DAVIS ARCHITECTS, INC.
120 Twenty-third Street South, Birmingham, AL 35233

Job No. 3891.01
March 25, 2019

ADDENDUM NUMBER FOUR
TO THE CONTRACT DOCUMENTS FOR CONSTRUCTION OF
ORANGE BEACH RECREATION COMPLEX NEW GYMNASIUM
CITY OF ORANGE BEACH

Bid Date / Time: Thursday, March 26th at 2 pm Central local time.

This addendum forms a part of the Contract Documents and modifies the Bid Documents dated February 18, 2018.

This Addendum consists of one (1) page Addendum, one (1) page Current Bidders list, two (2) page Current Bidders Questions, one (1) Specifications, two (2) full-size sheets.

GENERAL

ITEM 01 Current Bidders List
Please see the attached Known bidders list.

ITEM 02 Current Bidders Questions
Please see the attached Bidders questions log.

SPECIFICATIONS

ITEM 01 SECTION 133419 – METAL BUILDING SYSTEMS

Reissue Spec in its entirety.

1. Paragraph 2.01.B: CANAM has been approved as a substitution for the specified Other Metal Building Systems as a new acceptable manufacturer and products approved as follows:
    a. CANAM Steel Building Corporation https://www.canambuildings.com
2. Fixed numbering abbreviations on Section Paragraph 3.03

DRAWINGS

ITEM 01 SHEET A3.20 – BUILDING SECTIONS

Reissue Sheet in its entirety.

1. Add Detail Reference Clouds.

ITEM 02 SHEET A5.30 – INTERIOR DETAILS

Reissue Sheet in its entirety.

1. Revise detail Boundary on detail K6
2. Add two(2) new details
    a. Add Details E11 “TOP OF PLYWOOD FURROUT DETAIL @ LAY-IN CEILING”
    b. Add Detail E15 “TOP OF PLYWOOD FURROUT DETAIL @ LAY-IN CEILING”

END OF ADDENDUM

ORANGE BEACH RECREATION COMPLEX
NEW GYMNASIUM
CURRENT BIDDER'S LIST

Monday, March 25, 2019

KNOWN BIDDER'S LIST:

THE HIGHLAND GROUP - (Ryan Long, r.long@highlandgroup.org)
P: (888) 585-8564

TRIP TEK CONSTRUCTION, LLC - (Miles Smith, miles@triptekllc.com)
P: (251) 583-1170

GATES CONSTRUCTION – (Ken Gates, kengates@gatesbuilders.com)
P: (251) 233-3029

STUART CONSTRUCTION – (Ben Harris, bharris@stuartcontracting.com)
P: (251) 421-9175

SYCAMORE CONSTRUCTION – (L. Sansom, sycamoreinc@bellsouth.net)
P: (251) 234-7984

GREEN-SIMMONS, CO. - (Russell Smith, russell@green-simmons.com)
P: (850) 429-0144

REED-HAYS CONSTRUCTION – (mreed@reedhaysconstruction.com)
P: (251) 217-4996

BIDDER QUESTION LOG
Project Name: Orange Beach Gym
Project No. 3891.01

Bidder Question Log

Addendum #1 (3-14-2019); Addendum #2 (3-19-2019)
Addendum #3 (3-20-2019); Addendum #4 (3-26-2019)

No.	Scope	Sheet or Spec	Comment	Source	Architect / Engineer / Owner Response	Response By	Response Date (IN/OUT)	Addm #
1	PRE-BID QUESTIONS	A2.21 & 126613	Would the Owner consider changing the electric operation Telescopic Bleachers to Manual Operation?	Alabama Contract Sales	The Owner has decided to make all the Telescopic bleachers Manual Operation.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
2	PRE-BID QUESTIONS	Bid Bond Specificaiton	Will you be issuing an revised bid bond form?	Stuart Contracting Company, LLC	Yes, one will be included within the next Addendum.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
3	PRE-BID QUESTIONS	UE1.01	Would it be acceptable to install the 4", 2ea 1.5", and 1ea 1" conduits for the power/data/FACP from existing electrical room to the new electrical room by either trenching on the exterior of the building or by a directional bore underneath the building? Installing the conduit around the building may require some up-size of conductors. We anticipate approx. 420' of conduit if allowed to install on the exterior of the building. Directional bore would be less distance than original design.	Stuart Contracting Company, LLC	In Addendum #2 we will address that the (2) 1 ½" conduits for Data/Tel., the (1) 4" conduit for power, and the (1) 1" conduit for Fire Alarm will be re-routed to the exterior of building. The fire Alarm conduit should be re-sized to 1 ½" conduit. Route conduits out of exterior east wall of electrical room into the ground. Route conduits around the south exterior of the existing building and gymnasium over to new gymnasium electrical room location. Conduits should be 36" minimum below grade. Conduits to be Schedule 40 PVC underground, stub ups shall be RGS. Care should be taken when trenching to avoid damage to the all existing utilities on the south side of the property. Provide surge suppressors for fire alarm circuits and coax for additional protection. The conduit for Camera system shall remain routed thru building as shown. No boring beneath the existing building will be accepted.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
4	PRE-BID QUESTIONS	A0.01	The architectural drawings state to install new sod and coordinate with Civil. The civil drawings do not call out anything and it is difficult to determine how much sod. Can you provide a quantity and type of sod to account for in our bids?	Highland Group	GC will not be responsible for installing new sod within the limits of construction. GC must grade for drainage and properly prepare the grade to receive new sod and landscape. City of Orange Beach is self-performing ALL Landscaping. However, the GC will be responsible for repairing any disturbed areas to match existing grade and conditions.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
5	PRE-BID QUESTIONS	Specs	The bid bond form states "Carpet Installation @ The Event Center". Can this be updated and reissued?	Highland Group	We have fixed this error and a updated form will be reissued in the next addendum formally.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
6	PRE-BID QUESTIONS	2113	Item NO. 20 under the Instruction to Bidders and General Requirements states the project is to be completed within 30 days. Can this be updated?	Highland Group	We have fixed this error and a updated specification will be reissued in the next addendum formally.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
7	PRE-BID QUESTIONS	133419	Addendum #1 has the exterior HMF & HMD under the PEMB specifications. Do these doors have to be provided by the PEMB?	Highland Group	No, they are not the responsibility of the PEMB Manufacturer, but they must be coordinated for framing of openings.	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
8	PRE-BID QUESTIONS	Specs	Is there a GEO Technical Report?	Highland Group	What we have for the Geotech Report is already included in the Project Manual under section 003110	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
9	PRE-BID QUESTIONS	Sheet C4.0	The drawings state 86 LF of new ADS N-12 pipe or equivalent but it does not sate the size. What is the size of the pipe?	Highland Group	ADS-N12 is a 12" Smooth Interior/Corrugated Exterior HDPE Pipe	ARCHITECT	IN (3-18-2019) Out(3-19-2019)	ADD#2
10	PRE-BID QUESTIONS	N/A	Will the Bid Date be postponed?	The Green Simmons Company	The Bid was postponed to Tuesday March 26th @ 2pm	ARCHITECT	IN (3-19-2019) Out(3-19-2019)	ADD#2
11	PRE-BID QUESTIONS	04 2000 – Unit Masonry	The mechanical screen wall is shown as split-face CMU. Is the block 8" and what is the intended cap supposed to be?	The Green Simmons Company	Yes, the mechanical screen wall is a 8" split face cmu. Please see the Sheet A0.03, Legend EXTERIOR MATERIALS AND FABRICATIONS, specifically Mark 5 & 6 have a General note *8,* which reads *8" SPLIT FACE CMU @ EXTERIOR MECHANICAL ENCLOSURE IN LIEU OF 4" SPLIT FACE CMU VENEER*. The cap is identified on the provided elevations on the same sheet. *Min 4" x 12"x24" split face cap (Color 3).*	ARCHITECT	IN (3-21-2019) Out(3-21-2019)	ADD#4

