ADDENDUM NO. 4

January 30, 2023

Three Rivers Community Schools – Three Rivers Middle School Additions and Renovation
1101 Jefferson Street
Three Rivers, MI 49093

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated December 1, 2022, by GMB Architecture and Engineering. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 4-1 through ADD 4 - 3, Attached RFI Log, Substitution Request, and GMB Architecture and Engineering Addendum No. 4, dated January 26, 2023, consisting of 4 pages, Reissued Specification Sections; 08 71 00 – Door Hardware, 09 22 16 – Non-Structural Metal Framing, and 09 65 19 - Resilient Tile Flooring, New Sheet; S3.1E, and Reissued Sheets; G0.00, G1.01, G2.01, C8.01, A1.1E, A2.1E, A2.30, A5.01, A6.01, A7.03, A8.01, A8.02, M1.1D, M1.1E, M1.81, M2.1C, M2.1D, M2.1E, M3.1D, M8.01, M8.03, M8.04, M9.01, M9.02, E1.1C, E1.1D, E2.1D, E2.1E, and E7.01.

A. SPECIFICATION SECTION 00 31 00 BID FORM

1. Replace Bid form with attached revised Bid Form. **Note – added Alternate No. 8 for replacement of Exterior Doors only at Vestibule E120.**

B. SPECIFICATION SECTION 01 12 00 MULTIPLE CONTRACT SUMMARY

1. Paragraph 3.03 Bid Categories

D. Bid Category No. 4 – Masonry

1. Add The Following Clarification:

6. **Bid Category No. 4 Masonry** is to provide all spray applied insulation as applied to Masonry wall construction.

F. Bid Category No. 6 – Roofing

1. Add The Following Clarifications:

6. **Bid Category No. 9 Metal Stud, Gypsum Board, and Acoustical Ceiling** is to provide parapet wall framing and sheathing as detailed in section 13/A7.03.

7. **Bid Category No. 7 General Trades** is to provide all wood blocking as detailed. This includes but is not limited to top of wall conditions; Window Louver and Door Jambs, Louver and Windowsills, and Door Headers.

8. **Bid Category No. 12 Painting** is to provide paint at underside of wood nailer at all flutes in wall panel as detailed on 9/A7.03.

G. Bid Category No. 7 – General Trades

1. Add The Following Clarifications:

19. **Bid Category No. 7 General Trades** is to provide Z furring for Metal Panel Wall systems.

20. **Bid Category No. 4 Masonry** is to provide all spray applied insulation as applied to Masonry wall construction.

21. **Bid Category No. 9 Metal Stud, Gypsum Board, and Acoustical Ceiling** is to provide parapet wall framing and sheathing as detailed in section 13/A7.03.

22. **Bid Category No. 7 General Trades** is to provide all wood blocking as detailed. This includes but is not limited to top of wall conditions, window louver and door jambs, louver and windowsills, and door headers.

23. Gypsum board ceiling in Media Center/Learning Commons Room A111 is to remain. See Sheet A1.1A and Sheet A3.1A. All Acoustical and Drop ceilings are to be demolished as indicated on sheet A1.1A.

I. Bid Category No. 9 – Metal Stud, Gypsum Board, and Acoustical Ceilings

1. Add The Following Clarifications:

4. **Bid Category No. 9 Metal Stud, Gypsum Board, and Acoustical Ceiling** is to provide parapet wall framing and sheathing as detailed in section 13/A7.03.

5. Gypsum board ceiling in Media Center/Learning Commons Room A111 is to

remain. See Sheet A1.1A and Sheet A3.1A. All Acoustical and Drop ceilings are to be demolished as indicated on sheet A1.1A.

J. Bid Category No. 10 – Aluminum Frames and Glazing

1. Add The Following Clarification:

4. **Bid Category No. 10 – Aluminum Frames and Glazing** is to provide Ives Continuous Hinge 112 XY EPT 313 and Von Duprin Power Transfer EPT10 695, in lieu of Scheduled Ives Continuous Hinge 112XY TWP 313AN at Door(s) C101A, C101B, C101C, C101D, C101E, C101F, E120A, E120B, E120C, E120D, E120E, and E120F.

L. Bid Category No. 12 Painting

1. Add The Following Clarification:

2. **Bid Category No. 12 Painting** is to provide paint at underside of wood nailer at all flutes in wall panel, as detailed on 9/A7.03.

C. SPECIFICATION SECTION 01 23 00 - ALTERNATES

1. Add Alternate No. 8 for replacement of exterior doors only at Vestibule E120.

D. SPECIFICATION SECTION 01 53 10 - FENCES

1. Revise Section 2.01. A. Materials to read as follows:

A. Fencing is to be 6’ high chain link with gates as indicated on drawings. Fabric to be 9 ga. Galvanized wire mesh (Allow for **1500** Lineal Feet).

Amended for TRCS

CONTRACTOR'S BID FOR PUBLIC WORKS

Three Rivers Middle School Additions & Renovations

Three Rivers Community Schools

St. Joseph County

PART I

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

BIDDER (firm) _____

Address _____ P.O. Box _____

City/State/Zip _____
Telephone Number _____ Email Address: _____
Person to contact regarding this Bid: _____
Pursuant to notices given, the undersigned offers to furnish labor and materials necessary to complete the construction work for:

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

of public works project, **Three Rivers Middle School Additions and Renovations**, in accordance with Plans and Specifications prepared by **GMB Architecture + Engineering, 85 E. 8th Street, Suite 200, Holland, MI 49423,** as follows:

BASE BID

For the sum of _____
(sum in words)

_____ DOLLARS ($_____)
(sum in figures)

The undersigned acknowledges receipt of the following Addenda:

Receipt of Addenda No.(s)_____

PROPOSAL TIME

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

Attended pre-bid conference YES _____ NO

Has visited the jobsite YES _____ NO

The Bidder must attach to this bid, the sworn and notarized affidavit (attached at the end of this Bid Form) disclosing any familial relationship between the Owner or an employee of the bidder and any member of the District's Board or the Superintendent of the District.

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

The Skillman Corporation's diversity initiative is to create a program to encourage, assist and measure the active participation of Minority- Owned, Women-Owned, Veteran – Owned and Disabled Individual-Owned Businesses. The Program is to ensure that MWVDBEs are provided full and equal opportunity to participate in all Skillman Corporation's Projects.

Bidder has included:

DBE: YES _____% NO _____
MBE: YES _____% NO _____
WBE: YES _____% NO _____
VBE: YES _____% NO _____

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

ALTERNATE BIDS

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

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

Alternate Bid No. 1 (A-1) – Replace Doors and Frames at Vestibule E120

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 2 (G-1) – At Men D101 and Women E102, Replace existing plumbing fixtures one for one. Replace existing toilet partitions one for one and provide new finishes.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS ($_____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 3 (G-2) – Rehabilitation (New Fluid Applied Roofing System) of the existing roofs at Units D and E, and parts of Units A and B as noted on the Overall Roof Plan.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 4 (M-1) – Replacement of all air handling units and accessories located in Unit D.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 5 (E-1) – Add cabling (CAT6A) to quantity of (6) Cameras in Units D and E.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

MARK "ADD" OR "DEDUCT" FOR EACH ALTERNATE

Alternate Bid No. 6 (E-2) – Provide a new P.A. Head End System.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS ($ _____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 7 (E-3) – Provide a New Wireless Clock System in Units A, B, and C.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

Alternate Bid No. 8 – Replace Doors and Frames as indicated at Vestibule E120 for **Exterior Doors Only.** E120A, E120B, E120C, E120D, E120E, E120F.

Change the Base Bid the sum of _____
(sum in words)

_____ DOLLARS($ _____) ADD / DEDUCT
(sum in figures)

NON-COLLUSION AFFIDAVIT

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

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

OATH AND AFFIRMATION

I affirm under the penalties of perjury that the foregoing facts and information are true and correct to the best of my knowledge and belief.

Dated at _____this _____ day of _____, 20___.

_____
(Name of Organization)

By _____
(Title of Person Signing)

ACKNOWLEDGEMENT

STATE OF_____)
) SS:
COUNTY OF _____)

_____ being duly sworn, deposes and says that

he is _____of the above _____
(Title) (Name of Organization)

and that the statements contained in the foregoing Bid, certification and Affidavit are true and correct.

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

_____
Notary Public

My Commission Expires:_____

County of Residence: _____

PART II

(Complete sections I, II, and III for all state and local public works projects)

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

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed?

Contract Amount	Class of Work	When Completed	Name and Address of Owner

2. What public works projects has your organization now in process of construction:

Contract Amount	Class of Work	When Completed	Name and Address of Owner

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

_____

_____

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

_____

_____

_____

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed Work.

2. If you intend to sublet any portion of the Work, state the name and address of each subcontractor, equipment to be used by the subcontractor, and whether you expect to require a bond.

3. What equipment do you intend to use for the proposed Project?

4. Have you made contracts or received offers for all materials within prices used in preparing your proposal? _____ yes _____ no.

SECTION III OATH AND AFFIRMATION

I hereby affirm under the penalties of perjury that the facts and information contained in the foregoing Bid for public works are true and correct to the best of my knowledge and belief.

IN TESTIMONY WHEREOF, The Bidder has hereunto set his hand this

_____ day of _____ , 20 _____ .

Bidder:_____

IN TESTIMONY WHEREOF, The Bidder (a firm) have hereunto set their hands this

_____ day of _____, 20_____.

Firm Name: _____

By:_____

Individual names:_____

IN TESTIMONY WHEREOF, The Bidder (a corporation) has caused this proposal to be signed by its President and Secretary and affixed its corporate seal this_____ day of _____ , 20 _____.
Name of Corporation:

President: _____
Secretary:_____

ACKNOWLEDGEMENT

STATE OF_____)
) SS:
COUNTY OF_____)

_____ being duly sworn, deposes and says that

he is _____ of the above _____
(Title) (Name of Organization)

and that the answers to the questions in the foregoing questionnaires and all statements therein contained are true and correct.

Subscribed and sworn to before me this_____ day of _____, 20 ___.

_____
Notary Public

My Commission Expires: _____
County of Residence: _____

AFFIDAVIT OF BIDDER - FAMILIAL DISCLOSURE

The undersigned, the Owner or authorized officer of _____ (the 'Bidder'), pursuant to the familial disclosure requirement provided in the _____ (the 'School District') advertisement for construction bids, hereby represent and warrant, except as provided below, that no familial relationships exist between the Owner(s) or any employee of _____ and any member of the Board of Education of the School District or the Superintendent of the School District.

List any Familial Relationships:

BIDDER:

_____

By: _____

Its: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 20__, by _____.

_____
, Notary Public

_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

CERTIFICATION OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT
Michigan Public Act No. 517 of 2012

The undersigned, the owner, or authorized officer of the below-named company (the "Company"), pursuant to the compliance certification requirement provided in the **Three Rivers Community School**'s Request For Proposal (the "RFP"), hereby certifies, represents, and warrants that the Company (which includes its officers, directors and employees) is not an "Iran Linked Business" within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the "Act"), and that in the event the Company is awarded a contract by the **Three Rivers Community Schools** as a result of the aforementioned RFP, the Company is not and will not become an "Iran Linked Business" at any time during the course of performing any services under the contract.

The Company further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than $250,000.00 or two (2) times the amount of the contract or proposed contract for which the false certification was made, whichever is greater, the cost of the **Three Rivers Community School**'s investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on a request for proposal for three (3) years from the date that it is determined that the person has submitted the false certification.

BIDDER:

_____

By: _____

Its: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 20__, by _____.

_____
, Notary Public

_____ County, Michigan

My Commission Expires: _____

Acting in the County of: _____

END OF SECTION 00 31 00

TRCS-Middle School 1.30.2023 - RFI Log

RFI #	Company Submitting RFI	Discpline	Date Submitted	Date Responded	RFI Description	RFI Response
1	Burgess Concrete		1/9/2023	01/25/23	Who is responsible for sawcut and removal of column footings which are to be expanded	Clarified in Addendum No. 3
2	Burgess Concrete	Arch/Structural	1/9/2023	01/20/23	Please clarify where areas for thickened slab apply in Unit A and apply to S2.1A	Thickened slab locations are shown on A1.1A in ADD 002
3	Burgess Concrete		1/9/2023	01/25/23	Who will be resopnsible sawcutting, removal, and excvation for F18 footings	Clarified in Addendum No. 3
4	Burgess Concrete	Structural	1/9/2023	01/19/23	Please verify Column footings are all to be F5X5	Please see detail 12/S7.01
5	Burgess Concrete		1/9/2023	01/25/23	Which Scope will be respnsible for Excvaation and pouring light pole bases	Clarified in Addendum No. 3
6	Early and Associates	Arch/Structural	1/12/2023	01/19/23	Is there Terminte Control needed, if so whose scope is it.	Yes, section 31 31 16 added to ADD 002
7	Early and Associates	Arch	1/12/2023	01/19/23	Detail AA2/A6.10, shows 3" of insulation in concrete foundation wall, but note calls for 4" of rigid, please clarify	3" insulation should be used - see ADD 002
8	Early and Associates	Arch/Structural	1/12/2023	01/19/23	There are moisture vapor emission control additives listed in spec, will they be required in concrete floors (or anywhere	Required for slab on grade only.
9	Early and Associates	Site	1/12/2023	01/19/23	Existing site concrete has sawcut control joints; I assume that sawcut control joints will be in new site concrete as well?	Yes, sawcut is acceptable
10	Stonecreek Interior Systems		1/12/2023	01/25/23	It is understood that the custom reception desks are by Bid Category No. 7 General Trades. Viewing Enlarged Plan A2.80 there are several base cabinets below the custom desk and /or a continuation of the desks. Please confirm that Bid Category No. 8 Casework is only providing the cabinets themselves and that the solid surface countertop(s) are a continuation of the custom desk is by General Trades.	Clarified in Addendum No. 3
11	Stonecreek Interior Systems		1/12/2023	01/25/23	There are SS2 solid surface locker tops on metal corridor lockers that is not being installed on our provided casework. (Reference A9.1C, Room C116 as an example) Please clarify who is to provide these solid surface locker tops.	Clarified in Addendum No. 3
12	Stonecreek Interior Systems	Interiors	1/13/2023	01/19/23	detail 21/A8.02, is where the single sided lockers are location. All the single sided lockers on the perimeter of Room C116 are double tiered and are to receive sloped tops by the locker provider. Does the detail for single sided lockers with 1'-4" solid surface tops exist? If so can you please clarify where.	Solid surface counter only applies to double sided single tier lockers
13	Brusse Brady	Arch	1/13/2023	01/19/23	Is it the responsibility of the GT contractor to ensure the existing doors function regardless of what the hardware schedule specifies? It is noted that all prep and modifications are required to be verified. Is this verification to be completed pre-bid? It seems unreasonable to check 100+ doors vs. multiple hardware options as part of the bidding process.	GMB/Allegion has done our best to quantify and accurately reflect existing conditions in the door schedule, speciffially for the rekey portion of the project. Contractors are still responsible to visit building to become aware of existing conditions and what they are bidding on. Updates to door schedule forthcoming in ADD 002
14	S.A. Morman		1/13/2023	01/25/23	Is New Hardware to be installed on Existing FRP Doors the Responsibility of General Trades or Aluminum Frames and Glazing	Clarified in Addendum No. 3
15	CKI	Site	1/16/2023	01/19/23	Spec calls out manufacturers for post and panel signs. There are no post and panel signs shown in the civil drawings or the civil detail drawings. Are the specs or the prints correct? If specs are correct, where can we find the details for the post and panel signs? Details regarding quantity are needed as well.	No post and panel signage is noted for the plan. Plans are correct
16	Wyoming Asphalt	Site/Civil	1/18/2023	01/19/23	Will MDOT 13A Base and Top course be accetable in lieu of E-mixes listed in drawings?	13A is accetable
17	Rieth-Riley	Site Civil	1/17/2023	01/19/23	C series drawings provide Pavement Section information for Heavy duty asphalt and Standard Duty Asphalt, but there is not an indication of application of either on C2.01 or C3.01. Please clarify where these are to be applied?	no heavy duty asphalt in project
18	Rieth-Riley		1/17/2023	01/25/23	In Addendum 01 the clarification for Bid Category No. 2 mentions providing cold patch and temporary pavement markings. Seeing as this is going to be done in the summer would you want hand patching with HMA rather than cold patch? Also, please advise where this patching/ temporary pavement markings are located.	Clarified in Addendum No. 3
19	H&H	Arch/interiors	1/17/2023	01/19/23	Do existing doors/frames/borrowed lights require paint in areas where walls paint?	Yes, paint existing door frames where walls are to be painted
20	H&H	Arch/interiors	1/17/2023	01/19/23	Does the existing GFB get painted or remain as is?	Yes, GFB locations will be painted; see ADD 002
21	H&H	Arch/interiors	1/17/2023	01/19/23	There's no indication of the existing gyp "eyebrows", do they require painting, if so could a drawing or sketch be provided for clarity.	The archways over the existing classroom pods are to be removed per demo note #19
22	Brusse Brady		1/18/2023	01/25/23	Who is responsible for the FRP door hardware, General Trades or Aluminum Frames and Glazing?	Clarified in Addendum No. 3
23	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1B – Heating water piping to fan coil units (FCU-9, 11, 12) has been left off the drawing. Please provide pipe routing and sizes.	These are heat pumps, no hot water piping required. see schedule
24	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1C – Heating water piping to fan coil units, air handlers, fin tube, cabinet unit heaters has been left off the drawing. Please provide pipe routing and sizes.	Corrected per ADD 002
25	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Heating water piping to VAV's, fin tube, etc., has been left off the drawing. Please provide pipe routing and sizes.	Corrected per ADD 002

26	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Chilled water piping routing through the mezzanine has been left off the plan view drawing. Please provide pipe routing and sizes through the mezzanine to air handlers, pumps, air separator, filter, GMU, etc.	Corrected per ADD 002
27	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Please provide additional clouding of the work in section "D" clearly showing what is base bid and what work is part of Alt. M1. Additionally, if the equipment schedules could be noted what items are part of Alt. M1 that would be helpful to us and our equipment suppliers.	Corrected per ADD 002
28	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Please provide plan view routing and pipe sizes of heating water piping in Mech. Rm. D128 showing the variable primary flow piping configuration that is represented in the diagram drawing on M8.01. Boilers are to remain, but is all piping, valves, gauges, and other appetences supposed to be replaced near the boilers? Please clarify.	Corrected per ADD 002
29	Stonecreek Interior Systems	Interiors	1/13/2023	01/26/23	84" Mobile wardrobe carts present safety hazard, would a smaller teacher wardrobe cabinet be considered at a maximium height of 66" or can these 84" Mobile Carts become fixed?	Mobile caseworks can be 66" tall per owner
30	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 08 has door A125A & A127A listed. These two openings are not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
31	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 09 has door B103A & B104A listed. These two openings are not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
32	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 41 has door A115B listed. This opening is not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
33	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 44 has door B115A, B116A & D133A listed. These three openings are not listed on the door and frame schedule. Please clarify what is needed.	Doors added to plans and door and frame schedule
34	S.A. Morman		1/19/2023	01/26/23	Will the aluminum/glass/glazing contractor furnish and install the glass in the wood doors, or do the wood doors need to be factory glazed?	Okay with factory glazing
35	S.A. Morman	Arch	1/19/2023	01/26/23	Are standard flush wood moldings acceptable for the glass stops in wood doors that have lites?	Yes, the standard profile is acceptable.
36	Gibson Lewis		1/19/2023	01/25/23	Are Dumpsters being provided by the construction manager for demoliton and slab removal	Clarified in Addendum No. 3
37	Gibson Lewis		1/19/2023	01/25/23	Will the mason be grouting the hollow metal frames	Clarified in Addendum No. 3
38	Gibson Lewis		1/19/2023	01/25/23	Will Painter be Caulking Hollow Metal Frames	Clarified in Addendum No. 3
39	Partition Systems	Arch	1/20/2023	01/26/23	IS the height of the joists and joist spacing for basketball hoops known?	Existing joist spacing is approximately 11 feet O.C.; detail reference added to gym structure to reinforce joists at connection points. verify in field
40	Brusse Brady		1/20/2023	01/25/23	What Bid Category is responsible for trash chutes as noted in spec section 01 52 60	Clarified in Addendum No. 3
41	Brusse Brady		1/20/2023	01/25/23	What bid category is responsible for fall protection at roof edge	Clarified in Addendum No. 3
42	Brusse Brady		1/20/2023	01/25/23	What Bid Category is responsible for supplying anchor bolts at the top of new CMU wall needed to attach to treated 2X top plate	Clarified in Addendum No. 3

43	Brusse Brady	Arch	1/20/2023	01/26/23	Roofing nailer spec notes to use Hilti Screw Anchors for Wood to masonry connections. Plans show Hilit epoxy screen anchors Please provide product number for required fastener	Plans and specs call for 1/2" diameter anchors, typ.; Use the required Hilti anchor (screen or screw) as required to achieve proper embedment for that condition
44	Brusse Brady		1/20/2023	01/27/23	Is floor protection for the gym the responsibility of an individual bid category, or is it the responsibility of the individual performing work in the gym to protect the floor as needed?	Contractor performing work in spaces which are not scheduled for new finishes will be responsible to protect existing finishes from damage.
45	Gibson Lewis		1/20/2023	01/25/23	What bid Category is responsbile for Solid Surface Tops on the Lockers	Clarified in Addendum No. 3
46	Brusse Brady	Arch	1/20/2023	01/26/23	Are Doors E107A and E108A part of the project - listed in schedule, but no details noted	Not part of project
47	Ritsema		1/25/2023	01/27/23	Please clarify who is responsible for Z Furing and Spray Applied insualtion as it applies to detail BB1 and CC1 on A6.10	Clarified in Addendum No. 4
48	Ritsema	Arch	1/25/2023	01/26/23	Please verify drywall ceilings in A111 learning commons are scheduled to remain. Note 5 from demolition plan would imply that existing is to be removed and these are potentially to be replaced.	Drywall bulkhead Ceilings are to remain in A111 all drop ceiling and support elements are scheduled to be demoished and replaced. See Clarification in Addendum No. 4
49	James E. Fulton	Site Civil	1/25/2023	01/26/23	Clarify if there is light duty asphalt (RFI 17 Above)	There is only Standard duty pavement
50	James E. Fulton	Site Civil	1/25/2023	01/26/23	Please clairfy responsibility of sawcutting and removal of slab on Grade	Clarified in Addedndum No. 3
51	Moss	Arch	1/23/2023	01/26/23	Please clarify ceiling heights for D and E	Ceilings look to be 10'-6" in most of the rooms with a dropped ceilng.
52	Moss	Electrical	1/23/2023	01/26/23	Will there be a conduit pathway provided to the accessible ceiling space in office E129 for the camera cable install outside of storage E131	See Addendum 004
53	Moss	Electrical	1/25/2023	01/26/23	Is ther and IDF in area D or E? If Camera cables to unit D and E need to travel to IDF in Area C they will be over 100 meter cat6 limit	See Addendum 004
54	Moss	Electrical	1/25/2023	01/26/23	Where is IDF C Currently located? It cannot be found on Demol plan. Need to know locations for fiber length being able to reach new panel location.	See Addendum 004

TRCS-Middle School 1.30.2023 - RFI Log

RFI #	Company Submitting RFI	Discpline	Date Submitted	Date Responded	RFI Description	RFI Response
1	Burgess Concrete		1/9/2023	01/25/23	Who is responsible for sawcut and removal of column footings which are to be expanded	Clarified in Addendum No. 3
2	Burgess Concrete	Arch/Structural	1/9/2023	01/20/23	Please clarify where areas for thickened slab apply in Unit A and apply to S2.1A	Thickened slab locations are shown on A1.1A in ADD 002
3	Burgess Concrete		1/9/2023	01/25/23	Who will be resopnsible sawcutting, removal, and excvation for F18 footings	Clarified in Addendum No. 3
4	Burgess Concrete	Structural	1/9/2023	01/19/23	Please verify Column footings are all to be F5X5	Please see detail 12/S7.01
5	Burgess Concrete		1/9/2023	01/25/23	Which Scope will be respnsible for Excvaation and pouring light pole bases	Clarified in Addendum No. 3
6	Early and Associates	Arch/Structural	1/12/2023	01/19/23	Is there Terminte Control needed, if so whose scope is it.	Yes, section 31 31 16 added to ADD 002
7	Early and Associates	Arch	1/12/2023	01/19/23	Detail AA2/A6.10, shows 3" of insulation in concrete foundation wall, but note calls for 4" of rigid, please clarify	3" insulation should be used - see ADD 002
8	Early and Associates	Arch/Structural	1/12/2023	01/19/23	There are moisture vapor emission control additives listed in spec, will they be required in concrete floors (or anywhere	Required for slab on grade only.
9	Early and Associates	Site	1/12/2023	01/19/23	Existing site concrete has sawcut control joints; I assume that sawcut control joints will be in new site concrete as well?	Yes, sawcut is acceptable
10	Stonecreek Interior Systems		1/12/2023	01/25/23	It is understood that the custom reception desks are by Bid Category No. 7 General Trades. Viewing Enlarged Plan A2.80 there are several base cabinets below the custom desk and /or a continuation of the desks. Please confirm that Bid Category No. 8 Casework is only providing the cabinets themselves and that the solid surface countertop(s) are a continuation of the custom desk is by General Trades.	Clarified in Addendum No. 3
11	Stonecreek Interior Systems		1/12/2023	01/25/23	There are SS2 solid surface locker tops on metal corridor lockers that is not being installed on our provided casework. (Reference A9.1C, Room C116 as an example) Please clarify who is to provide these solid surface locker tops.	Clarified in Addendum No. 3
12	Stonecreek Interior Systems	Interiors	1/13/2023	01/19/23	detail 21/A8.02, is where the single sided lockers are location. All the single sided lockers on the perimeter of Room C116 are double tiered and are to receive sloped tops by the locker provider. Does the detail for single sided lockers with 1'-4" solid surface tops exist? If so can you please clarify where.	Solid surface counter only applies to double sided single tier lockers
13	Brusse Brady	Arch	1/13/2023	01/19/23	Is it the responsibility of the GT contractor to ensure the existing doors function regardless of what the hardware schedule specifies? It is noted that all prep and modifications are required to be verified. Is this verification to be completed pre-bid? It seems unreasonable to check 100+ doors vs. multiple hardware options as part of the bidding process.	GMB/Allegion has done our best to quantify and accurately reflect existing conditions in the door schedule, speciffially for the rekey portion of the project. Contractors are still responsible to visit building to become aware of existing conditions and what they are bidding on. Updates to door schedule forthcoming in ADD 002
14	S.A. Morman		1/13/2023	01/25/23	Is New Hardware to be installed on Existing FRP Doors the Responsibility of General Trades or Aluminum Frames and Glazing	Clarified in Addendum No. 3
15	CKI	Site	1/16/2023	01/19/23	Spec calls out manufacturers for post and panel signs. There are no post and panel signs shown in the civil drawings or the civil detail drawings. Are the specs or the prints correct? If specs are correct, where can we find the details for the post and panel signs? Details regarding quantity are needed as well.	No post and panel signage is noted for the plan. Plans are correct
16	Wyoming Asphalt	Site/Civil	1/18/2023	01/19/23	Will MDOT 13A Base and Top course be accetable in lieu of E-mixes listed in drawings?	13A is accetable
17	Rieth-Riley	Site Civil	1/17/2023	01/19/23	C series drawings provide Pavement Section information for Heavy duty asphalt and Standard Duty Asphalt, but there is not an indication of application of either on C2.01 or C3.01. Please clarify where these are to be applied?	no heavy duty asphalt in project
18	Rieth-Riley		1/17/2023	01/25/23	In Addendum 01 the clarification for Bid Category No. 2 mentions providing cold patch and temporary pavement markings. Seeing as this is going to be done in the summer would you want hand patching with HMA rather than cold patch? Also, please advise where this patching/ temporary pavement markings are located.	Clarified in Addendum No. 3
19	H&H	Arch/interiors	1/17/2023	01/19/23	Do existing doors/frames/borrowed lights require paint in areas where walls paint?	Yes, paint existing door frames where walls are to be painted
20	H&H	Arch/interiors	1/17/2023	01/19/23	Does the existing GFB get painted or remain as is?	Yes, GFB locations will be painted; see ADD 002
21	H&H	Arch/interiors	1/17/2023	01/19/23	There's no indication of the existing gyp "eyebrows", do they require painting, if so could a drawing or sketch be provided for clarity.	The archways over the existing classroom pods are to be removed per demo note #19
22	Brusse Brady		1/18/2023	01/25/23	Who is responsible for the FRP door hardware, General Trades or Aluminum Frames and Glazing?	Clarified in Addendum No. 3
23	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1B – Heating water piping to fan coil units (FCU-9, 11, 12) has been left off the drawing. Please provide pipe routing and sizes.	These are heat pumps, no hot water piping required. see schedule
24	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1C – Heating water piping to fan coil units, air handlers, fin tube, cabinet unit heaters has been left off the drawing. Please provide pipe routing and sizes.	Corrected per ADD 002
25	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Heating water piping to VAV's, fin tube, etc., has been left off the drawing. Please provide pipe routing and sizes.	Corrected per ADD 002

26	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Chilled water piping routing through the mezzanine has been left off the plan view drawing. Please provide pipe routing and sizes through the mezzanine to air handlers, pumps, air separator, filter, GMU, etc.	Corrected per ADD 002
27	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Please provide additional clouding of the work in section "D" clearly showing what is base bid and what work is part of Alt. M1. Additionally, if the equipment schedules could be noted what items are part of Alt. M1 that would be helpful to us and our equipment suppliers.	Corrected per ADD 002
28	Jergens Piping	Mechanical	1/18/2023	01/19/23	Dwg. M3.1D - Please provide plan view routing and pipe sizes of heating water piping in Mech. Rm. D128 showing the variable primary flow piping configuration that is represented in the diagram drawing on M8.01. Boilers are to remain, but is all piping, valves, gauges, and other appetences supposed to be replaced near the boilers? Please clarify.	Corrected per ADD 002
29	Stonecreek Interior Systems	Interiors	1/13/2023	01/26/23	84" Mobile wardrobe carts present safety hazard, would a smaller teacher wardrobe cabinet be considered at a maximium height of 66" or can these 84" Mobile Carts become fixed?	Mobile caseworks can be 66" tall per owner
30	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 08 has door A125A & A127A listed. These two openings are not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
31	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 09 has door B103A & B104A listed. These two openings are not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
32	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 41 has door A115B listed. This opening is not listed on the door and frame schedule. Please clarify what is needed.	Those have been removed from project and will need to be removed from hardware schedule
33	S.A. Morman	Arch	1/19/2023	01/26/23	Hardware set 44 has door B115A, B116A & D133A listed. These three openings are not listed on the door and frame schedule. Please clarify what is needed.	Doors added to plans and door and frame schedule
34	S.A. Morman		1/19/2023	01/26/23	Will the aluminum/glass/glazing contractor furnish and install the glass in the wood doors, or do the wood doors need to be factory glazed?	Okay with factory glazing
35	S.A. Morman	Arch	1/19/2023	01/26/23	Are standard flush wood moldings acceptable for the glass stops in wood doors that have lites?	Yes, the standard profile is acceptable.
36	Gibson Lewis		1/19/2023	01/25/23	Are Dumpsters being provided by the construction manager for demoliton and slab removal	Clarified in Addendum No. 3
37	Gibson Lewis		1/19/2023	01/25/23	Will the mason be grouting the hollow metal frames	Clarified in Addendum No. 3
38	Gibson Lewis		1/19/2023	01/25/23	Will Painter be Caulking Hollow Metal Frames	Clarified in Addendum No. 3
39	Partition Systems	Arch	1/20/2023	01/26/23	IS the height of the joists and joist spacing for basketball hoops known?	Existing joist spacing is approximately 11 feet O.C.; detail reference added to gym structure to reinforce joists at connection points. verify in field
40	Brusse Brady		1/20/2023	01/25/23	What Bid Category is responsible for trash chutes as noted in spec section 01 52 60	Clarified in Addendum No. 3
41	Brusse Brady		1/20/2023	01/25/23	What bid category is responsible for fall protection at roof edge	Clarified in Addendum No. 3
42	Brusse Brady		1/20/2023	01/25/23	What Bid Category is responsible for supplying anchor bolts at the top of new CMU wall needed to attach to treated 2X top plate	Clarified in Addendum No. 3

43	Brusse Brady	Arch	1/20/2023	01/26/23	Roofing nailer spec notes to use Hilti Screw Anchors for Wood to masonry connections. Plans show Hilit epoxy screen anchors Please provide product number for required fastener	Plans and specs call for 1/2" diameter anchors, typ.; Use the required Hilti anchor (screen or screw) as required to achieve proper embedment for that condition
44	Brusse Brady		1/20/2023	01/27/23	Is floor protection for the gym the responsibility of an individual bid category, or is it the responsibility of the individual performing work in the gym to protect the floor as needed?	Contractor performing work in spaces which are not scheduled for new finishes will be responsible to protect existing finishes from damage.
45	Gibson Lewis		1/20/2023	01/25/23	What bid Category is responsbile for Solid Surface Tops on the Lockers	Clarified in Addendum No. 3
46	Brusse Brady	Arch	1/20/2023	01/26/23	Are Doors E107A and E108A part of the project - listed in schedule, but no details noted	Not part of project
47	Ritsema		1/25/2023	01/27/23	Please clarify who is responsible for Z Furing and Spray Applied insualtion as it applies to detail BB1 and CC1 on A6.10	Clarified in Addendum No. 4
48	Ritsema	Arch	1/25/2023	01/26/23	Please verify drywall ceilings in A111 learning commons are scheduled to remain. Note 5 from demolition plan would imply that existing is to be removed and these are potentially to be replaced.	Drywall bulkhead Ceilings to remain in A111 all drop ceiling and support elements are scheduled to be demoished and replaced. - demo note removed from A1.1A
49	James E. Fulton	Site Civil	1/25/2023	01/26/23	Clarify if there is light duty asphalt (RFI 17 Above)	There is only Standard duty pavement
50	James E. Fulton	Site Civil	1/25/2023	01/26/23	Please clairfy responsibility of sawcutting and removal of slab on Grade	Clarified in Addedndum No. 3
51	Moss	Arch	1/23/2023	01/26/23	Please clarify ceiling heights for D and E	Ceilings look to be 10'-6" in most of the rooms with a dropped ceilng.
52	Moss	Electrical	1/23/2023	01/26/23	Will there be a conduit pathway provided to the accessible ceiling space in office E129 for the camera cable install outside of storage E131	See Addendum 004
53	Moss	Electrical	1/25/2023	01/26/23	Is ther and IDF in area D or E? If Camera cables to unit D and E need to travel to IDF in Area C they will be over 100 meter cat6 limit	See Addendum 004
54	Moss	Electrical	1/25/2023	01/26/23	Where is IDF C Currently located? It cannot be found on Demol plan. Need to know locations for fiber length being able to reach new panel location.	See Addendum 004

DOCUMENT 00 12 10 – SUBSTITUTION REQUEST FORM

To: Nate Preston - The Skillman Corporation

Project: Three Rivers Middle School Additions and Renovation

We hereby submit for your consideration the following product instead of the specified item for the above project:

Section	Paragraph	Specified Item
101423	2.1	The Supersine Company

Proposed Substitution: Add Appenx as approved Supplier. Supersine is already approved and they acquire Acrylic signs from Appenex

Attach complete technical data including laboratory tests if applicable.

Include complete information changes to Drawings and/or Specifications which proposed substitution require for proper installation.

Fill in Blanks Below, use additional sheets if necessary:

A. Does the substitution affect dimensions shown on Drawings?
No

B. Will the undersigned pay for changes to building design, including engineering and detailing costs caused by substitution, if any?
Yes, but there should be none.

C. What effect does substitution have on other trades?
None

D. Differences between proposed substitution and specified item?
Name only, signs are the same

E. Manufacturer's guarantees of proposed and specified items are:

Same Same _____ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

Submitted by:

Michael Skrzycki
Signature

Firm CKI
Address 2671 Weswinde, NW
Grand Rapid MI 49504

Telephone 616-550-7883

For use by Design Consultant

Accepted (circled) Accepted as Noted
Not Accepted Received too Late
By_____
Date_____
Remarks_____

Chris Arntzen | 1/23/23

ADDENDUM

OWNER	**THREE RIVERS COMMUNITY SCHOOLS**
PROJECT	MIDDLE SCHOOL ADDITIONS & RENOVATIONS A/E Project 5-5802
PURPOSE	**ADDENDUM 004** THIS ADDENDUM SHALL FORM PART OF THE BIDDING DOCUMENTS. CHANGES, ADDITIONS, CLARIFICATIONS OR DELETIONS HEREIN SUPERSEDE THE DRAWINGS AND SPECIFICATIONS. BIDDERS SHALL INCLUDE ON THE PROPOSAL FORM ACKNOWLEDGEMENT OF THE RECEIPT OF THIS ADDENDUM.
ATTACHMENTS	**New Specifications: None** **Reissued Specifications: 08 71 00, 09 22 16, 09 65 19** **New Sheets: S3.1E** **Reissued Sheets: G.0.00, G1.01, G2.01, C8.01, A1.1E, A2.1E, A2.30, A5.01, A6.01, A7.03, A8.01, A8.02, M1.1D, M1.1E, M1.81, M2.1C, M2.1D, M2.1E, M3.1D, M8.01, M8.03, M8.04, M9.01, M9.02, E1.1C, E1.1D, E2.1D, E2.1E, E7.01**
ARCHITECT-ENGINEER	**GMB** www.gmb.com 616.796.0200
CONSTRUCTION MANAGER	The Skillman Corporation www.skillman.com 269.350.5757

SPECIFICATION CLARIFICATIONS / REVISIONS

ITEM NO. 1 SECTION 08 71 00 - DOOR HARDWARE (**REISSUED**)

Door hardware specification is reissued in its **entirety** due to the amount of updates to hardware sets and door & frame schedule.

ITEM NO. 2 SECTION 09 22 16 – NON-STRUCTURAL METAL FRAMING (**REISSUED**)

Added sheathing information to specification for transition between existing and new roof.

ITEM NO. 3 SECTION 09 65 19 - RESILIENT TILE FLOORING **(REISSUED**)

Refer to the Three Rivers Middle School VCT Flooring Guide for changes related to the installation guide. This guide is meant for a basis of design to assist the contractor with the flooring design intent. It does not need to be followed square by square.

SHEET CLARIFICATIONS / REVISIONS

ITEM NO. 4 SHEET G0.00 – COVER SHEET **(REISSUED**)

Added tags to show mechanical sheets issued in ADD 002 for reference.

ITEM NO. 5 SHEET G1.01 – CODE COMPLIANCE PLAN **(REISSUED**)

A. Added door ratings in Units C, D, and E.
B. Added new doors E134A and E141A.
C. Added reference to 2015 Michigan Rehabilitation Code to plan.

ITEM NO. 6 SHEET G2.01 – CONSTRUCTION PHASING PLAN **(REISSUED**)

Refer to plan for updates to construction phasing per Construction Manager.

ITEM NO. 7 SHEET C8.01 – SITE DETAILS **(REISSUED**)

Refer to plan for updates to Detail 1/C8.01

ITEM NO. 8 SHEET S3.1E – UNIT ‘E’ ROOF FRAMING PLAN **(REISSUED**)

Refer to new sheet for added joist reinforcement.

ITEM NO. 9 SHEET A1.1E – UNIT 'E' FIRST FLOOR DEMOLITION PLAN **(REISSUED**)

Demolish doors E134A and E141A. Existing frame to remain.

ITEM NO. 10 SHEET A2.1E – UNIT 'E' FIRST FLOOR PLAN **(REISSUED**)

Added new doors E134A and E141A into existing frames.

ITEM NO. 11 SHEET A2.30 – OVERALL ROOF PLAN **(REISSUED**)

Clarified roof curb detail and locations at addition.

ITEM NO. 12 SHEET A5.01 – DOOR & FRAME SCHEDULE **(REISSUED)**

A. Removed doors C125D, C125E, C125F, C128D, C128E, C128F, E117A, E134B, and E141B from scope.
B. Added door ratings in Units C, D, and E.
C. Per door hardware specification, door hardware numbers have been updated for Units A-E.

ITEM NO. 13 SHEET A6.01 – DETAILS **(REISSUED)**

Added Detail 13/A7.03 for transition between new and existing roof.

ITEM NO. 14 SHEET A7.03 – DETAILS **(REISSUED)**

Added Detail 13/A7.03 for transition between new and existing roof.

ITEM NO. 15 SHEET A8.01 – INTERIOR ELEVATIONS **(REISSUED)**

Updated the mobile casework units in classrooms to 68" H.

ITEM NO. 16 SHEET A8.02 – INTERIOR ELEVATIONS **(REISSUED)**

Updated the mobile casework units in classrooms to 68" H.

ITEM NO. 17 SHEET M1.1D UNIT 'D' – MECHANICAL DEMOLITION PLAN **(REISSUED)**

A. Added and revised mechanical demolition keynotes.
B. Revised Mechanical Demo Keynote Legend.

ITEM NO. 18 SHEET M1.1E UNIT 'E' – MECHANICAL DEMOLITION PLAN **(REISSUED)**

A. Added mechanical demolition keynotes.
B. Revised Mechanical Demo Keynote Legend.

ITEM NO. 19 SHEET M1.81 – ENLARGED MECHANICAL DEMOLITION PLANS **(REISSUED)**

A. Added and revised mechanical demolition keynotes.
B. Revised Mechanical Demo Keynote Legend.

ITEM NO. 20 SHEET M2.1C – UNIT 'C' HVAC PLAN **(REISSUED)**

Added/revised supply, return and exhaust ductwork and added ductwork sizes.

ITEM NO. 21 SHEET M2.1D – UNIT 'D' HVAC PLAN **(REISSUED)**

A. Added and revised mechanical keynotes.
B. Revised Mechanical Keynote Legend.

ITEM NO. 22 SHEET M2.1E – UNIT 'E' HVAC PLAN **(REISSUED)**

A. Added mechanical keynotes.
B. Revised Mechanical Keynote Legend.

ITEM NO. 23 SHEET M3.1D – UNIT 'D' HYDRONIC PLAN **(REISSUED)**

A. Added mechanical keynotes.
B. Added Mechanical Keynote Legend.
C. Added new and existing hot water heating piping and sizes.
D. Added refrigerant piping and sizes for new air-cooled condensing units.

ITEM NO. 24 SHEET M8.01 – MECHANICAL CONTROL DIAGRAMS **(REISSUED)**

Added note to designate that the boiler system equipment controls are included under the Base Bid work.

ITEM NO. 25 SHEET M8.03 – MECHANICAL CONTROL DIAGRAMS **(REISSUED)**

Added note to designate that the chilled glycol system equipment controls are included under Alternate M-1 work.

ITEM NO. 26 SHEET M8.04 – MECHANICAL CONTROL DIAGRAMS **(REISSUED)**

Added notes to designate the mechanical equipment controls that are included under Alternate M-1 work.

ITEM NO. 27 SHEET M9.01 – MECHANICAL SCHEDULES **(REISSUED)**

Added notes to designate the mechanical equipment that is included under Alternate M-1 work.

ITEM NO. 28 SHEET M9.02 – MECHANICAL SCHEDULES **(REISSUED)**

Added notes to designate the mechanical equipment that is included under Alternate M-1 work.

ITEM NO. 29 SHEET E1.1C – UNIT 'C' ELECTRICAL DEMOLITION PLANS **(REISSUED)**

Refer to the plan for the addition of the demolished Unit 'C' existing IDF location.

ITEM NO. 30 SHEET E1.1D – UNIT 'D' ELECTRICAL DEMOLITION PLAN **(REISSUED)**

Refer to the plan for the disconnection and removal of the electrical for the existing paint hood and dust collector.

ITEM NO. 31 SHEET E2.1D – UNIT 'D' POWER & COMMUNICATIONS PLAN **(REISSUED)**

Refer to the plan for the addition of the existing to remain Unit 'D' IDF location.

ITEM NO. 32 SHEET E2.1E – UNIT 'E' FIRST FLOOR POWER & COMMUNICATIONS PLAN **(REISSUED)**

Refer to the plan for the added note for exterior cameras.

ITEM NO. 33 SHEET E7.01 – ELECTRICAL DETAILS & LIGHTING FIXTURE SCHEDULE **(REISSUED)**

Refer to the plan for fixture additions and changes on the lighting fixture schedule.

SECTION 08 71 00 – DOOR HARDWARE
(ADDENDUM 004)

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes:
   1. Mechanical and electrified door hardware.
   2. Electronic access control system components.
   3. Field verification, preparation and modification of existing doors and frames to receive new door hardware.

B. Section excludes:
   1. Windows
   2. Cabinets (casework), including locks in cabinets
   3. Signage
   4. Toilet accessories
   5. Overhead doors

C. Related Sections:
   1. Division 01 Section “Alternates” for alternates affecting this section.
   2. Division 06 Section “Rough Carpentry”
   3. Division 06 Section "Finish Carpentry”
   4. Division 07 Section “Joint Sealants” for sealant requirements applicable to threshold installation specified in this section.
   5. Division 08 Sections:
      a. “Metal Doors and Frames”
      b. “Flush Wood Doors”
      c. “Stile and Rail Wood Doors”
      d. “Interior Aluminum Doors and Frames”
      e. "Aluminum-Framed Entrances and Storefronts"
   6. Division 09 sections for touchup, finishing or refinishing of existing openings modified by this section.
   7. Division 26 “Electrical” sections for connections to electrical power system and for low-voltage wiring.
   8. Division 28 “Electronic Safety and Security” sections for coordination with other components of electronic access control system and fire alarm system.

1.2 REFERENCES

A. UL, LLC
   1. UL 10B - Fire Test of Door Assemblies
   2. UL 10C - Positive Pressure Test of Fire Door Assemblies
   3. UL 1784 - Air Leakage Tests of Door Assemblies
   4. UL 305 - Panic Hardware

B. DHI - Door and Hardware Institute
   1. Sequence and Format for the Hardware Schedule
   2. Recommended Locations for Builders Hardware

3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association
1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute
1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.3 SUBMITTALS

A. General:
1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
a. Comply with procedures for verifying existing door and frame compatibility for new hardware, as specified in PART 3, “EXAMINATION” article, herein.
b. Review drawings and Sections from related trades to verify compatibility with specified hardware.
c. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:
1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
a. Wiring Diagrams: For power, signal, and control wiring and including:
1) Details of interface of electrified door hardware and building safety and security systems.
2) Schematic diagram of systems that interface with electrified door hardware.
3) Point-to-point wiring.
4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule:
    a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
    b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
    c. Indicate complete designations of each item required for each opening, include:
        1) Door Index: door number, heading number, and Architect's hardware set number.
        2) Quantity, type, style, function, size, and finish of each hardware item.
        3) Name and manufacturer of each item.
        4) Fastenings and other pertinent information.
        5) Location of each hardware set cross-referenced to indications on Drawings.
        6) Explanation of all abbreviations, symbols, and codes contained in schedule.
        7) Mounting locations for hardware.
        8) Door and frame sizes and materials.
        9) Degree of door swing and handing.
        10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.
5. Key Schedule:
    a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
    b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
    c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
    d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
    e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
    f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:
1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:
    a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
    b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
    a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
    b. Catalog pages for each product.
    c. Final approved hardware schedule edited to reflect conditions as installed.
    d. Final keying schedule
    e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
    f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

1.4 QUALITY ASSURANCE

A. Qualifications and Responsibilities:
1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
3. Contractor shall attend a preinstallation conference to become versed in expectations the district has for the level of quality their installation is expected to meet. The conference will also assure an installation that is in accordance with the manufacturer's installation instructions. The Project will also be subject to compliance with a punch list review and noted deficiencies found shall be remedied after the project is substantially completed.
4. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
    a. For door hardware: DHI certified AHC or DHC.
    b. Can provide installation and technical data to Architect and other related subcontractors.
    c. Can inspect and verify components are in working order upon completion of installation.
    d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
5. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:
1. Fire-Rated Door Openings:
    a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
    b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
2. Smoke and Draft Control Door Assemblies:

a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105

b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.

3. Electrified Door Hardware

a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.

4. Accessibility Requirements:

a. Comply with governing accessibility regulations cited in “REFERENCES” article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

1. Keying Conference

a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:

1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.

2) Preliminary key system schematic diagram.

3) Requirements for key control system.

4) Requirements for access control.

5) Address for delivery of keys.

2. Pre-installation Conference

a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

b. Inspect and discuss preparatory work performed by other trades.

c. Inspect and discuss electrical roughing-in for electrified door hardware.

d. Review sequence of operation for each type of electrified door hardware.

e. Review required testing, inspecting, and certifying procedures.

f. Review questions or concerns related to proper installation and adjustment of door hardware.

3. Electrified Hardware Coordination Conference:

a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.

B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer’s original packaging.

C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.

D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.6 COORDINATION

A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.

B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.

C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.

D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

E. Existing Openings: Where existing doors, frames and/or hardware are to remain, field verify existing functions, conditions and preparations and coordinate to suit opening conditions and to provide proper door operation.

1.7 WARRANTY

A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.

1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer’s published listings.
    a. Mechanical Warranty
        1) Locks
            a) Schlage L Series: 3 years
            b) Schlage ND Series: 10 years
        2) Exit Devices
            a) Von Duprin: 3 years
        3) Closers
            a) LCN 4000 Series: 30 years
        4) Automatic Operators
            a) LCN: 2 years
    b. Electrical Warranty
        1) Exit Devices
            a) Von Duprin: 1 year
        2) Closers
            a) LCN: 2 years

1.8 MAINTENANCE

A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.

B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: “No Substitute.”

1. Where “No Substitute” is noted, submittals and substitution requests for other products will not be considered.

B. Approval of manufacturers and/or products other than those listed as “Scheduled Manufacturer” or “Acceptable Manufacturers” in the individual article for the product category shall be in accordance with QUALITY ASSURANCE article, herein.

C. Approval of products from manufacturers indicated in “Acceptable Manufacturers” is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer’s product.

D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.2 MATERIALS

A. Fabrication

1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer’s recognized installation standards for application intended.
2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with “Metal Doors and Frames”, “Flush Wood Doors”, “Stile and Rail Wood Doors” to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.

B. Modification and Preparation of Existing Doors: Where existing door hardware is indicated to be removed and reinstalled.

1. Provide necessary fillers, Dutchmen, reinforcements, and fasteners, compatible with existing materials, as required for mounting new opening hardware and to cover existing door and frame preparations.
2. Use materials which match materials of adjacent modified areas.
3. When modifying existing fire-rated openings, provide materials permitted by NFPA 80 as required to maintain fire-rating.

C. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.

1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.

2.3 HINGES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
   a. Ives 5BB Series
2. Acceptable Manufacturers and Products:
   a. No Substitute

B. Requirements:

1. Provide hinges conforming to ANSI/BHMA A156.1.
2. Provide five knuckle, ball bearing hinges.
3. 1-3/4 inch thick doors, up to and including 36 inches (914 mm) wide:
    a. Exterior: Standard weight, bronze or stainless steel, 4-1/2 inches (114 mm) high
    b. Interior: Standard weight, steel, 4-1/2 inches (114 mm) high
4. 1-3/4 inch (44 mm) thick doors over 36 inches (914 mm) wide:
    a. Exterior: Heavy weight, bronze/stainless steel, 5 inches (127 mm) high
    b. Interior: Heavy weight, steel, 5 inches (127 mm) high
5. 2 inches or thicker doors:
    a. Exterior: Heavy weight, bronze or stainless steel, 5 inches (127 mm) high
    b. Interior: Heavy weight, steel, 5 inches (127 mm) high
6. Adjust hinge width for door, frame, and wall conditions to allow proper degree of opening.
7. Provide three hinges per door leaf for doors 90 inches (2286 mm) or less in height, and one additional hinge for each 30 inches (762 mm) of additional door height.
8. Where new hinges are specified for existing doors or existing frames, provide new hinges of identical size to hinge preparation present in existing door or existing frame.
9. Hinge Pins: Except as otherwise indicated, provide hinge pins as follows:
    a. Steel Hinges: Steel pins
    b. Non-Ferrous Hinges: Stainless steel pins
    c. Out-Swinging Exterior Doors: Non-removable pins
    d. Out-Swinging Interior Lockable Doors: Non-removable pins
    e. Interior Non-lockable Doors: Non-rising pins
10. Provide hinges with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware. Locate electric hinge at second hinge from bottom or nearest to electrified locking component. Provide mortar guard for each electrified hinge specified.

2.4 CONTINUOUS HINGES

A. Manufacturers:
    1. Scheduled Manufacturer:
        a. Ives
    2. Acceptable Manufacturers:
        a. No Substitute

B. Requirements:
    1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
    2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
    3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
    4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
    5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.

6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.5 FLUSH BOLTS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.6 COORDINATORS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Where pairs of doors are equipped with automatic flush bolts, an astragal, or other hardware that requires synchronized closing of the doors, provide bar-type coordinating device, surface applied to underside of stop at frame head.
   2. Provide filler bar of correct length for unit to span entire width of opening, and appropriate brackets for parallel arm door closers, surface vertical rod exit device strikes, or other stop mounted hardware. Factory-prepared coordinators for vertical rod devices as specified.

2.7 MORTISE LOCKS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage L9000 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide mortise locks conforming to ANSI/BHMA A156.13 Series 1000, Grade 1, and UL Listed for 3-hour fire doors.
   2. Verify lock function with Owner prior to order.
   3. Indicators: Where specified, provide indicator window measuring a minimum 2-inch x 1/2 inch with 180-degree visibility. Provide messages color-coded with full text and/or symbols, as scheduled, for easy visibility.

4. Provide locks manufactured from heavy gauge steel, containing components of steel with a zinc dichromate plating for corrosion resistance.
5. Provide lock case that is multi-function and field reversible for handing without opening case. Cylinders: Refer to “KEYING” article, herein.
6. Provide locks with standard 2-3/4 inches (70 mm) backset with full 3/4 inch (19 mm) throw stainless steel mechanical anti-friction latchbolt. Provide deadbolt with full 1-inch (25 mm) throw, constructed of stainless steel.
7. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
8. Provide electrified options as scheduled in the hardware sets. Where scheduled, provide switches and sensors integrated into the locks and latches. Provide motor based electrified locksets that comply with the following requirements:
    a. Universal input voltage – single chassis accepts 12 or 24VDC to allow for changes in the field without changing lock chassis.
    b. Fail Safe/Fail Secure – changing mode between electrically locked (fail safe) and electrically unlocked (fail secure) is field selectable without opening the lock case
    c. Low maximum current draw – maximum 0.4 amps to allow for multiple locks on a single power supply.
    d. Low holding current – maximum 0.01 amps to produce minimal heat, eliminate “hot levers” in electrically locked applications, and to provide reliable operation in wood doors that provide minimal ventilation and air flow.
    e. Connections – provide quick-connect Molex system standard.
9. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
    a. Lever Design: 03N.

