

Addendum No. 3 Page 1 of 26

DATE: July 27, 2021

Joliet Junior College 1215 Houbolt Road Joliet, IL 60431

TO:	Prospective Bidders
SUBJECT:	Addendum No. 3
PROJECT NAME:	Campus Police Renovation
JJC PROJECT NO.:	B22002

This Addendum forms a part of the Bidding and Contract Documents and modifies the original bidding document as posted on the JJC website. Acknowledge receipt of this addendum in the space provided on the Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

- This addendum consists of both addenda items issued by the Architectural and Engineering (A/E) team and answers to questions asked by various bidders prior to the question cut-off date.
- 2. A final Addendum #4 will be issued prior to the end of the day on Thursday, July 29<sup>th</sup>.
- 3. The bid due date and time has been changed to Thursday, August 5, 2021 at 9:00 am.

End of Addendum #3

Date: July 27, 2021

#### **SECTION 00 90 03**

#### BIDDING AND CONTRACT REQUIREMENTS ADDENDUM NUMBER 3

Legat Architects, Inc. 2015 Spring Road, Suite #175 Oak Brook, IL 60523 Distributed via: EMAIL

### To: Prospective Bidders

#### Re: ADDENDUM NUMBER 3 TO THE BIDDING DOCUMENTS FOR:

Joliet Junior College Campus Police Renovations Architect's Project Number: 220120.00

This addendum forms a part of the bidding and contract documents and modifies the original bidding documents dated June 28, 2021. Acknowledge receipt of this addendum in the space provided on Bid Form. FAILURE TO DO SO MAY SUBJECT BIDDER TO DISQUALIFICATION.

### I. PART 1 - ADDENDUM TO THE PROJECT MANUAL

Α.	Docum	ent TOC - Table of Contents:	
	1. Pa	ge TOC - 1, BIDDING AND CONTRACT REQUIREMENTS:	
	а.	ADD Document Addendum Number 1 (Issued previously) to read as follows:	
		" Addendum Number 1	1"
	b.	ADD Document Addendum Number 2 (Issued previously) to read as follows:	
		" Addendum Number 2	21"

- c. ADD Document 00 90 03 Addendum Number 3 to read as follows: *"00 90 03 Addendum Number 3.......8"*
- Page TOC 2, DIVISION 8 DOORS AND WINDOWS:
   a. ADD Document 08 56 53 Security Windows to read as follows:
   *"08 56 53 Security Windows......4"*
- B. Document Addendum Number 1 (Issued previously):
  1. ADD Document Addendum Number 1 in its entirety.
- C. Document Addendum Number 2 (Issued previously):1. ADD Document Addendum Number 2 in its entirety.
- D. Document 00 90 03 Addendum Number 3:
  1. ADD Document 00 90 03 Addendum Number 3 in its entirety.
- E. Document 01 10 00 Summary:
  - 1. Page 01 10 00 4, Article 1.09 PROJECT PHASING:
    - a. **REVISE** Paragraph A. to read as follows: *"A. Phase 0"*
    - b. **REVISE** Paragraph B. to read as follows: *"B. Phase 1"*
    - c. **REVISE** Paragraph C. to read as follows: "C. Phase 2"
  - 2. Page 01 10 00 5, Article 1.10 WORK BY OWNER, **ADD** Paragraph H. to read as follows: *"H. Tile Carpeting:*

- 1. Owner will furnish and contractor will install the following:
  - a. Field Carpet Tile Type CPTT
  - b. Accent Carpet Tile Type CPTT-A
  - c. Entry Walk-Off Carpet Tile Type E-CPTT
- 2. Contractor shall furnish all glues and adhesives
- 3. Contractor shall furnish and install all rubber base surrounding carpet tile areas"
- F. Document 08 56 53 Security Windows:
  - 1. **ADD** attached Document 08 56 53 Security Windows in its entirety.
- G. Document 09 68 13 Tile Carpeting:
  - 1. Page 09 68 13 2, Article 2.02 MATERIALS, **ADD** Paragraphs D., E., and F. to read as follows::
    - "D. Owner will furnish and contractor will install the following:
      - 1. Field Carpet Tile Type CPTT
      - 2. Accent Carpet Tile Type CPTT-A
      - 3. Entry Walk-Off Carpet Tile Type E-CPTT
    - E. Contractor shall furnish all glues and adhesives
    - F. Contractor shall furnish and install all rubber base surrounding carpet tile areas"

#### II. PART 2 - ADDENDUM TO THE DRAWINGS

- A. Drawing CD101, titled, DEMOLITION PLAN:
  - 1. **REPLACE** Drawings CD101 DEMOLITION PLAN with attached Drawing CD101 DEMOLITION PLAN (REVISION Addendum #3 07.27.21) in its entirety.
- B. Drawing ED101, titled, FIRST FLOOR ELECTRICAL DEMOLITION POWER PLAN:
  - REPLACE Drawings ED101 FIRST FLOOR ELECTRICAL DEMOLITION POWER PLAN with attached Drawing ED101 - FIRST FLOOR ELECTRICAL DEMOLITION POWER PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.
- C. Drawing E-100, titled, FIRST FLOOR ELECTRICAL POWER PLAN:
  - REPLACE Drawings E-100 FIRST FLOOR ELECTRICAL POWER PLAN with attached Drawing E-100 - FIRST FLOOR ELECTRICAL POWER PLAN (REVISION Addendum #3 -07.27.21) in its entirety.
- D. Drawing E-300, titled, FIRST FLOOR ELECTRICAL EQUIPMENT POWER PLAN:
  - 1. **REPLACE** Drawings E-300 FIRST FLOOR ELECTRICAL EQUIPMENT POWER PLAN with attached Drawing E-300- FIRST FLOOR ELECTRICAL EQUIPMENT POWER PLAN (REVISION Addendum #3 07.27.21) in its entirety.
- E. Drawing M-001, titled, MECHANICAL SCHEDULES:
  - 1. **REPLACE** Drawings M-001 MECHANICAL SCHEDULES with attached Drawing M-001 MECHANICAL SCHEDULES (REVISION Addendum #3 07.27.21) in its entirety.
- F. Drawing MD101, titled, FIRST FLOOR MECHANICAL DEMOLITION PLAN:
  - 1. **REPLACE** Drawings MD101 FIRST FLOOR MECHANICAL DEMOLITION PLAN with attached Drawing MD101- FIRST FLOOR MECHANICAL DEMOLITION PLAN (REVISION Addendum #3 07.27.21) in its entirety.
- G. Drawing MD201, titled, FIRST FLOOR HYDRONIC & CONTROLS DEMOLITION PLAN:
  - REPLACE Drawings MD201- FIRST FLOOR HYDRONIC & CONTROLS DEMOLITION PLAN with attached Drawing MD201 - FIRST FLOOR HYDRONIC & CONTROLS DEMOLITION PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.

- H. Drawing M-101, titled, FIRST FLOOR MECHANICAL PLAN:
  - REPLACE Drawings M-101 FIRST FLOOR MECHANICAL PLAN with attached Drawing M-101 - FIRST FLOOR MECHANICAL PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.
- I. Drawing M-201, titled, FIRST FLOOR HYDRONIC & CONTROLS PLAN:
  - REPLACE Drawings M-201 FIRST FLOOR HYDRONIC & CONTROLS PLAN with attached Drawing M-201 - FIRST FLOOR HYDRONIC & CONTROLS PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.
- J. Drawing M-301, titled, MECHANICAL ROOF PLAN:
  - 1. **REPLACE** Drawings M-301 MECHANICAL ROOF PLAN with attached Drawing M-301 MECHANICAL ROOF PLAN (REVISION Addendum #3 07.27.21) in its entirety.
- K. Drawing M-302, titled, MECHANICAL ENLARGED PLAN AND LOW ROOF PLAN:
  - REPLACE Drawings M-302- MECHANICAL ENLARGED PLAN AND LOW ROOF PLAN with attached Drawing M-302- MECHANICAL ENLARGED PLAN AND LOW ROOF PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.
- L. Drawing M-402, titled, MECHANICAL DETAILS:
  - 1. **REPLACE** Drawings M-402 MECHANICAL DETAILS with attached Drawing M-402 MECHANICAL DETAILS (REVISION Addendum #3 07.27.21) in its entirety.
- M. Drawing ET101, titled, FIRST FLOOR ELECTRICAL TECHNOLOGY PLAN:
  - REPLACE Drawings ET101 FIRST FLOOR ELECTRICAL TECHNOLOGY PLAN with attached Drawing ET101 - FIRST FLOOR ELECTRICAL TECHNOLOGY PLAN (REVISION Addendum #3 - 07.27.21) in its entirety.

### **III. PART 3 - CLARIFICATIONS**

# NOTE: The following questions were asked by various bidders prior to the question cut-off date and are not included elsewhere any addendum. Please find below each question (Q) with the corresponding answer (A).