No.	Scope	Sheet or Spec	Comment	Source	Architect / Engineer / Owner Response	Response By	Response Date (IN/OUT)	Addm #
12	PRE-BID QUESTIONS	23 3000 – HVAC Air Distribution	It is not typical that an HVAC subcontractor furnish service and maintenance of installed units for five years from Date of Substantial Completion. This is usually covered under a separate maintenance contract between the owner and a maintenance contractor, after the standard ONE year building warranty has expired. Also, typically the subcontractor does not cover monthly maintenance beyond the standard one year building warranty time-frame. It is however common that extended warranties on selected equipment carry its own warranties. Please confirm that the intent here is to provide a standard one year service and maintenance warranty in lieu of the five year service and maintenance requirement as specified in the specifications.	The Green Simmons Company	The specification 236313 Air-cooled Refrigerant Condensers paragraph 1.11 Maintenance Service, is intended to provide the client with one year service and maintenance warranty for the contractor's services. Also, contractor to provide equipment with a 5 year manufacturer's warranty.	ARCHITECT	IN (3-21-2019) Out(3-21-2019)	ADD#4
13	PRE-BID QUESTIONS	Sheet A0.01	Drawing A0.01 states to apply masonry water repellent starting 8" below grade on the west side of the existing building. But there are not any specifications for this scope. Can you provide specifications.	Highland Group	This can be found in the Unit Masonry Specification under paragraph section 2.08. It is technically an accessory to the Masonry. The Water Repellent is primarily applied to all new masonry and some portions of the existing old masonry see drawings and specifications.	ARCHITECT	IN (3-21-2019) Out(3-21-2019)	ADD#4
14	PRE-BID QUESTIONS	N/A	I know the electrical drawings spell out the running of conduit for this work but is the cabling also to be included in that there is no Division 27 specification . It does however mention on sheet E1.01, in the legend symbols about running cables from the outlets to the telephone backboards in the new electrical room.	The Green Simmons Company	E1.1 calls out the CAT 6 Cables from the outlets to the new telephone Backboard. Drawing UE1.1 calls out the COAX , camera and Fiber optic cable from the existing telephone backboard in the existing electrical room to the new telephone backboard in the new gymnasium electrical room. See key notes top right hand corner of drawing.	ARCHITECT	IN (3-25-2019) Out(3-25-2019)	ADD#4
15	PRE-BID QUESTIONS	N/A	Please advise if we are to include the communication cabling in our scope of work.	The Green Simmons Company	Yes, all communications cabling is in your scope.	ARCHITECT	IN (3-25-2019) Out(3-25-2019)	ADD#4
16	PRE-BID QUESTIONS	Sheet C4.0	Can you provide a pipe size for the roof drain collection piping? None is shown.	Stuart Contracting Company, LLC	12" minimum - This question was already answered in Pre-Bid Question # 9.	ARCHITECT	IN (3-25-2019) Out(3-25-2019)	ADD#4
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SECTION 13 3419
METAL BUILDING SYSTEMS

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Provide complete metal building system including but not limited to:
   1. Design.
   2. Materials.
   3. Fabrication.
   4. Shipment.
   5. Erection.
   6. Other components as specified.
B. Manufacturer-engineered, shop-fabricated structural steel building frame.
C. Metal wall panels, metal roof panels, metal joist, metal beams, metal deck, metal gutters, metal downspouts, wall insulation system and roof insulation system.
D. Interior wall liner panels where indicated; both at perimeter walls and interior partitions, and to include all necessary furring.

1.02 RELATED REQUIREMENTS

A. Section 05 4000 - Cold Formed Metal Framing
B. Section 05 5000 - Metal Fabrications.
C. Section 05 5113 – Metal Pan Stairs
D. Section 06 6100 - Rough Carpentry: Wood blocking and nailers.
E. Section 07 9200 - Joint Sealants: Sealing joints between accessory components and wall system.
F. Section 08 1113 - Hollow Metal Doors and Frames.
G. Section 09 9600 - High Performance Coatings: Metal building structural framing and bracing
H. Section 11 6623 - Gymnasium Equipment: Equipment to be hung from structure.
I. Section 11 6643 - Interior Scoreboards: Equipment to be hung from structure.
J. Section 11 6653 - Gymnasium Dividers: Equipment to be hung from structure.

1.03 DEFINITIONS

A. Code: The word "code" refers to the Building Code.
B. Installer, Erector or Applicator:
   1. Installer, erector or applicator is the person actually installing, erecting or applying the product in the field at the Project site.
   2. Installer, erector and applicator are synonymous.
C. PVDF: Polyvinylidene fluoride.
   1. Nomenclature as listed in Bibliography of the MBMA Low Rise Building Systems Manual.

