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Addendum #1

Addendum Date: Dece

December 3, 2024

Project: Swift Community Center

The work herein shall be considered part of the bid documents for the referenced project and carried out in accordance with the following supplemental instructions issued in accordance with the Contract Documents without change in Contract Sum or Contract Time. Acknowledge receipt of addendum on the bid form as indicated.

Questions & Answers:

- **Q1.** Drawing C-2 calls for the existing tree to be "preserved". Please clarify.
 - A Due to the proximity of the root system of the tree to the excavated area, remove and dispose of the tree in it's entirety.
- **Q2.** C-2 please confirm the existing playground will be removed by the town prior to our mobilization.
 - A The existing playground shall remain and be fenced off from the adjacent construction. Refer to Limit of Disturbance line indicated on Sheet C-2.
 However, the Town will close the playground during construction due to it's proximity to the construction site.
- Q3. What is the steel gauge requirement for the exterior walls & interior partitions?
 - A Although the final design of the cold-formed metal framing (CFMF) construction will be delegated to the Cold Form Steel Framing Supplier (in accordance with drawing notes on Sheet S-000), we would anticipate a minimum of 12 gauge for the exterior walls and 20 gauge for the interior walls.
- Q4. Regarding the BMS controls system? 1. What brand of control system is required? Brand is not noted, but "no substitutions" is noted. 2. Will the control scope of work extend into the existing building and existing mechanicals? a. If so, please provide a list of equipment to be controlled.
 - A All new equipment installed in this project shall be standalone controlled. Delete specification section 23 09 23 Direct Digital Control System for HVAC. The Samsung VRF central controller shall provide control of the VRF system. Provide Renewaire ERV with enhanced controls/BACnet factory activation for occupancy scheduling of ERV and for discharge air temperature control of associated electric duct heating coil. The enhanced controller can be integrated into a building-wide control system in the future. There is no controls scope in the existing building.



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Q5.	The specifications contain cut sheets for the focus rooms. Are these rooms being									
	furnished and installed by the owner or the contractor?									
	A - All three Focus Rooms shall be furnished and installed by the contractor.									
Q6.	Paragraph 3 of the Instructions to Proponents states that the date of substantial									
	completion is 10/31/26, should this read 10/31/25? Please advise.									
	A - No. The project must be substantially complete by October 31, 2026 in accordance									
	with the grant funding. However, it is the intent to start construction this spring									
	and be complete prior to the end of 2025.									
Q7.	Please provide specifications for the following items of work: a. Insulated Metal Panel									
	Transoms b. Door Hardware c. Air & Vapor Barrier d. Security Window Film e. Closed									
	Cell Spray Foam Insulation									
	A - Refer to Section 08 44 00 Insulated Metal Infill Panel (Attached.)									
	Additional information regarding door hardware shall be provided in a subsequent									
	Addenda.									
	Refer to Section 08 80 00 Glazina for Hurricane-Resistant Polyvinyl Butyral (PVB)									
	Interlayer for Laminated Glazina. (Previously issued) There is no Security Window									
	Film in the project.									
	Refer to Section 07 27 00 Fully Adhered Air and Water Resistive Barriers for Air &									
	Vapor Barrier and Closed Cell Sprav Foam Insulation information. (Attached)									
Q8.	Please provide typical wall type for exterior wall									
	A - Refer to Revised Sheets A302 and A303. (Attached)									
Q9.	There are no Fire Alarm drawings included in the drawing set. What are the fire safety									
	requirements for the new space? Who is the manufacturer of the existing FA Panel?									
	A - Fire alarm devices shall be added to the power plans in addendum #1. The existing									
	fire alarm panel is a Mircom Fire Alarm Control - FX-2000.									
Q10.	01 22 00 Unit Prices 1.08A lists "Item: Masonry Repointing; Section 04 03 00." I don't see									
	any unit prices called for in Section 04 03 00? 3.08? Please advise further.									
	A - Section 04 03 00 Masonry Repointing is referenced for requirements for materials,									
	equipment, systems, standards and workmanship for the work. The bidder shall									
	identify the cost of Masonry Repointing on the Bid Form.									
Q11.	Specification pages 113-122 following spec section 09 21 16 Gypsum Board are showing									
	a Focus Room. I see no calls for this on the plans. Please confirm this isn't a part of this									
	project.									
	A - Three Focus Rooms are required and shall be furnished and installed by the									
	Contractor. These rooms are free-standing, prefabricated private spaces for tele-									
	health, virtual calls, etc. They are shown on sheet IF-100 Furniture Plan and Room									
	Finish Schedule. They are identified as Quiet Pods. Two are for individual use, one									
	is larger to accommodate ADA clearance requirements									



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Q12. Is Exterior Elevation Note W2 used anywhere? There is a note #1 in a circle next to fencing double doors at the exterior northwest corner of the building; is this meant for anything?

A - Include the cost to cut, remove, and replace individual masonry units (bricks) in accordance with the specifications for a quantity of 5 masonry units. Exact locations to be identified in the field.

- Q13. The window on the west elevation of drawing A-201 with a tag A1 is smaller than the other A1 windows shown on the north elevation. Please confirm that this tag is supposed to be an A2 window like the one on the east elevation and as called for on the Window (&?) Schedule on drawing A-602.
 - A That is correct. The window in the west elevation of drawing A-201 is identified incorrectly and should be identified as an A2 window.

Q14. On the Alternate #1 Plumbing plan the sewer line is starting in the existing building (as also noted on drawing AD-100 Demo Note D-05) heading north and turns east in the new addition onward through the exterior wall where there is a note saying, "SEE CIVIL FOR CONTUNUATION". I see no sewer line connection noted on Drawing C-2 nor any existing sewer lines noted in the area on Drawing ECS. Please advise.

- A Additional information regarding the sewer line connection shall be provided in a subsequent Addenda.
- Q15. (My original questions re: Alt #1 was very long and followed my Q8 question. I think my time timed out. Not typing all that again.) Short version: Please clarify base bid vs. Alternate #1. Confirm drawings P-000 and A-401 are only for the Alternate #1 pricing. There will be no toilet accessories in the base bid. Are Bath 230 walls & door 006 still in the base bid? If yes Wall finishes CT to all PNT-1? Flooring PT to LVT? Ceiling configuration? HVAC work? Lighting/electrical work?
 - A Correct. Sheets P-000 and A-401 indicate work shown for Alternate #1 only. Should Alternate #1 not be accepted in the awarded bid, no toilet accessories, shall be provided. The room shall be constructed in the same manner as the adjacent Storage Room. Room walls and door 006 shall be provided, painted walls in lieu of ceramic tile and LVT flooring in lieu of ceramic tile.
- Q16. Is there window treatment getting installed on all new windows? Window treatment is included in Materials Legend but no detail as to where they go. Focus room/Quiet Pods included in specs. Is contractor responsible for furnishing and installing Quiet Pods? Will furniture in existing space be removed by owner or does it need to be included in scope of work?



Q17.

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A - Correct. Refer to Finish Schedule IF-101 for rooms with window treatments. Contractor is responsible for furnishing and installing Focus Rooms/Quiet Pods. Refer to response to previously answered questions above.

1. bidnet direct says the sealed bid envelope must be marked "Swift Community Center Expansion." The EG ITB says the sealed bid envelope must be marked "Proposal for the Swift Community Center Expansion, East Greenwich, Rhode Island." Which one is it? 2. Both bidnet direct and the EG ITB say "Permit fees normally charged by the Town are waived, however, all other permit fees, application fees, including State of RI ADA fees." Please finish these sentences. ... "must be paid."? "must be included."? Other? 3. The EG ITB item #3 says "The date of Substantial Completion is October 31, 2026." I think October 31, 2025 was mentioned at the Pre-Bid Conference on 11/20/24; please confirm the correct date.

- A Mark sealed bid envelope "Proposal for the Swift Community Center Expansion, East Greenwich, Rhode Island."
- A Permit fees normally charged by the Town are waived, however, all other permit fees, application fees, including State of RI ADA fees shall be the responsibility of the contractor.
- A The project must be substantially complete by October 31, 2026 in accordance with the grant funding. However, it is the intent to start construction this spring and be complete prior to the end of 2025.
- Q18. Panel PL1A circuit #18 description "DHC-1 Corridor 229". Please confirm this should be "DHC-1 - Multi-Purpose 227" as shown on drawings E-101 and M-101. Or is there a 2nd DHC-1 unit?
 - A PL1A-18 is labeled incorrectly and should be DHC-1 Multi-Purpose 227. This will be corrected in Addendum #1.
- Q19. Please confirm that elevation marks 3/A201 & 4/A-201 should be 1 & 3 respectively.
 - A There are three Exterior Elevations on Sheet A-201; Detail 1 North Elevation, Detail 2 East Elevation, Detail 3 West Elevation
- **Q20.** Please confirm that Meeting Room 232 should be labeled Hallway 232.
 - A Correct
- Q21. Is a builder's risk policy required, if so, will the cost be the responsibility of the owner or the GC?
 - A Builder's Risk policy is required and shall be the responsibility of the contractor.
- **Q22.** What is the anticipated start date?
 - A It is anticipated that the project be awarded at the Town Council meeting following the opening of bids. It is expected that the contractor shall start construction this Spring (2025).



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Q23.	This project has liquidated damages. At time of award will the owner work with the
	contractor to establish an agreeable schedule based on long lead items, and the
	contractor will not be penalized by liquidated damages for any long lead items that we
	cannot control delivery on?
	A - No. The date of Substantial Completion is October 31, 2026. The project must be
	complete to ensure grant funding. Liquidated damages shall be enforced if the
	project extends past this date.
Q24.	Wil any fire review fees be paid by the owner?
	A - Permit fees normally charged by the Town are waived, however, all other
	permit fees, application fees, including State of RI ADA fees shall be the
	responsibility of the contractor. The owner will not be responsible for any permit
	fees that are not waived by the town.
Q25.	Is there an OPM on this project, if so, what is the firm?
	A - There is no OPM associated with the project at this time.
Q26.	Is there an MBE goal for this project?
	A - Yes. Adhere to the State of Rhode Island General Laws §37-14.1. See Section 00 73
	00 Minority Business Enterprise Requirements and Women Business Enterprise
	Participation Requirements (Attached)
Q27.	Can you please confirm the are no allowances?
	A - Correct. Allowances are not identified in the project.
Q28.	Please confirm the UOM for the masonry unit price.
	A - The unit of measure (UOM) for the Masonry Repointing listed in the Bid Form of
	the Bid Document is square feet (SF)
Q29.	Note W2, Is the masonry restoration work to be part of the base bid or will it be paid as
	a change order with the unit pricing provided?
	A - The work associated with Exterior Elevation Note W2 is to cut out and replace a
	total of 5 damaged bricks. Exact location to be determined in the field. This work is
	to be included in the base bid. Removal and replacement of individual bricks in
	excess of the 5 included in the base bid would be a change to the contract in
	accordance with the unit pricing provided in the Bid Form.
Q30.	Please confirm the focus room in the project manual is F&I by the owner?
	A - No. Focus Rooms shall be furnished and installed by the Contractor.
Q31.	Please confirm only the bathroom is part of alternate # 1 and all the other new work
	shown on A101 in the existing building is part of the base bid.
	A - Correct. Only the Toilet room is included in Alternate #1. Refer to response to
	previously answered in question above.



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Q32.	Are the partitions in the existing building to be installed below the existing ACT or is the
	ACT to be modified for the partitions to extend to the deck?
	A - The existing suspended acoustical ceiling system shall be modified to
	accommodate the new partitions which extend to the underside of roof deck.
Q33.	Can you provide a specification for the exterior expansion joint materials shown on
	A201?
	A - Refer to Section 07 91 00 Exterior Wall Joint Seals (Attached.)
Q34.	Can you provide a specification for the air vapor barrier over the exterior wall?
	A - Refer to Section 07 27 00 Fully Adhered Air and Water Resistive Barriers for Air &
	Vapor Barrier and Closed Cell Spray Foam Insulation information. (Attached)
Q35.	Are we to F&I the window treatments WT-1 as shown on the finish schedule?
	A - Yes. Items indicated in the construction documents are the responsibility of the
036	contractor.
Q30.	3/ASUL references 1/ASU2 for wall types, but none are shown, please advise.
027	A - Rejer to Revised Sheets ASO2 and ASOS. (Allached)
Q37.	A Correct Structural specification information is provided on the drawings
030	A - Correct. Structural specification information is provided on the drawings.
Q30 .	A - Refer to note in detail 1/S100 "Sten footing as required so bottom of new footing
	A - Neger to note in detail 1/3100. Step jobting us required so bottom of new jobting matches bottom of existing footing (typical at 2 locations) – undernin existing wall
	footing as required if existing bottom is above required frost denth elevation
039.	Are we to include engineering for CEME as delegated design?
Q 001	A - The final design of the cold-formed metal framing (CEMF) construction will be
	delegated to the Cold Form Steel Framing Supplier (in accordance with drawing
	notes on Sheet S-000).
Q40.	Are we to install a new partition over the existing exterior brick wall at the addition or
-	do we leave it exposed? If so, what is the partition type?
	A - The existing brick exterior wall shall remain exposed except at areas of wall infill
	at removed windows.
Q41.	Note 5, sheet A201. Please provide information regarding the insulated metal panel arch
	at the window transom? The arches are not detailed on the window schedule.
	A - Refer to Section 08 44 00 Insulated Metal Infill Panel (Attached.)
Q42.	What Veneer will be used for wood doors? There's nothing in spec. Are IMC Doors just
	standard flush wood doors? Can you confirm, Door 001 exterior part of door is
	aluminum clad interior part is veneer?
	A - Provide Natural Birch veneer for flush wood doors.

