

GENERAL NOTES

- THE FOLLOWING GENERAL NOTES ARE APPLICABLE AS STATED BELOW, EXCEPT WHERE SPECIFICALLY INDICATED AND NOTED OTHERWISE ON THE DRAWINGS OR IN THE SPECIFICATIONS. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION REQUIREMENTS AND SCOPE OF WORK.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK, ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH THE 2022 CALIFORNIA CODE OF REGULATIONS (CCR) AS DETERMINED BY THE CONTRACTOR. ANY DISCREPANCY OR NONCOMPLIANCE WITH THE SPECIFICATIONS OR DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT (CCD) OR SET OF PLANS AND SPECIFICATIONS, DETAILING AND THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DSA BEFORE PROCEEDING WITH THE WORK. SECTION 4-317, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, C.C.R.)
- WORKMANSHIP AND ALL EQUIPMENT MATERIALS SHALL CONFORM TO 2022 CALIFORNIA CODE REGULATIONS (CCR), TITLE 24 C.C.R., SPECIFICATIONS AND DETAILS FOR CONSTRUCTION AS FURNISHED BY THE CONTRACTOR. MATERIALS NOT IN CONFORMANCE WITH THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE SUBJECT TO REMOVAL AND/OR REPLACEMENT AT CONTRACTORS EXPENSE.
- BEFORE SUBMITTING THE BID PROPOSAL, VISIT THE JOB SITE AND FULLY ACQUAINT WITH THE EXISTING JOB CONDITIONS, VERIFY EXISTING AND NEW REQUIREMENT. WHETHER SHOWN ON DRAWINGS OR NOT, BUT REQUIRED FOR PROVIDING A COMPLETE AND OPERABLE, WITHOUT ADDITIONAL COST TO THE DISTRICT.
- AFTER AWARD OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT TO THE ARCHITECT/ENGINEER FOR APPROVAL, ELECTRONIC DOCUMENTS (PDF) OF ALL REQUIRED SHOP DRAWINGS, BROCHURES AND OTHER SATISFACTORY DESCRIPTIONS INDICATING MANUFACTURER, CATALOG NUMBER, DIMENSIONS AND PERFORMANCE OF THE EQUIPMENT. ALL WORK SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING ALL APPROVALS OF SHOP DRAWINGS SUBMITTALS HAVE BEEN APPROVED BY ARCHITECT/ENGINEER OF THE PROJECT.
- IRRELEVANT INFORMATION ON DRAWINGS AND DATA SHEETS SHALL BE COMPLETELY MARKED OUT LEAVING ONLY DATA THAT PERTAINS TO THE ITEMS SUBMITTED FOR APPROVAL. EQUIPMENT SHALL NOT BE DELIVERED TO THE SITE UNTIL SHOP DRAWINGS HAVE BEEN APPROVED. APPROVAL OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY TO CONFORM TO THE PLANS AND SPECIFICATIONS OR OF RESPONSIBILITY FOR SATISFACTORY PERFORMANCE OF EQUIPMENT.
- A STAMPED SET OF APPROVED DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
- ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL FIELD CONDITIONS MUST BE REPORTED TO THE ARCHITECT/ENGINEER OF THE PROJECT. ANY DEVIATIONS FROM THESE PLANS NECESSITATED BY FIELD CONDITIONS MUST BE APPROVED BY THE ARCHITECT/ENGINEER OF THE PROJECT AND DOCUMENTED ON THE FINAL "AS-BUILT" DRAWINGS.
- EQUIPMENT AND DEVICE LOCATIONS, ELEVATIONS, RISER DIAGRAMS, CONTROLS WIRING DIAGRAMS, SCHEMATICS, AND DETAILS SHOWN ON PLANS ARE CONCEPTUAL ONLY. THEY ILLUSTRATE THE FUNCTIONAL RELATIONSHIPS BETWEEN SYSTEM COMPONENTS AND THE PROJECT'S DESIGN INTENT. THE CONTRACTOR SHALL INSTALL DEVICES AS SITE CONDITIONS AND IOR APPROVAL PERMIT.
- THE LOCATIONS OF EXISTING UTILITIES WHERE SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE DISTRICT. THE ARCHITECT/ENGINEER OR THEIR REPRESENTATIVES, DETERMINE THE EXACT LOCATION, DEPTH, INVERT ELEVATIONS, POINT OF CONNECTIONS AND PROTECT THEM BEFORE ANY CONSTRUCTING WORK. FIELD VERIFY AND CORRECT AS REQUIRED.
- OCCUPANTS OF THE EXISTING BUILDING SHALL NOT BE INCONVENIENCED. DUE TO CONTRACTORS WORK DEBRIS, ETC. ENTRANCES AND CORRIDORS SHALL BE PROTECTED AND KEPT FREE OF OBSTRUCTIONS. THE DISTRICT SHALL BE NOTIFIED IN ADVANCE OF TIME DELIVERY OF EQUIPMENT IN ORDER TO AVOID INTERFERENCE WITH THE NORMAL ACTIVITY OF THE BUILDING.
- AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION OF ALL EXISTING STRUCTURES (BOTH EXTERIOR AND INTERIOR) WITHIN AND ADJACENT WORKING AREA. ANY EXISTING STRUCTURES AND/OR IMPROVING DAMAGING CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED WITH MATERIALS, WORKMANSHIP, FIXTURES OR EQUIPMENT TEMPORARILY REMOVED SHALL BE RE-ERECTED OR INSTALLED IN AN APPROVED MANNER. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED PROTECTION METHODS TO THE CONSTRUCTION MANAGER FOR REVIEW AND SHALL RECEIVE WRITTEN APPROVAL, PRIOR TO THEIR USE.
- WHEN CONTRACTOR HAS BEEN AWARDED THE CONTRACT, IT IS HIS RESPONSIBILITY TO SECURE THE AREAS SO NO UNAUTHORIZED PERSONNEL OR STUDENTS GAIN ACCESS TO THE PROJECT AREA OR THE CONTRACTORS STAGING AREA.
- THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, WAREHOUSING AND ANY OTHER SERVICES REQUIRED TO COMPLETE THE PROJECT IN A TIMELY AND SAFE MANNER.
- ALL WORK IS TO BE COMPLETED ON REGULAR HOURS AS DIRECTED BY THE DISTRICT.
- CONTRACTOR TO COMPLY WITH ALL APPLICABLE SAFETY LAWS (OSHA, CAL OSHA ETC.). IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT ALL APPLICABLE SAFETY LAWS ARE STRICTLY ENFORCED AND TO MAINTAIN A SAFE CONSTRUCTION PROJECT.
- ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES. ENTRANCE TO ROOMS AND OTHER GUARDED LOCATIONS THAT CONTAIN LIVE PARTS SHALL BE MARKED WITH A CONSPICUOUS WARNING SIGN FORDERING UNQUALIFIED PERSONS TO ENTER.
- ALL WORK THAT INVOLVES "SHUT-DOWN" OF EXISTING UTILITIES OR PORTIONS THEREOF, SHALL BE DONE AT SUCH TIMES THAT WILL CAUSE THE LEAST INCONVENIENCE. THE CONTRACTOR SHALL BE NOTIFIED IN ADVANCE OF THE TIME AND LENGTH OF "SHUT-DOWN" SHALL BE APPROVED BY DISTRICT WITH WRITTEN NOTICE AT LEAST 7 DAYS IN ADVANCE OF THE REQUIRED SHUT-DOWN.
- THE CONTRACTOR SHALL COOPERATE WITH THE DISTRICT TO THE FULLEST EXTENT IN PROVIDING TRAFFIC CONTROL DURING COURSE OF CONSTRUCTION SO AS TO PROVIDE A MAXIMUM PROTECTION FOR STUDENTS AND DISTRICT PERSONNEL. ALL EMPLOYEES ON THE PROJECT WORK SHALL PARK THEIR PRIVATE VEHICLES IN THE AREA DESIGNATED BY THE DISTRICT.
- THE CONTRACTOR SHALL EXERCISE MAXIMUM DUST AND NOISE CONTROL EFFORTS TO KEEP AT A MINIMUM THE NUISANCE OF DUST AND CONSTRUCTION NOISE FROM THE CONSTRUCTION CONTRACTOR SHALL PROVIDE THE DISTRICT WITH A WRITTEN SCHEDULE OF WORK WHICH IS TO BE COORDINATED AND APPROVED BY THE DISTRICT PROJECT MANAGER, PRIOR TO THE START OF CONSTRUCTION.
- THE DISTRICT SHALL BE NOTIFIED IN ADVANCE OF TIMES OF EQUIPMENT OR MATERIALS DELIVERED IN ORDER TO AVOID INTERFERENCE WITH THE NORMAL ACTIVITY ON THE DISTRICT PREMISES.
- THE WORK AREA SHALL BE CLEANED DAILY AND ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR AT LEGAL DUMP. AT CONCLUSION OF PROJECT CONTRACTOR SHALL LEAVE WORK AREA SITE, BROOM CLEAN AND GENERALLY IN SAME CONDITION AS PRIOR TO THIS CONSTRUCTION WORK.
- PROTECT-IN PLACE AND CARE FOR LAWNS SHRUBS, ETC. IN THE CONSTRUCTION AREAS DURING CONSTRUCTION PERIOD. REPLACE ALL DAMAGED ITEMS AT NO COST TO DISTRICT.
- AT NO TIME DURING THE WORK UNDER THE CONTRACT SHALL THE CONTRACTOR PLACE OR CAUSE TO BE PLACED, ANY MATERIAL OR EQUIPMENT ETC. AT A LOCATION THAT WOULD IMPED OR IMPAIR ACCESS TO OR FROM THE PRESENT FACILITIES.
- IF ASBESTOS IS ENCOUNTERED IT SHALL BE IMMEDIATELY REPORTED TO THE DISTRICT. CONTRACTOR SHALL NOT CONTINUE THEIR WORK WHERE ANY HAZARDOUS MATERIALS ARE ENCOUNTERED DURING CONSTRUCTION. REMOVAL ABATEMENT OF SUCH ENCOUNTERED SHALL BE PROVIDED BY DISTRICT. DISTRICT SHALL PROVIDE SPOT ABATEMENT WHERE IDENTIFIED BY CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AT THE WORK AREA FROM WEATHER AND OTHER INCLEMENT CONDITIONS. ANY DAMAGE INCURRED DUE TO FAILURE BY THE CONTRACTOR TO PROPERLY PROTECT SUCH WORK SHALL BE REPAIRED AT CONTRACTORS EXPENSE.
- THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED AND OR DEMOLISHED MATERIAL, WASTE AND DEBRIS CAUSED BY THE NEW WORK. THIS MATERIAL SHALL BE REMOVED FROM THE DISTRICT PROPERTY AND TAKEN TO A LEGALLY OPERATED DISPOSAL SITE. THE CONTRACTOR SHALL KEEP ALL PARTS OF THE BUILDING AND SITE FREE FROM ANY ACCUMULATIONS OF RUBBISH OR WASTE MATERIALS CAUSED BY HIS WORKMEN, AND SHALL REMOVE ALL SUCH ACCUMULATIONS FROM THE BUILDING, SITE AND PROPERTY. JOB SITE SHALL BE CLEANED AT THE END OF EACH WORKING DAY.
- THE SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL CONFORM TO ASCE 7-05 SECTION 13.3.1 AND TABLE 13.6-1. ANCHORAGE DETAILS FOR WALL/FLOOR MOUNTED EQUIPMENT SHALL BE SHOWN ON PLANS.
- CONTRACTOR TO PROVIDE ALL NECESSARY COMPONENTS WHETHER SHOWN OR NOT ON THE DRAWINGS OR SPECIFIED ON THE CONTRACT TO MAKE THE SYSTEM FUNCTIONALLY OPERATIVE AND ACCEPTABLE TO ALL CONCERNED AUTHORITIES.
- THE CONTRACTOR SHALL ADJUST/AND INSTALL ALL EQUIPMENT, DEVICES AND CONTROLS TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FAILURE OF THE SYSTEM.
- UPON COMPLETION OF THE INSTALLATION OF THE SYSTEM, INSTALLING CONTRACTOR SHALL SUBMIT STATEMENT OF COMPLIANCE AND REQUEST FINAL INSPECTION. A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
- DSA, I.O.R., ARCHITECT/ENGINEER AND SCHOOL DISTRICT SHALL BE NOTIFIED A MINIMUM OF 48 HR. PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
- INDIVIDUAL ITEMS OF WORK ARE DETAILED IN THE VARIOUS SECTIONS OF THIS SCOPE OF WORK. THE ATTACHED DRAWINGS AND THE NOTES AND LEGENDS ON THE DRAWING, THE CONTRACTOR IS RESPONSIBLE TO COMPLETE THE REQUIREMENTS FOUND IN ANY OF THE ABOVE.
- THE CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION ("AS-BUILT") DRAWINGS UPON COMPLETION OF CONSTRUCTION, INCLUDING TESTING OF ALL EQUIPMENT, DEVICES, CONTROLS, AND ENSURING THE ENTIRE SYSTEM IS OPERATIONAL AND PROGRAMMED. A COPY OF THIS COMPLETED RECORD ("AS-BUILT" DRAWINGS) SHALL BE SUBMITTED TO THE IOR, ARCHITECT/ENGINEER, AND DISTRICT FOR FINAL ACCEPTANCE.
- NOTIFY THE SUPPLIER OF ANY MISSING OR BROKEN PARTS OR ANY MISSING OR BROKEN FIXTURES AT LEAST FOURTEEN (14) DAYS PRIOR TO JOB COMPLETION. EQUIPMENT INSTALLED WITHOUT APPROVAL, THEREOF SHALL BE DONE AT THE RISK OF THE CONTRACTOR AND THE COST OF REMOVAL OF SUCH EQUIPMENT OR RELATED WORK WHICH IS JUDGED UNSATISFACTORY FOR ANY REASON SHALL BE AT THE EXPENSE OF THE CONTRACTOR.
- CONTRACTOR SHALL WARRANTY MATERIALS AND INSTALLATION FROM THE DATE OF CONTRACT COMPLETION PER CONTRACT REQUIREMENTS.