1.04 REFERENCE STANDARDS

A. AISC 303 - Code of Standard Practice for Steel Buildings and Bridges; 2016.
B. AISC 360 - Specification for Structural Steel Buildings; 2016.
C. ASHRAE Std 90.1 I-P - Energy Standard for Buildings Except Low-Rise Residential Buildings; 2013, Including All Amendments and Errata.
D. ASTM A36/A36M - Standard Specification for Carbon Structural Steel; 2014.ASTM
E. A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware; 2016a.
F. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength; 2014 (Editorial 2017).
G. ASTM A500/A500M - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes; 2013.
H. ASTM A501/A501M - Standard Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing; 2014.
I. ASTM A529/A529M - Standard Specification for High-Strength Carbon-Manganese Steel of Structural Quality; 2014.
J. ASTM A792/A792M - Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy-Coated by the Hot-Dip Process; 2010 (Reapproved 2015).

K. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2012.
L. ASTM C827/C827M - Standard Test Method for Change in Height at Early Ages of Cylindrical Specimens of Cementitious Mixtures; 2016.
M. ASTM C920 - Standard Specification for Elastomeric Joint Sealants; 2014a.
N. ASTM C991 - Standard Specification for Flexible Fibrous Glass Insulation for Metal Buildings; 2016.
O. ASTM C1107/C1107M - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink); 2014a.
P. ASTM F3125/F3125M - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions; 2015a. ding, Brazing, and Nondestructive Examination; 2012.
Q. AWS D1.1/D1.1M - Structural Welding Code - Steel; 2015 (with March 2016 Errata).
R. IAS AC472 - Accreditation Criteria for Inspection Programs for Manufacturers of Metal Building Systems; 2012.
S. ICC (IBC) - International Building Code; 2018.
T. ICC (IECC) - International Energy Conservation Code; 2018.
U. MBMA (MBSM) - Metal Building Systems Manual; 2012.
V. SSPC-Paint 20 - Zinc-Rich Primers (Type I, "Inorganic," and Type II, "Organic"); 2002 (Ed. 2004).
W. UL 580 - Standard for Tests for Uplift Resistance of Roof Assemblies; Current Edition, Including All Revisions.

1.05 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate the installation of wood blocking, bridging and nailers where necessary for attachment of equipment and other elements.
   2. Coordinate the installation of structural elements and components necessary for support and attachment of canopies, overhead doors and other elements requiring attachment to building structure.
   3. Coordinate primers for compatibility with proposed field-applied topcoats.
B. Pre-installation Meeting: Convene one week before starting work of this section.
   1. Review preparation and installation procedures and coordinating and scheduling required with related work.
   2. Attendance: Architect, Building Commission Inspector, Owner's Insurer (if applicable), General Contractor, metal building manufacturer and metal building erector. If rooftop equipment is to be placed on roof, mechanical contractor shall also attend.
   3. Architect will prepare written report indicating actions taken, decisions made, and items discussed. Report will become a part of the record.
   4. Distribution: General Contractor (for further distribution to subcontractors); Owner.
C. Project Record Documents: Record actual locations of concealed components and utilities.

1.06 SUBMITTALS

A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
B. Product Data: Provide data on profiles, component dimensions, fasteners and energy code compliant roof and wall insulation systems.
C. Shop Drawings: Indicate assembly dimensions, locations of structural members, connections; wall and roof system dimensions, panel layout, general construction details, anchorages and method of anchorage, installation, and structural bracing; Provisions for equipment and other building element loads to be hung from structure: framing anchor bolt settings, sizes, and locations from datum, foundation loads; indicate welded connections with AWS A2.4 welding symbols; indicate net weld lengths; provide professional seal and signature.
D. Samples: Submit two samples of precoated metal panels for each color selected, 16 by 16 inch in size illustrating color and texture of finish.
E. Manufacturer's Instructions: Indicate preparation requirements, anchor bolt placement, and foundation requirements.
F. Erection Drawings: Indicate members by label, assembly sequence, and temporary erection bracing.

G. Manufacturer Qualification Statement: Provide documentation showing metal building manufacturer is accredited under IAS AC472.
   1. Include statement that manufacturer designs and fabricates metal building system as integrated components and assemblies, including but not limited to primary structural members, secondary members, interior walls, raised floor systems, joints, roof, and wall cladding components specifically designed to support and transfer loads and properly assembled components form a complete or partial building shell.

H. Informational Submittals:
   1. Manufacturer's and Erector's Qualifications.
   2. Manufacturer's approval of erector.
   3. Structural calculations stamped and signed by a professional Structural Engineer licensed in the State where Project is located.
      i. Include list of design loads and loads transmitted to foundation through columns or walls and location where loads occur.
      ii. Submit calculations for information only.
   4. Certificate of compliance by fabricator that steel was fabricated in accordance with the approved construction documents.

I. Project Record Documents: Record actual locations of concealed components and utilities.

1.07 QUALITY ASSURANCE

A. Design structural components, develop shop drawings, and perform shop and site work under direct supervision of a Professional Structural Engineer experienced in design of this Work.
   1. Design Engineer Qualifications: Licensed in the State in which the Project is located.
   2. Conform to applicable code for submission of design calculations as required for acquiring permits.
   3. Coordinate equipment loads with equipment manufacturers to support all applicable loads.
   4. Cooperate with regulatory agency or authority and provide data as requested.

B. Perform work in accordance with ASHRAE 90.1 as applicable and MBMA (MBSM) and ICC (IBC).

C. Perform welding in accordance with AWS D1.1/D1.1M.

D. Manufacturer Qualifications: Company specializing in the manufacture of products similar to those required for this project.
   1. Not less than 5 years of documented experience
   2. Member in good standing of the MBMA.
   3. Accredited by IAS in accordance with IAS AC472.

E. Erector Qualifications: Company specializing in performing the work of this section with minimum 10 years documented experience and approved by manufacturer.
   1. Installer's Field Supervisor: Experienced mechanic certified by metal building system manufacturer supervising work on site whenever work is underway.

1.08 WARRANTY

A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.

B. Correct defective Work within a five year period after Date of Substantial Completion.

C. Provide 20 year manufacturer warranty for factory applied finishes and weather-tightness.
   1. Include coverage for exterior pre-finished surfaces to cover pre-finished color coat against chipping, cracking or crazing, blistering, peeling, chalking, or fading. Include coverage for weather tightness of building enclosure elements after installation.

D. Special Installer's and General Contractor's Warranty: Submit roofing installer's and General Contractor's warranty, on warranty form ABC Form C-9 signed by installer and General Contractor, covering Work of this Section, including all components of membrane roofing system such as roof membrane, base flashings, roof insulation, adhesives and fasteners, cover boards, substrate boards, vapor retarders, roof pavers and walkway products for the following warranty period:
   1. Warranty Period: Five (5) years from date of Substantial Completion.
   2. Warranty Note: This shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.

