

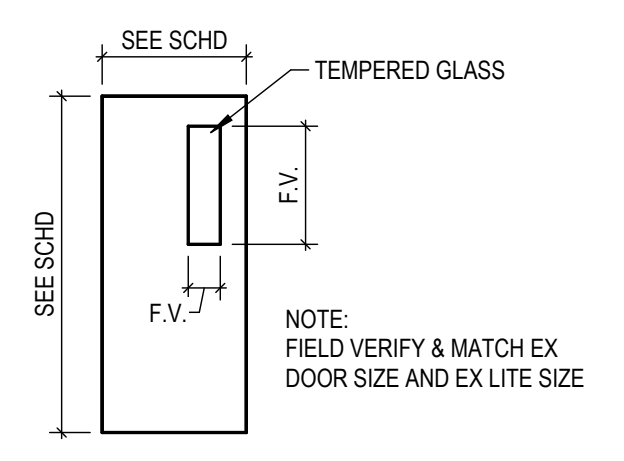
ROOM NO.	ROOM NAME	FLOOR			CEILING		WALLS				COMMENTS
		FINISH	BASE	MATERIAL	FINISH	NORTH	EAST	SOUTH	WEST		
B100	OPEN OFFICE AREA	EX/CPT	EX/VB	EX SAT	EX	P	P	P	P	1, 2, 3, 4, 5, 6	
B101	OFFICE	EX/CPT	VB	SAT-1	PF	P	P	P	P	1, 5, 6	
B102	OFFICE	EX/CPT	VB	SAT-1	PF	P	P	P	P	1, 5, 6	

- COMMENTS**
- PROTECT ALL CARPETING AS REQUIRED DURING CONSTRUCTION.
 - MODIFY EX CEILING GRID SYSTEM AS REQUIRED AT NEW WALLS.
 - PATCH & REPAIR ALL EXISTING DRYWALL WALLS PRIOR TO PAINTING. DO NOT PAINT EX BRICK.
 - PROVIDE NEW VINYL BASE AT ALL NEW WALLS. CUT BACK EXISTING AS REQUIRED.
 - CUT EXISTING CARPET AS REQUIRED FOR NEW WALL INSTALLATION.
 - ALL VINYL BASE TO BE SUPPLIED BY OWNER & INSTALLED BY CONTRACTOR.

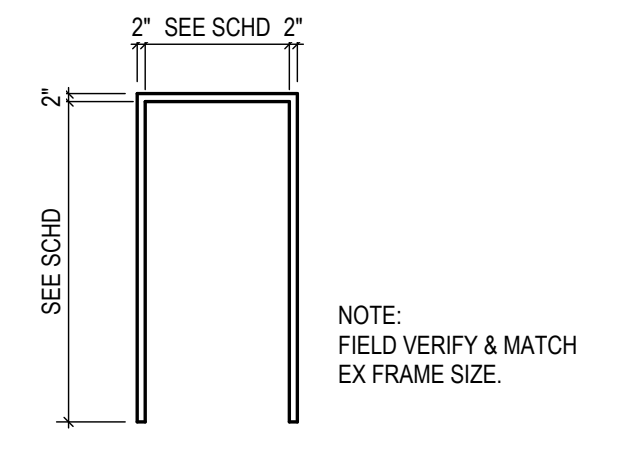
DOOR NO.	DOOR				FRAME				HDWR	RATING	COMMENTS	
	W	HT	THK	TYPE	MTL	FIN	TYPE	MTL				FIN
B101	3'-0"	7'-0"	1 3/4"	NL	PLAM	PF	HM1	HM	P	1	-	1, 2, 3, 4
B102	3'-0"	7'-0"	1 3/4"	NL	PLAM	PF	HM1	HM	P	1	-	1, 2, 3, 4

- COMMENTS**
- FIELD VERIFY & MATCH EX DOOR & FRAME SIZES.
 - FIELD VERIFY & MATCH EX NARROW LITE SIZE.
 - TEMPERED GLAZING.
 - MATCH EX DOOR HARDWARE, COORDINATE KEYING REQUIREMENTS WITH OWNER.

