Addendum 2
To Contract Documents for

Kate Furbish Elementary Discovery Classroom

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Brunswick, Maine

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Kate Furbish Elementary – Discovery Classroom
Brunswick, ME
Addendum #2
04/17/2020

This Addendum modifies, amends and supplements designated parts of the Contract Documents, Project Manual and Drawings for **Kate Furbish Elementary – Discovery Classroom,** dated **04/01/2020 and is hereby made a part thereof by reference and shall be as binding as though inserted in its entirety in the locations specified herein. It shall be the responsibility of the Contractor to notify all Subcontractors and Suppliers he proposes to use for the various parts of the work of any changes or modifications contained in this Addendum.**

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GENERAL INFORMATION

See attached for list of general contractors that have expressed interest in bidding this project.

The following questions have been received from bidders via e-mail:

Q. Davis Bacon Wage Rate Table – Did I miss it?
A. No. This is not a Davis Bacon project.

Q. Is the new driveway work completed so we are saw cutting pavement and patching in the driveway areas?
A. Please see clarification to scope of work in Part I Addendum to Civil Specifications and Drawings.

Q. There is no detail for the pavement or gravel thickness in the driveway. Even if there is no paving to do I need gravel depth. Assuming 18".
A. Please see Part I Addendum to Civil Specifications and Drawings for clarification.

Q. Could you please indicate the locations for Data and Fire Alarm conduits?
A. The data and fire alarm conduits should originate from the main building Electrical room to the Classroom building following the same path as the power conduit marked as indicated on drawing C-1.

Q. E101, note 21, indicates 2" PVC for fire alarm. Drawing C-2, Detail J, indicates a 4" PVC for fire alarm. Please advise which is to be used.
A. Fire alarm conduit should be 2" per electrical drawing.

Q. Drawing C-1 indicates that new underground electrical conduit shall be from the discovery center towards main electrical rm. E101, note 20, indicates that power shall be fed from panel LP2 which is in A Wing, Elec Rm 126. Is the intent to install conduit inside the building from main Elec rm to Elec rm 126? Or should the route change?

A. Revise Note 20 as follows:
"Provide 100A/3P fused disconnect in main Electrical Room 153 located in Main Building to feed Panel DCP-1. Disconnect shall be added on secondary side of existing 150KVA DTT in the main electrical room 153. Contractor shall add wireway and tap existing feeder for new 200A disconnect mount adjacent to 400A disconnect feeding LP Feeder Size shall be - 4 #1, 1 #6 gnd, in a 4"C.."

Q. In detail R1 on A002, the detail states a White EPDM. In the actual spec book, EPDM spec it does say black. Please clarify. Thank you.
A. EPDM to be black per specifications. See Part III Addendum to Architectural Specifications and Drawings.

Q. Is the core material that the laminate applies to need to be fire rated?
A. No, it does not need to be fire rated.

Q. What thickness is the core material, ½" or ¾".
A. Core material is 3/4" thick.

Q. Can you provide the laminate #1, #2 & #3 colors?
A. PLAM-1 and PLAM-2 are called for in spec section 064023, Item 2.1.3.2. There is no PLAM-3.

Q. There are underground utilities (water, sewer, gas) running under a portion of the parking lot/driveway. I'm assuming that paving will not be existing when we start the project? Who's responsible for paving that portion of parking lot; is it part of the Discovery Classroom scope or Katie Furbish?
A. Please see revisions to scope of work in Part I Addendum to Civil Specifications and Drawings.

Q. Please verify the 14x6 generator pad is not part of the project scope.
A. The generator pad is existing and is not part of this scope of work.

Q. Spec's Part 2 section 2.01 Materials on page 051200-6 C: Steel Tube ASTM A 500 Grade B. Drawing DC-S1.0 structural Steel Notes Note: Hollow Structural Section ASTM A500 Grade C. What Grade is the right one?
A. Either is acceptable, 46 KSI min.

Q. Spec's Part 2 Section 2.03 Structural Steel Coating on page 151200-8 G. General: Shop prime of structural steel is not required for heated, interior steel not exposed view unless noted otherwise. The only painting of steel is All Structural on Line 1, All Structural on Line A, Pant Steel between A&B on Line 3, and Paint Steel between 1&2 on line 3?
A. Exposed structure in rooms Storage 101 and Utl. 101A are to be left raw. All other exposed structure to be painted. See Part III Addendum to Architectural Specifications and Drawings for further clarification.

Q. Moment Connection I only see 2 places on Line 1, is that all there is?
A. Yes.

Q. I assume there are not any Roof Drains, I didn't see any on the prints
A. Correct - there are no roof drains.

Q. HVAC unit don't know size of curb and if the curb supports the whole unit or if there is steel going through the roof to support it. Also is this the only hole in the roof?
A. HVAC unit sits on prefab curb – see spec section 23 00 00 2.2 B. Roof plan is diagrammatic in nature and does not show all roof penetrations. Plumbing and electrical penetrations are not shown and will need to be coordinated by the GC.

Q. Drawing DC-S1.3 shows the roof unit support steel going the opposite way than Drawing DC-S1.2. If that Drawing DC-S1.2 is right what are you going to do about the end support clips 5 x 5 x 5/16 at 6" long will they overlap each other?
A. Revise saddle angles to be L5x3x5/16 (LLV).

Q. Spec's 2.4 Metal Primers page 099100-4 5. S-W IMC Pro-Cryl universal primer B66-310 Series. This gives Minimum surface prep SSPC-SP1 (Solvent Clean). Can we do SSPC-3 (Power Tool Clean)?
A. Surface prep must meet primer manufacturer requirements.

Q. In order to quote LV network cabling, we will need more information. Are you looking for a communications cabling quote for this?
A. Yes.

Q. Is there requirement for feeder cable into the new building and if so, what are the specs for fiber or copper needed brought to the space? Do we know what length is needed and if there will be a termination point or rack it will need to be brought to?
A. The feeder cable should be copper to the Electrical room 153 in the main school building. Cable to Elec Room 153 should be approximately 150'

Q. On the roof plan drawling A102, it shows scuppers but no drain. There is a drain detail on A322 but no location.
A. Delete detail E6/A322. There are no roof drains. See Part III Addendum to Architectural Specifications and Drawings.