2.8 CYLINDRICAL LOCKS – GRADE 1

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Schlage ND Series
    2. Acceptable Manufacturers and Products:
        a. No Substitute

B. Requirements:
    1. Provide cylindrical locks conforming to ANSI/BHMA A156.2 Series 4000, Grade 1, and UL Listed for 3-hour fire doors.
    2. Verify lock function with Owner prior to order.
    3. Cylinders: Refer to “KEYING” article, herein.
    4. Provide locks with standard 2-3/4 inches backset, unless noted otherwise, with 1/2-inch latch throw. Provide proper latch throw for UL listing at pairs.
    5. Provide locksets with separate anti-rotation thru-bolts, and no exposed screws.
    6. Provide independently operating levers with two external return spring cassettes mounted under roses to prevent lever sag.
    7. Provide standard ASA strikes unless extended lip strikes are necessary to protect trim.
    8. Provide electrified options as scheduled in the hardware sets.
    9. Lever Trim: Solid cast levers without plastic inserts and wrought roses on both sides.
        a. Lever Design: TLR (Tubular).

2.9 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. Von Duprin 99/33A Series

2. Acceptable Manufacturers and Products:

a. No Substitute

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Verify lock function with Owner prior to order.
3. Cylinders: Refer to “KEYING” article, herein.
4. Provide grooved touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
5. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
6. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
7. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
8. Provide flush end caps for exit devices.
9. Provide exit devices with manufacturer’s approved strikes.
10. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
11. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
12. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
13. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
14. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
15. Provide electrified options as scheduled.
16. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
17. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.
18. Special Options:
    a. Provide dogging indicators for visible indication of dogging status.
    b. Rim Exit Devices: provide devices with damper-controlled re-latching to reduce operational noise. Where lever trim is specified, provide damper controlled lever return.
    c. Concealed Vertical Cable Exit Devices: provide cable-actuated concealed vertical latch system in two-point for non-rated or fire rated wood doors up to a 90 minute rating and less bottom latch (LBL) configuration for non-rated or fire rated wood doors up to 20 minute rating. Vertical rods not permitted.

1) Cable: Stainless steel with abrasive resistant coating. Conduit and core wire ends snap into latch and center slides without use of tools.
2) Wood Door Prep: Maximum 1 inch x 1.1875 inch x 3.875 inches top latch pocket and 1 inch x 1.1875 inch x 5 inches bottom latch pocket which does not require the use of a metal wrap or edge for non-rated or fire rated wood doors up to a 45 minute rating.
3) Latchbolts and Blocking Cams: Manufactured from sintered metal low carbon copper- infiltrated steel, with molybdenum disulfide low friction coating.
4) Top Latchbolt: Minimum 0.38 inch (10 mm) and greater than 90-degree engagement with strike to prevent door and frame separation under high static load.
5) Bottom Latchbolt: Minimum of 0.44-inch (11 mm) engagement with strike.
6) Product Cycle Life: 1,000,000 cycles.
7) Latch Operation: Top and bottom latch operate independently of each other. Top latch fully engages top strike even when bottom latch is compromised. Separate trigger mechanisms not permitted.
8) Latch release does not require separate trigger mechanism.
9) Cable and latching system characteristics:
    a) Installed independently of exit device installation, and capable of functioning on door prior to device and trim installation.
    b) Connected to exit device at single point in steel and aluminum doors, and two points for top and bottom latches in wood doors.
    c) Bottom latch height adjusted, from single point for steel and aluminum doors and two points for wood doors, after system is installed and connected to exit device, while door is hanging
    d) Bottom latch position altered up and down minimum of 2 inches (51 mm) in steel and aluminum doors without additional adjustment. Bottom latch deadlocks in every adjustment position in wood doors.
10) Top and bottom latches in steel and aluminum doors and top latch in wood doors may be removed while door is hanging.

2.10 ACCESS CONTROL READER

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Schlage MT Series (Provided & Installed by Security Contractor)
    2. Acceptable Manufacturers and Products:
        a. No Substitute
B. Requirements:
    1. Provide access control card readers manufactured by a global company who is a recognized leader in the production of access control devices. Card reader manufactured for non-access control applications are not acceptable.
    2. Provide multi-technology contactless readers complying with ISO 14443.
    3. Provide access control card readers capable of reading the following technologies:
        a. CSN - DESFire® CSN, HID iCLASS® CSN, Inside Contactless PicoTag® CSN, ST Microelectronics® CSN, Texas Instruments Tag-It®, CSN, Phillips I-Code® CSN
        b. 125 KHz proximity - Schlage® Proximity, HID® Proximity, GE/CASI® Proximity, AWID® Proximity, LenelProx®

c. 13.56 MHz Smart card - Schlage smart cards using MIFARE Classic® EV1, Schlage smart cards using MIFARE Plus®, Schlage smart cards using MIFARE® DESFire® EV1, Schlage smart cards using MIFARE® DESFire® EV2/EV3

2.11 ELECTRIC STRIKES

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Von Duprin 6000 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide electric strikes designed for use with type of locks shown at each opening.
   2. Provide electric strikes UL Listed as burglary resistant that are tested to a minimum endurance test of 1,000,000 cycles.
   3. Where required, provide electric strikes UL Listed for fire doors and frames.
   4. Provide transformers and rectifiers for each strike as required. Verify voltage with electrical contractor.

2.12 PUSHBUTTONS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage 620/631 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide push buttons as specified in hardware groups.

2.13 PUSHBUTTONS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage 660 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide push buttons as specified in hardware groups.

2.14 POWER SUPPLIES

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. Schlage/Von Duprin PS900 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide power supplies approved by manufacturer of supplied electrified hardware.
   2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components

with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.

3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
    a. 12/24 VDC Output, field selectable.
    b. Class 2 Rated power limited output.
    c. Universal 120-240 VAC input.
    d. Low voltage DC, regulated and filtered.
    e. Polarized connector for distribution boards.
    f. Fused primary input.
    g. AC input and DC output monitoring circuit w/LED indicators.
    h. Cover mounted AC Input indication.
    i. Tested and certified to meet UL294.
    j. NEMA 1 enclosure.
    k. Hinged cover w/lock down screws.
    l. High voltage protective cover.

2.15 CYLINDERS

A. Manufacturers and Products:
    1. Scheduled Manufacturer and Product:
        a. Schlage Everest 29 R
    2. Acceptable Manufacturers and Products:
        a. No Substitute
B. Requirements:
    1. Provide cylinders/cores compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset; manufacturer’s series as indicated. Refer to “KEYING” article, herein.
    2. All SFIC cylinders/cores and keying to be purchased from Enrico Group, Wixom, MI and included in the base bid. Conduct keying meetings with Owner to determine keying requirements.
    3. Provide cylinders in the below-listed configuration(s), distributed throughout the Project as indicated.
        a. Conventional Patented Restricted Small Format: cylinder with small format interchangeable cores (SFIC) with restricted, patented keyway.
    4. Patent Protection: Cylinders/cores requiring use of restricted, patented keys, patent protected.
    5. Nickel silver bottom pins.

2.16 KEYING

A. All SFIC cylinders/core and keying to be purchased from Enrico Group, Wixom, MI and included in the base bid. Conduct keying meetings with Owner to determine keying requirements.

B. Requirements:
    1. Construction Keying:
        a. Replaceable Construction Cores.

1) Provide temporary construction cores replaceable by permanent cores, furnished in accordance with the following requirements.
    a) 3 construction control keys
    b) 12 construction change (day) keys.
2) Owner or Owner's Representative will replace temporary construction cores with permanent cores.

2. Permanent Keying:
    a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
        1) Master Keying system as directed by the Owner.
    b. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
    c. Provide keys with the following features:
        1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
        2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
    d. Identification:
        1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
        2) Identification stamping provisions must be approved by the Architect and Owner.
        3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
        4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
        5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
    e. Quantity: Furnish in the following quantities. Coordinate with Owner.
        1) Change (Day) Keys: 3 per cylinder/core.
        2) Permanent Control Keys: 3.
        3) Master Keys: 6.

2.17 KEY CONTROL SYSTEM

A. Manufacturers:
    1. Scheduled Manufacturer:
        a. Telkee
    2. Acceptable Manufacturers:
        a. HPC
        b. Lund
B. Requirements:
    1. Provide key control system, including envelopes, labels, tags with self-locking key clips, receipt forms, 3-way visible card index, temporary markers, permanent markers, and standard metal cabinet, all as recommended by system manufacturer, with capacity for 150% of number of locks required for Project.

a. Provide complete cross index system set up by hardware supplier, and place keys on markers and hooks in cabinet as determined by final key schedule.

b. Provide hinged-panel type cabinet for wall mounting.

2.18 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. LCN 4040XP Series

2. Acceptable Manufacturers and Products:

a. No Substitute

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. ISO 9000 certify closers. Stamp units with date of manufacture code.

2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.

3. Cylinder Body: 1-1/2-inch (38 mm) diameter piston with 5/8-inch (16 mm) diameter double heat-treated pinion journal. QR code with a direct link to maintenance instructions.

4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.

5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards. Provide snap-on cover clip, with plastic covers, that secures cover to spring tube.

6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck. Provide graphically labelled instructions on the closer body adjacent to each adjustment valve. Provide positive stop on reg valve that prevents reg screw from being backed out.

7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers.

8. Pressure Relief Valve (PRV) Technology: Not permitted.

9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).

10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

11. Through-bolt all wood door closers.

2.19 ELECTRO-MECHANICAL CLOSER/HOLDERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:

a. LCN 4310ME/4410ME Series

2. Acceptable Manufacturers and Products:

a. No Substitute

B. Requirements:

1. Provide single-point or multi-point hold-open electro-mechanical closer/holders as specified. Coordinate voltage requirements and provide transformer if necessary.

2. Provide multi-point electro-mechanical closer/holders with swing free arms.
3. Provide closer/holders that function as full rack and pinion door closer when current is interrupted or continuous hold-open is not engaged.
4. Provide door closers with fully hydraulic, full rack and pinion action with high strength cylinder and full complement bearings at shaft.
5. Cylinder Body: 1-1/2-inch (38 mm) diameter with 5/8-inch (16 mm) diameter double heat-treated pinion journal.
6. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
7. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.
8. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
9. Pressure Relief Valve (PRV) Technology: Not permitted.
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.20 ELECTRO-HYDRAULIC AUTOMATIC OPERATORS

A. Manufacturers and Products:
   1. Scheduled Manufacturer and Product:
      a. LCN 4600 Series
   2. Acceptable Manufacturers and Products:
      a. No Substitute

B. Requirements:
   1. Provide low energy automatic operator units with hydraulic closer complying with ANSI/BHMA A156.19.
   2. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
   3. Provide units with conventional door closer opening and closing forces unless power operator motor is activated. Provide door closer assembly with adjustable spring size, back-check, and opening and closing speed adjustment valves to control door
   4. Provide units with on/off switch for manual operation, motor start up delay, vestibule interface delay, electric lock delay, and door hold open delay.
   5. Provide drop plates, brackets, and adapters for arms as required for details.
   6. Provide hard-wired actuator switches and receivers for operation as specified.
   7. Provide weather-resistant actuators at exterior applications.
   8. Provide key switches with LED’s, recommended and approved by manufacturer of automatic operator as required for function described in operation description of hardware group below. Cylinders: Refer to “KEYING” article, herein.
   9. Provide complete assemblies of controls, switches, power supplies, relays, and parts/material recommended and approved by manufacturer of automatic operator for each individual leaf. Actuators control both doors simultaneously at pairs. Sequence operation of exterior and vestibule doors with automatic operators to allow ingress or egress through both sets of openings as directed by Architect. Locate actuators, key switches, and other controls as directed by Architect.
   10. Provide units with vestibule inputs that allow sequencing operation of two units, and SPDT relay for interfacing with latching or locking devices.

2.21 DOOR TRIM

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Special-Lite SL-100 Series
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide pulls with diameter and length as scheduled.

2.22 PROTECTION PLATES

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide protection plates with a minimum of 0.050 inch (1 mm) thick, beveled four edges as scheduled. Furnish with sheet metal or wood screws, finished to match plates.
   2. Sizes plates 2 inches (51 mm) less width of door on single doors, pairs of doors with a mullion, and doors with edge guards. Size plates 1 inch (25 mm) less width of door on pairs without a mullion or edge guards.
   3. At fire rated doors, provide protection plates over 16 inches high with UL label.

2.23 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturers:
      a. Glynn-Johnson
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.
   2. Provide friction type at doors without closer and positive type at doors with closer.

2.24 DOOR STOPS AND HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. No Substitute

B. Provide door stops at each door leaf:
   1. Provide wall stops wherever possible. Provide concave type where lockset has a push button of thumbturn.
   2. Where a wall stop cannot be used, provide overhead stop.

3. Wall Stops WS33 are to be mounted on the wall up at the top of the door and as far out on the latch edge as conditions allow. The sloped side is to face up, preventing anyone or anything to hang on them.

2.25 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Zero International
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
   2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
   3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
   4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.26 SILENCERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. Ives
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide "push-in" type silencers for hollow metal or wood frames.
   2. Provide one silencer per 30 inches (762 mm) of height on each single frame, and two for each pair frame.
   3. Omit where gasketing is specified.

2.27 MAGNETIC HOLDERS

A. Manufacturers:
   1. Scheduled Manufacturer:
      a. LCN
   2. Acceptable Manufacturers:
      a. No Substitute

B. Requirements:
   1. Provide wall or floor mounted electromagnetic door release as specified with minimum of 25 pounds of holding force. Coordinate projection of holder and armature with other hardware and wall conditions to ensure that door sits parallel to wall when fully open. Connect magnetic holders on fire-rated doors into the fire control panel for fail-safe operation.

2.28 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:
    a. Schlage (Provided & Installed by Security Contractor)
2. Acceptable Manufacturers:
    a. No Substitute

B. Requirements:
1. Provide recessed or surface mounted type door position switches as specified.
2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.29 FINISHES

A. Finish Exterior: Generally, Dark Bronze, BHMA 613 / US10B. Provide finish for each item as indicated in sets.

B. Finish Interior: Generally, Satin Chromium, BHMA 626 / US26D. Provide finish for each item as indicated in sets.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.

B. Field verify existing doors and frames receiving new hardware and existing conditions receiving new openings. Verify that new hardware is compatible with existing door and frame preparation and existing conditions.

C. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.

D. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Where on-site modification of doors and frames is required:
1. Carefully remove existing door hardware and components being reused. Clean, protect, tag, and store in accordance with storage and handling requirements specified herein.
2. Field modify and prepare existing doors and frames for new hardware being installed.
3. When modifications are exposed to view, use concealed fasteners, when possible.
4. Prepare hardware locations and reinstall in accordance with installation requirements for new door hardware and with:
    a. Steel Doors and Frames: For surface applied door hardware, drill and tap doors and frames according to ANSI/SDI A250.6.
    b. Wood Doors: DHI WDHS.5 "Recommended Hardware Reinforcement Locations for Mineral Core Wood Flush Doors."
    c. Doors in rated assemblies: NFPA 80 for restrictions on on-site door hardware preparation.

3.3 INSTALLATION

A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
1. Standard Steel Doors and Frames: ANSI/SDI A250.8.

2. Custom Steel Doors and Frames: HMMA 831.
3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
4. Installation Guide for Doors and Hardware: DHI TDH-007-20

B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.

C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.

D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.

E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.

F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.

G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.

H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.

I. Lock Cylinders:

1. Install construction cores to secure building and areas during construction period.
2. Replace construction cores with permanent cores as indicated in keying section.
3. Furnish permanent cores to Owner for installation.

J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:

1. Conduit, junction boxes and wire pulls.
2. Connections to and from power supplies to electrified hardware.
3. Connections to fire/smoke alarm system and smoke evacuation system.
4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
5. Connections to panel interface modules, controllers, and gateways.
6. Testing and labeling wires with Architect's opening number.

K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.

L. Door Closers: Mount closers on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.

M. Closer/Holders: Mount closer/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.

N. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.

O. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."

P. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.

Q. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.

R. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.

S. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.4 ADJUSTING

A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.

1. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.
2. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.

B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.5 CLEANING AND PROTECTION

A. Clean adjacent surfaces soiled by door hardware installation.

B. Clean operating items per manufacturer's instructions to restore proper function and finish.

C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.6 DOOR HARDWARE SCHEDULE

A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.

B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.

C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

Hardware Group No. 01
For use on Door #(s):
C126A C131A C132A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	PASSAGE SET	L9010 03N		626	SCH
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 02
For use on Door #(s):
C106A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	PASSAGE SET	L9010 03N		626	SCH
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 03
For use on Door #(s):
C122A D108B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	PASSAGE SET	L9010 03N		626	SCH
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 04
For use on Door #(s):
C103A C104A C120A C133A C134A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050BDC 03N 09-544		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 05
For use on Door #(s):
D110A E111A E129A E147A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	OFFICE/ENTRY LOCK	L9050BDC 03N 09-544		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 06
For use on Door #(s):
C112A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CORRIDOR LOCK	L9456BDC 03N 09-544 L283-722		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 07
For use on Door #(s):
A117A A118A B110A B111A C113A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CORRIDOR LOCK	L9456BDC 03N 09-544 L283-722		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	WALL STOP	WS406/407CVX - DOOR C113A ONLY		630	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 08
For use on Door #(s):
D112B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	WALL STOP	WS406/407CVX		630	IVE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 09
For use on Door #(s):
C111A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	OH STOP	100S		630	GLY
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 10
For use on Door #(s):
C129A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 11
For use on Door #(s):
D101A E102A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM LOCK	L9070BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 12
For use on Door #(s):

D109A	D109B	D111A	D111B	D112A	D114A
D115A	D116A	D123A	D124A	E109A	E110A
E113A					

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CLASSROOM LOCK	L9070BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP BALANCE OF HARDWARE TO REMAIN		626	SCH

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 13
For use on Door #(s):

A122A	A124A	A129A	B102A	B109A	

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 14
For use on Door #(s):

A121A	A130A	A132A	A133A	A134A	A135A
A136A	A137A				

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 15
For use on Door #(s):

A101A	A102A	A107A	A108A	A109A	A113A
B113A	B118A	B119A	B120A	B123A	B124A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 16
For use on Door #(s):
C115A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 17
For use on Door #(s):
C107A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER

Hardware Group No. 18
For use on Door #(s):
D134A D135A D136A D137A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CLASSROOM SECURITY	L9071BDC 03N L283-711		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP BALANCE OF HARDWARE TO REMAIN		626	SCH

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 19
For use on Door #(s):
D117A D118A E130A E146A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CORRIDOR LOCK	ND73BDC TLR		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP BALANCE OF HARDWARE TO REMAIN		626	SCH

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 20
For use on Door #(s):
C109A C114A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X) - DOOR C109A ONLY		626	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 21
For use on Door #(s):
A126A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 22
For use on Door #(s):
B108A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	FLOOR STOP	FS436		626	IVE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 23
For use on Door #(s):
A116A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 24
For use on Door #(s):
D105A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 25
For use on Door #(s):
C102A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		630	VON
1	EA	OH STOP	100S		630	GLY
1	EA	SURFACE CLOSER	4040XP ST-1630		689	LCN
1	EA	TOP JAMB MTG PLATE	4040XP-18TJ		689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS		630	IVE
3	EA	SILENCER	SR64		GRY	IVE
1	EA	MULTITECH READER	MT11 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	INTERCOM SYSTEM	PROVIDED AND INSTALLED BY SECURITY CONTRACTOR			AIP
1	EA	DESK MOUNT BUTTON	660-PB		628	SCE
1	EA	POWER SUPPLY	PS904 900-4R - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER			VON

NOTES:
1) POWER SUPPLY SHARED W/DOORS C108A AND C110A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS COTNROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER OR PRESSING PUSH BUTTON LOCATED AT RECEPTION DESK WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER OR ACTIVATION OF LOCKDOWN. FREE EGRESS AT ALL TIMES.

Hardware Group No. 26
For use on Door #(s):
C124A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		630	VON
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS904 900-4R - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY PROVIDER			VON

NOTES:
1) POWER SUPPLY SHARED W/DOORS C123A AND C121A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY UNLOCKED VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS.

DOOR TO REMAIN LOCKED UPON LOSS OF POWER, ACTIVATION OF THE FIRE ALARM, OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 27
For use on Door #(s):
E118A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	224XY		628	IVE
1	EA	CONT. HINGE	224XY TWP		628	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
1	EA	CONST LATCHING BOLT	FB51P/FB61P (AS REQ'D)		630	IVE
1	EA	DUST PROOF STRIKE	DP2		626	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6223 FSE		630	VON
1	EA	COORDINATOR	COR X FL		628	IVE
2	EA	MOUNTING BRACKET	MB (AS REQ'D)		689	IVE
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-4R - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR		LGR	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER OR ACTIVATION OF THE FIRE ALARM. FREE EGRESS

AT ALL TIMES.
Hardware Group No. 28
For use on Door #(s):
C123A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		630	VON
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE

NOTES:
1) POWER SUPPLY LISTED W/DOOR C124A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS COTNROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER, ACTIVATION OF THE FIRE ALARM, OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 29
For use on Door #(s):
A115A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		630	VON
1	EA	SURFACE CLOSER	4040XP RW/PA - PULL-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS33(X)		626	IVE
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-4R - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR		LGR	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER. FREE EGRESS AT ALL TIMES.

Hardware Group No. 30
For use on Door #(s):
C121A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE		630	VON
1	EA	MULTITECH READER	MT11 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) POWER SUPPLY LISTED W/DOOR C124A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY UNLOCKED VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS.

DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 31
For use on Door #(s):

D107A	E202A	E207A

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	STOREROOM LOCK	ND80BDC TLR		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP BALANCE OF HARDWARE TO REMAIN		626	SCH

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 32
For use on Door #(s):

A201A	A201B	A202A	A202B	B106A	B106B
B106C	B106D	B201A	B201B	B201C	D102A
D102B	D104A	D120A	D129A	D130B	D131A
D132A	D201A	D202A	E103A	E116A	E127A
E131A	E133A	E137A	E137B	E140A	E142A
E143A	E145A	E203A	E206A		

Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	STOREROOM LOCK	L9080BDC 03N		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP BALANCE OF HARDWARE TO REMAIN		626	SCH

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 33
For use on Door #(s):
C110A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	INSTITUTION LOCK	L9082BDC 03N		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE	✓	630	VON
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
2	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR	✓	BLK	SCE

NOTES:
1) POWER SUPPLY LISTED W/DOOR C102A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO EITHER READER WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER, ACTIVATION OF THE FIRE ALARM, OR ACTIVATION OF LOCKDOWN SYSTEM.

Hardware Group No. 34
For use on Door #(s):
C108A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	INSTITUTION LOCK	L9082BDC 03N		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	ELECTRIC STRIKE	6211 FSE	✓	630	VON
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 8" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
2	EA	MULTITECH READER	MT11 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR	✓	BLK	SCE
1	EA	PUSH BUTTON	621RD NS	✓	630	SCE
1	EA	DESK MOUNT BUTTON	660-PB	✓	628	SCE

NOTES:
1) POWER SUPPLY LISTED W/DOOR C102A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: PUSH RELEASE BUTTON LOCATED ON CORRIDOR SIDE ENABLED BY ACCESS CONTROL SYSTEM. PUSHING CORRIDOR SIDE PUSH RELEASE BUTTON WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS INTO THE OFFICE. OFFICE SIDE ALWAYS LOCKED PREVENTING FREE PASSAGE FROM OFFICE INTO THE SCHOOL. PRESENTING A VALID CREDENTIAL TO THE READER ON SCHOOL OFFICE SIDE, OR PRESSING DESK MOUNT BUTTON AT RECEPTION DESK, WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS INTO THE SCHOOL. DOOR TO REMAIN LOCKED UPON LOSS OF POWER, ACTIVATION OF THE FIRE ALARM, OR ACTIVATION OF LOCKDOWN SYSTEM.

LOCKED HOURS: PUSH RELEASE BUTTON LOCATED ON CORRIDOR SIDE DISABLED BY ACCESS CONTROL SYSTEM, THUS LOCKED IN BOTH DIRECTIONS. PRESENTING A VALID CREDENTIAL TO EITHER READER OR PUSH BUTTON AT RECEPTION DESK, WILL MOMENTARILY UNLOCK THE ELECTRIC STRIKE ALLOWING ACCESS. DOOR TO REMAIN LOCKED UPON LOSS OF POWER, ACTIVATION OF THE FIRE ALARM, OR ACTIVATION OF LOCKDOWN SYSTEM.

Hardware Group No. 35
For use on Door #(s):
E120G E120H E120J E120K E120L E120M
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY		313AN	IVE
1	EA	DUMMY PUSH BAR	330		313	VON
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	OH STOP	100S		695	GLY
1	EA	SURFACE CLOSER	4040XP EDA		695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D) WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		695	LCN

Hardware Group No. 36
For use on Door #(s):
B105A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	PANIC HARDWARE	LD-99-L-2SI-03		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE
3	EA	SILENCER	SR64		GRY	IVE

Hardware Group No. 37
For use on Door #(s):
B105B B107A B107B B121B B122B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	PANIC HARDWARE	LD-99-L-2SI-03		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	MORTISE STRIKE FILLER PLATE	SIZE AS REQ'D			DON
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP/HOLDER	WS45(X)		626	IVE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 38
For use on Door #(s):
D121A D121B D125A D127A D127B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	FIRE EXIT HARDWARE	99-L-F-2SI-03		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	MORTISE STRIKE FILLER PLATE	SIZE AS REQ'D			DON
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 39
For use on Door #(s):
E106A E106B E106C E106D E106E
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	224XY	628	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE		DON
2	EA	FIRE EXIT HARDWARE	99-L-F-2SI-03	626	VON
4	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP	626	SCH
4	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP	626	SCH
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CVX	630	IVE
1	EA	GASKETING	488S	BK	ZER
1	EA	MEETING STILE	8217S	BK	ZER
			BALANCE OF HARDWARE TO REMAIN		

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 40
For use on Door #(s):
D106A D106B D108A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	CONT. HINGE	224XY	628	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE		DON
2	EA	FIRE EXIT HARDWARE	QM-99-L-F-2SI-03	626	VON
4	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP	626	SCH
4	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP	626	SCH
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE	689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
2	EA	WALL STOP	WS406/407CVX	630	IVE
1	EA	GASKETING	488S	BK	ZER
1	EA	MEETING STILE	8217S	BK	ZER
			BALANCE OF HARDWARE TO REMAIN		

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 41
For use on Door #(s):
D113B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224XY		628	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
2	EA	FIRE EXIT HARDWARE	99-L-F-2SI-03		626	VON
4	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
4	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	SURFACE CLOSER	4040XP SCUSH - LHR		689	LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 42
For use on Door #(s):
E101A E101B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224XY		628	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
2	EA	FIRE EXIT HARDWARE	99-L-F-03		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	OH STOP	90S		630	GLY
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	FIRE/LIFE CLOSER	4414ME B80G	✓	689	LCN
1	EA	MOUNTING PLATE	4410ME-18G		689	LCN
1	EA	TRANSFORMER	4410ME-3210	✓		LCN
2	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY HELD OPEN BY EXISTING MAGNETIC HOLD OPEN. MAGNETIC HOLD OPEN IS WIRED TO THE FIRE ALARM. WHEN SYSTEM IS ACTIVATED, THE MAGNETIC HOLD OPEN RELEASES, AND THE DOOR CLOSES. DOOR CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETIC HOLD OPEN.

THE LIFE SAFETY ELECTRONIC DOOR CLOSER SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR).

DOOR NORMALLY HELD OPEN BY ELECTRONIC DOOR CLOSER. ELECTRONIC DOOR CLOSER IS WIRED TO THE FIRE ALARM. WHEN SYSTEM IS ACTIVATED, THE ELECTRONIC DOOR CLOSER RELEASES, AND THE DOOR CLOSES. DOOR CAN ALSO BE MANUALLY RELEASED FROM THE ELECTRONIC DOOR CLOSER.

Hardware Group No. 43
For use on Door #(s):
A123A A128A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	224XY		628	IVE
2	EA	FIRE EXIT HARDWARE	9949-L-F-03-LBL - AUXILIARY FIRE LATCH (AS REQ'D)		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
2	EA	KICK PLATE	8400 10" X 1" LDW B-CS		630	IVE
2	EA	FIRE/LIFE WALL MAG	SEM7850 (COORDINATE VOLTAGE AS REQ'D)	✓	689	LCN
1	EA	GASKETING	488S		BK	ZER
1	EA	MEETING STILE	8217S		BK	ZER

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE WALL MAGNETS SHALL BE WIRED TO THE FIRE ALARM PANEL THROUGH A SET OF NORMALLY-CLOSED, DRY CONTACTS (SUPPLIED BY THE FIRE ALARM CONTRACTOR) AND LOCKDOWN SYSTEM.

MAGNETIC HOLD OPENS ARE CONTINUOUSLY ENERGIZED ALLOWING THE DOORS TO BE HELD OPEN UNDER NORMAL BUILDING CONDITIONS. WHEN THE FIRE ALARM OR LOCKDOWN SYSTEM IS ACTIVATED, POWER TO THE MAGNETIC HOLD OPENS IS DISCONNECTED CAUSING THE DOOR CLOSERS TO CLOSE THE DOORS. DOORS CAN ALSO BE MANUALLY RELEASED FROM THE MAGNETS.

Hardware Group No. 44
For use on Door #(s):
D106C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	224XY		628	IVE
3	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
1	EA	FIRE EXIT HARDWARE	QM-99-EO-F		626	VON
1	EA	SURFACE CLOSER	4040XP RW/PA - PUSH-SIDE		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE
1	EA	WALL STOP	WS406/407CVX		630	IVE
1	EA	GASKETING	488S		BK	ZER

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS PER NFPA 80.

Hardware Group No. 45
For use on Door #(s):
D125B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
3	EA	HINGE	5BB1HW 4.5 X 4.5 NRP		652	IVE
1	EA	PANIC HARDWARE	LD-99-EO		626	VON
1	EA	MORTISE STRIKE FILLER PLATE	SIZE AS REQ'D			DON
1	EA	SURFACE CLOSER	4040XP SCUSH		689	LCN
1	EA	KICK PLATE	8400 10" X 2" LDW B-CS		630	IVE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

Hardware Group No. 46
For use on Door #(s):
E125A E136A E138A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	PANIC HARDWARE	LD-99-L-2SI-03		626	VON
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	MORTISE STRIKE FILLER PLATE	SIZE AS REQ'D - DOOR E138A ONLY BALANCE OF HARDWARE TO REMAIN			DON

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

Hardware Group No. 47
For use on Door #(s):
C101D C101E
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-QEL-99-EO		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	OH STOP	100S		695	GLY
1	EA	SURFACE CLOSER	4040XP EDA		695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			

NOTES:
1) POWER SUPPLY FOR DOORS C101D AND C101E LISTED W/DOOR C101F.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY DOGGED DOWN VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM.

DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 48
For use on Door #(s):
C101F
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-LX-QEL-99-NL-OP-110MD		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
1	EA	SURF. AUTO OPERATOR	4642 WMS		695	LCN
1	EA	ACTUATOR, WALL MOUNT	8310-853T		630	LCN
1	EA	SURFACE MOUNT BOX	8310-867S			LCN
1	EA	WALL STOP	WS406/407CVX		613	IVE
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS906 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR		LGR	SCE
			WEATHERSTRIP BY DOOR/FRAME MANUFACTURER			

NOTES:
1) VESTIBULE ACTUATOR LISTED W/DOOR C101C.
2) POWER SUPPLY SHARED W/DOORS C101D AND C101E.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY DOGGED DOWN VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE. PUSHING EITHER AUTO OPERATOR ACTUATOR WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH (ALLOWING ACCESS) AND ACTIVATE EXTERIOR AUTO OPERATOR ACTUATOR. PUSHING EXTERIOR AUTO OPERATOR ACTUATOR AT THIS TIME WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR. PUSH INTERIOR ACTUATOR AT ANY TIME WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH AND SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 49
For use on Door #(s):
E120A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
1	EA	OH STOP	100S		695	GLY
1	EA	SURFACE CLOSER	4040XP EDA		695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS906 900-4RL 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		LGR	SCE

NOTES:
1) POWER SUPPLY SHARED W/DOORS E120B, E120C, E120D, E120E, AND E120F.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY DOGGED DOWN VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS.

THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 50
For use on Door #(s):
C101C
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-LX-RX-QEL-99-NL-OP-110MD		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
1	EA	SURF. AUTO OPERATOR	4642 WMS		695	LCN
1	EA	WEATHER RING	8310-801			LCN
1	EA	ACTUATOR, WALL MOUNT	8310-853T - EXTERIOR		630	LCN
1	EA	ACTUATOR, WALL MOUNT	8310-855 - VESTIBULE		630	LCN
2	EA	SURFACE MOUNT BOX	8310-867S			LCN
1	EA	WALL STOP	WS406/407CVX		613	IVE
1	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	INTERCOM SYSTEM (SALVAGED)	INSTALLED BY SECURITY CONTRACTOR			AIP
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS906 900-4RL - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		LGR	SCE

NOTES:
1) VESTIBULE ACTUATOR SHARED W/DOOR C101F.
2) POWER SUPPLY SHARED W/DOORS C101A AND C101B.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY DOGGED DOWN VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE. PUSHING EITHER AUTO OPERATOR ACTUATOR WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH (ALLOWING ACCESS) AND ACTIVATE EXTERIOR AUTO OPERATOR ACTUATOR. PUSHING EXTERIOR AUTO OPERATOR ACTUATOR AT THIS TIME WILL SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR. PUSH INTERIOR ACTUATOR AT ANY TIME WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH AND SIGNAL AUTO OPERATOR TO MOMENTARILY OPEN THE DOOR.

THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 51
For use on Door #(s):
C101A C101B E120B E120C E120D E120E
E120F
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		✓	313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-EO		✓	313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH				SPE
1	EA	OH STOP	100S			695	GLY
1	EA	SURFACE CLOSER	4040XP EDA			695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)			695	LCN
1	EA	DOOR SWEEP	8192D			D	ZER
1	EA	THRESHOLD	655A			A	ZER
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		✓	BLK	SCE

NOTES:
1) POWER SUPPLY FOR DOORS C101A AND C101B LISTED W/DOOR C101C.
2) POWER SUPPLY FOR DOORS E120B, E120C, E120D, E120E, AND E120F LISTED W/DOOR E120A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

UNLOCKED HOURS: DOOR ELECTRONICALLY DOGGED DOWN VIA ACCESS CONTROL SYSTEM, THUS IN PUSH/PULL MODE.

LOCKED HOURS: DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM.

THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 52
For use on Door #(s):
E123D
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR		LGR	SCE
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. FREE EGRESS AT ALL TIMES.

Hardware Group No. 53
For use on Door #(s):
E119A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
2	EA	CONT. HINGE	112XY TWP			313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-99-EO			313	VON
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD - RHRA			313	VON
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP			613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	MULTITECH READER	MT15 - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR			BLK	SCE
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR			BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR			LGR	SCE
			BALANCE OF HARDWARE TO REMAIN				

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) SWAP EXISTING RHR DOOR PULLS BETWEEN DOORS E119A AND E119B.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 54
For use on Door #(s):
C128A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER			FINISH	MFR
1	EA	CONT. HINGE	112XY TWP			313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD			313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP			613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP			613	SCH
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR			BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR BALANCE OF HARDWARE TO REMAIN REMOVE ELECTRIC STRIKE			LGR	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) SWAP DOOR PULL WITH DOOR C128B.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. DOOR TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 55
For use on Door #(s):
D119B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-99-EO		313	VON
1	EA	ELEC PANIC HARDWARE	SD-RX-QEL-99-NL-OP-110MD - RHRA		313	VON
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC RIM CYLINDER	80-159 (W/KEYED CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
1	EA	POWER SUPPLY	PS902 900-2RS - COORDINATE POWER SUPPLY REQUIREMENTS W/SECURITY CONTRACTOR		LGR	SCE
			BALANCE OF HARDWARE TO REMAIN			
			REMOVE ELECTRIC STRIKE			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOORS NORMALLY CLOSED AND LOCKED VIA ACCESS CONTROL SYSTEM. PRESENTING A VALID CREDENTIAL TO THE READER WILL MOMENTARILY RETRACT THE PANIC DEVICE LATCH ALLOWING ACCESS. THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. DOORS TO REMAIN LOCKED WITH LOSS OF POWER OR ACTIVATION OF LOCKDOWN SYSTEM. FREE EGRESS AT ALL TIMES.

Hardware Group No. 56
For use on Door #(s):
E119B E123A E123C E135A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY TWP		313AN	IVE
2	EA	ELEC PANIC HARDWARE	SD-RX-99-EO		313	VON
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH - DOOR E135A ONLY			SPE
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) RETURN DEMO'D PANIC DEVICES AT DOOR C123A TO OWNER.
3) SWAP EXISTING RHR DOOR PULLS BETWEEN DOORS E119B AND E119A.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. FREE EGRESS AT ALL TIMES.

Hardware Group No. 57
For use on Door #(s):
C125A C125B C125C C128B C128C E123B
E135B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY TWP		313AN	IVE
1	EA	ELEC PANIC HARDWARE	SD-RX-99-EO		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH - DOOR C125B ONLY			SPE
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR BALANCE OF HARDWARE TO REMAIN		BLK	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) RETURN DEMO'D PANIC DEVICES AT DOOR C123B TO OWNER.
3) AT VESTIBULE C128, SWAP EXISTING DOOR PULLS BETWEEN DOORS C128A AND C128B.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE REQUEST TO EXIT FEATURE OF THE DEVICE TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACT DURING VALID EGRESS. DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG. FREE EGRESS AT ALL TIMES.

Hardware Group No. 58
For use on Door #(s):
D119A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY TWP		313AN	IVE
2	EA	DOGGING KIT	DOGGING KIT-CDK-99		313	VON
2	EA	SWITCH	SWITCH KIT-RX			VON
1	EA	SFIC MORT CYLINDER	80-110 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER - RHRA		613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR BALANCE OF HARDWARE TO REMAIN		BLK	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

THE REQUEST TO EXIT FEATURE OF THE DEVICES TO SHUNT THE ALARM OUTPUT OF THE DOOR CONTACTS DURING VALID EGRESS. DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG. FREE EGRESS AT ALL TIMES.

Hardware Group No. 59
For use on Door #(s):
A131A A131B B101A D133A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY		313AN	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		695	VON
1	EA	PANIC HARDWARE	CD-99-EO		313	VON
1	EA	PANIC HARDWARE	CD-99-NL-OP-110MD - RHRA		313	VON
1	EA	SFIC MORT CYLINDER	80-110 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER		613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
2	EA	OH STOP	100S		695	GLY
2	EA	SURFACE CLOSER	4040XP EDA		695	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 60
For use on Door #(s):
A114A A120A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY		313AN	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		695	VON
1	EA	PANIC HARDWARE	CD-99-EO		313	VON
1	EA	PANIC HARDWARE	CD-99-NL-OP-110MD - RHRA		313	VON
1	EA	SFIC MORT CYLINDER	80-110 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER		613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
1	EA	OH STOP	100S		695	GLY
2	EA	SURFACE CLOSER	4040XP EDA		695	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	WALL STOP	WS406/407CVX		613	IVE
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 61
For use on Door #(s):
B115A B116A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY		313AN	IVE
6	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
1	EA	REMOVABLE MULLION	KR4954 STAB		695	VON
1	EA	PANIC HARDWARE	CD-99-EO		313	VON
1	EA	PANIC HARDWARE	CD-99-NL-OP-110MD - RHRA		313	VON
1	EA	SFIC MORT CYLINDER	80-110 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER		613	SCH
3	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	FLUSH PULL	SL-100 (CYLINDER HOLE) - MATCH FRAME FINISH			SPE
2	EA	SURFACE CLOSER	4040XP SCUSH		695	LCN
2	EA	CUSH SHOE SUPPORT	4040XP-30 (AS REQ'D)		695	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP	8192D		D	ZER
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.
2) CONCRETE AND SURFACE PREPARATION SHALL BE COMPLETED AT THE FLOOR TO ASSURE FASTENERS CAN BE SECURELY ATTACHED.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 62
For use on Door #(s):
D128A D130A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	CONT. HINGE	112XY		313AN	IVE
1	EA	REMOVABLE MULLION	KR4954 STAB		695	VON
2	EA	PANIC HARDWARE	LD-99-EO		313	VON
1	EA	SFIC MORT CYLINDER	80-110 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	OH STOP	100S		695	GLY
2	EA	SURFACE CLOSER	4040XP EDA		695	LCN
2	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	MULLION SEAL	8780N		BK	ZER
2	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER	✓	BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 63
For use on Door #(s):
B121A B122A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY		313AN	IVE
1	EA	PANIC HARDWARE	LD-99-EO		313	VON
1	EA	OH STOP	100S		695	GLY
1	EA	SURFACE CLOSER	4040XP EDA		695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	DOOR SWEEP	8192D		D	ZER
1	EA	THRESHOLD	655A		A	ZER
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR WEATHERSTRIP BY DOOR/FRAME MANUFACTURER	✓	BLK	SCE

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 64
For use on Door #(s):
E134A E141A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	CONT. HINGE	112XY		313AN	IVE
3	EA	HINGE FILLER PLATE	45/50 SERIES (AS REQ'D) - VERIFY WIDTH PRIOR TO PURCHASE			DON
1	EA	PANIC HARDWARE	CD-99-EO		313	VON
1	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	FLUSH PULL	SL-100 - MATCH FRAME FINISH			SPE
1	EA	SURFACE CLOSER	4040XP SCUSH		695	LCN
1	EA	CUSH SHOE SUPPORT	4040XP-30 (AS REQ'D)		695	LCN
1	EA	BLADE STOP SPACER	4040XP-61 (AS REQ'D)		695	LCN
1	EA	DOOR SWEEP	8192D		D	ZER
1	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR		BLK	SCE
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACT MONITORS WHETHER THE DOOR IS OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 65
For use on Door #(s):
D113A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	PANIC HARDWARE	CD-99-EO		313	VON
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR BALANCE OF HARDWARE TO REMAIN		BLK	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) RETURN DEMO'D PANIC DEVICES TO OWNER.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 66
For use on Door #(s):
D126A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
2	EA	DOGGING KIT	DOGGING KIT-CDK-99		313	VON
2	EA	SFIC MORT CYLINDER	80-110 XQ11-948 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		613	SCH
1	EA	RIM CYLINDER	BLANK CYLINDER - RHRA		613	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		613	SCH
2	EA	DOOR CONTACT	679-05HM - PROVIDED AND INSTALLED BY SECURITY CONTRACTOR BALANCE OF HARDWARE TO REMAIN		BLK	SCE

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.

OPERATIONAL DESCRIPTION: COORDINATE SYSTEM OPERATION AND COMPONENT LOCATIONS WITH THE OWNER, THE ARCHITECT, AND ALL RELATED TRADES.

DOOR CONTACTS MONITOR WHETHER THE DOORS ARE OPENED, CLOSED OR HELD OPEN TOO LONG.

Hardware Group No. 67
For use on Door #(s):
B112A D122A D128B E104A E121A E122A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	SFIC MORT CYLINDER	AS REQUIRED (VERIFY CAM/BLOCKING RING (AS REQ'D)) - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) VERIFY CYLINDER COMPATIBILITY WITH EXISTING HARDWARE PRIOR TO ORDER.

Hardware Group No. 68
For use on Door #(s):
B101B B101C D126B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER		FINISH	MFR
1	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP		626	SCH
1	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP		626	SCH
			BALANCE OF HARDWARE TO REMAIN			

NOTES:
1) VERIFY CYLINDER COMPATIBILITY WITH EXISTING HARDWARE PRIOR TO ORDER.

Hardware Group No. 69
For use on Door #(s):
E107B
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP	626	SCH
2	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP	626	SCH
			BALANCE OF HARDWARE TO REMAIN		

NOTES:
1) VERIFY CYLINDER COMPATIBILITY WITH EXISTING HARDWARE PRIOR TO ORDER.

Hardware Group No. 70
For use on Door #(s):
E123E E123F E123G E123H E124A
Each to have:

QTY		DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA	CENTER CASE COVER KIT	98/99RIM-2SI-C/C COVER KIT-US26D-LHR	626	VON
1	EA	CENTER CASE COVER KIT	98/99RIM-2SI-C/C COVER KIT-US26D-RHR	626	VON
4	EA	SFIC RIM CYLINDER	80-116 (W/DISP CONST CORE) - PURCHASED THROUGH ENRICO GROUP	626	SCH
4	EA	SFIC EVEREST CORE	80-037 EV29 R - PURCHASED THROUGH ENRICO GROUP	626	SCH
			BALANCE OF HARDWARE TO REMAIN		

NOTES:
1) FIELD VERIFY EXISTING CONDITIONS. VERIFY/COORDINATE PREPS ON EXISTING DOORS AND FRAMES TO ENSURE THE COMPATIBILITY OF NEW HARDWARE PRIOR TO ORDER OF NEW MATERIALS. PROVIDE FIELD MODIFICATIONS AND/OR NECESSARY FILLERS (PAINT TO MATCH WHERE EXISTING IS PREVIOUSLY PAINTED), REINFORCEMENTS AND FASTENERS, COMPATIBLE WITH EXISTING MATERIALS REQUIRED FOR MOUNTING NEW SPECIFIED HARDWARE AND TO COVER EXISTING DOOR AND FRAME PREPARATIONS.
2) VERIFY CYLINDER COMPATIBILITY WITH EXISTING HARDWARE PRIOR TO ORDER.

END OF SECTION

SECTION 09 22 16 - NON-STRUCTURAL METAL FRAMING
(ADDENDUM 004)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Wall Sheathing
2. Non-load-bearing steel framing systems for interior partitions.
3. Suspension systems for interior ceilings and soffits.
4. Grid suspension systems for gypsum board ceilings.

B. Related Requirements:

1. Section 05 40 00 "Structural Cold-Formed Metal Framing" for exterior and interior load-bearing and exterior non-load-bearing wall studs; floor joists; and roof rafters and ceiling joists.

1.3 COORDINATION

A. Coordinate all work with job site superintendent and all applicable trades.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. UL Assemblies:

1. Provide assembly number designations from UL's "Fire Resistance Directory." Or GA-600, "Fire Resistance Design Manual" and associated information for each wall type and suspended ceiling type where non-structural framing is used.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of code-compliance certification for studs and tracks.

B. Evaluation Reports: For firestop tracks, submit evaluation reports certified under an independent third-party inspection program administered by an agency accredited by IAS to ICC-ES AC98 accreditation criteria for inspection agencies, from ICC-ES or other qualified testing agency acceptable to authorities having jurisdiction.

1.6 QUALITY ASSURANCE

A. Code-Compliance Certification of Studs and Tracks: Provide documentation that framing members are certified according to the product-certification program of the Steel Framing Industry Association.

B. Qualifications: Skilled and experienced craftsmen shall be used on this work.

C. Certifications: Verify with submittal of shop drawing all gauges of stud material and location of product.

1.7 FIELD CONDITIONS

A. Environmental Requirements: Contractor must verify that building is dry and environmental conditions are acceptable for work in conjunction with drywall installation.

1.8 WARRANTY

A. Provide minimum two (2) year warranty against defects for materials and installation from date of substantial completion.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Protect cold-formed metal framing from corrosion, deformation, and other damage during delivery, storage, and handling as required by AISI S202, “Code of Standard Practice for Cold-Formed Steel Framing.”

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For fire-resistance-rated assemblies that incorporate non-load-bearing steel framing, provide materials and construction identical to those tested in assembly indicated, according to ASTM E119 by an independent testing agency.

B. STC-Rated Assemblies: For STC-rated assemblies, provide materials and construction identical to those tested in assembly indicated on Drawings, according to ASTM E90 and classified according to ASTM E413 by an independent testing agency.

C. Horizontal Deflection: For non-composite wall assemblies, limited to 1/240 of the wall height based on horizontal loading of 5 lbf/sq. ft. .

D. Design framing systems in accordance with AISI S220 and ASTM C645, Section 10 unless otherwise indicated.

E. Design Loads: As indicated on drawings or 5 lb f/sq. ft. minimum as required by the Michigan Building Code.

2.2 FRAMING SYSTEMS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Clark Dietrich.
2. MRI Steel Framing LLC
3. Marino WARE.
4. State Building Products.
5. Steel Stud Solutions.
6. Telling Industries.

B. Framing Members, General: Comply with ASTM AISI S220 and ASTM C645, Section 10 for conditions indicated.

1. Steel Sheet Components: Comply with ASTM AISI S220 and ASTM C645, Section 10 requirements for steel unless otherwise indicated.
2. Protective Coating: Comply with ASTM C645, ASTM A653/A653M, G60, hot dip galvanized unless otherwise indicated.

C. Studs and Tracks: AISI S220 and ASTM C645, Section 10. Use either conventional steel studs and tracks or embossed, high-strength steel studs and tracks.

1. Steel Studs and Tracks:
    a. Minimum Base-Steel Thickness: As indicated on Drawings.
    b. Depth: As indicated on Drawings.
2. Embossed, High Strength Steel Studs and Tracks: Roll-formed and embossed with surface deformations to stiffen the framing members so that they are structurally comparable to conventional ASTM C645 steel studs and tracks.
    a. Minimum Base-Steel Thickness: Equivalent thickness as that indicated on Drawings.
    b. Depth: As indicated on Drawings.

D. Slip-Type Head Joints: At all non-load bearing, non-rated walls that extend to structural framing above and other locations as indicated on the drawings, provide the following:

1. Deflection Track: Steel sheet top track manufactured to prevent cracking of finishes applied to interior partition framing resulting from deflection of structure above; in thickness not less than indicated for studs and in width to accommodate depth of studs.

E. Firestop Tracks: Top track manufactured to allow partition heads to expand and contract with movement of structure while maintaining continuity of fire-resistance-rated assembly indicated; in thickness not less than indicated for studs and in width to accommodate depth of studs.

F. Flat Strap and Backing Plate: Steel sheet for blocking and bracing in length and width indicated.

1. Minimum Base-Steel Thickness: 0.0329 inch.

G. Cold-Rolled Channel Bridging: Steel, 0.0538-inch minimum base-steel thickness, with minimum 1/2-inch-wide flanges.

1. Depth: 1-1/2 inches.
2. Clip Angle: Not less than 1-1/2 by 1-1/2 inches, 0.068-inch-thick, galvanized steel.

H. Hat-Shaped, Rigid Furring Channels: ASTM C645 & AISI S220.

1. Minimum Base-Steel Thickness: As indicated on Drawings.
2. Depth: As indicated on Drawings.

I. Cold-Rolled Furring Channels: 0.053-inch base-steel thickness, with minimum 1/2-inch-wide flanges.

1. Depth: 1-1/2 inch.
2. Furring Brackets: Adjustable, corrugated-edge-type steel sheet with minimum base-steel thickness of 0.0296 inch.
3. Tie Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.

J. Z-Shaped Furring: With slotted or non-slotted web, face flange of 1-1/4 inches, wall attachment flange of 3/4 inch, minimum uncoated-steel thickness of 0.0179 inch, and depth required to fit insulation thickness indicated.

2.3 WALL SHEATHING

A. Glass-Mat Gypsum Sheathing: ASTM C 1177/1177M.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
   a. CertainTeed Corporation.
   b. Georgia-Pacific Gypsum LLC.
   c. National Gypsum Company.
   d. Temple-Inland Building Products by Georgia-Pacific.
   e. USG Corporation.
2. Type and Thickness: Type X, 5/8 inch thick.

2.4 SUSPENSION SYSTEMS

A. Tie Wire: ASTM A641/A641M, Class 1 zinc coating, soft temper, 0.062-inch-diameter wire, or double strand of 0.048-inch-diameter wire.

B. Grid Suspension System for Gypsum Board Ceilings: ASTM C645, direct-hung system composed of main beams and cross-furring members that interlock.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following or approved equivalent:
   a. Armstrong Ceiling & Wall Solutions.
   b. Chicago Metallic Corporation.

c. USG Corporation.

2. Where applicable, installed systems must conform to Underwriters Laboratories, Inc. (UL) Fire Resistance Design No. and other applicable codes.

2.5 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing: Elastomeric, medium-modulus, neutral-curing silicone joint sealant compatible with joint substrates formed by gypsum sheathing and other materials, recommended by sheathing manufacturer for application indicated and complying with requirements for elastomeric sealants specified in Section 07 92 00 "Joint Sealants."

B. Sealant for Glass-Mat Gypsum Sheathing: Silicone emulsion sealant complying with ASTM C 834, compatible with sheathing tape and sheathing and recommended by tape and sheathing manufacturers for use with glass-fiber sheathing tape and for covering exposed fasteners.

1. Sheathing Tape: Self-adhering glass-fiber tape, minimum 2 inches wide, 10 by 10 or 10 by 20 threads/inch of type recommended by sheathing and tape manufacturers for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing and with a history of successful in-service use.

2.6 AUXILIARY MATERIALS

A. General: Provide auxiliary materials that comply with referenced installation standards.

1. Fasteners for Steel Framing: Of type, material, size, corrosion resistance, holding power, and other properties required to fasten steel members to substrates.

B. Isolation Strip at Exterior Walls: Provide the following:

1. Foam Gasket: Adhesive-backed, closed-cell vinyl foam strips that allow fastener penetration without foam displacement, 1/8-inch-thick, in width to suit steel stud size.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and substrates, with Installer present, and including welded hollow-metal frames, cast-in anchors, and structural framing, for compliance with requirements and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Suspended Assemblies: Coordinate installation of suspension systems with installation of overhead structure to ensure that inserts and other provisions for anchorages to building structure have been installed to receive hangers at spacing required to support the Work and that hangers will develop their full strength. Do not support suspended assemblies from metal deck.

B. Coordination with Sprayed Fire-Resistive Materials:

1. Before sprayed fire-resistive materials are applied, attach offset anchor plates or ceiling tracks to surfaces indicated to receive sprayed fire-resistive materials. Where offset anchor plates are required, provide continuous plates fastened to building structure not more than 24 inches on center.

2. After sprayed fire-resistive materials are applied, remove them only to extent necessary for installation of non-load-bearing steel framing. Do not reduce thickness of fire-resistive materials below that are required for fire-resistance ratings indicated. Protect adjacent fire-resistive materials from damage.

3.3 INSTALLATION, GENERAL

A. Installation Standard: ASTM C754.

1. Gypsum Board Assemblies: Also comply with requirements in ASTM C840 that apply to framing installation.

B. Install framing and accessories plumb, square, and true to line, with connections securely fastened.

C. Install supplementary framing, and blocking to support fixtures, equipment services, heavy trim, grab bars, toilet accessories, furnishings, or similar construction.

D. Install bracing at terminations in assemblies.

E. Do not bridge building control and expansion joints with non-load-bearing steel framing members. Frame both sides of joints independently.

3.4 INSTALLING FRAMED ASSEMBLIES

A. Install framing system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

1. Single-Layer Application: 16 inches on center unless otherwise indicated.

B. Where studs are installed directly against exterior masonry walls or dissimilar metals at exterior walls, install isolation strip between studs and exterior wall.

C. Install studs so flanges within framing system point in same direction.

D. Install tracks at floors and overhead supports. Extend framing full height to structural supports or substrates above suspended ceilings except where partitions are indicated to terminate at suspended ceilings. Continue framing around ducts that penetrate partitions above ceiling.