- HARDWARE SET NO. 1**
- 3 EA HINGE 5B81HW 5 X4.5 652 IVE
 - 1 EA OFFICE LOCK 9K37AB 15D 53 626 BES
 - 1 EA WALL STOP WS447 626 IVE



NL
DOOR TYPES



HM1
FRAME TYPES

MATERIAL ABBREVIATIONS

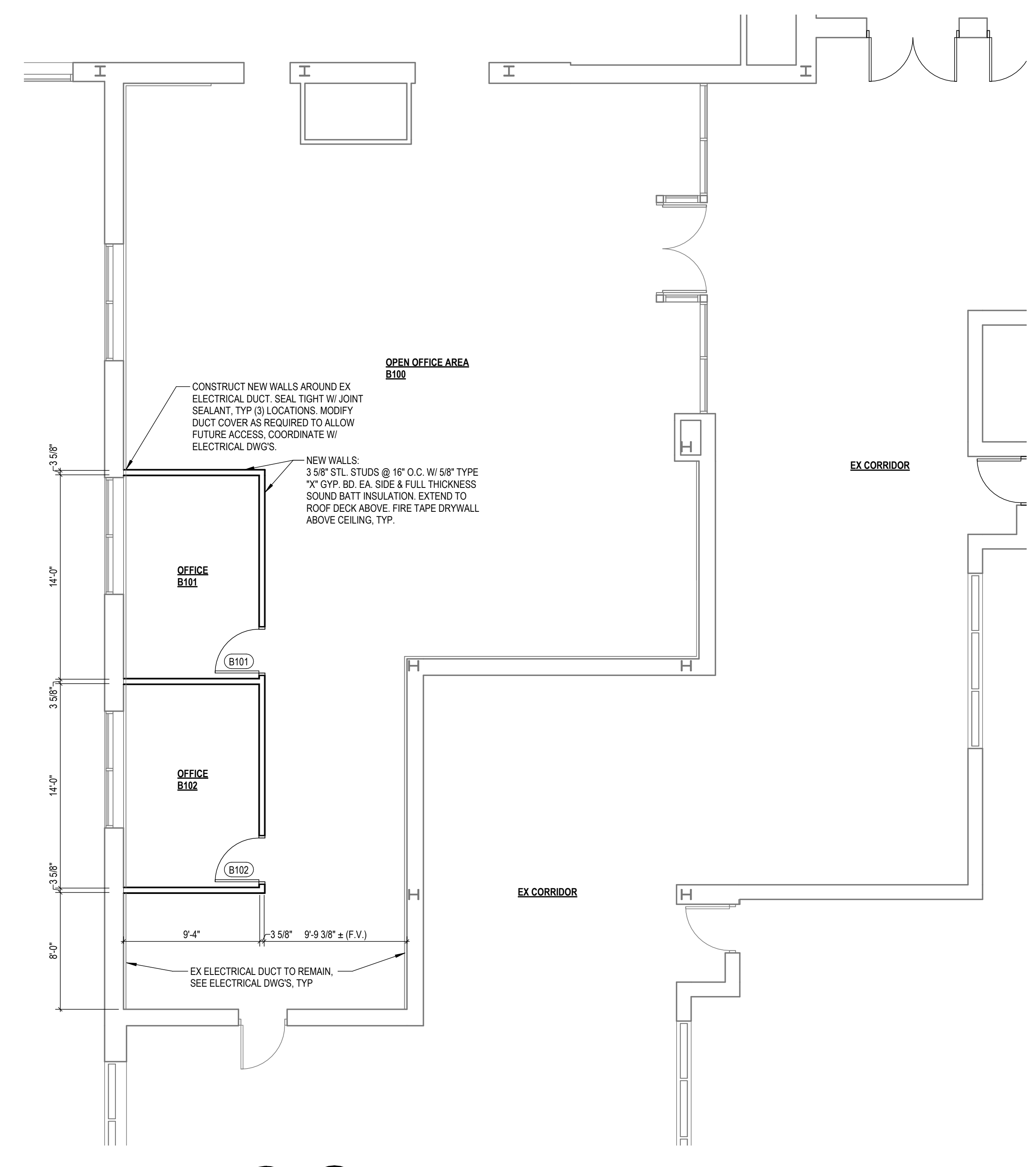
- | | |
|---------|------------------------------|
| ACT | ACOUSTICAL CEILING TILE |
| ALUM | ALUMINUM |
| ANDD | ANODIZED |
| C.M.U. | CONCRETE MASONRY UNIT |
| CONC | CONCRETE |
| CPT | CARPET |
| C.T. | CERAMIC TILE |
| E.T.R. | EXISTING TO REMAIN |
| EX | EXISTING |
| EXP | EXPOSED STRUCTURE |
| FP | STANDARD FACTORY PANEL |
| F.R.P. | FIBERGLASS REINFORCED PANEL |
| GYP | GYP SUM BOARD |
| H.M. | HOLLOW METAL |
| H.S. | HIGH SPEED ROLLING |
| I.S. | INSULATED STEEL DOOR |
| LVT | LUXURY VINYL TILE |
| M.S. | MANUFACTURER'S STANDARD SPEC |
| O.H. | OVERHEAD |
| P | PAINT(ED) |
| PRE-FIN | PRE-FINISHED |
| Q.T. | QUARRY TILE |
| R.B. | RUBBER BASE |
| SC | SEALED CONCRETE |
| STL | STEEL |
| S.A.T. | SUSPENDED ACOUSTICAL TILE |
| S.GYP | SUSPENDED GYP SUM BOARD |
| V | VARIES |
| V.B. | VINYL BASE |
| VCT | VINYL COMPOSITION TILE |
| WD | WOOD |

