A D D E N D U M 1

All sketches and modifications are to be incorporated into final bid documents.
This Addendum consists of the following Parts:

Part 1 Bidding #0, Bidding and Contract Requirements

1. Specification Section 004100 Proposal Form
   a. Replace entire Specification Section 004100 with attached Proposal Form

Part 4 Drawing Changes, Architectural/Civil

1. Drawing T-2 Cover Sheet MEP Rebid
   a. Add Structural Sheets S001, S103 & S301 to List of Drawings
   b. Update List of Drawings to reflect renaming Mechanical Sheet M206 to **M601** MECHANICAL EQUIPMENT NOTES AND SCHEDULES

Part 5 Drawing Changes, Structural

1. Add attached Structural Sheet S001 General Notes and Material Specifications
2. Add attached Structural Sheet S103 Overall Roof and RTU Location Plan
3. Add attached Structural Sheet S301 Steel Framing Schedules and Typical Details

Part 6 Drawing Changes, Mechanical & Electrical

1. Add attached MSK-1 Support Detail for Condensing Units Located on Roof

Part 7 Clarifications

1. Question: Electrical conduits through shelving in closets for Panel PPM1 – Will shelving be removed & by whom?
   a. Answer: Electrical Contractor shall remove existing closet shelving and paint and patch walls to match adjacent surfaces.
2. Question: Confirm that new unit curbs do not have side penetrations and that new unit access is not over installed ductwork.
   a. Answer: All equipment is intended for direct side duct connections, not through or to roof curb.

Part 8 List of Included Documents

Specification Section 004100 Proposal Form	7 pages
Structural Sheet S001 General Notes and Material Specifications	1 page
Structural Sheet S103 Overall Roof and RTU Location Plan	1 page

Structural Sheet S301 Steel Framing Schedules and Typical Details	1 page
MSK-1 Support Detail for Condensing Units Located on Roof	1 page

**** END OF ADDENDUM NO 1 ****

SECTION 004100 - PROPOSAL FORM

PROJECT: Tuckahoe Union Free School District HVAC Rebid
Cottle Elementary School
2 Siwanoy Blvd
Eastchester, NY 10709

DATED: _____

To: Faith Sparks, Business Manager
Tuckahoe UFSD District Office
65 Siwanoy Blvd
Eastchester, NY 10709

Greetings:

The Undersigned, in compliance with the Invitation and Instructions to Bidders, agrees that if this bid is accepted as hereinafter provided he/she will provide all labor, materials, supplies, tools, plant and equipment necessary to perform all work required for the construction of the aforementioned project in accordance with documents as prepared by Kaeyer, Garment and Davidson, Architects, P.C.; 285 Main Street, Mount Kisco, NY., Telephone: 914-666-5900 for the class of work at the aforementioned project as listed below:

_____
(#1 - HVAC) (#2 - ELECTRICAL)

(Each Bidder shall indicate in line above, class of work the Proposal is being submitted for.)

for the following BASE BID: LUMP SUM COST as applicable to the particular contract:

_____

_____Dollars ($_____)

Further, the undersigned:

- agrees to execute alternates selected for the sums (additive or deductive) set forth in the attached schedule of Alternate Proposals.
- agrees to the stated percentages for extra work if ordered on a Time and Material basis in accordance with Article 7 of the Conditions to cover all overhead and profit allowance.
- Takes notice of the time constraints set forth in Section 01 10 00 and agrees to the terms of the Contract and to the Actual Damages that will be enforced should the time constraints not be kept.

It is understood that the Owner reserves the right to accept or reject any and all bids that the Owner deems to be in his best interest.

Upon notification of acceptance of this proposal, the undersigned agrees to execute a contract in the form as stated within these contract documents for the amount stated.

Prices quoted shall be guaranteed for forty-five (45) days after date of proposal.

If written Notice to Proceed, Letter of Intent or Contract is received within forty-five (45) calendar days after the opening of bids, the undersigned agrees to execute said contract and furnish to the Owner within ten (10) days after receipt of said notice of award, the executed Contract, together with the Performance Bond, Labor and Material Payment Bonds and Insurance Certificates required herein.

The Undersigned agrees that the Bid Security payable to Owner accompanying this proposal is left in escrow with the Owner; that its' amount is the measure of liquidated damages which the Owner will sustain by the failure of the Undersigned to execute and deliver the above named Bonds and Contract; and that if the undersigned defaults in furnishing said bonds or in executing and delivering said Contract within ten (10) days of written notification of award of the Contract to him/her, then said Security shall be payable to the Owner for its' own account; but if this proposal is not accepted within said forty five (45) days of the time set for submission of Bids, or if the Undersigned executes and delivers said bonds and Contract, the Bid Security shall be returned to the Undersigned.

The following Addenda have been received. The noted modifications to the Bid Documents have been considered and all costs are included in the Bid Sum.

Addendum	Date	Acknowledgment

The Undersigned has included with this Bid attachments noted:

1. Attachment #1: Alternate Proposals

By submission of this Proposal, the undersigned acknowledges that they have read the milestone and schedule requirements, Section 01 10 00, and agrees to provide sufficient staff and organization as well as to select subcontractors, suppliers, and vendors to comply with the requirements for submittals, delivery dates, work periods and completion dates as specified.

The Undersigned hereby certifies that they are able to furnish labor that can work in harmony with all other elements of labor employed or to be employed on the Work.

NON-COLLUSIVE AFFIDAVIT

Every bid or proposal made to a political subdivision of the State or any public department, agency or official thereof or to a fire district or any agency or official thereof, for work or services performed or to be performed or goods sold to or to be sold, shall contain the following statement subscribed by the bidder and affirmed by such bidder as true under the penalties of perjury and is made pursuant to Section 103d of the General Municipal Law of the State of New York as amended by Laws of 1966.

NON-COLLUSIVE BIDDING CERTIFICATION

a. By submission of this bid each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its' own organization, under penalty of perjury, that to the best of his knowledge and belief:
   1. The prices in this bid have been arrived at independently without collusion, consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
   2. Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to the opening, directly or indirectly, to any other bidder or to any competitor; and
   3. No attempt has been made or will be made by the bidder to induce any other person, partnership or corporation to submit or not to submit a bid for the purpose of restricting competition.

b. A bid shall not be considered for award nor shall any award be made if (a)1, 2 and 3 above, have not been complied with; provided, however, that if any case the bidder cannot make the foregoing certification, the bidder shall so state and shall furnish with the bid a signed statement which sets forth in detail the reasons therefore.
   Where (a)1, 2 and 3 above have not been complied with, the bid shall not be considered for award nor shall any award be made unless the head of purchasing unit of the political subdivision, public department, agency or official thereof to which bid is made, or his designee, determines that such disclosure was not made for the purpose of restricting competition.