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- A IMC doors are insulated metal clad exterior doors. Replace Section 08 12 13 Hollow Metal Frames with Section 08 11 13 Hollow Metal Doors and Frames. (Attached)
- A Correct. Refer to Section 08 14 23 Ultimate Commercial Door. Door 001 shall have an aluminum clad exterior skin and a laminated veneer lumber core interior.

Drawing Revisions:

- 1. E-000
 - a. Added fire alarm devices to the symbol legend.
 - b. Added a Fire alarm system description.
- 2. ED101
 - a. Added fire alarm devices to be demolished.
- 3. E-101
 - a. Added new fire alarm devices.
 - b. Revised the location of the new electrical panel PL1A to the adjacent wall with the storage room.
- 4. E-600
 - a. Added a circuit breaker for the added NAC panel.
 - b. Revised the description of PL1A-18.
- 5. M-101
 - a. General notes added
- 6. M-500
 - a. Diffuser and return grille schedules updated to reflect drawings.

Specification Revisions:

- 1. Section 07 27 00 Fully Adhered Air and Water Resistive
 - a. Add section to Contract Documents
- 2. Section 00 73 00 Minority Business Enterprise Requirements and Women Business Enterprise Participation Requirements
 - a. Add section to Contract Documents
- 3. Section 07 91 00 Exterior Wall Joints
 - a. Add section to Contract Documents
- 4. Section 08 11 13 HM Doors & Frames
 - a. Add Section to Contract Documents
 - b. Omit Section 08 12 13 Hollow Metal Frames
- 5. Section 08 44 00 Aluminum Insulated Infill Panel
 - a. Add Section to Contract Documents

Attachments:

1. E-000 Electrical Cover Sheet



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- 2. ED101 Electrical Demolition Plan
- 3. E-101 Electrical Plans
- 4. E-600 Electrical Single Line Diagram & Panel Schedule
- 5. M-101 Mechanical New Work Plan
- 6. M-500 Mechanical Schedules
- 2. Section 07 27 00 Fully Adhered Air and Water Resistive
- 6. Section 00 73 00 Minority Business Enterprise Requirements and Women Business Enterprise
- 7. Section 07 91 00 Exterior Wall Joints
- 8. Section 08 11 13 HM Doors & Frames
- 9. Section 08 44 00 Aluminum Insulated Infill Panel



SECTION 00 73 00

MINORITY BUSINESS ENTERPRISE REQUIREMENTS AND WOMEN BUSINESS ENTERPRISE PARTICIPATION REQUIREMENTS

Under Rhode Island General Laws §37-14.1, Minority business enterprises shall be included in all procurements and construction projects under this chapter and shall be awarded a minimum of fifteen percent (15%) of the dollar value of the entire procurement or project. Of that fifteen percent (15%), minority business enterprises owned and controlled by a minority owner, shall be awarded a minimum of seven and one-half percent (7.5%), and minority business enterprises owned a minimum of seven and one-half percent (7.5%).

The successful bidder shall report on applicable participation within ten (10) days after receipt of Notice of Award.

END OF SECTION

SECTION 07 27 00

FULLY-ADHERED AIR AND WATER RESISTIVE BARRIERS

PART 1 GENERAL

1.01 GENERAL PROVISIONS

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

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide labor, materials and equipment necessary to complete the fork of the Section, including but not limited to the following
 - 1. Fully-adhered vapor permeable and non-permeable air and water resistive barriers in exterior wall assemblies.
 - 2. Miscellaneous flashing, sealants, and related accessories to provide a continuous assembly and transition to adjacent materials and assemblies.

1.03 RELATED SECTIONS

- A. Division 04 Section for Unit Masonry
- B. Division 06 Section for Exterior Sheathing
- C. Division 07 Section for Thermal Insulation
- D. Division 07 Section for Sheet Metal Flashing and Trim

1.04 REFERENCES

- A. American Association of Textile Chemists and Colorists (AATCC) Test Method 127. "Water Resistance Hydrostatic Pressure Test"
- B. American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1-2010 "Energy Standard for Buildings Except Low-Rise Residential Buildings"
- C. ASTM C 1305 Standard Test Method for Crack Bridging Ability of Liquid-Applied Waterproofing Membrane
- D. ASTM D 1876 Standard Test Method for Peel Resistance of Adhesive
- E. ASTM D 4541 Standard Test Method for Pull-Off Strength of Coatings Using Portable Adhesion Testers
- F. ASTM E 84 Standard Test Method for Surface Burning Characteristics of Building Materials
- G. ASTM E 96 Standard Test Methods for Water Vapor Transmission of Materials.
- H. ASTM E 783 Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors
- I. ASTM E 1105 Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform or Cyclic Static Air Pressure Difference.
- J. ASTM E 1354 Standard Test Method for Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter
- K. ASTM E 2178 Standard Test Method for Air Permeance of Building Materials
- L. ASTM E 2357 Standard Test Method for Determining Air Leakage of Air Barrier Assemblies
- M. National Fire Protection Association (NFPA) 285 Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components

1.05 DESIGN / PERFORMANCE REQUIREMENTS

- A. General: Installed product and accessories constitute a continuous air barrier, as described in ASHRAE Standard 90.1-2016 and IECC 2018. Air barrier shall be capable of performing as a continuous air barrier and as a liquid-water drainage plane flashed to discharge to the exterior incidental condensation or water penetration. Air barrier assemblies shall be capable of accommodating substrate movement and of sealing substrate expansion and control joints, construction material changes, penetrations, and transitions at perimeter conditions without deterioration and air leakage exceeding specified limits.
- B. Installed product and accessories shall exhibit an air leakage rate, infiltration and exfiltration modes, measured after pressure cycling, not to exceed 0.040 CFM/ft2 at 1.57 PSF (0.2 L/s*m2 at 75 Pa) according to ASTM E 2357.
- C. Where identified as a vapor retarder, installed product and accessories shall perform as a Class I vapor retarder, installed on the predominantly warm side of the insulation.
- D. For Type I, II, III and IV construction: Installed product and accessories shall be evaluated to NFPA 285 in wall assemblies of Project.

1.06 SUBMITTALS

- A. Product Data: Include manufacturer's material description, data sheet, technical guide, material safety data sheets, and guide details, for each type of system to be used on the project.
- B. Shop Drawings: Show locations and extent of air barrier. Include details for substrate joints and cracks, counterflashing strip, penetrations, inside and outside corners, terminations, and tie-ins with adjoining construction.
 - 1. Include interfaces with other materials that form part of the air barrier.
 - 2. Include details of mockups.
- C. Samples for Verification: Provide two samples of product and transition flashing for each type of system to be used.
- D. Cavity Wall AVB Certification: For Type I, II, III and IV construction, submit manufacturer's third-party engineering report(s) that demonstrate the vapor permeable and non-permeable air and water resistive barrier systems, as designed in the assembly(s) indicated in the drawings, meets the acceptance criteria of NFPA 285.

1.07 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in production of air and water-resistive barrier assemblies of the type specified with a minimum 10 years documented experience.
- B. Installer Qualifications: Company specializing in installation of air and water-resistive barrier assemblies of the type specified with a minimum 5 years documented experience &/or 3 projects of equivalent size and scope.
- C. Source Limitations: Obtain all products and accessories through one source from a single manufacturer.
- D. Pre-installation Meetings: Conduct pre-installation meeting at the project site to comply with the requirements of Division 01. The following items shall be reviewed, but are not limited to:
 - 1. Project requirements.
 - 2. Substrate conditions.
 - 3. Manufacturer's installation instructions.
 - 4. Project specific wall assembly(s) and cladding attachment method(s).
 - 5. Temporary protection requirements during and after installation.
 - 6. Installation sequencing and coordination with adjacent trades and work.
 - 7. Required testing and inspection protocols.

E. Cooperate and coordinate with the Owner's inspection and testing agency. Do not cover any installed Product unless it has been inspected, tested and approved.

1.08 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials to Project site in original packages with seals unbroken, labeled with manufacturer's name, product, lot number and directions for storage.
- B. Store materials in their original undamaged packages in a clean, dry, protected location and within temperature range required by Manufacturer.
- C. Avoid spillage. Immediately notify Owner, Architect, if spillage occurs and start clean up procedures. Clean spills and leave area as it was prior to spill.

1.09 PROJECT CONDITIONS

- A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit installation of air and water-resistive barrier materials to be performed according to manufacturers' written instructions and warranty requirements.
- B. Observe safety and environmental measures indicated in manufacturer's MSDS, and mandated by federal, state and local regulations.

1.10 WARRANTY

- A. Provide manufacturer's standard limited material warranty.
- B. Warrant the workmanship of the installed system for a period of 2 years from the date of substantial completion against defects.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. General: Provide fully-adhered vapor permeable and non-permeable air and water resistive barriers in exterior wall assemblies including flashing, sealants, and related accessories to provide a continuous assembly and transition to adjacent materials and assemblies.
 - 1. Carlisle Coatings & Waterproofing, Inc. (CCW)
 - 2. Henry Company
 - 3. W.R. Meadows
 - 4. Or approved equal
- B. Basis of Design: Carlisle Coatings & Waterproofing (CCW)
 - 1. Local representative is PACE Representatives, located at 1 Rockdale Street; Braintree, MA 02184; Tel: 781-541-5060; Web: www.pacerepresentatives.com.

2.02 FLUID-APPLIED, VAPOR RETARDING, AIR AND WATER RESISTIVE BARRIER – FIRE RESISTANT

- A. General: Product shall consist of nominal 0.040 inch (40 mils) dry-thickness fluid-applied membrane consisting of vapor retarding fire-resistance materials and performance requirements indicated below:
 - 1. Water Resistance to Hydrostatic Pressure (AATCC 127 modified): No leakage through membrane
 - 2. Air Permeance (ASTM E2178): Not to exceed 0.004 CFM/ft2 at 1.57 PSF
 - 3. Assembly Air Leakage (ASTM E2357: Not to exceed 0.040 CFM/ft2 at 1.57 PSF
 - 4. Vapor Permeance (ASTM E96B): Not to exceed 1 perm
 - 5. Fastener Sealability (ASTM D1970): Pass
 - 6. Surface Burning Characteristics (ASTM E84)
 - a. Flame Spread Index: Not to exceed 25
 - b. Smoke Generation Index: Not to exceed 200
 - c. Measurement of Heat Release by Cone Calorimeter (ASTM E1354):

- 1) Effective Heat of Combustion of 8.2 MJ/kg or less
- 2) Peak heat release rate of 195 kW/m2 or less
- 3) Total heat release rate of 12.9 MJ/m2 or less
- d. Fire Test Performance: Meets acceptance criteria for NFPA 285, Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components as designed in the assembly(s) indicated in the drawings.
- B. Basis of Design: Carlisle Coatings & Waterproofing; CCW Barritech NP

2.03 AUXILIARY MATERIALS

- A. General: Auxiliary materials recommended by air barrier manufacturer for intended use and compatible with air barrier. Liquid-type auxiliary materials shall comply with VOC limits of authorities having jurisdiction.
- B. Primer: Liquid waterborne or solvent-borne primer recommended for substrate by manufacturer of air barrier material.
- C. Counterflashing Strip: Modified bituminous 40-mil-thick, self-adhering sheet consisting of 32 mils of rubberized asphalt laminated to an 8-mil-thick, crosslaminated polyethylene film with release liner backing.
- D. Butyl Strip at Termination with EPDM or TPO Roofing Membrane: Vapor-retarding, 30- to 40mil-thick, self-adhering; polyethylene-film-reinforced top surface laminated to layer of butyl adhesive, with release liner backing.
- E. Termination Mastic: Cold fluid-applied elastomeric liquid; trowel grade.
- F. Substrate Patching Membrane: Manufacturer's standard trowel-grade substrate filler.
- G. Adhesive and Tape: Air barrier manufacturer's standard adhesive and pressure-sensitive adhesive tape.
- H. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304, 0.0187 inch thick, and Series 300 stainless-steel fasteners.
- I. Sprayed Polyurethane Foam Sealant to Fill Gaps at Penetrations and Openings: one- or twocomponent, foamed-in-place, polyurethane foam sealant, 1.5 to 2.0 lb/cu. ft. density; flame spread index of 25 or less according to ASTM E 162; with primer and noncorrosive substrate cleaner recommended by foam sealant manufacturer.
- J. Joint Sealant: ASTM C920, single-component, neutral-curing silicone, Class 100/150 (low-imodulus), Grade NS, Use NT related to exposure, and, as applicable to joint substrates indicated, Use O. Comply with Division 07 Section for Joint Sealants.
- K. Preformed Silicone-Sealant Extrusion to Seal Air Barrier Terminations with Glazing Systems: Pre-cured silicone extrusion consisting of cured low-modulus silicone extrusion, sized to fit opening widths, with manufacturer's recommended sealant for bonding extrusions to substrates.
- L. Available Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. ELBEX HS-222; Silicone Transition Sheet
 - 2. Dow Corning Corporation; Silicone Transition Strip
 - 3. Or approved equal meeting the following performance:
 - a. Tensile Strength (ASTM D412): =1000 psi
 - b. Tear Strength (ASTM D624): =200 ppi
 - c. Elongation (ASTM D412): =400%