MATERIAL DESCRIPTIONS

- P (PAINT)**
- SEE ARCHITECTURAL SPECIFICATIONS ON SHEET A0.0
- ACT (ACOUSTICAL CEILING TILE)**
- MATCH EXISTING
 - SEE ARCHITECTURAL SPECIFICATIONS ON SHEET A0.0 FOR NEW CEILINGS.
- V.B. (VINYL BASE)**
- SUPPLIED BY OWNER & INSTALLED BY CONTRACTOR
 - COMMERCIAL GRADE (4")
 - MANUFACTURER - VPI
 - COLOR - #40 SANDSTONE
 - STRAIGHT BASE AT CARPET
 - COVE BASE AT RESILIENT TILE OR SHEET FLOORING AREAS.

DOOR HARDWARE

- OWNER'S STANDARDS - NO SUBSTITUTIONS:**
- EXIT DEVICES**
- VON DUPRIN 98/35A
- LOCKSETS & LATCHSETS**
- CYLINDRICAL TYPE BY BEST W/ 2 3/4" BACKSET.
 - BEST 90K
 - TRIM BEST 15K
- DOOR LOCKSET CYLINDERS**
- MASTER AND GRANDMASTER CYLINDER CORES KEYPED TO EXISTING BEST SYSTEM.
 - PROVIDE CYLINDERS TO OWNER FOR KEYING.
 - CYLINDERS TO BE INSTALLED BY CONTRACTOR AFTER KEYING BY OWNER.
- AUTO DOOR CLOSURES**
- LCN 4110 SERIES, SURFACE MOUNTED
- MISCELLANEOUS HARDWARE:**
- BUTTS**
- STANLEY, LAWRENCE, MCKINNEY, HAGER
- DOOR HINGES**
- RIXSON "ROTON" BY HAGER, PEMKO, IVES
- DOOR / WALL STOPS**
- CORBIN, CHECKMATE, GLYNN JOHNSON, IVES
- PUSH PLATES & PULLS**
- CIPCO, BBW, ROCKWOOD
- KICK PLATES**
- CIPCO, BBW, ROCKWOOD (1/8" ALUM DIAMOND PLATE - 12" TALL)
- THRESHOLDS**
- PAMKO/ RIXSON, NGP, DORBIN, HAGER
- MAGNETIC DOOR HOLDERS**
- YALE, NORTON
- COORDINATORS**
- IVES



