



MANATEE COUNTY

January 12, 2012

All Interested Bidders:

SUBJECT: Invitation for Bid #11-3669-OV
Manatee County Judicial Center, Hensley Wing Renovations
4th and 5th Floors – 1051 Manatee Avenue West, Bradenton, FL 34206

ADDENDUM #1

Bidders are hereby notified that this Addendum shall be acknowledged on page 00300-1 of the Bid Form and made a part of the above named bidding and contract documents. Bids submitted without acknowledgement of the Addendum will be considered incomplete.

The following items are issued to add to, modify, and clarify the bid and contract documents. These items shall have the same force and effect as the original bidding and contract documents, and cost involved shall be included in the bid prices. Bids to be submitted on the specified bid date, shall conform to the additions and revisions listed herein.

The deadline for clarification of questions was **January 11, 2012 at 5:00 PM.** This deadline has been established to maintain fair treatment of all potential bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this work may achieve. Contractors note that questions received after this date and time shall not be considered

- **Attached memorandum dated January 11, 2012** from Mr. John Camden, P.E., ATP Engineering South in response to questions presented at the Pre-Bid / Information Conference held on January 5, 2012. (3 total pages)
- **Information Conference Attendance Record.** (3 total pages)
- **Revised Bid Forms:** Attached to this Addendum #1, Pages 00300-1 through 003005. These Bid Forms "A" and "B" supersede all other Bid Forms for this solicitation. These Bid Forms include revised descriptions for Bid Item Nos. 6, 7 and 8 and shall be used in submission of your bid in response to this Invitation for Bid. (5 total pages)

Bid Forms must be executed by an authorized signatory who has the legal authority to make the offer and bind the company.

Financial Management Department – Purchasing Division
1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205
Phone: 941-749-3055 – Fax: 941-749-3034
www.mymanatee.org

January 12, 2012
Invitation for Bid #11-3669-OV
Manatee County Judicial Center, Hensley Wing Renovations
4th and 5th Floors – 1051 Manatee Avenue West, Bradenton, FL 34206
Page 2

- **Engineer's Estimate dated January 11, 2012** is made a part of this Addendum No. 1. (1 total page)

It is important to note that Manatee County is currently receiving competitive bids which are up to 50% lower than the Engineer's Estimate.

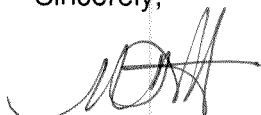
- **Revision 3 Plans dated 1/10/2012: Plan No.: E3.2, E3.3, E3.4, E5.1, M2.1, M2.2, M2.3, M3.0 via PDF.**

If you have submitted a bid prior to receiving this addendum, you may request in writing that your original, sealed bid be returned to your firm. All sealed bids received will be opened on the date stated.

END OF ADDENDUM #1

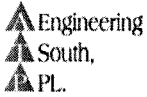
Bids will be received at the **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205** until **2:00 P.M. on January 24, 2012.**

Sincerely,



Melissa Assha, CPPO
Interim Purchasing Official
Purchasing Division

Ov/ Attachment (12 Total Pages)
(8 PDF Plans, Revision 3 dated 1/10/2012)



1283 TALLEVAST ROAD • SARASOTA, FLORIDA • 34243
PHONE: (941)360-2181 • FAX: (941)360-2971
ENGR. BUSINESS #8909
"Striving to Make Your Facility Energy Efficient"
atpengrsouth@verizon.net

January 11, 2012

Subject:

Invitation for Bid (IFB) #11-3669-OV

Manatee County Judicial Center, Hensley Wing Renovations 4th and 5th Floors

1051 Manatee Ave. W., Bradenton, FL

Addendum#1:

The following items represent clarifications, additions, deletions, revisions, and/or modifications to the Contract Documents for the referenced project. This Addendum shall hereinafter be considered a full part of the Contract Documents. Receipt of this document must be acknowledged as per the Bid Requirements.

Questions/Statements:

1. Site visit information: Darin Cushing's phone number at Manatee County: 749-3063.
2. Section B.03 reads: "Qualifications of Bidders: General Contractors and Subcontractors: All Certified Contractors shall be registered to work in the City of Bradenton. Proof of registration shall be submitted with your bidding documents."

As Darin reiterated in the meeting, once the project is awarded, the GC and Subcontractors will then provide Proof of registration with the City of Bradenton. Please remove the following: "Proof of registration shall be submitted with your bidding documents."

3. Lt. Brown had questions about the keys and door locks.
The door locks shall be supplied by the contractor and the keying process shall be handled by the County employees as per Mr. Phil Hoffman, Building Supervisor, Property Management Group.
4. Simplex Fire Systems are specified on the job and shall be used to coordinate with the existing fire alarm systems. A current operational CD is being used in the facility. A new updated software CD for the controls shall be provided at the conclusion of the software/hardware additions and modifications.
5. Question/clarifications about the work required on the 4th Floor:

The work consists of:

1. Demolition of the existing halon system; which shall be part of Bid Item #7.
2. Removal of the raised floor tiles and tile system, which shall be included in the fire protection and smoke evacuation system bid item, Bid Item #4.

3. Installation of the fire alarm systems; Bid Item #7.
4. Installation of the smoke evacuation systems; which shall be included in the fire protection and smoke evacuation system bid item, Bid Item #4.
5. Demolition/Installation of the specified sprinkler system areas; which shall be included in the fire alarm system bid item, Bid Item #4.
6. Limited drywall work above the ceiling for the smoke testing; which should be included in the smoke evacuation bid. Drywall work will encompass: any opening not fire protected around the two stairwells, elevator lobby, the adjacent restroom walls, any floor and ceiling fire penetrations shall be fire sealed. These items shall be in the fire protection and smoke evacuation system bid item, Bid Item #4.
7. See plans E3.0, E5.0, FP2.0, M2.0, and S0.1 for a general scope of the 4th Floor. The entire set of plans should be reviewed to encompass all items prior to bidding the job.

For Clarification:

1. The 4th floor does not have any security requirements on the drawings.
2. The ceiling tiles on the 4th floor will be adjusted for the incorporation of sprinkler heads and not replaced at this time. Re-installation of ceiling tiles will be required in areas of partial removal and for the installation of equipment, Reference Drawing: FP2.0.

6. Holland Construction:
Clarifications of Bid Items Numbers 6 and 8:

The provision and installation of the security system will be deleted from the scope of work. The specifications sections: 16720 security locks and 16782 security cameras shall be removed from the documents.

Bid Item 6 shall read: "Provide and install conduit and junction boxes with pull strings for the Security system." Locations are identified on sheet E3.3. See Revision 3.

Bid Item 8: See the next item for clarification.

7. Holland Construction:
Statement: Please clarify if the cost to connect the fire alarm system is to be included in Bid Item 7 or 8.

Clarification:

Bid Item 7 shall read: "Provide and installation (wiring and startup, testing, etc.) of the fire alarm system." The wiring and startup/execution/testing of the system shall be part of Bid Item 7.

Bid item 8 shall read: "Provide and install conduit and junction boxes with pull strings for the Fire Alarm Systems for the 4th and 5th Floors to connect to the overall building system."

8. KI Furniture Company
Will there be a future solicitation for any furniture needs that I can highlight the rep on?

Answer: This would have to be answered by the users of the space. The answer to this question is unknown as of this time.

9. Drug Testing Facility Additional Work: Revision #3 – “Owners Revisions”

The 5th floor bathroom has drywall/framing work along with additional mechanical and electrical work. See the attached sheets for the mechanical and electrical additions. The drywall and framing work was included in the original scope. Please refer to sheets M2.1, M2.2, M2.3, M3.0, E3.2, E3.3, E3.4, and E5.1 for revision #3. The drywall work is already included in Bid Item#1. Bid Items 10 & 11 shall include the additional mechanical and electrical work.

10. Statement: Advanced Automation Systems, Inc. requesting to be added as an approved equal.

In reviewing of the existing systems and warranties; Advanced Automation Systems Inc. is not an equal due to incompatible system support, software, and additional costs for replacement parts.

11. Please see the attached plans sheets for additional information pertaining to Addendum #1 – for Revision #3.

Sincerely,

John Camden, P.E.

ATTENDANCE RECORD

**NON-MANDATORY
INFORMATION CONFERENCE**

Title: Manatee County Judicial Center, Hensley Wing
Renovations / 4th and 5th Floors

Location: 1112 Manatee Avenue West, 4th Floor, Manatee Room

Date / Time: January 5, 2012 at 2:45 PM

IFB #: IFB #11-3669-OV

Name/Title	Firm	Phone #	Email Address
Olga Valcich, ^{OV} Construction Buyer	Purchasing Division	941-749-3055	Olga.valcich@mymanatee.org
Darin Cushing, ^{DC} Project Manager	Property Management Dept.	941-748-4501 / Ext. 3063	Darin.cushing@mymanatee.org
Math Mathews Director of ReConstruction	Zirkelbach Construction	941-729-0000 ext. 216	Math.Mathews@zconstruction.com
Math Camden ATP Engineers ^{South} →		941-360-2181	mcamden.atpengr@verizon.net
John Camden PE 1	ATP ENGR SOUTH	941-360-2181	atpengrsouth@verizon.net
CLAYTON KULLBY	GMC	786-589-4831	CKULLBY@GMCFL.COM
CHARLIE WOETLE	Zirkelbach Construction	941-737-7014	Charlie.Woetle@zconstruction.com
BRIAN HENNESSY	TRU-TECH CONST	751-1727	BRIAN AND TERRIE © AOL.COM
Stan Stephens II	Manasota Commercial	795-2732	Stan2@manasotaconstruction.com
DARIN ATRAY Project Architect	Jersey N Zoller AIA PA ARCHITECT.	748-4465	darini@JNZarchitect.com

Name/Title	Firm	Phone #	Email Address
Clint Dwin, ESTIMATOR	Superior Mechanical	727- 410- 8754	CLINT.DWIN@superiormechanical.net
JIM FAULKNER ACCT. MGR.	Boyd BROTHERS SERVICE, INC. AUTOMATED LOGIC	941- 467- 4156	JIMF@Boyd-HVAC.COM
Tom Werle	B&I Contractors, Inc.	239- 332- 4646	TWerle@Bandicontractors.co Htompleh@bandicontractors.co
Walter Wiseman	ISOF	813 925-1007	WWISEMAN@ISOF INC .COM
GARY MORAND	ISOF	813-388 3688	GAMORAND@ISOFHVAC.COM
Doug PEREGOY	Bentzel mech.	727-572 7767	DPEREGOY@Bentzel mechanical.com
Allen Suman	Pro Plus	407-446 9183	Allen.Suman@ Propluscomm.com
Tom CLEARWATER PRECONSTRUCTION MANAGER	PAUL J SIERRA CONSTRUCTION	813-228 6661	TCLEARWATER@SIERRA CONSTRUCTION.COM
Mack Harper VP	Flores & Harper Const	813 310-7342	mack@floresharper.com
MIKE MARTIN, Pres. Mgr.	UNITED MECHANICAL, INC.	239-939- 4508	MIKE.MARTIN@UMEHVAC.COM
Lt. Daryl Brown	MSO		
St. Paula Neuman	MSO		
Chuck Fenn	HOLLAND CONSTRUCTION	954-450	CFENNK@HOLLANDCORP.COM
Phil Hoffman	Monroe County Pk	X7934	

