hinge Dimensions.

1.04 SUBMITTALS

- A. Product Data:
1. Manufacturer's specifications for fabrication and installation, including data substantiating products comply with requirements.
 2. Manufacturer's published product data sheets.
- B. Shop Drawings:
1. Show type of door and frame for each opening, sections of all typical members, dimensioned elevations, anchors, reinforcements and other required components.
 2. Preparation for installing hardware and glazing.

1.05 QUALITY ASSURANCE

- A. Provide doors and frames complying with Steel Door Institute "Recommended Specifications: Standard Steel Doors and Frames" (SDI-100) and as herein specified.
- B. Wind Load Performance Requirements: Comply with wind load requirements of the applicable State Building Code. Deflection shall not exceed 1/175 of span.
- C. Supplier Qualification: Qualified direct distributor of products to be furnished. The distributor shall have in their regular employment an A.H.C./C.D.C. or person of equivalent experience who will be available at reasonable times to consult with the Architect, Contractor and/or Owner regarding any matters affecting the total door and frame openings.
- D. Installer Qualification: Experience with installation of similar materials.
- E. Fire-Rated Door Assemblies: Where fire-rated door assemblies are indicated or required, provide fire-rated door and frame assemblies that comply with NFPA 80 "Standard for Fire Doors and Windows", and have been tested, listed, and labeled in accordance with ASTM E152 "Standard Methods of Fire Tests of Door Assemblies" by nationally recognized independent testing and inspection agency acceptable to authorities having jurisdiction.
 - 1. Oversize Fire-Rated Door Assemblies: For door assemblies required to be fire-rated and exceeding sizes of tested assemblies, provide certificate or label from approved independent testing and inspection agency, indicating that door and frame assembly conforms to requirements of design, materials and construction as established by individual listings for tested assemblies.
 - 2. Temperature Rise Rating: At stairwell enclosures, provide doors which have Temperature Rise Rating of 450 degrees F maximum in 30 minutes of fire exposure.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver, handle and store doors and frames at the job site in such a manner as to prevent damage.
- B. Remove all damaged or otherwise unsuitable doors and frames.
- C. Deliver hollow metal doors in manufacturer's protective covering. Handle hollow metal with care to prevent damage.
- D. Door Storage: Store doors in upright position, under cover. Place doors on at least 4 inch high wood sills or on floors in manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters which create humidity chamber and promote rusting. If corrugated wrapper on door becomes wet, or moisture appears, remove wrapping immediately. Provide 1/4 inch space between doors to promote air circulation.
- E. Frame Storage: Store frames under cover on 4 inch wood sills on floors in manner that will prevent rust and damage. Do not use non-vented plastic or canvas shelters which create humidity chamber and promote rusting. Store assembled frames in vertical position, 5 units maximum in stack. Provide 1/4 inch space between frames to promote air circulation.
- F. Deliver doors and frames to the jobsite in stages or shipments as required for phasing, and in a timely manner so as not to delay progress of other trades.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS:

- A. Provide products, as approved by the Architect, by one of the following acceptable manufacturers:
1. Atlas Companies.
 2. CECO Door Products.
 3. Curries.
 4. Deansteel Manufacturing Company, Inc.
 5. Fenestra.
 6. Kewanee Corporation.
 7. Mesker.
 8. Metal Products.
 9. Pioneer Industries, Inc.
 10. Republic Builders Products.
 11. Steelcraft Manufacturing Company.

2.02 MATERIALS

- A. Cold-Rolled Steel Sheets:
1. Commercial quality, stretcher leveled flatness, cold-rolled steel, free from scale, pitting or other surface defects.
 2. Complying with ASTM A 366 and ASTM A568.
- B. Galvanealed Steel Sheets:
1. ASTM A924, A60 zinc coating.
 2. Use galvanealed steel sheets at the following locations, whether indicated or not:
 - a. All exterior doors and door frames.
 - b. All doors and frames in kitchens, locker rooms and restrooms.
 - c. All doors and frames in or directly exposed to swimming pool areas.
 - d. All doors and frames in any other area that is exposed to moisture for long periods of time.
 - e. All door louvers and other components within doors that require galvanealed steel sheets.
 3. Internal reinforcing may be manufactured of hot rolled pickled and oiled steel per ASTM-A569.
- C. Supports and Anchors:
1. Fabricate of not less than 16 gauge galvanized sheet steel.
 2. Provide all blocking, backings and supports in all horizontal and vertical members as required for reinforcing of all door hardware as specified in Section 08710.
- D. Inserts, Bolts and Fasteners:
1. Manufacturer's standard units, except hot-dip galvanize items to be built into exterior walls.
- E. Drip Cap:
1. On all exterior door bottoms.
 2. On all exterior door frame heads.
- F. Primer:
1. For steel surfaces, use rust-inhibitive zinc oxide primer suitable as a base for specified finish paints.

2.03 FABRICATION

- A. General:
1. Fabricate hollow metal work to be rigid, neat in appearance and free from defects, warp, or buckle.
 2. Accurately form metal to required sizes and profiles.
 3. Weld exposed joints continuously; grind and dress smooth.

4. Provide doors and frames bearing UL labels as scheduled. Construction similar to specified hollow metal work, modified to meet Underwrites Laboratories, Inc. requirements.
- B. Galvanealed Steel Sheets:
1. ASTM A924, A60 zinc coating.
 2. Internal reinforcing may be manufactured of hot rolled pickled and oiled steel per ASTM-A569.
- C. Minimum Gauges of Hollow Metal:
1. Frames:
 - a. 16 gauge: Interior door frames.
 - b. 16 gauge: Typical labeled interior frames.
 - c. 16 gauge: Interior glazed window and opening frames.
 - d. 14 gauge: Exterior door frames.
 - e. 14 gauge: Typical labeled exterior frames.
 - f. 14 gauge: Exterior glazed window and opening frames.
 2. Doors:
 - a. 18 gauge: Interior doors.
 - b. 18 gauge: Typical labeled interior doors.
 - c. 16 gauge: Exterior doors.
 - d. 16 gauge: Typical labeled exterior doors.
 3. Accessories:
 - a. 20 gauge: Trim members.
 4. Provide heavier gauges at doors, frames and accessories as required by fire rating label, details or specific condition.
 5. Entire frame, sidelight and transom unit shall be of the same gauge.
- D. Doors:
1. Form face sheets in smooth seamless unbroken surface. Construct doors with smooth flush surfaces, without visible joints or seams on exposed faces or stile edges. Interior and exterior door edge seams shall be full height wire welded and ground smooth.
 2. Reinforce, stiffen and sound deaden.
 3. Stiffen face sheet with 20 gauge steel stiffener reinforced vertically, full height and width, spot welded to both face sheets. Stiffeners welded together top and bottom.
 4. Close top and bottom edges of interior and exterior doors with continuous recessed flush steel channel minimum 16 gauge, extending full width of door, and spot welded to both faces. Provide drain holes in bottom closure of exterior doors.
 5. Frame openings for glazing and provide cut-outs for glass and louvers with stops as shown. Form beads of 20 gauge steel; locate on inside of opening.
 6. Insulate core of all exterior doors, whether indicated or not, and interior doors where indicated:
 - a. Insulate with 1 lb minimum density insulation.
 - b. Minimum insulation value R-2 minimum.
 7. Labeled Doors: Insulate as required by Underwriters Laboratories. Build in special hardware and provide astragals as indicated. At one hour and at 1-1/2 hour doors at enclosures, maximum transmitted temperature end point shall not exceed 450 degrees F above ambient at end of 30 minutes of fire exposure per U.L.
 8. Exterior Hollow Metal Door Louvers: Fabricate louver units of 16-gauge galvanized steel sheets with stationary, weatherproof Z-shaped blades and U-shaped frames, not less than 1-3/8 inch thick. Space louver blades not more than 1-1/2 inch o.c. Assemble units by welding. Provide insect screen on interior side of frame, consisting of 14 by 18 wire mesh in rigid, formed metal frame.
 9. Interior Hollow Metal Door Louvers: Fabricate of 20-gauge cold-rolled steel sheets with stationary sightproof inverted V-shaped blades and U-shaped frames. Space louver blades not more than 3 inches o.c. Assemble units by welding.

10. Typical Reinforcement: Provide as required for hardware items. For lock reinforcement, provide manufacturer's standard reinforcement. Provide 12 gauge reinforcement for escutcheons or roses. centering clips to hold lock case in alignment. For door checks, provide 14 gauge channel type reinforcements, 3-1/2 inch deep by 14 inches long, or as required. Hinge reinforcement to be one piece 14 gauge continuous channel welded to the door. Reinforce doors for surface items such as surface and semi-concealed closers, brackets, surface holders and door stops. Drilling and tapping installation of these surface items shall be done in field by hardware installer.
11. Provide to design indicated including: Flush panel doors, flush panel with cut-out as indicated, stile and rail type, stile and rail with door louver.
12. Finish: Provide prime coat finish on doors. Thoroughly clean off rust, grease and other impurities. Grind welds smooth, no marks shall show. Apply metallic filler as required to fill cracks and joints and to level any weld areas or similar imperfections. Sand filler coat smooth.
13. **All exterior metal doors to be Galvanealed Steel Sheets.**

E. Frames:

1. Welded Frames. Knockdown frames not permitted, except where specifically indicated by Architect.
2. Close corner joints tight with trim faces mitered and continuously welded, ground smooth.
3. Provide dust cover boxes for hinge and strike plate cutouts and at all other hardware mortises.
4. Weld temporary steel spreader to feet of both jambs, or strap pairs with heads inverted, as bracing during shipping and handling.
5. Rated frames where indicated on drawings and at all rated door openings.
6. At masonry, provide wire or masonry "T" anchors approximately 24 inches on center.
7. Provide and secure galvanized steel drip cap at all exterior doors, field painted to match frame.
8. Silencers: Provide specified silencers, except where stop does not occur and at smoke gasketed openings, 3 per jamb at single door and one for each door at double doors.
9. Extensions: Reinforce transom bars or mullions as necessary to provide rigid installation. Where required (as at multiple openings) to stabilize large frames, provide frame or mullion extensions to anchor to structure above, proper size to fit within overhead construction. Provide angle clips to fasten to structure.
10. Mullions: Provide mullions, straight and without twist, of tubular design. No visible seams will be accepted. For removable mullions provide reinforcing at frame head.
11. Clearances: Provide and be responsible for proper clearances at metal frames, including for weatherstripping, soundstripping and smoke gasketing. Glass clearance shall be thickness of glass plus clearance each side (1/8 inch minimum exterior - 1/16 inch minimum interior), adjust for installation, glass thickness to allow for glazing and sealant. Where sealed double glazing is indicated, provide rebates minimum of 3/4 inch and provide 1/4 inch clearance at glass edges. Where units fit around concrete blocks (blocks built into frames) obtain actual dimensions of blocks being used to establish minimum clearances.
12. Stops: Set with countersunk or Jackson head screws.
13. Labeled Frames: Construct in accordance with requirements for labeled work. Attach proper U.L. label, Warnok Hersey. "B" labeled frames shall be 1-1/2 hour construction.
14. Joinings: Furnish frames mitered, or coped, and continuously face welded. Grind smooth, and conceal joints for a seamless appearance. Touch up welded surfaces with manufacturer's standard prime paint.
15. Workmanship: Fabricate so no grind marks, hollow or other out-of-plane areas are visible. At joints of intermediate members (such as mullions and transom bars), provide tight joining, neatly accomplished without holes, burned out spots, weld build up or other defacing work. Fill to close cracks and to preserve shapes. Tightly fit loose stops, to hairline joints.
16. Finish: Clean frames by degreasing process and apply thorough coating of baked-on primer, covering inside as well as outside surfaces. At galvanealed frames, coat welds and other disrupted surface with zinc-rich paint containing not less than 90 percent zinc dust by weight.
17. **All exterior metal frames to be Galvanealed Steel Sheets.**

- F. Hardware Preparation:
1. Mortise, reinforce, drill and tap doors and frames for mortised hardware.
 2. Prepare strike jamb for 3 silencers on door side.
 3. Typical Reinforcing: Provide minimum hinge reinforcement 3/16 inch by 1-1/2 inch by 10 inch. Provide similar reinforcement for hardware items as required to adequately withstand stresses, minimum 12 gauge, including channel reinforcement for door closers and closer arms, door holders and similar items. Provide reinforcement and clearances for concealed in-head door closers and for mortise locks, where applicable.
 4. Anchorage: Provide standard and special anchorage items as required.
 5. Cover Plates: For hinge and strike plate cutouts, provide fully enclosed pressed steel cover boxes spot welded to frames behind mortises.
- G. Finish:
1. Chemically treat and apply manufacturer's standard rust inhibitive primer coat conforming to ANSI A224.1-1990.
 2. Coat interior of frame with bituminous paint, minimum 1.5 mils.
 3. Prep surfaces to receive finish painting in the field.
- H. Fastenings:
1. Provide fastenings, anchors and clips as required to secure hollow metal work in place.
 2. Provide Jackson head screws, or flatter.
 3. Dimple metal work to receive screw heads.
 4. Set stops and other non-structural fastenings with #6 Jackson head self-tapping screws.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine supporting structure and conditions under which hollow metal is to be installed.
- B. Verify that frame opening corresponds to dimensions of frames furnished.
- C. Check that surfaces to contact frames are free of debris.
- D. Do not proceed with installation until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. General:
1. Install in accordance with reviewed shop drawings and manufacturer's printed instructions.
 2. Set hollow metal plumb, level, square to proper elevations, true to line and eye.
 3. Units and trim shall be fastened tightly together, with neat, uniform and tight joints.
- B. Anchorage:
1. Attach anchors to opening.
 2. Minimum number of anchors: 3 per jamb.
 3. Securely fasten and anchor work in place without twists, warps, bulges or other unsatisfactory or defacing workmanship.
 4. Set clips and other anchors with Ramset "shot" anchors or drill in anchors as approved.

