

Bid Addendum No. 4

November 19, 2024 Valley Central School District 2023 Capital Project – Phase 1 CSArch Project No. 187-2302.01 SED Control No. Varies

This Bid Addendum No. 4 forms part of the Contract Documents and modifies the original bidding documents dated October 18, 2024. Bid Addendum No. 3 consists of (4) cover sheet page, (6) specification sections, (29) full size 30"x42" drawing sheets, and responses to bidder requests for information.

GENERAL INFORMATION

- 1. Bid Addendum No. 1 was issued to bidders on October 25, 2024.
- 2. Bid Addendum No. 2 was issued to bidders on November 1, 2024.
- 3. Bid Addendum No. 3 was issued to bidders on November 8, 2024.
- 4. Bid Addendum No. 4 was issued to bidders on November 19, 2024.

REVISIONS TO THE PROJECT MANUAL

- 1. **DELETE** <u>previously revised</u> specification section 000110 Table of Contents. **REPLACE** with the <u>attached revised</u> specification section 000110 Table of Contents.
- 2. **DELETE** <u>previously revised</u> specification section 000115 List of Drawing Sheets. **REPLACE** with the <u>attached</u> <u>revised</u> specification section 000115 List of Drawing Sheets.
- 3. ADD attached new specification section 011200.03 Vendor (Siemens) Supplied HVAC Controls Schedule.
- 4. **DELETE** <u>original</u> specification section 012100 Allowances. **REPLACE** with the <u>attached revised</u> specification section 012100 Allowances.
- 5. **DELETE** <u>original</u> specification section 012300 Alternates. **REPLACE** with the <u>attached revised</u> specification section 012300 Alternates.
- 6. **DELETE** <u>original</u> specification section 283100 Fire Detection and Alarm. **REPLACE** with the <u>attached revised</u> specification section 283100 Fire Detection and Alarm.

REVISIONS TO THE CONSTRUCTION DRAWINGS

VOLUME 01 OF 08 - BEREA ELEMENTARY SCHOOL

- 1. DELETE previously revised drawing sheet BES G000. REPLACE with attached revised drawing sheet BES G000.
- 2. **DELETE** <u>original</u> drawing sheet BES C100. **REPLACE** with <u>attached revised</u> drawing sheet BES C100.
- 3. **DELETE** <u>original</u> drawing sheet BES C130. **REPLACE** with <u>attached revised</u> drawing sheet BES C130.



Architect's Seal



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- 4. DELETE original drawing sheet BES C530. REPLACE with attached revised drawing sheet BES C530.
- 5. **DELETE** previously revised drawing sheet BES A111. **REPLACE** with <u>attached revised</u> drawing sheet BES A111.
- 6. ADD <u>new</u> drawing sheet BES A401.
- 7. DELETE original drawing sheet BES AF001. REPLACE with attached revised drawing sheet BES AF001.
- 8. **DELETE** <u>original</u> drawing sheet BES AF111. **REPLACE** with <u>attached revised</u> drawing sheet BES AF111.
- 9. DELETE original drawing sheet BES AF112. REPLACE with attached revised drawing sheet BES AF112.
- 10. ADD <u>new</u> drawing sheet BES M201.
- 11. **ADD** <u>new</u> drawing sheet BES E201.

VOLUME 02 OF 08 – EAST COLDENHAM ELEMENTARY SCHOOL

1. **DELETE** <u>original</u> drawing sheet ECES AF111. **REPLACE** with <u>attached revised</u> drawing sheet ECES AF111.

VOLUME 03 OF 08 – MONTGOMERY ELEMENTARY SCHOOL

1. **DELETE** <u>original</u> drawing sheet MES AF111. **REPLACE** with <u>attached revised</u> drawing sheet MES AF111.

VOLUME 04 OF 08 – MAYBROOK ALTERNATIVE LEARNING CENTER

1. **DELETE** <u>original</u> drawing sheet MAY AF121. **REPLACE** with <u>attached revised</u> drawing sheet MAY AF121.

VOLUME 05 OF 08 – VALLEY CENTRAL HIGH SCHOOL

- 1. **DELETE** <u>previously revised</u> drawing sheet VCHS G000. **REPLACE** with <u>attached revised</u> drawing sheet VCHS G000.
- 2. DELETE original drawing sheet VCHS AA300 in its entirety.
- DELETE <u>previously revised</u> drawing sheet VCHS AD112. REPLACE with <u>attached revised</u> drawing sheet VCHS AD112.
- 4. **DELETE** <u>previously revised</u> drawing sheet VCHS A112. **REPLACE** with <u>attached revised</u> drawing sheet VCHS A112.
- 5. DELETE original drawing sheet VCHS AF001. REPLACE with attached revised drawing sheet VCHS AF001.
- 6. **DELETE** <u>original</u> drawing sheet VCHS AF112. **REPLACE** with <u>attached revised</u> drawing sheet VCHS AF112.
- DELETE <u>previously revised</u> drawing sheet VCHS M003. REPLACE with <u>attached revised</u> drawing sheet VCHS M003.
- DELETE <u>previously revised</u> drawing sheet VCHS MD212. REPLACE with <u>attached revised</u> drawing sheet VCHS MD212.
- DELETE previously revised drawing sheet VCHS M212. REPLACE with <u>attached revised</u> drawing sheet VCHS M212.
- 10. **DELETE** <u>previously revised</u> drawing sheet VCHS ED211. **REPLACE** with <u>attached revised</u> drawing sheet VCHS ED211.



Bid Addendum 4 | Page 3 CSArch Project No. 187-2302.01 Valley Central School District 2023 Capital Project – Phase 1

- 11. **DELETE** previously revised drawing sheet VCHS E211. **REPLACE** with <u>attached revised</u> drawing sheet VCHS E211.
- 12. **DELETE** <u>previously revised</u> drawing sheet VCHS E301. **REPLACE** with <u>attached revised</u> drawing sheet VCHS E301.

VOLUME 06 OF 08 – VALLEY CENTRAL MIDDLE SCHOOL

1. **DELETE** <u>original</u> drawing sheet VCMS AF111. **REPLACE** with <u>attached revised</u> drawing sheet VCMS AF111.

VOLUME 07 OF 08 – WALDEN ELEMENTARY SCHOOL

- 1. **DELETE** <u>original</u> drawing sheet WES AA100. **REPLACE** with <u>attached revised</u> drawing sheet WES AA100.
- 2. **DELETE** <u>previously revised</u> drawing sheet WES AD111. **REPLACE** with <u>attached revised</u> drawing sheet WES AD111.
- 3. **DELETE** <u>original</u> drawing sheet WES AF111. **REPLACE** with <u>attached revised</u> drawing sheet WES AF111.

VOLUME 08 OF 08 - ADMINISTRATION BUILDING

1. N/A

RESPONSES TO BIDDER REQUESTS FOR INFORMATION

- 1. Who is currently running the BMS System at the schools listed
 - a. <u>Response:</u> HVAC controls are provided by Owner unless otherwise noted in the documents. Vendor is either Siemens or Trane depending on the building. Refer to the revised DDC Temperature Controls Notes released in Addendum #2 on the mechanical sheets for each building. Also Refer to Addendum #3 and #4 for scope of work for Siemens and Trane.
- 2. Did the school district pre purchase all Trane and Mitsubishi Mechanical Equipment and or all the Mechanicals including furnaces and boilers from Lochinvar
 - a. <u>Response</u>: District has pre-purchased some of the equipment, the remainder should be furnished by the Mechanical Contractor. Refer to Trane Equipment proposals in Addendum #3 for a detailed listing of all equipment that is being furnished by the Owner.
- 3. In the bid form do we add the allowance, alternate, unit price to our base bid price? I do not see it on the bid 012200/012100/012300 form nor in the specs. Please make clarification of this as we are preparing our bids.
 - a. <u>Response:</u> Allowances to be provided as part of the the Base Bid value. Alternates to be provided in addition to the Base Bid value and shall be listed on Bid Forms. Unit Prices will be utilized in all Base Bid and Alternate work. Prices to be included on Bid Forms.Refer to clarifications on Allowances & Alternates in Bid Addendum #4.



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- 4. Please specify the existing fire alarm on East Coldenham & Admin Bldg. It does not specify in any on the plans or specs. Please advise ASAP.
 - a. <u>Response:</u> Please refer to revised Section 283100 in Addendum #4, information has been added regarding the existing fire alarm system in each building.
- 5. We reached out to Technical Glass Products (TGP), the basis of design for the required fire-rated assemblies on this project. Their response is as follows:

- The Designer Series with FireLite forced-entry glazing is available but limits the span to 13'-6". This glazing is not bullet-resistant; it prevents physical breach but allows projectiles to pass through.

- Alternatively, they can provide FireFrames, but this system lacks security glazing. A separate film would be needed to achieve any security rating.

Please advise on how you would like us to proceed.

- a. <u>Response:</u> If glazing system assembly cannot be provided to obtain the fire rating and ballistic rating specified, provide fire rated glazing (rating to match required storefront system fire-rating) with security film applied to glazing to meet ballistic rating specified.
- 6. On Sheet WES AF111 for the Main Office (Room 11), two floor finishes (LVT-1 and CPT-1) are specified. However, only LVT-1 is represented in the hatch pattern on the drawing. Could you please confirm if CPT-1 is required in the floor finish?
 - a. <u>Response:</u> Refer to revisions to floor finishes in Bid Addendum #4.
- 7. Addendum #3 Specification Section 028213- C Summary of Work Table 5 shows VCHS AA300 as 50 sq/ft of estimated removal, when you refer to Drawing VCHS AA300 Legend shows 625 sq/ft but does not show where this occurs. Please clarify what sq/ft is required to be removed and where this occurs.
 - a. <u>Response:</u> Subsequent testing has been completed and Roofing at Valley Central High School is negative for ACM. Drawing sheet AA300 will be deleted in its entirety in Bid Addendum #4.

END OF BID ADDENDUM NO. 4

SECTION 000110 - TABLE OF CONTENTS

VOLUME 01 OF 03 - DIVISION 00 - 02

PROCUREMENT AND CONTRACTING REQUIREMENTS

- Division 00 -- Procurement and Contracting Requirements
- 000010 Certifications Page
- 000011 Certifications Page
- 000012 Certifications Page
- 000110 Table of Contents
- 000115 List of Drawing Sheets
- 001113 Advertisement for Bids
- 002113 Instructions to Bidders
- 003100.01 Berea Elementary School Phasing Plans Phase 1
- 003100.02 East Coldenham Elementary School Phasing Plans Phase 1
- 003100.03 Maybrook Alternative Learning Center Phasing Plans Phase 1
- 003100.04 Montgomery Elementary School Phasing Plans Phase 1
- 003100.05 Valley Central High School Phasing Plans Phase 1
- 003100.06 Valley Central Middle School Phasing Plans Phase 1
- 003110 Project Construction Milestone Schedule
- 004101 Bid Form Contract No. 1-01 General and Abatement Construction (GAC)
- 004102 Bid Form Contract No. 1-02 Mechanical and Plumbing Construction (MPC)
- 004103 Bid Form Contract No. 1-03 Electrical Construction (EC)
- 004313 AIA A310 Bid Bond
- 004333 Proposed Products Form
- 004336 Proposed Subcontractors Form
- 004513 AIA A305 Contractor's Qualifications Statement

- 004519 Certificate of Non-Collusion
- 004520 Iran Divestment Act Certification
- 004543 Corporate Resolutions
- 005216.01 AIA A132 Owner/Contractor Agreement, Construction Manager As Advisor
- 006112 AIA A312 Payment Bond
- 006113 AIA A312 Performance Bond
- 006114 AIA C106 Digital Data Licensing Agreement
- 006276.01 AIA G732 Application And Certification For Payment, Construction Manager As Advisor
- 006276.02 AIA G703 Continuation Sheet
- 006380 Demonstration & Training Log
- 006519 AIA G706 Contractor's Affidavit Of Payment Of Debts And Claims
- 006520 AIA G706A Contractor's Affidavit Of Release Of Liens
- 006521 AIA G707 Consent Of Surety To Final Payment
- 007216.01 AIA A232 General Conditions Of The Contract For Construction, Construction Manager As Advisor
- 007343 Prevailing Rate of Wages
- 008310 Submittal Cover
- 008320 Request for Information

SPECIFICATIONS

- Division 01 -- General Requirements
- 011200 Summary Multiple Primes
- 011200.01 Vendor (Trane USA, Inc) Supplied HVAC Equipment Schedule
- 011200.02 Vendor (Trane USA, Inc) Supplied HVAC Controls Schedule

011200.03 - Vendor (Siemens) Supplied HVAC Controls Schedule

011400 - Work Restrictions

011410 - NYSED 155.5 Regulations

- 012100 Allowances
- 012200 Unit Prices
- 012300 Alternates
- 012600 Contract Modification Procedures
- 012900 Payment Procedures
- 012973 Schedule of Values
- 013100 Project Management And Coordination
- 013150 Safety And Health
- 013200 Construction Progress Documentation
- 013300 Submittal Procedures
- 014000 Quality Requirements
- 014100 Special Inspections And Structural Testing
- 014200 References And Definitions
- 015000 Temporary Facilities And Controls
- 016000 Product Requirements
- 017300 Execution
- 017310 Cutting And Patching
- 017400 Warranties
- 017700 Closeout Procedures
- 017820 Operations And Maintenance Data
- 017839 Project Record Documents
- 017900 Demonstration And Training
- Division 02 -- Existing Conditions
- 023313 Underground Utility Locator Service
- 024119 Selective Structural Demolition And Shoring
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VOLUME 02 OF 03 - DIVISION 03 - 34

- Division 03 -- Concrete
- 033000 Cast-In-Place Concrete
- 034500 Precast Architectural Concrete
- Division 04 -- Masonry
- 040110.01 Masonry Cleaning
- 040120.63 Brick Masonry Repair
- 040120.64 Brick Masonry Repointing
- 042000 Concrete Unit Masonry
- 042613 Masonry Veneer
- Division 05 -- Metals
- 051200 Structural Steel Framing
- 055213 Pipe And Tube Railings
- Division 06 -- Wood, Plastics, and Composites
- 061053 Miscellaneous Rough Carpentry
- 061600 Sheathing
- Division 07 -- Thermal and Moisture Protection
- 072100 Thermal Insulation
- 072500 Weather Barriers
- 072600 Vapor Retarders
- 075323 Ethylene-Propylene-Diene-Monomer (EPDM) Roofing
- 077200 Roof Accessories
- 078413 Penetration Firestopping
- 078446 Fire-Resistive Joint Systems

079200 - Joint Sealants

- Division 08 -- Openings
- 081113 Hollow Metal Doors And Frames
- 081416 Flush Wood Doors
- 083343 Overhead Coiling Smoke Curtains
- 083453 Security Doors
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- 085113 Aluminum Windows
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- 087100 Door Hardware
- 087113 Power Door Operators
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- 088853 Security Glazing
- 089119 Fixed Louvers
- Division 09 -- Finishes
- 090561.13 Moisture Vapor Emission Control
- 092216 Non-Structural Metal Framing
- 092900 Gypsum Board
- 093013 Ceramic Tiling
- 095113 Acoustical Panel Ceilings
- 096513 Resilient Base And Accessories
- 096519 Resilient Tile Flooring
- 096813 Tile Carpeting
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- Division 10 -- Specialties
- 101100 Visual Display Units
- 101423 Interior Panel Signage
- 102123 Cubicle Curtains And Track
- 102641 Bullet Resistant Panels
- 102800 Toilet And Custodial Accessories
- 104416 Fire Extinguishers And Cabinets
- Division 11 -- Equipment
- 116833 Tennis Court Equipment
- Division 12 -- Furnishings
- 122413 Roller Window Shades
- 123216 Plastic Laminate-Clad Casework
- 123661 Solid Surfacing Materials
- 124813 Entrance Floor Mats And Frames
- Division 13 -- Special Construction (NOT USED)
- Division 14 -- Conveying Equipment (NOT USED)
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- **Division 22 -- Plumbing**
- 220500 General Plumbing Requirements
- 220502 Plumbing Demolition
- 220529 Supports and Sleeves
- 220553 Plumbing Identification
- 220719 Piping Insulation
- 221000 Plumbing Piping

- 221030 Plumbing Specialties
- 221613 Natural Gas Piping
- 223500 DOMESTIC-WATER HEAT EXCHANGERSDomestic Water Heat Exchangers
- 224200 Plumbing Fixtures
- Division 23 -- Heating, Ventilating, and Air-Conditioning (HVAC)
- 230500 General Mechanical Requirements
- 230502 Mechanical Demolition
- 230513 Common Motor Requirements
- 230515 Variable Frequency Drives
- 230529 Supports and Sleeves
- 230548 Vibration Controls for HVAC
- 230553 Mechanical Identification
- 230593 Testing, Adjusting, and Balancing
- 230713 Duct Insulation
- 230719 Pipe Insulation
- 230800 Commissioning of HVAC Systems
- 230900 Building Automation System
- 230993 Sequence of Operations
- 232113 Hydronic Piping
- 232123 HVAC Pumps
- 232513 Water Treatment for Closed-Loop Hydronic Systems
- 233113 Metal Ductwork
- 233300 Air Duct Accessories
- 233423 Power Ventilators
- 233713 Registers, Grilles and Diffusers
- 235133 Insulated Sectional Chimneys