Further, by submission of this Proposal

- each bidder and each person signing on behalf of any bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, under penalty of perjury, that to the best of its knowledge and belief that each bidder is not on the list created pursuant to paragraph (b) of subdivision 3 of Section 165-a of the state finance law."
- the Undersigned acknowledges that they have visited the site, informed themselves of the existing conditions, and have included in the Proposal a sum to cover the costs of all items in the contracts.

Respectfully submitted,

_____
Contractor

By_____Title_____

Business Name:_____

Address:_____

Telephone Number:_____

Attest:_____Title_____

SEAL IF CORPORATION

CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

As a result of the Iran Divestment Act of 2012 (the "Act"), Chapter 1 of the 2012 Laws of New York, a new provision has been added to State Finance Law (SFL) § 165-a and New York General Municipal Law § 103-g, both effective April 12, 2012. Under the Act, the Commissioner of the Office of General Services (OGS) will be developing a list of "persons" who are engaged in "investment activities in Iran" (both are defined terms in the law) (the "Prohibited Entities List"). Pursuant to SFL § 165-a(3)(b), the initial list is expected to be issued no later than 120 days after the Act's effective date at which time it will be posted on the OGS website.

By submitting a bid in response to this solicitation or by assuming the responsibility of a Contract awarded hereunder, each Bidder/Contractor, any person signing on behalf of any Bidder/Contractor and any assignee or subcontractor and, in the case of a joint bid, each party thereto, certifies, under penalty of perjury, that once the Prohibited Entities List is posted on the OGS website, that to the best of its knowledge and belief, that each Bidder/Contractor and any subcontractor or assignee is not identified on the Prohibited Entities List created pursuant to SFL § 165-a(3)(b).

Additionally, Bidder/Contractor is advised that once the Prohibited Entities List is posted on the OGS Website, any Bidder/Contractor seeking to renew or extend a Contract or assume the responsibility of a Contract awarded in response to this solicitation must certify at the time the Contract is renewed, extended or assigned that it is not included on the Prohibited Entities List.

During the term of the Contract, should the School District receive information that a Bidder/Contractor is in violation of the above-referenced certification, the School District will offer the person or entity an opportunity to respond. If the person or entity fails to demonstrate that he/she/it has ceased engagement in the investment which is in violation of the Act within 90 days after the determination of such violation, then the School District shall take such action as may be appropriate including, but not limited to, imposing sanctions, seeking compliance, recovering damages or declaring the Bidder/Contractor in default. The School District reserves the right to reject any bid or request for assignment for a Bidder/Contractor that appears on the Prohibited Entities List prior to the award of a contract and to pursue a responsibility review with respect to any Bidder/Contractor that is awarded a contract and subsequently appears on the Prohibited Entities List.

I, _____, being duly sworn, deposes and

says that he/she is the _____ of the

_____ Corporation and that neither the Bidder/ Contractor nor any proposed subcontractor is identified on the Prohibited Entities List.

_____
SIGNED

SWORN to before me this _____ day of _____ 201___

Notary Public: _____

OR

DECLARATION OF BIDDER'S INABILITY TO PROVIDE CERTIFICATION OF COMPLIANCE WITH THE IRAN DIVESTMENT ACT

Bidders shall complete this form if they cannot certify that the bidder /contractor or any proposed subcontractor is not identified on the Prohibited Entities List. The District reserves the right to undertake any investigation into the information provided herein or to request additional information from the bidder.

Name of the Bidder: _____

Address of Bidder _____

Has bidder been involved in investment activities in Iran? _____

Describe the type of activities including but not limited to the amounts and the nature of the investments (e.g. banking, energy, real estate):

_____

If so, when did the first investment activity occur? _____

Have the investment activities ended? _____

If so, what was the date of the last investment activity? _____

If not, have the investment activities increased or expanded since April 12, 2012?
_____

Has the bidder adopted, publicized, or implemented a formal plan to cease the investment activities in Iran and to refrain from engaging in any new investments in Iran?
_____

If so, provide the date of the adoption of the plan by the bidder and proof of the adopted resolution, if any and a copy of the formal plan. _____

In detail, state the reasons why the bidder cannot provide the Certification of Compliance with the Iran Divestment Act below (additional pages may be attached):
_____

_____

I, _____ being duly sworn, deposes and says that he/she is the

_____ of the _____ Corporation and the foregoing is true and accurate.

_____

SIGNED

SWORN to before me this _____ day of _____201___

Notary Public: _____

ATTACHEMENT #1 – SCHEDULE OF ALTERNATE PROPOSALS

In accordance with the terms and conditions of the Contract and the Proposal Form, the undersigned agrees to execute alternates selected for the sums set forth in the following schedule of Alternate Proposals in accordance with the general description outlined in Section 01 23 00.

A. Alternate #1: State the amount to be Added to Construction project for providing NEW LIGHTING FIXTURES, RELATED CONTROLS & RELATED WIRING, FIXTURE MOUNTING EQUIPMENT, DEMOLITION, CUTTING & PATCHING, ETC. TO BE PROVIDED AS SHOWN ON A600M, A601M, A602M, A603M & E201 WITH RELATED DETAIL SHEETS & SCHEDULES – COORD W/ ALL MEP DRAWINGS TO BE PROVIDED.
B. Contracts Affected: #2 - Electrical

END OF PROPOSAL FORM

General Notes:

1 The purpose of these drawings is to show the structural work associated with addition to the William E. Cottle Elementary School at 2 Siwanoy Blvd, Eastchester, NY 10709

2 The work shown on these drawings has been designed in accordance with the structural requirements of the 2020 edition of the Building Code of New York State.

3 The structural components have been designed for the following loads:

A. Uniform live load:

Corridors	100 psf
First floor	
Dining rooms	100 psf

B. Roof loads:

Snow:

Ground snow load, p_g	30 psf
Flat roof snow load, p_f	30 psf*
Exposure factor, C_e	1.0
Importance factor, I_s	1.1
Thermal factor, C_t	1.0
Drift surcharge load, p_d	53 psf
Width of snow drift, W	6.72 feet

Rain loads: in accordance with Section 1611

Roof live load:	20 psf min

Rainfall intensity is required by the 2018 IBC code. See Section 1603.1.9.

Rainfall intensity (15-min. duration/100 year avg. interval)	6.00 in./hr.

*Note: the flat roof snow load shall be no less than 30 psf.

