ST. PETERSBURG COLLEGE

PALLADIUM STAVROS ROOM - HVAC RENOVATION

SPC PROJECT #265-S-17-3

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+
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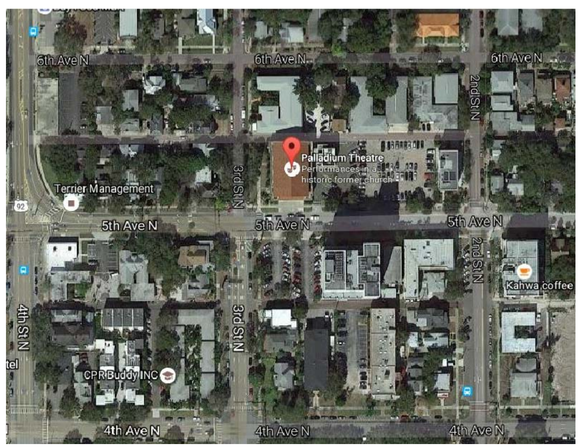
PERMIT DRAWINGS
JUNE 14, 2017

SITE LOCATION MAP



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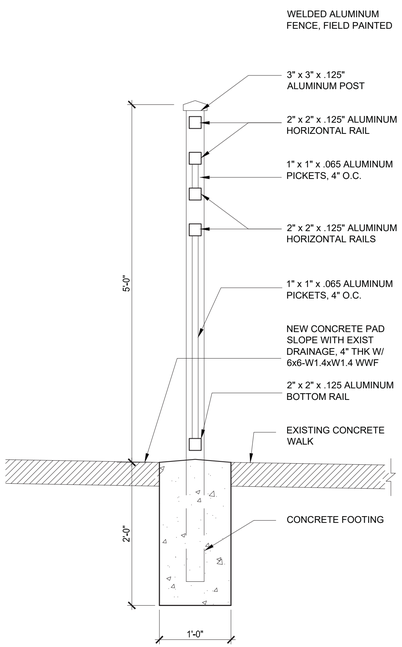


1 A3.1 FENCE SECTION

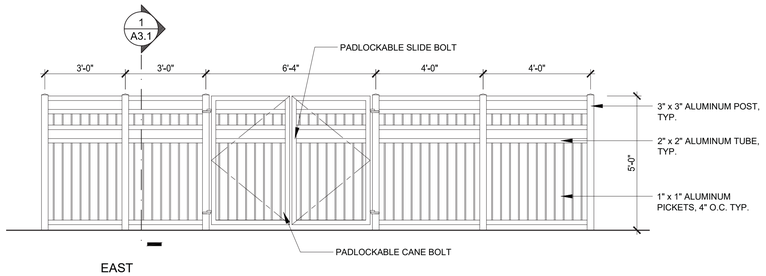
SCALE: 1" = 1'-0"

2 A3.1 MECHANICAL ENCLOSURE (EXISTING CONDITIONS) PERSPECTIVE #1

3 A3.1 MECHANICAL ENCLOSURE (RENOVATION) PERSPECTIVE #1

4 A3.1 MECHANICAL ENCLOSURE (EXISTING CONDITIONS) PERSPECTIVE #2

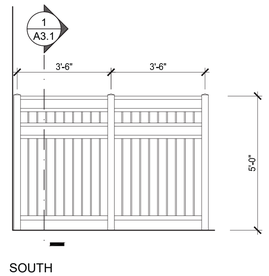
5 A3.1 MECHANICAL ENCLOSURE (RENOVATION) PERSPECTIVE #2



EAST

6 A3.1 ENCLOSURE ELEVATION

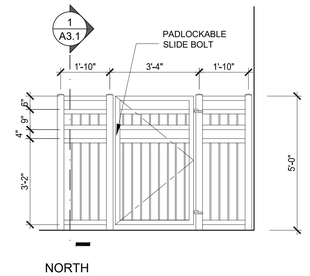
SCALE: 3/8" = 1'-0"



SOUTH

7 A3.1 ENCLOSURE ELEVATION

SCALE: 3/8" = 1'-0"



NORTH

8 A3.1 ENCLOSURE ELEVATION

SCALE: 3/8" = 1'-0"

KEYPLAN

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SEAL:

DRAWING PHASE: **PERMIT DOCUMENTS**

ISSUE DATE:	EMI JOB NO.
06-14-2017	**16-0610**

DRAWING REVISIONS:

ST. PETERSBURG COLLEGE
PALLADIUM STAVROS ROOM
HVAC RENOVATION
253 5TH AVENUE N, ST. PETERSBURG, FL 33701

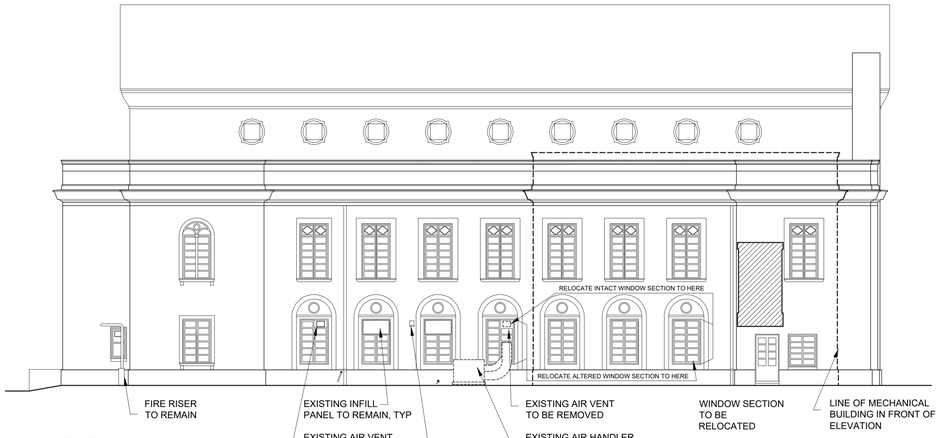
SPC
ST. PETERSBURG COLLEGE

DRAWN BY: CHECKED BY: **CAT**

DRAWING TITLE:
MECH. ENCLOSURE PERSPECTIVE, ELEVATIONS & WALL SECTION

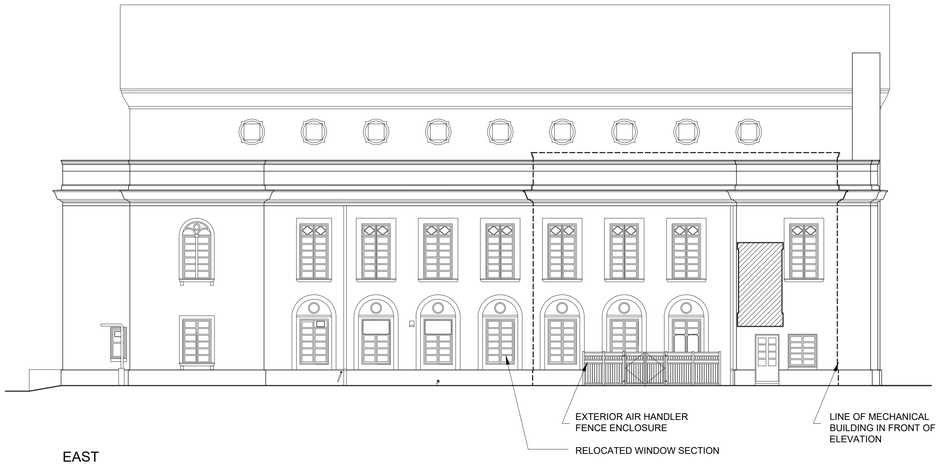
SCALE: NORTH:

DRAWING NUMBER:
A3.1



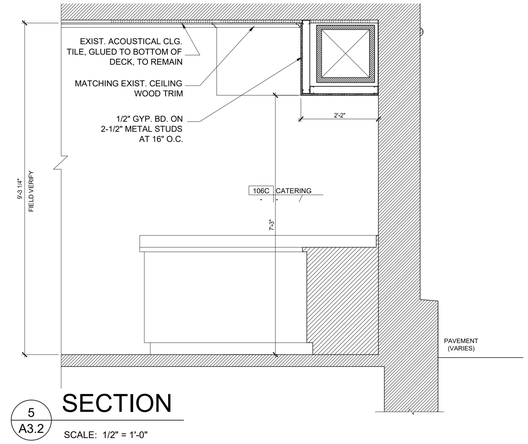
EAST
BUILDING ELEVATION - EXISTING
1 / A3.2
SCALE: 3/16" = 1'-0"

NORTH
BUILDING ELEVATION - EXISTING
3 / A3.2
SCALE: 3/16" = 1'-0"

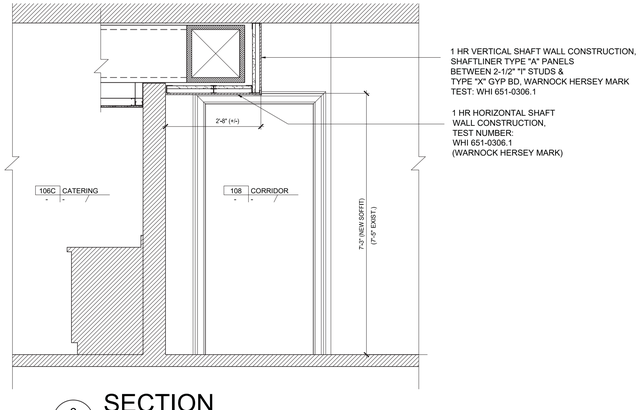


EAST
BUILDING ELEVATION - RENOVATION
2 / A3.2
SCALE: 3/16" = 1'-0"

NORTH
BUILDING ELEVATION - RENOVATION
4 / A3.2
SCALE: 3/16" = 1'-0"



SECTION
5 / A3.2
SCALE: 1/2" = 1'-0"



SECTION
6 / A3.2
SCALE: 1/2" = 1'-0"

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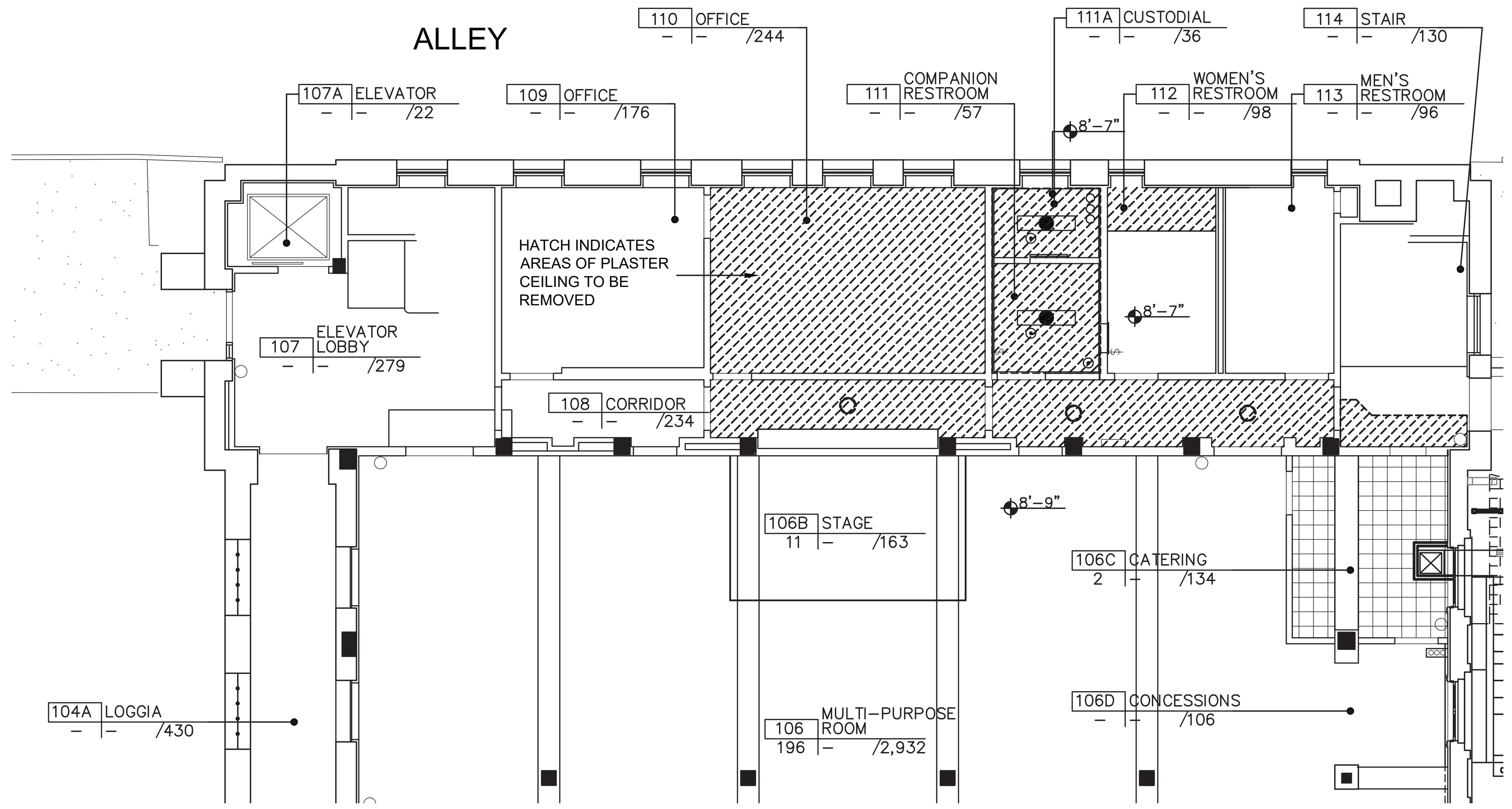
DRAWING TITLE:
BUILDING SECTIONS & DETAILS

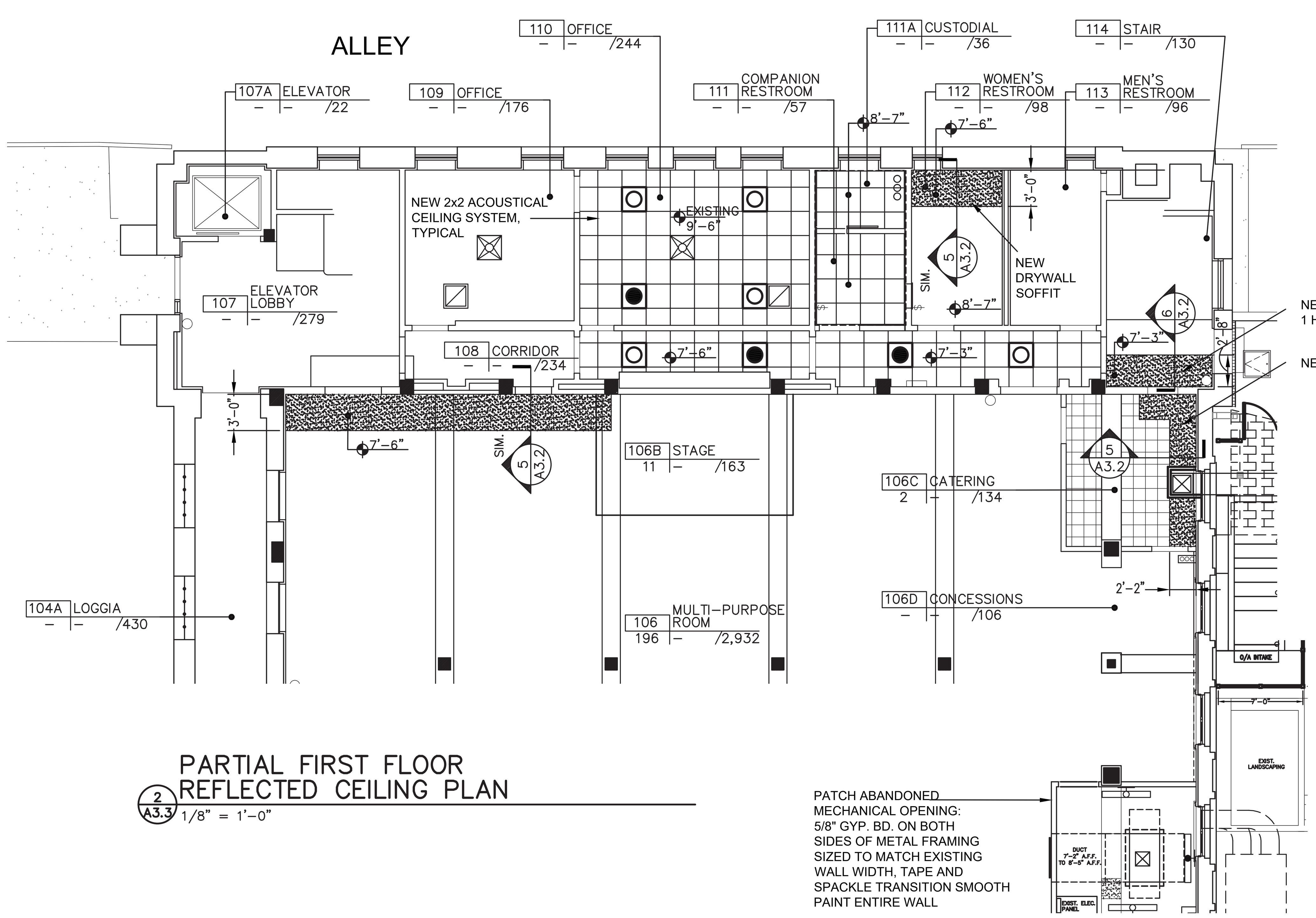
SCALE: NORTH:

DRAWING NUMBER:
A3.2

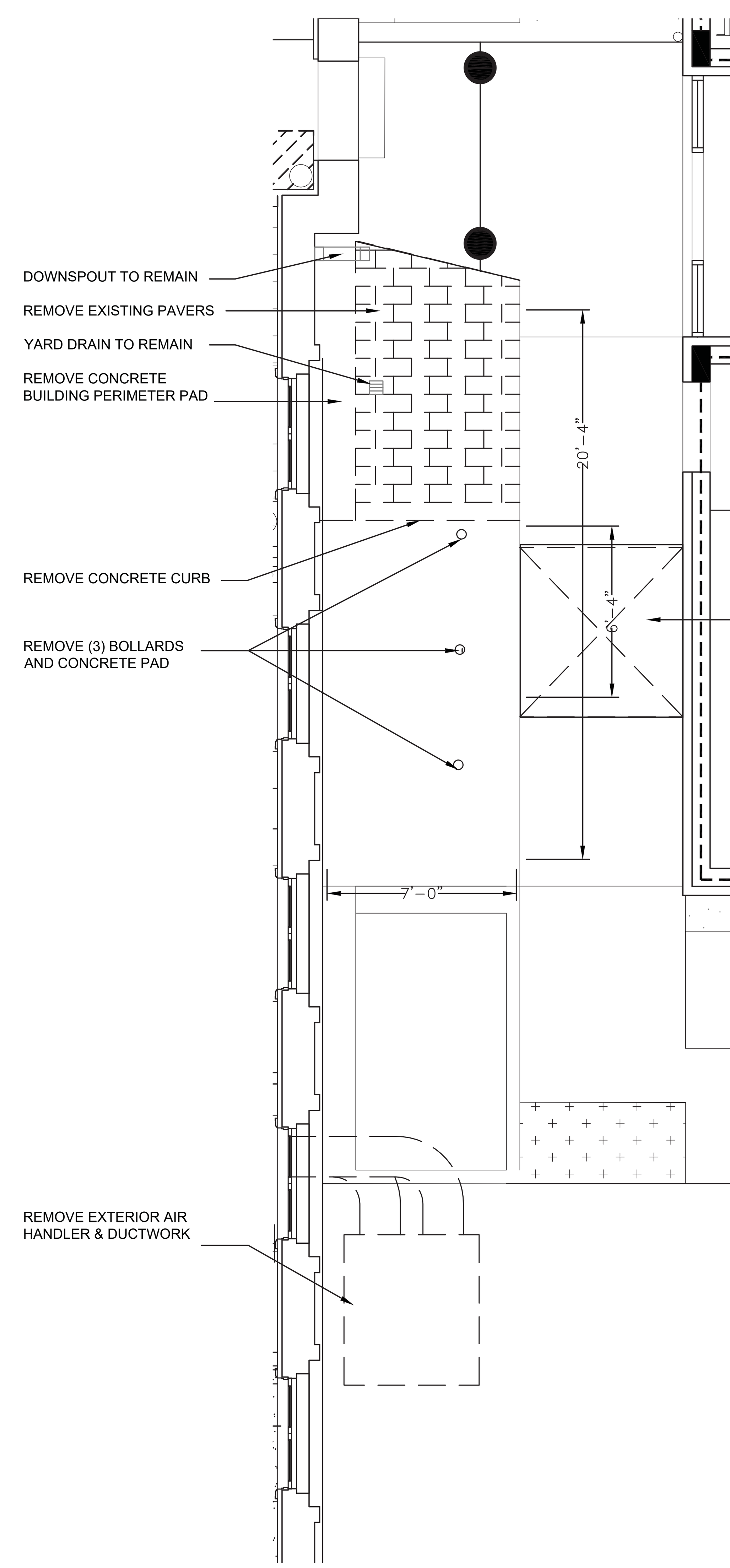
6/12/2017 3:45:36 PM P:\Drawings\16\10 EMI SPC Palladium\A3.2 Building Sections & Details.DWG



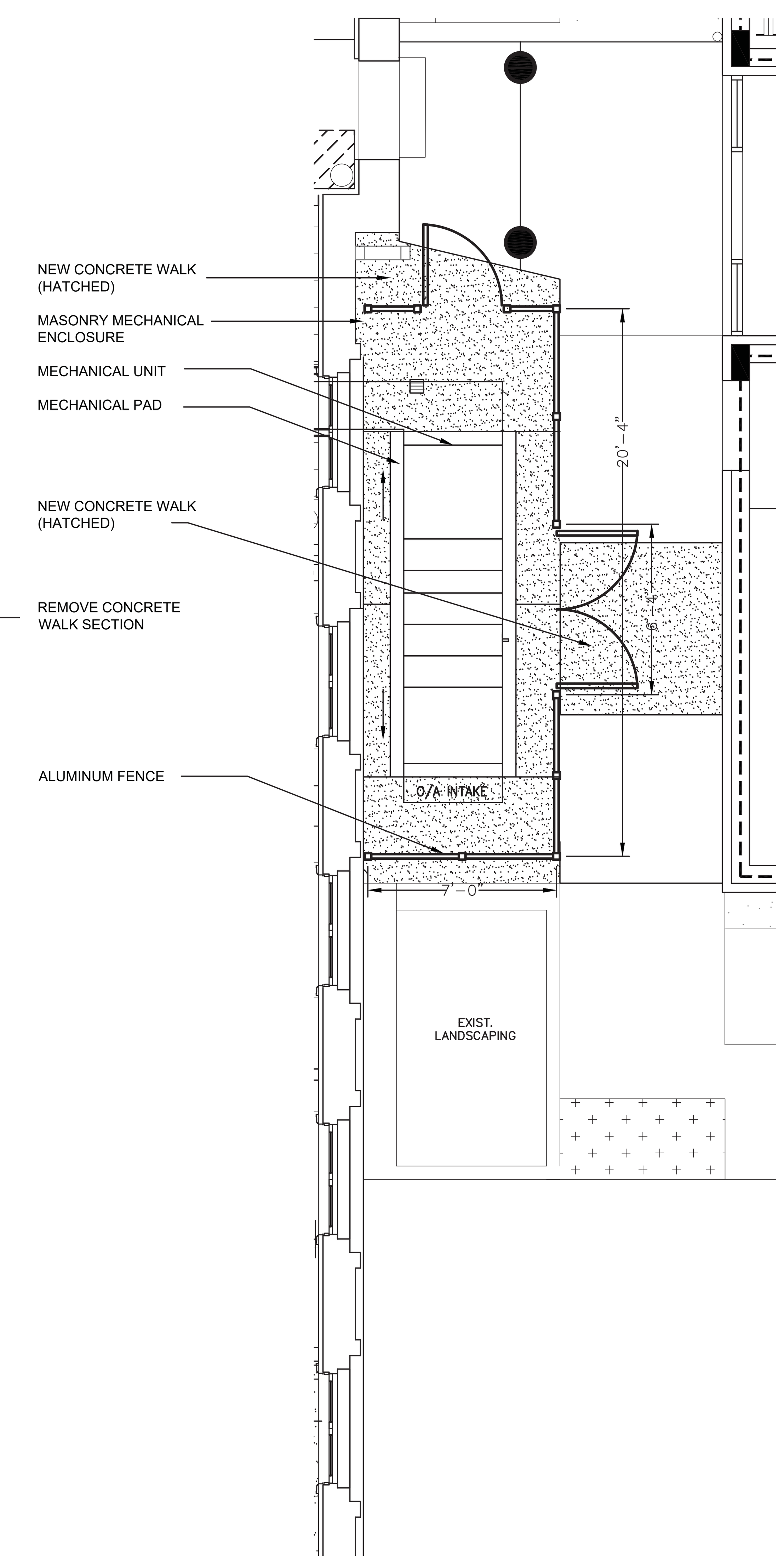
PARTIAL FIRST FLOOR DEMOLITION REFLECTED CEILING PLAN
1/A3.3 1/8" = 1'-0"



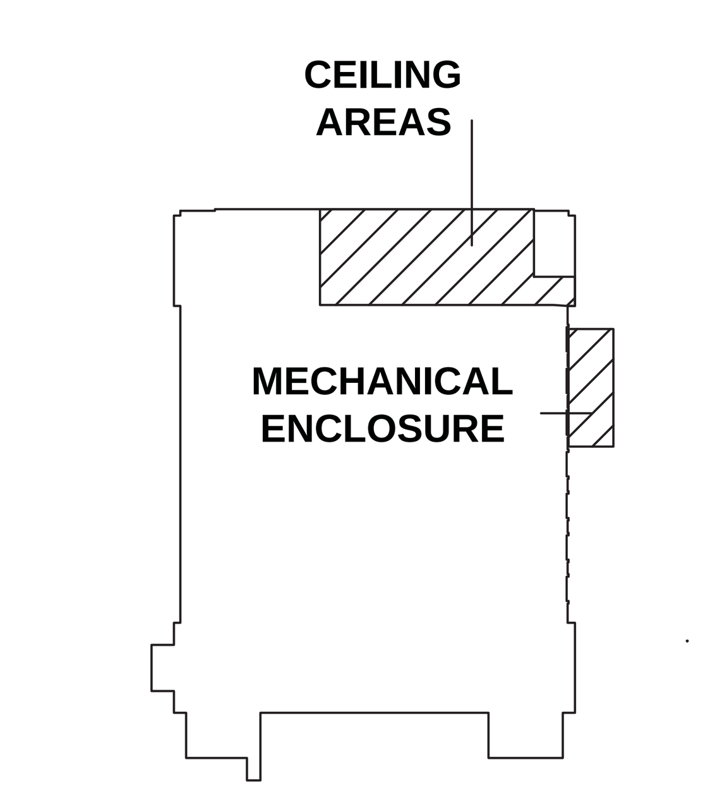
PARTIAL FIRST FLOOR REFLECTED CEILING PLAN
2/A3.3 1/8" = 1'-0"



MECHANICAL ENCLOSURE DEMOLITION PLAN
3/A3.3 1/4" = 1'-0"



MECHANICAL ENCLOSURE CONSTRUCTION PLAN
4/A3.3 1/4" = 1'-0"



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CHECKED BY: CAT

DRAWING TITLE:
CEILING PLANS & MECHANICAL ENCLOSURE PLANS

SCALE:
NORTH:

DRAWING NUMBER:
A3.3

CONTROLS SYMBOL LEGEND

SYMBOL	DESCRIPTION
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI DO	DIGITAL INPUT DIGITAL OUTPUT
SS	START/STOP SIGNAL
FF	FLOW FEEDBACK/STATUS SIGNAL
WR	CHILLED WATER RESET 4–20 mA SIGNAL
VM	PID VALVE MODULATION
T	TEMPERATURE SENSOR/TRANSMITTER
P	PRESSURE SENSOR/TRANSMITTER
DP	PRESSURE DIFFERENTIAL SWITCH
SP	SETPOINT
M	MOTORIZED DAMPER ACTUATOR
H	HUMIDITY SENSOR/TRANSMITTER
CO2	CARBON DIOXIDE SENSOR/TRANSMITTER
TS	THERMOSTAT
HS	HUMIDISTAT
PF	PROPORTIONAL, LINEARIZED FEEDBACK 4–20mA SIGNAL
TD	TIME DELAY (RELAY OR SOFTWARE LATCH)
CT	CURRENT TRANSDUCER WITH GO/NO GO MONITOR CAPABILITY
O.A.	OUTSIDE AIR
LS	LIMIT SWITCH
VFD	VARIABLE FREQUENCY DRIVE
	"AND" LOGIC GATE
	THREE INPUT "AND" LOGIC GATE
	"OR" LOGIC GATE
	TWO INPUT "OR " LOGIC GATE
DO	SIGNAL OUT OF DIGITAL (EMCS) SOFTWARE INTO HARDWARE
DI	SIGNAL OUT OF HARDWARE INTO DIGITAL (EMCS) SOFTWARE
CI	CONTROL RELAY HOLDING COIL
	NORMALLY OPEN CONTROL RELAY CONTACT
	NORMALLY CLOSED CONTROL RELAY CONTACT
	THERMOSTAT – CLOSE ON TEMPERATURE RISE
	SINGLE POLE SWITCH
	'NOT' INPUT LOGIC
	SIGNAL TYPE (AI,AO,DI,DO) FUNCTIONAL DESCRIPTION

NOTE:
NOT ALL SYMBOLS SHOWN IN THIS LEGEND NECESSARILY APPEAR IN THESE DOCUMENTS. ADDITIONAL SYMBOLS MAY BE DEFINED ELSEWHERE IN SPECIFIC DRAWINGS.