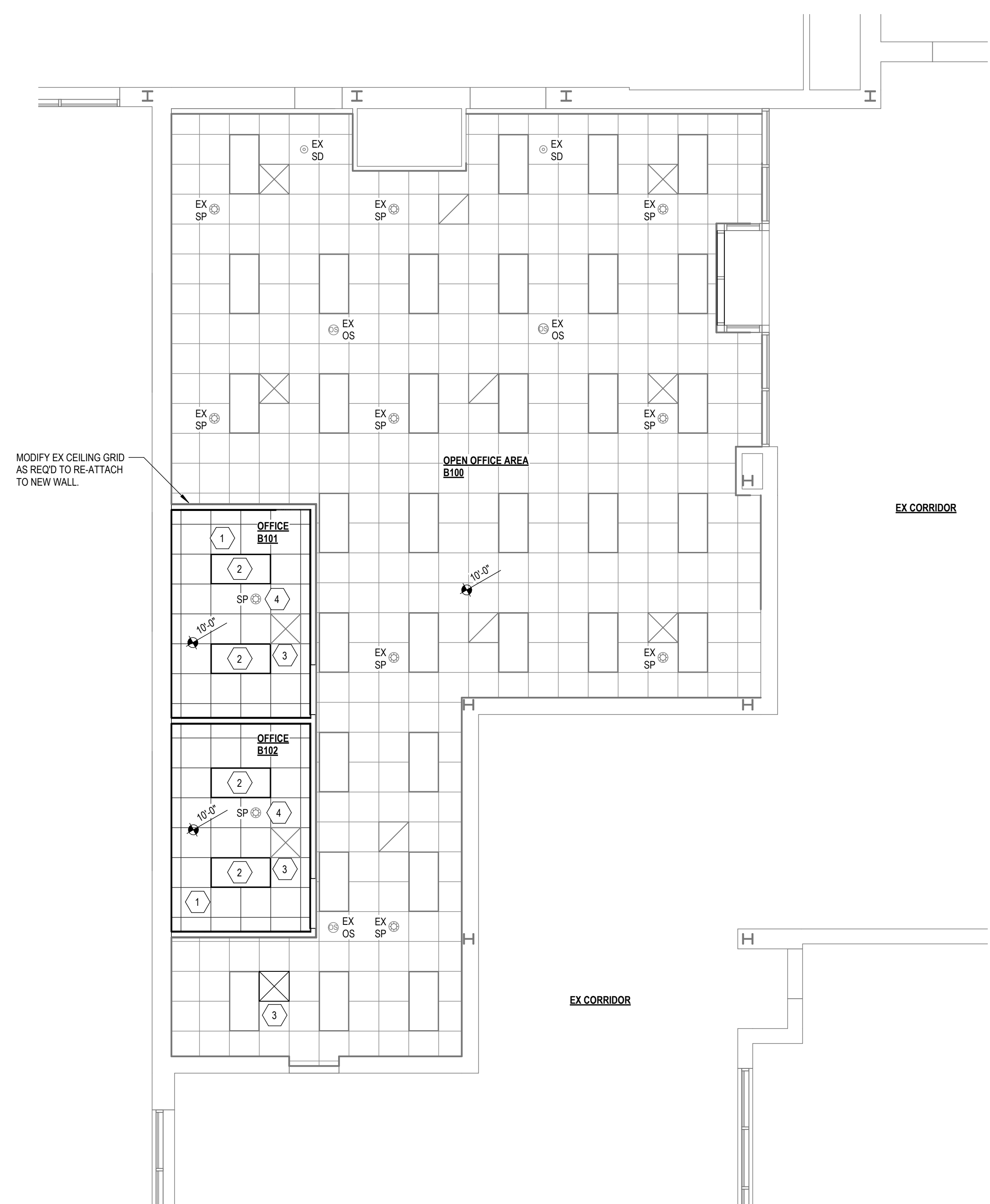
PARTIAL B-WING FLOOR PLAN
SCALE: 3/16" = 1'-0"
1
A2.1

CONSTRUCTION KEY NOTES	
SYMBOL	DESCRIPTION
	1. NEW CEILING GRID SYSTEM WITH NEW TILES. MATCH EXISTING CEILING HEIGHT.
	2. NEW LIGHT FIXTURES. SEE ELECTRICAL DRAWINGS.
	3. RELOCATED OR NEW HVAC SUPPLY AIR AND RETURN AIR DIFFUSERS. SEE MECHANICAL DRAWINGS.
	4. RELOCATED SPRINKLER HEAD. PROVIDE NEW IF REQUIRED. A CERTIFIED FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATION AND NEW SPRINKLER HEADS. THEY SHALL ALSO SUBMIT ANY AND ALL DOCUMENTATION REQUIRED TO THE PROPER AUTHORITY FOR APPROVAL & PERMITS.