C. Wind design data:

Wind loads have been determined based on Section 1609.1.1 in accordance with ASCE 7-16, Chapters 26, 27, 29 and 30, Directional Procedure

Basic Design Wind Speed (3-second gust): V	125 mph
Allowable Stress Design Wind Speed, Vasd	97 mph
Risk category	III
Wind Exposure	B
Internal pressure coefficient	0.18
"a" dimension for use with components and cladding	4 ft

Design wind pressure (Nominal design wind pressures) for components and cladding on building walls (use Zone 4 generally; use Zone 5 within "a" of building wall corners):

Surface pressure (psf)

Area	10 sq.ft	20 sq. ft.	50 sq. ft.	100 sq. ft.
Negative Zone 4	-16.7	-16.0	-15.1	-14.5
Negative Zone 5	-20.6	-19.2	-17.4	-16.0
Positive Zones 4 & 5	15.4	14.8	13.8	13.2

Design wind pressure (Nominal design wind pressures) for components and cladding on building roofs (for locations of zones 1, 2 and 3, refer to building code):

Surface pressure (psf)

Area	10 sq.ft	20 sq. ft.	50 sq. ft.	100 sq.ft.
Negative Zone 1	-26.9	-25.1	-22.8	-21.0
Negative Zone 2	-35.4	-33.2	-30.2	-27.9
Negative Zone 3	-48.3	-43.7	-37.7	-33.2
Positive all zones	10.0	10.0	10.0	10.0
Overhang Zones 1 & 2	-32.9	-29.8	-25.8	-22.8
Overhang Zone 3	-45.7	-40.4	-33.4	-28.1

Wind design for existing buildings:
Not required since the proposed additions does not increase the demand-capacity ratio of any wind load carrying structural element by more than 10 percent cumulative since the original construction.

D. Earthquake design data:

Risk category	III
Seismic importance factor, I_e:	1.25
Mapped short period spectral response accelerations, S_s:	0.293g
Mapped 1 second period spectral response accelerations, S_1:	0.061g
Site class:	B
Design short period spectral response accelerations, S_{DS}:	0.176g
Design 1 second period spectral response accelerations, S_{D1}:	0.033g
Seismic design category:	B
Seismic force resisting system: Structural steel systems not specifically detailed for seismic resistance	
Design base shear:	10 KIPS
Seismic response coefficient, C_s:	0.045
Response modification factor, R:	3
Deflection amplification factor, C_d:	3
Analysis procedure: Equivalent Lateral Force	

Earthquake design for existing buildings:
Not required since the proposed additions does not increase the demand-capacity ratio of any seismic load carrying structural element by more than 10 percent cumulative since the original construction.

E. Other loads:

Concentrated loads:

All floors except as noted (on 2-1/2 feet square)	1000 lbs
Stair treads and catwalks (on 4 inches square)	300 lb

Impact loads

Loads increased as follows:

Elevator machinery	100%
Hangers for floors or balconies	33%
Vehicle and wheel loads	30%

F. Special loads:

Retaining walls

Lateral equivalent fluid pressure	35 pcf
Seismic load (h = height of wall)	5.5 h*2
Vertical live load surcharge	100 psf

G. Guardrails (load applied in any direction):

Top rail concentrated	200 lbs
or	
Top rail uniform load	50 plf
Intermediate rail concentrated load	50 lbs

H. Existing buildings:
For existing structural elements carrying gravity loads, the proposed additions does not increase the stress in any structural element by more than 5 percent nor does it decrease the strength of any structural element to less than required by the building code for new structures.

4 This structure has been designed to be self-supporting and stable after the construction of the building has been completed. The stability of the structure prior to completion is solely the responsibility of the contractor. This responsibility extends to all related aspects of the construction activity including, but not limited to, erection methods, erection sequence, temporary bracing, forms, shoring, use of equipment, and similar construction procedures. Review of the construction by the engineer is for conformance with design aspects only, not to review the contractor's construction procedures. Lack of comment on the part of the engineer with regard to construction procedures is not to be interpreted as approval of those procedures.

5 Shoring note: The contractor is responsible for designing, providing and installing all temporary shoring that is required to support instabilities of existing structure during construction and due to the removal of existing supporting walls and existing framing members for installation of new framing and foundations. Shoring shall be fully installed and stable prior to removal of existing structural elements. However, all conditions may not be shown due to hidden conditions at existing structures.

6 Jobsite safety and construction procedures are solely the responsibility of the contractor. Review of the construction by the engineer is for conformance with design aspects only, not to review the contractor's provisions for job site safety. Lack of comment by the engineer is not to be interpreted as approval of those aspects of work.

7 PDF digital files of all erection and detail shop drawings for structural steel indicating the fabricator, manufacturer, finish, layout, and all accessories, must be submitted to and be checked by the contractor and subcontractor and bear the checker's initials before submission to the architect for review prior to fabrication. Fabrication and/or delivery to the site of components prior to receiving approved shop drawings shall be at the fabricator's own risk.

8 Testing and inspection of concrete masonry, structural steel and other work are described in the project "Statement of Special Inspections". The contractor shall review the "Statement of Special Inspections" and coordinate the scheduling of inspections with the special inspector. Uninspected work that required inspections may be rejected solely on that basis.

9 If faulty construction procedures, or material, result in defective work that requires additional engineering time to devise corrective measures, professional fees may be charged to the contractor at the standard hourly rate of additional services. Such fees may be withheld from the general contractor's payment.

10 Loads, openings and closure in any way related to requirements of other (non-structural) disciplines are shown for bidding purposes only. However, these plans do not show the full scope of openings, in roofs, floors and walls. For size and location of all openings, see architectural and mechanical drawings. Do not scale openings. The contractor shall obtain from the heating and ventilating, electrical, plumbing and other trades the final approved size and location of all openings, equipment and work to be provided for their trade for roofs, floors and walls, whether shown or not shown on structural drawings. Excess cost related to variation in requirements or equipment are not to be borne by the owner.

11 For any mechanical equipment weights used in design of supporting elements that are indicated on the drawings. Contractor shall notify the architect prior to installation of equipment if actual weight exceeds weight shown on drawings.

12 The contractor shall verify all dimensions, elevations and angles with architectural drawings and existing conditions before proceeding with any work.

13 The contractor shall field verify existing conditions before proceeding with any work. The contractor shall field verify all dimensions noted "±" that are indicated on the drawings.

14 The contractor and subcontractors shall obtain the latest copies of approved plans and surveys and they shall familiarize themselves thoroughly with these plans before commencing any work.

15 These drawings are supplemented by a detailed technical specification. The notes shown under certain categories of work are intended to summarize basic requirements.

16 Work shown as "Typical Details" apply throughout the project as required. Work shown as "Sections" shall be considered to apply for the same and similar conditions in the building.

17 Some details of the work are shown on the architectural drawings. A careful review and study of these details are necessary before the full scope of the work can be comprehended.