- Q. We have located the bid documents online; is there any information available in terms of General Contractors bidding that we can reach out to possibly submit our pricing to?
- A. See Walk-thru Sign-in sheet posted to the website.
- Q. Will premium time be required for the switch over of the dispatch office or can this be done during normal business hours?
- A. It can be performed during normal business hours.
- Q. Is there any items to be salvaged other than the gym equipment?
- A. No, the Owner will removed any other items to be saved prior to construction as indicated in Section 01 10 00 Summary.
- Q. Who is responsible for removing, relocating or disposal of existing furniture, computers, monitors, TV's, Visual display boards, appliances?
- A. Owner will take care of this prior to start of construction.
- Q. Does the first floor concrete slab have post tension cabling?
- A. Yes.

- Q. Will background checks be required for the tradesmen, will the college pay for these directly or does the GC?
- A. The Owner will not require it. The Contractor's own background and drug testing is sufficient.
- Q. Will the awarded BP#2, BP#3, and BP#4 be known to the prior to the General Trades/Coordinating Contractor prior to the bid?
- A. No, the bid opening is on the same day.
- Q. The condensate drain piping is shown on the plumbing drawings. This piping is under the mechanical contractors scope of work.
- A. The scope states to review ALL drawings as you will be responsible for any work that shows up on another trades drawings. This work shall fall under the mechanical trades as the Owner or A/E does not provide direction on the jurisdiction of the work in question. If the trades deem the work is plumbers work then it will be the responsibility for the mechanical trades to sub out to a plumber.
- Q. Please clarify who is responsible for scanning the existing concrete floor slab. Plumbing scope section 2.1.24 states it is the Electrical/Fire Alarm's responsibility. Section 2.2.3 states the Plumber shall provide GPR to locate existing post tension cables.
- A. Any trade that has underground slab work will be responsible for doing their own ground penetrating radar (GPR). Electrical and plumbing shall do their own if their work requires it.
- Q. Can the underground demolition piping be cut and capped in place or does it need to be removed from the soil?
- A. Cut and capped in place will be acceptable outside of the building footprint. Any piping inside of the building footprint must be fully removed. Any existing piping lefty in place must be clearly documented on the As-Built Drawings.
- Q. Can the concrete be cut and removed with a machine and gas saw or is electric sawing required?
- A. Due to ventilation concerns, electric saws shall be used.
- Q. Will premium time be required for this project?
- A. Contractor to review schedule posted for base bid and provide any necessary man power/premium time to meet the schedule.
- Q. On P-201A and P201B please remove the gas piping from the drawing and place it under the mechanical contractors scope of work.
- A. The scope states to review ALL drawings as you will be responsible for any work that shows up on another trades drawings. This work shall fall under the mechanical trades as the Owner or A/E does not provide direction on the jurisdiction of the work in question. If the trades deem the work is plumbers work then it will be the responsibility for the mechanical trades to sub out to a plumber.
- Q. Will we be removing existing fixtures to be eliminated or will this be by an independant demolition company?
- A. Each bid package is responsible for the demolition that falls under their trade.
- Q. Are we to sawcut and remove the existing sanitary piping no longer in service or will it be divorced at the main underground and capped where it comes up to serve demoed fixtures and leave piping abandoned underground? The latter would eliminate expensive sawcutting and patching, either way we would like to price it up accordingly.
- A. Cut and capped in place will be acceptable outside of the building footprint. Any piping inside of the building footprint must be fully removed. Any existing piping lefty in place must be clearly documented on the As-Built Drawings.

- Q. Is there a drawing showing the extent of mudset to be removed and replaced at the locker room areas?
- A. No, assume all areas under the existing ceramic floor tile in the shower/toilet areas include a mudset.
- Q. How will we get material into the area of construction?
- A. Doors at the entrance of Building 'G' may be used. Either door at the south stair towers on east and west side of Building 'G' may be used. Please note that there are stairs at these locations.
- Q. Can I ask where I find the specific plans for the security features. I believe it mentioned access control and security cameras in the bid material.
- A. Scope is clear. Door access and security camera systems are provided and installed by Owner. Contractor will be responsible for providing and installing data cable for cameras and yellow banana cable for door access.
- Q. Is this a union job?
- A. Documents contain the Project Labor Agreement for review, which must be signed by each awarded contractor. Contractors must be signatory.
- Q. Please confirm what type of material is the existing underground piping.
- A. All known pipe materials have been noted on the plans.
- Q. The natural gas piping is shown on the plumbing plans. Can we assume that this means the natural gas piping is by the plumbing bid package? It is not clear in the scopes of work for the Plumbing or Mechanical bid package.
- A. The scope states to review ALL drawings as you will be responsible for any work that shows up on another trades drawings. This work shall fall under the mechanical trades as the Owner or A/E does not provide direction on the jurisdiction of the work in question. If the trades deem the work is plumbers work then it will be the responsibility for the mechanical trades to sub out to a plumber.
- Q. The condensate drain piping is also shown on the plumbing plans. Can we assume this means the condensate drain piping is also by the plumbing bid package? Can we assume that this means the natural gas piping is by the plumbing bid package? It is not clear in the scopes of work for the plumber or HVC bid package
- A. The scope states to review ALL drawings as you will be responsible for any work that shows up on another trades drawings. This work shall fall under the mechanical trades as the Owner or A/E does not provide direction on the jurisdiction of the work in question. If the trades deem the work is plumbers work then it will be the responsibility for the mechanical trades to sub out to a plumber.
- Q. Can we connect the temperary heat to existing campus utilities?
- A. Yes.
- Q. On page 3 of the Instructions to Bidders, the business enterprise program (BEP) is listed. Is this a requirement for this project? If this is a requirement please issue a breakdown of percentages for each contract or state that it is combined.
- A. The business enterprise program forms are required for bidders utilizing subcontractors and for BEP certified firms that are self-performing. The Owner's goal for each bid package is 20%.
- Q. During the walk-throughs, I was informed the Owner is supplying the security cameras? Is a security company required for this project?
- A. Refer to scope of work. Electrical contractor responsible for providing and installing data cable for cameras and banana cable for door access. Owner provides and installs the cameras and door access system.

- Q. Please confirm if MEP bid packages will be due before the GC packages which is typical when these trades are broken out from the general trades.
- A. No, the bid opening is on the same day.
- Q. Please confirm if low voltage trades such as audio visual (A/V), security, or tele data are to be carried under the Electrical/Fire Alarm Trade's package or under the General Trade's package
- A. It is under the Electrical/Fire Alarm bid package.
- Q. BP#1, 2.3 states that General Trades is to supply dumpsters for trench excavation. I am assuming this is for concrete slab removal?
- A. Correct.
- Q. Please clarify who layouts saw-cut lines for plumbing trenches?
- A. Plumbing Trades with General Trade's coordination.
- Q. Please clarify who saw-cuts existing slab for plumbing trenches?
- A. Plumbing Trades with General Trade's coordination.
- Q. Please clarify who removes existing concrete slabs and properly disposes of slabs? (Typically, the saw-cutting contractor will also remove and dispose of the slabs.)
- A. The contractor that is saw cutting the slabs also removes the slabs to the General Trade's provided dumpster.
- Q. Please confirm that there is no fire protection work in Base Bid? Only in Alt #1 and Alt #2?
- A. Yes, there is only fire protection work under Altternate Bids #1 and #2. There is no fire protection work in base bid (only fire alarm).
- Q. The existing building is not sprinkled?
- A. Cottect, the existing building is not sprinkled.
- Q. On sheet CD101 it indicates existing water spigots to be removed and pipe capped. What bid package is responsible for these items?
- A. Plumbing Trades Contractor.
- Q. On sheet CD101 it indicates for the existing hot water heat vault to be removed. What bid package is responsible for this item?
- A. The piping in this vault is abandoned. The General Trades Contractor is responsible for cutting abandoned pipe and removing concrete vault. Back filling and restoration of area is also by General Trades Contractor.
- Q. The documents say that BP#1 is responsible to supply dumpsters for demolition for all bid packages. However, does this apply for large pieces of equipment? For example, (6) rooftop units are being demolished by BP#2. These rooftop units are expected to go into dumpsters? Large pieces of equipment should be hauled and disposed of off-site by whoever is demolishing them. Please clarify.
- A. Large pieces of equipment such as the roof top units, air handler on first floor, etc. are to be removed and disposed by the mechanical contractor.
- Q. Regarding the steel platform that is by BP#1 per Addendum #2, who is responsible for cutting existing roofing at the (4) columns?
- A. Mechanical Trades Contractor is responsible to cut the roof.