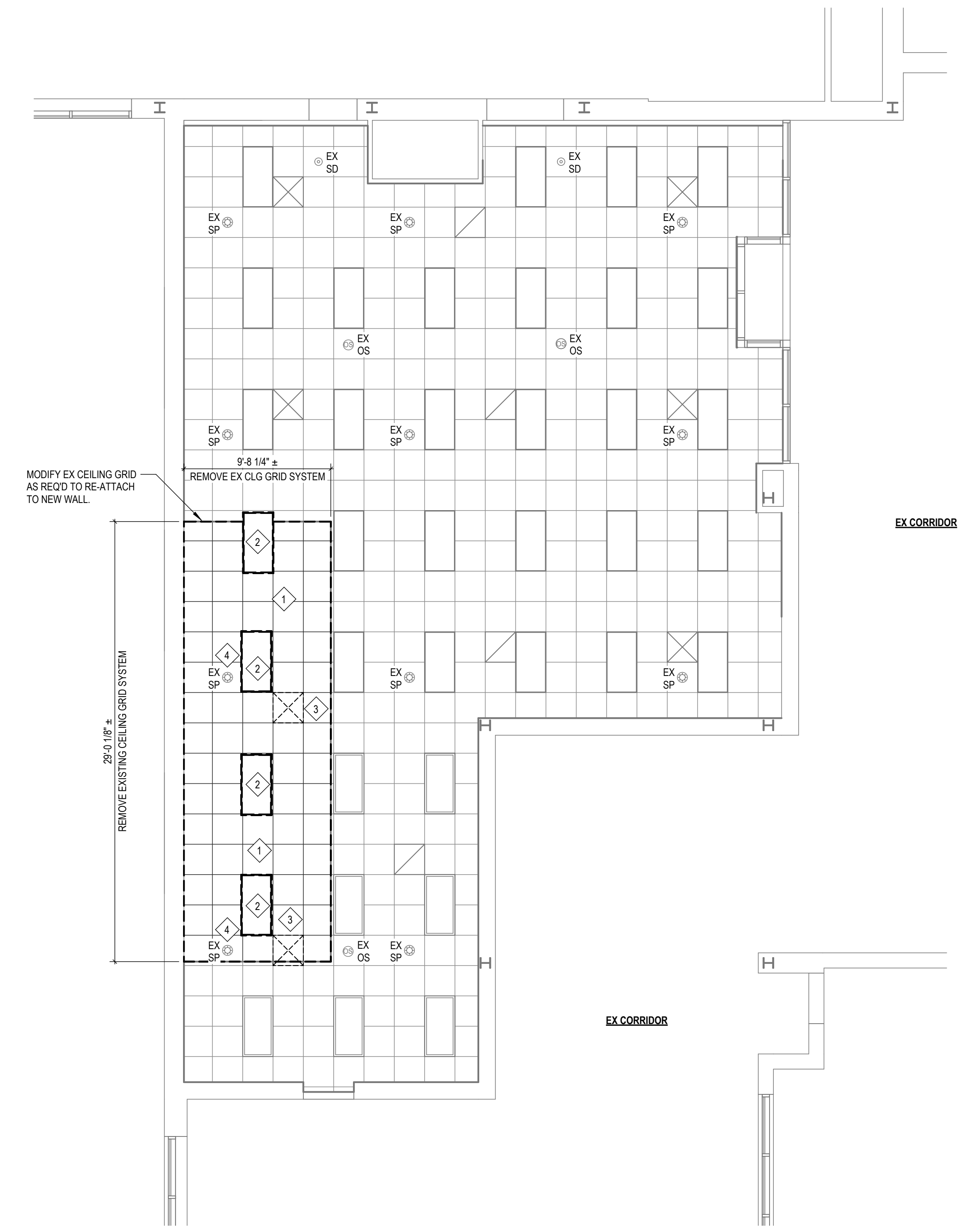
SYMBOL LEGEND	
SYMBOL	DESCRIPTION
	SUSPENDED ACOUSTICAL CEILING GRID SYSTEM
	GYPSUM DRYWALL CEILING OR BULKHEAD (PAINT)
	CEILING HEIGHT - ABOVE FINISH FLOOR
	LIGHT FIXTURES
	RECESSED LIGHT FIXTURE
	EXISTING RECESSED LIGHT FIXTURE
	EXISTING HVAC SUPPLY AIR DIFFUSER
	EXISTING HVAC RETURN AIR DIFFUSER
	EXISTING SPRINKLER HEAD
	EXISTING SMOKE DETECTOR
	EXISTING OCCUPANCY SENSOR
	OCCUPANCY SENSOR