- C. Frames:
 - 1. Attach frames true to line with adjacent construction.
 - 2. Set frames accurately in position, plumbed, aligned, and braced securely until permanent anchors are set.
 - 3. After wall construction is complete, remove temporary braces and spreaders leaving surfaces smooth and undamaged.
 - 4. At cast-in-place concrete or masonry construction, set frames and secure in place using countersunk bolts and expansion shields, with bolt heads neatly filled with metallic putty, ground smooth and primed.

- D. Doors:
 - 1. Hang doors square to opening.
 - 2. Minimum Clearances:
 - a. At head and jambs: 1/8".
 - b. Between meetings edges of pairs of doors: 1/8".
 - c. With Floor: 3/4", except 3/8" undercut at handicap accessible doors.
 - d. At Threshold: 1/4".
 - e. At Handicap Threshold: As required to coordinate with threshold height.
 - 3. Fit hollow metal doors accurately in their respective frames, within following clearances:
 - a. Jambs and head 3/32 inch.
 - b. Meeting edges pair of doors 1/8 inch.
 - c. Sill where no threshold or carpet 1/4 inch above finished floor.
 - d. Sill at threshold 3/4 inch maximum above finished floor.
 - e. Sill at carpet 1/4 inch above carpet.

- E. Labeled Doors and Frames:
 - 1. Install in conformance with NFPA Standard 80.
 - 2. Provide clearances in conformance with NFPA Standard 80.

3.03 ADJUST AND CLEAN

- A. Remove dirt and excess sealants from metal surfaces.

- B. Touch up marred or abraded surfaces.

- C. Lubricate hardware and adjust moving parts to operate smoothly.

- D. Remove debris from work area.

- E. Prime Coat Touch-Up: Modify existing doors and frames to receive new door hardware. Cut, patch, weld, bondo, and sand smooth, modified areas. Modifications will be seamless and not noticeable. Use compatible air-drying primer.

- F. Protection Removal: Immediately before final inspection, remove protective wrappings from doors and frames.

SUBMITTAL CHECKLIST

- 1. Product Data.
- 2. Shop Drawings.

END OF SECTION 08110

SECTION 08710 - FINISH HARDWARE

PART 1 – GENERAL

1.01 WORK INCLUDED

Furnish labor, materials, equipment, special tools, supervision and services required to complete all Finish Hardware work as indicated, noted, detailed, and scheduled on the Drawings and specified herein.

1.02 OWNER VERIFICATION AND REVIEW MEETING

Contractor and hardware supplier are required to meet with the Owner to review and verify the hardware schedule and sets per door. Contractor and supplier shall be responsible for verifying door and hardware handings, lockset operations, and keying required. All information, except for keying, shall be included in the submittals prior to being forwarded to the Architect.

1.03 KEYING MEETING

Contractor and hardware supplier are required to meet with the Owner to review and verify all requirements for keys and keying per door. Incorporate and coordinate all locking hardware in the Project to provide for a complete and unified system of keying. A complete keying schedule shall be submitted to the Architect and Owner, for approval, within seven days after the meeting. Determine cylinders and cores required to match or be compatible with any existing building master keying systems in place as per the Owner's requirements.

1.04 RELATED WORK SPECIFIED ELSEWHERE

Section 01400 - Quality Control
Section 03300 - Cast-in-Place Concrete
Section 04220 - Concrete Unit Masonry
Section 07900 - Joint Sealers
Section 08110 - Steel Doors and Frames
Section 09900 - Painting
Division 16: Electrical components, connections, and coordination
Electrical Drawings

1.05 QUALITY ASSURANCE

A. Hardware Supplier:

1. An established firm dealing in architectural commercial door hardware, with an office, sample room, warehousing facilities and an adequate inventory.
2. Has demonstrated a record of successful in-service performance for supplying door hardware similar in quantity, type, and quality to that indicated for this Project.
3. Supplier must have, as an employee, an experienced and certified Architectural Hardware Consultant (AHC), who is available to Owner, Architect, and Contractor, for consultation throughout the course of the Work.
4. Provide a competent technician to service the hardware on the job as may be required.
5. A regular franchised distributor for all materials required for this project.
6. Shall replace damaged or defective materials prior to shipment to the site. Repairs not acceptable.
7. Shall meet with the Owner to review and verify all requirements and keying required.
8. Shall conduct a comprehensive training class for the Owner's maintenance personnel prior to date of acceptance on all special application mechanical hardware provided under this Section.

B. All work to comply with the latest requirements of ADA, ICC/ANSI A117.1, and the accessibility chapter of the Building Code.

C. All work to comply with the latest requirements of NFPA 80, NFPA 101 and NFPA 252 in providing hardware for all fire rated openings.

1.06 REFERENCES

- A. American National Standards Institute (ANSI):
 - 1. ANSI A117.1, Providing Accessibility and Usability for Physically Handicapped People.
 - 2. ANSI/BHMA A156.1, Butts and Hinges.
 - 3. ANSI/BHMA A156.3, Exit Devices.
 - 4. ANSI/BHMA A156.4, Door Controls-Closers.
 - 5. ANSI/BHMA A156.6, Architectural Door Trim.
 - 6. ANSI/BHMA A156.7, Template Hinge Dimensions.
 - 7. ANSI/BHMA A156.13, Locks & Latches, Mortise.
 - 8. ANSI/BHMA A156.16, Auxiliary Hardware.
 - 9. ANSI/BHMA A156.18, Materials and Finishes.

- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM-E2074-2001 Standard Test Method for Fire Tests of Door Assemblies, Including Positive Pressure Testing of Side-Hinged and Pivoted Swinging Door Assemblies.

- C. Code of Federal Regulations (CFR) Americans with Disabilities Act (ADA):
 - 1. Latest version as adopted, approved and accepted by the State.

- D. Door and Hardware Institute (DHI):
 - 1. Keying Systems and Nomenclature.
 - 2. Hardware for Labeled Fire Doors.
 - 3. Sequence and Format for the Hardware Schedule.
 - 4. Abbreviations and Symbols.

- E. National Fire Protection Association (NFPA):
 - 1. NFPA 80 Standard for Fire Doors and Windows.
 - 2. NFPA 101 Life Safety Code.
 - 3. NFPA 105 Recommended Practice for the Installation of Smoke-Control Door Assemblies.
 - 4. NFPA 252 Standard Methods of Fire Tests of Door Assemblies.

- F. Steel Door Institute (SDI):
 - 1. SDI 100 Recommended Specifications for Standard Steel Doors and Frames.

- G. Underwriter's Laboratories, Inc. (UL) - UL Standards for Safety:
 - 1. UL 10C-97 Positive Pressure Fire Tests of Door Assemblies.
 - 2. UL 228 Door Closer-Holders, With or Without Integral Smoke Detectors.
 - 3. UL 305 Panic Hardware.

1.07 SUBMITTALS

- A. Hardware Schedule:
 - 1. Submit a completely detailed schedule of finish hardware in "Vertical Format" per the Door and Hardware Institute's Sequence and Format. Include a complete typewritten schedule indicating every item required for each door or opening. Schedules to include, but are not limited to; the manufacturers, model numbers, materials, types, styles, sizes, handings, finishes, etc.
 - 2. Numbering of hardware sets is to match those as indicated in the Specifications and as noted on the Door Schedule on the Drawings. Cross reference plans and schedules.
 - 3. Include all prep of doors and frames required for hardware, including mounting heights, locations and dimensions.
 - 4. Clearly indicate door sets altered from that specified.

- B. Owner Verification and Review Meeting:
 - 1. Submit with submittals, confirmation that the meeting was conducted with the Owner.
 - 2. Include list of those present at the meeting.
 - 3. Itemize all items resulting from discussions of the meeting in a "meeting minutes" format.
 - 4. Review of set functions shall be done on a "per door" basis, and not merely by sets. Sets included herein is for the convenience of review by grouping like conditions and not intended to necessarily be representative of same function for all doors in the set. Verify with Owner.

- C. Manufacturer's Product Information:
 - 1. Furnish catalog cutsheets, drawings, and other descriptive data on all hardware items.
 - 2. After final approval of the hardware by the Architect, furnish copies of submittals to door and frame suppliers and any other subcontractors and suppliers necessary for coordination and installation of door hardware complete.

- D. Samples:
 - 1. If requested by the Architect, submit one (1) sample of each different item of hardware for approval, accompanied by an itemized list showing where the different items are to be used, the manufacturer's number, the finish, sizes applicable, and the number required.
 - 2. Submit a full sample ring of hardware finishes for all manufacturers included.
 - 3. After review, the samples will be returned to the supplier.

1.08 DELIVERY, STORAGE AND HANDLING

- A. Deliver hardware or templates, or both to factory or to building as required by those furnishing items to which hardware is to be applied.

- B. Plainly mark packages or hardware so locations of use may be ascertained without breaking the packages.

- C. Deliver work so all work will progress without delay or interruption.

- D. The Contractor is responsible for providing adequate locked storage space for the scheduled quantities of hardware when delivered to the job.

1.09 PROJECT CONDITIONS

- A. The hardware supplier is responsible to examine the door and frame drawings and elevations to determine the suitability of hardware specified.

- B. It will be this supplier's responsibility to furnish the correct hardware to fit the door and frame conditions as indicated for correct and proper operation.

1.10 WARRANTY

- A. Furnish manufacturer's limited warranty covering defects in materials and workmanship for periods indicated as follows:
 - 1. Door Closers: Minimum Ten (10) years.
 - 2. Exit Devices: Minimum Five (5) years.
 - 3. Hinges: Lifetime.
 - 4. All Other Hardware: Minimum One (1) year.

PART 2 - PRODUCTS

2.01 KEYING AND KEYS

- A. Key system must be compatible with Owner's existing building key way.
- B. Key, master key and grandmaster key to Owner's requirements.
The key schedule will be developed by hardware supplier in cooperation with Owner's representative.
- C. Provide two (2) keys per lock.
- D. Engrave all keys with the words **UNLAWFUL TO DUPLICATE THIS KEY**.

2.02 LOCKS, LATCHES AND CYLINDERS

- A. All cylinders must be factory keyed.
Provide certification from lock manufacturer stating cylinders have been factory keyed.
- B. All cylinders to have removable cores.
- C. Provide construction cores on all doors as required.
- D. Hardware supplier must be an authorized stocking distributor of the lock they propose to furnish.
- E. Provide a cylinder for every lock requiring one, whether specifically specified or not.
- F. Unless specifically indicated otherwise, all cylinders supplied throughout the entire project are to be capable of being keyed from the same master keying system. Key cylinders in dogged panic devices, keyed removable mullions, coiling doors, overhead doors, etc. to match building master keying system.

2.03 FINISHES

- A. All finishes, typical, are to be:
Satin Chrome US26D (652 Plated Steel, 626 Plated Brass) unless otherwise indicated.
Materials unable to have this finish applied are to have a finish to closely match and compliment (aluminum, dulled chrome, clear satin anodized, satin stainless steel, mil, painted, etc.).

2.04 HARDWARE SETS

- A. Verification:
 - 1. The following schedule is intended to describe, in general, the types and quantities of hardware required for the various types of doors and for the other parts of the building which will require hardware. Do not consider this schedule as entirely inclusive.
 - 2. Hardware supplier is responsible for visiting the jobsite and reviewing the requirements for each installation. The supplier shall be responsible for providing all hardware as required to serve the door's intended purpose and intent, and include all costs for such in their bid.
 - 3. Hardware supplier is responsible for coordination of all hardware items used together in conjunction with one another, mounting as required to coordinate with all doors and frames as designed, and include all costs for such in their bid.
 - 4. Hardware supplier is responsible for conducting the Owner Verification and Review Meeting, incorporating all items into submittals, and include all costs for such in their bid.
 - 5. Hardware supplier is responsible for conducting the Owner Keying Meeting, determining cylinders and cores required to match any existing building master keying system, provide and install compatible items and key per Owner's requirements.

B. General Requirements:

1. Provide all fire and smoke seals and gaskets as required per Code for all rated door assemblies and for all smoke partition assemblies; full perimeter at head, jambs and bottom.
2. Provide glass and materials as required to meet and maintain fire ratings for all assemblies.
3. All items as listed in hardware sets are "per door", unless otherwise indicated.
4. All hardware to be mounted per ADA and ICC/ANSI A117.1.

2.05 HARDWARE PRODUCTS

A. Acceptable Manufacturers:

| <u>Hardware Item</u> | <u>Manufacturer</u> |
|-------------------------------|--|
| Hinges: | Ives, Hager, McKinney, Stanley, Bommer |
| Cylinders: | Existing Building Master Key System |
| Panic Devices: | Von Duprin, Precision (PHI) |
| Surface Closers: | LCN, Sargent |
| Seals/Gaskets/Sweeps/Bottoms: | Hager, NGP, Pemko, Reese, Zero |
| Plates: | Ives, Hager, Rockwood, Trimco |
| Electromagnetic Hold Opens: | LCN |

B. Hinges:

1. All interior standard hinges shall be one of the following:
 - a. Ives, 5BB1WT, steel hinge and pin.
 - b. Hager, BB1168, steel hinge and pin.
2. Interior and exterior standard hinges shall be 5 knuckle, ball bearing, heavy weight, full mortise, wide throw template type hinges with flush barrel and non-removable pins.
3. All interior standard hinges shall be capable of 180 degree throw.
Use wide throw hinges where necessary to clear jamb trim. Provide same material and finish as standard hinges such that all hinges match for like use and applications.
4. Except where label provisions require larger or heavier hinges or where specified otherwise:
 - a. Provide 1-1/2 pairs of hinges for each door up to 7'-6".
 - b. Provide 2 pairs of hinges for doors over 7'-6".
 - c. Use 4-1/2" hinges on doors up to 3'-4" wide.
 - d. Use 5" hinges on doors over 3'-4" wide.