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	45 DEGREE OFFSET
	SUCTION DIFFUSER
	PIPE ANCHOR
	PIPE EXPANSION GUIDES
	MANUAL AIR VENT
A	AUTOMATIC AIR VENT
	VIBRATION ISOLATOR
F	FLOAT TRAP
F/T	FLOAT AND THERMOSTATIC TRAP
T	THERMOSTATIC TRAP
D	THERMO–DYNAMIC DISC TRAP
DRYER	DRYER
	FILTER
	EXPANSION VALVE (THERMOSTATIC)
	SIGHT GLASS
	BALL SHUT–OFF VALVE
	LIQUID CHARGING VALVE
	HOT GAS BYPASS VALVE
	HOT GAS TEE
	LIQUID SHUT–OFF VALVE
	THERMOMETER WITH NEEDLE VALVE
	PRESSURE OR VACUUM GAGE WITH NEEDLE VALVE
C	COMPOUND PRESSURE OR VACUUM GAGE WITH NEEDLE VALVE
	LUGGED BUTTERFLY VALVE
	ANGLE GATE VALVE W/ HOSE BIB
	PRESSURE REDUCING VALVE
	3–WAY CONTROL VALVE
FM	FLOW METER
	2–WAY CONTROL VALVE
	GATE VALVE IN RISE
	FLANGED CONNECTION
	LUGGED BUTTERFLY VALVE IN RISE
	NEEDLE VALVE
	CIRCULATING PUMP
	SHOCK ARRESTOR
	SHUT–OFF VALVE
	GLOBE VALVE
	PIPE UNION
	COMBINATION CALIBRATED BALANCING VALVE WITH MEMORY STOP AND SHUT-OFF VALVE
	TRIPLE DUTY VALVE (CALIBRATED BALANCING, SHUT–OFF AND CHECK)
P/T	PRESSURE /TEMPERATURE PLUG
	SWING CHECK VALVE
	GAS PLUG VALVE
	Y–TYPE STRAINER WITH BLOW DOWN AND VALVE
	SHUT–OFF VALVE IN VALVE BOX
	ASME TEMPERATURE AND PRESSURE RELIEF VALVE
	SPRING CHECK VALVE
	COMBINATION MAGNETIC MOTOR STARTER
	FUSIBLE DISCONNECT SWITCH
FS	FLOW SWITCH

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	SUPPLY AIR DEVICE
	SUPPLY AIR DEVICE W/ 90° SECTORIZED BAFFLES PROVIDED IN SHADED QUADRANTS
	RETURN/EXHAUST AIR DEVICE
	SUPPLY AIR DUCT SECTION
	RETURN/EXHAUST AIR DUCT SECTION
	90 DEGREE SQUARE ELBOW WITH TURNING VANES (DOUBLE LINE)
TV	90 DEGREE SQUARE ELBOW WITH TURNING VANES (SINGLE LINE)
	RADIUSED ELBOW WITH TURNING VANES (DOUBLE LINE)
TV	RADIUSED ELBOW WITH TURNING VANES (SINGLE LINE)
	DUCT TEE WITH TURNING VANES AND SPLITTER DAMPER (DOUBLE LINE)
TV	DUCT TEE WITH TURNING VANES AND SPLITTER DAMPER (SINGLE LINE)
	NESTED SQUARE/RECTANGULAR BRANCH TAKE–OFF (DOUBLE LINE)
TV	NESTED SQUARE/RECTANGULAR BRANCH TAKE–OFF (SINGLE LINE)
	NESTED RADIUS BRANCH TAKE–OFF (DOUBLE LINE)
	NESTED RADIUS BRANCH TAKE–OFF (SINGLE LINE)
	NESTED RADIUS TEE (DOUBLE LINE)
	NESTED RADIUS TEE (DOUBLE LINE)
	BRANCH TAKE OFF WITH SHOE FITTING (DOUBLE LINE)
	BRANCH TAKE OFF WITH SHOE FITTING (SINGLE LINE)
	SPIN–IN FITTING WITH VOLUME DAMPER (DOUBLE LINE)
	SPIN–IN FITTING WITH VOLUME DAMPER (SINGLE LINE)
	CAP ON END OF DUCT (DOUBLE LINE)
	CAP ON END OF DUCT (SINGLE LINE)
	FLEXIBLE DUCT (DOUBLE LINE)
	DUCT TRANSITION (DOUBLE LINE)
	DUCT TRANSITION (SINGLE LINE)
	RECTANGULAR TO ROUND TRANSITION (DOUBLE LINE)
	RECTANGULAR TO ROUND TRANSITION (SINGLE LINE)
	RIGID TO FLEXIBLE DUCT TRANSITION (SINGLE LINE)
VD	VOLUME DAMPER (DOUBLE LINE)
VD	VOLUME DAMPER (SINGLE LINE)
FD/AD	FIRE DAMPER WITH ACCESS DOOR
SD/AD	SMOKE DAMPER WITH ACCESS DOOR
FSD/AD	COMBINATION FIRE–SMOKE DAMPER WITH ACCESS DOOR
M	MOTORIZED DAMPER
BDD	BACKDRAFT DAMPER
AD	ACCESS DOOR IN DUCT
AD	ACCESS DOOR IN SIDE OF DUCT (DOUBLE LINE)
AD	ACCESS DOOR IN BOTTOM OF DUCT
	PIPE DOWN
	PIPE UP
	BRANCH CONNECTION OFF TOP
	BRANCH CONNECTION OFF BOTTOM
	BRANCH CONNECTION OFF SIDE
	CAP ON END OF PIPE
	DIRECTION OF FLOW
	PIPE TRANSITION

MECHANICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION
	EXISTING DEVICES OR EQUIPMENT TO REMAIN
	EXISTING DEVICES OR EQUIPMENT TO BE REMOVED
	NEW OR MODIFIED DEVICES OR EQUIPMENT
	SUPPLY/OUTSIDE AIR FLOW
	RETURN/EXHAUST AIR FLOW
L	LOUVERED DOOR; LOUVERED DOOR SHALL BE MINIMUM 12" X 12" UNLESS OTHERWISE NOTED ON THE DRAWINGS. CONTRACTOR SHALL COORDINATE ALL DOOR LOUVERS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
U	UNDERCUT DOOR, DOORS SHALL HAVE A ¾ INCH UNDERCUT. CONTRACTOR SHALL COORDINATE ALL DOOR UNDERCUTS WITH DOOR INSTALLATION CONTRACTOR PRIOR TO BID.
R	RISE IN DUCT ELEVATION IN DIRECTION OF AIRFLOW
D	DROP IN DUCT ELEVATION IN DIRECTION OF AIRFLOW
S	SMOKE DETECTOR IN DUCT W/ 6" X 6" ACCESS DOOR
T	THERMOSTAT
T	TEMPERATURE SENSOR
H	HUMIDISTAT
H	HUMIDITY SENSOR
CO_2	CO2 SENSOR
AHU X–X	AIR HANDLING UNIT
AM X–X	AIR MONITOR
EF X–X	EXHAUST FAN
FCU X–X	FAN COIL UNIT
A 105	INSERT INDICATES AIR DEVICE TYPE (REFER TO MECHANICAL SCHEDULE) INSERT INDICATES DEVICE AIR FLOW RATE
	INSERT INDICATES SECTION NUMBER INSERT INDICATES DRAWING NUMBER
	INSERT INDICATES DETAIL NUMBER INSERT INDICATES DRAWING NUMBER
	CONNECTION POINT OF NEW TO EXISTING
5	KEYED NOTE

MECHANICAL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
S/S	STAINLESS STEEL	F.C.	FAIL CLOSED
DWG	DRAWING	N.T.S.	NOT TO SCALE
AFF	ABOVE FINISHED FLOOR	(E)	EXISTING EQUIPMENT
AFG	ABOVE FINISHED GRADE	Ø	DIAMETER
W/	WITH	O.B.D.	OPPOSED BLADE DAMPER
W/O	WITHOUT	CHWS	CHILLED WATER SUPPLY
AUTO	AUTOMATIC	CHWR	CHILLED WATER RETURN
APPROX.	APPROXIMATE	HWS	HEATING HOT WATER SUPPLY
N.O.	NORMALLY OPEN	HWR	HEATING HOT WATER RETURN
N.C.	NORMALLY CLOSED	CWS	CONDENSER WATER SUPPLY
C.	COMMON (ALWAYS OPEN)	CWR	CONDENSER WATER RETURN
F.O.	FAIL OPEN	CD	CONDENSATE DRAIN

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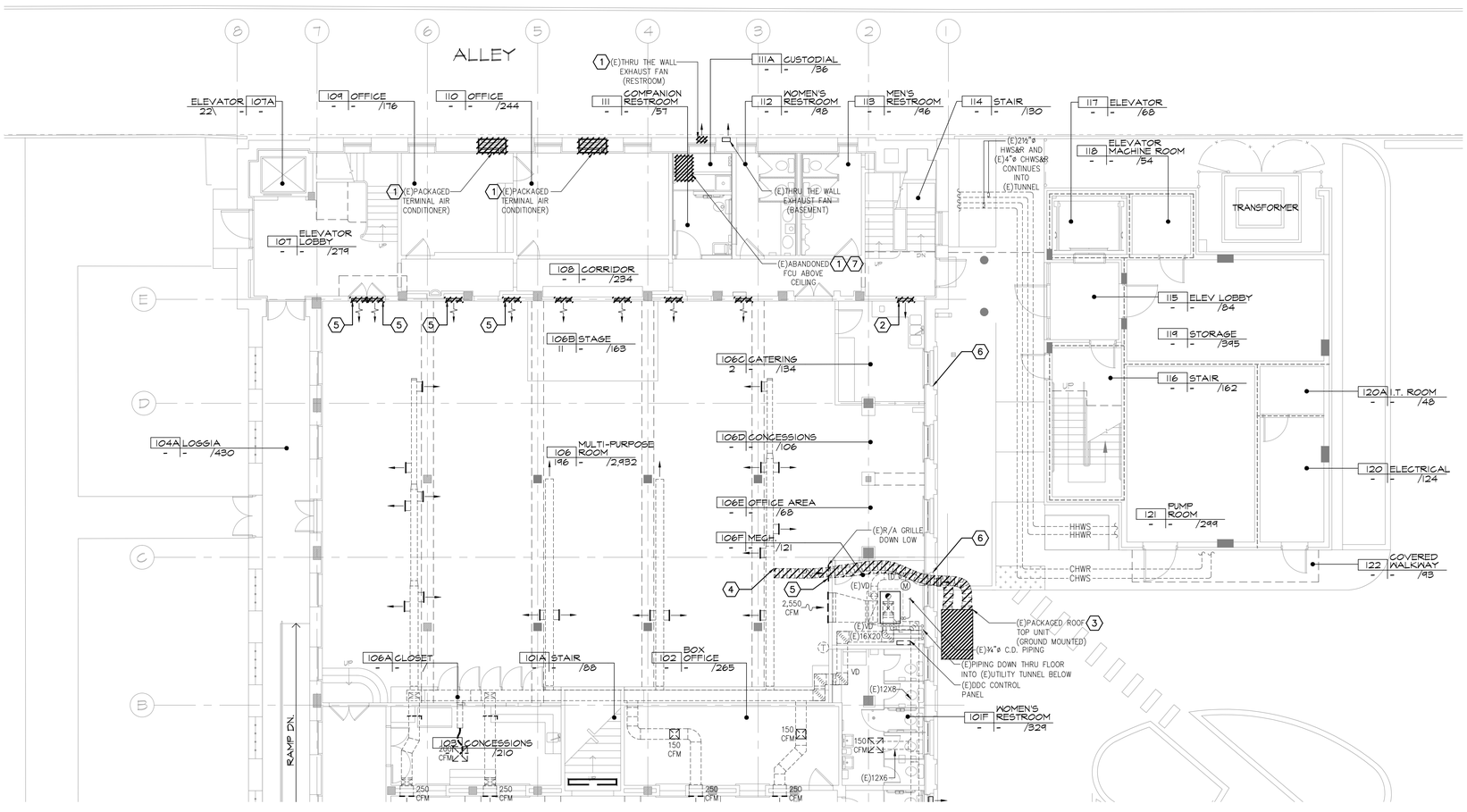
DRAWING TITLE:
MECHANICAL SYMBOLS LEGEND

SCALE: **NOT TO SCALE** NORTH:

DRAWING NUMBER:
M0.0



PARTIAL FLOOR PLAN - MECHANICAL

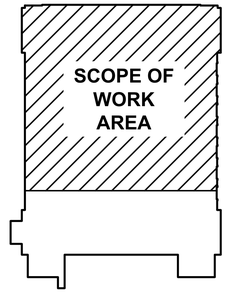
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF DEMOLITION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
2. ALL EQUIPMENT SCHEDULED FOR DEMOLITION SHALL BE PRESENTED TO OWNER FOR THE FIRST RIGHT OF REFUSAL, SHOULD THE OWNER REFUSE, ALL EQUIPMENT SHALL BE DISPOSED OF IN A PROPER MANNER.
3. EXISTING EQUIPMENT, LOCATIONS, AND DATA ARE BASED ON EXISTING DRAWING DATA. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATIONS.
4. ANY EXISTING WALL, ROOF, FLOOR, EQUIPMENT, ETC. DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING. COORDINATE WITH GENERAL CONTRACTOR AND/OR OWNER.

KEYED NOTES

1. CONTRACTOR SHALL REMOVE (E)MECHANICAL EQUIPMENT AND TURN OVER TO OWNER FOR FIRST RIGHT OF REFUSAL, SHOULD THE OWNER REFUSE THE EXISTING EQUIPMENT, THE CONTRACTOR SHALL DISPOSE OF EQUIPMENT IN A SAFE AND PROPER MANNER.
2. CONTRACTOR SHALL REMOVE (E)SIDEWALL AIR DEVICE AND MODIFY REMAINING WALL OPENING AS REQUIRED TO ROUTE (N)SUPPLY AIR DUCT THROUGH OPENING AND OUT INTO (N)SOFFIT BEING PROVIDED IN (E)STAIRWELL.
3. (E)TEMPORARY PACKAGED ROOF TOP UNIT LOCATED ON THE GROUND OUTDOORS SHALL BE REMOVED FROM THE SITE BY THE OWNER. CONTRACTOR SHALL DEMOLISH ALL ASSOCIATED (E)FLEX LINES.
4. ONCE (E)TEMPORARILY FLEX LINE IS DEMOLISHED FROM (E)EXPOSED SPIRAL DUCT SCHEDULED TO REMAIN, CONTRACTOR SHALL RE-INSTALL SUPPLY AIR DEVICE SUPPLIED BY OWNER.
5. (E)SIDEWALL AIR DEVICE SHALL BE REMOVED AND REMAINING OPENING PATCHED AND SEALED IN ACCORDANCE WITH ARCHITECTURAL RECOMMENDATIONS.
6. CONTRACTOR SHALL SAFELY REMOVE WINDOW PANES AND STORE FOR RE-INSTALLATION PER ARCHITECTURAL DRAWINGS.
7. DEMOLISH AND REMOVE ANY EXISTING DUCTWORK ASSOCIATED WITH ABANDONED FCU LOCATED ABOVE CEILING.