NOTE:
SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION

DEMOLITION KEY NOTES	
SYMBOL	DESCRIPTION
	1. REMOVE EXISTING CEILING GRID SYSTEM AS REQUIRED FOR NEW WALL CONSTRUCTION. PATCH & REPAIR EX WALLS AS REQUIRED PRIOR TO INSTALLING NEW CEILING GRID SYSTEM. NEW CEILING HEIGHT TO MATCH EXISTING CEILING HEIGHT.
	2. REMOVE EXISTING LIGHTING AS REQUIRED FOR NEW WALL CONSTRUCTION. SEE ELECTRICAL DRAWINGS.
	3. REMOVE / RELOCATE EXISTING SUPPLY AIR & RETURN AIR DIFFUSERS AS REQUIRED FOR NEW WALL CONSTRUCTION. SEE MECHANICAL DRAWINGS.
	4. RELOCATE EXISTING SPRINKLER HEADS AS REQUIRED FOR PROPER COVERAGE. ADD ADDITIONAL HEADS IF NECESSARY. A CERTIFIED FIRE SUPPRESSION CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATION AND NEW SPRINKLER HEADS. THEY SHALL ALSO SUBMIT ANY AND ALL DOCUMENTATION REQUIRED TO THE PROPER AUTHORITY FOR APPROVAL & PERMITS.



PARTIAL B-WING REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"



PARTIAL B-WING REFLECTED CEILING DEMO PLAN
SCALE: 3/16" = 1'-0"