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions affecting installation of the air & vapor barrier and accessory products for compliance with requirements. Verify that surfaces and conditions are suitable prior to commencing Work of this section. Do not proceed with installation until unsatisfactory conditions have been corrected.
- B. Verify that wall assemblies are dried in, such that water intrusion will not occur from above, behind or around the air barrier installation.
- C. Concrete shall be cured for a minimum of seven days. It shall be smooth, with sharp protrusions such as form joints ground flush. Honeycomb and holes/cracks exceeding ¼ inch across shall be filled with grout or mortar.
- D. Surfaces shall be sound, dry and free of oil, grease, dirt, excess mortar or other contaminants.
- E. Surfaces shall be supported and flush at joints without large voids or sharp protrusions.
- F. Mortar joints shall be struck flush and shall be free of voids exceeding ¼ inch across. Mortar droppings shall be removed from brick ties and all other surfaces accepting air barrier.
- G. Sheathing boards shall be flush at joints, with gaps between boards according to building code and sheathing manufacturer's requirements. Sheathing boards shall also be securely fastened to the structure with proper fastener type, technique and spacing according to building code and sheathing manufacturer's requirements. Sheathing boards shall be repaired or replaced if inspection reveals moisture damage, mechanical damage or if sheathing boards have exceeded the exposure duration or exposure conditions as required by the sheathing manufacturer.
- H. Plywood, OSB, lumber or pressure-treated wood moisture content, measured with a wood moisture meter in the core of the substrate, shall be below 20%.
- I. Inform Architect [Consultant] [Owner] in writing of
 - 1. Cracks in concrete and masonry.
 - 2. Gaps or obstructions such as steel beams, angles, plates and projections which cannot be spanned or covered by Product or Accessories.
 - 3. Anticipated problems applying Product and Accessories over substrate.

3.02 PREPARATION

- A. Fill cracks, gaps and joints exceeding ¹/₄ inch width with fill compound or polyurethane sealant.
- B. Fill rough gaps around pipe, conduit and similar penetrations with mortar, non-shrink grout, fill compound or polyurethane foam sealant shaved flush.
- C. Apply a ³/₄ inch cant of fill compound at the intersection of the base of the wall and the footing.

3.03 INSTALLATION

- A. Apply product over opaque wall surfaces as indicated in Project drawings.
- B. Allow sealants used during surface preparation to cure fully before applying product.
- C. Apply contact adhesive to all surfaces accepting product, according to manufacturer's instructions.
- D. Apply product to prepared surfaces according to manufacturer's instructions and drawings.
- E. Sequence installation to provide shingled laps. Lap neighboring sheets 2 inches minimum.
- F. Install detail flashing or transition membrane according to manufacturer's drawings and instructions at expansion joints, seismic joints, mechanical/electrical penetrations and similar conditions.

G. Install detail mastic, polyurethane sealant or silicone sealant covering non-water shedding laps, penetrations and similar surface defects.

3.04 SCHEDULE & SEQUENCING

- A. Wall substrates and roof or temporary roof shall be in place, effectively enclosing interior space before proceeding with air barrier installation
- B. Seal penetrations made through installed product according to manufacturer's instructions and drawings.
- C. Seal fenestration to product with detail membrane, transition membrane, polyurethane sealant, silicone sealant or polyurethane foam sealant according to Project drawings
- D. Through-wall flashing may be installed before or after product. Seal termination of metal through-wall flashing to product with 6 inch width detail flashing.
- E. Cladding shall be installed after product.
- F. Rigid or semi-rigid insulation installed over product shall be attached with insulation adhesive and mechanical fastening according to insulation manufacturer and air barrier manufacturer's instructions.
- G. Sequence Work to enable air barrier continuity at wall-to-foundation, shelf angle, wall-to-roof, fenestration, different wall assemblies and other conditions providing challenges to air barrier continuity.

3.05 CLEANING AND PROTECTION

- A. Protect from damage during application and remainder of construction period.
- B. Inspect before covering. Repair or replace damaged material according to Manufacturer's instructions and drawings.
- C. Product and accessories are not designed for permanent exposure. Cover with insulation or exterior cladding as soon as schedule allows.
- D. Outdoor exposure of installed product and accessories shall not exceed 180 days.

END OF SECTION

SECTION 07 91 00

EXTERIOR WALL JOINT SEALS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Preformed, precompressed, expanding foam joint seals for expansion joints in exterior walls.
- B. Related Sections:
 - 1. Division 01: Administrative, procedural, and temporary work requirements.
 - 2. Section 07 92 00 Joint Sealants.

1.2 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Conference:
 - 1. Convene at Project site 2 weeks prior to beginning work of this Section.
 - 2. Attendance: Architect, Contractor, Construction Manager, joint seal installer, and related trades
 - 3. Review and discuss:
 - a. Joint seal manufacturer's requirements, project conditions, allowable structural movement at joints, and protection of completed work.
 - b. Transitions in plane and direction, and requirement for continuity of seal through watertight transitions from wall expansion joint to other interfacing expansion joint systems at adjacent construction.

1.3 SUBMITTALS

- A. Action Submittals:
 - 1. Shop Drawings:
 - a. Indicate joint locations, dimensions, and adjacent construction.
 - b. Provide details for transitions in plane and direction for continuity of seal through watertight transitions from wall expansion joint to other interfacing expansion joint systems at adjacent construction.
 - 2. Product Data: Material description and application instructions.
 - 3. Samples:
 - a. Minimum 2 x 2 inch joint seal samples showing available colors.
 - b. Minimum 6 inch long samples of each joint seal.
- B. Informational Submittals:
 - 1. Manufacturer's certification that:
 - a. Products are capable of withstanding temperature of 150 degrees F (65 degrees C) for 3 hours while compressed to minimum of movement capability dimension without evidence of bleeding of impregnation medium from material.
 - b. Same material after heat stability test and after cooling to room temperature will selfexpand to maximum of movement capability dimension within 24 hours at 68 degrees F (20 degrees C).
- C. Sustainable Design Submittals: Refer to Division 01.

1.4 QUALITY ASSURANCE

- A. Manufacturer Qualifications:
 - 1. Minimum 10 years experience in production of specified materials.

B. Installer Qualifications: Minimum 2 years experience in work of this Section.

1.5 DELIVERY, STORAGE AND HANDLING

A. In accordance with manufacturer's instructions.

PART 2 PRODUCTS

- 2.1 MANUFACTURERS
 - A. Contract Documents are based on products by Sika Emseal, 800-526-8365, www.emseal.com.
 - B. Substitutions: Refer to Division 01.

2.2 MATERIALS

- A. Exterior Wall Joint Seal:
 - 1. Source: Emshield WFR2 by Sika Emseal.
 - 2. Description: Silicone coated, ultraviolet resistant, dual-faced, fire-rated, watertight primary wall seal.
 - 3. Form: Precompressed to less than design joint size, packaged in shrink-wrap packaging.
 - 4. Fire protection rating: 2 hours, tested to UL 2079.
 - 5. Movement capability: Plus and minus 50% (total 100%) of nominal material size.
 - 6. R-value: 1.03 per inch depth at nominal joint size compression, tested to ASTM C518.
 - 7. STC rating: 62 in STC 68 wall, tested to ASTM E90.
 - 8. OITC rating: 52 in OITC 52 wall, tested to ASTM E90.
 - 9. Air permeability: Maximum 0.02 liter per second per square meter, tested to ASTM E283 at 75 Pa.
 - 10. Water penetration: No water penetration, tested to ASTM E331 at 5000 Pa test pressure.
 - 11. Wind loading: No deflection, tested to ASTM E330 at 4954 Pa or 200 MPH wind.
 - 12. VOC Emissions: CDPH-1.2-2017: Pass
 - 13. Color: To be selected from manufacturer'sl full color range.
 - 14. Adhesive: Epoxy type, furnished by joint seal manufacturer.
 - 15. Silicone: Field applied corner bead at face of seal to substrate interface, furnished by joint seal manufacturer, in same material and color as used in factory coating.
 - a. Abrasion Resistance: Less than 1% weight loss, tested to ASTM D4060
 - b. Fuel Resistance: Pass, tested to ASTM C719/C1135
 - 16. Intumescent Sealant: Field applied to face of joints, furnished by joint seal manufacturer.

PART 3 EXECUTION

3.1 PREPARATION

A. Clean joints thoroughly; remove loose and foreign matter that could impair adhesion or performance.

3.2 INSTALLATION

- A. Install joint seal in accordance with Sika Emseal instructions and approved Shop Drawings.
- B. Remove joint seal from precompressed packaging, immediately insert into joint, and allow to expand.
- C. Use temporary retainers if required to maintain joint seals in position until expansion is complete.

END OF SECTION

SECTION 08 11 13 HOLLOW METAL DOORS AND FRAMES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Non-fire-rated steel door frames.
- B. Non-fire-rated steel doors.
- C. Steel frames for wood doors.
- D. Fire-rated steel doors and frames.
- E. Thermally insulated hollow metal doors with frames.

1.02 RELATED REQUIREMENTS

- A. Section 01 61 16 Volatile Organic Compound (VOC) Content Restrictions.
- B. Section 01 78 39 Construction Waste Management and Disposal: Limitations on disposal of removed materials; requirements for recycling.
- C. Section 08 71 00 Door Hardware.
- D. Section 08 80 00 Glazing: Glass for doors and borrowed lites.
- E. Section 09 90 00 Painting and Coating: Field painting.

1.03 REFERENCE STANDARDS

- A. ADA Standards 2010 ADA Standards for Accessible Design; 2010.
- B. ANSI/ICC A117.1 American National Standard for Accessible and Usable Buildings and Facilities; International Code Council; 2009.
- C. ANSI/SDI A250.8 Specifications for Standard Steel Doors and Frames (SDI-100); 2023.
- D. ANSI/SDI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames; 2020.
- E. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2023.
- F. ASTM A1008/A1008M Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable; 2021a.
- G. ASTM A1011/A1011M Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength; 2023.
- H. ASTM C143/C143M Standard Test Method for Slump of Hydraulic-Cement Concrete; 2020.
- I. ASTM C476 Standard Specification for Grout for Masonry; 2023.
- J. ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials; 2023c.
- K. BHMA A156.115 Hardware Preparation in Steel Doors and Frames; 2016.
- L. DHI A115 Series Specifications for Steel Doors and Frame Preparation for Hardware; Door and Hardware Institute; 2000 (ANSI/DHI A115 Series).
- M. NAAMM HMMA 840 Guide Specifications for Receipt, Storage and Installation of Hollow Metal Doors and Frames; 2024.
- N. NAAMM HMMA 861 Guide Specifications for Commercial Hollow Metal Doors and Frames; 2014.

1.04 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: Materials and details of design and construction, hardware locations, reinforcement type and locations, anchorage and fastening methods, and finishes; and one copy of referenced grade standard.
- C. Shop Drawings: Details of each opening, showing elevations, glazing, frame profiles, and identifying location of different finishes, if any.
- D. Samples: Submit two samples of metal, 2 x 2 inches in size showing factory finishes, colors, and surface texture.
- E. Installation Instructions: Manufacturer's published instructions, including any special installation instructions relating to this project.
- F. Manufacturer's Certificate: Certification that products meet or exceed specified requirements.
- G. North East Collaborative for High Performance Schools (NECHPS) Submittals: Items necessary to document use of sustainable construction materials, products, and practices.

1.05 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.
- C. Maintain at the project site a copy of all reference standards dealing with installation.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Store in accordance with NAAMM HMMA 840.
- B. Protect with resilient packaging; avoid humidity build-up under coverings; prevent corrosion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Steel Door Frames:
 - 1. Ceco Door, an Assa Abloy Group company; _____: www.assaabloydss.com/#sle.
 - 2. Assa Abloy Ceco, Curries, or Fleming: www.assaabloydss.com/#sle.
 - 3. Mesker, dormakaba Group: www.meskeropeningsgroup.com/#sle.
 - 4. Republic Doors, an Allegion brand: www.republicdoor.com/#sle.
 - 5. Steelcraft, an Allegion brand; ____: www.allegion.com/#sle.
 - 6. Steelcraft: www.steelcraft.com.
 - 7. Phillip Manufacturing Company
 - 8. Substitutions: See Section 01 60 00 Product Requirements.