PART 2 PRODUCTS

2.01 MANUFACTURERS

A. Basis of Design Metal Building: MESCO Building Solutions: www.mescobuilding solutions.com.
B. Other Acceptable Metal Buildings:
1. ACI Building Systems, LLC: www.acibuildingsystems.com.
2. American Buildings Company: www.americanbuildings.com.
3. Bigbee Steel Buildings Inc.: www.bigbee.com.
4. Butler Manufacturing Company: www.butlermfg.com.
5. Ceco Building Systems: www.cecobuildings.com.
6. Inland Buildings: www.inlandbuildings.com.
7. Nucor Building Systems: www.nucorbuildingsystems.com.
8. VP Buildings: www.vp.com.
9. Vulcan Steel Structures: www.vulcansteel.com.
10. CANAM Steel Building Corporation https://www.canambuildings.com
11. Substitutions: See Section 01 6000 - Product Requirements.

2.02 METAL BUILDING

A. Single and multi span rigid frame as indicated on Drawings. See Drawings.
B. Exterior bay spacing: See Drawings.
C. Interior bay spacing: See Drawings.
D. Interior partition framing
E. Primary Framing: Rigid frame of rafter beams and columns, canopy beams, intermediate columns, equipment platform beams, equipment platform joist, metal Joist, end wall columns, and wind bracing.
F. Secondary Framing: Purlins, Girts, Equipment platform Metal Decking, Equipment Platform metal angles, Equipment platform metal channels, hat Channesl (Max 7/8") at reverse rool paneling, Eave struts, Flange bracing, Sill supports, and Clips, and other items detailed in this specification or construction drawings.
G. Wall System: Preformed metal panels of vertical profile, with sub-girt framing/anchorage assembly, insulation, liner sheets, and structural framing for canopies, and accessory components.
H. Roof System: Preformed metal panels oriented parallel to slope, with sub-girt framing/anchorage assembly, insulation, and canopies where shown on Drawings, and accessory components.
I. Roof Slope: 3 inches in 12 inches.

2.03 MATERIALS - FRAMING

A. Structural Steel Members: ASTM A36/A36M.
B. Structural Tubing: ASTM A500/A500M, Grade B cold-formed.
C. Plate or Bar Stock: ASTM A529/A529M, Grade 50.
D. Anchor Bolts: ASTM A307, galvanized to ASTM A153/A153M.
Bolts, Nuts, and Washers: ASTM F3125/F3125M, Type 1; galvanized to ASTM A153/A153M.
E. Welding Materials: Type required for materials being welded.
F. Primer: SSPC-Paint 20, zinc rich.
G. Grout: ASTM C1107/C1107M; Non-shrink; premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents.
1. Minimum Compressive Strength at 48 Hours: 2,000 pounds per square inch.
2. Minimum Compressive Strength at 28 Days: 7,000 pounds per square inch.
3. Height Change, Plastic State; when tested according to ASTM C827/C827M:
a. Maximum: Plus 4 percent.
b. Minimum: Plus 1 percent.

2.04 MATERIALS - WALLS AND ROOF

A. Steel Sheet: ASTM A792/A792M aluminum-zinc alloy coated to AZ50/AZM150.
B. Basis of Design Roof Insulation System: Linear banded, filled cavity system with continuous vapor barrier below the purlins at roof construction and meeting the following levels of performance.
1. R-5 thermal block on purlins; Not less than R-13 unfaced fiberglass on minimum R-25 unfaced fiberglass filled cavity insulation.

2. Fabric liner facing/vapor barrier composed of woven high-density polyethylene coated on both sides with polyethylene. Complies with the following:
    a. ASTM C1136, Types I through Type VI
        i. Type I-IV exception for dimensional stability (value is < 2.0%.)
    b. Perm rating: 0.02 when tested in accordance with ASTM E 96 Procedure A.
    c. Flame Spread Index < 25 and Smoke Developed Index < 50 when tested in accordance with ASTM E 84.
    d. Color: White
3. Vapor barrier adhesive. Complies with the following:
    a. Application temperature 10°F to 110° F
4. Double sided vapor barrier tape. Complies with the following:
    a. Width 0.75
    b. Rubber based and free film
5. Patch tape. Complies with the following:
    a. Adhesive added to one side
    b. Installation temperature from 10°F to 110°F
    c. 3" width
6. Metal Banding/Straps. Complies with the following:
    a. Coated steel
    b. 1.0" wide
    c. Structural Steel Grade 50 per ASTM C 653
    d. Exposed color to match vapor barrier
    e. Backing – White
7. Thermal spacer blocks. Complies with the following:
    a. Extruded polystyrene.
    b. Minimum width 3.0"
    c. Thickness 1.0"
    d. Light gage steel fasteners
        i. Zinc plated cold forged steel
        ii. Head color to match vapor barrier
        iii. Contain rubber sealing washer
    e. Heavy gage steel fasteners
        i. Zinc plated cold forged steel
        ii. Head color to match vapor barrier
        iii. Contain rubber sealing washer
8. All materials used in OptiLiner Insulation System shall be approved by insulation system manufacturer.
9. Basis of Design Product: OptiLiner Insulation System manufactured by Owens Corning Insulation Systems: www.owenscorning.com.

C. Wall Insulation System:
1. Glass fiber blanket metal building insulation, R-19 vinyl vapor retarder faced fiberglass, vapor barrier facing to interior.
    a. Thermal break
        i. Closed cell polyethylene foam tape for wall applications. Complies with the following:
            a) 0.375" thick
            b) 3.0" wide
            c) Minimum R-value: 1.5
        ii. Thermal separation:
        iii. Vapor Retarder Color: White.

D. Insulation Vapor Retarder Facing at Wall Insulation: Polypropylene/Fiberglass-Polyester blend fabric.
1. Weight: 36 pounds per 1000 square feet.
2. Permeance (ASTM E96 Procedure A): 0.02 perm.
3. Bursting Strength (ASTM D774): 250 psi.
4. Puncture Resistance (ASTM C1136): 650 Beach Units.
5. Tensile Strength (ASTM C1136): 195 lb/in width (MD).
   150 lb/in width (XD).

6. Thickness: 0.007 inch.
7. Accelerated Aging (30 days @ 95% RH, 120 degrees F): No corrosion, no delamination.
8. Low Temperature Resistance (ASTM D1790, -40 degrees F): Remains flexible, no delamination.
9. High Temperature Resistance (4 hours @ 240 degrees F): Remains flexible, no delamination.
10. Water Immersion (24 hours @ 73 degrees F): No delamination.
11. Mold Resistance (ASTM C665/C1338): No growth.
12. Dimensional Stability (ASTM D1204): 0.25%.
13. Fire Testing:
    a. Flame Spread (ASTM E84/UL 723): Film Side - 0 Fabric Side - 5.
    b. Smoke Developed (ASTM #84/UL 723): Film Side - 30 Fabric Side - 40.
14. Basis of Design: Gymguard manufactured by Lamtec Corporation.