- 235216 Condensing Boilers
- 236423 Air-Cooled, Scroll Water Chillers
- 237232 Packaged Energy Recovery Ventilators
- 237313 Indoor Air Handling Units
- 237401 Packaged Rooftop Heating and Cooling Units
- 238129 Variable Refrigerant-Flow HVAC Systems
- 238216 Ducted Heating Coils
- 238223 Unit Ventilators
- 238236 Finned-Tube Radiation Heaters
- 238241 Unit Heaters
- Division 25 -- Integrated Automation (NOT USED)
- Division 26 -- Electrical
- 260500 General Electrical Requirements
- 260519 Low-Voltage Electrical Power Conductors And Cables
- 260526 Grounding And Bonding For Electrical Systems
- 260529 Hangers And Supports For Electrical Systems
- 260533 Raceways And Boxes For Electrical Systems
- 260534 Manholes And Handholes
- 260543 Underground Ducts And Raceways For Electrical Systems
- 260544 Sleeves And Sleeve Seals For Electrical Raceways And Cabling
- 260553 Identification For Electrical Systems
- 260923 Lighting Control Devices
- 262416 Panelboards
- 262726 Wiring Devices
- 262816 Enclosed Switches And Circuit Breakers
- 265119 LED Interior Lighting

265219 - Emergency And Exit Lighting

Division 27 -- Communications (NOT USED)

Division 28 -- Electronic Safety and Security

283100 - Fire Detection And Alarm

Division 31 -- Earthwork

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312319 - Dewatering

312513 - Erosion and Sediment Controls

Division 32 -- Exterior Improvements

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323113 - Chain Link Fences And Gates

329200 - Topsoil and Seeding

Division 33 -- Utilities

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Division 34 -- Transportation (NOT USED)

VOLUME 03 OF 03 - APPENDIX

APP 1A - Limited Hazardous Materials Pre-Renovation Survey Report - Berea Elementary School

APP 1B - Limited Hazardous Materials Pre-Renovation Survey Report - East Coldenham Elementary School

APP 1C - Limited Hazardous Materials Pre-Renovation Survey Report - Maybrook Alternative Learning Center (formally Maybrook Elementary School)

APP 1D - Limited Hazardous Materials Pre-Renovation Survey Report - Montgomery Elementary School

APP 1E - Limited Hazardous Materials Pre-Renovation Survey Report - Valley Central High School

APP 1F - Limited Hazardous Materials Pre-Renovation Survey Report - Walden Elementary School

APP 1G - Limited Hazardous Materials Pre-Renovation Survey Report - Valley Central Middle School

END OF SECTION

SECTION 000115 - LIST OF DRAWING SHEETS

VOLUME 01 OF 08 - BEREA ELEMENTARY SCHOOL (BES)

GENERAL DRAWINGS

| BES | G000 | COVER & SHEET INDEX |
|-----|------|--|
| BES | G001 | SYMBOLS, ABBREVIATIONS, MISC AND PARTITION TYPES |
| BES | G111 | OVERALL FLOOR PLAN - FIRST FLOOR |

LIFE SAFETY DRAWINGS

BESLS111LIFE SAFETY PLANS - FIRST FLOORBESLS112SMOKE ZONE PLANS

HAZARDOUS MATERIALS DRAWINGS

BES AA100 ASBESTOS ABATEMENT FIRST FLOOR AREA A

CIVIL DRAWINGS

| BES | C100 | KEY PLAN |
|-----|------|----------------------------|
| BES | C130 | SITE, GRADING AND ESC PLAN |
| BES | C530 | DETAILS |

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|-----|-------|--|
| BES | AD121 | REMOVALS PLAN - FIRST FLOOR - AREA B |
| BES | AD811 | REFLECTED CEILING DEMO PLAN - FIRST FLOOR AREA A |
| BES | AD812 | REFLECTED CEILING DEMO PLAN - FIRST FLOOR AREAB |

ARCHITECTURAL DRAWINGS

| BES | A111 | ENLARGED FLOOR PLAN - FIRST FLOOR - AREA A |
|-----|------|--|
| BES | A112 | ENLARGED FLOOR PLAN - FIRST FLOOR - AREAB |
| BES | A201 | EXTERIOR ELEVATIONS |
| BES | A202 | EXTERIOR ELEVATIONS |
| BES | A351 | PLAN AND SECTION DETAILS |
| BES | A401 | ROOF PLAN AND DETAILS |
| BES | A601 | ENLARGED PLAN AND INTERIOR ELEVATIONS |
| BES | A602 | ENLARGED PLAN AND INTERIOR ELEVATIONS |

ARCHITECTURAL DRAWINGS

| A651 | CASEWORK DETAILS | |
|------|---|---|
| A811 | REFLECTED CEILING PLAN - FIRST FLOOR AREA A | |
| A812 | REFLECTED CEILING PLAN - FIRST FLOOR AREAB | |
| A901 | DOOR, WINDOW, & STOREFRONT DETAILS | |
| | A651 A811 A812 A901 | A651 CASEWORK DETAILS A811 REFLECTED CEILING PLAN - FIRST FLOOR AREA A A812 REFLECTED CEILING PLAN - FIRST FLOOR AREAB A901 DOOR, WINDOW, & STOREFRONT DETAILS |

ARCHITECTURAL FINISH DRAWINGS

| BES | AF001 | MATERIAL SCHEDULE |
|-----|-------|---|
| BES | AF002 | SIGNAGE TYPES AND SCHEDULE |
| BES | AF111 | ENLARGED FLOOR FINISHES PLAN - FIRST FLOOR - AREA A |
| BES | AF112 | ENLARGED FLOOR FINISHES PLAN - FIRST FLOOR - AREA B |

FURNITURE DRAWINGS

BES FE111 FLOOR FURNITURE PLAN - FIRST FLOOR - AREA A

PLUMBING GENERAL DRAWINGS

BES P001 PLUMBING NOTES, SCHEDULE, LEGEND, & DETAILS

PLUMBING DEMOLITION DRAWINGS

BES PD111 PLUMBING DEMOLITION PLAN - PART 1

BES PD112 PLUMBING DEMOLITION PLAN - PART 2

PLUMBING DRAWINGS

| BES | P111 | PLUMBING PLAN - PART 1 |
|-----|------|------------------------|
| | | |

BES P112 PLUMBING PLAN - PART 2

MECHANICAL GENERAL DRAWINGS

- BES M001 MECHANICAL NOTES, LEGENDS, SCHEDULES & DETAILS
- BES M002 MECHANICAL SCHEDULES & DETAILS

MECHANICAL DEMOLITON DRAWINGS

BES MD111 MECHANICAL DEMOLITION PLAN - PART 1

BES MD112 MECHANICAL DEMOLITION PLAN - PART 2

MECHANICAL DRAWINGS

| BES M111 MECHANICAL PLAN - PART | 1 |
|---------------------------------|---|
|---------------------------------|---|

BES M112 MECHANICAL PLAN - PART 2

BES M201 MECHANICAL ROOF PLAN

MECHANICAL DRAWINGS

ELECTRICAL GENERAL DRAWINGS

BES E001 ELECTRICAL NOTES, LEGENDS, SCHEDULES & DETAILS

ELECTRICAL DEMOLITION DRAWINGS

BESED111ELECTRICAL DEMOLITION PLAN - PART 1BESED112ELECTRICAL DEMOLITION PLAN - PART 2

ELECTRICAL DRAWINGS

BES E111 ELECTRICAL PLAN - PART 1

BES E112 ELECTRICAL PLAN - PART 2

BES E201 ELECTRICAL ROOF PLAN

BES E211 LIGHTING PLAN - PART 1

BES E212 LIGHTING PLAN - PART2

VOLUME 02 OF 08 - EAST COLDENHAM ELEMENTARY SCHOOL (ECES)

GENERAL DRAWINGS

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|------|------|---|
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| ECES | G111 | OVERALL FLOOR PLAN - FIRST FLOOR |

LIFE SAFETY DRAWINGS

| ECES | LS111 | LIFE SAFETY PLAN - FIRST FLOOR |
|------|-------|--------------------------------|
| ECES | LS112 | SMOKE ZONE PLANS |

HAZARDOUS MATERIALS DRAWINGS

ECES AA100 ASBESTOS ABATEMENT FIRST FLOOR AREA A

ARCHITECTURAL DEMOLITION DRAWINGS

ECES AD111 ENLARGED REMOVAL PLAN AND RCP

ARCHITECTURAL DRAWINGS

- ECES A111 ENLARGED FLOOR PLAN, RCP AND DETAILS
- ECES A201 EXTERIOR ELEVATIONS
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ARCHITECTURAL DRAWINGS

ECES A901 DOOR, WINDOW, & STOREFRONT DETAILS

ARCHITECTURAL FINISH DRAWINGS

ECES AF001 SIGNAGE TYPES AND SCHEDULE

MECHANICAL GENERAL DRAWINGS

ECES M001 MECHANICAL NOTES, LEGENDS, SCHEDULES & DETAILS

MECHANICAL DEMOLITION DRAWINGS

ECES MD111 MECHANICAL DEMOLITION PLAN

MECHANICAL DRAWINGS

ECES M111 MECHANICAL PLAN

ELECTRICAL GENERAL DRAWINGS

ECES E001 ELECTRICAL NOTES, LEGENDS, DETAILS & SCHEDULES

ELECTRICAL DEMOLITION DRAWINGS

ECES ED111 ELECTRICAL DEMOLITION PLAN

ELECTRICAL DRAWINGS

ECES E111 ELECTRICAL PLAN

VOLUME 03 OF 08 - MONTGOMERY ELEMENTARY SCHOOL (MES)

GENERAL DRAWINGS

- MES G000 COVER & SHEET INDEX
- MES G001 SYMBOLS, ABBREVIATIONS, MISC, AND PARTITION TYPES
- MES G111 OVERALL FLOOR PLAN FIRST FLOOR

LIFE SAFETY DEMOLITION DRAWINGS

- MES LS111 FIRST FLOOR LIFE SAFETY PLAN
- MES LS112 SMOKE ZONE PLANS

HAZARDOUS MATERIALS DRAWINGS

MES AA100 ASBESTOS ABATEMENT FIRST FLOOR AREA C

ARCHITECTURAL DEMOLITION DRAWINGS

MES AD111 ENLARGED REMOVAL PLAN - FIRST FLOOR - AREA C

ARCHITECTURAL DRAWINGS

| MES | A111 | ENLARGED NEW WORK PLAN - FIRST FLOOR - AREA C |
|-----|------|---|
| MES | A201 | EXTERIOR ELEVATIONS |
| MES | A202 | EXTERIOR ELEVATIONS |
| MES | A811 | REFLECTED CEILING PLAN - FIRST FLOOR - AREA C |
| MES | A901 | DOOR, WINDOW, & STOREFRONT DETAILS |

ARCHITECTURAL FINISH DRAWINGS

| MES | AF001 | SIGNAGE TYPES AND SCHEDULE |
|-----|-------|--|
| MES | AF111 | MATERIAL SCHEDULE & FLOOR FINISHES PLAN - AREA C |

PLUMBING DRAWINGS

MES P001 PLUMBING NOTES, SCHEDULE, LEGEND & DETAILS

PLUMBING DRAWINGS

MES P111 PLUMBING PLANS

MECHANICAL GENERAL DRAWINGS

MES M001 MECHANICAL NOTES, LEGENDS, SCHEDULES & DETAILS

MECHANICAL DEMOLITION DRAWINGS

MES MD111 MECHANICAL DEMOLITION PLAN

MECHANICAL DRAWINGS

MES M111 MECHANICAL PLAN

ELECTRICAL GENERAL DRAWINGS

MES E001 ELECTRICAL NOTES, LEGEND, SCHEDULES & DETAILS

ELECTRICAL DEMOLITION DRAWINGS

MES ED111 ELECTRICAL DEMOLITION PLAN

ELECTRICAL DRAWINGS

MES E111 ELECTRICAL PLAN

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GENERAL DRAWINGS

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END OF SECTION

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Phase 1, Contractor Coordination Notes for Siemens controls, 11-18-2024

Berea Elementary School:

Heat Pump and Indoor Units, VRF System

- 1. Siemens shall provide Indoor unit Thermostat installation and wiring
- 2. Siemens shall provide inter-connecting control wiring between indoor units and outdoor unit and VRF BACnet controller

VAV Terminal Unit with HW Reheat

- 1. Mechanical contractor to install control valve furnished by Siemens
- 2. Electrical contractor to provide 120V power wiring to each VAV terminal unit as shown Electrical drawings

Duct Reheat Coil

1. Mechanical contractor to install control valve furnished by Siemens

Energy Recovery Ventilator

- 1. Siemens shall provide fire-alarm shut-down interconnect wiring
- 2. Siemens shall provide area/room sensor installation and wiring
- 3. Siemens shall provide BACnet communications wiring to Siemens Supervisory control panel

Maybrook Alternative Learning Center:

Split AC-unit

- 1. Siemens shall provide indoor unit Thermostat installation and wiring
- 2. Siemens shall provide inter-connecting control wiring between indoor units and outdoor units

FCU Outdoor Air Intake Damper

1. Siemens shall furnish, install and wire damper actuator

Montgomery Elementary School:

Split AC-unit

- 1. Siemens shall provide Indoor unit Thermostat installation and wiring
- 2. Siemens shall provide inter-connecting control wiring between indoor units and outdoor units

FCU Outdoor Air Intake Damper

1. Siemens shall furnish, install and wire damper actuator

Valley Central Middle School

Split AC-unit

- 1. Siemens shall provide indoor unit Thermostat installation and wiring
- 2. Siemens shall provide inter-connecting control wiring between indoor units and outdoor units

Hot Water Unit Heaters

1. Mechanical contractor to install control valve furnished by Siemens

SECTION 012100 - ALLOWANCES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes administrative and procedural requirements governing allowances.
 - 1. Certain items are specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when direction will be provided to Contractor.
- B. Types of allowances include the following:
 - 1. Contingency Allowances

1.3 INFORMATIONAL SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance cost proposal.
- B. Submit time sheets and other documentation to show labor time and cost for installation of allowance items that include installation as part of the allowance cost proposal.
- C. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.4 COORDINATION

A. Coordinate allowance items with other portions of the Work. Furnish templates as required to coordinate installation.

1.5 ALLOWANCES

A. Use the allowance only as directed by Architect for Owner's purposes and only by change documentation that indicate amounts to be charged against the allowance.

- B. Contractor's overhead, administrative expenses, project management, profit, and related costs for labor, products and equipment ordered by Owner under allowances are to be included within the allowance, and thereby included in the Contract Sum.
- C. Change Orders authorizing use of allowances will include all related Contractor's costs including but not limited to, procurement, installation, insurance, equipment rental, and similar costs as applicable to the specific allowance.

1.6 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowances, the Architect will prepare a Change Order reflective of approved costs, utilizing Unit Prices if applicable, that will result in Allowance Remaining, if any.
 - 1. Contractor shall include installation costs in purchase amount only where indicated as part of the proposal request.
 - 2. Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
 - 3. At Project closeout, credit unused amounts remaining in the allowance to Owner by deductive credit Change Order.
- B. Contractor shall submit claims for increased costs because of a change in scope or nature of the allowance described in the Contract Documents, whether for the purchase order amount or Contractor's work.
 - 1. Contractor shall not include Contractor's or subcontractors' indirect expense in the cost proposal amount unless it is clearly shown that the nature or extent of work has changed from what could have been foreseen from information in the Contract Documents.
 - 2. No change to Contractor's indirect expense is permitted for selection of higheror lower-priced materials or systems of the same scope and nature as originally indicated.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 SCHEDULE OF ALLOWANCES:

A. The following Contingency Allowances shall be included in the Base Bid value for each respective Contract:

For Contract No. 1-01 – General and Abatement Construction (GAC):

a. Contingency Allowance No. **CA-GAC-1-01-001**: General and Abatement Construction Contingency Allowance for work at all buildings in the amount of <u>\$50,000.00</u> lump sum.

- 2. For Contract No. 1-02 Mechanical and Plumbing Construction (MPC):
 - a. Contingency Allowance No. **CA-MPC-1-02-001**: Mechanical and Plumbing Construction Contingency Allowance for work at all buildings in the amount of <u>\$40,000.00</u> lump sum.
- 3. For Contract No. 1-03 Electrical Construction (EC):
 - a. Contingency Allowance No. **CA-EC-1-03-001**: Electrical Construction Contingency Allowance for work at all buildings in the amount of \$35,000.00 lump sum.