18 Do not scale drawings.

Codes and Standards References

1 Concrete masonry:
Concrete masonry work shall conform to the requirements of TMS 402-16, "Building Code Requirements for Masonry Structures" and TMS 602-16, "Specifications for Masonry Structures".

2 Structural steel:
Design, fabrication and erection of structural steel shall conform to the "Specification for Structural Steel for Buildings" as adopted on July 7, 2016, by the American Institute of Steel Construction (AISC) and the 15th Edition of the AISC Steel Construction Manual.

Concrete Masonry Notes:

1 All concrete masonry work shall conform to the requirements of the "Building Code Requirements for Masonry Structures,TMS 402" and the "Specifications for Masonry Structures, TMS 602, indicated in the code reference section of these general notes.

2 The compressive masonry strength, f'm, shall be 1,900 psi minimum. System components have been selected based on the unit strength method.

3 Concrete block shall be lightweight hollow load bearing masonry units conforming to ASTM C 90, with a minimum ultimate compressive strength of 1,900 psi on the net area of the units. Units shall be protected from moisture absorption.

4 Portland cement used in the mortar and grout shall conform to ASTM C 150. **Masonry cement or mortar cement shall not be used.**

5 Mortar shall be Type S conforming to the volumetric proportions set forth in ASTM C 270. Use 1 part Portland cement; 0.25 to 0.5 parts hydrated lime or lime putty; and aggregate proportioned to 2.25 to 3 times the sum of the separate volumes of cementitious materials (i.e. Portland cement plus lime). Provide aggregate in loose, damp condition. Add water to produce a workable mix.

6 Coarse grout used in pilasters and walls shall conform to the volumetric proportions set forth in ASTM C 476. Use one part Portland cement, 2.25 to 3 parts damp, loose sand, 1 to 2 parts 3/8" pea gravel. Add water to produce a flowable mix with an 8 to 11 inch slump.
Alternatively, fine grout may be used that conforms to the volumetric proportions set forth in ASTM C 476 using one part Portland cement, 2.25 to 3 parts damp loose sand and adding water to produce a flowable mix with an 8 to 11 inch slump.

7 Steel reinforcing bars shall conform to ASTM A 615, Grade 60. Reinforcing bars to be lapped 48 bar diameters at splices. Reinforcement to be secured against displacement at spacing not exceeding 200 bar diameters.

8 Joint (horizontal) reinforcement shall be hot-dipped galvanized W1.7 (9 gage) steel wire, ASTM A 951 with ASTM A 153 Class B-2 coating, Ladder type, by Hohmann & Barnard, Inc., or an approved equal. Place joint reinforcing in every second course (16"o.c.). Joint reinforcement shall be lapped 6 inches at splices.

9 Place units while mortar is soft and plastic. Remove and relay in fresh mortar any unit disturbed to the extent that initial bond is broken after initial positioning.

10 Fully bed units in all shear walls including cross webs.

11 All cells with reinforcing bars or bolts shall be grouted solid.

12 Vertical cells to be grouted solid shall have a minimum clear opening of 3"x2-1/2". The entire perimeter of the cell shall be fully bedded with mortar.

13 Consolidate grout pours exceeding 12 inches in height by mechanical vibration and reconsolidate by mechanical vibration after initial water absorption and settlement has occurred. Grout pours exceeding 5.33 feet are high lift pours and shall require cleanouts. High lift grouting shall not be used unless high lift grout procedures are submitted to the engineer for review and approved by the engineer.

14 Cover the tops of all masonry construction to protect against precipitation.

15 Masonry shall not be constructed in temperatures below 40 F. Provide a heat source and protection as required to maintain temperature above 40 F in accordance with ACI 530.1.

16 Hot weather construction techniques shall be in accordance with ACI 530.1 and shall be implemented when the ambient air temperature exceeds 100 F, or 90 F if the wind speed exceeds 8 mph.

17 Unless otherwise shown on architectural or structural drawings provide vertical control joints through concrete masonry unit walls for full wall height as follows:

A Distance between joints should not exceed the lesser of length to height ratio of 1.5, or 25 feet
B At changes in wall height
C At changes in wall thickness – including pipe and duct chases and pilasters
D At and above expansion joints in foundations and floors
E At and below expansion joints in roofs and floors that bear on the wall
F For openings, do not locate control joints within 32 inches of openings
G Adjacent to corners of walls or at wall intersections within a distance equal to half the control joint spacing.

18 Submittals to the engineer are required for certificates of compliance for block grade and strength, grout, mortar, and reinforcing bars prior to delivery to the site.

Connections to Existing Masonry or Hardened Concrete:

1 All proprietary anchoring systems (expansion, adhesive anchoring systems, etc.) to be installed into hardened concrete and masonry elements are to be installed in strict accordance with the manufacturer's instructions for drilling and preparation of holes, for spacing and edge distance requirements, and for the utilization of supplemental components for the anchoring systems such as screen tubes, doweling adhesives, etc.

2 For connections to hardened concrete and masonry, contractor must locate the position of existing reinforcing bars with an R-meter or pilot holes prior to installation of anchors. Notify engineer of field conflicts prior to installation.

3 Connections to hardened concrete shall be made with anchors conforming to ACI 318, as specified in the code reference section of these general notes, for cracked concrete, and Chapter 19 of the state building code indicated at the beginning of these general notes.

A. Mechanical anchors shall be either
i. Hilti "Kwik Bolt TZ" expansion anchor.
ii. Hilti "Kwik HUS-EZ" screw anchor (use only in permanently dry, interior non-corrosive environments)
iii. Dewalt "Power-Stud + SD2" expansion anchor.
iv. Dewalt "Power-Stud + SDASDS6", Type 304/316 SS expansion anchor
v. Dewalt "Screw-Bolt+" screw anchor, zinc-plated or galvanized (use only in permanently dry, interior non-corrosive environments)

Size, embedment, spacing and edge distance of anchors shall be as indicated on the drawings.

B. Adhesive anchor rods or reinforcing bars shall be installed in rotary hammered drilled holes with carbide drill bits using one of the following adhesive anchoring systems:
i. Hilti "HIT-HY 200 safe set system" with hollow drill bit or Hilti "HIT-RE-500 V3" adhesive anchoring system with ISO 898 Class 5.8 anchors rods (minimum yield strength = 58 ksi and minimum ultimate strength = 72.5 ksi) or ASTM A 193 Grade B7 high strength anchor rods.
ii. Dewalt DUST X+ system with "Pure110+" epoxy adhesive, standard cure or Dewalt "AC200+" two part adhesive, cold temperature cure with ASTM A 193 B7 high strength anchor rods.
iii. Reinforcing bars shall conform to the requirements of the Concrete General Notes.