Q. There is mention of air barrier (page 225 of project manual) and underlayment in (07 62 00 2.3A) a couple of places but not on the drawings. Does this roof have an air barrier or underlayment?
A. No, there is no vapor barrier or underlayment in the roof assembly. See Part III Addendum to Architectural Specifications and Drawings

Q. [Roofing] warranty - 20 year is mentioned but what about a wind rating? Standard 55mph rating?
A. Yes, wind rating to be standard 55 mph.

Q. Metal deck insulation strips in deck ribs: Sec 07 53 23 1.1B says: "Section includes the installation of insulation strips in ribs of roof deck. Insulation strips are furnished under Section 05 31 00 - Steel Decking." Does that mean they will be provided by steel guys?
A. General contractors submitting bids are responsible for coordinating system installation.

Q. Will we be responsible for installing any temporary fencing?
A. Yes, temporary fencing is required.

Q. Detail 3 on plan sheet A320 shows a rainscreen support system and it appears to be attached to Z-Furring. No product specifications for these items are found – please provide.
A. Please see Part III Addendum to Architectural Specifications and Drawings.

Q. Is the owner going to cover the cost of 3rd party testing on this project or is it the contractor's responsibility?
A. Third party testing is by owner.

Q. This is a question regarding glazing. "Pricing of Solyx custom film varies based on design. If we have the same design for the top lites as the bottom that will affect pricing. Is it possible to get an idea of what the final design will look like? Description says gradient. Are we going from opaque to clear on the bottom and then clear to opaque on the top?"
A. Design intent is for same gradient pattern at both top and bottom of glazing where indicated on elevations. Bottom film to include (2) custom shape knockouts. Final shapes TBD.

Q. The NFPA notes on A-003 state that a sprinkler system is not required for this building. However, there is a sprinkler section in the project manual. The sprinkler subcontractor would like you to please verify that a sprinkler system will be going into this building.
A. NFPA notes are correct. There is no sprinkler system required for this building.

Q. I have had several subcontractors asking if the bid date could be extended due to several other project bidding on April 23rd. Would you consider a bid extension?
A. A bid extension will not be considered.

Q. Is the roof deck structurally sloped, or is slope achieved through tapered insulation?
A. Roof deck is structurally sloped.

Q. What is the insulation package, and if rigid (polyiso) on roof deck, what thickness?
A. See section 07 53 23, Item 2.5 B for roof insulation type. Thickness as indicated on sheet A002.

Q. Note 21 directs the EC to coordinate with the existing fire alarm vendor. I am assuming that you want us to carry the cost of all fire alarm wiring and devices.
A. Electrical contractor is to provide all fire alarm devices, wiring and relay for a fully functional system that is to be connected to the existing Fire Alarm Panel in the Main Building. Coordinate with Fire Alarm vendor what components and labor are necessary to accomplish this.

Q. Are any Telecom locations required to have an Analog connection? (Fax, plain Phone). If so how many?
A. The dual jacks listed on the power drawing and symbol legend should include one analog telephone jack and one CAT 6 data jack.

Q. If so, we recommend a copper connection to TER 130 with lightning protection on both ends within the first 50' of the underground conduit enter a building to meet industry standards.
A. This proposal is acceptable however should be coordinated with the owner's IT department before proceeding.

Q. Is it the intent to have all cabling run back to UTL 101A as a TR room?
A. Yes

Q. If so, we recommend a small wall mount patch panel to service the horizontal cabling within this building. And run a 6strand Fiber OM3 Multi Mode to TER 130 with a wall mount fiber enclose in UTL 130.
A. This proposal is acceptable however should be coordinated with the owner's IT department before proceeding.

PART I- ADDENDUM FOR CIVIL SPECIFICATIONS AND DRAWINGS:

CHANGES/CLARIFICATIONS TO DRAWINGS:

- Add heavy duty pavement detail per **SK-1.**

C-1 – Site and Utilities Plan
- Revise utility connection scope of work as indicated on drawings.

PART II- ADDENDUM FOR STRUCTURAL SPECIFICATIONS AND DRAWINGS:

Not included.

PART III- ADDENDUM FOR ARCHITECTURAL PROJECT MANUALS AND DRAWINGS:

CHANGES/CLARIFICATIONS TO SPECIFICATIONS:

Section 07 48 00 - Rainscreen Attachment System
- Add spec section.

Section 07 53 23 - EPDM Roofing
- Item 1.1.A.2; delete item.
- Item 1.1.D.3; delete item.
- Item 2.4; delete item.
- Item 3.4; delete item.

Section 07 62 00 - Sheet Metal Flashing and Trim
- Item 2.3; delete in its entirety.
- Item 3.2; delete in its entirety.

CHANGES/CLARIFICATIONS TO DRAWINGS:

Sheet A002 – Typical Assemblies:
- Revise note on detail R1.

Sheet A111 – Overall RCP
- Revise note from "Exposed structure, painted" to "Exposed ceiling – all structure, metal deck, ductwork, pipes and conduits to be painted."

Sheet A322 – Typical Envelope Details:
- Delete detail E6/A322.

PART IV- ADDENDUM FOR MECHANICAL SPECFICATIONS AND DRAWINGS:

Not included.

PART V- ADDENDUM FOR ELECTRICAL SPECIFICATIONS AND DRAWINGS:

END OF ADDENDUM

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General contractors that have expressed interest in bidding this project are as follows:

1. Doten's Construction
2. Great Falls Construction
3. Sheridan Construction
4. Phi Builders + Architects
5. Benchmark Construction
6. Blane Casey Building Contractor, Inc.
7. The Penobscot Company, Inc.

KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM ZONING SUMMARY

THE PROJECT IS LOCATED ENTIRELY WITHIN THE GR8 ZONE SCHOOL IS A PERMITTED USE IN THE ZONE

THE PROJECT SITE COMPRISES MAP U06, LOT 5 AND MAP 54, LOT 14 - THE TOTAL SITE AREA IS 17.10 ACRES+/-

DISTRICT DIMENSIONAL STANDARDS

STANDARD	REQUIRED	APPROVED SCHOOL PLAN	CLASSROOM ADDITION	COMBINED
MIN. LOT WIDTH	65FT	>800FT	>800FT	>800FT
FRONT SETBACK	20FT	128.3FT	292.2FT	128.3FT
REAR SETBACK	20FT	29.7FT	75.9FT	29.7FT
SIDE SETBACK	15FT	177.8FT	347.0FT	177.8FT
IMPERVIOUS COVERAGE	35%	26.8%	**0.2%**	**27.0%**
BUILDING HEIGHT	35 FT	<35FT	<35FT	<35FT
BUILDING FOOTPRINT (MAX. PER STRUCTURE)	5,000SF	70,900SF+/-*	1,156SF	70,900SF+/-*

* THE PROJECT SITE HAS AN EXISITNG NON-CONFORMING STRUCTURE - THIS PROJECT HAS RECEIVED A SPECIAL PERMIT FOR EXPANSION OF A NON-CONFORMING BUILDING FOOTPRINT, I IN ACCORDANCE WITH SECTION 5.2.4. OF THE ZONING ORDINANCE

ISSUED FOR ADDENDUM #2

NORTH

CB-8
CB-11
CB-12

NEW COMBINED UTILITY TRENCH (ELECTRIC, COMMS AND DATA) FROM MAIN BUILDING

GAS SERVICE LOCATION FROM SKETCH BY CONTRACTOR

14 'X 6' GENERATOR PAD

NEW SEWER PUMP STATION SEE DETAIL -CONNECT FORCE MAIN INSTALLED UNDER MAIN SCHOOL CONSTRUCTION CONTRACT

NEW SCHOOL BUILDING
(UNDER CONSTRUCTION)
F.F.E. = 43.75

CONNECT NEW 1" DOMESTIC WATER SERVICE, 6" FIRE SERVICE AND 1" GAS SERVICE INSTALLED TO 5FT FROM BUILDING UNDER MAIN SCHOOL CONSTRUCTION CONTRACT

LIMITS OF WORK FOR DISCOVERY CLASSROOM

4' x 34' BUILDING DRIP-EDGE

4" SEWER INV. OUT=38.0

DISCOVERY CLASSROOM
F.F.E. = 43.50

PINNED ENTRY SLAB

NEW BITUMINOUS WALKWAY

NEW CONCRETE SIDWALK

PINNED ENTRY SLAB

LAWN (TYP.)

LAWN (TYP.)

LAWN (TYP.)

REV	DATE	DESCRIPTION
4	4-15-20	REVISED UTILITY CONNECTION SCOPE OF WORK
3	2-25-20	REVISED BUILDING LOCATION
2	09-30-19	ADDED GAS SERVICE
1	08-29-19	REVISED PER STAFF REVIEW COMMENTS

REVISIONS

STATE OF MAINE
ANDREW D. JOHNSTON
NO. 9994
LICENSED
PROFESSIONAL ENGINEER
2-25-20

P.E. ANDREW D. JOHNSTON
LIC. #9994

KATE FURBISH ELEMENTARY SCHOOL
DISCOVERY CLASSROOM
SITE & UTILITIES PLAN

BRUNSWICK SCHOOL DEPARTMENT
75 JORDAN AVENUE
BRUNSWICK, MAINE 04011

Atlantic Resource Consultants
541 US Route One
Freeport, ME 04032
Tel: 207.869.9050

DRAWN:	MPV	DATE:	FEBRUARY 25, 2020
DESIGNED:	ADJ	SCALE:	1" = 10'
CHECKED:	ADJ	JOB NO.	17-035
FILE NAME:			
SHEET:	C-1		

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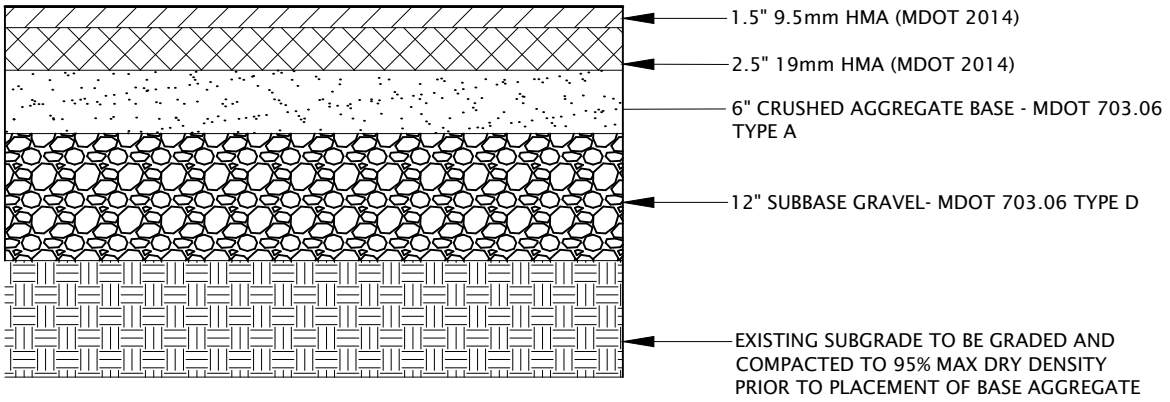


(K) HEAVY DUTY PAVEMENT DETAIL

N.T.S.

KATE FURBISH ELEMENTARY SCHOOL DISCOVERY CLASSROOM		PAVEMENT DETAIL	
Atlantic Resource Consultants Engineering Strategies and Solutions	DRAWN: MV	DATE: 04/17/2020	FIGURE SK-1
	DESIGNED: AJ	SCALE: NTS	
	CHECKED: AJ	JOB NO. 17-035	
	FILE NAME:		

SECTION 074800

RAINSCREEN ATTACHMENT SYSTEM (MFI™ S-SERIES)

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. Provide a thermally broken, rainscreen attachment system for attachment of exterior metal panels installed over exterior mineral fiber insulation.