- Q. Who is responsible for roof patching at the (4) columns? As to avoid multiple roofing contractors, it would make sense that BP#2 be responsible for this, as they will most likely have a roofer onsite patching their other roof penetrations?
- A. Mechanical Trades Contractor is responsible to patch the roof.
- Q. BP#1, 8.15 states that BP#1 shall provide all perimeter drain tile if called for in the contract documents. Wouldn't this fall under BP#4 plumbing work
- A. Drain tile is not a requirement of the Contract Documents.
- Q. Are there additional insurance requirements?
- A. No additional insurance requirements exist except from those listed on pages 4-6 in document B22002 Campus Police Renovation.pdf.
- Q. What exclusions are being referenced?
- A. No additional insurance requirements from those listed on pages 4-6 in document B22002 Campus Police Renovation.pdf.
- Q. We have reviewed the attached Instructions to Bidders. We just wanted to let you know that according to the attached instructions, there could be different insurance requirements contained in a "Schedule A" and/or possibly an attachment to this agreement entitled "Insurance Specifications" that is referenced but that you may not have been provided. We recommend checking back with Joliet Jr. College to make sure there aren't any separate specifications in addition to the Instructions to Bidders that would need to be reviewed.
- A. No additional insurance requirements from those listed on pages 4-6 in document B22002 Campus Police Renovation.pdf.
- Q. Please confirm if the MEP Trade Packages will be due before the GC bid package. Typically this is the case so the GC can determine the proper fee to charge for coordination of these trades even though they are to be contracted by Owner.
- A. All bid packages are due at the same day and at the same time. MEP packages will not be opened prior to General Trades Package.
- Q. There is a note on sheet CD101 stating: "Existing "Hot Water Heat Vault" previously removed from service. Contractor shall internal pipes and remove vault (full depth). This note is confusing, please clarify.
- A. Existing concrete vault is to be removed by the General Trades Contractor. Existing vault contains abandoned 12" pipe that can be cut and capped (by General Trades). General Trades to backfill and restore area around vault.
- Q. Which package is responsible for the exterior utility relocation work?
- A. Any underground electrical site utility is the responsibility of the Electrical/Fire Alarm Trades Contractor. Any water, sanitary or storm underground utilities is the responsibility of the General Trades/Coordinating Contractor. Any underground gas utility shall be the responsibility of the Plumbing Trades Contractor.
- Q. During the site visit we saw many areas that had furniture, lockers, wall hung shelving, mail boxes, etc. that are not indicated on the drawings to be removed/salvaged. If not indicated to be removed, are we to assume that these will be removed by others.
- A. Furniture, loose, unattached lockers, etc. will be removed by Owner prior to start of construction as indicated in Section 01 10 00 Summary.

### END OF SECTION

This addendum consists of eight (8) pages.

This addendum has four (4) standard pages and thirteen (13) large drawing sheets attached as identified below:

#### **Specification Sections:**

08 56 53 - Security Windows (4 Pages)

#### Drawings:

- CD101 DEMOLITION PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- ED-100 FIRST FLOOR ELECTRICAL DEMOLITION POWER PLAN (REVISION Addendum #3 07.27.27) (1 Full Sheet)
- E-100 FIRST FLOOR ELECTRICAL POWER PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- E-300 FIRST FLOOR ELECTRICAL EQUIPMENT POWER PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-001 MECHANICAL SCHEDULES (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- MD101 FIRST FLOOR MECHANICAL DEMOLITION PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- MD201 FIRST FLOOR HYDRONIC & CONTROLS DEMOLITION PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-101 FIRST FLOOR MECHANICAL PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-201 FIRST FLOOR HYDRONIC & CONTROLS PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-301 MECHANICAL ROOF PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-302 MECHANICAL ENLARGED PLAN AND LOW ROOF PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- M-402 MECHANICAL DETAILS (REVISION Addendum #3 07.27.21) (1 Full Sheet)
- ET101 FIRST FLOOR ELECTRICAL TECHNOLOGY PLAN (REVISION Addendum #3 07.27.21) (1 Full Sheet)

### SECTION 08 56 53 SECURITY WINDOWS

### PART 1 GENERAL

#### **1.01 SECTION INCLUDES**

- A. Security view windows, with glazing.
- B. Security transaction windows with pass-through device.

### 1.02 RELATED REQUIREMENTS

- A. Section 04 20 02 Single-Wythe Unit Masonry.
- B. Section 07 90 05 Joint Sealers: Sealing joints between frames and adjacent construction.
- C. Section 12 24 00 Window Shades.

#### 1.03 REFERENCE STANDARDS

- A. AAMA 611 Voluntary Specification for Anodized Architectural Aluminum; 2014 (2015 Errata).
- B. ASTM A27/A27M Standard Specification for Steel Castings, Carbon, for General Application; 2020.
- C. ASTM A36/A36M Standard Specification for Carbon Structural Steel; 2014.
- D. ASTM A47/A47M Standard Specification for Ferritic Malleable Iron Castings; 1999, with Editorial Revision (2018).
- E. ASTM A627 Standard Test Methods for Tool-Resisting Steel Bars, Flats, and Shapes for Detention and Correctional Facilities; 2003 (Reapproved 2011).
- F. ASTM A653/A653M Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.
- G. ASTM A666 Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.
- H. ASTM A1008/A1008M Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable; 2018.
- I. ASTM B221 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 2014.
- J. ASTM B221M Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 2013.
- K. ASTM E90 Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009 (Reapproved 2016).
- L. ASTM E413 Classification for Rating Sound Insulation; 2016.
- M. ASTM E488/E488M Standard Test Methods for Strength of Anchors in Concrete Elements; 2018.
- N. ASTM F588 Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact; 2017.
- O. ASTM F1233 Standard Test Method for Security Glazing Materials And Systems; 2008 (Reapproved 2013).
- P. ASTM F1915 Standard Test Methods for Glazing for Detention Facilities; 2005 (Reapproved 2012).
- Q. HPW-TP-0500.03 Test Procedure-Transparent Materials for Use in Forced Entry or Containment Barriers; 2003.
- R. NFRC 100 Procedure for Determining Fenestration Product U-factors; 2017.
- S. NIJ 0108.01 Standard for Ballistic Resistant Protective Materials; 1985.
- T. UL (DIR) Online Certifications Directory; Current Edition.

U. UL 752 - Standard for Bullet-Resisting Equipment; Current Edition, Including All Revisions.

#### **1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination: Furnish anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, to be embedded into concrete or masonry, with setting diagrams and installation, to applicable installer in time for installation.
- B. Preinstallation Meeting: Prior to start of installation arrange a meeting on site to familiarize installer and installers of related work with requirements relating to this work.

#### 1.05 SUBMITTALS

- A. See Section 01 30 00 Administrative Requirements, for submittal procedures.
- B. Product Data: Manufacturer's published data showing materials, construction details, dimensions of components, and finishes.
- C. Shop Drawings: Drawings prepared specifically for this project, showing plans, elevations, sections, details of construction, anchorage to other work, hardware, and glazing.
  - 1. For new work show required opening dimensions and allowance for field deviation.
- D. Test Reports: Test reports for specific window model and glazing to be furnished, showing compliance with specified requirements; window and glazing may be tested separately, provided window test sample adequately simulates the glazing to be used.
  - 1. Include testing agency qualifications.
  - 2. For structural, forced entry, and ballistic tests, provide details on method of anchorage to test frame.
- E. Samples of Color Anodized Finishes: Frame member sections showing range of color to be expected in finished work.
- F. Coordination Drawings: For each window opening, show locations and details of items necessary to anchor windows that must be installed by others, in sufficient detail that installer of those items can do so correctly without reference to the actual window itself.

#### **1.06 QUALITY ASSURANCE**

- A. Manufacturer Qualifications: Firm with at least 5 years experience in the manufacture of windows of the type specified and able to provide test reports showing that their standard manufactured products meet the specified requirements; custom designed products not acceptable.
- B. Installer Qualifications: Company specializing in performing work of the type specified and with at least five years of documented experience.

#### 1.07 WARRANTY

- A. See Section 01 78 00 Closeout Submittals, for additional warranty requirements.
- B. Provide manufacturer's warranty agreeing to repair or replace windows and window components that fail within three years after Date of Substantial Completion due to, but not limited to, the following:
  - 1. Structural failure, failure of welds, and deterioration of metals and finishes beyond that expected under detention use and normal weathering.
  - 2. Failure of glazing due to excessive deflection of supporting members under wind load.

### PART 2 PRODUCTS

### 2.01 MANUFACTURERS

- A. Security Windows:
  - 1. Basis of Design Manufacturer:
    - a. Insulgard Security Products; 44/450 Architectural Aluminum Framing System: www.insulgard.com.
  - 2. Other Acceptable Manufactuers:
    - a. Chicago Bullet Proof Systems: www.chicagobulletproof.com.
    - b. Krieger Specialty Products: www.kriegerproducts.com.