DUCT NOTES

- GENERAL:
 - INSTALL ALL DUCTWORK ACCORDING TO SMACNA AND ASHRAE STANDARDS.
 - COORDINATE WITH OTHER TRADES TO INSTALL NEW DUCTWORK AS SHOWN ON DRAWINGS.
 - SEAL ALL DUCT JOINTS WITH WATER-BASED, HIGH-PRESSURE DUCT SEALANT TO MINIMIZE LEAKAGE (MAXIMUM 2% LEAKAGE ALLOWED).
 - ALL MATERIALS INSIDE DUCTS OR PLenums MUST HAVE A FLAME SPREAD INDEX OF 25 OR LESS AND A SMOKE-DEVELOPMENT INDEX OF 25 OR LESS AS TESTED BY ASTM E84 (NFPA 25).
- DUCT MATERIAL AND CONSTRUCTION:
 - EXTEND FLEXIBLE DUCT FROM EXISTING METAL DUCTS TO CONNECT NEW SUPPLY AIR DIFFUSER (PROVIDE TRANSITION CONNECTIONS AS NEEDED). ALL FLEX DUCT WORK TO COMPLY WITH UMC STANDARDS.
 - RE-BALANCE THE ENTIRE AIR DISTRIBUTION SYSTEM, TEST, ADJUST, AND BALANCE (TAB) THE SYSTEM TO ACHIEVE CFM AS SHOWN ON PLAN.
 - DUCT SIZING AND FITTINGS:
 - DUCT SIZES SHOWN ON DRAWINGS, DIMENSIONS AND SHAPES CAN BE ADJUSTED TO AVOID CONFLICTS AND MAINTAIN CLEARANCES.
 - PROHIBITED MATERIALS:
 - ALUMINUM FLEXIBLE DUCT AND "KOD" DUCTWORK ARE NOT ALLOWED.
- ADDITIONAL REQUIREMENTS:
 - FINAL CONNECTIONS TO CEILING DIFFUSERS MUST BE ACoustICAL TYPE FLEXIBLE DUCT (CASCO SILENT FLEX II) NOT EXCEEDING 72 INCHES IN LENGTH.
 - PROVIDE MANUAL VOLUME DAMPERS, AS REQUIRED.

DIFFUSERS, REGISTERS, AND GRILLES NOTES

- NEW EQUIPMENT: INSTALL NEW AIR DISTRIBUTION EQUIPMENT ACCORDING TO THE MODELS, SIZES, AND CAPACITIES INDICATED ON THE DRAWINGS.
- EXISTING EQUIPMENT REMOVAL: REMOVE FROM THE SITE ALL EXISTING CEILING DIFFUSERS, RETURN GRILLES, AND OTHER AIR DISTRIBUTION DEVICES SCHEDULED FOR DEMOLITION WITHIN THE SCOPE OF THIS PROJECT.
- VOLUME DAMPERS:
 - INSTALL VOLUME DAMPERS IN ALL LOCATIONS INDICATED ON THE DRAWINGS AND ANYWHERE ELSE NECESSARY TO PROPERLY BALANCE THE AIRFLOW FROM EACH DIFFUSER/GRILLE.
 - FOR DAMPERS LOCATED ABOVE INACCESSIBLE CEILING, USE EXTENDED REGULATORS WITH CONCEALED COVER PLATES FOR OPERATION.
- CEILING COORDINATION: COORDINATE THE INSTALLATION OF ALL SUPPLY DIFFUSERS AND RETURN GRILLES WITH THE CEILING GRID, LIGHTS, SPRINKLER HEADS, SEISMIC BRACING, TELEPHONE EQUIPMENT, HEAT SENSORS, AND OTHER BUILDING ELEMENTS TO AVOID CONFLICTS.
- DIFFUSER SIZES: CEILING DIFFUSER SIZES SHOWN ON THE DRAWINGS INDICATE NECK SIZES. PROVIDE FRAMES AS NECESSARY TO MATCH THE MOUNTING SURFACE.

DEMOLITION NOTES

- REVIEW AND VERIFICATION:
 - BEFORE BIDDING AND COMMENCING DEMOLITION, THOROUGHLY REVIEW THE CONSTRUCTION DOCUMENTS, WORKING DRAWINGS, AND FIELD VERIFY ALL EXISTING CONDITIONS. THIS INCLUDES INVESTIGATING QUESTIONABLE WORK RELATED TO DISCONNECTING OR REMOVING EXISTING EQUIPMENT SHOWN FOR DEMOLITION. COORDINATE THIS INFORMATION WITH THE CONSTRUCTION SCHEDULE.
 - THESE DRAWINGS INDICATE EXISTING CONDITIONS WHICH WERE TAKEN FROM RECORD DRAWINGS/FIELD VERIFICATIONS. THE ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THESE CONDITIONS. THE CONTRACTOR SHALL VERIFY AND INVESTIGATE ALL EXISTING FIELD CONDITIONS AND EXERCISE CAUTION IN THE DEMOLITION PROCESS, AND PROMPTLY NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES ENCOUNTERED.
- DEMOLITION COORDINATION AND COMPONENTS:
 - COORDINATE ALL DEMOLITION ACTIVITIES WITH NEW CONSTRUCTION REQUIREMENTS TO ENSURE THE NEWLY INSTALLED SYSTEM IS COMPLETE AND FUNCTIONAL.
- EXISTING DUCTWORK:
 - PERFORM CLEANING AND REPAIRS ON EXISTING DUCTS, INCLUDING SEALING LEAKS AND INSTALLING NEW LINERS AS SPECIFIED. UTILIZE EXISTING DUCTWORK AS SHOWN ON THE PLANS FOR ESTIMATING CLEANING COSTS AND AIR BALANCING.
 - TEST, ADJUST, AND AIR BALANCE ALL SUPPLY AND EXHAUST REGISTERS WITHIN THE DESIGNATED AREA. SUBMIT A TAB REPORT TO THE DISTRICT REPRESENTATIVE FOR APPROVAL.
 - IF ANY DIFFUSER FAILS TO ACHIEVE DESIGN CFM WITH 10% TOLERANCE AFTER AIR BALANCING, INSPECT EXISTING DUCTS FOR AIR LEAKAGE. PERFORM NECESSARY REPAIRS OR REPLACEMENTS TO REDUCE LEAKAGE AND ACHIEVE THE DESIRED CFM TOLERANCE.
- IMPLEMENT DUST PROTECTION MEASURES THROUGHOUT CONSTRUCTION.
 - COVER ALL DUCT AND AIR DISTRIBUTION COMPONENT OPENINGS WITH METHODS APPROVED BY DISTRICT.

FUME HOOD SCHEDULE

UNIT TAG	SERVICE	MAKE	MODEL NUMBER	LOCATION	DIMENSION	WORKSPACE	HOOD OPENING	CFM @18"	CFM @28"	ESP (IN. W.C.)	VOL/TPH/HZ	OPERATING WEIGHT (LBS.)
FH-1	LAB CLASSROOM	IQ LABS	BY7254	COUNTERTOP MOUNTED	72"W x 54"H x 31"-18"D	72"W x 1.25'H x 30"D	64"W x 28"H	800	1335	0.35	120/1/60 208/1/60	541

- NOTES
- PROVIDED WITH OPTIONAL EQUIPMENT: REMOTE-CONTROLLED PLUMBING FIXTURES WITH CHROME HANDLES, PRE-PIPED WITH FLEX HOSE OR HARD COPPER, SASH STOPS, AIR MONITOR/ALARM, CEILING ENCLOSURE, COUNTERTOPS, BASE CABINET, BLOWER
 - PROVIDE A NEW JUNCTION BOX AT THE FUME HOOD LOCATION. THE JUNCTION BOX SHALL PROVIDE THE FOLLOWING DEDICATED CIRCUITS:
 - 20A, 120V CIRCUIT FOR LIGHTING AND (2) GFCI RECEPTACLES.
 - 20A, 208V, 1Ø CIRCUIT FOR THE EXHAUST FAN BLOWER (1HP, 1200CFM).
 - SEE FUME HOOD WIRING DIAGRAM DETAIL 2E4.2.
 - PROVIDE ROUND BACK STATIC VENT WITH CURB MOUNT FLANGE (ROOFVENTS # RBV-12-C4-CMF) 12" DIAMETER 4" TALL COLLAR WITH ROOF CURB (ROOFVENTS # RC-12-H6).
 - PROVIDE ANCHORAGE THROUGH STRUCTURAL FLANGES OF HOOD TO BACKING PER STRUCTURAL DRAWING DETAIL 3A9.1.

VACUUM CHEMISTRY PUMPING SCHEDULE

UNIT TAG	SERVICE	MAKE	MODEL NUMBER	LOCATION	DIMENSION (L x W x H)	MAX. PUMPING SPEED 60 HZ (CFM)	ULTIMATE VACUUM	NUMBER OF HEADS	NUMBER OF STAGES	VACUUM CONTROLLER	Max. outlet pressure (abs.)	Inlet connection	Outlet connection	VOL/TPH/HZ	RATED MOTOR POWER	WEIGHT
VC-1	LAB CLASSROOM	VARIO	PC 3001	COUNTERTOP	11.93" x 12.05" x 15.75"	1.18 CFM	2.0 mbar / 1.5 torr	4	3	VACUUM SELEC T	1.1 bar	Hose nozzle DN 8-10 mm	Hose nozzle DN 8-10 mm	120/1/60	0.16 kW	8.2 kg

- NOTES
- PROVIDED WITH RUBBER VACUUM TUBING DN 8 MM (20666001)
 - VOL. INlet - ADA FUME HOOD VALVE
 - VOL. A AS/C9 - TURRET FOR INSIDE FUME HOOD

FAN SCHEDULE

UNIT TAG	SERVICE	MAKE	MODEL NUMBER	LOCATION	TYPE	CFM	ESP (IN. W.C.)	MAX. RPM	AMP	VOL/TPH/HZ	SPEED CONTROL	OPERATING WEIGHT (LBS.)	OPENING	SOUND LEVEL (SONES)
EF-1	LAB CLASSROOM	BROAN	5095	ABOVE DOOR	WALL MOUNTED	200	0.5	2500	1.8	120/1/60		13	8"Ø	8.5

- NOTES
- PROVIDED W/ EC MOTORS W/ HIGH SPEED CONTROL.
 - PROVIDE KNEE/JERKER SASH GRILL (14" X 14" FOR EF-1, 2, 3); PROVIDE DUCT TRANSITIONS/ADAPTERS AS REQUIRED; VERIFY EXACT REQUIREMENTS IN THE FIELD.
 - INTERLOCK EXHAUST FAN W/ LIGHT SWITCH.

DIFFUSER AND GRILLE SCHEDULE

TAG	MFR	MODEL	DESCRIPTION	FACE TYPE	FACE SIZE (IN.)	COLOR	MATERIAL	OBD	NOTES
A	TITUS	MCD	SQUARE CEILING SUPPLY	MODULAR CORE	24 x 24	WHITE	STEEL	NO	1,2,3,4,5,6,7
B	TITUS	PAR	SQUARE CEILING RETURN	PERFORATED	24 x 24	WHITE	STEEL	NO	1,2,3,4,5,6,7

- NOTES
- NECK SIZE AND CFM. REFER TO PLANS FOR NECK SIZE (E.G., 12X12) AND CUBIC FEET PER MINUTE (CFM) RATINGS (E.G., 400). TAG "A" ON THE PLANS INDICATES A CLEAR ANODIZED FINISH (IF THE DUCT IS UNPAINTED).
 - PRESSURE DROP: THE MAXIMUM ALLOWABLE TOTAL PRESSURE DROP FOR THE DIFFUSER, INCLUDING ANY DUCT TRANSITIONS, IS 0.15 INCHES OF WATER GAUGE (WG).
 - NOISE LEVEL: THE MAXIMUM NOISE CRITERION (NC) LEVEL OF THE DIFFUSER MUST BE AT LEAST 5 NC POINTS LOWER THAN THE SPECIFIED NOISE CRITERIA FOR THE ROOM(S) IT SERVES.
 - FINISH: ALL VISIBLE SURFACES AND DUCTWORK BEHIND THE DIFFUSER FACE MUST BE PAINTED FLAT BLACK.
 - CEILING COORDINATION: COORDINATE WITH THE ARCHITECTURAL REFLECTED CEILING PLANS TO DETERMINE THE APPROPRIATE BORDER TYPES FOR THE EXPOSED DUCT COLOR MATCH: ANY GRILLE MOUNTED DIRECTLY ON EXPOSED DUCTWORK SHOULD MATCH THE PAINT COLOR OF THE DUCT (IF PAINTED) OR HAVE A CLEAR ANODIZED FINISH (IF THE DUCT IS UNPAINTED).
 - DUCT TRANSITION: PROVIDE A MINIMUM 3-INCH HIGH RECTANGULAR/SQUARE TO ROUND TRANSITION WHERE REQUIRED. THE TRANSITION SHOULD BE SIZED TO CREATE A MAXIMUM PRESSURE DROP OF 0.01 INCHES WG AND ENSURE THE ROUND NECK AREA IS EQUAL TO OR EXCEEDS THE RECTANGULAR NECK AREA.