E. Joint Seal Gaskets: Manufacturer's standard type.
F. Fasteners: Manufacturer's standard type, galvanized to comply with requirements of ASTM A153/A153M, finish to match adjacent surfaces when exterior exposed.
G. Bituminous Paint: Asphaltic type.
H. Sealant: ASTM C920, elastomeric sealant with movement capability of at least plus/minus 50 percent; 100 percent silicone; for exposed applications, match adjacent colors as closely as possible.
I. Metal Mesh: Galvanized steel wire, woven.
J. Trim, Closure Pieces, Caps, Flashings, Gutters, Downspouts, Rain Water Diverter, Fascias, and Infills: Same material, thickness and finish as exterior sheets; brake formed to required profiles.

2.05 ACCESSORY COMPONENTS

A. Doors and Frames: Specified in Section 08 1113.

2.06 DESIGN CRITERIA

A. Minimum Thermal Standards: In accord with ICC (IECC) requirements.
   1. Roof: Maximum U-value 0.035.
   2. Wall: Maximum U-value 0.071
B. Maximum Air Leakage: Provide properly sealed air barrier membrane in accord with C402.5 of ICC (IECC).
C. Design members to withstand dead load, applicable snow load, and design loads due to pressure and suction of wind calculated in accordance with applicable code.
D. Design members to withstand loads imposed by suspended gymnasium equipment, scoreboards, divider curtains and other applied loads.
E. Design members to withstand Uplift Per IBC 2018.
F. Exterior wall system shall withstand imposed loads with maximum allowable deflection of L/240 of span.
G. Exterior Roof system shall withstand imposed loads with maximum allowable deflection of L/180 of span.
H. Provide Hat Channel behind Reverse Roll Paneling
   1. Provide Hat Channel to meet Building Supplier Required Deflection and gauge thickness.
   2. Provide Hat Channel with 7/8” Maximum depth.
I. Design and provide all necessary framing for equipment platform, including but not limited to the columns, girts, joist, metal deck, angle, channels, accessories, trim, etc. Metal building Designer to coordinate metal building design to support all necessary loads for the equipment platform and concrete pad.
   a. Equipment Platform Live Load min. 180 PSF; See drawings & Equipment for dead load.
   b. Equipment Platform Collateral Load of 6 PSF
J. GC to install Poured reinforced concrete slab on metal building deck. Metal Building designer to coordinate with GC for all necessary bracing, framing and terminate framing.
K. Metal Building Designer to provide all necessary terminations and connection at the point where the GC installed Metal Pan Stair is to secure back to the metal building structure. Metal pan stair to be designed by GC to be self supported, but must attach to metal building slab and equipment platform framing to create a seamless stair egress assembly for the occupants. GC and Metal Building Designer to coordinate all necessary elements to create a working stair condition.

L. Provide support framing for support of canopies and canopy tie-backs
M. Provide drainage to exterior for water entering or condensation occurring within wall or roof system.
N. Permit movement of components without buckling, failure of joint seals, undue stress on fasteners or other detrimental effects, when subject to temperature range of not less than 100 degrees F.
O. Size and fabricate wall and roof systems free of distortion or defects detrimental to appearance or performance.

2.07 FABRICATION - FRAMING

A. Fabricate members in accordance with AISC 360 for plate, bar, tube, or rolled structural shapes.
B. Anchor Bolts: Formed with bent shank, assembled with template for casting into concrete.
C. Provide wall opening framing for doors, windows, and other accessory components.
D. Design and provide all necessary framing for equipment platform, including but not limited to the columns, girts, joist, metal deck, angle, channels, accessories, trim, etc. Metal building Designer to coordinate metal building design to support all necessary loads for the equipment platform and concrete pad.
E. Design requirements per the design documents, with GC and design documents for poured concrete pad to be installed on equipment platform.

2.08 FABRICATION - WALL AND ROOF PANELS

A. Pre-Finished Exposed Vertical Siding Panels: Aluminum-zinc alloy coated steel, minimum 0.028 inch metal thickness, Vertical PBR Panel profile indicated, 1-1/4 inch deep, lapped edges.
   1. Provide stand-off semi-concealed fasteners to minimize insulation compression.
   2. Basis of Design: PBR Wall Panel, manufactured by Mesco Building Solutions
B. Pre-Finished Exposed Vertical Reverse Roll Siding Panels: Aluminum-zinc alloy coated steel, minimum 0.028 inch metal thickness, Vertical Reverse Roll PBR Panel profile indicated, 1-1/4 inch deep, lapped edges.
   1. Provide stand-off semi-concealed fasteners to minimize insulation compression.
   2. Basis of Design: Reverse Roll PBR Panel, manufactured by Mesco Building Solutions
C. Pre-Finished Exposed Horizontal Siding Panels: Aluminum-zinc alloy coated steel, minimum 0.028 inch metal thickness, Horizontal PBU Panel profile indicated, 3/4 inch deep, lapped edges.
   1. Provide stand-off semi-concealed fasteners to minimize insulation compression.
      a. Provide Hat Channel behind Reverse Roll Paneling to meet Building Supplier Required Deflection and gauge thickness with a 7/8” Maximum depth.
   2. Basis of Design: PBU Wall Panel, manufactured by Mesco Building Solutions
D. Pre-Finished Metal Roofing Panels: Aluminum-zinc alloy, minimum 0.0299 inch metal thickness, Superlok, SSR profile, 2 inch deep, lapped and machine crimped edges fitted with continuous gaskets.
   1. Width: 16 inches.
   2. Provide 2 inch sliding clip - High to provide minimum 1-1/2 inch clear space between bottom of roof panel and perlin and thermal block as applicable to minimize insulation compression.
   3. Basis of Design: Superlok, SSR Roof Panel, manufactured by Mesco Building Solutions
E. Pre-Finished Ceiling Liner: NOT USED
F. Pre-Finished Wall Liner:
   1. Basis of Design: ILM-240-2 with Beads Liner Panel, manufactured by Mesco Building Solutions
   2. Minimum 0.019 inch metal thickness.
G. Girts/Purlins: Rolled formed structural shape to receive siding, roofing and liner sheet.
   1. Girts/Purlins designed to meet design criteria deflection
   2. Stiffened Girts to be used at North and South Walls where Double Girt conditions occur where façade bumps occurs. See design drawings.
H. Internal and External Corners: Same material thickness and finish as adjacent material, profile brake formed to required angles. Back brace mitered internal corners with same material thickness and finish as adjacent material.
I. Expansion Joints: Same material and finish as adjacent material where exposed, 0.028 inch thick, manufacturer's standard brake formed type, of profile to suit system.
J. Flashings, Closure Pieces, Fascia: Same material and finish as adjacent material, profile to suit system.