- c. National Bullet Proof, Inc: www.nationalbulletproof.com.
- d. Overly Door Company: www.overly.com.
- e. Substitutions: See Section 01 60 00 Product Requirements.
- B. Security Glazing:
  - 1. Basis of Design Manufacturer:
    - a. Lexgard; 1-1/4 inch SP1250: www.insulgard.com.
  - 2. Other Acceptable Manufactuers:
    - a. Sierracin Corporation: www.sierracin.com.
    - b. North America Specialty Glass: www.naspecialtyglass.com.
    - c. Viracon, Apogee Enterprises, Inc: www.viracon.com.
    - d. Substitutions: See Section 01 60 00 Product Requirements.
  - 3. Ballistic Resistant:
    - a. Level 3 in accordance with UL 752 Testing for Ballistic Resistance for the complete assembly including framing, glazing and panels.
- C. Security Fasteners:
  - 1. Acument Global Technologies: www.acument.com/#sle.
  - 2. Safety Socket Screw Corporation: www.safetysocket.com/#sle.
  - 3. Tamperproof Screw Co, Inc: www.tamperproof.com/#sle.
  - 4. Tamper-Pruf Screws, Inc: www.tamper-pruf-screws.com/#sle.
  - 5. Substitutions: See Section 01 60 00 Product Requirements.

#### 2.02 ASSEMBLIES

- A. Security Windows:
  - 1. Dimensions, profiles, features, and performance specified and indicated on drawings are required; do not deviate unless specifically approved by Architect under substitution procedures specified in Section 01 60 00.
  - 2. Design to fit openings indicated on drawings; design to accommodate deviation of actual construction from dimensions indicated on drawings.
  - 3. Fabricate frames and sash with corners mitered or coped full depth with concealed welded joints.
  - 4. Design anchorages to provide performance equivalent to that required for window unit; provide anchorages at least equivalent to those by which the tested units were anchored to the test frame.
  - 5. Separate dissimilar metals to prevent corrosion by galvanic action by painting contact surfaces with primer or with sealant or tape recommended by manufacturer for the purpose.
  - 6. Weld components before finishing and in concealed locations, to greatest extent possible; minimize distortion and discoloration of finish; remove residue of welding; grind exposed welds smooth and finish to match.
  - 7. Label units to indicate which side is which, such as inside/outside or secure/non-secure; use labels that are removable after installation but durable enough not to be lost during delivery, storage, handling, and installation.

#### 2.03 SECURITY WINDOWS

- A. Security Windows: Factory-assembled fixed glazing panel reglazable from secure side without disassembly of frame, with non-removable trim and glazing stops on non-secure side (outside).
- B. Glazing Material:
  - 1. Framing and Glazing Stops: Formed aluminum-clad steel sheet; color anodized finish.
  - 2. Ballistic Resistance: UL 752 Level 3 (super-power handgun).
  - 3. Forced Entry Resistance: ASTM F1915 Grade I, tested from outside.

### 2.04 ASSEMBLY COMPONENTS

A. Aluminum Framing: ASTM B221 (ASTM B221M) extrusions of alloy and temper selected by manufacturer for strength, corrosion resistance, and finish required; not less that 1/8 inch thick at any location of frame and sash members.

- B. Frame Anchors: Mild steel plates, shapes, or bars, concealed in completed construction; provide anchorage devices as necessary to securely fasten windows to adjacent construction; use security fasteners for exposed anchors.
  - 1. Provide minimum of two anchors per side of window plus one additional anchor for each 18 inches or fraction thereof more than 36 inches in height or width.
- C. Glazing Seals: Factory installed; molded EPDM or neoprene compressible gaskets and compression strips.
- D. Writing Shelf: 4" deep solid surface sill as provided by countertop contractor.
- E. Speaking Aperture Covers: Stainless steel, round, allowing passage of speech at normal volume without distortion; listed and labeled by UL (DIR) as bullet resisting to UL 752, Level 3.
- F. Bituminous Paint: Cold-applied asbestos-free asphalt mastic, complying with SSPC-Paint 33; 30 mils, 0.030 inch minimum thickness per coat.

#### 2.05 FINISHES

A. Class I Natural Anodized Finish: AAMA 611 AA-M12C22A41 Clear anodic coating not less than 0.7 mils thick.

#### PART 3 EXECUTION

#### 3.01 EXAMINATION

- A. Verify that window openings are ready for installation of windows.
- B. Verify that correct embedded anchors are in place and in proper location; repair or replace anchors as required to achieve satisfactory installation.
- C. Notify Architect if conditions are not suitable for installation of windows; do not proceed until conditions are satisfactory.

#### 3.02 INSTALLATION

- A. Install in accordance with manufacturer's instructions and drawing details.
- B. Install windows in correct orientation (inside/outside or secure/non-secure).
- C. Anchor windows securely in manner so as to achieve performance specified.
- D. Separate metal members from concrete and masonry using bituminous paint.
- E. Set sill members and sill flashing in continuous bead of sealant.

#### 3.03 ADJUSTING

A. Adjust operating components for smooth operation while also providing tight fit at contact points and a secure enclosure; lubricate operating hardware.

#### 3.04 CLEANING

- A. Clean exposed surfaces promptly after installation without damaging finishes.
- B. Remove and replace defective work.

#### 3.05 CLOSEOUT ACTIVITIES

A. Demonstrate operation and maintenance to designated Owner personnel.

#### END OF SECTION







17	18	19	20	21	22	23	24
				GENERAL NO	DTES: ECTRICAL LEGEND ON SHEE	ET E-000 FOR DEVICE SYMBC	LS AND ABBREVIATIONS.
				3. REMOVE ALL	ABANDONED CONDUIT, WIR	ING/CONDUCTORS, AND DEV	ICES BACK TO SOURCE OF POWER. I
				OF POWER IS 4. REFER TO ME	OUTSIDE OF SCOPE OF WO	ORK, REMOVE TO EXTENT OF	SCOPE OF WORK AND PROPERLY A
					SCOPE.		
				KEYNOTES:1ALL EXISTING OTHERWISE.	BELECTRICAL DEVICES ON V	WALLS TO BE DEMOLISHED S	SHALL BE REMOVED, UNLESS NOTED
				2 EQUIPMENT I	S EXISTING TO BE REMOVE	D.	
				(3) RELOCATE EX FEEDERS AS	XISTING ELECTRICAL EQUIP NECESSARY.	MENT TO MAINTAIN CODE-R	EQUIRED CLEARANCES. EXTEND CON
					CAL EQUIPMENT IN THIS SPA	ACE IS EXISTING TO REMAIN	UNLESS NOTED OTHERWISE.
				(5) EXISTING PH	CHANICAL UNIT AND ASSOI	CATED CONDENSING UNIT O	N THE ROOF IS BEING DEMOLISHED.
10				REMOVE ALL CONSTRUCT OPERATIONA NECESSARY	EXISTING FEEDERS AND CO ION AND DEMOLITION TO BE AL UNTIL SWITCHOVER TO F , PROVIDE TEMPORARY POV	DONUITS. LABEL THE EXISTIN E DONE IN PHASES SO THAT ULLY FUNCTIONAL NEW DISI WER TO EXISTING DISPATCH	IG BREAKERS SERVING THE UNITS AS EXISTING DISPATCH CENTER REMAIN PATCH CENTER CAN BE COMPLETED. AREA TO ENSURE DISPATCH IS
				OPERATIONA	AL DURING ANY SHUTDOWN	S. ALL SHUTDOWNS WILL NE	ED STRICT APPROVAL BY CAMPUS P
— (†							
$\square$							