MECHANICAL NOTES

- NOTE: THIS DOCUMENT FORMS A PART OF THE SPECIFICATIONS AND SHALL BE CONSIDERED THE SAME AS IF ATTACHED THERETO.
- THE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE LOCATION OF EQUIPMENT AND DEVICES AND THE ARRANGEMENT OF THE REQUIRED INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PROPER COORDINATION WITH THE EXISTING FIELD CONDITIONS AND SPACE WILL PERMIT. SIMPLY INSTALLATION AS SHOWN IS AS NEARLY AS POSSIBLE BUT SUBJECT TO APPROVAL OF THE DSA FOR VISUAL AND STRUCTURAL REASONS. THE DRAWINGS DO NOT SHOW NECESSARY OF RISERS, BENDS AND OBSTRUCTIONS. THE DRAWINGS ARE NOT INTENDED TO BE SCALED AND THE CONTRACTOR SHALL REFER TO THE GENERAL DIMENSIONED CONSTRUCTION DRAWINGS FOR DIMENSIONS AND EXACT LOCATIONS.
 - WHERE APPLICABLE, THERMOSTATS SHALL BE ABLE TO:
 - MAINTAIN SPACE TEMPERATURE SET POINTS FROM 55 DEGREES TO 85 DEGREES.
 - TERMINATE ALL HEATING AT 70 DEGREES OR LESS AND ALL COOLING AT 78 DEGREES OR MORE.
 - CONTRACTOR SHALL PROVIDE CONSTRUCTION FILTERS AT RETURN AIR OPENINGS DURING CONSTRUCTION.
 - ALL PIPING AND DUCTWORK SHALL FREELY PASS THROUGH ALL WALLS AND FLOORS WITHOUT RIGID CONNECTIONS. PENETRATION POINTS SHALL BE SLEEVED TO ALLOW PASSAGE OF PIPING OR DUCTWORK AND MAINTAIN 3/4" TO 1 1/4" CLEARANCE AROUND THE OUTSIDE SURFACES. THIS CLEARANCE SHALL BE TIGHTLY PACKED WITH ONE POUND DENSITY GLASS FIBER AND CALKED AIRTIGHT WITH NON-HARDENING SEALANT AFTER INSTALLATION OF PIPING OR DUCTWORK.
 - PIPING SHALL BE COMPLETE WITH PIPE FITTINGS, VALVES, COUPLING, STRAINERS, HANGER RODS, HANGERS, SUPPORTS, GUIDES, SLEEVES AND ACCESSORIES IN CONFORMANCE WITH THE LATEST PROVIDED FITTINGS FOR CHANGE IN PIPE SIZES CODES AND ANSI, ASTA AND MSS STANDARDS. AND FOR FINAL CONNECTION AT EQUIPMENT, AS REQUIRED.
 - ALL DISCONNECTED MEANS ARE TO BE LABELED WITH PHENOLIC LABELS. LABELS SHALL BE WHITE LETTERING ON BLACK BACKGROUNDS.
 - IDENTIFY ALL NEW MECHANICAL EQUIPMENT WITH NAMEPLATES PERMANENTLY ENGRAVED WITH 1/2 INCH HIGH WHITE LETTERS ON A BLACK BACKGROUND. IDENTIFY EQUIPMENT WITH SYMBOLS SHOWN ON THE PLANS.
 - PROVIDE FLASHING AND COUNTER FLASHING FOR ALL PENETRATIONS THROUGH WALLS OR ROOF TO MAKE WATERPROOF INSTALLATION.
 - CONDENSEATE PIPING SHALL BE TYPE L OR M TUBING WITH WROUGHT COPPER FITTINGS. PRIMARY DRAIN PAN SHALL BE PROVIDED WITH COOLING COIL AND EXTEND BEYOND THE LEAVING SIDE OF THE COIL AND UNDERNEATH THE COOLING COIL CONNECTIONS. PROVIDE SECONDARY DRAIN PIPE FOR EQUIPMENT ABOVE CEILING AND ROUTE TO VISIBLE LOCATION ABOVE AN EXTERIOR WINDOW.
 - SUPPORT ALL PIPING SO THAT IT IS FIRMLY HELD IN PLACE BY APPROVED IRON HANGERS AND SUPPORTS, IN ACCORDANCE WITH RECOMMENDATIONS OF AMERICAN PIPE FITTERS ASSOCIATION AND PIPE HANGER INSTITUTE.
 - MOTOR STARTERS, WHERE REQUIRED, SHALL BE PROVIDED BY MECHANICAL CONTRACTOR AND INSTALLED BY ELECTRICAL CONTRACTOR.
 - THERMOSTATS SHALL BE MOUNTED AT 4'-0" ABOVE FINISHED FLOOR. EACH THERMOSTAT SHALL BE LABELED TO INDICATE THE ASSOCIATED HVAC UNIT(S). LABELS SHALL BE DYNØ STICHER LABELS WITH A LEGIBLE FONT SIZE. HAND-WRITTEN LABELS ARE NOT ACCEPTABLE. THERMOSTATS SHALL BE PROGRAMMABLE WITH SETUP, SET BACK, AND TIME/CLOCK FUNCTIONS BY THE EQUIPMENT MANUFACTURER OR EQUIPMENT EQUAL. THE SUPPLY FAN SHALL OPERATE CONTINUOUSLY DURING OCCUPIED HOURS.
 - ALLOW RELOCATION OF DEVICES (VFDs, ELECTRICAL DISCONNECTS, CONTROL PANELS, AND EQUIPMENT) WITHIN THE SAME GENERAL AREA IF OBSTRUCTIONS (STRUCTURAL ELEMENTS, PIPING, CONDUITS) PREVENT INSTALLATION IN THE EXACT LOCATIONS SHOWN ON THE PLANS. RELOCATED DEVICES MUST COMPLY WITH REQUIRED WORKSPACES, CODE CLEARANCES, AND MAINTAINABILITY ACCESS.
 - HVAC SYSTEM AND CONTROLS (COMPLYING WITH ONE OF THE FOLLOWING STANDARDS):
 - ABCS NATIONAL STANDARDS FOR TOTAL SYSTEM BALANCE (6TH EDITION)
 - ACCA MANUAL B
 - ASHRAE'S STANDARD 111-2008
 - NEBS STANDARDS FOR TESTING, ADJUSTMENT, AND BALANCING OF ENVIRONMENTAL SYSTEM (7TH EDITION)
 - SMACNA HVAC TESTING, ADJUSTING, AND BALANCING
 - A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED AND PROVIDED TO THE FIELD INSPECTOR PRIOR TO FINAL APPROVAL. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
 - AN OPERATION AND SYSTEM MANUAL, SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.
 - CONTRACTOR SHALL TEST THE HVAC SYSTEMS AND CONTROLS, INCLUDING, BUT NOT LIMITED TO OPERATION, TEMPERATURE, POWER CURRENT, FLOW, AND MAKE ADJUSTMENTS AS REQUIRED AND REQUIRED BY MANUFACTURER TO ENSURE PROPER OPERATION.

MEP COMPONENT ANCHORAGE NOTES

- MEP COMPONENT ANCHORAGE NOTE
- ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS.
 - THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A-1.18 THROUGH 1617A-1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:
 - ALL PERMANENT EQUIPMENT AND COMPONENTS
 - TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
 - TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORTS THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
 - THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.
 - COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT
 - COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
- THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

- PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE
- PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC SECTIONS 1617A-1.24, 1617A-1.25 AND 1617A-1.26.
- THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE MAKING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

- MECHANICAL/PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):
- OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
- OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI (OSHPD) PRE-APPROVED OPM # . AS INCLUDED IN THESE DRAWINGS WITH PROJECT-SPECIFIC NOTES AND DETAILS.

DO NOT MIX SEISMIC BRACING DETAILS FROM DIFFERENT OPMs UNLESS SPECIFICALLY SHOWN ON DRAWINGS AND APPROVED BY DSA.

MECHANICAL SYMBOLS LIST

PIPING	
SYMBOL	DESCRIPTION
	DIRECTION OF SLOPE
	DIRECTION OF FLOW
	PIPE DOWN
	PIPE UP
	TOP CONNECTION - BRANCH LINE
	BOTTOM CONNECTION-BRANCH LINE
	TEE UP
	TEE DOWN
	PIPE SIZE (DIAMETER IN INCHES)

GENERAL	
SYMBOL	DESCRIPTION
	NEW WORK
	EXISTING WORK TO REMAIN
	EXISTING WORK TO BE REMOVED
	EQUIPMENT IDENTIFICATION
	POINT OF CONNECTION (POC) / POINT OF DISCONNECTION (POD)
	IMON
	BALL VALVE
	CHECK VALVE
	SHUT-OFF VALVE
	AUTOMATIC SHUT-OFF VALVE
	SWING CONNECTION
	RECTANGULAR OR ROUND SUPPLY OF DIFFUSER OR REGISTER (SEE SCHEDULE)
	2-WAY THROW UNLESS INDICATED OTHERWISE. EXAMPLE: 12X24-100 REFERS TO TAG A WITH 12X24" NECK AND 100 CFM OR 18-20 REFER TO TAG B WITH 18" ROUND NECK AND 200 CFM
	RECTANGULAR OR ROUND RETURN GRILLE OR REGISTER (SEE SCHEDULE)
	LINEAR SLOT DIFFUSER (SEE SCHEDULE FOR NUMBER OF SLOTS; 2-WAY THROW UNLESS INDICATED OTHERWISE. EXAMPLE: 10-48-SM-250 REFERS TO 10" ROUND NECK, 48" SLOT LENGTH, TAG SM AND 250 CFM
	VOLUME DAMPER
	RECTANGULAR DUCT SIZE (WIDTH X DEPTH IN INCHES)
	ROUND DUCT SIZE (DIAMETER IN INCHES)
	WALL SUPPLY GRILLE OR REGISTER (SEE SCHEDULE)
	WALL RETURN GRILLE OR REGISTER (SEE SCHEDULE)
	VOLUME DAMPER
	FIRE, SMOKE OR FIRESNACKE DAMPER

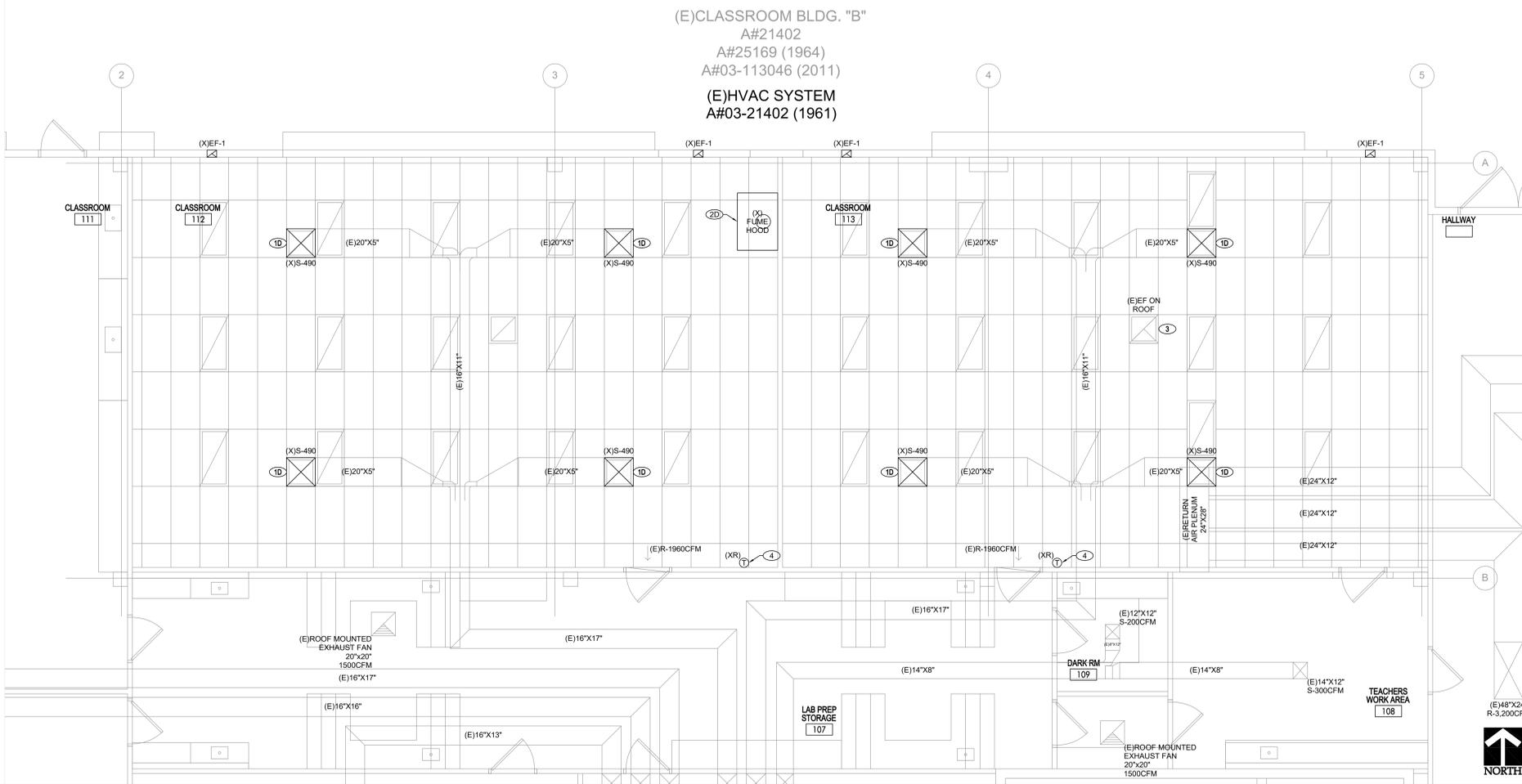
CONTROLS	
SYMBOL	DESCRIPTION
	THERMOSTAT OR THERMOMETER
	TIMER SWITCH
	CARBON DIOXIDE SENSOR
	DUCT SMOKE DETECTOR

