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ADDENDUM NO. 1 April 16, 2024

PROJECT: A NEW CITY HALL and MUNICIPAL OFFICE FACILITY

located at 350 W. Main Street

Centre, Alabama

**ARCHITECT'S PROJECT NO. 2022-06** 

TO: ALL BIDDERS AND PLAN HOLDERS OF RECORD

This Addendum forms a part of the Contract Documents and modifies the original Project Manual and Drawings, dated February 28, 2024. Bidders shall acknowledge receipt of this Addendum on the Proposal Form. This Addendum contains Thirteen (13) - 8-1/2" x 11", pages and One (1) 24" x 36" drawing.

#### A. MODIFICATIONS TO PART I - CONTRACTURAL & LEGAL REQUIREMENTS: NONE

#### B. MODIFICATIONS TO PART II - TECHNICAL SPECIFICATIONS:

- 1. SECTION 04230 Calcium Silicate Masonry Units
  - a. At Paragraph 2.01, B, add Rockcast Architectural Masonry Veneer Series as manufactured by Reading Rock, Inc., Cincinnati, Ohio.
- 2. SECTION 054400 Cold-Formed Metal Trusses
  - Attached and made a part of this Addendum in its entirety is SECTION 054400 Cold-Formed Metal Trusses in its entirety.
- 3. SECTION 05500 Metal Fabrications
  - a. Delete Paragraph 2.12 Miscellaneous Framing and Supports in its entirety. It is a duplication of Paragraph 2.09 of the same name.
  - b. At Paragraph 2.13 Finishes, General, add the following item C.: "At steel pipe bollard locations, bollards shall be primed as required and provided with a polyethylene cover equal to U-line Model No. H-9231BL, smooth, 7.5" diameter x 56" height, black cover for 6" diameter post. Cover shall be cut to fit prescribed bollard height."
- 4. <u>SECTION 08411 Aluminum Storefront and Entrances</u>
  - a. At Paragraph 2.01, B, add Kawneer as an acceptable manufacturer/supplier of specified component shapes and sizes.
- 5. SECTION 10350 Flag Poles
  - a. Attached and made a part of this Addendum in its entirety is SECTION 10350 Flag Poles.
- 6. SECTION 10425 Signage and Plagues
  - a. At Paragraph 2.01, A, add Devaney Sign Service, LLC, Oneonta, AL as an acceptable supplier of signs and plaques.
- 7. <u>SECTION 10670 MECHANICAL ASSIST, HIGH DENSITY MOBILE STORAGE SYSTEM (Additive Alt. No. 1)</u>

- a. At Paragraph 1.02, <u>DESCRIPTION OF WORK</u>, change Files Room 105 to read "FILES 125".
- b. At Paragraph 2.01, Acceptable Manufacturers, change Walter H. Hopkins to read "Patterson-Pope".
- c. At Paragraph 3.03 <u>LAYOUT</u>, change the following:
  - 1. Change paragraph A.,1 to read, "Provide a mobile storage system as per specification and as indicated on the Floor Plan drawing."
  - 2. Delete paragraphs 3. and 4. and replace with the following:
    - "(3) Provide two movable carriages with back-to-back shelving units as indicated. Carriages shall be for the storage of City Clerk records. Both carriages shall be made up of three 36" wide by 15" deep, back-to-back sections of shelving. Each closed upright shall be 85.25" tall. Each section shall have 7 openings with shelves spaced on 12" center. Each opening shall have one center-stop or backstop as applicable. These carriages/ranges shall have a full height and width laminated face panel on the exposed end.
    - (4) Provided system shall have the capability of adding additional future platforms should the full extent of shelving specified not be furnished under this contract."

#### 8. SECTION 101123 TACKBOARDS

Attached and made a part of this Addendum in its entirety is SECTION 101123
 Tackboards.

#### C. MODIFICATIONS TO DRAWINGS:

- 1. <u>SHEET A3.0 of 20:</u> Frame type at Door 115 on the Schedule of Doors and Frames should read Type "6" in lieu of "8".
- 2. <u>SHEET S1.0:</u>
  - a. At Load-bearing Cold-formed steel framing Notes, delete Note 5. In its entirety. This will not be a requirement of this project.
  - b. At Structural Steel Notes, delete Note 6. In its entirety. This will not be a requirement of this project.
- 3. <u>SHEET M0.2:</u> Attached and made a part of this Addendum is Revised Sheet M0.2 in its entirety to replace originally issued Sheet M0.2.
- D. **CLARIFICATIONS TO DRAWINGS:** Attached and made a part of this Addendum is supplemental structural drawing SK! describing mezzanine access stair framing and anchoring.
- E. PRIOR APPROVALS:

SECTION 10670 MECHANICAL ASSIST, HIGH DENSITY MOBILE STORAGE SYSTEM

SPACEFILE SDS System

END OF ADDENDUM NO. 1

Thomas M. M. Cluste Austitant

Thomas M. McElrath, Architect

#### SECTION 054400 - COLD-FORMED METAL TRUSSES

PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Roof trusses.

