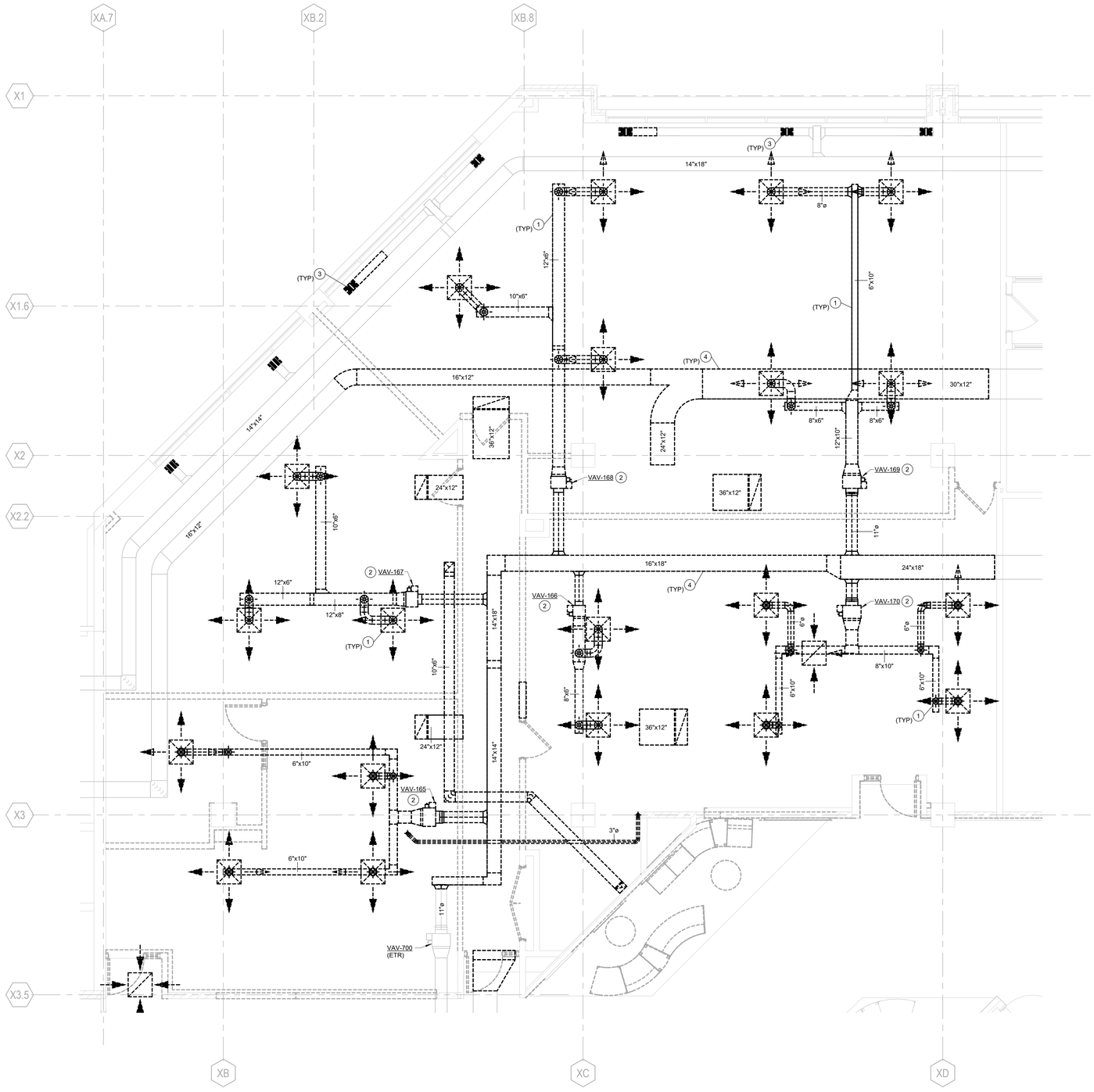

MECHANICAL DEMOLITION NOTES:

1. REMOVE AIR DEVICES AND DUCTWORK AS INDICATED. FIELD VERIFY ALL EXISTING CONDITIONS AND DEMOLITION REQUIRED. PATCH/CAP ALL EXISTING TO REMAIN DUCTS AS REQUIRED. REMOVE ALL ASSOCIATED HARDWARE, CONTROLS, HANGERS, ETC. FOR A COMPLETE REMOVAL.
2. REMOVE VAV AS INDICATED ALONG WITH ALL ASSOCIATED HARDWARE, CONTROLS, THERMOSTATS, ETC. FOR A COMPLETE SYSTEM REMOVAL. PROTECT AND MAINTAIN ALL REMOVED VAVS AND CONTROLS FOR TURNOVER TO OWNER.
3. REMOVE PERIMETER AIR DEVICES ALONG EXTERIOR WALLS. REMOVE DUCT BRANCHES AS NECESSARY FOR NEW WORK. MAINTAIN REMAINING DUCTS FOR RECONNECTION TO NEW AIR DEVICES. PATCH/CAP ALL EXISTING TO REMAIN DUCTS AS REQUIRED.
4. FIELD VERIFY ROUTING LOCATIONS AND HEIGHTS OF ALL EXISTING DUCTS. DEMOLISH AS NECESSARY FOR CONSTRUCTION OF NEW ARCHITECTURAL WALLS AND CEILINGS. PATCH/CAP ALL EXISTING TO REMAIN DUCTS AS REQUIRED. REROUTE AS NECESSARY FOR FRAMING OF WALLS UP TO STRUCTURE ABOVE AND INSTALLATION OF ALL NEW DUCTS, VAVS, LIGHTING, ETC. COORDINATE WITH ARCHITECTURAL FOR EXTENT OF REROUTE NECESSARY FOR INSTALLATION OF ALL NEW WORK.

BID ALTERNATE

MAINTAIN VAVS FOR REINSTALLATION AT NEW LOCATIONS. ADDITIONAL EXISTING VAVS TURNED OVER TO OWNER IN PHASE 1 TO BE REUSED FOR PHASE 2 REINSTALLATION. REFER TO VAV REUSE SCHEDULE FOR EXISTING VAV TAGS CORRESPONDING WITH NEW WORK VAV TAGS.