Adhesive for reinforcing bars and anchors shall have been tested in accordance with ACI 355.4 "Qualification of Post-Installed Adhesive Anchors in Concrete" and ICC-ES (ICC Evaluation Service) "Acceptance Criteria for Post-Installed Adhesive Anchors in Concrete Elements" (AC308) for cracked concrete and seismic applications.

Adhesive bond design strength is based upon concrete that has cured at least 21 days with a minimum compressive strength of 2,500 psi and an in-service temperature in accordance with ACI 355.4 Temperature Category B.

Installation method shall be in accordance with the Manufacturer's Printed Installation Instructions (MPII Installation of adhesive anchors horizontally or upwardly inclined to support sustained tension loads shall be performed by personnel certified by the ACI/CRSI Adhesive Anchor Installer Certification program or equal.

Unless otherwise noted on the drawings, embed anchor rods and reinforcing bars into drilled holes a minimum of 9 anchor diameters, with a minimum edge distance of 4 inches, measured from the edge of the concrete to the centerline of the anchor/reinforcing bar. Increased embedment depths or edge distances may be required at certain locations, see plans and details.

4 Connections to grout filled concrete masonry shall be made with either 1) Hilti standard "HAS-E" ISO 898 Class 5.8 anchor rods (minimum yield strength = 58 ksi and minimum ultimate strength = 72.5 ksi) using Hilti "HIT HY270" masonry adhesive anchoring systems or 2) Simpson "RFB" ASTM F 1554 Grade 36 anchor rods using Simpson "Set-XP" masonry adhesive anchoring system or 3) ASTM F1554 Grade 36 or ASTM A 193 Grade B7 high strength anchor rods using Dewalt AC100+ Gold masonry adhesive anchoring system.

A. Unless otherwise noted on the drawings, embed anchor rods into drilled holes a minimum of 9 anchor diameters, with a minimum edge distance of 4 measured from the edge of the masonry to the centerline of the anchor. Increased embedment depths or edge distances may be required at certain locations, see plans and details.

5 Connections to hollow concrete or clay brick masonry shall be made with either 1) Hilti standard "HAS-E" ISO 898 Class 5.8 anchor rods (minimum yield strength = 58 ksi and minimum ultimate strength = 72.5 ksi) using Hilti "HIT HY270" masonry adhesive anchoring system with "HIT-SC" composite screen tubes or 2) Simpson "RFB" ASTM F 1554 Grade 36 anchor rods using Simpson "SET-XP" masonry adhesive anchoring system with Simpson "Opti-mesh" plastic screen tubes or 3) ASTM F1554 Grade 36 or ASTM A 193 Grade B7 high strength anchor rods using Dewalt AC100+ Gold masonry adhesive anchoring system with composite screen tubes.

A. For anchors in hollow concrete masonry, embed anchor rods into drilled holes a minimum of 2 inches, with a minimum edge distance of 4 inches, unless otherwise noted, measured from the edge of the masonry to the centerline of the anchor. Increased embedment depths or edge distances may be required at certain locations, see plans and details.

B. For anchors in hollow clay brick masonry, embed anchor rods into drilled holes a minimum of 3 1/2 inches, with a minimum edge distance of 4 inches, unless otherwise noted, measured from the edge of the masonry to the centerline of the anchor. Increased embedment depths or edge distances may be required at certain locations, see plans and details.

Structural Steel Notes:

1 Design fabrication and erection of structural steel shall conform to the American Institute of Steel Construction's "Specification for Structural Steel for Buildings", as specified in the code reference section of these general notes.

2 Materials:

Wide flange shapes:	ASTM A 992 Grade 50
American standard shapes, angles,	
Plates and bars:	ASTM A 36
Structural steel tubing,	
Rectangular and square	ASTM A 500, Grade C (Fy=50 ksi)
Bolts	ASTM F3125, Grade A 325
Anchor rods	ASTM F 1554, Grade 36
Welding electrode	ASTM E 70xx, low hydrogen

3 All welding shall conform to American Welding Society's AWS D1.1 "Structural Welding Code-Steel" code for arc and gas welding and be performed by a certified welder in accordance with A.W.S. standards.

4 High strength bolts: install high-strength bolts according to Research Council on Structural Connections' (RCSC's) "Specification for Structural Joints Using High-Strength Bolts" for type of bolt and type of joint specified.
Joint type: Snug tightened unless otherwise noted.

5 Beam reactions are indicated on the plans, refer to the typical beam legend for reaction designations. Beams with shear reactions not shown shall be designed for a 12 kip reaction (service loads for allowable stress design).

6 The fabricator is responsible for designing connections for the reactions shown on these plans and submitting these design calculations, signed and sealed by a qualified professional engineer registered in the state of jurisdiction who is responsible for their preparation, for review by the structural engineer of record through the architect. The reactions shown are "service" loads for "Allowable Stress Design" (ASD). Connections may be designed for these values using the conventional "Allowable Stress Design" method, as specified in the AISC Steel Construction Manual indicated in the code reference section of these general notes.

7 For moment connections, notch-tough welding electrodes, complying with AWS requirements, shall be used for full penetration welds. Also for full penetration welds, provide welding tabs at beam flange edges to allow welding of full beam width.

8 For moment connections, backing bars and weld tabs for welds need not be removed, unless testing agency requires removal to facilitate testing and inspection or weld tabs interfere with architectural finishes.

9 All moment connections utilizing full or partial penetration groove welds, shall be ultrasonic tested, as indicated in the Statement of Special Inspections, and shall be detailed to allow for such ultrasonic testing.

10 Grout shall be nonmetallic, shrinkage-resistant grout conforming to ASTM C 1107, Grade B or C, factory-packaged, nonmetallic aggregate grout, noncorrosive, nonstaining, mixed with water to consistency suitable for application and a 30-minute working time.

11 Structural steel shall be cleaned in accordance with the Steel Structures Painting Council Specification SP 3 for Power Tool Cleaning (except for steel exposed to weather).

12 All steel members and bolting exposed to weather shall be cleaned in accordance with the Steel Structures Painting Council Specification SP 6 for Commercial Blast Cleaned and hot-dipped galvanized in accordance with ASTM A 123 and ASTM A 153. Minimum acceptable zinc coating weight shall be 2 oz./sq. Ft. See architectural specifications for finished paint if required. Clean areas where galvanizing is damaged or missing and repair galvanizing to comply with ASTM A 780.

13 Provide bitumastic protection coating for all structural steel below grade.

14 Continuous members, where indicated on the drawings, shall require either 1) the member to be furnished as one piece, or 2) if individual pieces are to be provided, then they shall be connected by either welding or bolting to develop the full strength of the continuous member.