#### 1.2 ACTION SUBMITTALS

#### A. Shop Drawings:

- 1. Include layout, spacings, sizes, thicknesses, and types of cold-formed steel trusses; fabrication; and fastening and anchorage details, including mechanical fasteners
- 2. Indicate reinforcing channels, opening framing, supplemental framing, strapping, bracing, bridging, splices, accessories, connection details, and attachment to adjoining work.
- B. Delegated-Design Submittal: For cold-formed steel trusses.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Product test reports.
- C. Field quality-control reports.

#### 1.4 QUALITY ASSURANCE

- A. Testing Agency Qualifications: Qualified according to ASTM E329 for testing indicated.
- B. Product Tests: Mill certificates or data from a qualified independent testing agency.
- C. Welding Qualifications: Qualify procedures and personnel according to the following:
  - 1. AWS D1.1/D1.1M, "Structural Welding Code Steel."
  - 2. AWS D1.3/D1.3M, "Structural Welding Code Sheet Steel."

#### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design cold-formed steel trusses.
- B. Structural Performance: Provide cold-formed steel trusses capable of withstanding design loads within limits and under conditions indicated.
  - 1. Design Loads: As indicated on Drawings.
  - 2. Deflection Limits: Design trusses to withstand design loads without deflections greater than the following:
    - a. Roof Trusses: Vertical deflection of 1/240 of the span.
- C. Cold-Formed Steel Truss Standards: Unless more stringent requirements are indicated, trusses shall comply with the following:
  - 1. Roof Trusses: AISI S214.

#### 2.2 COLD-FORMED STEEL TRUSS MATERIALS

- A. Steel Sheet: ASTM A1003/A1003M, Structural Grade, Type H, metallic coated, of grade and coating designation as follows:
  - 1. Grade: As required by structural performance.
  - 2. Coating: G60 (Z180), A60 (ZF180)

#### 2.3 ROOF TRUSSES

- A. Roof Truss Members: Manufacturer's standard C-shaped steel sections.
  - 1. Connecting Flange Width: 1-5/8 inches (41 mm), minimum at top and bottom chords connecting to sheathing or other directly fastened construction.
  - 2. Minimum Base-Metal Thickness: 0.0329 inch (0.84 mm)

#### 2.4 TRUSS ACCESSORIES

- A. Fabricate steel-truss accessories from steel sheet, ASTM A1003/A1003M, Structural Grade, Type H, metallic coated steel sheet, of same grade and coating designation used for truss members.
- B. Provide accessories of manufacturer's standard thickness and configuration unless otherwise indicated.

#### 2.5 ANCHORS, CLIPS, AND FASTENERS

- A. Steel Shapes and Clips: ASTM A36/A36M, zinc coated by hot-dip process according to ASTM A123/A123M.
- B. Anchor Bolts: ASTM F1554, Grade 36, threaded carbon-steel headless, hooked bolts, carbon-steel nuts, and flat, hardened-steel washers; zinc coated by hot-dip process according to ASTM A153/A153M, Class C.
- C. Power-Actuated Fasteners: Fastener systems with working capacity greater than or equal to the design load, according to an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
- D. Mechanical Fasteners: ASTM C1513, corrosion-resistant-coated, self-drilling, self-tapping steel drill screws.
  - 1. Head Type: Low-profile head beneath sheathing; manufacturer's standard elsewhere.

#### 2.6 MISCELLANEOUS MATERIALS

- A. Galvanizing Repair Paint: ASTM A780/A780M.
- B. Shims: Load-bearing, high-density multimonomer, nonleaching plastic; or cold-formed steel of same grade and metallic coating as truss members supported by shims.

#### PART 3 - EXECUTION

#### 3.1 PREPARATION

- A. Before sprayed fire-resistive materials are applied, attach continuous angles, supplementary framing, or tracks to structural members indicated to receive sprayed fire-resistive materials.
- B. After applying sprayed fire-resistive materials, remove only as much of these materials as needed to complete installation of cold-formed steel trusses without reducing thickness of fire-resistive materials below that required to obtain fire-resistance ratings indicated. Protect remaining fire-resistive materials from damage.

#### 3.2 INSTALLATION

A. Install bridge, and brace cold-formed steel trusses according to AISI S200, AISI S202, AISI S214, and manufacturer's written instructions unless more stringent requirements are indicated.