1.3 SYSTEM DESCRIPTION

A. System assembly shall include the following components from the substrate out:

1. Substrate: Wall framing assembly and sheathing.
2. Air Barrier over substrate.
3. Mineral fiber insulation.
4. Thermally broken rainscreen attachment system.
5. Exterior cladding.

B. Design Requirements:

1. Manufacturer is responsible for designing system, including anchorage to structural system and necessary modifications to meet specified requirements and maintain visual design concepts.
2. Employ registered professional engineer, licensed to practice engineering in jurisdiction where Project is located, to engineer each component of rainscreen attachment system.
3. Structural Design: Exterior-insulated rainscreen wall assembly capable of withstanding effects of load and stresses from dead loads, wind loads, ice loads (if applicable) as indicated on Structural General Notes on Structural Drawings, and normal thermal movement without evidence of permanent defects of assemblies or components.
    a. Thermal Movements: Provide assemblies that allow for thermal movements resulting from the following maximum ambient temperatures by preventing overstressing of components and other detrimental effects:
        1) Temperature Change (range): 120 degrees Fahrenheit (67 degrees C), ambient.
4. Support Framing/Attachment System:
    a. Frequency and spacing of brackets as indicated by manufacture in project specific engineering package.

C. Performance Requirements:

1. Structural Performance:

a. Framing Members:
   1) Test framing components to AAMA TIR- A8-04 – Section 7.2 to determine structural performance and effective moment of inertia for each perforated component. Minimum Effective Moment of Inertia for Primary Rail: 0.0239 in4.
   2) Localized bending stress for eccentrically loaded framing members must be evaluated with the maximum effective length of resisting element not more than 12 inches.

b. Fasteners:
   1) Tension shall be taken as sum of direct tension plus tension due to prying for eccentrically loaded connections. Prying may be reduced or eliminated if proven via engineering analysis or testing.
   2) Minimum Safety Factor of 3 for both tension and shear values.
   3) Combined tension and shear shall be evaluated according to an interaction formula. Sum of terms shall not exceed 1.0.

1.4 SUBMITTALS

A. Product Data: Submit manufacturer's product literature and descriptions of testing performed on system components to indicate meeting or exceeding specified performance.

B. Shop Drawings:

1. Submit connection details to the cladding manufacturer, showing interface of rainscreen attachment system to substrate and panels with adjacent construction, signed and sealed by Professional Engineer.

2. Show system installation and attachment, including fastener size and spacing.

C. Structural Calculations:

1. Submit rainscreen attachment manufacturer's comprehensive Structural Design analysis signed and sealed by a Professional Engineer.

D. Samples: Submit following material samples for verification:

1. Wall Brackets: Two (2) samples.

2. Horizontal Rails: Two (2) 12-inch long samples.

E. Test Reports:

1. Test to the following standards and provide written test reports by a third party:
   a. AAMA TIR-A8: Structural Performance of Composite Thermal Barrier Framing Systems – Section 7.2.

2. Comprehensive three-dimensional thermal modeling report indicating framing systems impact on exterior insulation rated R-value.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications:

1. Minimum 5 years' experience specializing in the manufacturing of façade attachment and support framing similar to those specified.

2. Ability to demonstrate conformance to testing requirements.

B. Installer Qualifications:

1. Minimum of 3 years' documented experience or minimum of 5 completed projects of equivalent scope and quality and recommended by manufacturer to perform work of this Section.

2. Onsite superintendent or foreman overseeing installation on site during entire work of this Section with experience equivalent to installer and in good standing with the manufacturer.

C. Engineer Qualifications: Registered professional engineer experienced in the design of curtain wall systems, anchors, fasteners and licensed to practice engineering in the jurisdiction where Project is located.

D. Pre-Installation Meeting:

1. Discuss sequence and scheduling of work and interface with other trades.

2. Review metal wall framing assemblies for potential interference and conflicts and coordinate layout and support provisions for interfacing work.

3. Review and document methods, procedures and manufacturer's installation guidelines and safety procedures for exterior wall assembly.

1.6 QUALITY CONTROL

A. Single source responsibility:

1. Furnish engineered rainscreen attachment system components under direct responsibility of single manufacturer.

B. Field Measurements: Verify actual supporting and adjoining construction before fabrication.

C. Record field measurements on project record shop drawings.

D. Established Dimensions: Where field measurements cannot be made without delaying work, guarantee dimensions and proceed with fabrication of rainscreen attachment system corresponding to established dimensions.

1.7 DELIVERY, STORAGE AND HANDLING

A. Delivery: Deliver materials and components in manufacturers' original, unopened and undamaged containers or bundles, fully identified. Exercise care to avoid damage during unloading, storing and installation.

B. Store, protect, and handle materials and components in accordance with manufacturer recommendations to prevent damage, contamination and deterioration. Keep materials clean, dry, and free of dirt and other foreign matter, and protect from damage due to weather or construction activities.

1.8 SEQUENCING

A. Ordering: Comply with manufacturers' ordering instructions and lead time requirements to avoid construction delays.

B. Coordinate construction to ensure that assemblies fit properly to supporting and adjoining construction; coordinate schedule with construction in progress to avoid delaying work.

1.9 WARRANTY

A. Manufacturer Warranties:

1. Attachment System: Ten (10) year Limited Warranty.
   a. Covers components of the attachment system, including structural failure of components when all the materials and components are supplied and installed per manufacturer's requirements.
   b. Includes labor and material for removal and replacement of defective material.
   c. Includes labor to remove and reinstall façade finish panels, finish closures and façade finish accessories necessary to access defective material.

B. Contractor's Warranties: 2-year labor warranty, starting from Substantial Completion, to cover repair of materials found to be defective as a result of installation errors.

C. Limitation of Warranties: Exclude repairs, replacement, and corrective work to the substrate, primary structure, finish panels, and/or property – unless otherwise noted above. Warranties exclude mechanical damage due to abuse, neglect, primary structure failure, or forces of nature greater than normal weather conditions.