15 Provide 1/4" closure plates with seal weld at ends of all HSS members.

16 Fabricator shall hold a current AISC certification for "Certified Building Fabricator (BU)", (formerly known as "Standard for Steel Building Structures (STD)").

17 For miscellaneous steel, see architectural drawings.

18 Existing steel surfaces to receive field welds shall be thoroughly cleaned and free from paint, rust, grease, etc.

19 Submittals to the engineer are required for certificates of compliance for structural steel, bolts, nuts, washers, and weld filler material prior to the fabrication of any steel

20 At the completion of fabrication, the fabricator shall submit a certificate of compliance stating that the work was performed in accordance with the approved contract documents, as required by Section 1704.2 of the building code indicated at the beginning of these General Notes.

Lintel Notes:

1 Unless otherwise noted, for lintels over doors, windows, ducts, and miscellaneous openings in non-bearing 4", 8" and 12" CMU walls and brick walls use for each 4" of masonry:

Angle size	Max. M.O.	Bearing each end
3 1/2" x 3/8" flat plate	2'-0"	6"
3 1/2" x 4" x 5/16" (LLV)	3'-6"	6"
3 1/2" x 5" x 5/16" (LLV)	5'-0"	6"
3 1/2" x 6" x 5/16" (LLV)	6'-0"	8"
3 1/2" x 6" x 3/8" (LLV)	8'-0"	8"

2 Openings in non-bearing walls masonry where no specific lintels or lintel sizes are indicated shall have 8" bearing at each end and shall have the following sizes:

Max. M.O.	Wall thickness	Lintel size
9'-0"	8"	W8x24
9'-0"	9"-13"	W8x31 + 5/16" plate
12'-0"	8"	W8x28
12'-0"	9"-13"	W8x35 + 5/16" plate

Plates indicated in above lintels shall have a width 1" less than the wall thickness and a length 1" less than the masonry opening. Provide 7 1/2" x 5/8" x 0'-7 1/2" bearing plates on 3/4" grout bed with (2)-5/8" diameter x 6" long welded anchor studs at 3" o.c. unless otherwise noted. Field weld bottom flange of beam to bearing plate with 1/4" weld at each side of flange.

3 For 6" masonry partitions use WT 7x13 for spans up to 7'-0" with 6" bearing each end.

4 For 10" masonry partitions use WT 7x21.5 for spans up to 7'-0" with 8" bearing each end.

5 Fill the first two courses directly under bearing with grout for 16" length.

6 See architectural and mechanical drawings for size and location of openings.

7 When openings occur in bearing walls or the height of masonry above the lintel is less than the opening width or when a control joint is located directly above or within 16" of the jamb opening and drawings do not otherwise indicate a specific lintel design, consult with the architect to confirm lintel requirements.

8 Lintels over adjacent openings with piers between less than 2'-8" wide shall be continuous over piers. Masonry units of such piers shall be filled with grout for full story height.

9 Connect lintel to structural steel columns when there is less than 16" of masonry between the masonry opening and the outermost face of column.

10 Lintels supporting exterior masonry shall be hot-dipped galvanized. See structural steel notes.

11 Lintels for openings in walls: These plans do not show the full scope of steel lintels required for new wall openings for doors, windows, ducts, louvers, etc.. For masonry opening size and location of all wall openings, see architectural and mechanical drawings. Do not scale openings. For steel lintel size for corresponding masonry opening size, see notes, above, unless otherwise noted on plans.

WILLIAM E. COTTLE ELEMENTARY SCHOOL ADDTIONS AND ALTERATIONS

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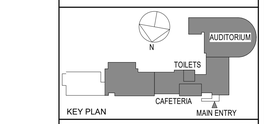
NY SED PROJECT CONTROL NO.
66-03-02-03-0-001-020