1 LEVEL 01 MECHANICAL DEMOLITION PLAN - OSA / WORKFORCE TRAINING
1/4" = 1'-0"

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PROJECT

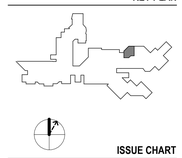
ADJANCENCIES RENOVATIONS - PHASE 2A - OSA AND WORKFORCE TRAINING

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016

Oakton College
OAKTON COLLEGE

ISSUED FOR BID DECEMBER 15, 2025

KEY PLAN



ISSUE CHART

MARK	ISSUE	DATE
1	ISSUED FOR BID	15 DEC 25

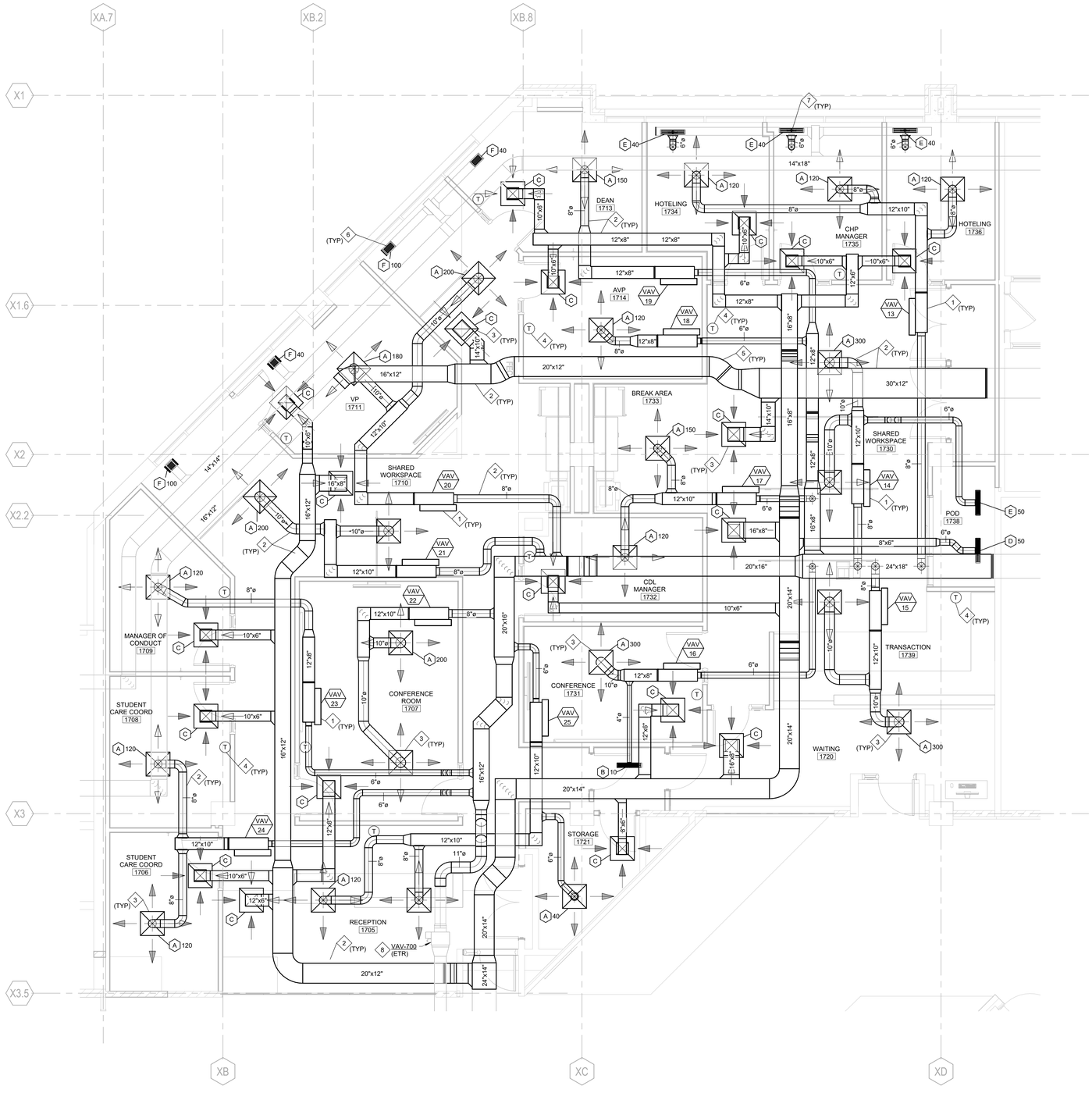
Job Number 021075.002

TITLE

MECHANICAL DEMOLITION PLAN - OSA / WORKFORCE TRAINING - PH2A

SHEET NUMBER

11.M04-01



1 LEVEL 01 MECHANICAL PLAN - OSA / WORKFORCE TRAINING

1/4" = 1'-0"

MECHANICAL INSTALLATION NOTES:

1. PROVIDE VAV BOX WITH ELECTRIC REHEAT COMPLETE WITH ALL HARDWARE, SUPPORTS, AND CONTROLS. INSTALL PER ALL MANUFACTURER RECOMMENDATIONS. COORDINATE FINAL LOCATION AND MOUNTING WITH ALL OTHER TRADES AND EXISTING CONDITIONS. MAINTAIN ALL CLEARANCES.
2. PROVIDE DUCTWORK AS INDICATED. COORDINATE FINAL ROUTING WITH ALL OTHER TRADES AND EXISTING CONDITIONS. FIELD VERIFY LOCATION AND ORIENTATION OF ALL CONNECTIONS TO EXISTING. PROVIDE BALANCING DAMPERS AT ACCESSIBLE LOCATION NEAR ALL BRANCH TAKEOFFS FOR BALANCING OF SYSTEM. NOT ALL EXISTING UTILITIES (PIPING, CONDUIT, ETC.) ARE SHOWN. COORDINATE ROUTING WITH ALL EXISTING CONDITIONS.
3. PROVIDE AIR DEVICES AS INDICATED. COORDINATE CEILING TYPE AND MOUNTING WITH ARCHITECTURAL. INSTALL PER ALL MANUFACTURERS RECOMMENDATIONS. BALANCE TO CFMS INDICATED. BALANCE RETURN GRILLES FOR NEUTRAL SPACE BALANCE.
4. PROVIDE ROOM TEMPERATURE SENSOR AS INDICATED. COORDINATE LOCATION WITH ALL SPACE FINISHES AND FURNITURE. COORDINATE FINAL LOCATION AND TYPE WITH ARCHITECT AND OWNER PRIOR TO INSTALLATION.
5. RE-ROUTE EXISTING DUCTS AS NECESSARY FOR FRAMING OF NEW WALLS AND COORDINATION WITH ALL NEW WORK. FIELD VERIFY ALL SIZES. FIELD VERIFY EXTENT OF RE-ROUTE NECESSARY AND LOCATIONS OF ALL CONNECTIONS TO EXISTING. COORDINATE TIMING AND DURATION OF ALL SERVICE INTERRUPTIONS TO ALL AFFECTED AREAS OF BUILDING WITH FACILITIES TEAM.
6. PROVIDE 8"X4" PERIMETER SUPPLY IN EXISTING SOFFIT ALONG EXTERIOR WINDOWS AS INDICATED. PROVIDE ALL CUTTING AND PATCHING NECESSARY FOR INSTALLATION IN EXISTING SOFFIT. PATCH SOFFIT TO MATCH SURROUNDING. COORDINATE WITH ARCHITECTURAL. EXTEND DUCT AND CONNECT TO EXISTING ABOVE SOFFIT. FIELD VERIFY ALL ROUTING AND CONNECTION TO EXISTING.
7. PROVIDE PERIMETER SUPPLY IN LAY-IN CEILING ALONG EXTERIOR WINDOWS AS INDICATED. PROVIDE SLOT DIFFUSER WITH INSULATED PLENUM. EXTEND DUCT AND CONNECT TO EXISTING ABOVE CEILING. FIELD VERIFY ALL ROUTING AND CONNECTION TO EXISTING. MODIFY EXISTING DUCT AS NECESSARY.
8. EXISTING VAV TO REMAIN. MODIFY MOUNTING AND DUCTWORK AS NECESSARY FOR RECONNECTION TO EXISTING AND COORDINATION WITH OTHER TRADES. REBALANCE TO CFM INDICATED.