Name/Title	Firm	Phone #	Email Address
LEIGH HARRIS PROJ. MGR.	JON F. SWIFT, INC	941 951-6100	Leigh@jonfswiftinc.com
Tessa Jennings Project Manager	Rand Construction Corporation	813-301- 3485	Jennings@randcc.com
Kirk Gyson Estimator	TBS of Tampa Bay, Inc.	727. 538. 2665	sail_offshore@MSN.com
Mark Castellano Branch Manager	Aur Mechanical	941 475 3715	mcastellano@Aurco-AC.com
Jim Roe president	Rm Williams Const	813- 251-2051	jim@ rmwilliamsconstruction.com
D Thompson	MCPM	3016	david.thompson@myrateecorp.com
ERIC BROCKMEIER ELECT. S. SALES.	SIMPLEX GRINNELL	727 501 4221	ebrockmeier@ simplexgrinnell.com

**BID FORM – IFB #11-3669-OV
SECTION 00300 – ADDENDUM NO. 1 (1/11/2012)**

**For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floor
1051 Manatee Avenue West, Bradenton, FL 34206**

TOTAL BID PRICE "A": \$ _____
Based on a Completion Time of <u>150</u> calendar days
TOTAL BID PRICE "B": \$ _____
Based on a Completion Time of <u>180</u> calendar days

Two schedules for Completion of the Work shall be considered. Each bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the bid based on the Completion Time which is in the best interest of the County. Only one award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the bid documents, and with full knowledge and understanding of the aforementioned herewith submit this bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the bid technical specifications, terms, and conditions in their entirety shall be made a part of any agreement or contract between Manatee County and the successful bidder. Failure to comply shall result in contract default, whereupon, the defaulting contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows:

Person's Name: _____

Address: _____ Phone: _____

Date: _____ FLContractorLicense# _____

Bidder is a WBE/MBE Vendor? _____ Certification _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s) _____

CO. MAILING ADDRESS: _____

STATE OF INCORPORATION _____ (if applicable)

TELEPHONE: (____) _____ FAX: (____) _____

Email address: _____

Acknowledge Addendum No. _____ Dated: _____ Acknowledge Addendum No. _____ Dated _____

SIGN AND CONFIRM DATE OF PROJECT VISIT: _____ DATE: _____

ADDENDUM NO. 1 (1/11/2012)

BID FORM – IFB #11-3669-OV
SECTION 00300 – BID “A”- ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors

1051 Manatee Avenue West, Bradenton, FL 34206

Bid “A” Based on 150 Calendar Day Completion- Base Bid

Bid Item	Bid Item Description	U/M	Extended Total
1	Completion of 5 th Floor Framing and Drywall	1LS	\$
2	Provide and Install Ceiling Grid and Lay-In Ceiling	1 LS	\$
3	Provide and Install Fire Shutter	1 LS	\$
4	Provide and Install Fire Protection and Smoke Evacuation System for the 4 th and 5 th Floors and connect to the overall building system	1 LS	\$
5	Provide and Install Temperature Controls for the 4 th and 5 th Floors and connect to the overall building system	1 LS	\$
6	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Security System. Locations are identified on sheet E3.3 / Revision 3.	1 LS	\$
7	Addendum #1 – Demolition of the existing Halon and Specified Sprinkler System Areas. Provide and Install the Fire Alarm and Specified Sprinkler System areas including wiring, startup, execution and testing of the system(s).	1 LS	\$

ADDENDUM NO. 1 – 1/11/2012
BID FORM – IFB #11-3669-OV
SECTION 00300 – BID “A” - ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors
1051 Manatee Avenue West, Bradenton, FL 34206
Bid “A” Based on 150 Calendar Day Completion

8	Addendum #1 - Provide and Install Conduit and Junction Boxes with Pull Strings for the Fire Alarm System for the 4 th and 5 th Floors which are to be connected to the overall Building System	1 LS	\$
9	Repair and Installation of Owner Provided DX Air Handler Unit	1 LS	\$
10	Electrical Work for the 4 th and 5 th Floors	1 LS	\$
11	Mechanical Work for the 4 th and 5 th Floors	1 LS	\$
	DISCRETIONARY FUNDS		\$30,000.00
	TOTAL of the 4th and 5th Floors Hensley Wing Remodeling Project		\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ Date: _____

Authorized Signature: _____

ADDENDUM NO. 1

ADDENDUM NO. 1 – 1/11/2012

BID FORM – IFB #11-3669-OV
SECTION 00300 – BID “B” - ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors

1051 Manatee Avenue West, Bradenton, FL 34206

Bid “B” Based on 180 Calendar Day Completion- Base Bid

Bid Item	Bid Item Description	U/M	Extended Total
1	Completion of 5th Floor Framing and Drywall	1LS	\$
2	Provide and Install Ceiling Grid and Lay-In Ceiling	1 LS	\$
3	Provide and Install Fire Shutter	1 LS	\$
4	Provide and Install Fire Protection and Smoke Evacuation System for the 4th and 5th Floors and connect to the overall building system	1 LS	\$
5	Provide and Install Temperature Controls for the 4th and 5th Floors and connect to the overall building system	1 LS	\$
6	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Security System. Locations are identified on sheet E3.3 / Revision 3.	1 LS	\$
7	Addendum #1 – Demolition of the existing Halon and Specified Sprinkler System Areas. Provide and Install the Fire Alarm and Specified Sprinkler System areas including wiring, startup, execution and testing of the system(s).	1 LS	\$

ADDENDUM NO. 1

BID FORM – IFB #11-3669-OV
SECTION 00300 – BID “B”- ADDENDUM NO. 1

For: Manatee County Judicial Center, Hensley Wing Renovations, 4th and 5th Floors
1051 Manatee Avenue West, Bradenton, FL 34206

Bid “B” Based on 180 Calendar Day Completion

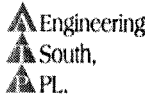
8	Addendum #1 – Provide and Install Conduit and Junction Boxes with Pull Strings for the Fire Alarm Systems for the 4 th and 5 th Floors to connect to the overall Building System.	1 LS	\$
9	Repair and Installation of Owner Provided DX Air Handler Unit	1LS	\$
10	Electrical Work for the 4 th and 5 th Floor	1 LS	\$
11	Mechanical Work for the 4 th and 5 th Floor	1 LS	\$
	DISCRETIONARY FUNDS		\$30,000.00
	TOTAL OF 5th Floor Hensley Wing Remodeling Project		\$

The Bidder certifies that a complete project review of all requirements has been performed and is included in the Price provided above.

Bidder: _____ **Date:** _____

Authorized Signature: _____

ADDENDUM NO. 1



1283 TALLEVAST ROAD • SARASOTA, FLORIDA • 34243
PHONE: (941)360-2181 • FAX: (941)360-2971
ENGR. BUSINESS #8909
"Striving to Make Your Facility Energy Efficient"
atpengrsouth@verizon.net

January 11, 2012

Subject:

Cost Opinion for Project:

Invitation for Bid (IFB) #11-3669-OV

Manatee County Judicial Center, Hensley Wing Renovations 4th and 5th Floors
1051 Manatee Ave. W., Bradenton, FL

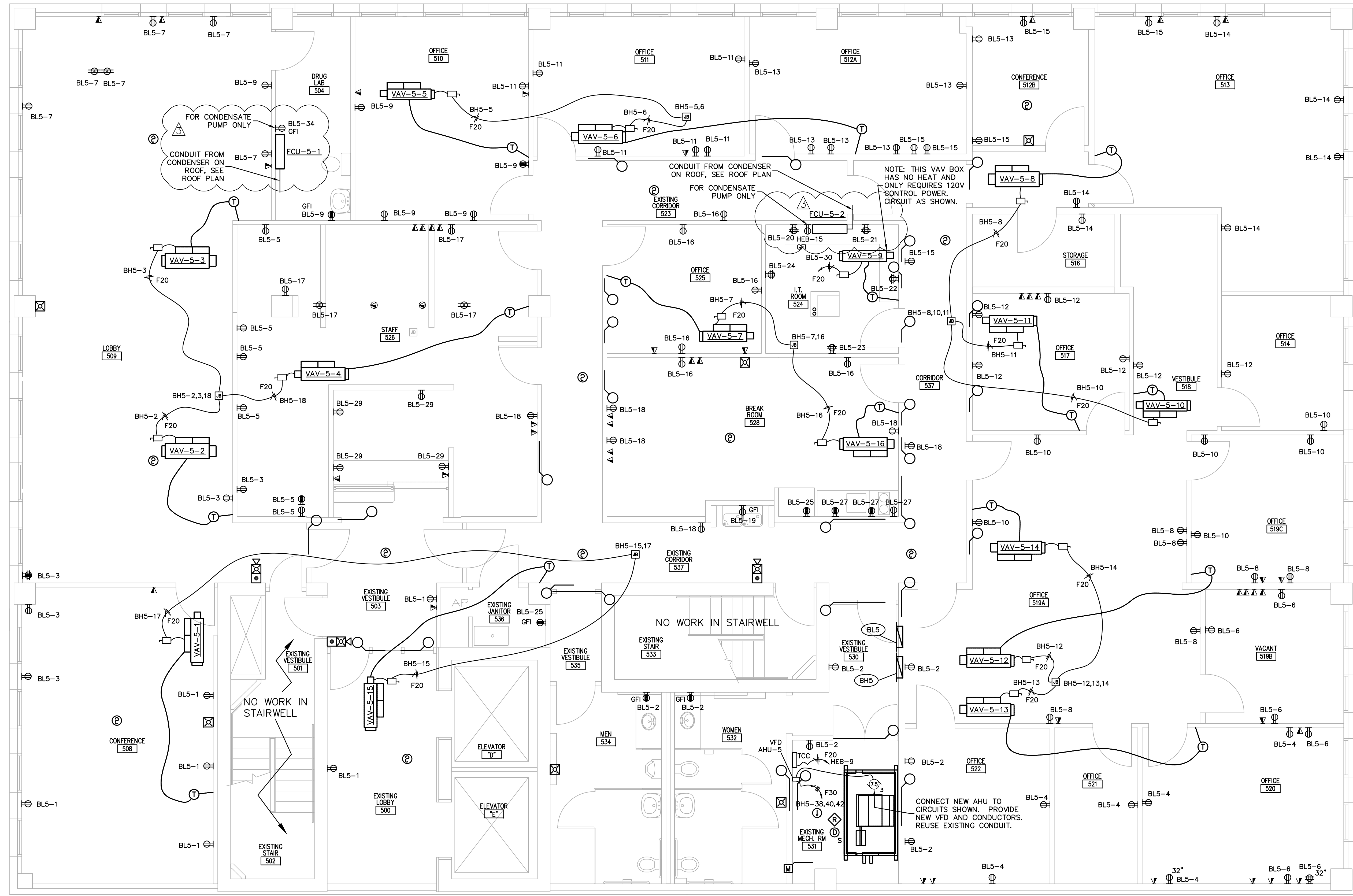
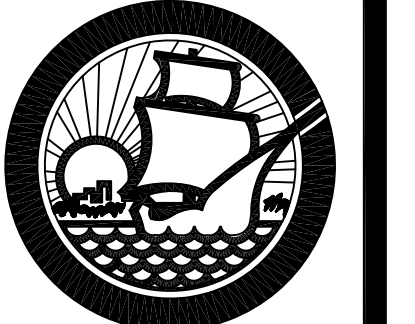
Addendum#1:

The following items represent clarifications, additions, deletions, revisions, and/or modifications to the Contract Documents for the referenced project. This Addendum shall hereinafter be considered a full part of the Contract Documents. Receipt of this document must be acknowledged as per the Bid Requirements.