K. Fasteners: To maintain load requirements and weather tight installation, same finish as cladding, non-corrosive type.

2.09 FABRICATION - GUTTERS AND DOWNSPOUTS

A. Fabricate of same material and finish as roofing metal.
B. Form gutters and downspouts and scuppers of rectangular profile and size to collect and remove water. Fabricate with connection pieces.
C. Form sections in maximum possible lengths. Hem exposed edges. Allow for expansion at joints.
D. Fabricate support straps of same material and finish as roofing metal, color as selected.

2.10 FINISHES

A. Framing Members: Clean, prepare, and shop prime. Do not prime surfaces to be field welded.
B. Exterior Surfaces of Wall Components and Accessories: Precoated enamel on steel of manufacturer's standard PVDF finish, coating color as selected from manufacturer's standard range.
C. Interior Surfaces of Wall Components and Accessories: Precoated enamel on steel of manufacturer's standard polyester finish, coating color as selected from manufacturer's standard range.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify that foundation, floor slab, mechanical and electrical utilities, and placed anchors are in correct position

3.02 ERECTION - FRAMING

A. Erect framing in accordance with AISC 360.
B. Provide for erection and wind loads. Provide temporary bracing to maintain structure plumb and in alignment until completion of erection and installation of permanent bracing. Locate braced bays as indicated.
C. Set column base plates with non-shrink grout to achieve full plate bearing.
D. Do not field cut or alter structural members without approval.
E. After erection, prime welds, abrasions, and surfaces not shop primed.

3.03 ERECTION - WALL AND ROOF PANELS

A. Install in accordance with manufacturer's instructions.
B. Exercise care when cutting prefinished material to ensure cuttings do not remain on finish surface.
C. Fasten cladding system to structural supports, aligned level and plumb.
D. Panel End Laps: Minimum of 6 IN, sealed with sealant (weather sealing compound), and fastened together by clamping plates.
    1. Sealants: Contain hard nylon beads, which prevent mastic from flowing out due to clamping actions.
        a. Join panel laps by 2-piece clamped connection consisting of a bottom reinforcing plate and a top panel strap.
        b. Locate panel end laps directly over, but not fastened to, supporting secondary roof structural member and stagger, to avoid 4-panel lap-splice condition.
E. Metal Wall System Installation:
    1. Install wall system in accordance with metal building system manufacturer’s instructions at locations indicated on the Drawings.
    2. Install wall system weathertight.
    3. Verify structural system is plumb before wall panels are attached.
    4. Apply foam single-sided thermal separation tape to outside face of girts.
    5. Seal wall panels with molded-foam closure block that fits panel configuration at top and bottom of wall panels.
N. Exterior Trim: Match exterior color and embossing of wall panel system.
O. Interior Trim: Painted.
P. Flashings, Trim, Closures, and Similar Items: Install as indicated on erection drawings furnished by metal building system manufacturer.

Q. Provide expansion joints where indicated.

R. Install insulation and vapor retarder utilizing manufacturer's standard detail for attachment. Place wire mesh under vapor retarder for support between framing members.

S. Install sealant and gaskets, providing weather tight installation.

3.04 INSTALLATION - INSULATION

A. Instructions and approved Shop Drawings.
1. Refer to the Owens Corning publications listed below for product information, including uses, descriptions, physical properties, performance, specification compliance and application recommendations. Copies of these documents can be found at www.owenscorning.com.
   a. OptiLiner® Banded Liner System Product Data Sheet - Owens Corning Publication 10011681
   b. OptiLiner® Wall Installation Instructions - Owens Corning Publication 10011266
   c. OptiLiner® Roof Installation Instructions - Owens Corning Publication 10011267
   d. OptiLiner® Bi-Directional Banding Option - Owens Corning Publication 10011602

B. Purlin and girt attachment surfaces should be clean and dry prior to attaching two-faced tape or sealing adhesive.

C. Installed fiberglass insulation should fit snugly against purlin and girt walls in the cavity space. Avoid gaps, voids and any excess compression.

3.05 ERECTION - GUTTERS AND DOWNSPOUTS

A. Rigidly support and secure components. Join lengths with formed seams sealed watertight. Flash and seal gutters to downspouts.

B. Slope gutters minimum 1/8 inch/ft.

C. Connect downspouts to storm sewer system.

3.06 INSTALLATION - ACCESSORY COMPONENTS IN WALL SYSTEM

A. Install door frames, doors, overhead doors, and windows and glass in accordance with manufacturer's instructions.

B. Install liner panels where indicated on Drawings. Provide wall liner panels both at perimeter (exterior) walls and at interior partitions, including light gage metal furring where required.

3.07 TOLERANCES

A. Framing Members: 1/4 inch from level; 1/8 inch from plumb.

B. Siding and Roofing: 1/8 inch from true position.

3.08 FIELD QUALITY CONTROL

All inspections and tests are to be performed at the Project site by a third party independent testing agency.

Inspect field welding in accordance with AWS D1.1/D1.1M, Section 6 including the following non-destructive testing:

Visually inspect all welds.

Test 50 PCT of full penetration welds and 10 PCT of fillet welds with liquid dye penetrant.

Test 20 PCT of full penetration welds with ultrasonic or radiographic testing.

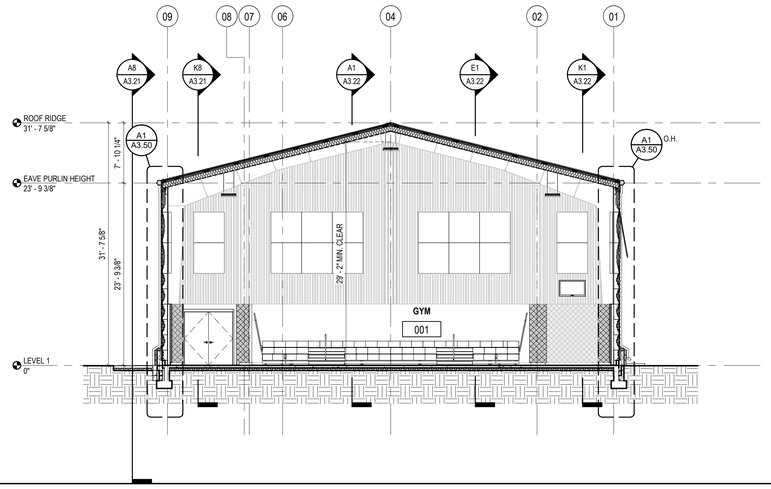
Inspect high-strength bolting in accordance with the RCSC Specification for Structural Joints, Section 9.