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ST. PETERSBURG COLLEGE

DRAWN BY: SMW CHECKED BY: CAT

DRAWING TITLE: PARTIAL DEMO PLAN - MECHANICAL

SCALE: AS NOTED

NORTH:

DRAWING NUMBER: M1.1

BRANCH DUCT NOTES

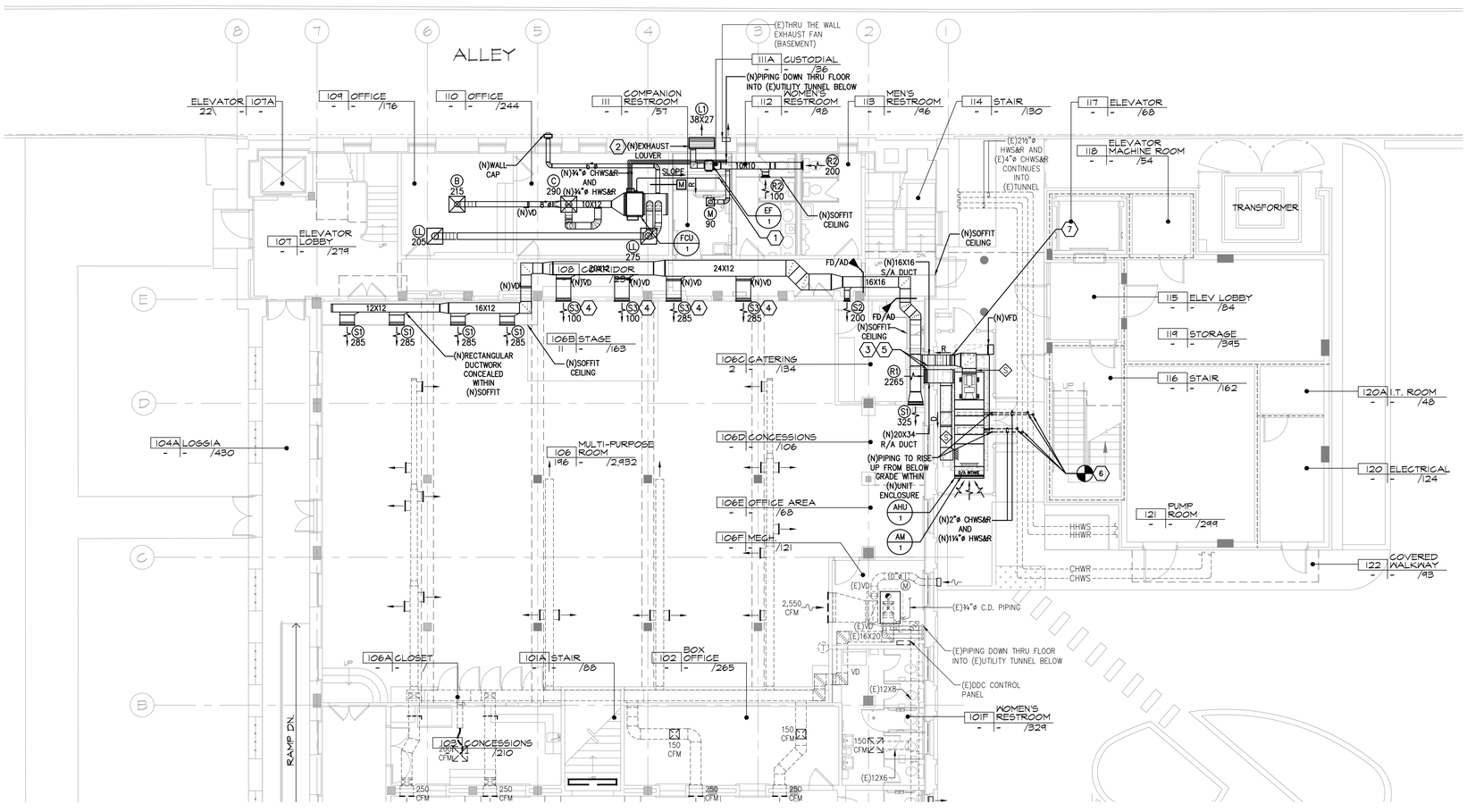
1. ALL BRANCH DUCT WORK SHALL BE EQUIPPED WITH A CONICAL, BELLMOUTH OR 45° TAKE OFF WITH VOLUME DAMPER. DAMPER SHALL BE STANDOFF TYPE WITH INDICATING AND LOCKING QUADRANT HANDLE. REFER TO MECHANICAL DETAILS FOR APPROVED BRANCH DUCT TAKE-OFF TYPES.
2. PROVIDE OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF AIR DEVICE FOR ALL AIR DEVICES LOCATED IN HARD CEILINGS OR SIDE WALLS.
3. BRANCH DUCT TAKE-OFFS ARE SHOWN DIAGRAMMATICALLY. WHERE SIDE DIMENSION OF DUCT, DOES NOT ACCOMMODATE HEIGHT OF TAKE-OFF, CONTRACTOR MAY CONNECT TO BOTTOM OR TOP OF MAIN DUCT.

GENERAL NOTES

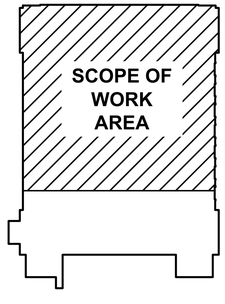
1. CONTRACTOR SHALL INSTALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSITIONS, FITTINGS, ELBOWS, DUCTWORK, PIPING, SUPPORTS, ETC. NECESSARY FOR A PROPER INSTALLATION AND OPERATION OF A NEW HVAC SYSTEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
4. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF NEW MECHANICAL EQUIPMENT WITH NEW LIGHT LOCATIONS, TILE LOCATIONS. REFER TO ARCHITECT'S REFLECTED CEILING PLAN LAYOUT.
5. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
6. DUCT SMOKE DETECTORS SHOWN ON PLANS ARE DIAGRAMMATIC. REFER TO MANUFACTURER'S INSTRUCTIONS FOR EXACT/OPTIMUM LOCATION IN DUCT.
7. ANY WALL, ROOF, FLOOR, EQUIPMENT, ETC. DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO MATCH EXISTING. COORDINATE WITH GENERAL CONTRACTOR AND/OR OWNER.
8. CONTRACTOR SHALL REFERENCE SHEET M2.1A FOR ROUTING OF (N)CHILLED WATER PIPING AND (N)HOT WATER PIPING WITHIN (E)UTILITY TUNNEL BENEATH FIRST FLOOR.

KEYED NOTES

1. (N)¾"ø CONDENSATE DRAIN PIPING FROM (N)FAN COIL UNIT SHALL BE ROUTED ABOVE CEILING AND DROP DOWN ABOVE (E)MOP SINK LOCATED WITHIN (E)CUSTODIAL SPACE. (N)PIPING SHALL BE TERMINATED INDIRECTLY ABOVE MOP SINK AND BE INSTALLED SO AS TO NOT CONFLICT WITH ACCESS TO MOP SINK.
2. IN COORDINATION WITH CITY OF ST. PETERSBURG HISTORICAL REQUIREMENTS, CONTRACTOR SHALL MODIFY REMAINING OPENING, FOLLOWING REMOVAL OF (E)EXHAUST FAN, AS REQUIRED TO FACILITATE INSTALLATION OF (N)EXHAUST LOUVER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
3. DUCTWORK DIMENSIONS WITH INSULATION ARE S.A. = 20" X 20" AND R.A. = 24" X 38". CONTRACTOR SHALL INCLUDE PAINTABLE DUCT JACKETING WITH CROSS-BRAKING. REFER TO SPECIFICATIONS FOR INSULATION AND JACKETING REQUIREMENTS.
4. (N)SIDEWALL AIR DEVICE SHOWN SHALL MATCH THE (E)SIDEWALL AIR DEVICE DIMENSIONS AND LOCATION. CONTRACTOR SHALL REMOVE (E)DEVICE AND FIELD COORDINATE DIMENSIONS AND LOCATION OF (E)SIDEWALL AIR DEVICES PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL COORDINATE ROUTING OF (N)SUPPLY AIR AND (N)RETURN AIR DUCTWORK THROUGH PANES OF (E)WINDOW. CONTRACTOR SHALL BE CAREFUL TO PRESERVE INTEGRITY OF (E)WINDOW AND SEAL AROUND DUCT PENETRATIONS TO PREVENT ANY INFILTRATION INTO (E)BUILDING.
6. ADD ALTERNATE #1: NEW UNDERGROUND PIPING SHALL MAINTAIN DEPTH AND COVERAGE AS NOTED IN THE SPECIFICATIONS. IF THE DEPTH OF THE EXISTING UNDERGROUND PIPING DOES NOT MEET THIS REQUIREMENT, CONTRACTOR SHALL PROVIDE A COST ASSOCIATED WITH TAPPING INTO THE BOTTOM OF THE EXISTING PIPING TO ENSURE PROPER COVERAGE OF NEW PIPING.
7. (N)¾" C.D. TO TERMINATE WITH INDIRECT CONNECTION A MIN. OF 6" ABOVE (E)AREA DRAIN.



PARTIAL FLOOR PLAN - MECHANICAL
SCALE: 1/8" = 1'-0"



KEYPLAN

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CERT. OF AUTHORIZATION NO. 4288

SEAL:

DRAWING PHASE: **PERMIT DOCUMENTS**

ISSUE DATE:	EMI JOB NO.
06-14-2017	16-0610

DRAWING REVISIONS:

ST. PETERSBURG COLLEGE PALLADIUM STAVROS ROOM HVAC RENOVATION

253 5TH AVENUE N, ST. PETERSBURG, FL 33701

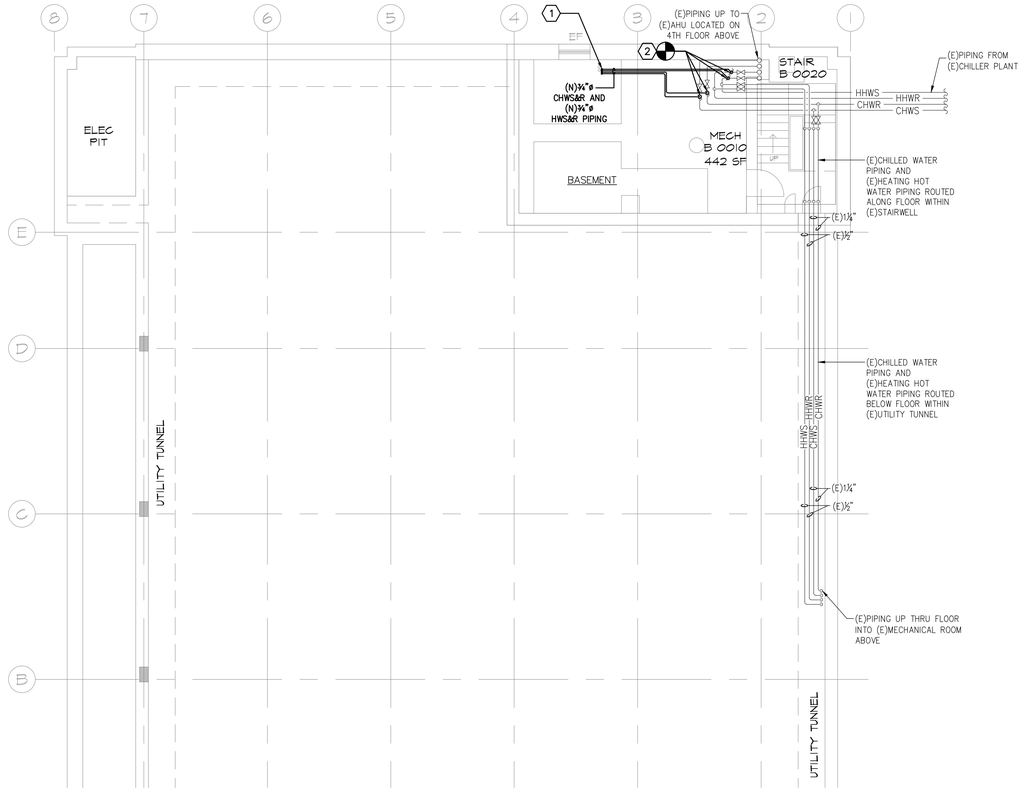
SPC
ST. PETERSBURG COLLEGE

DRAWN BY: **SMW** CHECKED BY: **CAT**

DRAWING TITLE: **PARTIAL FLOOR PLAN - MECHANICAL**

SCALE: **AS NOTED** NORTH:

DRAWING NUMBER: **M2.1**



PARTIAL TUNNEL FLOOR PLAN - MECHANICAL

SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. CONTRACTOR SHALL INSTALL MECHANICAL EQUIPMENT IN ACCORDANCE WITH ALL STATE AND LOCAL CODES.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRANSITIONS, FITTINGS, ELBOWS, DUCTWORK, PIPING, SUPPORTS, ETC. NECESSARY FOR A PROPER INSTALLATION AND OPERATION OF A NEW HVAC SYSTEM.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF INSTALLATION WORK WITH OTHER TRADES TO AVOID CONFLICTS.
4. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF NEW MECHANICAL EQUIPMENT WITH NEW LIGHT LOCATIONS, TILE LOCATIONS. REFER TO ARCHITECT'S REFLECTED CEILING PLAN LAYOUT.
5. ALL DUCT DIMENSIONS ARE CLEAR INSIDE DIMENSIONS.
6. DUCT SMOKE DETECTORS SHOWN ON PLANS ARE DIAGRAMMATIC. REFER TO MANUFACTURER'S INSTRUCTIONS FOR EXACT/OPTIMUM LOCATION IN DUCT.
7. ANY WALL, ROOF, FLOOR, EQUIPMENT, ETC. DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO MATCH EXISTING. COORDINATE WITH GENERAL CONTRACTOR AND/OR OWNER.
8. CONTRACTOR SHALL REFERENCE SHEET M2.1 FOR ROUTING OF (N)CHILLED WATER PIPING AND (N)HOT WATER PIPING ABOVE BASEMENT LEVEL.

KEYED NOTES

1. (N)PIPING SHALL RISE UP THROUGH (E)OPENING IN FLOOR OF CUSTODIAL CLOSET ABOVE AND BE ROUTED ABOVE CEILING TO (N)FAN COIL UNIT, FCU-1.
2. CONTRACTOR SHALL FIELD LOCATE (E)TAPS CURRENTLY VALVED OFF WITH (E)MANUAL ISOLATION VALVES. ONCE (E)TAPS ARE LOCATED, CONTRACTOR SHALL TIE IN (N)¾"ø CHWS&R PIPING AND (N)¾"ø HWS&R PIPING.

SCOPE OF WORK AREA

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DRAWING REVISIONS:

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SPC
ST. PETERSBURG COLLEGE

DRAWN BY: SMW CHECKED BY: CAT

DRAWING TITLE: PARTIAL TUNNEL FLOOR PLAN - MECHANICAL

SCALE:	NORTH:
AS NOTED	

DRAWING NUMBER: M2.1A

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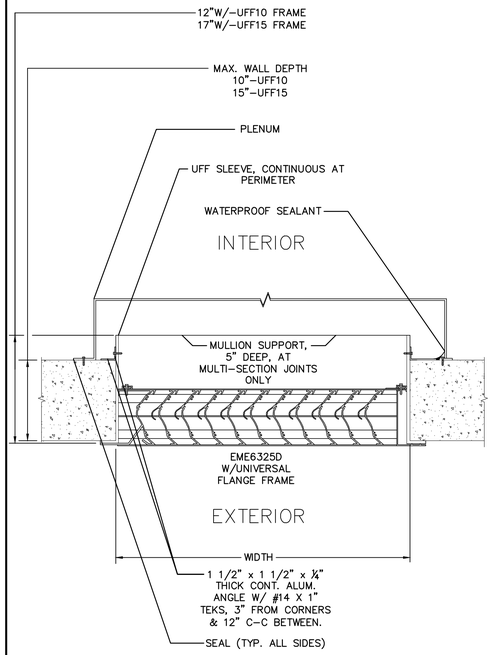
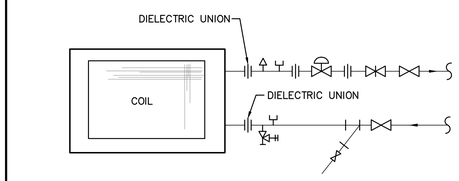


RUSKIN EME6325D LOUVER W/UNIVERSAL FLANGE FRAME INSTALLATION DETAIL

NO SCALE



COIL BRANCH PIPING SIZE		
	ø (INCHES)	GPM
COPPER	¾	3.6
	1	7.3
	1¼	12.7
	1½	20
	2	38
STEEL (SCH. 40)	2½	74
	3	130
NOTE	–	④

NOTES:

① INSTALL CALIBRATED BALANCE VALVES PER MANUFACTURERS INSTRUCTIONS INCLUDING ALL CLEARANCES AND STRAIGHT LENGTH OF PIPE DISTANCES.

② INSTALL PIPING TO BREAK DOWN AND PROVIDE ALL NECESSARY CLEARANCES FOR NORMAL MAINTENANCE AND REMOVAL OF COIL WITHOUT CUTTING PIPES.

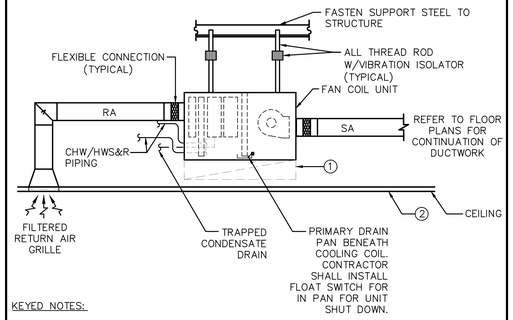
③ INSTALL MANUAL VENT AT HIGH POINT OF PIPE.

④ REFER TO AIR HANDLER SCHEDULES FOR COIL GPM.