PART 2 - PRODUCTS

2.1 RAINSCREEN ATTACHMENT/SUPPORT FRAMING SYSTEM

A. Comply with ANSI/ASHRAE 90.1-2010.

B. Coating Material: ASTM A1046, Zinc-Aluminum-Magnesium, minimum thickness ZM40.

1. ASTM A653 Galvanized steel is not acceptable.

C. Steel Classification: Structural Steel (SS), Grade 50, 50 ksi Yield.

D. Spacing: Comply with manufacturer's Professional Engineer's project specific calculations.

E. Wall Brackets:

1. Minimum 0.074 inch thick (14 gauge) sheet steel.
2. Dimensions:
   a. Bracket Base: Minimum 3.125-inch-high by 2.125 inch wide.
   b. Offset Brackets: 3 inch and custom 5-inch depth.
      1) Align offsets to differing wall planes as shown on Drawings.
3. Pre-Punched Holes: Two wall anchors per bracket.
4. Rail Connector Stem:
   a. Pilot Drill Holes:
      1) Holes allow minimum 0.75-inch adjustment allowing for aligning and plumbing of framing, independent of substrate irregularities and proper cladding installation.
      2) Spaced appropriately to maintain proper alignment of rails.
5. Basis of Design Product: ThermaBracket-D by Knight Wall Systems.

F. Primary Horizontal and Vertical Rail, Static S-Series:

1. Minimum 0.046-inch thick (18 gauge) cold-formed steel.
2. Profile: C channel, two flanges of equal length and one web.
3. Nominal Dimensions: Minimum 1.0 inch flange for attaching to wall bracket and 1.625 inch at web.
4. Pre-Punched Attachment Holes: 1.0 inch on center along length of track and oversized allowing for thermal contraction and expansion of rail without placing stress on connection.
5. Basis of Design: S - Rail by Knight Wall Systems.

G. Fasteners:

1. Sufficient length to provide solid attachment to structure as required by manufacturer.
2. Thermally isolated.
3. Framed substrate with sheathing: Self-drill hex-washer-head stainless steel with 1,000 hour salt-spray rated thermoset polyester coating.
   a. Embedment depth: 0.625 inches or three full threads minimum, whichever is greater.
   b. Minimum ultimate pull-out capacity from 18 gauge steel: 450 pounds.
4. For primary to secondary rail connection: Self-drill hex-washer-head stainless steel with 1,000 hour salt-spray rated thermoset polyester coating.
   a. Embedment depth: 0.625 inches or three full threads minimum, whichever is greater.
   b. Minimum ultimate pull-out capacity from 18 gauge steel: 450 pounds.

H. Accessories:

1. Bracing, Furring, Bridging, Plates, Gussets, and Clips: Formed sheet steel, thickness as necessary to meet structural requirements for special conditions encountered.
2. Galvanic Protection: Utilize tapes and other methods as necessary to separate and prevent contact between dissimilar metals.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions for compliance with manufacturer requirements for installation conditions affecting performance of the work.

1. Do not proceed with installation until unsatisfactory conditions have been corrected.
2. Ensure weather-resistant barrier (WRB) is installed prior to installing rainscreen attachment system.
3. Ensure fenestration, transitions, discontinuities, sills, and ledgers are flashed and sealed to move moisture to the exterior of the building.

B. Field verify architectural details and mechanical and electrical requirements prior to commencing installation.

C. Commencement of installation constitutes acceptance of existing conditions and acceptance of responsibility for satisfactory performance.

3.2 RAINSCREEN ATTACHMENT SYSTEM INSTALLATION

A. Preparation: Review areas of potential interference and conflicts and coordinate layout and support provisions for interfacing work.

B. Installation: Install in strict accordance with manufacturer's installation instructions.

C. Wall Brackets and Primary Rail:

1. Mount wall brackets at 48 inches on center horizontally and 48 inches on center vertically on support wall (at stud locations that are spaced 24 inches on center). Mount wall brackets at 32 inches on center horizontally and 48 inches on center vertically on support wall (at stud locations that are spaced 16 inches on center).

    a. Brackets must be laid out at 0.5 inch increments vertically or horizontally.
    b. Tighten screws to substructure to a snug tight condition and not stripped. Do not over-torque beyond manufacturer's recommendation. If installed using hand tools, verify for each installer at beginning of project using snug-tight criteria. Do not use stripped holes.

2. Thermally isolate wall bracket attachments by sandwiching thermal break material between metal bracket and support wall substrate. Set thermal break material in bed of sealant (Dow 758 or equal) prior to fastening bracket to wall framing.

3. Thermally isolate screw fastener washers using material to thermally isolate fastener heads from metal bracket.

4. Mineral Fiber Insulation: Install to expand into and friction fit between wall brackets prior to installing horizontal rails.

5. Attach primary rail to wall bracket stem by use of a self-tapping screw fastener through the pre-punched holes in the rail and into the pre-punched pilot holes on the bracket.

6. Isolate primary rail from bracket by sandwiching a thermal break material between rail and bracket stem.

7. Attach primary rail at proper pre-punched pilot holes on bracket stem to align plumb and true. Account for irregularities in support wall.

8. Establish and re-establish and restart bracket locations using laser or chalk-line at fenestrations and other obstructions to establish horizontal alignments.

D. Touch-up shop-applied protective coatings damaged during handling and installation.

E. Use shearing instruments (i.e. snips, nibbler, etc.) for cutting metal framing components. Saws are not recommended, as the sparks produced during cutting will damage the anti-corrosion coating. If sparks are generated during cutting, be sure the portion of the component to be installed on the building is protected from sparks and that any stockpile near the cutting station is also protected.

F. The systems components should not be cut while installed on the building, unless using a shearing instrument.

G. Replace thermal isolator pieces that break during installation.

H. Provide a 3/8" – 1/2" gap between girts for expansion when multiple lengths of rail are installed.

I. Minimum length of installed cut primary rail is 12” and must be attached to at least two separate wall brackets to prevent rotation of rail. Unsupported cantilever must not exceed 6” unless specified differentlyby manufacturer’s engineer.