BID ALTERNATE

REINSTALL EXISTING VAVS REMOVED PER PHASE 2 DEMOLITION PLAN AND EXISTING VAVS DISCONNECTED AND TURNED OVER TO OWNER DURING PHASE 1 RENOVATIONS. REFER TO VAV REUSE SCHEDULE FOR EXISTING VAVS TO BE REUSED.

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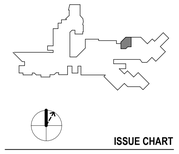


ISSUE CHART

MARK	ISSUE	DATE
1	ISSUED FOR BID	15 DEC 25

Job Number 021075.002

TITLE

MECHANICAL PLAN - OSA / WORKFORCE TRAINING - PH2A

SHEET NUMBER

11.M10-01

MECHANICAL GENERAL NOTES:

1) CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING FIELD CONDITIONS PRIOR TO SUBMISSION OF HIS BID.
   A) CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CHASES, DUCTWORK AND PIPE SIZES. NO EXTRA COMPENSATION WILL BE ALLOWED FOR THE CONTRACTOR FAILING TO DO SO.
   B) CONTRACTOR SHALL FIELD VERIFY LOCATIONS, SIZES AND CAPACITIES OF ALL EQUIPMENT, APPARATUS AND DEVICES, INCLUDING BUT NOT LIMITED TO TERMINAL UNITS, FANS, CONVECTORS, FANS, ETC.
   C) CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH PROCESS FOR ACCESSING SITE, ROOF, FLOOR AND SPACE. CONTRACTOR SHALL NOT CUT ANY HOLES, IN FACADE, ROOF, FLOORS, ETC. UNLESS COMPLETELY NECESSARY AND WITH PRIOR APPROVAL FROM THE OWNER AND ARCHITECT. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS INCLUDING PATCHING AND REPAIR REQUIRED TO RETURN TO ORIGINAL CONDITION.

2) THE CONTRACT DOCUMENTS ARE DIAGRAMMATIC IN NATURE AND INDICATE APPROXIMATE LOCATION OF DUCTWORK, PIPING AND EQUIPMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS, SIZES AND ROUTING OF THE EXISTING DUCTS, PIPING, ETC.
   A) CONTRACTOR SHALL REMOVE EXISTING EQUIPMENT AND MATERIALS PERTAINING TO HIS CONTRACT AS SPECIFIED OR AS REQUIRED WHETHER SHOWN ON THE DRAWINGS OR NOT, TO PREPARE FOR THE NEW WORK. OWNER TO BE PROVIDED WITH RIGHT OF REFUSAL FOR SALVAGE VALUE OR ATTIC STOCK. IF OWNER REFUSES CONTRACTOR SHALL REMOVE ALL DEMOLISHED EQUIPMENT AND MATERIALS FROM THE SITE AND PROPERLY DISPOSE.
   B) CONTRACTOR SHALL PROVIDE LABOR, MATERIALS AND EQUIPMENT AND INSTALL SAME AS REQUIRED TO ACCOMPLISH WORK AND PROVIDE COMPLETE AND FULLY FUNCTIONING SYSTEMS.

3) CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO HIS WORK AT NO ADDITIONAL COST, INCLUDING ALL OFFSETS.

4) CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF ANY EXISTING MINOR INTERFERENCES, INCLUDING CONDUIT, HANGERS, ETC., AT NO ADDITIONAL COST.

5) ALL WORK SHALL BE IN ACCORDANCE WITH 2021 INTERNATIONAL MECHANICAL CODE AND THE LATEST EDITION OF THE ILLINOIS ENERGY CONSERVATION CODE. THESE CODES SHALL BE FOLLOWED AS MINIMUM PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.

6) ALL EQUIPMENT, MATERIALS, ETC. SHALL COMPLY WITH THE 2024 INTERNATIONAL ENERGY CONSERVATION CODE (IECC).

7) ALL PERMITS, FEES, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.

8) ALL EQUIPMENT, TERMINAL UNITS, REHEAT COILS, DAMPERS, DIFFUSERS AND GRILLES SHALL BE UL LISTED.

9) SUBMITTALS
   A) SUBMIT EQUIPMENT SPECIFICATIONS AND CUTS FOR REVIEW AND APPROVAL.
   B) SUBMIT ASSEMBLED PRINTED OPERATION AND MAINTENANCE MANUALS OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND CONTROL WIRING DIAGRAMS IN ACCORDANCE WITH SECTION C408.1.1 OF THE 2024 IECC.
   C) SUBMIT COORDINATED SHOP DRAWINGS FOR REVIEW. THE SHOP DRAWINGS SHALL INDICATE PIPING, DUCT, DIFFUSER, LIGHT FIXTURE, STRUCTURE AND THERMOSTAT LOCATIONS AND MUST BE SUBMITTED PRIOR TO FABRICATION AND INSTALLATION.
   D) CONTRACTOR SHALL SUBMIT CERTIFIED TEST AND BALANCE REPORTS FOR APPROVAL PRIOR TO FINAL INSPECTION BY AHJ.
   E) SUBMIT EQUIPMENT FUNCTIONAL TEST RESULTS, CONTROLS FUNCTIONAL TEST RESULTS AND ECONOMIZER FUNCTIONAL TEST RESULTS PRIOR TO FINAL INSPECTION BY AHJ.
   F) SUBMIT ITEMIZED DEFICIENCIES LIST AND DEFERRED TESTING LIST PRIOR TO FINAL INSPECTION BY AHJ.
   G) SUBMIT SCHEDULE FOR ALL REQUIRED TRAINING PRIOR TO FINAL INSPECTION BY AHJ.
   H) SUBMIT AS-BUILT DRAWING INDICATING A NUMBERING SYSTEM WHICH CORRELATES PLAN WITH BALANCE REPORT, VAV BOXES, ETC.
   I) SUBMIT AS-BUILT DRAWINGS FOR DUCTWORK AND PIPING, INCLUDING THERMOSTAT LOCATIONS.
   J) SUBMIT EQUIPMENT AND CONTROL OPERATIONS AND MAINTENANCE MANUALS TO OWNER WITHIN 90 DAYS OF ISSUANCE OF CERTIFICATE OF OCCUPANCY.
   K) ALL DEFICIENCIES SHALL BE CORRECTED AND THE FUNCTIONAL TEST RESULTS SUBMITTED WITHIN 90 DAYS OF ISSUANCE OF CERTIFICATE OF OCCUPANCY.

10) CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP.

11) PROVIDE COMPETENT MANUFACTURER CERTIFIED OPERATING TECHNICIAN TO INSTRUCT THE OWNER IN THE OPERATION AND MAINTENANCE OF ALL INSTALLED EQUIPMENT AND TEMPERATURE CONTROLS. TRAINING MUST BE COMPLETED WITHIN 90 DAYS OF THE ISSUANCE OF CERTIFICATE OF OCCUPANCY. SUBMIT SCHEDULE OF TRAINING SESSIONS PRIOR TO FINAL INSPECTION BY AHJ.

12) THE DRAWING INDICATES GENERAL CHARACTER AND LOCATION OF WORK INCLUDED, BUT HAVING MINOR SPECIALTIES OMITTED WHICH ARE TO BE PROVIDED AND INSTALLED WITHOUT EXTRA COST.

13) PROVIDE ISOLATION VALVES FOR ALL PIPING TAKE-OFFS FROM MAINS.

14) PROVIDE ALL CORES, OPENINGS, SLEEVES AND CAULKING FOR INSTALLATION OF THIS WORK. CAULKING TO CONFORM TO FIRE RATING OF WALLS.

15) VERIFY EXACT LOCATION OF TEMPERATURE SENSORS WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.

16) PROVIDE AND INSTALL VALVE TAGS, PIPE LABELS AND DUCTWORK LABELS. SUBMIT PROPOSED VALVE TAG AND LABELING NOMENCLATURE FOR REVIEW. PROVIDE OWNER WITH VALVE SCHEDULE IN FORMAT DETERMINED BY OWNER.

17) CONTRACTOR SHALL CUT ALL OPENINGS REQUIRED FOR HIS WORK. ALL OPENINGS SHALL BE SEALED AIR TIGHT. CONTRACTOR SHALL ALSO PATCH AND SEAL ANY EXISTING OPENINGS LEFT UNUSED AS A RESULT OF THIS WORK.

18) ALL NEW CONTROLS SHALL BE DDC. EXTEND EXISTING SYSTEM AS REQUIRED FOR NEW WORK. PROVIDE AND INSTALL TEMPERATURE SENSORS, CONDUIT, CABLING AND NECESSARY LOCAL AND NETWORK CONTROLLERS REQUIRED FOR A FULLY OPERATING SYSTEM. INCORPORATE NEW WORK, USING OWNER STANDARD SEQUENCES FOR SIMILAR SYSTEMS AND PROVIDE NEW GRAPHICS, ALARMS, ETC. TO MEET OWNER'S STANDARD.

19) COMMISSIONING PLAN.
   A) CERTIFY THAT HVAC&R SYSTEMS, SUBSYSTEMS, AND EQUIPMENT HAVE BEEN INSTALLED, CALIBRATED, AND STARTED AND ARE OPERATING ACCORDING TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AND SUBMITTALS.
   B) CERTIFY THAT HVAC&R INSTRUMENTATION AND CONTROL SYSTEMS HAVE BEEN COMPLETED AND CALIBRATED, THAT THEY ARE OPERATING ACCORDING TO THE CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS AND SUBMITTALS, AND THAT PRETEST SET POINTS HAVE BEEN RECORDED.
   C) CERTIFY THAT TAB PROCEDURES HAVE BEEN COMPLETED AND THAT TAB REPORTS HAVE BEEN SUBMITTED, DISCREPANCIES CORRECTED, AND CORRECTIVE WORK APPROVED.
   D) SET SYSTEMS, SUBSYSTEMS, AND EQUIPMENT INTO OPERATING MODE TO BE TESTED ACCORDING TO APPROVED TEST PROCEDURES (E.G., NORMAL SHUTDOWN, NORMAL AUTO POSITION, NORMAL MANUAL POSITION, UNOCCUPIED CYCLE, EMERGENCY POWER, AND ALARM CONDITIONS).
   E) MEASURE CAPACITIES AND EFFECTIVENESS OF SYSTEMS, ASSEMBLIES, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS, INCLUDING OPERATIONAL AND CONTROL FUNCTIONS TO VERIFY COMPLIANCE WITH ACCEPTANCE CRITERIA.
   F) TEST SYSTEMS, ASSEMBLIES, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS OPERATING MODES, INTERLOCKS, CONTROL RESPONSES, AND RESPONSES TO ABNORMAL OR EMERGENCY CONDITIONS, AND RESPONSE ACCORDING TO ACCEPTANCE CRITERIA.

20) CONSTRUCTION CHECKLISTS: PREPARE AND SUBMIT DETAILED CONSTRUCTION CHECKLISTS FOR HVAC&R SYSTEMS, SUBSYSTEMS, EQUIPMENT, AND COMPONENTS.
   A) CONTRIBUTORS TO THE DEVELOPMENT OF CONSTRUCTION CHECKLISTS SHALL INCLUDE, BUT ARE NOT LIMITED TO, THE FOLLOWING:
      (1) HVAC&R SYSTEMS AND EQUIPMENT INSTALLERS.
      (2) TAB TECHNICIANS.
      (3) HVAC&R INSTRUMENTATION AND CONTROLS INSTALLERS.

21) PERFORM TESTS USING DESIGN CONDITIONS, WHENEVER POSSIBLE.
   A) SIMULATED CONDITIONS MAY, WITH APPROVAL OF ARCHITECT, BE IMPOSED USING AN ARTIFICIAL LOAD WHEN IT IS IMPRACTICAL TO TEST UNDER DESIGN CONDITIONS. BEFORE SIMULATING CONDITIONS, CALIBRATE TESTING INSTRUMENTS. PROVIDE EQUIPMENT TO SIMULATE LOADS. SET SIMULATED CONDITIONS AS DIRECTED BY COMMISSIONING COORDINATOR AND DOCUMENT SIMULATED CONDITIONS AND METHODS OF SIMULATION. AFTER TESTS, RETURN CONFIGURATIONS AND SETTINGS TO NORMAL OPERATING CONDITIONS.
   B) COMMISSIONING TEST PROCEDURES MAY DIRECT THAT SET POINTS BE ALTERED WHEN SIMULATING CONDITIONS IS IMPRACTICAL.
   C) COMMISSIONING TEST PROCEDURES MAY DIRECT THAT SENSOR VALUES BE ALTERED WITH A SIGNAL GENERATOR WHEN DESIGN OR SIMULATING CONDITIONS AND ALTERING SET POINTS ARE IMPRACTICAL.

22) IF TESTS CANNOT BE COMPLETED BECAUSE OF A DEFICIENCY OUTSIDE THE SCOPE OF THE HVAC&R SYSTEM, DOCUMENT THE DEFICIENCY AND REPORT IT TO OWNER. AFTER DEFICIENCIES ARE RESOLVED, RESCHEDULE TESTS.