⑤ CONTROL VALVE SELECTED AND SIZED BY CONTROLS CONTRACTOR PER MANUFACTURES RECOMMENDATION. PROVIDE PIPE FITTINGS AS NEEDED TO CONNECT TO CONTROL VALVE.

TYPICAL 2-WAY VALVE COIL PIPING DIAGRAM

NO SCALE



KEYED NOTES:

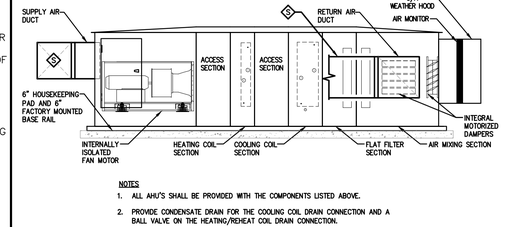
① AREA SHOWN REFLECTS SPACE BENEATH FAN COIL UNIT AND CEILING BELOW. CONTRACTOR SHALL COORDINATE INSTALLATION OF FAN COIL UNIT WITH OTHER UTILITIES AND ENSURE NO OTHER UTILITIES PROHIBIT REMOVAL OF ACCESS PANEL BENEATH UNIT.

② IN THE EVENT, FAN COIL UNIT IS TO BE INSTALLED ABOVE A HARD CEILING. CONTRACTOR SHALL COORDINATE INSTALLATION OF ACCESS PANEL THAT SHALL BE A MINIMUM OF 6" LARGER THAN ACCESS PANEL DIMENSIONS.

FAN COIL UNIT DETAIL WITH BOTTOM ACCESS

NO SCALE

TYP. OF FCU–1



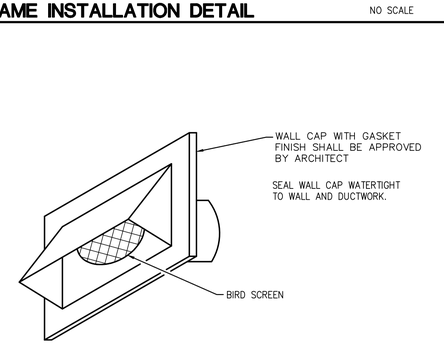
NOTES

1. ALL AHU'S SHALL BE PROVIDED WITH THE COMPONENTS LISTED ABOVE.
2. PROVIDE CONDENSATE DRAIN FOR THE COOLING COIL DRAIN CONNECTION AND A BALL VALVE ON THE HEATING/REHEAT COIL DRAIN CONNECTION.

TYPICAL SINGLE PATH AHU COMPONENT DETAIL

NO SCALE

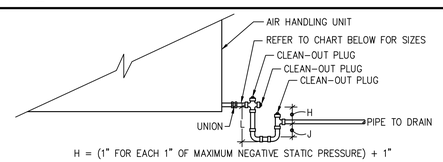
TYP. OF AHU–1



1. NO BIRDSCREEN FOR DRYER EXHAUST.

TYPICAL WALL CAP DETAIL

NO SCALE



H = (1" FOR EACH 1" OF MAXIMUM NEGATIVE STATIC PRESSURE) + 1"

J = HALF OF H

L = H + J + PIPE DIAMETER + INSULATION

THIS DETAIL IS FOR DIAGRAMMATIC PURPOSES ONLY. REFER TO MANUFACTURER'S SPECIFICATIONS FOR PROPER TRAPPING AND INSULATION.

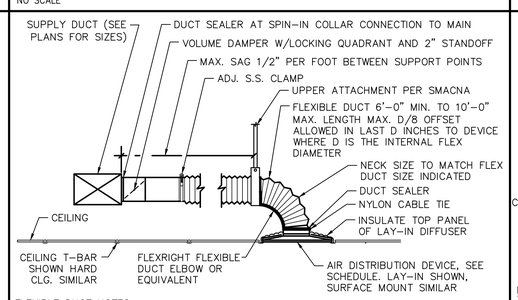
CONDENSATE PIPE SIZE	
COOLING COIL MBH (TON)	ø (INCH)
UP TO 240 (20)	¾
UP TO 480 (40)	1
UP TO 1080 (90)	1¼
UP TO 1500 (125)	1½
UP TO 3000 (250)	2
NOTE	①

NOTE

① REFER TO AIR HANDLER SCHEDULE FOR COOLING COIL MBH/TON.

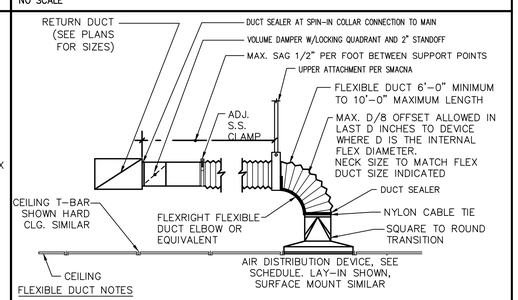
TYPICAL CONDENSATE DRAIN/ TRAP DETAIL

NO SCALE



TYPICAL IN-LINE FAN INSTALLATION DETAIL

NO SCALE



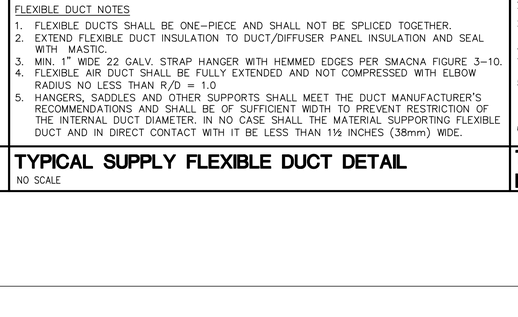
KEY NOTE:

① ½" S.S. WEDGE–ALL ANCHOR (BY SIMPSON OR EQUAL) , EMBEDDED DEPTH = 2¼" MIN., AT MIN. 5" FROM CONCRETE EDGE, IN MIN. 2000 PSI CONCRETE. ALLOWABLE LOAD = 740 LBS. BASED ON 4.0 SAFETY FACTOR.

② CONDENSING UNITS SHALL HAVE A MINIMUM OF 2 PER SIDE. AIR COOLED CHILLERS SHALL HAVE ONE EVERY 12 INCHES ON EACH SIDE.

AHU ANCHOR STRAP

NO SCALE



FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE–PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3–10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0
5. HANGERS, SADDLES AND OTHER SUPPORTS SHALL MEET THE DUCT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT RESTRICTION OF THE INTERNAL DUCT DIAMETER. IN NO CASE SHALL THE MATERIAL SUPPORTING FLEXIBLE DUCT AND IN DIRECT CONTACT WITH IT BE LESS THAN 1½ INCHES (38mm) WIDE.

TYPICAL SUPPLY FLEXIBLE DUCT DETAIL

NO SCALE

FLEXIBLE DUCT NOTES

1. FLEXIBLE DUCTS SHALL BE ONE–PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MIN. 1" WIDE 22 GALV. STRAP HANGER WITH HEMMED EDGES PER SMACNA FIGURE 3–10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED WITH ELBOW RADIUS NO LESS THAN R/D = 1.0
5. HANGERS, SADDLES AND OTHER SUPPORTS SHALL MEET THE DUCT MANUFACTURER'S RECOMMENDATIONS AND SHALL BE OF SUFFICIENT WIDTH TO PREVENT RESTRICTION OF THE INTERNAL DUCT DIAMETER. IN NO CASE SHALL THE MATERIAL SUPPORTING FLEXIBLE DUCT AND IN DIRECT CONTACT WITH IT BE LESS THAN 1½ INCHES (38mm) WIDE.
6. WHERE RECTANGULAR HARD DUCT IS SHOWN, CONTRACTOR SHALL INSTALL DUCT AS SIZED ON THE MECHANICAL FLOOR PLANS IN ACCORDANCE WITH MECHANICAL SPECIFICATIONS.

TYPICAL RETURN, EXHAUST, RELIEF AIR FLEXIBLE DUCT DETAIL

NO SCALE

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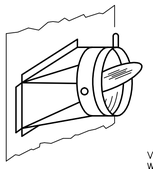
DRAWING TITLE:
MECHANICAL DETAILS

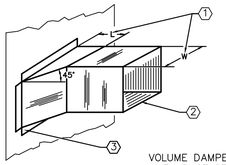
SCALE: **NOT TO SCALE** NORTH:

DRAWING NUMBER:
M3.1



BUCKLEY MODEL 3300D
45° BRANCH CONNECTION
NO SCALE (TYPICAL)

VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT IS EXTERNALLY WRAPPED. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT HANDLE.



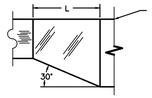
45° BRANCH CONNECTION
NO SCALE (TYPICAL)

① L = 1/4" W OR 4"MINIMUM

② TO BRANCH DUCT

③ CAULK AIR–JOINT AIR–TIGHT

VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT SERVING SIDEWALL AIR DEVICE. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT HANDLE.



CAULK JOINTS AIR TIGHT

ECCENTRIC TRANSITION
NO SCALE (TYPICAL)

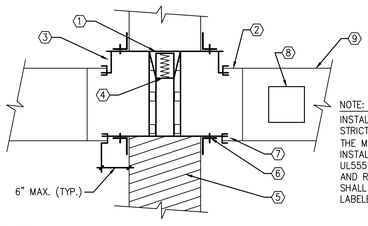
TYPICAL CONICAL TAP FOR BRANCH DUCTS, REQUIRES ACCURATE HOLE CUT

TYPICAL BELLMOUTH TAP FOR BRANCH DUCTS, REQUIRES ACCURATE HOLE CUT

VOLUME DAMPER WITH EXTENDED STEM IS REQUIRED WHEN DUCT IS EXTERNALLY WRAPPED. PROVIDE WITH STAMPED, INDICATING LOCKING QUADRANT.

ALTERNATE FITTINGS TO BE USED WHEN DUCT HEIGHT DOES NOT PERMIT THE USE OF THE FULL SIZE BELLMOUTH/CONICAL TAP INCLUDE: MINI–BELLMOUTH (M–BMD), OVAL–BELLMOUTH (FOBMD) AND STD 45° RECTANGULAR TO ROUND (3300D)

TYPICAL BRANCH TAKE-OFF DETAILS
NO SCALE



NOTE:
INSTALLATION SHALL BE IN STRICT ACCORDANCE WITH THE MANUFACTURE'S INSTALLATION INSTRUCTIONS, UL555 & UL555S DAMPER AND RESPECTIVE ACTUATORS SHALL BE U.L. TESTED AND LABELED AS AN ASSEMBLY.

① 1/8" PER FOOT MIN. CLEARANCE HEIGHT AND WIDTH U.O.N. IN THE LISTING OF THE ASSEMBLY.

② EXPAND DUCT SO THAT FIRE DAMPER DOES NOT REDUCE AIR FLOW

③ APPLY SEALANT TO JOINT ALL AROUND BOTH SIDES OF WALL WITH AN APPROVED CAULKING MATERIAL

④ VERTICAL GUILLOTINE TYPE FIRE DAMPER WITH U.L. RATING AND STAMP.

⑤ FIRE RATED WALL.

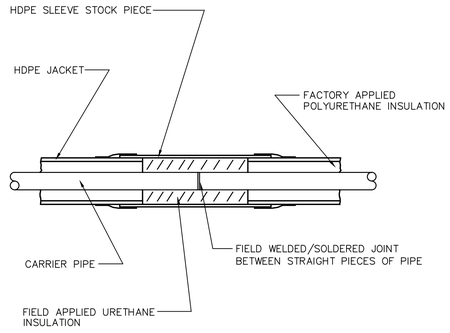
⑥ MOUNTING ANGLE, OVERLAP WALL OPENING BY 1" MINIMUM.

⑦ FASTEN DUCT TO SLEEVE WITH BREAKAWAY CONNECTION

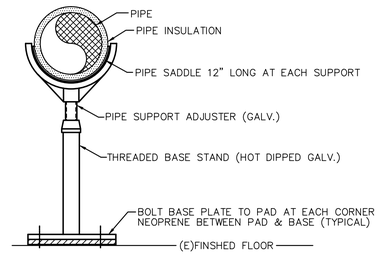
⑧ FIRE DAMPER ACCESS DOOR WITH CAM LATCH.

⑨ DUCTWORK – REFER TO PLANS FOR SIZE AND CONTINUATION

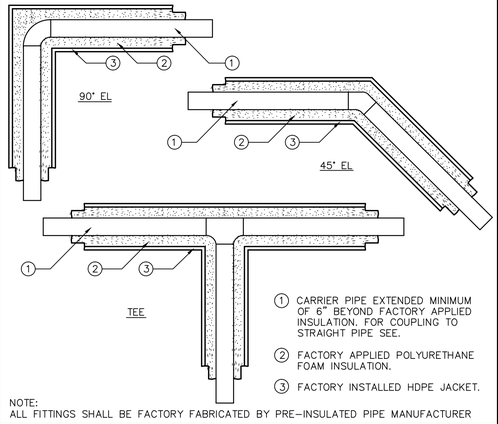
FIRE DAMPER DETAIL
NO SCALE



TYPICAL PRE-INSULATED PIPE COUPLING DETAIL
NO SCALE



TYPICAL PIPE STAND DETAIL
NO SCALE



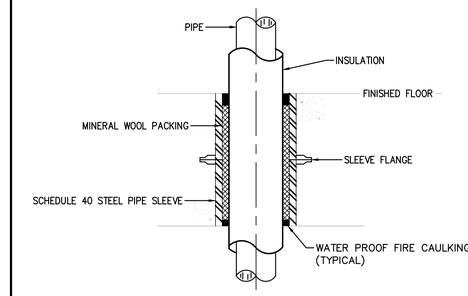
① CARRIER PIPE EXTENDED MINIMUM OF 6" BEYOND FACTORY APPLIED INSULATION. FOR COUPLING TO STRAIGHT PIPE SEE.

② FACTORY APPLIED POLYURETHANE FOAM INSULATION.

③ FACTORY INSTALLED HDPE JACKET.

NOTE:
ALL FITTINGS SHALL BE FACTORY FABRICATED BY PRE–INSULATED PIPE MANUFACTURER

TYPICAL FACTORY PRE-INSULATED PIPE FITTING DETAIL
NO SCALE



NOTE:
1. ALTERNATE: SCHEDULE 40 STEEL SLEEVE W/ANCHOR FLANGE & LINK SEAL AS MANUFACTURED BY THUNDERLINE CORP. OR EQUAL

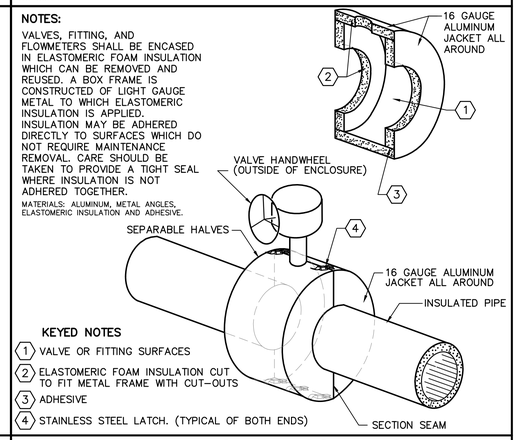
2. CONTRACTOR SHALL SUBMIT U.L. APPROVED PENETRATION DETAIL FOR PENETRATIONS IN RATED WALLS AND FLOORS.

WATERTIGHT SLEEVE DETAIL
NO SCALE

NOTES:

VALVES, FITTING, AND FLOWMETERS SHALL BE ENCASED IN ELASTOMERIC FOAM INSULATION WHICH CAN BE REMOVED AND REUSED. A BOX FRAME IS CONSTRUCTED OF LIGHT GAUGE METAL TO WHICH ELASTOMERIC INSULATION IS APPLIED. INSULATION MAY BE ADHERED DIRECTLY TO SURFACES WHICH DO NOT REQUIRE MAINTENANCE REMOVAL. CARE SHOULD BE TAKEN TO PROVIDE A TIGHT SEAL WHERE INSULATION IS NOT ADHERED TOGETHER.