1. Slip-Type Head Joints: Where framing extends to overhead structural supports, install to produce joints at tops of framing systems that prevent axial loading of finished assemblies.
2. Door Openings: Screw vertical studs at jambs to jamb anchor clips on door frames; install track section (for cripple studs) at head and secure to jamb studs.
    a. Install two studs at each jamb unless otherwise indicated.
    b. Install cripple studs at head adjacent to each jamb stud, with a minimum 1/2-inch clearance from jamb stud to allow for installation of control joint in finished assembly.
    c. Extend jamb studs through suspended ceilings and attach to underside of overhead structure.
3. Other Framed Openings: Frame openings other than door openings the same as required for door openings unless otherwise indicated. Install framing below sills of openings to match framing required above door heads.
4. Fire-Resistance-Rated Partitions: Install framing to comply with fire-resistance-rated assembly indicated and support closures and to make partitions continuous from floor to underside of solid structure.
    a. Firestop Track: Where indicated, install to maintain continuity of fire-resistance-rated assembly indicated.
5. Sound-Rated Partitions: Install framing to comply with sound-rated assembly indicated.
6. Curved Partitions:
    a. Bend track to uniform curve and locate straight lengths so they are tangent to arcs.
    b. Begin and end each arc with a stud, and space intermediate studs equally along arcs. On straight lengths of no fewer than two studs at ends of arcs, place studs 6 inches on center.

E. Direct Furring:

1. Attach to concrete or masonry with stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches on center.

F. Z-Shaped Furring Members:

1. Erect insulation, specified in Section 07 21 00 "Thermal Insulation," vertically and hold in place with Z-shaped furring members spaced 24 inches on center.
2. Except at exterior corners, securely attach narrow flanges of furring members to wall with concrete stub nails, screws designed for masonry attachment, or powder-driven fasteners spaced 24 inches on center.
3. At exterior corners, attach wide flange of furring members to wall with short flange extending beyond corner; on adjacent wall surface, screw-attach short flange of furring channel to web of attached channel. At interior corners, space second member no more than 12 inches from corner and cut insulation to fit.

G. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch from the plane formed by faces of adjacent framing.

3.5 INSTALLATION OF GYPSUM SHEATHING

A. Comply with GA-253 and with manufacturer's written instructions.
1. Fasten gypsum sheathing to wood framing with screws.
2. Fasten gypsum sheathing to cold-formed metal framing with screws.
3. Install panels with a 3/8-inch gap where non-load-bearing construction abuts structural elements.
4. Install panels with a 1/4-inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.

B. Apply fasteners so heads bear tightly against face of sheathing, but do not cut into facing.

C. Vertical Installation: Install vertical edges centered over studs. Abut ends and edges with those of adjacent panels. Attach at perimeter and within field of panel to each stud.
1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of panels, unless otherwise indicated on drawings.

3.6 INSTALLING CEILING SUSPENSION SYSTEMS

A. Install suspension system components according to spacings indicated, but not greater than spacings required by referenced installation standards for assembly types.

B. Isolate suspension systems from building structure where they abut or are penetrated by building structure to prevent transfer of loading imposed by structural movement.

C. Suspend hangers from building structure as follows:
1. Install hangers plumb and free from contact with insulation or other objects within ceiling plenum that are not part of supporting structural or suspension system.
    a. Splay hangers only where required to miss obstructions and offset resulting horizontal forces by bracing, countersplaying, or other equally effective means.
2. Where width of ducts and other construction within ceiling plenum produces hanger spacings that interfere with locations of hangers required to support standard suspension system members, install supplemental suspension members and hangers in the form of trapezes or equivalent devices.
    a. Size supplemental suspension members and hangers to support ceiling loads within performance limits established by referenced installation standards.
3. Wire Hangers: Secure by looping and wire tying, either directly to structures or to inserts, eye screws, or other devices and fasteners that are secure and appropriate for substrate, and in a manner that will not cause hangers to deteriorate or otherwise fail.
4. Do not attach hangers to steel roof deck.
5. Do not attach hangers to permanent metal forms. Furnish cast-in-place hanger inserts that extend through forms.

6. Do not attach hangers to rolled-in hanger tabs of composite steel floor deck.
7. Do not connect or suspend steel framing from ducts, pipes, or conduit.

D. Fire-Resistance-Rated Assemblies: Wire tie furring channels to supports.

E. Seismic Bracing: Sway-brace suspension systems with hangers used for support.

F. Grid Suspension Systems: Attach perimeter wall track or angle where grid suspension systems meet vertical surfaces. Mechanically join main beam and cross-furring members to each other and butt-cut to fit into wall track.

G. Installation Tolerances: Install suspension systems that are level to within 1/8 inch in 12 feet measured lengthwise on each member that will receive finishes and transversely between parallel members that will receive finishes.

END OF SECTION

SECTION 09 65 19 - RESILIENT TILE FLOORING
(ADDENDUM 004)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section Includes:

1. Vinyl composition floor tile.

1.3 COORDINATION

A. Coordinate all work with job site superintendent and all applicable trades.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For each type of resilient floor tile.

1. Include floor tile layouts, edges, columns, doorways, enclosing partitions, built-in furniture, cabinets, and cutouts.

2. Show details of special patterns. A installation guide will be issued to show basis of design for the flooring pattern

C. Samples: Physical samples are not required and will not be reviewed, unless the product being submitted differs from the original specified product.

1. Provide written confirmation that products are originally specified product.

D. Product Schedule: For floor tile. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For Installer.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of floor tile to include in maintenance manuals.

1.7 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials, from the same product run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Floor Tile: Furnish one box for every 50 boxes or fraction thereof, of each type, color, and pattern of floor tile installed.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: An entity that employs installers and supervisors who are competent in techniques required by manufacturer for floor tile installation and seaming method indicated.

1. Engage an installer who employs workers for this Project who are trained or certified by floor tile manufacturer for installation techniques required.

B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution. A installation guide will be issued to show a general intent and a basis of design for this mockup. Installation guide was updated on 1/30/23 to remove some difficulty in pattern design.

1. Coordinate mockups in this Section with mockups specified in other Sections.

a. Size: Minimum 100 sq. ft. for each type, color, and pattern in Corridor C118.

2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Store floor tile and installation materials in dry spaces protected from the weather, with ambient temperatures maintained within range recommended by manufacturer, but not less than 50 deg F or more than 90 deg F. Store floor tiles on flat surfaces.

1.10 FIELD CONDITIONS

A. Maintain ambient temperatures within range recommended by manufacturer, but not less than 70 deg F or more than 95 deg F, in spaces to receive floor tile during the following periods:

1. 48 hours before installation.
2. During installation.
3. 48 hours after installation.

B. After installation and until Substantial Completion, maintain ambient temperatures within range recommended by manufacturer, but not less than 55 deg F or more than 95 deg F.

C. Close spaces to traffic during floor tile installation.

D. Close spaces to traffic for 48 hours after floor tile installation.

E. Install floor tile after other finishing operations, including painting, have been completed.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Test-Response Characteristics: For resilient floor tile, as determined by testing identical products according to ASTM E 648 or NFPA 253 by a qualified testing agency.

1. Critical Radiant Flux Classification: Class I, not less than 0.45 W/sq. cm.

2.2 VINYL COMPOSITION FLOOR TILE VCT1, VCT2, VCT3

A. Tile Standard: ASTM F 1066, Class 2, through pattern.

B. Wearing Surface: Smooth.

C. Thickness: 0.125 inch.

D. Size: 12 by 12 inches.

E. Colors and Patterns: As indicated on Finish Schedule.

2.3 INSTALLATION MATERIALS

A. Trowelable Leveling and Patching Compounds: Latex-modified, portland-cement-based or blended hydraulic-cement-based formulation provided or approved by floor tile manufacturer for applications indicated.

B. Adhesives: Water-resistant type recommended by floor tile and adhesive manufacturers to suit floor tile and substrate conditions indicated.

C. Floor Polish: Provide protective, liquid floor-polish products recommended by floor tile manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, with Installer present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

1. Verify that finishes of substrates comply with tolerances and other requirements specified in other Sections and that substrates are free of cracks, ridges, depressions, scale, and foreign deposits that might interfere with adhesion of floor tile.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Prepare substrates according to floor tile manufacturer's written instructions to ensure adhesion of resilient products.

B. Concrete Substrates: Prepare according to ASTM F 710.

1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners.
2. Remove substrate coatings and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, using mechanical methods recommended by floor tile manufacturer. Do not use solvents.
3. Alkalinity and Adhesion Testing: Perform tests recommended by floor tile manufacturer. Proceed with installation only after substrate alkalinity falls within range on pH scale recommended by manufacturer in writing, but not less than 5 or more than 9 pH.
4. Moisture Testing: Perform tests so that each test area does not exceed 1000 sq. ft. and perform no fewer than three tests in each installation area and with test areas evenly spaced in installation areas.
    a. Anhydrous Calcium Chloride Test: ASTM F 1869. Proceed with installation only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. in 24 hours.
    b. Relative Humidity Test: Using in-situ probes, ASTM F 2170. Proceed with installation only after substrates have a maximum 75 percent relative humidity level measurement.

C. Fill cracks, holes, and depressions in substrates with trowelable leveling and patching compound; remove bumps and ridges to produce a uniform and smooth substrate.

D. Do not install floor tiles until materials are the same temperature as space where they are to be installed.

1. At least 48 hours in advance of installation, move resilient floor tile and installation materials into spaces where they will be installed.

E. Immediately before installation, sweep and vacuum clean substrates to be covered by resilient floor tile.

3.3 FLOOR TILE INSTALLATION

A. Comply with manufacturer's written instructions for installing floor tile.

B. Lay out floor tiles from center marks established with principal walls, discounting minor offsets, so tiles at opposite edges of room are of equal width. Adjust as necessary to avoid using cut widths that equal less than one-half tile at perimeter.

1. Lay tiles in pattern indicated.

C. Match floor tiles for color and pattern by selecting tiles from cartons in the same sequence as manufactured and packaged, if so numbered. Discard broken, cracked, chipped, or deformed tiles.

1. Lay tiles with grain running in one direction.

D. Scribe, cut, and fit floor tiles to butt neatly and tightly to vertical surfaces and permanent fixtures including built-in furniture, cabinets, pipes, outlets, and door frames.

E. Extend floor tiles into toe spaces, door reveals, closets, and similar openings. Extend floor tiles to center of door openings.

F. Maintain reference markers, holes, and openings that are in place or marked for future cutting by repeating on floor tiles as marked on substrates. Use chalk or other nonpermanent marking device.

G. Install floor tiles on covers for telephone and electrical ducts, building expansion-joint covers, and similar items in installation areas. Maintain overall continuity of color and pattern between

pieces of tile installed on covers and adjoining tiles. Tightly adhere tile edges to substrates that abut covers and to cover perimeters.

H. Adhere floor tiles to substrates using a full spread of adhesive applied to substrate to produce a completed installation without open cracks, voids, raising and puckering at joints, telegraphing of adhesive spreader marks, and other surface imperfections.

3.4 CLEANING AND PROTECTION

A. Comply with manufacturer's written instructions for cleaning and protecting floor tile.

B. Perform the following operations immediately after completing floor tile installation:

1. Remove adhesive and other blemishes from surfaces.
2. Sweep and vacuum surfaces thoroughly.
3. Damp-mop surfaces to remove marks and soil.

C. Protect floor tile from mars, marks, indentations, and other damage from construction operations and placement of equipment and fixtures during remainder of construction period.

D. Floor Polish: Remove soil, adhesive, and blemishes from floor tile surfaces before applying liquid floor polish.

1. Apply three to five coats in accordance with Manufacturer’s written instructions.

E. Cover floor tile until Substantial Completion.

END OF SECTION

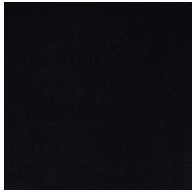
Three Rivers Middle School

Tarkett

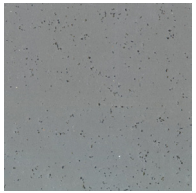
DESIGNER ON DEMAND

Floor Plan Opt A

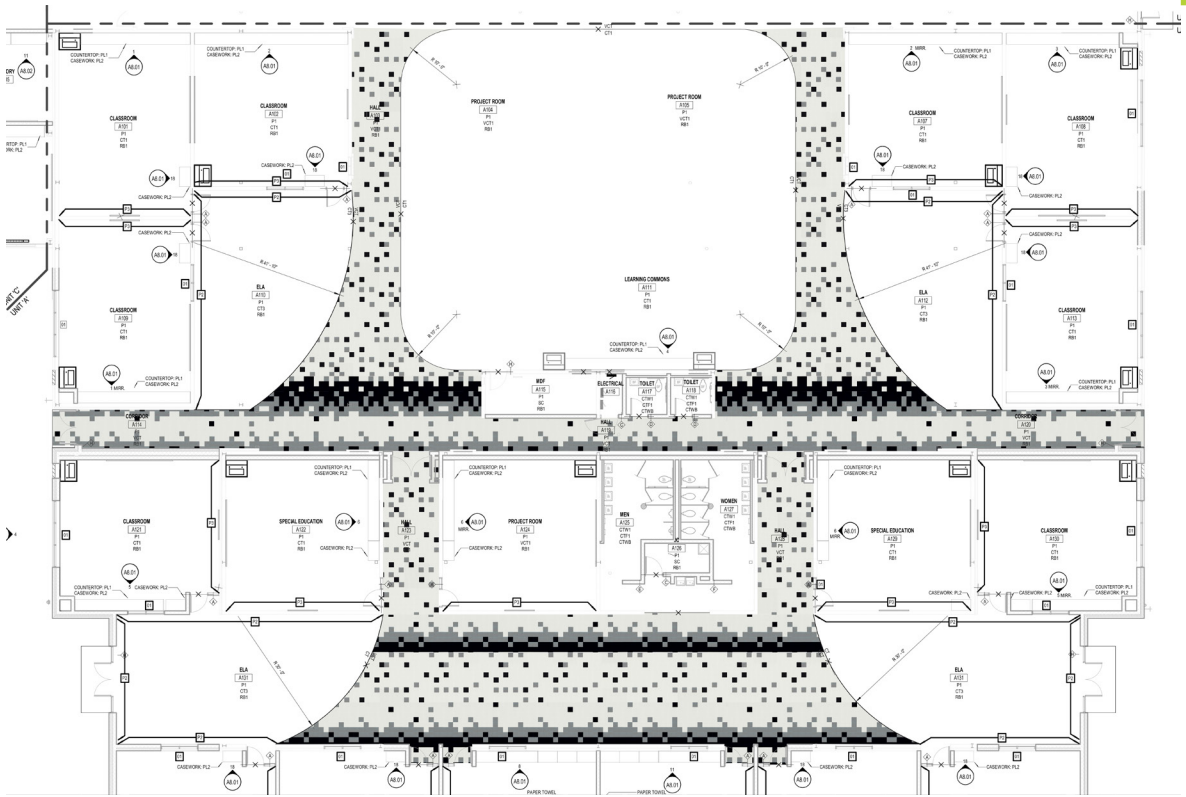
Tarkett
Product: VCT II
Color: Solid White
Size: 12x12
Installation: Monolithic



Tarkett
Product: VCT II
Color: Solid Black
Size: 12x12
Installation: Monolithic



Tarkett
Product: VCT II
Color: Grey Quartz
Size: 12x12
Installation: Monolithic

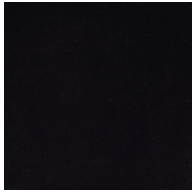


DESIGNER ON DEMAND

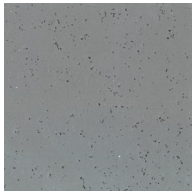
Tarkett

Floor Plan Opt B

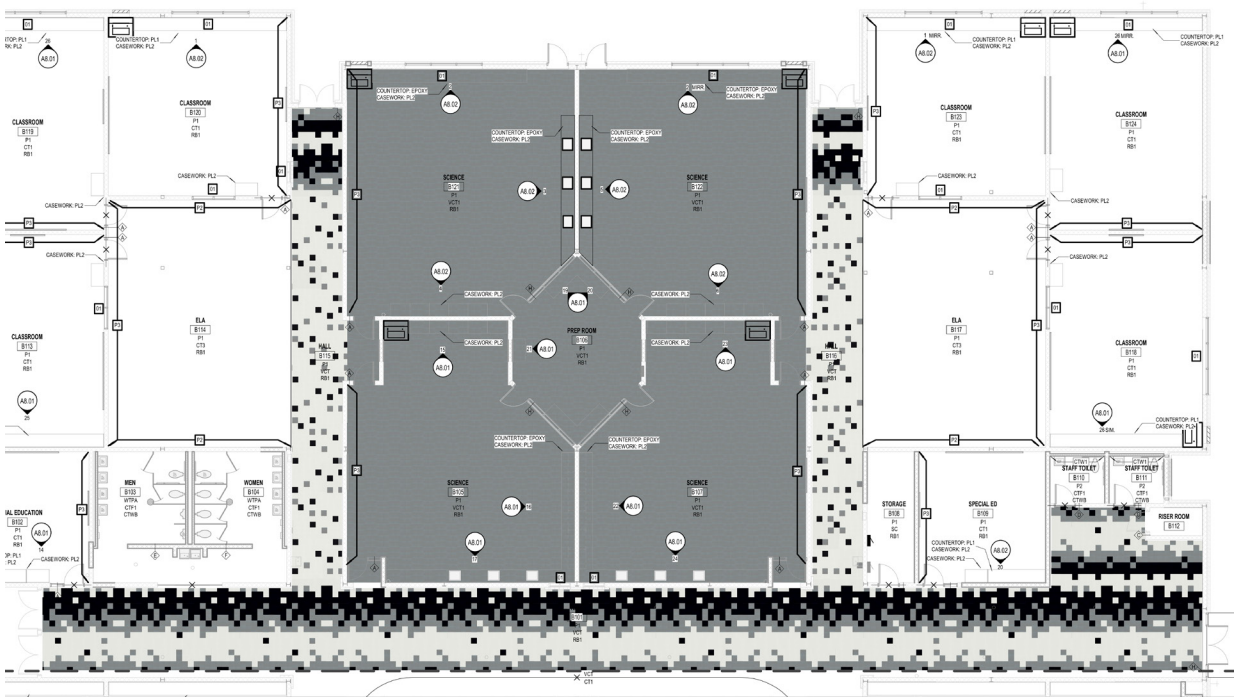
Tarkett
Product: VCT II
Color: Solid White
Size: 12x12
Installation: Monolithic



Tarkett
Product: VCT II
Color: Solid Black
Size: 12x12
Installation: Monolithic

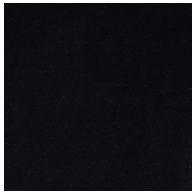


Tarkett
Product: VCT II
Color: Grey Quartz
Size: 12x12
Installation: Monolithic

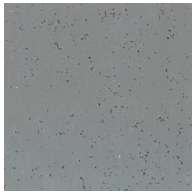


Floor Plan Opt C

Tarkett
Product: VCT II
Color: Solid White
Size: 12x12
Installation: Monolithic



Tarkett
Product: VCT II
Color: Solid Black
Size: 12x12
Installation: Monolithic



Tarkett
Product: VCT II
Color: Grey Quartz
Size: 12x12
Installation: Monolithic

THANK YOU

WHEN USING OUR DESIGN SERVICES PLEASE KEEP IN MIND:

- The Designer on Demand service is intended to help clients visualize the pattern, color, and scale of Tarkett's flooring products. These attributes are subject to differences in computer screens, printers, and requested rendering format; which may cause variations from true specifications.
- Always review physical samples of products for accuracy.
- The Designer on Demand service is a visualization service and does not provide product quantities, estimations, or installation drawings.

DESIGNER ON DEMAND

Tarkett

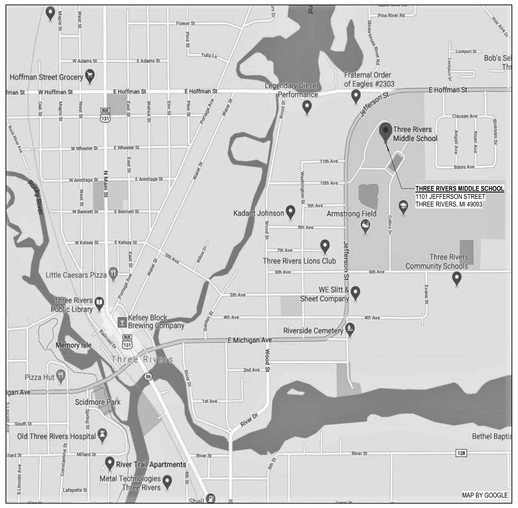
THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

1101 JEFFERSON STREET
THREE RIVERS, MICHIGAN

BIDS & CONSTRUCTION
12.01.2022
GMB PROJECT # 5-5802

VICINITY MAP



ALTERNATES

A-1: REPLACE DOORS AND FRAMES AT VESTIBULE E120.

G-1: AT MEN D101 AND WOMEN E102, REPLACE EXISTING PLUMBING FIXTURES ONE FOR ONE. REPLACE EXISTING TOILET PARTITIONS ONE FOR ONE AND PROVIDE NEW FINISHES.

G-2: ADD ALTERNATE FOR THE REHABILITATION (NEW FLUID APPLIED ROOFING SYSTEM) OF THE EXISTING ROOFS AT UNITS D AND E AND PARTS OF UNITS A AND B AS NOTED ON THE OVERALL ROOF PLAN.

M-1: REPLACEMENT OF ALL AIR HANDLING UNITS AND ACCESSORIES LOCATED IN UNIT D.

E-1: ADDING CABLING (CAT6A) TO A QUANTITY OF (6) CAMERAS IN UNITS D AND E.

E-2: FURNISH & INSTALL A NEW P.A. HEAD END SYSTEM.

E-3: FURNISH & INSTALL A NEW WIRELESS CLOCK SYSTEM IN UNITS A, B AND C.

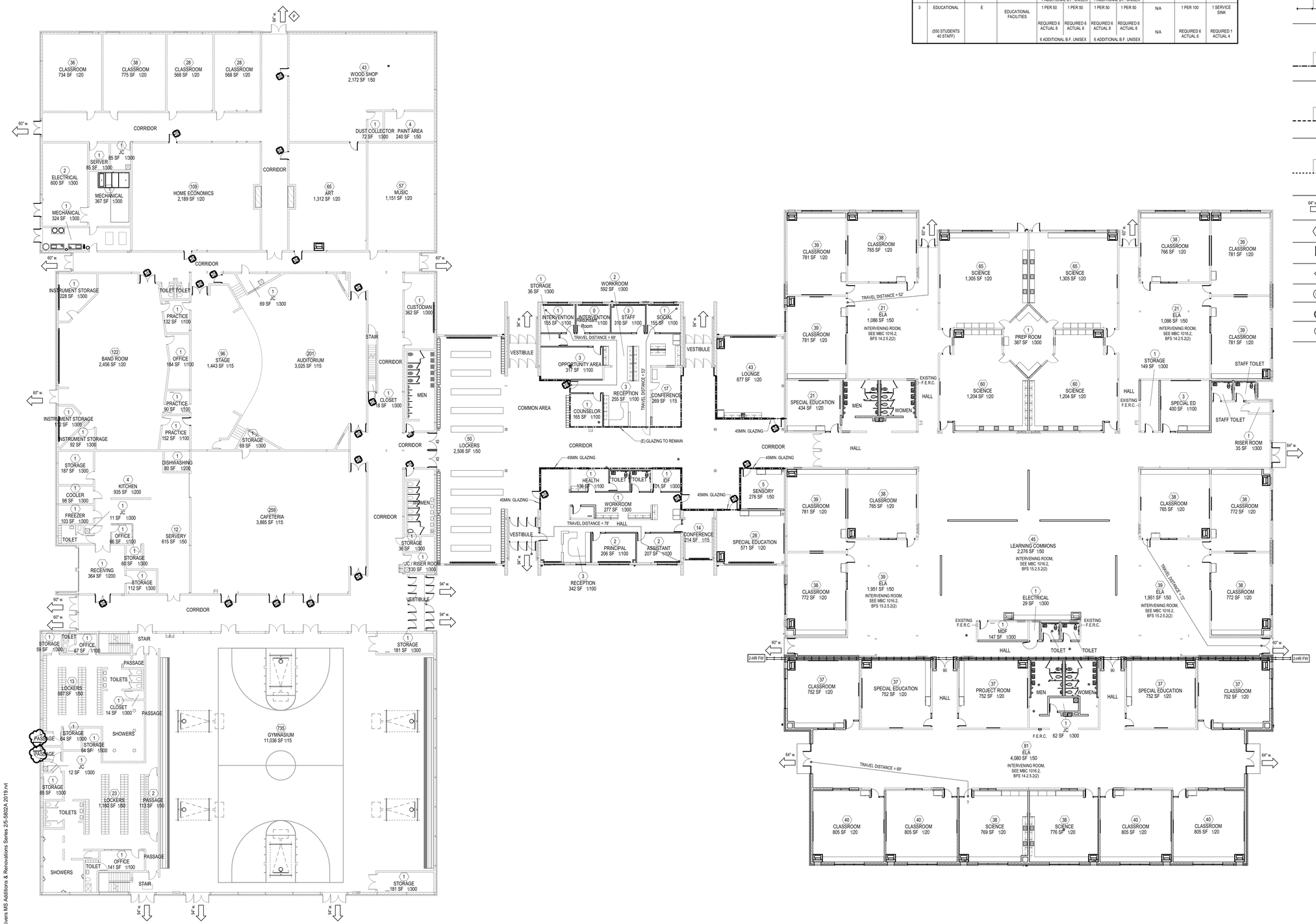
ALTERNATE SUMMARY, SEE SPECIFICATION SECTION 01 23 00 FOR FULL DESCRIPTIONS

CONSTRUCTION MANAGER
THE SKILLMAN CORPORATION
8120 MOORSBRIDGE ROAD
PORTAGE, MI 49024
P. 269.350.5757
WWW.SKILLMAN.COM

OWNER
THREE RIVERS COMMUNITY SCHOOLS
851 SIXTH AVENUE
THREE RIVERS, MI 49093
P. 269.279.1100
WWW.TRSCHOOLS.ORG

ARCHITECT + ENGINEER
GMB ARCHITECTURE + ENGINEERING
85 EAST EIGHTH STREET, SUITE 200
HOLLAND, MI 49423
P. 616.796.0200
WWW.GMB.COM

NO.	CLASSIFICATION	OCCUPANCY	DESCRIPTION	WATER CLOSETS		LAVATORIES		BATHTUBS/ SHOWERS	DRINKING FOUNTAINS	OTHER
				MALE	FEMALE	MALE	FEMALE			
1	ASSEMBLY (907 OCCUPANTS)	A-1	THEATRE FOR THE PERFORMING ARTS	1 PER 125 REQUIRED 4 ACTUAL 10 3 ADDITIONAL B.F. UNISEX	1 PER 65 REQUIRED 7 ACTUAL 7	1 PER 200 REQUIRED 3 ACTUAL 6 3 ADDITIONAL B.F. UNISEX	1 PER 200 REQUIRED 3 ACTUAL 6	N/A N/A	1 PER 500 REQUIRED 2 ACTUAL 2	1 SERVICE SINK REQUIRED 1 ACTUAL 2
1	ASSEMBLY (731 OCCUPANTS)	A-1	GYMNASIUM	1 PER 125 REQUIRED 3 ACTUAL 4 2 ADDITIONAL B.F. UNISEX	1 PER 65 REQUIRED 6 ACTUAL 6 2 ADDITIONAL B.F. UNISEX	1 PER 200 REQUIRED 2 ACTUAL 5 2 ADDITIONAL B.F. UNISEX	1 PER 200 REQUIRED 2 ACTUAL 4 2 ADDITIONAL B.F. UNISEX	N/A N/A	1 PER 1000 REQUIRED 1 ACTUAL 1	1 SERVICE SINK REQUIRED 1 ACTUAL 1
1	ASSEMBLY (937 OCCUPANTS)	A-5	BLEACHERS FOR OUTDOOR SPORTING EVENTS AND ACTIVITIES	1 PER 75 REQUIRED 7 ACTUAL 7 1 ADDITIONAL B.F. UNISEX	1 PER 40 REQUIRED 12 ACTUAL 13 1 ADDITIONAL B.F. UNISEX	1 PER 200 REQUIRED 3 ACTUAL 4 1 ADDITIONAL B.F. UNISEX	1 PER 150 REQUIRED 4 ACTUAL 4 1 ADDITIONAL B.F. UNISEX	N/A N/A	1 PER 1000 REQUIRED 1 ACTUAL 1	1 SERVICE SINK REQUIRED 1 ACTUAL 1
3	EDUCATIONAL (550 STUDENTS 40 STAFF)	E	EDUCATIONAL FACILITIES	1 PER 50 REQUIRED 6 ACTUAL 9 6 ADDITIONAL B.F. UNISEX	1 PER 50 REQUIRED 6 ACTUAL 6 6 ADDITIONAL B.F. UNISEX	1 PER 50 REQUIRED 6 ACTUAL 8 6 ADDITIONAL B.F. UNISEX	1 PER 50 REQUIRED 8 ACTUAL 8 6 ADDITIONAL B.F. UNISEX	N/A N/A	1 PER 100 REQUIRED 6 ACTUAL 6	1 SERVICE SINK REQUIRED 1 ACTUAL 4



NORTH

CODE COMPLIANCE PLAN

1/16" = 1'-0"

LEGEND - CODE COMPLIANCE PLAN

2-HR FW

FIRE WALLS (IBC SECTION 706)
CREATE SEPARATE BUILDINGS. 2-HOUR FIRE RESISTANCE RATING, STRUCTURALLY ENGINEERED. 90-MINUTE SELF-CLOSING DOORS. GLAZING ONLY ALLOWED IF DESIGNED AND TESTED AS A WALL. GLAZED OPENINGS ARE PERMITED IF RATED AS A WALL, PER ASTM E119 AND SECTION 716.2 (IBC) IN MAXIMUM SIZE TESTED.

2-HR FB

2-HR FIRE BARRIER (IBC SECTION 707 / NFPA 101 - 8.3)
FIRE BARRIER (2-HOUR FIRE RESISTANCE RATING REQUIRED). INSTALL FROM FLOOR SLAB TO UNDERSIDE OF ROOF DECK ABOVE. 90-MINUTE SELF-CLOSING DOORS (100 SQUARE INCHES MAXIMUM DOOR VISION PANEL). GLAZED OPENINGS ARE PERMITTED IF 2-HOUR RATED, PER ASTM E119 AND TABLE 716.5 (IBC) AND TABLE 8.3.4.2 (NFPA 101). OPENING SHALL BE LESS THAN 25% OF THE COMMON CORRIDOR WALL PER ROOM.

1-HR FB

1-HR FIRE BARRIER (IBC SECTION 707 / NFPA 101 - 8.3)
FIRE BARRIER (1-HOUR FIRE RESISTANCE RATING REQUIRED). INSTALL FROM FLOOR SLAB TO UNDERSIDE OF ROOF DECK ABOVE. OPENING SHALL BE LESS THAN 25% OF THE WALL. OPENING PROTECTIVES DEPEND ON TYPE OF ASSEMBLY PER TABLE 716.5 (IBC) AND TABLE 8.3.4.2 (NFPA 101).

CORRIDOR

(CORRIDOR) FIRE BARRIER (IBC SECTION 707 / NFPA 101 - 8.3)
CORRIDOR FIRE BARRIER (1-HOUR FIRE RESISTANCE RATING REQUIRED). INSTALL FROM FLOOR SLAB TO UNDERSIDE OF ROOF DECK ABOVE. 20-MINUTE SELF-CLOSING DOORS. GLAZED OPENINGS ARE PERMITTED IF 3/4-HOUR RATED, PER ASTM E119 IN THE MAXIMUM SIZE TESTED. OPENING SHALL BE LESS THAN 25% OF THE COMMON CORRIDOR WALL PER ROOM.

1-HR SB

SMOKE BARRIER (IBC SECTION 709 / NFPA 101 - 8.5)
SMOKE BARRIER (1-HOUR FIRE RESISTANCE RATING REQUIRED). DIVIDE BUILDING INTO COMPARTMENTS TO RESTRICT MOVEMENT OF SMOKE. INSTALL FROM FOOR SLAB TO UNDERSIDE OF ROOF DECK ABOVE 20-MINUTE SELF-CLOSING OR SMOKE ACTIVATED LABEL DOORS. GLAZED OPENINGS ARE PERMITTED IF 3/4-HOUR RATED, PER ASTM E119 IN THE MAXIMUM SIZE TESTED. OPENING SHALL BE LESS THAN 25% OF THE COMMON CORRIDOR WALL PER ROOM.

SMOKE SP

SMOKE PARTITION (IBC SECTION 710 / NFPA 101 - 8.4)
SMOKE PARTITION (NO FIRE RESISTANCE RATING) FROM FLOOR SLAB TIGHT TO ROOF DECK OR SOLID CEILING ABOVE. GLAZED OPENINGS ARE PERMITTED (NO RATING REQUIRED)

64" w. — BUILDING EXIT WITH EGRESS WIDTH

46 — OCCUPANT LOAD

20 — DENOTES FIRE RESISTANCE RATING OF OPENING PROTECTIVE (IN MINUTES)

P — DENOTES PANIC HARDWARE DEVICE ON EACH DOOR LEAF

FE — FIRE EXTINGUISHER

ACCESSIBLE ROUTE/ENTRANCE/EGRESS

E — EGRESS WINDOW LOCATION

LIFE SAFETY NOTES

1. CODE: NFPA 101, 2012 LIFE SAFETY CODE (CHAPTER 43), AS AMENDED BY STATE FIRE MARSHAL
   2015 MICHIGAN BUILDING CODE, 2015 MICHIGAN REHABILITATION CODE
2. CONSTRUCTION TYPE: IIB (000)
   PARTIALLY PROTECTED WITH AUTOMATIC FIRE SPRINKLER SYSTEM
   - BUILDING AREA SEPARATED BY NEW FIRE WALL IS FULLY SPRINKLERED
   - EXISTING CLASSROOMS IN UNITS A & B ARE FULLY SPRINKLERED
   - REST OF BUILDING IS UNSPRINKLERED

   HAZARD OF CONTENTS: ORDINARY HAZARD
3. OCCUPANCY: EDUCATIONAL OCCUPANCY (SPACES SUBJECT TO "ASSEMBLY" OCCUPANCY NOTED ON PLAN)
4. AREA & HEIGHT:
   ALLOWABLE AREA: 68,875 SQ. FT. (REFER TO CALCULATIONS ON SHEET)
   - BUILDING AREA (COMBINATION OF EXISTING & NEW PART OF ADDITION) = 15,300 SF

   ALLOWABLE HEIGHT: 1 STORY
   SMOKE COMPARTMENTS: MINIMUM OF 2 COMPARTMENTS, MAXIMUM OF 30,000 SQ. FT. EACH
5. SEPARATION & PROTECTION:
   CORRIDORS SHALL BE SMOKE TIGHT.
   FIRE AREAS: SEPARATED W/ 2-HR FIRE SEPARATION & 90-MIN. OPENING PROTECTIVES.
   BOILER & FURNACE ROOMS, STORAGE AREAS, AND JANITOR CLOSETS: 1 HR-RATED SEPARATION & OPENING PROTECTIVES WHERE REQUIRED
6. OCCUPANT LOAD: (BASED ON FOLLOWING - SEE PLAN)
   ASSEMBLY (CONFERENCE, DINING, GYMNASIUM): 1/15 SF NET
   BUSINESS: 1/100 SF GROSS
   CLASSROOMS: 1/20 SF NET
   KITCHENS: 1/100 SF GROSS
   LIBRARIES (READING AREAS): 1/50 SF NET
   LIBRARIES (STACK AREAS): 1/100 SF GROSS
   LOCKERS: 1/7 SF NET, OR 1/15 SF GROSS INCLUDING SHOWERS, TOILETS & DRYING
   MECHANICAL EQUIPMENT: 1/300 SF GROSS
   SHOPS, LABS, VOC. ROOMS: 1/50 SF NET
   STAGES: 1/15 SF NET
   STORAGE: 1/300 SF GROSS
7. EGRESS REQUIREMENTS:
   A. 6'-0" MINIMUM CORRIDOR WIDTH (CORRIDOR CAPACITY = OCCUPANT LOAD/REQUIRED NUMBER OF EXITS)
   B. EGRESS WIDTHS - 0.2" PER PERSON (LEVEL OR RAMPED)
   C. 200' MAXIMUM TRAVEL DISTANCE
   D. 20' DEAD-END MAXIMUM TRAVEL IN CORRIDOR.
   E. 75' MAXIMUM COMMON PATH OF TRAVEL
   F. EXITS:
      (1) 2 REMOTE EXITS REQUIRED FOR EDUCATIONAL SPACES >50 PEOPLE OR >1,000 SQ. FT. IN AREA
      (2) MINIMUM NUMBER PER OCCUPANTS: 2 IF < 501, 3 IF < 1001, 4 IF > 1000
      (3) WINDOWS FOR RESCUE REQUIRED IN BUILDINGS NOT PROTECTED BY AUTOMATIC SPRINKLER SYSTEM
      (4) PANIC HARDWARE AT AREAS >100 OCCUPANT LOAD IF DOOR PROVIDED WITH LATCH OR LOCK.
      (5) DISCHARGE: ALL EXITS SHALL TERMINATE AT A PUBLIC WAY OR AN EXTERIOR EXIT DISCHARGE
   G. HORIZONTAL EXITS:
      (1) SUBSTITUTED FOR NO MORE THAN ONE-HALF OF REQUIRED EXITS
      (2) FIRE BARRIERS SEPARATING BUILDING AREAS WITH HORIZ. EXITS BETWEEN SHALL BE 2-HOUR RATED
      (3) WHERE SERVING BOTH SIDES OF FIRE BARRIER ADJACENT OPENINGS REQUIRED WITH DOORS SWINGING IN OPPOSITE DIRECTIONS
   H. DOORS:
      (1) MINIMUM CLEAR WIDTH SHALL BE 32"
      (2) SIDE HINGED
      (3) SWING IN DIRECTION OF TRAVEL WHERE OCCUPANT LOAD IS > 50
      (4) SELF-CLOSING OR AUTOMATIC-CLOSING IN FIRE BARRIERS AND HORIZONTAL EXITS
8. INTERIOR FINISH:
   A. EXITS - CLASS A.
   B. ALL OTHER - CLASS A OR B.
   C. INTERIOR WALL & CEILING FINISH IF LESS THAN 10% OF AGGREGATE WALL & CEILING AREAS OF ANY ROOM MAY BE CLASS C.
9. OTHER PROVISIONS:
   BUILDING CONSTRUCTION - MICHIGAN BUILDING CODE 2015
   ELECTRICAL - 2017 NFPA 70 (NEC) AS AMENDED BY MICHIGAN PART 8 RULES
   MECHANICAL - MICHIGAN MECHANICAL CODE 2015
   PLUMBING - MICHIGAN PLUMBING CODE 2015
   FIRE ALARM SYSTEM - NFPA 70 & 72
   FIRE EXTINGUISHERS - NFPA 10
   FIRE SPRINKLERS - NFPA 13

FIRESTOPPING REQUIREMENT

ALL OPENINGS AROUND MECHANICAL, PLUMBING, ELECTRICAL, AND STRUCTURAL PENETRATIONS THRU A FIRE RESISTIVE RATED ASSEMBLY (INCLUDING FLOORS) SHALL BE SEALED WITH FIRE RATED FIRESTOPPING IN COMPLIANCE WITH ASTM E814 AND EQUIVALENT TO FIRE RATING REQUIRED. PENETRATIONS THRU SMOKE RESISTIVE NON-FIRE RATED ROOM, WALLS SHALL BE SEALED SMOKE TIGHT

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

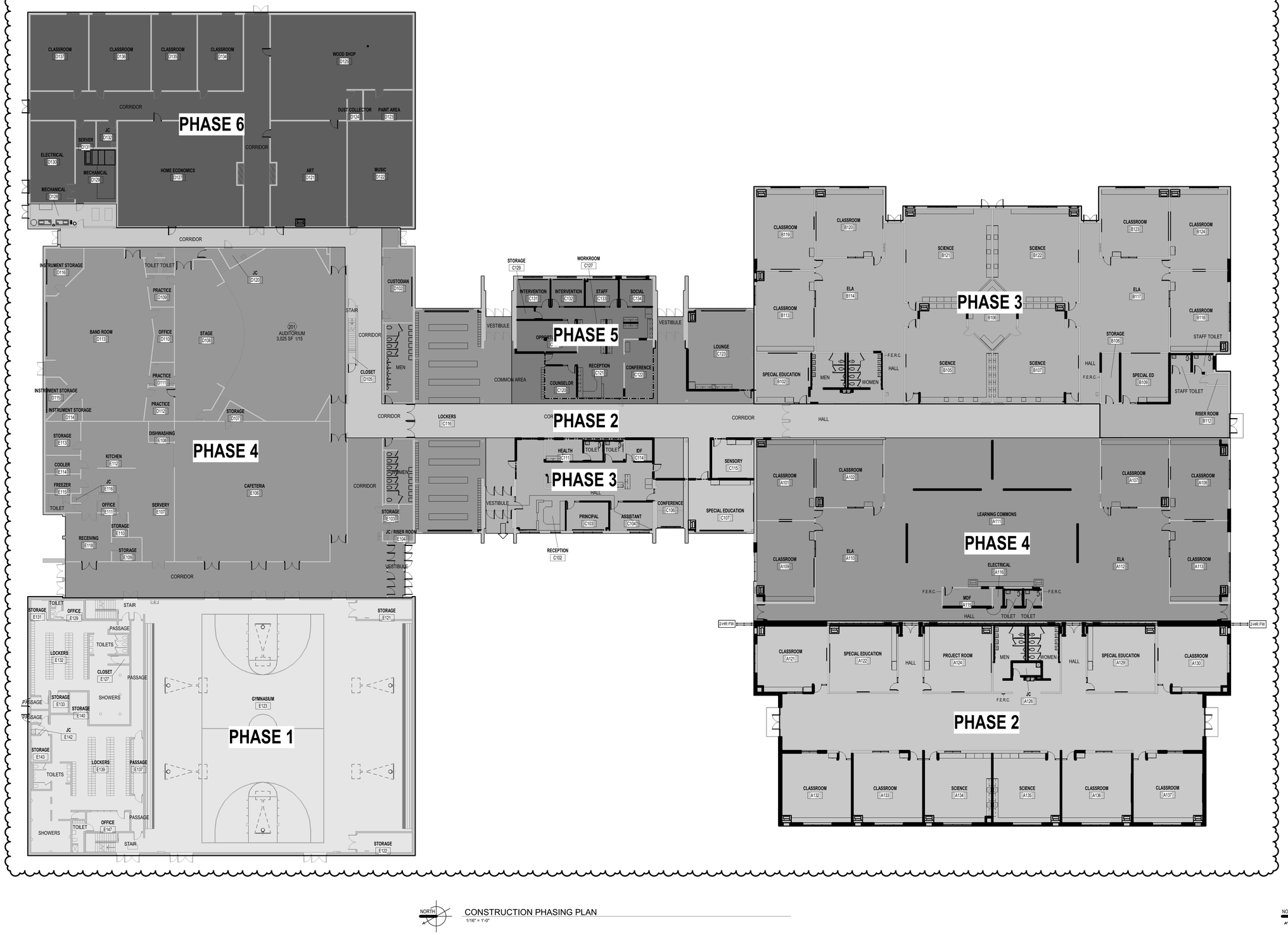
ISSUANCES	
12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

CODE COMPLIANCE PLAN

G1.01

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:24:03 PM



NORTH

CONSTRUCTION PHASING PLAN

1/16" = 1'-0"

NORTH

KEY PLAN

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:24:16 PM

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

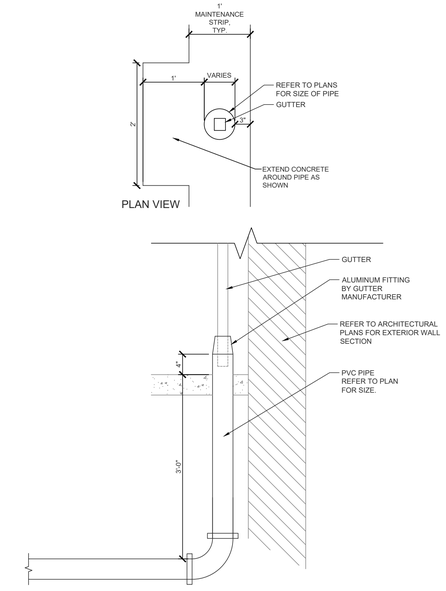
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

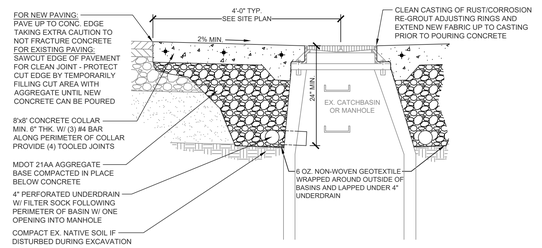
CONSTRUCTION PHASING PLAN

G2.01



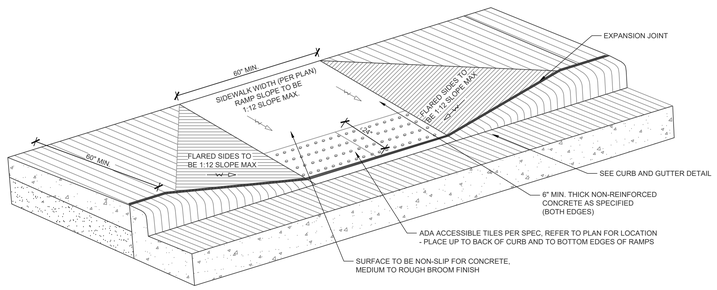
15 C8.01 DOWNSPOUT CONNECTION DETAIL

NOT TO SCALE



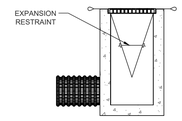
14 C8.01 CONCRETE - BASIN COLLAR

NOT TO SCALE



13 C8.01 CONCRETE - CURB RAMP

NOT TO SCALE



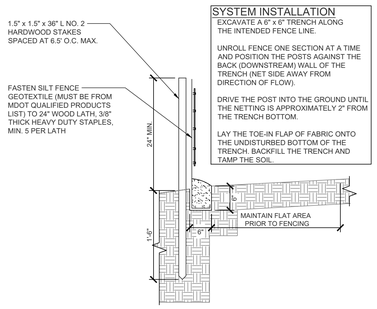
SILTSACK ®

NOTE:
THE SILTSACK WILL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

HI-FLOW SILTSACK ®		
FOR AREAS OF MODERATE TO HEAVY PRECIPITATION AND RUN-OFF		
PROPERTIES	TEST METHOD	UNITS
GRAB TENSILE STRENGTH	ASTM D-4632	265 LBS
GRAB TENSILE ELONGATION	ASTM D-4632	20%
PUNCTURE	ASTM D-4833	135 LBS
MULLEN BURST	ASTM D-3786	420 PSI
TRAPEZOID TEAR	ASTM D-4533	45 LBS
UV RESISTANCE	ASTM D-4355	90%
APPARENT OPENING SIZE	ASTM D-4751	20 US SIEVE
FLOW RATE	ASTM D-4491	200 GAL/MIN/SQ FT
PERMITTIVITY	ASTM D-4491	1.5 SEC -1

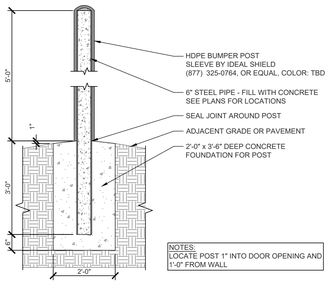
12 C8.01 CATCH BASIN INLET PROTECTION

NOT TO SCALE



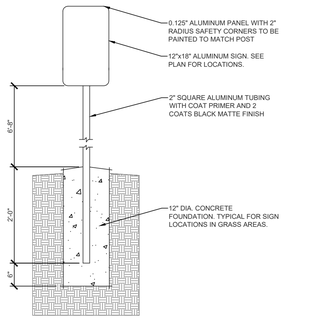
11 C8.01 SILT FENCE

NOT TO SCALE



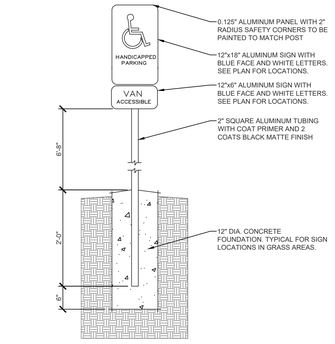
10 C8.01 BOLLARD - UTILITY - BUMPER

NOT TO SCALE



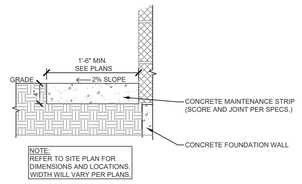
9 C8.01 SIGN - TRAFFIC - POST MOUNTED SIGN

NOT TO SCALE



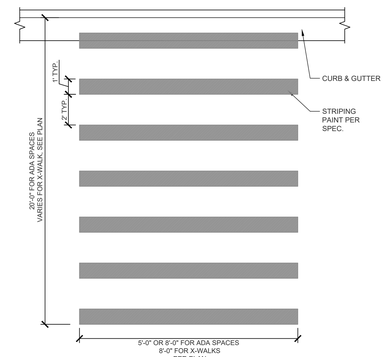
8 C8.01 SIGN - PARKING - BARRIER FREE SIGN

NOT TO SCALE



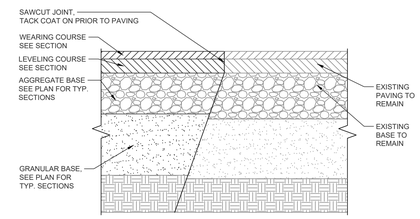
7 C8.01 CONCRETE - MAINTENANCE STRIP

NOT TO SCALE



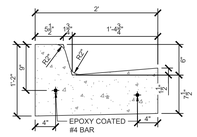
6 C8.01 BARRIER FREE SPACE - X-WALK STRIPING

NOT TO SCALE

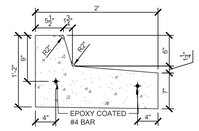


5 C8.01 NEW TO EXISTING PAVEMENT TRANSITION

NOT TO SCALE



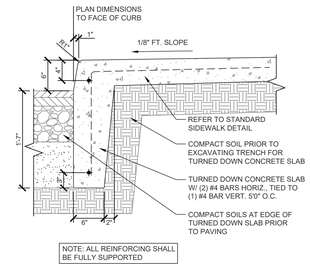
TIPPED IN



TIPPED OUT

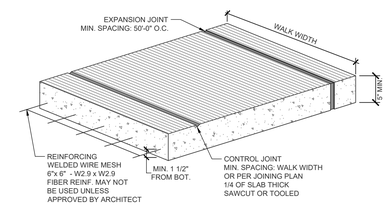
4 C8.01 MDOT F4 MODIFIED CURB

NOT TO SCALE



3 C8.01 CONCRETE - CURB - STRAIGHT - INTEGRAL WITH SIDEWALK EDGE

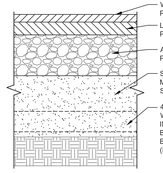
NOT TO SCALE



GENERAL SIDEWALK NOTES
1. ALL SIDEWALK IS 5" THICK UNLESS OTHERWISE NOTED.
2. ALL SIDEWALK SHALL HAVE A MIN. 8" GRANULAR BASE.
3. ALL EDGES MUST BE FINISHED WITH A 1/2" FILLET.
4. REFER TO SPEC. 32 13 13 FOR CONCRETE SPECS.
5. BROOM FINISH ALL SIDEWALK PERPENDICULAR TO WIDTH. REFER ALSO TO SPEC. 32 13 13.
6. WHERE A PERMANENT STRUCTURE IS LOCATED IN SIDEWALK, PLACE EXPANSION MATERIAL AROUND STRUCTURE AND ADJUST JOINT PATTERN TO INTERSECT STRUCTURE.
7. COLD JOINTS - PLACE EXPANSION JOINT AT ALL COLD JOINTS.

2 C8.01 CONCRETE - PAVEMENT - TYPICAL WALK

NOT TO SCALE



PAVEMENT SECTION

LOCATION	WEARING	LEVELING	AGG. BASE	SAND BASE
STANDARD DUTY	1.5" MDOT 4E3 or 13A	1.5" MDOT 3E3 or 13A	8" MDOT 22A	12" MDOT CLASS II

NOTES:
1. REFER TO ASPHALT PAVING 32 12 16 AND GEOTECH REPORT FOR ADDITIONAL PAVING INFORMATION
2. REFER TO PLANS FOR LOCATION OF UNDERDRAIN PLACEMENT.
3. REFER TO PLANS FOR PAVEMENT MARKINGS AND 32 17 23 FOR TRAFFIC MARKING SPEC.