23) IF SEASONAL TESTING IS SPECIFIED, COMPLETE APPROPRIATE INITIAL PERFORMANCE TESTS AND DOCUMENTATION AND SCHEDULE SEASONAL TESTS.

24) COORDINATE SCHEDULE WITH, AND PERFORM THE FOLLOWING ACTIVITIES AT THE DIRECTION OF, COMMISSIONING COORDINATOR.

25) COMPLY WITH CONSTRUCTION CHECKLIST REQUIREMENTS, INCLUDING MATERIAL VERIFICATION, INSTALLATION CHECKS, START-UP, AND PERFORMANCE TESTS REQUIREMENTS SPECIFIED IN SECTIONS SPECIFYING HVAC SYSTEMS AND EQUIPMENT.

26) PROVIDE TECHNICIANS, INSTRUMENTATION, TOOLS, AND EQUIPMENT TO COMPLETE AND DOCUMENT THE FOLLOWING:
   A) PERFORMANCE TESTS.
   B) DEMONSTRATION OF A SAMPLE OF PERFORMANCE TESTS.
   C) COMMISSIONING TESTS.
   D) COMMISSIONING TEST DEMONSTRATIONS.

27) COMMISSIONING AND COMPLETION REQUIREMENTS: PRIOR TO FINAL INSPECTION BY AUTHORITY HAVING JURISDICTION SUBMIT THE FOLLOWING FOR REVIEW BY THE ENGINEER.
   A) HVAC SYSTEMS TEST AND BALANCE REPORT.
   B) FUNCTIONAL PERFORMANCE TESTING REPORTS FOR THE FOLLOWING:
      (1) HVAC EQUIPMENT SHALL UNDERGO FUNCTIONAL PERFORMANCE TESTING TO DEMONSTRATE THAT THE INSTALLATION AND OPERATION OF COMPONENTS, SYSTEMS AND SYSTEM TO SYSTEM INTERFACING ARE IN ACCORDANCE WITH APPROVED PLANS AND SPECIFICATIONS. TESTING SHALL INCLUDE ALL MODES AS DESCRIBED IN THE SEQUENCE OF OPERATION AT FULL LOAD AND PART LOAD, REDUNDANT MODE, PERFORMANCE OF ALARMS AND MODE OF OPERATION UPON LOSS OF POWER AND RESTORATION OF POWER.
      (2) HVAC CONTROL SYSTEM SHALL BE TESTED TO DOCUMENT PROPER CALIBRATION AND ADJUSTMENT AND THAT THE SYSTEMS OPERATE IN ACCORDANCE WITH PLANS AND SPECIFICATIONS. SEQUENCE OF OPERATIONS SHALL BE FUNCTIONALLY TESTED TO DOCUMENT OPERATION IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
      (3) AIR ECONOMIZERS SHALL BE TESTED TO DOCUMENT PROPER OPERATION IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS
   C) ITEMIZED LIST OF DEFICIENCIES FOUND DURING TESTING THAT HAVE NOT BEEN CORRECTED.
   D) DEFERRED TESTS THAT COULD NOT BE PERFORMED BECAUSE OF CLIMATIC CONDITIONS AND THE CLIMATIC CONDITIONS REQUIRED FOR DEFERRED TESTS.
   E) FUNCTIONAL PERFORMANCE TEST PROCEDURES USED DURING COMMISSIONING PROCESS AND MEASURABLE CRITERIA FOR TEST ACCEPTANCE.
   F) RECORD OF TRANSMITTANCE OF ALL OPERATION AND MAINTENANCE MANUALS

MECHANICAL GENERAL DEMOLITION NOTES:

NOTES RE: EXISTING CONDITIONS

1. VERIFY EXISTING CONDITIONS AND LOCATIONS IN FIELD PRIOR TO BIDDING. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR FROM PERFORMING THE WORK REQUIRED UNDER THIS CONTRACT.
2. MAKE NECESSARY MODIFICATIONS AND ADJUSTMENTS TO ALL MECHANICAL AND ELECTRICAL ITEMS AND EQUIPMENT, BOTH NEW AND EXISTING, AS MAY BE REQUIRED BY THESE ALTERATIONS AND ADDITIONS.
3. DISCONNECT AT SOURCE AND REMOVE EXISTING ELECTRICAL MATERIALS AND EQUIPMENT AND ALL OTHER MECHANICAL ITEMS WHICH ARE RENDERED OBSOLETE BY THESE ALTERATIONS AND ADDITIONS. THESE ARE THE PROPERTY OF THE OWNER AND SHALL EITHER BE REMOVED FROM THE SITE OR RETURNED TO THE OWNER'S STOCK AT THE DISCRETION OF THE OWNER.
4. DISCONNECT, REMOVE AND RELOCATE EXISTING MECHANICAL MATERIALS AND EQUIPMENT, AND ALL OTHER MECHANICAL ITEMS WHICH INTERFERE OR ARE INTERFERED WITH, OBSTRUCT OR ARE OBSTRUCTED BY THESE LOCATIONS AS DIRECTED. RECONNECT SUCH ITEMS IN PROPER OPERATING CONDITION AT NEW LOCATIONS.
5. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE EXISTING BUILDING IN MECHANICAL OPERATION AT ALL TIMES DURING THE ENTIRE CONSTRUCTION PERIOD. IF IT IS ABSOLUTELY NECESSARY TO SHUT DOWN THE FACILITY AT ANY TIME, THE CONTRACTOR SHALL CONSULT WITH THE OWNER AND MAKE ARRANGEMENTS TO DO SO AT THE OWNER'S CONVENIENCE. PRIOR NOTICE SHALL BE GIVEN.
6. COORDINATE WORK WITH OTHER TRADES TO AVOID CONFLICTS AND DELAYS.
7. ALL CUTTING AND PATCHING AS REQUIRED FOR WORK TO BE BY THE CONTRACTOR.
8. WHERE EXISTING CONDUITS HAVE BEEN MADE OBSOLETE BY THESE ALTERATIONS AND ADDITIONS AND IT IS IMPRACTICAL TO REMOVE SAME, CONTRACTOR SHALL:
   a) CUT PIPING, CONDUITS AND DUCTS OFF AT SLAB OR WALL LINE.
   b) CAP ALL OBSOLETE PIPING AND DUCTWORK.
9. WHERE THE EXISTING PIPING, CONDUIT OR DUCTWORK SERVING ANY EXISTING MECHANICAL EQUIPMENT IN AREA OF EXISTING BUILDING NOT BE ALTERED IS INTERFERED WITH, CONTRACTOR SHALL REROUTE AND RECONNECT ALL SUCH PIPES OR DUCTWORK.
10. CONTRACTOR IS RESPONSIBLE FOR ISOLATING, DRAINING, REFILLING & VENTING OF ALL SYSTEMS REQUIRED FOR EXECUTION OF WORK. COORDINATE PROCEDURES WITH OWNER.