J. Minimum length of installed cut secondary rail is 12” and must be mechanically attached to at least two separate primary rails.

3.3 ERECTION TOLERANCES

A. Maximum Framing Member Variation from True Position: 1/4 inch.

B. Maximum Framing Member Variation from Plane:

1. Individual Framing Members: Do not exceed 1/4 inch in 10 foot.
2. Accumulative Over-all Variation for Wall and Floor System: Do not exceed 1/4 inch.

3.4 FIELD QUALITY CONTROL

A. Manufacturer’s Field Technical Service: Make intermittent and final inspection to verify installation in conformance to manufacturer instructions and suitable as framing assembly for subsequent metal panels, acrylic plastering, and other claddinginstallations.

1. Confirm snug tight and fastener sizing.
2. Confirm framing members installed in correct orientation.

3.5 ADJUSTING

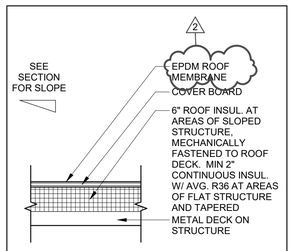
A. Inspect and adjust after installation. Replace or repair defective work.

B. Adjust, and reconfigure as necessary to accommodate cladding systems for installations over work of this Section. Do not reuse pre-drilled holes unless fastener size is increased.

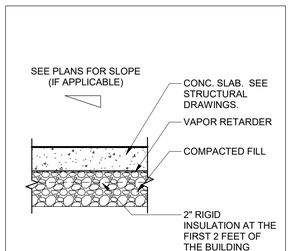
3.6 SIDING/CLADDING PANEL INSTALLATION

A. The cavity must be clear and free from air flow and drainage obstructions.

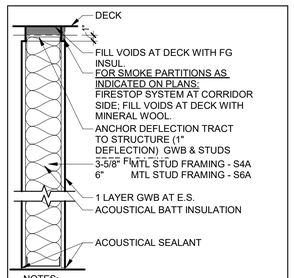
END OF SECTION



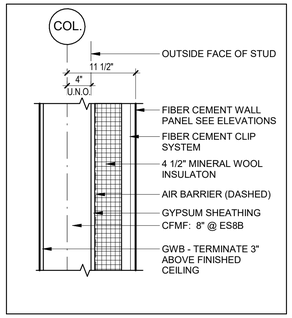
SINGLE-PLY MEMBRANE ROOFING ON METAL DECK | R1



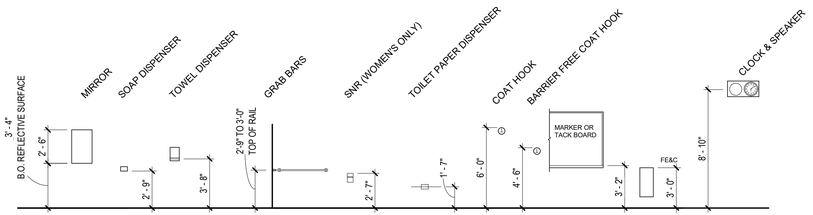
CONCRETE SLAB ON GRADE



METAL STUD PARTITION FULL HEIGHT | S4A | S6A



FIBER CEMENT WALL PANELS AT CFMF BACKUP | ES8C



MOUNTING HEIGHT GENERAL NOTES:

1. SEE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS FOR SPECIFIC FIXTURE OR DEVICE LOCATION AND DESIGNATION AND ADDITIONAL MOUNTING REQUIREMENTS.
2. COORDINATE LOCATION OF ALL RECEPTACLES, FIXTURES OR DEVICES WITH INTERIOR ELEVATIONS AND CASEWORK LOCATIONS.
3. REFER TO MANUFACTURER'S INSTRUCTIONS FOR SPECIFIC ADA REQUIRED MOUNTING HEIGHTS AS APPLICABLE.

WALL SYSTEMS

1. REFER TO STRUCTURAL DRAWINGS FOR NOTES ON MASONRY REINFORCEMENT.

2. ALL NEW OPENINGS, GREATER THAN 12" FOR BRICK-SIZE AND 24" FOR BLOCK-SIZE, INTO MASONRY WALLS SHALL RECEIVE A LINTEL. REFER TO THE STRUCTURAL DRAWINGS FOR LINTEL REQUIREMENTS. REFER TO MECHANICAL, ELECTRICAL, & PLUMBING PLANS FOR NUMBER, LOCATION, AND SIZE OF APPLICABLE PENETRATIONS.

3. FILL ALL CMU VOIDS WITH MORTAR OR GROUT AT ALL DOOR JAMBS.

4. ALL PARTITIONS SHALL EXTEND FROM SUB-FLOOR OR SLAB TO UNDERSIDE OF FLOOR OR ROOF DECK ABOVE, UNLESS NOTED OTHERWISE.

5. GYPSUM BOARD APPLIED TO WALLS SHALL BE APPLIED WITH THE BOTTOM EDGE SPACED NOT LESS THAN 1/4" ABOVE THE FLOOR. INSTALL A CONTINUOUS BEAD OF ACOUSTICAL SEALANT UNDER EACH LAYER OF GWB AT THE INTERSECTION WITH FLOOR, ON EACH SIDE OF THE WALL.

6. ALL TOP-OF-WALL CONDITIONS SHALL BE SEALED TO THE DECK ABOVE, UNLESS NOTED OTHERWISE. MAINTAIN THE REQUIRED FIRE RATINGS, SMOKE RATINGS, AND ACOUSTICAL RATINGS. COORDINATE THE TOP OF WALL CONSTRUCTION WITH THE STRUCTURAL FRAMING.

7. INSTALL BLOCKING BEHIND ALL SURFACE-APPLIED FIXTURES, TRIM, GRAB BARS, SHELVES, CHAIR RAILS, PICTURE RAILS, BASE MOLDINGS, TACK OR MARKER BOARDS, WINDOW TREATMENT, WALL OR BASE CABINETS OR COUNTERS, AND MISCELLANEOUS ACCESSORIES MOUNTED ON STUD WALLS.