1 C8.01 STANDARD PAVEMENT SECTION

NOT TO SCALE

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

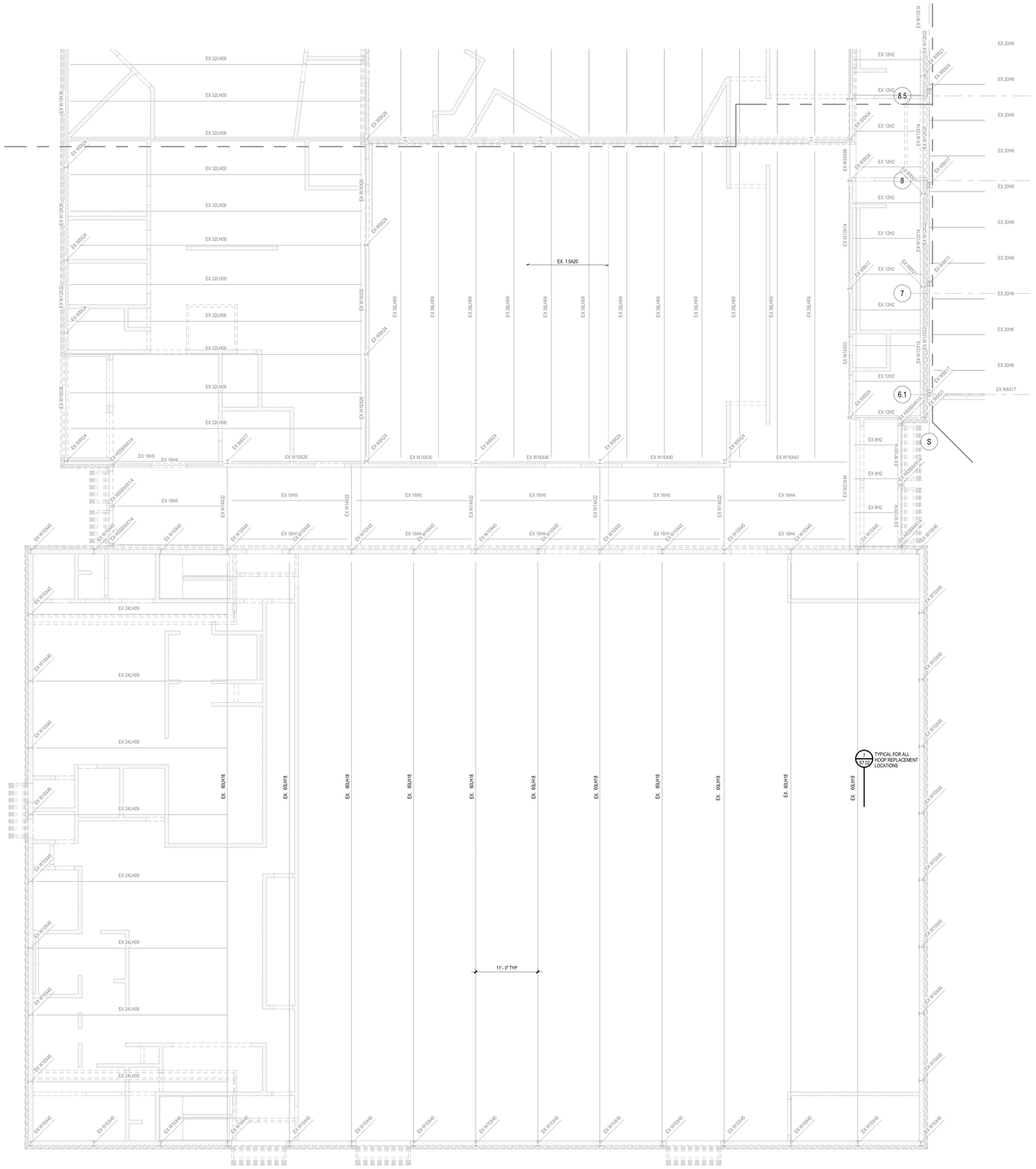
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	NTB
REVIEWED	NTB
PROJECT NO.	5-5802

SITE DETAILS

C8.01

P:\5-5802\CAD\5-5802 C8.01.dwg
1/26/2023 2:21:13 PM



NORTH

UNIT 'E' ROOF FRAMING PLAN

1/8" = 1'-0"

NORTH

KEY PLAN

GMB

616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

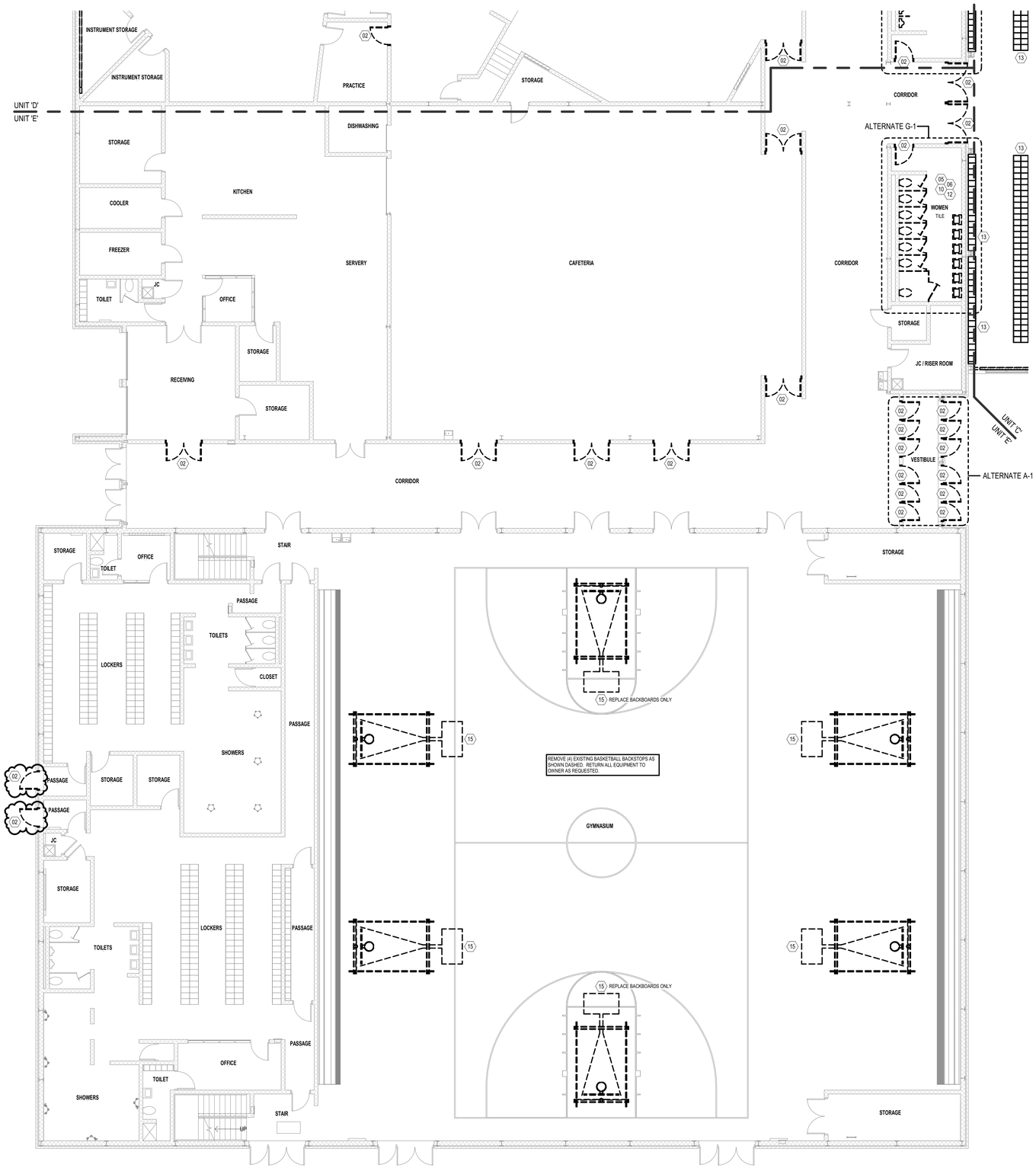
THREE RIVERS, MICHIGAN

ISSUANCES	
01.26.2023	ADDENDUM 004

DRAWN	JKB
REVIEWED	PMB
PROJECT NO.	5-5802

UNIT 'E' ROOF FRAMING PLAN

S3.1E



NORTH

UNIT 'E' FIRST FLOOR DEMOLITION PLAN

1/8" = 1'-0"

DEMOLITION LEGEND

- EXISTING WALL TO BE DEMOLISHED.
- PORTION OF EXISTING WALL TO BE DEMOLISHED.
- EXISTING OBJECT TO BE DEMOLISHED.
- AREA OF FLOOR CUTTING.
- AREA OF EXISTING ROOF STRUCTURE TO BE REMOVED.
- EXISTING WALL TO REMAIN.
- EXISTING OBJECT TO REMAIN.
- (XX) DEMOLITION TAG. SEE DEMOLITION NOTES.
- ROOM NAME / FLOOR FINISH / CEILING FINISH — EXISTING ROOM FINISH INFORMATION: ROOM NAME, FLOORING TYPE, CEILING TYPE

DEMOLITION NOTES

- DEMOLITION CONTRACTOR IS TO STOP WORK IMMEDIATELY IN AREA IF ASBESTOS IS ENCOUNTERED. NOTIFY CONSTRUCTION MANAGER OF SUSPECTED AREA SO PROPER ABATEMENT CAN BE DONE. (UNDER A SEPARATE ASBESTOS ABATEMENT CONTRACT AS NEGOTIATED BY OWNER.)
- ALL MASONRY BLOCK AND BRICK WALLS TO BE REMOVED MUST BE TOOTHED TO RECEIVE NEW MASONRY, UNLESS NOTED OTHERWISE ON DRAWINGS.
- DEMOLITION CONTRACTOR IS TO PROVIDE TEMPORARY SHORING AND BRACING FOR EXISTING ROOF/FLOOR STRUCTURE AS REQUIRED UNTIL PERMANENT WALLS & LINTELS ARE INSTALLED. REFER TO STRUCT. & ARCH. DWGS. FOR BEARING CONDITIONS.
- ALL TRADES ARE TO COORDINATE ANY DEMOLITION, CAPPING OR ABANDONMENT OF EXISTING MECHANICAL, ELECTRICAL, PLUMBING OR ARCHITECTURAL ITEMS.
- ALL ITEMS TO BE SAVED AND/OR RELOCATED ARE TO BE STORED IN A PROPER MANNER SO NO DAMAGE WILL OCCUR TO THESE ITEMS DURING THEIR STORAGE PERIOD.
- ALL DEMOLITION WHICH DAMAGES ADJACENT SURFACES IS TO BE REPAIRED TO MATCH THE EXISTING SURFACE DAMAGED (MATERIALS & FINISHES) AND ALL REPAIR WORK IS TO BE COORDINATED WITH NEW CONSTRUCTION. FOR NEW OPENINGS IN EXISTING WALLS, COORDINATE NEW LINTELS W/ MASONRY CONTRACTOR.
- PATCH WALLS & ROOF TO MATCH EXISTING CONSTRUCTION BEHIND REMOVAL OF WALL LOUVERS, EXHAUST FANS, INTAKE HOODS & CABINET HEATERS. VERIFY SEQUENCE OF REMOVAL W/ CONSTRUCTION MANAGER. SEE MECHANICAL AND ELECTRICAL DEMO SHEETS FOR WALL, ROOF & FLOOR OPENINGS TO BE PATCHED.
- ALL TRADES ARE TO COORDINATE THE REMOVAL OF EXISTING LOOSE EQUIPMENT WITH ARCHITECT AND/OR OWNER. ADDITIONAL EQUIPMENT FOUND THAT IS NOT NOTED ON DEMOLITION PLAN SHALL BE REMOVED AS PART OF GENERAL DEMOLITION AFTER VERIFICATION WITH ARCHITECT/OWNER.

01 REMOVE EXISTING WALL INCLUDING DOORS, WINDOWS, BORROWED LITES, AND ANY EQUIPMENT OR FURNISHINGS ATTACHED TO WALL OR PORTION OF EXISTING WALL AS SHOWN ON FLOOR PLAN (MIN. 4" BELOW FLOOR SLAB) AND AS REQUIRED FOR NEW CONSTRUCTION. FLOOR SURFACE TO BE PATCHED AS REQUIRED TO RECEIVE NEW FLOOR MATERIAL. WALL SURFACE TO BE PATCHED AS REQUIRED TO RECEIVE NEW WALL FINISH. SEE MECHANICAL & ELECTRICAL DEMOLITION NOTES FOR RELATED ITEMS & LOCATIONS. INSTALL NEW SLAB TO MATCH EXIST. ELEVATION. SEE STRUCTURAL FOR ADDITIONAL INFORMATION REGARDING SLAB REMOVAL.

02 REMOVE EXISTING BORROWED LITE OR DOOR & DOOR FRAME. (DOOR LINTEL TO REMAIN UNLESS OTHERWISE NOTED ON PLAN - SEE STRUCTURAL FOR ADDITIONAL INFORMATION). WHERE DOOR FRAMES ARE TO REMAIN, PROTECT FRAMES FROM DAMAGE. SAND AND PREP FOR NEW PAINT FINISH UNDER SECTION 09 90 00. SEE DOOR SCHEDULE FOR REQUIRED NEW DOORS AND FRAMES OR ONLY NEW DOORS.

03 SAW CUT AND REMOVE FLOOR OR PORTION OF EXISTING FLOOR SLAB AS SHOWN OR DIMENSIONED ON FLOOR PLAN. EXCAVATE, FILL & COMPACT SOIL AS REQUIRED FOR NEW SLAB. COORDINATE WITH MECHANICAL/ELECTRICAL DEMOLITION NOTES FOR RELATED ITEMS & LOCATIONS. INSTALL NEW SLAB TO MATCH EXIST. ELEVATION. SEE STRUCTURAL FOR ADDITIONAL INFORMATION REGARDING SLAB REMOVAL.

04 REMOVE EXISTING CASEWORK/MILLWORK, COUNTER TOPS & BACK SPLASH. SAVE ITEMS AT OWNER'S REQUEST.

05 REMOVE EXISTING SUSPENDED/PLASTER CEILING-INCLUDING ALL FRAMING, TILES, TEES, HANGERS & WIRES USED TO SUPPORT THAT CEILING. REPLACE PER REFL. CEILING PLANS.

06 SEE MECHANICAL DEMOLITION NOTES FOR REMOVAL OF EXISTING PLUMBING / MECHANICAL (i.e. LAVATORIES, SINKS, WATER CLOSETS, URINALS, FINTUBE, MECH. DUCTWORK, UNIT VENTS, ETC.)

07 REMOVE EXISTING WINDOW, WINDOW WALL WITH ALUMINUM FRAMING WITH METAL PANELS BELOW WINDOW, FRAME, SILL & GLAZING INCLUDING ALL EXISTING WOOD BLOCKING AND FRAMING ABOVE WINDOWS TO ROOF AND/OR MASONRY TIES AT BRICK PIERS AND SIDE WALLS.

08 REMOVE EXISTING EQUIPMENT OR FURNISHINGS SECURED TO FLOOR, WALL OR CEILING AND STORE FOR REUSE BY OWNER.

09 REMOVE EXISTING CHALK, TACK OR WHITE BOARD. REMOVE ALL GLUE RESIDUE, ETC. FROM BLOCK BEHIND BOARD AND PREPARE SURFACE FOR NEW FINISH MATERIALS WHERE REQUIRED.

10 REMOVE EXISTING FLOOR COVERING AND BASE, INCLUDING ALL GLUE RESIDUE, MUDBEDS, ETC. FROM FLOORS & WALLS AND PREPARE SURFACE FOR NEW FINISH MATERIALS, INCLUDING GRINDING, PATCHING AND/OR SELF-LEVELING COMPOUND AS REQUIRED. WALL & FLOOR SURFACE TO RECEIVE NEW FINISH MATERIAL & PATCH TO MATCH EXISTING.

11 REMOVE EXISTING ENTRY ROOF CONSTRUCTION AND ALL RELATED STRUCTURE AS SHOWN ON DEMOLITION PLANS.

12 REMOVE EXISTING TOILET PARTITION, DISPENSERS AND/OR TOILET ACCESSORIES AND REPAIR ADJACENT SURFACES TO RECEIVE NEW FINISHES.

13 REMOVE EXISTING LOCKERS AND LOCKER BASE. CUT SLOPED LOCKER TOP & BASE AS NECESSARY. RE-USE/RELOCATE EXISTING END PANEL AS REQUIRED. REVISE & PREPARE FOR NEW FINISHES.

14 REMOVE EXISTING INTAKE LOUVER AT EXISTING UNIT VENTILATOR. PATCH HOLE WITH NEW FACE BRICK TO MATCH EXISTING. SEE MECHANICAL DRAWINGS.

15 REMOVE EXISTING BASKETBALL BACKBOARD AND ALL RELATED HANGERS, FASTENERS AND FRAMING TO STRUCTURE ABOVE.

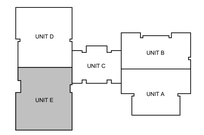
16 REMOVE EXISTING PRECAST CONCRETE ENTRY CANOPY AS SHOWN DASHED. PATCH AND REPAIR ADJACENT WALL SURFACES AS REQUIRED.

17 REMOVE EXISTING DECORATIVE ARCH & WALL BRACKETS AS SHOWN DASHED. PATCH AND REPAIR ADJACENT WALL SURFACES AS REQUIRED.

18 REMOVE EXISTING BURNISHED BLOCK ACCENT TRIM AS SHOWN DASHED. PATCH AND REPAIR ADJACENT WALL SURFACES AS REQUIRED.

19 REMOVE EXISTING GYPSUM BOARD DECORATIVE ARCH AS SHOWN DASHED. PATCH AND REPAIR ADJACENT WALL SURFACES AS REQUIRED.

20 REMOVE EXISTING GYPSUM BOARD DECORATIVE CORNICE AS SHOWN DASHED. PATCH AND REPAIR ADJACENT WALL SURFACES AS REQUIRED.



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

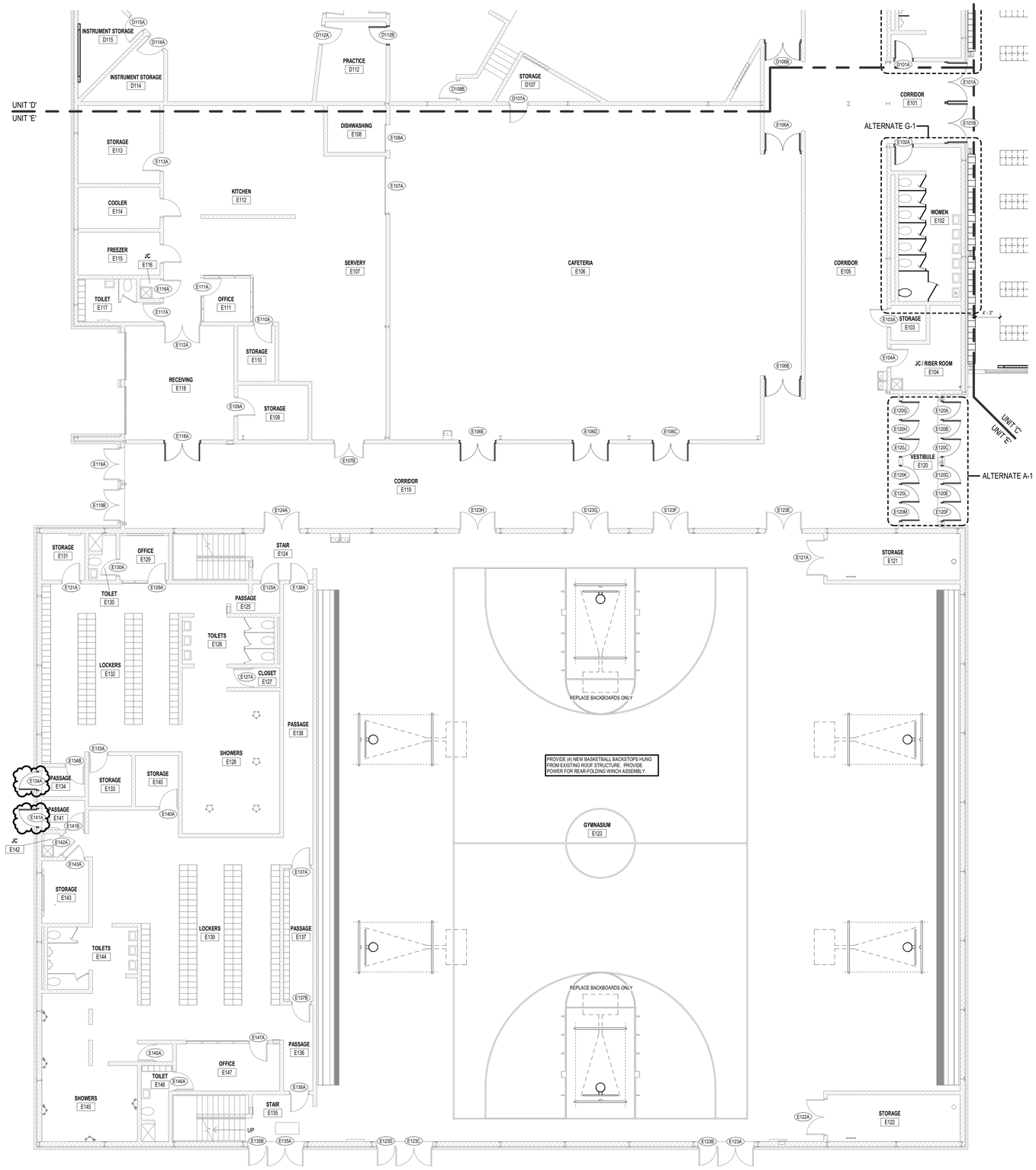
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

UNIT 'E' FIRST FLOOR DEMOLITION PLAN

A1.1E

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:21:01 PM



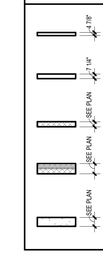
UNIT 'E' FIRST FLOOR PLAN

1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES:

1. DIMENSIONS GIVEN ARE TO THE FACE OF MASONRY UNITS OR TO THE FINISHED FACE OF METAL STUD PARTITION WALLS.
2. REFERENCE STRUCTURAL DRAWINGS FOR CONCRETE SLAB SIZES AND SLAB RELATED INFORMATION.
3. INTERIOR STUD WALLS ARE TO USE 3 5/8" METAL STUD FRAMING UNLESS OTHERWISE NOTED.
4. TURN UP VAPOR RETARDER MATERIAL AT JOINTS BETWEEN FLOOR SLAB AND FOUNDATION WALL UNLESS NOTED OTHERWISE.
5. SEE FOUNDATION PLANS FOR FLOOR SLAB RECESSES FOR TILE, WOOD FLOOR, ETC. (VERIFY RECESS REQUIRED BY MFR.)
6. EXTEND ALL INTERIOR WALL PARTITIONS (MASONRY OR STUDS) TO BOTTOM OF DECK ABOVE UNLESS NOTED OTHERWISE.
7. REFERENCE STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL FOR ITEMS NOT SHOWN. COORDINATE AS REQUIRED INCLUDING NECESSARY FRAMING, BLOCKING, ETC.
8. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION OF ANY CABINETRY, FRAMES, STRUCTURAL ITEMS, ETC.
9. PROVIDE PAINTED ACCESS PANELS IN WALLS AND CEILINGS TO PROVIDE ACCESS TO CONCEALED ITEMS INCLUDING BUT NOT LIMITED TO VALVES, CONTROLS, MECH. EQUIPMENT ETC. ACCESS PANELS MAY NOT ALWAYS BE SHOWN ON PLANS. IT IS THE SUB CONTRACTOR RESPONSIBILITY TO DETERMINE LOCATIONS. COORDINATE LOCATIONS WITH OTHER GENERAL CONTRACTOR / SITE SUPERVISOR.
10. COORDINATE WALLS WITH COLUMNS AND OTHER ENCASED ITEMS. COLUMNS ARE TO BE CONTAINED WITHIN WALLS. THE FRAMING CONTRACTOR SHALL INCREASE FRAMING SIZE TO ACCOMMODATE COLUMNS, DRAIN LEADERS, PIPING, ELECTRICAL PANELS, ETC. WHERE WALLS REQUIRE EXTRA WIDTH THE ENTIRE WALL SHALL BE WIDENED UNLESS APPROVED BY ARCHITECT.
11. ALL GUARDRAILS AND HANDRAILS SHALL BE FABRICATED AND INSTALLED IN ACCORDANCE WITH ALL REQUIREMENTS OF THE 2015 M.B.C., ANSI ICC A117.1-2009 & AMERICANS WITH DISABILITIES ACT GUIDELINES. THE MOST STRINGENT SHALL PREVAIL.
12. PROVIDE MINIMUM CLEARANCES AT ALL DOORS PER DETAILS. SEE G0.01 FOR REQUIREMENTS.
13. FOR ALL CABINETRY, SEE INTERIOR ELEVATIONS FOR LAYOUTS. FIELD VERIFY CLEAR WIDTHS PRIOR TO FABRICATION.
14. ALL EXTERIOR BLOCK CORNERS ARE TO BE BULLNOSE BLOCK EXCEPT CONCRETE BLOCK COLUMNS, PIERS AND WALLS TO RECEIVE TILE - UNLESS NOTED OTHERWISE.
15. CONTRACTOR TO MAINTAIN / REPAIR RATING OF EXISTING PARTITIONS AS AFFECTED BY DEMOLITION / NEW CONSTRUCTION. TYPICAL THROUGHOUT.
16. SEAL ALL PENETRATIONS IN FIRE RATED FLOORS AND WALLS WITH APPROVED FIRESTOPPING.
17. WHERE SPECIALTY BLOCK IS REQUIRED AT THE SAME HEIGHT ON BOTH SIDES OF A WALL USE (2) SPECIALTY BLOCKS BACK TO BACK TO MAINTAIN THE FINISHED WALL APPEARANCE BOTH SIDES OF THE WALL. COORDINATE WITH STRUCTURE FOR LINTELS CONDITIONS PER SPECIFICATIONS.
18. WALLS TO BE PATCHED WITH LIKE MATERIALS WHERE EXISTING WALLS HAVE BEEN COMPROMISED FROM DEMOLITION. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO REMOVAL AND REINSTALLATION OF CASEWORK AND WALL MOUNTED EQUIPMENT IN ORDER TO ACHIEVE SAID PATCH. IN AREAS WHERE BLOCK OR BRICK HAVE BEEN USED, NEW MASONRY TO BE TOOTHED IN AND MATCH EXISTING. AREAS AND FINISHES IN QUESTION SHALL BE COORDINATED WITH ARCHITECT.
19. SEE STRUCTURAL FRAMING PLANS FOR ADDITIONAL WALL REINFORCING REQUIREMENTS. MINIMUM REINFORCING (FOR ALL WALLS NOT OTHERWISE NOTED ON STRUCTURAL PLANS) :
    A. ALL BEARING WALLS SHALL RECEIVE A MINIMUM REINFORCING OF R1-5-48.
    B. ALL EXTERIOR WALLS SHALL RECEIVE A MINIMUM REINFORCING OF R1-5-48.
    C. ALL INTERIOR NON-BEARING WALLS OVER 16'-0" HIGH SHALL RECEIVE A MINIMUM REINFORCING OF R1-5-48.

WALL LEGEND



5/8" GYP. BOARD BOTH SIDES 3 5/8" LIGHT GA. METAL FRAMING AT 16" O.C. SOUND BATT. FULL HEIGHT OF WALL. WALLS TO BOTTOM OF DECK UNLESS NOTED OTHERWISE

5/8" GYP. BOARD BOTH SIDES 6" LIGHT GA. METAL FRAMING AT 16" O.C. SOUND BATT. FULL HEIGHT OF WALL. WALLS TO BOTTOM OF DECK UNLESS NOTED OTHERWISE

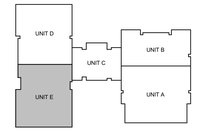
CMU WALL SEE FLOOR PLANS FOR REQUIRED WALL REINFORCING. NOMINAL DIMENSIONS GIVEN (9" TYPICAL U.N.O.)

BRICK AND CMU WALL W/ 2" SPRAY APPLIED INSULATION SEE FLOOR PLANS FOR REQUIRED WALL REINFORCING. NOMINAL DIMENSIONS GIVEN. SEE WALL SECTIONS FOR ADDITIONAL DETAILS, BANDING, ETC. (3 5/8" BRICK & 8" CMU TYPICAL U.N.O.)

CONCRETE WALL SEE STRUCTURAL PLANS FOR REQUIRED REINFORCING.

-FIRE RATINGS AS CALLED FOR ON CODE COMPLIANCE PLAN

-DIMENSIONS GIVEN ARE TO THE FINISHED FACE OF CMU OR GYPSUM WALL BOARD UNLESS NOTED OTHERWISE



KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

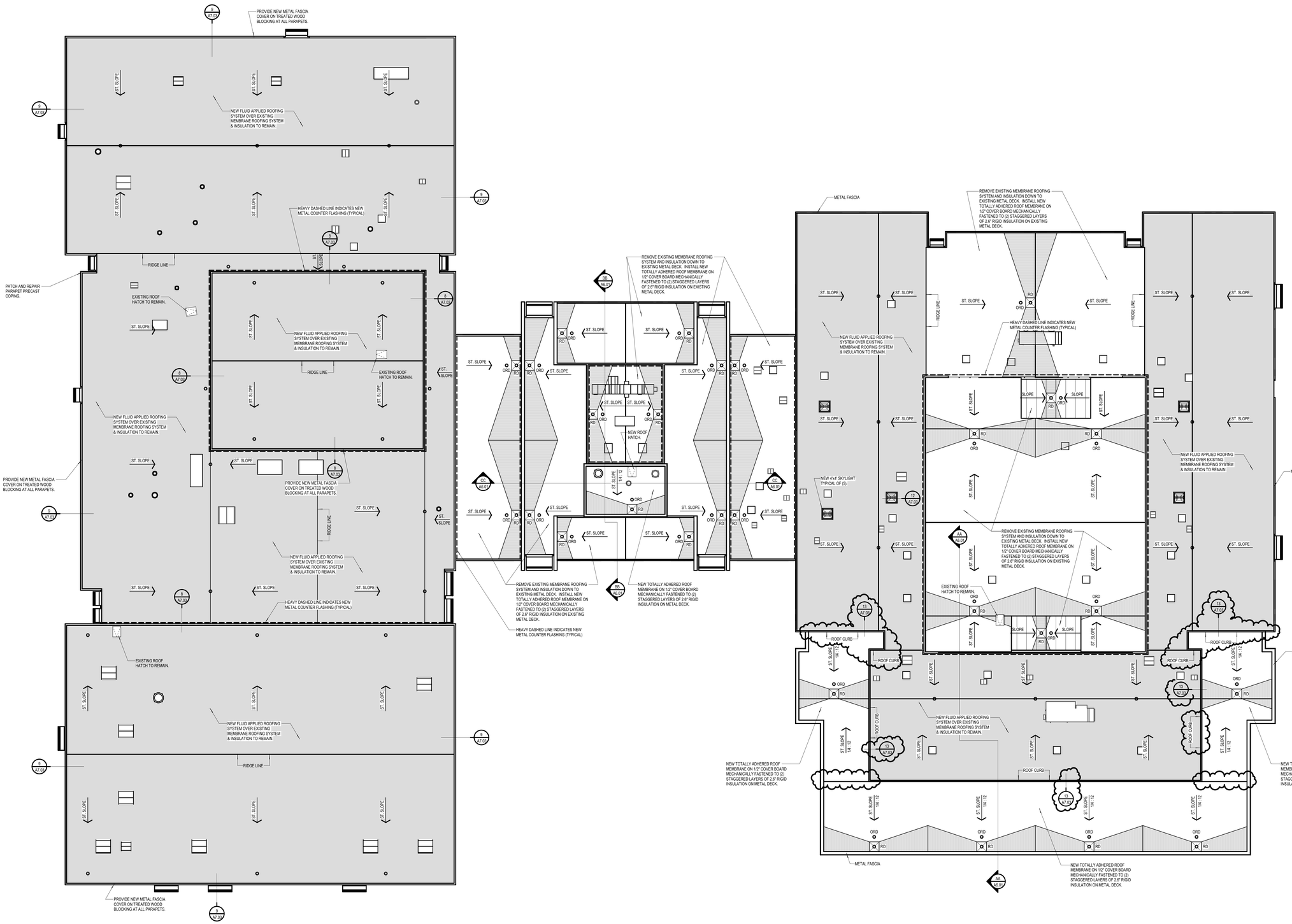
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

UNIT 'E' FIRST FLOOR PLAN

A2.1E

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:21:37 PM



ROOF LEGEND

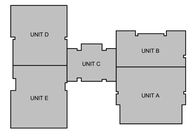
- TAPERED RIGID INSULATION (4" SECTIONS) 1/4" PER FOOT SLOPE UNLESS OTHERWISE NOTED.
- TAPERED RIGID INSULATION (4" SECTIONS @ 1/2" SLOPE PER FOOT AT CRICKETS) CRICKETS SLOPE TO ROOF DRAINS.
- SHADED GRAY REGIONS INDICATE ADD ALTERNATE G-2 FOR THE REHABILITATION (NEW FLUID APPLIED ROOFING SYSTEM) OF THE EXISTING ROOFS AT UNITS D & E AND PARTS OF UNITS A & B.
- ST. SLOPE — DIRECTION OF STRUCTURAL ROOF SLOPE. (SEE STRUCTURAL PLANS FOR ROOF FRAMING SLOPES).
- SLOPE — DIRECTION OF ROOF SLOPE WITH TAPERED INSULATION.
- STANDARD ROOF DRAIN OR OVERFLOW DRAIN.
- + 7 1/4" — THICKNESS OF TAPERED INSULATION AT PERIMETER OR DRAIN (NOT INCLUDING BASE INSULATION THICKNESS).
- ROOF HATCH.
- ROOF WALKWAY PAD (SEE SPEC. FOR MATERIAL).

ROOF NOTES

1. ALL ROOF DETAILS LOCATED ON SHEET A7.03.
2. REFER TO PLUMBING DRAWINGS FOR LOCATION AND NUMBER OF PLUMBING VENTS THRU ROOF.
3. REFER TO MECHANICAL DRAWINGS TO COORDINATE ALL ROOF PENETRATIONS & LOCATIONS.
4. PROVIDE 1/2" TAPERED CRICKETS AT ALL ROOF HATCHES AND MECHANICAL ROOF PENETRATIONS UNLESS OTHERWISE NOTED. TAPER SHALL PROVIDE DRAINAGE AROUND HATCH AND EQUIPMENT.
5. SEE SPECIFICATION FOR ROOFING SYSTEM TO BE USED AND ROOF PLAN FOR LOCATIONS OF TAPERED INSULATION AND OR SLOPE CHANGES OF ROOF.
6. CONTRACTOR RESPONSIBLE TO FIELD VERIFY ALL SQUARE FOOTAGE VALUES NOTED ON PLANS.
7. SCUPPER LOCATIONS TO BE COORDINATED SO THAT THEY DO NOT APPEAR OVER DOORS, WINDOWS OR MECHANICAL LOUVERS.
8. ALL EXISTING METAL FASCIA TRIM, GRAVEL STOP AND COPING IS TO BE REMOVED AT REPLACED WITH NEW PREFINISHED METAL FASCIA TRIM, GRAVEL STOP AND COPING.
9. PROVIDE CONT. TERMINATION BAR AND SEALANT AT ALL VERTICAL SURFACES GREATER THAN 30".
10. STANDARD ROOF ABBREVIATIONS
    RD = ROOF DRAIN
    ORD = OVERFLOW ROOF DRAIN
    EF = EXHAUST FAN
    IV = INTAKE VENT
    RTU = ROOF TOP UNIT
    RV = RELIEF VENT
    SC = SCUPPER

NORTH

OVERALL ROOF PLAN
1/16" = 1'-0"



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN BSE
REVIEWED CMA

PROJECT NO. 5-5802

OVERALL ROOF PLAN

A2.30

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:22:06 PM

DOOR & FRAME SCHEDULE UNIT 'E'

DOOR NUMBER	DOOR SIZE	DOOR TYPE	FRAME TYPE	FIRE RATING	HDWR SET NO.	ELEC. HARDWARE	REMOVABLE MULLION	DETAILS			REMARKS
								HEAD	JAMB	SILL	
E											
E101A	(PR) 3' 4" x 7' 2" x 1 3/4"	W01	02H	45	42			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E101B	(PR) 3' 4" x 7' 2" x 1 3/4"	W01	02H	45	42			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E102A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	11			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E103A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E104A	3' 0" x 7' 2" x 1 3/4"	W01	01H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E106A	(PR) 3' 0" x 7' 2" x 1 3/4"	W01	02H	20	39			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E106B	(PR) 3' 0" x 7' 2" x 1 3/4"	W01	02H	20	39			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E106C	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	39			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E106D	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	39			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E106E	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	39			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E107B	(PR) 2' 6" x 7' 2" x 1 3/4"	W01	02H		69			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E109A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E110A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E111A	3' 0" x 7' 0" x 1 3/4"	W01	99H		05			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E113A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E116A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E118A	(PR) 3' 0" x 7' 2" x 1 3/4"	W01	02H	20	27			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E119A	(PR) 2' 8" x 7' 2" x 1 3/4"	F04	02A		53			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E119B	(PR) 2' 8" x 7' 2" x 1 3/4"	F04	02A		56			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E120A	3' 4" x 7' 2" x 1 3/4"	F04	12A		49	■		--------	--------	--------	ALTERNATE A-1
E120B	3' 4" x 7' 2" x 1 3/4"	F04	12A		51	■		--------	--------	--------	ALTERNATE A-1
E120C	3' 4" x 7' 2" x 1 3/4"	F04	12A		51	■		--------	--------	--------	ALTERNATE A-1
E120D	3' 4" x 7' 2" x 1 3/4"	F04	12A		51	■		--------	--------	--------	ALTERNATE A-1
E120E	3' 4" x 7' 2" x 1 3/4"	F04	12A		51	■		--------	--------	--------	ALTERNATE A-1
E120F	3' 4" x 7' 2" x 1 3/4"	F04	12A		51	■		--------	--------	--------	ALTERNATE A-1
E120G	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E120H	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E120J	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E120K	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E120L	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E120M	3' 4" x 7' 2" x 1 3/4"	F04	12A		35	■		--------	--------	--------	ALTERNATE A-1
E121A	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E122A	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123A	(PR) 3' 1" x 7' 2" x 1 3/4"	F02	98A		56			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123B	3' 0" x 7' 2" x 1 3/4"	F02	97A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123C	(PR) 3' 1" x 7' 2" x 1 3/4"	F02	98A		56			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123D	3' 0" x 7' 2" x 1 3/4"	F02	97A		52			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123E	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		70			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123F	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		70			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123G	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		70			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E123H	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		70			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E124A	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		70			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E125A	3' 0" x 7' 2" x 1 3/4"	W01	01H		46			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E127A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E129A	3' 0" x 7' 0" x 1 3/4"	W01	99H		05			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E130A	2' 8" x 7' 0" x 1 3/4"	W01	01H		19			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E131A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E133A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E134A	3' 0" x 7' 2" x 1 3/4"	F04	01A		64						EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E135A	(PR) 3' 1" x 7' 2" x 1 3/4"	F02	98A		56			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E135B	3' 0" x 7' 2" x 1 3/4"	F02	97A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E136A	3' 0" x 7' 2" x 1 3/4"	W01	01H		46			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E137A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E137B	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E138A	3' 0" x 7' 2" x 1 3/4"	W01	01H		46			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E140A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E141A	3' 0" x 7' 2" x 1 3/4"	F04	01A		64						EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
E142A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E143A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E145A	2' 8" x 7' 0" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E146A	3' 0" x 7' 2" x 1 3/4"	W01	01H		19			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E147A	3' 0" x 7' 0" x 1 3/4"	W01	99H		05			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E202A	(PR) 3' 0" x 6' 8" x 1 3/4"	W01	02H		31			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E203A	3' 0" x 7' 0" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E206A	3' 0" x 7' 0" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
E207A	(PR) 3' 0" x 6' 8" x 1 3/4"	W01	02H		31			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.

E117A REMOVED FROM SCOPE

E134B REMOVED FROM SCOPE

E141B REMOVED FROM SCOPE

DOOR & FRAME SCHEDULE UNIT 'D'

DOOR NUMBER	DOOR SIZE	DOOR TYPE	FRAME TYPE	FIRE RATING	HDWR SET NO.	ELEC. HARDWARE	REMOVABLE MULLION	DETAILS			REMARKS
								HEAD	JAMB	SILL	
D											
D101A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	11			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D102A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D102B	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D104A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D105A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	24			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D106A	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	40			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D106B	(PR) 3' 0" x 7' 2" x 1 3/4"	W01	02H	20	40			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D106C	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	44			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D107A	3' 0" x 7' 2" x 1 3/4"	W01	01H		31			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D108A	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	40			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D108B	3' 0" x 7' 2" x 1 3/4"	W01	01H		03			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D109A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D109B	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D110A	3' 0" x 7' 2" x 1 3/4"	W01	01H		05			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D111A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D111B	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D112A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D112B	3' 0" x 7' 2" x 1 3/4"	W01	01H		08			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D113A	(PR) 2' 8" x 7' 2" x 1 3/4"	F04	02A		65			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D113B	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H	20	41			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D114A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D115A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D116A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D117A	3' 0" x 7' 2" x 1 3/4"	W01	01H		19			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D118A	3' 0" x 7' 2" x 1 3/4"	W01	01H		19			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D119A	(PR) 2' 8" x 7' 2" x 1 3/4"	F04	02A		58			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D119B	(PR) 2' 8" x 7' 2" x 1 3/4"	F04	02A		55			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D120A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D121A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	38			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D121B	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	38			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D122A	3' 0" x 7' 2" x 1 3/4"	W01	01H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D123A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D124A	3' 0" x 7' 2" x 1 3/4"	W01	01H		12			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D125A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	38			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D125B	3' 0" x 7' 2" x 1 3/4"	W01	01H		45			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D126A	(PR) 3' 1" x 7' 2" x 1 3/4"	F04	96A		66			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D126B	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		68			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D127A	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	38			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D127B	3' 0" x 7' 2" x 1 3/4"	W01	01H	20	38			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
D128A	(PR) 2' 8" x 7' 2" x 1 3/4"	F01	02A		62						
D128B	3' 0" x 7' 2" x 1 3/4"	W01	01H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D129A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D130A	(PR) 2' 8" x 7' 2" x 1 3/4"	F01	02A		62						
D130B	(PR) 3' 0" x 7' 2" x 1 3/4"	W01	02H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D131A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D132A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D133A	(PR) 2' 8" x 7' 2" x 1 3/4"	F06	02A		59			--------	--------	--------	
D134A	3' 0" x 7' 2" x 1 3/4"	W01	01H		18			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D135A	3' 0" x 7' 2" x 1 3/4"	W01	01H		18			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D136A	3' 0" x 7' 2" x 1 3/4"	W01	01H		18			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D137A	3' 0" x 7' 2" x 1 3/4"	W01	01H		18			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D201A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
D202A	3' 0" x 7' 2" x 1 3/4"	W01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.

SPECIAL NOTE:
FOR EXISTING DOOR REKEY WORK - CONTRACTOR TO VERIFY EXISTING DOORS & LOCKSETS IN FIELD PRIOR TO BIDDING.

DOOR & FRAME SCHEDULE UNIT 'A'

DOOR NUMBER	DOOR SIZE	DOOR TYPE	FRAME TYPE	FIRE RATING	HDWR SET NO.	ELEC. HARDWARE	REMOVABLE MULLION	DETAILS			REMARKS
								HEAD	JAMB	SILL	
A											
A101A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A102A	3' 0" x 7' 2" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A107A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A108A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A109A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A113A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
A114A	(PR) 3' 0" x 7' 2" x 1 3/4"	F06	11A		60	■		7/A7.01	6/A7.01	5/A7.01	
A115A	3' 0" x 7' 0" x 1 3/4"	W01	01H		29			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
A116A	3' 0" x 7' 2" x 1 3/4"	W01	01H		23			8/A7.01	8/A7.01	8/A7.01	
A117A	3' 0" x 7' 2" x 1 3/4"	W01	01H		07			3/A7.01	3/A7.01	--------	
A118A	3' 0" x 7' 2" x 1 3/4"	W01	01H		07			3/A7.01	3/A7.01	--------	
A120A	(PR) 3' 0" x 7' 2" x 1 3/4"	F06	11A		60	■		7/A7.01	6/A7.01	5/A7.01	
A121A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A122A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		13			8/A7.01	8/A7.01	8/A7.01	
A123A	(PR) 3' 6" x 7' 10" x 1 3/4"	H03	02H	90	43	■		AA1/A6.10	12/A7.01	--------	
A124A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		13			8/A7.01	8/A7.01	8/A7.01	
A126A	3' 0" x 7' 2" x 1 3/4"	W01	01H		21			3/A7.01	3/A7.01	--------	
A128A	(PR) 3' 6" x 7' 10" x 1 3/4"	H03	02H	90	43	■		AA1/A6.10	12/A7.01	--------	
A129A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		13			8/A7.01	8/A7.01	8/A7.01	
A130A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A131A	(PR) 3' 0" x 7' 2" x 1 3/4" (12'-0")	F06	09A		59	■		7/A7.01	6/A7.01	5/A7.01	
A131B	(PR) 3' 0" x 7' 2" x 1 3/4" (12'-0")	F06	09A		59	■		7/A7.01	6/A7.01	5/A7.01	
A132A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A133A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A134A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A135A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A136A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A137A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		14			4/A7.01	4/A7.01	--------	
A201A	2' 4" x 4' 6" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
A201B	2' 8" x 5' 2" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
A202A	2' 4" x 4' 6" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
A202B	2' 8" x 5' 2" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.

DOOR & FRAME SCHEDULE UNIT 'B'

DOOR NUMBER	DOOR SIZE	DOOR TYPE	FRAME TYPE	FIRE RATING	HDWR SET NO.	ELEC. HARDWARE	REMOVABLE MULLION	DETAILS			REMARKS
								HEAD	JAMB	SILL	
B											
B101A	(PR) 3' 0" x 7' 2" x 1 3/4" (10'-0")	F06	09A		59	■		7/A7.01	6/A7.01	5/A7.01	
B101B	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		68			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B101C	(PR) 3' 0" x 7' 0" x 1 3/4"	W01	02H		68			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B102A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		13			8/A7.01	8/A7.01	8/A7.01	
B105A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		36			4/A7.01	4/A7.01	--------	
B105B	3' 0" x 7' 0" x 1 3/4"	W04	01H		37			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B106A	3' 0" x 7' 0" x 1 3/4"	W01	99H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B106B	3' 0" x 7' 0" x 1 3/4"	W01	99H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B106C	3' 0" x 7' 0" x 1 3/4"	W01	99H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B106D	3' 0" x 7' 0" x 1 3/4"	W01	99H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B107A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		37			4/A7.01	4/A7.01	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B107B	3' 0" x 7' 0" x 1 3/4"	W04	01H		37			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B108A	3' 0" x 7' 0" x 1 3/4"	W04	01H		22			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B109A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		13			8/A7.01	8/A7.01	8/A7.01	
B110A	3' 0" x 7' 0" x 1 3/4"	W01	01H		07			8/A7.01	8/A7.01	8/A7.01	
B111A	3' 0" x 7' 0" x 1 3/4"	W01	01H		07			8/A7.01	8/A7.01	8/A7.01	
B112A	3' 0" x 7' 0" x 1 3/4"	W01	01H		67			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B113A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B115A	(PR) 2' 8" x 7' 2" x 1 3/4"	F06	02A		61			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B116A	(PR) 2' 8" x 7' 2" x 1 3/4"	F06	02A		61			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B118A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B119A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B120A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B121A	3' 0" x 7' 2" x 1 3/4"	F06	01A		63						
B121B	3' 0" x 7' 0" x 1 3/4"	W04	01H		37			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B122A	3' 0" x 7' 2" x 1 3/4"	F06	01A		63						
B122B	3' 0" x 7' 0" x 1 3/4"	W04	01H		37			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B123A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B124A	3' 0" x 7' 0" x 1 3/4"	W04	01H		15			--------	--------	--------	EXISTING FRAME TO REMAIN. PROVIDE NEW DOOR & HARDWARE.
B201A	2' 4" x 4' 6" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B201B	2' 4" x 4' 6" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
B201C	2' 8" x 5' 2" x 1 3/4"	H01	01H		32			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.

DOOR & FRAME SCHEDULE UNIT 'C'

DOOR NUMBER	DOOR SIZE	DOOR TYPE	FRAME TYPE	FIRE RATING	HDWR SET NO.	ELEC. HARDWARE	REMOVABLE MULLION	DETAILS			REMARKS
								HEAD	JAMB	SILL	
C											
C101A	3' 4" x 7' 2" x 1 3/4"	F04	10A		51	■		--------	--------	--------	
C101B	3' 4" x 7' 2" x 1 3/4"	F04	10A		51	■		--------	--------	--------	
C101C	3' 4" x 7' 2" x 1 3/4"	F04	10A		50	■		--------	--------	--------	
C101D	3' 4" x 7' 2" x 1 3/4"	F04	10A		47	■		--------	--------	--------	
C101E	3' 4" x 7' 2" x 1 3/4"	F04	10A		47	■		--------	--------	--------	
C101F	3' 4" x 7' 2" x 1 3/4"	F04	10A		48	■		--------	--------	--------	
C102A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W06	05H		25	■					
C103A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		04			2/A7.01	2/A7.01	--------	
C104A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		04			2/A7.01	2/A7.01	--------	
C106A	3' 0" x 7' 2" x 1 3/4" (5'-0")	W01	05H		02						
C107A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H	20	17			4/A7.01	4/A7.01	--------	
C108A	3' 0" x 7' 2" x 1 3/4" (7'-4")	W06	08H	20	34	■		4/A7.01	4/A7.01	--------	
C109A	3' 0" x 7' 2" x 1 3/4"	W01	01H		20			3/A7.01	3/A7.01	--------	
C110A	3' 0" x 7' 2" x 1 3/4"	W02	01H	20	33	■		3/A7.01	3/A7.01	--------	
C111A	3' 0" x 7' 2" x 1 3/4"	W01	01H		09			1/A7.01	1/A7.01	--------	
C112A	3' 0" x 7' 2" x 1 3/4"	W01	01H		06			1/A7.01	1/A7.01	--------	
C113A	3' 0" x 7' 2" x 1 3/4"	W01	01H		07			1/A7.01	1/A7.01	--------	
C114A	3' 0" x 7' 2" x 1 3/4"	W01	01H		20			1/A7.01	1/A7.01	--------	
C115A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H	20	16			4/A7.01	4/A7.01	--------	
C120A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		04			2/A7.01	2/A7.01	--------	
C121A	3' 0" x 7' 0" x 1 3/4"	W01	99H		30			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C122A	3' 0" x 7' 0" x 1 3/4"	W01	01H		03			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C123A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H	20	28			4/A7.01	4/A7.01	--------	
C124A	3' 0" x 7' 2" x 1 3/4"	W02	01H	20	26			8/A7.01	8/A7.01	8/A7.01	
C125A	3' 4" x 7' 2" x 1 3/4"	F04	99A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C125B	3' 4" x 7' 2" x 1 3/4"	F04	99A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C125C	3' 4" x 7' 2" x 1 3/4"	F04	99A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C126A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		01			2/A7.01	2/A7.01	--------	
C128A	3' 4" x 7' 2" x 1 3/4"	F04	99A		54			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C128B	3' 4" x 7' 2" x 1 3/4"	F04	99A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C128C	3' 4" x 7' 2" x 1 3/4"	F04	99A		57			--------	--------	--------	EXISTING DOOR & FRAME TO REMAIN. REFER TO DOOR HARDWARE SPECIFICATION.
C129A	3' 0" x 7' 2" x 1 3/4"	W01	01H		10			1/A7.01	1/A7.01	--------	
C131A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		01			2/A7.01	2/A7.01	--------	
C132A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		01			2/A7.01	2/A7.01	--------	
C133A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		04			2/A7.01	2/A7.01	--------	
C134A	3' 0" x 7' 2" x 1 3/4" (5'-4")	W01	05H		04			2/A7.01	2/A7.01	--------	

C125D, C125E, C125F, REMOVED FROM SCOPE

C128D, C128E, C128F REMOVED FROM SCOPE

DOOR NUMBERING LEGEND

DOOR NUMBERING

A101A
'A' FIRST DOOR
'B' SECOND DOOR
ROOM NUMBER

DOOR NAME / SIZE

3'-0" x 7'-2" x 1 3/4"
DOOR SIZE

(PR.) 3'-0" x 7'-2" x 1 3/4"
DOOR SIZE
PAIR OF DOORS, NO FIXED MULLION

(2) 3'-0" x 7'-2" x 1 3/4"
DOOR SIZE
TWO DOORS, WITH FIXED MULLION BETWEEN THEM

3'-0" x 7'-2" x 1 3/4" (5'-4")
OVERALL FRAME WIDTH AND / OR HEIGHT SEE FRAME LEGEND
DOOR SIZE

NOTE:
STANDARD DOOR AND FRAME DIMENSIONS ARE GIVEN IN: WIDTH x HEIGHT X THICKNESS

GLAZING NOTES:

ALL EXTERIOR WINDOWS AND DOOR LITES:
1" INSULATED PER SPECIFICATIONS.

INTERIOR DOOR & BORROWED LITES:
1/4" CLEAR TYPICAL EXCEPT FIRE-RATED - SEE SPECIFICATIONS.

GLASS:

GLASS TO BE TEMPERED AS REQUIRED BY SPECIFICATIONS AND APPLICABLE CODES.

MAXIMUM GLASS AREA PER FIRE RATING:
180 MIN. LABEL = NO GLASS
90 MIN. LABEL = 100 SQ.IN.
45 MIN. LABEL = 1296 SQ.IN.
20 MIN. LABEL = AS TESTED

VERIFY COMPLIANCE TO ALL APPLICABLE CODES.

ADJUST LITE SIZE BASED ON SCHEDULED FIRE RATING AS NECESSARY.