17	18	19	20	21	22	23	24	
				GENERAL NO 1. REFER TO ELE 2. REFER TO ELE 3. ALL ELECTRIC 4. COORDINATE 5. COORDINATE 6. ALL RECEPTA THEM FROM A 7. PROVIDE CON MONITORS E	DTES: ECTRICAL LEGEND ON SHEET E ECTRICAL RISERS ON SHEETS E CAL PANELS, METERS, AND FEEL MECHANICAL EQUIPMENT WITH PLUMBING EQUIPMENT REPLAC CLES POWERED FROM GENERA A STANDARD RECEPTACLE.	-000 FOR DEVICE SYMBOLS AN E-001 FOR EXISTING DISTRIBUT DS ARE EXISTING TO REMAIN L H MECHANICAL PLANS AND COI CEMENT WITH PLUMBING PLAN ATOR SYSTEM SHALL BE PERM LL SECURITY CAMERAS, DATA	D ABBREVIATIONS. ION. INLESS NOTED OTHERWISE. NSTRUCTION MANAGER. S AND CONSTRUCTION MANAGE ANENTLY MARKED TO DIFFEREN DEVICES, CCTV DEVICES, AV EQ ENTS	.r. Itia1 Uipi
				KEYNOTES:         1       ALL FIXTURES         2       TRENCH (1) 3         PATCH FLOOD	S AND DEVICES IN THESE ROOM /4" CONDUIT TO NEW FLOOR BC	IS SHALL BE TAMPER RESISTA	NT AND CORRECTIONAL GRADE.	NER.
				<ul> <li>RELOCATE EX FEEDERS AS</li> <li>PROVIDE REC CIVIL DRAWIN</li> </ul>	XISTING ELEECTRICAL EQUIPME NECESSARY. CEPTACLE FOR POLICE VEHICLE NGS. CONFIRM CONNECTION RE	ENT TO MAINTAIN CODE-REQUI E CHARGING. COORDINATE LAY EQUIREMENTS WITH OWNER'S Y	RED CLEARANCES. EXTEND CON YOUT WITH PARKING PLAN. REFE VEHICLES.	IDUI Er Ti
				<ul> <li>TRENCH (1) 3.</li> <li>COMPARTME PATCH FLOOI</li> <li>COORDINATE IN.</li> </ul>	/4" CONDUIT AND (1) 1" CONDUI NTS FOR BOTH POWER AND DA R. E FINAL LOCATION AND CONNEC	T FOR DATA FOR NEW FLOOR I TA. X-RAY FLOOR AND COORD CTION REQUIREMENTS OF PRO	30X. FLOOR BOX SHALL HAVE INATE ALL TRENCHING WITH OW JECTOR WITH OWNER PRIOR TO	NEF
				<ul> <li>ADD KEYNOT</li> <li>WIRE, AND CO</li> <li>PANEL C SHA</li> <li>OF AI TERNAT</li> </ul>	E: COORDINATE FINAL POWER ONDUIT SIZE AS NECESSARY. ILL BE PROVIDED ONLY AS PAR <sup>*</sup> TE BIDS.	REQUIREMENTS FOR DATA RA	CK WITH OWNER. ADJUST BREAK	(ER, As i
				(9) FOR AUTOMA AND WIRING I REQUIREMEN	TIC PLUMBING FIXTURES PROV REQUIRED TO PROVIDE A COMI ITS WITH PLUMBING CONTRACT	/IDE ALL RECEPTACLES, JUNCT PLETE AND OPERATIONAL SYS FOR PRIOR TO ROUGH-IN.	TION BOXES, TRANSFORMERS, CI TEM. COORDINATE EXACT ROUG	one ;H-In

CONSTRUCTION AND DEMOLITION TO BE DONE IN PHASES SO THAT EXISTING DISPATCH CENTER REMAINS OPERATIONAL UNTIL SWITCHOVER TO FULLY FUNCTIONAL NEW DISPATCH CENTER CAN BE COMPLETED. IF NECESSARY, PROVIDE TEMPORARY POWER TO EXISTING DISPATCH AREA TO ENSURE DISPATCH IS OPERATIONAL DURING ANY SHUTDOWNS. ALL SHUTDOWNS WILL NEED STRICT APPROVAL BY CAMPUS POLICE.





E-100 **ISSUED FOR BID** 



17 18 19 20 21 22 23 24 **GENERAL NOTES:** 1. REFER TO ELECTRICAL LEGEND ON SHEET E-000 FOR DEVICE SYMBOLS AND ABBREVIATIONS.

2. REFER TO ELECTRICAL RISERS ON SHEETS E-001 FOR EXISTING DISTRIBUTION.

3. ALL ELECTRICAL PANELS, METERS, AND FEEDS ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

4. COORDINATE MECHANICAL EQUIPMENT WITH MECHANICAL PLANS AND CONSTRUCTION MANAGER.

5. COORDINATE PLUMBING EQUIPMENT REPLACEMENT WITH PLUMBING PLANS AND CONSTRUCTION MANAGER.

25

KEYNOTES: (1) PROVIDE 120/24V TRANSFORMER FOR VAV AND CORRESPONDING CONTROL VALVE. REFER TO SHEET M-201 FOR ADDITIONAL INFORMATION.

 $\langle 2 
angle$  EXHAUST FAN SHALL BE CONTROLLED THRU LIGHTING CONTROLS IN AREA. REFER TO LIGHTING PLANS FOR ADDITIONAL INFORMATION.

3 PROVIDE 120/24V TRANSFORMER FOR CONTROL VALVE. REFER TO SHEET M-201 FOR ADDITIONAL INFORMATION. 4) IN DISPATCH ROOM DURING PHASE 1 TEMPERARY AC IS BEING PROVIDED. EC TO COORDINATE WITH MECHANICAL

CONTRACTOR FOR FINAL LOCATION AND SIZING IN ORDER TO PROVIDE THE NECESSARY TEMPERARY POWER CONNECTION. 

CONSTRUCTION AND DEMOLITION TO BE DONE IN PHASES SO THAT EXISTING DISPATCH CENTER REMAINS OPERATIONAL UNTIL SWITCHOVER TO FULLY FUNCTIONAL NEW DISPATCH CENTER CAN BE COMPLETED. IF NECESSARY, PROVIDE TEMPORARY POWER TO EXISTING DISPATCH AREA TO ENSURE DISPATCH IS OPERATIONAL DURING ANY SHUTDOWNS. ALL SHUTDOWNS WILL NEED STRICT APPROVAL BY CAMPUS POLICE.



			DESI	GN AIR TEMPERA	TURES			
TAG	QUANTITY	LOCATION	SUN	IMER	WINTER	HEATING FLUID	COOLING FLUID	
			DB°F	WB°F	DB°F	IYPE	IYPE	
AHU-G1, AHU-G2, AHU-G3, AHU-G4, AHU-G5, AHU-G6	6	EXISTING GYM	89.7	74.4	3.4	WATER	30% EG	78.4

3. FILTER SECTION: 2" MERV 8 PLEATED MEDIA FILTERS – PROVIDE (2) SETS. 4. FACTORY INSTALLED VFDS – 3 YEAR PARTS AND LABOR WARRANTY ON VFDS. START-UP BY MANUFACTURER.

5. MOTOR SHAFT GROUNDING RINGS.

 6. ASHRAE 111 CLASS 6 LEAKAGE CASING (<1.0 PERCENT LEAKAGE) AND PANEL DEFLECTION LESS THAN 0.0042 INCHES AT +/- 8 INCHES W.G.</li>
 7. 2-INCH R13 FOAM-INJECTED CASING. NO THROUGH-METAL CASING. THERMAL BREAKS DOORS. TR-VALUE OF 0.6. 8. STAINLESS STEEL COOLING COIL CASING.

9. UL LISTING. 10. RUSKIN CD60 DAMPERS TESTED IN COMPLIANCE WITH AMCA STANDARD 500.

1 2 3 4 5 6 7

11. PROVIDE EXTENDED DRAIN AND VENT CONNECTIONS THROUGH CASING ON WATER COILS.

12. FULLY PROGRAMMABLE BACNET CONTROLS COMPLETE WITH ALL END-DEVICES, SENSORS, SWITCHES, CONTROL VALVES AND ACTUATORS BY TEMP. CONTROLS CONTRACTOR. 13. OEM FIRST YEAR PARTS AND LABOR WARRANTY - ENTIRE UNIT.

14. EACH MOTOR TO BE PROVIDED WITH INDIVIDUAL MOTOR OVERLOAD PROTECTION. 15. ACTUATORS BY TEMP CONTROLS CONTRACTOR.

EXHAUST FAN SCHEDULE														
			MOTOR DATA				MANUFACTURER AND							
	DRIVE	HP	VOLT	PH	HZ	WEIGHT	MODEL	REMARKS						
	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6						
	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6						
	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6						
	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6						
	DIRECT	5	460	3	60	319	GREENHECK GB-420	1, 4, 5, 6						
	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6						
	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6						
	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6						

	EXHAUST FAN SCHEDULE												
тас		ОГМ				MANUFACTURER AND	DEMADKS						
TAG	SERVICE	GEIM	ESPIN	RPM	DRIVE	HP	VOLT	PH	HZ	WEIGHT	MODEL	REMARNS	
EF-1059	LOCKER ROOM	475	0.53	1550	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6	
EF-1060	LOCKER ROOM	475	0.53	1550	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6	
EF-1073	LOCKER ROOM	475	0.53	1550	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6	
EF-1076	LOCKER ROOM	475	0.53	1550	DIRECT	1/8	120	1	60	49	GREENHECK SQ-95-D	1, 2, 6	
EF-1023	GENERAL EXHAUST	18515	0.50	509	DIRECT	5	460	3	60	319	GREENHECK GB-420	1, 4, 5, 6	
CEF-1014	TOILET ROOM	70	0.48	935	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6	
CEF-1029	TOILET ROOM	70	0.48	935	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6	
CEF-1051	TOILET ROOM	70	0.48	935	DIRECT	6 W	120	1	60	47	GREENHECK SP-80-VG	1, 3, 6	

REMARKS: 1. PROVIDE FAN WITH DISCONNECT SWITCH, BACKDRAFT DAMPER, AND BIRDSCREEN.

2. EXHAUST FAN TO RUN CONTINUOUSLY. EXHAUST FAN TO BE CONTROLLED BY LIGHT SWITCH.
 EXHAUST FAN TO BE CONTROLLED WITH AHU BY BAS.