2.02 DOORS AND FRAMES

- A. Requirements for All Door Frames:
 - 1. Steel Sheet: Comply with one or more of the following requirements; galvannealed steel complying with ASTM A653/A653M, cold-rolled steel complying with ASTM A1008/A1008M, or hot-rolled pickled and oiled (HRPO) steel complying with ASTM A1011/A1011M, commercial steel (CS) Type B, for each.
 - 2. Accessibility: Comply with ANSI/ICC A117.1.
 - 3. Exterior Door Top Closures: Flush end closure channel, with top and door faces aligned.
 - 4. Door Edge Profile: Manufacturers standard for application indicated.
 - 5. Finish: Factory primed, for field finishing.

2.03 STEEL DOORS

- A. Exterior Doors :
 - 1. Grade: ANSI A250.8 Level 3, physical performance Level A, Model 1, full flush.
 - 2. Core: Polyurethane.
 - a. Foam Plastic Insulation: Manufacturer's standard board insulation with maximum flame spread index (FSI) of 75, and maximum smoke developed index (SDI) of 450 in accordance with ASTM E84, and completely enclosed within interior of door.
 - 3. Door Thermal Resistance: R-Value of 6.0 minimum, for installed thickness of polystyrene.
 - 4. Door Thickness: 1-3/4 inches, nominal.
 - 5. Top Closures for Outswinging Doors: Flush with top of faces and edges.
 - 6. Galvanizing: All components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A60/ZF180 coating.
 - 7. Texture: Smooth faces.
 - 8. Weatherstripping: Separate, see Section 08 71 00.
 - 9. Glazing: Seperate, see Section 08 80 00.
 - 10. Finish: Factory primed, for field finishing.
- B. Interior Doors, Fire-Rated:
 - 1. Fire Rating: As indicated on Door and Frame Schedule, As indicated on drawings, 1-1/2 hours tested in accordance with UL 10C ("positive pressure"), UL 10B or NFPA 252 ("neutral pressure").
 - a. Provide units listed and labeled by UL or WH.
 - b. Attach fire rating label to each fire rated unit.
 - 2. Core: Mineral fiberboard.
 - 3. Door Thickness: 1-3/4 inches, nominal.
 - 4. Texture: Smooth faces.
 - 5. Finish: Factory primed, for field finishing.

2.04 STEEL FRAMES

- A. General:
 - 1. Comply with the requirements of grade specified for corresponding door.
 - a. Frames for Wood Doors: Comply with frame requirements specified in ANSI A250.8 for Level 1, 16 gage
 - 2. Finish: Factory primed, for field finishing.
 - 3. Frames Wider than 48 Inches: Reinforce with steel channel fitted tightly into frame head, flush with top.
- B. Exterior Door Frames: Fully welded.
 - 1. Galvanizing: All components hot-dipped zinc-iron alloy-coated (galvannealed) in accordance with ASTM A653/A653M, with A60/ZF180 coating.
 - 2. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
 - 3. Finish: Factory primed, for field finishing.
 - 4. Weatherstripping: Integral, recessed into door edge or frame.
- C. Interior Door Frames, Non-Fire-Rated: Fully welded type.
 - 1. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
 - 2. Finish: Factory primed, for field finishing.
- D. Door Frames, Fire-Rated: Full profile/continuously welded type.
 - 1. Fire Rating: Same as door, labeled.
 - 2. Terminated Stops: Provide at interior doors; closed end stop terminated 6 inch, maximum, above floor at 45 degree angle.
 - 3. Frame Metal Thickness: 16 gage, 0.053 inch, minimum.
 - 4. Finish: Factory primed, for field finishing.

- E. Frames for Wood Doors: Comply with frame requirements in accordance with corresponding door.
- F. Mullions for exterior Pairs of Doors: Removable type, with profile similar to jambs.
- G. Provide mortar guard boxes for hardware cut-outs in frames to be installed in masonry or to be grouted.
- H. Frames in Masonry Walls: Size to suit masonry coursing with head member 4 inch high to fill opening without cutting masonry units.

2.05 FINISHES

- A. Primer: Rust-inhibiting, complying with ANSI/SDI A250.10, door manufacturer's standard.
- B. Bituminous Coating: Cold-applied asphalt mastic, compounded for 15 mil, 0.015 inch dry film thickness (DFT) per coat; provide inert-type noncorrosive compound free of asbestos fibers, sulfur components, and other deleterious impurities.
 - 1. Fire-Rated Frames: Comply with fire rating requirements indicated.

2.06 ACCESSORY MATERIALS

- A. Glazing: As specified in Section 08 80 00, factory installed.
- B. Astragals for Double Doors: Specified in Section 08 71 00.
 - 1. Exterior Doors: Steel, Z-shaped.
 - 2. Fire-Rated Doors: Steel, shape as required for fire rating.
- C. Grout for Frames: Mortar grout complying with ASTM C476 with maximum slump of 4 inches as measured in accordance with ASTM C143/C143M for hand troweling in place; plaster grout and thinner pumpable grout are prohibited.
- D. Silencers: Resilient rubber or vinyl, fitted into drilled hole; 3 on strike side of single door, 3 on center mullion of pairs, and 2 on head of pairs without center mullions.
- E. Temporary Frame Spreaders: Provide for all factory- or shop-assembled frames.

2.07 FINISH MATERIALS

- A. Primer: Rust-inhibiting, complying with ANSI A250.10, door manufacturer's standard, baked on.
- B. Bituminous Coating: Asphalt emulsion or other high-build, water-resistant, resilient coating.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify existing conditions before starting work.
- B. Verify that opening sizes and tolerances are acceptable.
- C. Verify that finished walls are in plane to ensure proper door alignment.

3.02 PREPARATION

A. Coat inside of frames to be installed in masonry or to be grouted, with bituminous coating, prior to installation. 8 mil D.F.T.

3.03 INSTALLATION

- A. Install doors and frames in accordance with manufacturer's instructions and related requirements of specified door and frame standards or custom guidelines indicated.
- B. Install fire rated units in accordance with NFPA 80.
- C. Coordinate frame anchor placement with wall construction.
- D. Grout frames in masonry construction, using hand trowel methods; brace frames so that pressure of grout before setting will not deform frames.
- E. Coordinate installation of hardware.

- F. Comply with glazing installation requirements of Section 08 80 00.
- G. Coordinate installation of electrical connections to electrical hardware items.
- H. Touch up damaged factory finishes.

3.04 TOLERANCES

A. Maximum Diagonal Distortion: 1/16 in measured with straight edge, corner to corner.

3.05 ADJUSTING

A. Adjust for smooth and balanced door movement.

3.06 SCHEDULE - SEE DRAWINGS

END OF SECTION

SECTION 08 44 00 INSULATED METAL INFILL PANEL

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

A. The drawings and provisions of the General Conditions, and the sections included under Division 1 specification sections, apply to this section

1.2 SUMMARY

A. This section includes insulated metal infill panels that are used as the exterior and interior cladding

1.3 PERFORMANCE REQUIREMENTS

- A. Design panel system to accommodate tolerance of plus or minus 1/16" in overall panel thickness and plus or minus 1/8" in any direction
- B. Structural Performance: provide exterior and interior wall cladding assemblies to meet effects of load and stresses from wind loads

1.4 SUBMITTALS

- A. Product Data: Manufacturer's product literature
- B. Manufacturer's standard color charts
- C. Finish Samples: submit color samples for final approval
- D. Shop Drawings: submit shop drawings showing plans, sections and details

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum of five years experience in manufacturing of metal wall panel products
- B. Installer Qualifications: Acceptable to manufacturer

1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery: deliver metal panels in manufacturer's crates packed for long haul transit
- B. Storage: store materials in a dry and safe area
- C. Handling: handle materials to avoid any damage to materials and finishes

1.7 WARRANTY

A. The contractor must warrant the materials to be free of defects in accordance with the general conditions. Finish warranty shall be extended by paint manufacturer's standard warranty

PART 2 – PRODUCTS

2.1 MANUFACTURER

- A. Americlad, LLC 21925 Industrial Boulevard, Rogers, Minnesota 55374, Telephone: (866) 260-4047, <u>www.americlad.com</u>
 - 1. AC-4000 Insulated Metal Infill Panel System (one inch five ply panel)
- B. Substitutions: Refer to Section 01 60 00 Product Requirements

2.2 MATERIALS

A. Aluminum Sheet: ASTM B209, Aluminum Association specification 3003-H14/3105-H14/5052-H32 for painted finishes

- B. Thickness: 1" (one inch) overall thickness
- C. Exterior Skin shall be aluminum sheet. Color shall be selected by architect from manufacturer's full line of color selections.
- D. Stabilizer sheet under both faces shall be 1/8" thick
- E. Core shall be 2.5# density Expanded Polystyrene Foam or Polyisocyanurate Foam
- F. Interior Skin shall be aluminum sheet. Color shall be selected by architect from manufacturer's full line of color selections.

2.3 FABRICATION

- A. Tolerances
 - 1. Width and Length to be plus or minus 1/8"
 - 2. Thickness to be plus or minus 1/16"
- B. Panel surfaces shall be free from defects, scratches or marks caused during fabrication

2.4 ACCESSORIES

A. Installer shall supply all materials required for installation

2.5 FINISHES

A. Paint:

- 1. Coating shall be a Spray Applied Fluorocarbon Resin Utilizing a 70% Kynar 500/Hylar 5000 resin
- 2. Color as selected by from paint manufacturer's standard colors or Custom color as specified
- 3. Material to be painted in accordance with either AAMA specification 2605 or 2604

PART 3 – EXECUTION

3.1 PREPARATION

A. Coordinate drawings, diagrams, and instructions for installation

3.2 INSTALLATION

- A. Setting blocks should be at quarter points of each panel and in a width equal or larger than the panel thickness
- B. Panels to be sealed with Class A grade sealants
- C. Weep holes for frame assemblies to accommodate proper draining
- D. The entire panel perimeter should be engaged into the framing system to allow a minimum of 5/8"
- E. A minimum of ¼" of clearance must be maintained around the panel perimeter

3.3 CLEANING AND PROTECTION

- A. Clean exposed surfaces after installation per manufacturer's recommendation
- B. Touch up minor abrasions in finish with touch up paint supplied by finish applicator.

END OF SECTION



<u>TOP OF PARAPET</u> 129.0' V.I.F. ● TOP OF STEEL 127.5' \rightarrow PEDIMENT BEYOND A-502 기문 4 A-502 _____ 4 4 · · · 4 ·

WALL SECTION @ DOOR 001

A-303 SCALE: 1" = 1'-0"







12/4/2024 12:58



WALL SECTION @ SIDE DOOR

A-302 SCALE: 1" = 1'-0"