C. Panic Devices (Rim Type):

1. All panics shall be one of the following:
 - a. Von Duprin, 99 Series, "06" lever design.
 - b. Stanley (PHI), Apex 2100 Series, "A" lever design.
2. Provide Lever Trim with ANSI Function "08" on exterior of all devices, unless indicated otherwise. Only compression springs shall be used in devices, latches and outside trim and/or controls.
3. Where Door Pulls are scheduled, provide Ives 8190, 90 degree offset pull.
12" center-to-center x 1" diameter x 3-1/4" projection, concealed mounting, brass.
4. Provide cylinders for all panic devices to be compatible for brand of locksets provided and/or for building's master keying system.
5. Provide fire rated devices for all rated door assemblies.
6. Function and operation as selected by Owner from all manufacturer's available.

7. Exit devices shall be tested to ANSI/BHMA A156.3 test requirements by a BHMA certified laboratory. A written certification showing successful completion of a minimum of 1,000,000 cycles shall be provided upon request.
8. Touch pad shall extend a minimum of one half of the door width. Maximum unlatching force shall not exceed 15 pounds. End cap will have three-point attachment to the door.
9. Provide roller strikes for all rim and surface-mounted vertical rod devices, ASA strikes for mortise devices, and manufacturer's standard strikes for concealed vertical rod devices.
10. All devices to incorporate a security dead-latching feature.

D. Surface Closers:

1. Push side condition (with parallel arm) shall be one of the following:
 - a. LCN, 4110 Series (4111 cylinder).
 - b. Sargent, 281 Series.
2. Pull side condition (with non-parallel arm) shall be one of the following:
 - a. LCN, 4040 Series (4041 cylinder).
 - b. Sargent, 281 Series.
3. Provide reduced force ADA cylinder.
4. Door closers shall be hydraulic, full rack and pinion action with a high strength cast iron cylinder. Cylinder body shall be 1-1/2" diameter, and double heat-treated pinion shall be 11/16" diameter. A written certification showing successful completion of a minimum of 1,000,000 cycles shall be provided upon request.
5. All closers shall have forged steel main arms and forearms.
6. Mounting shall be on the inside face of the door, interior to the room. Closers shall not be seen on the corridor, hallway or public side of the door.
7. All covers shall be metal.
8. All finishes shall be powder coat aluminum.
9. Provide hold open functions where specified. All hold opens to be adjustable set up to 180 degrees.
10. Provide concealed closer in lieu of surface closer where a closer is used in conjunction with overhead stops/holders.
11. In all cases, the manufacturer's recommended table of sizes is to govern the size of closers to be furnished.
12. Use through-bolts to fasten surface closers to mineral core wood and hollow metal doors.
13. Furnish special overhead closers where shown or specified.
14. Provide arms, corner brackets, mounting brackets, or drop plates as required.
15. Provide 180° door swing wherever possible.
16. Reduced force opening of less than 5 lbs. of force for interior hinged doors per ADA.
17. Closing speed of sweep period shall be adjusted so that from an open position of 70 degrees the door will take at least 3 seconds to move to a point 3 inches from the latch per ADA.

E. Seals/Gaskets (used for Fire and Smoke Seals):

1. All fire and smoke seals shall be one of the following:
 - a. Pemko, HSS2000 Series.
2. High temperature silicone, self-extinguishing and non-toxic.
3. Full length and width of opening at each condition.
4. Provide fire and smoke seal sets at entire perimeter jambs and head as required.

F. Plates:

1. All kick plates shall be height=8", length=2" less than door, unless otherwise indicated, and one of the following:
 - a. Ives, 8400.
 - b. Hager, 194S.

2. All plates to be .050" thick minimum, brass, stainless steel, or aluminum.
3. All plates to have beveled edges on all 4 sides.
4. All plates to have countersunk screws.
5. Screw-fasten solid to door.
6. Provide kick plates on the interior side of all doors in a restroom, custodial or janitorial room, mechanical or electrical room, laundry room or other such utility space, whether scheduled or not.

G. Electromagnetic Hold Open:

1. All electromagnetic hold opens shall be one of the following:
 - a. LCN, SEM 7800 Series.
2. Magnet to be surface wall mounted.
3. Magnet shall have tri-voltage capabilities (24AC/DC, 120VAC, 12VDC).
4. Door armature, wall box and cover shall be standard, die cast metal.
5. Unit shall be UL listed for smoke barrier or labeled fire doors.
6. Provide metal extensions as required to connect to adjacent wall (see floor plan for configuration).

2.06 HARDWARE SCHEDULE

Hardware Set #1

Hinges
Surface Closer
Panic Device
Seals/Gaskets (Fire and Smoke Seals)
Electromagnetic Hold Open
Kick Plate

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install finishing hardware as recommended by the National Builders Hardware Association.
- B. Only use fasteners supplied by the manufacturer. Provide fasteners of suitable size, quantity, type and finish to secure hardware in position for heavy use and long life.
- C. Hardware for application on metal surfaces:
 1. Made to standard templates.
 2. Fastening harmonized with hardware as to material and finish.
 3. Fastenings with approved type anchors according to the manufacturer.
 4. In general, ends of through-bolts shall be countersunk.
- D. Mount hardware in accordance with current state and federal accessibility standards and guidelines.
- E. Install hardware per manufacturers instructions and in compliance with:
 1. NFPA-80.
 2. NFPA-101.
 3. NFPA-105.
 4. NFPA-252.
 5. ANSI A117.1.

- F. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Where cutting and fitting is required to install hardware onto or into surfaces that are later to be painted or finished in another way, coordinate removal, storage, and reinstallation or application of surface protection with finishing work specified in the Division 9 Sections. Do not install surface-mounted items until finishes have been completed on the substrates involved.
- G. Set units level, plumb, and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
- H. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- I. Weatherstripping and Seals: Comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated.

3.02 FIELD QUALITY CONTROL

- A. Material supplier to inspect hardware after installation and before final acceptance in order to ensure that hardware has been properly installed. If there are any discrepancies the material supplier is to provide the Architect, General Contractor and Installer with a written report detailing any and all discrepancies. All discrepancies are to be corrected prior to final acceptance unless otherwise directed by the Owner.

3.03 ADJUSTING AND CLEANING

- A. Adjust and check each operating item of hardware and each door to ensure proper operation or function of every unit.
- B. Immediately prior to Substantial Completion replace all construction cores.
- C. Tag all keys.
- D. Check each key and each lockset to verify proper working order.
- E. Lubricate and adjust all hardware to provide smooth operation.
- F. Clean all hardware per manufacturer's instructions after installer makes final adjustments and prior to final acceptance, remove all mortar, drywall mud, paint overspray, foreign materials, labels, markings, soil, oils, etc. Polish all locksets, plates, and other hardware.
- G. Clean adjacent surfaces soiled by hardware installation
- H. Replace, at no cost to Owner, items that cannot be cleaned to manufacturer's level of new finish quality or that cannot be adjusted to operate freely and smoothly or as intended for the application made.
- I. Where door hardware is installed more than one month prior to acceptance or occupancy of a space or area, return to the installation during the week prior to acceptance or occupancy and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to function properly with final operation of heating and ventilating equipment.

SUBMITTAL CHECKLIST

1. Hardware Schedule.
2. Owner Verification and Review Meeting.
3. Manufacturer's Product Information.
4. Samples.

END OF SECTION 08710

SECTION 09576 - TERRAZZO VITREFICATION FINISHING SYSTEM

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish labor, materials, equipment and special tools indicated, noted, and detailed on the drawings and specified herein, and as otherwise required to complete terrazzo vitrefication finishing system.
- B. See Finish Plans for locations of terrazzo and other requirements.
Unless otherwise indicated, all terrazzo indicated is to receive the vitrefication finishing system.
- C. Epoxy Terrazzo is specified in Section 09575.

1.02 RELATED WORK SPECIFIED IN OTHER SECTIONS

Section 09575 – Epoxy Terrazzo

1.03 QUALIFICATIONS

- A. Supplier's qualifications:
 - 1. Suppliers shall provide materials in accordance with NTMA standards.
- B. Acceptable Installer:
 - 1. **Installer must be pre-qualified prior to bidding.**
 - 2. Installer shall be a contractor member of NTMA, to perform all work in accordance with NTMA.
 - 3. Installers wishing to be included on the pre-qualified list herein shall submit qualifications in writing to the Architect no later than ten (10) days prior to the bid.
- C. Pre-Qualified Installers:
 - 1. **Art Mosaic & Tile Co., Inc.**
844 Rush Street; South Bend, IN 46601
(574) 287-8131; (574) 287-4863 fax
 - 2. **F&M Tile & Terrazzo Co., Inc.**
115 Chambeau Road; Fort Wayne, IN 46805
(260) 483-6389; (260) 483-2474 fax
 - 3. **Santarosa Mosaic & Tile Co., Inc.**
2707 Roosevelt Avenue; Indianapolis, IN 46218
(317) 632-9494; (317) 631-5567 fax

1.04 SUBMITTALS

- A. Manufacturer's Literature:
 - 1. Submit manufacturer's catalog information, specifications, data sheets, MSDS bulletins.
- B. Maintenance Literature:
 - 1. Submit two copies of NTMA maintenance recommendations.
- C. Certification:
 - 1. Suppliers shall furnish certification attesting that materials meet specification requirements.
 - 2. Suppliers shall furnish properly labeled material and Material Safety Data Sheets which comply to current state and federal requirements.
- D. Invoice:
 - 1. Provide invoice of delivery of new "Nilfisk" machine to jobsite.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Delivery of Materials:
 - 1. Deliver materials in a manner to prevent damage to containers and/or equipment.
- B. Storage of Materials:
 - 1. Store materials in a clean, dry, temperature controlled location (50 - 90 degrees Fahrenheit).

PART 2 - PRODUCTS

2.01 VITREFICATION FINISHING SYSTEM

- A. "Nilfisk Vitrefication System":
 - 1. Machine: "Nilfisk" #510B Marble Machine.
 - 2. Chemical: "Nilfisk" "Mirror Magic Marble Maintenance System".
 - 3. Pads: "Nilfisk" vitrefication pads.
- B. Machine:
 - 1. Vitrefication installer is to purchase the machine specified above new for this project.
 - 2. To be delivered directly to the jobsite in the manufacturer's original and unopened container.
 - 3. Provide invoice for new machine as per submittal requirements above.
 - 4. Installer may use this new machine for all work herein directly related to this project.
Machine may not be removed from the site or used on any other project.
Such acts will require full replacement of the machine at the installer's cost.
 - 5. At the end of all work, provide Owner with the machine for their maintenance use.
 - 6. Provide all original paperwork and information for their records, use and care of the machine.
 - 7. Provide personal instruction of personnel on proper use of machine.
 - 8. Provide schedule for periodic maintenance.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine areas to receive terrazzo vitrefication finishing system for:
 - 1. Defects in existing work that affect proper execution of terrazzo work.
 - 2. Deviations beyond allowable tolerances for the concrete slab work.
 - a. Sub floor not to vary more than 1/4 inch from true plane in 10 feet.
 - b. Sub floor may have curing finish atop that requires special preparation prior to installation of terrazzo flooring finish.
- B. Start of terrazzo vitrefication finishing system constitutes acceptance of slab condition and terrazzo installation by the installer.
- C. Close coordination is required between installers of the terrazzo and the vitrefication finishing system.
- D. Do not complete vitrefication of any new terrazzo surface sooner than thirty (30) days following completion of final installation process.
- E. Assure terrazzo surfaces are dry and free from surface or subsurface moisture prior to start of vitrefication process.

3.02 INSTALLATION

A. Preparation:

1. If terrazzo surface has sealer present, strip sealer from entire terrazzo surface as required.
2. Complete terrazzo vitrefication finishing system within rooms wall to wall.
No vitrefication is allowed to occur simply around or surrounding items or equipment in place.
3. Remove all loose or fixed items from spaces to receive vitrefication finishing system as required, such as casework, toilet partitions, plumbing fixtures and equipment, for vitrefication to occur below or underneath.
4. Complete vitrefication finishing system in new areas prior to installation of any fixed casework, toilet partitions, plumbing fixtures, equipment, or other such items within room, so as to be completed continuous underneath.

B. Vitrefication of New Terrazzo Surfaces:

1. Grind with successive passes of #120, 220, 400, 600, and 800 grit diamond polish pads.
No pass may be skipped and must be done in succession.
2. Then use three (3) passes of "Nilfisk" machine using vitrefication pads and "Nilfisk Mirror Magic Marble Maintenance System".

D. All grinding and sanding to be accomplished via a wet grinder and wet grinding/sanding techniques.
Dry grinding and sanding is only permitted by express permission of the Architect.