GENERAL SYMBOLS

- NUMBERED NOTE FOR SHEET WHERE SHOWN
- A-1
 E1.0
- DETAIL DESIGNATION FOR ITEM & DRAWING NUMBER

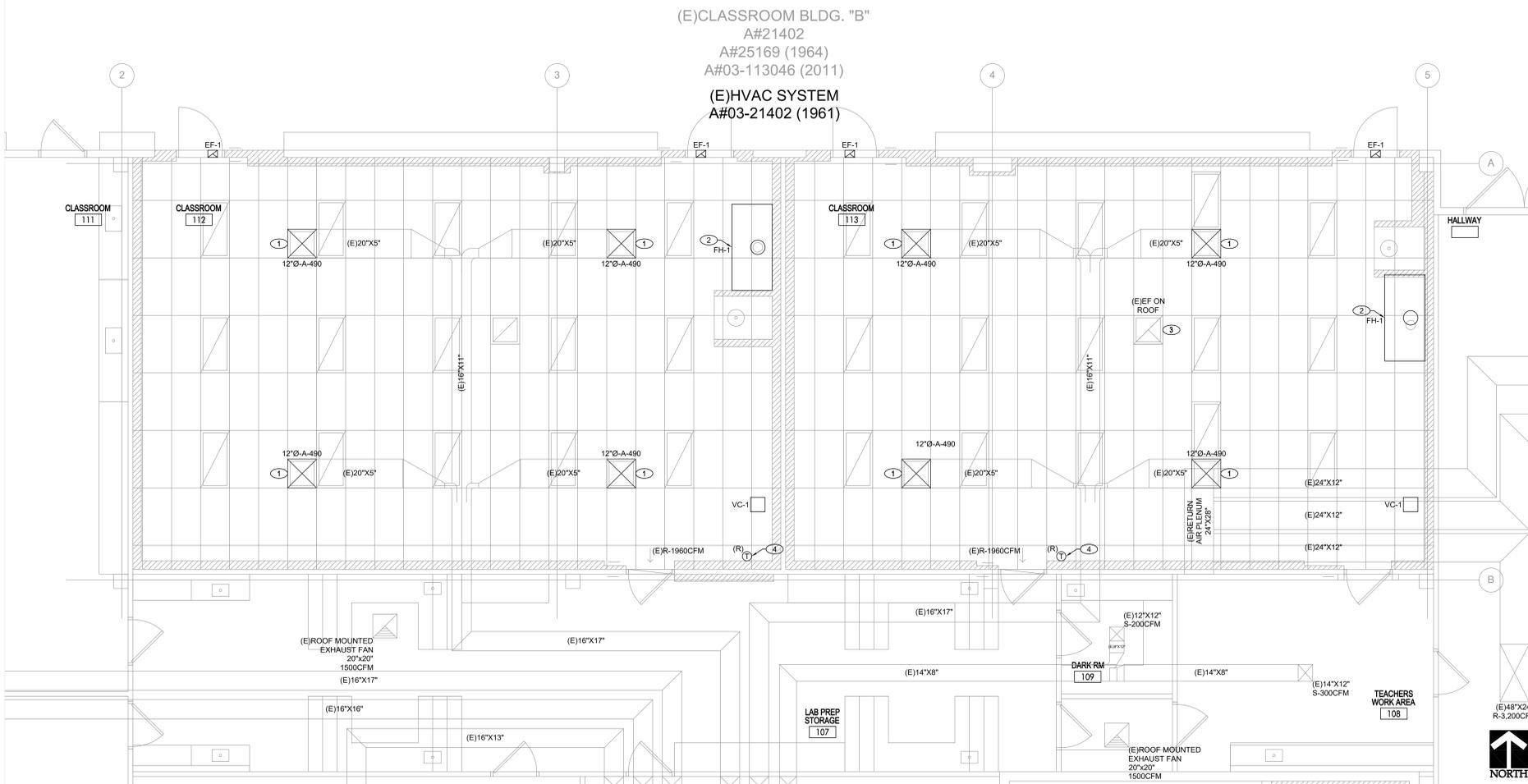
MECHANICAL CALGREEN CODES

- ENTIRE INSTALLATION SHALL COMPLY WITH THE 2022 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE INCLUDING THE FOLLOWING APPLICABLE MANDATORY MEASURES:
- 5.504.3 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH PLASTIC, SHEET METAL OR OTHER METHOD ACCEPTABLE TO THE ENGINEERING AGENCY TO REDUCE THE AMOUNT OF WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.
 - 5.504.5 FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDES AT LEAST A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 13. MERV 13 FILTERS SHALL BE INSTALLED PRIOR TO OCCUPANCY AND RECOMMENDATIONS FOR MAINTENANCE WITH FILTERS OF THE SAME VALUE SHALL BE INCLUDED IN THE OPERATION AND MAINTENANCE MANUAL. EXCEPT EXISTING MECHANICAL EQUIPMENT.
 - 5.504.5.1 LABELING. INSTALLED FILTERS SHALL BE CLEARLY LABELED BY THE MANUFACTURER INDICATING THE MERV RATING.
 - 5.505.1 INDOOR MOISTURE CONTROL. BUILDINGS SHALL MEET OR EXCEED THE PROVISIONS OF CALIFORNIA BUILDING CODE, CCR, TITLE 24, PART 2, SECTIONS



SCIENCE LAB [B112] & [B113] BUILDING "B" - MECHANICAL DEMOLITION FLOOR PLAN

SCALE 1/4" = 1'-0" 1



SCIENCE LAB [B112] & [B113] BUILDING "B" - MECHANICAL FLOOR PLAN

SCALE 1/4" = 1'-0" 2

REFERENCE NOTES

- 10 DEMOLISH AND DISPOSE OF EXISTING SUPPLY AIR DIFFUSER, AS SHOWN.
- 1 EXISTING HVAC SYSTEM. EXTEND FLEXIBLE DUCT FROM EXISTING METAL SUPPLY DUCTS TO CONNECT NEW SUPPLY AIR DIFFUSER (PROVIDE TRANSITIONS AS NEEDED). RE-BALANCE THE ENTIRE AIR DISTRIBUTION SYSTEM TO ACHIEVE THE MAXIMUM CFM (CUBIC FEET PER MINUTE) REQUIRED FOR THE REMODEL PLAN. TEST, ADJUST, AND BALANCE THE SYSTEM TO ENSURE IT DELIVERS THE SPECIFIED CFM.
- 2 REMOVE AND DISPOSE OF THE EXISTING FUME HOOD AND EXHAUST DUCT. PATCH EXISTING ROOF PENETRATION PER ROOFING REQUIREMENT.
- 3 PROVIDE NEW FUME HOOD, INSTALLED PER MANUFACTURE INSTALLATION REQUIREMENT. PROVIDE 12" Ø DUCT (WITH A COLLAR AND NECESSARY TRANSITIONS) TO CONNECT THE FUME HOOD TO THE EXHAUST DUCT THROUGH THE ROOF. PROVIDE ROUND BACK STATIC VENT WITH CURB MOUNT FLANGE (ROOFVENTS # RBV-12-C4-CMF) 12" DIAMETER 4" TALL COLLAR WITH ROOF CURB (ROOFVENTS # RC-12-H). COORDINATE ROOF PENETRATION AND ROOF PATCHING WITH ROOFING COMPANY (GARLAND) TO MAINTAIN ROOF WARRANTY. REFER TO THE PLUMBING AND ELECTRICAL DRAWINGS FOR REQUIREMENTS.
- 4 EXISTING EXHAUST FAN TO REMAIN. EXTEND AND RECONNECT EXISTING DUCTS TO NEW CEILING RETURN DIFFUSER LOCATION. REPLACE EXISTING RETURN DIFFUSERS WITH NEW.
- 5 EXISTING THERMOSTAT TO BE RELOCATED TO NEW WALL (48" AFF) WITH EXTENSION BOX. RECONNECT AND EXTEND CONDUIT AND WIRING AS REQUIRED.

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP: 03-125098 INC.
 REVIEWED FOR:
 SS FLS ACS
 DATE: 10/31/2025

REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25

Ynl Architects
 architecture | interior

multi-discipline collaboration
MDC engineers, INC.
 Consulting Engineers
 5101 E La Palma Ave., Suite 205
 Anaheim Hills, CA 92807-2006
 Tel: (714) 766-9944
 Fax: (714) 746-6463

LICENSED ARCHITECT
 No. 051804
 Exp. 3/31/27
 STATE OF CALIFORNIA

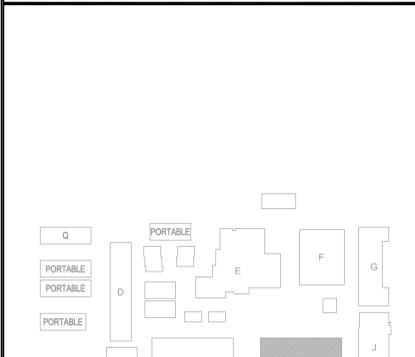
REGISTERED PROFESSIONAL ENGINEER
 No. M 35815
 Exp. 12/31/27
 MECHANICAL
 STATE OF CALIFORNIA

SCIENCE LAB RENOVATION
 AT
 GAREY HIGH SCHOOL
 321 W. LEXINGTON AVE.
 POMONA, CA 91766

POMONA UNIFIED SCHOOL DISTRICT
 800 S. GAREY AVENUE
 POMONA, CALIFORNIA 91766

MECHANICAL FLOOR PLAN

KEY PLAN



DATE: 10/07/2025
 DSA #: A# 03-125098
 FILE NO. 19-H20

SHEET M1.1

LIST OF CALIFORNIA CODE OF REGULATIONS (C.C.R.)

APPLICABLE CODES AS OF JANUARY 1, 2023

TITLE 24 C.C.R., PART 1 2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
 TITLE 24 C.C.R., PART 2 2022 CALIFORNIA BUILDING CODE (CBC)
 (2021 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS)
 TITLE 24 C.C.R., PART 3 2022 CALIFORNIA ELECTRICAL CODE (CEC)
 (2020 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)
 TITLE 24 C.C.R., PART 4 2022 CALIFORNIA MECHANICAL CODE (CMC)
 (2021 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
 ADDITIONAL CODES
 (2021 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO)
 TITLE 24 C.C.R., PART 5 2022 CALIFORNIA FIRE CODE (FC)
 (2021 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL)
 TITLE 24 C.C.R., PART 10 2022 CALIFORNIA EXISTING BUILDING CODE
 (2021 INTERNATIONAL EXISTING BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH AMENDMENTS)
 TITLE 24 C.C.R., PART 11 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN CODE)
 TITLE 24 C.C.R., PART 12 2022 CALIFORNIA REFERENCED STANDARDS CODE
 TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 14 STANDARD PIPE AND HOSE SYSTEMS (CA AMENDED) 2019 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (IFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.
 SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

MECHANICAL CALGREEN CODES

ENTIRE INSTALLATION SHALL COMPLY WITH THE 2022 CALIFORNIA GREEN BUILDING STANDARDS (CALGREEN) CODE INCLUDING THE FOLLOWING APPLICABLE MANDATORY MEASURES:

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLICABLE STANDARDS REFERENCED IN TABLE 1701.1 OF THE CALIFORNIA PLUMBING CODE AND IN CHAPTER 6.