NOTE: ALL SIDELITES AND TRANSOMS W/ 20 MIN. DOORS REQUIRE 45 MIN. RATED GLAZING

(E) = EGRESS PANE
(GF) = GRAPHIC FILM
(SA) = SAFETY GLAZING
(SF) = SECURITY FILM
(SE) = SECURITY GLAZING
(ST) = SELF TINTING GLAZING
■ = SPANDREL PANEL
▤ = LOUVER PANEL

DOOR TYPE LEGEND

1/4" = 1'-0"

BORROWED LITE LEGEND

1/4" = 1'-0"

FRAME TYPE LEGEND

1/4" = 1'-0"

WINDOW TYPE LEGEND

1/4" = 1'-0"

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:22:53 PM

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

ISSUANCES

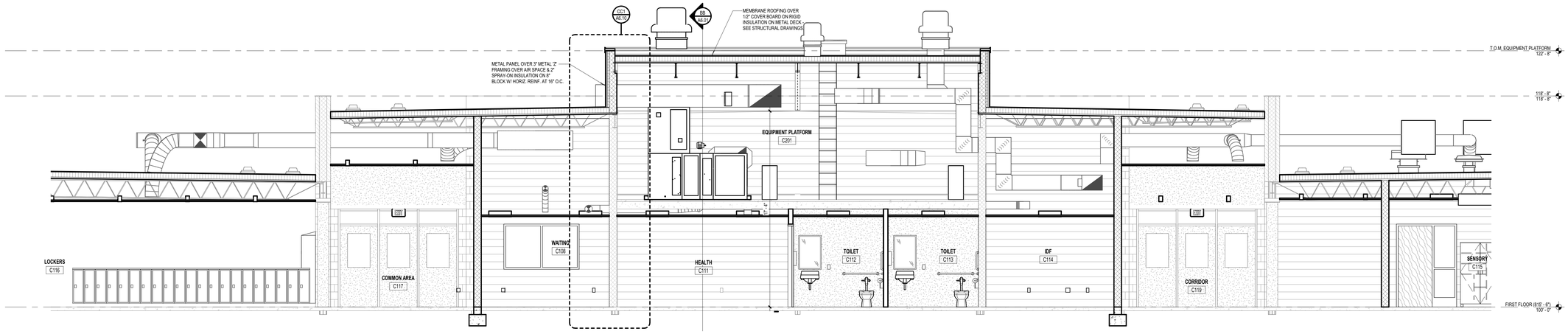
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior written permission of

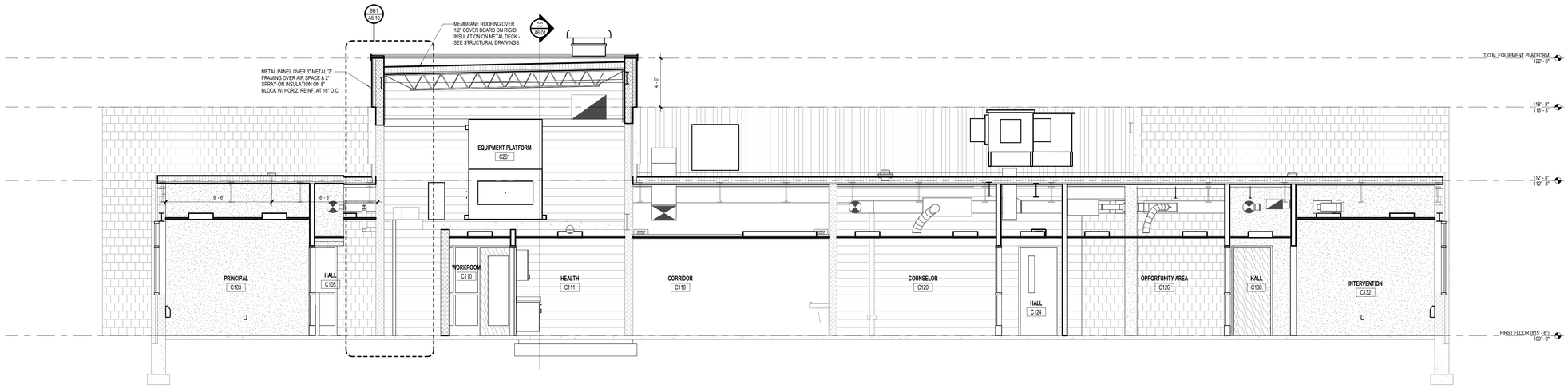
DOOR & FRAME SCHEDULE

A5.01



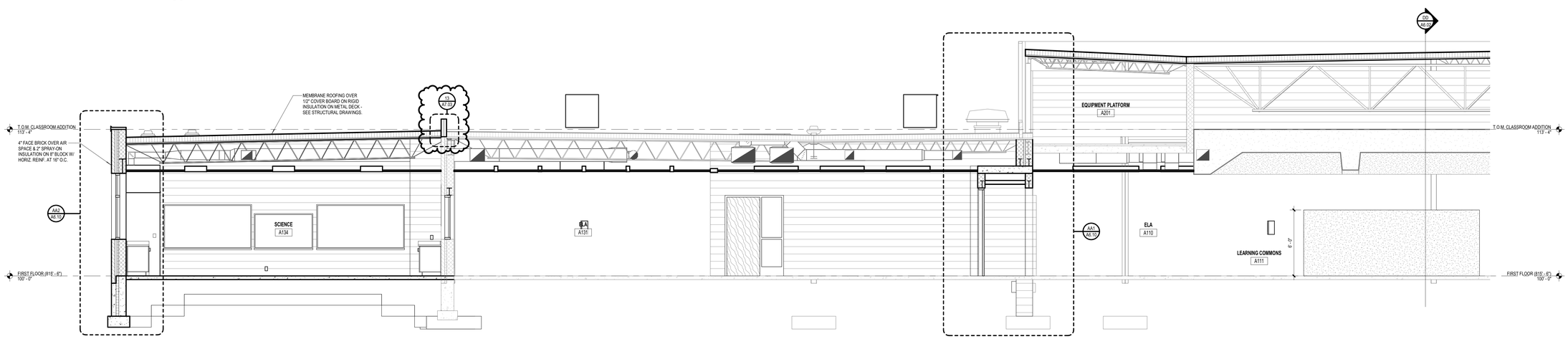
CC A6.01 BUILDING SECTION CC

1/4" = 1'-0"



BB A6.01 BUILDING SECTION BB

1/4" = 1'-0"



AA A6.01 BUILDING SECTION AA

1/4" = 1'-0"

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:23:03 PM

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

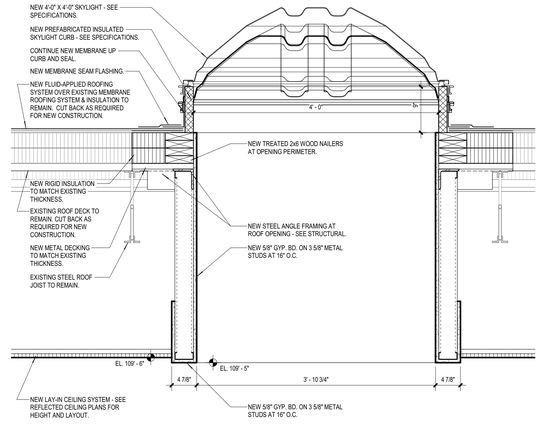
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

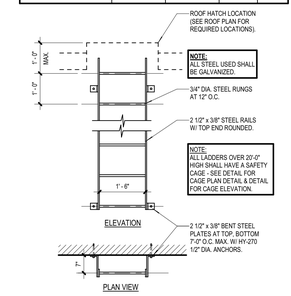
BUILDING SECTIONS

A6.01

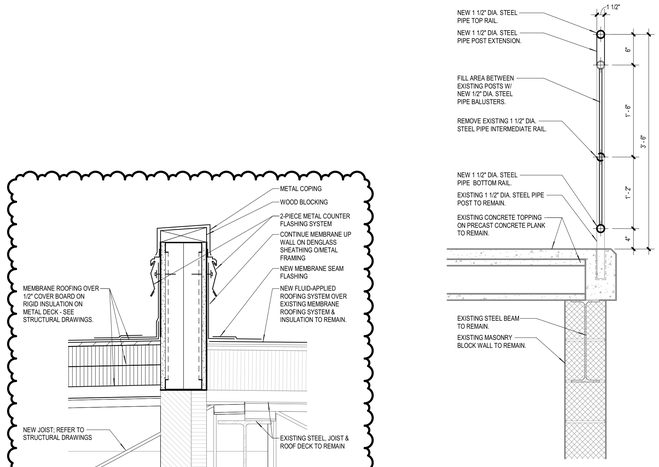


12 A7.03 TYPICAL SKYLIGHT DETAIL
1" = 1'-0"

LADDER SCHEDULE				
LADDER LOCATION	LANDING ELEVATION	TOP RUNG ELEVATION	LADDER MATERIAL	CAGE REQ.
EQUIPMENT PLATFORM C201	EL. 100' - 0"	EL. 109' - 4"	STEEL	NO

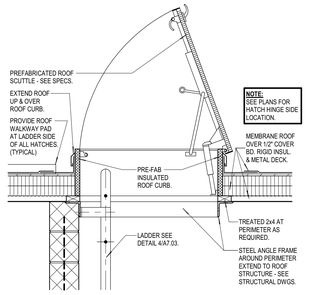


11 A7.03 STEEL LADDER DETAIL
1/2" = 1'-0"

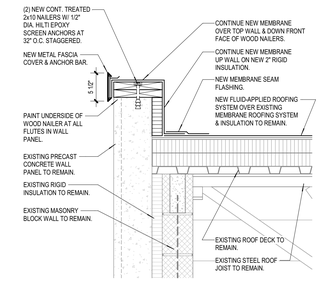


13 A7.03 ROOF CURB DETAIL
1 1/2" = 1'-0"

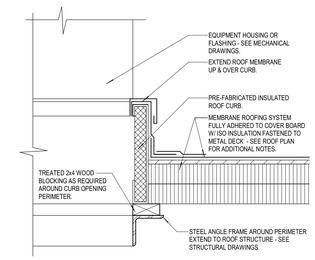
10 A7.03 GYMNASIUM GUARDRAIL DETAIL
1" = 1'-0"



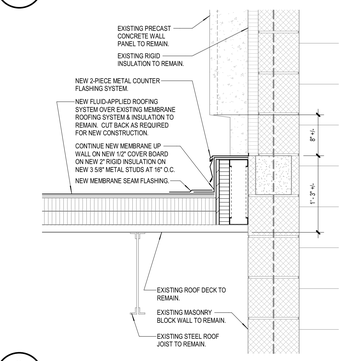
5 A7.03 ROOF HATCH DETAIL
3/4" = 1'-0"



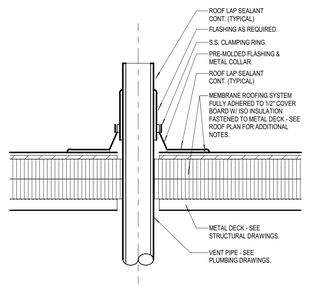
9 A7.03 TOP OF WALL FLASHING DETAIL
1" = 1'-0"



4 A7.03 TYPICAL ROOF CURB DETAIL
1 1/2" = 1'-0"

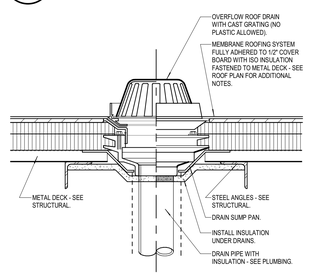


8 A7.03 ROOF / WALL FLASHING DETAIL
1" = 1'-0"

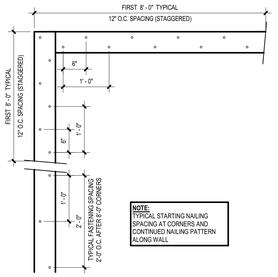


3 A7.03 ROOF VENT DETAIL
1 1/2" = 1'-0"

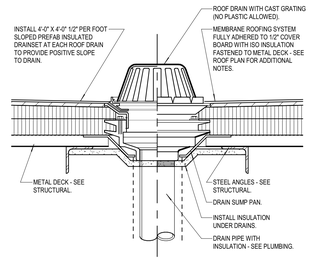
7 A7.03 METAL COPING SPLICE DETAIL
3" = 1'-0"



2 A7.03 OVERFLOW ROOF DRAIN DETAIL
1 1/2" = 1'-0"



6 A7.03 WOOD NAILER SECUREMENT DETAIL
3/4" = 1'-0"



1 A7.03 ROOF DRAIN DETAIL
1 1/2" = 1'-0"

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

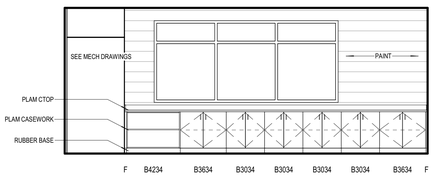
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

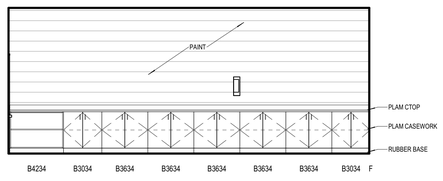
DRAWN	BSE
REVIEWED	CMA
PROJECT NO.	5-5802

DETAILS

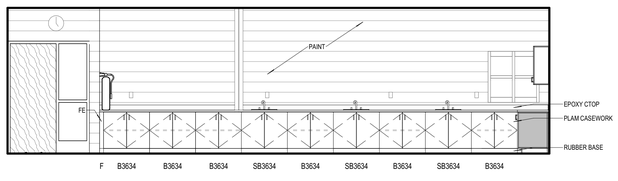
A7.03



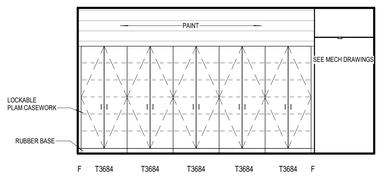
26 A8.01 B119 CLASSROOM EAST
1/4" = 1'-0"



25 A8.01 B113 CLASSROOM WEST
1/4" = 1'-0"



24 A8.01 B107 SCIENCE WEST
1/4" = 1'-0"



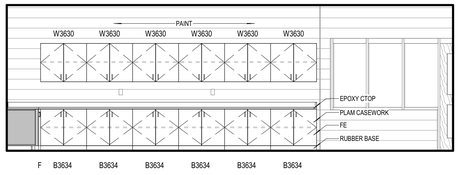
23 A8.01 B107 SCIENCE EAST
1/4" = 1'-0"

CASEWORK LEGEND
(SEE ELEVATIONS AND / OR PLANS FOR MORE INFORMATION)
(SEE SPECS)

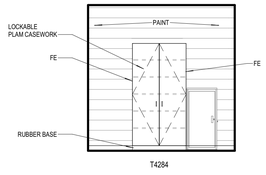
STYLE — WIDTH
DEPTH* — 12 — 42 84 — HEIGHT

*DEPTH ONLY GIVEN IF OTHER THAN 24" DEEP FOR BASE / TALL CABINET OR 13" DEEP FOR WALL CABINET ARE USED, TYP.

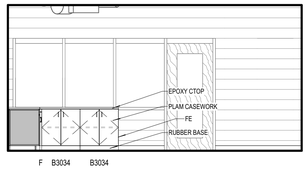
B	BASE CABINET
F	FILLER PANEL
M	MOBILE CABINET
T	TALL CABINET
W	WALL CABINET



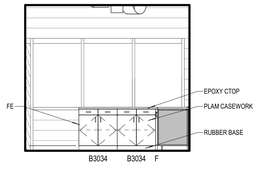
22 A8.01 B107 SCIENCE NORTH
1/4" = 1'-0"



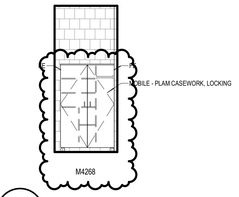
21 A8.01 B106 SCIENCE NORTH
1/4" = 1'-0"



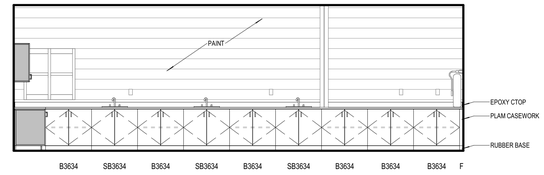
20 A8.01 B106 PREP ROOM SOUTH EAST/NORTHWEST
1/4" = 1'-0"



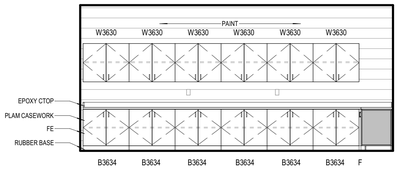
19 A8.01 B106 PREP ROOM SOUTHWEST/NORTHEAST
1/4" = 1'-0"



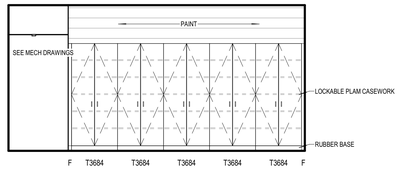
18 A8.01 CLASSROOM TALL WARDROBE
1/4" = 1'-0"



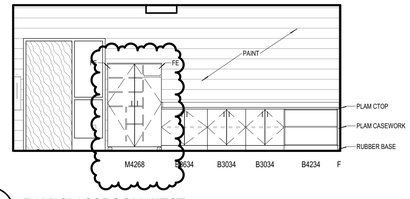
17 A8.01 B105 SCIENCE WEST
1/4" = 1'-0"



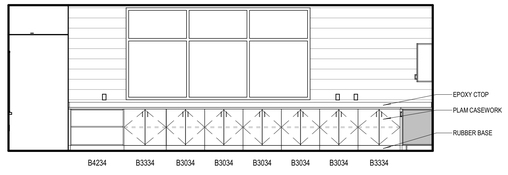
16 A8.01 B105 SCIENCE SOUTH
1/4" = 1'-0"



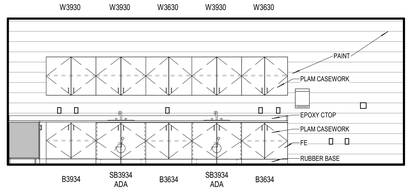
15 A8.01 B105 SCIENCE EAST
1/4" = 1'-0"



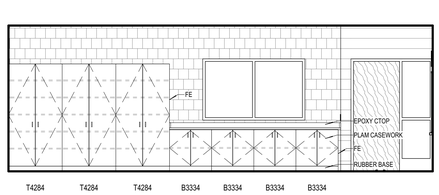
14 A8.01 B102 CLASSROOM WEST
1/4" = 1'-0"



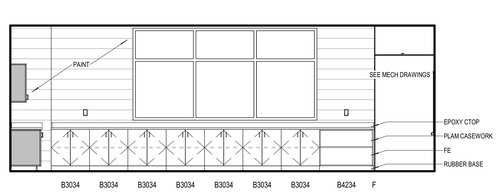
13 A8.01 A135 SCIENCE WEST
1/4" = 1'-0"



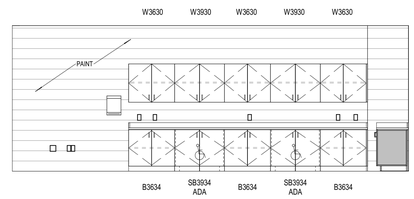
12 A8.01 A135 SCIENCE NORTH
1/4" = 1'-0"



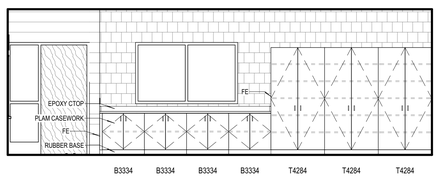
11 A8.01 A135 SCIENCE EAST
1/4" = 1'-0"



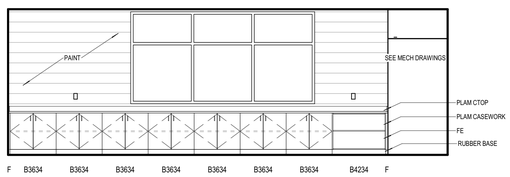
10 A8.01 A134 SCIENCE WEST
1/4" = 1'-0"



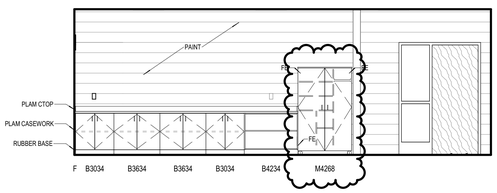
9 A8.01 A134 SCIENCE SOUTH
1/4" = 1'-0"



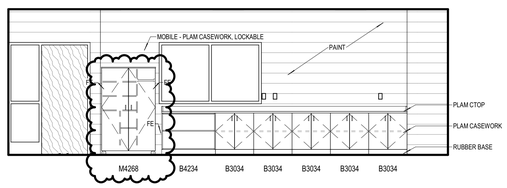
8 A8.01 A134 SCIENCE EAST
1/4" = 1'-0"



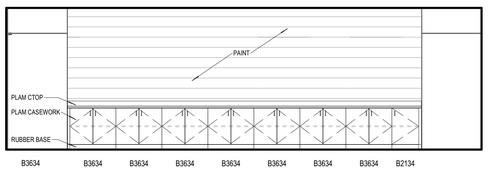
7 A8.01 A132 CLASSROOM WEST
1/4" = 1'-0"



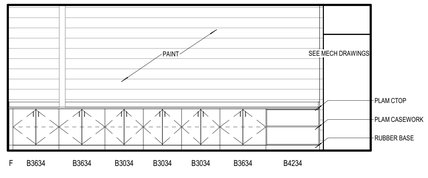
6 A8.01 A122 CLASSROOM SOUTH
1/4" = 1'-0"



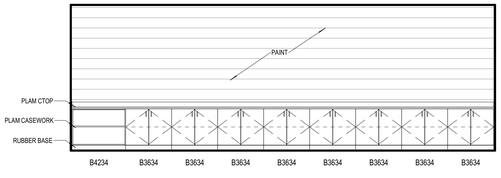
5 A8.01 A121 CLASSROOM WEST
1/4" = 1'-0"



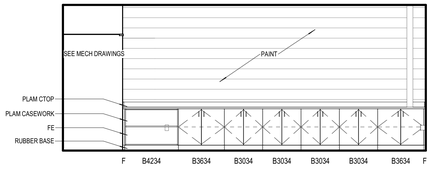
4 A8.01 A111 LEARNING COMMONS WEST
1/4" = 1'-0"



3 A8.01 A108 CLASSROOM EAST
1/4" = 1'-0"



2 A8.01 A102 CLASSROOM EAST
1/4" = 1'-0"



1 A8.01 A101 CLASSROOM EAST
1/4" = 1'-0"

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	MJO
REVIEWED	CMA
PROJECT NO.	5-5802

INTERIOR ELEVATIONS

A8.01

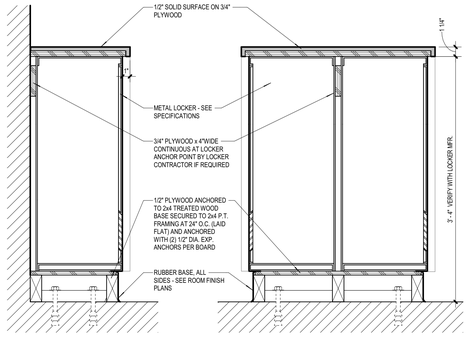
GMB
616.796.0200
www.gmb.com

CASEWORK LEGEND
(SEE ELEVATIONS AND / OR PLANS FOR MORE INFORMATION)
(SEE SPECS)

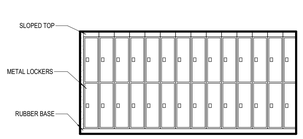
STYLE — T 42 84 — WIDTH
DEPTH* — 12 — HEIGHT

*DEPTH ONLY GIVEN IF OTHER THAN 24" DEEP FOR BASE / TALL CABINET OR 13" DEEP FOR WALL CABINET ARE USED, TYP.

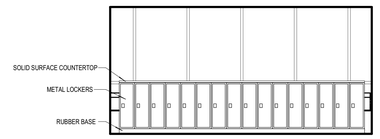
B	BASE CABINET
F	FILLER PANEL
M	MOBILE CABINET
T	TALL CABINET
W	WALL CABINET



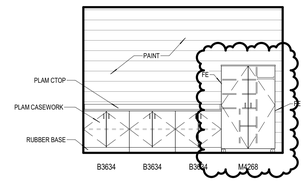
21 / A8.02 HALF HEIGHT LOCKERS
1 1/2" = 1'-0"



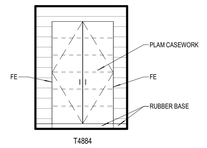
20 / A8.02 C116 DOUBLE TIER LOCKERS TYP.
1/4" = 1'-0"



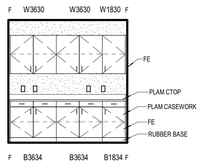
19 / A8.02 C116 SINGLE TIER LOCKERS TYP.
1/4" = 1'-0"



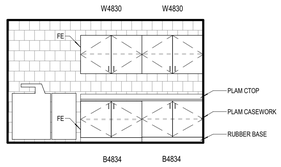
18 / A8.02 B109 SPECIAL EDUCATION WEST
1/4" = 1'-0"



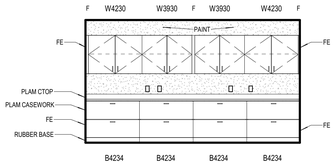
17 / A8.02 C122 CONFERENCE NORTH
1/4" = 1'-0"



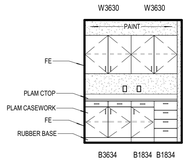
16 / A8.02 C127 WORKROOM NORTH
1/4" = 1'-0"



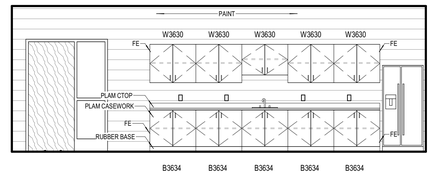
15 / A8.02 C127 WORK ROOM SOUTH
1/4" = 1'-0"



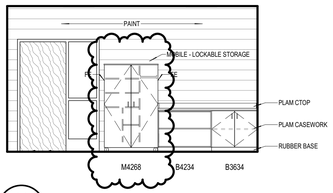
14 / A8.02 C127 WORK ROOM FILES
1/4" = 1'-0"



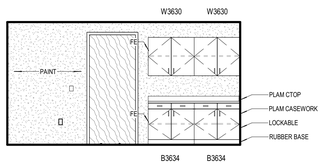
13 / A8.02 C127 WORK ROOM
1/4" = 1'-0"



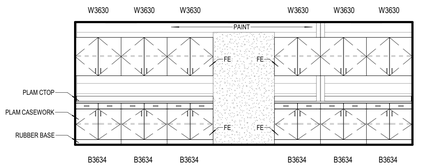
12 / A8.02 C123 LOUNGE WEST
1/4" = 1'-0"



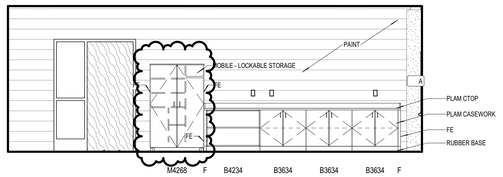
11 / A8.02 C115 SENSORY EAST
1/4" = 1'-0"



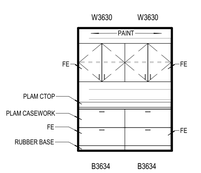
10 / A8.02 C111 HEALTH WEST
1/4" = 1'-0"



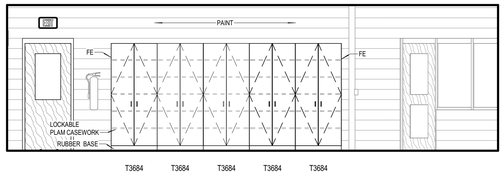
9 / A8.02 C110 WORKROOM WEST
1/4" = 1'-0"



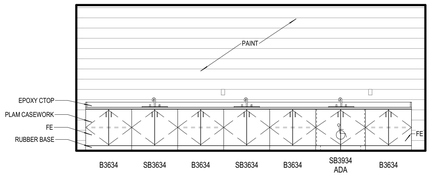
8 / A8.02 C107 CLASSROOM EAST
1/4" = 1'-0"



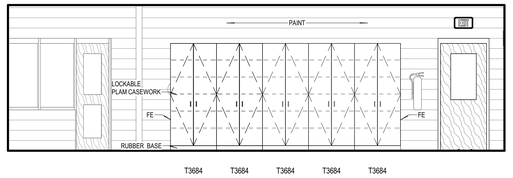
7 / A8.02 C105 HALL FILES
1/4" = 1'-0"



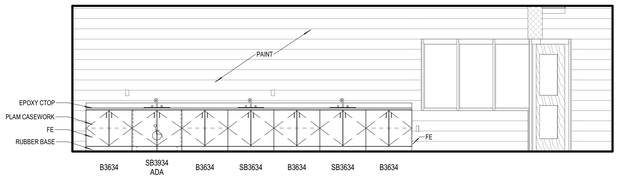
6 / A8.02 B122 SCIENCE WEST
1/4" = 1'-0"



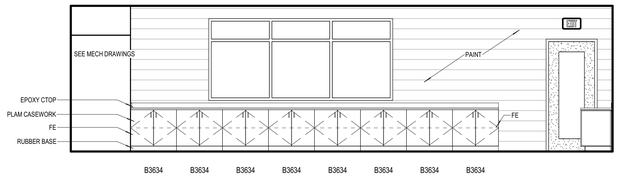
5 / A8.02 B122 SCIENCE NORTH
1/4" = 1'-0"



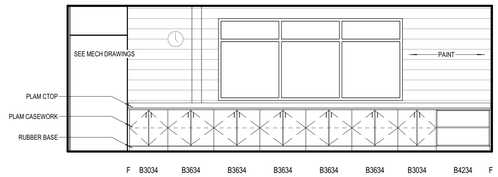
4 / A8.02 B121 SCIENCE WEST
1/4" = 1'-0"



3 / A8.02 B121 SCIENCE SOUTH
1/4" = 1'-0"



2 / A8.02 B121 SCIENCE EAST
1/4" = 1'-0"



1 / A8.02 B120 CLASSROOM EAST
1/4" = 1'-0"

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

ISSUANCES
12.01.2022 BIDS & CONSTRUCTION
01.26.2023 ADDENDUM 004

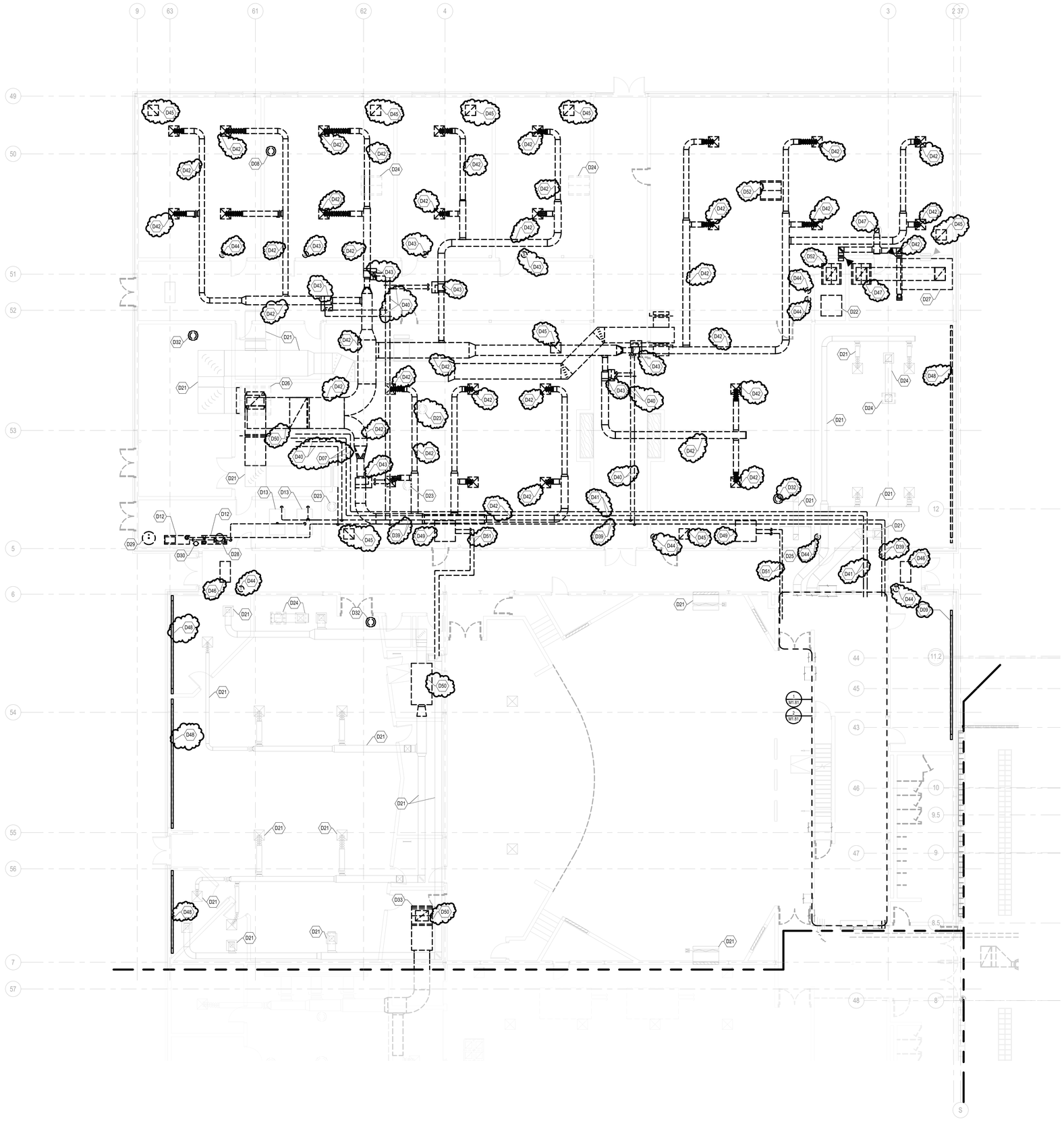
DRAWN MJO
REVIEWED CMA

PROJECT NO. 5-5802

INTERIOR ELEVATIONS

A8.02

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802A 2019.rvt
1/26/2023 2:23:38 PM



UNIT 'D' MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"

ALL DEMOLITION WORK INCLUDING AIR HANDLING UNIT, DUCTWORK, VAV BOXES, FINTUBE, CABINET, EXHAUST FANS, CONDENSING UNITS, HOT WATER HEATING BRANCH PIPING, CONTROLS, AND ALL RELATED ACCESSORIES SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1 UNLESS OTHERWISE NOTED.

ALL HOT WATER HEATING BOILER SYSTEM DEMOLITION WORK INCLUDING PUMPS, AIR SEPARATOR, EXPANSION TANK, POT FEEDER, PIPING, SUPPORTS, INSULATION, CONTROLS AND ALL RELATED ACCESSORIES SHALL BE INCLUDED UNDER THE BASE BID.

MECHANICAL DEMO KEYNOTE LEGEND

D07	REMOVE HOT WATER HEATING AND CHILLED GLYCOL SUPPLY AND RETURN PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D08	REMOVE EXHAUST FAN, ROOF CURB, DUCTWORK, DAMPERS, SUPPORTS AND ALL RELATED ACCESSORIES.
D09	REMOVE FINTUBE ELEMENT, ENCLOSURE, SUPPORTS, VALVES, PIPING, CONTROLS AND ALL RELATED ACCESSORIES.
D12	REMOVE HOT WATER HEATING SYSTEM PUMPS, SHUTOFF VALVES, TRIPLE DUTY VALVES, INSULATION, PIPING AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
D13	BOILERS AND VENT STACKS TO REMAIN.
D21	SUPPLY, RETURN, EXHAUST, TRANSFER AIR, OUTSIDE AIR AND RELIEF DUCTWORK AND GRILLES TO REMAIN.
D22	REMOVE DUST COLLECTOR, SUPPORTS, DUCTWORK, CONTROLS, DAMPERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D23	EXHAUST FAN, DUCTWORK, DAMPERS, SUPPORTS AND ALL RELATED ACCESSORIES TO REMAIN.
D24	RELIEF HOOD, DUCTWORK, DAMPERS, ROOF CURB AND ALL RELATED ACCESSORIES TO REMAIN.
D25	KILN EXHAUST HOOD, SUPPORTS AND ALLL RELATED ACCESSORIES TO REMAIN.
D26	OUTSIDE AIR INTAKE HOOD, DUCTWORK, DAMPERS, ROOF CURB AND ALL RELATED ACCESSORIES TO REMAIN.
D27	REMOVE PAINT SPRAY HOOD, SUPPORTS, DUCTWORK, CONTROLS, DAMPERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D28	REMOVE HOT WATER HEATING SYSTEM AIR SEPARATOR, PIPING, VALVES, INSULATION, SUPPORTS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
D29	REMOVE HOT WATER HEATING SYSTEM EXPANSION TANK. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
D30	REMOVE HOT WATER HEATING SYSTEM POT FEEDER PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED IN THE BASE BID.
D32	REMOVE EXHAUST FAN, ROOF CURB, DUCTWORK, DAMPERS, SUPPORTS AND ALL RELATED ACCESSORIES. REUSE ROOF OPENING FOR NEW EXHAUST FAN. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D33	REMOVE OUTSIDE AIR INTAKE HOOD, DUCTWORK, DAMPERS, ROOF CURB AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D39	INCLUDE UNDER BASE BID WORK: REMOVE HOT WATER HEATING SUPPLY AND RETURN PIPING MAINS, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D40	INCLUDE UNDER BASE BID WORK: HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES FROM CONNECTION TO THE EXISTING HOT WATER HEATING PIPING MAINS TO THE CONNECTION AT EXISTING VAV BOXES AND AIR HANDLING UNITS SHALL REMAIN AND RECONNECTED TO THE NEW HOT WATER HEATING PIPING MAINS. INCLUDE UNDER ALTERNATE M-1 WORK: REMOVE HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D41	INCLUDE UNDER BASE BID WORK: CHILLED GLYCOL SUPPLY AND RETURN PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES SHALL REMAIN. INCLUDE UNDER ALTERNATE M-1 WORK: REMOVE ALL CHILLED GLYCOL SUPPLY AND RETURN PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D42	REMOVE SUPPLY, RETURN, EXHAUST AND OUTSIDE AIR DUCTWORK, INSULATION, DIFFUSERS, GRILLES, HANGERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D43	REMOVE VAV BOX, DUCTWORK, SUPPORTS, VALVES, PIPING, INSULATION, CONTROLS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D44	REMOVE TEMPERATURE SENSOR/THERMOSTAT AND CONTROL WIRING BACK TO SOURCE. REUSE WALL BOX FOR NEW TEMPERATURE SENSOR OR CAP WITH ALUMINUM WALL PLATE IF NOT REUSED FOR NEW EQUIPMENT. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D45	REMOVE CEILING MOUNTED RETURN GRILLE AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D46	REMOVE CEILING MOUNTED ELECTRIC CABINET UNIT HEATER, SUPPORTS, CONTROLS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D47	REMOVE EXHAUST FAN, ROOF CURB, DUCTWORK, DAMPERS, SUPPORTS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D48	REMOVE FINTUBE ELEMENT, ENCLOSURE, SUPPORTS, VALVES, PIPING, CONTROLS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D49	REMOVE ROOF MOUNTED CONDENSING UNIT, REFRIGERANT PIPING, SUPPORTS, INSULATION, CONTROLS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D50	REMOVE AIR HANDLING UNIT, DUCTWORK, PIPING, VALVES, SUPPORTS, CONTROLS, AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D51	REMOVE REFRIGERANT PIPING, VALVES, INSULATION, SUPPORTS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D52	REMOVE RELIEF HOOD, ROOF CURB, DUCTWORK, INSULATION, HANGERS, DAMPERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.

GMB
616.796.0200
www.gmb.com

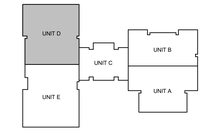
THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES	
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

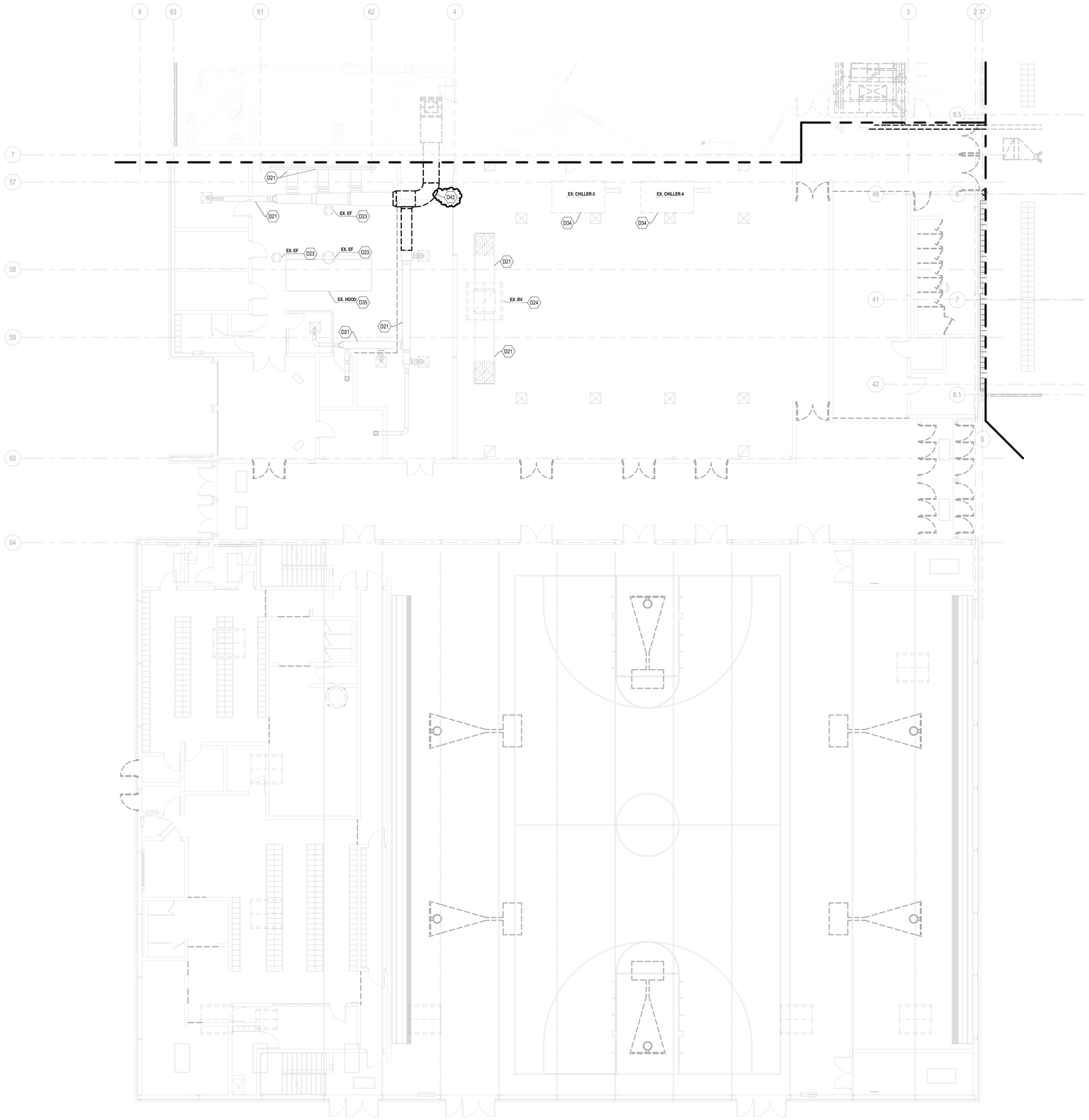


KEY PLAN

UNIT 'D' MECHANICAL DEMOLITION PLAN

M1.1D

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:07 PM



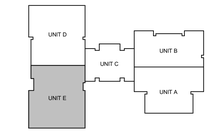
ALL DEMOLITION WORK SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1

	MECHANICAL DEMO KEYNOTE LEGEND
D21	SUPPLY, RETURN, EXHAUST, TRANSFER AIR, OUTSIDE AIR AND RELIEF DUCTWORK AND GRILLES TO REMAIN.
D23	EXHAUST FAN, DUCTWORK, DAMPERS, SUPPORTS AND ALL RELATED ACCESSORIES TO REMAIN.
D24	RELIEF HOOD, DUCTWORK, DAMPERS, ROOF CURB AND ALL RELATED ACCESSORIES TO REMAIN.
D34	ROOF MOUNTED AIR COOLED CHILLER, SUPPORTS, PIPING, CONTROLS AND ALL RELATED ACCESSORIES TO REMAIN.
D35	KITCHEN EXHAUST HOOD, SUPPORTS, DUCTWORK, CONTROLS AND ALL RELATED ACCESSORIES TO REMAIN.
D42	REMOVE SUPPLY, RETURN, EXHAUST AND OUTSIDE AIR DUCTWORK, INSULATION, DIFFUSERS, GRILLES, HANGERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.

NORTH

UNIT 'E' MECHANICAL DEMOLITION PLAN

1/8" = 1'-0"



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH

PROJECT NO. 5-5802

UNIT 'E' MECHANICAL DEMOLITION PLAN

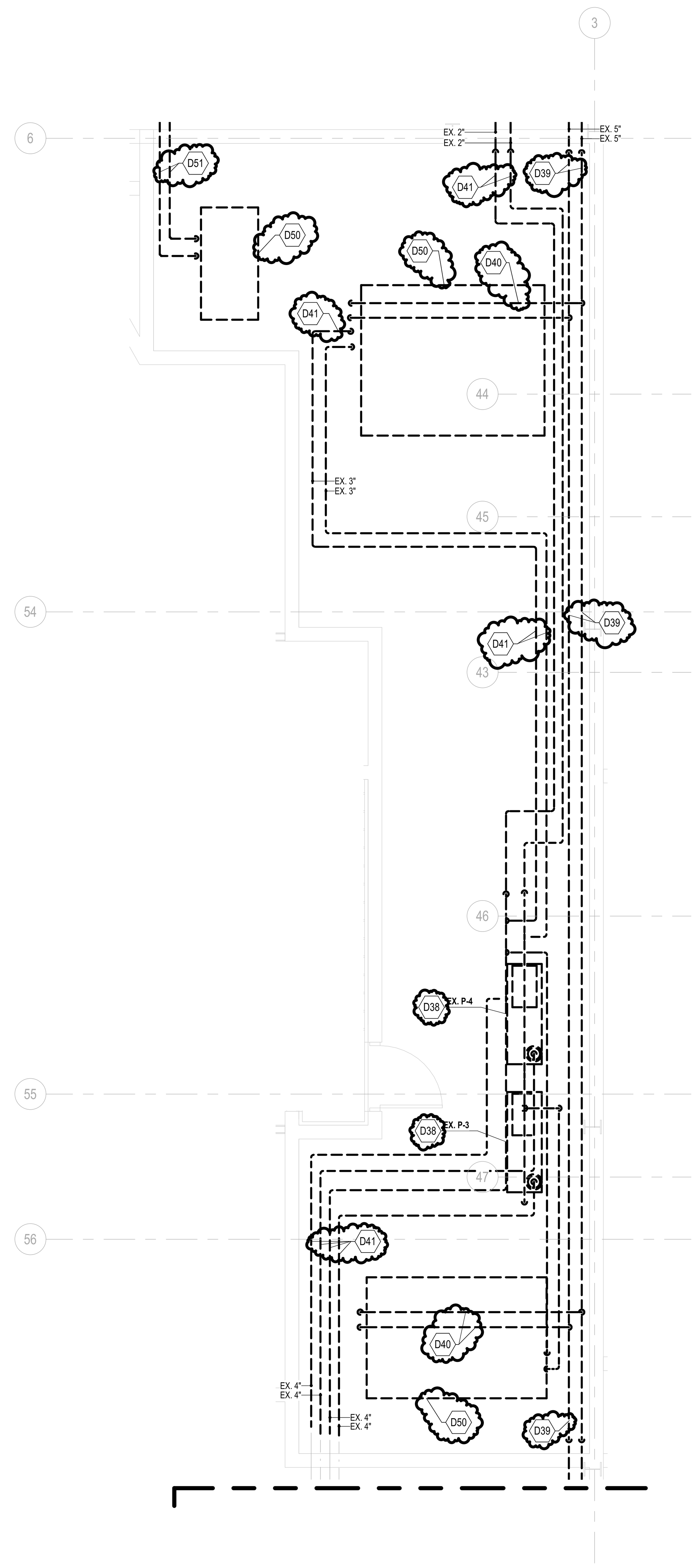
M1.1E

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:16 PM

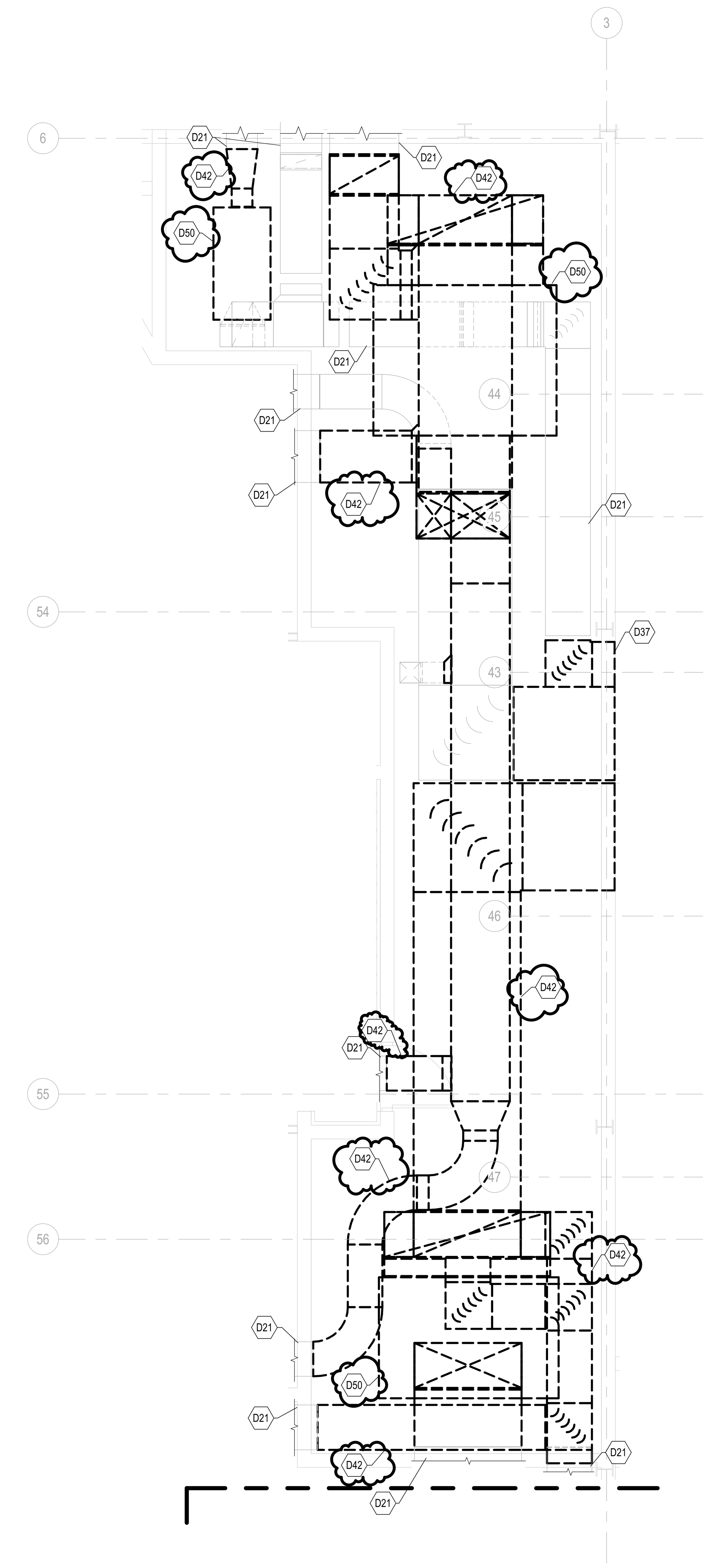
ALL AIR HANDLING UNIT DEMOLITION WORK INCLUDING DUCTWORK, HOT WATER HEATING BRANCH PIPING, CONTROLS, AND ALL RELATED ACCESSORIES SHALL BE INCLUDED UNDER ALTERNATE M-1 UNLESS OTHERWISE NOTED.

ALL CHILLED GLYCOL PIPING SYSTEM DEMOLITION WORK INCLUDING PUMPS, PIPING, INSULATION, HANGERS, VALVES AND RELATED ACCESSORIES SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1

	MECHANICAL DEMO KEYNOTE LEGEND
D21	SUPPLY, RETURN, EXHAUST, TRANSFER AIR, OUTSIDE AIR AND RELIEF DUCTWORK AND GRILLES TO REMAIN.
D37	REMOVE EXISTING 132"W x 60"H OUTSIDE AIR INTAKE LOUVER TO INSTALL NEW AIR HANDLING UNITS INTO MECHANICAL MEZZANINE. REINSTALL LOUVER IN EXISTING WALL OPENING, SEAL ALL JOINTS AND RECONNECT OUTSIDE AIR INTAKE DUCTWORK AFTER NEW AIR HANDLING UNITS ARE INSTALLED. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D38	REMOVE CHILLED GLYCOL PUMP, PIPING, VALVES, CONTROLS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCUDED UNDER ALTERNATE M-1.
D39	INCLUDE UNDER BASE BID WORK: REMOVE HOT WATER HEATING SUPPLY AND RETURN PIPING MAINS, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D40	INCLUDE UNDER BASE BID WORK: HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES FROM CONNECTION TO THE EXISTING HOT WATER HEATING PIPING MAINS TO THE CONNECTION AT EXISTING VAV BOXES AND AIR HANDLING UNITS SHALL REMAIN AND RECONNECTED TO THE NEW HOT WATER HEATING PIPING MAINS. INCLUDE UNDER ALTERNATE M-1 WORK: REMOVE HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D41	INCLUDE UNDER BASE BID WORK: CHILLED GLYCOL SUPPLY AND RETURN PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES SHALL REMAIN. INCLUDE UNDER ALTERNATE M-1 WORK: REMOVE ALL CHILLED GLYCOL SUPPLY AND RETURN PIPING, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES.
D42	REMOVE SUPPLY, RETURN, EXHAUST AND OUTSIDE AIR DUCTWORK, INSULATION, DIFFUSERS, GRILLES, HANGERS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D50	REMOVE AIR HANDLING UNIT, DUCTWORK, PIPING, VALVES, SUPPORTS, CONTROLS, AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
D51	REMOVE REFRIGERANT PIPING, VALVES, INSULATION, SUPPORTS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.



2 / M1.81 ENLARGED UNIT 'D' MECHANICAL MEZZANINE HYDRONIC DEMOLITION PLAN
1/4" = 1'-0"



1 / M1.81 ENLARGED UNIT 'D' MECHANICAL MEZZANINE HVAC DEMOLITION PLAN
1/4" = 1'-0"

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

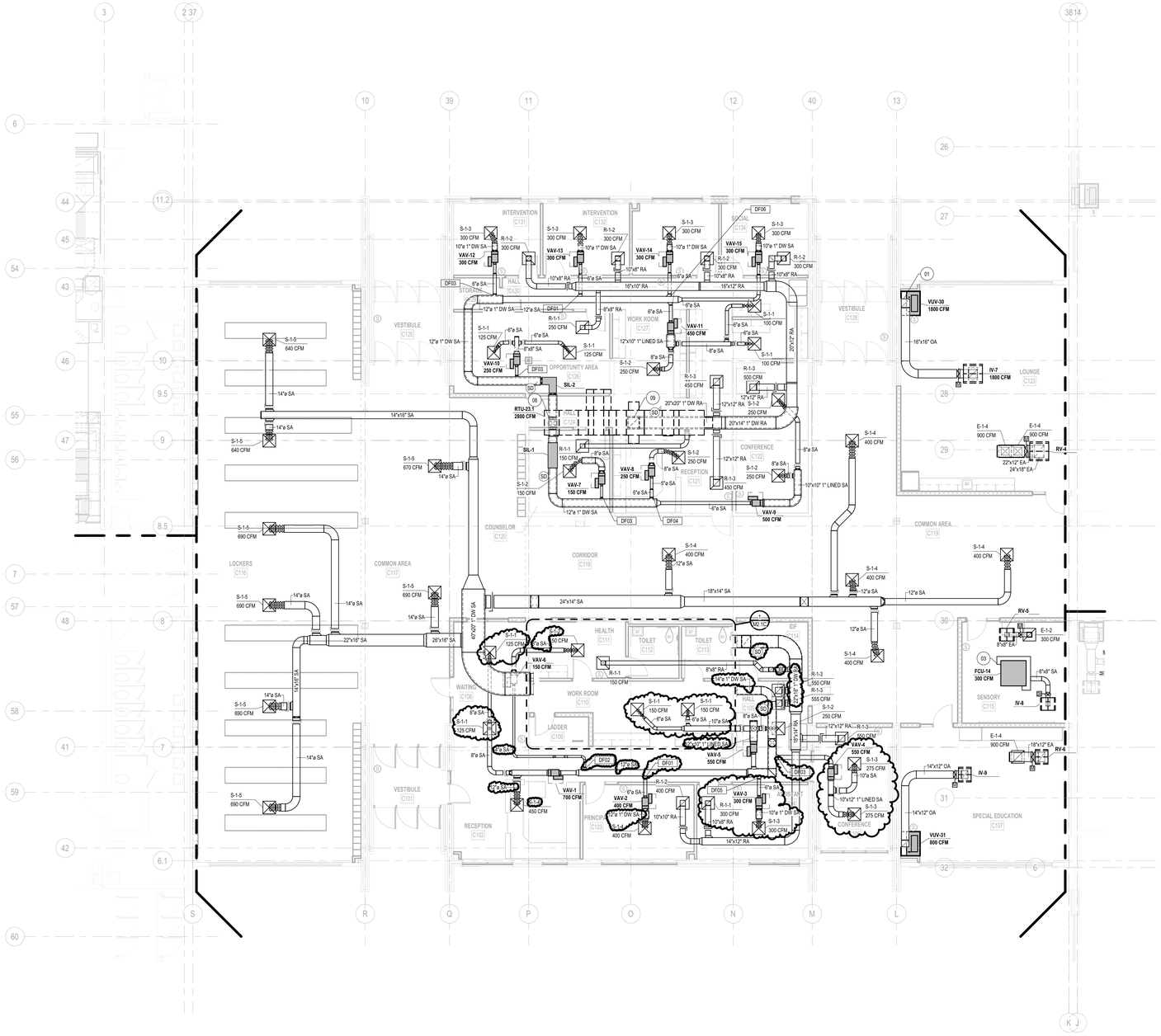
ISSUANCES
12.01.2022 BIDS & CONSTRUCTION
01.19.2023 ADDENDUM 002
01.26.2023 ADDENDUM 004

DRAWN RTF
REVIEWED JBH
PROJECT NO. 5-5802

ENLARGED MECHANICAL DEMOLITION PLANS

M1.81

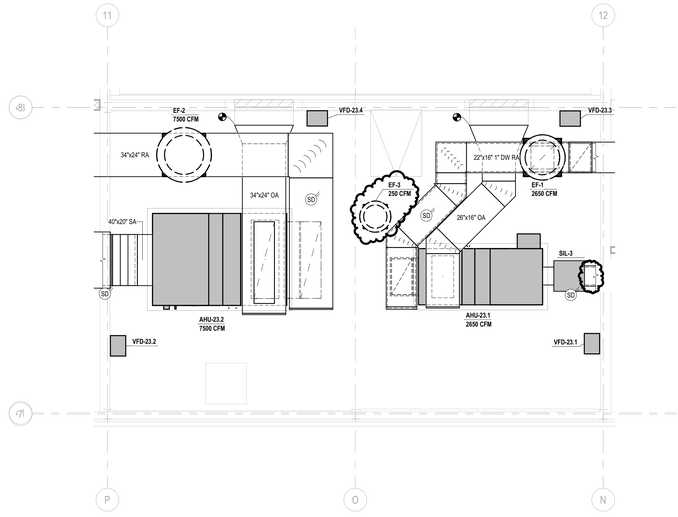
BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:23 PM



NORTH

UNIT 'C' HVAC PLAN

1/8" = 1'-0"



1 M2.1C ENLARGED UNIT 'C' MECHANICAL MEZZANINE PLAN

1/4" = 1'-0"

	DUCT FITTING LEGEND
DF01	SRT - SINGLE WALL/ROUND/LO-LOSS TEE
DF02	SRTR - SINGLE WALL/ROUND/REDUCING/LO-LOSS TEE
DF03	KRTL - DOUBLE WALL/ROUND/LO-LOSS TEE
DF04	KRTLR - DOUBLE WALL/ROUND/REDUCING/LO-LOSS TEE
DF05	SRYR - SINGLE WALL/ROUND/Y-BRANCH 90 DEG. REDUCING
DF06	SRTC - SINGLE WALL/ROUND/CONICAL TEE

SUPPLY DUCTWORK FROM VAV BOX CONNECTION TO 10'-0" DOWNSTREAM OF BOX SHALL BE SINGLE WALL ROUND WITH 1" DUCT LINER AND PERFORATED INTERNAL METAL WALL.