NOTES RE: INSPECTING EXISTING BUILDING

1. THE CONTRACTORS SHALL VISIT AND INSPECT THE EXISTING BUILDING AND SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH ACTUAL JOB CONDITIONS PRIOR TO BIDDING. NO EXTRAS WILL BE ALLOWED FOR WORK WHICH MIGHT HAVE BEEN REASONABLY FORESEEN BY AN INSPECTION OF THESE PREMISES.
2. WHILE THE SIZE AND LOCATION OF NEW WORK AND EQUIPMENT IN THE EXISTING BUILDING HAS BEEN INDICATED ON THE DRAWINGS AS ACCURATELY AS POSSIBLE, CONTRACTOR SHALL ADJUST HIS WORK AS REQUIRED TO AVOID EXISTING DUCTS, PIPES, CONDUITS AND BEAMS NOT SHOWN ON PLANS. CONTRACTOR SHALL ADAPT HIS WORK TO MEET ALL ACTUAL CONDITIONS ON THE EXISTING PREMISES.
3. CONTRACTOR SHALL INSPECT THE PREMISES AND MAKE A DETAILED EXAMINATION OF ALL LOCATIONS WHERE NEW WORK IS TO BE INSTALLED AND SHALL EXAMINE EXISTING PIPING, CONDUITS, STRUCTURAL SUPPORTING BEAMS, ETC.
4. CONTRACTOR AFTER INSPECTING THE PREMISES AND THE DRAWINGS SHALL CALL TO THE ATTENTION OF THE ARCHITECT ANY LACK OF ANY NECESSARY SPACE OR CLEARANCE REQUIRED BY THE VARIOUS EQUIPMENT PRIOR TO BIDDING. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CHANGES NECESSARY IF HE NEGLECTS TO DO SO.

LEGENDS:

——— INDICATES EXISTING TO REMAIN.

- - - - - INDICATES EXISTING TO BE DISCONNECTED AND REMOVED.

E.T.R. EXISTING TO REMAIN.

CONTROLS REQUIREMENTS:

CONTROLS FOR ALL NEW EQUIPMENT ARE TO BE FULLY INTEGRATED INTO EXISTING BUILDING CONTROLS SYSTEMS.

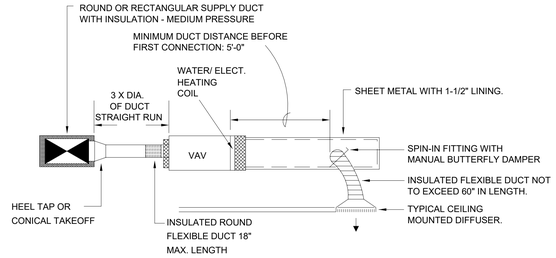
REMOVE AND REINSTALL CEILINGS AS NEEDED FOR CONTROLS AND CONTROLS CABLING. ALL CONTROLS CABLING AND WIRING TO BE PLENUM RATED. PROVIDE 120V CONNECTIONS TO NEW CONTROLS EQUIPMENT AS REQUIRED. PROVIDE SWITCHBOARD CONNECTION. COORDINATE REQUIREMENTS WITH ELECTRICAL.

GENERAL CONTROLS NOTES:

1. ALL SYSTEMS NEW AND EXISTING PROVIDED WITH NEW CONTROLLER AND CONTROLS.
2. ALL SYSTEMS NEW AND EXISTING PROVIDED WITH NEW CONTROLLERS AND CONTROLS TO BE BALANCED FOR PROPER AIR FLOWS.
3. COORDINATE ALL ROOM TEMPERATURE SENSOR REQUIREMENTS AND INSTALLATION LOCATIONS WITH SCHOOL PREFERENCES.
4. ALL CONTROLS ASSOCIATED WITH DEMOLISHED EQUIPMENT ARE TO BE FULLY REMOVED.

VAV REUSE SCHEDULE

EXISTING VAV TAG	PHASE DEMOLISHED	MANUFACTURER MODEL NUMBER	INLET SIZE	BID ALTERNATE VAV REUSE TAG
VAV-166	PHASE 2	TITUS DESV	6	VAV 18
VAV-167	PHASE 2	TITUS DESV	6	VAV 17
VAV-168	PHASE 2	TITUS DESV	6	VAV 24
VAV-262	PHASE 1	TITUS DESV	6	VAV 25
VAV-263	PHASE 1	TITUS DESV	6	VAV 19
VAV-264	PHASE 1	TITUS DESV	6	VAV 23



VAV AIR DISTRIBUTION CONNECTIONS
NO SCALE

VENTILATION SCHEDULE

ROOM	NAME	CLASSIFICATION	SQ FT	OA CFM/SF	OA CFM / PERSON	PEOPLE / 1000 SF	V_bz (CFM)	E_z	V_oz (CFM)	SUPPLY CFM	PERIMETER HEAT CFM	OA CFM	EXHAUST CFM	RETURN CFM
1705	RECEPTION	OFFICE	200	0.06	5	5	17.0	0.8	21.3	240	0	84	0	240
1707	CONFERENCE ROOM	CONFERENCE	255	0.06	5	50	79.1	0.8	98.8	400	0	140	0	400
1706	STUDENT CARE COOD	OFFICE	120	0.06	5	5	10.2	0.8	12.8	120	0	42	0	120
1708	STUDENT CARE COOD	OFFICE	123	0.06	5	5	10.5	0.8	13.1	120	0	42	0	120
1709	MANAGER OF CONDUCT	OFFICE	122	0.06	5	5	10.4	0.8	13.0	120	0	42	0	120
1711	VP	OFFICE	183	0.06	5	5	15.6	0.8	19.4	180	40	63	0	220
1713	DEAN	OFFICE	152	0.06	5	5	12.9	0.8	16.2	150	40	52.5	0	190
1714	AVP	OFFICE	152	0.06	5	5	12.9	0.8	16.2	120	0	42	0	120
1721	STORAGE	STORAGE	80	0.12	0	0	9.6	0.8	12.0	40	0	14	0	40
1710	SHARED WORKSPACE	OFFICE	911	0.06	5	5	77.4	0.8	96.8	600	200	210	0	800
1720	WAITING	OFFICE	200	0.06	5	5	17.0	0.8	21.3	300	0	105	0	300
1731	CONFERENCE	CONFERENCE	145	0.06	5	50	45.0	0.8	56.2	300	0	105	0	300
1732	CDL MANAGER	OFFICE	126	0.06	5	5	10.7	0.8	13.4	120	0	42	0	120
1733	BREAK AREA	OFFICE	102	0.06	5	5	8.7	0.8	10.8	150	0	52.5	0	150
1734	HOTELING	OFFICE	120	0.06	5	5	10.2	0.8	12.8	120	40	42	0	160
1735	CHP MANAGER	OFFICE	120	0.06	5	5	10.2	0.8	12.8	120	40	42	0	160
1736	HOTELING	OFFICE	120	0.06	5	5	10.2	0.8	12.8	120	40	42	0	160
1738	POD	OFFICE	54	0.06	5	5	4.6	0.8	5.7	50	0	17.5	0	50
1730 / 1739	SHARED WORKSPACE / TRANS	OFFICE	722	0.06	5	5	61.4	0.8	76.7	900	0	315	0	900

NOTE:
ACTUAL OA FLOW RATE BASED ON 35% OA BALANCE AT EXISTING CENTRAL AIR HANDLING SYSTEMS BASED ON HISTORIC DOCUMENTATION.
BUILDING PRESSURIZATION RELIEF IS CONTROLED BY EXISTING CENTRAL AIR HANDLING EQUIPMENT. ALL SPACE SUPPLY AND RETURN AIRFLOWS BALANCED TO NEUTRAL STATE.