5. EXHAUST FAN TO BE CONTROLLED BY VFD. VFD TO BE PROVIDED MY MECHANICAL CONTRACTOR. 6. EXHAUST FAN TO BE PROVIDED WITH EC MOTOR.

ITEM TAG	SERVES
CAP 1	EXHAUS
REMARKS: 1. PROVIDE BA 2. FLASH CAP	ACKDRAF <sup>-</sup> CURB INT

		GRILLE, RE	GISTER	s, and dif	FUSER SCHEI	DULE						MOTORIZED CONTR		/E SCHE	EDULE						
ITEM TAG	AIR		FRA	ME SIZE	MANUFACTURER	MODEL	REMARKS		DESIGN	MAX			EL	ECTRICAL D	ΑΤΑ					NECK SIZE	
	SUPPLY		HEIGHT (IN	) WIDTH (IN)			1.5	TAG	FLOW (GPM)	DIFFERENTIAL PRESSURE	PIPE SIZE (IN)	FAIL POSITION				MANUFACTURER	MODEL NO.	REMARKS	TAG		<b>,~MAX(</b> ′
B	RETURN	SQUARE	24	24	TITUS		246		(01 11)	(PSI)			VOLIS	PH	HZ				> VAV-1003A	16	249
В		SQUARE	12	12	TITUS		2, 4, 0	CV 1A	137.1	60	3	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	P6300S	ALL	VAV-1003B	16	249
	RETURN		24	12	TITUS		2,4,5	CV 1B	70	60	2.5	FAIL OPEN	120	1	60	BELIMO	P6250S	ALL	C VAV-1003C		
E	FYHALIST	SOLIARE	24	24	TITUS		2,4,0	CV 1003A	2	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1008	many	~~~~81
		SQUARE	24	24	TITUS		2, 4, 5	CV 1003B	2	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1012	9	11(
F			24	12			2467	CV 1003C	0.6	60	0.5	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1021	7	65
G L		SOUARE	24	24			2, 4, 0, 7	CV 1008	1	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1027	5	20
		SQUARE	24	24	DBICE		2, 4, 6, 7	CV 1012	1.4	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1028	6	40
J		SQUARE	24	24	PRICE	AMDC	1-5	CV 1021	0.7	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1031	7	55
	IRANSFER	SQUARE	24	24	11105	PAR	1-5	CV 1027	0.3	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1034	7	52
1. 4 WAY TH	ROW UNLESS	OTHERWISE NOTED	).					CV 1028	0.6	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1036	8	72
2. PROVIDE	ADAPTOR BO	OTS AS REQUIRED. L VOLUM BALANCE D	AMPER.					CV 1031	0.6	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1037	8	60
4. COORDIN	ATE FRAME S	TYLES WITH ARCHIT	ECTURAL PLA	NS.				CV 1034	0.5	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1041	5	20
6. RETURN (	GRILLE TO HA	VE LINED ELBOW BO	OT FOR PLEN	UM RETURN AND	SOUND ATTENTUATIC	N.		CV 1036	1	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1042	12	175
7. GRILLE TO	D BE ANIT-LIG	ATURE DEVICE.						CV 1037	0.7	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1046	5	25
L								CV 1041	0.3	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1055	8	87
								CV 1042	2.1	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1058	9	97
								CV 1046	0.3	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1060	8	65
								CV 1055	1.2	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1062	8	83
								CV 1058	1.1	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1066	9	110
								CV 1060	0.7	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1067	4	15
								CV 1062	1.1	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1075	5	20'
								CV 1066	1.4	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	VAV-1076	7	65
								CV 1067	0.3	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	REMARKS:	VELOCITY THROUGH	COILS SH
								CV 1075	0.3	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	2. COIL HEIGHT SHA	L NOT EXCEED THE	30X HEIGH
								CV 1076	0.7	60	0.75	FAIL IN LAST POSITION (F.L.P)	120	1	60	BELIMO	B220HT	ALL	4. VAV BOXES TO BE	TIED INTO BUILDING	BAS.
								1. CONTROL 2. CONTROL 3. CONTROL	_ VALVE TC _ VALVE TC _ VALVE TC	) BE WIRED AND ) BE ON SUPPLY ) RECEIVE POWE	CONNECTED SIDE OF COIL ER FROM A 24	PER CONTROL DRAWINGS. / DC TRANSFORMER WITH POWEF		er. Provide	ED BY E.C				5. COORDINATE IN F 6. PROVIDE 1 YEAR 7. INSTALL AS PER N 8. VAV BOX AND ALL	IELD WHICH SIDE COI VARRANTY OF PARTS IANUFACTURER'S REI ASSOCIATED DUCTW	ITROL BOX AND LABO COMMEND ORK, PIPII

8 9 10 11 12 13 <sup>14</sup> 15 16 17 18 19 20 21 22 23 23 24
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GYM AIR HANDLING UNIT SCHEDULE

							Ŭ	/																			
	COOLING COIL							HEATING COIL						FAN MOTOR DATA			ELECTRICAL							1			
EWB (°F)	LDB (°F)	LWB (°F)	TOTAL COOLING CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	ENT FLUID TEMP (F)	LVG FLUID TEMP (F)	FLOW RATE (GPM)	WPD (FT)	EDB (°F)	LDB (°F)	CAPACITY (MBH)	ENT FLUID TEMP (°F)	LVG FLUID TEMP (°F)	FLOW RATE (GPM)	HEATING FLUID PD (FT H20)	DESIGN AIRFLOW (CFM)	SUPPLY FAN ESP (IN. H2O)	NUMBER OF FANS	SUPPLY FAN MOTOR BHP	FLA	MCA	MOCP	V/PH/HZ	MANUFACTURER	MODEL NO.	WEIGHT (LB)	REMAR
64.7	55.1	54.2	158	129	42	54	27.8	12.8	56	98	249.15	180	140	12.7	1.8	5,200	0.75	2.0	2.3	15.4	17.3	25	460/3/60	CARRIER	39MN	2158	ALL

	WEA1	THER CA	P SCHEDULE		
	DESIGN CFM	TYPE	MANUFACTURER	MODEL	REMARKS
Г	800	EXHAUST	GREENHECK	GRSF	ALL
	-				

FT DAMPER AND BIRDSCREEN AT CONNECTION TO CAP. H CAP CURB INTO ROOF. CURB TO BE A MINIMUM OF 24".

MANUFACTURER	AREA SERVED		REFRIGERANT	REFRIGERANT																COOLI	NG CAPACITY	HEATING CAPACITY		INDOOF	RUNIT		OUTDOOR UNIT		ELECTRICAL DATA			DEMADI
		TONS			CONTROL	TOTAL (MBH)	SEER/EER	TOTAL (MBH)	TAG	MODEL	CFM	WEIGHT	TAG	MODEL	WEIGHT	V/PH/HZ	MCA	MOCP	REMARK													
CARRIER	IDF 1015	1.8	R-410A	THERMOSTAT SET TO 75	22.0	18.5/11.1	-	FC 1015	40MHHQ24	1500	40.12	CU 1015	38MHRBC24AA3	114.2	208/1/60	18	25	1-9														
CARRIER	DISPATCH 1028	1	R-410A	THERMOSTAT SET TO 75	12.0	19.5/12.5	12	FC 1028	40MBCQ12	1200	51.8	CU 1028	38MAQB12R	91.5	208/1/60	9	15	1-8, 10														
CARRIER	TRAINING CLASSROOM 1042	1	R-410A	THERMOSTAT SET TO 75	12.0	19.5/12.5	12	FC 1042A	40MBCQ12	1200	51.8	CU 1042A	38MAQB12R	91.5	208/1/60	9	15	1-8, 10														
CARRIER	TRAINING CLASSROOM 1042	1	R-410A	THERMOSTAT SET TO 75	12.0	19.5/12.5	12	FC 1042B	40MBCQ12	1200	51.8	CU 1042B	38MAQB12R	91.5	208/1/60	9	15	1-8, 10														
CARRIER	MECHANICAL 1023	1.8	R-410A	THERMOSTAT SET TO 75	22.0	18.5/11.1	-	FC 1023	40MHHQ24	1500	40.12	CU 1023	38MHRBC24AA3	114.2	208/1/60	18	25	1-9														
DEMADIKO																																

REMARKS: 1. ELECTRICAL CONTRACTOR TO PROVIDE SERVICE DISCONNECT SWITCH.

2. PROVIDE FACTORY START UP AND COMPLETE WRITTEN REPORT. 3. MOUNT OUTDOOR UNIT ON ROOF PER MANUFACTURER'S INSTRUCTIONS. PROVIDE SOLID CONCRETE PAD OR PLATFORM.

4. MAINTAIN MANUFACTURER'S MINIMUM INSTALLATION CLEARANCES. 5. CONTROL WIRING PER MANUFACTURE'S INSTRUCTION. 6. PROVIDED DX LIQUID AND SUCTION REFRIGERANT PIPING SIZED FOR ACTUAL FIELD CONDITIONS AND MANUFACTURER'S RECOMMENDATIONS. 7. PROVIDE WITH MANUFACTURE'S CONDENSATE PUMP KIT.