END OF SECTION

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SECTION 012300 - ALTERNATES

PART 1 GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
 - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
 - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

1.4 PROCEDURES

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
 - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether indicated as part of alternate or not.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated revisions to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Each Prime Contractor shall provide value for each Alternate where indicated on the Bid Form for each respective Contract:

- 1. For Contract No. 1-01 General and Abatement Construction (GAC):
 - a. ADD Alternate No. **ALT-GAC-1-01-001**: For all General and Abatement Construction work at Walden Elementary School.
- 2. For Contract No. 1-02 Mechanical and Plumbing Construction (MPC):
 - a. ADD Alternate No. **ALT-MPC-1-02-001**: For all Mechanical and Plumbing Construction work at Walden Elementary School.
- 3. For Contract No. 1-03 Electrical Construction (EC):
 - a. ADD Alternate No. **ALT-EC-1-03-001**: For all Electrical Construction work at Walden Elementary School.

END OF SECTION
SECTION 283100 - FIRE DETECTION AND ALARM

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes:
 - 1. Fire-alarm control panel (FACP).
 - 2. Manual fire alarm pull stations.
 - 3. System smoke detectors.
 - 4. Carbon Monoxide detectors.
 - 5. Heat detectors.
 - 6. Beam Smoke detectors.
 - 7. Notification appliances.
 - 8. Magnetic door holders.
 - 9. Fire Alarm Annunicator Panel (FAAP).
 - 10. Addressable interface device.
 - 11. Digital alarm communicator transmitter.
 - 12. Network communications.
 - 13. System printer.
 - 14. Device Guards.

1.2 definitions

- A. EMT: Electrical Metallic Tubing.
- B. FACP: Fire Alarm Control Panel.
- C. HLI: High Level Interface.
- D. NICET: National Institute for Certification in Engineering Technologies.
- E. PC: Personal computer.
- F. VESDA: Very Early Smoke-Detection Apparatus.

1.3 SUBMITTALS

- A. Product Data: For each type of product, including finished options and accessories.
 - 1. Include construction details, material descriptions, dimensions, profiles and finishes.
 - 2. Include rated capacities, operating characteristics, and electrical characteristics.
- B. Shop Drawings: For fire alarm system:

- 1. Floor plans (minimum 1/8-inch scale) with room names and numbers, showing device locations and interconnecting conduit and wire. Include location of fire/smoke rated or barrier walls.
- 2. Drawings shall show proposed layout and anchorage of equipment and appurtenances and equipment relationship to other parts of the work, including clearances for maintenance and operation.
- 3. Scaled detail drawings of FACP and FAAP panel fronts.
- 4. Wiring diagram for each device. Include connection details to auxiliary equipment.
- 5. Riser diagram showing devices, equipment, and interconnecting conduit and wire. Indicate points of connection to other equipment such as, damper actuators, kitchen hood fire protection systems, pre-action fire protection systems, clean agent fire protection systems, elevator machine rooms and shafts, electric door locking hardware, fire door releases, magnetic door holders, and other related devices and equipment.
- 6. Complete narrative of the sequence of operation.
- 7. Sequence of operation matrix table including a complete line-by-line listing of fire alarm initiating devices, corresponding device address, and input/output matrix.
- 8. Voltage drop calculations.
- 9. Battery sizing calculations.
 - a. Visual alarm power supply sizing calculations.
- 10. Power supply calculations for magnetic door holders, and electric door locking hardware.
- 11. Wire identification schedule.
- 12. Include statement from manufacturer that all equipment and components have been tested as a system and meet all requirements in this specification and in NFPA 72. All drawings must be stamped and signed by a Professional Engineer registered in New York State, for approval by the Fire Marshal and NYSED.

1.4 CLOSeOUT SUBMITtALs

- A. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals. Include the following:
 - 1. Comply with the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
 - 2. Provide "Fire Alarm and Emergency Communications System Record of Completion Documents" according to the "Completion Documents" Article in the "Documentation" section of the "Fundamentals" chapter in NFPA 72.
 - 3. Complete wiring diagrams showing connections between all devices and equipment. Each conductor shall be numbered at every junction point with indication of origination and termination points.
 - 4. Riser diagram.

- 5. Device addresses.
- 6. Record copy of site-specific software. This software shall also be in an electronic format to allow an alternate Authorized Distributor to add, change, or modify in any way, the existing system data base.
- 7. Provide "Inspection and Testing Form" according to the "Inspection, Testing and Maintenance" chapter in NFPA 72, and include the following:
 - a. Equipment tested.
 - b. Frequency of testing of installed components.
 - c. Frequency of inspection of installed components.
 - d. Requirements and recommendations related to results of maintenance.
 - e. Manufacturer's user training manuals.
- 8. Manufacturer's required maintenance related to system warranty requirements.
- 9. Abbreviated operating instructions for mounting at fire-alarm control unit and each annunciator unit.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Personnel shall be trained and certified by manufacturer for installation of units required for this Project.
- B. Installer Qualifications: Installation shall be by personnel certified by NICET as fire alarm Level III technician.
- C. NFPA Certification: Obtain certification according to NFPA 72 by a UL-listed alarm company.
- D. Manufacturer and equipment supplier shall have a minimum of ten years' prior experience in New York State. Equipment supplier shall have 24-hour parts and labor service available with a maximum 4-hour response time. There shall be a minimum of 2 Independent Authorized Distributors within a 50-mile radius of project. Proprietary equipment shall not be acceptable.

1.6 PROJECT CONDITIONS

- A. Perform a full test of the existing system prior to starting to work. Document any equipment or components not functioning as designed.
- B. Use of Devices during Construction: Protect devices during construction unless devices are placed in service to protect the facility during construction.

1.7 SYSTEM ZONING

- A. Alarm Initiating Devices:
 - 1. Provide a separate, individual zone for each manual pull station, area smoke detector, duct smoke detector, area heat detector, and water flow switch.

- B. Fire Audible and Visual Alarm Strobes:
 - 1. Each floor of the building (above and below grade) shall be a separate, individual zone.
 - 2. Each stairwell shall be a separate, individual zone.
 - 3. Each exterior area shall be a separate individual zone.
- C. Fire Alarm Control zones:
 - 1. Air Handling Fan systems: Provide one (1) shutdown contact for each air handling fan systems. Contacts shall initiate the shutdown of fan system and closing of dampers on associated floor.
 - 2. Provide two (2) open/close contact for each floor's/zone's dampers grouped as a function of being in the supply or return air streams.
 - 3. Provide one (1) recall contact for each elevator control panel to recall elevator to ground floor.
 - 4. Provide one (1) release control contact for all door lock systems.
- D. Initiating and signaling device wiring circuits/loops/channels shall be loaded to no more than 80 percent (80%) capacity to allow for the installation of future devices.

1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace fire-alarm system equipment and components that fail in materials or workmanship within specified warranty period.
 - 1. Warranty Extent: All equipment and components not covered in the Maintenance Service Agreement.
- B. Warranty Period: Three years from date of Substantial Completion.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

The existing fire alarm system in each building is listed below. All new fire detection Α. and alarm system components shall be of the same manufacturer and must meet all requirements of the contract documents. 1. *Valley Central High School/Middle School – Edwards EST3 Control Panel* Berea Elementary School – Simplex 4010 Control Panel 2. 3. East Coldenham Elementary School – Simplex 4010 Control Panel 4. Maybrook ALC – Simplex 4010ES Control Panel 5. Montgomery Elementary School – Mircom FX-350 Control Panel 6. Walden Elementary School – Simplex 4010 Control Panel 7. Administration Building – Mircom FA-300 Control Panel

| Sean Werlau | 3 | |
|-------------------------|---|----------|
| Open Systems Metro | 3 | \sum |
| (914) 241-0057 - Office | 3 | <u> </u> |
| (914) 640-9314 - Mobile | 4 | |

C. Products for this project shall be of the latest design that has been in service for at least two (2) years, and no more than 4 years. Obsolete or discontinued models are not acceptable.

2.2 DESCRIPTION

- A. Fire alarm System shall be EST EST4 voice system.
- B. Fire alarm system infrastructure including conduit, wiring, backboxes, etc. and all associated labor and installation is in the scope of this contract.
- C. Shop drawings and submittal review/approval, testing and programming, project management and closeout documentation shall be by the fire alarm system manufacturer's authorized representative.
- D. Provide a microprocessor-controlled, electrically supervised fire alarm system in accordance with the Contract Documents. Provide detailed system design, all equipment, tools, drawings, labor, materials, accessories, and approvals from governing agencies required to furnish, install, start up, and test a complete operating fire alarm system. Systems shall be provided and placed into operation in accordance with the requirements of the Authority Having Jurisdiction (AHJ).
- E. Labor, materials including conduit and wiring, and accessories not specifically called for in the Contract Documents but required to provide complete, operating, and approved systems, shall be provided within the scope of this contract.
- F. Determine, coordinate, and incorporate the design and construction requirements of the architectural, structural, fire protection and mechanical systems, and auxiliary systems including food service, fire doors and windows, elevators, and other related systems, to fully meet all code requirements.
- G. The fire alarm system manufacturer and Contractor shall provide all required documentation, obtain all required permits and approvals, and shall provide all devices and accessories in the quantities and locations necessary for a fully functional and code-compliant system.
- H. Programming of system shall be based on final room names and numbers, which may not necessarily be the same as those used on the construction documents.

- I. Noncoded, UL-certified addressable system, with multiplexed signal transmission and voice/strobe evacuation.
- J. The Fire Alarm Control Panel (FACP) and Fire Alarm Annunciator Panel (FAAP) shall be connected in a network configuration to become components for a distributed intelligence system.
- K. The fire detection and alarm system shall be the fully addressable type. Each fire alarm initiating device shall be a separate, individual zone. Provide interface modules to connect non-addressable devices to addressable wiring channels.
- L. All components provided shall be listed for use with the selected system.
- M. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

2.3 SYSTEMS OPERATIONAL DESCRIPTION

- A. Fire alarm signal initiation shall be by one or more of the following devices and systems:
 - 1. Manual pull stations.
 - 2. Heat detectors.
 - 3. Smoke detectors.
 - 4. Duct smoke detectors.
 - 5. Waterflow Switch.
- B. Fire alarm signal shall initiate the following actions:
 - 1. Continuously operate alarm notification appliances, including voice evacuation notices.
 - 2. Identify alarm and specific initiating device at FACP, connected network control panels, off-premises network control panels, and remote annunciators.
 - 3. Indicate device in alarm on the graphic annunciator.
 - 4. Transmit an alarm signal to the remote alarm receiving station.
 - 5. Unlock electric door locks in designated egress paths.
 - 6. Release fire and smoke doors held open by magnetic door holders.
 - 7. Activate voice/alarm communication system.
 - 8. Switch heating, ventilating, and air-conditioning equipment controls to fire alarm mode.
 - 9. Close smoke dampers in air ducts of designated air conditioning duct systems.
 - 10. Activate emergency shutoffs for gas and fuel supplies.
 - 11. Record events in the system memory.
- C. Detection of carbon monoxide by a carbon monoxide detector shall:
 - 1. Activate a distinct carbon monoxide alarm at the FACP.

- a. Carbon monoxide signal shall be a separate and distinct signal from the fire alarm system.
- 2. Activate distinct local carbon monoxide visual/audible notification appliances for associated carbon monoxide detector in alarm condition.
- 3. Activate carbon monoxide detector sounder base (if present).
- 4. Send a distinct carbon monoxide detector supervisory signal to central office.
- D. Supervisory signal initiation shall be by one or more of the following devices and actions:
 - 1. Independent fire detection and suppression systems.
 - 2. User disabling of zones or individual devices.
 - 3. Loss of communication with any panel on the network.
- E. System trouble signal initiation shall be by one or more of the following devices and actions:
 - 1. Open circuits, shorts, and grounds in designated circuits.
 - 2. Opening, tampering with, or removing alarm-initiating and supervisory signalinitiating devices.
 - 3. Loss of communication with any addressable sensor, input module, relay, control module, remote annunciator, printer interface, or Ethernet module.
 - 4. Loss of primary power at FACP.
 - 5. Ground or a single break in internal circuits of FACP.
 - 6. Abnormal AC voltage at FACP.
 - 7. Break in standby battery circuitry.
 - 8. Failure of battery charging.
 - 9. Abnormal position of any switch at FACP or annunciator.
 - 10. Voice signal amplifier failure.
- F. System Supervisory Signal Actions:
 - 1. Identify specific device initiating the event at FACP, off-premises network control panels, and remote annunciators.
 - 2. After a time delay of 200 seconds, transmit a trouble or supervisory signal to the remote alarm receiving station.
 - 3. Display system status on FAAP.
- 2.4 FIRE ALARM CONTROL Panel (FACP)
 - A. General Requirements for FACP:
 - 1. Field-programmable, microprocessor-based, modular, power-limited design with electronic modules, complying with UL 864.
 - a. System software and programs shall be held in nonvolatile flash, electrically erasable, programmable, read-only memory, retaining the information through failure of primary and secondary power supplies.

- b. Include a real-time clock for time annotation of events on the event recorder and printer.
- c. Provide communication between the FACP and remote circuit interface panels, annunciators, and displays.
- d. The FACP shall be listed for connection to a central station signaling system service.
- e. Provide nonvolatile memory for system database, logic, and operating system and event history. The system shall require no manual input to initialize in the event of a complete power down condition. The FACP shall provide a minimum 500-event history log.
- 2. Addressable Initiation Device Circuits: The FACP shall indicate which communication zones have been silenced and shall provide selective silencing of alarm notification appliance by building communication zone.
- 3. Addressable Control Circuits for Operation of Notification Appliances and Mechanical Equipment: The FACP shall be listed for releasing service.
- B. Alphanumeric Display and System Controls: Arranged for interface between human operator at FACP and addressable system components including annunciation and supervision. Display alarm, supervisory, and component status messages and the programming and control menu.
 - 1. Annunciator and Display: Liquid-crystal type, three line(s) of 80 characters, minimum.
 - 2. Keypad: Arranged to permit entry and execution of programming, display, and control commands and to indicate control commands to be entered into the system for control of smoke-detector sensitivity and other parameters.
- C. Initiating Device, Notification Appliance, and Signaling Line Circuits:
 - 1. Pathway Class Designations: NFPA 72, Class B.
 - 2. Pathway Survivability: Level 0. Staged evacuation Level 2 or 3.
 - 3. Install no more than 100 addressable devices on each signaling-line circuit.
 - 4. Serial Interfaces:
 - a. One dedicated RS 485 port for remote station operation using point ID DACT.
 - b. One RS 485 port for remote annunciators, Ethernet module, or multiinterface module (printer port).
 - c. One USB or RS 232 port for PC configuration.
 - d. One RS 232 port for VESDA HLI connection.
 - e. One RS 232 port for voice evacuation interface.
- D. Smoke Alarm Verification:
 - 1. Smoke alarm verification shall not be enabled.
- E. Elevator recall shall be initiated only by one of the following alarm-initiating devices:
 - 1. Elevator lobby detectors except the lobby detector on the designated floor.

- 2. Smoke detector in elevator machine room.
- 3. Smoke detectors in elevator hoistway.
- 4. Waterflow switch activation.
- 5. Elevator controller shall be programmed to move the cars to the alternate recall floor if lobby detectors located on the designated recall floors are activated.
- 6. Water-flow alarm connected to sprinkler in an elevator shaft and elevator machine room shall shut down elevators associated with the location without time delay.
- 7. Water-flow switch associated with the sprinkler in the elevator pit may have a delay to allow elevators to move to the designated floor.
- F. Notification Appliance Circuit:
 - 1. Audible appliances shall sound in a three-pulse temporal pattern, as defined in NFPA 72.
 - 2. Where notification appliances provide signals to sleeping areas, the alarm signal shall be a 520-Hz square wave with an intensity 15 dB above the average ambient sound level or 5 dB above the maximum sound level, or at least 75 dBA, whichever is greater, measured at the pillow.
 - 3. Visual alarm appliances shall flash in synchronization where multiple appliances are in the same field of view, as defined in NFPA 72.
- G. Door Controls:
 - 1. Door hold-open devices that are controlled by smoke detectors at doors in smoke-barrier walls shall be connected to fire alarm system.
- H. Remote Smoke-Detector Sensitivity Adjustment:
 - 1. Controls shall select specific addressable smoke detectors for adjustment, display their current status and sensitivity settings, and change those settings. Allow controls to be used to program repetitive, time-scheduled, and automated changes in sensitivity of specific detector groups. Record sensitivity adjustments and sensitivity-adjustment schedule changes in system memory, and print out the final adjusted values on system printer.
- I. Transmission to Remote Alarm Receiving Station:
 - 1. Automatically transmit alarm, supervisory, and trouble signals to a remote alarm station.
- J. Voice/Alarm Signaling Service: Central emergency communication system with redundant preamplifiers, amplifiers, and tone generators provided as a special module that is part of fire-alarm control unit.
 - 1. Indicate number of alarm channels for automatic, simultaneous transmission of different announcements to different zones or for manual transmission of announcements by use of the central-control microphone. Amplifiers shall comply with UL 1711.
 - a. System shall provide a minimum of 8 digital audio channels.