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PROJECT

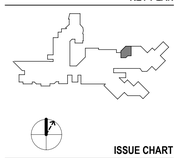
ADJANCENCIES RENOVATIONS - PHASE 2A - OSA AND WORKFORCE TRAINING

ISSUED FOR BID DECEMBER 15, 2025

DES PLAINES CAMPUS
1600 EAST GOLF ROAD
DES PLAINES, IL, 60016

OAKTON COLLEGE

KEY PLAN



ISSUE CHART

MARK	ISSUE	DATE
1	ISSUED FOR BID	15 DEC 25

Job Number 021075.002

TITLE

GENERAL MECHANICAL NOTES - PH2A

SHEET NUMBER

11.M20-01

GENERAL MECHANICAL SYMBOLS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CFM	CUBIC FEET PER MINUTE		SUPPLY DUCT
CH	CABINET HEATER		RETURN/EXHAUST DUCT
EA	EXHAUST AIR		OUTSIDE AIR
EF	EXHAUST FAN		REINFORCED/INSULATED FLEX
FC	FLEX CONNECTION		SUPPLY DIFFUSER
RA	RETURN AIR		RETURN REGISTER
SA	SUPPLY AIR		45 DEGREE TAP
OA	OUTSIDE AIR		CAP
(T)	ROOM TEMP SENSOR		GATE VALVE
(H)	HUMIDISTAT		B & G CIRCUIT SETTER
UH	UNIT HEATER		CHECK VALVE
VD	VOLUME DAMPER		GAS COCK/ PLUG COCK
WG	WITH GUARD		GLOBE VALVE
O.A.C.	OPENING ABOVE CEILING		TEMP. CONTROL VALVE
	SUPPLY UP - DOWN		WELDED ELBOW
	RETURN/EXHAUST UP - DN.		BUTTERFLY VALVE
	OUTSIDE AIR UP - DOWN		STRAINER
CWS	CONDENSER WATER SUPPLY		ELBOW UP
CWR	CONDENSER WATER RETURN		ELBOW DOWN

GRILLE, DIFFUSER & REGISTER SCHEDULE

TAG	MANUFACTURER	MODEL NUMBER	S/R	DESCRIPTION	OBD	REMARKS
A	TITUS	TMSA-AA	S	SQ FACE ALUMINUM ADJUSTABLE DIFFUSER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 2, 3, 5
B	TITUS	TBDI-80	S	PLENUM SLOT DIFFUSER, 1 SLOT, 1" SLOT WIDTH, 24" LONG. (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 5, 6
C	TITUS	350FL	R/E	ALUMINUM RETURN/EXHAUST REGISTER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 2, 3, 4, 5
D	TITUS	TBR-80	R/E	PLENUM SLOT DIFFUSER, 2 SLOTS, 1" SLOT WIDTH, 24" LONG. (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 5, 6
E	TITUS	TBDI-80	S	PLENUM SLOT DIFFUSER, 2 SLOTS, 1" SLOT WIDTH, 24" LONG. (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 5, 6
F	TITUS	300FL	S	ALUMINUM DOUBLE DEFLECTION SUPPLY REGISTER (SEE PLANS FOR SIZE & CEILING TYPE)	Y	1, 3, 5

REMARKS:

1. FINISH & COLOR BY ARCHITECT.
2. LAY-IN FULL FACE: 23-5/8" X 23-5/8" PANEL SIZE- 22" x 22" NECK SIZE TRANSITIONING TO DUCT SIZE UNLESS SHOWN OTHERWISE ON PLANS. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING DRAWINGS.
3. SURFACE MOUNT WHERE INSTALLED IN DRYWALL CEILING.
4. 45 DEGREE DEFLECTION, 1/2" SPACING.
5. COORDINATE WITH ARCHITECTURAL REFLECTED CEILING DRAWINGS.
6. LAY-IN. COORDINATE LOCATION AND MOUNTING WITH ARCHITECTURAL CEILING.

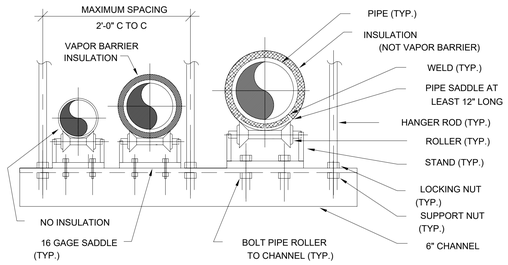
VARIABLE AIR VOLUME BOX SCHEDULE

TAG	ZONE / LOCATION	MANUFACTURER MODEL NUMBER	INLET SIZE	VALVE			ELECT. REHEAT COIL			REMARKS
				MAX.	MIN.	HEAT	K.W.	STEPS	VOLTAGE	
VAV 13	WORKFORCE TRAINING	TITUS DESV	8	360	110	180	2.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 14	WORKFORCE TRAINING	TITUS DESV	8	650	195	325	3.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 15	WORKFORCE TRAINING	TITUS DESV	8	600	180	300	3.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 16	WORKFORCE TRAINING	TITUS DESV	6	310	95	155	2	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 17	WORKFORCE TRAINING	TITUS DESV	6	270	80	135	1.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 18	STUDENT AFFAIRS	TITUS DESV	6	120	40	80	1	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 19	STUDENT AFFAIRS	TITUS DESV	6	150	50	80	1	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 20	STUDENT AFFAIRS	TITUS DESV	8	380	115	190	2.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 21	STUDENT AFFAIRS	TITUS DESV	8	400	120	200	2.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 22	STUDENT AFFAIRS	TITUS DESV	8	400	120	200	2.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 23	STUDENT AFFAIRS	TITUS DESV	6	120	40	80	1	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 24	STUDENT AFFAIRS	TITUS DESV	6	240	70	120	1.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4
VAV 25	STUDENT AFFAIRS	TITUS DESV	6	280	80	140	1.5	SCR	277 VOLT 1 PHASE 60 HZ	1, 2, 3, 4