MATERIALS: ALUMINUM, METAL ANGLES, ELASTOMERIC INSULATION AND ADHESIVE.



KEYED NOTES

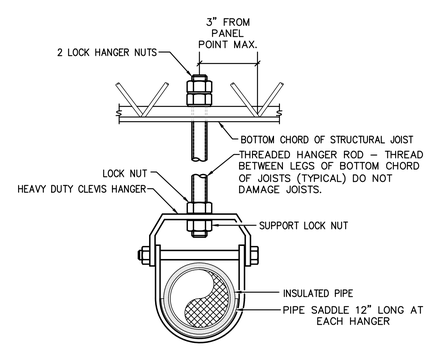
① VALVE OR FITTING SURFACES

② ELASTOMERIC FOAM INSULATION CUT TO FIT METAL FRAME WITH CUT–OUTS

③ ADHESIVE

④ STAINLESS STEEL LATCH. (TYPICAL OF BOTH ENDS)

REMOVABLE / REPLACEABLE COVER FOR VALVES AND FITTINGS
NO SCALE



TYPICAL CLEVIS HANGER DETAIL
NO SCALE

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CERT. OF AUTHORIZATION NO. 4288

SEAL:

DRAWING PHASE:
PERMIT DOCUMENTS

ISSUE DATE:	EMI JOB NO.
06-14-2017	16-0610

DRAWING REVISIONS:

ST. PETERSBURG COLLEGE
PALLADIUM STAVROS ROOM
HVAC RENOVATION
253 5TH AVENUE N, ST. PETERSBURG, FL 33701

SPC
ST. PETERSBURG COLLEGE

DRAWN BY: **SMW** CHECKED BY: **CAT**

DRAWING TITLE:
MECHANICAL DETAILS

SCALE:	NORTH:
NOT TO SCALE	

DRAWING NUMBER:
M3.2

AIR HANDLING UNIT SCHEDULE

MARK	–	AHU–1
MANUFACTURER	–	TRANE
MODEL NUMBER	–	PCC–06
SUPPLY AIR QUANTITY	CFM	2445
OUTSIDE AIR QUANTITY	CFM	1410
FAN WHEEL TYPE/DIAMETER	–	PLENUM/15"
MAXIMUM FAN SPEED	RPM	2915
FAN DISCHARGE ACOUSTICS @ 250 Hz	DB	83
STATIC PRESS. DROP EXT./TOTAL	IN. H2O/IN. H2O	3.00/4.50
MOTOR SIZE	HP	5
ELECTRICAL CHARACTERISTICS	V/ø/HZ	208/3/60
PRE–FILTER EFFICIENCY	MERV	8
PRE–FILTER TYPE	PLEATED	2"
AFTER–FILTER EFFICIENCY	MERV	11
AFTER–FILTER TYPE	PLEATED	4"
COOLING COIL		
TOTAL COOLING CAPACITY	MBH	169.63
SENSIBLE COOLING CAPACITY	MBH	86.59
COOLING COIL MAX. FACE VELOCITY	FPM	400
ENTERING AIR TEMP. DB./WB.	°F/°F	83.9/73.2
LEAVING AIR TEMP. DB./WB.	°F/°F	52.0/51.9
COOLING COIL MAX. AIR PRESS. DROP	INCHES W.G.	0.679
COOLING COIL EWT/LWT	°F/°F	44/56
COOLING COIL WATER FLOWRATE	GPM	28.17
COOLING COIL MAX. H2O PRESS. DROP	FT. H2O	6.06
COIL DESIGN AIRFLOW	CFM	2445
HEATING COIL		
TOTAL HEATING CAPACITY	MBH	87.24
HEATING COIL MAX. FACE VELOCITY	FPM	404
ENTERING AIR TEMP. DB.	°F	52.1
LEAVING AIR TEMP. DB.	°F	85.0
HEATING COIL MAX. AIR PRESS. DROP	INCHES W.G.	0.060
HEATING COIL EWT/LWT	°F/°F	180/160
HEATING COIL WATER FLOWRATE	GPM	8.71
HEATING COIL MAX. WATER PRESS. DROP	FT. H2O	1.28
DIMENSIONS	LXWXH	148X44X39
WEIGHT	LBS	1615
NOTES	–	①②③④

KEYED NOTES:

① OUTDOOR AIR MONITORS, MOTORIZED DAMPERS FOR RETURN AIR AND MOTORIZED DAMPERS FOR OUTDOOR AIR SHALL BE PROVIDED SEPARATELY AND INSTALLED IN THE DUCTWORK.

② PROVIDE WITH VFD COMPATIBLE MOTOR, INVERTER DUTY RATED AND LABELED.

③ PROVIDE THREE (3) SETS OF REPLACEMENT FILTERS (ONE TO BE USED DURING CONSTRUCTION, THE SECOND SET TO BE USED AT THE START OF THE TEST AND BALANCE PROCESS AND THE FINAL SET TO BE INSTALLED AT FINAL COMPLETION).

④ PROVIDE WITH FRONT SUPPLY AND SIDE RETURN. REFER THE DRAWINGS FOR MORE INFORMATION.

FAN COIL UNIT SCHEDULE

MARK		–	FCU–1
SERVICE		–	OFFICES
MANUFACTURER		–	TRANE
MODEL NUMBER		–	FCCB06
SUPPLY AIR QUANTITY		CFM	520
OUTSIDE AIR QUANTITY		CFM	45
STATIC PRESS. DROP EXTERNAL		IN. H2O	0.500
MOTOR SIZE		HP	0.220
ELECTRICAL CHARACTERISTICS		V/ø/HZ	208/1/60
FILTER TYPE		–	1"THROWAWAY
COOLING COIL	TOTAL COOLING CAPACITY	MBH	13.43
	SENSIBLE COOLING CAPACITY	MBH	10.92
	ENTERING AIR TEMP. DB./WB.	°F/°F	75.5/63.7
	LEAVING AIR TEMP. DB./WB.	°F/°F	55.3/54.7
	COOLING COIL EWT/LWT	°F/°F	44/56
	COOLING COIL WATER FLOWRATE	GPM	2.29
	COOLING MAX. WATER PRESS. DROP	FT. H2O	2.62
HEATING COIL	TOTAL HEATING CAPACITY	MBH	16.33
	ENTERING AIR TEMP.	°F	67.2
	LEAVING AIR TEMP.	°F	97.3
	HEATING COIL EWT/LWT	°F/°F	180/160
	HEATING COIL WATER FLOWRATE	GPM	1.63
	HEATING MAX. WATER PRESS. DROP	FT. H2O	0.79

NOTES:

① CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DUCTING, SUPPORTS, PIPING, VALVES, CONTROLS, ETC. NECESSARY FOR PROPER INSTALLATION AND OPERATION OF FAN COIL UNITS. PROVIDE ONE BELT AND SHEAVE CHANGE PER TEST AND BALANCE REPRESENTATIVE RECOMMENDATION.

② PROVIDE THREE (3) SETS OF REPLACEMENT FILTERS (ONE TO BE USED DURING CONSTRUCTION, THE SECOND SET TO BE USED AT THE START OF THE TEST AND BALANCE PROCESS AND THE FINAL SET TO BE INSTALLED AT FINAL COMPLETION. FILTERS SHALL BE SIDE ACCESSIBLE.

③ PROVIDE FACTORY INSTALLED UNIT CONTROLLER.

FAN SCHEDULE

MARK	–	EF–1
MANUFACTURER	–	GREENHECK
MODEL NUMBER	–	CSP–A710–VG
SERVICE	–	EXHAUST
AIR QUANTITY	CFM	390
EXT. STATIC PRESSURE	IN H2O	0.49
FAN TYPE	–	FC
DRIVE TYPE	–	DIRECT
MAXIMUM GENERATED NOISE	SONES	1.1
MAXIMUM FAN SPEED	RPM	998
MOTOR SIZE	–	325.0 WATTS
CONTROLS	–	INTERLOCK WITH EMS TIME–OF–DAY
LOCATION	–	EXPOSED IN CUSTODIAL ROOM
ELECTRICAL CHARACTERISTICS	V/ø/HZ	115/60/1
NOTES	–	①②③④

KEYED NOTES:

① PROVIDE FLEXIBLE CONNECTORS AT ALL DUCT CONNECTIONS TO FAN, AT MAXIMUM LENGTH OF 5'–0".

② PROVIDE FAN WITH GRAVITY BACKDRAFT DAMPER. REFER TO STANDARD MECHANICAL DETAILS FOR FURTHER DETAILS.

③ PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.

④ FAN SHALL BE PROVIDED WITH VARIGREEN MOTOR AND SHALL BE CONTROLLED BY A 0–10VDC CONTROL SIGNAL.

AIR DEVICE SCHEDULE

MARK	FACE SIZE	NECK SIZE	MATERIAL	ACCESSORIES	FINISH	MANUFACTURER AND MODEL	NOTES
B	24X24	8"ø	ALUMINUM	–	–	METALAIRE – 5700–AL	③④⑥
C	24X24	10"ø	ALUMINUM	–	–	METALAIRE – 5700–AL	③④⑥
L	24X24	22X22	ALUMINUM	–	–	METALAIRE – CC5	③④⑥
LL	24X24	22X22	ALUMINUM	–	–	METALAIRE – CC5F	③④⑥
M	12X12	10X10	ALUMINUM	–	–	METALAIRE – CC5	③④⑥
R1	22X36	20X34	ALUMINUM	–	–	METALAIRE – 4002R	②
R2	12X10	10X8	ALUMINUM	–	–	METALAIRE – 4002R	②
S1	24X12	22X10	ALUMINUM	–	–	METALAIRE – V4002	②
S2	10X10	8X8	ALUMINUM	–	–	METALAIRE – V4002	②
S3	24X12	22X10	ALUMINUM	–	BLACK	METALAIRE – V4002	②

KEYED NOTES:

① FLEX DUCT SIZE TO MATCH NECK SIZE. MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0", BALANCE OF DUCT SHOWN ON PLAN SHALL BE RIGID STEEL DUCT SAME SIZE AS NECK SIZE, EXTERNALLY INSULATED.

② PROVIDE RUNOUT BRANCH DUCT TO AIR DEVICE SAME SIZE AS AIR DEVICE NECK UNLESS OTHERWISE NOTED ON PLANS. PROVIDE OPPOSED BLADE DAMPER, MODEL O.B.D.–A, FOR AIR DEVICES IN HARD CEILING.

③ ALUMINUM ½ X ½ X ½ GRID

④ AIR DEVICES USED FOR THE TRANSFER OF AIR DO NOT REQUIRE O.B.D. OR FILTER. PROVIDE OPPOSED BLADE DAMPER, MODEL O.B.D.–A, FOR AIR DEVICES IN HARD CEILING.

⑤ PROVIDE WITH FACTORY MOUNTED SQUARE TO ROUND TRANSITION FOR CONNECTION OF DUCT TO AIR DEVICE.

⑥ HORIZONTAL RUNOUT BRANCH DUCTS SERVING A SINGLE AIR DEVICE WITH:
95 C.F.M. OR LESS SHALL BE 6"ø RIGID STEEL DUCT AND TRANSITION TO 6"ø FLEX DUCT PRIOR TO AIR DEVICE,
100 TO 200 C.F.M. SHALL BE 8"ø RIGID STEEL DUCT AND TRANSITION TO 8"ø FLEX DUCT PRIOR TO AIR DEVICE,
205 TO 370 C.F.M. SHALL BE 10"ø RIGID STEEL DUCT AND TRANSITION TO 10"ø FLEX DUCT PRIOR TO AIR DEVICE,
375 TO 600 C.F.M. SHALL BE 12"ø RIGID STEEL DUCT AND TRANSITION TO 12"ø FLEX DUCT PRIOR TO AIR DEVICE,
605 TO 900 C.F.M. SHALL BE 14"ø RIGID STEEL DUCT AND TRANSITION TO 14"ø FLEX DUCT PRIOR TO AIR DEVICE,
ALL ELSE SHALL BE 22X10 AND TRANSITION TO 22X22, UNLESS OTHERWISE NOTED. MINIMUM LENGTH OF FLEX SHALL BE 6'–0" TO MAXIMUM LENGTH OF 10'–0".

AIR DEVICE GENERAL NOTES:

1. ALL UNITS FOR LAY–IN T–BAR GRILLE SHALL BE PROVIDED WITH TYPE 6 BORDER CEILING MODULE (24X24).
2. ALL AIR DEVICES SHALL HAVE PAINTED WHITE FINISH UNLESS COLOR COORDINATED WITH ARCHITECT.
3. ALL 24X24 FACE AIR DEVICES INSTALLED IN HARD CEILINGS SHALL BE PROVIDED WITH T–BAR FRAME FOR PLASTER OR GYPSUM CEILINGS.
4. PROVIDE SQUARE TO ROUND TRANSITIONS AS REQUIRED FOR COORDINATION OF DUCT AND AIR DEVICE NECK.
5. COORDINATE FRAME TYPE WITH LATEST ARCHITECTURAL REFLECTED CEILING PLAN.
6. INSULATE THE TOPS OF ALL SUPPLY AIR DEVICES, REFER TO SPECIFICATIONS.
7. AIR DEVICES LOCATED IN HARD CEILINGS, SOFFITS, OR SIDE WALLS WITH INACCESSIBLE BRANCH DUCTS, SHALL BE EQUIPPED WITH AN OPPOSED BLADE DAMPER ADJUSTABLE FROM FACE OF DEVICE.

AIR MONITOR SCHEDULE

MARK	–	AM–1
MANUFACTURER	–	EBTRON
MODEL NUMBER	–	HTA104–PA
NOMINAL AIR FLOW	CFM	1,410
NOMINAL AREA	–	①
SERVICE	–	OUTSIDE AIR
NOTES	–	②

KEYED NOTES:

① CONTRACTOR SHALL COORDINATE QUANTITY OF PROBES AND REQUIRED NUMBER OF SENSORS WITH OUTSIDE AIR INTAKE OPENING ON ASSOCIATED AHU IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.

② AIR MONITOR TO BE FIELD INSTALLED DIRECTLY IN OUTSIDE AIR INTAKE OPENING TO AIR HANDLING UNIT. REFER TO MECHANICAL DETAILS FOR MORE INFORMATION.

VENTILATION SCHEDULE

	OUTDOOR AIR			EXHAUST AND PRESSURIZATION				
UNIT NUMBER	NUMBER OF PEOPLE	AREA	PEOPLE+AREA CFM ① (CORRECTED)	EXHAUST AIR CFM	PRESS. AIR CFM	PRESS. & EX. CFM	TOTAL DESIGN OUTDOOR INTAKE CFM	RELIEF CFM
AHU–1 AND (E)BCU–6	202	3,565	1,770	390	1,380	1,770	1,770	0

KEYED NOTES:

① OUTDOOR AIR CALCULATION BASED ON 2014 FLORIDA BUILDING CODE (MECHANICAL) TABLE 403.3. VALUE LISTED IN TABLE IS THE CORRECTED O/A VALUE.

LOUVER SCHEDULE

MARK	FACE SIZE	NECK SIZE	MATERIAL	ACCESSORIES	FINISH	MANUFACTURER AND MODEL	NOTES
L1	38X27	38X27	ALUMINUM	BIRDSCREEN	KYNAR	RUSKIN–EME6325D	①②

KEYED NOTES:

① LOUVER SHALL HAVE FLORIDA PRODUCT APPROVAL AND BE AMCA 540/550 APPROVED. WIND–DRIVEN RAIN APPROVALS SHALL NOT REQUIRE THE USE OF A A CONTROL DAMPER.