- b. Allow the application of, and evacuation signal to, indicated number of zones and, at the same time, allow voice paging to the other zones selectively or in any combination.
- c. Programmable tone and message sequence selection.
- d. Standard digitally recorded messages for "Evacuation" and "All Clear."
- e. Generate tones to be sequenced with audio messages of type recommended by NFPA 72 and that are compatible with tone patterns of notification-appliance circuits of fire-alarm control unit.
- 2. Status Annunciator: Indicate the status of various voice/alarm speaker zones and the status of firefighters two-way telephone communications zones.
- 3. Preamplifiers, amplifiers, and tone generators shall automatically transfer to backup units, on primary equipment failure.
- 4. Primary Power: 24V DC obtained from 120V AC service and a power supply module. Initiating devices, notification appliances, signaling lines, trouble signals, supervisory signals supervisory and digital alarm communicator transmitters and digital alarm radio transmitters shall be powered by 24V DC source.
- 5. Alarm current draw of entire fire alarm system shall not exceed 80 percent of the power-supply module rating.
- K. Primary Power: 24-V dc obtained from 120-V ac service and a power supply module. Initiating device, notification appliances, signaling lines, trouble signals, supervisor signals, supervisory and digital alarm communicator transmitters and digital alarm radio transmitters shall be powered by 24- V dc source.
- L. Secondary Power: Provide sufficient battery capacity to operate the entire system upon loss of power as required by NFPA 72 Section 10.6.7.2.1. Battery capacity shall be calculated for minimum 24 hours of capacity in nonalarm (standby) mode and then 15 minutes at maximum connected load after that time period for audio voice systems and 24/5 for non-audio systems. The on-site emergency power system shall not be used when sizing the battery supply. The system shall automatically transfer to the standby batteries upon power failure. Battery charging and recharging shall be automatic.

2.5 MANUAL FIRE ALARM PULL STATIONS (EST siga-270 SERIES)

- A. General Requirements: Comply with UL 38. Boxes shall be finished in red with molded, raised-letter operating instructions in contrasting color; shall show visible indication of operation; and shall be mounted on recessed outlet box. If indicated as surface mounted, provide manufacturer's surface back box.
 - 1. Single-action mechanism, pull-lever type; with integral addressable module arranged to communicate manual-station status (normal, alarm, or trouble) to FACP.
 - 2. Station Reset: Key-operated switch.

2.6 SYSTEM SMOKE DETECTORS (EST SIGA-PD)

- A. General Requirements:
 - 1. Comply with UL 268 and FM approved; operating at 24V DC, nominal, Photoelectric type.
 - 2. Base Mounting: Detector and associated electronic components shall be mounted in a twist-lock module that connects to a fixed base. Provide terminals in the fixed base for connection to building wiring.
 - 3. Self-Restoring: Detectors do not require resetting or readjustment after actuation to restore them to normal operation.
 - 4. Integral Visual-Indicating Light: LED type, indicating detector alarm/power-on status.
 - 5. Thirty (30) mesh insect screen and magnetically activated test.
 - 6. Remote Control: Unless otherwise indicated, detectors shall be digitaladdressable type, individually monitored at FACP for calibration, sensitivity, and alarm condition and individually adjustable for sensitivity by FACP.
 - a. Rate-of-rise temperature characteristic of combination smoke- and heatdetection units shall be selectable at FACP for 15 or 20 deg F per minute.
 - b. Multiple levels of detection sensitivity for each sensor.
- B. Photoelectric Smoke Detectors:
 - 1. Detector address shall be accessible from FACP and shall be able to identify the detector's location within the system and its sensitivity setting.
 - 2. An operator at FACP, having the designated access level, shall be able to manually access the following for each detector:
 - a. Primary status.
 - b. Device type.
 - c. Present average value.
 - d. Present sensitivity selected.
 - e. Sensor range (normal, dirty, etc.).
- C. Duct Smoke Detectors: Photoelectric type complying with UL 268A, 24V DC. (EST SIGA-SD)
 - 1. Detector address shall be accessible from fire-alarm control unit and shall be able to identify the detector's location within the system and its sensitivity setting.
 - 2. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
 - 3. Primary status.
 - 4. Device type.
 - 5. Present average value.
 - 6. Present sensitivity selected.
 - 7. Sensor range (normal, dirty, etc.).

- 8. Weatherproof Duct Housing Enclosure: NEMA 250, Type 4X; NRTL listed for use with the supplied detector for smoke detection in HVAC system ducts.
- 9. Duct detector and housing shall be calibrated and adjusted for sensitivity at the manufacturer's factor to U.L. standards. Detector and housing shall be self-compensating for the effect of air velocity, temperature, humidity and atmospheric pressure.
- 10. Each duct detector shall be provided with sampling tubes sized according to duct size, air velocity, and installation conditions.
- 11. Each duct detector shall be provided with remote alarm LED on a single gang plate, surface or flush mounted.

2.7 CARBON MONOXIDE DETECTORS (est siga-cod)

- A. General: Carbon monoxide detector listed for connection to fire-alarm system.
 - 1. Mounting: Adapter plate for outlet box mounting.
 - 2. Testable by introducing test carbon monoxide into the sensing cell.
 - 3. Detector shall provide alarm contacts and trouble contacts.
 - 4. Detector shall send trouble alarm when nearing end-of-life, power supply problems, or internal faults.
 - 5. Comply with UL 2075.
 - 6. Locate, mount, and wire according to manufacturer's written instructions.
 - 7. Provide means for addressable connection to fire-alarm system.
 - 8. Detector base shall provide a temporal 4 alarm signal.

2.8 HEAT DETECTORS (EST SIGA-HRD)

- A. General Requirements for Heat Detectors: Comply with UL 521.
 - 1. Temperature sensors shall test for and communicate the sensitivity range of the device.
- B. Heat Detector, Combination Type: Actuated by either a fixed temperature of 135 deg F or a rate of rise that exceeds 15 deg F per minute unless otherwise indicated.
 - 1. Mounting: Twist-lock base interchangeable with smoke-detector bases.
 - 2. Integral Addressable Module: Arranged to communicate detector status (normal, alarm, or trouble) to FACP.
- 2.9 BEAM smoke detector (EST 5000 SERIES)
 - A. Shall be photoelectric, four-wire, 24 VDC transmitter and receiver (beam type) smoke detector and shall be field adjustable to U.L. Standards for sensitivity (20, 30, 40, 50, 60 and 70% beam obscuration).
 - B. The transmitter unit shall utilize a solid-state infrared (IR), crystal locked beam source which shall enable the receiver unit to distinguish the detection beam from all types of

EFI, including fluorescent, mercury and sodium lighting.

- C. The detector receiver shall provide automatic digital compensation circuitry to adjust for dust accumulation, component aging and temperature changes and also be able to discriminate between smoke obscuration and beam interruption.
- D. The detector shall utilize solid-state components for long life reliability and provide a range of from thirty feet (30') to three hundred fifty feet (350') with the beam transmitter and receiver optics being adjustable ±90□ in the horizontal plane and ±10□ in the vertical plane.
- E. Detectors shall be listed for U.L. Standard 268.
- F. Detector Address: Accessible from fire-alarm control unit and able to identify the detector's location within the system and its sensitivity setting.
- G. An operator at fire-alarm control unit, having the designated access level, shall be able to manually access the following for each detector:
 - 1. Primary status.
 - 2. Device type.
 - 3. Present average value.
 - 4. Present sensitivity selected.
 - 5. Sensor range (normal, dirty, etc.).

2.10 NOTIFICATION APPLIANCES (EST genesis series)

- A. General Requirements for Notification Appliances: Connected to notification-appliance signal circuits, zoned as indicated, equipped for mounting as indicated, and with screw terminals for system connections.
 - 1. Combination Devices: Factory-integrated audible and visible devices in a singlemounting assembly, equipped for mounting as indicated, and with screw terminals for system connections.
- B. Horns: Electric-vibrating-polarized type, 24-V dc; with provision for housing the operating mechanism behind a grille. Comply with UL 464. Horns shall produce a sound-pressure level of 90 dBA, measured 10 feet from the horn, using the coded signal prescribed in UL 464 test protocol.
- C. Visible Notification Appliances: Xenon strobe lights complying with UL 1971, with clear or nominal white polycarbonate lens mounted on an aluminum faceplate. The word "FIRE" is engraved in minimum 1-inch high letters on the lens.
 - 1. Rated Light Output:
 - a. 15/30/75/110 cd, selectable in the field.
 - 2. Mounting: Wall mounted unless otherwise indicated.
 - 3. For units with guards to prevent physical damage, light output ratings shall be determined with guards in place.

- 4. Flashing shall be in a temporal pattern, synchronized with other units.
- 5. Strobe Leads: Factory connected to screw terminals.
- 6. Mounting Faceplate: Factory finished, red.
- D. Voice/Tone Notification Appliances:
 - 1. Speakers shall be EST High Fidelity capable of providing 520hz.
 - 2. Comply with UL 1480.
 - 3. Speakers for Voice Notification: Locate speakers for voice notification to provide the intelligibility requirements of the "Notification Appliances" and "Emergency Communications Systems" chapters of NFPA 72.
 - 4. Speaker shall be capable of field selection of speaker voltage (25 and 70.7 Vrms) and power settings (1/4 W, 1/2 W, 1 W, 2 W).
 - a. Final settings shall be field adjusted to match the acoustical environment of each speaker.
- E. Exit Marking Audible Notification Appliance:
 - 1. Exit marking audible notification appliances shall meet the audibility requirements in NFPA 72.
 - 2. Provide exit marking audible notification appliances at the entrance to all building exits.
 - 3. Provide exit marking audible notification appliances at the entrance to areas of refuge with audible signals distinct from those used for building exit marking.
- 2.11 MAGNETIC door holders. (Edwards 1500 series)
 - A. Description: Units are equipped for wall or floor mounting as indicated and are complete with matching doorplate.
 - 1. Electromagnets: Require no more than 3 W to develop 35-lbf of holding force.
 - 2. Wall-Mounted Units: Flush mounted unless otherwise indicated.
 - 3. Rating: 24-V dc.
 - B. Material and Finish: Brushed aluminum.
- 2.12 Fire alarm ANNUNCIATOR panel (FAAP)
 - A. Graphic Annunciator Panel: Mounted in an aluminum frame with nonglare, minimum 3/16-inch thick, clear acrylic cover over graphic representation of the facility. Detector locations shall be represented by red LED lamps. Normal system operation shall be indicated by a lighted, green LED. Trouble and supervisory alarms shall be represented by an amber LED.
 - 1. Comply with UL 864.
 - 2. Shall Operate from 24-V dc power supplied by the FACP.
 - 3. Include built-in voltage regulation, reverse polarity protection, RS 232/422 serial communications, and a lamp test switch.

- 4. Surface mounted in a NEMA 250, Type 1 cabinet, with key lock and no exposed screws or hinges.
- 5. Graphic representation of the facility floorplan, and each detector shall be represented by an LED in its actual location. Floorplan shall be at 1/8-inch per foot scale or larger.
- 6. The LED representing a detector shall flash two times per second while detector is an alarm.
 - a. ADDRESSABLE INTERFACE DEVICE
- B. General:
 - 1. Include address-setting means on the module.
 - 2. Store an internal identifying code for control panel use to identify the module type.
 - 3. Listed for controlling HVAC fan motor controllers.
 - 4. Devices shall be flush mounted in finished areas and surface mounted with back box in unfinished areas.
- C. Monitor Module (SIGA-CT series): Microelectronic module providing a system address for alarm-initiating devices for wired applications with normally open contacts using NFPA 72A Style B (Class B, Two-Wire) circuit supervision. Module responds to polling signals from FACP/Transponder and shall report alarm initiating/supervisory circuit status changes to it.
- D. Control Module (EST SIGA-CRH): Microelectronic module with one (1) induvial addressable control relay with double-pole/double-throw (DPDT) contacts rated at two (7.0A) @ 120VAC/28VDC. Module response to control signals from FACP/Transponder.

2.13 DIGITAL ALARM COMMUNICATOR TRANSMITTER

- A. Digital alarm communicator transmitter shall be acceptable to the remote central station and shall comply with UL 632.
- B. Functional Performance: Unit shall receive an alarm, supervisory, or trouble signal from FACP and automatically capture two telephone line(s) and dial a preset number for a remote central station. When contact is made with central station(s), signals shall be transmitted. If service on either line is interrupted for longer than 45 seconds, transmitter shall initiate a local trouble signal and transmit the signal indicating loss of telephone line to the remote alarm receiving station over the remaining line. Transmitter shall automatically report telephone service restoration to the central station. If service is lost on both telephone lines, transmitter shall initiate the local trouble signal.
- C. Addressable communications circuits from system transponders shall be electrically supervised in accordance with NFPA 72A Style 6 (Class A, four-wire) standards, monitoring for alarm (shorts), trouble (opens), and ground faults. When wired in the

Style 6 (Class A, four-wire) configuration, a single open or ground fault shall not prevent the receipt of an alarm condition. Addressable communications circuits shall utilize two (2) cables of two (2) No. 18 AWG twisted conductors from the transponder to the connected addressable devices.

- D. Local functions and display at the digital alarm communicator transmitter shall include the following:
 - 1. Verification that both telephone lines are available.
 - 2. Programming device.
 - 3. LED display.
 - 4. Manual test report function and manual transmission clear indication.
 - 5. Communications failure with the central station or FACP.
- E. Digital data transmission shall include the following:
 - 1. Address of the alarm-initiating device.
 - 2. Address of the supervisory signal.
 - 3. Address of the trouble-initiating device.
 - 4. Loss of ac supply.
 - 5. Loss of power.
 - 6. Low battery.
 - 7. Abnormal test signal.
 - 8. Communication bus failure.
- F. Secondary Power: Integral rechargeable battery and automatic charger.
- G. Self-Test: Conducted automatically every 24 hours with report transmitted to central station.
- 2.14 NETWORK COMMUNICATIONS
 - A. Provide network communications for fire alarm system according to fire alarm manufacturer's written requirements.
 - B. Provide network communications pathway per manufacturer's written requirements and requirements in NFPA 72 and NFPA 70.
 - C. Provide integration gateway using BACnet for connection to building automation system when required.
- 2.15 system printer. (EST PTIS)
 - A. General: Provide a dot-matrix type, listed and labeled as an integral part of the fire alarm system.

2.16 DEVICE GUARDS

- A. Description: Welded wire mesh of size and shape for the device requiring protection.
 - 1. Factory fabricated and furnished by device manufacturer.
 - 2. Finish: Paint of color to match the protected device.
 - 3. Guards must be UL cross listed with devices being used.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions for compliance with requirements for ventilation, temperature, humidity, and other conditions affecting performance of the Work.
 - 1. Verify that manufacturer's written instructions for environmental conditions have been permanently established in spaces where equipment and wiring are installed, before installation begins.
- B. Examine roughing-in for electrical connections to verify actual locations of connections before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 EQUIPMENT INSTALLATION

- A. Comply with NFPA 72, NFPA 101, and requirements of authorities having jurisdiction for installation and testing of fire alarm equipment. Install all electrical wiring to comply with requirements in NFPA 70 including, but not limited to, Article 760, "Fire Alarm Systems."
 - 1. Devices placed in service before all other trades have completed cleanup shall be replaced.
 - 2. Devices installed but not yet placed in service shall be protected from construction dust, debris, dirt, moisture, and damage according to manufacturer's written storage instructions.
- B. Install wall-mounted equipment, with tops of cabinets not more than 78 inches above the finished floor.
- C. Manual Fire Alarm Pull Stations:
 - 1. Install manual fire alarm pull station in the normal path of egress within 60 inches of the exit doorway.
- D. Smoke or Heat Detector Spacing:
 - 1. Comply with the "Smoke-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for smoke-detector spacing.

- 2. Comply with the "Heat-Sensing Fire Detectors" section in the "Initiating Devices" chapter in NFPA 72, for heat-detector spacing.
- 3. Smooth ceiling spacing shall not exceed 30 feet.
- 4. Spacing of detectors for irregular areas, for irregular ceiling construction, and for high ceiling areas shall be determined according to Annex A or Annex B in NFPA 72.
- 5. HVAC: Locate detectors not closer than 36 inches from air-supply diffuser or return-air opening.
- 6. Lighting Fixtures: Locate detectors not closer than 12 inches from any part of a lighting fixture and not directly above pendant mounted or indirect lighting.
- E. Install a cover on each smoke detector that is not placed in service during construction. Cover shall remain in place except during system testing. Remove cover prior to system turnover.
- F. Remote Status and Alarm Indicators: Install in a visible location near each smoke detector, sprinkler water-flow switch, and valve-tamper switch that is not readily visible from normal viewing position.
- G. Audible Alarm Indicating Devices: Install not less than 6 inches below the ceiling. Install bells and horns on flush-mounted back boxes with the device-operating mechanism concealed behind a grille. Install all devices at the same height unless otherwise indicated.
- H. Visible Alarm-Indicating Devices: Install adjacent to each alarm horn and at least 6 inches below the ceiling. Install all devices at the same height unless otherwise indicated.
- I. Device Location-Indicating Lights: Locate in public space near the device they monitor.