3.03 CLEANING

A. Wash all surfaces with a neutral cleaner.

B. Rinse with clean water and allow surface to dry.

3.04 PROTECTION

A. Upon completion, the work shall be ready for final inspection and acceptance by the Owner and the Architect.

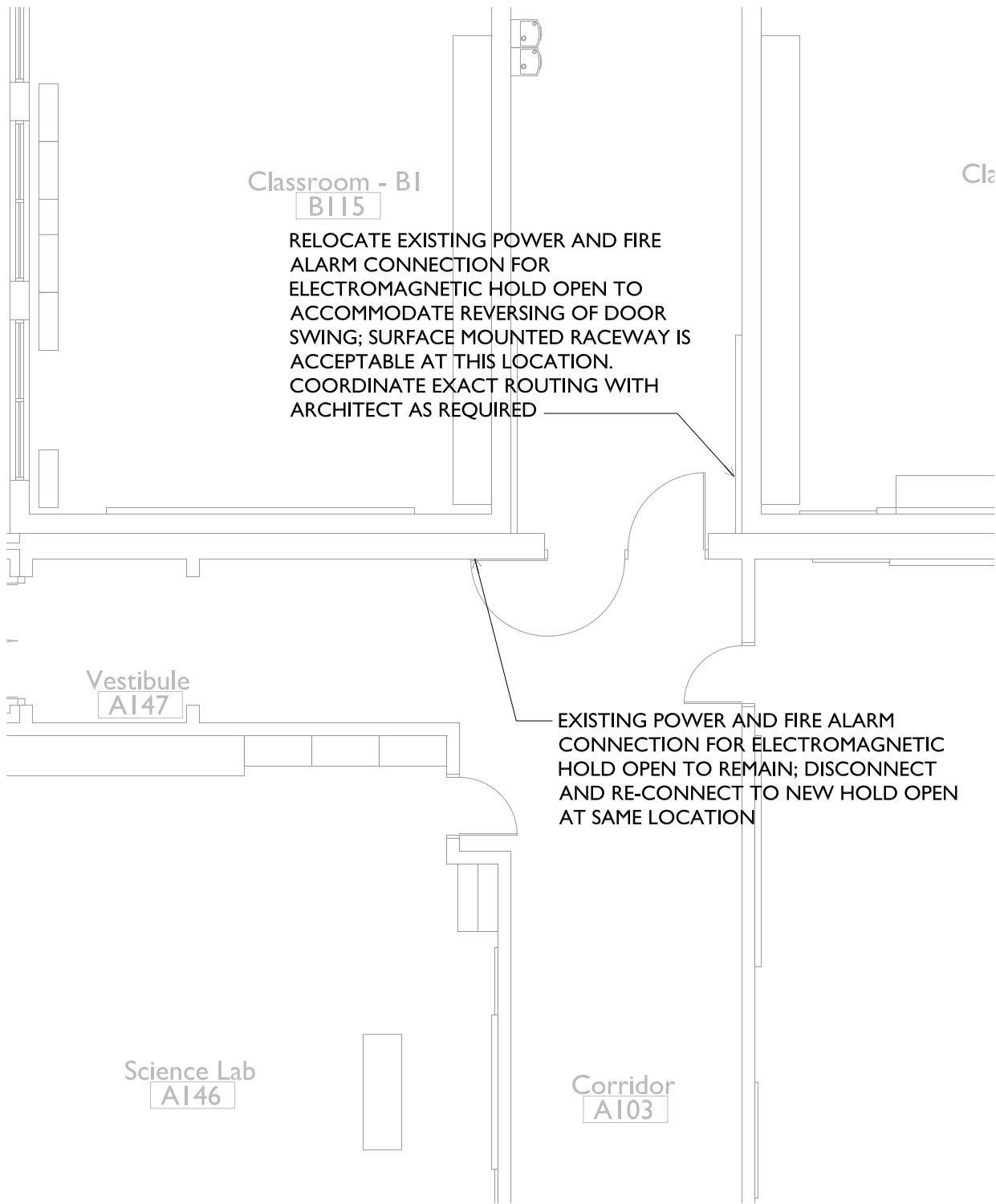
B. Protect the finished floor until Final Acceptance of the project.

SUBMITTAL CHECKLIST

1. Manufacturer's Literature.
2. Maintenance Literature.
3. Certification.
4. Invoice.

END OF SECTION 09576

NOTE:
WORK ON THIS DRAWING TO BE
INCLUDED IN ALTERNATE NO. 9.



Classroom - BI
B115

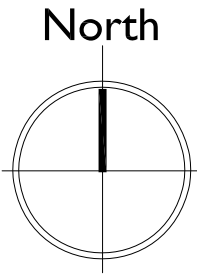
RELOCATE EXISTING POWER AND FIRE ALARM CONNECTION FOR ELECTROMAGNETIC HOLD OPEN TO ACCOMMODATE REVERSING OF DOOR SWING; SURFACE MOUNTED RACEWAY IS ACCEPTABLE AT THIS LOCATION. COORDINATE EXACT ROUTING WITH ARCHITECT AS REQUIRED

Vestibule
AI47

EXISTING POWER AND FIRE ALARM CONNECTION FOR ELECTROMAGNETIC HOLD OPEN TO REMAIN; DISCONNECT AND RE-CONNECT TO NEW HOLD OPEN AT SAME LOCATION

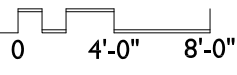
Science Lab
AI46

Corridor
AI03



Area "A" - Doors AI03a&b Power / Fire Alarm Plan

full size plot scale: 1/8"=1'-0"



630 Walnut Street
Jeffersonville, IN 47130
812.282.9554
812.282.9171 FAX
www.koverthawkins.com



KovertHawkins
architects

| Revisions | Drawn | HG |
|-----------|-------------|------------|
| 1 | | |
| 2 | | |
| 3 | Checked By | HK |
| 4 | Project No. | 1649.01 |
| 5 | Date | 08/11/2017 |
| 6 | | |

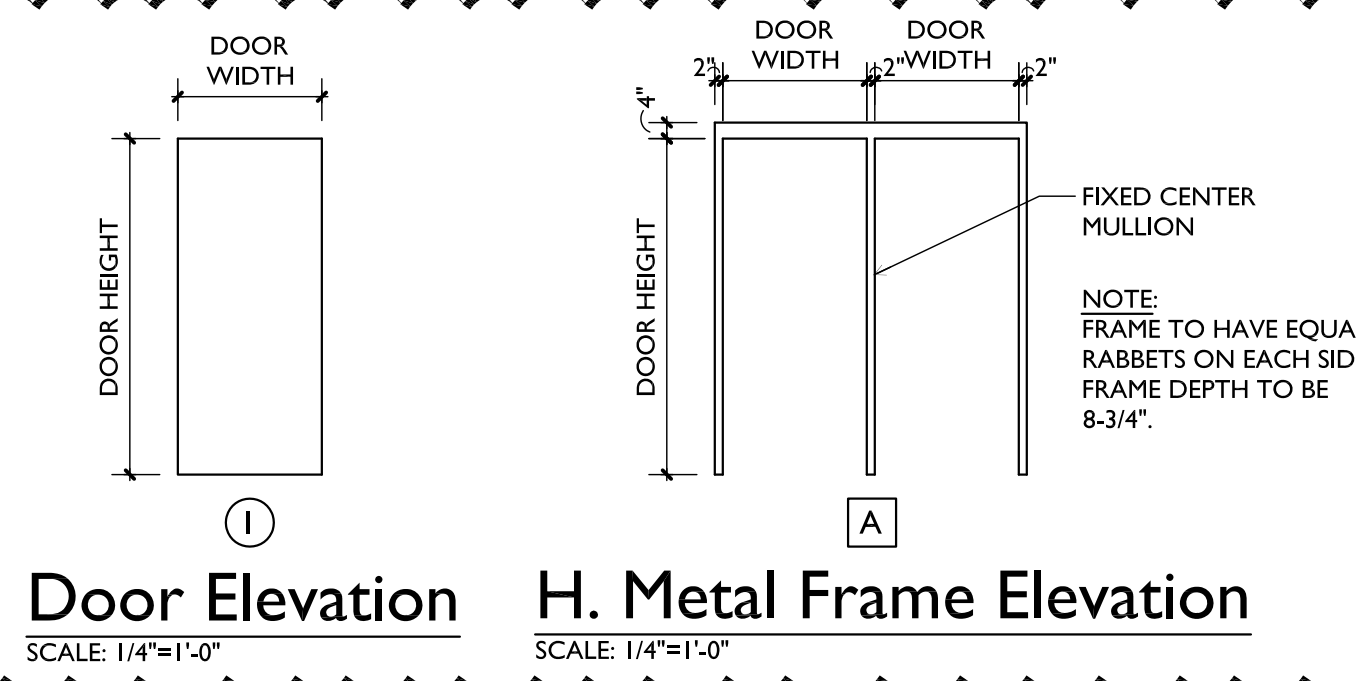
Certified By

2017 Renovations
Dillsboro Elementary School
13200 North Street
Dillsboro, Indiana 47018
South Dearborn Community School Corporation

Sheet
AD-1a

| IDEN. | DOORS | | | | FRAMES | | | | H.D.W.R. SET # | REMARKS | |
|-------|------------------------|----------|----------|-------|----------|------|------|----------|----------------|---------|-------------------------------------|
| | SIZE (W X H X T) | MATERIAL | RATED | ELEV. | MATERIAL | HEAD | JAMB | LABEL | | | ELEV. |
| A103a | 4'-0" X 7'-0" X 1-3/4" | H. METAL | 180 MIN. | I | H. METAL | | | 180 MIN. | A | I | FIELD VERIFY RATING; MATCH EXISTING |
| A103b | 4'-0" X 7'-0" X 1-3/4" | H. METAL | 180 MIN. | I | H. METAL | | | 180 MIN. | A | I | FIELD VERIFY RATING; MATCH EXISTING |

NOTE
DOOR AND FRAME REPLACEMENT WORK
TO BE INCLUDED IN ALTERNATE NO. 9.



Architectural Plan Keynotes

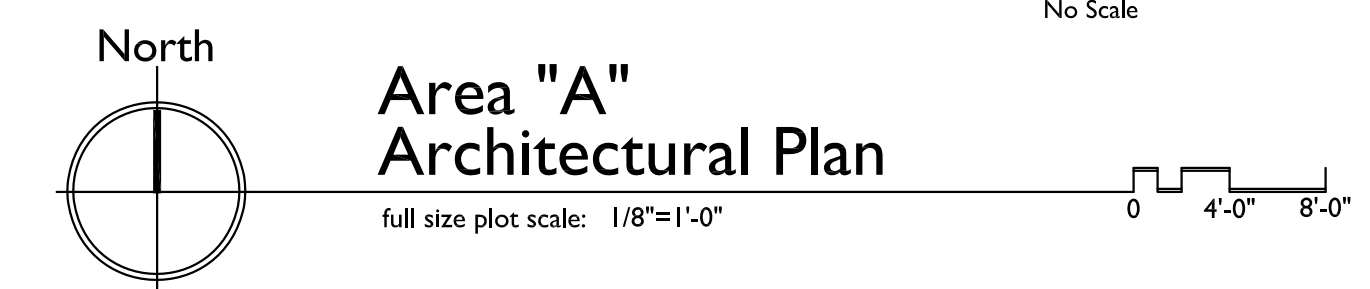
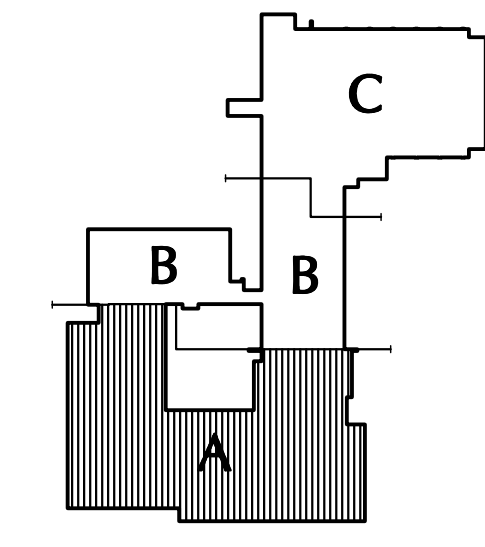
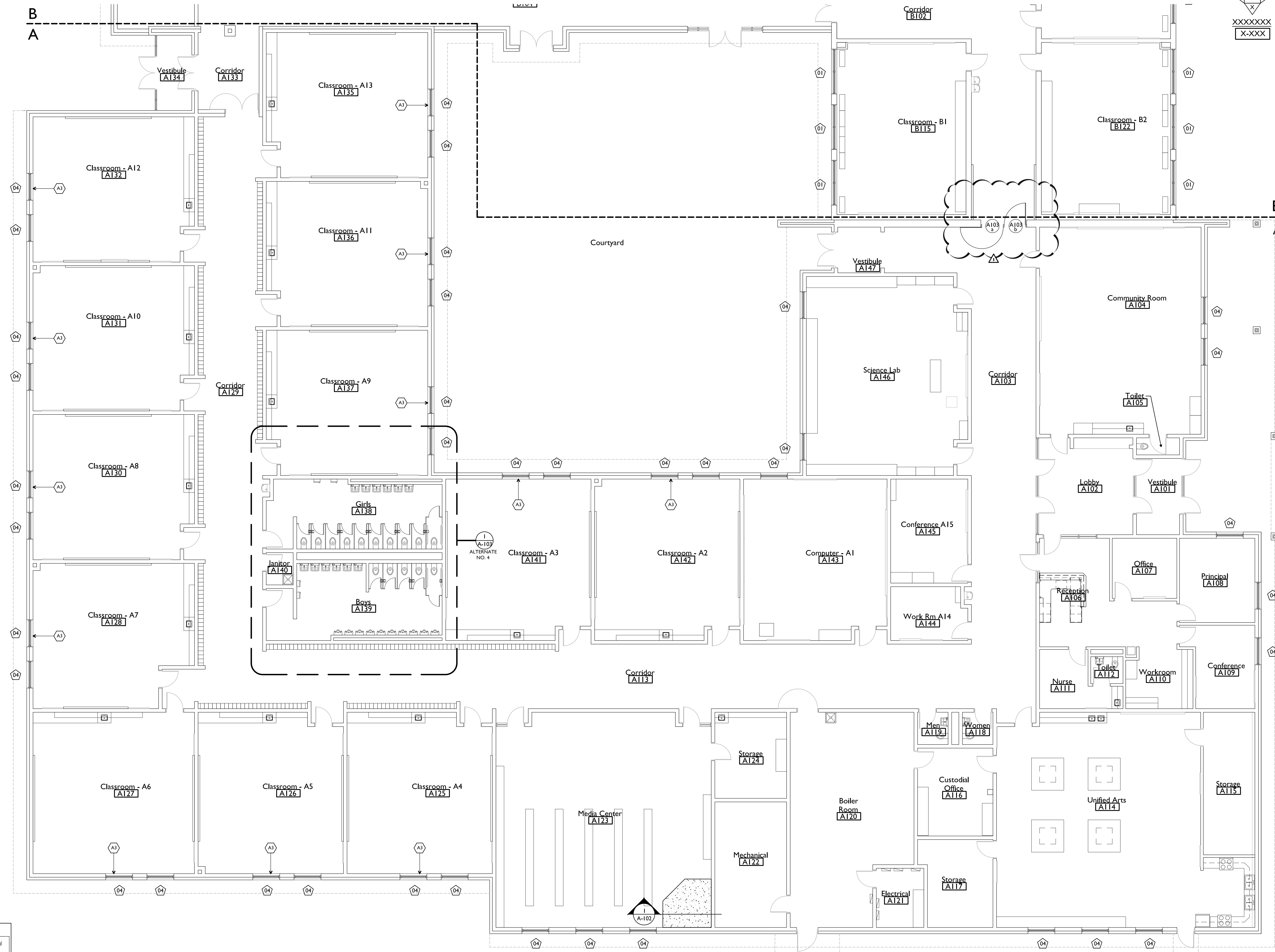
- A1 PATCH AND REPAIR EXISTING PLASTER AT WINDOW JAMBS WHERE LARGER WINDOW OPENING WAS CREATED. RETURN PLASTER INTO JAMB FROM WALL. PAINT TO MATCH WALL.
- A2 INSTALL METAL STUDS AND 5/8" DRYWALL FROM CEILING TO TOP OF SPANDREL GLASS BOTTOM MULLION WITHIN ENTIRE WIDTH OF EXISTING OPENING. PAINT TO MATCH ADJACENT WALL.
- A3 INFILL UNIT VENTILATOR OUTSIDE AIR OPENING BELOW WINDOW WITH 8" CMU EXISTING EXTERIOR LOUVER TO REMAIN. PROVIDE BOARD CAVITY INSULATION IN WALL CAVITY. (ALTERNATE NO. 4)