② PROVIDE WITH SHEET METAL PLENUM 12 INCHES DEEP X FACE DIMENSION FOR TRANSITION OF LOUVER TO DUCT. REFER MECHANICAL DETAILS FOR MORE INFORMATION.

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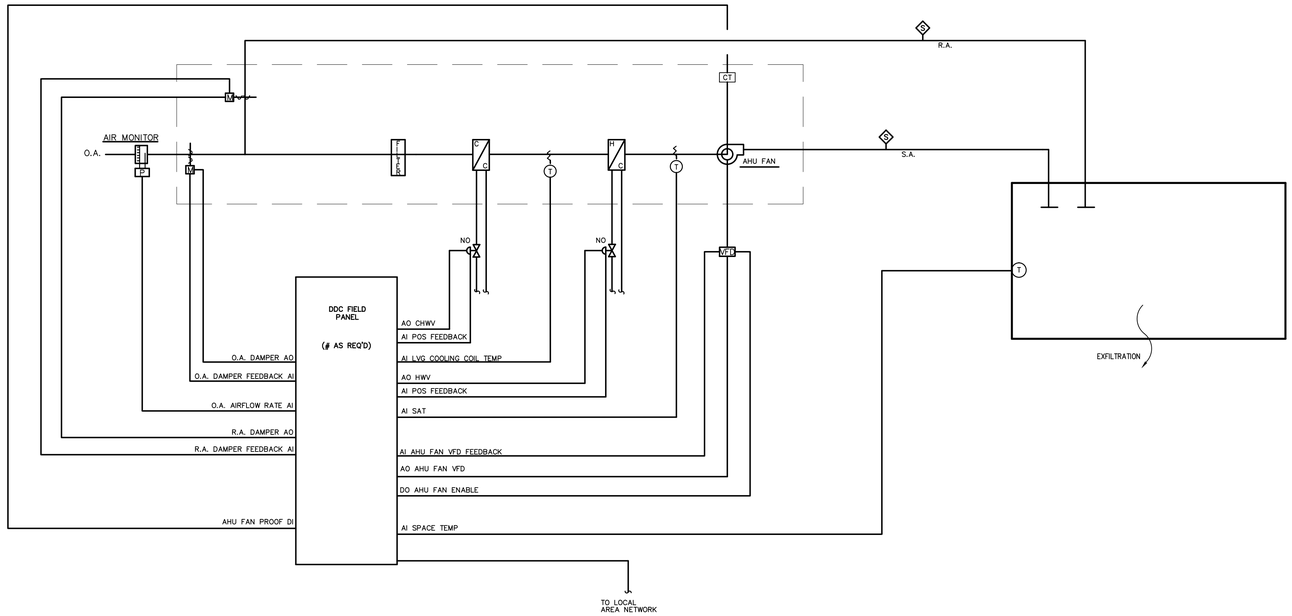
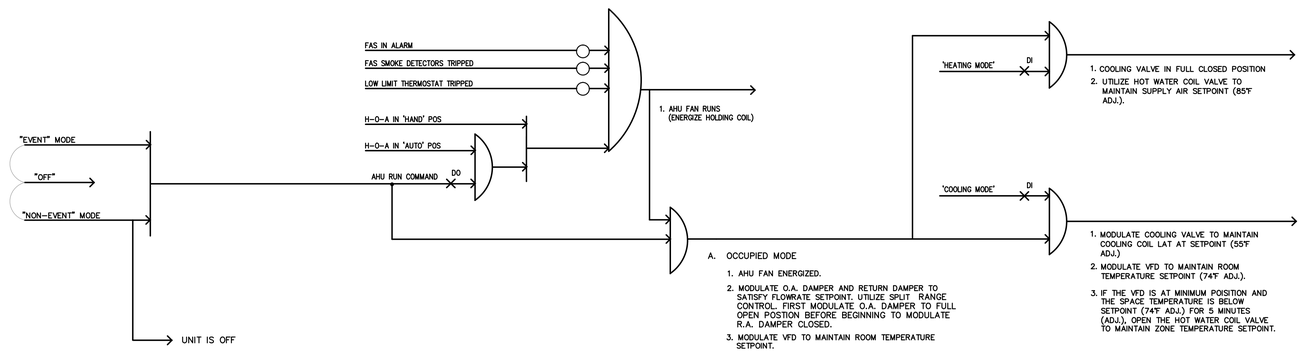
DRAWN BY: **SMW** CHECKED BY: **CAT**

DRAWING TITLE: **MECHANICAL SCHEDULES**

SCALE: **NOT TO SCALE** | NORTH:

DRAWING NUMBER: **M4.1**





SINGLE ZONE VARIABLE VOLUME AIR HANDLER - CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE

AHU-1-1

* POM'S SHALL BE INSTALLED ON AIR HANDLING UNITS AS COORDINATED WITH MECHANICAL ROOM CONFIGURATION FOR CLEARANCES.

GENERAL NOTES

1. CONTROLS CONTRACTOR SHALL PROVIDE PROGRAMMING AND CONTROL EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM FOR ALL OF THIS PHASE EQUIPMENT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ADDITION OF NEW AIR HANDLER, VFD, CONTROL VALVES, SENSORS, ACTUATORS, ETC.
2. CONTROLS CONTRACTOR SHALL PROVIDE UPDATED GRAPHICS (FOR ALL NEW EQUIPMENT) IN THE EXISTING HVAC CONTROLS SYSTEM.

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DRAWN BY: **CAT** CHECKED BY: **CAT**

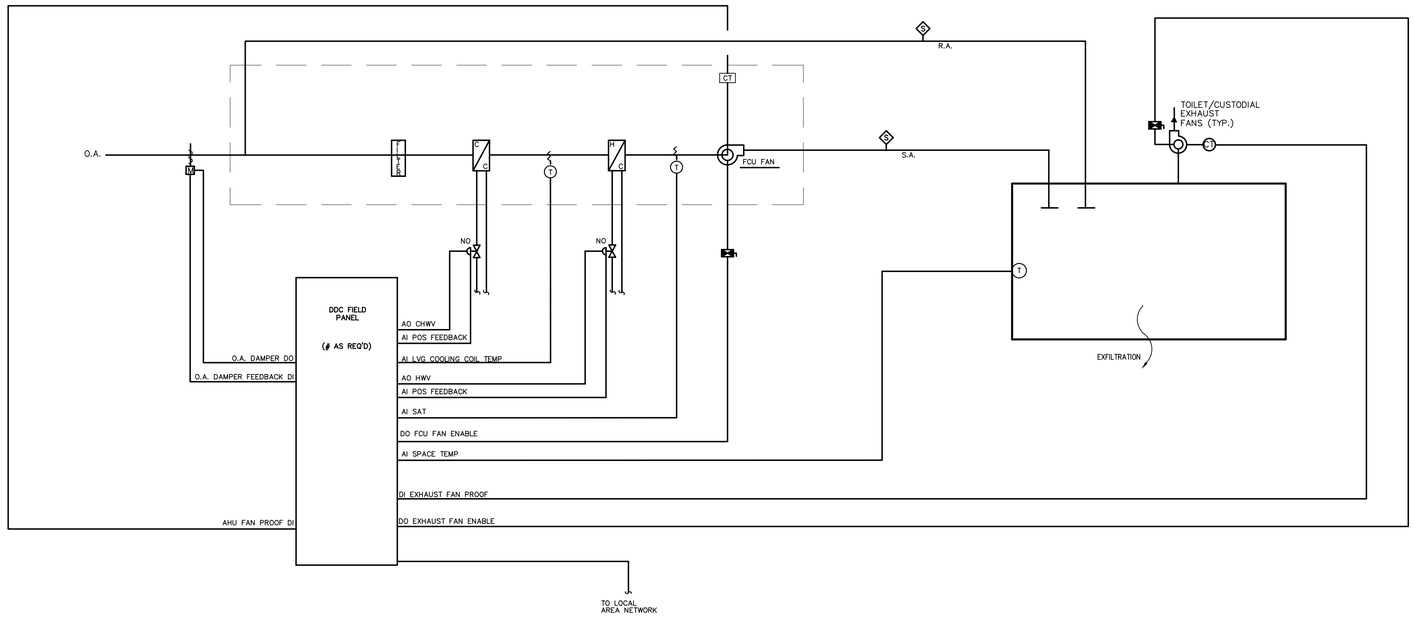
DRAWING TITLE: **MECHANICAL CONTROLS**

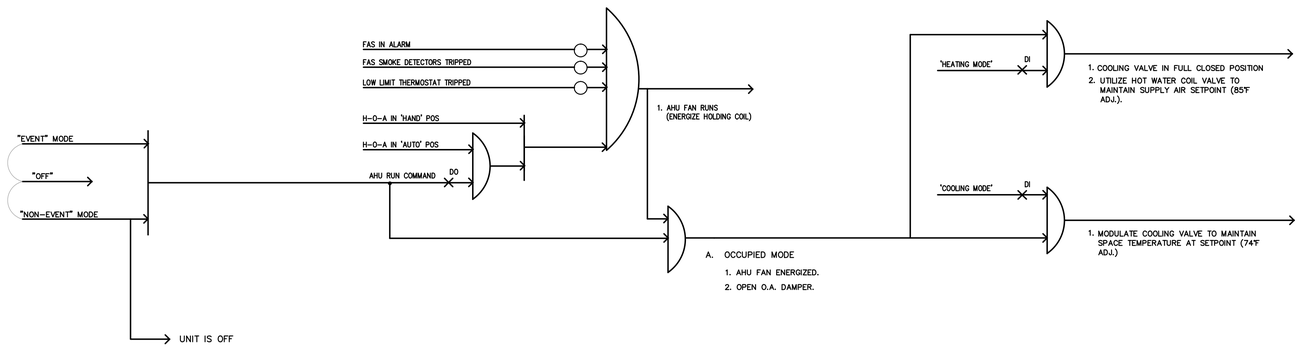
SCALE: **NOT TO SCALE** | NORTH:

DRAWING NUMBER: **M5.1**

GENERAL NOTES

1. CONTROLS CONTRACTOR SHALL PROVIDE PROGRAMMING AND CONTROL EQUIPMENT FOR A COMPLETE OPERATIONAL SYSTEM FOR ALL OF THIS PHASE EQUIPMENT. THIS SHALL INCLUDE BUT NOT BE LIMITED TO ADDITION OF NEW AIR HANDLER, VFD, CONTROL VALVES, SENSORS, ACTUATORS, ETC.
2. CONTROLS CONTRACTOR SHALL PROVIDE UPDATED GRAPHICS (FOR ALL NEW EQUIPMENT) IN THE EXISTING HVAC CONTROLS SYSTEM.





CONSTANT VOLUME FAN COIL UNIT- CONTROL SCHEMATIC AND LOGIC DIAGRAM

SCALE: NONE

FCU-1-1

* PCM'S SHALL BE INSTALLED ON AIR HANDLING UNITS AS COORDINATED WITH MECHANICAL ROOM CONFIGURATION FOR CLEARANCES.

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DRAWN BY: **CAT** CHECKED BY: **CAT**

DRAWING TITLE: **MECHANICAL CONTROLS**

SCALE:	NORTH:
NOT TO SCALE	

DRAWING NUMBER: **M5.2**

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
	TYPICAL FIRE ALARM DEVICE SUFFIX LEGEND. F = FLASHING STROBE LIGHT S = SUPPLY R = RETURN WP = WEATHERPROOF	
	FIRE ALARM DUCT DETECTOR – SUPPLY. PROVIDED BY ELECTRICAL CONTRACTOR TO BE INSTALLED IN DUCT BY MECHANICAL CONTRACTOR.	
S/R	FIRE ALARM DUCT DETECTOR – RETURN. PROVIDED BY ELECTRICAL CONTRACTOR TO BE INSTALLED IN DUCT BY MECHANICAL CONTRACTOR.	
R	FIRE ALARM SYSTEM FAN OR AHU SHUTDOWN OR RUN RELAY.	
FACP	FIRE ALARM CONTROL PANEL (NODE ON NETWORK). (WITH VOICE EVACUATION AND DIALER)	M.H. 60" MIN. TO TOP
XX	REFER TO LIKE NUMBERED KEY NOTES.	
S	FIRE ALARM PHOTOELECTRIC SMOKE DETECTOR	CEILING, U.O.N.

NOTE:
NOT ALL SYMBOLS SHOWN IN THIS LEGEND MAY NECESSARILY APPEAR IN THESE DOCUMENTS. ADDITIONAL SYMBOLS MAY BE DEFINED ELSEWHERE IN SPECIFIC DRAWINGS.

GENERAL NOTES ELECTRICAL

1. DO NOT SCALE FROM THESE DRAWINGS.
2. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE WORK WITH ALL OTHER TRADES TO ASSURE PROPER CLEARANCES FOR EQUIPMENT AND TO KEEP THE JOB PROGRESSING.
4. ALL EMERGENCY SYSTEMS SHALL BE RUN IN SEPARATE RACEWAY/CONDUIT SYSTEM(S).
5. PROVIDE WALL MOUNTED RED L.E.D. ALARM INDICATOR FOR EACH SMOKE DETECTOR MOUNTED IN PLENUM SPACE(S) OR CONCEALED AREAS.
6. ALL CEILING MOUNTED ITEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE ARCHITECTURAL REFLECTIVE CEILING PLANS. IF LOCATION FOR AN ITEM IS NOT SHOWN ON THE ARCHITECTURAL REFLECTIVE CEILING PLANS, VERIFY THE EXACT LOCATION OF THE ITEM WITH THE ARCHITECT PRIOR TO INSTALLATION. THESE REQUIREMENTS APPLY TO ALL CEILING TYPES IN ALL AREAS.
7. PROVIDE ADEQUATE POWER IN THE FIRE ALARM SYSTEM TO OPERATE ALL LIFE SAFETY SYSTEM AND E.M.C.S. CONTROL DEVICES.
8. RECEPTACLES IN MECHANICAL ROOM, ELECTRICAL ROOMS, STORAGE ROOMS AND JANITOR CLOSETS TO BE MOUNTED 48" A.F.F. AND SHALL BE G.F.I. TYPE.
9. ALL EXTERIOR WIRING DEVICES TO BE WEATHERPROOF AND SHALL BE G.F.I. TYPE.
10. CONDUIT RUNS SHOWN ARE DIAGRAMMATIC IN NATURE. CONTRACTOR IS RESPONSIBLE FOR SIZING AND LOCATING PULL BOXES PER NEC AND FOR COORDINATION WITH OTHER DISCIPLINES.
11. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS LONGER THAN 75 FEET. USE 10 AWG CU. CONDUCTORS FOR 20 AMPERE, 277 VOLT BRANCH CIRCUITS LONGER THAN 200 FEET.
12. WHERE MULTIPLE GFI RECEPTACLES ARE WIRED TO THE SAME CIRCUIT, ALL RECEPTACLES SHALL BE TIED TO THE LINE SIDE OF THE ADDITIONAL RECEPTACLES. NO FEEDING THROUGH THE LOAD SIDE TERMINALS.
13. CONTRACTOR SHALL CONFORM TO APPLICABLE CODES AND STANDARDS. APPLICABLE CODES SHALL BE THOSE ADOPTED BY THE AUTHORITY HAVING JURISDICTION AT THE TIME PROJECT IS BID.
14. ALL MATERIAL FURNISHED AND ALL WORK INSTALLED SHALL COMPLY WITH THE FOLLOWING CODES AS THEY APPLY TO THIS PROJECT:
    a. ANSI/NFPA 70---NATIONAL ELECTRICAL CODE – 2011
    b. NFPA 101---LIFE SAFETY CODE – 2012
    c. REGULATIONS OF THE FLORIDA INDUSTRIAL COMMISSION CONCERNING SAFETY.
    d. APPLICABLE COUNTY, STATE, AND LOCAL BUILDING CODES.
    e. LOCAL AND STATE FIRE MARSHAL RULES AND REGULATIONS.
    f. OCCUPATIONAL SAFETY AND HEALTH AGENCY STANDARDS (OSHA).
    g. FLORIDA BUILDING CODE 5TH EDITION.
    h. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE – 2010