3.3 PATHWAYS

- A. Fire alarm pathway and circuit wiring installation shall comply with NEC Article 760.
- B. Where exposed, all fire alarm circuits shall be installed in dedicated EMT conduit.
- C. Where existing wall devices are being replaced in the same location, install new fire alarm circuit wiring in existing conduit within wall (where available).
- D. Pathways above recessed ceilings and in nonaccessible locations may be plenum-rated cable.
- E. All pathways must be independently supported from the structure above.
- F. Where passing through a wall or floor, provide a metal raceway or rigid nonmetallic conduit sleeve.
- G. All penetrations of rated walls and floors shall be properly fire-stopped.

3.4 IDENTIFICATION

- A. Provide an identification nameplate for each equipment cabinet. Nameplates shall correspond with labeling identified in the submittal drawings.
- B. Fire alarm conduit shall be permanently labeled "FIRE ALARM" every 30 feet.
- C. Fire alarm junction boxes shall be painted red.
- D. All initiating and indicating devices shall be labeled with self-adhesive tape with black lettering and identification labeling according to circuit loop and device address/number.
- E. Color code all wiring per recommended standards. Tag all wires in terminal cabinets with tie wrap tags with inked identification.
- F. Install framed instructions in a location visible from FACP.

3.5 GROUNDING

- A. Ground FACP and associated circuits; comply with IEEE 1100. Install a ground wire from main service ground to FACP.
- B. Ground shielded cables at the control panel location only. Insulate shield at device location.

3.6 testing

1.

- A. The fire alarm system manufacturer or manufacturer's authorized representative shall test and inspect components, assemblies, and equipment installations, including connections.
- B. Tests shall be witnessed by District (Owner), Engineer of Record, and the Fire Department.
- C. The following tests and inspections shall be performed:
 - Visual Inspection: Conduct visual inspection prior to testing.
 - a. Inspection shall be based on completed record Drawings and system documentation that is required by NFPA 72.
 - b. Comply with the "Visual Inspection Frequencies" table in the "Inspection" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72; retain the "Initial/Reacceptance" column and list only the installed components.
 - 2. System Testing: Comply with the "Test Methods" table in the "Testing" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

- 3. Test audible appliances for the public operating mode according to manufacturer's written instructions. Perform the test using a portable sound-level meter complying with Type 2 requirements in ANSI S1.4.
- 4. Test visible appliances for the public operating mode according to manufacturer's written instructions.
- 5. System manufacturer shall prepare the "Fire Alarm System Record of Completion" in the "Documentation" section of the "Fundamentals" chapter in NFPA 72 and the "Inspection and Testing Form" in the "Records" section of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
- D. Reacceptance Testing: Perform reacceptance testing to verify the proper operation of added or replaced devices and appliances.
- E. Fire alarm system will be considered defective if it does not pass tests and inspections.
- 3.7 closeout documentation
 - A. The fire alarm system manufacturer or manufacturer's authorized representative shall prepare and submit to the Engineer of Record all NFPA 72 required closeout documentation including, but not limited to:
 - 1. System Record of Completion
 - 2. Notification Appliance Power Panel Supplementary Record of Completion
 - 3. System Record of Inspection and Testing
 - 4. Notification Appliance Supplementary Record of Inspection and Testing
 - 5. Initiating Device Supplementary Record of Inspection and Testing
 - 6. Periodic Inspection, Testing and Maintenance Documentation
 - B. Record Drawings, to include:
 - 1. Minimum 1/8" scale floorplan drawings indicating all final device types, locations, ratings, settings and addresses
 - 2. Wiring diagram of each device type
 - 3. Riser diagram showing devices, device addresses, equipment, and interconnecting conduit and wire
 - 4. Narrative of sequence of operation
 - 5. Sequence of operation matrix (includes complete line-by-line listing for fire alarm initiating devices, device address and input/output matrix
 - 6. Voltage drop calculations
 - 7. Battery sizing calculations
 - 8. Visual alarm power supply sizing calculations
 - 9. Power supply calculations for door holders
 - 10. Wire identification schedule
 - 11. Legend

- C. Operation and Maintenance Data: For fire-alarm systems and components to include in emergency, operation, and maintenance manuals.
- D. Operating instructions for mounting at fire-alarm control unit and each annunciator unit.
- E. Warranty documentation.
- F. All closeout documentation shall be signed and sealed by a Registered Professional Engineer in New York State.
- 3.8 maintenance service
 - A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of manufacturer's designated service organization. Include preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.
 - 1. Include visual inspections according to the "Visual Inspection Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
 - 2. Perform tests in the "Test Methods" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.
 - B. Perform tests per the "Testing Frequencies" table in the "Testing" paragraph of the "Inspection, Testing and Maintenance" chapter in NFPA 72.

3.9 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain fire alarm system.

END OF SECTION

VALLEY CENTRAL SCHOOL DISTRICT BEREA ELEMENTARY SCHOOL 2023 CAPITAL PROJECT - PHASE 1

10/18/24 **ISSUED FOR BID:**

CSARCH - ARCHITECTS BLAKE ENGINEERING, PLLC - M.E.P. ENGINEERS PASSERO ASSOCIATES - SITE/CIVIL AND STRUCTURAL ENGINEERS AECC ENVIRONMENTAL CONSULTING - HAZARDOUS MATERIALS DESIGNERS

STATE EDUCATION DEPARTMENT PROJECT CONTROL NUMBER: 2023 CAPITAL PROJECT - PHASE 1 44-13-01-06-0-017-014 THE DESIGN OF THIS PROJECT CONFORMS TO APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE, AND THE MANUAL OF PLANNING STANDARDS OF THE NEW YORK STATE EDUCATION DEPARTMENT.

CSArch PROJECT NO. 187-2302.01



VICINITY MAP

-Berea Elementary School

NTS

| | DRAWI | NG LIST | |
|-------------------|--|------------|------------------------|
| GENERAL DI | RAWINGS | PLUMBING | GENERAL DRAWINGS |
| BES G000 | COVER & SHEET INDEX | BES P001 | PLUMBING NOTES, SCHEI |
| BES G001 | SYMBOLS, ABBREVIATIONS, MISC, AND PARTITION TYPES | | |
| BES G111 | OVERALL FLOOR PLAN - FIRST FLOOR | PLUMBING | DEMOLITION DRAWINGS |
| | | BES PD111 | PLUMBING DEMOLITION |
| LIFE SAFETY | DRAWINGS | BES PD112 | PLUMBING DEMOLITION |
| BES LS111 | LIFE SAFETY PLANS - FIRST FLOOR | | |
| BES LS112 | SMOKE ZONE PLANS | PLUMBING | DRAWINGS |
| | | BES P111 | PLUMBING PLAN - PART |
| HAZARDOU | S MATERIALS DRAWINGS | BES P112 | PLUMBING PLAN - PART 2 |
| BES AA100 | ASBESTOS ABATEMENT FIRST FLOOR AREA A | | |
| | | MECHANICA | AL GENERAL DRAWINGS |
| CIVIL DRAW | INGS | BES M001 | MECHANICAL NOTES, LEG |
| BES C100 | KEY PLAN | BES M002 | MECHANICAL SCHEDULES |
| BES C130 | SITE, GRADING AND ESC PLAN | | |
| BES C530 | DETAILS | MECHANICA | AL DEMOLITON DRAWINGS |
| | | BES MD111 | MECHANICAL DEMOLITIC |
| ARCHITECTU | JRAL DEMOLITION DRAWINGS | BES MD112 | MECHANICAL DEMOLITIC |
| BES AD111 | REMOVALS PLAN - FIRST FLOOR - AREA A | _ | |
| BES AD121 | REMOVALS PLAN - FIRST FLOOR - AREA B | MECHANICA | AL DRAWINGS |
| BES AD811 | REFLECTED CEILING DEMO PLAN - FIRST FLOOR AREA A | BES M111 | MECHANICAL PLAN - PAF |
| BES AD812 | REFLECTED CEILING DEMO PLAN - FIRST FLOOR AREA B | BES M112 | MECHANICAL PLAN - PAP |
| | | BES M201 | MECHANICAL ROOF PLAN |
| ARCHITECTU | JRAL DRAWINGS | | |
| BES A111 | ENLARGED FLOOR PLAN - FIRST FLOOR - AREA A | ELECTRICAL | GENERAL DRAWINGS |
| BES A112 | ENLARGED FLOOR PLAN - FIRST FLOOR - AREAB | BES E001 | ELECTRICAL NOTES. LEGE |
| BES A201 | EXTERIOR FLEVATIONS | | |
| BES A202 | EXTERIOR ELEVATIONS | ELECTRICAL | DEMOLITION DRAWINGS |
| BES A351 | PLAN AND SECTION DETAILS | BES ED111 | FLECTRICAL DEMOLITION |
| BES A401 | ROOF PLANS AND DETAILS | BES ED112 | |
| BES AGOL | | | |
| BES A602 | | FIECTRICAL | DRAWINGS |
| BES A651 | | RES E111 | FLECTRICAL PLAN - PART |
| BES Δ811 | REFLECTED CEILING PLAN - FIRST FLOOR AREA A | BES E112 | FIFETRICAL PLAN - PART |
| BES A812 | REFLECTED CEILING PLAN - FIRST FLOOR AREA A | | |
| BES A012 | | | |
| DE3 A901 | DOOK, WINDOW, & STOKEI KONTI DETAILS | | |
| | | DES EZ IZ | |
| | | | |
| BES AFOUT | | | |
| | | | |
| | | | |
| ΔΕΣ ΑΓΙΙΖ | EINLARGED FLOOR FIINISMES PLAIN - FIRST FLOOR - AREA B | | |
| | | | |
| DES FEIII | FLOOK FUKINITUKE PLAIN - FIKST FLOUK - AKEA A | | |
| | | | |



NERAL DRAWINGS PLUMBING NOTES, SCHEDULE, LEGEND, & DETAILS MOLITION DRAWINGS PLUMBING DEMOLITION PLAN - PART 1 PLUMBING DEMOLITION PLAN - PART 2 WINGS LUMBING PLAN - PART 1 PLUMBING PLAN - PART 2 GENERAL DRAWINGS MECHANICAL NOTES, LEGENDS, SCHEDULES & DETAILS MECHANICAL SCHEDULES & DETAILS DEMOLITON DRAWINGS MECHANICAL DEMOLITION PLAN - PART 1 MECHANICAL DEMOLITION PLAN - PART 2 DRAWINGS MECHANICAL PLAN - PART 1 MECHANICAL PLAN - PART 2 MECHANICAL ROOF PLAN >-----NERAL DRAWINGS ELECTRICAL NOTES, LEGENDS, SCHEDULES & DETAILS MOLITION DRAWINGS ELECTRICAL DEMOLITION PLAN - PART 1 ELECTRICAL DEMOLITION PLAN - PART 2 AWINGS ELECTRICAL PLAN - PART 1 ELECTRICAL PLAN - PART 2 Electrical roof plan ig
angleJGHTING PLAN - PART 1









DEMOLITION NOTES:

DISTRICT AND LOCAL UTILITY COMPANIES.

- SECURITY PROVIDE, INSTALL AND MAINTAIN TEMPORARY BARRIERS AND SECURITY DEVICES.
- 2. <u>U-DIG</u> GENERAL SITE CONTRACTOR IS RESPONSIBLE TO CALL DIG SAFE PRIOR TO BEGINNING DEMOLITION. VERIFICATION SITE CONTRACTOR TO VERIFY VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES WITHIN THE WORK AREA OR THOSE EXPECTED TO BE AFFECTED BY NEW WORK, AND SUBSURFACE FEATURES. THE SITE CONTRACTOR MUST BRING ANY ISSUES TO THE DESIGN
- ENGINEER AND OBTAIN APPROVAL FROM THE OWNER'S REPRESENTATIVE UPON COMPLETION OF VERIFICATION PRIOR TO THE START OF DEMOLITION OR CONSTRUCTION. 4. RECORD MAP - DURING REMOVAL/DEMOLITION PROCESS THE SITE CONTRACTOR SHALL OBTAIN DETAILED RECORD INFORMATION TO ACCURATELY LOCATE ALL EXISTING UNDERGROUND UTILITIES ENCOUNTERED. THIS INFORMATION SHALL BE INCLUDED ON THE
- **RECORD/AS-BUILT MAPS TO BE SUPPLIED BY THE SITE CONTRACTOR TO THE OWNER.** SHUTDOWNS SITE CONTRACTOR TO COORDINATE ALL UTILITY SHUT DOWNS, RELOCATIONS, SERVICE INSTALLATIONS WITH THE SCHOOL
- 6. <u>COORDINATION</u> SITE CONTRACTOR SHALL COORDINATE THE REMOVAL OF DEMOLISHED MATERIAL WITH THE OWNER'S REPRESENTATIVE SITE FURNISHINGS AND MATERIAL DETERMINED TO TO BE REMOVED SHALL BE REMOVED AND EXPORTED OFFSITE IN A LEGAL MANNER AND IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- 7. PROTECT ALL EXISTING FEATURES TO REMAIN. DAMAGE TO EXISTING ASPHALT, LAWN AND OTHER FEATURES TO REMAIN SHALL BE **REPAIRED AT THE SITE CONTRACTOR'S EXPENSE.**
- 8. <u>DISTURBANCE ALL SURFACES THAT ARE DISTURBED DUE TO CONSTRUCTION, OUTSIDE OF THE MAJOR WORK AREAS, ARE TO BE RESTORED</u> TO PRE-CONSTRUCTION CONDITION, IN ACCORDANCE WITH THE CONCRETE SECTION DETAILS INCLUDED IN THESE PLANS. LAWN AREAS ARE TO BE RE-ESTABLISHED WITH A MINIMUM OF 4 INCHES OF TOPSOIL AND SEED.
- 9. HAZARDOUS MATERIAL ANY MATERIALS CONTAINING ASBESTOS SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS. NOTE THIS MAY INCLUDE UNDERGROUND UTILITIES. SITE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE TO NOTIFY THEM OF ANY UNKNOWN HAZARDOUS MATERIAL. 10. EXISTING SERVICE SITE CONTRACTOR SHALL MAINTAIN SERVICE FROM ALL UTILITIES NOT SLATED FOR DEMOLITION AND SHALL REMAIN
- FUNCTIONAL UPON COMPLETION OF DEMOLITION. 11. EXISTING UTILITIES THAT ARE PROPOSED TO BE REMOVED, UNLESS OTHERWISE INDICATED, SHALL BE EXCAVATED, UTILITY MATERIAL REMOVED, AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE SPECIFICATIONS. ALL TRENCHES SHALL BE BACKFILLED WITH GRANULAR FILL, COMPACTED IN 12" LIFTS TO 95% MODIFIED PROCTOR TEST. ALL DISTURBED AREAS SHALL BE RESTORED IN KIND IN
- ACCORDANCE WITH THE DETAILS IN THESE PLANS AND AT A MINIMUM TO THEIR ORIGINAL STATE. 12. PERMITS SITE CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL PERMITS REQUIRED FOR DEMOLITION AND CONSTRUCTION, INCLUDING ALL FEES ASSOCIATED WITH THOSE PERMITS, IN THE BID.
- 13. ENVIRONMENTAL CONDITIONS OR ISSUES, NOT PREVIOUSLY IDENTIFIED, ARE ENCOUNTERED DURING DEMOLITION, THE SITE CONTRACTORS(S) SHALL IMMEDIATELY NOTIFY THE OWNER AND ENGINEER BEFORE CONTINUING THE DEMOLITION PROCESS.
- 14. RECYCLE ALL MATERIALS WHEN APPROPRIATE. 15. SPOIL MATERIALS FROM DEMOLITION OR EARTHWORK, SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF AT THE SITE
- CONTRACTOR'S EXPENSE. 16. EXISTING STRUCTURES THAT ARE ABANDONED IN PLACE SHALL BE REMOVED TO A DEPTH OF 2 FEET BELOW FINISHED GRADE. STRUCTURES SHALL BE FILLED WITH CRUSHED STONE, (MEETING NYSDOT STANDARD SPECIFICATION SECTION 304) COMPACTED IN 12" LIFTS TO 95% MODIFIED PROCTOR TEST.
- 17. FIELD TILE IN THE EVENT FIELD TILE IS ENCOUNTERED, THE SITE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER. UNDER NO CIRCUMSTANCES SHALL FIELD TILE BE PERMITTED TO EXIST NEAR BUILDING FOUNDATIONS.