- 1. Coordinate with wall framing to align webs of bottom chords and load-bearing studs or continuously reinforce track to transfer loads to structure.
- 2. Install continuous bridging and permanently brace trusses as indicated on Drawings, as indicated on Shop Drawings and designed according to CFSEI's Technical Note 551e, "Design Guide: Permanent Bracing of Cold-Formed Steel Trusses.".
- B. Install cold-formed steel trusses and accessories true to line and location, and with connections securely fastened.
- C. Install temporary bracing and supports to secure trusses and support loads equal to those for which structure was designed. Maintain braces and supports in place, undisturbed, until entire integrated supporting structure has been completed and permanent connections to trusses are secured.
- D. Truss Spacing: As indicated on Drawings.

#### 3.3 ERECTION TOLERANCES

- A. Install cold-formed steel trusses level, plumb, and true to line to a maximum allowable tolerance variation of 1/8 inch in 10 feet (1:960) and as follows:
  - 1. Space individual trusses no more than plus or minus 1/8 inch (3 mm) from plan location. Cumulative error shall not exceed minimum fastening requirements of sheathing or other finishing materials.

#### 3.4 REPAIR

A. Galvanizing Repairs: Prepare and repair damaged galvanized coatings on fabricated and installed cold-formed steel trusses with galvanized repair paint according to ASTM A780/A780M and manufacturer's written instructions.

#### 3.5 FIELD QUALITY CONTROL

- A. Special Inspections: Owner will engage a qualified special inspector to perform inspections.
- B. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- C. Cold-formed metal trusses will be considered defective if they do not pass tests and inspections.
- D. Prepare test and inspection reports.

#### END OF SECTION 054400

#### SECTION 10350 - FLAGPOLES

#### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. <u>This Section</u> includes:
  - (1) One (1) New Ground-set, fixed, cone tapered Flagpole at location shown on Civil Drawings:
    - (a) Aluminum
    - (b) Exposed Height: 40'

#### 1.03 SUBMITTALS

- A. <u>General</u>: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.
- B. <u>Product data</u> and installation instructions for each type of flagpole required.
- C. <u>Shop Drawings</u> of flagpoles and bases, showing general layout, jointing, grounding method, and anchoring and supporting systems.
  - (1) <u>Include details</u> of foundation system for ground-set poles.
- D. <u>Samples</u> of each finished metal for flagpoles and accessories as requested by Architect.

#### 1.04 QUALITY ASSURANCE

- A. <u>Manufacturing Standards</u>: Provide each flagpole as a complete unit produced by a single manufacturer, including fittings, accessories, bases, and anchorage devices.
- B. <u>Design Criteria</u>: Provide flagpoles and installations constructed to withstand a 90-mph wind velocity minimum when flying flag of appropriate size. Use heavy pipe sizes if required for flagpole type and height shown.
- C. <u>Pole Construction</u>: Construct pole and ship to site in one piece if possible. If more than one piece is necessary, provide snug-fitting, precision joints with self-aligning, internal splicing sleeve arrangement for weather-tight, hairline field joints.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. <u>General</u>: Spiral wrap flagpoles with heavy Kraft paper or other weather-tight wrapping and prepare for shipment in hard fiber tube or other protective container.
- B. Deliver flagpoles and accessories completely identified for installation procedure. Handle and store flagpoles to prevent damage or soiling.

#### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

- A. <u>Available Manufacturers</u>: Subject to compliance with requirements, manufacturers offering products which may be incorporated in the Work include, but are not limited to, the following:
  - 1. AFB/Division of Pole-Tech Co., Inc.
  - 2. American Flagpole.
  - 3. Concord Industries, Inc.
  - 4. Ewing International Corp.

#### 2.02 FLAGPOLE TYPE

- A. <u>Aluminum Flagpole</u>: Fabricate from seamless extruded tubing complying with ASTM B 241, alloy 6063-T6, having a minimum wall thickness of 3/16 inch (0.1875 inch), tensile strength not less than 30,000 psi, and a yield point of 25,000 psi. Heat-treat and age-harden after fabrication.
  - (1) Provide cone-tapered aluminum flagpoles.

#### 2.03 FLAGPOLE MOUNTING

- A. Provide manufacturer's standard base system for the type of flagpole installation required.
- B. <u>Foundation Tube for Flagpole</u>: For ground-set flagpoles, provide 16-gage minimum galvanized corrugated steel tube, or 12-gage rolled steel tube, sized to suit flagpole and installation. Furnish complete with welded steel bottom base and support plate, lightning ground spike, and steel centering wedges, all welded construction. Provide loose hardwood wedges at top for plumbing pole after erection. Galvanize steel parts after assembly, including foundation tube.
  - (1) Provide manufacturer's standard flash collar, finished to match flagpole.