VACUUM CHEMISTRY PUMPING SCHEDULE

UNIT TAG	SERVICE	MAKE	MODEL NUMBER	LOCATION	DIMENSION (L x W x H)	MAX. PUMPING SPEED @ Hz (CFM)	ULTIMATE VACUUM	NUMBER OF HEADS	NUMBER OF STAGES	VACUUM CONTROLLER	Max. outlet pressure (abs.)	Inlet connection	Outlet connection	VOLT/PH/Hz	RATED MOTOR POWER	WEIGHT
VC-1	LAB CLASSROOM	VARIO	PC 3001	COUNTERTOP	11.93" x 12.05" x 15.75"	1.18 CFM	2.0 mbar / 1.5 torr	4	3	VACUU-SELECT	1.1 bar	Hose nozzle DN 6-10 mm	Hose nozzle DN 6-10 mm	120/1/60	0.16 kW	8.2 kg

NOTES

- PROVIDED WITH RUBBER VACUUM TUBING DN 8 MM (20686001)
- VCL AK-A - ADA FUME HOOD VALVE
- VCL A AS-C9 - TURRET FOR INSIDE FUME HOOD

LEGEND

SYMBOL	ABBR	DESCRIPTION
---W---	W	SANITARY WASTE PIPING BEL. FLR.
---W---	W	SANITARY WASTE PIPING ABV. FLR.
-----V-----	V	VENT PIPING
---CW---	CW	COLD WATER PIPING
---HW---	HW	HOT WATER PIPING
---HWR---	HWR	HOT WATER RETURN PIPING
---ICW---	ICW	INDUSTRIAL COLD WATER PIPING
---IHW---	IHW	INDUSTRIAL HOT WATER PIPING
---CHW---	CHW	CHILLER WATER SUPPLY PIPING
---CHWR---	CHWR	CHILLER WATER RETURN PIPING
---DIW---	DIW	DE-IONIZED WATER PIPING
---LA---	LA	LABORATORY COMPRESSED AIR PIPE
---LG---	LG	LABORATORY GAS PIPE
---LV---	LV	LABORATORY VACUUM PIPING
---LW---	LW	LABORATORY WASTE PIPING
---P---	PLUG	PLUG
---POC---	POC	POINT OF CONNECTION
---DN---	DN	PIPING UP
---DP---	DP	PIPING DOWN
---FCO COYB---	FCO COYB	FLOOR CLEANOUT/CLEANOUT IN YARD BOX
---WCO---	WCO	WALL CLEANOUT
---G---	G	GAS PIPING
---U---	U	UNION
---B.V.---	B.V.	BALL VALVE
---C.V.---	C.V.	CHECK VALVE
---SOV---	SOV	SHUT-OFF VALVE
---3V---	3V	3-WAY VENT VALVE
---FLEX---	FLEX.	FLEXIBLE CONNECTION
---GC---	GC	GAS COCK
---TP---	TP	TRAP PRIMER LINE
---SD---	SD	STORM DRAIN PIPING

GENERAL SYMBOLS

NUMBERED NOTE FOR SHEET WHERE SHOWN

DETAIL DESIGNATION FOR ITEM & DRAWING NUMBER

PLUMBING NOTES

- NOTE: THIS DOCUMENT FORMS A PART OF THE SPECIFICATIONS AND SHALL BE CONSIDERED THE SAME AS IF ATTACHED THERETO.
- ALL WORK SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND AUTHORITIES HAVING JURISDICTION, AND THE LISTED CALIFORNIA CODE OF REGULATIONS (CCR).
 - BEFORE STARTING ANY WORK, VERIFY THE ADEQUACY, LOCATION, SIZE, AND AVAILABILITY OF ALL UTILITIES CONCERNED.
 - DRAWINGS INDICATE THE SIZE AND TERMINATION OF PIPING AND SUGGEST PROPER ROUTES OF PIPING TO CONFORM TO THE STRUCTURE TO AVOID OBSTRUCTION AND TO PRESERVE CLEARANCE. IT IS NOT THE INTENT TO INDICATE ALL NECESSARY OFFSETS, AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL PIPING IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, KEEP OPENINGS AND PASSAGEWAYS CLEAR, AND MAKE ALL EQUIPMENT REQUIRING INSPECTION, MAINTENANCE, AND REPAIR ACCESSIBLE WITHOUT FURTHER INSPECTIONS OR ADDITIONAL COST.
 - THE WORK OF THIS PROJECT INVOLVES THE REPLACEMENT OF EXISTING WASTE PIPING ABOVE GROUND AS INDICATED ON THE DRAWINGS. VISIT THE JOB SITE TO DETERMINE THE EXTENT OF WORK REQUIRED FOR THE CONSTRUCTION ACTIVITIES. THE DRAWINGS FOR THESE AREAS SHOW THE CHANGES TO BE MADE, REVISE, REARRANGE, REROUTE, OR REMOVE EXISTING PIPING AND RELATED APPURTENANCES AS REQUIRED TO ACCOMMODATE THE CHANGES AND ADDITIONS SHOWN.
 - ALTERATION OF THE EXISTING CAST IRON SANITARY WASTE PIPING TO NEW PVC SCHEDULE 80 DRAINAGE PIPING BELOW GROUND INSIDE THE BUILDING IS WORK OF A COMPLEX NATURE WHICH WILL REQUIRE ACCURATE PLANNING, CAREFUL PREPARATION, AND EXECUTION BY THE CONTRACTOR.
 - UNLESS OTHERWISE NOTED, EXISTING PIPING AND RELATED APPURTENANCES BEING REMOVED SHALL BE DISPOSED OF OFF-SITE AT THE CONTRACTOR'S EXPENSE.
 - ALL WORK THAT INVOLVES "SHUT-DOWN" OF EXISTING UTILITIES OR PORTIONS THEREOF SHALL BE DONE AT SUCH TIMES THAT WILL CAUSE THE LEAST INCONVENIENCE TO THE DISTRICT'S ACTIVITIES. THE EXACT TIME AND LENGTH OF "SHUT-DOWN" SHALL BE AGREED WITH THE DISTRICT AND SCHOOL SITE AT LEAST 72 HOURS IN ADVANCE OF THE REQUIRED SHUT-DOWN.
 - ALL PIPING SHALL BE SEISMICALLY RESTRAINED IN ACCORDANCE WITH THE REQUIREMENTS OF THE "SMACNA" GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING PIPING SYSTEMS.
 - EXPOSED HOT WATER SUPPLY TRAP AND TRAP ARM AT "ACC" OR "D" LAVATORIES WITH HOT WATER SHALL BE INSULATED.
 - RUN ALL PLUMBING LINES CONCEALED. NO LINES SHALL BE RUN EXPOSED WITHOUT PRIOR APPROVAL FROM THE DISTRICT AND ENGINEER.
 - AESTHETICS ARE A VERY IMPORTANT COMPONENT OF THIS PROJECT. INSTALLATION OF PLUMBING WORK SHALL BE OF THE HIGHEST QUALITY AND CRAFTSMANSHIP POSSIBLE.
 - REMOVE ALL (E) ABANDONED PIPING THAT IS EXPOSED OR WILL BE EXPOSED DURING THE DEMOLITION AND NEW PIPING INSTALLATION. COORDINATE AND VERIFY (E) PIPING PRIOR TO REMOVAL.
 - ALL BRANCH PIPING THAT WILL BE REMOVED SHALL BE CAPPED TO THE NEAREST ACTIVE TEE.
 - ALL EXISTING IRRIGATION PIPING BELOW GRADE, VALVES, VACUUM BREAKER, AND ALL RELATED APPURTENANCES TO REMAIN.
 - AFTER AWARD OF CONTRACT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE PROTECTION OF ALL EXISTING STRUCTURES (BOTH EXTERIOR AND INTERIOR) WITHIN AND ADJOINING THE WORK AREA. ANY EXISTING STRUCTURES AND/OR IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED AND/OR REPLACED WITH MATERIALS, WORKMANSHIP, FINISHES, OR EQUIPMENT TEMPORARILY REMOVED OR EQUIPMENT SHALL BE RE-ERECTED OR INSTALLED IN AN APPROVED MANNER. THE CONTRACTOR SHALL SUBMIT ALL PROPOSED PROTECTION METHODS TO THE CONSTRUCTION MANAGER FOR REVIEW AND SHALL RECEIVE WRITTEN APPROVAL PRIOR TO THEIR USE.
 - ALL WELDING SHALL BE SPECIALLY INSPECTED BY AN AWS-CW QUALIFIED INSPECTOR APPROVED BY THE DISTRICT AND IN COMPLIANCE WITH CBC 1704 A.3.
 - THE LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, WHERE SHOWN ON THE DRAWINGS, ARE APPROXIMATE ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE DISTRICT, THE ENGINEER, OR THEIR REPRESENTATIVES. DETERMINE THE EXACT LOCATION, DEPTH, INVERT ELEVATIONS, POINT OF CONNECTIONS, AND PROPER SLOPES BEFORE CONNECTING WORK. FIELD VERIFY AND COORDINATE AS REQUIRED. ANY DAMAGE TO EXISTING UNDERGROUND UTILITIES SHALL BE REPAIRED AND RESTORED TO THE ORIGINAL CONDITION IMMEDIATELY UPON INTERUPTION TO THE OPERATION OF FACILITIES AT NO ADDITIONAL COST TO THE OWNER. IT MAY BE NECESSARY TO RUN NEW UTILITIES UNDER/OVER EXISTING UTILITIES (CROSSOVER).
 - OCCUPANTS OF THE EXISTING BUILDING SHALL NOT BE ALLOWED TO ENTER THE CONTRACTOR WORK ZONE. ETC. ENTRANCES AND CORRIDORS SHALL BE PROTECTED AND KEPT FREE OF OBSTRUCTIONS. THE OWNER SHALL BE NOTIFIED IN ADVANCE OF THE TIME OF DELIVERY OF EQUIPMENT TO AVOID INTERFERENCE WITH THE OPERATION OF THE BUILDING.
 - UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH WRITTEN CERTIFICATION THAT ALL MATERIALS USED ON THIS PROJECT ARE ASBESTOS-FREE.
 - PROVIDE PROPER SLEEVING AND CAULKING TO ALL NEW WATER PIPING PASSING THROUGH THE SLAB ON GRADE AND WALLS.
 - THE CONTRACTOR SHALL PROVIDE THE DISTRICT WITH A WRITTEN SCHEDULE OF WORK, WHICH IS TO BE COORDINATED AND APPROVED BY THE DISTRICT PROJECT MANAGER PRIOR TO THE START OF CONSTRUCTION.
 - THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY LAWS (OSHA, CAL-OSHA, ETC.).
 - WHEN THE CONTRACTOR HAS BEEN AWARDED THE CONTRACT, IT IS THEIR RESPONSIBILITY TO CHECK THE AREAS SO NO UNAUTHORIZED PERSONNEL OR STAFF SHALL GAIN ACCESS TO THE PROJECT AREA OR THE CONTRACTOR'S STAGING AREA.
 - THE CONTRACTOR SHALL COOPERATE WITH THE DISTRICT TO THE FULLEST EXTENT IN PROVIDING TRAFFIC CONTROL DURING THE COURSE OF CONSTRUCTION TO PROVIDE MAXIMUM PROTECTION FOR STUDENTS AND DISTRICT PERSONNEL. ALL EMPLOYEES ON THE PROJECT WORK SHALL PARK THEIR PRIVATE VEHICLES IN THE AREA DESIGNATED BY THE OWNER.
 - THE CONTRACTOR SHALL EXERCISE MAXIMUM DUST AND NOISE CONTROL EFFORTS TO KEEP AT A MINIMUM THE NUISANCE OF DUST AND CONSTRUCTION NOISE FROM THE CONSTRUCTION.
 - THE DISTRICT SHALL BE NOTIFIED IN ADVANCE OF TIMES OF EQUIPMENT OR MATERIALS DELIVERY TO AVOID INTERFERENCE WITH NORMAL ACTIVITY ON THE SCHOOL PREMISES.
 - THE WORK AREA SHALL BE CLEANED DAILY AND ALL CONSTRUCTION DEBRIS SHALL BE DISPOSED OF BY THE CONTRACTOR AT LEGAL DUMP. AT CONCLUSION OF PROJECT CONTRACTOR SHALL LEAVE WORK AREA AND SITE, BROOKLYN GAN AND GENERATE IN SAME CONDITION AS PRIOR TO THE CONSTRUCTION WORK.
 - PROTECT PLANT AND CARE FOR LAWNS, SHRUBS, ETC. IN THE CONSTRUCTION AREAS DURING THE CONSTRUCTION PERIOD. REPLACE ALL DAMAGED ITEMS AT NO COST TO THE DISTRICT.
 - AT NO TIME DURING THE WORK UNDER THE CONTRACT SHALL THE CONTRACTOR PLACE, OR CAUSE TO BE PLACED, ANY MATERIAL OR EQUIPMENT ETC. AT A LOCATION THAT WOULD IMPEDE OR IMPAIR ACCESS TO OR FROM THE PRESENT FACILITIES.
 - ASBESTOS/LEAD IS ENCOUNTERED DURING CONSTRUCTION, REMOVAL AND ABATEMENT OF SUCH ENCOUNTERED SHALL BE PROVIDED BY DISTRICT. DISTRICT SHALL PROVIDE SPOT APPROVAL PRIOR TO THEIR USE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING STRUCTURES AT THE WORK AREA FROM WEATHER AND OTHER INCLEMENT CONDITIONS. ANY DAMAGE INCURRED DUE TO FAILURE BY THE CONTRACTOR TO PROPERLY PROTECT SUCH WORK SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.
 - THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED AND DEMOLISHED MATERIAL, WASTE AND DEBRIS CAUSED BY THE NEW WORK. THIS MATERIAL SHALL BE REMOVED FROM THE SCHOOL PROPERTY AND TAKEN TO A LEGALLY OPERATED DISPOSAL SITE.
 - CUTTING, BORING, SAW CUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN APPROVED AND ACCEPTED BY THE DISTRICT & ENGINEER WITH THE APPROVAL OF THE DISTRICT PROJECT MANAGER.
 - THE SEISMIC ANCHORAGE OF MECHANICAL AND ELECTRICAL EQUIPMENT SHALL CONFORM TO ASCE 7-05 SECTION 13.3.1 AND TABLE 13.6-1. ANCHORAGE DETAILS FOR ROOF-FLOOR MOUNTED EQUIPMENT SHALL BE SHOWN ON PLANS.
 - ALL BRACING OF DUCTS AND PIPING SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES AS APPROVED BY DSA. WHERE BRACING DETAILS ARE NOT SHOWN ON DRAWINGS OR IN THE GUIDELINES, THE FIELD INSTALLATION SHALL BE SUBJECTED TO THE APPROVAL OF ARCHITECT, STRUCTURAL ENGINEER AND DSA FIELD ENGINEER.
 - A COPY OF THE GUIDELINES PUBLISHED BY SMACNA AND APPROVED BY DSA SHALL BE PROVIDED BY CONTRACTOR AND KEPT ON JOB SITE AT ALL TIMES.