General Plan Notes

- AT ALL EXISTING BUILDING AREA TO RECEIVE MAJOR FINISHES UPGRADES AND REPLACEMENTS; SAND AND PREP SMOOTH ALL EXISTING WALL SURFACES WITHIN ROOM TO RECEIVE NEW FINISH PAINT; SAND, GRIND, BUFF, BEAD BLAST, ETC. ALL FLOOR SURFACES AS REQUIRED TO REMOVE GLUES, PLASTICS, CURINGS, ETC.; FILL ALL VOIDS, HOLES, OPENINGS, REMOVE ALL TEXTURES, BUMPS, DEPRESSIONS, ETC. IN ALL SURFACES TO BE LIKE NEW FINISHED SURFACES (SEE FINISH PLANS)
- PROTECT EXISTING SURFACES AND FINISHES TO REMAIN ADJACENT TO AREA OF RENOVATION SO THAT NEW FINISHES AND SURFACES OF NEW CONSTRUCTION MAY BLEND INTO EXISTING SURFACES; EXTEND NEW FINISHES AND SURFACES TO CORNER OR EDGE OF WALL OR FLOOR SO THAT NEW AND EXISTING MAY BLEND WITHOUT TRUE VISIBLE DIFFERENCES

Symbol Legend

- ALUMINUM STOREFRONT FRAME IDENTIFICATION: (SEE ELEVATIONS ON SHEET A-301)
- INSULATED TRANSLUCENT WINDOW FRAME IDENTIFICATION: (SEE ELEVATIONS ON SHEET A-301)
- PLAN KEYNOTE: SEE NOTES INDICATED ON EACH SHEET
- ENLARGED PLAN MARKER: ABOVE - DETAIL NUMBER BELOW - SHEET REFERENCE
- ELEVATION MARKER: ABOVE - DETAIL NUMBER BELOW - SHEET REFERENCE
- ELEVATION MARKER: LETTER - DETAIL REFERENCE CENTER - SHEET REFERENCE
- ROOM IDENTIFICATION: ABOVE - ROOM NAME BELOW - ARCHITECTURAL ROOM NUMBER



Notice

The Architect/Engineer does not define the scope of individual trades, subcontractors, material suppliers, or vendors. Any sheet numbering system used which identifies disciplines is solely for the Architect/Engineer's convenience, and is not intended to define a subcontractor's scope of work. Information regarding individual trades, subcontractors, material suppliers, and vendors may be detailed, described and indicated at different locations throughout these documents. No consideration will be given to requests for change orders for future to obtain and review the complete set of drawings and specifications when preparing bids, prices, and quotations.

Plan Legend

(X-X) Height Above Finished Floor
FOR CEILING SYSTEMS:
TO FINISHED CEILING HEIGHT.
FOR BULKHEADS AND SOFFITS:
TO BOTTOM OF FINISHED SURFACE.
FOR OPENINGS THROUGH WALLS:
TO BOTTOM OF FINISHED OPENING.

- Existing WI-Fi Router
- Existing Ceiling Fan
- Existing Return Air Grille
- Existing Linear Slot Diffuser
- Existing Supply Diffuser
- Existing Speaker
- Existing Ceiling Mounted Projector
- Existing Exhaust Grille
- Existing Ceiling Mounted Cabinet Heater

- Existing 2'X4' Ceiling Grid With New Ceiling Panels (U.O.N)
- Existing 2'X2' Ceiling Grid & Ceiling Panels To Remain (U.O.N)

Reflected Ceiling Keynotes

- (RC1) EXISTING GYPSUM BOARD CEILING TO REMAIN. PATCH AND REPAIR AS REQUIRED DUE TO LIGHT FIXTURE REPLACEMENT.
- (RC2) EXISTING GYPSUM BOARD CEILING TO REMAIN. PATCH AND REPAIR AS REQUIRED DUE TO LIGHT FIXTURE REPLACEMENT AND REMOVAL OF EXISTING CEILING SUSPENDED TOILET PARTITIONS. REFER TO SECTION 0120 FOR TOILET PARTITION REPLACEMENT ALTERNATE SCOPE OF WORK.
- (RC3) NEW CEILING GRID AND CEILING PANELS AS SHOWN IN ROOM. SEE FINISH PLAN FOR TYPE.
- (RC4) EXISTING BULKHEAD TO REMAIN.
- (RC5) EXISTING SOFFIT TO REMAIN.
- (RC6) LINE OF EXISTING WALL ABOVE LOCKERS.
- (RC7) EXISTING CUBICLE CURTAIN TRACK TO REMAIN.
- (RC8) REPLACE WATER STAINED CEILING PANELS IN ROOM. TYPE TO MATCH EXISTING. REFER TO SECTION 09510. ("XX" INDICATES QUANTITY TO BE REPLACED).
- (RC9) PAINT EXISTING METAL SOFFIT. SEE SECTION 09900.
- (RC10) EXISTING METAL SOFFIT TO REMAIN. NO FINISH WORK.
- (RC11) INSTALL NEW CEILING GRID CROSS TEE TO ALLOW INSTALLATION OF NEW 2'X2' LIGHT FIXTURE.

Reflected Ceiling Notes

1. REFER TO MECHANICAL ELECTRICAL AND EQUIPMENT DRAWINGS FOR CLARIFICATION OF SYMBOLS USED ON THE REFLECTED CEILING PLAN TO ILLUSTRATE LAYOUT OF ITEMS WITHIN CEILING SYSTEM.
2. ALL CEILING HEIGHTS ARE TO BE AS NOTED. CEILING HEIGHTS NOTED WITHIN AREAS OF EXISTING BUILDING ARE APPROXIMATE. COORDINATE THIS FINISHED CEILING HEIGHT WITH ALL OTHER TRADES, AND WITH ALL MECHANICAL, ELECTRICAL AND OTHER EQUIPMENT AND ITEMS ABOVE CEILING.
3. UNLESS SPECIFICALLY DIRECTED OTHERWISE, LOCATE ALL GRILLES, REGISTERS, DIFFUSERS, FIXTURES, OR OTHER SUCH EQUIPMENT FLUSH WITH CEILING SURFACE AND CENTERED ON TILE.
4. SEE FINISH PLAN FOR TYPE AND STYLE OF CEILING SYSTEMS.
5. AREA "A" PORTION OF EXISTING BUILDING IS SPRINKLERED. SPRINKLER HEADS LOCATED IN CEILING PANELS ARE CONCEALED. COORDINATE NEW CEILING PANEL INSTALLATION AS REQUIRED WITH EXISTING SPRINKLER HEADS. REMAINDER OF BUILDING IS NOT SPRINKLERED.
6. COORDINATE NEW CEILING GRID AND PANEL INSTALLATION AS REQUIRED WITH EXISTING ITEMS RECESSED IN OR SURFACE MOUNTED TO EXISTING CEILING. EXISTING ITEMS TO REMAIN IN PLACE (U.O.N) PROVIDE TEMPORARY SUPPORTS AS REQUIRED & REINSTALL SURFACE MOUNTED ITEMS ON NEW CEILING PANELS. NOTE: NOT ALL EXISTING ITEMS ARE SHOWN.



Notice
The Architect/Engineer does not define the scope of individual trades, subcontractors, material suppliers, or vendors. Any sheet numbering system used which identifies disciplines is solely for the Architect/Engineer's convenience, and is not intended to define a subcontractor's scope of work. Information regarding individual trades, subcontractors, material suppliers, and vendors may be detailed, described and indicated at different locations throughout these documents. No consideration will be given to requests for change orders for future to obtain and review the complete set of drawings and specifications when preparing bids, prices, and quotations.

Alternate No. 4 - Reflected Ceiling
full size plot scale: 1/8"=1'-0"
0 4'-0" 8'-0"

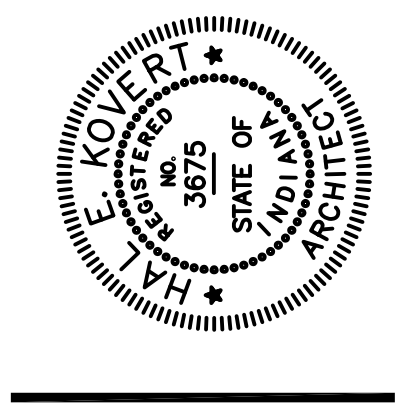
Area "C" Reflected Ceiling Plan
full size plot scale: 1/8"=1'-0"
0 4'-0" 8'-0"



KovertHawkins
architects

| | |
|-------------|------------|
| Drawn | HGZV |
| Checked By | HK |
| Project No. | 1649.01 |
| Date | 07/17/2017 |

Revisions
1. 06-11-2017 ADDENDUM NO.1
2
3
4
5
6



2017 Renovations
Dillsboro Elementary School
13200 North Street
Dillsboro, Indiana 47018
South Dearborn Community School Corporation

Electrical Demolition Plan Keynotes

- D1 REMOVE ALL EXISTING LIGHT FIXTURES FROM OVERHANG AREA WITHOUT ALTERING EXISTING METAL SOFFIT TO REMAIN. EXISTING CIRCUIT AND SWITCHING TO REMAIN. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH THE ARCHITECT. POWER SHALL BE DISCONNECTED FROM ANY PORTION OF THE EXISTING FIXTURE REQUIRED TO REMAIN ABOVE THE CEILING DUE TO PHYSICAL RESTRAINTS. PREP FOR THE INSTALLATION OF RETROFIT LED LIGHT FIXTURES. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D2 REMOVE SURFACE MOUNTED LIGHT FIXTURE AND ASSOCIATED PHOTOCELL (AS APPLICABLE) FROM EXTERIOR WALL. EXISTING LIGHTING CIRCUIT TO REMAIN. PREP FOR INSTALLATION OF NEW LIGHT FIXTURE IN SAME LOCATION. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D3 REMOVE SURFACE MOUNTED LIGHT FIXTURE FROM EXTERIOR SOFFIT. EXISTING LIGHTING CIRCUIT TO REMAIN. PREP FOR INSTALLATION OF NEW LIGHT FIXTURE IN SAME LOCATION. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D4 REMOVE EXISTING RECEPTACLE COMPLETE AND REMOVE WIRING BACK TO SOURCE. RECESSED FIT AREA TO BE INFILLED. SEE ARCHITECTURAL.

*SEE SECTION 01230 FOR ALTERNATES #7, #8A AND #8B AFFECTING LIGHTING REPLACEMENT AND LIGHTING CONTROLS SCOPE OF WORK.