2 SITE PLAN SCALE: 1"=10'

SITE PLAN NOTES:



- 1. <u>LAYOUT</u> THE DIMENSIONS SHOWN ARE TO THE FACE OF THE CURB AND INCLUDES THE OVERALL SIDEWALK WIDTH, WHERE APPLICABLE. SUBBASE MATERIAL AND THE VARIOUS ASPHALT CONCRETE MATERIALS CALLED FOR IN THESE DRAWINGS SHALL CONFORM WITH THE REFERENCED SECTION OF THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED "LATEST EDITION". CONSTRUCTION SHALL BE AS FURTHER SET FORTH IN THOSE SPECIFICATIONS AND AS OTHERWISE PROVIDED FOR IN THESE DRAWINGS.
- PLACE ASPHALT CONCRETE MIXTURE ON PREPARED SURFACE, SPREAD AND STRIKE-OFF USING A SELF-PROPELLED PAVING MACHINE, WITH VIBRATING SCREED. PLACEMENT IN INACCESSIBLE AND SMALL AREAS MAY BE BY HAND.
- 4. <u>JOINTS PROVIDE JOINTS BETWEEN OLD AND NEW CONCRETE OR BETWEEN SUCCESSIVE DAYS WORK.</u> CLEAN SURFACE AFTER COMPLETION OF PAVING AND SURFACING OPERATIONS, CLEAN SURFACES OF EXCESS OR SPILLED ASPHALT, GRAVEL OR STONE MATERIALS TO THE SATISFACTION OF THE ENGINEER.





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— (2) #4 BARS x 4'-0" LONG, TYP AT CORNERS OF COLUMN BOXOUT IN SURROUNDING 00000 NI LAP SPLICE, TYP SIDEWALK POUR SEE SCHED WALL FOOTING, SEE PLAN AND SCHED FOR SIZE AND REINF - 1/2" ISOLATION JOINT A 4 . 4 2' - 0" WITH SEALANT, TYP . . 3''TYP ------**REINF TO MATCH** FTG REINF SIZE AND SPACING, TYP ------1.5 H, MIN **8**)<u>TYPICAL WALL FOOTING STEP DETAIL</u> 0" 6" 1' 3/4"=1'-0"





EXISTING BRICK 1/2" THICK ISOLATION JOIN FACE WITH PREMOLDED REILIENT JOINT FILLER FOR FULL DEPTH OF CONCRETE SECTION DRILL & EPOXY GROUT #4 SMOOTH BARS 16" LONG AT 16" O.C. (MAX) GREASE END OF THE DOWEL TO BE ENCASED IN NEW CONCRETE ALONG BRICK EDGE 4,500 PSI CONCRETE SHALL -CONFORM WITH NYSDOT STANDARD SPECIFICATION SECTION 500 BOTTOM OF **⊢** → A STAIR (SEE PLAN FOR WIDTH) **TOP OF STAIR- PLAN VIEW** N.T.S.

- SECONDARY

CONCRETE POUR

- COLUMN BASEPLATE













4' - 0" MIN

 \sim





| | <u> </u> |
|----------------------|--|
| 1. REF | ER TO SHEET GOO1 FOR A |
| 2. REF | ES. ER TO A600 SERIES DRAM ENSIONS AND DETAILED IN |
| CAE 3. REF | BINETRY. ER TO A900 SERIES DRAM |
| STC SCH 4. REF | REFRONT, CURTAINWALL, I EDULES, DETAILS AND NOT ER TO SHEET A701 FOR F |
| | |
| # | |
| # | Desci |
| 4CB 5TB | TACKABLE SURFACE BOA |
| 5MB 65DP | NHITEBOARD, 5'. 65" PR DISPLAY. |
| 75DP A1 | 75" PR DISPLAY MONITOR PROVIDE METAL SHELVES |
| A4 | PROVIDE TOILET PAPER I |
| | MAS PREVIOUSLY REMOV |
| | ACCOMMODATE PIPING W SLAB AFTER COMPLETION |
| | COORDINATE EXTENT OF PLUMBING DRAWINGS. |
| D8 | PROVIDE SPECIFIED ADA INTO NEW RELAY AND CO |
| | OPERATOR AS INDICATED WITH DOOR HARDWARE A |
| D9 | INSTALL POWER SUPPLY/ ELECTRIFIED DOOR HARD |
| D10 | PROVIDE SPECIFIED DOO SPECIFIED SWING SENSOR |
| | AND CONNECTED TO ADA INDICATED. COORDINATE |
| DC | NEW DISPLAY CASE. SEE F |
| 55 | SIDES WITH METAL STUDS |
| | DRAWINGS |
| F2 | UNDERLAYMENT TO ACHIE |
| F٩ | TRENCH SLAB TO PROVID |
| | NEW CONCRETE WHEN ELE |
| | SCHEDULED FLOOR FINISH ELECTRICAL DRAWINGS |
| GRM | GROMMET IN COUNTERTO |
| PCT | ELECTRICAL DRAWINGS. PLAM COUNTER TOP CON |
| RFR | REFRIGERATOR, NOT-IN-C |
| W13 | PROVIDE 1/2" GMB, PAIN |
| M20 | REINSTALL SALVAGED PL |
| W21 | |
| | NEW STOREFRONT FRAMI |
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A111 ^{1/4" = 1'-0"}

AREA A - PARTIAL FIRST FLOOR PLAN

AREA OF -WORK



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| VAL NOTES | 19 Front St. Newburgh · New York 12550-7601 845 · 561 · 3179 www.csarchpc.com |
|--|---|
| ADDITIONAL GENERAL WINGS FOR ADDITIONAL NFORMATION OF WINGS FOR DOOR, WINDOW AND LOUVER DTES. PARTITION TYPES AND KISTING ROOF SYSTEM IG TO PROVIDE A NEW DMMODATE MECHANICAL RAWINGS. EXISTING ROOFING | Consultant |
| RIMETER OF NEW ROOF DATE MEP WORK. EYNOTES ription . REFER TO MEP G AROUND NEW F NEW ROOFING SYSTEM OF NEW ROOF | VALLEY CENTRAL SCHOOL DISTRICT BEREA ELEMENTARY SCHOOL 2023 CAPITAL PROJECT - PHASE 1 |
| | PI tojo Image: State of the sta |
| 「 ⓒ ALL RIGHTS RESERVED | Sheet No. BES A401 CONSTRUCTION DOCUMENTS |

| | | | ROOM F | INISH SC | HEDULE | | | |
|--------|--------------------|-------------------|------------|-----------|--------------|-------------|---------|----------|
| ROOM | | | FLO | OR | | | | |
| NUMBER | ROOM NAME | Room Style | FINISH | BASE | Wall Finish | Accent_Wall | CEILING | Comments |
| 105 | COUNSELOR | COUNSELOR | ETR | ETR, RB-2 | ETR/ PNT-5 | | | |
| 120 | KINDERGARTEN | CLASSROOM ETR | ETR, VCT-1 | ETR, RB-2 | PNT-1 | | | |
| 121 | NURSE'S SUITE | NURSE | LVT-1 | RB-1 | PNT-1 | PNT-2 | | |
| 121A | TOILET | TOILET | CFT-1 | CTB-1 | CWT-1,2,3,4 | | | |
| 121D | IT CLOSET | IT CLOSET | LVT-1 | RB-1 | PNT-1 | | | |
| 122A | MAIN OFFICE | OFFICE LVT | LVT-1 | RB-1 | PNT-1 | | | |
| 122AA | STORAGE | CLASSROOM STORAGE | LVT-2 | RB-1 | PNT-1 | | | |
| 122B | ASSIST. PRINCIPAL | OFFICE CPT | CPT-1 | RB-1 | PNT-1 | | | |
| 122C | PRINCIPAL | OFFICE CPT | CPT-1 | RB-1 | PNT-1 | | | |
| 122D | OFFICE | OFFICE CPT | CPT-1 | RB-1 | PNT-1 | | | |
| 122E | SECURITY OFFICE | OFFICE CPT | CPT-1 | RB-1 | PNT-1 | | | |
| 122F | STORAGE | STORAGE OFFICES | LVT-1 | RB-1 | PNT-1 | | | |
| 122G | TOILET | TOILET | CFT-1 | CTB-1 | CWT-1,2,3,4 | | | |
| 122J | MTG/PT RM | OFFICE CPT | CPT-1 | RB-1 | PNT-1 | | | |
| 122K | RECEPTION | OFFICE LVT | LVT-1 | RB-1 | PNT-1 | | | |
| 123 | TOILET | TOILET | CFT-1 | CTB-1 | CWT-1,2,3,4 | | | |
| 144B | PASSAGE | OFFICE LVT | LVT-1 | RB-1 | PNT-1 | | | |
| 160 | KINDERGARTEN | CLASSROOM | LVT-2,3 | RB-1 | PNT-1 | | | |
| 160A | TOILET | TOILET | CFT-1 | CTB-1 | CWT-1,2,3,4 | | | |
| 161 | KINDERGARTEN | CLASSROOM | LVT-2,3 | RB-1 | PNT-1 | | | |
| 161.1 | STORAGE | CLASSROOM STORAGE | LVT-2 | RB-1 | PNT-1 | | | |
| 161B | TOILET | TOILET | CFT-1 | CTB-1 | CWT-1,2,3,4 | | | |
| 162 | STORAGE | CLASSROOM STORAGE | LVT-2 | RB-1 | PNT-1 | | | |
| 238 | CORRIDOR | CORRIDOR C100 | ETR | ETR/ TB-1 | ETR/ PNT-3,4 | | | |
| C100 | CORRIDOR | CORRIDOR C100 | ETR | ETR/ TB-1 | ETR/ PNT-3,4 | | | |
| V001 | SECURITY VESTIBULE | VESTIBULE | ETR, LVT-1 | ETR/ RB-1 | ETR/PNT-1 | | | |

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| MATERIALS LEGEND | | | | | | | | |
|------------------|-----------------------|------------------------------|--|--------------------|-------------------|--|--|--|
| MATERIAL | MANUFACTURER | MODEL | COLOR #/NAME | SIZE | NOTE | | | |
| ARPET TILE | | | | | | | | |
| CPT-1 | PATCRAFT | ON NEUTRAL GROUND - RAW EDGE | 00580 MOIRE | 18" X 36" | OFFICES (ASHLAR) | | | |
| | | | | | | | | |
| | | | | 12" ¥ 2 <i>4</i> " | | | | |
| | DALIIL | FORTIOLIO | | 12 / 24 | TIFTLOOK | | | |
| ERAMIC TIL | E BASE | | | | | | | |
| CTB-1 | DALTILE | COLOR WHEEL LINEAR | X114 DESERT GRAY GLOSS | 4" | TOILETS | | | |
| | | | | | | | | |
| | | | | /" X 12" | GENIERAL WALL THE | | | |
| CWT-2 | DALTILE | COLOR WHEEL LINEAR | 1174 SEA BREEZE GLOSS | 4" X 12" | GENERAL WALL THE | | | |
| WT-3 | DALTILE | COLOR WHEEL LINEAR | X114 DESERT GRAY GLOSS | 4" X 12" | GENERAL WALL TILE | | | |
| CWT-4 | DALTILE | COLOR WHEEL LINEAR | 0182 SUEDE GRAY GLOSS | 4" X 12" | GENERAL WALL TILE | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | 5034-38 HANDSPUN DOVE | | | | | |
| PLAIVI-2 | WILSONART | | AS SELECTED FROM FULL RANGE OF COLOR / MATCH | | | | | |
| | | | EXISTING | | | | | |
| | | | | | | | | |
| | /L TILE | | | | | | | |
| VI-1 VT-2 | | | | 6" X 36" | | | | |
| VT-3 | | COLOR ANCHOR - GROOVE | C109 ISLAND BLUE | 18" X 18" | | | | |
| | | | | | EDGE) | | | |
| | | | | | | | | |
| | | | | | | | | |
| 2NT-1 2NT-2 | SHERWIN WILLIAMS | EGG-SHELL EGG-SHELL | SW 6516 DOWN POUR | | | | | |
| NT-3 | SHERWIN WILLIAMS | EGG-SHELL | AS SELECTED FROM FULL RANGE OF COLOR / MATCH | | CORRIDOR | | | |
| | | | EXISTING | | | | | |
| PNT-4 | SHERWIN WILLIAMS | EGG-SHELL | AS SELECTED FROM FULL RANGE OF COLOR / MATCH | | CORRIDOR | | | |
| | | EGG-SHELL | | | | | | |
| C-181 | STILINVIIN WILLIAIVIS | | EXISTING | | | | | |
| PNT-6 | SHERWIN WILLIAMS | SEMI-GLOSS | SW 7615 SEA SERPENT | | HM DOOR PAINT | | | |
| NT-7 | SHERWIN WILLIAMS | FLAT | SW 7005 PURE WHITE | | GYP. CEILING | | | |
| | _ | | | | | | | |
| | | RASEWORKS | | / " | | | | |
| RB-2 | TARKETT | BASEWORKS | AS SELECTED FROM FULL RANGE OF COLOR / MATCH | 4" | | | | |
| | | | EXISTING | <u> </u> | | | | |
| | | | | | | | | |
| ERRAZZO B | ASE | | | | | | | |
| В-1 | IERRAZZO | | AS SELECTED FROM FULL RANGE OF COLOR / MATCH | MAICH EXISTING | CORRIDOR | | | |
| | | | | | | | | |
| | | | | | | | | |
| /INYL COMP | | | | | | | | |

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| | | | MATERIALS LEGEND | | |
|-------------|--------------------------|-----------------------|---|----------|-----------------------|
| MATERIAL | MANUFACTURER | MODEL | COLOR #/NAME | SIZE | NOTE |
| | | | | | |
| VT-1 | MANNINGTON COMMERCIAL | COLOR ANCHOR - GROOVE | C141 MISTY MOUNTAIN | 6" x 36" | MAIN OFFICE |
| AINT | | | | | |
| NT-1 | SHERWIN WILLIAMS | EGGSHELL | AS SELECTED FROM FULL RANGE OF COLOR / MATCH EXISTING | | VESTIBULES / LOBBY |
| NT-2 | SHERWIN WILLIAMS | EGGSHELL | AS SELECTED FROM FULL RANGE OF COLOR / MATCH EXISTING | | OFFICE |
| NT-3 | SHERWIN WILLIAMS | SEMI-GLOSS | AS SELECTED FROM FULL RANGE OF COLOR / MATCH EXISTING | | HM DOOR & DOOR FRAMES |
| LASTIC LAM | INATE | | | | |
| LAM-1 | WILSONART | LAMINATE | 5034 HANDSPUN DOVE | | WORKSURFACE |
| LAM-2 | WILSONART | LAMINATE | D315 PLATINUM | | CASEWORK |
| IIBBER BASI | : | | | | |
| R-1 | TARKETT | BASEWORKS | AS SELECTED FROM FULL RANGE OF COLOR | 4" | TYP. WALL BASE |

| | | | ROOM | FINISH SCHE | DULE | |
|--------|--------------------|--------|-----------|-------------|-------------|-----|
| ROOM | | FLC | OR | | | |
| NUMBER | ROOM NAME | FINISH | BASE | Wall Finish | Accent_Wall | CEI |
| | | | | | | |
| 100 | SECURITY VESTIBULE | ETR | RB-1 | PNT-1 | | |
| 101 | VESTIBULE | ETR | RB-1 | PNT-1 | | |
| 102 | LOBBY | ETR | ETR/ RB-1 | ETR/ PNT-1 | | |
| 103 | MAIN OFFICE | LVT-1 | RB-1 | ETR/ PNT-2 | | |

| | Ž | | | | |
|----------|-------------------|--------|-------------|--------------------------|--------------------|
| |) | \geq | MATERIAI | MANUFACTURER | MODE |
| Comments | \leq | | LUXURY VIN | IYL TILE | |
| | | | LVT-1 | MANNINGTON COMMERCIAL | COLOR ANCHOR - GRO |
| | $\overline{\chi}$ | | PAINT | | |
| | | | PNT-1 | SHERWIN WILLIAMS | EGG-SHELL |
| | $\sum_{i=1}^{n}$ | | PNT-2 | SHERWIN WILLIAMS | SEMI-GLOSS |
| | | | PLASTIC LAI | MINATE | |
| | \sim | | PLAM-1 | WILSONART | LAMINATE |
| | | | PLAM-2 | WILSONART | LAMINATE |
| | | | RUBBER BAS | SE | |
| | | \geq | RB-1 | TARKETT | BASEWORKS |
| | | \geq | | | |

VALLEY CENTRAL SCHOOL DISTRICT VALLEY CENTRAL HIGH SCHOOL 2023 CAPITAL PROJECT - PHASE 1 4

ISSUED FOR BID: 10/18/24

CSARCH - ARCHITECTS BLAKE ENGINEERING, PLLC - M.E.P. ENGINEERS PASSERO ASSOCIATES - SITE/CIVIL AND STRUCTURAL ENGINEERS AECC ENVIRONMENTAL CONSULTING - HAZARDOUS MATERIALS DESIGNERS

STATE EDUCATION DEPARTMENT PROJECT CONTROL NUMBER: 2023 CAPITAL PROJECT - PHASE 1 44-13-01-06-0-015-033 THE DESIGN OF THIS PROJECT CONFORMS TO APPLICABLE PROVISIONS OF THE NEW YORK STATE UNIFORM FIRE PREVENTION AND BUILDING CODE, THE NEW YORK STATE ENERGY CONSERVATION CONSTRUCTION CODE, AND THE MANUAL OF PLANNING STANDARDS OF THE NEW YORK STATE EDUCATION DEPARTMENT.