#### 2.04 SHAFT FINISH

- A. <u>General</u>: Comply with NAAMM AMetal Finishes Manual@ for recommendations relative to application and designations of finishes.
- B. <u>Aluminum</u>: Finish designations prefixed by "AA" conform to the Aluminum Association system for designating aluminum finishes. Provide fine, directional, medium satin polish (AA-M32), finished as follows:
  - (1) <u>Buff complying with AA-M20</u> and seal aluminum surfaces with clear, hard coat wax.

#### 2.05 FITTINGS

- A. Finial Ball: Manufacturer's standard flush-seam ball, size to match pole butt diameter.
  - (1) 14-gage aluminum with flush seam.

- B. <u>Truck</u>: Stainless-steel ball-bearing, non-fouling, revolving, double-track assembly of cast metal finished to match pole shaft.
- C. <u>Cleats</u>: Two 9-inch cast metal cleats with fasteners, finished to match pole shaft, attached with stainless steel screws.
- D. <u>Halyards</u>: Provide two continuous halyards for each flagpole, as follows:
  - (1) Polypropylene, braided, white.
  - (2) <u>Size</u>: 5/16 inch (No. 10).
- E. <u>Halyard Flag Snaps</u>: Provide two swivel snaps per halyard, as follows:
  - (1) Chromium-plated bronze.

#### PART 3 - EXECUTION

#### 3.01 PREPARATION FOR GROUND-SET POLES

- A. <u>Excavation</u>: Excavate for foundation concrete to neat clean lines in undisturbed soil. Provide forms where required due to unstable soil conditions. Remove wood, loose soil, rubbish, and other foreign matter from excavation; and moisten earth before placing concrete. Back fill open excavation after concreting with original excavated material.
- B. <u>Concrete</u>: Provide concrete composed of portland cement, coarse and fine aggregate, and water mixed in proportions to attain 28-day compressive strength of not less than 3000 psi, complying with ASTM C 94.
- C. Place concrete immediately after mixing. Compact concrete in place by use of vibrators. Moist-cure exposed concrete for not less than 7 days, or use a non-staining curing compound in cold weather.
- D. Finish trowel exposed concrete surfaces to smooth, dense surface. Provide positive slope for water runoff to base perimeter.

#### 3.02 FLAGPOLE INSTALLATION

- A. <u>General</u>: Prepare and install new flagpole at location shown on Civil Drawings and in compliance with accepted shop drawings and manufacturer's instructions.
  - (1) Provide positive lightning ground for each flagpole installation.
  - (2) Paint below-grade portions of ground-set flagpole with heavy coat of bituminous paint.

**END OF SECTION 10350** 

#### SECTION 101123 - TACKBOARDS

#### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary (or Special) Conditions and Part 1 Specification sections apply to the work of this section.

#### 1.02 <u>DESCRIPTION OF WORK</u>

- A. Extent of tackboards (T.B.) is indicated on the drawings.
- B. <u>Types</u> of tackboards specified in this section include the following:
  - (1) Plastic impregnated cork tackboards.

#### 1.03 **QUALITY ASSURANCE**

A. Manufacturer: Furnish all tackboards by a single manufacturer for the entire project.

#### 1.04 <u>SUBMITTALS</u>

- A. <u>Shop drawings:</u> Submit shop drawings for each type of marker board and tackboard. Include sections of typical trim members and dimensioned elevations. Show anchors, grounds, reinforcement, accessories, layout and installation details.
- B. <u>Product data:</u> Submit manufacturer's technical data and installation instructions for each material and component part, including data substantiating that materials comply with requirements.
- C. <u>Samples:</u> Submit full range of color samples for each type of marker board, tackboard, trim and accessory required. Provide 12" square samples of sheet materials and 12" lengths of trim members for color verification after selections have been made.
- D. <u>Certification:</u> Submit the manufacturer's certification that materials furnished for the project comply with the specified requirements.

#### 1.05 SIZES

A. All tackboard units shall be 4'-0" high by lengths indicated on drawings.

#### PART 2 - PRODUCTS

#### 2.01 <u>ACCEPTABLE MANUFACTURERS</u>

- A. <u>Manufacturer:</u> Subject to compliance with requirements, provide products of one of the following:
  - (1) American Chalkboard Co., Inc.
  - (2) Carolina Chalkboard Co.
  - (3) Claridge Products and Equipment, Inc.
  - (4) Greensteel, Inc.