The Engineer's Cost Opinion for the referenced project at the Manatee County Judicial Center Hensley Wing, 4th and 5th Floor is \$540,000.00 (five hundred and forty thousand dollars). The cost opinion includes the original Engineering drawings provided by the County for the bidding process, the new revisions items (Revision # 3), and the Addendum#1 items.

Sincerely,

John Camden, P.E.



5TH FLOOR NEW POWER AND SYSTEMS
 1/4" = 1'-0"

GENERAL NOTES:

SHEET LEGEND

- NEW VARIABLE AIR VOLUME (VAV) BOX
- TCC - TEMPERATURE CONTROL PANEL
- SMOKE DAMPER - 24V, INTERLOCK WITH FACP
- MOTORIZED DAMPER, CONNECT TO AVAILABLE CIRCUIT ON PANEL SHOWN

ITEMS IN GRAYSCALE ARE EXISTING.
 ITEMS BOLD ARE NEW, UNLESS OTHERWISE NOTED.

PROVIDE AND INSTALL NEW PANEL BL5, FEED FROM EXISTING SPACE IN THE 1ST FLOOR 120/208V DISTRIBUTION PANEL. REUSE EXISTING CONDUITS.

PROVIDE AND INSTALL NEW PANEL BH5, FEED FROM EXISTING SPACE IN MAIN DISTRIBUTION PANEL. REUSE EXISTING CONDUITS.

ALL TELEPHONE/DATA DISTRIBUTION FOR 5TH FLOOR TO RUN TO NEW 5TH FLOOR IT ROOM. PROVIDE AND INSTALL (1) 3" CONDUIT FROM NEW 5TH FLOOR IT ROOM TO THE 3RD FLOOR IT ROOM, AND (1) 3" CONDUIT FROM NEW 5TH FLOOR IT ROOM TO THE 4TH FLOOR IT ROOM. CABLES TO BE INSTALLED BY MANATEE COUNTY ISD.

PROVIDE AND INSTALL NEW RECEPTACLES ON CIRCUITS SHOWN. PROVIDE NEW CONDUCTORS, REUSE EXISTING LOCATIONS. REUSE EXISTING CONDUITS IF SERVICEABLE, REPLACE AS NECESSARY. LOCATION OF RECEPTACLES SHOWN ARE BASED UPON EXISTING DRAWINGS. VERIFY LOCATIONS AND QUANTITY ON SITE.

CONNECT NEW VAV BOXES TO CIRCUITS SHOWN. REUSE EXISTING JUNCTION BOXES AND CONDUITS IF SERVICEABLE, REPLACE AS NECESSARY. PROVIDE AND INSTALL NEW DISCONNECT SWITCHES, CONDUITS AND CONDUCTORS.

FURNISH CONDUIT AND FLUSH MOUNTED BACKBOXES FOR THERMOSTATS AS SHOWN AT 46" A.F.F. TO TOP OF BOX. INSTALL (1) 1/2" CONDUIT W/ PULL STRING TO CORRESPONDING VAV. THERMOSTATS TO BE PROVIDED BY AND INSTALLED BY MECHANICAL CONTRACTOR.

PROVIDE INTERLOCKING RELAYS AS SHOWN FOR NEW MECHANICAL EQUIPMENT AND FIRE ALARM SYSTEM. SEE MECHANICAL SHEETS FOR SEQUENCE OF OPERATIONS. FACP LOCATED ON FIRST FLOOR.

INSTALL NEW CALL BUTTON WITH LOCKOUT FOR ELEVATOR. USE MANUFACTURE'S (SCHINDLER) RECOMMENDED RECALL AND LOCKOUT BUTTON FOR THE SYSTEM.

PROVIDE AND INSTALL VARIABLE FREQUENCY DRIVES (VFD) AS SHOWN. SEE SPECIFICATIONS.

ALL WIRING ABOVE CEILING SHALL BE IN CONDUIT OR PLENUM RATED.

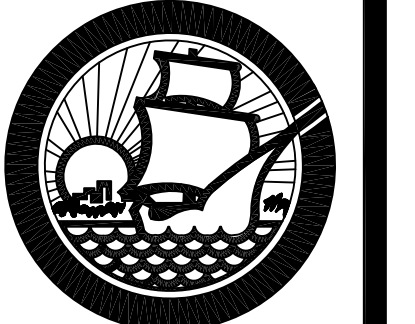
AFTER ALL NEW EQUIPMENT IS INSTALLED, REMOVE ANY ABOVE CEILING JUNCTION BOXES, CONDUITS AND CONDUCTORS THAT ARE NOT RE-USED.

PANEL XBH2 IS ON 3RD FLOOR IN VESTIBULE TO WOMEN'S RESTROOM WITH THE 3RD FLOOR PANELS.

REV.	DATE	REMARKS
3	01/10/12	OWNER REVISIONS

OLD MANATEE COUNTY PUBLIC SAFETY CENTER
 5 TH FLOOR INTERIOR REMODEL
 MANATEE COUNTY, FLORIDA
 5TH FLOOR NEW POWER AND SYSTEMS PLAN

Project Number IFAS# W0100354; WA#32
Drawn by CMD/MC
Checked by DDC
Date 9-17-2010
JOHN D. CAMDEN, PE FL#53458 Scale 1/4" = 1'-0"
Set
Drawing Number



REV.	DATE	REMARKS
3	01/10/12	OWNER REVISIONS

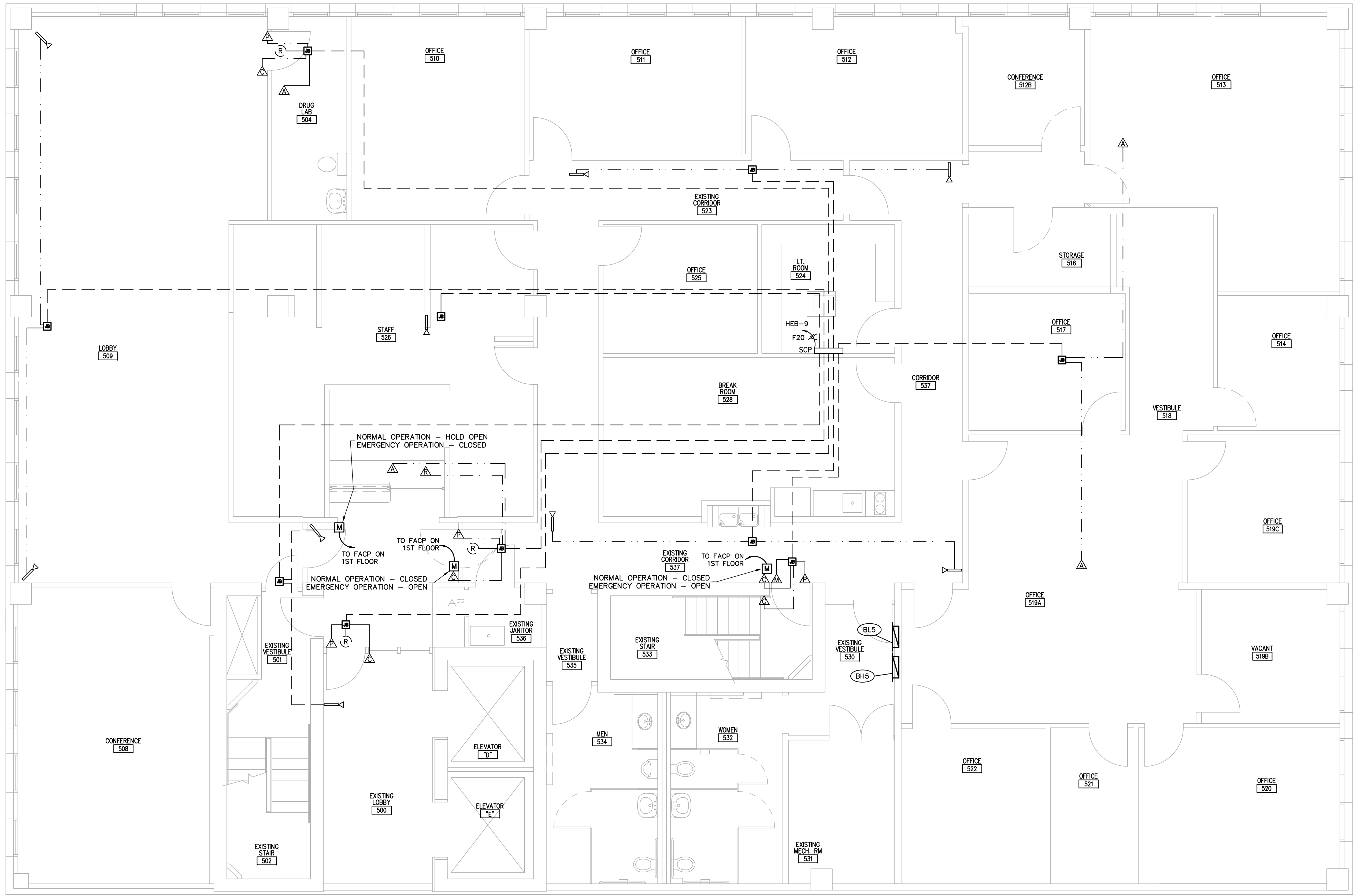
OLD MANATEE COUNTY PUBLIC SAFETY CENTER
 5 TH FLOOR INTERIOR REMODEL
 MANATEE COUNTY, FLORIDA
 5TH FLOOR SECURITY SYSTEM PLAN

Project Number
 IFAS# W0100354; WA#32
 Drawn by
 CMD/MC
 Checked by
 DDC
 Date
 9-17-2010

JOHN D. CAMDEN, PE
 FL#53458
 Scale
 1/16" = 1'-0"
 Set

Drawing Number

E3.3



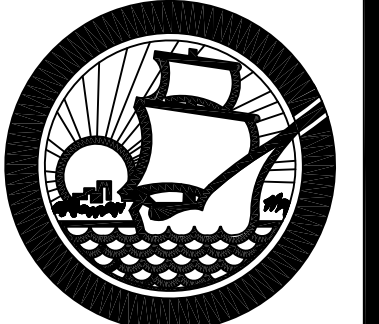
5TH FLOOR SECURITY SYSTEM PLAN
 1/4" = 1'-0"

GENERAL NOTES:

- FACP LOCATED ON FIRST FLOOR.
- ALL WIRING ABOVE CEILING SHALL BE IN CONDUIT OR PLENUM RATED.
- ALL DEVICES SHALL BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTION.
- COORDINATE ALL LOCATIONS WITH PROJECT MANAGER IN SPACES PRIOR TO PLACEMENT.
- ALL CONDUIT RUNS ARE DIAGRAMMATIC. USE "BEST PRACTICE" TO RUN CONDUITS. LOCATE JUNCTIONS BOXES AS SHOWN, COORDINATE WITH EXISTING CONDITIONS.
- ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING POWER TO THE SECURITY PANEL AND INSTALLING CONDUIT SYSTEM WITH PULLSTRING ONLY. CONDUCTORS AND SECURITY EQUIPMENT TO BE PROVIDED AND INSTALLED BY SECURITY CONTRACTOR.