REV	DESCRIPTION	DATE
DWG_V1		04/25/25
DWG_V2		07/15/25
DWG_V3		10/07/25



ABBREVIATION

ABS - ACRYLONITRILE - BUTADIENE - STYRENE	(E) - EXISTING	(E) - NEW
ABV - ABOVE	(ER) - EXISTING TO BE REPLACED	(N) - NOT IN CONTRACT
ACC - ACCESSIBLE	FD - FLOOR DRAIN	NIC - NOT TO SCALE
APF - ABOVE FINISH FLOOR	FHC - FIRE HOSE CABINET	FLR - FLOOR
AP - ACCESS PANEL	FV - FLUSH VALVE	(R) - RELOCATED
BEL - BELOW	FM - FIXTURE UNIT	SST - SATIN STAINLESS STEEL
BEH - BEHIND	PV - FLUSH VALVE	STP - TYPICAL
CFH - CUBIC FEET PER HOUR	GM - GALLONS PER MINUTE	UN - UNLESS OTHERWISE NOTED
CI - CAST IRON	GRD - GRADE	UP - UP
CLG - CEILING	HB - HOSE BIBB	VTR - VENT THRU ROOF
CONN - CONNECTION	HDR - HEADER	W.P. - WEATHERPROOF CONSTRUCTION
CONT - CONTINUATION	E - INVERT ELEVATION	WT - WEATHERTIGHT CONSTRUCTION
DA - DISABLED ACCESS	MD - MOUNTING HEIGHT	VCP - VITRIFIED CLAY PIPE
DN - DOWN	MT - MOUNTED	YB - YARD BOX
DNF - DRINKING FOUNTAIN	OCW - ON CENTER EACH WAY	(X) - EXISTING TO BE REMOVED
DWG - DRAWINGS	REQD - REQUIRED	(X) - REMOVE/RELOCATE AS SHOWN
EF - EXHAUST FAN		(+X)-Y - MOUNTING HEIGHT TO CENTER OF DEVICE

MEP COMPONENT ANCHORAGE NOTES

- MEP COMPONENT ANCHORAGE NOTE**
- ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS.
- THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.6 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30:
- ALL PERMANENT EQUIPMENT AND COMPONENTS
 - TEMPORARY, MOBILE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRE) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT FOR 100/200 VOLT RECEPTACLES
 - TEMPORARY, MOBILE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT
- THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.
- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT
- B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
- THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.
- PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE**
- PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.6 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.
- THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. HCA OPM FOR 2013 CBC OR LATER). COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE PROVIDED TO THE ARCHITECT AND DISTRICT REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO COMMENCING WORK. DO NOT PROCEED WITHOUT APPROVAL BY THE DISTRICT'S REPRESENTATIVE. FOR ANY CHANGES, IF REQUIRED.
- PLEASE BE ADVISED THAT THIS IS AN ALTERATION TO AN EXISTING STRUCTURE AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING CONDITIONS.
- CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTAL OF BID A FAMILIARIZE HIMSELF W/ EXISTING CONDITIONS. SUBMITTAL OF BID SHALL BE ONLY AFTER THE CONTRACTOR HAS VISITED THE SITE. CONTRACTOR SHALL IDENTIFY ALL DISCREPANCIES FOUND AND INDICATE ON BID AS BEING THE CONTRACTOR'S BEST IMPLICATIONS, IF ANY.

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PIPE MATERIAL SCHEDULE

SERVICE	LOCATION	MATERIALS
SEWERWASTE (W)	BELOW GROUND, OUTSIDE BUILDING, ON-SITE	MATERIAL: PVC (LARGER THAN 4") SDR 26 WITH BELL AND SPIGOT ENDS FOR GASKETED JOINTS WITH ELASTOMERIC SEALS, APPROVED FOR GRAVITY SEWER PIPING. CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
SEWERWASTE (W)	BELOW GROUND, INSIDE AND OUTSIDE BUILDING	SCHEDULE 80 PVC WITH DWV FITTINGS. PIPE AND FITTINGS SHALL BE APPROVED FOR BELOW GROUND, INSIDE BUILDING DWV APPLICATION. PROVIDE APPROPRIATE ADAPTORS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
WASTE (W)	ABOVE GROUND, INSIDE BUILDING	MATERIAL: HUBLESS CAST IRON WITH NEOPRENE GASKETS AND STAINLESS STEEL BANDS/SHELD. FITTINGS: LEAD-FREE SOLDER JOINTS, WRAPPED WITH 20-MIL PVC TAPE. COUPLINGS: STAINLESS STEEL COUPLINGS (CISPI-310-78) FOR NO-HUB JOINTS. CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
VENT (V)	ABOVE GROUND, INSIDE BUILDING	HUBLESS CAST-IRON WITH NEOPRENE GASKET & STAINLESS STEEL BAND/SHIELD OR GALVANIZED STEEL PIPE. CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
COLD WATER (CW)	BELOW GROUND, OUTSIDE BUILDING, ON-SITE	PIPE SIZE, 4" AND LARGER: PVC PRESSURE PIPE C900 WITH MECHANICAL JOINTS AND FITTINGS APPROVED FOR UNDERGROUND PRESSURE WATER PIPING. PIPE SIZE, 3" AND SMALLER: SEAMLESS COPPER TYPE K PIPE, HARD DRAWN, WITH WROUGHT COPPER FITTINGS. LEAD-FREE SOLDER JOINTS, WRAPPED WITH 20-MIL PVC TAPE. PROVIDE THRUST BLOCKS ON EVERY CHANGE OF DIRECTION, CHANGE IN SIZE AND AT THE FITTINGS. CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
COLD WATER (CW)	BELOW GROUND, INSIDE BUILDING	PIPE: SEAMLESS COPPER TYPE K, HARD DRAWN. FITTINGS: WROUGHT COPPER FITTINGS. JOINTS & CONNECTIONS: LEAD-FREE SOLDER JOINTS, WRAPPED WITH 20-MIL PVC TAPE.
DOMESTIC COLD WATER (CW)	ABOVE GROUND, INSIDE BUILDING	PIPE: SEAMLESS COPPER TYPE L, HARD DRAWN. FITTINGS: WROUGHT COPPER FITTINGS. JOINTS & CONNECTIONS: LEAD-FREE SOLDER JOINTS.
DOMESTIC HOT WATER (HW)	ABOVE GROUND, INSIDE BUILDING	PIPE: SEAMLESS COPPER TYPE L, HARD DRAWN. FITTINGS: WROUGHT COPPER FITTINGS. JOINTS & CONNECTIONS: LEAD-FREE SOLDER JOINTS. INSULATION: INCLUDE APPROPRIATE INSULATION.
DE-IONIZED WATER (DIW)	ABOVE GROUND, INSIDE BUILDING	MATERIAL: LDPE (LINEAR LOW DENSITY POLYETHYLENE) PIPE (ASTM D-1983, FDA, NSF) JOINTS & CONNECTIONS: PUSH-TO-CONNECT TUBE FITTINGS WITH LOCKING CLIP CLAMPS CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS AS REQUIRED PER MANUFACTURE RECOMMENDATIONS.
LABORATORY VACUUM (LV)	ABOVE GROUND, INSIDE BUILDING	RUBBER VACUUM TUBING PTFE DN 8 MM (20686001) VCL AK-A - ADA FUME HOOD VALVE VCL A AS-C9 - TURRET FOR INSIDE FUME HOOD
LABORATORY WASTE (LW)	BELOW GROUND, INSIDE BUILDING	MATERIAL: ORION BROWNLINE PP (NON-FIRE RETARDANT POLYPROPYLENE) PIPE, SCHEDULE 80 JOINTS & CONNECTIONS: RIFUSER OF CLAMP-FREE ELECTRO-FUSION JOINTS CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
LABORATORY WASTE (LW)	ABOVE GROUND, INSIDE BUILDING	MATERIAL: ORION BLUELINE FRPP (FIRE RETARDANT POLYPROPYLENE) PIPE, SCHEDULE 40 JOINTS & CONNECTIONS: RIFUSER OF CLAMP-FREE ELECTRO-FUSION JOINTS CONNECTIONS: PROVIDE APPROPRIATE ADAPTERS, MATERIALS AND METHODS FOR CONNECTIONS TO PIPES OF DIFFERENT MATERIALS.
GAS (G)	BELOW GROUND, INSIDE BUILDING	MATERIAL: DOUBLE-WALL BLACK STEEL PIPE, ASTM A53, SCHEDULE 40, TYPE S, FOR BOTH CARRIER AND CASING PIPES. JOINTS & CONNECTIONS: WELDED JOINTS FOR BOTH CARRIER AND CASING. WARNING TAPE: 6" WIDE, 4-MIL THICK POLYETHYLENE (PE) WARNING TAPE APPLIED OVER THE CASING.
GAS (G)	ABOVE GROUND, INSIDE BUILDING	PIPE: BLACK STEEL PIPE, ASTM A53, SCHEDULE 40, TYPE S JOINTS & CONNECTIONS: - FOR 2" AND SMALLER: MALLEABLE IRON SCREWED FITTINGS - FOR LARGER THAN 2": WROUGHT STEEL WELDING FITTINGS (ASTM A234)
LABORATORY GAS (LG)	ABOVE GROUND, UTILITY CHASE/INSIDE CASEWORK	CORRUGATED STAINLESS STEEL TUBING COMPLYING WITH ANSI LC 1 FUM GAS PIPING SYSTEMS USING CSST AND LISTED WITH CSA, ICC AND IAPMO. ASTM A240 TYPE 304 CORRUGATED STAINLESS STEEL TUBING WITH A MINIMUM WALL THICKNESS OF .010". JACKETING OF UV RESISTANT POLYETHYLENE MEETING THE REQUIREMENTS OF ASTM E84 FOR FLAME SPREAD AND SMOKE DENSITY. IF FITTINGS ARE SAE C4360 BRASS INCORPORATING DOUBLE WALL FLARE SEALING AND JACKET-LOCK JACKET CAPTURING FOR STEEL TUBING PROTECTION.

FIXTURE SCHEDULE

TAG	PIPE ROUGH-IN				REMARKS
	WASTE	VENT	CW	HW	
					LAB WORK STATION SINK: DURCON A25 EPOXY RESIN SINK, 18"L X 15"W X 5"D, ADA COMPLIANT, WITH CORNER DRAIN OUTLET
SK-1	2"	1-1/2"	1/2" CW 3/8" DIW		LABORATORY FAUCET (CW): ZURN Z82584-XL, POLISHED CHROME-PLATED SINGLE LABORATORY FAUCET WITH INTEGRAL SHANK, A QUARTER TURN CERAMIC DISC CARTRIDGE AND A 5-3/8" CENTERLINE GOOSENECK SPOUT. FEATURES: ANTI-ROTATION PIN, 1.0 GPM VANDAL-RESISTANT FEMALE LAMINAR FLOW OUTLET WATER SUPPLY: DAHL MINI QUARTER TURN BALL STOPS (FIP), STAINLESS STEEL BRAIDED FLEX HOSES LAB FAUCET (DIW) DECK MOUNT 3/8" FPT PVC PTFE, BALL VALVE HANDLE (CHICAGO FAUCETS# 928-317SAM) TRAP & TRAP ARM: BOROSILICATE GLASS FOR ACID WASTE APPLICATIONS, WITH COMPRESSION COUPLINGS
SK-2	2"	1-1/2"	1/2"		LAB STUDENT STATION SINK: DURCON UT5E EPOXY RESIN SINK, 18"L X 12"W X 5"D, WITH END OUTLET LABORATORY FAUCET (CW): ZURN Z82584-XL, POLISHED CHROME-PLATED SINGLE LABORATORY FAUCET WITH INTEGRAL SHANK, A QUARTER TURN CERAMIC DISC CARTRIDGE AND A 5-3/8" CENTERLINE GOOSENECK SPOUT. FEATURES: ANTI-ROTATION PIN, 1.0 GPM VANDAL-RESISTANT FEMALE LAMINAR FLOW OUTLET
DI-1	1/4"		3/8"		WATER SUPPLY: DAHL MINI QUARTER TURN BALL STOPS (FIP), STAINLESS STEEL BRAIDED FLEX HOSES TRAP & TRAP ARM: BOROSILICATE GLASS FOR ACID WASTE APPLICATIONS, WITH COMPRESSION COUPLINGS 100 GPD RO DE-IONIZATION SYSTEM (US WATER SYSTEMS # 200-RO-DI-100), UNDER SINK LAB FAUCET DECK MOUNT 3/8" FPT PVC PTFE, BALL VALVE HANDLE (CHICAGO FAUCETS# 928-317SAM) WASTE WATER SADDLE VALVE IS CONNECTED TO THE DRAIN TO REMOVE REJECT WATER FROM THE RO SYSTEM **FEED WATER ANGLE STOP VALVE IS CONNECTED TO THE COLD WATER LINE TO SUPPLY WATER TO THE RO SYSTEM.
ESHW-1			1-1/4"		UNIT: GUARDIAN MODEL GBF2350 COMBINATION EMERGENCY SHOWER AND EYE WASH FEATURES: EXPOSED SHOWER HEAD, RECESSED WALL-MOUNTED EYE WASH, ADA COMPLIANT VALVE ASSEMBLY ALARM/NOTIFICATION, ELECTRIC STROBE LIGHT AND ALARM HORN WITH SILENCING SWITCH AND REMOTE MONITORING CONNECTION
FD-1	2"	1-1/2"			FLOOR DRAIN: WATTS ORION ACID WASTE FLOOR DRAIN MATERIAL: FIRE RETARDANT POLYPROPYLENE (FRPP) WITH ANCHOR FLANGE FEATURES: STAINLESS STEEL STRAINER, TRAP PRIMER CONNECTION
TP-1			1/2"		ELECTRONIC AUTOMATIC TRAP PRIMER PPP MP-500, 120-V