	MECHANICAL KEYNOTE LEGEND
01	ROUTE OUTSIDE AIR DUCTWORK DOWN AND CONNECT TO TOP OF VERTICAL UNIT VENTILATOR OUTSIDE AIR INTAKE PLENUM.
03	PROVIDE AND INSTALL OUTSIDE AIR DUCTWORK PLENUM AROUND FAN COIL UNIT, REFER TO FAN COIL UNIT OUTSIDE AIR PLENUM DETAIL 15/M7.01
08	1" DOUBLEWALL SUPPLY AIR DUCTWORK UP TO ROOFTOP UNIT, TRANSITION TO UNIT SUPPLY AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT SUPPLY DUCTWORK CONNECTION TO ROOFTOP UNIT.
09	16 GA. 1" DOUBLEWALL RETURN AIR DUCTWORK UP TO ROOFTOP UNIT, TRANSITION TO UNIT RETURN AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT RETURN DUCTWORK CONNECTION TO ROOFTOP UNIT.

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

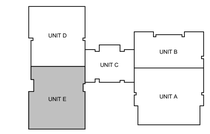
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

UNIT 'C' HVAC PLAN

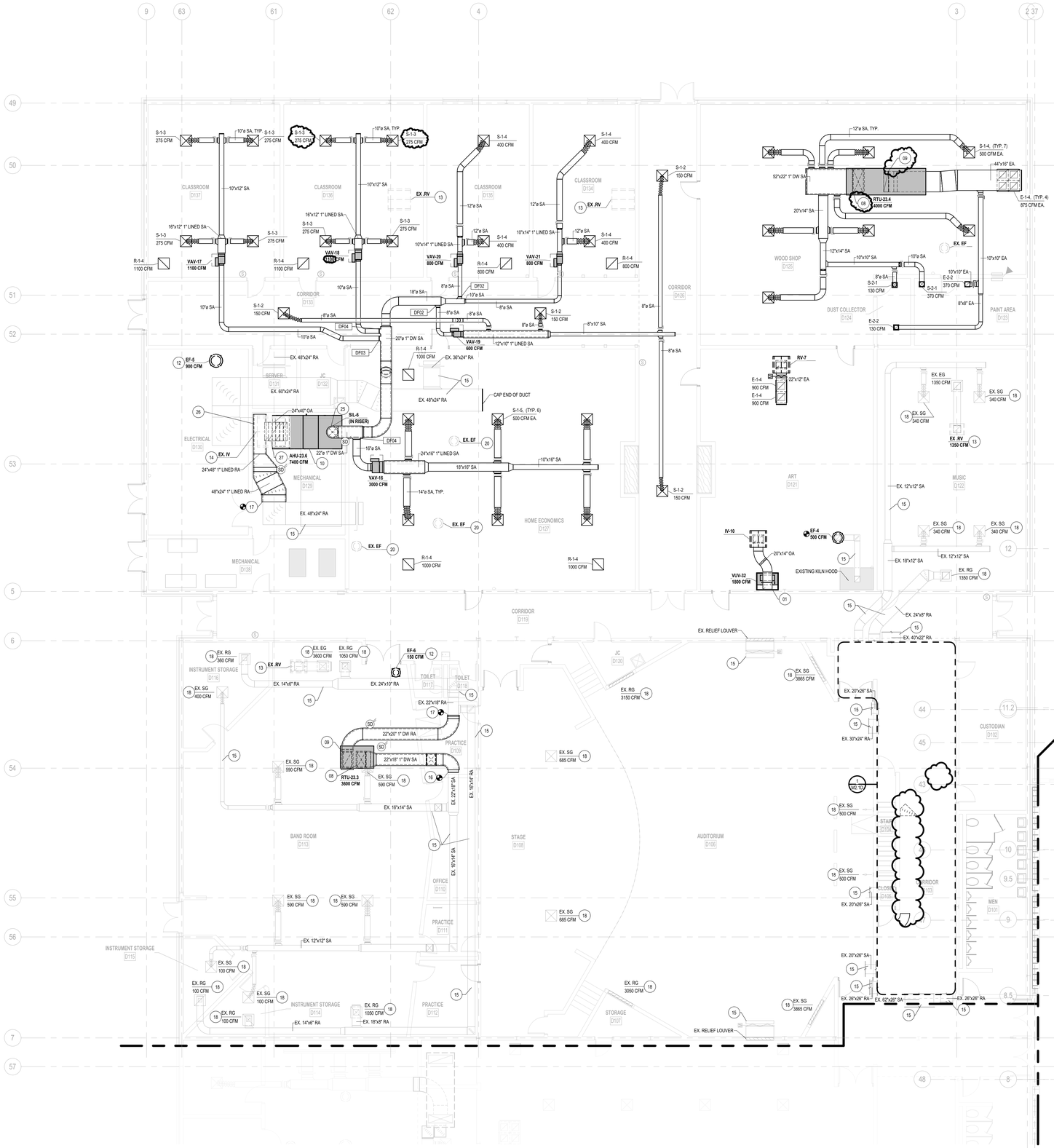
M2.1C



NORTH

KEY PLAN

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:32 PM



UNIT 'D' HVAC PLAN

1/8" = 1'-0"

1
M2.1D

ENLARGED UNIT 'D' MECHANICAL MEZZANINE HVAC PLAN

1/4" = 1'-0"

ALL MECHANICAL WORK SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1

○	MECHANICAL KEYNOTE LEGEND
01	ROUTE OUTSIDE AIR DUCTWORK DOWN AND CONNECT TO TOP OF VERTICAL UNIT VENTILATOR OUTSIDE AIR INTAKE PLENUM.
08	1" DOUBLEWALL SUPPLY AIR DUCTWORK UP TO ROOFTOP UNIT, TRANSITION TO UNIT SUPPLY AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT SUPPLY DUCTWORK CONNECTION TO ROOFTOP UNIT.
09	16 GA. 1" DOUBLEWALL RETURN AIR DUCTWORK UP TO ROOFTOP UNIT, TRANSITION TO UNIT RETURN AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT RETURN DUCTWORK CONNECTION TO ROOFTOP UNIT.
10	INSTALL AIR HANDLING UNIT ON CONCRETE HOUSEKEEPING PAD WITH NEOPRENE VIBRATION ISOLATION PADS INSTALLED UNDER ENTIRE PERIMETER OF UNIT SUPPORT RAIL.
12	INSTALL NEW EXHAUST FAN AND ROOF CURB ON EXISTING ROOF OPENING, RECONNECT TO EXISTING EXHAUST DUCTWORK AS REQUIRED.
13	EXISTING RELIEF HOOD.
14	EXISTING OUTSIDE AIR INTAKE HOOD.
15	EXISTING SUPPLY, OUTSIDE, EXHAUST, TRANSFER AND RETURN AIR DUCTWORK.
16	CONNECT NEW SUPPLY AIR DUCTWORK TO EXISTING AND ROUTE AS SHOWN.
17	CONNECT NEW RETURN AIR DUCTWORK TO EXISTING AND ROUTE AS SHOWN.
18	BALANCE EXISTING SUPPLY DIFFUSER, RETURN GRILLE OR EXHAUST GRILLE TO NEW AIRFLOW AS SHOWN.
20	EXISTING EXHAUST FAN.
24	CONNECT NEW OUTSIDE AIR DUCTWORK TO EXISTING AND ROUTE AS SHOWN.
25	1" DOUBLEWALL SUPPLY AIR DUCTWORK DOWN TO AIR HANDLING UNIT, TRANSITION TO UNIT SUPPLY AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT SUPPLY AIR DUCTWORK CONNECTION TO AIR HANDLING UNIT.
26	1" DOUBLEWALL RETURN AIR DUCTWORK DOWN TO AIR HANDLING UNIT, TRANSITION TO UNIT RETURN AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT RETURN AIR DUCTWORK CONNECTION TO AIR HANDLING UNIT.
27	OUTSIDE AIR DUCTWORK DOWN TO AIR HANDLING UNIT, TRANSITION TO UNIT OUTSIDE AIR CONNECTION SIZE. PROVIDE AND INSTALL FLEXIBLE DUCTWORK CONNECTION AT OUTSIDE AIR DUCTWORK CONNECTION TO AIR HANDLING UNIT.
28	CONNECT 30"x12" MIXED AIR DUCTWORK TO EXISTING, ROUTE DOWN AND CONNECT TO AIR HANDLING UNIT INLET AIR CONNECTION. PROVIDE AND INSTALL TRANSITION AND FLEXIBLE DUCTWORK CONNECTION AT MIXED AIR DUCTWORK CONNECTION TO AIR HANDLING UNIT.
29	PROVIDE AND INSTALL NEW MOTORIZED DAMPERS IN EXISTING OUTSIDE AIR AND RETURN AIR DUCTWORK AS SHOWN.

▭	DUCT FITTING LEGEND
DF02	SRTR - SINGLE WALL/ROUND/REDUCING/LO-LOSS TEE
DF03	KRTL - DOUBLE WALL/ROUND/LO-LOSS TEE
DF04	KRTLR - DOUBLE WALL/ROUND/REDUCING/LO-LOSS TEE

KEY PLAN

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:42 PM

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

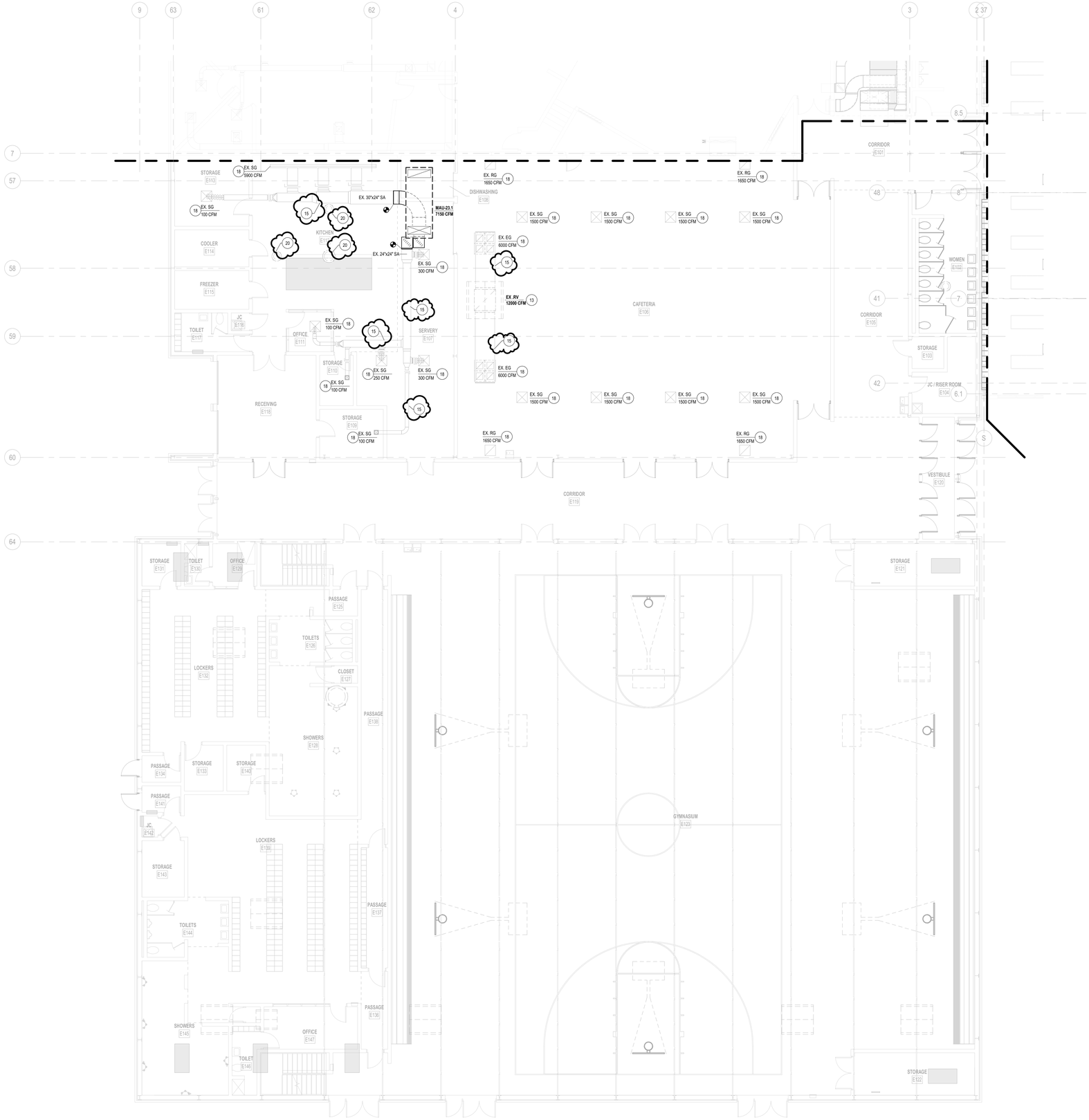
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

UNIT 'D' HVAC PLAN

M2.1D



MECHANICAL KEYNOTE LEGEND

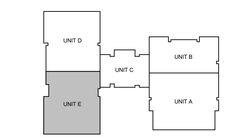
13	EXISTING RELIEF HOOD.
EA	EXISTING SUPPLY, OUTSIDE, EXHAUST, TRANSFER AND RETURN AIR DUCTWORK.
18	BALANCE EXISTING SUPPLY DIFFUSER, RETURN GRILLE OR EXHAUST GRILLE TO NEW AIRFLOW AS SHOWN.
EA	EXISTING EXHAUST FAN.

ALL MECHANICAL WORK SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1

NORTH

UNIT 'E' HVAC PLAN

1/8" = 1'-0"



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

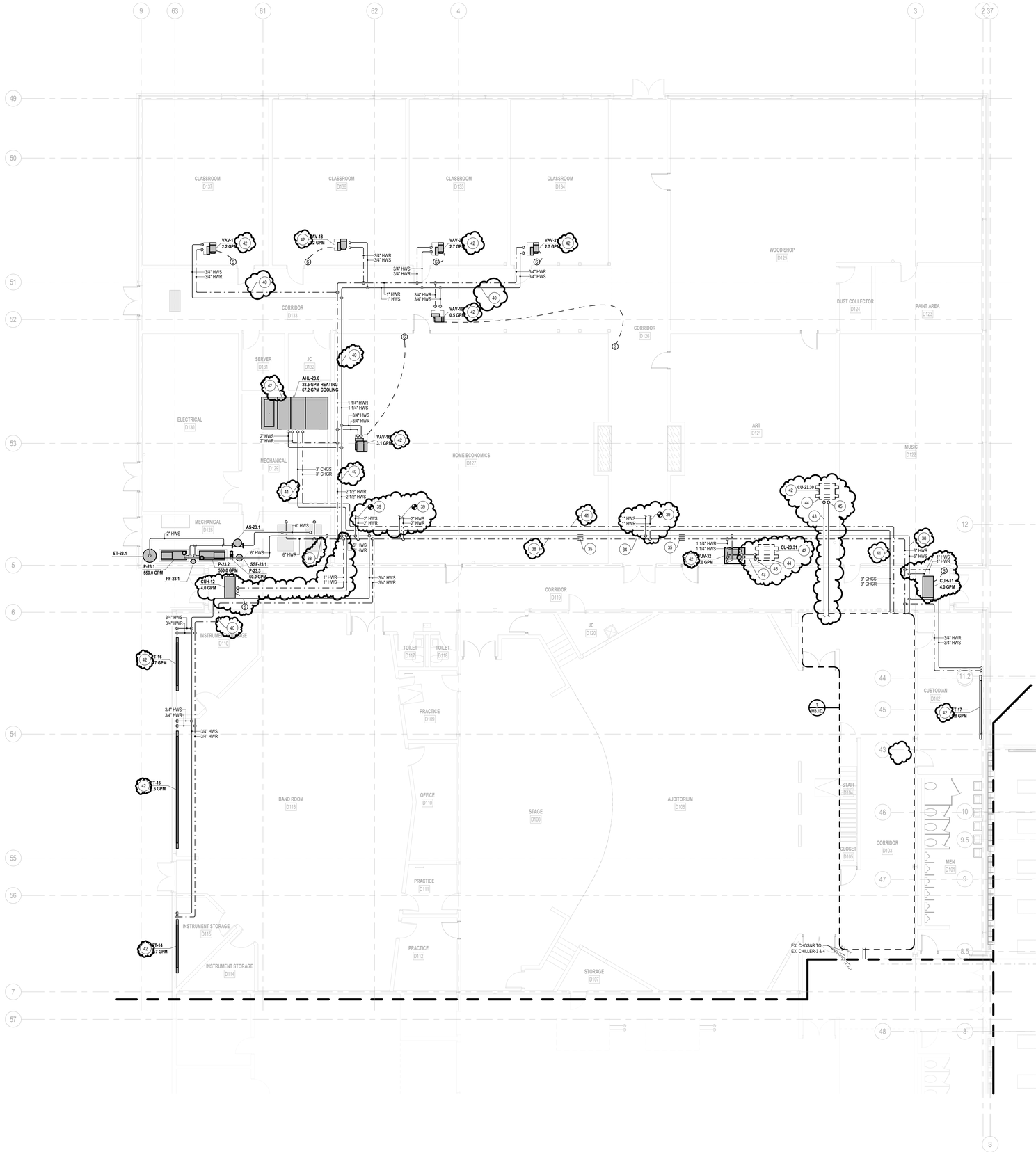
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

UNIT 'E' HVAC PLAN

M2.1E

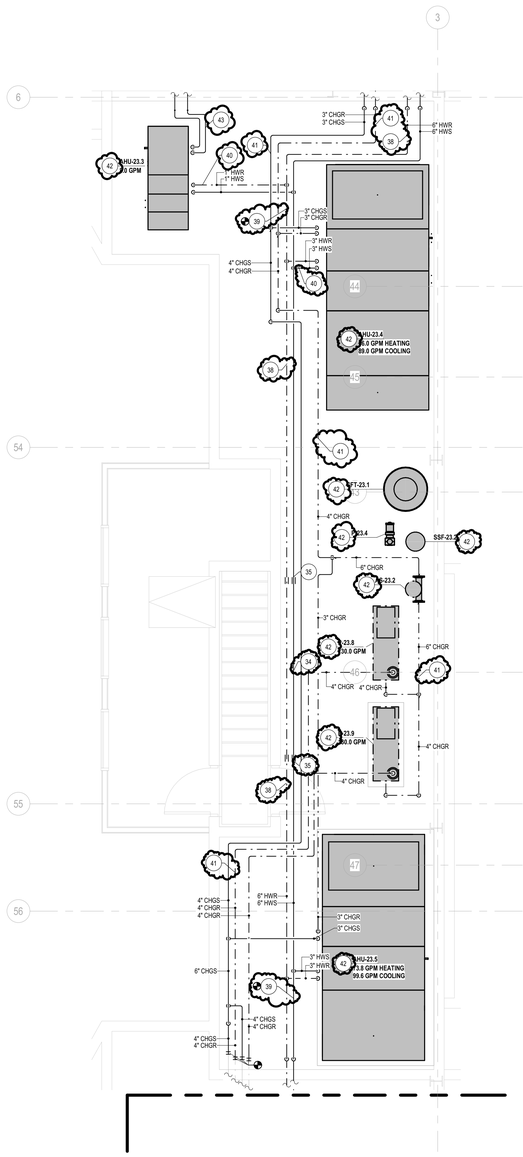
BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:18:51 PM



NORTH

UNIT 'D' HYDRONIC PLAN

1/8" = 1'-0"



1 M3.1D

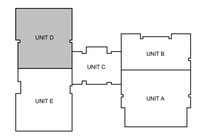
ENLARGED UNIT 'D' MECHANICAL MEZZANINE HYDRONIC PLAN

1/4" = 1'-0"

	MECHANICAL KEYNOTE LEGEND
34	PIPE EXPANSION JOINT, TYP.
35	EXISTING VARIABLE AIR VOLUME (VAV) BOX.
35	PIPE GUIDES, TYP.
38	NEW HOT WATER HEATING SUPPLY AND RETURN PIPING MAINS, VALVES, INSULATION, SUPPORTS, AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER THE BASE BID.
39	CONNECT EXISTING HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING THAT SERVES THE EXISTING AIR HANDLING UNIT AND VAV BOX HOT WATER HEATING COILS AS SHOWN ON DRAWINGS M1.1D AND M1.81 TO THE NEW HOT WATER HEATING PIPING MAINS. THIS WORK SHALL BE INCLUDED UNDER THE BASE BID.
40	CONNECT NEW HOT WATER HEATING SUPPLY AND RETURN BRANCH PIPING TO NEW HOT WATER HEATING SUPPLY AND RETURN PIPING MAINS AND ROUTE TO NEW MECHANICAL EQUIPMENT HOT WATER HEATING COILS AS SHOWN ON THIS DRAWING. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
41	NEW CHILLED GLYCOL SUPPLY AND RETURN PIPING, PUMPS, CONTROLS, VALVES, INSULATION, SUPPORTS AND ALL RELATED ACCESSORIES. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
42	NEW MECHANICAL EQUIPMENT SHALL BE INCLUDED UNDER ALTERNATE M-1.
43	ROUTE AND SIZE REFRIGERANT PIPING PER EQUIPMENT MANUFACTURERS RECOMMENDATIONS. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1
44	INSTALL NEW AIR COOLED CONDENSING UNIT ON ROOF EQUIPMENT SUPPORT CURBS, SPAN A MINIMUM OF TWO (2) ROOF JOISTS. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.
45	REFRIGERANT PIPING UP THROUGH ROOF PIPE PORTAL. SEAL ALL PENETRATIONS WATERTIGHT. THIS WORK SHALL BE INCLUDED UNDER ALTERNATE M-1.

ALL NEW HOT WATER HEATING PIPING SYSTEM WORK LOCATED IN BOILER ROOM INCLUDING CONNECTIONS TO EXISTING BOILERS, PUMPS, PIPING, INSULATION HANGERS, VALVES, NEW HEATING EQUIPMENT AND ALL RELATED ACCESSORIES SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER BASE BID.

ALL NEW CHILLED GLYCOL PIPING SYSTEM WORK INCLUDING PUMPS, PIPING, INSULATION, HANGERS, VALVES, NEW CHILLED GLYCOL SYSTEM EQUIPMENT AND ALL RELATED ACCESSORIES SHOWN ON THIS DRAWING SHALL BE INCLUDED UNDER ALTERNATE M-1



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

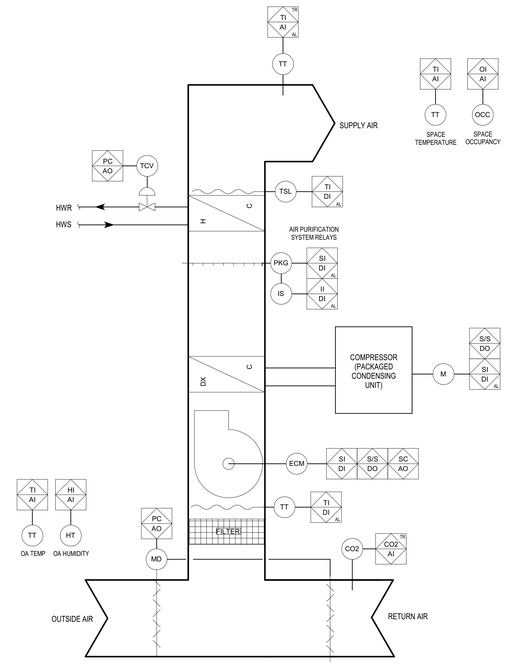
ISSUANCES	
12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

UNIT 'D' HYDRONIC PLAN

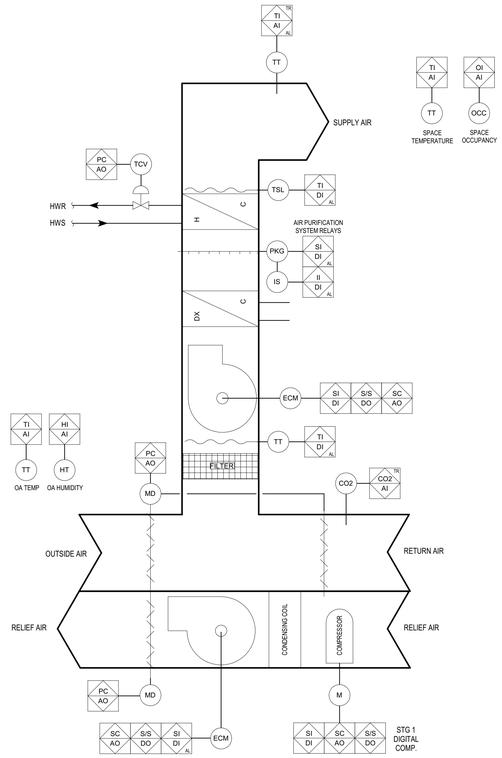
M3.1D

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:19:00 PM



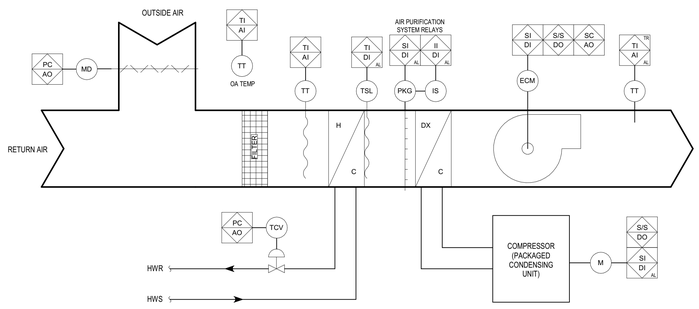
4 M8.01 VARIABLE VOLUME VERTICAL UNIT VENTILATOR W/ SPLIT DX CONTROL DIAGRAM

NOT TO SCALE



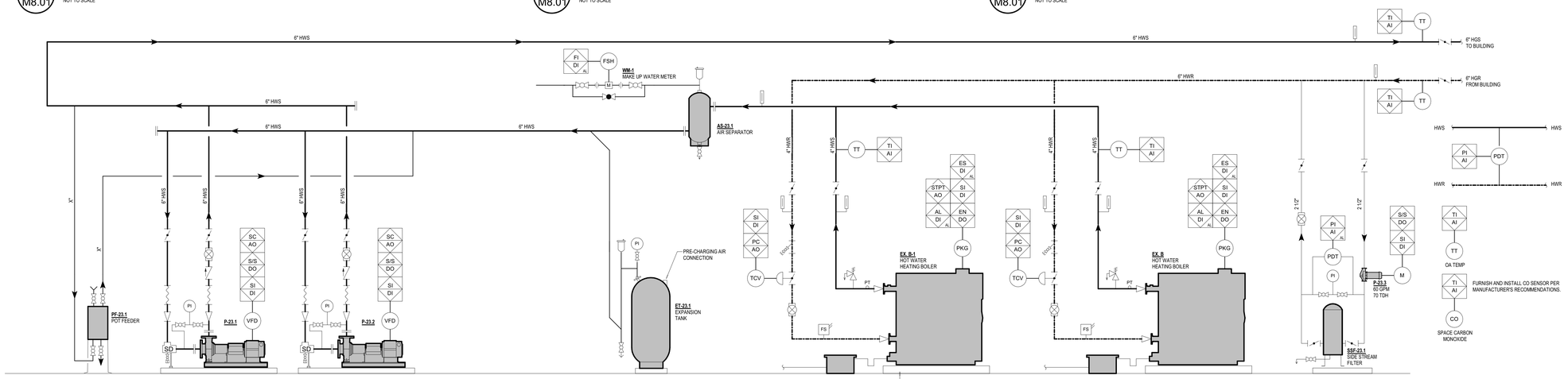
3 M8.01 VARIABLE VOLUME VERTICAL UNIT VENTILATOR PACKAGED DX CONTROL DIAGRAM

NOT TO SCALE



2 M8.01 FAN COIL UNIT CONTROL DIAGRAM

NOT TO SCALE



1 M8.01 HOT WATER HEATING SYSTEM DIAGRAM - VARIABLE PRIMARY FLOW (BASE BID)

NOT TO SCALE

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

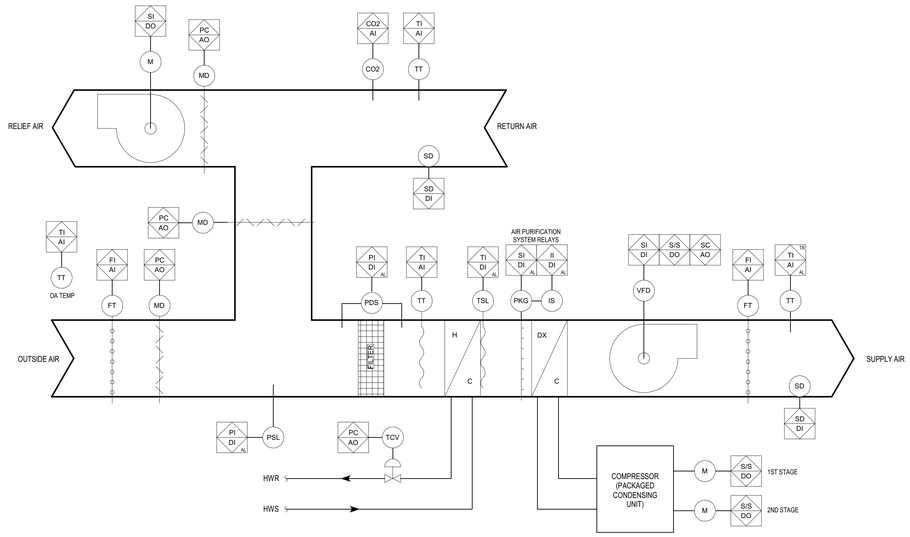
12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

MECHANICAL CONTROL DIAGRAMS

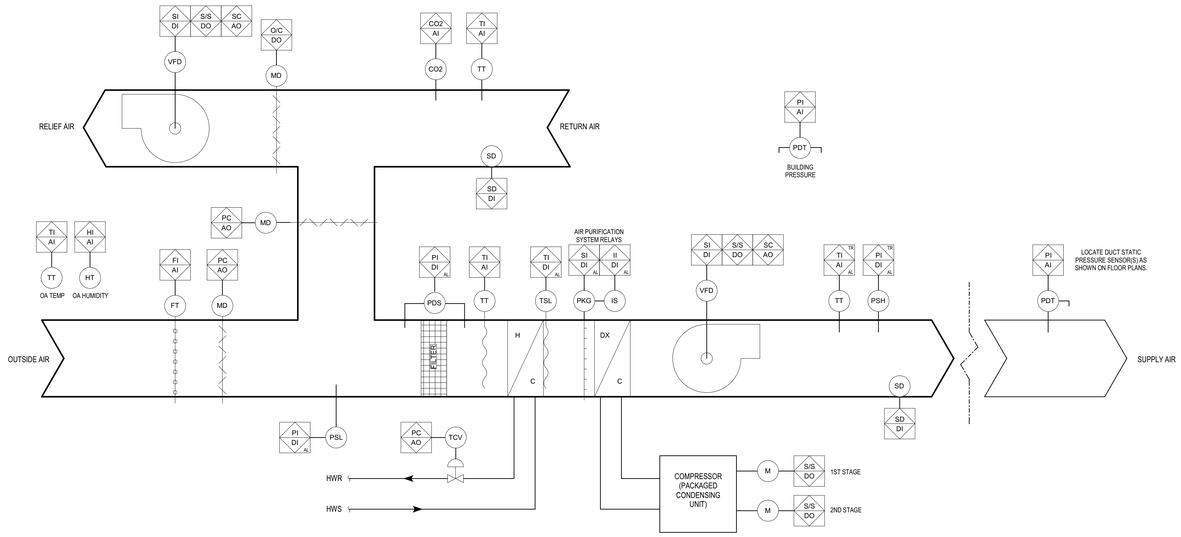
M8.01

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:19:06 PM



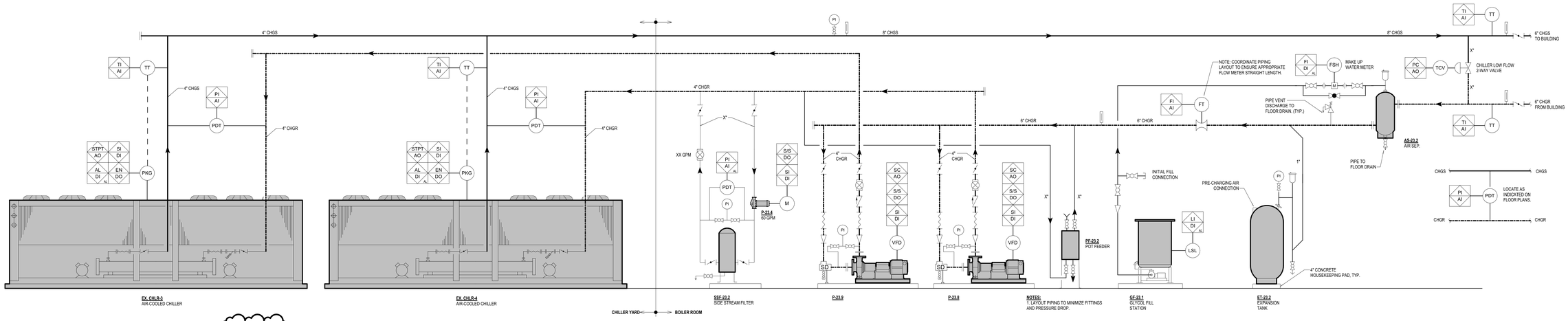
3 M8.03 AHU-23.2 CONTROL DIAGRAM

NOT TO SCALE



2 M8.03 AHU-23.1 CONTROL DIAGRAM

NOT TO SCALE



NOTES:
1. LAYOUT PIPING TO MINIMIZE FITTINGS AND PRESSURE DROP.

1 M8.03 (M-1) AIR COOLED CHILLER SYSTEM DIAGRAM (ALTERNATE

NOT TO SCALE

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:19:12 PM

GMB

616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

THREE RIVERS

THREE

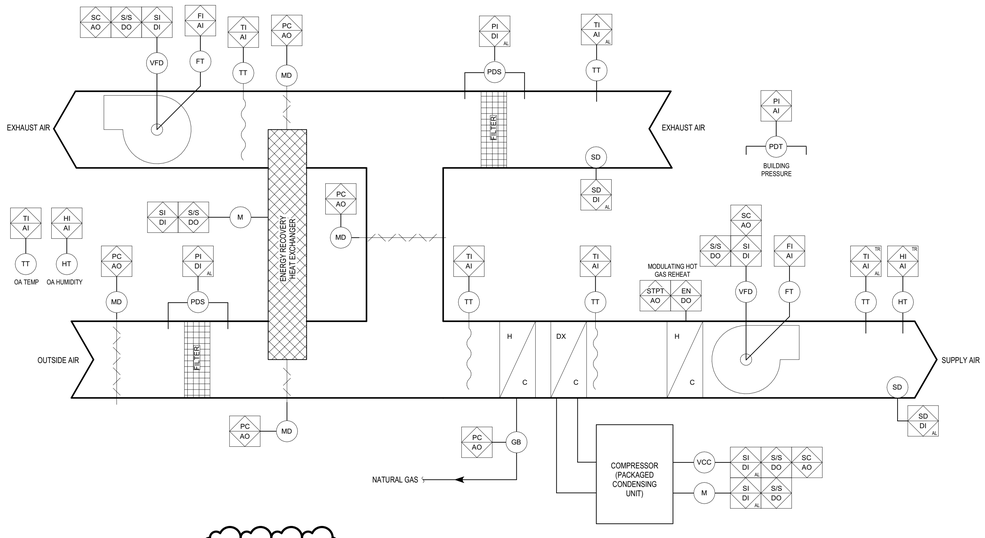
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

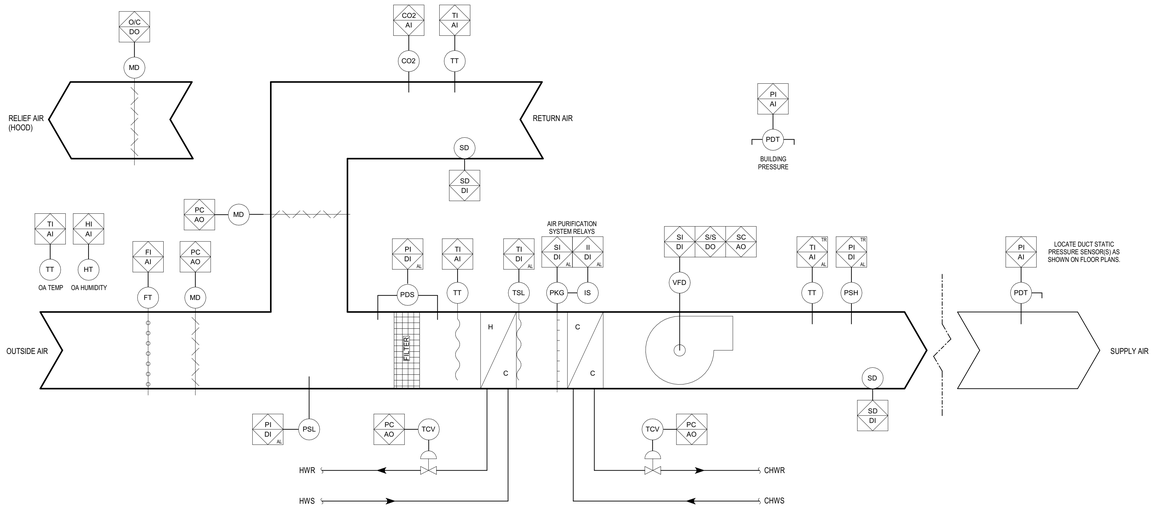
MECHANICAL CONTROL DIAGRAMS

M8.03



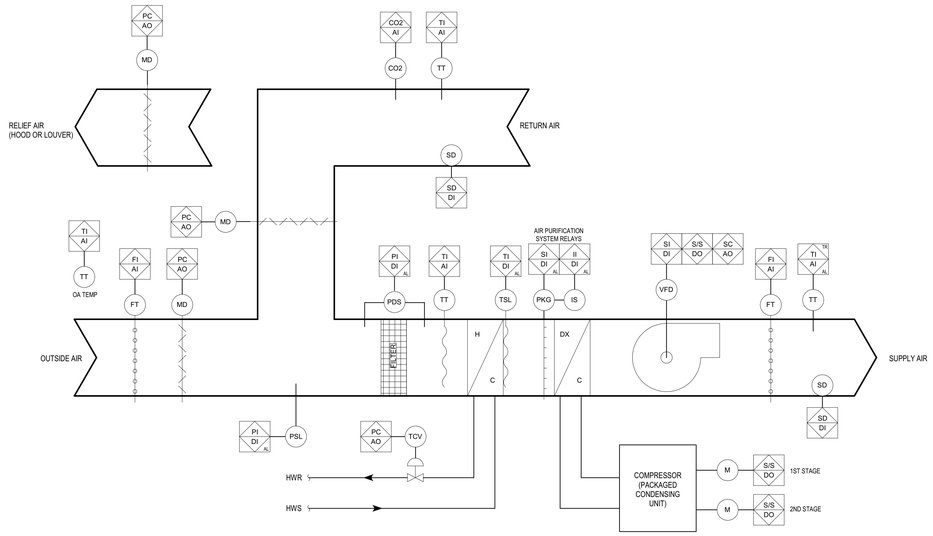
4 M8.04 RTU-23.4 CONTROL DIAGRAM (ALTERNATE M-1)

NOT TO SCALE



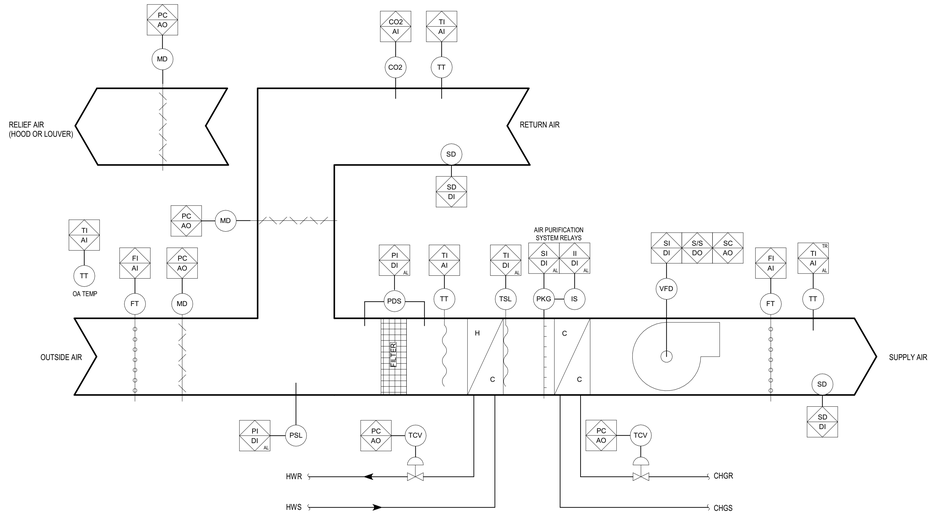
3 M8.04 AHU-23.6 CONTROL DIAGRAM (ALTERNATE M-1)

NOT TO SCALE



2 M8.04 AHU-23.3 CONTROL DIAGRAM (ALTERNATE M-1)

NOT TO SCALE



1 M8.04 AHU-23.4, AHU-23.5 CONTROL DIAGRAM (ALTERNATE M-1)

NOT TO SCALE

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:19:19 PM

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

MECHANICAL CONTROL DIAGRAMS

M8.04

UNIT VENTILATOR SCHEDULE W/ SELF CONTAINED DX

MARK	SERVICE	MANUFACTURER	MODEL	MIN. OA CFM	SUPPLY FAN				RELIEF FAN	COOLING COIL				HEATING COIL								FILTER			ELECTRICAL					NOTES
					CONFIGURATION	CFM	ESP (in-wg)	MOTOR HP	CFM	Nominal Tons	EAT (DB °F)	EAT (WB °F)	REFRIGERANT	MBH	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	WPD (FT)	FLUID TYPE	TYPE	MERV	DEPTH	VOLT	PH	HZ	MCA	MOP	
VUV-6		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-7		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-8		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-9		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-13		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-14		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-15		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-16		CHANGE AIR	SOPHOMORE HPA-O	780	UPFLOW	1200	0.50	.5	780	3	78.6	63.1	R-410A	29.8	68	90	1.8	130	96.4	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-17		CHANGE AIR	SOPHOMORE HPA-O	780	UPFLOW	1200	0.50	.5	780	3	78.6	63.1	R-410A	29.8	68	90	1.8	130	96.4	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-18		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-19		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-20		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-21		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-22		CHANGE AIR	SOPHOMORE HPA-O	1305	UPFLOW	1400	0.50	.75	1305	3	80.1	63.3	R-410A	31.8	68	90	1.9	130	96	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-23		CHANGE AIR	SOPHOMORE HPA-O	1305	UPFLOW	1400	0.50	.75	1305	3	80.1	63.3	R-410A	31.8	68	90	1.9	130	96	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-24		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-25		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-26		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	
VUV-29		CHANGE AIR	SOPHOMORE HPA-O	395	UPFLOW	1200	0.50	.5	395	3	79.5	66.3	R-410A	59	45	90	4.6	130	114	3	WATER	PLEATED	13	2"	460	3	60	10	15	

UNIT VENTILATOR SCHEDULE W/ SPLIT DX

MARK	SERVICE	MANUFACTURER	MODEL	MIN. OA CFM	SUPPLY FAN				COOLING COIL					HEATING COIL								FILTER			ELECTRICAL					NOTES
					CONFIGURATION	CFM	ESP (in-wg)	MOTOR HP	Nominal Tons	EAT (DB °F)	EAT (WB °F)	REFRIGERANT	CONDENSING UNIT	MBH	EAT (°F)	LAT (°F)	GPM	EWT (°F)	LWT (°F)	WPD (FT)	FLUID TYPE	TYPE	MERV	DEPTH	VOLT	PH	HZ	MCA	MOP	
VUV-1		CHANGE AIR	FRESHMAN HRA-B	395	UPFLOW	1000	0.50	.5	2	77.2	62.9	R-410A		24.5	68	90.4	1.5	130	96.9	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-2		CHANGE AIR	FRESHMAN HRA-B	395	UPFLOW	1000	0.50	.5	2	77.2	62.9	R-410A		24.5	68	90.4	1.5	130	96.9	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-3		CHANGE AIR	FRESHMAN HRA-C	1150	UPFLOW	2000	0.50	1	5	78.2	63	R-410A		48.6	68	90	3.2	130	99	3	WATER	PLEATED	13	2"	115	1	60	14	20	
VUV-4		CHANGE AIR	FRESHMAN HRA-C	1150	UPFLOW	2000	0.50	1	5	78.2	63	R-410A		48.6	68	90	3.2	130	99	3	WATER	PLEATED	13	2"	115	1	60	14	20	
VUV-5		CHANGE AIR	FRESHMAN HRA-B	395	UPFLOW	1000	0.50	.5	2	77.2	62.9	R-410A		24.5	68	90.4	1.5	130	96.9	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-10		CHANGE AIR	FRESHMAN HRA-B	195	UPFLOW	800	0.50	.5	2	76.3	62.8	R-410A		34.5	51	90.6	2.1	130	96.6	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-11		CHANGE AIR	FRESHMAN HRA-B	395	UPFLOW	1000	0.50	.5	2	77.2	62.9	R-410A		24.5	68	90.4	1.5	130	96.9	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-12		CHANGE AIR	FRESHMAN HRA-B	195	UPFLOW	800	0.50	.5	2	76.3	62.8	R-410A		34.5	51	90.6	2.1	130	96.6	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-27		CHANGE AIR	FRESHMAN HRA-B	1210	UPFLOW	1400	0.50	.75	3	79.7	63.3	R-410A		33.8	68	90	2	130	95.7	3	WATER	PLEATED	13	2"	115	1	60	11	15	
VUV-28		CHANGE AIR	FRESHMAN HRA-B	1210	UPFLOW	1400	0.50	.75	3	79.7	63.3	R-410A		33.8	68	90	2	130	95.7	3	WATER	PLEATED	13	2"	115	1	60	11	15	
VUV-30		CHANGE AIR	FRESHMAN HRA-C	500	UPFLOW	1800	0.50	1	5	78.8	65.8	R-410A		80	49	90	8	130	109	3	WATER	PLEATED	13	2"	115	1	60	14	20	
VUV-31		CHANGE AIR	FRESHMAN HRA-B	195	UPFLOW	800	0.50	.5	2	76.3	62.8	R-410A		34.5	51	90.6	2.1	130	96.6	3	WATER	PLEATED	13	2"	115	1	60	7	15	
VUV-32		CHANGE AIR	FRESHMAN HRA-C	500	UPFLOW	1800	0.50	1	5	78.8	65.8	R-410A		80	49	90	8	130	109	3	WATER	PLEATED	13	2"	115	1	60	14	20	1

GENERAL REQUIREMENTS:

1. SUPPLY AND RELIEF (WHERE REQUIRED) FANS ARE ECM TYPE.
2. FACTORY INSTALLED NONFUSED DISCONNECT SWITCH, SINGLE POINT POWER ELECTRICAL CONNECTION AND TERMINALS FOR A CONTRACTOR FURNISHED TRANSFORMER.
3. 2" DISPOSABLE MERV 13 FILTERS, (3) SETS REQUIRED PER UNIT.
4. 12" DEEP INTERNALLY LINED REAR PLENUM ASSEMBLY WITH TOP EXTENSION PIECE THAT MATCHES THE HEIGHT OF THE TOP CABINET OR SUPPLY PLENUM EXTENSION.
5. PROVIDE AND FACTORY INSTALL HOT WATER COIL SHUTOFF VALVES, STRAINER WITH BLOWDOWN SHUTOFF VALVE AND CAP, BALANCING VALVE, AIR VENTS AND DRAIN VALVES. ALL HOT WATER PIPING INSIDE CABINET OR SUPPLY PLENUM EXTENSION.

NOTES:

1. ALTERNATE M-1

CABINET UNIT HEATER SCHEDULE

MARK	MANUFACTURER	MODEL	CONFIGURATION	INLET	DISCHARGE	CFM	CAPACITY MBH	FLUID TYPE	ROWS	GPM	EWT (°F)	LWT (°F)	WPD (FT)	ELECTRICAL			NOTES
														VOLT	PH	MOTOR (W)	
CUH-1	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-2	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-3	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-4	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-5	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-6	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-7	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-8	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-9	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-10	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	
CUH-11	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	1
CUH-12	TRANE	FFEB0301	HORZ. RECESSED	BOTTOM STAMPED	BOTTOM STAMPED	400	19.9	WATER	3	4.0	130.0	120.0	15.00	120	1	129	1

GENERAL REQUIREMENTS:

1. INCLUDE FACTORY INSTALLED FAN SPEED SWITCH (OFF-HIGH-MED-LOW).
2. INCLUDE 1" THROWAWAY FILTER.
3. DISCONNECT LOCATED IN UNIT.
4. CONTROLLED BY BMS.

NOTES:

1. ALTERNATE M-1

CONDENSING UNIT (AIR-COOLED)

MARK	UNIT SERVED	MANUFACTURER	MODEL	NOMINAL TONS	REFRIGERANT	COMPRESSOR DATA		ELECTRICAL				OPER. WEIGHT (LB)	NOTES
						TYPE	NUMBER	VOLT	PH	MCA	MOP		
CU-23.4	FCU-1	AIREDALE	YCE18	1.5	R-410A	-	1	208	1	12.7	20	84	
CU-23.5	FCU-2	AIREDALE	YCE18	1.5	R-410A	-	1	208	1	12.7	20	84	
CU-23.6	VUV-3	TRANE	4TTA3060D4	5	R-410A	SCROLL	1	460	3	10	15	226	
CU-23.7	VUV-4	TRANE	4TTA3060D4	5	R-410A	SCROLL	1	460	3	10	15	226	
CU-23.8	FCU-3	AIREDALE	YCE18	1.5	R-410A	-	1	208	1	12.7	20	84	
CU-23.9	FCU-4	AIREDALE	YCE18	1.5	R-410A	-	1	208	1	12.7	20	84	
CU-23.10	VUV-10	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.11	VUV-11	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.12	VUV-12	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.13	FCU-5	AIREDALE	YCE30	2.5	R-410A	-	1	208	1	18.4	30	118	
CU-23.14	FCU-6	AIREDALE	YCE18	2	R-410A	-	1	208	1	12.7	20	84	
CU-23.15	FCU-7	AIREDALE	YCE30	2.5	R-410A	-	1	208	1	18.4	30	118	
CU-23.16	FCU-8	AIREDALE	YCE30	2.5	R-410A	-	1	208	1	18.4	30	118	
CU-23.17	VUV-27	TRANE	4TTA3048A4	4	R-410A	SCROLL	1	460	3	8	15	203	
CU-23.18	VUV-28	TRANE	4TTA3048A4	4	R-410A	SCROLL	1	460	3	8	15	203	
CU-23.19	FCU-10	AIREDALE	YCE30	2.5	R-410A	-	1	208	1	18.4	30	118	
CU-23.20	FCU-12	MITSUBISHI	NTXCKS09A112AA	.75	R-410A	DC INVERTER ROTARY	2	208	1	14	24	129	
CU-23.21	FCU-11	MITSUBISHI	NTXCKS09A112AA	.75	R-410A	DC INVERTER ROTARY	2	208	1	14	24	129	
CU-23.22	FCU-13	AIREDALE	YCE30	2.5	R-410A	-	1	208	1	18.4	30	118	
CU-23.23	VUV-30	TRANE	4TTA3060D4	5	R-410A	SCROLL	1	460	3	10	15	226	
CU-23.24	FCU-14	AIREDALE	YCE18	1.5	R-410A	-	1	208	1	12.7	20	84	
CU-23.25	VUV-31	TRANE	4TTA3030A4	2.5	R-410A	RECIP	1	460	3	5	15	195	
CU-23.26	VUV-1	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.27	VUV-2	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.28	VUV-5	TRANE	4TTR6024	2	R-410A	SCROLL	1	208	1	13	20	162	
CU-23.29	FCU-9	MITSUBISHI	NTXCKS12A112AA	1	R-410A	DC INVERTER ROTARY	2	208	1	14	24	129	
CU-23.30	VUV-32	TRANE	4TTA3060D4	5	R-410A	SCROLL	1	460	3	10	15	226	1
CU-23.31	AIR HANDLING UNIT 23.3	TRANE	4TTA3060D4	5	R-410A	SCROLL	1	460	3	10	15	226	1

GENERAL REQUIREMENTS:

1. LOW AMBIENT HEAD PRESSURE CONTROL
2. 5-YEAR COMPRESSOR WARRANTY.
3. DISCONNECT IS PROVIDED AND INSTALLED BY ELECTRICAL CONTRACTOR.
4. PROVIDE VIBRATION ISOLATORS.