WALL SECTION @ SIDE WINDOW



E	LECTRICAL SYMBOL LEGEND
Power Dev	ices
φ	GENERAL PURPOSE RECESSED SINGLE RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R, TAMPER RESISTANT. ELECTRICAL BOX TO BE 2-1/8" DEEP.
φ	GENERAL PURPOSE DUPLEX RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R, TAMPER RESISTANT. ELECTRICAL BOX TO BE 2-1/8" DEEP.
#	GENERAL PURPOSE QUADRUPLEX RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R, TAMPER RESISTANT. ELECTRICAL BOX TO BE 2-1/8" DEEP (MIN.).
^{GFCI} ∯ <u>OR</u> ∰ _{GFCI}	GENERAL PURPOSE GFCI RECEPTACLE (DUPLEX OR QUADRUPLEX) - 20AMP, 125VOLTS, NEMA5-20R, TAMPER RESISTANT. ELECTRICAL BOX TO BE 2-1/8" DEEP.
WP/GFCI	GENERAL PURPOSE GFCI DUPLEX RECEPTACLE - 20AMP, 125VOLTS, NEMA5-20R, TAMPER RESISTANT. ELECTRICAL BOX TO BE 2-1/8" DEEP. OUTLETS INSTALLED OUTDOORS OR ON ROOF SHALL HAVE DIECAST ALUMINUM BOX 2-1/8" DEEP (MIN.), AND WHILE IN USE WEATHERPROOF COVER; THOMAS&BETTS CKMUV OR APPROVED EQUAL.
B	JUNCTION BOX
SM	FRACTIONAL HORSEPOWER MOTOR STARTER WITH OVERLOAD IN NEMA 1 ENCLOSURE; SQ'D FG2P OR APPROVED EQUAL FOR INDOORS, FW2P FOR OUTDOORS WITH NEMA 4 ENCLOSURE
R	FUSED DISCONNECT SWITCH-HEAVY DUTY, 3POLE WITH FUSE CLIPS SUITABLE FOR CLASS "R" FUSES. NEMA1 UNLESS NOTED. WP-WEATHER PROOF-NEMA3R ENCLOSURE. (NOMENCLATURE: 30A/20A = SWITCH SIZE/FUSE SIZE). SQ D CLASS 3110 OR EQUAL. DO NOT INSTALL ON TOP OF EQUIPMENT LABELS OR NAMEPLATES.
\$ _H	HORSEPOWER RATED WALL SWITCH -20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE
ighting Co	ontrols
\$	WALL SWITCH - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE
\$ ₃	WALL SWITCH (3-WAY) - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE
\$ 4	WALL SWITCH (4-WAY) - 20A, 120/277V, SINGLE POLE, HEAVY DUTY, TOGGLE TYPE
\$ _{MS}	WALL SWITCH (MOTION SENSOR) - 1000W, 120/277V. LEGRAND / DSW-301-X OR APPROVED EQUAL. COLOR TO BE SELECTED BY ARCHITECT.
MS	MOTION SENSOR, CEILING MOUNTED, 2000 SQFT - HUBBELL / OMNI-DT-2000 OR APPROVED EQUAL. PROVIDE LOW VOLTAGE WIRING TO POWER PACK.
PP	POWER PACK - HUBBELL / UVPP OR APPROVED EQUAL. PROVIDE LOW VOLTAGE WIRING TO MOTION SENSOR. CONNECT TO LOCAL LIGHTING CIRCUIT WITH 2#12 + 1#12G - 3/4"C WIRING.
ommunica	ation Devices
\bigtriangledown	TELECOMMUNICATION OUTLET - DATA WIRING DEVICE WITH RJ45, CAT6 JACKS. PROVIDE 4-PAIR, CAT-6 CABLE BETWEEN EACH JACK AND IDF, (TR) ROOM WITH ADEQUATE SLACK FOR FINAL TERMINATION TO NETWORK OR TELEPHONE PATCH PANEL. NUMBER INSCRIBED IN TRIANGLE SHOWS NUMBER OF JACKS/DROPS AT THAT OUTLET LOCATION. ELECTRICAL BOX TO BE 2-1/8" DEEP.
VS VS	TYPE CX DATA INFORMATION OUTLET FOR VIDEO SURVEILLANCE CAMERA: PROVIDE TYPE CX DATA INFORMATION OUTLET WITH X NUMBER OF DATA CONNECTIONS FOR VIDEO SURVEILLANCE CAMERA(S). MOUNT CONCEALED, ABOVE CEILING WHERE SHOWN, UNLESS OTHERWISE INDICATED. PROVIDE CAT6 20' LONG (MINIMUM) PATCH CABLE TO CONNECT OUTLET TO CAMERA(S). FOR EXTERIOR MOUNT CAMERAS, MOUNT THE TYPE CX DATA INFORMATION OUTLET INSIDE THE BUILDING, AND INSTALL THE PATCH CABLE(S) FROM INSIDE THROUGH THE WALL TO THE CAMERA(S). IN CASES WHERE 20 FOOT PATCH CABLES ARE NOT LONG ENOUGH TO CONNECT VIDEO SURVEILLANCE DATA OUTLETS TO CAMERAS, PROVIDE APPROPRIATELY SIZED PATCH CABLES WITH AT LEAST 6 FEET OF SLACK TO CONNECT THE DATA OUTLETS TO THE CAMERAS. ENSURE ALL PENETRATIONS ARE MADE WEATHER TIGHT. IN CASES WHERE PATCH CABLING IS EXPOSED TO THE EXTERIOR, PROVIDE CAT6 PATCH CABLES THAT ARE RATED FOR EXTERIOR APPLICATIONS.
C	TELEPHONE
Ŷ	CAMERA
₩AP	TYPE C2 DATA INFORMATION OUTLET w/ TWO DATA CONNECTIONS FOR WIRELESS ACCESS POINT CONNECTION AND/OR PA SPEAKER CONNECTION. MOUNT ABOVE CEILING UNLESS OTHERWISE SHOWN OR STATED. C2(WAP). (REFER TO TYPE C2 TELECOMMUNICATION OUTLET FOR CEILING WIRELESS ACCESS POINT DETAIL ON SHEET E-500).
	CONTRACTOR PROVIDED WIRELESS ACCESS POINT (WAP). MOUNT BELOW AND ATTACHED TO CEILING UTILIZING MFGR PROVIDED CEILING MOUNTING KIT IN LOCATION SHOWN UNLESS OTHERWISE SHOWN OR SPECIFIED (REFER TO YYPICAL CEILING MOUNTED WIRELESS ACCESS POINT MOUNTING DETAIL ON SHEET E-500).
ire Alarm	Devices
FACP	FIRE ALARM CONTROL PANEL
NAC	NOTIFICATION APPLIANCE CIRCUIT PANEL
P	MANUAL STATION - PULL STATION/FIRE ALARM BOX
٢	DETECTION DEVICE - SMOKE DETECTOR - PHOTOELECTRIC PRODUCTS OF COMBUSTION DETECTOR
∑ 15cd <u>OR</u> ¤ 15cd	FIELD CONFIGURABLE NOTIFICATION DEVICE (AUDIO/VISUAL) (WALL MOUNTED OR CEILING MOUNTED) - HORN WITH STROBE AS SINGLE ASSEMBLY, REQUIRED CANDELA RATING 'X' INDICATED "X cd".
30cd OR 30cd	FIELD CONFIGURABLE NOTIFICATION DEVICE (AUDIO/VISUAL) (WALL MOUNTED OR CEILING MOUNTED) - HORN WITH STROBE AS SINGLE ASSEMBLY, REQUIRED CANDELA RATING 'X' INDICATED "X cd". CONTRACTOR TO FIELD VERIFY THAT THE BUILDING DOES NOT HAVE A VOICE EVACUATION SYSTEM. PROVIDE A SPEAKER STROBE IF THERE IS A VOICE EVACUATION SYSTEM

- EDITION OF THE NATIONAL ELECTRIC CODE.

- REQUIRE MINOR ADJUSTMENT IN THE FIELD TO SATISFY THE DESIGN INTENT.

- 12. REPAIR AND PATCH ANY DISTURBED AREAS TO MATCH ADJACENT CONSTRUCTION.
- OTHER TRADES PRIOR TO DEMOLITION.

- CIRCUITS. REFER TO SINGLE LINE DIAGRAM.

- THIS PROJECT.
- NOT LIMITED TO NFPA 110 AND NFPA 70.
- OUTAGES WITH OWNER REPRESENTATIVE.
- TROUGHS, AND SPLICE BOXES.
- POLE BRANCH CIRCUIT WIRING.

- GENERATOR BREAKER ACCORDINGLY.

FIRE ALARM SYSTEM: AS REQUIRED BY STATE OF RHODE ISLAND FIRE MARSHALL'S OFFICE.

ELECTRICAL GENERAL NOTES

1. PROVIDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, COORDINATION, ADDITIONAL DESIGN AND ALL INCIDENTALS NECESSARY TO PROVIDE A COMPLETE AND OPERABLE SYSTEM AS DETAILED ON PLANS TO THE SATISFACTION OF THE ENGINEER AND THE OWNER. COORDINATE ALL WORK WITH THE ENGINEER BEFORE THE START OF WORK.

2. PRIOR TO SUBMITTING BID, THE CONTRACTOR SHALL VISIT THE SITE AND BE THOROUGHLY FAMILIAR WITH THE EXISTING CONDITIONS AND PROPOSED CONSTRUCTION. CONTRACTOR SHALL INCLUDE IN THEIR BID ALL MATERIAL, LABOR, AND ALL INCIDENTALS FOR A COMPLETE INSTALLATION WHETHER SPECIFICALLY INDICATED OR NOT. ALL ERRORS, DISCREPANCIES AND MISSED ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER DURING THE BIDDING PROCESS BY THE CONTRACTOR. THESE ITEMS SHALL BE INCLUDED IN THE BID PRICE. NO EXTRA COST WILL BE ALLOWED FOR ANY DISCREPANCY WHICH COULD HAVE BEEN NOTICED AT THE SITE VISIT BY THE CONTRACTOR.

3. PERFORM WORK AS REQUIRED BY APPLICABLE CODES, REGULATIONS, AND LAWS OF LOCAL, STATE, AND FEDERAL GOVERNMENTS AND OTHER AUTHORITIES WITH LAWFUL JURISDICTION. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST

4. MATERIAL AND EQUIPMENT SHALL BE NEW (UNLESS NOTED), UL, NEMA, ANSI, IEEE, ADA & CMB APPROVED FOR INTENDED PURPOSE. MATERIAL AND INSTALLATION SHALL MEET REQUIREMENTS OF NATIONAL AND LOCAL ELECTRICAL CODE. 5. GIVE NOTICES, FILE PLANS, OBTAIN PERMITS, AND LICENSES, PAY FEES AND BACK CHARGES, AND OBTAIN NECESSARY

APPROVALS FROM AUTHORITIES THAT HAVE JURISDICTION. 6. MAINTAIN RECORD DRAWINGS ON SITE. RECORD SET MUST BE COMPLETE AND CURRENT AND AVAILABLE FOR INSPECTION

WHEN REQUISITIONS FOR PAYMENT ARE SUBMITTED. 7. GUARANTEE WORK IN WRITING PER SPECIFICATIONS, REPAIR OR REPLACE DEFECTIVE MATERIALS OR INSTALLATION AT NO

COST TO OWNER DURING THE GUARANTEE PERIOD. CORRECT DAMAGE CAUSED IN MAKING NECESSARY REPAIRS AND REPLACEMENTS UNDER GUARANTEE AT NO COST TO OWNER. SUBMIT GUARANTEE TO OWNER BEFORE FINAL PAYMENT. 8. COORDINATE ALL ELECTRICAL ITEMS WITH EXISTING FIELD CONDITIONS. LOCATIONS SHOWN ARE APPROXIMATE AND MAY

9. DAMAGE TO EXISTING FACILITIES AND EQUIPMENT SHALL BE REPAIRED OR REPLACED IMMEDIATELY BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.

10. THE LOCATIONS ON THESE PLANS ARE APPROXIMATE AND REQUIRE COORDINATION WITH ALL OTHER TRADES AND VERIFICATION OF EXISTING CONDITIONS. ROUTING OF CONDUIT IS DIAGRAMMATIC IN NATURE AND NOT INTENDED TO SHOW ALL REQUIRED OFFSETS AND DETAILS. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL EXISTING ASSOCIATED EQUIPMENT AND CONDITIONS. COORDINATE THE LOCATION OF ALL EQUIPMENT WITH THE ENGINEER AND THE OWNER. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER TRADE'S DRAWINGS AND SPECIFICATIONS AND COORDINATING WITH ALL OTHER TRADES DURING BIDDING AND CONSTRUCTION. THE CONTRACTOR IS TO INCLUDE CIRCUIT LENGTHS OF WIRE AND CONDUIT REQUIRED TO INSTALL CONNECTED DEVICES AND EQUIPMENT SUCH AS PANELBOARDS, SWITCHBOARDS, TRANSFORMERS, ETC. WITHIN 15 FEET OF THE LOCATION SHOWN.

11. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING CONTINUITY OF ALL POWER, CONTROL, FIRE ALARM, SECURITY SYSTEMS, AND COMMUNICATIONS FUNCTIONS TO ALL AREAS AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION.

13. DISCONNECT AND MAKE SAFE ANY EQUIPMENT TO BE REMOVED BY OTHERS. COORDINATE REMOVAL OF EQUIPMENT WITH

14. IN ANY AREA REQUIRING THE PERFORMANCE OF ANY TRADE'S WORK, THIS CONTRACTOR SHALL CAREFULLY REMOVE AND STORE ANY OR ALL ELECTRICAL ITEMS IN PATH OF WORK, REINSTALLING, AND RECONNECTING SAME AS REQUIRED, IN ACCORDANCE WITH THE PLANS AND/OR AS DIRECTED AFTER COMPLETION OF OTHER TRADE'S WORK IN THAT AREA.

15. PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL FIELD VERIFY ALL BRANCH CIRCUITS AND MAINTAIN THOSE CIRCUITS THAT EXTEND OUTSIDE THE SCOPE OF WORK.

16. AFTER RENOVATING EXISTING ELECTRICAL WORK, THE CONTRACTOR SHALL ENSURE THAT ALL REMAINING AND NEW EQUIPMENT WILL OPERATE PROPERLY, INCLUDING BUT NOT LIMITED TO BACKFEEDING OF EXISTING POWER AND LIGHTING

17. ALL ELECTRICAL WORK INDICATED TO REMAIN SHALL BE SUITABLY PROTECTED TO PREVENT ANY DAMAGE.

18. WHERE ELECTRICAL SYSTEMS PASS THROUGH RENOVATED AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, SYSTEMS SHALL BE SUITABLY PROTECTED TO PREVENT DAMAGE OR RELOCATED AND THE SYSTEMS RESTORED TO NORMAL OPERATION. ANY OUTAGES IN SYSTEMS SHALL BE COORDINATED WITH OWNER. RESTORE POWER TO EXISTING TO REMAIN EQUIPMENT IF INTERRUPTED BY DEMOLISHED CIRCUITS IN THE AREA.