EXISTING CONDITIONS

- THE INFORMATION ON THESE DRAWINGS WAS OBTAINED FROM THE BEST SOURCES AVAILABLE BUT IT IS NOT TO BE ASSUMED CORRECT IN ALL ASPECTS.
- THE CONTRACTOR SHALL VERIFY IN THE FIELD ALL EXISTING CONDITIONS, INFORM THE ARCHITECT AND DISTRICT REPRESENTATIVE OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO COMMENCING WORK. DO NOT PROCEED WITHOUT APPROVAL BY THE DISTRICT'S REPRESENTATIVE. FOR ANY CHANGES, IF REQUIRED.
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SHEET INDEX

P0.1	PLUMBING NOTES AND SYMBOLS LIST
P1.0	PLUMBING SITE PLAN
P1.1	PLUMBING DEMOLITION FLOOR PLAN
P2.1	PLUMBING FLOOR PLAN
P4.1	PLUMBING DETAILS

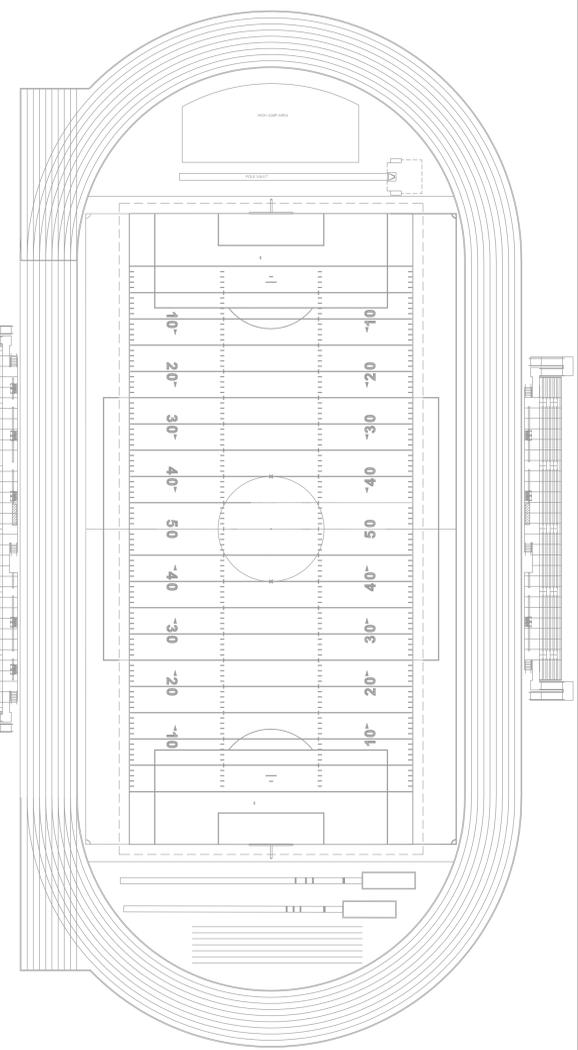
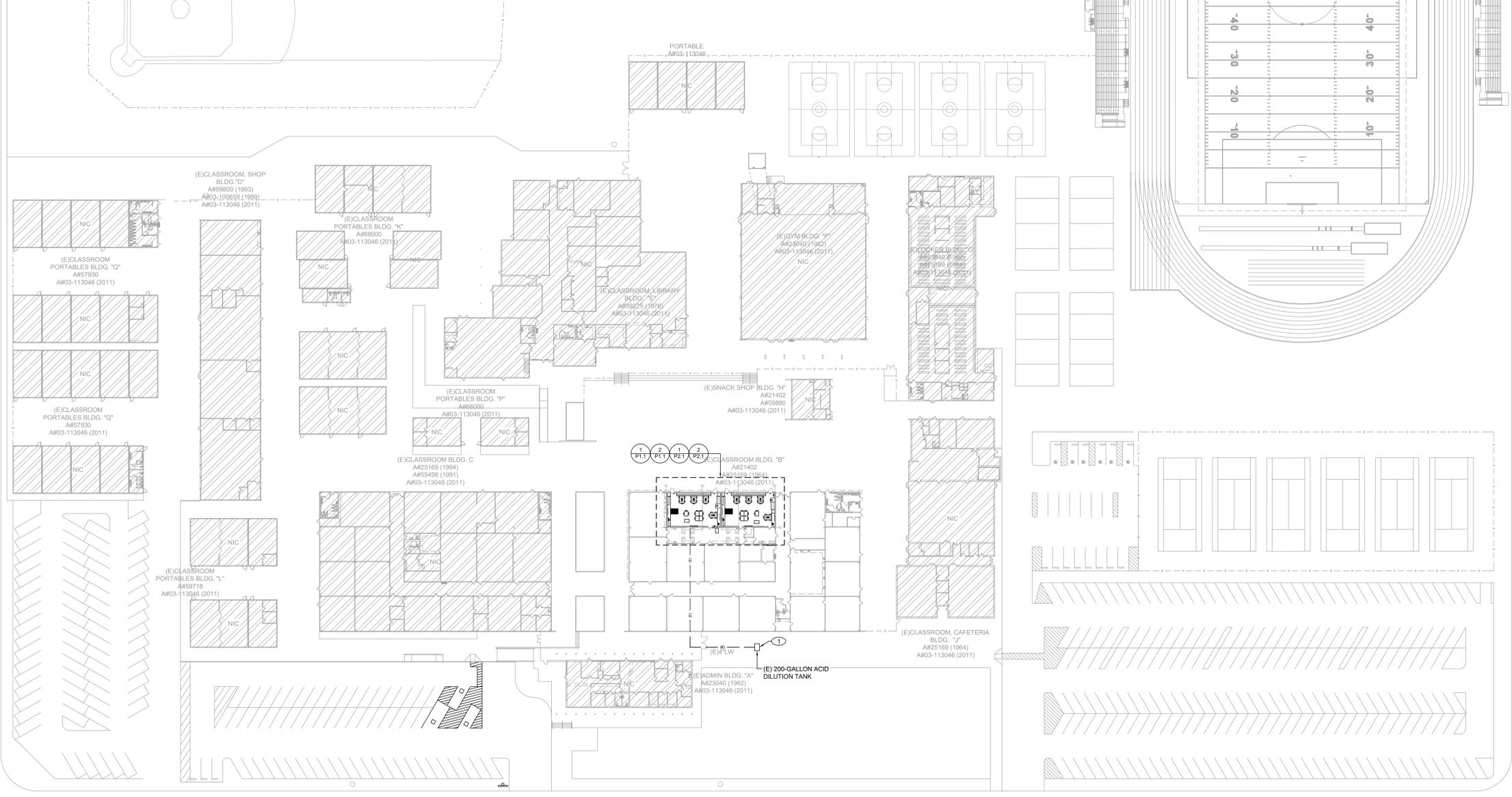
DATE: 10/07/2025
 DSA # A# 03-125098
 FILE NO. 19-H20

PLUMBING NOTES AND SYMBOLS LIST



VICINITY MAP

SCALE
N.T.S. 2



GENERAL NOTES

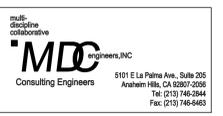
1. DEMOLISH AND REMOVE EXISTING ITEMS, MATERIALS, AND FINISHES AS NEEDED FOR THE NEW WORK.
2. THE EXISTING CONDITIONS INDICATED ON THESE DRAWINGS ARE BASED ON AVAILABLE RECORD DRAWINGS AND LIMITED FIELD VISUAL VERIFICATION. AND MAY NOT BE ENTIRELY ACCURATE OR COMPLETE. THE ARCHITECT/ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY. THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS, INCLUDING THE EXACT LOCATIONS OF EXISTING WASTE, VENT, AND COLD/HOT WATER PIPES, THE POINT OF CONNECTION (POC), PIPING LOCATIONS, INVERT ELEVATIONS, AND FIXTURE LOCATIONS, BEFORE DEMOLITION AND CONSTRUCTION BEGIN. EXISTING FIXTURES, PIPING, AND FOOTINGS SHOWN ARE FOR REFERENCE ONLY.
3. AFTER DEMOLITION OF PLUMBING PIPING INDICATED, ALL REMAINING EXISTING PLUMBING SHALL BE THOROUGHLY FLUSHED AND CLEANED PRIOR TO NEW PLUMBING PIPING INSTALLED FROM POC TO CLEANOUTS. CONFIRM WITH DISTRICT EXTENT OF CLEANING REQUIRED FOR THIS PROJECT.
4. ALL EXISTING PLUMBING FIXTURES AND ASSOCIATED WASTE, VENT, AND HOT/COLD WATER PIPING SHALL BE REMOVED AND DISPOSED OF BACK TO THE POC AT THE EXISTING WALL, AND CAPPED. ALL REQUIRED ACCESSORIES, AS SHOWN IN THE FIXTURE/PIPE MATERIAL SCHEDULE, SHALL BE PROVIDED. THE CONTRACTOR SHALL EXERCISE CAUTION DURING DEMOLITION AND NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES ENCOUNTERED.
5. PATCH AND FILL ANY OPENINGS RESULTING FROM DEMOLITION TO MATCH EXISTING/NEW CONSTRUCTION. PAINT/FINISH THE ENTIRE WALL TO MATCH THE EXISTING ADJACENT WALL FINISH. RESTORE ALL FINISHES AS REQUIRED.
6. EXERCISE EXTREME CARE DURING DEMOLITION TO PREVENT DAMAGE TO EXISTING EQUIPMENT, PIPING, CONDUITS, CASEWORK, ETC., NOT RELATED TO THIS PROJECT.
7. RECONNECT ALL EXISTING CW, WASTE, AND VENT PIPES FROM OTHER PLUMBING FIXTURES OUTSIDE OF THE CLASSROOMS TO THE NEW PIPES INSIDE THE CLASSROOMS.

REFERENCE NOTES

1. (E) 200-GALLON ACID DILUTION TANK
 1. FLUSH ALL PIPING FROM THE LAB PLUMBING P.O.C. TO THE ACID NEUTRALIZING TANK, DRAIN, AND REMOVE ALL DEBRIS.
 2. CLEAN THE TANK AND ALL SURFACES.
 3. INSTALL NEW PIPE FITTINGS AT THE TANK FOR THE INLET, VENTS, AND DRAIN.
 4. PROVIDE A NEW 4" O.D. TANK LID WITH HARDWARE TO MATCH THE EXISTING TANK LID.
 5. REPLACE ALL DIAMOND STEEL COVER PLATES WITH BOLT-DOWN HARDWARE. FIELD VERIFY AND MEASURE EXISTING COVER PLATE SIZES BEFORE FABRICATION.
 6. PROVIDE Limestone TO THE 200-GALLON ACID NEUTRALIZING TANK AT A RATE OF 13.4 LBS/GALLON.