CSArch PROJECT NO. 187-2302.01

VICINITY MAP

Valley Central High School 1175 NY-17K Montgomery, NY 12549

NTS

| | DRAWI | NG LIST | |
|---------------|--|---------------|------------------|
| GENERAL DR | AWINGS | PLUMBING GEI | NERAL DRAWINGS |
| VCHS G000 | COVER & SHEET INDEX | VCHS P001 | PLUMBING NOTES |
| VCHS G001 | SYMBOLS, ABBREVIATIONS, MISC, & PARTITION TYPES | | |
| VCHS G101 | OVERALL FLOOR PLAN - BASEMENT | PLUMBING DEI | MOLITION DRAWING |
| VCHS G111 | OVERALL FLOOR PLAN - FIRST FLOOR | VCHS PD301 | BOILER ROOM PLU |
| VCHS G121 | OVERALL FLOOR PLAN - SECOND FLOOR | | |
| VCHA G401 | OVERALL ROOF PLAN | PLUMBING DR | AWINGS |
| | | VCHS P301 | PLUMBING PLAN |
| LIFE SAFETY D | DRAWINGS | | |
| VCHS LS101 | BASEMENT LIFE SAFETY PLAN | MECHANICAL | GENERAL DRAWING |
| VCHS LS111 | FIRST FLOOR LIFE SAFETY PLAN | VCHS M001 | MECHANICAL NOT |
| VCHS LS112 | SMOKE ZONE PLANS | VCHS M002 | MECHANICAL SCH |
| | | VCHS M003 | MECHANICAL SCH |
| HAZARDOUS | MATERIALS DRAWINGS | VCHS M004 | MECHANICAL DET |
| VCHS_AA100 | ASBESTOS ABATEMENT FIRST FLOOR AREA C | VCHS M005 | TEMPERATURE CO |
| VCHS AA200 | ASBESTOS ABATEMENT SECOND FLOOR AREA C | VCHS M006 | MECHANICAL PIPI |
| | · · · · · · · · · · · · · · · · · · · | | |
| ARCHITECTU | RAL DEMOLITION DRAWINGS | MECHANICAL | DEMOLITION DRAW |
| VCHS AD111 | FIRST FLOOR REMOVAL PLAN - AREA A | VCHS MD111 | MECHANICAL DEM |
| VCHS AD112 | FIRST FLOOR REMOVAL PLAN - AREA C & D | VCHS MD211 | MECHANICAL DEM |
| VCHS AD401 | ROOF REMOVAL PLAN - AREA C & D | VCHS MD212 | MECHANICAL DEM |
| VCHS AD802 | REFLECTED CEILING REMOVAL PLAN - AREA C & D | VCHS MD301 | MECHANICAL DEM |
| ARCHITECTUI | RAL DRAWINGS | MECHANICAL | DRAWINGS |
| VCHS A101 | BOILER ROOM PLANS AND DETAILS | VCHS M111 | SECURITY VESTIBU |
| VCHS A111 | ENLARGED VESTIBULE PLAN, SECTION AND DETAILS | VCHS M211 | MECHANICAL PLA |
| VCHS A112 | AREA C & D - FIRST FLOOR NEW WORK PLAN | VCHS M212 | MECHANICAL PLA |
| VCHS A201 | EXTERIOR ELEVATIONS | VCHS M301 | MECHANICAL PLA |
| VCHS A202 | EXTERIOR ELEVATIONS | | |
| VCHS A402 | ROOF PLAN - AREA A, C, & D | ELECTRICAL GE | NERAL DRAWINGS |
| VCHS A801 | REFLECTED CEILING PLAN & CEILING DETAIL - AREA A | VCHS E001 | ELECTRICAL NOTES |
| VCHS A802 | FIRST FLOOR REFLECTED CEILING PLAN - AREA C & D | VCHS E002 | ELECTRICAL PANEL |
| VCHS A901 | DOOR, WINDOW, & STOREFRONT DETAILS | | |
| | | ELECTRICAL DE | MOLITION DRAWIN |
| ARCHITECTU | RAL FINISH DRAWINGS | VCHS ED111 | ELECTRICAL DEMO |
| VCHS AF001 | MATERIAL SCHEDULE | VCHS ED211 | ELECTRICAL DEMO |
| VCHS AF002 | SIGNAGE TYPES AND SCHEDULE | VCHS FD301 | FLECTRICAL DEMO |
| VCHS AF112 | ARFA C & D - FLOOR FINISHES PLAN | | |
| | | ELECTRICAL DE | AWINGS |
| | | VCHS F111 | ELECTRICAL PLAN |
| | | VCHS F211 | ELECTRICAL PLAN |
| | | | FLECTRICAL PLAN |

RAWINGS IBING NOTES, SCHEDULE, LEGEND & DETAILS ON DRAWINGS ER ROOM PLUMBING DEMOLITION PLAN /BING PLAN L DRAWINGS IANICAL NOTES, LEGEND, SCHEDULE & DETAILS ANICAL SCHEDULES ANICAL SCHEDULES ANICAL DETAILS PERATURE CONTROLS NOTES, LEGEND & SCHEMATICS ANICAL PIPING DIAGRAMS TION DRAWINGS ANICAL DEMOLITION PLAN ANICAL DEMOLITON PLAN - PART 1 ANICAL DEMOLITON PLAN - PART 2 ANICAL DEMOLITION PLAN IGS IRITY VESTIBULE MECHANICAL PLAN ANICAL PLAN - PART 1 ANICAL PLAN - PART 2 ANICAL PLAN DRAWINGS TRICAL NOTES, LEGEND, DETAILS & SCHEDULES TRICAL PANEL SCHEDULES ON DRAWINGS RICAL DEMOLITION PLAN RICAL DEMOLITION PLAN RICAL DEMOLITION PLAN TRICAL PLAN







| | | | ROOM | FINISH SCHE | DULE |
|--------|----------------|-----------|-----------|--------------|----------|
| ROOM | | FLO | OR | | |
| NUMBER | ROOM NAME | FINISH | BASE | Wall Finish | Accent_V |
| 91 | PROF LIBRARY | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 112 | SOCIAL STUDIES | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 130 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 131 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 132 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 133 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 134 | JROTC OFF. | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 135 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 136 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 137 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 138 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 139A | JROTC | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 139B | JROTC | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 140A | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 140B | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 141A | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 141B | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 142A | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 142B | CLASSROOM | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 143 | WRITING CENTER | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 144 | SOCIAL STUDIES | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 145 | SOCIAL STUDIES | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 146 | SOCIAL STUDIES | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 147 | ENGLISH OFFICE | ETR/VCT-1 | ETR/RB-3 | ETR | |
| 284 | RECEPTION | ETR | ETR/ RB-2 | ETR/ PNT-1 | |
| 285 | VESTIBULE | ETR | RB-1 | PNT-1 | |
| 286 | SECURITY OFF. | ETR | RB-1 | PNT-1 | |
| 287 | VESTIBULE | ETR | RB-1 | PNT-1 | |
| 366 | ENGLISH | ETR/VCT-1 | ETR/RB-3 | ETR | |
| C111 | CORRIDOR | ETR | ETR/ RB-1 | ETR/ PNT-1,2 | |

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|------------------------------|-----------|--------------|----------|-------------------|----------------|--------|-----------------------------|----------|------------|------|------------|------------|---|
| $\left\langle \right\rangle$ | | MANUFACTURER | MODEL | SERVICE | FAN | R.P.M. | EXTERNAL STATIC PRESSURE | | M | | | | REMARKS |
| $\langle \rangle$ | EF-91 | GREENHECK | G-140-VG | CLASSROOM | 450 / | 885 | 0.25 | 1/4 | FLA 3.8 | 120 | PHASE 1 | н∠. 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| Ś | EF-112 | GREENHECK | G-140-VG | CLASSROOM | 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| Ś | EE-130 | GREENHECK | G-140-VG | 112 CLASSROOM | 1,250 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | INSULATED ROOF CURB & BACKDRAFT DAMPER PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| Ś | EF 424 | | G-140-VG | 131 CLASSROOM | 1,250 450 / | 005 | 0.25 | 1/4 | 3.0 | 120 | 1 | | INSULATED ROOF CURB & BACKDRAFT DAMPER PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| | EF-131 | GREENHECK | G-140-VG | 131 CLASSROOM | 1,250 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | INSULATED ROOF CURB & BACKDRAFT DAMPER PROVIDE W/ FAN SPEED CONTROLLER. 24" HIGH |
| | EF-132 | GREENHECK | G-140-VG | | 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | |
| $\left\{ \right\}$ | EF-133 | GREENHECK | G-140-VG | 133 | 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | INSULATED ROOF CURB & BACKDRAFT DAMPER |
| Ś | EF-134A | GREENHECK | G-100-VG | 134A | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | INSULATED ROOF CURB & BACKDRAFT DAMPER |
| È | EF-134B | GREENHECK | G-100-VG | CLASSROOM 134B | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| Ś | EF-135 | GREENHECK | G-140-VG | CLASSROOM 135 | 450 / 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\{ \right\}$ | EF-136 | GREENHECK | G-140-VG | CLASSROOM 136 | 450 / 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\langle \right\rangle$ | EF-137 | GREENHECK | G-140-VG | CLASSROOM 137 | 450 / 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| Š | EF-138 | GREENHECK | G-140-VG | CLASSROOM 138 | 450 / 1,250 | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| | EF-139A | GREENHECK | G-100-VG | CLASSROOM 139A | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\{ \right\}$ | EF-139B | GREENHECK | G-100-VG | CLASSROOM 139B | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| { | EF-140A | GREENHECK | G-100-VG | CLASSROOM 140A | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| È | EF-140B | GREENHECK | G-100-VG | CLASSROOM 140B | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| È | EF-141A | GREENHECK | G-100-VG | CLASSROOM 141A | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| { | EF-141B | GREENHECK | G-100-VG | CLASSROOM 141B | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\{ \right\}$ | EF-142A | GREENHECK | G-100-VG | CLASSROOM 142A | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\langle \right\rangle$ | EF-142B | GREENHECK | G-100-VG | CLASSROOM 142B | 225 / 750 | 1194 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| Ì | EF-143 | GREENHECK | G-140-VG | CLASSROOM | 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| <pre>}</pre> | EF-144 | GREENHECK | G-140-VG | CLASSROOM | 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| $\left\langle \right\rangle$ | EF-145 | GREENHECK | G-140-VG | CLASSROOM | 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| Ì | FF-146 | GREENHECK | G-140-VC | 145 CLASSROOM | 1,250 450 / | 885 | 0.25 | 1/4 | 3.8 | 120 | 1 | 60 | PROVIDE W/ FAN SPEED CONTROLLER, 24" HIGH |
| $\left\{ \right\}$ | Li - 140 | | 0-140-70 | 146 | 1,250 | | | 1/7 | 0.0 | 120 | 1 | 00 | INSULATED ROOF CURB & BACKDRAFT DAMPER |
| $\left\langle \right\rangle$ | | | | | | | | | | | | | |
| | ~ ~ ^ ^ ^ | | | | | | | | | | | ^ ^ | |

| | CONDENSING BOILER SCHEDULE | | | | | | | | | | | |
|-----------|----------------------------|---|-------|-------|---------|-------|----------|--|--|--|--|--|
| EQUIPMENT | | | INPUT | (MBH) | THERMAL | GROSS | TURNDOWN | DEMARKS | | | | |
| TAG | MANUFACIURER | MIN. MAX. EFFICIENCY OUTPUT (MBH) RATIO | | RATIO | NEWARKO | | | | | | | |
| B-1 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |
| B-2 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |
| B-3 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |
| B-4 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |
| B-5 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |
| B-6 | LOCHINVAR | FB 3001 | 150 | 3000 | 96.0% | 2883 | 20:1 | FURNISH W/ ADD'L HIGH LIMIT & LOW WATER CUTOFF; BOILERS TO BE UL-795 LISTED & IN COMPLIANCE WITH ASME CSD-1 | | | | |

| | AIR GRILLE/DIFFUSER SCHEDULE | | | | | | | | | | | | |
|------------------|---------------------------------------|----------------------------------|------------------------------------|----------------|-----------------|-----------------------------------|-----------|---------------------------|--------------------|-----------|--------|----------------|--|
| EQUIPMENT TAG | MANUFACTURER (OR ACCEPT. EQUAL) | MODEL | AIR DEVICE TYPE | AIRFLO MIN. | W (CFM) MAX. | MAX AIR PRESS. DROP (IN. W.C.) | MOUNTING | PANEL/FRAME SIZE (IN.) | NECK SIZE (IN.) | MAX NC | DAMPER | FINISH | NOTES |
| D-1 | KRUEGER | PLQ-10-F23-24x24-PR10-IB-44 | SQUARE PLAQUE FACE DIFFUSER | 301 | 450 | 0.10 | LAY-IN | 24"x24" | 10"Ø | 20 | OBD | WHITE | FURNISH W/ INSULATED BACKPAN |
| D-2 | KRUEGER | 880-H-48-24-F22-NONE-00-01-00-44 | DOUBLE DEFLECTION SUPPLY GRILLE | 0 | 3500 | 0.10 | WALL MTD. | 50"x26" | 48"x24" | 20 | OBD | WHITE | - |
| D-3 | KRUEGER | 5DMGDR-H-14-8-20-01-81 | DUCT MOUNTED SUPPLY GRILLE | 0 | 200 | 0.10 | DUCT MTD. | 16"x10" | 14"x8" | 20 | OBD | CLEAR ANOD. | FURNISH W/ DAMPER/EXTRACTOR |
| R-1 | KRUEGER | S80P-20x20-F23-24x24-00-00-00-44 | PERFORATED FACE RETURN GRILLE | 0 | 1,600 | 0.10 | LAY-IN | 24"x24" | 20"x20" | 25 | - | WHITE | FURNISH & INSTALL FULL-SIZE SHEET METAL PLENUM BOX ON REAR OF GRILLE, PAINT INSIDE FLAT BLACK |
| R-2 | KRUEGER | S80H-36x12-F22-NONE-00-00-00-01 | 35° DEFLECTION RETURN GRILLE | 0 | 1,300 | 0.10 | DUCT MTD. | 38"x14" | 36"x12" | 25 | - | MILL | FURNISH & INSTALL FULL-SIZE SHEET METAL PLENUM BOX ON REAR OF GRILLE, PAINT INSIDE FLAT BLACK |

| | | | | | VE | NTIL | ATION | SCHED | ULE | | | | | | |
|---------|-----------------------------|-----------------|----------------------------|----------------------------------|-------------------------------|-------------------|--------------------|--|---|--|--|--------------------------|--------------------------|--------------------------|-------------------------|
| SYSTEM | SPACE SERVED | SPACE TYPE | SPACE AREA (SQ. FT.) | OCCUPANTS PER 1000 SQ. FT. | # OF OCCUPANTS (NOTE 1) | CFM PER PERSON | CFM PER SQ. FT. | CALCULATED VENTILATION RATE (CFM) | ZONE AIR DISTRIBUTION EFFECTIVENESS | ADJUSTED VENTILATION RATE (CFM) | PROVIDED VENTILATION RATE (CFM) | EA CFM PER FIXTURE | EA CFM PER SQ. FT. | MIN. EA RATE (CFM) | EA PROVIDED (CFM) |
| UV-91 | CLASSROOM 91 | LIBRARY | 715 | 35 | 30 | 10 | 0.12 | 386 | 0.9 | 429 | 440 | - | - | - | 450 |
| UV-112 | CLASSROOM 112 | CLASSROOM | 720 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | _ | 450 |
| UV-130 | CLASSROOM 130 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-131 | CLASSROOM 131 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-132 | CLASSROOM 132 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-133 | CLASSROOM 133 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-134A | CLASSROOM 134A | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | | - | 225 |
| UV-134B | CLASSROOM 134B | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-135 | CLASSROOM 135 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-136 | CLASSROOM 136 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-137 | CLASSROOM 137 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-138 | CLASSROOM 138 | CLASSROOM | 780 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-139A | CLASSROOM 139A | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-139B | CLASSROOM 139B | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-140A | CLASSROOM 140A | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-140B | CLASSROOM 140B | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-141A | CLASSROOM 141A | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-141B | CLASSROOM 141B | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-142A | CLASSROOM 142A | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-142B | CLASSROOM 142B | CLASSROOM | 398 | 35 | 15 | 10 | 0.12 | 198 | 0.9 | 220 | 210 | - | - | - | 225 |
| UV-143 | CLASSROOM 143 | CLASSROOM | 782 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-144 | CLASSROOM 144 | CLASSROOM | 782 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-145 | CLASSROOM 145 | CLASSROOM | 782 | 35 | 30 | 10 | 0.12 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| UV-146 | CLASSROOM 146 | CLASSROOM | 782 | 35 | 30 | 10 | 0.18 | 394 | 0.9 | 437 | 440 | - | - | - | 450 |
| 10/452 | BOYS LOCKER ROOM | LOCKER ROOMS | 1303 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 650 | - | 0.5 | 650 | 050 |
| UV-158 | BOYS LOCKER ROOM OFFICE | OFFICE SAPCE | 169 | 5 | 1 | 5 | 0.06 | 15 | 0.8 | 19 | 050 - | - | - | - | - 650 |
| 10/455 | GIRLS LOCKER ROOM | LOCKER ROOMS | 1303 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 650 | - | 0.5 | 650 | 050 |
| UV-159 | GIRLS LOCKER ROOM OFFICE | OFFICE SPACE | 169 | 5 | 1 | 5 | 0.06 | 15 | 0.8 | 19 | - UCO | - | - | - | 000 |