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MECHANICAL ABBREVIATIONS

ACS	AUTOMATIC CONTROL SYSTEM	HHWR	HEATING HOT WATER RETURN
A.F.F.	ABOVE FINISHED FLOOR	HHWS	HEATING HOT WATER SUPPLY
AFMS	AIR FLOW MEASURING STATION	HP	HIGH PRESSURE
AG	AIR GAP FITTING	HP	HORSE POWER
AHU	AIR HANDLING UNIT	HTG	HEATING
ALT	ALTERNATE	HTR	HEATER
AP	ACCESS PANEL(S)	HVAC	HEATING, VENTILATION AND AIR CONDITIONING
APD	AIR PRESSURE DROP	ID	INSIDE DIAMETER/ DIMENSION
ARCH	ARCHITECTURAL	IN	INCHES
ATU	AIR TERMINAL UNIT	INSUL	INSULATION
BFP	BACKFLOW PREVENTER	LBS	POUNDS
BHP	BRAKE HORSE POWER	LBS/HR	POUNDS PER HOUR
BLDG	BUILDING	LF	LINEAL FOOT, FEET
BSMT	BASEMENT	LVR	LOUVER
BTUH	BRITISH THERMAL UNIT PER HOUR	LWT	LEAVING WATER TEMPERATURE
BWV	BACK WATER VALVE	MAX	MAXIMUM
CFH	CUBIC FOOT PER HOUR	MBH	1000 BTUH
CFM	CUBIC FOOT PER MINUTE	MC	MECHANICAL CONTRACTOR
CIP	CAST IRON PIPE	MCA	MINIMUM CIRCUIT AMPACITY
CLG	CEILING	MECH	MECHANICAL
CONC	CONCRETE	MEZZ	MEZZANINE
COND	CONDENSATE (ER)	MFR	MANUFACTURER
CONN	CONNECTIONS	MIN	MINIMUM
CONT	CONTINUE (E) (OUS) (ATION)	MIN	MINUTE
CONTR	CONTRACTOR	MISC	MISCELLANEOUS
COOR	CORRIDOR	MTD	MOUNTED
DA	DIALYSIS ACID	N.I.C.	NOT IN CONTRACT
DDC	DIRECT DIGITAL CONTROL (PANEL)	NO.	NUMBER
DEG	DEGREE(S)	N.T.S.	NOT TO SCALE
DET	DETAIL	OA	OUTSIDE AIR
DI	DIMENSIONED WATER	OD	OUTSIDE DIAMETER/ DIMENSION
DIFF	DIFFUSER	PC	PLUMBING CONTRACTOR
DMPR	DAMPER	PD	PRESSURE DROP
DN	DOWN	PLBG	PLUMBING
DW	DIALYSIS WATER	PRES	PRESSURE
DWG(S)	DRAWING(S)	PSI	POUNDS PER SQUARE INCH
EA	EXHAUST	PVC	POLYVINYL CHLORIDE
EA	EXHAUST AIR	R	RADIUS
EC	ELECTRICAL CONTRACTOR	RA	RETURN AIR
ELEC	ELECTRICAL	REG	REGISTER
EMER	EMERGENCY	REQD	REQUIRED
EX	EXISTING	RH	RELATIVE HUMIDITY
EXH	EXHAUST	RM	ROOM
E.J.	EXPANSION JOINT	RO	REVERSE OSMOSIS
EXT	EXTERNAL	RPM	REVOLUTIONS PER MINUTE
F	FAHRENHEIT	RPZ	REDUCED PRESSURE BACKFLOW PREVENTER
FDV	FIRE DEPARTMENT VALVE	RTU	ROOFTOP UNIT
FD	FUNNEL FLOOR DRAIN	SA	SUPPLY AIR
F.F.	FINISH FLOOR	SHT	SHEET
FLR	FLOOR	SP	STATIC PRESSURE
FLEX	FLEXIBLE	SPEC(S)	SPECIFICATION(S)
FBM	FEET PER MINUTE	SQ	SQUARE
F&T	FLOAT AND THERMOSTATIC (TRAP)	S.S.	STAINLESS STEEL
FT	FOOT, FEET	STR	STRUCTURE (AL)
FTG	FOOTING	T	THERMOSTAT
FTR	FINNED TUBE RADIATION	TEMP	TEMPERATURE
G	GAS	TYP	TYPICAL
GA	GAUGE	VAV	VARIABLE AIR VOLUME
GAL	GALLON	VENT	VENTILATION OR VENTILATOR
GALV	GALVANIZED	VERT	VERTICAL
GC	GENERAL CONTRACTOR	VOL	VOLUME
GEN	GENERATOR	VFD	VARIABLE FREQUENCY DRIVE (MOTOR CONTROLLER)
GENL	GENERAL	V.I.F.	VERIFY IN FIELD
GPH	GALLON(S) PER HOUR	W	WITH
GPM	GALLON(S) PER MINUTE	W/O	WITHOUT
GRL	GRILLE		

SEE MECHANICAL SYMBOLS, LEGENDS AND EQUIPMENT SCHEDULES FOR ADDITIONAL ABBREVIATIONS. ALL ABBREVIATIONS, SYMBOLS, AND LEGENDS SHOWN ON THIS DRAWING ARE NOT NECESSARILY USED.