Inspect while work is in progress.

Inspect structural steel which has been erected.

Prepare and submit test reports to Engineer.

END OF SECTION



K1	BUILDING SECTION - CROSS SECTION
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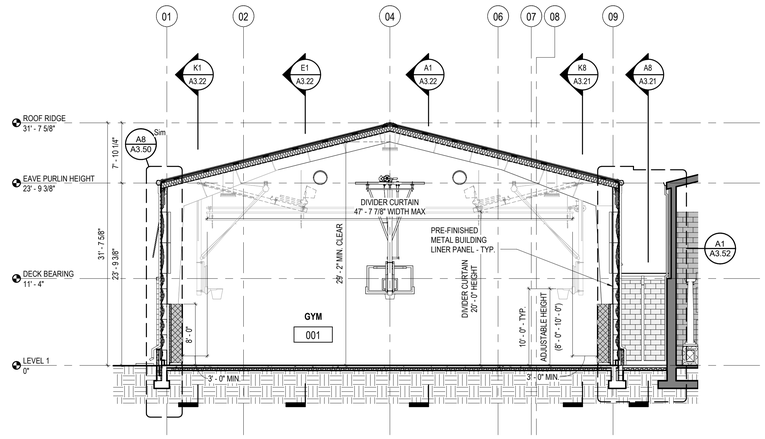

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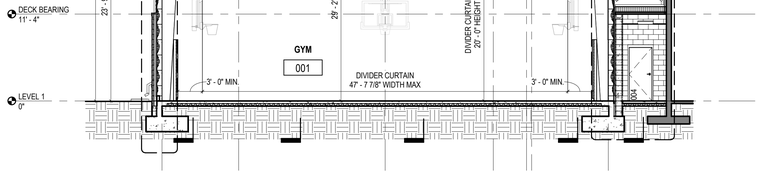

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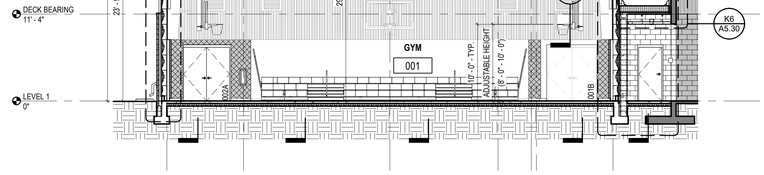

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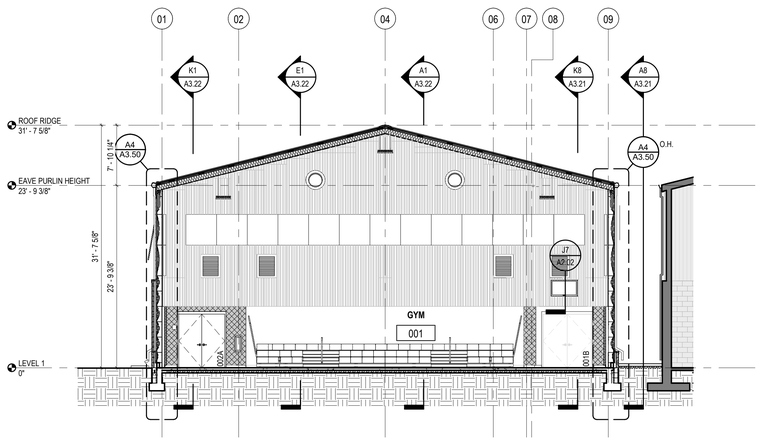

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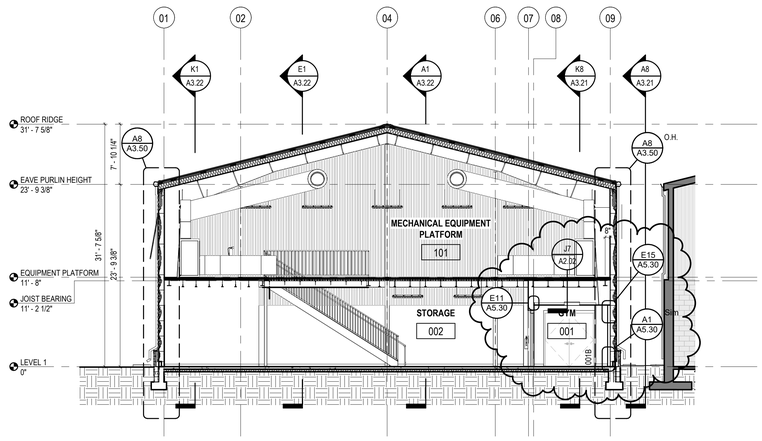
A1 /A2.01	SCALE: 1/8" = 1'-0"



A10	BUILDING SECTION - CROSS SECTION
A1 /A2.01	SCALE: 1/8" = 1'-0"

STATE OF ALABAMA
DAVIS ARCHITECTS
2413
NEIL E. DAVIS
REGISTERED ARCHITECT

ORANGE BEACH RECREATION COMPLEX NEW GYMNASIUM

CITY OF ORANGE BEACH ;
ORANGE BEACH, AL

DAVIS ARCHITECTS

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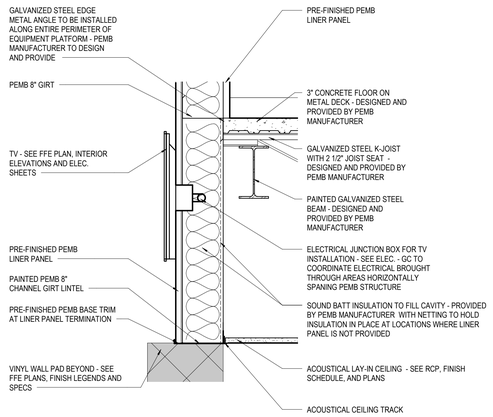
REV	DATE	DESCRIPTION
1	3-25-2019	ADDENDUM #4