NOTES:

1. ALTERNATE M-1

FAN SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	TYPE	CFM	SONES	ESP (in-wg)	RPM	DRIVE	BHP	MOTOR HP	ELECTRICAL			VFD MARK	OPER. WEIGHT (LB)	NOTES
												VOLT	PH	HZ			
EF-1	AHU-23.1	Greenheck	G-180-B	ROOFTOP DOWNBLAST	2650	12.2	1	1040	Direct	0.71	1	208	3	60		95	2,3,4,5,6,7,8
EF-2	AHU-23.2	Greenheck	G-300-C	ROOFTOP DOWNBLAST	7500	14.9	1	688	Direct	2.2	5	460	3	60		341	2,3,4,5,6,7,8
EF-3	RESTROOM	Greenheck	G-098-B	ROOFTOP DOWNBLAST	250	5.5	0.5	1140	Direct	0.05	1/6	120	1	60		49	1,2,3,4,6,7,8
EF-4	KILN HOOD	Greenheck	G-099-VG	ROOFTOP DOWNBLAST	500	6	0.5	1203	Direct	0.08	1/4	120	1	60		37	1,2,3,4,6,7,8,9
EF-5	ELETRIC D130	Greenheck	G-140-VG	ROOFTOP DOWNBLAST	900	5.1	0.13	681	Direct	0.04	1/4	120	1	60		49	1,2,3,4,6,7,8,9
EF-6	TOILET	Greenheck	G-070-VG	ROOFTOP DOWNBLAST	150	4.1	0.38	1514	Direct	0.02	1/15	120	1	60		20	1,2,3,4,6,7,8,9

NOTES:

1. BACKDRAFT DAMPER.
2. PRE-INSULATED ROOF CURB, MATCH ROOF SLOPE.
3. BIRDSCREEN.
4. DISCONNECT SWITCH.
5. MOTORIZED BACKDRAFT DAMPER IS PROVIDED BY TEMPERATURE CONTROLS CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
6. SOLID STATE SPEED CONTROLLER.
7. DOWNBLAST FAN.
8. EC MOTOR.
9. ALTERNATE M-1

VAV TERMINAL UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	INLET SIZE (IN)	OUTDOOR AIR CFM	COOLING CFM		HEATING COIL											MAX DISCHARGE NC	NOTES
					MAX	MIN	CFM	ROWS	MBH	EAT (°F)	LAT (°F)	EWT (°F)	LWT (°F)	FLUID TYPE	GPM	MAX APD (in-wg)	MAX WPD (in-wg)		
VAV-1	TRANE	VCWF	8	90	700	140	250	2	9.49	55	90	130	114	WATER	1.17	0.50	5.00	35	
VAV-2	TRANE	VCWF	6	15	400	80	150	2	6.02	55	92	130	106	WATER	0.50	0.50	5.00	35	
VAV-3	TRANE	VCWF	5	15	300	60	125	2	5.52	55	95.7	130	108	WATER	0.50	0.50	5.00	35	
VAV-4	TRANE	VCWF	8	40	550	110	200	2	7.59	55	90	130	113	WATER	0.87	0.50	5.00	35	
VAV-5	TRANE	VCWF	8	70	550	110	110	1	4.41	55	90	130	114	WATER	0.54	0.50	5.00	35	
VAV-6	TRANE	VCWF	4	10	150	150	150	2	6.02	55	92	130	106	WATER	0.50	0.50	5.00	35	
VAV-7	TRANE	VCWF	4	10	150	30	50	1	2.62	55	103	130	119	WATER	0.50	0.50	5.00	35	
VAV-8	TRANE	VCWF	5	50	250	50	50	1	2.62	55	103	130	119	WATER	0.50	0.50	5.00	35	
VAV-9	TRANE	VCWF	6	90	500	100	100	1	3.80	55	90	130	118	WATER	0.50	0.50	5.00	35	
VAV-10	TRANE	VCWF	5	15	250	50	50	1	2.62	55	103	130	119	WATER	0.50	0.50	5.00	35	
VAV-11	TRANE	VCWF	6	20	450	90	90	1	3.45	55	90	130	116	WATER	0.50	0.50	5.00	35	
VAV-12	TRANE	VCWF	5	10	300	60	120	1	4.55	55	90	130	123	WATER	1.40	0.50	5.00	35	
VAV-13	TRANE	VCWF	5	10	300	60	120	1	4.55	55	90	130	123	WATER	1.40	0.50	5.00	35	
VAV-14	TRANE	VCWF	5	10	300	60	120	1	4.55	55	90	130	123	WATER	1.40	0.50	5.00	35	
VAV-15	TRANE	VCWF	5	10	300	60	120	1	4.55	55	90	130	123	WATER	1.40	0.50	5.00	35	
VAV-16	TRANE	VCWF	16	485	3000	600	1000	2	37.96	55	90	130	106	WATER	3.10	0.55	5.00	35	3
VAV-17	TRANE	VCWF	10	165	1100	220	550	2	20.88	55	90	130	111	WATER	2.21	0.50	5.00	35	3
VAV-18	TRANE	VCWF	10	175	1100	220	550	2	20.88	55	90	130	111	WATER	2.21	0.50	5.00	35	3
VAV-19	TRANE	VCWF	8	115	600	120	120	1	4.55	55	90	130	113	WATER	0.53	0.50	5.00	35	3
VAV-20	TRANE	VCWF	8	125	800	160	400	2	15.18	55	90	130	119	WATER	2.70	0.60	5.00	35	3
VAV-21	TRANE	VCWF	8	125	800	160	400	2	15.18	55	90	130	119	WATER	2.70	0.60	5.00	35	3

GENERAL REQUIREMENTS:

1. INLET RUNOUTS TO MATCH BOW INLETS EXCEPT WHERE OTHERWISE NOTED.
2. VAV BOXES SHALL HAVE 1" MATTE FACED INSULATION.

NOTES:

1. 2-WAY CONTROL VALVE.
2. 3-WAY CONTROL VALVE.
3. ALTERNATE M-1.

FAN COIL UNIT SCHEDULE

MARK	MANUFACTURER	MODEL	CONFIGURATION	INLET	DISCHARGE	FAN DATA		COOLING COIL		HEATING COIL					ELECTRICAL				NOTES
						CFM	MOTOR HP	REFRIGERANT	CU MARK	MBH	GPM	EWT (°F)	LWT (°F)	FLUID TYPE	VOLT	PH	MCA	MOP	
FCU-1	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	670	1/6	R-410A	CU-23.4	19.6	3	130	117	WATER	115	1	1.1 A	15.0 A	0
FCU-2	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	670	1/6	R-410A	CU-23.5	19.6	3	130	117	WATER	115	1	1.1 A	15.0 A	0
FCU-3	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	670	1/6	R-410A	CU-23.8	19.6	3	130	117	WATER	115	1	1.1 A	15.0 A	0
FCU-4	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	670	1/6	R-410A	CU-23.9	19.6	3	130	117	WATER	115	1	1.1 A	15.0 A	0
FCU-5	AIREDALE	CSD30AACBBFDB	CASSETTE	BOTTOM	BOTTOM	920	1/6 (2)	R-410A	CU-23.13	26.8	3	130	112	WATER	115	1	1.9 A	15.0 A	0
FCU-6	AIREDALE	CSD24AACBFDB	CASSETTE	BOTTOM	BOTTOM	670	1/6	R-410A	CU-23.14	22.0	4	130	119	WATER	115	1	1.4 A	15.0 A	0
FCU-7	AIREDALE	CSD30AACBBFDB	CASSETTE	BOTTOM	BOTTOM	920	1/6 (2)	R-410A	CU-23.15	26.8	3	130	112	WATER	115	1	1.9 A	15.0 A	0
FCU-8	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	920	1/6 (2)	R-410A	CU-23.16	30.1	6	130	120	WATER	115	1	1.1 A	15.0 A	0
FCU-10	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	920	1/6 (2)	R-410A	CU-23.19	30.1	6	130	120	WATER	115	1	1.1 A	15.0 A	0
FCU-13	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	920	1/6 (2)	R-410A	CU-23.22	30.1	6	130	120	WATER	115	1	1.1 A	15.0 A	0
FCU-14	AIREDALE	CSD18AACBBFDB	CASSETTE	BOTTOM	BOTTOM	300	1/6	R-410A	CU-23.24	29.1	8	130	123	WATER	115	1	1.4 A	15.0 A	0

GENERAL REQUIREMENTS:

1. PROVIDE DISCONNECT SWITCH.
2. PROVIDE 115V TO 230V STEP UP TRANSFORMER.
3. PROVIDE BACNET CARD.
4. 2-WAY CONTROL VALVE FOR HOT WATER COILS.

FAN COIL UNIT (HEAT PUMP)

MARK	MANUFACTURER	MODEL	CONFIGURATION	FAN DATA	COOLING COIL		HEAT PUMP - HEATING AT 5 DEG	OPER. WEIGHT (LB)	NOTES
				CFM	CAPACITY BTUH	REFRIGERANT	CAPACITY BTUH		
FCU-9	MITSUBISHI	NTXCKS12A112AA	CEILING CASSETTE	400	12000	R-410A	13800	31	
FCU-11	MITSUBISHI	NTXCKS09A112AA	CEILING CASSETTE	300	9000	R-410A	11000	31	
FCU-12	MITSUBISHI	NTXCKS09A112AA	CEILING CASSETTE	300	9000	R-410A	11000	31	

GENERAL REQUIREMENTS:

1. ELECTRICAL POWER SHALL BE FED FROM OUTDOOR UNIT (BY E.C.)
2. INTEGRAL CONDENSATE PUMP W/ MIN. 27" LIFT.
3. ANTI-SHORT CYCLE PROTECTION.
4. MITSUBISHI MODE PAC-US444CN-1 THERMOSTAT INTERFACE.

PUMP SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	TYPE	FLUID TYPE	GPM	HEAD (FT)	SIZE	IMPELLER (DIA)	DRIVE (Y/N)	BHP	RPM	ELECTRICAL				OPER. WEIGHT (LB)	NOTES
													MOTOR HP	VOLT	PH	HZ		
P-23.1	HOT WATER HEATING SYSTEM	BELL & GOSSETT	e-1510	END SUCTION	WATER	550	80	5x4	9.75	Y	14.3	1800	20	460	3	60	602	1,2
P-23.2	HOT WATER HEATING SYSTEM	BELL & GOSSETT	e-1510	END SUCTION	WATER	550	80	5x4	9.75	Y	14.3	1800	20	460	3	60	602	1,2
P-23.3	SSF-23.1	BELL & GOSSETT	e-80	INLINE	WATER	60	70	1.5x1.5x9.5B	8.5	N	2	1800	3	460	3	60	180	
P-23.4	SSF-23.2	BELL & GOSSETT	e-80	INLINE	30% P.G.	60	70	1.5x1.5x9.5B	8.5	N	2	1800	3	460	3	60	180	3
P-23.5	HOT WATER COIL	BELL & GOSSETT	PL-100	CIRCULATOR	WATER	34	10		8.5	N	0	3350	2/5	120	1	60	14.5	
P-23.6	HOT WATER COIL	BELL & GOSSETT	PL-100	CIRCULATOR	WATER	34	10		8.5	N	0	3350	2/5	120	1	60	14.5	
P-23.7	HOT WATER COIL	BELL & GOSSETT	PL-100	CIRCULATOR	WATER	23.6	10		8.5	N	0	3350	2/5	120	1	60	14.5	
P-23.8	CHILLED GLYCOL SYSTEM	BELL & GOSSETT	e-1510	END SUCTION	30% P.G.	130	70		9.75		3.31	1800	5	460	3	60	269	1,2,3
P-23.9	CHILLED GLYCOL SYSTEM	BELL & GOSSETT	e-1510	END SUCTION	30% P.G.	130	70		9.75		3.31	1800	5	460	3	60	269	1,2,3

GENERAL REQUIREMENTS:

1. GAUGE KITS USING NOT-METALLIC HOSE MATERIAL ARE NOT ALLOWED.
2. DISCONNECT BY ELECTRICAL CONTRACTOR.

NOTES:

1. INCLUDE SUCTION DIFFUSER WITH STRAINER BASKET.
2. VARIABLE FREQUENCY DRIVE IS PROVIDED BY TEMPERATURE CONTROLS CONTRACTOR AND IS INSTALLED BY ELECTRICAL CONTRACTOR.
3. ALTERNATE M-1

LOUVER SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	SIZE	FRAME TYPE	FREE AREA (SF)
L-1	Ruskin	ELF211D	Drainable Stationary Louver. Extruded Aluminum	32"x48"	FLANGED	10.6

GENERAL REQUIREMENTS:

1. BAKED ENAMEL KYNAR 50% PVDF FINISH TO MEET CUSTOM COLOR SELECTED BY ARCHITECT.
2. 30 DEG. BLADE ANGLE.
3. MECHANICAL CONTRACTOR SHALL INSTALL OUTSIDE AIR INTAKE LOUVERS SUCH THAT THEY ARE REMOVABLE IN ORDER TO CLEAN UNIT VENTILATOR CONDENSER COILS.

FINTUBE RADIATION SCHEDULE

MARK	MANUFACTURER	MODEL	TUBE		FIN		ROWS	AWT (F)	BTU/LF	GPM	ELEMENT LENGTH	ENCLOSURE				MOUNTING		NOTES
			MATERIAL	SIZE	MATERIAL	SIZE						TYPE	GAUGE	LENGTH	HEIGHT	ARRANGEMENT	BOTTOM AFF (IN)	
FT-1	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	1.2 GPM	16' - 0"	1	6	18' - 0"	11"	1	4"	
FT-2	VULCAN	LV3-S/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	404	1.3 GPM	16' - 0"	1	6	18' - 0"	14"	1	4"	
FT-3	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	1.2 GPM	16' - 0"	1	6	18' - 0"	11"	1	4"	
FT-4	VULCAN	LV3-S/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	404	1.3 GPM	16' - 0"	1	6	18' - 0"	14"	1	4"	
FT-5	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	10' - 0"	1	6	12' - 0"	11"	1	4"	
FT-6	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	10' - 0"	1	6	12' - 0"	11"	1	4"	
FT-7	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	10' - 0"	1	6	12' - 0"	11"	1	4"	
FT-8	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	10' - 0"	1	6	12' - 0"	11"	1	4"	
FT-9	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.5 GPM	6' - 0"	1	6	8' - 0"	11"	1	4"	
FT-10	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.5 GPM	8' - 0"	1	6	10' - 0"	11"	1	4"	
FT-11	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.8 GPM	11' - 0"	1	6	13' - 0"	11"	1	4"	
FT-12	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.5 GPM	6' - 0"	1	6	7' - 0"	11"	1	4"	
FT-13	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.5 GPM	5' - 0"	1	6	7' - 0"	11"	1	4"	
FT-14	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	8' - 0"	1	6	10' - 0"	11"	1	4"	1
FT-15	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	1.6 GPM	20' - 0"	1	6	22' - 0"	11"	1	4"	1
FT-16	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.7 GPM	8' - 0"	1	6	10' - 0"	11"	1	4"	1
FT-17	VULCAN	LV3-S11/VC35	COPPER	1"	ALUMINUM	3-1/4	1	125.0	371	0.8 GPM	10' - 0"	1	6	12' - 0"	11"	1	4"	1

GENERAL REQUIREMENTS:

1. CONTRACTOR SHALL FIELD VERIFY LENGTH.
2. INSTALLATION SHALL BE COMPLETE WITH ALL REQUIRED SUPPORTS, ENDCAPS EXTENSIONS, AND OTHER ACCESSORIES.
3. ENCLOSURE COVER SHALL BE SELECTED BY ARCHITECT AT LATER DATE.
4. CONTROL VALVE SHALL BE 2-WAY.
5. BASED ON VULCAN LINOVECTOR-II FINNED TUBE RADIATION.

NOTES:

1. ALTERNATE M-1

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN RTF
REVIEWED JBH
PROJECT NO. 5-5802

MECHANICAL SCHEDULES

M9.01

AIR HANDLING UNIT SCHEDULE (NO EXHAUST FAN)

MARK	MANUFACTURER	MODEL	TYPE	SUPPLY AIR CFM	MIN. OA CFM	SUPPLY AIR TSP (in-wg)	ESP (in-wg)	NO. FANS	MOTOR HP (EA)	RPM	DRIVE	BHP	VOLT	PH	FLA	MCA	MOP	COOLING COIL EAT (DB °F)	EAT (WB °F)	LAT (DB °F)	LAT (WB °F)	APD (in-wg)	FLUID TYPE	GPM	EWT (°F)	LWT (°F)	MAX. WPD (FT)	ROWS	TOTAL CAPACITY MBH	SENSIBLE CAPACITY MBH	HEATING COIL EAT (°F)	LAT (°F)	APD (in-wg)	FLUID TYPE	GPM	EWT (°F)	LWT (°F)	WPD (FT)	ROWS	TOTAL CAPACITY MBH	FINAL FILTER MERV	DEPTH (IN)	OPER. WEIGHT (LB)
AHU-23.3	TRANE	CSAA003	INDOOR	1350	400	4.7	3	1	2	3667	DIRECT	1.726	460	3	3.6	4.47	15	79.7	66.5	56.7	54.9	0.7	DX	0	0.0	0	0	6	48	33.2	44	100	0.37	WATER	8.0	130	110	0.54	4	80	13	4	881
AHU-23.4	TRANE	CSAA021	INDOOR	10500	3000	5.2	3	1	15	1890	DIRECT	13.47	460	3	21	26.25	45	80	67	54.5	54.2	0.8	30% P.G.	89	45.0	55	8	8	411.6	288.5	40	100	0.33	WATER	66.0	130	110	2.58	4	666.6	13	2	3917
AHU-23.5	TRANE	CSAA025	INDOOR	12000	4000	5.1	3	1	15	1684	DIRECT	12.87	460	3	22.3	27.55	45	80	66.9	54.8	54.4	0.7	30% P.G.	99.6	45.0	55	16	6	460.5	325.6	42	100	0.29	WATER	73.8	130	110	2.70	4	736.4	13	2	4210
AHU-23.6	TRANE	CSAA017	INDOOR	7400	2000	6	4	1	15	2278	DIRECT	10.53	460	3	21.65	26.9	45	81.5	67.9	54.7	54.3	0.7	30% P.G.	67.2	45.0	55	5	8	310.7	213.9	36	85	0.19	WATER	38.5	130	110	0.90	3	383	13	2	2762

GENERAL REQUIREMENTS:

1. FAN MOTORS TO BE PREMIUM EFFICIENT, WITH AEGIS SHAFT GROUNDING RINGS.
2. SUPPLY FAN SHALL BE BACKWARD CURVED BELT DRIVE TYPE.
3. PROVIDE FARR PLEATED PREFILTERS. INCLUDE DWYER SERIES 2000 MAGNAHELIC PRESSURE GAUGE WITH AIR FILTER KIT, 0-3" WATER RANGE. CONTRACTOR SHALL INSTALL AND MAINTAIN (1) SET OF PREFILTERS DURING CONSTRUCTION. UPON SYSTEM START-UP AND BALANCE COMPLETE FILTER SYSTEM SHALL BE INSTALLED. PRIOR TO COMPLETION CONTRACTOR SHALL PROVIDE OWNER WITH (1) SET OF PREFILTERS FOR FUTURE. (3) COMPLETE SETS OF PREFILTERS ARE REQUIRED.
4. CONTRACTOR TO VERIFY COIL CONNECTION AND ACCESS DOOR HAND LOCATIONS PRIOR TO ORDERING UNIT.
5. ESP DOES NOT INCLUDE ANY PRESSURE DROP DUE TO UNIT INTERNAL COMPONENTS. SELECT FAN WITH DIRTY FILTERS.
6. PROVIDE LED LIGHT IN SUPPLY FAN SECTION WITH LIGHT SWITCH MOUNTED ON OUTSIDE OF SUPPLY FAN CASING.
7. PROVIDE INTEGRAL DISCONNECT SWITCH FOR THE SUPPLY FAN.
8. PROVIDE SOUND PERFORATED INNER METAL WALL FOR SUPPLY FAN SECTION.
9. PROVIDE LIGHTS AND FACTORY INSTALLED RECEPTACLES ON SEPARATE 120V/1PH/60HZ CIRCUITS.
10. PROVIDE FACTORY WIRED AND INSTALLED 115V CONVENIENCE OUTLET MOUNTED ON THE OUTSIDE OF SUPPLY FAN SECTION.
11. VARIABLE FREQUENCY DRIVE FOR SUPPLY FAN IS PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR.
12. ALTERNATE M-1.

MAKE UP AIR UNIT SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	LOCATION	CONFIGURATION	FAN DATA CFM	TSP (in-wg)	ESP (in-wg)	TYPE	RPM	DRIVE	BHP	MOTOR HP	HEATING SECTION TYPE	INPUT (MBH)	OUTPUT (MBH)	MIN. GAS PRESS. (in-wg)	EAT (°F)	LAT (°F)	FILTER TYPE	MERV	DEPTH (IN)	ELECTRICAL VOLT	PH	FLA	OPER. WEIGHT (LB)
MAU-23.1	KITCHEN	TRANE	GRCA80PFK		DOWNFLOW	7150	2	1.3	FC	1040	BELT	5	7.5	INDIRECT	800	640	7	0	82.9	TA	13	2	460	3	11	2156

GENERAL REQUIREMENTS:

1. STAINLESS STEEL HEAT EXCHANGER, BURNER, AND DRIP PAN.
2. MODULATING BURNER CONTROLS.
3. FACTORY INSTALLED AND WIRED VARIABLE FREQUENCY DRIVE.
4. OUTSIDE AIR AND RETURN AIR OPPOSED BLADE DAMPERS.
5. DISCHARGE PLENUM.
6. ALTERNATE M-1

ROOFTOP UNIT SCHEDULE (PACKAGED COOLING)

MARK	MANUFACTURER	MODEL	DISCHARGE	SUPPLY AIR CFM	MIN OA CFM	ESP (in-wg)	MOTOR HP	COOLING COIL EAT (DB °F)	EAT (WB °F)	LAT (DB °F)	LAT (WB °F)	TOTAL MBH	SENSIBLE MBH	HEATING COIL EAT (°F)	LAT (°F)	INPUT (MBH)	OUTPUT (MBH)	ELECTRICAL VOLT	PH	MCA	MOP	OPER. WEIGHT (LB)
RTU-23.3	TRANE	YHJ120A4S0H	BOTTOM	3600	600	2.2	3.1	80	66.7	56.3	55.5	114	84.3	43	93	240	194	460	60	29	40	1150

GENERAL REQUIREMENTS:

1. 24" HIGH PREFABRICATED, INSULATED ROOF CURB.
2. THREE (3) SETS OF FILTERS REQUIRED.
3. ULTRA HIGH EFFICIENCY UNIT.
4. DOWNFLOW ARRANGEMENT.
5. NON-FUSED DISCONNECT SWITCH BY ELECTRICAL CONTRACTOR.
6. THROUGH THE BASE ELECTRICAL CONNECTIONS.
7. HINGED ACCESS DOORS.
8. STAINLESS STEEL DRAIN PAN.
9. LOW LEAK ECONOMIZER DAMPERS.
10. BACNET COMMUNICATION INTERFACE.
11. SUPPLY FAN VFD FACTORY INSTALLED AND WIRED.
12. CONDENSER COIL GUARDS.
13. ALTERNATE M-1

ROOFTOP UNIT SCHEDULE W/ ENERGY RECOVERY

MARK	MANUFACTURER	MODEL	TYPE	SUPPLY AIR CFM	EXHAUST AIR	SUPPLY AIR TSP (in-wg)	ESP (in-wg)	NO. FANS	MOTOR HP (EA)	RPM	DRIVE	BHP	EXHAUST AIR TSP (in-wg)	ESP (in-wg)	NO. FANS	MOTOR HP (EA)	RPM	DRIVE	BHP	COOLING COIL EAT (DB °F)	EAT (WB °F)	LAT (DB °F)	LAT (WB °F)	APD (in-wg)	ROWS	NET TOTAL CAPACITY MBH	NET SENSIBLE CAPACITY MBH	HEATING COIL EAT (°F)	LAT (°F)	APD (in-wg)	INPUT (MBH)	OUTPUT (MBH)	ELECTRICAL VOLT	PH	MCA	MOP	FLA	OPER. WEIGHT (LB)
RTU-23.4	TRANE	HAEA012C	OUTDOOR	4000	1935	3.6	1.5	1	5	2002	DIRECT	3.63	1.9	61	1	2	1965	DIRECT	1.24	76.6	64.3	53	52.8	0.2	4	126	94.9	62	99	0.40	200	162	460	3	77	125	64	3693

ROOFTOP UNIT ENERGY RECOVERY WHEEL SCHEDULE

SERVICE	MANUFACTURER	MODEL	SUMMER CONDITIONS OA - EAT (DB °F)	OA - EAT (WB °F)	OA - LAT (DB °F)	OA - LAT (WB °F)	EA - EAT (DB °F)	EA - EAT (WB °F)	EA - LAT (DB °F)	EA - LAT (WB °F)	SENSIBLE EFFECT. (%)	LATENT EFFECT. (%)	WINTER CONDITIONS OA - EAT (DB °F)	OA - EAT (WB °F)	OA - LAT (DB °F)	OA - LAT (WB °F)	EA - EAT (DB °F)	EA - LAT (DB °F)	SENSIBLE EFFECT. (%)	LATENT EFFECT. (%)
RTU-23.4	TRANE	ERC-3018C-4M	89.0	73.4	78.9	66.8	75	62.5	85	69.7	.72	.57	0	-1	49.1	40.9	70	21.9	.73	.56

GENERAL REQUIREMENTS:

1. FAN MOTORS TO BE PREMIUM EFFICIENT, WITH AEGIS SHAFT GROUNDINGS RINGS.
2. SUPPLY FAN AND EXHAUST FAN SHALL BE PLENUM TYPE.
3. PROVIDE FARR PLEATED FILTERS. CONTRACTOR SHALL INSTALL AND MAINTAIN (1) SET OF PREFILTERS DURING CONSTRUCTION. UPON SYSTEM UP-START AND BALANCE COMPLETE FILTER SYSTEM SHALL BE INSTALLED. PRIOR TO COMPLETION CONTRACTOR SHALL PROVIDE OWNER WITH (1) SET OF FILTERS FOR FUTURE. (3) COMPLETE SETS OF FILTERS ARE REQUIRED.
4. CONTRACTOR TO VERIFY ACCESS DOOR HAND LOCATIONS PRIOR TO ORDERING UNIT.
5. ESP DOES NOT INCLUDE AND PRESSURE DROP DUE TO INTERNAL COMPONENTS. SELECT FAN WITH DIRTY FILTERS.
6. PROVIDE INTEGRAL NON-FUSED DISCONNECT SWITCH FOR SINGLE POINT UNIT POWER CONNECTION.
7. PROVIDE FACTORY WIRED AND INSTALLED 115V CONVENIENCE OUTLET MOUNTED ON OUTSIDE OF SUPPLY FAN SECTION.
8. PROVIDE PREFABRICATED, INSULATED, VIBRATION ISOLATION CURBS.
9. VARIABLE FREQUENCY DRIVE FOR SUPPLY AND EXHAUST FANS SHALL BE PROVIDED AND FACTORY INSTALLED BY UNIT MANUFACTURER.
10. PROVIDE HAIL GUARDS ON CONDENSER COIL SECTION.
11. ALTERNATE M-1

SOUND ATTENUATOR SCHEDULE

MARK	MANUFACTURER	MODEL	TYPE	SIZE HEIGHT (IN)	WIDTH (IN)	DIA (IN)	LENGTH (IN)	CFM	VELOCITY (FPM)	APD (in-wg)	DYNAMIC INSERTION LOSS (dB) 63 Hz	125 Hz	250 Hz	500 Hz	1 KHz	2 KHz	4 KHz	8 KHz	SELF GENERATED NOISE (dB) 63 Hz	125 Hz	250 Hz	500 Hz	1 KHz	2 KHz	4 KHz	8 KHz	NOTES
SIL-1	KINETICS	12-KCCS-F-CF-8-BO-48	ROUND			12"	48"	900	1146	.01	8	16	31	51	53	24	16	13	35	30	20	17	17	17	16	15	
SIL-2	KINETICS	12-KCCS-F-CF-8-BO-36	ELBOW	12"	12"		60"	1900	2419	.03	6	12	23	38	41	19	12	9	56	51	41	38	38	38	37	36	
SIL-3	KINETICS	14-KCCS-F-CF-8-BO-48	ROUND			14"	24"	2650	2479	.03	5	11	21	34	34	17	10	7	58	53	43	40	40	40	39	38	
SIL-4	KINETICS	28 KCRS-F-CF/2	RECTANGULAR	28"	56"		48"	10500	964	.2	4	8	17	24	25	17	12	6	59	54	47	45	46	47	45	43	1
SIL-5	KINETICS	28 KCRS-F-CF/1.5	RECTANGULAR	28"	68"		48"	12000	964	.2	5	9	18	26	26	18	12	7	55	50	43	41	42	43	41	39	1
SIL-6	KINETICS	22-KCCS-F-CF-4-B2-48	ROUND			22"	36"	7400	2803	.23	2	7	17	27	40	37	16	11	71	66	56	53	53	53	52	51	1

NOTES:

1. ALTERNATE M-1

EXPANSION TANK SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	TYPE	MOUNTING	TANK VOLUME (GAL)	ACCEPT. VOLUME (GAL)	DIAMETER (IN)	HEIGHT (IN)	WEIGHT WHEN FULL (LB)	CHARGE PRESSURE (PSI)	MAX WORK PRESS (PSI)
ET-23.1	HOT WATER HEATING SYSTEM	Bell & Gossett	D-240V	PRESSURIZED EXPANSION TANK	VERTICAL	140	113.5	24"	78"	1528	40	125

GENERAL REQUIREMENTS:

1. ASME RATED.

AIR SEPARATOR SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	SIZE (IN)	GPM	GPM MAX	MAX. WPD	STRAINER	NOTES
AS-23.1	HOT WATER HEATING SYSTEM	Bell & Gossett	RL-6F	6	550.0	850	0.9 ftH2O	No	
AS-23.2	CHILLED GLYCOL SYSTEM	Bell & Gossett	RL-4F	4	200.0	300	0.7 ftH2O	No	1

GENERAL REQUIREMENTS:

1. FLANGED CONNECTIONS

NOTES:

1. ALTERNATE M-1

SIDE-STREAM FILTER SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	RATED FLOW	QUANTITY & LENGTH OF CARTRIDGES	NOTES
SSF-23.1	HOT WATER HEATING SYSTEM	SHELCO	5FOS2SB-316	60	5-20"	
SSF-23.2	CHILLED GLYCOL SYSTEM	SHELCO	5FOS2SB-316	60	5-20"	1

GENERAL REQUIREMENTS:

1. PROVIDE ONE (1) SET OF EXTRA CARTRIDGES TO OWNER.
2. SWING BOLT STYLE ENCLOSURE.
3. PROVIDE VENTED COVER WITH SHUTOFF VALVE.

NOTES:

1. ALTERNATE M-1

VENTILATOR (RELIEF) SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	THROAT SIZE (IN x IN)	AREA (SQ FT)	APD (in-wg)	DAMPER	NOTES
RV-1	COOK	GR	1000	16" x 16"	1.78	.011	MOTORIZED	
RV-2	COOK	GR	1000	16" x 16"	1.78	.011	MOTORIZED	
RV-3	COOK	GR	1000	16" x 16"	1.78	.011	MOTORIZED	
RV-4	COOK	GR	1800	18" x 24"	3	.025	MOTORIZED	
RV-5	COOK	GR	300	8" x 8"	.44	.015	MOTORIZED	
RV-6	COOK	GR	800	12" x 18"	1.5	.02	MOTORIZED	
RV-7	COOK	GR	1800	18" x 24"	3	.025	MOTORIZED	1

GENERAL REQUIREMENTS:

1. BIRDSCREEN.
2. CONTRACTOR SHALL VERIFY DUCTWORK CONNECTION SIZE AND COORDINATE LOCATION PRIOR TO ORDERING.
3. ANTI-CONDENSATE COATING.
4. PROVIDE PREFABRICATED, INSULATED ROOF CURB.
5. MOTORIZED DAMPERS ARE PROVIDED AND INSTALLED BY THE TEMPERATURE CONTROLS CONTRACTOR.

NOTES:

1. ALTERNATE M-1

GLYCOL FILL TANK SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	GALLONS	SUPPLY PUMP GPM	DISCHARGE PSI	HP	ELECTRICAL VOLT	PH	HZ
GFT-23.1	CHILLED GLYCOL SYSTEM	WESSELS	GMP-15050	50	1.8	70	1/2	120	1	60

GENERAL REQUIREMENTS:

1. DISCONNECT BY ELECTRICAL CONTRACTOR
2. ALTERNATE M-1

DIFFUSER SCHEDULE

MARK	MANUFACTURER	MODEL	DESCRIPTION	MODULE SIZE	BORDER TYPE	MATERIAL	NECK SIZE	NOTES
E-1-1	Titus	PAR-8x8-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	8"x8"	
E-1-2	Titus	PAR-10x10-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	10"x10"	
E-1-3	Titus	PAR-12x12-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	12"x12"	
E-1-4	Titus	PAR-15x15-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	15"x15"	
E-2-1	Titus	350RL	Return Grille with 35 Degree Deflection		Surface Mount	Steel - Titus - 26 White	6"x6"	
E-2-2	Titus	350RL	Return Grille with 35 Degree Deflection		Surface Mount	Steel - Titus - 26 White	10"x10"	
R-1-1	Titus	PAR-8x8-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	8"x8"	
R-1-2	Titus	PAR-10x10-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	10"x10"	
R-1-3	Titus	PAR-12x12-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	12"x12"	
R-1-4	Titus	PAR-15x15-24x24-1-26	Perforated Square Ceiling Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	22"x22"	
S-1-1	Titus	TMSA-06-24x24-3-26	High Performance Square Cone Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	6"ø	
S-1-2	Titus	TMSA-08-24x24-3-26	High Performance Square Cone Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	8"ø	
S-1-3	Titus	TMSA-10-24x24-3-26	High Performance Square Cone Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	10"ø	
S-1-4	Titus	TMSA-12-24x24-3-26	High Performance Square Cone Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	12"ø	
S-1-5	Titus	TMSA-14-24x24-3-26	High Performance Square Cone Diffuser	24 x 24	Lay-In	Steel - Titus - 26 White	14"ø	
S-2-1	Titus	300RL	Adjustable Supply Grille with Double Deflection		Surface Mount	Steel - Titus - 26 White	10"x10"	

GENERAL REQUIREMENTS:

1. CONTRACTOR SHALL VERIFY SIZE, LOCATION, AND CEILING TYPE PRIOR RO ORDERING DIFFUSERS AND GRILLES. COORDINATE LOCATIONS OF DIFFUSERS AND GRILLES WITH ALL TRADES.
2. ALL DIFFUSERS LOCATED IN HARD LID CEILINGS SHALL HAVE PLASTER TRIM MOUNTING FRAME FOR CEILING ACCESS.
3. ALL LAY-IN TYPE DIFFUSERS SHALL HAVE A 4-WAY THROW UNLESS OTHERWISE NOTED.
4. PAINT DUCTWORK BEHIND GRILLE/DIFFUSER FLAT BLACK.

NOTES:

1. PROVIDE FACTORY OPPOSED BLADE DAMPER.

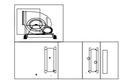
POT FEEDER SCHEDULE

MARK	SERVICE	MANUFACTURER	MODEL	VOLUME	MAX PRESS (PSI)	DIAMETER (IN)	HEIGHT (IN)	CONNECTIONS INLET (IN)	OUTLET (IN)	DRAIN (IN)
PF-23.1	HOT WATER HEATING SYSTEM	ENERCO	SF-5	5 GAL	125	10"	15"	1"	1"	1/2"

GENERAL REQUIREMENTS:

1. PROVIDE FUNNEL, INLET AND OUTLET SHUTOFF VALVES, 1/2" AIR VENT AND 1/2" DRAIN VALVE.

AIR HANDLING UNIT CONFIGURATION (AHU-23.3)



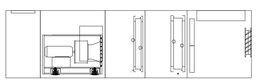
01 FRONT OPENING DISCHARGE
02 SUPPLY FAN
03 COOLING COIL
04 HEATING COIL
05 FLAT FILTER
06 BACK-PARALLEL BLADE DAMPER
07 TOP TRAQ DAMPER
08 ACCESS SECTION
09 ACCESS DOOR (LEFT SIDE WHEN FACING FRONT OF UNIT)

GENERAL SPECIFICATIONS:

OVERALL UNIT LENGTH: 81.0"
OVERALL UNIT WIDTH: 31.5"
OVERALL UNIT HEIGHT: 58"

INSTALLED UNIT WEIGHT:
AHU-23.3 = 881 LBS

AIR HANDLING UNIT CONFIGURATION (AHU-23.4)



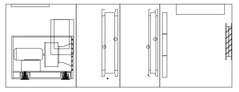
01 TOP OPENING DISCHARGE
02 SUPPLY FAN
03 COOLING COIL
04 HEATING COIL
05 FLAT FILTER
06 BACK-PARALLEL BLADE DAMPER
07 TOP TRAQ DAMPER
08 ACCESS SECTION
09 ACCESS DOOR (RIGHT SIDE WHEN FACING FRONT OF UNIT)

GENERAL SPECIFICATIONS:

OVERALL UNIT LENGTH: 192.1"
OVERALL UNIT WIDTH: 80.0"
OVERALL UNIT HEIGHT: 52.8"

INSTALLED UNIT WEIGHT:
AHU-23.4 = 3917 LBS

AIR HANDLING UNIT CONFIGURATION (AHU-23.5)



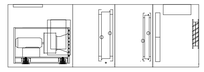
01 TOP OPENING DISCHARGE
02 SUPPLY FAN
03 COOLING COIL
04 HEATING COIL
05 FLAT FILTER
06 BACK-PARALLEL BLADE DAMPER
07 TOP TRAQ DAMPER
08 ACCESS SECTION
09 ACCESS DOOR (LEFT SIDE WHEN FACING FRONT OF UNIT)

GENERAL SPECIFICATIONS:

OVERALL UNIT LENGTH: 177.0"
OVERALL UNIT WIDTH: 80.0"
OVERALL UNIT HEIGHT: 65.0"

INSTALLED UNIT WEIGHT:
AHU-23.5 = 4210 LBS

AIR HANDLING UNIT CONFIGURATION (AHU-23.6)



01 TOP OPENING DISCHARGE
02 SUPPLY FAN
03 COOLING COIL
04 HEATING COIL
05 FLAT FILTER
06 BACK-PARALLEL BLADE DAMPER
07 TOP TRAQ DAMPER
08 ACCESS SECTION
09 ACCESS DOOR (LEFT SIDE WHEN FACING FRONT OF UNIT)

GENERAL SPECIFICATIONS:

OVERALL UNIT LENGTH: 149.3"
OVERALL UNIT WIDTH: 72.0"
OVERALL UNIT HEIGHT: 49.0"

INSTALLED UNIT WEIGHT:
AHU-23.6 = 2762 LBS

AIR PURIFICATION SCHEDULE

MARK	EQUIPMENT SERVED	MAUFACTURER	MODEL	SYSTEM TYPE	SUPPLY CFM	OUTSIDE CFM	VOLTAGE	NOTES
AP-1	VUV-1	GPS	GPS-FC24AC	CV	1000	395	120 V	
AP-2	VUV-2	GPS	GPS-FC24AC	CV	1000	395	120 V	
AP-3	VUV-3	GPS	GPS-FC24AC	CV	2000	1150	120 V	
AP-4	VUV-4	GPS	GPS-FC24AC	CV	2000	1150	120 V	
AP-5	VUV-5	GPS	GPS-FC24AC	CV	1000	395	120 V	
AP-6	VUV-6	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-7	VUV-7	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-8	VUV-8	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-9	VUV-9	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-10	VUV-10	GPS	GPS-FC24AC	CV	800	195	120 V	
AP-11	VUV-11	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-12	VUV-12	GPS	GPS-FC24AC	CV	800	195	120 V	
AP-13	VUV-13	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-14	VUV-14	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-15	VUV-15	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-16	VUV-16	GPS	GPS-FC24AC	CV	1200	780	120 V	
AP-17	VUV-17	GPS	GPS-FC24AC	CV	1200	780	120 V	
AP-18	VUV-18	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-19	VUV-19	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-20	VUV-20	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-21	VUV-21	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-22	VUV-22	GPS	GPS-FC24AC	CV	1400	1305	120 V	
AP-23	VUV-23	GPS	GPS-FC24AC	CV	1400	1305	120 V	
AP-24	VUV-24	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-25	VUV-25	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-26	VUV-26	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-27	VUV-27	GPS	GPS-FC24AC	CV	1400	1210	120 V	
AP-28	VUV-28	GPS	GPS-FC24AC	CV	1400	1210	120 V	
AP-29	VUV-29	GPS	GPS-FC24AC	CV	1200	395	120 V	
AP-30	VUV-30	GPS	GPS-FC24AC	CV	1800	500	120 V	
AP-31	VUV-31	GPS	GPS-FC24AC	CV	800	195	120 V	
AP-32	VUV-32	GPS	GPS-FC24AC	CV	1800	500	120 V	1
AP-33	FCU-1	GPS	GPS-FC24AC	CV	590	420	120 V	
AP-34	FCU-2	GPS	GPS-FC24AC	CV	590	420	120 V	
AP-35	FCU-3	GPS	GPS-FC24AC	CV	590	415	120 V	
AP-36	FCU-4	GPS	GPS-FC24AC	CV	590	410	120 V	
AP-37	FCU-5	GPS	GPS-FC24AC	CV	920	440	120 V	
AP-38	FCU-6	GPS	GPS-FC24AC	CV	670	445	120 V	
AP-39	FCU-7	GPS	GPS-FC24AC	CV	920	440	120 V	
AP-40	FCU-8	GPS	GPS-FC24AC	CV	920	465	120 V	
AP-41	FCU-9	GPS	GPS-FC24AC	CV	400	390	120 V	
AP-42	FCU-10	GPS	GPS-FC24AC	CV	920	465	120 V	
AP-43	FCU-11	GPS	GPS-FC24AC	CV	300	195	120 V	
AP-44	FCU-12	GPS	GPS-FC24AC	CV	300	150	120 V	
AP-45	FCU-13	GPS	GPS-FC24AC	CV	920	210	120 V	
AP-46	FCU-14	GPS	GPS-FC24AC	CV	300	170	120 V	
AP-47	AHU-23.1	GPS	GPS-iMOD-42	VAV	2650	380	120 V	
AP-48	AHU-23.2	GPS	GPS-iMOD-66	CV	7500	2275	120 V	
AP-49	AHU-23.3	GPS	GPS-iMOD-30	CV	1350	400	120 V	1
AP-50	AHU-23.4	GPS	GPS-iMOD-78	CV	10500	3000	120 V	1
AP-51	AHU-23.5	GPS	GPS-iMOD-80	CV	12000	4000	120 V	1
AP-52	AHU-23.6	GPS	GPS-iMOD-66	VAV	7400	2000	120 V	1
AP-53	RTU-23.1	GPS	GPS-iMOD-42	VAV	2800	420	120 V	
AP-54	RTU-23.2	GPS	GPS-iMOD-48	CV	3600	600	120 V	1
AP-55	RTU-23.3	GPS	GPS-iMOD-48	CV	4000	1965	120 V	1

GENERAL REQUIREMENTS:

1. IONIZATION POWER SUPPLY SHALL HAVE INTEGRAL BMS ALARM CONTACTS.
2. IONIZATION BARS SHALL BE PROVIDED WITH MOUNTING MAGNETS.
3. IONIZATION SYSTEM SHALL HAVE BEEN TESTED AND CERTIFIED BY UL 2998 AS AN OZONE FREE DEVICE.
4. PROVIDE WITH INTEGRAL SELF CLEANING SYSTEM.

NOTES:

1. ALTERNATE M-1

VENTILATOR (INTAKE) SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	THROAT SIZE (IN x IN)	AREA (SQ FT)	APD (in-wg)	DAMPER	NOTES
IV-1	COOK	GI	800	16" x 16"	1.78	.017	MOTORIZED	
IV-2	COOK	GI	1000	16" x 16"	1.78	.024	MOTORIZED	
IV-3	COOK	GI	1000	16" x 16"	1.78	.024	MOTORIZED	
IV-4	COOK	GI	1000	16" x 16"	1.78	.024	MOTORIZED	
IV-5	COOK	GI	1000	16" x 16"	1.78	.024	MOTORIZED	
IV-6	COOK	GI	1000	16" x 16"	1.78	.024	MOTORIZED	
IV-7	COOK	GI	1800	18" x 24"	3	.025	MOTORIZED	
IV-8	COOK	GI	300	8" x 8"	.44	.015	MOTORIZED	
IV-9	COOK	GI	800	12" x 18"	1.5	.02	MOTORIZED	
IV-10	COOK	GI	1800	18" x 24"	3	.025	MOTORIZED	1

GENERAL REQUIREMENTS:

1. BIRDSCREEN.
2. CONTRACTOR SHALL VERIFY DUCTWORK CONNECTION SIZE AND COORDINATE LOCATION PRIOR TO ORDERING.
3. ANTI-CONDENSATE COATING.
4. PROVIDE PREFABRICATED, INSULATED ROOF CURB.
5. MOTORIZED DAMPERS ARE PROVIDED BY THE TEMPERATURE CONTROLS CONTRACTOR.

NOTES:

1. ALTERNATE M-1

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

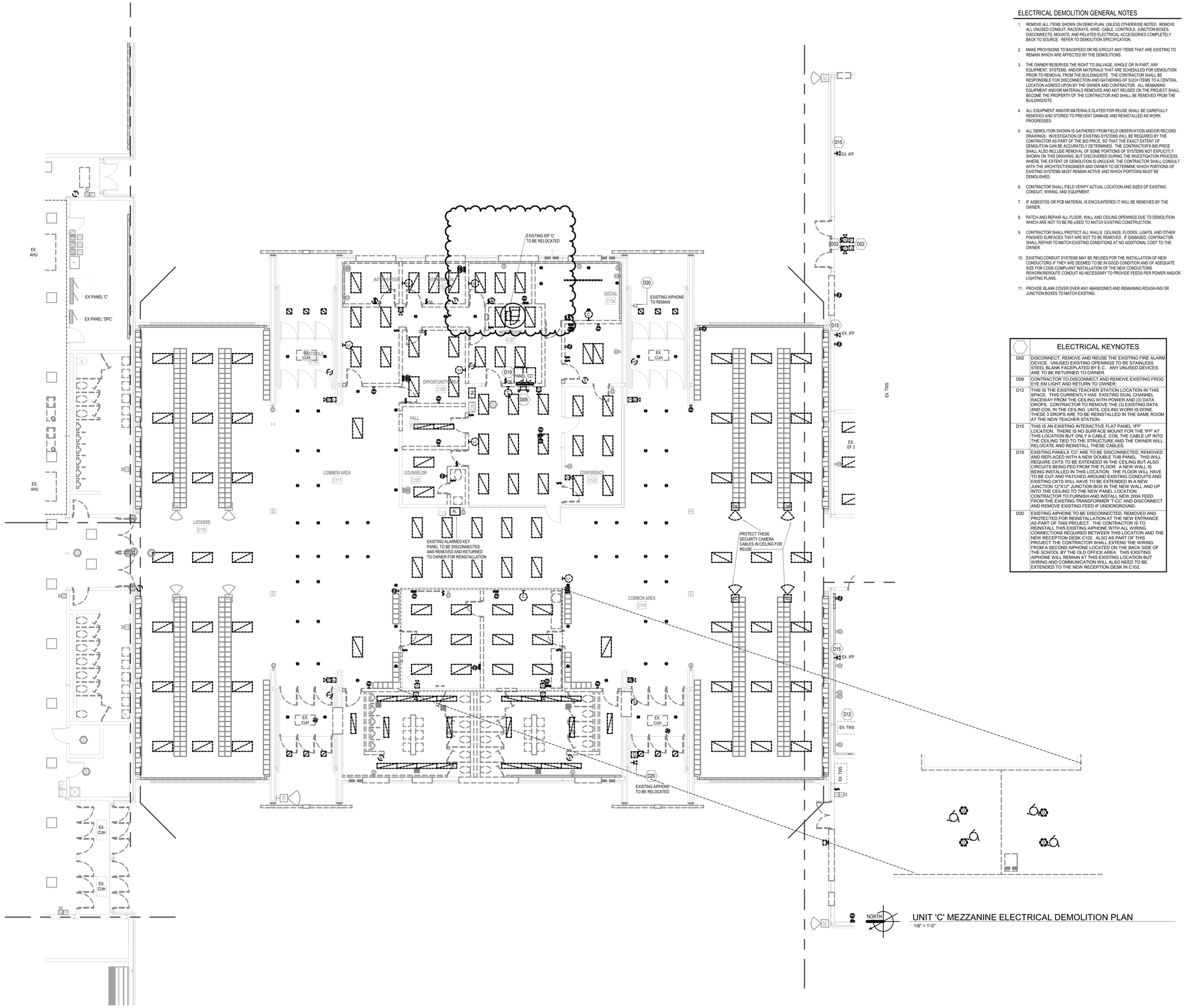
DRAWN	RTF
REVIEWED	JBH
PROJECT NO.	5-5802

No part of this drawing may be used or reproduced in any form or by any means, or stored in a database or retrieval system, without prior written permission of

MECHANICAL SCHEDULES

M9.02

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802M 2019.rvt
1/26/2023 2:19:36 PM



NORTH

UNIT 'C' FIRST FLOOR ELECTRICAL DEMOLITION PLAN

1/8" = 1'-0"

NORTH

UNIT 'C' MEZZANINE ELECTRICAL DEMOLITION PLAN

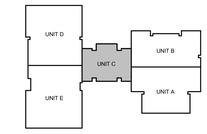
1/8" = 1'-0"

ELECTRICAL DEMOLITION GENERAL NOTES

1. REMOVE ALL ITEMS SHOWN ON DEMO PLAN, UNLESS OTHERWISE NOTED. REMOVE ALL UNUSED CONDUIT, RACEWAYS, WIRE, CABLE, CONTROLS, JUNCTION BOXES, DISCONNECTS, MOUNTS, AND RELATED ELECTRICAL ACCESSORIES COMPLETELY BACK TO SOURCE. REFER TO DEMOLITION SPECIFICATION.
2. MAKE PROVISIONS TO BACKFEED OR RE-CIRCUIT ANY ITEMS THAT ARE EXISTING TO REMAIN WHICH ARE AFFECTED BY THE DEMOLITIONS.
3. THE OWNER RESERVES THE RIGHT TO SALVAGE, WHOLE OR IN PART, ANY EQUIPMENT, SYSTEMS, AND/OR MATERIALS THAT ARE SCHEDULED FOR DEMOLITION PRIOR TO REMOVAL FROM THE BUILDING/SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION AND GATHERING OF SUCH ITEMS TO A CENTRAL LOCATION AGREED UPON BY THE OWNER AND CONTRACTOR. ALL REMAINING EQUIPMENT AND/OR MATERIALS REMOVED AND NOT REUSED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE BUILDING/SITE.
4. ALL EQUIPMENT AND/OR MATERIALS SLATED FOR REUSE SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE AND REINSTALLED AS WORK PROGRESSES.
5. ALL DEMOLITION SHOWN IS GATHERED FROM FIELD OBSERVATION AND/OR RECORD DRAWINGS. INVESTIGATION OF EXISTING SYSTEMS WILL BE REQUIRED BY THE CONTRACTOR AS PART OF THE BID PRICE, SO THAT THE EXACT EXTENT OF DEMOLITION CAN BE ACCURATELY DETERMINED. THE CONTRACTOR'S BID PRICE SHALL ALSO INCLUDE REMOVAL OF SOME PORTIONS OF SYSTEMS NOT EXPLICITLY SHOWN ON THIS DRAWING, BUT DISCOVERED DURING THE INVESTIGATION PROCESS. WHERE THE EXTENT OF DEMOLITION IS UNCLEAR, THE CONTRACTOR SHALL CONSULT WITH THE ARCHITECT/ENGINEER AND OWNER TO DETERMINE WHICH PORTIONS OF EXISTING SYSTEMS MUST REMAIN ACTIVE AND WHICH PORTIONS MUST BE DEMOLISHED.
6. CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATION AND SIZES OF EXISTING CONDUIT, WIRING, AND EQUIPMENT.
7. IF ASBESTOS OR PCB MATERIAL IS ENCOUNTERED IT WILL BE REMOVED BY THE OWNER.
8. PATCH AND REPAIR ALL FLOOR, WALL AND CEILING OPENINGS DUE TO DEMOLITION WHICH ARE NOT TO BE RE-USED TO MATCH EXISTING CONSTRUCTION.
9. CONTRACTOR SHALL PROTECT ALL WALLS, CEILINGS, FLOORS, LIGHTS, AND OTHER FINISHED SURFACES THAT ARE NOT TO BE REMOVED. IF DAMAGED, CONTRACTOR SHALL REPAIR TO MATCH EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
10. EXISTING CONDUIT SYSTEMS MAY BE REUSED FOR THE INSTALLATION OF NEW CONDUCTORS IF THEY ARE DEEMED TO BE IN GOOD CONDITION AND OF ADEQUATE SIZE FOR CODE-COMPLIANT INSTALLATION OF THE NEW CONDUCTORS. REWORK/REROUTE CONDUIT AS NECESSARY TO PROVIDE FEEDS PER POWER AND/OR LIGHTING PLANS.
11. PROVIDE BLANK COVER OVER ANY ABANDONED AND REMAINING ROUGH-INS OR JUNCTION BOXES TO MATCH EXISTING.

ELECTRICAL KEYNOTES

D02	DISCONNECT, REMOVE AND REUSE THE EXISTING FIRE ALARM DEVICE. UNUSED EXISTING OPENINGS TO BE STAINLESS STEEL BLANK FACEPLATED BY E.C.. ANY UNUSED DEVICES ARE TO BE RETURNED TO OWNER.
D09	CONTRACTOR TO DISCONNECT AND REMOVE EXISTING FROG EYE EM LIGHT AND RETURN TO OWNER.
D12	THIS IS THE EXISTING TEACHER STATION LOCATION IN THIS SPACE. THIS CURRENTLY HAS EXISTING DUAL CHANNEL RACEWAY FROM THE CEILING WITH POWER AND (3) DATA DROPS. CONTRACTOR TO REMOVE THE (3) EXISTING DATA AND COIL IN THE CEILING. UNTIL CEILING WORK IS DONE. THESE 3 DROPS ARE TO BE REINSTALLED IN THE SAME ROOM AT THE NEW TEACHER STATION.
D15	THIS IS AN EXISTING INTERACTIVE FLAT PANEL 'IFP' LOCATION. THERE IS NO SURFACE MOUNT FOR THE 'IFP' AT THIS LOCATION BUT ONLY A CABLE. COIL THE CABLE UP INTO THE CEILING TIED TO THE STRUCTURE AND THE OWNER WILL RELOCATE AND REINSTALL THESE CABLES.
D19	EXISTING PANELS 'CC' ARE TO BE DISCONNECTED, REMOVED AND REPLACED WITH A NEW DOUBLE TUB PANEL. THIS WILL REQUIRE CKTS TO BE EXTENDED IN THE CEILING BUT ALSO CIRCUITS BEING FED FROM THE FLOOR. A NEW WALL IS BEING INSTALLED IN THIS LOCATION. THE FLOOR WILL HAVE TO BE CUT AND PATCHED AROUND EXISTING CONDUITS AND EXISTING CKTS WILL HAVE TO BE EXTENDED IN A NEW JUNCTION 12"X12" JUNCTION BOX IN THE NEW WALL AND UP INTO THE CEILING TO THE NEW PANEL LOCATION. CONTRACTOR TO FURNISH AND INSTALL NEW 200A FEED FROM THE EXISTING TRANSFORMER 'T-CC' AND DISCONNECT AND REMOVE EXISTING FEED IF UNDERGROUND.
D20	EXISTING AIPHONE TO BE DISCONNECTED, REMOVED AND PROTECTED FOR REINSTALLATION AT THE NEW ENTRANCE AS PART OF THIS PROJECT. THE CONTRACTOR IS TO REINSTALL THIS EXISTING AIPHONE WITH ALL WIRING CONNECTIONS REQUIRED BETWEEN THIS LOCATION AND THE NEW RECEPTION DESK C102. ALSO AS PART OF THIS PROJECT THE CONTRACTOR SHALL EXTEND THE WIRING FROM A SECOND AIPHONE LOCATED ON THE BACK SIDE OF THE SCHOOL BY THE OLD OFFICE AREA. THIS EXISTING AIPHONE WILL REMAIN AT THIS EXISTING LOCATION BUT WIRING AND COMMUNICATION WILL ALSO NEED TO BE EXTENDED TO THE NEW RECEPTION DESK IN C102.