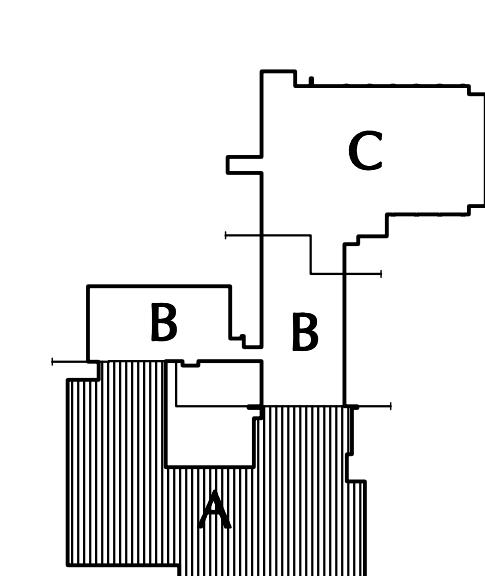
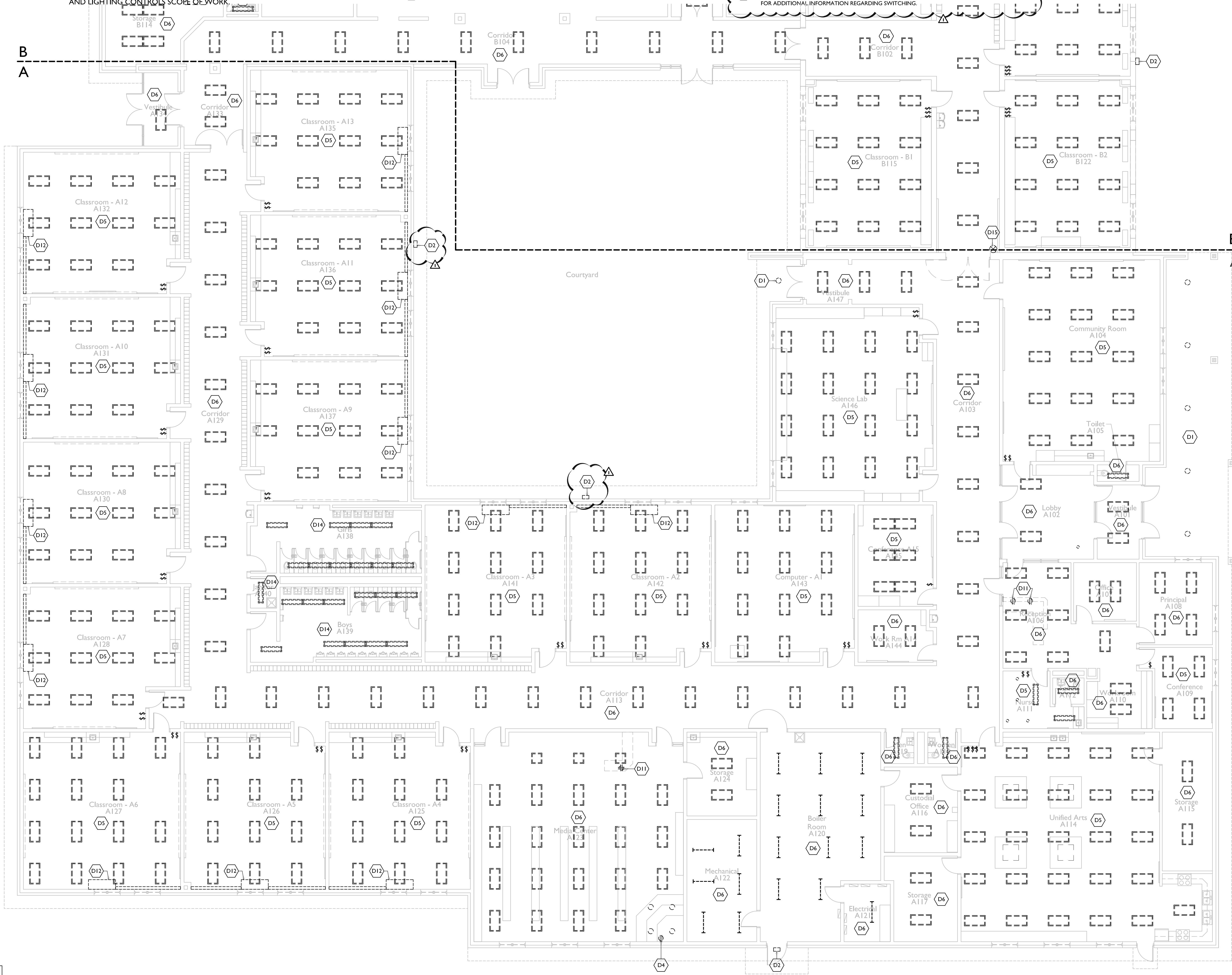
- D5 REMOVE LIGHT FIXTURES, SWITCHES, AND SWITCH COVER PLATES FROM ENTIRE ROOM. EXISTING SWITCH ROUGH-IN BOXES TO REMAIN. EXISTING LIGHTING CIRCUIT TO REMAIN TO FEED NEW LIGHT FIXTURES. PREP FOR INSTALLATION OF NEW LIGHT FIXTURES AND SWITCHES IN SAME LOCATIONS (U.O.N.). SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D6 REMOVE LIGHT FIXTURES FROM ENTIRE ROOM / CORRIDOR. EXISTING SWITCHING AND LIGHTING CIRCUIT TO REMAIN TO FEED NEW LIGHT FIXTURES. PREP FOR INSTALLATION OF NEW LIGHT FIXTURES IN SAME LOCATIONS (U.O.N.). SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D7 COMPLETELY REMOVE EXISTING LIGHT FIXTURES THROUGHOUT GYM. REMOVE ALL ASSOCIATED CONTACTORS AND WIRING BACK TO SOURCE. PREP FOR THE INSTALLATION OF NEW LIGHT FIXTURES IN NEW LOCATIONS. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D8 COMPLETELY REMOVE EMERGENCY LIGHT FIXTURE AND ALL ASSOCIATED WIRING BACK TO SOURCE.
- D9 EXISTING LIGHT FIXTURES, SWITCHES, AND LIGHTING CIRCUIT(S) FOR STORAGE UNDER STAGE TO REMAIN.
- D10 COMPLETELY REMOVE SURFACE MOUNTED SWITCHES FOR GYM LIGHT FIXTURES IN THEIR ENTIRETY.

- D11 DISCONNECT AND REMOVE RECEPTACLE MOUNTED IN EXISTING CASEWORK TO BE REMOVED. EXISTING UNDER SLAB CIRCUIT TO REMAIN TO FEED NEW RECEPTACLE(S). SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D12 DISCONNECT ELECTRICAL CIRCUIT AND REMOVE WIRING BACK TO SOURCE FOR ABANDONED UNIT VENTILATOR TO BE REMOVED. SEE A-000 DRAWINGS FOR ADDITIONAL INFORMATION.
- D13 REMOVE INDICATED 2x4 TROFFERS EXISTING INDIRECT LIGHT FIXTURES, SWITCHES, AND LIGHTING CIRCUITS TO REMAIN. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D14 REMOVE LIGHT FIXTURES FROM ENTIRE ROOM. EXISTING SWITCHING AND LIGHTING CIRCUIT TO REMAIN TO FEED NEW LIGHT FIXTURES. PREP FOR INSTALLATION OF NEW LIGHT FIXTURES IN NEW LOCATIONS. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D15 REMOVE EXIT LIGHT. SALVAGE FOR RE-INSTALLATION AT NEW LOCATION. INSTALL FINISHED STAINLESS STEEL COVER PLATE OVER EXISTING ROUGH-IN BOX. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION.
- D16 REMOVE LIGHT FIXTURE FROM ROOM. EXISTING LIGHTING CIRCUIT TO REMAIN TO FEED NEW LIGHT FIXTURE. PREP FOR INSTALLATION OF NEW LIGHT FIXTURE IN SAME LOCATION. SEE E-100 DRAWINGS FOR ADDITIONAL INFORMATION REGARDING SWITCHING.

General Electrical Demolition Notes

1. REMOVE LIGHT FIXTURES, SWITCHES, CONDUIT, WIRING, ETC. AS INDICATED ON THE DRAWINGS. PROPERLY DISPOSE OF ALL MATERIAL OFF SITE. PROVIDE PAPERWORK TO ARCHITECT SHOWING THAT LAMPS AND BALLASTS WERE PROPERLY DISPOSED OF.
2. OWNER SHALL BE NOTIFIED IN ADVANCE OF ALL POWER SHUT DOWNS AND/OR CHANGE OVERS. COORDINATE EXACT SCHEDULING WITH OWNER AS REQUIRED. SHUT DOWNS WILL NEED TO OCCUR DURING SECOND SHIFT OR WEEKENDS.
3. ALL EXISTING SYSTEMS IE FIRE ALARM, INTERCOM, SECURITY, DATA, AND TELEPHONE SHALL REMAIN IN GOOD WORKING CONDITION IN ALL OCCUPIED AREAS.
4. BLANK OFF ALL UNUSED OUTLETS, SWITCHES, ETC. REMAINING IN EXISTING WALLS (TYPICAL).
5. RE-FEED ALL ELECTRICAL DEVICES, LIGHTS, ETC. DISTURBED DOWNSTREAM BY RENOVATION AND/OR DEMOLITION WORK.

*SEE DRAWING U-101 FOR ELECTRICAL SITE DEMOLITION.



Notice
The Architect/Engineer does not define the scope of individual trades, subcontractors, material suppliers, or vendors. Key sheet numbering system used which identifies disciplines is solely for the Architect/Engineer's convenience, and is not intended to define a subcontractor's scope of work. Information regarding individual trades, subcontractors, material suppliers, and vendors may be detailed, described and indicated at different locations throughout these documents. No consideration will be given to requests for change orders for failure to obtain and review the complete set of drawings and specifications when preparing bids, prices, and quotations.

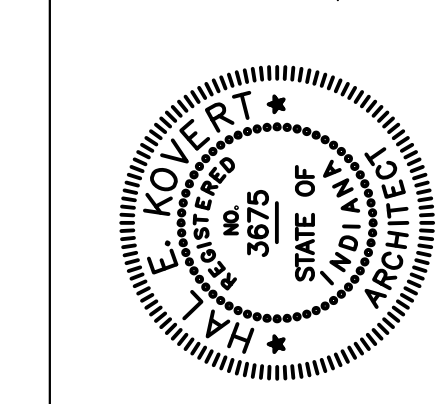
North
Keyplan
No Scale
Area "A"
Electrical Demolition Plan
full size plot scale: 1/8"=1'-0"
0 4'-0" 8'-0"

© COPYRIGHT by KovertHawkins
ALL RIGHTS RESERVED

630 Walnut Street
Indianapolis, IN 46103
317.382.1171 FAX
www.koverthawkins.com

KovertHawkins
architects

| | |
|-------------|------------|
| Drawn | HG |
| Checked By | HK |
| Project No. | 1649.01 |
| Date | 07/17/2017 |



2017 Renovations
Dillsboro Elementary School
13200 North Street
Dillsboro, Indiana 47018
South Dearborn Community School Corporation

Sheet
E-001

*SEE SECTION 01230 FOR ALTERNATES #7, #8A, AND #8B AFFECTING LIGHTING REPLACEMENT AND LIGHTING CONTROLS SCOPE OF WORK.

Lighting Plan Keynotes

- (L1) INSTALL NEW LINE VOLTAGE AND LOW VOLTAGE CONTROL WIRING WITHIN ROOM AS REQUIRED TO ACCOMPLISH NEW SWITCHING CONFIGURATION AS INDICATED.
- (L2) INSTALL NEW LINE VOLTAGE WIRING WITHIN ROOM AS REQUIRED FOR NEW LIGHTING LAYOUT.
- (L3) INSTALL NEW LINE VOLTAGE WIRING AS REQUIRED FOR NEW 2x2 LIGHT FIXTURES IN ROOM.
- (L4) 120V, 20A CIRCUIT TO PANEL 'B'. UTILIZE EXISTING 20A, SINGLE POLE GYMNASIUM LIGHTING BREAKER.
- (L5) LIGHT SWITCHES TO BE INSTALLED IN SURFACE MOUNTED BOX. INSTALL SURFACE MOUNTED RACEWAY EXPOSED IN GYMNASIUM. THEN POKE THROUGH WALL ABOVE LOCKER ROOM CEILING.

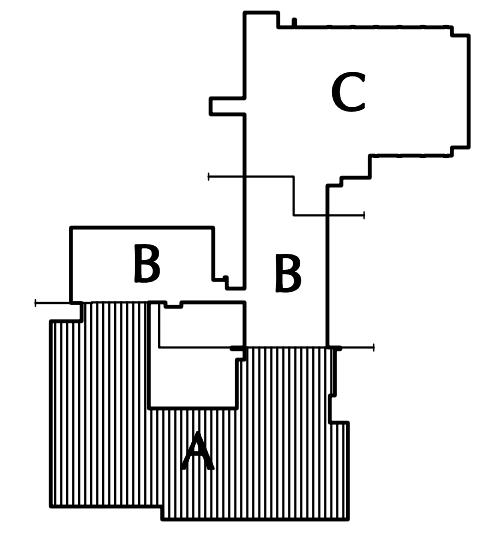
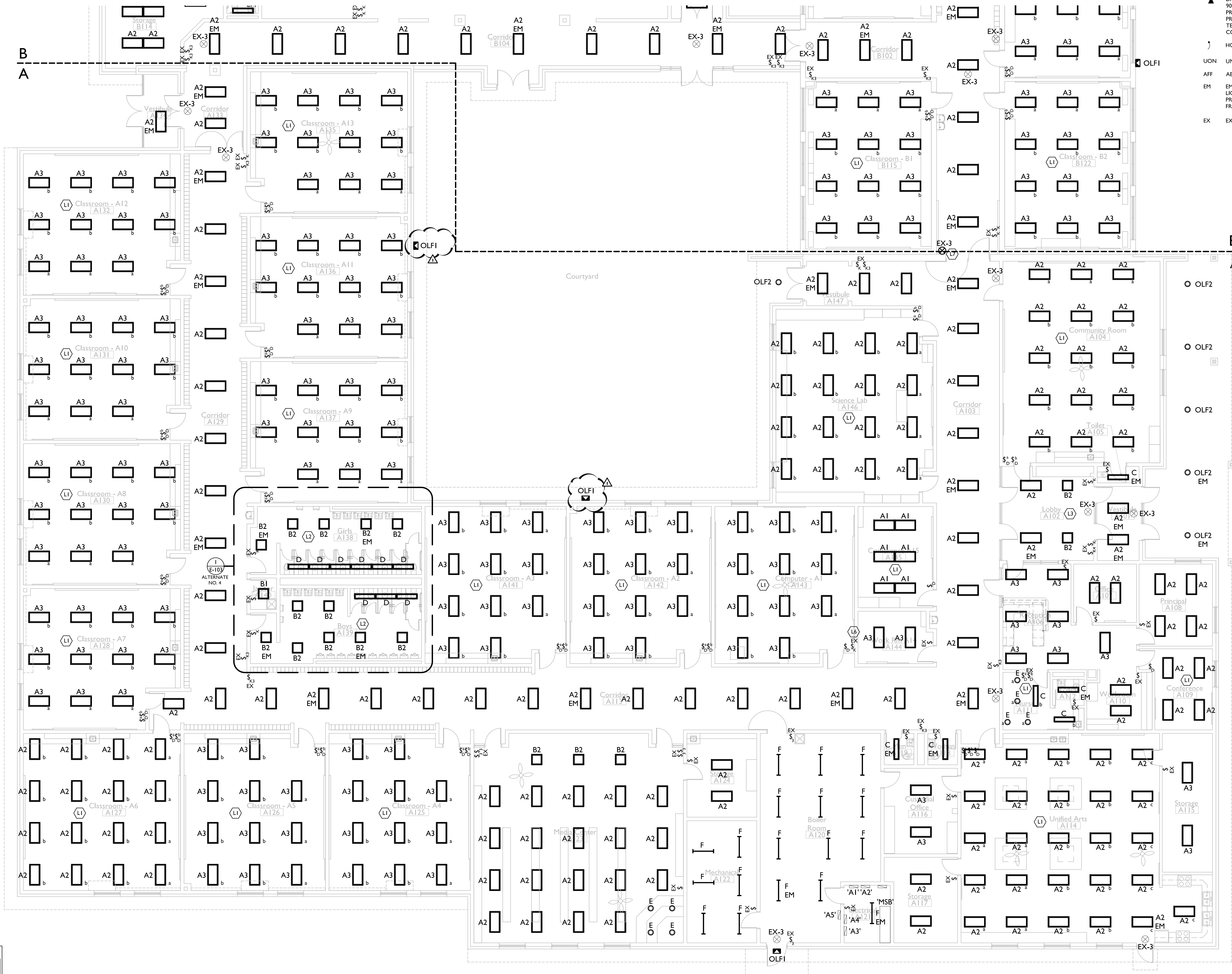
- (L6) EXISTING KEY SWITCH FOR COMPUTER POWER TO REMAIN.
- (L7) INSTALL EXISTING EXIT LIGHT AT NEW LOCATION. EXTEND EXISTING LIGHTING CIRCUIT TO NEW LOCATION AS REQUIRED. INSTALL CIRCUIT IN SURFACE MOUNTED RACEWAY WHERE EXPOSED.
- (L8) INSTALL NEW LIGHT SWITCH TO SEPARATE CLOSET LIGHT FIXTURE FROM CLASSROOM LIGHT FIXTURES.