19. CONTRACTOR SHALL SUBMIT FOR REVIEW, SHOP DRAWINGS FOR ALL EQUIPMENT AND MATERIALS USED ON THE PROJECT. SUBMITTALS SHALL BE REVIEWED BY THE ENGINEER BEFORE PURCHASE OF MATERIALS.

20. ALL WIRING SHALL BE COPPER, 600V, 75°/90° RATED WITH FLAME-RETARDENT, HEAT AND MOISTURE RESISTANT INSULATION. ALL NEW PANELBOARDS AND SWITCHBOARDS SHALL BE PROVIDED WITH COPPER BUSBARS, COPPER NEUTRAL BARS, AND COPPER GROUND BARS, ALL NEW TRANSFORMERS SHALL HAVE COPPER WINDINGS.

21. PERMANENTLY LABEL ALL NEW ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO, DEVICE DESIGNATION AND SUPPLY CIRCUIT DESIGNATION. UPDATE OR REPLACE PANEL DIRECTORIES TO INCLUDE NEW CIRCUIT INFORMATION RESULTING FROM

22. PROVIDE TEMPORARY POWER AND LIGHTING FOR ALL TRADES AS REQUIRED TO COMPLETE THE PROJECT. ALL TEMPORARY AND INTERIM EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS INCLUDING, BUT

23. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION THAT IS NOT SHOWN ON THE DRAWINGS.

24. OPENINGS IN EXISTING CONCRETE AND MASONRY WALLS AND FLOORS REQUIRED FOR CONDUIT INSTALLATION SHALL BE CORE DRILLED. MAXIMUM CORE DRILL SIZE SHALL BE 5" IN DIAMETER. CORE DRILL LOCATIONS SHALL BE SPACED A MINIMUM OF 6" FROM EACH OTHER MEASURED FROM THE OUTSIDE EDGE OF THE CORE DRILL. ALL CORE DRILL OPENINGS SHALL BE PROPERLY SEALED ACCORDING TO THEIR LOCATION AND APPLICATION.

25. ALL OUTAGES SHALL BE KEPT TO A MINIMUM. ALL WORK THAT REQUIRES A SUSTAINED EQUIPMENT OUTAGE SHALL BE PERFORMED CONTINUOUSLY AROUND THE CLOCK UNTIL WORK IS COMPLETED UNLESS NOTED OTHERWISE. COORDINATE

26. PROVIDE FOR EACH BRANCH CIRCUIT AND FEEDER CIRCUIT A DEDICATED EQUIPMENT GROUND WIRE. FOR SINGLE PHASE BRANCH CIRCUITS OF 120 V/1PH OR 277V/1 PH, PROVIDE DEDICATED HOT, DEDICATED NEUTRAL AND DEDICATED EQUIPMENT GROUND WIRES. SHARING OF NEUTRAL OR EQUIPMENT GROUND WIRES IS NOT PERMITTED. WIRING TO ALL HVAC EQUIPMENT OR OTHER TRADE EQUIPMENT SHALL BE IN CONDUIT. ALL EQUIPMENT AND FEEDER WIRING IN MECHANICAL ROOM/ELECTRICAL ROOM SHALL BE IN RIGID CONDUIT. USE OF MC CABLE IS LIMITED TO BRANCH CIRCUIT WIRING ABOVE RECESSED CEILING OR CONCEALED IN WALL. WIRING TO OUTLETS ON TABLE SHALL BE PROVIDE IN EITHER EMT CONDUIT OR FLEXIBLE METAL CONDUIT. DO NOT USE PLASTIC TIE WRAPS TO SUPPORT CONDUITS AND MC CABLES. MC CABLES SHALL BE SUPPORTED AT MAXIMUM OF 6'-0" WITH SECURELY FASTENED MC CABLE SUPPORT CLAMPS, J-HOOKS, OR METAL CABLE BRACKETS.

27. PROVIDE IDENTIFICATION LABELS FOR ALL BRANCH CIRCUITS AND FEEDERS CIRCUITS AT JUNCTION BOXES, PANELBOARDS,

28. PROVIDE UNSPLICED FEEDERS FROM PANELBOARD OR SWITCHBOARD TO ALL EQUIPMENT, INCLUDING ALL 20 AMPERE, SINGLE

29. ALL WIRING DEVICES ARE TO BE RECESSED WHERE POSSIBLE. WHERE RECESSING IS NOT POSSIBLE, WIRING DEVICES ARE TO BE SURFACE MOUNTED WITH CIRCUIT WIRING ROUTED IN SURFACE MOUNTED CONDUIT PER SPECIFICATIONS.

30. ALL CONDUIT PENETRATIONS THROUGH WALLS OR CEILINGS SHALL BE PATCHED AND SEALED WITH FIRE RATED FOAM SEALANT. 31. PROVIDE INSULATING BUSHINGS ON CONDUIT THREADS OR CONNECTORS WHERE RACEWAYS WITH CONDUITS OR MC CABLES

ENTER A BOX OR ENCLOSURE. THIS BUSHING SHALL BE INSTALLED ON ALL CABLES AND CONDUITS. 32. CONTRACTOR TO PROVIDE A COORDINATION STUDY WHENEVER ANY FEEDER CIRCUITS ARE ADDED TO OR REMOVED FROM THE

MAIN SWITCHBOARD / PANELBOARD OF A BUILDING. ADDITIONALLY, PROVIDE A COORDINATION STUDY WHENEVER A GENERATOR IS ADDED OR REPLACED. CONTRACTOR TO ADJUST THE TRIP OF THE MAIN CIRCUIT BREAKER AND/OR THE

PROVIDE NEW FIRE ALARM SYSTEM DEVICES AND CONNECT TO EXISTING FIRE ALARM SYSTEM (MIRCOM FIRE ALARM CONTROL - FX-2000). ALL NEW DEVICES AND WIRING SHALL BE COMPATIBLE WITH EXISTING FIRE ALARM SYSTEM. PROVIDE REQUIRED TESTING AND INSPECTION

TELECOMMUNICATION GENERAL NOTES

- ALL LOW VOLTAGE CABLING MUST BE INSTALLED ACCORDING TO BICSI GUIDELINES.
- 2. ALL CABLING SHALL CONFORM TO THE LATEST EDITION OF THE EIA/TIA STANDARDS.
- 3. ALL CABLING SHALL BE APPROPRIATELY LABELED.
- . CONTRACTOR SHALL NOT INSTALL ANY EQUIPMENT PRIOR TO ITS APPROVAL BY THE ARCHITECT AND ENGINEER. CONTRACTOR WILL BI LIABLE FOR ITS REMOVAL IN ANY SUCH CASE. PROVIDE A COMPLETE GROUNDING SYSTEM FOR ALL LOW VOLTAGE SYSTEMS AS SHOWN.
- CONTRACTOR TO PROVIDE PATHWAYS FOR LOW VOLTAGE SYSTEMS. PATHWAYS SHALL CONSIST OF IN-WALL CONDUIT, SURFACE MOUNTED SPLIT CHANNEL METALLIC RACEWAY, BACK BOXES, SLEEVES, CHASES, CABLE TRAY AND J-HOOKS, ANY PENETRATION OF A FIRE-RATED BARRIER MUST BE FIRE-STOPPED IN ACCORDANCE WITH LOCAL AND STATE LAWS AND THE AUTHORITY HAVING JURISDICTION.
- PRIOR TO BEGINNING ANY WORK, SECURE NECESSARY PERMITS OR CLEARANCES FROM THE AUTHORITIES HAVING JURISDICTION. PROVIDE ALL LABOR AND MATERIALS FOR A COMPLETE INSTALLATION. WORK SHALL BE EXECUTED BY EXPERIENCED TRADESMEN WHO ARE LICENSED IN THE JURISDICTION WHERE THE PROJECT IS LOCATED.
- CONDUITS SHALL BE RUN BEHIND FINISHED SURFACES WHERE POSSIBLE UNLESS OTHERWISE NOTED.
- . THE TELECOMMUNICATION PLANS ARE DIAGRAMMATIC ONLY. COORDINATE TECHNOLOGY EQUIPMENT LOCATION AND INSTALLATION WITH EQUIPMENT BEING SERVED.
- CONTRACTOR SHALL INFORM THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING CONSTRUCTION AND PRIOR TO COMPLETION OF CONSTRUCTION TO ALLOW SUFFICIENT TIME FOR COORDINATION OF EXISTING BUILDING ACTIVITIES WITH THE CONSTRUCTION WORK.
- THE CONTRACTOR SHALL INCLUDE IN THE WORK, WITHOUT EXTRA COST, ANY LABOR, MATERIALS, SERVICES, APPARATUS, DRAWINGS (IN ADDITION TO CONTRACT DRAWINGS AND DOCUMENTS), IN ORDER TO COMPLY WITH ALL APPLICABLE LAWS, INDICATED AND/OR SPECIFIED.
- . BEFORE SUBMITTING BIDS, THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE ALL ADJOINING EXISTING BUILDINGS, EQUIPMENT AND SPACE CONDITIONS ON WHICH HIS/HER WORK IS ANY WAY DEPENDENT FOR THE BEST WORKMANSHIP AND OPERATION ACCORDING TO THE INTENT OF THE SPECIFICATIONS AND DRAWINGS. HE/SHE SHALL REPORT TO THE ARCHITECT/ENGINEER ANY CONDITION WHICH MIGHT PREVENT HIM/HER FROM INSTALLING HIS/HER EQUIPMENT IN THE MANNER SPECIFIED TEN DAYS PRIOR TO SUBMISSION OF BIDS.
- 13. NO CONSIDERATION OR ALLOWANCE WILL BE GRANTED FOR FAILURE TO VISIT THE SITE, NOR FOR ANY ALLEGED MISUNDERSTANDING OF MATERIALS TO BE FURNISHED OR WORK TO BE PERFORMED.
- 4. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCOVERED CONFLICTS BETWEEN EXISTING INSTALLATIONS WHICH ARE NOT SCHEDULED FOR DEMOLITION AND THE NEW WORK INDICATED WITHIN THE CONTRACT DOCUMENTS. SUCH NOTIFICATION SHALL BE ACCOMPANIED BY A DRAWING DELINEATING THE PROPOSED SOLUTION PRIOR TO STARTING ANY WORK IN THE AFFECTED AREA.
- THE EXACT NUMBER OF WIRES MAY NOT BE INDICATED FOR ALL SYSTEMS. PROVIDE ALL WIRES AND CABLES NECESSARY FOR THE PROPER FUNCTION OF THE SYSTEM WHETHER INDICATED ON PLAN OR NOT.
- 3. REFER TO ARCHITECTURAL DRAWINGS FOR THE FINISH, EXACT LOCATION, ELEVATION, MOUNTING HEIGHTS AND DETAILS OF ALL LIGHT FIXTURES AND DEVICES WITHIN THE CEILING GRID FOR COORDINATION WITH TECHNOLOGY EQUIPMENT. REPORT ANY DISCREPANCIES TO THE ARCHITECT IMMEDIATELY.
- WHEREVER CONDUITS PENETRATE WALLS OR FLOORS, SPACE REMAINING IN SUCH PENETRATIONS SHALL BE FILLED. FILLING MATERIAL SHALL BE FIRE RESISTIVE WITH RATING EQUAL TO THE RATING OF THE FLOOR OR WALL ITSELF. 18. PROVIDE AND LEAVE ACCESSIBLE PULL STRINGS IN ALL CONDUITS, RACEWAYS, SLEEVES AND CHASES TO LOW VOLTAGE WIRING TO BE
- INSTALLED. 19. OUTLET BOXES INSTALLED ON OPPOSITE SIDES OF THE SAME PARTITION SHALL BE STAGGERED. DO NOT MOUNT OUTLET BOXES BACK
- TO BACK. 20. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS, CUT SHEETS, CALCULATIONS AND EQUIPMENT LITERATURE FOR ALL EQUIPMENT BEING PROVIDED AS PART OF THIS SCOPE OF WORK. THE EXACT DEVICE OR PIECE OF EQUIPMENT TO BE INSTALLED MUST BE CLEARLY
- CALLED OUT FOR THE DESIGN TEAM TO REVIEW. 21. CONTRACTOR SHALL PROVIDE COMPLETE AS-BUILT DRAWINGS FOR REVIEW AND APPROVAL BY THE DESIGN TEAM PRIOR TO JOB COMPLETION
- 22. CONTRACTOR SHALL PROVIDE A COMPLETE PUNCH LIST OF ALL INSTALLED SYSTEMS TO THE CONSTRUCTION MANAGER WHEN THE INSTALLED WORK IS READY TO BE EXAMINED BY THE DESIGN TEAM. INCOMPLETE SYSTEMS SHALL NOT BE REVIEWED UNTIL IT IS DETERMINED THAT THE SYSTEMS ARE APPROXIMATELY COMPLETE.