CONSTRUCTION DOCUMENTS



KEY PLAN
MAIN ENTRY

Professional Seal

No.	Date	Issue
	12/04/2023	ISSUED FOR BID

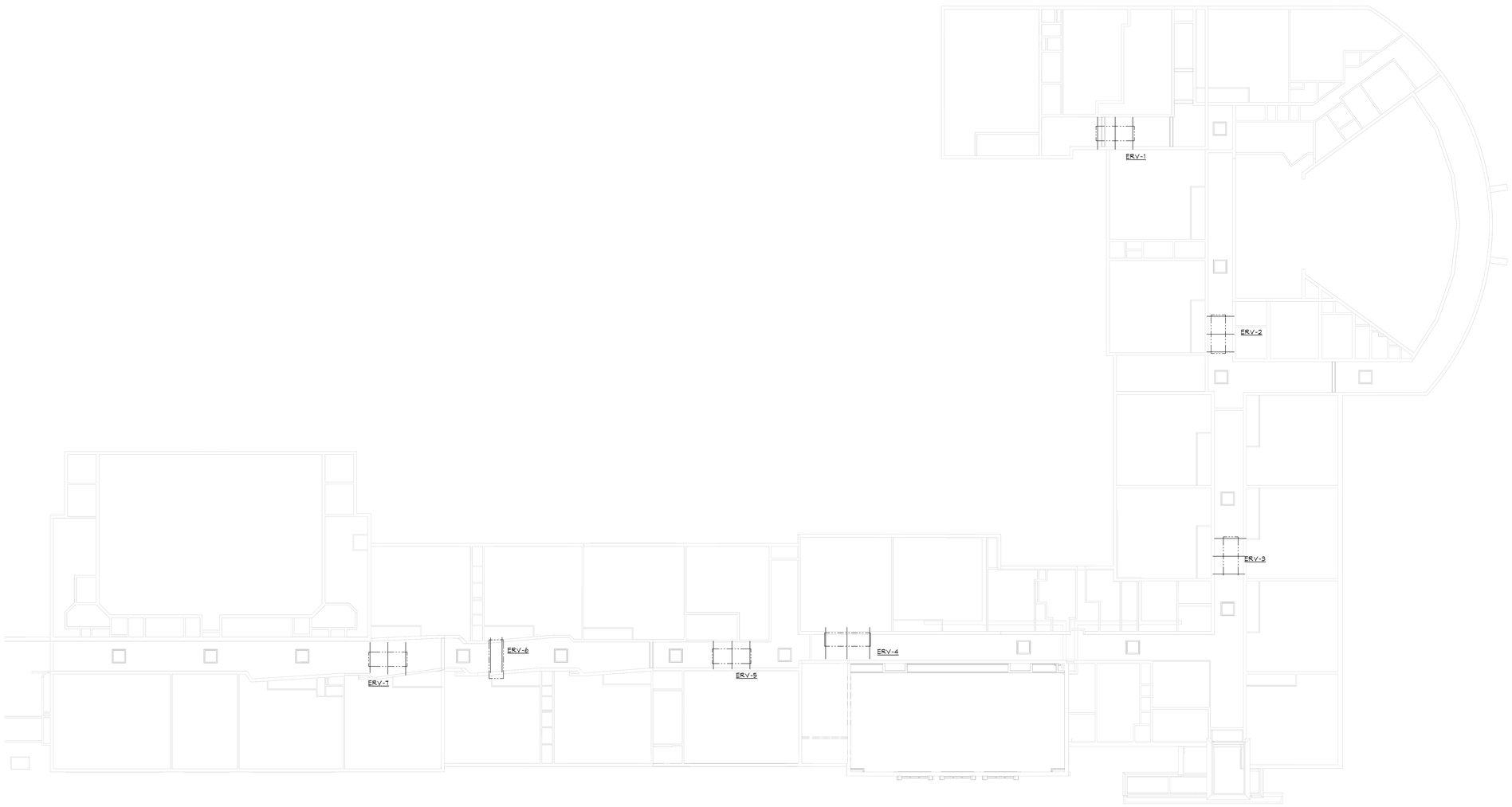
Sheet Title

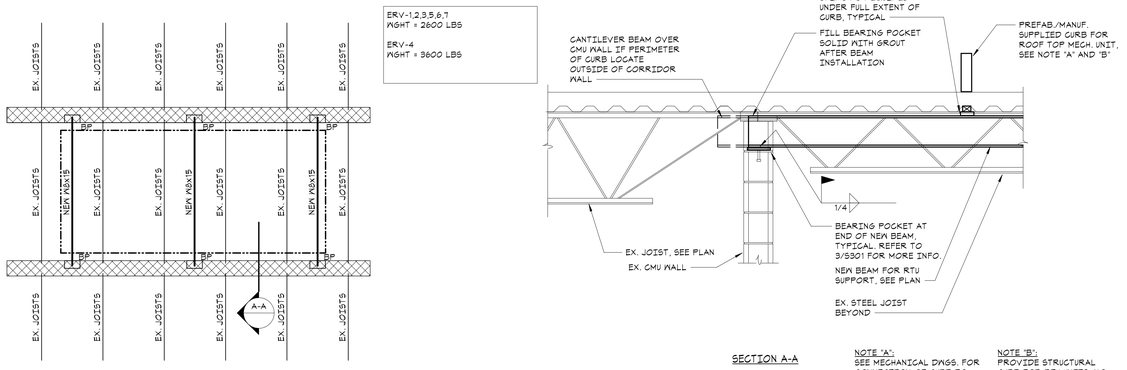
GENERAL NOTES AND MATERIAL SPECIFICATIONS

Job No. 21124.00	Date 12/04/2023
Scale AS NOTED	Drawn / Checked TM TBH

Sheet Number

S001





ERV-1,2,3,5,6,7
WGHT = 2600 LBS

ERV-4
WGHT = 3600 LBS

SECTION A-A

NOTE "A":
SEE MECHANICAL DWGS. FOR CONNECTION OF CURB TO SUPPORTING STRUCTURE

NOTE "B":
PROVIDE STRUCTURAL CURB FOR RTU UNITS, NO SPLICE ALLOWED IN CURB.

1 TYPICAL RTU SUPPORT DETAIL
NO SCALE

OVERALL ROOF AND RTU LOCATION PLAN

1/16"=1'-0"

NORTH:

- COORDINATE SIZE AND LOCATION OF ALL ROOF PENETRATIONS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS. ALL ROOF PENETRATIONS SHALL BE REVIEWED BY THE ENGINEER PRIOR TO FABRICATION AND INSTALLATION OF PENETRATION FRAMING ELEMENTS. PROVIDE FRAMING AS INDICATED IN "TYPICAL ROOF DECK PENETRATION DETAIL FOR EXISTING STEEL ROOF FRAMING". DO NOT SCALE OPENINGS.
- MAXIMUM WEIGHT OF MECHANICAL UNITS, (INCLUDING WEIGHT OF CURB) USED IN THE DESIGN OF SUPPORTING MEMBERS ARE INDICATED ON "TYPICAL RTU SUPPORT DETAIL". SEE MECHANICAL DRAWINGS FOR LOCATION OF MECHANICAL UNITS. FOR FRAMING INFORMATION, SEE "TYPICAL RTU SUPPORT DETAIL" AND GENERAL NOTES.
- * COORDINATE LOCATION OF STEEL BEAMS WITH MECHANICAL CONTRACTOR FOR ROOF TOP UNIT SELECTED.
- REINFORCE STEEL JOISTS AT SUPPORT OF PIPES/CONDUITS AND ANY CONCENTRATED LOADS AT TOP OR BOTTOM CHORDS, AS PER "TYPICAL JOIST REINFORCING DETAIL".

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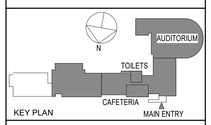
CONSTRUCTION DOCUMENTS



KEY PLAN

Professional Seal

No.	Date	Issue
	12/04/2023	ISSUED FOR BID

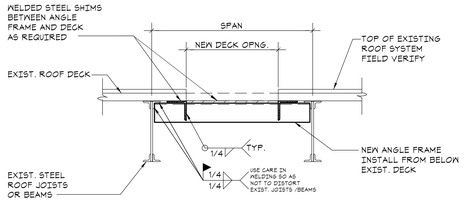
Sheet Title

OVERALL ROOF AND RTU LOCATION PLAN

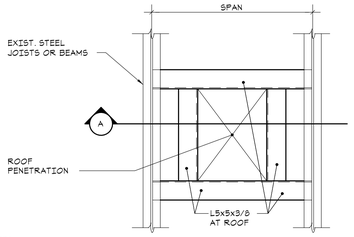
Job No.	Date
21124.00	12/04/2023
Scale: AS NOTED	Drawn / Checked: TM TBH

Sheet Number

S103



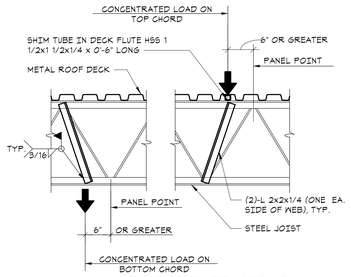
SECTION A



NOTES:

1. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF ALL ROOF/ FLOOR PENETRATIONS.
2. WHEREVER POSSIBLE LOCATE SUPPORT POINTS OF FRAMES OVER TOP CHORD PANEL POINTS. SEE JOIST REINFORCING DETAIL FOR ADDITIONAL WEB MEMBERS.