NOTES: 1. QUANTITY OF OCCUPANTS FOR STANDARD CLASSROOMS ARE 30 OCCUPANTS BASED ON NYSED STATISTICAL DATA. ALL OTHER OCCUPANCIES ARE BASED UPON OCCUPANT DENSITIES FROM THE 2015 INTERNATIONAL MECHANICAL CODE

| | | | | | | PUMP S | CHE | DULE | | | | | | | | |
|-----------|----------|-----------------------------------|----------------|--------------------------|-----------------|-------------------|--------|------------|------------|-----------|-------|-------|-----|------|-------|-------|
| EQUIPMENT | | | | | | CIRCULATING FLUID | | | | | | NOTEO | | | | |
| TAG | EQUAL) | MODEL | LUCATION | AREA SERVED | PUMPTTPE | FLUID | G.P.M. | HEAD (FT.) | TEMP. (°F) | NOM. H.P. | VOLT. | PHASE | HZ. | RPM | FLA | NOTES |
| BP-1 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #1 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| BP-2 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #2 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| BP-3 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #3 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| BP-4 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #4 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| BP-5 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #5 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| BP-6 | GRUNDFOS | TPE3 65-150-S -A-G-A-BQQE | BOILER ROOM | BOILER #6 | IN-LINE | HOT WATER | 144 | 32 | 180 | 1.5 | 208 | 1 | 60 | 1760 | 6.7 | 1-3 |
| P-1/2/3 | GRUNDFOS | DELTA HCU 3 NBS 030-110 3x208V | BOILER ROOM | BUILDING | BASE MOUNTED | HOT WATER | 980 | 100 | 180 | 20 (3) | 208 | 3 | 60 | 1760 | 165.6 | 1-3 |
| P-4/5/6 | GRUNDFOS | DELTA HCU 3 CRE 32-2-1 3x208V | BOILER ROOM | HAGGAR WING | BASE MOUNTED | CHILLED WATER | 225 | 110 | 44 | 7-1/2 (3) | 208 | 3 | 60 | 1760 | 61 | 1-3 |
| P-7 | GRUNDFOS | TPE3 80-180-S -A-G-A-BQQE | BOILER ROOM | DOMESTIC WATER HEATER | IN-LINE | HOT WATER | 225 | 25 | 180 | 3 | 208 | 3 | 60 | 1760 | 11 | 1-3 |
| P-8 | GRUNDFOS | TPE3 80-180-S -A-G-A-BQQE | BOILER ROOM | DOMESTIC WATER HEATER | IN-LINE | HOT WATER | 225 | 25 | 180 | 3 | 208 | 3 | 60 | 1760 | 11 | 1-3 |

2. PROVIDE W/ SUCTION DIFFUSER

3. PROVIDE W/ MULTI-PURPOSE VALVE INSULATE PUMP BODY & ALL ASSOCIATED PIPING, VALVES, ACCESSORIES
TRIPLEX SKID PACKAGE W/ (2) ACTIVE PUMPS & (1) BACKUP PUMP W/ FACTORY INSTALLED HEADERS & CONTROLS

1. CLOSE COUPLED IN-LINE CENTRIFUGAL PUMP W/ VARIABLE FREQUENCY CONTROLLED MOTOR & DIFFERENTIAL PRESSURE TRANSMITTER







Sheet Notes:

1. TEMPERATURE CONTROLS SCOPE - REMOVE & REPLACE ALL EXISTING PNEUMATIC HVAC CONTROL SYSTEMS SERVING THIS AREA OF THE BUILDING. OWNER TO PROVIDE ALL MATERIALS & WIRING INCLUDING DEVICES, ACTUATORS, SENSORS, WIRING, CONDUIT, ETC. TO CONVERT ALL EQUIPMENT OVER TO REPLACEMENT DDC SYSTEM. MECHANICAL CONTRACTOR TO DEMOLISH & INSTALL ALL CONTROL VALVES AND ANY PIPING RELATED ACCESSORIES I.E. PORTS FOR SENSORS, ETC.; FIELD VERIFY EXISTING CONDITIONS PRIOR TO THE START OF WORK.

| VER | REVEXISTING CONDITIONS PRIOR TO THE START OF W |
|----------|--|
| Key | Notes: |
| 1 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF E UNIT VENTILATOR AND ALL ASSOCIATED PIPING, ACCESSORIES, CONTROLS, ETC. |
| 2 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF E HOT WATER & CHILLED WATER PIPING AND ALL ASSOCIATED VALVES, INSULATION, HANGERS, SUPI ETC. |
| 3 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF E THERMOSTAT AND ASSOCIATED WIRING OR PNEUM TUBING; MAINTAIN EXISTING BOX AND CONDUIT FO REPLACEMENT UNIT WHERE COMPATIBLE. |
| 4 | EXISTING OUTSIDE AIR LOUVER AND WALL SLEEVE REMAIN |
| 5 | EXISTING DRAFT STOP TO BE DISCONNECTED, REM & PROPERLY DISPOSED OF; |
| 6 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF EXISTING RELIEF AIR TRANSFER GRILLE & DUCTWO |
| 7 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF EXISTING ROOFTOP MOUNTED RELIEF AIR HOOD & ASSOCIATED DUCTWORK |
| 8 | DISCONNECT, REMOVE & PROPERLY DISPOSE OF EXISTING DUCTED HORIZONTAL UNIT VENTILATOR / ALL ASSOCIATED PIPING, ACCESSORIES, CONTROL ETC. |
| 9 | EXISTING SUPPLY AIR GRILLE/DIFFUSER & DUCT TO REMAIN |
| (10) | EXISTING RETURN AIR GRILLE & DUCT TO REMAIN |
| (11) | EXISTING OUTSIDE AIR LOUVER & DUCT TO REMAIN |
| (12) | EXISTING EXHAUST AIR GRILLES & DUCT TO REMAIN |
| (13) | EXISTING CABINET HEATER TO REMAIN; DISCONNE REMOVE & PROPERLY DISPOSE OF ALL ASSOCIATE PNEUMATIC CONTROLS; PROVIDE ELECTRONICALLY CONTROLLED VALVE(S) & DAMPER(S) CONNECTED BUILDING AUTOMATION SYSTEM |
| (14) | EXISTING EXHAUST FAN ON ROOF TO REMAIN |
| (15) | EXISTING FINNED TUBE RADIATION TO REMAIN; DISCONNECT, REMOVE & PROPERLY DISPOSE OF A ASSOCIATE PNEUMATIC CONTROLS; PROVIDE ELECTRONICALLY CONTROLLED VALVE(S) CONNEC TO BUILDING AUTOMATION SYSTEM |
| (16) | REMOVE 3/4" HWS & HWR PIPING DN. THRU FLOOR I CRAWL SPACE & CAP AT MAIN; PIPING WILL BE EXTENDED & CONNECTED TO REPLACEMENT UNIT |
| (17) | REMOVE 1-1/4" CHWS & CHWR PIPING DN. THRU FLC INTO CRAWL SPACE & CAP AT MAIN; PIPING WILL BE EXTENDED & CONNECTED TO REPLACEMENT UNIT |
| (18) | EXISTING FLOOR MOUNTED VERTICAL UNIT VENTIL/ HEATING & CHW COOLING) TO REMAIN; DISCONNEC PROPERLY DISPOSE OF EXISTING CONTROLS & ASS PNEUMATIC CONTROLS, TUBING, ETC. |
| (19) | EXISTING DUCTED FAN COIL (HW HEATING & CHW C REMAIN; DISCONNECT, REMOVE & PROPERLY DISPO EXISTING CONTROLS & ASSOCIATED PNEUMATIC CO TUBING, ETC. |
| 20 | EXISTING FLOOR MOUNTED FAN COIL (HW HEATING COOLING) TO REMAIN; DISCONNECT, REMOVE & PR DISPOSE OF EXISTING CONTROLS & ASSOCIATED P CONTROLS, TUBING, ETC. |
| \frown | DISCONNECT, REMOVE & PROPERLY DISPOSE OF |

EXISTING FINNED TUBE RADIATION AND ALL ASSOCIATED PIPING, ENCLOSURE, ACCESSORIES, CONTROLS, ETC. (21)







| Key I | Notes: |
|-------------|---|
| | NEW UNIT VENTILATOR |
| 2 | 3/4" HWS/HWR & 1-1/4" CHWS/CHWR TO UV IN STOP; CONNECT TO EXISTING PIPING AT WA |
| 3 | NEW THERMOSTAT |
| 4 | EXISTING OUTSIDE AIR LOUVER AND WALL S REMAIN |
| 5 | NEW DRAFT STOP INSTALLED ON BOTH SIDE |
| 8 | NEW DUCTED HORIZONTAL UNIT VENTILATO CONNECT TO EXISTING HW & CHW PIPING AN RETURN & OUTSIDE AIR DUCTWORK; VERIFY ROUTING & SIZES IN FIELD |
| 9 | EXISTING SUPPLY AIR GRILLE/DIFFUSER & DI REMAIN |
| (10) | EXISTING RETURN AIR GRILLE & DUCT TO RE |
| (11) | EXISTING OUTSIDE AIR LOUVER & DUCT TO F |
| (12) | EXISTING EXHAUST AIR GRILLES & DUCT TO |
| (13) | EXISTING CABINET HEATER TO REMAIN; DISC REMOVE & PROPERLY DISPOSE OF ALL ASSO PNEUMATIC CONTROLS; PROVIDE ELECTROM CONTROLLED VALVE(S) & DAMPER(S) CONNE BUILDING AUTOMATION SYSTEM |
| (14) | EXISTING EXHAUST FAN ON ROOF TO REMAI |
| | EXISTING FINNED TUBE RADIATION TO REMA DISCONNECT, REMOVE & PROPERLY DISPOS ASSOCIATE PNEUMATIC CONTROLS; PROVID ELECTRONICALLY CONTROLLED VALVE(S) CO TO BUILDING AUTOMATION SYSTEM; MODIFY ENCLOSURE AS NEEDED TO ACCOUNT FOR S DIFFERENCE OF REPLACEMENT UNIT VENTIL |
| (16) | PROVIDE 3/4" HWS & HWR PIPING UP THRU F CRAWL SPACE TO NEW UV |
| | PROVIDE 1-1/4" CHWS & CHWR PIPING UP TH FROM CRAWL SPACE TO NEW UV |
| | EXISTING FLOOR MOUNTED VERTICAL UNIT V (HW HEATING & CHW COOLING) TO REMAIN; ELECTRONICALLY CONTROLLED VALVE(S) & CONNECTED TO BUILDING AUTOMATION SYS |
| | EXISTING DUCTED FAN COIL (HW HEATING & COOLING) TO REMAIN; PROVIDE ELECTRONIC CONTROLLED VALVE(S) & DAMPER(S) CONNE BUILDING AUTOMATION SYSTEM |
| 20 | EXISTING FLOOR MOUNTED FAN COIL (HW HI CHW COOLING) TO REMAIN; PROVIDE ELECT CONTROLLED VALVE(S) & DAMPER(S) CONNE BUILDING AUTOMATION SYSTEM |
| $\sim \sim$ | |









PROVIDE WIRING AND CONDUIT TO UNIT VENTILATOR FROM NEW CIRCUIT BREAKER IN EXISTING PANELBOARD





Key Notes:

NEW LIGHT FIXTURE; CONNECT TO EXISTING LIGHTING CIRCUIT & SWITCHING SERVING BOILER ROOM; FIELD VERIFY EXACT LAYOUT BASED ON EXISTING INFRASTRUCTURE & LAYOUT OF NEW PIPING

VFD FURNISHED BY MECHANICAL CONTRACTOR W/ PUMP; ELECTRICAL CONTRACTOR TO MOUNT & WIRE VFD 2

& EQUIPMENT WITHIN SPACE







GENERAL NOTES:

- 1. CONTRACTOR TO PROTECT THEIR EMPLOYEES WITH ADEQUATE PERSONAL PROTECTIVE EQUIPMENT AT ALL TIMES, WHEN PERFORMING WORK ON THIS PROJECT.
- 2. DISTRICT TO PROVIDE A WATER SUPPLY AND AN ELECTRICAL POWER SOURCE ON THIS PROJECT TO CONDUCT WORK ACTIVITIES. CONTRACTOR TO PROVIDE ALL INTERCONNECTS FOR WATER/POWER AND TO ENSURE THAT ALL TEMPORARY WATER/POWER SOURCES ARE PROPERLY INSTALLED BY A LICENSED PLUMBER/ELECTRICIAN.
- 3. CONTRACTOR'S EMPLOYEES SHALL WEAR PROTECTIVE SUITS AND HALF-FACE RESPIRATORS (AT A MINIMUM) AT ALL TIMES, REGARDLESS OF ANY NEGATIVE EXPOSURE ASSESSMENT REPORTS / DATA.

ASBESTOS ABATEMENT NOTES:

- 1. CONTRACTOR SHALL OBSERVE ALL FEDERAL, STATE, AND LOCAL REGULATIONS GOVERNING ASBESTOS ABATEMENT. 2. ASBESTOS ABATEMENT PROCEDURES SHALL BE CONDUCTED IN A MANNER CONSISTENT WITH PROJECT SPECIFICATION
- Ø28213. 3. THE SCOPE OF ABATEMENT WORK INVOLVES THE REMOVAL OF ASBESTOS- CONTAINING MATERIALS FROM THE AREAS
- INDICATED ON THE AA SERIES DRAWINGS. 4. THE CONTRACTOR ASSUMES THE RESPONSIBILITY FOR THE MEANS AND METHODS UTILIZED TO COMPLETE THE PROJECT IN A TIMELY, PROFESSIONAL, LEGAL, AND SAFE MANNER.
- 5. THE CONTRACTOR ACKNOWLEDGES THAT THE PROVIDED DRAWINGS MAY NOT BE TO SCALE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT A PRE-BID WALKTHROUGH AND SATISFY THEMSELVES OF THE QUANTITIES OF ASBESTOS-CONTAINING MATERIALS, PRESUMED ASBESTOS-CONTAINING MATERIALS AND THAT THEY SHALL BE CONTRACTUALLY OBLIGATED TO HANDLE AND DISPOSE OF ON THIS PROJECT.
- 6. DECONTAMINATION ENCLOSURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF NYSDOL ICR 56. THE LOCATIONS OF THESE ENCLOSURES, STAGING AREAS, WASTE DUMPSTERS / TRAILERS / VEHICLES, POWER AND WATER SOURCES SHALL BE IDENTIFIED TO DISTRICT REPRESENTATIVES AND THE PROJECT DESIGNER SEVENTY-TWO (72) HOURS PRIOR TO THE COMMENCEMENT OF ANY ACTIVITIES ON-SITE. THE CONTRACTOR ACCEPTS THAT DISTRICT REPRESENTATIVES AND/OR THE PROJECT DESIGNER MAY MODIFY THIS PLAN FOR ANY REASON DEEMED NECESSARY. THE CONTRACTOR MAY NOT PROCEED WITH ABATEMENT ACTIVITIES UNTIL THEY HAVE THE APPROVAL OF DISTRICT REPRESENTATIVES AND THE PROJECT DESIGNER.
- 7. THE DISTRICT (OR THEIR DESIGNATED PERSONNEL) SHALL BE RESPONSIBLE FOR HIRING THE PROJECT MONITORING THE CONTRACTOR SHALL FIRM ON THIS PROJECT. RECOGNIZE THE SELECTED FIRM'S PERSONNEL AS THE BUILDING OWNER'S REPRESENTATIVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COLLECTION OF PERSONAL AIR SAMPLES FOR THEIR EMPLOYEES DURING THIS PROJECT.
- 8. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH DISTRICT REPRESENTATIVES AND THE MONITORING FIRM.













COMPUTER LAB 1377 SF

CORRIDOR 4 422 SF

4TH GRADE 13 640 SF