#### 2.02 MATERIALS

- A. <u>Plastic Impregnated Cork Tackboards:</u> Provide seamless sheet, 1/4" thick round natural cork compressed with a resinous binder with washable vinyl finish and integral color throughout, laminated to burlap backing. Provide color and texture as scheduled or as selected from the manufacturer's standards.
  - (1) <u>Backing:</u> Make panels rigid by factory laminating cork face sheet under pressure to 1/4" thick hardboard backing.
- B. <u>Metal Trim and Accessories:</u> Fabricate frames and trim of not less than 0.062" thick aluminum alloy, size and shape as indicated, to suit type of installation. Provide straight, single length units wherever possible; keep joints to a minimum. Miter corners to a neat, hairline closure.
  - (1) <u>Clear Anodized Finish:</u> Furnish exposed aluminum trim, accessories and fasteners with the manufacturer's standard satin anodized finish with clear anodic coating complying with AA requirements for Class II Architectural Coating (AA-A31).
  - (2) <u>Map Rail:</u> Furnish map rail at the top of each tackboard unit, complete with the following accessories:
    - (a) <u>Display Rail:</u> Provide continuous cork display rail approximately 1" wide, integral with the map rail.
    - (b) End Stops: Provide one end stop at each end of the map rail.
    - (c) <u>Map Hooks:</u> Provide 2 map hooks with flexible metal clips for each 4' of map rail or fraction thereof.

#### 2.03 FABRICATION

- A. <u>Assembly:</u> Provide factory assembled tackboard units.
  - (1) Make joints only where the total length exceed the maximum manufactured length. Fabricate with the minimum number of joints, balanced around the center of the board, as acceptable to the Architect.
  - (2) Provide the manufacturer's standard vertical joint system between abutting sections of tack board.

#### PART 3 - EXECUTION

#### 3.01 PREPARATION

A. <u>Field Measurements:</u> Take field measurements prior to the operation of shop drawings and fabrication where possible, to ensure proper fitting of the work. Allow for trimming and fitting wherever taking of field measurements before fabrication might delay work.

#### 3.02 <u>INSTALLATION</u>

- A. <u>Deliver factory-built</u> tackboard units completely assembled in one piece without joints, wherever possible. Where dimensions exceed panel size, provide 2 or more pieces of equal length as acceptable to the Architect. When overall dimensions require delivery in separate units, pre-fit components at the factory, disassemble for delivery, and make final joints at the site. Use splines at joints to maintain surface alignment.
- B. <u>Install units</u> in locations and at mounting heights indicated and in accordance with the manufacturer's instructions. Keep perimeter lines straight, plumb and level. Provide

- all grounds, clips, backing materials, adhesives, brackets, anchors, trim and accessories necessary for a complete installation.
- C. <u>Coordinate</u> factory assembled units with grounds, trim and accessories. Join all parts with a neat, precision fit.

### 3.03 ADJUST AND CLEAN

- A. <u>Verify</u> that accessories required for each unit have been properly installed and function properly.
- B. Clean units in accordance with the manufacturer's instructions.

END OF SECTION 101123

SUBJECT NEW CITY HALL
CENTRE, ALABAMA

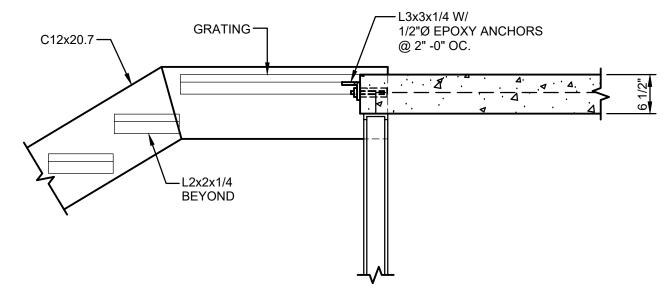
STAIR DETAILS



JOB NO. 23135 SHEET NO. SK1

BY KLO DATE 4/16/24

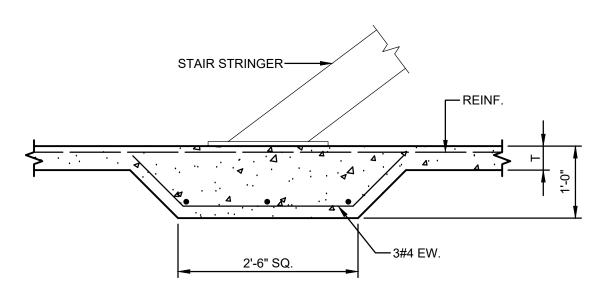
CHKD BY KLO DATE 4/16/24



### TYPICAL SECTION THRU STAIRS

#### NOTES:

1. GRATING SHALL BE CARBON STEEL 1x3/16" BARS SPACED @ 15/16" ON CENTER.



# TYPICAL THICKENED SLAB @ METAL PAN STAIR SUPPORTS

#### NOTES

- 1. T = SLAB THICKNESS (SEE PLAN).
- 2. COORDINATE LOCATION W/ METAL STAIR MANUF.