SHEET LEGEND

- DOOR CONTACT ROUGH-IN
- DOOR RELEASE ROUGH-IN
- PROXIMITY CARD READER ROUGH-IN
- DURESS ALARM ROUGH-IN
- DELAYED EGRESS MAGNETIC LOCK
- DOOR POSITION SWITCH
- REQUEST TO EXIT MOTION SENSOR, CEILING MOUNT
- CAMERA ROUGH-IN
- DOOR RELEASE DEVICE - FIRE ALARM ACTIVATED
- SECURITY CONTROL PANEL, FIELD COORDINATE LOCATION
- 1/2" CONDUIT
- 1" CONDUIT UNLESS OTHERWISE NOTED



REV.	DATE	REMARKS
3	01/10/12	OWNER REVISIONS

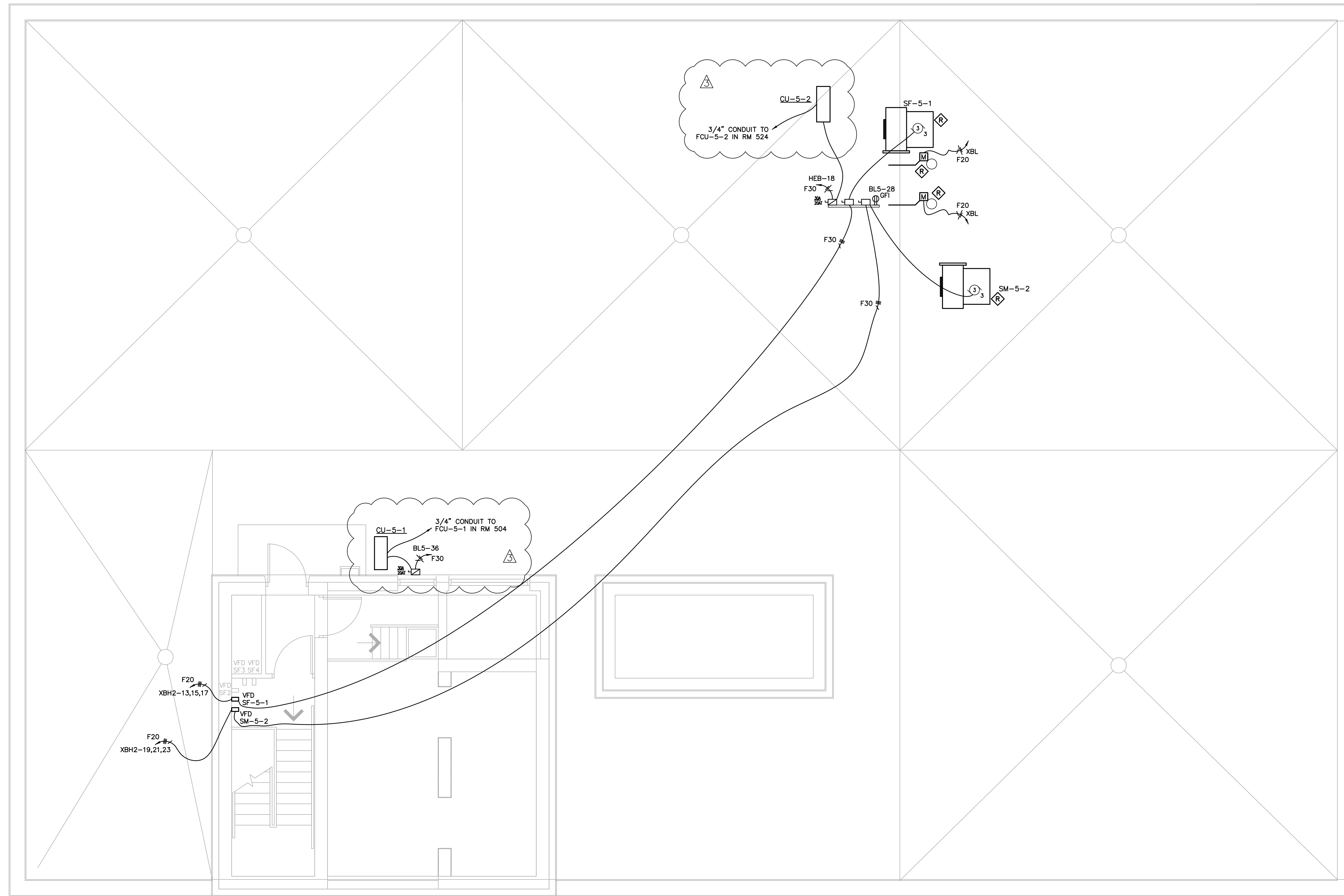
OLD MANATEE COUNTY PUBLIC SAFETY CENTER
 5 TH FLOOR INTERIOR REMODEL
 MANATEE COUNTY, FLORIDA
 ROOF POWER AND SYSTEMS PLAN

Project Number
 IFAS# W0100354; WA#32
 Drawn by
 CMD/MC
 Checked by
 DDC
 Date
 9-17-2010

JOHN D. CAMDEN, PE
 FL#53458
 Scale 1/8" = 1'-0"
 Set

Drawing Number

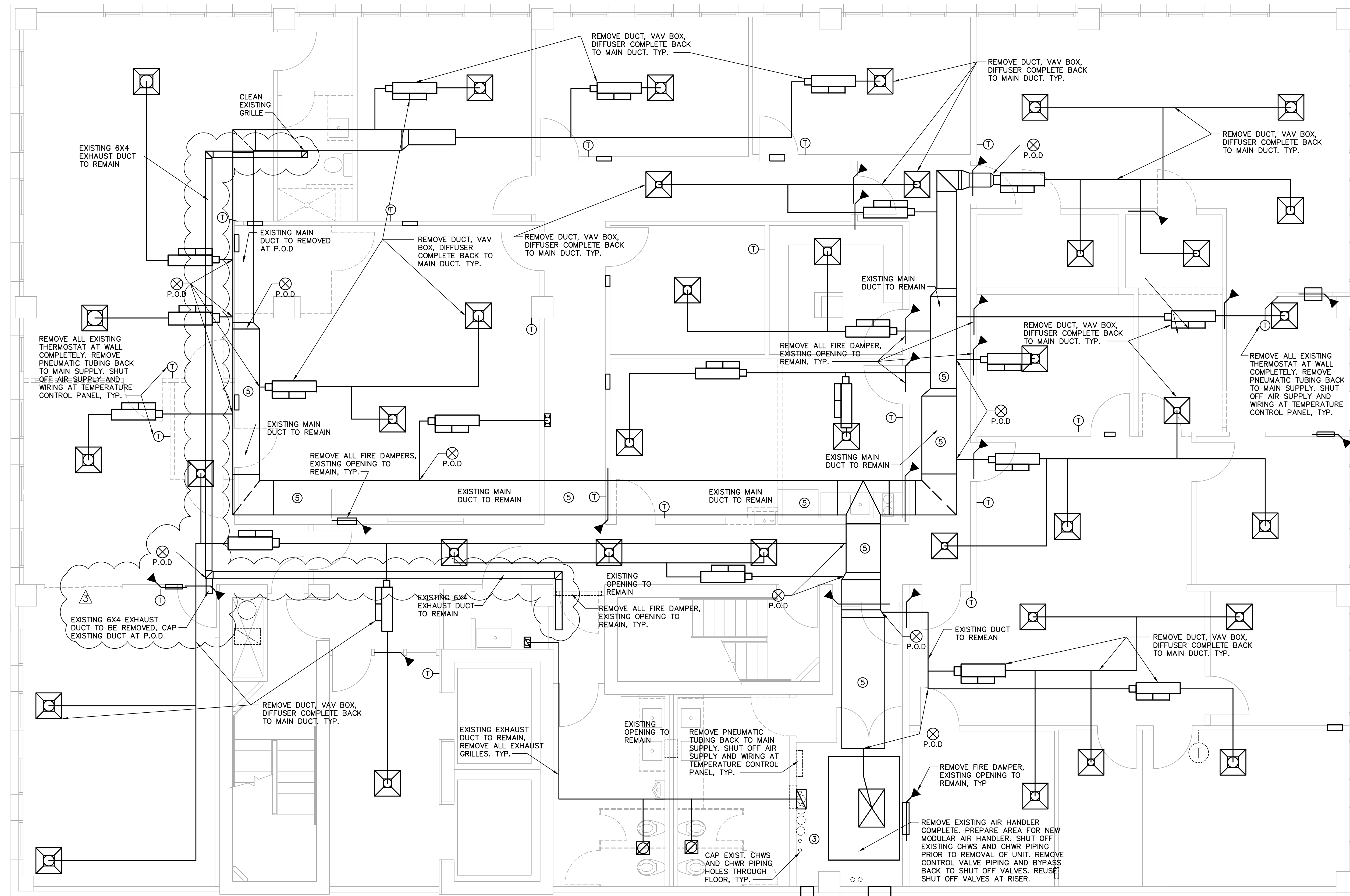
E3.4



ROOF PLAN
 1/4" = 1'-0"

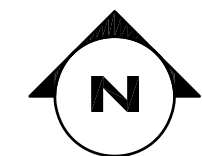
GENERAL NOTES:

- PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVES (VFD) IN THE STAIRWAY LANDING. CONNECT TO CIRCUITS SHOWN AND TO CORRESPONDING FAN ON ROOF.
- PROVIDE AND INSTALL FIRE ALARM RELAYS FOR EACH FAN. SEE MECHANICAL SHEETS FOR SEQUENCE OF OPERATION. CIRCUITS TO THE SAME PANELBOARD SPACE.
- EXTEND LIGHTNING PROTECTION TO NEW EXHAUST FANS ON ROOF.
- PROVIDE AND INSTALL CIRCUITS SHOWN FROM EXISTING PANEL XBL, 2ND FLOOR, FOR DAMPERS. DAMPERS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
- CONDUITS TO RUN IN CEILING SPACE ON 5TH FLOOR. ONLY STUB UP TO DISCONNECTS AND FINAL CONNECTIONS TO BE ON ROOF TOP.