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	MOUNTING AND NOTES
◯ ●	CEILING OUTLET FOR 2'x2' LED FIXTURE.	SEE FIXTURE SCHEDULE
S	SINGLE POLE SWITCH	44"AFF TO BOTTOM U.O.N.
S_H	MOTOR RATED SWITCH WITHOUT THERMAL OVERLOADS FOR FRACTIONAL HORSEPOWER MOTORS.	
S_{SC}	SPEED CONTROL	
	TYPICAL RECEPTACLE, OUTLET AND JUNCTION BOX SUFFIX LEGEND: WP = WEATHERPROOF GFI = GROUND FAULT INTERRUPTER	
	DUPLEX RECEPTACLE (20A, 120V).	M.H. 16" TO BOTTOM AFF U.O.N.
J	JUNCTION OR OUTLET BOX, 4" SQUARE BOX U.O.N.	AS NOTED
30/3	NON-FUSIBLE DISCONNECT SWITCH, 30A, 3 POLE, U.O.N.	SEE SPECIFICATIONS
VFD	VARIABLE FREQUENCY DRIVE	BY OTHER DIVISION
3	MOTOR, NUMERAL INDICATES HORSEPOWER	BY OTHER DIVISION
	PANELBOARD, 120/208V., 3 PH., 4W	6'-6"AFF MIN. TO TOP
	RACEWAY CONCEALED UNDER FLOOR, IN SLAB OR BELOW GRADE	SEE SPECIFICATIONS
	RACEWAY CONCEALED IN WALL OR CEILING	SEE SPECIFICATIONS
L1B–1,3	HOMERUN TO PANEL, LETTERS INDICATE PANEL, NUMBERS INDICATE CIRCUITS.	SEE SPECIFICATIONS

LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	LIGHT SOURCE TYPE	OUTPUT LUMENS	KELVIN COLOR TEMP	INPUT WATTS	DIMMING	VOLTS	MOUNTING	NOTES
A	AURORA OR EQUAL	AR-LP122BDD/35	LED	3150	3500	40	YES	120	RECESSED	2' X 2' LED TROFFER WITH #12 PRISMATIC ACRYLIC LENS. THD < 20% WHERE SHADED. PROVIDE EMERGENCY BATTERY BACKUP.
B	LITHONIA OR EQUAL	WL4 20L LP835	LED	2157	3500	18.7	NO	120	WALL	4' LINEAR WALL MOUNTED FIXTURE. COORDINATE MOUNTING HEIGHT WITH OWNER.
EM	LITHONIA OR EQUAL	ELM2 LED SD	LED	NA	NA	6	NO	120	WALL	EMERGENCY WALL PACK WITH 6V MAINTENANCE FREE BATTERY. UL LISTED. PROVIDE WITH SELF DIAGNOSTIC TESTING AND TROUBLE INDICATOR LIGHTS, AC INDICATOR LAMP, TEST SWITCH, AND DUAL VOLTAGE INPUT. WHITE IN COLOR.
X	LITHONIA OR EQUAL	LE-S-W-1/2-R-EL N-SD	LED	NA	NA	6	NO	120	CEILING OR WALL VERIFY	EXIT LIGHT SOLID DIE-CAST ALUMINUM HOUSING WITH RED LED LAMP, STENCIL LETTERS, AND WHITE FINISH. SINGLE OR DOUBLE SIDED. PROVIDE WITH BATTERY BACKUP OPTION WITH 90 MINUTE RUN TIME CAPACITY AND SELF DIAGNOSTIC TESTING.

SERVICE LOAD SUMMARY	
LOAD REMOVED	–7.9 KVA
LOAD ADDED	7.4 KVA
NET CHANGE	**–0.5** KVA

LOAD SERVING

REMARKS	3 PHASE INFO.		CKT.	POLES AND AMPS	VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS	3 PHASE INFO.
	SOLID	EXISTING 20 AMP	1	20/1								1	2								20/1	2	EXISTING 20 AMP	SOLID
	H.P.	EXISTING 20 AMP	3	20/1								3	4								20/1	4	EXISTING 20 AMP	H.P.
	HT./A/C	EXISTING 20 AMP	5	20/1								5	6								20/1	6	EXISTING 20 AMP	HT./A/C
	SOLID	EXISTING 20 AMP	7	20/1								7	8								20/1	8	EXISTING 20 AMP	SOLID
	H.P.	EXISTING 20 AMP 3 POLE	9	20/3								9	10								20/1	10	EXISTING 20 AMP	H.P.
	HT./A/C	–	11	–								11	12								20/1	12	EXISTING 20 AMP	HT./A/C
	SOLID	–	13	–								13	14								20/1	14	SPARE	SOLID
	H.P.	EXISTING 20 AMP	15	20/1								15	16								20/1	16	SPARE	H.P.
	HT./A/C	EXISTING 20 AMP	17	20/1								17	18								20/1	18	SPARE	HT./A/C
	SOLID	**EF-1**	**19**	**20/1**		**200**					**12**	19	20								20/1	20	SPARE	SOLID
	H.P.	SPARE	21	20/1								21	22								20/1	22	SPARE	H.P.
	HT./A/C	SPARE	23	20/1								23	24								20/1	24	SPARE	HT./A/C
	SOLID	SPARE	25	20/1								25	26								20/1	26	SPARE	SOLID
	H.P.	SPARE	27	20/1								27	28								20/1	28	SPARE	H.P.
	HT./A/C	SPARE	29	20/1								29	30								–	30		HT./A/C
	SOLID	**FAN COIL UNIT**	**31**	**15/2**		**348**					**12**	31	32									32		SOLID
	H.P.	–	**33**	–				**348**			**12**	33	34									34		H.P.
	HT./A/C		35									35	36									36		HT./A/C
	SOLID		37									37	38									38		SOLID
	H.P.		39									39	40									40		H.P.
	HT./A/C		41									41	42									42		HT./A/C
					0	548	0	348	0	0					0	0	0	0	0	0				

CALCULATIONS

	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	0.9	2.5	1	0.9	2.5
EMR	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	0.9	2.5		0.9	2.5

PHASE LOADS	
A	548
B	348
C	0

REMARKS:
EXISTING PANEL NEW LOADS SHOWN IN BOLD

PANEL : STAGE

MOUNTING:	SURFACE	
VOLTS:	120/208, 3PH, 4W	
MAIN SIZE:	EXISTING AMPS	
MAIN TYPE:	EXISTING	M.D.
BRACING:	10 KAIC	0
EMI JOB	16-0610	0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH FLUORESCENT LIGHTING CIRCUIT. CONDUCTORS SERVING 20 AMP BRANCH CIRCUITS SHALL BE #10 AWG UNLESS OTHERWISE NOTED.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

LOAD SERVING

REMARKS	3 PHASE INFO.		CKT.	POLES AND AMPS	VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	WIRE SIZE	CKT. NO.	CKT. NO.	WIRE SIZE	LOAD SERVING VOLT AMPS A LIGHTS	A POWER	B LIGHTS	B POWER	C LIGHTS	C POWER	POLES AND AMPS	CKT.	REMARKS	3 PHASE INFO.
x	SOLID	**AHU 1**	**1**	**35/3**		**2100**					**8**	1	2								30/2	2	UNSTA HOT	SOLID
5	H.P.	–	**3**	–				**2100**			**8**	3	4								–	4	–	H.P.
	HT./A/C	–	**5**	–						**2100**	**8**	5	6								20/3	6	CHILLER	HT./A/C
	SOLID	EXISTING 20A	7	20/1								7	8								–	8	–	SOLID
	H.P.	EXISTING 20A	9	20/1								9	10								–	10	–	H.P.
	HT./A/C		11									11	12	**12**						**180**	**20/1**	**12**	**RECEPT 1**	HT./A/C
					0	2100	0	2100	0	2100					0	0	0	0	0	180				

CALCULATIONS

	CONN. LOAD KVA	CONN. LOAD AMPS	FACTOR	DESIGN LOAD KVA	DESIGN LOAD AMPS
LIGHTING	0.0	0.0	1.25	0.0	0.0
CONV. OUTLETS	0.0	0.0	–	0.0	0.0
MOTORS	0.0	0.0	1	0.0	0.0
MISC	6.5	18.0	1	6.5	18.0
EMR	0.0	0.0	1	0.0	0.0
KITCHEN EQ.	0.0	0.0	0.65	0.0	0.0
SPARE	0.0	0.0	1	0.0	0.0
SPACE ONLY	0.0	0.0	1	0.0	0.0
TOTAL	6.5	18.0		6.5	18.0

PHASE LOADS	
A	2100
B	2100
C	2280

REMARKS:
EXISTING PANEL NEW CIRCUITS SHOWN IN BOLD

PANEL : B

MOUNTING:	SURFACE	
VOLTS:	120/208, 3PH, 4W	
MAIN SIZE:	EXIST. AMPS	
MAIN TYPE:	MLO	M.D.
BRACING:	10 KAIC	0
EMI JOB	16-0610	0

NOTE: ALL CONDUCTORS ARE #12 AWG UNLESS OTHERWISE NOTED HERE IN OR ON RISER DIAGRAM, OR AS NOTED IN THE SPECIFICATIONS FOR VOLTAGE DROP.
PROVIDE A DEDICATED NEUTRAL FOR EACH FLUORESCENT LIGHTING CIRCUIT. CONDUCTORS SERVING 20 AMP BRANCH CIRCUITS SHALL BE #10 AWG UNLESS OTHERWISE NOTED.
THE CIRCUIT BREAKER FEEDING THE SPD DEVICE SHALL BE INSTALLED AS CLOSE TO THE SPD DEVICES AS POSSIBLE TO MINIMIZE THE LEAD LENGTH. RELOCATE CIRCUIT BREAKERS AS REQUIRED

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SEAL:

DRAWING PHASE: PERMIT DOCUMENTS

ISSUE DATE: 06-14-2017 | EMI JOB NO. 16-0610

DRAWING REVISIONS:

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PALLADIUM STAVROS ROOM
HVAC RENOVATION
253 5TH AVENUE N, ST. PETERSBURG, FL 33701

SPC
ST. PETERSBURG COLLEGE

DRAWN BY: DRJK CHECKED BY: CAT

DRAWING TITLE: ELECTRICAL GENERAL

SCALE: NOT TO SCALE | NORTH:

DRAWING NUMBER: E0.0

PARTIAL FLOOR PLAN - ELECTRICAL

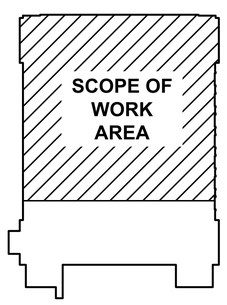
SCALE: 1/8" = 1'-0"

GENERAL NOTES

1. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF INSTALLATION AND DEMOLITION WORK TO AVOID CONFLICTS. ELECTRICAL EQUIPMENT SCHEDULED FOR DEMOLITION SHALL BE PRESENTED TO OWNER FOR FIRST RIGHT OF REFUSAL. SHOULD OWNER REFUSE, ALL EQUIPMENT SHALL BE DISPOSED OF IN SAFE, LEGAL MANNER.
2. ALL EXISTING TO REMAIN CIRCUITRY SHALL BE MAINTAINED AFTER THE DEMOLITION OF EQUIPMENT. PROVIDE CONDUIT, JUNCTION BOXES, CONDUCTORS, ETC. TO MAINTAIN CIRCUITS TO EXISTING TO REMAIN DEVICES AND EQUIPMENT.
3. ALL FIRE ALARM CONDUCTORS SHALL BE INSTALLED IN DEDICATED CONDUIT RACEWAYS THAT ARE MECHANICALLY CONTINUOUS. PROVIDE #12 AWG GREEN GROUNDING CONDUCTOR IN ALL FIRE ALARM RACEWAYS.
4. CONTRACTOR SHALL VISIT SITE PRIOR TO BID SUBMITTAL TO OBSERVE EXISTING CONDITIONS.
5. ALL PENETRATIONS THROUGH FIRE-RATED WALLS, FLOORS AND CEILINGS SHALL BE FIRE STOPPED USING APPROVED METHODS TO MAINTAIN THE FIRE RESISTANCE RATING.
6. ALL UNUSED OR ABANDONED ELECTRICAL COMPONENTS ASSOCIATED WITH NEW CONSTRUCTION SHALL BE REMOVED AND DISPOSED OF IN A SAFE AND LEGAL MANNER.
7. PRIME AND PAINT ANY EXPOSED CONDUIT TO MATCH ADJACENT.
8. ALL NEW CIRCUIT BREAKERS SHALL MATCH AIC RATINGS OF EXISTING EQUIPMENT.

KEYED NOTES

1. LOCATION OF EXISTING UNIMODE II BY "ADT" FIRE ALARM PANEL. CONNECT NEW DUCT SMOKE DETECTORS TO EXISTING FACP.
2. PROVIDE NEW DUCT DETECTORS, REMOTE LIGHT/ TEST SWITCHES AND RELAYS IN WEATHERPROOF ENCLOSURE. PROVIDE CABLING TO EXISTING FACP, PROGRAM TEST AND CERTIFY. ALSO PROVIDE VOLTAGE AND BATTERY CALCULATIONS AS REQUIRED PER ALL APPLICABLE CODES AND AS PER AUTHORITY HAVING JURISDICTION. ALL NEW FIRE ALARM CABLING SHALL BE IN CONDUIT SIZED AS REQUIRED, ALL NEW CONDUIT SHALL BE 3/4" MINIMUM.
3. PROVIDE 2-#12 CU AND 1-#12 CU E.G. IN 3/4" CONDUIT HOMERUN TO PANEL/CKT SHOWN. UTILIZE EXISTING SPARE 20 AMP SINGLE POLE CIRCUIT BREAKER IN SPACE IDENTIFIED TO RECEIVE NEW HOMERUN. REMOVE EXISTING CIRCUIT TIED TO LIGHTS IN THIS SPACE SERVING DEMOLISHED FAN.
4. CONNECT NEW FIXTURE TO EXISTING LIGHTING CIRCUIT SERVING THIS SPACE. PROVIDE NEW DIMMING SWTCHES IN EXISTING LOCATIONS FOR CONTROLLING NEW FIXTURES.
5. PROVIDE 3-#8 CU AND 1-#10 CU E.G. IN 3/4" CONDUIT HOMERUN TO PANEL 'B'. DEMOLISH 60 AMP 2 POLE CIRCUIT BREAKER IN SPACES 3 & 5, AND PROVIDE NEW 35 AMP 3 POLE CIRCUIT BREAKER IN SPACES 1,3,5 TO RECEIVE NEW HOMERUN.
6. PROVIDE 2-#12 CU AND 1-#12 CU E.G. IN 3/4" CONDUIT HOMERUN TO PANEL/CKT SHOWN. PROVIDE NEW 20 AMP SINGLE POLE CIRCUIT BREAKER TO RECEIVE NEW HOMERUN.
7. PROVIDE 2-#12 CU AND 1-#12 CU E.G. IN 3/4" CONDUIT HOMERUN TO PANEL/CKT SHOWN. PROVIDE NEW 15 AMP 2 POLE CIRCUIT BREAKER TO RECEIVE NEW HOMERUN. REMOVE/RELOCATE TAPE IN PANEL TO AVOID MIS-INFORMATION.
8. PROVIDE A TOTAL OF THREE (3) NEW EM LIGHT FIXTURES. FINAL LOCATION TO BE DETERMINED BY OWNER DURING CONSTRUCTION.
9. EXISTING FIXTURE. SHIFT AS REQUIRED TO ACCOMMODATE NEW SOFFIT.



KEYPLAN

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DRAWING NUMBER: E2.1