23. ALL TELECOMMUNICATIONS CABLING SHALL BE PLENUM RATED CAT6, 4 PAIRS, UNSHIELDED TWISTED PAIR CABLE, HUBBELL AS SPECIFIED ROUTED BETWEEN TELE/DATA ROOM AND EACH VOICE AND/OR DATA JACK. THE USE OF J-HOOKS IS PERMITTED IN AREAS WITH A SUSPENDED CEILING WHERE ADEQUATE CLEARANCE CAN BE OBTAINED. ALL WIRING IN SPACES WITHOUT CEILINGS OR AREAS WITH INADEQUATE SPACE ABOVE THE CEILING SHALL BE RUN IN EMT. PROVIDE TERMINATIONS AT BOTH PATCH PANEL AND OUTLET. PROVIDE CAT6 PATCH CORDS (36" L) FOR CONNECTION OF PATCH PANEL TO FUTURE ETHERNET SWITCH. CONTRACTOR SHALL TONE/TEST/TERMINATE ALL CONNECTIONS. PROVIDE ADDITIONAL CAT6 48 PORT PATCH PANEL(S) IN MDF OR IDF, AS APPLICABLE, AS

CABLING CONNECTIONS IN ACCORDANCE WITH BICSI STANDARDS. 24. CABLE AND JACKS SHALL BE OF TYPE AND COLOR SHOWN:

FUNCTION DATA VOICE VIDEO WAP	TYPE CAT6 CAT6 CAT6 CAT6A PC6	CABLE AND JACK OWNER TO SELECT OWNER TO SELECT OWNER TO SELECT OWNER TO SELECT	
CATV	RG6	OWNER TO SELECT	

GR	APHIC CON	VENTIONS
HOMERUN PANEL DESIGNATION HOMERUN PANEL DESIGNATION OUTLETS TO BE MC STANDARD HEIGHT	es BRANCH CIRCUIT DESIGNATION	Disconnects
OTHERWISE NOTED)	
Lighting Fixt	Lighting Swi	
TYPE: A PLA-11-d	LUMINAIRE TYPE - SEE LIGHT FIXTURE SCHEDULE CONTROL DEVICE IDENTIFICATION BRANCH CIRCUIT NUMBER PANEL DESIGNATION	SD DEVICE TYPE

ELECTRICAL ABBREVIATIONS

(D) - DENOTES EQUIPMENT OR WIRING TO BE DEMOLISHED KVA - KILO VOLT AMPERE E) - DENOTES EXISTING EQUIPMENT OR WIRING TO REMAIN LG - LG CORPORATION LI - LONG TIME + INSTANTANEOUS (N) - DENOTES NEW EQUIPMENT OR WIRING LSI - LONG TIME + SHORT TIME + INSTANTANEOUS A - AMPS MCB - MAIN CIRCUIT BREAKER AF - AMPERE FRAME MDP - MAIN DISTRIBUTION PANEL AFF - ABOVE FINISHED FLOOR MTS - MANUAL TRANSFER SWITCH AT - AMPERE TRIP MVASC - MEGA VOLT AMPERE SHORT CIRCUIT ATS - AUTOMATIC TRANSFER SWITCH NAC - NOTIFICATION APPLIANCE CIRCUIT BLDG - BUILDING OC - ON CENTER C - CONDUIT PH - PHASF **CB - CIRCUIT BREAKER QO - QWIK OPEN PROTECTION** SPD - SURGE PROTECTIVE DEVICE ENCL - ENCLOSURE FA - FIRE ALARM SW - SWITCH G - GROUND SWBD - SWITCHBOARD GE - GENERAL ELECTRIC UG - UNDERGROUND KA - KILO AMPERE V - VOLTS W - WATTS OR WIRE KV - KILO VOLT

Z - IMPEDANCE

REQUIRED TO SUPPORT ADDITIONAL DATA CONNECTIONS IN MDF/IDF. DATA PATCH PANELS SHALL BE HUBBELL AS SPECIFIED. MAKE ALI

DISCONNECT SIZE WP: WEATHER PROOF — FUSE SIZE, TYPE RK1

itches

EVICE IDENTIFICATION

PE DESIGNATION

LIGHTING FIXTURE SCHEDULE											
TYPE	LAMPS	VOLTAGE	MOUNT	FIXTURE DESCRIPTION	MANUFACTURER/CATALOG NUMBER	REMARKS					
A	LED 3500 LUMENS	120/277	RECESSED	2X2 FLAT PANEL	MAXLITE / MLFP-22-G5-15W-CS-CR OR APPROVED EQUAL	PROVIDE WITH MOUNTING HARDWARE. FILED SELECT 4000K AND 25W.					
С	LED 967 LUMENS	120/277	RECESSED	6" ROUND DOWNLIGHT	PRESCOLITE / LFR-6RD-M-10L-40K-8-MD-DM1 LFR-6RD-T-SS-WT LFR-6RD-H OR APPROVED EQUAL	PROVIDE WITH MOUNTING HARDWARE.					
EX/EM	(2) 3WATT LED HEADS	120/277	SURFACE	COMBINATION EXIT SIGN EMERGENCY LIGHT WITH BATTERY BACKUP	DUALLITE / HCX-U-R-W-03L OR APPROVED EQUAL	PROVIDE WITH MOUNTING HARDWARE.					
В			RECESSED	EXISTING 2X4 FIXTURE TO BE REUSED	EXISTING	PROVIDE NEW MOUNTING HARDWARE.					
EM			SURFACE	EXISTING EMERGENCY LIGHTING UNIT TO BE REUSED	EXISTING	PROVIDE NEW MOUNTING HARDWARE.					
WPK			SURFACE	EXISTING WALL PACK LIGHT FIXTURE TO BE REUSED	EXISTING	PROVIDE NEW MOUNTING HARDWARE.					











	CIRCUIT(S) FOR RELOCATION AND RECONNECTION.
2.	UNLESS NOTED OTHERWISE, DISCONNECT AND REMOVE LIGHTING CONTROLS, WIF AND CONDUIT TO FACILITATE ARCHITECTURAL WORK.
3.	DISCONNECT AND REMOVE TELEPHONE AND ASSOCIATED CABLING / OUTLET COMPLETELY BACK TO SOURCE. TURN TELEPHONE OVER TO OWNER.
4.	UNLESS NOTED OTHERWISE, DISCONNECT AND REMOVE RECEPTACLES, DATA OUTLETS, WIRE, CABLING, AND CONDUIT COMPLETELY BACK TO SOURCE.
5.	DISCONNECT AND REMOVE CAMERA AND CABLING COMPLETELY BACK TO SOURCE

1. UNLESS NOTED OTHERWISE, DISCONNECT AND REMOVE LIGHT FIXTURES, WIRE,

AND CONDUIT TO FACILITATE ARCHITECTURAL WORK. RETAIN FIXTURES AND

ELECTRICAL DEMOLITION NOTES:

- DISCONNECT AND REMOVE TELEPHONE, VOICE OUTLET, AND CABLING COMPLETELY
- 6.
- RETAIN CAMERA FOR RELOCATION.

- BACK TO SOURCE. RETAIN TELEPHONE FOR REINSTALLATION / RELOCATION.









ELECTRICAL N	EW WORK NOTES:
1.	PROVIDE NEW LIGHT FIXTURES AND REINSTALL EXISTING LIGHT FIXTURES, AS INDICATED. CONNECT TO NEW LIGHTING CONTROLS UNLESS NOTED OTHERWISE.
2.	PROVIDE NEW RECEPTACLES, DATA OUTLETS, WIRE, CABLING, AND CONDUIT.
3.	PROVIDE NEW DISCONNECT SWITCHES, FRACTIONAL HORSEPOWER MOTOR STARTERS, HORSEPOWER RATED TOGGLE SWITCHES, WIRE, AND CONDUIT FOR NEW MECHANICAL EQUIPMENT AS SHOWN.
4.	PROVIDE A NEW ELECTRICAL PANEL. SEE SHEETS E-500 AND E-600 FOR REQUIREMENTS.
E - 1	CONNECT FIXTURE TO AN UNSWITCHED LEG OF THE EXISTING LOCAL LIGHTING CIRCUIT WITH NEW 2#12 + 1#12G - 3/4"C WIRE AND CONDUIT EXTENSIONS.
E - 2	CONNECT TO THE EXISTING LIGHTING CIRCUIT / CONTROLS WITH NEW WIRE AND CONDUIT EXTENSIONS.
E - 3	REINSTALL EXISTING PHOTOCELL IN NEW LOCATION SHOWN AND RECONNECT TO THE EXISTING SOURCE WITH NEW WIRE AND CONDUIT EXTENSIONS.
E - 4	REINSTALL EXISTING CAMERA IN NEW LOCATION SHOWN. PROVIDE NEW MOUNTING HARDWARE.
E - 5	REINSTALL EXISTING TELEPHONE WITH NEW MOUNTING HARDWARE. PROVIDE NEW CABLE CONNECTION AND WALL MOUNT VOICE OUTLET FOR PROPER OPERATION.
E - 6	PROVIDE NEW TELEPHONE WITH NEW MOUNTING HARDWARE. PROVIDE NEW CABLE CONNECTION AND WALL MOUNT VOICE OUTLET FOR PROPER OPERATION.
E - 7	COORDINATE LOCATION OF RECEPTACLE WITH LOCATION OF POD. SEE FURNITURE PLAN ON SHEET IF-101.

NEW PANEL

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		20 20 <td>20 11 20 13 20 15 20 17 20 19 20 21 20 23 20 25 20 27 20 29 20 29 20 7 31 20 20 33 20 7 33 - 35 -</td> <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>20 11 20 13 20 15 20 15 20 17 20 19 20 21 20 23 20 25 20 25 20 27 20 29 - 31 - 35</td> <td>20 11 20 13 20 15 20 15 20 17 20 19 20 21 20 23 20 25 20 25 20 27 20 29 - 31 - 35</td> <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>$\begin{array}{c ccccccccccccccccccccccccccccccccccc$</td> <td>1 20 11 12 1 20 13 14 20 2 ERV-1 - CORRIDOR 229 1 20 15 18 20 1 DHC-1 - MULTI-PURPOSE 227 1 20 19 22 25 3 HP-1 - EXTERIOR 1 20 25 26 20 1 NAC PANEL 1 20 27 26 20 1 NAC PANEL 1 20 27 28 26 20 1 1 20 27 26 20 1 NAC PANEL 1 20 27 28 28 28 28 20 1 1 20 27 28 28 28 28 29 20 30 7 SPACE 1 20 29 30 7 SPACE 32 7 SPACE 1 33 34 7 SPACE 36 7 SPACE 1 35 36 7 SPACE</td> <td>20 11 12 14 20 2 ERV-1 - CORRIDOR 229 0.37 20 15 49 20 2 ERV-1 - CORRIDOR 229 0.37 20 17 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 20 19 - 22 25 3 HP-1 - EXTERIOR - 20 23 - - 26 20 1 NAC PANEL 0.50 20 27 - 26 20 1 NAC PANEL 0.50 20 29 - - 30 - SPACE - 20 29 - - 32 - SPACE - - 31 - - SPACE - - - 33 - - SPACE - - - 35 - - SPACE - - - 35 - - SPACE - - - 35 - - SPACE<td>20 11 12 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 17 18 20 1 DHC-1 - MULTI-PURPOSE 227 - - 20 19 - 22 25 3 HP-1 - EXTERIOR - 2.40 - 20 21 - - 26 20 1 NAC PANEL 0.50 - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 1 20 29 - - SPACE - - - - 31 - - SPACE - - - - - 33 - - SPACE - -<td>1 20 11 - 12 0.29 1 20 13 - 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 - 49 2 ERV-1 - CORRIDOR 229 - 0.37 - 1 20 17 - 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 0.50 1 20 21 - - 22 25 3 HP-1 - EXTERIOR - 2.10 - 1 20 25 - - 26 20 1 NAC PANEL 0.50 - - 1 20 25 - - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 36 - SPACE - - - -</td></td></td>	20 11 20 13 20 15 20 17 20 19 20 21 20 23 20 25 20 27 20 29 20 29 20 7 31 20 20 33 20 7 33 - 35 -	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	20 11 20 13 20 15 20 15 20 17 20 19 20 21 20 23 20 25 20 25 20 27 20 29 - 31 - 35	20 11 20 13 20 15 20 15 20 17 20 19 20 21 20 23 20 25 20 25 20 27 20 29 - 31 - 35	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 20 11 12 1 20 13 14 20 2 ERV-1 - CORRIDOR 229 1 20 15 18 20 1 DHC-1 - MULTI-PURPOSE 227 1 20 19 22 25 3 HP-1 - EXTERIOR 1 20 25 26 20 1 NAC PANEL 1 20 27 26 20 1 NAC PANEL 1 20 27 28 26 20 1 1 20 27 26 20 1 NAC PANEL 1 20 27 28 28 28 28 20 1 1 20 27 28 28 28 28 29 20 30 7 SPACE 1 20 29 30 7 SPACE 32 7 SPACE 1 33 34 7 SPACE 36 7 SPACE 1 35 36 7 SPACE	20 11 12 14 20 2 ERV-1 - CORRIDOR 229 0.37 20 15 49 20 2 ERV-1 - CORRIDOR 229 0.37 20 17 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 20 19 - 22 25 3 HP-1 - EXTERIOR - 20 23 - - 26 20 1 NAC PANEL 0.50 20 27 - 26 20 1 NAC PANEL 0.50 20 29 - - 30 - SPACE - 20 29 - - 32 - SPACE - - 31 - - SPACE - - - 33 - - SPACE - - - 35 - - SPACE - - - 35 - - SPACE - - - 35 - - SPACE <td>20 11 12 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 17 18 20 1 DHC-1 - MULTI-PURPOSE 227 - - 20 19 - 22 25 3 HP-1 - EXTERIOR - 2.40 - 20 21 - - 26 20 1 NAC PANEL 0.50 - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 1 20 29 - - SPACE - - - - 31 - - SPACE - - - - - 33 - - SPACE - -<td>1 20 11 - 12 0.29 1 20 13 - 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 - 49 2 ERV-1 - CORRIDOR 229 - 0.37 - 1 20 17 - 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 0.50 1 20 21 - - 22 25 3 HP-1 - EXTERIOR - 2.10 - 1 20 25 - - 26 20 1 NAC PANEL 0.50 - - 1 20 25 - - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 36 - SPACE - - - -</td></td>	20 11 12 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 17 18 20 1 DHC-1 - MULTI-PURPOSE 227 - - 20 19 - 22 25 3 HP-1 - EXTERIOR - 2.40 - 20 21 - - 26 20 1 NAC PANEL 0.50 - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 20 27 - - 30 - SPACE - - 1 20 29 - - SPACE - - - - 31 - - SPACE - - - - - 33 - - SPACE - - <td>1 20 11 - 12 0.29 1 20 13 - 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 - 49 2 ERV-1 - CORRIDOR 229 - 0.37 - 1 20 17 - 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 0.50 1 20 21 - - 22 25 3 HP-1 - EXTERIOR - 2.10 - 1 20 25 - - 26 20 1 NAC PANEL 0.50 - - 1 20 25 - - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 36 - SPACE - - - -</td>	1 20 11 - 12 0.29 1 20 13 - 14 20 2 ERV-1 - CORRIDOR 229 0.37 - 1 20 15 - 49 2 ERV-1 - CORRIDOR 229 - 0.37 - 1 20 17 - 18 20 1 DHC-1 - MULTI-PURPOSE 227 - 0.50 1 20 21 - - 22 25 3 HP-1 - EXTERIOR - 2.10 - 1 20 25 - - 26 20 1 NAC PANEL 0.50 - - 1 20 25 - - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 30 - SPACE - - - 1 20 29 - 36 - SPACE - - - -