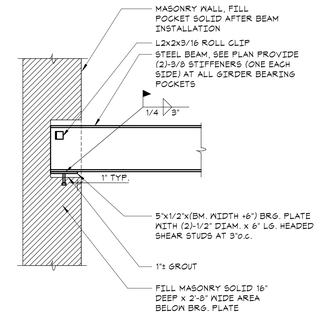
1 TYPICAL ROOF DECK PENETRATION DETAIL FOR EXISTING STEEL ROOF FRAMING
NO SCALE



WEB STIFFENER DETAIL

- A WEB STIFFENER MUST BE APPLIED TO ANY JOIST BETWEEN THE CHORD WHERE THE CONCENTRATED LOAD IS APPLIED AND THE PANEL POINT OF THE OPPOSITE CHORD WHEN A CONCENTRATED LOAD IS PLACED ON THE JOIST 6" OR MORE AWAY FROM A PANEL POINT.
- WHEN PIPES/CONDUITS ARE LESS THAN 4" DIAM, JOISTS DO NOT REQUIRE REINFORCING.

2 TYPICAL JOIST REINFORCING DETAIL
NO SCALE



3 TYPICAL BRG. POCKET DETAIL
NO SCALE

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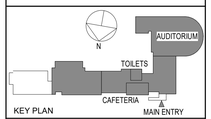


KEY PLAN

Professional Seal

No.	Date	Issue
	12/04/2023	ISSUED FOR BID

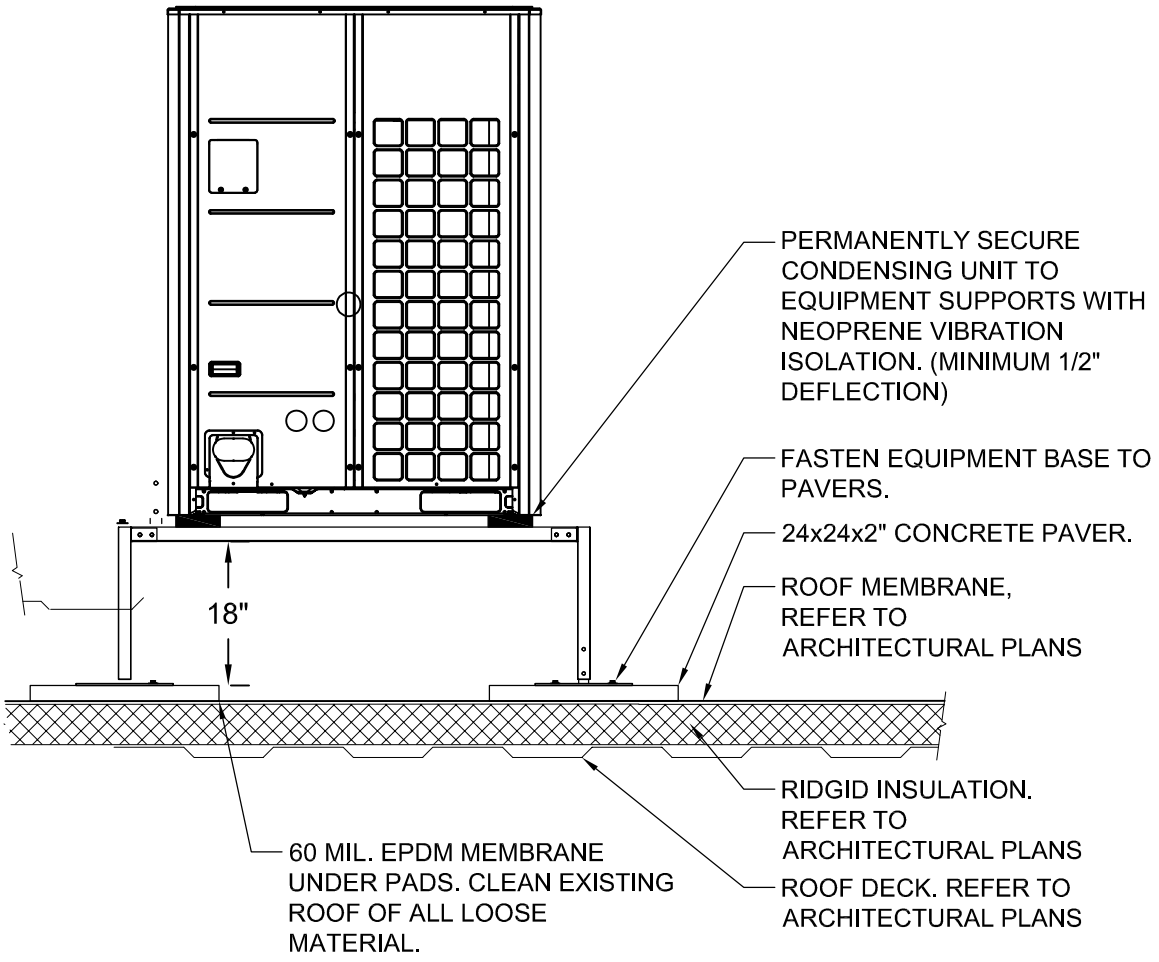
Sheet Title

STEEL FRAMING SCHEDULES AND TYPICAL DETAILS

Job No.	Date
21124.00	12/04/2023
Scale: AS NOTED	Drawn / Checked: TM TBH

Sheet Number

S301



NOTES:

1.) EQUIPMENT SUPPORTS SHALL BE 18" HIGH QUICK-SLING SUPER STAND, MADE WITH 7-GAUGE STEEL AND 11-GAUGE STEEL TUBING.
2.) EACH PIECE OF EQUIPMENT SHALL BE MOUNTED ON CONTINUOUS SUPPORTS. EQUIPMENT SUPPORTS SHALL BE AT LEAST 6" LONGER THAN THE PIECE OF EQUIPMENT TO BE SUPPORTED.
3.) ALL BRACKETS, HANGERS, AND FASTENERS SHALL BE GALVANIZED STEEL.
4.) CEMENT EQUIPMENT SUPPORT TO ROOF - USE ONLY MATERIALS COMPATIBLE WITH THE ROOFING SYSTEM.

SUPPORT DETAIL FOR CONDENSING UNITS LOCATED ON ROOF

1

SCALE: NONE

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CLIENT

PROJECT TITLE

WILLIAM E. COTTLE
ELEMENTARY SCHOOL ADDITIONS AND ALTERATIONS

DRAWING TITLE

SUPPORT DETAIL FOR CONDENSING UNITS LOCATED ON ROOF

No.	ISSUE OR REVISION	DATE
1	FOR RFI	1/2/2024

DATE	1/2/2024
DRAWN BY	JRT
CHECKED BY	RS
SCALE	AS NOTED
PROJECT NO.	NKGD0238.00
66-03-02-03-0-001-020	

DRAWING NO.

MSK-1