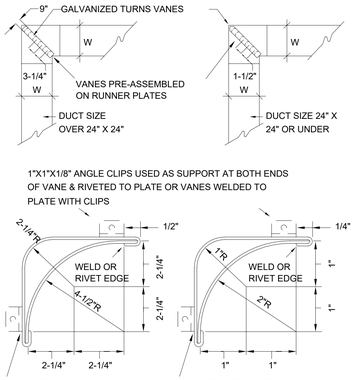
REMARKS:

1. V.A.V. BOXES SHALL HAVE FIELD INSTALLED D.D.C. CONTROLS.
2. VAV UNITS SHALL HAVE INTEGRAL ELECTRIC HEATING COIL AS FOLLOWS:
   A. PROPORTIONAL, MODULATING ELECTRIC COILS SHALL BE SUPPLIED & INSTALLED ON THE TERMINAL BY ATTENUATE SECTION INTEGRAL WITH THE TERMINAL WITH ELEMENT GRID RECESSED FROM UNIT DISCHARGE A MIN. OF 5" TO PREVENT DAMAGE TO ELEMENTS DURING SHIPPING & INSTALLATION. ELEMENTS SHALL BE 80/20 NICKEL CHROME, SUPPORTED BY CERAMIC ISOLATORS A MAX. OF 3.5" APART, STAGGERED FOR MAXIMUM THERMAL TRANSFER & ELEMENT LIFE, AND BALANCED TO ENSURE EQUAL OUTPUT PER STEP. THE INTEGRAL PANEL SHALL BE HOUSED IN A NEMA 1 ENCLOSURE WITH HINGED ACCESS DOOR FOR ACCESS TO ALL CONTROLS AND SAFETY DEVICES.
   B. ELECTRIC COILS SHALL CONTAIN A PRIMARY AUTOMATIC RESET THERMAL CUTOUT, A SECONDARY MANUAL RESET THERMAL CUTOUT, PROPORTIONAL ELECTRONIC AIRFLOW SENSOR TO PROOF OF FLOW, AND LINE TERMINAL BLOCK. THE PROPORTIONAL ELECTRONIC AIRFLOW SENSOR SHALL BE TOTALLY INDEPENDENT OF THE DUCT STATIC PRESSURE AND SHALL ADJUST THE HEATER CAPACITY ACCORDING TO THE AVAILABLE AIRFLOW. THE HEATERS SHALL DELIVER MAXIMUM HEATING WHEN NEEDED WITH NORMAL MINIMUM AIRFLOW, REDUCE HEATING WITH LOWER THAN MINIMUM AIRFLOW AND STOP HEATING WITH NO AIRFLOW. UNIT SHALL INCLUDE AN INTEGRAL DOOR TO BE OPENED WHEN POWER IS ON. NON-INTERLOCKING TYPE DISCONNECTS ARE NOT ACCEPTABLE. ALL INDIVIDUAL COMPONENTS SHALL BE UL LISTED OR RECOGNIZED.
   C. HEATERS SHALL BE EQUIPPED WITH A PROPORTIONAL SCR CONTROLLER TO MODULATE THE HEATER LOAD ACCORDING TO THE TEMPERATURE CONTROL SIGNAL. THE ELECTRONIC CONTROLLER SHALL BE COMPATIBLE WITH THE FOLLOWING INPUT SIGNALS:
   (1) VARIABLE VOLTAGE SIGNAL 0-10 VDC.
   (I1) PULSE WIDTH MODULATION AC OR DC.
3. BOXES ARE TO BE PRESSURE INDEPENDENT WITH AVERAGING AIR FLOW SENSOR AND GASKETED ENCLOSURE.
4. BOXES TO BE LINED WITH 1-1/2" CLOSED CELL ELASTOMERIC INSULATION COMPLIANT WITH UL181 AND NFPA 90A.

FOR USE WITH ALL MULTIPLE HORIZONTAL RUNS, WITH OR WITHOUT VAPOR BARRIER INSULATION.



TRAPEZE HANGER DETAIL
NO SCALE



SQUARE DUCT ELBOWS
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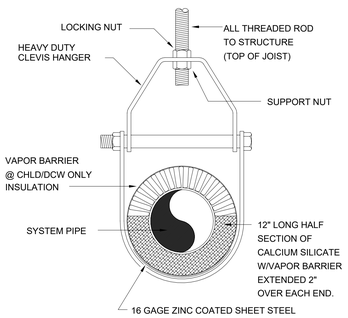

CLEVIS HANGER DETAIL
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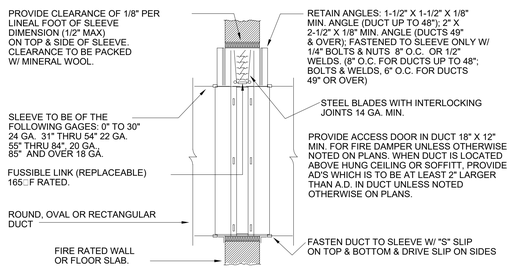
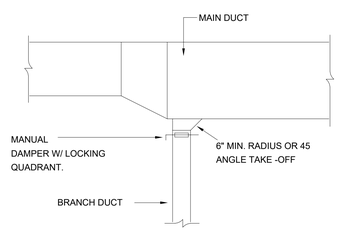


STYLE "B" INTERLOCKING BLADE FIRE DAMPER
NO SCALE



BRANCH DUCT CONNECTION
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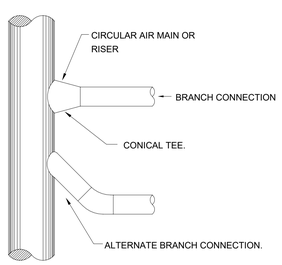
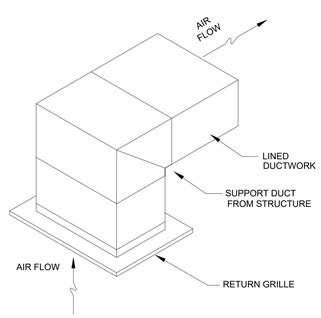


SHEET METAL DUCT DETAILS
NO SCALE



RETURN AIR GRILLE DETAIL
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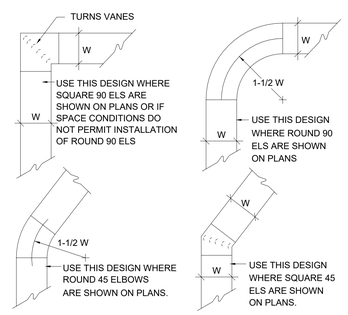

SHEET METAL DUCT DETAILS
NO SCALE

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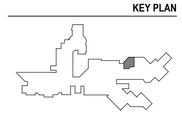

ISSUE CHART

MARK	ISSUE	DATE
1	ISSUED FOR BID	15 DEC 25

Job Number 021075.002

TITLE

MECHANICAL SCHEDULES AND DETAILS - PH2A

SHEET NUMBER

11.M20-02