GENERAL NOTE:

- ① REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- ② CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- ③ CAP AND FIRE STOP ALL UNUSED PIPING PENETRATIONS TO THE FLOOR BELOW AND FLOOR ABOVE.
- ④ SHEET METAL PATCH AND DUCT SEAL ALL UNUSED DUCT TAKEOFFS AND WRAP DUCT WITH 2 INCH THICK FIBERGLASS FOIL FACE DUCT INSULATION.
- ⑤ REPAIR, CLEAN, CERTIFY, AND SEAL ALL EXISTING REUSED DUCT.



1
M2.1

MECHANICAL DEMOLITION 5TH FLOOR
1/4" = 1'-0"

REV.	DATE	REMARKS
3	07/10/12	OWNER REVISIONS

OLD MANATEE COUNTY PUBLIC SAFETY CENTER
5 TH FLOOR INTERIOR REMODEL
MANATEE COUNTY, FLORIDA
MECHANICAL EXISTING 5TH FLOOR DEMOLITION PLAN

Project Number
IFAS# W0100354; WA#32

Drawn by
DC

Checked by
DDC

Date
9-17-2010

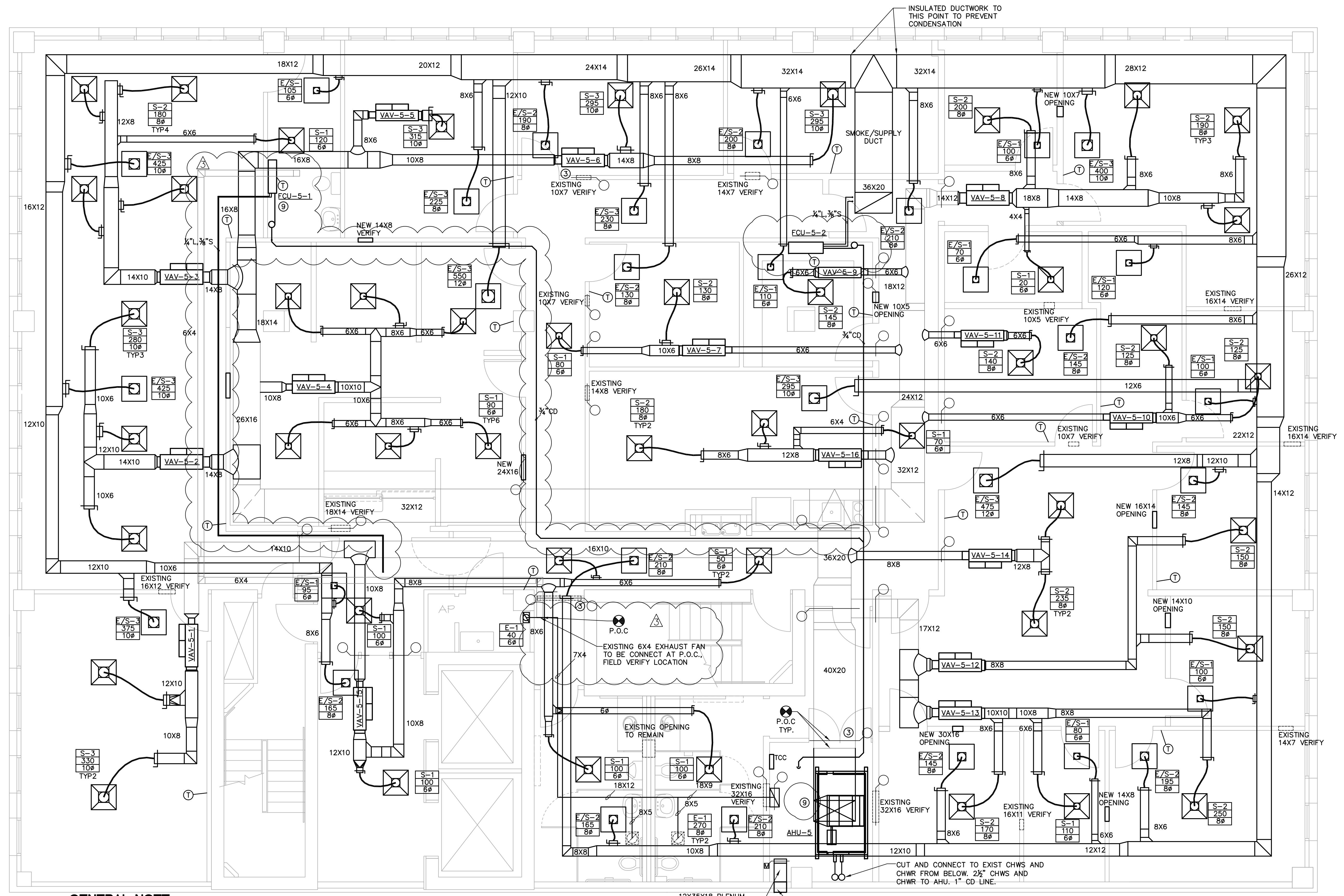
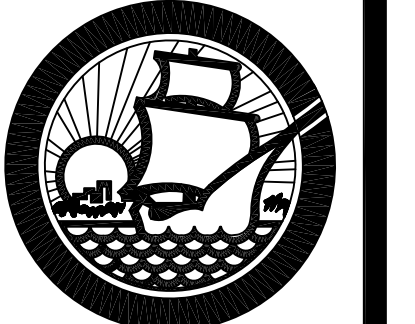
JOHN D. CAMDEN, PE
FL#53458

Scale
1/4" = 1'-0"

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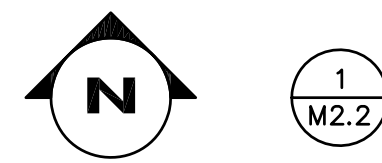
Drawing Number

M2.1



GENERAL NOTE:

- 1 REFER TO PLANS AND SPECIFICATIONS FOR ADDITIONAL SCOPE OF WORK.
- 2 CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO START OF WORK. ANY QUESTIONS SHALL BE ANSWERED BY THE ENGINEER AND PROJECT MANAGER PRIOR TO START WORK.
- 3 VERIFY ALL REUSED WALL PENETRATIONS PRIOR TO ORDER OF FIRE/SMOKE DAMPERS. ALL SMOKE FIRE DAMPERS ARE NEW
- 4 SHEET METAL PATCH AND DUCT SEAL ALL UNUSED DUCT TAKEOFFS AND WRAP DUCT WITH 2 INCH THICK FIBERGLASS FOIL FACE DUCT INSULATION.
- 5 INSULATE SMOKE PLENUM UP TO AND INCLUDING THE DAMPERS TO REDUCE CONDENSATION.
- 6 INSULATE OUTSIDE AIR DUCT AND PLENUM COMPLETELY.
- 7 ALL LIGHTS ARE RETURN TROFFER TYPE EXCEPT AS NOTED IN ELECTRICAL PLANS
- 8 ALL OPENINGS ARE ABOVE THE CEILING FOR RETURN AIR TRANSFER.
- 9 WHEN AHU-5 FAN TURNS OFF AT NIGHT THE FCU-5-1 OPERATES. PLACE RELAY SWITCH ON AHU-5 FOR INTERLOCK



MECHANICAL NEW 5TH FLOOR
 1/4" = 1'-0"