### INDOOR HEAT PUMP UNIT SCHEDULE

### **AIR HANDLER UNIT TYPE:**

1. SPLIT SYSTEM AC UNIT. HORIZONTAL INDOOR AIR HANDLER WITH DX COIL,

SUPPLY FAN, & MATCHING OUTDOOR UNIT.

1. COOLING CAPACITY IS NET CAPACITY @ 95°F AMBIENT

2. UL LISTED. AHRI CERTIFIED.

3. SEE PLANS FOR AIRFLOW CONFIGURATION

### ACCESSORIES:

- 1. SINGLE POINT POWER CONNECTION.
- 2. 2" THICK MERV 8 FILTERS.
- 3. INTERNALLY ISOLATED SUPPLY FAN UNITS ≤ 5T, DIRECT DRIVE; UNITS > 5T, BELT DRIVE.
- 4. DX COOLING COIL MATCHED TO OUTDOOR HEAT PUMP.
- 5. ELECTRIC HEAT.
- 6. DISCONNECT SWITCH.
- 7. PROGRAMMABLE THERMOSTAT 24/7
- 8. STAINLESS STEAL DRAIN PAN.

).	MODULATING HO	OT GA	S REHEAT	

		SUPPLY FAN MINIMUM MAX DX COOLING COIL CAPACITY DX HEATING CAPACITY ELEC HEAT				ELECTRICAL																	
MARK	TYPE	AIRFLOW	E.S.P.	MOTOR	OUTSIDE AIR	OUTSIDE AIR	TOTAL	SENSIBLE	EAT (DB/WB)	NOMINAL TONS	TOTAL	EAT (DB)	AMBIENT (DB)	HGRH	KW	STAGES	VOLTAGE	PH	HZ	MCA	МОСР	ACCESSORIES B	ASIS OF DESIGN
IHP-1	1	2560	0.5"	3 HP	100	500 CFM	126.2	63.5	76.5 / 69.5	10	83.7	62.2	22	52	26.3	3	208	3	60	100	100	1,2,3,4,6,7,8,9	AAON

# **OUTDOOR HEAT PUMP SCHEDULE**

**ACCESSORIES:** 

1. PHASE PROTECTION.

2. MICROPROCESSOR CONTROLS.

1. OUTDOOR HEAT PUMP

NOTES:	3. ISOLATION VALVES.									
1. CAPACITY TO BALA	NCE INDOOR	AC UNIT.								
2. COOLING CAPACIT	Y RATED AT 9	95°F.			5. ANT	I SHOR	T CYCLE	E TIMER.		
3. HEATING CAPACITY	/ RATED AT 4	7°F.						ITROL DOWI	N TO 0°F	
4. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED 7. HAIL / VANDAL GUARDS.										
OUTDOORS SHALL BE FITTED WITH LOCKING TYPE 8. THERMAL EXPANSION VALVE.										
TAMPER-RESISTANT ( SHALL BE LEFT ON SI										
SHALL DE LEFT ON SI		OWNERALPRO	OJECT							
			1							BASIS O
I MARK ITYPEI	COOLING	HEATING	ELECTRICAL EFFICIENCY							
	CAPACITY	CAPACITY	VOLTAGE	PH	HZ	MCA	MOCP	SEER/EER	HSPF/COP	DESIGN
OHP-1 1	126.2	83.7	208	3	60	53	70	10.1 EER	2.5 COP	AAON

					F/	AN SC	HED	ULE							
FAN TYPE	<u>:</u>						FAN ACCESSORIES:								
1. CEILING	MOUNTE	ED EXHAUS	T FAN				1. BACKD	RAFT D	AMPER	₹.					
							2. DISCONNECT SWITCH.								
							3. ALUMINUM CEILING GRILLE.								
							4. 5A-120	V FAN S	SPEED (	CONTROLLER.					
							5. INTERL	OCK W	ITH LIG	HT SWITCH.					
MARK	FAN	FAN AIRFLOW E	OW E.S.P.	WHEEL	RPM	MOTOR	ELE	CTRICA	<b>AL</b>	ACCESSORIES	BASIS OF DESIGN				
WARN	TYPE	(CFM)	(in-wg)	SIZE	KPIVI	(HP / W)	V	PH	HZ	ACCESSORIES	MANUFACTURER	MODEL			
CEF-1	1	70	0.50	NA	909	35.4 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			
CEF-2	1	70	0.50	NA	909	35.4 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			
CEF-3	1	50	0.50	NA	836	29.4 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			
CEF-4	1	70	0.50	NA	909	35.4 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			
CEF-5	1	140	0.50	NA	1100	68.2 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			
CEF-6	1	140	0.50	NA	1100	68.2 W	120 V	1	60	1,2,3,4,5	Loren Cook Company	GC			