8. FOR EXISTING WALLS SUPPORTING NEW ITEMS, VERIFY THE WALL TYPE PRIOR TO PERFORMING THE WORK TO DETERMINE APPROPRIATE TYPE OF ANCHOR UNLESS INDICATED OTHERWISE. CONSULT ARCHITECT FOR CLARIFICATION IF NEEDED.

9. INSTALL MOISTURE RESISTANT (M.R.) GWB IN TOILET ROOMS, JANITOR'S CLOSETS, SHOWER ROOMS, LOCKER ROOMS, KITCHENS, DARKROOMS, ALL WALL AREAS WITHIN 8 FEET OF SINKS, AND OTHER DAMP OR HIGH HUMIDITY AREAS.

10. PROVIDE WOOD-PRESERVATIVE TREATED LUMBER (PRESSURE TREATED) AT ALL EXTERIOR WOOD FRAMING IN CONTACT WITH CONCRETE, WITHIN 18" OF THE GROUND, OR EXPOSED TO THE WEATHER SHALL BE.

11. VERIFY ALL COLD-FORMED METAL FRAMING AND CONNECTION REQUIREMENTS WITH ENGINEER OF EXTERIOR FRAMING SYSTEM.

12. ALL INTERIOR LIGHT GAGE METAL FRAMING IS 6", UNLESS NOTED OTHERWISE.

13. ALL CMU IS 8"X8"X16" (NOMINAL), UNLESS NOTED OTHERWISE.

14. LOCATE CONTROL JOINTS IN MASONRY AS SHOWN, OR IF NOT SHOWN, IN ACCORDANCE WITH ACI 530/ACI 530.1, UNLESS NOTED OTHERWISE.

15. ALL COLD-FORMED METAL FRAMING CAVITIES SHALL BE FIRE STOPPED WITH A 1-HOUR SEPARATION AT EACH FLOOR LEVEL.

16. PROVIDE ACOUSTICAL INSULATION AT ALL INTERIOR STUD WALL ASSEMBLIES UNLESS NOTED OTHERWISE.

17. IDENTIFY ALL FIRE-RATED PARTITIONS BY STENCILING THE RATING ON EACH SIDE OF THE RATED WALLS ABOVE THE CEILING LINE WITH 4" HIGH LETTERS IN RED OR ORANGE PAINT; EACH RATED WALL SHALL BE IDENTIFIED AT LEAST ONCE AND AT A SPACING NOT GREATER THAN 12 FEET ON CENTER.

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Revision Schedule

No.	Date	Description
2	04/17/20	Addendum 2

JOB NO. 17078

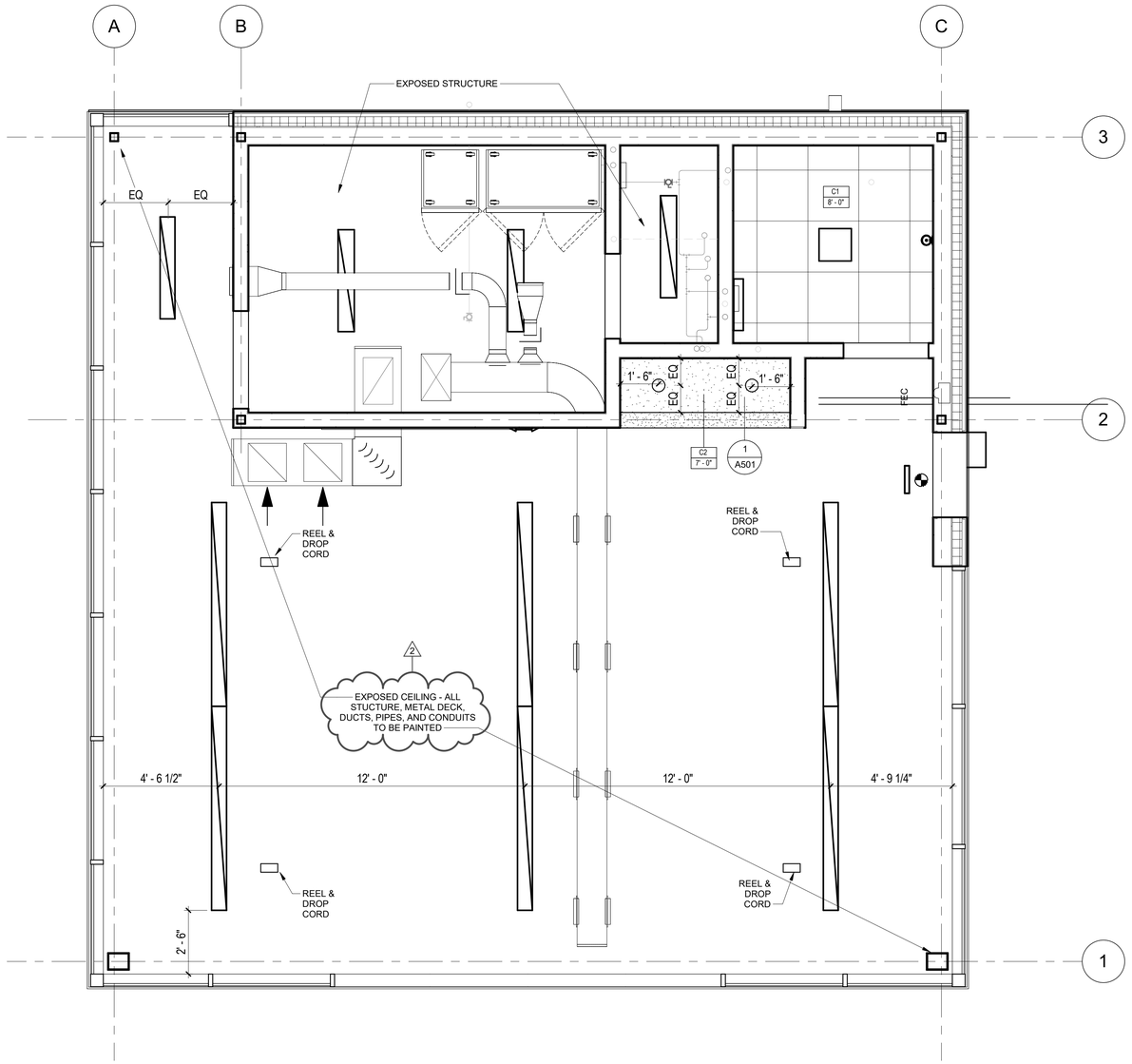
DRWN. CHK Checker

SCALE:

ISSUE 4/1/2020

TITLE TYPICAL ASSEMBLIES

SHEET A002



1 ROOF PLAN
3/8" = 1'-0"

CEILING TYPES

C1	2x2 ACOUSTIC CEILING TILE
C2	GWB ON METAL STUD

GRAPHIC LEGEND

- CLASSROOM LIGHT
- DOWNLIGHT
- STORAGE/MECH LIGHT
- MECHANICAL SUPPLY OR RETURN
- EXIT SIGN

CEILING NOTES

1. CEILING PLANS DO NOT SHOW EVERY FIXTURE OR COMPONENT. REFER TO ELECTRICAL, PLUMBING, MECHANICAL AND STRUCTURAL DRAWINGS FOR EXTENT OF ALL CEILING PENETRATIONS AND INSTALLATIONS AND COORDINATE PRIOR TO INSTALLATION.

2. CENTER GRID LAYOUT IN ALL ROOMS UNLESS NOTED OTHERWISE.

3. ALL COMPONENTS MOUNTED IN OR BELOW A SUSPENDED ACOUSTIC CEILING SHALL BE CENTERED IN THE CEILING TILE OR IN THE 2X2 PORTION OF TEGULAR CEILING TILES, UNLESS NOTED OTHERWISE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, LIGHT FIXTURES, DIFFUSERS, SPEAKERS, SMOKE DETECTORS, AND SPRINKLER HEADS.

4. PRIOR TO THE INSTALLATION OF CEILINGS, ALLOW FOR AN ABOVE-CEILING INSPECTION OF COMPONENTS THAT WILL NOT BE VISIBLE WHEN THE CEILINGS HAVE BEEN INSTALLED, INCLUDING INSPECTION OF FIRE, SMOKE, AND ACOUSTICAL SEPARATIONS.

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17078

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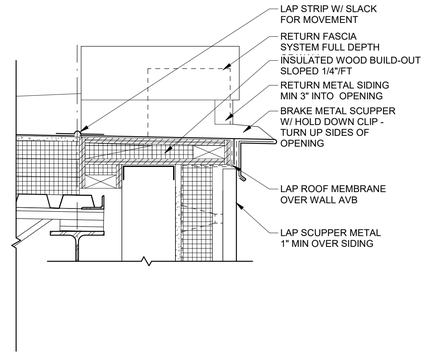
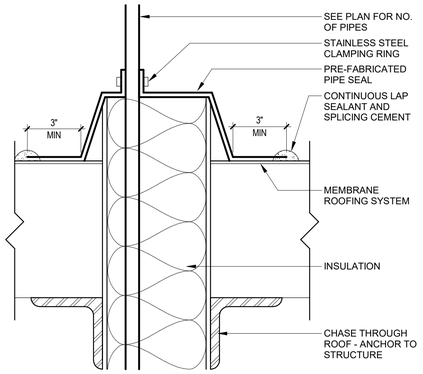
TITLE
OVERALL RCP

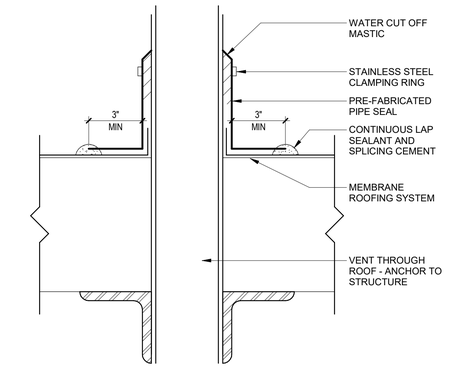
SHEET
A111



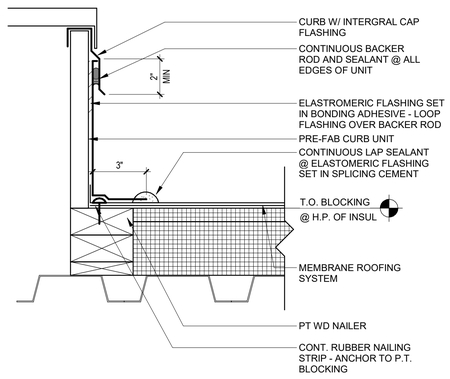
D6 ENV - 3-SIDED SCUPPER - BRAKE METAL
1 1/2" = 1'-0"



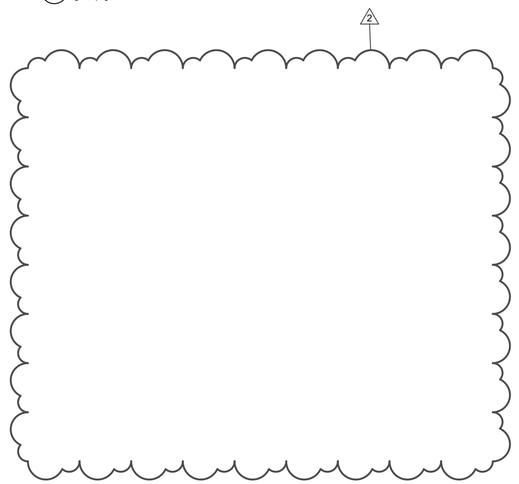
E3 CHASE FOR MECHANICAL PENETRATION
3" = 1'-0"



E4 DTL @ VENT / FLAT ROOF
3" = 1'-0"



E2 VERTICAL TERMINATION @ ROOF TOP AHU
3" = 1'-0"



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TITLE
TYPICAL ENVELOPE DETAILS

SHEET
A322