REV.	DATE	REMARKS
3	01/10/12	OWNER REVISIONS

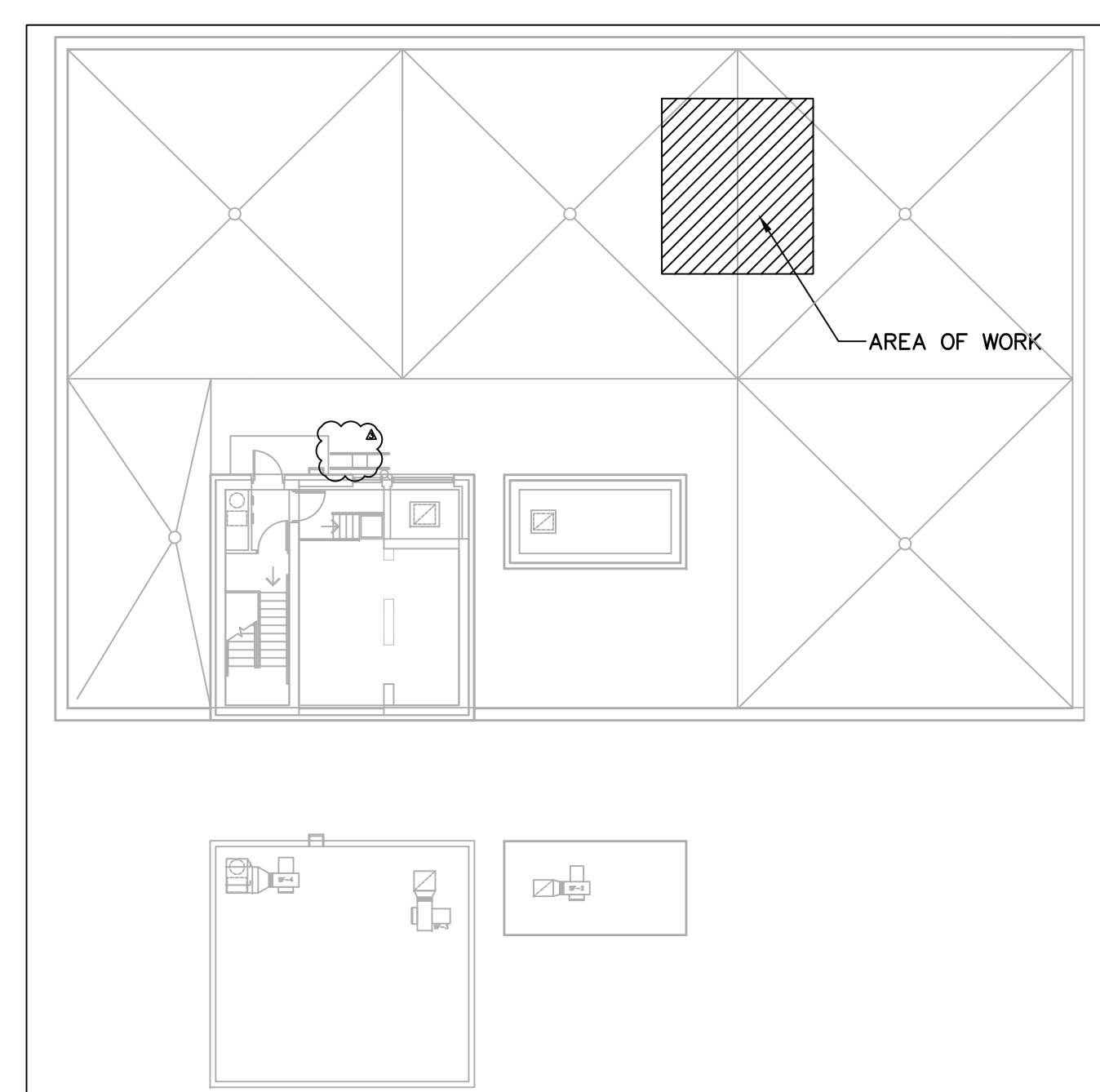
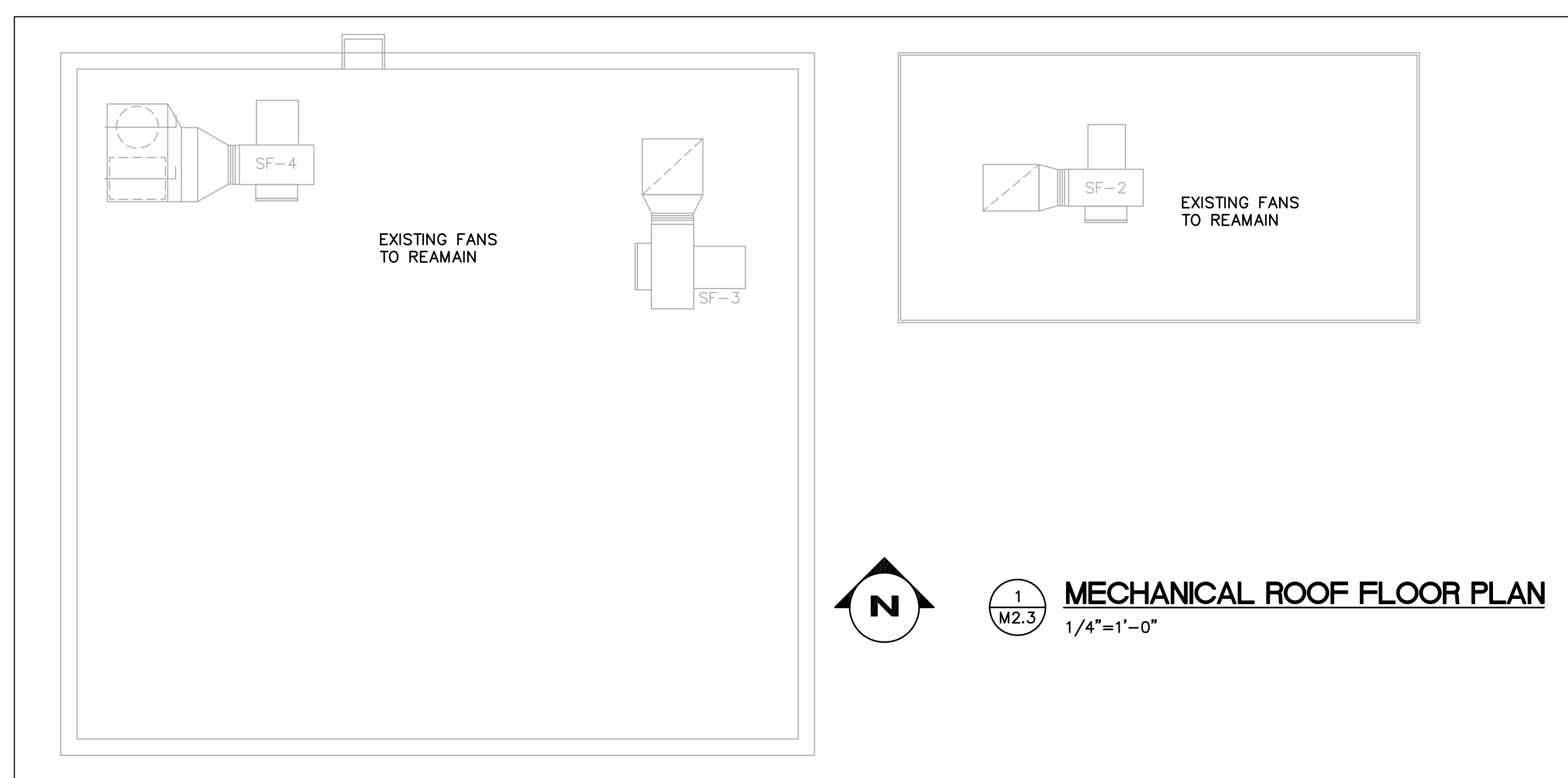
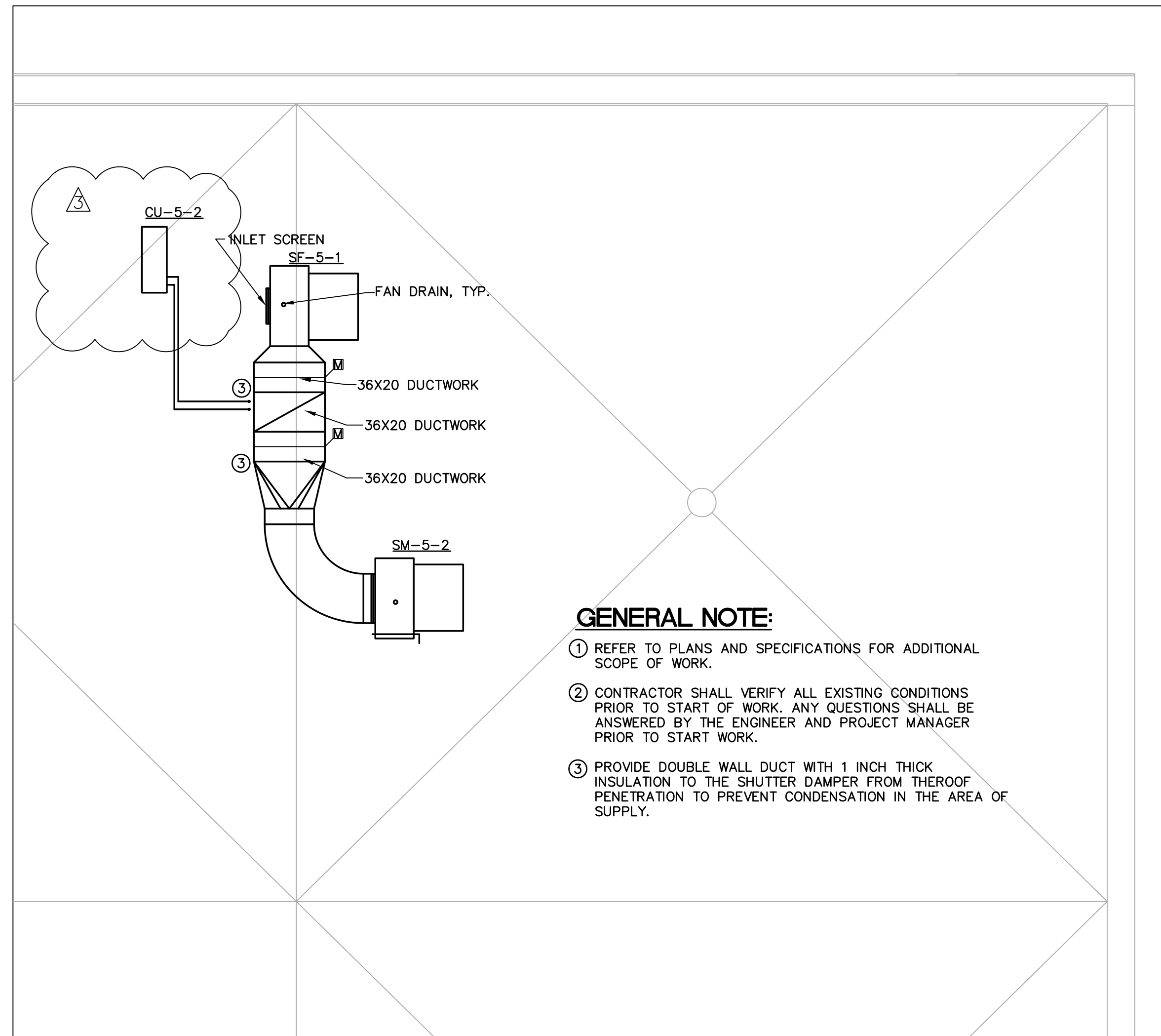
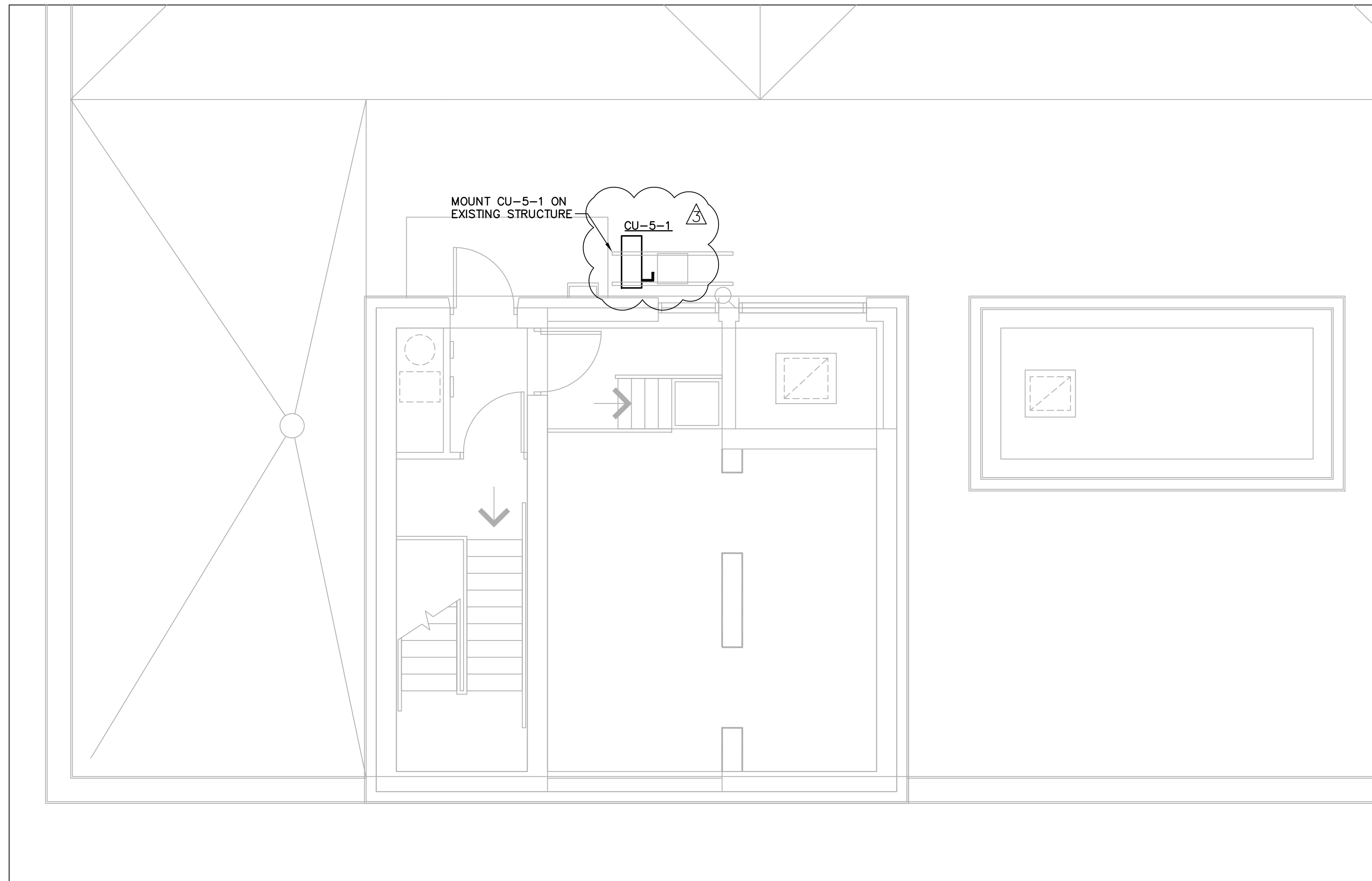
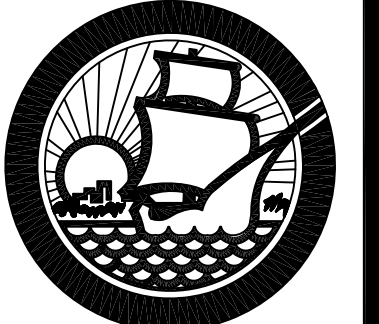
OLD MANATEE COUNTY PUBLIC SAFETY CENTER
 5 TH FLOOR INTERIOR REMODEL
 MANATEE COUNTY, FLORIDA
 MECHANICAL 5TH FLOOR NEW PLAN