8. PROVIDE WITH WIND BAFFLE. 9. MOUNT INDOOR UNIT ON WALL PER MANUFACTURER'S INSTRUCTIONS. PROVIDE MOUNTING SUPPORTS AS NEEDED. 10. MOUNT INDOOR UNIT IN CEILING GRID PER MANUFACTURER'S INSTRUCTIONS. PROVIDE MOUNTING SUPPORTS AS NEEDED.

# DUCTLESS SPLIT SYSTEM SCHEDULE

	VARIA		VOLUM	E TERMI	NAL UN	IT SCHEI	DULE W	/ITH HOT	WATER	REHEAT	•			
DESIGN	AIRFLOW	HEATING				HEATING CAP.				001/700/				
MAX (ÇEM)	WIN-(ÇEM)	AIRFLOW	, МВҢ, ,	GPM ~~	~-EĄI(°E)~	<b>╷</b> └₳₸(╩₣)╷╭	<u>,</u> E₩I(°Ę)	LWFT (°E) ~~	WPD (FT		MANUFACTURER	MODEL		REMARI
2490	2490	2490	81.1	5.4	65	95	180	113	0.57	DDC	CARRIER	35E	68	1-8
2490	2490	2490	81.1	5.4	65	95	180	113	0.57	DDC	CARRIER	35E	68	1-8
	•		·			REMOVED FROM P	ROJECT							
~ 810 ···	245	245	26.4	3.7~	65	11801	108	128	0.37	MODIN	CARRIER		~~37~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1-8
1100	330	1100	35.8	1.4	65	95	180	126	0.33	DDC	CARRIER	35E	46	1-8
650	195	195	21.1	3.0	65	80	180	120	0.19	DDC	CARRIER	35E	37	1-8
200	60	60	10.2	1.4	65	80	180	112	0.03	DDC	CARRIER	35E	34	1-8
400	120	120	14.9	2.1	65	80	180	130	0.10	DDC	CARRIER	35E	34	1-8
550	165	165	17.9	2.5	65	80	180	114	0.12	DDC	CARRIER	35E	37	1-8
525	160	160	17.2	2.4	65	80	180	113	0.11	DDC	CARRIER	35E	37	1-8
725	220	220	26.4	3.7	65	80	180	128	0.37	DDC	CARRIER	35E	37	1-8
600	180	180	21.7	3.1	65	80	180	120	0.19	DDC	CARRIER	35E	37	1-8
200	60	60	10.2	1.4	65	80	180	112	0.03	DDC	CARRIER	35E	34	1-8
1750	525	525	57.0	2.1	65	80	180	125	0.94	DDC	CARRIER	35E	56	1-8
250	75	75	10.2	1.4	65	80	180	112	0.03	DDC	CARRIER	35E	34	1-8
875	265	265	28.5	4.0	65	80	180	131	0.47	DDC	CARRIER	35E	37	1-8
975	295	295	31.8	4.5	65	80	180	121	0.24	DDC	CARRIER	35E	46	1-8
650	195	195	21.7	3.1	65	80	180	120	0.19	DDC	CARRIER	35E	37	1-8
830	250	250	27.1	3.8	65	80	180	129	0.40	DDC	CARRIER	35E	37	1-8
1100	330	1100	35.8	1.4	65	95	180	126	0.33	DDC	CARRIER	35E	46	1-8
150	45	45	5.2	0.7	65	80	180	137	0.04	DDC	CARRIER	35E	28	ALL
200	60	60	10.2	1.4	65	80	180	112	0.03	DDC	CARRIER	35E	34	1-8
650	195	195	21.1	3.0	65	80	180	120	0.19	DDC	CARRIER	35E	37	1-8

IROUGH COILS SHALL NOT EXCEED 800 FPM. ED THE BOX HEIGHT. (SPLIT AND DRIVE CONNECTION)

# . 3UILDING BAS. SIDE CONTROL BOX IS ON. OF PARTS AND LABOR POST SUBSTANTIAL COMPLETION.

ER'S RECOMMENDATIONS. DUCTWORK, PIPING, AND ELECTRICAL TO BE PART OF ALTERNATE 1 AND ALTERNATE 2 SCOPES.

	LOUVER SCHEDULE														
ITEM TAG	SERVES	DESIGN CFM	TYPE	MAX AIR VELOCITY (FPM)	FREE AREA (FT2)	SIZES (IN.)	MANUFACTURER	MODEL	REMAR						
L1	CEF 1059	70	EXHAUST	510	0.1	12X8	GREENHECK	ESD-202-12X8	ALL						
L 2	EXHAUST	870	EXHAUST	551	1.6	30X18	GREENHECK	ESD-435-30X18	ALL						
REMARKS: 1. LOUVER 1 2. LOUVER 1	REMARKS: 1. LOUVER TO TERMINATE A MINIMUM OF 10'-0" AWAY FROM OUTDOOR AIR INTAKES. 2. LOUVER TO BE UL LISTED														









![](_page_20_Picture_2.jpeg)

17 18 19 20

# MECHANICAL GENERAL NOTES

- 1. REFER TO M-000 FOR MECHANICAL NOTES & M-001 FOR MECHANICAL SCHEDULES.
- 2. REFER TO ARCHITECTURAL ELEVATIONS FOR EXACT LOUVER LOCATIONS.
- 3. COORDINATE LOUVER MOUNTING REQUIREMENTS WITH SPECIFIC WALL TYPES.
- 4. PROVIDE DRIP PAN BELOW ALL HORIZONTAL RUNS FOR VENTS/COMBUSTION. TO BE DRAINED TO FLOOR DRAIN.
- 5. PROVIDE LINED ELBOW OFF ALL RETURNS FOR PLENUMN RETURN SYSTEM.
- 6. CEILINGS ARE USED FOR PLENUM RETURN. PVC SHOULD NOT BE USED ABOVE CEILNGS AND ALL CABLING SHOULD BE PLENUM RATED.

24

# MECHANICAL KEY NOTES

- $\langle 1 \rangle$  PROVIDE SPACE WITH SUICIDE DETERRENT SUPPLY/RETURN GRILLES.
- $\langle 2 \rangle$  NEW 24"X20" EXHAUST DUCT TO CONNECT TO EXISTING EXHAUST RISER.
- $\langle 3 \rangle$  PROVIDE NEW VENT CAP FOR DRYER EXHAUST.
- 4 PROVIDE NEW DRYER VENT CONNECTION TO DRYER. COORDINTE EXACT LOCATION IN FIELD  $\langle 5 \rangle$  12"X10" EXHAUST UP THROUGH EXISITNG CHASE TO NEW ROOF CAP. SEE ROOF PLAN FOR MORE INFORMATION.
- $\langle \widehat{6} 
  angle$  Transfer duct above ceiling to allow for clear air path back to air handling unit. 18X54 RETURN DUCT UP TO LEVEL 2 THROUGH EXISTING FLOOR PENETRATION. VERTICAL DUCT SHALL TAP INTO 54X30 HORIZONTAL DUCT WITHIN THE MECHANICAL ROOM. PROVIDE MITERED TRANSITION ELBOW WITH TURNING VANES. ELBOW SHALL TRANSITION TO 80X30. ALL HORIZONTAL RETURN DUCT SHALL BE INTERNALLY LINED.
- PROVIDE FIRE DAMPER AT DUCT PENETRATION OF MECHANICAL ROOM WALL.  $\langle 8 \rangle$  provide security bars in ductwork at wall.
- $\langle 9 
  angle$  vav box and all associated ductwork, piping, and electrical to be part of alternate 1 and  $\langle 9 
  angle$ ALTERNATE 2 SCOPES.
- $\overline{(10)}$  IN DISPATCH ROOM DURING PHASE 1 PROVIDE TEMPERARY AC MATCHING SIZE OF EXISTING UNIT. The second secon

## PLENUM NOTES

THE SPACE ABOVE THE CEILING IS BEING UTILIZED AS A RETURN AIR PLENUM. ALL PIPING, WIRING AND DEVICES INSTALLED WITHIN THE PLENUM SHALL BE U.L. LISTED PLENUM RATED AND COMPLY WITH CURRENT AND LOCAL CODES. EXPOSED MATERIAL WITHIN THE PLENUM SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPEAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELPOMENT INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

![](_page_20_Picture_26.jpeg)

![](_page_21_Figure_0.jpeg)

![](_page_22_Figure_0.jpeg)

# MECHANICAL GENERAL NOTES

- 1. REFER TO M000 FOR MECHANICAL NOTES & M001 FOR MECHANICAL SCHEDULES.
- 2. EXHAUST OUTLETS SHALL BE LOCATED A MINIMUM OF 10'-0" FROM ANY OUTSIDE AIR INTAKES.
- 3. TERMINATE EXHAUST VENTS WITH GOOSENECK 12" ABOVE SNOWLINE. PROVIDE WITH BACKDRAFT DAMPER AND BIRDSCREEN.