General Lighting Replacement Notes

1. NEW LIGHT FIXTURES ARE GENERALLY PLANNED TO REPLACE EXISTING FIXTURES IN SAME LOCATION, U.O.N.
2. CONNECT NEW LIGHT FIXTURES AND SWITCHES TO EXISTING LIGHTING CIRCUITS, U.O.N.
3. CONTRACTOR TO FIELD VERIFY AND MAINTAIN ALL NIGHT LITE LOCATIONS THROUGHOUT BUILDING.
4. PROVIDE NEW COPPER WIRING AS REQUIRED AT ALL ROOMS WITH DIMMERS FOR 0-10V CONTROL WIRING. CONDUIT REQUIRED WIRE SIZE WITH DIMMER MANUFACTURER (SPECIFIED MANUFACTURER REQUIRED TO AVERAGE MINIMUM).
4. INSTALL BLANK COVERS OVER ALL UNUSED SWITCH LOCATIONS. LOCATIONS ARE TYPICALLY IN MULTI-GANG BOXES. REFER TO E-000 DRAWINGS FOR REMOVED SWITCH LOCATIONS.

Electrical Legend

- ⌚ 20A 120V SINGLE POLE SWITCH
- ⌚ 20A 120V 3-WAY SWITCH
- ⌚ 20A 120V SINGLE POLE KEY SWITCH
- ⌚ DIMMER SWITCH. INSTALL IN EXISTING ROUGH-IN BOX
- ⌚ 20A 120VOLT DUPLEX RECEPTACLE 16" AFF TO BOTTOM U.O.N.
- ⌚ 20A 120VOLT QUADPLEX RECEPTACLE 16" AFF TO BOTTOM U.O.N.
- ▲ DATA OUTLET (SURFACE MOUNTED RACEWAY); 96" AFF. TO BOTTOM U.O.N.; PROVIDE FACEPLATE WITH (1) DATA CONNECTOR; PROVIDE AND TERMINATE (1) CAT CABLE TO CONNECTOR; TERMINATE CABLE IN COMPUTER LAB A-1 (A143) IN EXISTING RACK; COORDINATE EXACT PORT WITH SCHOOLS IT DIRECTOR.
- ⌚ HOMERUN
- UNON UNLESS OTHERWISE NOTED
- AFF ABOVE FINISHED FLOOR
- EM EMERGENCY LIGHT; LIGHT FIXTURE SHALL BE SWITCHED; PROVIDE CONSTANT ENERGIZED WIRING TO EMERGENCY BALLAST FROM EXISTING LIGHTING CIRCUIT SERVING THAT AREA.
- EX EXISTING TO REMAIN



North

Area "A" Lighting Plan

full size plot scale: 1/8"=1'-0"

0 4'-0" 8'-0"

Notice

The Architect/Engineer does not define the scope of individual trades, subcontractors, material suppliers, or vendors. Any sheet numbering system used which identifies disciplines is solely for the Architect/Engineer's convenience, and is not intended to define a subcontractor's scope of work. Information regarding individual trades, subcontractors, material suppliers, and vendors may be detailed, described and indicated at different locations throughout these documents. No consideration will be given to requests for change orders for failure to obtain and review the complete set of drawings and specifications when preparing bids, prices, and quotations.

© COPYRIGHT by KovertHawkins
ALL RIGHTS RESERVED

630 Walnut Street
Jeffersonville, IN 47130
812.382.1717 FAX
www.koverthawkins.com

KovertHawkins
architects

Revision 1 08-15-2017 ADDENDUM NO.1
2
3
4
5
6

Drawn: SHHG
Checked By: HK
Project No.: 1649.01
Date: 07/17/2017

Principal: *[Signature]*

Dillsboro Elementary School
13200 North Street
Dillsboro, Indiana 47018

South Dearborn Community School Corporation

Sheet: **E-101**

| Light Fixture Schedule | | | | | |
|-----------------------------------|--|---|-------|------------|-----------------------------------|
| Iden | Description | Mounting | Lamps | Fix. Watts | Finish |
| BUILDING INTERIOR LIGHTING | | | | | |
| A1 | 2'x4' LED VOLUMETRIC RECESSED: "LITHONIA", BLT, ZBLT4-30L-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 30 WATTS | WHITE FRAME, WHITE LENS |
| A2 | 2'x4' LED VOLUMETRIC RECESSED: "LITHONIA", BLT, ZBLT4-42-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 34 WATTS | WHITE FRAME, WHITE LENS |
| A3 | 2'x4' LED VOLUMETRIC RECESSED: "LITHONIA", BLT, ZBLT4-48-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 45 WATTS | WHITE FRAME, WHITE LENS |
| A4 | 2'x4' LED VOLUMETRIC RECESSED: "LITHONIA", BLT, ZBLT4-72L-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 67 WATTS | WHITE FRAME, WHITE LENS |
| B1 | 2'x2' LED VOLUMETRIC RECESSED: "LITHONIA", ZBLT, ZBLT2-33L-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 30 WATTS | WHITE FRAME, WHITE LENS |
| B2 | 2'x2' LED VOLUMETRIC RECESSED: "LITHONIA", ZBLT, ZBLT2-40L-ADSM-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 39 WATTS | WHITE FRAME, WHITE LENS |
| C | 1'x4' LED TROFFER: "LITHONIA", GTL, GTL4-33L-SWL-MVOLT-EZ1-LP840 | RECESSED CEILING | LED | 35 WATTS | WHITE FRAME, WHITE LENS |
| D | LED SURFACE VOLUMETRIC: "LITHONIA", STL4, STL4-30L-MVOLT-EZ1-LP840 | SURFACE CEILING | LED | 27 WATTS | WHITE HOUSING, ACRYLIC REFRACTOR |
| E | 6" LED OPEN CIRCULAR DOWNLIGHT: "LITHONIA", LDNG, LDNG40-40-10406-AR-SS-MVOLT-EZ1 | RECESSED CEILING | LED | 13 WATTS | SEMI-SPECULAR REFLECTOR |
| F | 48" LENSED LED STRIPLIGHT: "LITHONIA", ZLN, ZLN4-48-3000LM-MDD-VOLT-40K-80CRI-WH | SUSPENDED | LED | 72 WATTS | WHITE HOUSING |
| G | WALL MOUNT LED: "LITHONIA", WL4, WL4-30L-MVOLT-EZ1-LP840 | SURFACE WALL | LED | 28 WATTS | WHITE FRAME, WHITE LENS |
| H | 1'x4' LED RECESSED WET LOCATION TROFFER: "LITHONIA", WRTL, WRTL4-48-3000LM-JAW-AFL-MVOLT-EQ1-40K-80CRI-WH | RECESSED CEILING | LED | 27 WATTS | WHITE FRAME, FROSTED ACRYLIC LENS |
| J | LED HIGH BAY: "LITHONIA", IBG, IBG-2400LM-SEF-AFL-GND-MVOLT-OZ10-40K-80CRI-WGX-DWH WITH WGB22 WIRE GUARD | SUSPENDED VIA AIRCRAFT CABLE OR CHAIN (APPROX. 21"± A.F.F.) | LED | 154 WATTS | WHITE FRAME, FROSTED ACRYLIC LENS |
| EX-1 | EXISTING SUSPENDED FIXTURE: EXISTING FIXTURE TO REMAIN. REMOVE T-8 LAMP AND REPLACE WITH LED MAGIC TUBE BY JL LIGHTING #ZY-T8-15W-1200-B-JXX-4000K. CONTRACTOR TO CONFIRM EXISTING BALLAST COMPATIBILITY; REMOVE BALLAST AND RE-WIRE FIXTURE AS REQUIRED IF INCOMPATIBLE. | | LED | 15 WATTS | |
| EX-2 | EXISTING WALL MOUNTED FIXTURE: EXISTING FIXTURE TO REMAIN. REMOVE T-8 LAMP AND REPLACE WITH LED MAGIC TUBE BY JL LIGHTING #ZY-T8-15W-1200-B-JXX-4000K. CONTRACTOR TO CONFIRM EXISTING BALLAST COMPATIBILITY; REMOVE BALLAST AND RE-WIRE FIXTURE AS REQUIRED IF INCOMPATIBLE. | | LED | 15 WATTS | |
| EX-3 | EXISTING EXIT LIGHT TO REMAIN; U.O.N. | | | | |
| BUILDING EXTERIOR LIGHTING | | | | | |
| OLF1 | ARCHITECTURAL WALL SCONCE: "LITHONIA", WST LED; WST LED-P3-40K-VF-MVOLT-PE-DOBXD. CONTRACTOR TO FIELD VERIFY AND PROVIDE PHOTO ELECTRIC CELL, BUTTON TYPE (E) AT FIXTURES AS REQUIRED TO MAINTAIN EXISTING LIGHTING CONTROL SYSTEM. | SURFACE WALL | LED | 50 WATTS | DARK BRONZE |
| OLF2 | 12" LED RETROFIT: "INDY", LRT I2 SERIES, LRT12-33L-40K-MVOLT-G3-80CRI-EZ1-P-CSS-WET | RECESSED SOFFIT | LED | 35 WATTS | CLEAR SEMI-SPECULAR |
| OLF3 | ARCHITECTURAL CEILING MOUNT: "LITHONIA", VGRIC LED; VGRIC-50LED-MVOLT-DOB8 | SURFACE SOFFIT | LED | 50 WATTS | DARK BRONZE |
| OLF4 | LED WALL CYLINDER LIGHT: "LITHONIA", OLLWU LED; OLLWU LED-P1-40K-MVOLT-DOB8 | SURFACE WALL | LED | 14 WATTS | DARK BRONZE |
| GENERAL LIGHTING ITEMS | | | | | |
| EM | EMERGENCY FIXTURE: PROVIDE EMERGENCY BATTERY PACK OR LED EMERGENCY MODULE BACKUP ON SPECIFIED FIXTURE; STANDARD BATTERY PACK UNIT PER MANUFACTURER, U.O.N. | | | | |

*SEE DRAWING U-101 FOR SITE LIGHTING FIXTURES.

- LIGHT FIXTURE NOTES:**
- GENERAL INTENT OF ALL LIGHT FIXTURES SPECIFIED IS TO PROVIDE HIGH-PERFORMANCE FIXTURES, LAMPS, AND BALLASTS FOR IMPROVED ENERGY EFFICIENCY AND TO QUALIFY FOR UTILITY INCENTIVES, WHEN AVAILABLE. CONTRACTOR SHALL PROVIDE PRODUCT INVOICES AND BILL OF MATERIALS FOR USE IN OBTAINING UTILITY INCENTIVES. INCENTIVES WILL BE PREPARED BY THE ARCHITECT FOR PAYMENT DIRECTLY TO THE OWNER.
 - PRODUCTS LISTED ON THE FIXTURE SCHEDULE ARE DONE SO AS A BASIS OF SPECIFICATION AND DESIRED QUALITY. PRODUCTS MAY ALSO HAVE BEEN SELECTED IN COMPLIANCE WITH UTILITY INCENTIVE PROGRAMS AND REQUIREMENTS. PRODUCTS MEETING ALL DESIRED REQUIREMENTS MAY BE SUBSTITUTED AS SUBSTITUTIONS, PENDING FINAL APPROVAL OF ANY AND ALL PRODUCTS, OPTIONS, AND COMPONENTS AS DETERMINED BY THE ARCHITECT.
 - GENERALLY, SUBMIT PRODUCTS FROM THE FOLLOWING FAMILIES OF MANUFACTURED COMMERCIAL PRODUCTS:
 - COOPER
 - HUBBELL
 - LIGHTOLIER
 - LITHONIA
 - ALL LED FIXTURES SHALL MEET THE FOLLOWING MINIMUM REQUIREMENTS:
 - MEET THE HIGH-PERFORMANCE REQUIREMENTS OF EITHER ENERGY STAR OR DESIGN LIGHTS CONSORTIUM, AND OBTAIN THEIR APPROVAL AND LISTING.
 - SYSTEM LIFE RATED TO RETAIN A MINIMUM OF 70% LIGHT OUTPUT AT 50,000 HOURS OF USE. (70 AT 50,000 HOURS).
 - 80 CRI MIN.
 - ALL EXIT AND EMERGENCY LIGHTING SHALL BE WIRED WITH A CONSTANT HOT WIRE AHEAD OF THE SWITCHING SERVING THAT AREA. AT NO TIME SHALL THIS LIGHTING BE SWITCHED.
 - PROVIDE ADAPTERS AS REQUIRED FOR DEPTHS OF CONSTRUCTION AT EACH LOCATION.
 - PROVIDE PROPER TRIM AND MOUNTING AS REQUIRED FOR EACH CONSTRUCTION TYPE, LOCATION, AND CONDITION.