### INDOOR AIR HANDLING UNIT SCHEDULE - GAS FURNACE

### **AIR HANDLER UNIT TYPE:**

SPLIT SYSTEM AC UNIT. INDOOR AIR HANDLER WITH DX COIL, AUXILIARY GAS HEATER, SUPPLY FAN, & MATCHING OUTDOOR UNIT

1. COOLING CAPACITY IS NET CAPACITY @ 95°F AMBIENT

- 2. UL LISTED. AHRI CERTIFIED
- 3. SEE PLANS FOR AIRFLOW CONFIGURATION
- 4. FURNACES SHALL BE SIZED AND SELECTED USING LP GAS. ORIFICES SHALL BE CHANGED IN THE FUTURE IF UNITS ARE CONVERTED TO NATURAL GAS.

SUPPLY FAN DX COOLING COIL CAPACITY GAS HEAT							ELECTRICAL													
	MARK	AIRFLOW	E.S.P.	MOTOR HP	OUTSIDE AIR	TOTAL	SENSIBLE	EAT (DB/WB °F)	NOMINAL TONS	MBH INPUT	MBH OUTPUT	STAGES	AFUE	VOLTAGE	РН	HZ	MCA	МОСР	SEER	BASIS OF DESIGN
Ī	AC-2	1150	0.5"	3/4 HP	50 CFM	34.3	24.9	77 / 65	3	60	58.2	1	96	115	1	60	10.3	15	15	Trane
	AC-3	1110	0.5"	3/4 HP	80 CFM	34.3	24.9	77 / 65	3	60	58.2	1	96	115	1	60	10.3	15	15	Trane
Ī	AC-4	1150	0.5"	3/4 HP	150 CFM	34.3	24.9	77 / 65	3	60	58.2	1	96	115	1	60	10.3	15	15	Trane
	AC-5	1080	0.5"	3/4 HP	100 CFM	34.3	24.9	77 / 65	3	60	58.2	1	96	115	1	60	10.3	15	15	Trane
	AC-6	1580	0.5"	1 HP	190 CFM	46.5	35.5	77 / 65	4	80	77.6	1	96	115	1	60	14.1	15	14.5	Trane

TYPE:

1. INDOOR, WALL MOUNT

2. INDOOR, CEILING CASSETE

1. AIRFLOW RATED AT HIGH FAN SPEED.

2. POWER FOR INDOOR UNIT IS FED FROM OUTDOOR UNIT.

3. COOLING CAPACITY RATED AT 95°F.

4. HEATING CAPACITY RATED AT 47°F. **ELECTRICAL** COOLING | HEATING **DIMENSIONS** TYPE | AIRFLOW ACCESSORIES CAPACITY CAPACITY (WxLxH) DESIGN MCA HZ 208 TRANE 700 26 MBH 46x12x14 60 1,2,3,4 24 MBH

## DULE

**ACCESSORIES:** 

1. SINGLE POINT POWER CONNECTION.

3. INTERNALLY ISOLATED SUPPLY FAN - BELT DRIVE.

4. DX COOLING COIL - MATCHED TO OUTDOOR HEAT PUMP.

2. 1" THICK FILTERS, 30% EFFICIENT

CONCENTRIC VENT KIT.

I. ELECTRIC CEILING HEATER.

1. SURFACE MOUNTING.

3. DISCONNECT SWITCH.

4. HIGH LIMIT CONTROLS.

OOR HEAT PUMP (MINI-SPLIT SYSTEM) SCHEDULE	CEILING HEATER SCHEI
ACCESSORIES.	

ACCESSORIES:

1. 3-POLE DISCONNECT SWITCH. 2. HARD WIRED UNIT CONTROLLER.

3. FULL PORT BALL VALVES & SCHRADER VALVES WITH FLARED CONNECTIONS.

4. CONDENSATE PUMP (120/1/60) - 1 GPH @ 33 FT. HD.

**BASIS OF** 

# OUTDOOR HEAT PUMP (DUCTLESS SPLIT SYSTEM) SCHEDULE

TYPE:

1. OUTDOOR HEAT PUMP

NOTES:

1.REFRIGERANT TIPPING SHALL BE SIZED AND ROUTED PER MANUFACTURER'S RECOMMENDATIONS.

2.POWER TO INDOOR UNITS IS PROVIDED THRU OUTDOOR UNITS 3.REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS.

4.UNIT SHALL BE CAPABLE OF MINIMUM LINE LENGTH OF 65FT.