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REV	DESCRIPTION	DATE
DWG_V1		04/26/2025
DWG_V2		07/15/25
DWG_V3		10/07/25



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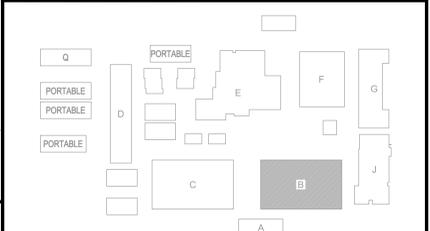
POMONA UNIFIED SCHOOL DISTRICT
800 S. GAREY AVENUE
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PLUMBING SITE PLAN

BUILDING SITE PLAN SYMBOLS LIST

- [Hatched Box] EXISTING BUILDING AS PART OF THIS DSA APPLICATION
- [NIC Box] EXISTING BUILDING NOT PART OF THIS DSA APPLICATION

KEY PLAN

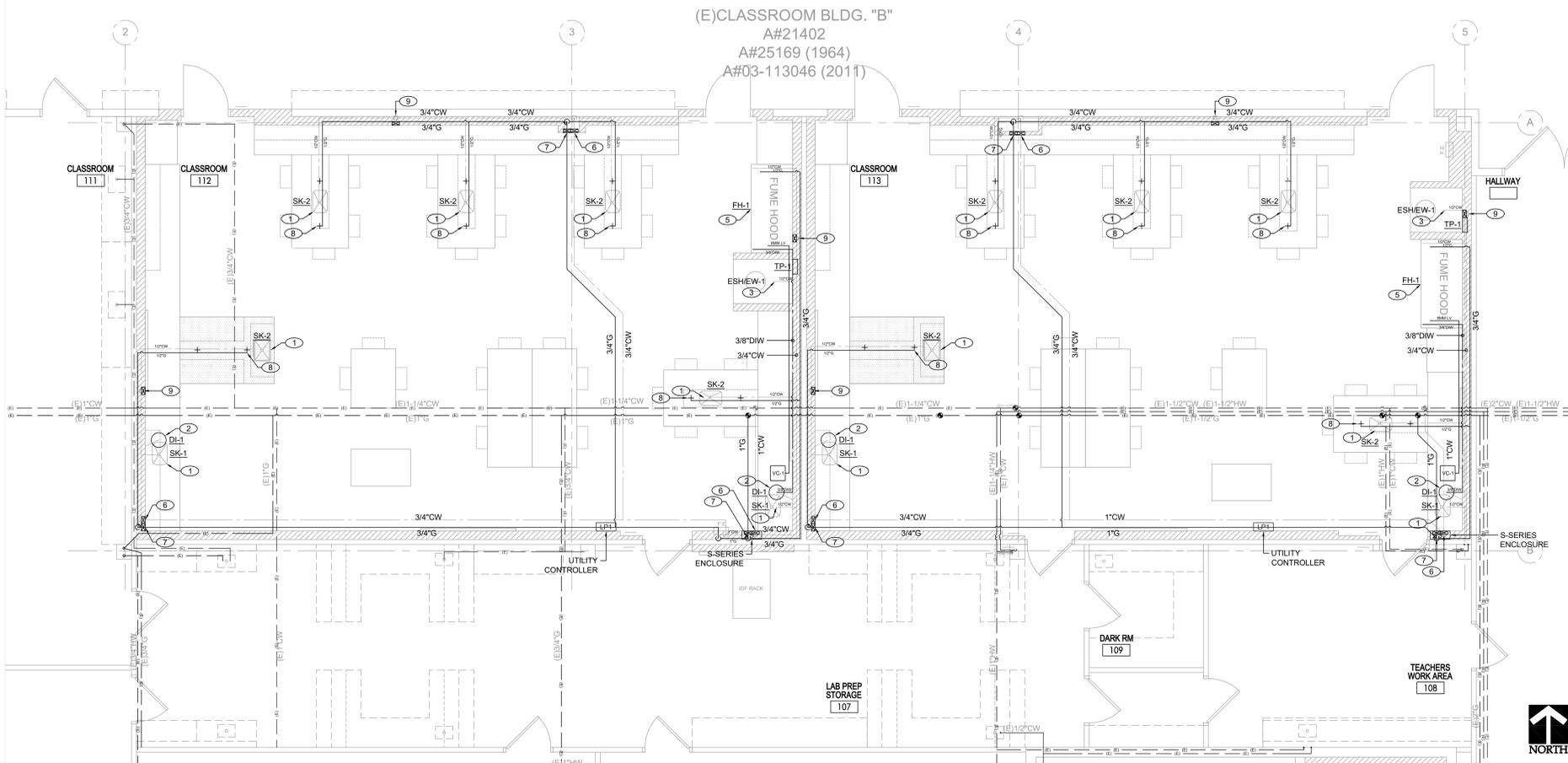


PLUMBING SITE PLAN

SCALE
1" = 40'-0" 1

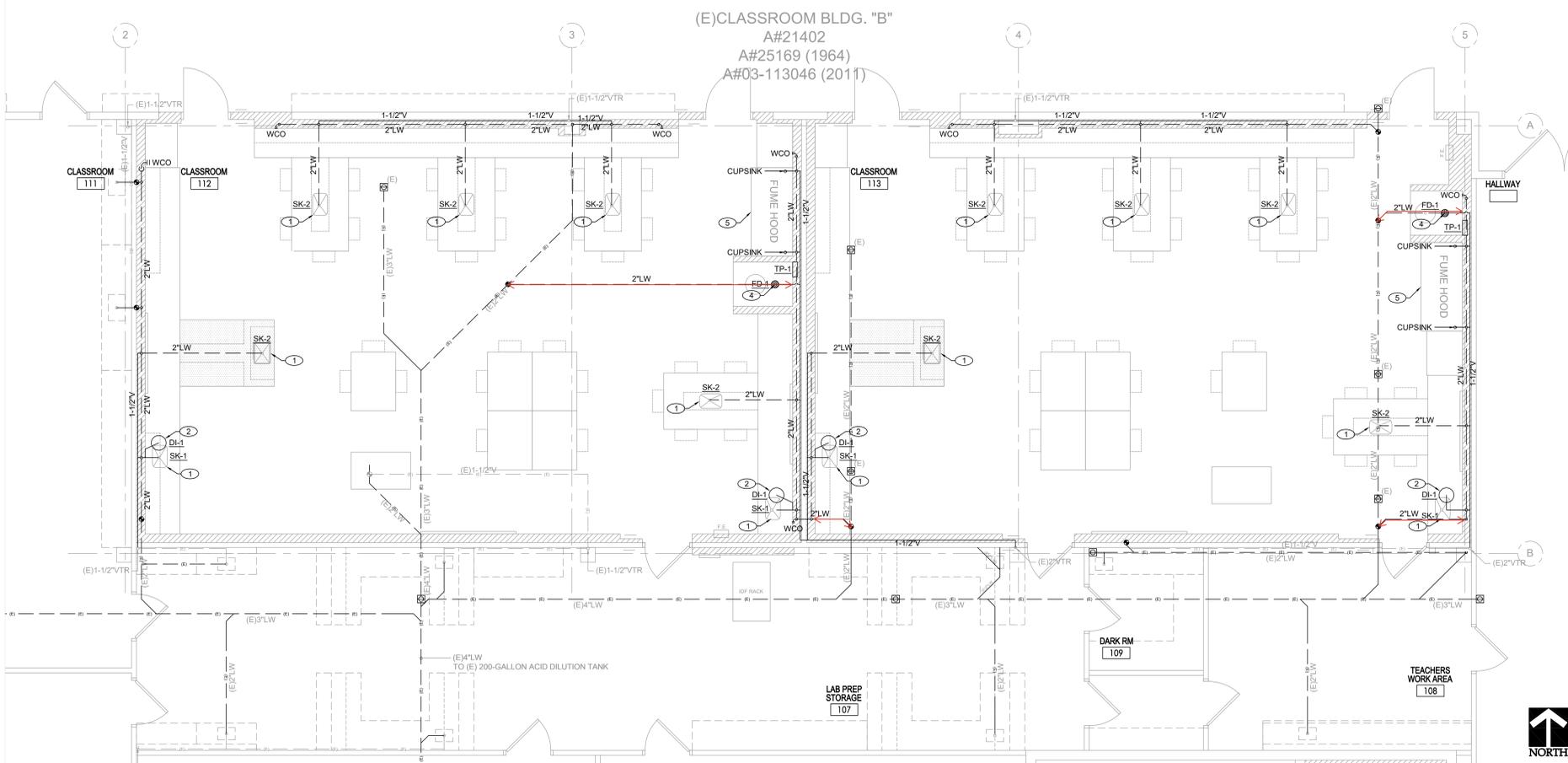
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SHEET:

P1.0



SCIENCE LAB [B112] & [B113] BUILDING "B" - PLUMBING PLAN - CW & G

SCALE
1/4" = 1'-0"
1



SCIENCE LAB [B112] & [B113] BUILDING "B" - PLUMBING PLAN - W & V

SCALE
1/4" = 1'-0"
2

REFERENCE NOTES

- 1 PROVIDE EPOXY RESIN SINK WITH FAUCET. EXTEND 1/2" CW, 2" LW AND 1-1/2" V TO SINK. PROVIDE (N) ANGLE STOPS AND SUPPLIES TO FAUCET.
- 2 PROVIDE 100 GPD RODUCATION SYSTEM (US WATER SYSTEMS # 200-RD-DI-100). UNDER SINK. COORDINATE WITH MANUFACTURE PRIOR TO INSTALLATION.
- PROVIDE LAB FAUCET DECK MOUNT 3/8" FPT PVC PTFE BALL VALVE HANDLE (MARQUEST # LG-0841)
- WASTE WATER SADDLE VALVE IS CONNECTED TO THE DRAIN TO REMOVE REJECT WATER FROM THE RIO SYSTEM.
- FEED WATER ANGLE STOP VALVE IS CONNECTED TO THE COLD WATER LINE TO SUPPLY WATER TO THE RIO SYSTEM.
- 3 PROVIDE EMERGENCY SHOWER/EYE WASH. EXTEND 1-1/4" CW PIPE TO (E) 1-1/4" CW ABOVE. PROVIDE AN EMERGENCY SHOWER MONITORING UNIT TO RECOGNIZE FLOW AT THE EMERGENCY SHOWER. UPON FLOW, CONTROLLER SHALL INTEGRATE WITH CONTROLS AND SET SYSTEM IN PANIC STATE. (SEE WIRING DIAGRAM 1/E4.3)
- 4 PROVIDE FLOOR DRAIN. EXTEND 2" LW AND 1-1/2" V TO FLOOR DRAIN. EXTEND 1/2" CW LINE TO TRAP PRIMER TP-1 AND 1/2" TRAP PRIMER LINE (COPPER TYPE K) TO FLOOR DRAIN.
- 5 PROVIDE NEW FUME HOOD. INSTALLED PER MANUFACTURE INSTALLATION REQUIREMENT. PROVIDE COUNTERTOPS, A BASE CABINET, AND CUP SINKS.
INSTALL VALVES/ROBOS FOR DI WATER, VACUUM, COLD WATER, AND GAS ON BOTH SIDES OF THE FUME HOOD.
PROVIDE HOSE GOOSENECK/GOOSENECK GAS TURRET CONNECTIONS FOR DI WATER, VACUUM, COLD WATER, AND GAS INSIDE BOTH SIDES OF THE FUME HOOD. THE DI WATER GOOSENECK SHALL BE ON ONE SIDE, AND THE COLD WATER GOOSENECK ON THE OTHER.
PROVIDE LINE SIZE SOV (NIBCO T-585-66-F LEAD FREE BALL VALVE) ON CW VERTICAL RISER AT 48" AFF WITH WALL ACCESS PANEL (COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATION). PROVIDE UNION DOWNSTREAM OF BALL. BALL VALVE AND UNION SHALL BE DIRECTLY IN FRONT OF ACCESS OPENING.
PROVIDE AN S-SERIES ENCLOSURE WITH INTEGRAL IN-LINE STRAINER FOR COLD WATER SERVICE ASSEMBLY. ENCLOSURE SHALL BE INTEGRATED WITH UTILITY CONTROLLER AS SHOWN ON DRAWINGS. PROVIDE SHOCK ARRESTOR IN FLOW STREAM AT EACH DOMESTIC WATER SERVICE ASSEMBLY. (SEE WIRING DIAGRAM 1/E4.3)
- 6 PROVIDE NEW SOLENOID GAS VALVE ON G VERTICAL RISER AT 48" AFF WITH WALL ACCESS PANEL (COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATION). GAS VALVE SHALL BE DIRECTLY IN FRONT OF ACCESS OPENING.
PROVIDE AN S-SERIES ENCLOSURE WITH INTEGRAL IN-LINE STRAINER FOR GAS SERVICE ASSEMBLY. ENCLOSURE SHALL BE INTEGRATED WITH UTILITY CONTROLLER AS SHOWN ON DRAWINGS. (SEE WIRING DIAGRAM 1/E4.3)
- 7 RUN LABORATORY GAS (L.G.) CORRUGATED STAINLESS STEEL TUBING WITHIN THE CASEWORK, EXTENDING IT THROUGH A COUNTERTOP OPENING TO CONNECT TO GAS TURRETS. PROVIDE A 1/2" GAS LINE TO A DECK-MOUNTED LABORATORY TURRET WITH TWO VALVES AT 18" (CHICAGO #81-VR90CAGSAM OR EQUAL) ON THE COUNTERTOP.
- 8 PROVIDE WATER HAMMER ARRESTER AND SOV WITH WALL ACCESS PANEL.

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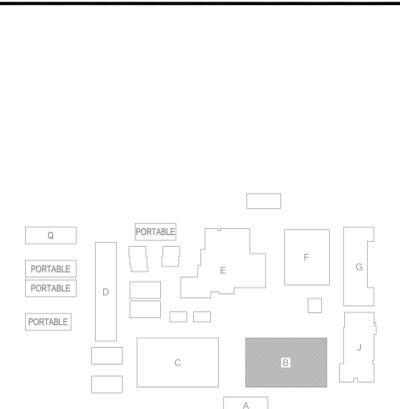
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KEY PLAN



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