General Lighting Replacement Notes

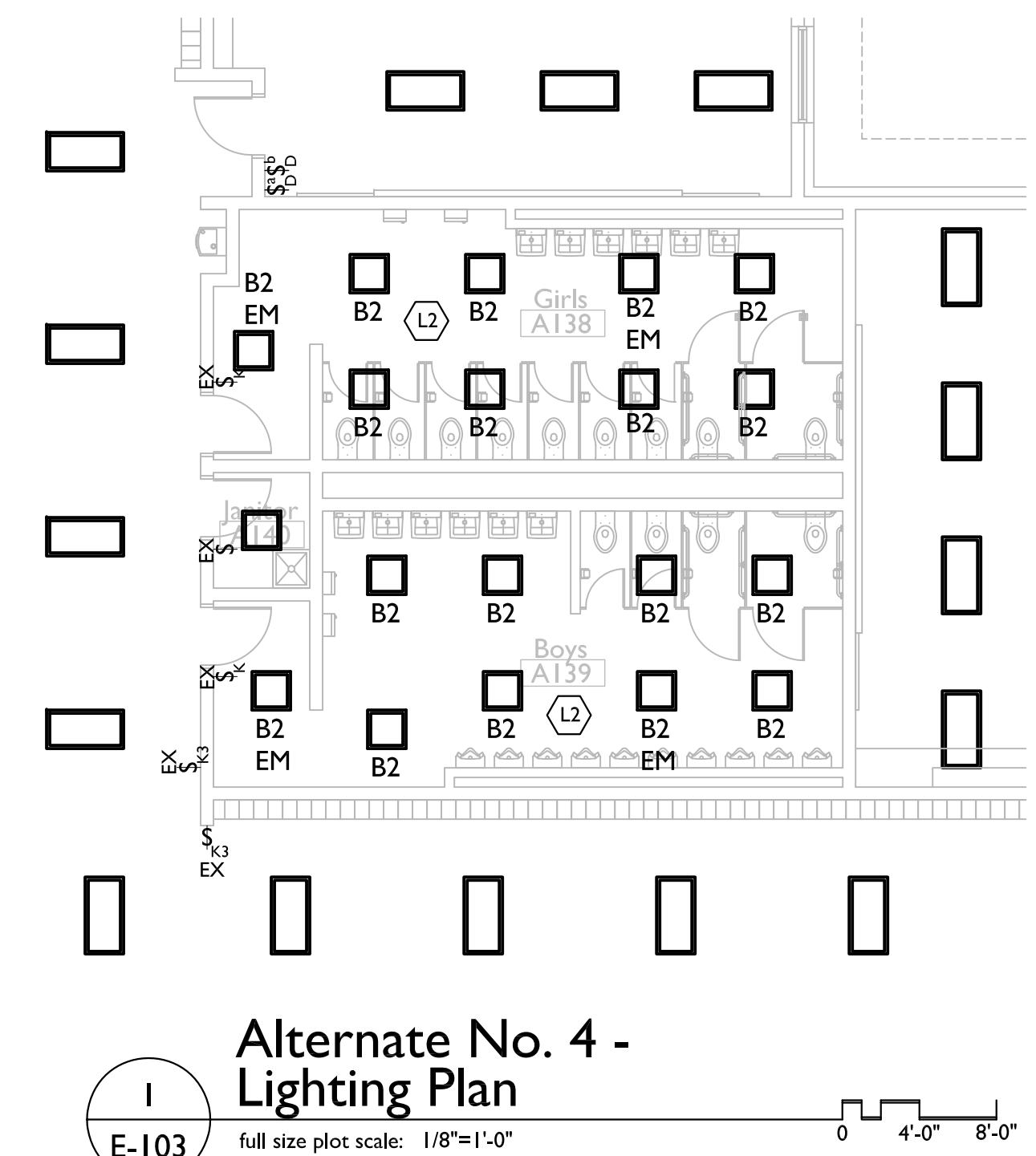
- NEW LIGHT FIXTURES ARE GENERALLY PLANNED TO REPLACE EXISTING FIXTURES IN SAME LOCATION, U.O.N.
- CONNECT NEW LIGHT FIXTURES AND SWITCHES TO EXISTING LIGHTING CIRCUITS, U.O.N.
- CONTRACTOR TO FIELD VERIFY AND MAINTAIN ALL NIGHT LITE LOCATIONS THROUGHOUT BUILDING.
- PROVIDE NEW COPPER WIRING AS REQUIRED AT ALL ROOMS WITH DIMMERS FOR 0-10V CONTROL WIRING; CONFIRM REQUIRED WIRE SIZE WITH DIMMER MANUFACTURER (SPECIFIED MANUFACTURER REQUIRES 20 AWG MINIMUM).
- INSTALL BLANK COVERS OVER ALL UNUSED SWITCH LOCATIONS. LOCATIONS ARE TYPICALLY IN MULTI-GANG BOXES; REFER TO E-000 DRAWINGS FOR REMOVED SWITCH LOCATIONS.

Lighting Plan Keynotes

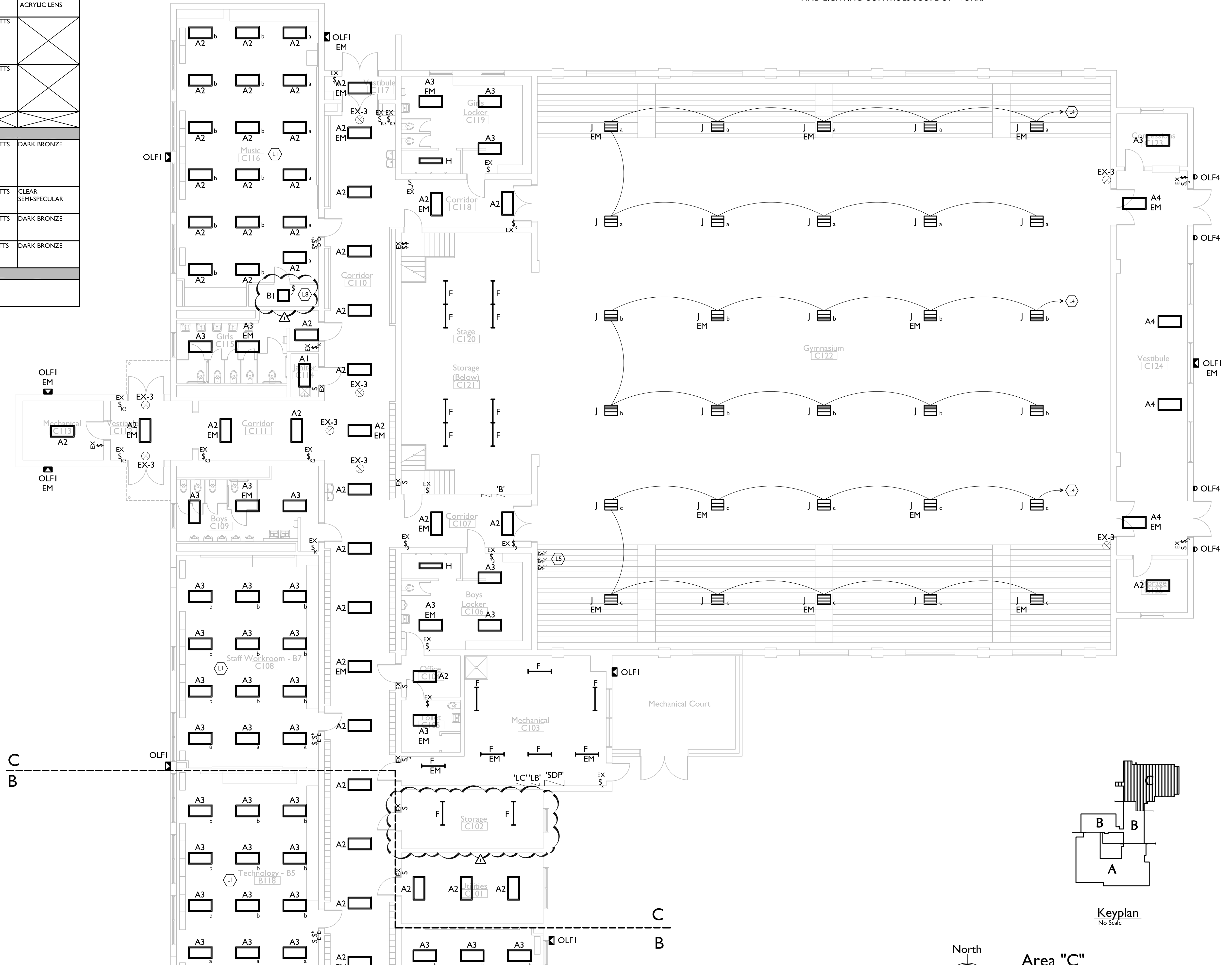
- (L1) INSTALL NEW LINE VOLTAGE AND LOW VOLTAGE CONTROL WIRING WITHIN ROOM AS REQUIRED TO ACCOMPLISH NEW SWITCHING CONFIGURATION AS INDICATED.
 - (L2) INSTALL NEW LINE VOLTAGE WIRING WITHIN ROOM AS REQUIRED FOR NEW LIGHTING LAYOUT.
 - (L3) INSTALL NEW LINE VOLTAGE WIRING AS REQUIRED FOR NEW 2x2 LIGHT FIXTURES IN ROOM.
 - (L4) 120V, 20A CIRCUIT TO PANEL 'B'. UTILIZE EXISTING 20A, SINGLE POLE GYMNASIUM LIGHTING BREAKER.
 - (L5) LIGHT SWITCHES TO BE INSTALLED IN SURFACE MOUNTED BOX. INSTALL SURFACE MOUNTED RACEWAY EXPOSED IN GYMNASIUM, THEN POKE THROUGH WALL ABOVE LOCKER ROOM CEILING.
 - (L6) EXISTING KEY SWITCH FOR COMPUTER POWER TO REMAIN.
 - (L7) INSTALL EXISTING EXIT LIGHT AT NEW LOCATION. EXTEND EXISTING LIGHTING CIRCUIT TO NEW LOCATION AS REQUIRED. INSTALL CIRCUIT IN SURFACE MOUNTED RACEWAY WHERE EXPOSED.
 - (L8) INSTALL NEW LIGHT SWITCH TO SEPARATE CLOSET LIGHT FIXTURE FROM CLASSROOM LIGHT FIXTURES.
- *SEE SECTION 01230 FOR ALTERNATES #7, #8A, AND #8B AFFECTING LIGHTING REPLACEMENT AND LIGHTING CONTROLS SCOPE OF WORK.

Electrical Legend

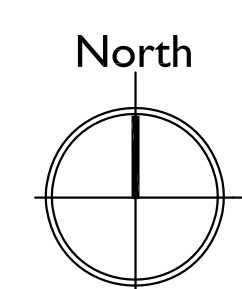
- 20A 120V SINGLE POLE SWITCH
- 20A 120V 3-WAY SWITCH
- 20A 120V SINGLE POLE KEY SWITCH
- DIMMER SWITCH; INSTALL IN EXISTING ROUGH-IN BOX
- 20A 120VOLT DUPLEX RECEPTACLE 16" AFF TO BOTTOM U.O.N.
- 20A 120VOLT QUADPLEX RECEPTACLE 16" AFF TO BOTTOM, U.O.N.
- DATA OUTLET (SURFACE MOUNTED RACEWAY); 90" A.F.F. TO BOTTOM U.O.N. PROVIDE FACEPLATE WITH (1) DATA CONNECTOR; PROVIDE AND TERMINATE (1) CAT CABLE TO CONNECTOR; TERMINATE CABLE IN COMPUTER LAB-A-1 (A143) IN EXISTING RACK; COORDINATE EXACT PORT WITH SCHOOLS IT DIRECTOR.
- HOMERUN
- UNLESS OTHERWISE NOTED
- ABOVE FINISHED FLOOR
- EMERGENCY LIGHT; LIGHT FIXTURE SHALL BE SWITCHED; PROVIDE CONSTANT ENERGIZED WIRING TO EMERGENCY BALLAST FROM EXISTING LIGHTING CIRCUIT SERVING THAT AREA.
- EXISTING TO REMAIN



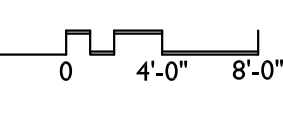
Alternate No. 4 - Lighting Plan
full size plot scale: 1/8"=1'-0"



Keyplan
No Scale



Area "C" Lighting Plan
full size plot scale: 1/8"=1'-0"



Notice
The Architect/Engineer does not define the scope of individual trades, subcontractors, material suppliers, or vendors. Any sheet numbering system used which identifies disciplines is solely for the Architect/Engineer's convenience, and is not intended to define a subcontractor's scope of work. Information regarding individual trades, subcontractors, material suppliers, and vendors may be detailed, described and indicated at different locations throughout these documents. No consideration will be given to requests for change orders for failure to obtain and review the complete set of drawings and specifications when preparing bids, prices, and quotations.

© COPYRIGHT by KovertHawkins
ALL RIGHTS RESERVED

630 Walnut Street
Jeffersonville, IN 47130
Phone: 812.282.1711
812.282.1711 FAX
www.koverthawkins.com

KovertHawkins
architects

SHHG
Drawn: _____
Checked By: HK
Project No.: 1649.01
Date: 07/17/2017

Revisions: 1. 08-10-2017 ADDENDUM NO.1
2. _____
3. _____
4. _____
5. _____
6. _____

Certified By: *[Signature]*

2017 Renovations

Dillsboro Elementary School

13200 North Street
Dillsboro, Indiana 47018

South Dearborn Community School Corporation

Sheet
E-103