	MARK	TYPE	COOLING	HEATING			ELECTRIC	CAL		EFFIC	IENCY	BASIS OF	
	IVIARA	ITPE	ITPE	CAPACITY	CAPACITY	٧	PH	HZ	MCA	MOCP	SEER	HSPF	DESIGN
	OHP-7	1	24 MBH	26 MBH	208	1	60	19	26	21	11	TRANE	

**HEATER TYPE:** 

**ACCESSORIES:** 

2. BASIS OF DESIGN: MARKEL 3470

2. WALL MOUNTED THERMOSTAT.

5. RADIAL DIFFUSER.

MARK	Q17E	SIZE ELECTR	LECTRICAL	_	ACCESSORIES	
IVIARA	SIZE	VOLTAGE	PH	HZ	ACCESSORIES	
ECH-1	2 KW	208	1	60	1,2,3,4,5	

### **CONDENSING UNIT SCHEDULE**

TYPE: AIR COOLED CONDENSING UNIT.

### NOTES:

CAPACITY TO BALANCE RESPECTIVE INDOOR AC UNIT.

2. CAPACITY BASED ON 95 degF AMBIENT.

3. UL LISTED, AHRI CERTIFIED, ASHRAE 90.1-2007 COMPLIANT.

4. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING-TYPE TAMPER-RESISTANT CAPS. ANY ACCESS DEVICE REQUIRED SHALL BE LEFT ON SITE WITH THE OWNER AT PROJECT CLOSE OUT.

### **ACCESSORIES**

1. PHASE PROTECTION.

2. MICROPROCESSOR CONTROLS.

3. ISOLATION VALVES.

4. LIQUID LINE REFRIGERANT FILTER DRIER.

5. ANTI SHORT CYCLE TIMER.

6. LOW AMBIENT CONTROL DOWN TO 0 degF.

7. HAIL / VANDAL GUARDS.

. THERMAL EXPANSION VALVE. 

MARK	NOMINAL	ELECTRICAL									
IVIARN	CAPACITY	Voltage	PH	HZ	MCA	MOCP	DESIGN				
CU-5	3	208 V	3	60 Hz	12 A	20 A	Trane				
CU-6	4	208 V	3	60 Hz	18 A	30 A	Trane				
CU-2	3	208 V	3	60 Hz	12 A	20 A	Trane				
CU-3	3	208 V	3	60 Hz	12 A	20 A	Trane				
CU-4	3	208 V	3	60 Hz	12 A	20 A	Trane				

# AIR PURIFICATION SCHEDULE

FLOW	GPS MODEL	GPS QUANTITY	MINIMUM NEEDLE SPACING	VOLTAGE	MOUNTING LOCATION	MINIMUM ION DENSITY (IONS/CC)
CV	GPS-FC	1 PER UNIT	1 EVERY 3/4"	24 V	UNIT SERVED	40 MILLION PER 0.75"

- BASIS OF DESIGN: GLOBAL PLASMA SOLUTIONS: APPROVED EQUALS BY PHENOMENAL AIRE, ACTIVE AIR, AIRGENICS AND BIOXGEN SUBJECT TO SPECIFICATION COMPLIANCE.
- MOUNT GPS-FC TO AIR INLET SIDE OF COOLING COIL IF CONTRACTOR SUBSTITUTES BASIS OF DESIGN WITH ANOTHER MANUFACTURER, CONTRACTOR SHALL COORDINATE ALL
- ELECTRICAL AND MECHANICAL CHANGES. BI-POLAR IONIZATION SYSTEMS REQUIRING PERISHABLE GLASS TUBES ARE NOT ACCEPTABLE
- ALL MANUFACTURER'S MUST PASS UL-867-2007 OZONE CHAMBER TESTING BY EITHER US OR ETL PROVIDE STAND ALONE ION DETECTOR TO COMMUNICATE WITH THE BAS, SYSTEMS WITHOUT ION DETECTORS SHALL NOT BE ACCEPTABL.E.
- SHALL NOT BE ACCEPTABLE.
- IONIZATION SYSTEMS WITH MULTIPLE ION MODULES MOUNTED TO A BAR SHALL NOT BE AN ACCEPTABLE SUBSTITUTE. IONIZATION SYSTEMS THAT DO NOT USE EPOXY TO PROTECT THE ION CIRCUITRY SHALL NOT BE ACCEPTABLE. IONIZATION OUTPUT SHALL BE A MINIMUM OF 40 MILLION IONS/CC FOR EVERY 0.75" OF COIL WIDTH.

\*PROVIDE FOR <u>IHP-1</u> AND <u>IHP-2</u>

**E** 

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Project Number

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of 550

DRAWN **CHECKED** JWS

SCALE AS NOTED DATE 2/28/24

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