Project Number
 IAS# W0100354; WA#32
 Drawn by
 DC
 Checked by
 DDC
 Date
 9-17-2010

JOHN D. CAMDEN, PE
 FL#53458
 Scale 1/4" = 1'-0"
 Set

Drawing Number

M2.2



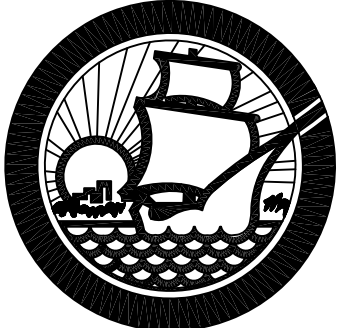
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M2.3
ROOF KEY PLAN
NOT TO SCALE

REV.	DATE	REVISIONS
3	01/10/12	OWNER REVISIONS

OLD MANATEE COUNTY PUBLIC SAFETY CENTER
 5 TH FLOOR INTERIOR REMODEL
 MANATEE COUNTY, FLORIDA
 MECHANICAL ROOF PLAN

Project Number
 IFAS# W0100354; WA#32
 Drawn by
 DC
 Checked by
 JDC
 Date
 9-17-2010

JOHN D. CAMDEN, PE
 FL#53458
 Scale 1/8" = 1'-0"
 Set
 Drawing Number



Property Management
1112 Manatee Avenue West
Suite 868, P.O. Box 1000
Bradenton, Florida 34206

(941) 749-3063
FAX (941) 749-3018

REV.	DATE	REVISIONS
3	07/10/12	OWNER REVISIONS

OLD MANATEE COUNTY PUBLIC SAFETY CENTER
5 TH FLOOR INTERIOR REMODEL
MANATEE COUNTY, FLORIDA
MECHANICAL SCHEDULES

Project Number
IFAS# W0100354; WA#32

Drawn by
DC

Checked by
JDC

Date
9-17-2010

JOHN D. CAMDEN, PE
FL#53458

Scale
1/4" = 1'-0"

Set

Drawing Number

M3.0

GRILLE, REGISTER AND DIFFUSER SCHEDULE

TAG NO.	PATTERN	NECK SIZE	MODULE SIZE	FRAME STYLE	MATERIAL	FINISH	CFM RANGE	ACCESSORIES	MANUFACTURER	MODEL NO.	REMARKS
S-1	4 WAY	6"ø	24X24	TBAR	ALUM	WHITE	0-120	1	TITUS	PAS-AA	2
S-2	4 WAY	8"ø	24X24	TBAR	ALUM	WHITE	105-230	1	TITUS	PAS-AA	2
S-3	4 WAY	10"ø	24X24	TBAR	ALUM	WHITE	165-415	1	TITUS	PAS-AA	2
S-4	4 WAY	12"ø	24X24	TBAR	ALUM	WHITE	240-525	1	TITUS	PAS-AA	2
S-5	4 WAY	14"ø	24X24	TBAR	ALUM	WHITE	320-700	1	TITUS	PAS-AA	2
S-6	DBL DFL	10X12	12X14	SURF	ALUM	WHITE	216-504	1	TITUS	300FL	2,7
S-7	DBL DFL	12X12	14X14	SURF	ALUM	WHITE	264-616	1	TITUS	300FL	2,7
E-1	35	12X8	13 X9	SURF	ALUM	WHITE	0-400	1	TITUS	350FL	2,3
E/S-1	EGG/TBAR	6X6	24X24	SURF	ALUM	WHITE	0-120	1	TITUS	50FNT	2,4
E/S-2	EGG/TBAR	14X6	24X24	SURF	ALUM	WHITE	105-230	1	TITUS	50FNT	2,5
E/S-3	EGG/TBAR	12X12	24X24	SURF	ALUM	WHITE	240-525	1	TITUS	50FNT	2,6
E/S-4	EGG/SURF.	6X6	8X8	SURF	ALUM	WHITE	0-152	1	TITUS	50F	2,4

- NOTES:
1. COORDINATE CEILING FRAMES WITH CEILING TYPE ON ARCHITECTURAL PLANS. E/S GRILLES ARE USED IN SMOKE SYSTEM USE.
2. OPPOSED BLADE DAMPER, ADJUSTABLE FROM UNIT FRONT
3. CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 8 INCH ROUND.
4. CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 6 INCH ROUND.
5. CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 8 INCH ROUND.
6. CEILING MOUNT GRILLE, PROVIDE RECTANGULAR BOX WITH ROUND TRANSITION. MIN. 10 INCH ROUND.
7. FIELD MEASURE AND ADAPT EXISTING DUCTWORK FOR REPLACEMENT SMOKE SUPPLY GRILLES

VARIABLE AIR VOLUME BOX SCHEDULE

ITEM NO.	CFM	MAX./MIN.	IN. WTR.	(KW)/STEPS	V/PH/HZ	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-1	660	960/195	.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-2	840	960/360	.025	5.0	277/1/60	ENVIRO-TEC	SDR-EH-10	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-3	840	960/360	.025	5.0	277/1/60	ENVIRO-TEC	SDR-EH-10	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-4	540	960/195	.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-5	315	550/170	0.06	1.75	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-6	590	960/195	0.04	2.0	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-7	210	350/115	0.03	1.25	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-8	790	960/225	0.04	3.0	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-9	145	350/115	0.03	0.03	120/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5
--- VAV-5-10	250	350/115	0.03	1.25	277/1/60	ENVIRO-TEC	SDR-EH-8	SDR-EH-10	SDR-EH-10	SDR-EH-8	SDR-EH-6	SDR-EH-8	SDR-EH-5	SDR-EH-5

- NOTES:
1. VAV BOX MANUFACTURER TO FACTORY MOUNT CONTROLLER WHICH IS TO BE FURNISHED BY THE CONTROLS CONTRACTOR.
2. ALL ELECTRICAL HEAT SHALL BE 277V-1 PHASE, SINGLE STAGE, 30 DEGREE RISE AT LOW FLOW.
3. FACTORY MOUNTED DISCONNECT SWITCH WITH INTEGRAL FUSING FOR THE ELECTRIC HEATER AND CONTROLS.
4. DISCHARGE NC LEVELS FOR BOX 5=20 BOXES 7,9,10,11=21, BOXES 1,4,6,8 = 24, BOXES 2,3 = 26
5. ONE BOX SERVES IT ROOM REQUIRES NO HEAT. INTEGRAL FUSING REQUIRED.

AIR COOLED CONDENSER SCHEDULE - EXISTING REUSED + NEW IT UNIT

Tag No.	Equipment Location	Area Served	Capacity MBH	Refrigerant Type	Operating Charge LBS	E.E.R.	Compressors			Motor			Electrical Data				Manufacturer	Model No.	Weight	Remarks	
							Expansion Type	No.	HP/KW Each	Unload Steps	No. of Fans	HP/KW Each	RPM	Volts	Phase	Hertz					Min. fan Speed
CU-5-1	ROOF	NOTE 3 LAB	9	R410A	11.8	13	STD	1	---	ONE	1	23W	900	120	1	60	---	PAYNE	PW13AAM09000AA	70	1,2,3,4
CU-5-2	ROOF	NOTE 3 IT	12	R410A	25	20	STD	1	---	ONE	1	23W	900	120	1	60	---	FREDERICH	M12CH	90	1,2,3

- NOTES:
1. MCA 12 A CU 5-1, 15 A CU 5-2 (120/1PH), MOCP 20 A, ONE CONNECTION, DISCONNECT BY EC. DC WIRING REQUIRED TO EVAP UNIT BY EC, AND MC FINAL CONNECTION.
2. COORDINATE LOCATION WITH PROJECT MANAGER. PROVIDE AND INSTALL ROOF SUPPORT FOR NEW UNIT, INSTALL EXIST. CUS-1 ON EXIST. COND. SUPPORT AND TIE DOWN, ROOF PIPE PENETRATION, NEW VIBRATION ISOLATORS.
3. UNITS ARE MATCHED TO FANCOIL IN SPACE. TIE TO UNITS AS INSTRUCTED BY MANUFACTURER TO PROVIDE FINAL PIPING ARRANGEMENT AND SIZING.
4. REPAIR EXISTING UNIT TO OPERATIONAL USE, AND INSTALL THE CONDENSER ON THE ROOF.

VARIABLE AIR VOLUME BOX SCHEDULE

ITEM NO.	CFM	MAX./MIN.	IN. WTR.	(KW)/STEPS	V/PH/HZ	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-5-11	140	200/95	0.01	1.0	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-5-12	300	315/170	0.06	1.75	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-5-13	530	960/195	0.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-5-14	470	960/195	0.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-5-15	650	960/195	0.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8
--- VAV-3-16	430	960/195	0.035	2.0	277/1/60	ENVIRO-TEC	SDR-EH-5	SDR-EH-6	SDR-EH-8	SDR-EH-8	SDR-EH-8	SDR-EH-8

- NOTES:
1. VAV BOX MANUFACTURER TO FACTORY MOUNT CONTROLLER WHICH IS TO BE FURNISHED BY THE CONTROLS CONTRACTOR.
2. ALL ELECTRICAL HEAT SHALL BE 277V-1 PHASE, SINGLE STAGE, 30 DEGREE RISE AT LOW FLOW.
3. FACTORY MOUNTED DISCONNECT SWITCH WITH INTEGRAL FUSING FOR THE ELECTRIC HEATER AND CONTROLS.
4. DISCHARGE NC LEVELS FOR BOXE 12=20 BOXES 13,14,15,16=24.