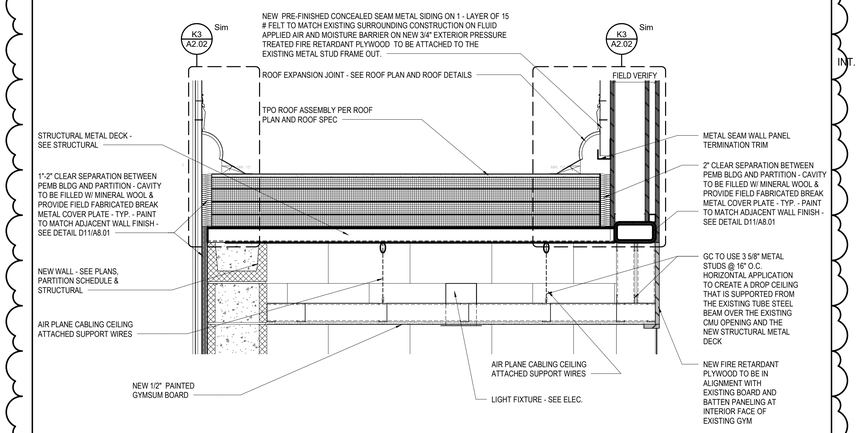
DATE 2-18-2019
PHASE 100% CONSTRUCTION DOCUMENTS
ISSUED FOR ADDENDUM #4
ISSUED BY DAVIS ARCHITECTS
PROJECT NO. 3891.01

SHEET TITLE
BUILDING SECTIONS

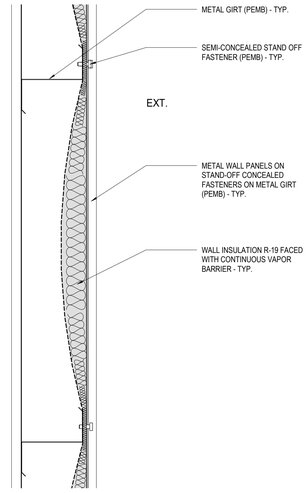
DRAWING NO.
A3.20



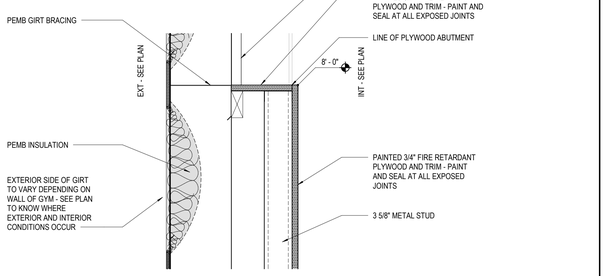
K1	LAY-IN CEILING SOFFIT DETAIL @ GYM
K8 /A3.21	SCALE: 1" = 1'-0"



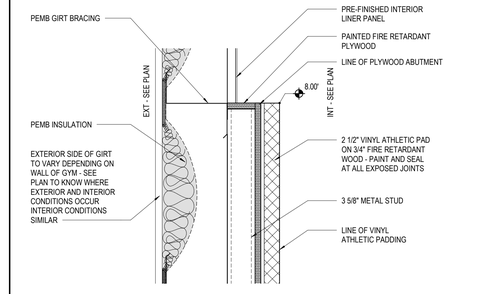
K6	GYM CEILING & SOFFIT DETAIL @ EXISTING GYM
E10 /A3.20	SCALE: 1" = 1'-0"



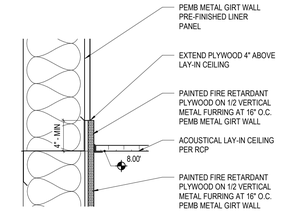
K12	WALL STAND-OFF FASTENERS
/	SCALE: 1 1/2" = 1'-0"



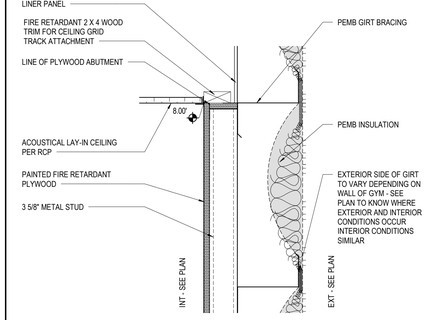
E1	PLYWOOD FURROUT DETAIL @ TOP CONDITION - TYP.
A1 /A3.22	SCALE: 1 1/2" = 1'-0"



E6	PADDING & PLYWOOD FURROUT DETAIL @ TOP CONDITION - TYP.
K1 /A3.22	SCALE: 1 1/2" = 1'-0"



E11	TOP OF PLYWOOD FURROUT DETAIL @ LAY IN CEILING
A10 /A3.20	SCALE: 1 1/2" = 1'-0"



E15	TOP OF PLYWOOD FURROUT DETAIL @ LAY IN CEILING
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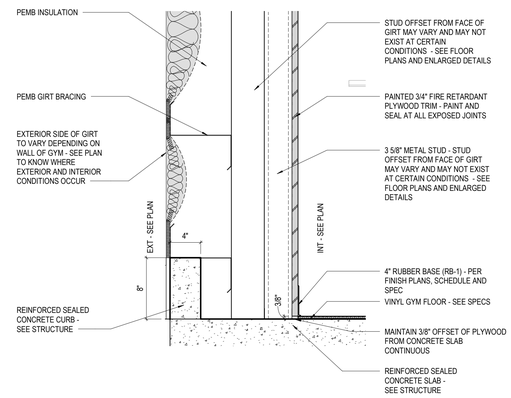
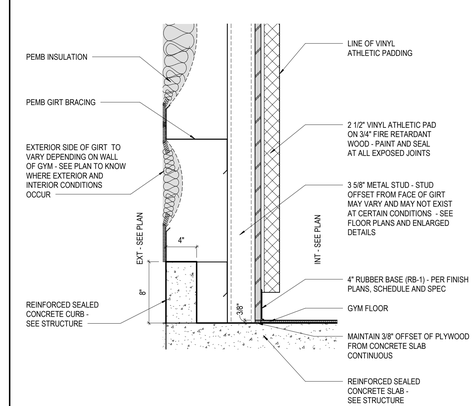


A1	PLYWOOD FURROUT DETAIL @ BOTTOM CONDITION - TYP.
A10 /A3.20	SCALE: 1 1/2" = 1'-0"



A6	PADDING & PLYWOOD FURROUT DETAIL @ BOTTOM CONDITION - TYP.
K1 /A3.22	SCALE: 1 1/2" = 1'-0"

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SHEET TITLE
INTERIOR DETAILS

DRAWING NO.
A5.30