SINGLE LINE DIAGRAM NOTES:

• ALL CIRCUIT BREAKERS AND DISCONNECT SWITCHES ARE 3 POLES UNLESS NOTED OTHERWISE. • ALL FEEDER CIRCUIT BREAKERS 400A AND GREATER SHALL HAVE ELECTRONIC TRIP INCLUDING LONG, SHORT, AND INSTANTANEOUS SETTINGS AND SHALL HAVE FIELD REPLACEABLE TRIP SETTINGS.

• ALL ELECTRICAL EQUIPMENT ARE NEW UNLESS NOTED OTHERWISE.

MECHANICAL NEW WORK PLAN

MECHANICAL GENERAL NOTES:

		DIFFUSER S	CHEDULE		
UNIT NUMBER	SIZE (FACE / INLET)	DESCRIPTION	MANUFACTURER	MODEL NUMBER	REMARK
D-1	24" X 24" / 6"	ALUMINUM SQUARE CONE DIFFUSER W/ FACE OPERABLE DAMPER	KRUEGER	51450	
D-2	24" X 24" / 10"	ALUMINUM SQUARE CONE DIFFUSER W/ FACE OPERABLE DAMPER	KRUEGER	51450	
IOTE: PROVIDE EC	QUIPMENT BY KRUEGER C	R APPROVED EQUAL. FINISH SHALL BE FACTORY OFF-WHITE FINISH.	CONTRACTOR IS RESPON	SIBLE TO SELECT APPRO	OPRIATE MOUNT DEPENDING ON

>	RETURN GRILLE SCHEDULE											
> >	UNIT NUMBER	SIZE (FACE / INLET)	DESCRIPTION	MANUFACTURER	MODEL NUMBER	REMARKS						
}	R-1	24" X 24" / 6"	ALUMINUM PERFORATED RETURN AIR GRILLE	KRUEGER	56490							
>	R-2	24" X 24" / 10"	ALUMINUM PERFORATED RETURN AIR GRILLE	KRUEGER	56490							
>	NOTE: PROVIDE EC	UIPMENT BY KRUEGER O	R APPROVED EQUAL. FINISH SHALL BE FACTORY OFF-WHITE FINIS	SH. CONTRACTOR IS RESP	PONSIBLE TO SELECT APP	PROPRIATE MOUNT DEPENDING ON						

			H	EAT PUM	P SCH	EDL	ILE			
UNIT NUMBER	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	DESIGN COOLING OUTDOOR DB/WB (°F)	DESIGN HEATING OUTDOOR DB (°F)	ELEC	MCA	MOCP	MFGR	MODEL	
HP-1	120	135	90/73	6	208/3/60	19.4	25	SAMSUNG	AM120BXVGJR/AA	
NOTE: PROVIDE UN REFRIGERANT PIPI VIBRATION ISOLAT	ITS AS SCHEDULED NG AND ELECTRICA ORS, MINIMUM 1" DE	OR APPROVED EQU L CONDUITS. PROVI EFLECTION.	UAL. MOUNT UNITS ON M IDE MANUFACTURER'S T	IIRO INDUSTRIES HD EC WINNING KITS FOR INST	QUIPMENT SUPPO	RT. CONT INGLE-PO	RACTOR TO INT ELECTR	CONFIRM CORR	ECT MODEL. PROVIDE WAL DNS. ALL UNITS SHALL BE F	L PENET

E.A.T. (D.B./W.B.)(°F)		TOTAL		HEATIN	<u>^</u>					-
E.A.T. (D.B./W.B.)(°F)		TOTAL			3		MCA	ELECTRICAL	MFGR	
	(D.B./W.B.)(°F)	CAPACITY (MBH)	E.A.T. (D.B.)(°F)	L.A.T. (D.B.)(°F)	TOTAL CAPACITY (MBH)	E.S.P. (IN-W.G.)				
78/65	55/55	7.5	62	90	8.7	-	.24	208/1/60	SAMSUNG	AM
78/65	55/55	30	62	90	34	-	1.39	208/1/60	SAMSUNG	AM
78/65	55/55	30	62	90	34	-	1.39	208/1/60	SAMSUNG	AM
78/65	55/55	30	62	90	34	-	1.39	208/1/60	SAMSUNG	AM
78/65	55/55	30	62	90	34	-	1.39	208/1/60	SAMSUNG	AM
78/65	55/55	7.5	62	90	8.7	-	.24	208/1/60	SAMSUNG	AM
78/65	55/55	5	62	90	6	-	.24	208/1/60	SAMSUNG	AM
	78/65 78/65 78/65 78/65 78/65 78/65 AS SCHEDULED	78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 78/65 55/55 AS SCHEDULED OR APPROVED E	78/65 55/55 30 78/65 55/55 30 78/65 55/55 30 78/65 55/55 30 78/65 55/55 30 78/65 55/55 30 78/65 55/55 30 78/65 55/55 5 78/65 55/55 5 78/65 55/55 5 AS SCHEDULED OR APPROVED EQUAL. ALL UNITS 5 5	78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 30 62 78/65 55/55 7.5 62 78/65 55/55 5 62 78/65 55/55 5 62 AS SCHEDULED OR APPROVED EQUAL. ALL UNITS SHALL HAVE E 62	78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 30 62 90 78/65 55/55 7.5 62 90 78/65 55/55 7.5 62 90 78/65 55/55 5 62 90 78/65 55/55 5 62 90 AS SCHEDULED OR APPROVED EQUAL. ALL UNITS SHALL HAVE EC MONITOR V 90	78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 30 62 90 34 78/65 55/55 7.5 62 90 8.7 78/65 55/55 5 62 90 6	78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 30 62 90 34 - 78/65 55/55 7.5 62 90 8.7 - 78/65 55/55 7.5 62 90 8.7 - 78/65 55/55 5 62 90 6 - AS SCHEDULED OR APPROVED FOLIAL ALL UNITS SHALL HAVE EC MONITOR WITH FAN SPEED CONTROLLER ALL - -	78/65 55/55 30 62 90 34 - 1.24 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 30 62 90 34 - 1.39 78/65 55/55 7.5 62 90 8.7 - .24 78/65 55/55 5 62 90 6 - .24 AS SCHEDULED OR APPROVED FOLIAL ALL UNITS SHALL HAVE EC MONITOR WITH EAN SPEED CONTROLLER ALL UNITS TO .24	78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 30 62 90 34 - 1.39 208/1/60 78/65 55/55 7.5 62 90 8.7 - .24 208/1/60 78/65 55/55 5 62 90 6 - .24 208/1/60 AS SCHEDULED OR APPROVED FOLIAL ALL UNITS SHALL HAVE EC MONITOR WITH EAN SPEED CONTROL LER ALL UNITS TO BE EQUIPPED M - .24 208/1/60	78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 30 62 90 34 - 1.39 208/1/60 SAMSUNG 78/65 55/55 7.5 62 90 8.7 - .24 208/1/60 SAMSUNG 78/65 55/55 5 62 90 6 - .24 208/1/60 SAMSUNG

ENERGY RECOVERY VENTILATOR SCHEDULE																	
		EVHALIST		SUMMER			WINTER			EVHALIST							
UNIT NUMBER	AIRFLOW (CFM)	AIRFLOW (CFM)	SUPPLY E.D.B./E.W.B. (°F)	SUPPLY L.D.B./L.W.B. (°F)	EXHAUST E.D.B./E.W.B. (°F)	SUPPLY E.D.B./E.W.B. (°F)	SUPPLY L.D.B./L.W.B. (°F)	EXHAUST E.D.B./E.W.B. (°F)	E.S.P. (IN-W.G.)	E.S.P. (IN-W.G.)	ELEC	MOTOR QTY	MCA	MOCP	MFGR	MODEL	REMARKS
ERV-1	530	530	90/73	78.8/67.2	75/62.6	10.6	57.3/46.6	70/54.4	0.75	.75	208/1/60	2	3.9	15	RENEWAIRE	HE10-JINH-S15EEDGN3L	
NOTE: PROVIDE DEG. F DB @ 50	UNITS AS SCH % RH IN COOL	IEDULED OR A	PPROVED EQUAL. 70 DEG. F DB @ 3	PROVIDE W/ EC 5% RH IN HEATIN	MOTORS ON SL NG MODE. PROV	IPPLY AND EXHA IDE MERV-8 FILT	UST FANS, SIN ERS ON BOTH	GLE POINT POW AIR STREAMS. P	ER CONNECTIC ROVIDE MFGR'	N, HANGING SPI S TIME CLOCK F	RING ISOLATO OR OCCUPIED	RS, DOUBLE /UNOCCUPI	E WALL CO	ONSTRUCT ROL.	TION AND DUCT FL	ANGES. EXHAUST AIR CONDIT	ONS ARE 75

ELECTRIC DUCT HEATER SCHEDULE

MARK	AIRFLOW (CFM)	HEATING E.D.B./L.D.B (°F)	CAPACITY (KW)	DUCT DIMENSIONS	AIRFLOW ORIENTATION	ELECTRICAL	MANUFACTURER	MODEL	REMAR
DHC-1	530	57/70	0.5	12"X10"	HORIZONTAL	120/1/60	WARREN	СВК	
NOTE: PROVIDE EQUIPM	ENT AS SCHEDU	LED OR APPROVED EQ	UAL. PROVIDE UN	NITS IN NEMA 1 EN	ICLOSURE, WITH	MANUAL RESET	T HI-LIMIT SWITCHES, N	AGNETIC CONTACTORS, 24V CON	ITROL
TRANSFORMERS, AIRFL	OW SWITCH FOR	POSITIVE PRESSURE,	DISCONNECT SW	ITCH, INTERLOCK	ING COVER AND	SCR CONTROL	WITH 0-10VDC INPUT S	IGNAL. CONTRACTOR TO MAINTAI	N 36" CLEAR
TO DISCONNECT PER NE	EC. PROVIDE DU	CT MOUNTED TEMPERA	TURE SENSOR T	O MAINTAIN SCHE	DULED LEAVING	AIR TEMPERAT	URE.		

MARKS
EARANCE

6" TO 8" ABOVE TOP OF PAN