LOUVER SCHEDULE

TAG NO.	LOCATION	MAX CFM	S.P.	INTAKE RELIEF EXHAUST	OPENING		NO. OF PANELS	MANUFACTURER	MODEL NO.	REMARKS
					WIDTH IN.	HEIGHT IN.				
L-4	4TH FLOOR	6470	.1	I/E	45	45	1	GREENHECK	ESD635	1,2
L-5	5TH FLOOR	1270	.1	I	12	35	1	GREENHECK	ESD635	1,2,3

- (1)VERIFY COLOR WITH PROJECT MANAGER PRIOR TO ORDER. BIRD SCREEN, AND INSECT SCREEN.
(2)COORDINATE INSTALLATION FRAME WITH PROJECT MANAGER. UNIT SHALL BE A FLORIDA APPROVED PRODUCT WITHIN DRAINABLE BLADE.
(3)UNIT PROVIDED WITH NEW MOTORIZED DAMPER AND 12 INCH DEEP INSULATED INTAKE PLENUM.

FAN SCHEDULE

ITEM NO.	---	EF-17- EXIST.	SF-4-1	SM-4-2	SF-5-1	SM-5-2
SERVICE	---	TOILET	4TH FLOOR SUPPLY	4TH FLOOR	5TH FLOOR	5TH FLOOR
AIR QUANTITY	CFM	2650	6470	6470	6420	6420
EXT. STATIC PRESSURE	IN. WTR.	EXIST.	1.30	1.30	1.3	1.33
FAN TYPE	---	ROOF CENTRIF.	BARREL	BARREL	CENTRIF UTILITY	CENTRIF UTILITY
DRIVE	---	BELT	DIRECT/ VS	DIRECT/ VS	DIRECT/ VS	DIRECT/ VS
LWA	---	EXIST.	74	74	79	79
MOTOR	HP	EXIST.	5.0/3.15	5.0/3.15	3/2.16	3/2.16
FAN SPEED	RPM	EXIST.	2163	2319	969	969
ELECTRICAL	V/PH./HZ.	EXIST.	460/3/60	460/3/60	460/3/60	460/3/60
CONTROLS	---	TIMER/TCC	SMOKE/ TCC	SMOKE/ TCC	SMOKE/ TCC	SMOKE/ TCC
LOCATION/ WEIGHT	---	ROOF/ EXIST	CEILING/ 220#	CEILING/220 #	ROOF/569#	ROOF/569#
MANUFACTURER	---	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NO.	---	SB-400HP-7-X	QE1-16-1	QE1-16-1	SWB-224-30	SWB-224-30

- NOTES:
1. SF-4-1, SM-4-2 MOTORS ARE SMOKE RATED , WHILE ALL OTHER MOTORS ON THE ROOF ARE TEFC. ALL FANS ARE CLASS 1 FANS, DIRECT DRIVEN. WITH VFD MOTORS, MG 1.0 RATED.SERVICE FACTOR =1.5
2. SF-4-1, SM-4-2 UNITS ARE PROVIDED WITH STEEL INLET AND OUTLET FLANGE, CEILING VIBRATION ISOLATION HANGERS, HEAT SHIELD, MOTOR TUNNEL, UL181 LISTED, AND 120 VOLT DAMPER GREENHECK LOW LEAKAGE DISCHARGE DAMPER. UNITS PROVIDED WITH PIGTAIL AND LUBRICATION LINE EXTENSIONS. DISCONNECT BY EC.
3. SF-5-1 AND SM-5-2 FANS HAVE STEEL DRAIN, INLET COWL, WITH INLET ELBOW, FAN BIRD SCREEN, STEEL INLET AND OUTLET FLANGES, HEAT SHIELD, STEEL 120 VOLT OUTLET DAMPER GREENHECK MOTORIZED LOW LEAKAGE DAMPER, ISOLATION ROOF BASE, UL181 LISTED, OSHA COVER, SPRING ISOLATION, AND ROOF CURB. UNITS PROVIDED WITH PIGTAIL AND LUBRICATION LINE EXTENSIONS. DISCONNECT BY EC. REFER TO PLANS FOR DISCHARGE CONFIGURATION.
4. REFER TO ROOF PLAN FOR SF-5-1, SM-5-2 LOCATION
5. PROVIDE AND INSTALL DOUBLE WALL DUCTWORK PENETRATING THE ROOF TO THE FIRST TEE IN CEILING . INSULATE ALL DUCT WORK, PLENUM, AND LOUVER CONNECTION IN ROOM OFF OF FAN INLET/ DISCHARGE

FAN COIL UNIT SCHEDULE

ITEM	---	FCU-5-1	FCU-5-2
TOTAL SUPPLY AIR	CFM	327	300
STATIC PRES. EXT.	IN. WTR.	---	---
MOTOR, UNIT MCA- NO ELECT HT.	DC	13VDC	13VDC
ELECTRICAL	V/PH/HZ	---	---
COOLING COIL-HEAT PUMP			
TOTAL COOLING CAPACITY	MBH	9.21	12.00
TOTAL HEATING CAPACITY	MBH	---	---
MANUFACTURER	---	PAYNE (1-6)	FREDERICH (1-4, 6)
MODEL NO.	---	PW13HAM09000AA	M12CH

- NOTES:
1. UNIT SUPPLIED WITH VIBRATION ISOLATION, STANDARD FILTER, FAN COIL DRAIN PAN, THERMOSTAT, EXPANSION VALVE, REFRIGERANT LINE SET CONNECTIONS, AND DISCONNECT. WALL FRAME UNIT 6 FT ABOVE FLOOR ON DRYWALL.
2. COOLING CAPACITY RATED AT COIL ENTERING 80° DB/67° FWB, REFRIGERANT R410A.
3. UNIT SHALL BE HAVE FILTER ACCESS, AND CONDENSATE RETURN. CONDENSATE PUMPS SHALL BE SEPARATE.
4. PROVIDE DRAIN PAN CUT OUT SWITCH WIRED IN SERIES WITH INLINE FLOAT SWITCH AT FCU PRIOR TO CONDENSATE LINE TRAP.
5. REPAIR AND RECONDITION EXISTING UNIT FOR REMOUNT IN NEW LOCATION.UNIT AND CONDENSER SUPPLIED BY OWNER. 1" L x 3" S.
6. PROVIDE LITTLE GIANT VMA-200LS CONDENSATE UNIT WITH SAFETY SWITCH, ALARM, AND 6 FT 120 VOLT CORD, 120V/1/60, 1.5A, 3/4 INCH PVC LINE TERMINATED IN FLOOR DRAIN IN MECH ROOM.
7. WEIGHT 25#, 1/4" L, 3/8" S

AIR HANDLING UNIT SCHEDULE

ITEM NO.	---	AHU-5
LOCATION	---	MECH EQUIP. RM
TOTAL SUPPLY AIR	CFM	7700
RETURN AIR	CFM	6430
OUTSIDE AIR	CFM	1270
STATIC PRESS. EXT./TOTAL	IN. WTR.	2.00/3.24
MAX. FAN SPEED/TYPE/SIZE	RPM/--/IN.	1875/AIRFOIL/18.00
MOTOR	BHP/HP	6.17/7.5
ELECTRICAL	V/PH/HZ	480/3/60
COOLING COIL	ROWS/FINS	6/9
TOTAL COOLING CAPACITY	BTUH	272463
SENSIBLE COOLING CAPACITY	BTUH	195629
CHILLED WATER FLOW	GPM	53.4
COIL WATER P.D. (MAX)	FT	6.9
CHILLED WATER TEMP. (ENT/LVG)	°F/°F	45/55
ENTERING AIR (DB/WB)	°F/°F	78/65.7
LEAVING AIR (DB/WB)	°F/°F	55/53
FACE VELOCITY	FPM	460
AIR PRESSURE DROP	IN.	.61
FILTERS	---	6 MERV 7
WEIGHT	LBS	2186
MANUFACTURER	---	MCQUAY
MODEL NO.	---	CAH017GDAC

- NOTES:
1. PROVIDE NEW MODULAR DOUBLE WALL AIR HANDLER WITH FLANGED SECTIONS FOR INSTALLATION IN AN EXISTING ROOM FROM AN EXISTING ELEVATOR.
2. PROVIDE UNIT WITH FILTER FRAME, OUTLET FLANGE, VFD DRIVEN FAN MOTOR L SHAPED FILTER SECTION, WITH VIBRATION ISOLATED FRAME, COOLING COIL SECTION WITH DRAIN PAN AND CHWS/ CHWR PIPE CONNECTIONS, AND SMOKE DETECTION, FAN SECTION WITH FLEX CONNECTION OUTLET. DISCONNECT BY EC.
3. PROVIDE & INSTALL 2 WAY CHW CONTROL VALVE WITH MANUAL BYPASS WITH BELIMO ACTUATOR, PROVIDE NEW OA DAMPER AND ACTUATOR ON EXISTING LOUVER. REFER TO DETAILS FOR PIPING FIT UP.

HVAC LOAD CALCULATIONS SUMMARY

	AHU 5
SIZING METHOD	CARRIER E-20ii
AREA (SQ. FEET)	6919
TOTAL COOLING REQUIRED W/ OUTSIDE AIR (MBH)	265.5
OUTDOOR DRY BULB USED	93
OUTDOOR WET BULB USED	79
RELATIVE HUMIDITY %	44%
INDOOR DRY BULB	78
TOTAL HEATING REQUIRED W/ OUTSIDE AIR (MBH)	VAV RH
TOTAL SENSIBLE GAIN (MBH)	176.2
TOTAL LATENT GAIN (MBH)	89.3
L.B. / L.B. SPECIFIC HUMIDITY ACROSS COIL	.00218

REFERENCE: 13-407.1.ABC.1 SIZING, 2007/9 FLORIDA BUILDING CODE

OUTDOOR AIR LOAD CALCULATIONS

(FMC TABLE 403.3 AND ASHRAE STD 62 2010)
5TH FLOOR
50 CFM/ WC RESTROOMS
OFFICE 5154.2 SF
5 / 1000SF X 174 438 CFM
CORRIDOR AND STORAGE 1109.3 SF
1109.3 X 0.06 CFM/SF = 6.558
CONFERENCE
LOBBY
TOTAL REQUIRED OA =445 CFM
920 CFM SCHEDULED
2 RESTROOMS, 1 UR, 4WC. = 250 CFM TOTAL EXHAUST