## KEYNOTES:

- $\langle \underline{1} \rangle$  Existing Boiler Exhaust to remain.
- $\langle 2 \rangle$  Existing roof opening in this area to be capped.
- $\overline{\langle 3 \rangle}$  EXISTING ROOF OPENING IN THIS ARE TO BE CAPPED IN SUCH A WAY TO ALLOW FOR NEW WEATHER CAP TO BE

![](_page_22_Picture_13.jpeg)

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U					<u>MECHANICAL Lo</u> 1/8" = 1'-0"	OW ROOF PLAN		
2								

![](_page_23_Figure_1.jpeg)

![](_page_23_Figure_2.jpeg)

	7	8	9	
	REFER	TO M-202 FOR CONTINUATION. SEE		
CURB DETAIL.				
ATE OA DUCT WITH GOOSENECK AND OPENING WITH INSECT SCREEN.				
FLOOR AHU DN TO 2ND ROOF PENETRATION.				
AL CAP OVER DUCT RISERS TO ROOF FLASHING. 1ST FLOOR. RE-USE				
NTION.				

- 5 NEW 14X62 RETURN DUCT THROUGH ROOF. TRANSITION IN VERTICAL TO 18X54 IN ORDER TO ROUTE THROUGH EXISTING 2ND FLOOR PENETRATION.
- CONNECT NEW OUTSIDE AIR DUCT TO INTAKE PLENUM. PROVIDE NEW PNEUMATIC CONTROL DAMPER AND OUTSIDE AIR SENSOR IN DUCT. CONNECT NEW PNEUMATIC TUBING TO EXISTING PANEL IN MECHANICAL ROOM.
- $\langle \overline{3} \rangle$  New 14x20 outside air duct up through roof.
- $\langle 2 \rangle$  Extend existing outside air duct to allow for New Connection. OA duct size is approximately 84x24. Contractor to verify size in Field.
- 1 PROVIDE NEW PNEUMATIC CONTROL DAMPER ON THE EXISTING RETURN OPENING. DAMPER SIZE APPRXOMATELY 18X70. CONTRACTOR TO VERIFY SIZE IN FIELD. CONNECT NEW PNEUMATIC TUBING TO EXISTING PANEL IN MECHANICAL ROOM.

MECHANICAL KEY NOTES

![](_page_23_Picture_11.jpeg)

![](_page_24_Figure_0.jpeg)

![](_page_25_Figure_0.jpeg)

	GE	NER	AL NOTES:				
	1. 1	REFER TO	O SYMBOLS ON SHEET ET000	AND PROJECT SPECIFICATION	IS FOR CONSTRUCITON STAND	ARDS.	
	2	ALL CEILIN CEILING M OTHERWI	NG MOUNTED DEVICES SHALI MOUNTED DEVICES SHALL BE ISE.	L BE CENTERED AND BETWEE INSTALLED AT MID OR QUART	N ARCHITECTURAL ELEMENTS I ER POINTS OF ACOUSTICAL CE	N DRYWALL SOFFITS/CEILING. A ILING PANELS UNLESS NOTED	\LL
	3. (	COORDIN	IATE ALL DEVICE LOCATIONS	WITH ARCHITECTURAL ELEVA	TIONS.		
	4. (	COORDIN	IATE GROMMETS THROUGH C	OUNTER/TABLE TOPS IF EQUI	PMENT OUTLET IS LOCATED BE	LOW COUNTER/TABLETOP.	
	5.	ELECTRIC BE ROUTE REQUIREN	CAL CONTRACTOR TO PROVID ED TO IDF.LEED/DR CONTROL MENTS.	DE CABLING FOR CAMERAS, AO ROOM 1015 UNLESS NOTED (	CCESS CONTROL, WAPS, AND D DTHERWISE. REFER TO SCHEDU	ATA LOCATIONS. ALL CABLING S JLE ON THIS SHEET FOR CABLIN	Shall Ig
	6. /	LL CABLI	ING TO BE COLOR CODED PE	R OWNER STANDARDS.			
	7.	OWNER TO PROVIDE OCATION	TO PROVIDE AND INSTALL ALL ELECTRIC STRIKES AND PANI NS WITH THE OWNER PRIOR T	WAPS, PHONES, SECURITY C. IC HARDWARE. CONTRACTOR TO ROUGH-IN.	AMERAS, CARD READERS AND I TO MAKE FINAL TEMINATIONS.	VETWORK SWITCHES. OWNER TO COORDINATE ALL FINAL DEVICE	0 <u>-</u>
	<b>3</b> <b>8</b> . <b>9</b> .	REFER TC ECHNOL A. DISP/ B. TRAIN EQUA C. ALL C	D DETAIL 2/ET000 FOR DOOR S DGY CONTRACTOR TO PROV ATCH TO HAVE (6) 55" MONITO NING ROOM TO HAVE (6) 75" N AL) OTHER TVS TO BE 55". SAMSU	SECURITY ROUGH-IN REQUIRE IDE ALL TVS AND FULL MOTIO DRS. SAMSUNG 55" CLASS TU7 MONITOTS. SAMSUNG 75" CLAS ING 55" CLASS TU7000MOUNT:	EMENTS. N WALL MOUNTS. 2000 MOUNT: LEGRAND CHIEF 1 SS TU7000 MOUNT: LEGRAND CH LEGRAND CHIEF TS525T SERIE	S525T SERIES (OR APPROVED E HEF TS525T SERIES (OR APPRO S (OR APPROVED EQUAL)	EQUAL) IVED
	K C		TEC.				

## KEYNUIES:

SCOPE NOTE:

1 PROVIDE A CEILING MOUNTED DATA RECEPTACLE FOR THE OWNER PROVIDED PROJECTOR. COORDINATE FINAL LOCATION WITH THE OWNER PRIOR TO ROUGH-IN.

 $\langle 2 \rangle$  APPROXIMATE LOCATION OF SECOND FLOOR ELECTRICAL CLOSET CONTAINING THE TELEVISION ANTENNA.

 $\langle 3 \rangle$  REFER TO DETAIL 4/ET102 FOR INSTALLATION REQUIREMENTS.

 $\langle 4 \rangle$  EXISTING PHONE BLOCKS AND DATA RACK TO REMAIN.

CONSTRUCTION AND DEMOLITION TO BE DONE IN PHASES SO THAT EXISTING DISPATCH CENTER REMAINS OPERATIONAL UNTIL SWITCHOVER TO FULLY FUNCTIONAL NEW DISPATCH CENTER CAN BE COMPLETED. IF NECESSARY, PROVIDE TEMPORARY POWER TO EXISTING DISPATCH AREA TO ENSURE DISPATCH IS OPERATIONAL DURING ANY SHUTDOWNS. ALL SHUTDOWNS WILL NEED STRICT APPROVAL BY CAMPUS POLICE.

#### CONTRACTOR TO WORK WITH THE OWNER'S CURRENT DISPATCH SYSTEM VENDOR (DIGITAL SKY) TO RELOCATE THE EXISTING EQUIPMENT. THE DISPATCH AREA WILL BE OPERATING DURING CONSTRUCTION. COORDINATE ALL NECESSARY DOWNTIMES WITH THE CAMPUS POLICE.

TECHNOLOGY OUTLET SCHEDULE												
			MOUNTING									
DEVICE TYPE	DESCRIPTION	OUTLET TYPE	HEIGHT	DATA CABLE TYPE	CABLE COUNT	TERMINATION	REMA					
2D	DATA	WALL MOUNTED	18" AFF	CAT 6	2	PATCH PANEL						
CCTV	SECURITY CAMERA	CEILING MOUNTED		CAT 6	1	PATCH PANEL	1					
СТ	CABLE TV	WALL MOUNTED		RG-6	1	-	3					
WAP	WIRELESS ACCESS POINT	CEILING MOUNTED		CAT 6	2	PATCH PANEL	2					

ABBREVIATIONS: SFP = SEE FLOOR PLAN SA = SEE ARCHITECTURAL DETAILS

TECHNOLOGY OUTLET GENERAL REMARKS:

1. REFER TO DETAIL 4/ET000 FOR CABLE LABELING REQUIREMENTS. 2. COORDINATE CABLE LABELING SCHEME WITH OWNER PRIOR TO INSTALLATION.

**TECHNOLOGY OUTLET SCHEDULE REMARKS:**1.PROVIDE 20' SERVICE COIL AT SECURITY CAMERAS ABOVE CEILING.

2. PROVIDE 20' SERVICE COIL AT WIRELESS ACCESS POINT LOCATION ABOVE CEILING. 3. MOUNTED ADJACENT TO TELEVISION. VERIFY FINAL TV MOUNTING HEIGHT WITH OWNER PRIOR TO INSTALLATION.

![](_page_25_Picture_15.jpeg)