NORTH

KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	TJO
REVIEWED	AAM
PROJECT NO.	5-5802

UNIT 'C' ELECTRICAL DEMOLITION PLANS

E1.1C

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802E 2019.rvt
1/26/2023 2:39:10 PM

ELECTRICAL DEMOLITION GENERAL NOTES

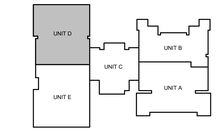
1. REMOVE ALL ITEMS SHOWN ON DEMO PLAN, UNLESS OTHERWISE NOTED. REMOVE ALL UNUSED CONDUIT, RACEWAYS, WIRE, CABLE, CONTROLS, JUNCTION BOXES, DISCONNECTS, MOUNTS, AND RELATED ELECTRICAL ACCESSORIES COMPLETELY BACK TO SOURCE. REFER TO DEMOLITION SPECIFICATION.
2. MAKE PROVISIONS TO BACKFEED OR RE-CIRCUIT ANY ITEMS THAT ARE EXISTING TO REMAIN WHICH ARE AFFECTED BY THE DEMOLITIONS.
3. THE OWNER RESERVES THE RIGHT TO SALVAGE, WHOLE OR IN PART, ANY EQUIPMENT, SYSTEMS, AND/OR MATERIALS THAT ARE SCHEDULED FOR DEMOLITION PRIOR TO REMOVAL FROM THE BUILDING/SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISCONNECTION AND GATHERING OF SUCH ITEMS TO A CENTRAL LOCATION AGREED UPON BY THE OWNER AND CONTRACTOR. ALL REMAINING EQUIPMENT AND/OR MATERIALS REMOVED AND NOT REUSED ON THE PROJECT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE BUILDING/SITE.
4. ALL EQUIPMENT AND/OR MATERIALS SLATED FOR REUSE SHALL BE CAREFULLY REMOVED AND STORED TO PREVENT DAMAGE AND REINSTALLED AS WORK PROGRESSES.
5. ALL DEMOLITION SHOWN IS GATHERED FROM FIELD OBSERVATION AND/OR RECORD DRAWINGS. INVESTIGATION OF EXISTING SYSTEMS WILL BE REQUIRED BY THE CONTRACTOR AS PART OF THE BID PRICE, SO THAT THE EXACT EXTENT OF DEMOLITION CAN BE ACCURATELY DETERMINED. THE CONTRACTOR'S BID PRICE SHALL ALSO INCLUDE REMOVAL OF SOME PORTIONS OF SYSTEMS NOT EXPLICITLY SHOWN ON THIS DRAWING, BUT DISCOVERED DURING THE INVESTIGATION PROCESS, WHERE THE EXTENT OF DEMOLITION IS UNCLEAR, THE CONTRACTOR SHALL CONSULT WITH THE ARCHITECT/ENGINEER AND OWNER TO DETERMINE WHICH PORTIONS OF EXISTING SYSTEMS MUST REMAIN ACTIVE AND WHICH PORTIONS MUST BE DEMOLISHED.
6. CONTRACTOR SHALL FIELD VERIFY ACTUAL LOCATION AND SIZES OF EXISTING CONDUIT, WIRING, AND EQUIPMENT.
7. IF ASBESTOS OR PCB MATERIAL IS ENCOUNTERED IT WILL BE REMOVED BY THE OWNER.
8. PATCH AND REPAIR ALL FLOOR, WALL AND CEILING OPENINGS DUE TO DEMOLITION WHICH ARE NOT TO BE RE-USED TO MATCH EXISTING CONSTRUCTION.
9. CONTRACTOR SHALL PROTECT ALL WALLS, CEILINGS, FLOORS, LIGHTS, AND OTHER FINISHED SURFACES THAT ARE NOT TO BE REMOVED. IF DAMAGED, CONTRACTOR SHALL REPAIR TO MATCH EXISTING CONDITIONS AT NO ADDITIONAL COST TO THE OWNER.
10. EXISTING CONDUIT SYSTEMS MAY BE REUSED FOR THE INSTALLATION OF NEW CONDUCTORS IF THEY ARE DEEMED TO BE IN GOOD CONDITION AND OF ADEQUATE SIZE FOR CODE-COMPLIANT INSTALLATION OF THE NEW CONDUCTORS. REWORK/REROUTE CONDUIT AS NECESSARY TO PROVIDE FEEDS PER POWER AND/OR LIGHTING PLANS.
11. PROVIDE BLANK COVER OVER ANY ABANDONED AND REMAINING ROUGH-INS OR JUNCTION BOXES TO MATCH EXISTING.

ELECTRICAL KEYNOTES

D01	THE CORRIDOR CEILINGS ARE BEING REPLACED. CONTRACTOR TO REMOVE AND PROTECT THE CEILING P.A. SPEAKER (S1) IN ALL OF THE CORRIDORS FROM THE EXISTING CEILING GRID AND SUPPORT UP INTO THE STRUCTURE. THESE DEVICES WILL BE REINSTALLED IN THE NEW CEILING BY THIS CONTRACTOR. ALL WIRES ARE TO REMAIN INTACT TO THE SPEAKERS FOR REINSTALLATION INTO NEW CEILING GRID. TYPICAL FOR ALL CORRIDORS IN UNITS A, B AND C.
D21	THIS IS PART OF THE MECHANICAL ALTERNATE. THE EXISTING BREAKER ON THIS UNIT FED FROM PANEL DP-F IS A 300A/3P BREAKER. THIS IS TO BE RETURNED TO THE OWNER.
D22	THIS EQUIPMENT IS PART OF THE MECHANICAL ALTERNATE WHICH IS REPLACEMENT OF HVAC UNITS IN UNIT 'D' AS NOTED ON THE PLANS.
D23	E.C. TO DISCONNECT AND RELOCATE ELECTRICAL FOR EXISTING PUMP. PUMP WILL REMAIN THE SAME. CONNECTIONS ARE TO BE EXTENDED BUT SPACE IS BEING REWORKED TO FIT NEW AHU'S IN THE SPACE.

UNIT 'D' FIRST FLOOR ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"

UNIT 'D' MEZZANINE ELECTRICAL DEMOLITION PLAN
1/8" = 1'-0"



KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

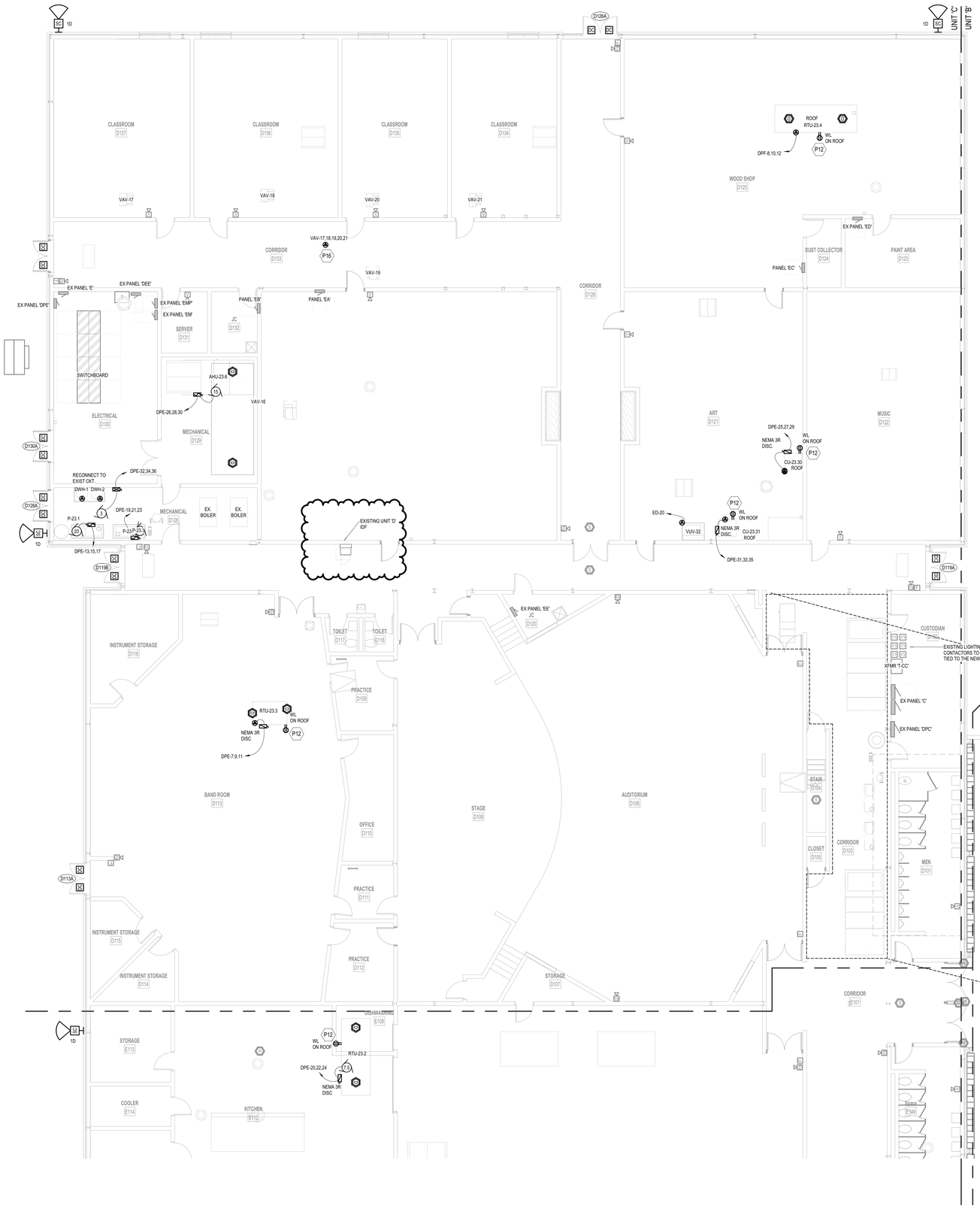
12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	TJO
REVIEWED	AAM
PROJECT NO.	5-5802

UNIT 'D' ELECTRICAL DEMOLITION PLAN

E1.1D

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802E 2019.rvt
1/26/2023 2:39:26 PM



UNIT 'D' FIRST FLOOR POWER & COMMUNICATIONS PLAN
1/8" = 1'-0"

UNIT 'D' MEZZANINE POWER PLAN
1/8" = 1'-0"

POWER & COMMUNICATION GENERAL NOTES

1. REFER TO ELECTRICAL GENERAL NOTES ON SHEET E0.01.
2. REFER TO CODE COMPLIANCE PLAN FOR LOCATIONS AND RATINGS OF VERTICAL AND HORIZONTAL BUILDING ASSEMBLIES. PROVIDE APPROPRIATE FIRESTOPPING SYSTEMS PER SPECIFICATIONS TO MEET ALL APPLICABLE CODES.
3. PROVIDE 120VAC POWER FOR ALL SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS.
   A. REFER TO MECHANICAL/HVAC DRAWINGS FOR LOCATIONS AND QUANTITIES OF DAMPERS.
   B. CONNECT TO DEDICATED 20A BRANCH CIRCUIT (WITH BREAKER LOCK-ON ACCESSORY) IN LOCAL PANELBOARD FOR DAMPER(S) IN EACH AREA (DAMPERS MAY BE GROUPED ON EACH CIRCUIT).
   C. TERMINATE W/ BOX-COVER FUSIBLE DISCONNECT SWITCH AT EACH DAMPER.
   D. PROVIDE FIRE ALARM DUCT SMOKE DETECTOR WITHIN 5 FEET OF EACH DAMPER (UNLESS COVERED BY ANOTHER DUCT DETECTOR WITHIN 5 FEET).
   E. PROVIDE FIRE ALARM ADDRESSABLE RELAY(S) FOR INTERLOCKING DAMPER W/ CORRESPONDING HVAC UNIT(S) PER CODE REQUIREMENTS.
4. PROVIDE BOX-COVER FUSIBLE DISCONNECT SWITCH (ON BUILDING INTERIOR IN ACCESSIBLE LOCATION) FOR EACH SMALL (< 1/2 HP) MECHANICAL AND/OR PLUMBING EQUIPMENT MOTOR LOAD WHERE MORE THAN ONE UNIT IS CONNECTED TO A COMMON BRANCH CIRCUIT. TYPICAL EQUIPMENT TYPES INCLUDE BUT ARE NOT LIMITED TO CABINET HEATERS, DAMPERS, EXHAUST FANS, FAN COIL UNITS, PUMPS, UNIT HEATERS, VAV BOXES, ETC.

ELECTRICAL KEYNOTES

P12	THIS IS A SERVICE RECEPTACLE FOR ROOFTOP MECHANICAL EQUIPMENT. CONTRACTOR TO FEED FROM LOCAL 120V CKT AND MOUNT ON STRUTS ATTACHED TO EQUIPMENT BASE.
P16	THIS IS PART OF THE ALTERNATE. CONTRACTOR TO REUSE EXISTING 120V CIRCUIT FROM EXISTING VAV BOXES FOR NEW VAV BOXES. THIS WILL BE A ONE POINT CONNECTION AND CONTROLS CAN INSTALL A TRANSFORMER AT THAT LOCATION AND FEED THE VAV BOXES.
P17	NEW LOCATION OF EXISTING PUMP.

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

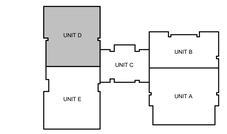
ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	TJO
REVIEWED	AAM
PROJECT NO.	5-5802

UNIT 'D' POWER & COMMUNICATIONS PLAN

E2.1D



KEY PLAN

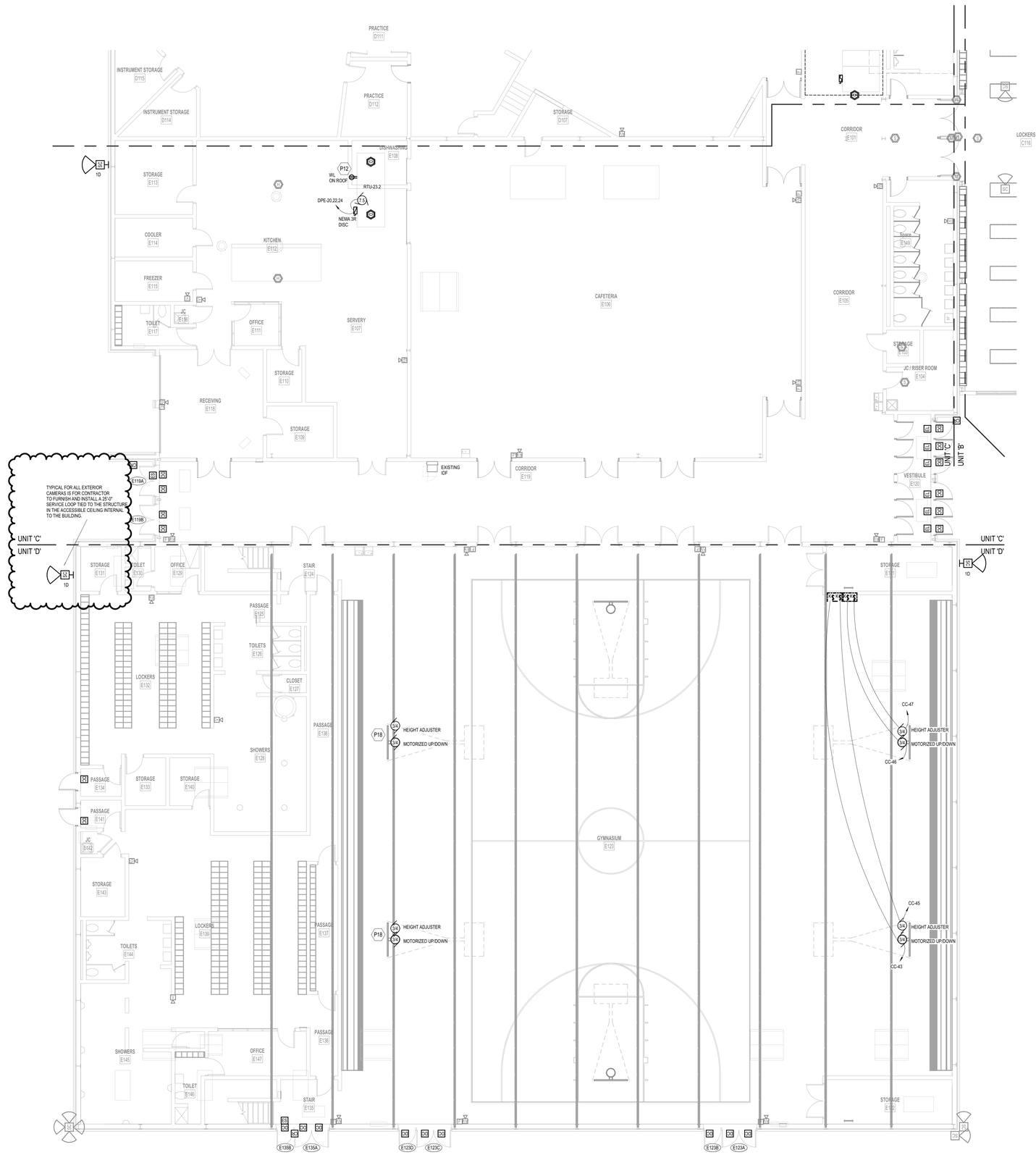
BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802E 2019.rvt
1/26/2023 2:39:46 PM

POWER & COMMUNICATION GENERAL NOTES

1. REFER TO ELECTRICAL GENERAL NOTES ON SHEET E0.01.
2. REFER TO CODE COMPLIANCE PLAN FOR LOCATIONS AND RATINGS OF VERTICAL AND HORIZONTAL BUILDING ASSEMBLIES. PROVIDE APPROPRIATE FIRESTOPPING SYSTEMS PER SPECIFICATIONS TO MEET ALL APPLICABLE CODES.
3. PROVIDE 120VAC POWER FOR ALL SMOKE DAMPERS AND COMBINATION FIRE/SMOKE DAMPERS.
   A. REFER TO MECHANICAL/HVAC DRAWINGS FOR LOCATIONS AND QUANTITIES OF DAMPERS.
   B. CONNECT TO DEDICATED 20A BRANCH CIRCUIT (WITH BREAKER LOCK-ON ACCESSORY) IN LOCAL PANELBOARD FOR DAMPER(S) IN EACH AREA (DAMPERS MAY BE GROUPED ON EACH CIRCUIT).
   C. TERMINATE W/ BOX-COVER FUSIBLE DISCONNECT SWITCH AT EACH DAMPER.
   D. PROVIDE FIRE ALARM DUCT SMOKE DETECTOR WITHIN 5 FEET OF EACH DAMPER (UNLESS COVERED BY ANOTHER DUCT DETECTOR WITHIN 5 FEET).
   E. PROVIDE FIRE ALARM ADDRESSABLE RELAY(S) FOR INTERLOCKING DAMPER W/ CORRESPONDING HVAC UNIT(S) PER CODE REQUIREMENTS.
4. PROVIDE BOX-COVER FUSIBLE DISCONNECT SWITCH (ON BUILDING INTERIOR IN ACCESSIBLE LOCATION) FOR EACH SMALL (< 1/2 HP) MECHANICAL AND/OR PLUMBING EQUIPMENT MOTOR LOAD WHERE MORE THAN ONE UNIT IS CONNECTED TO A COMMON BRANCH CIRCUIT. TYPICAL EQUIPMENT TYPES INCLUDE BUT ARE NOT LIMITED TO CABINET HEATERS, DAMPERS, EXHAUST FANS, FAN COIL UNITS, PUMPS, UNIT HEATERS, VAV BOXES, ETC.

ELECTRICAL KEYNOTES

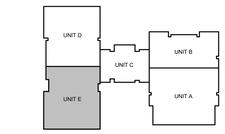
P12	THIS IS A SERVICE RECEPTACLE FOR ROOFTOP MECHANICAL EQUIPMENT. CONTRACTOR TO FEED FROM LOCAL 120V CKT AND MOUNT ON STRUTS ATTACHED TO EQUIPMENT BASE.
P18	THIS IS AN EXISTING MOTORIZED BACKBOARD. THE BACKBOARD IS BEING REPLACED. E.C. TO DISCONNECT AND RECONNECT NEW BACKBOARD. ALL EXISTING CONDUCTORS, RACEWAYS AND SWITCHES TO REMAIN THE SAME.



NORTH

UNIT 'E' FIRST FLOOR POWER & COMMUNICATIONS PLAN

1/8" = 1'-0"



NORTH KEY PLAN

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS

THREE RIVERS COMMUNITY SCHOOLS

THREE RIVERS, MICHIGAN

ISSUANCES

12.01.2022	BIDS & CONSTRUCTION
01.19.2023	ADDENDUM 002
01.26.2023	ADDENDUM 004

DRAWN	TJO
REVIEWED	AAM
PROJECT NO.	5-5802

UNIT 'E' FIRST FLOOR POWER & COMMUNICATIONS PLAN

E2.1E

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 23-5802E 2019.rvt
1/26/2023 2:40:05 PM

LIGHTING FIXTURE SCHEDULE

TYPE / TAG	DESCRIPTION	BASIS	EQUIVALENT #1	EQUIVALENT #2	EQUIVALENT #3	FINISH	MOUNTING	LIGHT SOURCE MIN. DELIVERED LUMENS	LIGHT SOURCE TYPE	DRIVER / BALLAST TYPE	INPUT VOLTAGE (V)	INPUT POWER (W)	NOTES
A	2'x2' RECESSED LOW-PROFILE EDGE-LIT PANEL, FULLY-LUMINOUS DIFFUSE ACRYLIC LENS FRAMED IN EXTRUDED ALUMINUM BEZEL, DLC QUALIFIED	LITHONIA: EPANL-2X2-4000LM-80CRI-40K-MIN10-ZT-MVOLT	COLUMBIA: CFP22-4040	METALUX: 22FP4240C		WHITE	RECESSED IN ACOUSTICAL CEILING	4144	4000K LED	0-10V DIMMING	277 V	37	
A EM	SAME AS TYPE 'A' BUT TIED TO INVERTER	LITHONIA: EPANL-2X2-4000LM-80CRI-40K-MIN10-ZT-MVOLT	COLUMBIA: CFP22-4040	METALUX: 22FP4240C		WHITE	RECESSED IN ACOUSTICAL CEILING	4144	4000K LED	0-10V DIMMING	277 V	37.4	
B	1'x4' RECESSED LOW-PROFILE EDGE-LIT PANEL, FULLY-LUMINOUS DIFFUSE ACRYLIC LENS FRAMED IN EXTRUDED ALUMINUM BEZEL, DLC QUALIFIED	LITHONIA: EPANL-1X4-3000LM-80CRI-40K-MIN10-ZT-MVOLT	COLUMBIA: CFP14-3435	METALUX:14FP3040HE		WHITE	RECESSED IN ACOUSTICAL CEILING	3143	4000K LED	0-10V DIMMING	277 V	27	
B EM	SAME AS TYPE 'B' BUT TIED TO INVERTER	LITHONIA: EPANL-1X4-3000LM-80CRI-40K-MIN10-ZT-MVOLT	COLUMBIA: CFP14-3435	METALUX:14FP3040HE		WHITE	RECESSED IN ACOUSTICAL CEILING	3143	4000K LED	0-10V DIMMING	277 V	27	
C	4' LENGTH SURFACE MOUNTED RECTANGULAR LED	LITHONIA: CLX-L48-3000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-WH	COLUMBIA: MPS4-40XW-FW-EDU	METALUX: 4SNX-51SL-FDL-UNV-L840-CD-1-U		WHITE	SURFACE MOUNTED ON CEILING	3000	4000K LED	0-10V DIMMING	277 V	18.7	
D2	2' LENGTH WALL MOUNTED RECTANGULAR LED	LITHONIA: CLX-L24-15LM-SEF-FDL-MVOLT-GZ10-40K-80CRI-WH	COLUMBIA: MPS2-40XW-FW-EDU	METALUX: 2SN-19SL-FDL-UNV-L840-CD-1-U		WHITE	SURFACE MOUNTED AT 7'-0"	1500	4000K LED	0-10V DIMMING	277 V	17.5	
D4	4' LENGTH WALL MOUNTED RECTANGULAR LED	LITHONIA: CLX-L48-3000LM-SEF-FDL-MVOLT-GZ10-40K-80CRI	COLUMBIA: MPS4-40XW-FW-EDU	METALUX: 4SNX-3SL-FDL-UNV-L840-CD-1-U		WHITE	SURFACE MOUNTED AT 7'-0"	3000	4000K LED	0-10V DIMMING	277 V	18.7	
F-4	4' RECESSED LED FIXTURE, UNIFORMLY LUMINOUS ACRYLIC DIFFUSER	FOCAL POINT: FSDL-44-FLXP-7000L-940K-1C-UNV-LD1-U-WH	PINNACLE: F48D-A-CL9407000-G-U-FSD-1-0-W	PRUDENTIAL: P89040-LO-FW-TMW-SC-UNV-XX-DM01		WHITE	RECESSED IN ACOUSTICAL CEILING	7000	4000K LED	0-10V DIMMING	277 V	70	
F-4 EM	SAME AS TYPE 'F-4' BUT TIED TO INVERTER	FOCAL POINT: FSDL-44-FLXP-7000L-940K-1C-UNV-LD1-U-WH	PINNACLE: F48D-A-CL9407000-G-U-FSD-1-0-W	PRUDENTIAL: P89040-LO-FW-TMW-SC-UNV-XX-DM01		WHITE	RECESSED IN ACOUSTICAL CEILING	7000	4000K LED	0-10V DIMMING	277 V	70	
INV-1	EMERGENCY LIGHTING INVERTER SYSTEM, INTERRUPTIBLE, SINGLE PHASE, TRUE SINE-WAVE OUTPUT, MIN. 2.5 CREST WAVE FACTOR, INRUSH CAPABILITY FOR COMPATIBILITY WITH LED LOADS, 90-MIN. BATTERY CAPACITY, UL924 LISTED, MIN. 3-YEAR WARRANTY	EVENLITE: LM-37-LC-V1 WITH AUDIBLE ALARM	ISOLITE: E3-375-LC-V1 WITH AUDIBLE ALARM			NA	WALL MTD	NA	NA	NA	277 V	375	
L-4	4" APERTURE RECESSED LINEAR, RECTANGULAR PROFILE, FLUSH ACRYLIC LENS, 4' LENGTH	FINELITE: HP-4-R-D-4-H-840-F-96LG-277-SC-FC-10%-FE-XX	LITECONTROL: 4L-LG-D-4-06-SOF-C1-40K-D075-D01-1C-UNV	AXIS LIGHITNG: BBRLED-700-8040-SO-4-X-VOLT-DP1		WHITE	RECESSED IN ACOUSTICAL CEILING	2900	4000K LED	0-10V DIMMING	277 V	28.4	
L-4 EM	SAME AS TYPE 'L-4' BUT TIED TO INVERTER	FINELITE: HP-4-R-D-4-H-840-F-96LG-277-SC-FC-10%-FE-XX	LITECONTROL: 4L-LG-D-4-06-SOF-C1-40K-D075-D01-1C-UNV	AXIS LIGHITNG: BBRLED-700-8040-SO-4-X-VOLT-DP1		WHITE	RECESSED IN ACOUSTICAL CEILING	2900	4000K LED	0-10V DIMMING	277 V	28.4	
L-6	4" APERTURE RECESSED LINEAR, RECTANGULAR PROFILE, FLUSH ACRYLIC LENS, 6' LENGTH	FINELITE: HP-4-R-D-6-H-840-F-96LG-277-SC-FC-10%-FE-XX	LITECONTROL: 4L-LG-D-6-06-SOF-C1-40K-D075-D01-1C-UNV	AXIS LIGHITNG: BBRLED-700-8040-SO-6-X-VOLT-DP1		WHITE	RECESSED IN ACOUSTICAL CEILING	4350	4000K LED	0-10V DIMMING	277 V	42	
L-6 EM	SAME AS TYPE 'L-6' BUT TIED TO INVERTER	FINELITE: HP-4-R-D-6-H-840-F-96LG-277-SC-FC-10%-FE-XX	LITECONTROL: 4L-LG-D-6-06-SOF-C1-40K-D075-D01-1C-UNV	AXIS LIGHITNG: BBRLED-700-8040-SO-6-X-VOLT-DP1		WHITE	RECESSED IN ACOUSTICAL CEILING	4350	4000K LED	0-10V DIMMING	277 V	42.6	
M	EXTERIOR LED WALL PACK WITH PHOTOCELL CONTROL	LITHONIA: WDGE3 LED-30C-700-40K-T3M277-DDBTXD	MCGRAW: GWC-AF-02-LED-E1-T3FT-XX	HUBBELL: LNC4-36L-4K-105-2-U		DARK BRONZE	WALL MTD ON EXTERIOR	10,000	4000K LED	DRIVER	277 V	71	
M EM	SAME AS TYPE 'm' BUT TIED TO INVERTER	LITHONIA: WDGE3 LED-30C-700-40K-T3M277-DDBTXD	MCGRAW: GWC-AF-02-LED-E1-T3FT-XX	HUBBELL: LNC4-36L-4K-105-2-U		DARK BRONZE	WALL MTD ON EXTERIOR	10,000	4000K LED	DRIVER	277 V	71	
R	6" RECESSED DOWNLIGHT. 1500 DELIVERED LUMENS, RECESSED IN GYPSUM CEILING, WIDE DISTRIBUTION	GOTHAM: EVO6 40/15 AR WD LSS MVOLT GZ10	PRESCOLITE: LFR-6RD-M-15L40K8-XW-DM1 W/LFR-6RD-H	PORTFOLIO: LD4C-15-90-40-D010-W-1H		WHITE	RECESSED IN GYPSUM CEILING	1500	4000K LED	0-10V DIMMING	277 V	14.7	
S1	ARCHITECTURAL AREA LED FIXTURE, SINGLE HEAD, TYPE III DISTRIBUTION, DIE CAST ALUMINUM HOUSING, OUTDOOR WET LOCATION	LITHONIA: DSX0 LED P3 40K 80CRI T3M MVOLT SPA DDBXD HS	BEACON: RAR1-160L-70-4K7-3-UNV-ASQ-DBT	MCGRAW: GALN-SA2A-740-U-T3-BZ-HSS		DARK BRONZE	SITE LIGHTING POLES: SEE SHEET ES2.01 FOR POLE HEIGHTS. U.N.O., ROUND STRAIGHT ALUMINUM POLRS WITH ANCHOR BOLT BASE AND FULL BASE COVER. BASE PER DETAIL.	6995	4000K LED	LED DRIVER	277 V	69	
S2	ARCHITECTURAL AREA LED FIXTURE, SINGLE HEAD, TYPE V DISTRIBUTION, DIE CAST ALUMINUM HOUSING, OUTDOOR WET LOCATION	LITHONIA: DSX0 LED P4 40K 80CRI T5W MVOLT SPA DDBXD	BEACON: RAR1-160L-100-4K7-5QW-UNV-ASQ-DBT	MCGRAW: GALN-SA2B-740-U-5WQ-BZ		DARK BRONZE	SITE LIGHTING POLES: SEE SHEET ES2.01 FOR POLE HEIGHTS. U.N.O., ROUND STRAIGHT ALUMINUM POLRS WITH ANCHOR BOLT BASE AND FULL BASE COVER. BASE PER DETAIL.	10837	4000K LED	LED DRIVER	277 V	93	
S3	ARCHITECTURAL AREA LED FIXTURE, SINGLE HEAD, TYPE IV BACKLIGHT CONTROL DISTRIBUTION, DIE CAST ALUMINUM HOUSING, OUTDOOR WET LOCATION	LITHONIA: DSX0 LED P3 40K 80CRI BLC4 MVOLT SPA DDBXD HS	BEACON: RAR1-160L-70-4K7-4W-UNV-ASQ-DBT with BC	MCGRAW: GALN-SA1B-740-U-T4FT-BZ		DARK BRONZE	SITE LIGHTING POLES: SEE SHEET ES2.01 FOR POLE HEIGHTS. U.N.O., ROUND STRAIGHT ALUMINUM POLRS WITH ANCHOR BOLT BASE AND FULL BASE COVER. BASE PER DETAIL.	6063	4000K LED	LED DRIVER	277 V	69	
S4	ARCHITECTURAL AREA LED FIXTURE, SINGLE HEAD, FORWARD THROW MEDIUM DISTRIBUTION, DIE CAST ALUMINUM HOUSING, OUTDOOR WET LOCATION	LITHONIA: DSX0 LED P3 40K 80CRI TFTM MVOLT SPA DDBXD	BEACON: RAR1-160L-70-4K7-4F-UNV-ASQ-DBT	MCGRAW: GALN-SA2B-740-U-T4FT-BZ		DARK BRONZE	SITE LIGHTING POLES: SEE SHEET ES2.01 FOR POLE HEIGHTS. U.N.O., ROUND STRAIGHT ALUMINUM POLRS WITH ANCHOR BOLT BASE AND FULL BASE COVER. BASE PER DETAIL.	6916	4000K LED	LED DRIVER	277 V	69	
S5	ARCHITECTURAL AREA LED FIXTURE, SINGLE HEAD, TYPE III DISTRIBUTION, DIE CAST ALUMINUM HOUSING, OUTDOOR WET LOCATION	LITHONIA: DSX0 LED P1 40K 80CRI T3M MVOLT SPA DDBXD	BEACON: RAR1-80L-39-4K7-3-UNV-ASQ-DBT	MCGRAW: GALN-SA2B-740-U-T3-BZ		DARK BRONZE	SITE LIGHTING POLES: SEE SHEET ES2.01 FOR POLE HEIGHTS. U.N.O., ROUND STRAIGHT ALUMINUM POLRS WITH ANCHOR BOLT BASE AND FULL BASE COVER. BASE PER DETAIL.	4396	4000K LED	LED DRIVER	277 V	33.2	
W	12"X12" LED FIXTURE, RECESSED IN EXTERIOR CANOPY, WET LOCATION RATED	LITHONIA: NC12SQLEDOA-33L-40K-DS10_2-BH27-FT0112-MW-SO-WL	PEACHTREE: 12BLSD 35 40K 80PG LHW FMK WL ELM1	ATLANTIC: LRF12X12-SYL33-4K-VOLT-WH		WHITE	RECESSED IN HARD LID	3300	4000K LED	LED DRIVER	277 V	27	
W EM	SAME AS TYPE 'W' BUT TIED TO INVERTER	LITHONIA: NC12SQLEDOA-33L-40K-DS10_2-BH27-FT0112-MW-SO-WL	PEACHTREE: 12BLSD 35 40K 80PG LHW FMK WL ELM1	ATLANTIC: LRF12X12-SYL33-4K-VOLT-WH		WHITE	RECESSED IN HARD LID	3300	4000K LED	LED DRIVER	277 V	27	
X1	EXIT SIGN, DIE-CAST HOUSING, SINGLE FACE, UL924 LISTING, ARROWS AND MOUNTINGS SHOWN ON DRAWINGS	DUAL-LITE: SESRW	LITHONIA: LE-S-W-1-R	SURE-LITES: CX61WH	CHLORIDE: 55L-3-W-R	WHITE HOUSING, WHITE FACE	SURFACE ON CEILING OR WALL; REFER TO DRAWINGS FOR CONFIGURATION/ORIENTATION	N/A	RED LED	INTEGRAL	277 V	2	1
X2	EXIT SIGN, DIE-CAST HOUSING, DOUBLE FACE, UL924 LISTING, ARROWS AND MOUNTINGS SHOWN ON DRAWINGS	DUAL-LITE: SEDRW	LITHONIA: LE-S-W-2-R	SURE-LITES: CX62WH	CHLORIDE: 55L-3-W-R	WHITE HOUSING, WHITE FACE	SURFACE ON CEILING OR WALL; REFER TO DRAWINGS FOR CONFIGURATION/ORIENTATION	N/A	RED LED	INTEGRAL	277 V	2	1

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

A. MODEL NUMBERS GIVEN IN THIS SCHEDULE MAY NOT INCLUDE ALL OPTIONS AND ACCESSORIES AS NECESSARY TO MEET THE REQUIREMENTS OF THE DESCRIPTION AND SPECIFICATIONS.

B. CONTRACTOR SHALL PROVIDE ALL NECESSARY MOUNTING HARDWARE FOR EACH FIXTURE TYPE. COORDINATE WITH CEILING TYPES AND MOUNTING LOCATIONS.

C. ALL FINISHES SHALL BE CHOSEN FROM THE MANUFACTURER'S CATALOGED/STANDARD OPTIONS UNLESS OTHERWISE NOTED.

D. ALL LIGHT SOURCES SHALL BE 4,000K CORRELATED COLOR TEMPERATURE, UNLESS OTHERWISE NOTED. ALL INTERIOR LIGHT SOURCES SHALL HAVE COLOR RENDERING INDEX RATING OF 80 OR GREATER.

E. ALL FIXTURES SHALL BE SUPPLIED WITH UNIVERSAL VOLTAGE INPUT (120/277V) WHERE AVAILABLE FROM THE MANUFACTURER. VOLTAGE LISTED IN THE SCHEDULE IS INTENDED UTILIZATION VOLTAGE.

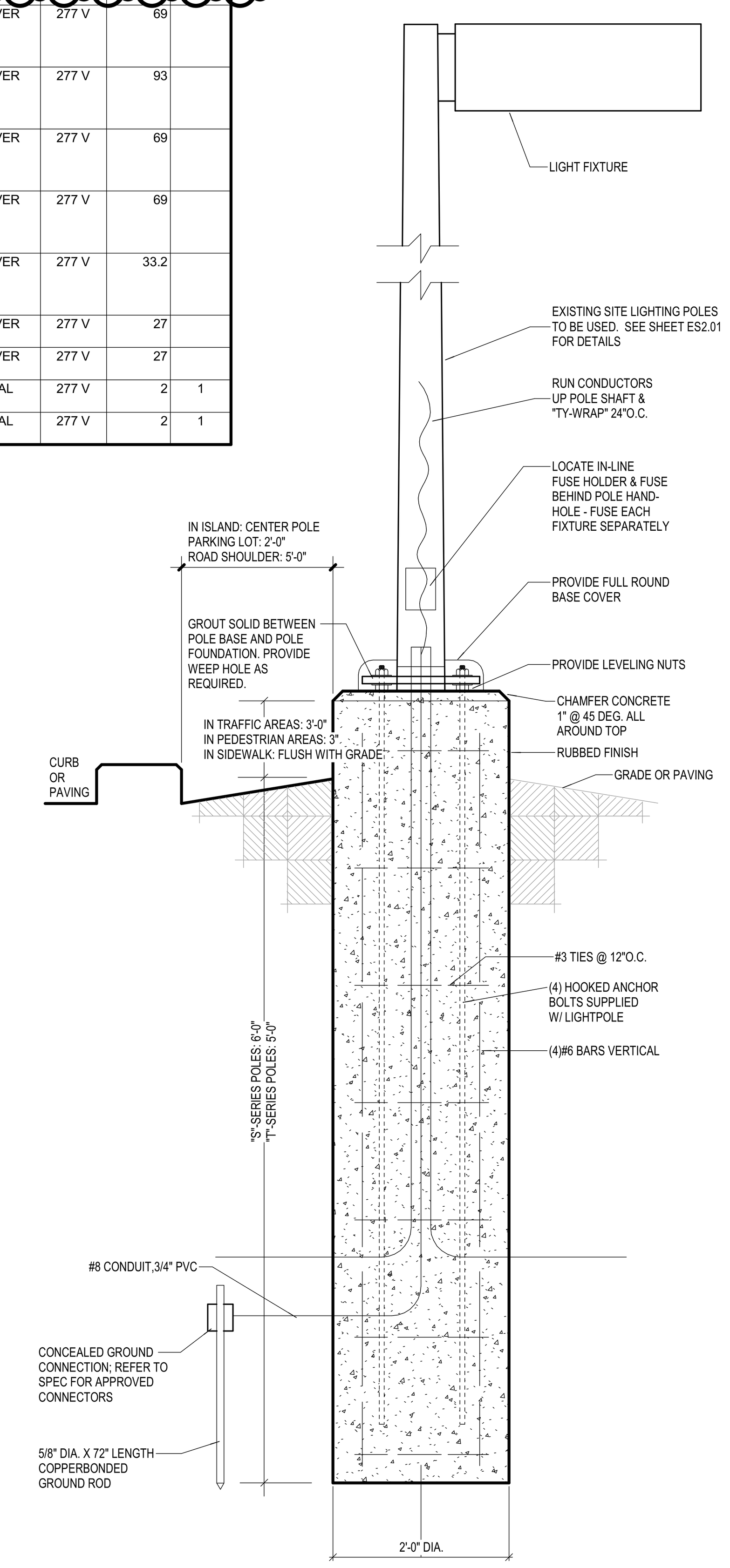
F. REFER TO THE PLAN DRAWINGS FOR LOCATIONS OF EMERGENCY-DUTY FIXTURES, INCLUDING FIXTURES WITH MULTIPLE CIRCUITS AND/OR EMERGENCY-DUTY SUBSECTIONS. ALL EMERGENCY-DUTY FIXTURES SHALL BE WIRED AND CIRCUITED PER NEC ARTICLE 700 RULES.

G. TO MAINTAIN A UNIFORM AND COORDINATED APPEARANCE ACROSS THE PROJECT, ONLY ONE APPROVED MANUFACTURER SHALL BE SELECTED FOR MULTIPLE FIXTURE TYPES AMONG WHICH A SIMILAR STYLE OR SERIES IS INTENDED. NON-CONFORMANCE SHALL BE JUDGED AT THE ENGINEER'S DISCRETION AND MAY REQUIRE CONTRACTOR'S RESELECTION OF SOME TYPES WITHIN THE LIST OF APPROVED MANUFACTURERS.

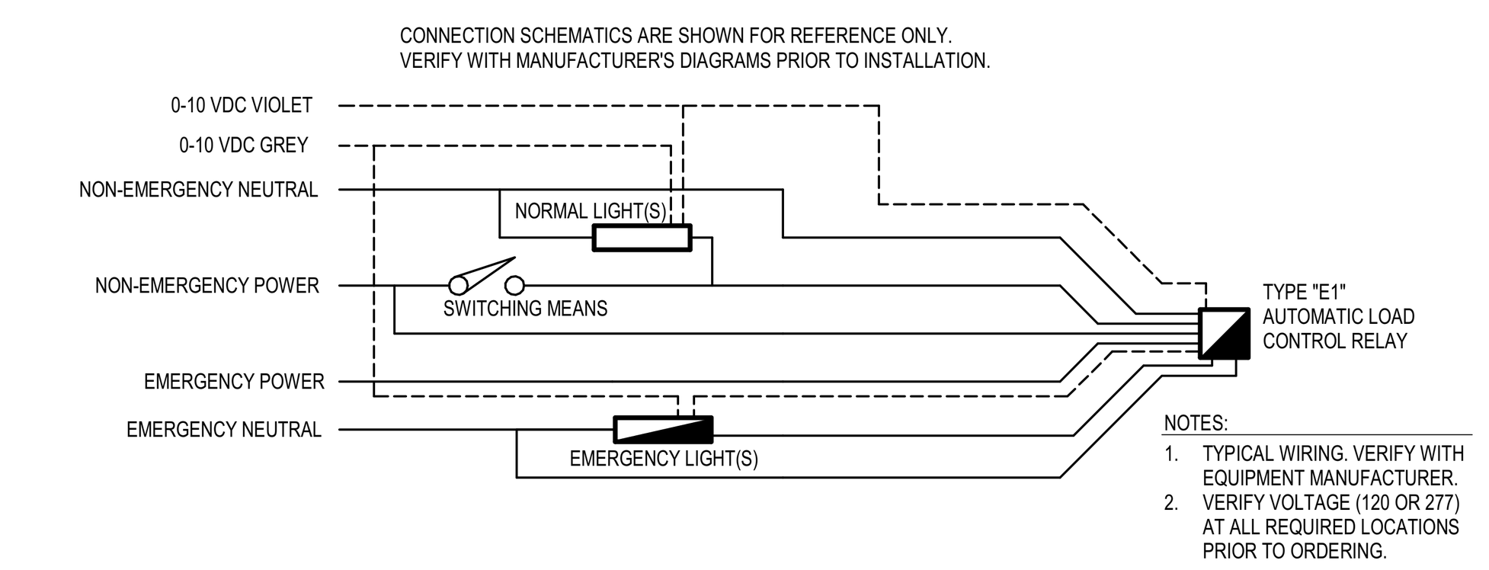
H. A BREAK-OUT COST SHALL BE MADE AVAILABLE TO THE BIDDING CONTRACTOR(S) FOR ANY FIXTURE TYPES WHICH LIST A SINGLE PRODUCT. THIS PRICING SHALL BE FURNISHED TO THE ARCHITECT/ENGINEER, CONSTRUCTION MANAGER, AND/OR OWNER UPON REQUEST.

LIGHTING FIXTURE SCHEDULE LINE ITEM NOTES:

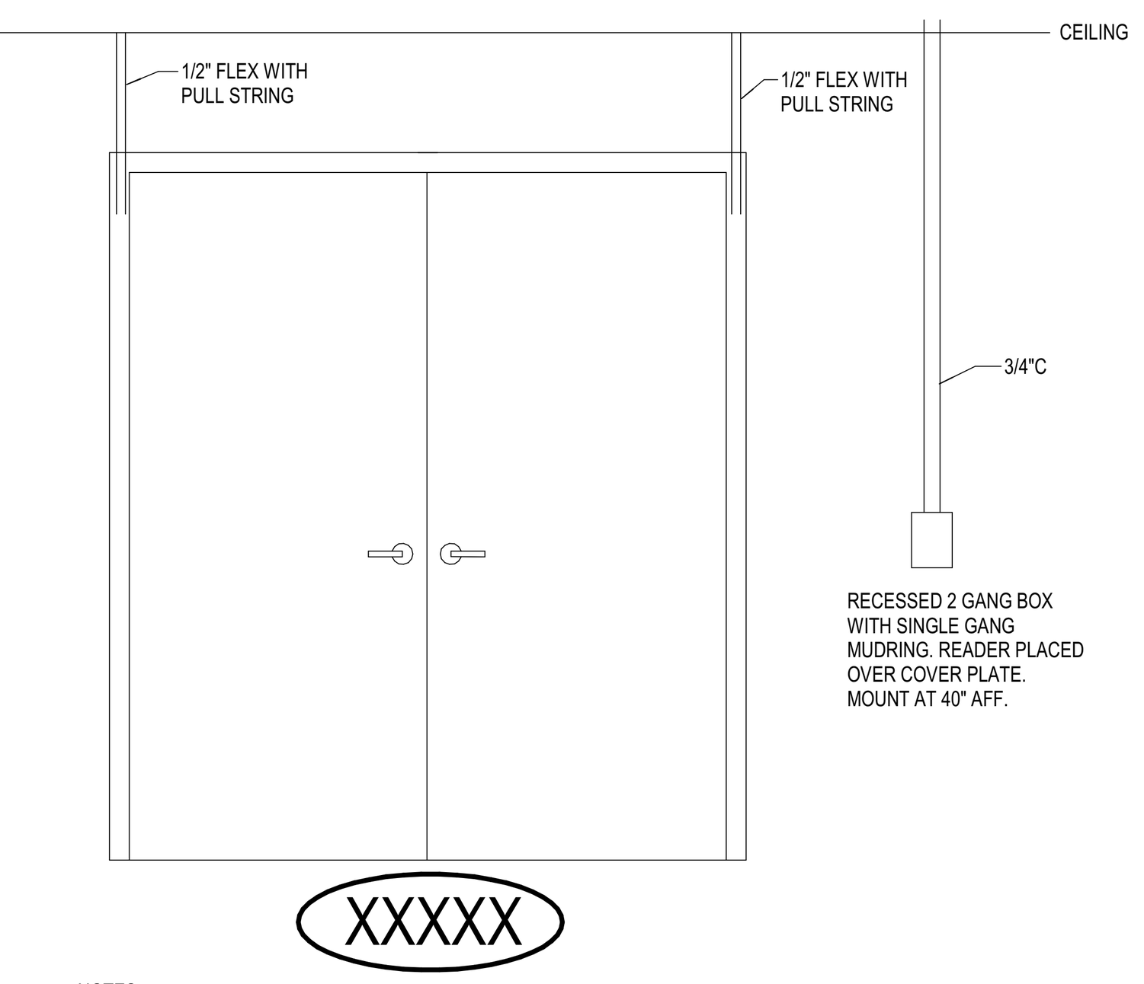
1. EMERGENCY LIGHTING CONTROL DEVICES SHALL BE WIRED WITH SUPPLY FROM EMERGENCY LIGHTING CIRCUIT, AND FROM NORMAL/UTILITY LIGHTING CIRCUIT, BOTH LINE AND LOAD SIDE OF RESPECTIVE CONTROL DEVICE(S) FOR THE LIGHTING CONTROL ZONE. REFER TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. EMERGENCY LIGHTING UNIT EQUIPMENT (INCLUDING BATTERY PACKS, EXIT SIGNS, INVERTERS, ETC.) SHALL HAVE 5-YEAR MANUFACTURER WARRANTY, TEST SWITCH AND CHARGE INDICATOR LIGHT. PROVIDE UNSWITCHED HOT CONDUCTOR FROM RESPECTIVE LOCAL LIGHTING CIRCUIT TO THE BATTERY.
3. COORDINATE EXACT LOCATIONS OF FIXTURES IN UTILITY ROOMS WITH EQUIPMENT, DUCTWORK, PIPING, ETC. IN FIELD TO ACHIEVE UNIFORM ILLUMINATION.
4. PROVIDE FEED POINT ON ENTIRE TRACK SYSTEM ARRANGEMENT WITH 3A CURRENT LIMITER DEVICE AS REQUIRED FOR NEC COMPLIANCE.
5. PROVIDE FEED POINT ON ENTIRE TRACK SYSTEM ARRANGEMENT WITH 12A CURRENT LIMITER DEVICE AS REQUIRED FOR NEC COMPLIANCE.



4 E7.01 SITE LIGHTING POLE FOUNDATION
1/8" = 1'-0"

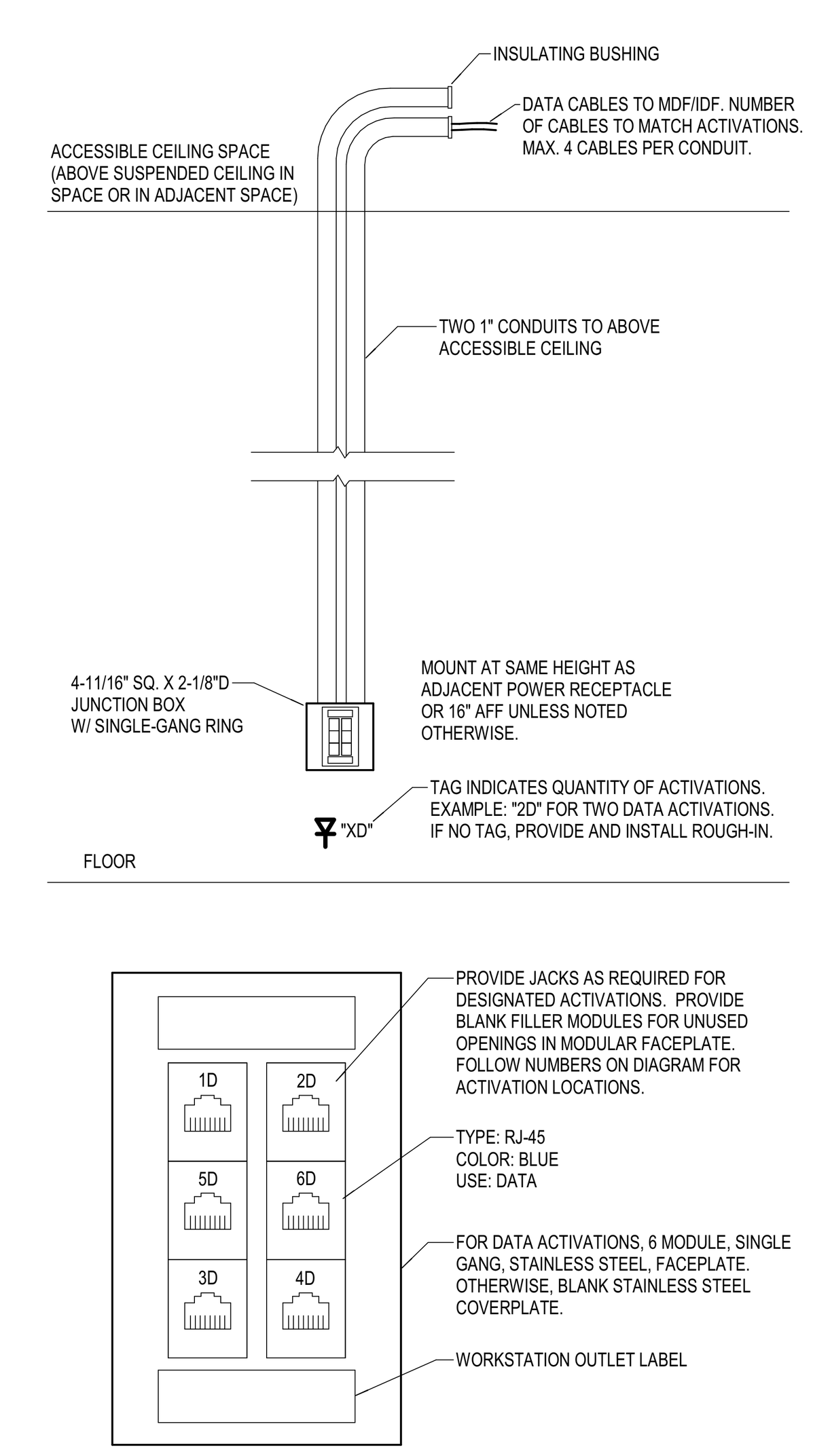


3 E7.01 EMERGENCY LIGHTING AUTOMATIC LOAD CONTROL RELAY
1" = 1'-0"



NOTES:
1. SEE SPECIFICATION FOR SPECIFIC DOOR CONTROL DEVICES PER SECURED DOOR.
2. COORDINATE WITH ACCESS CONTROL CONTRACTOR AND SHOP DRAWINGS FOR SPECIFIC REQUIREMENTS.

2 E7.01 DOUBLE SECURED DOOR ROUGH-IN
NOT TO SCALE



1 E7.01 TYPICAL COMMUNICATION OUTLET
NOT TO SCALE

GMB
616.796.0200
www.gmb.com

THREE RIVERS MIDDLE SCHOOL ADDITIONS & RENOVATIONS
THREE RIVERS COMMUNITY SCHOOLS
THREE RIVERS, MICHIGAN

ISSUANCES	
12.01.2022	BIDS & CONSTRUCTION
01.26.2023	ADDENDUM 004

DRAWN	TJO
REVIEWED	AAM
PROJECT NO.	5-5802

ELECTRICAL DETAILS & LIGHTING FIXTURE SCHEDULE

E7.01

BIM 360://5-5802 Three Rivers MS Additions & Renovations Series 2/5-5802E 2019.rvt
1/26/2023 2:40:17 PM