MECHANICAL GENERAL NOTES

- ALL MECHANICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH HVAC DESIGN MANUAL, LOCAL ORDINANCES, AND LAWS AND SHALL BE OF SIMILAR QUALITY, MATERIAL, AND INSTALLATION METHODOLOGY AS SIMILAR WORK IN EXISTING FACILITY. FOR PURPOSES OF THIS DESIGN, THE CODES FOR THE STATE OF MICHIGAN WERE USED AS THE BASIS.
- ALL INSULATION SHALL BE PRESUMED ASBESTOS CONTAINING MATERIAL (PACM) UNLESS OTHERWISE INDICATED OR LABELED. THE CONTRACTOR SHALL ABATE ALL ASBESTOS BY APPROVED METHODS. CONSULT WITH THE OWNER'S REPRESENTATIVE REGARDING LOCATION AND EXTEND OF PACM PRIOR TO THE WORK.
- HAZARDOUS MATERIALS ARE PRESENT IN CONSTRUCTION TO BE SELECTIVELY DEMOLISHED. A REPORT ON THE PRESENCE OF HAZARDOUS MATERIALS IS ON FILE FOR REVIEW AND USE. EXAMINE REPORT TO BECOME AWARE OF LOCATIONS WHERE HAZARDOUS MATERIALS ARE PRESENT.
 - HAZARDOUS MATERIAL REMEDIATION IS SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
 - DO NOT DISTURB HAZARDOUS MATERIALS OR ITEMS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS EXCEPT UNDER PROCEDURES SPECIFIED ELSEWHERE IN THE CONTRACT DOCUMENTS.
 - IF THE CONTRACTOR OR ANY SUBCONTRACTORS SUSPECT UNANTICIPATED HAZARDOUS MATERIALS ARE PRESENT, THE CONTRACTOR IS TO STOP ALL WORK AFFECTING SAID MATERIALS AND NOTIFY THE ENGINEER.
- CEILING CONTRACTOR SHALL FURNISH AND INSTALL HINGED STEEL ACCESS PANELS FOR ALL ABOVE CEILING DAMPERS, VAV BOXES, FILTERS, BALANCING VALVES, AND ISOLATION VALVES IN GYPSUM CEILINGS. PANELS SHALL BE KEYPED FOR ACCESS BY MAINTENANCE STAFF ONLY, AND FINISHED WITH WHITE BAKED-ON ENAMEL. MECHANICAL CONTRACTOR SHALL CONSOLIDATE ABOVE CEILING ACCESS REQUIREMENTS TO LIMIT PANELS TO NO MORE THAN 25'. MECHANICAL CONTRACTOR SHALL PROVIDE ALL NECESSARY ACCESS PANELS AS A RESULT FROM PLAN DEVIATIONAL ALTERATION. COORDINATE QUANTITY AND LOCATION OF ADDITIONAL ACCESS PANELS WITH CEILING CONTRACTOR.
- A 'TAB' IS REQUIRED FOR THE WORK. EQUIPMENT SHOP DRAWINGS WILL NOT BE REVIEWED PRIOR TO RECEIPT OF THE EXISTING SYSTEM 'TAB'.
- MECHANICAL CONTRACTOR SHALL MEASURE SYSTEM FLOWS BEFORE SYSTEM ALTERATIONS AND ADJUST SYSTEM TO ACHIEVE PRE-CONSTRUCTION VALUES. VALUES BEFORE AND AFTER THE WORK SHALL BE RECORDED AND SUPPLIED TO THE OWNER'S REPRESENTATIVE.
- IF COMPLIANCE WITH TWO OR MORE DIFFERING STANDARDS, REQUIREMENTS, DRAWINGS OR SPECIFICATIONS, OR ANY COMBINATION THEREOF, IS SPECIFIED AND THESE ESTABLISH DIFFERENT OR CONFLICTING REQUIREMENTS FOR MINIMUM QUANTITIES OR QUALITY LEVELS, COMPLY WITH THE MOST STRINGENT REQUIREMENT. THE MOST STRINGENT REQUIREMENT WILL BE THE BETTER QUALITY OR GREATER QUANTITY OF WORK, AND WILL TYPICALLY BE THE MORE EXPENSIVE OPTION. REFER UNCERTAINTIES AND REQUIREMENTS THAT ARE DIFFERENT, BUT APPARENTLY EQUAL, TO ENGINEER FOR A DECISION BEFORE PROCEEDING.
- DESIGN DOCUMENTS MUST BE REPRODUCED IN THEIR ENTIRETY, INCLUDING ALL PLANS, SPECIFICATIONS, AND FRONT END DOCUMENTS.
- FAILURE TO REVIEW AND COMPLY WITH A FULL SET OF CONTRACT DOCUMENTS WILL NOT BE ACCEPTED AS A VALID REASON FOR FAILURE TO MEET THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS.
- ALL ABOVE CEILING SYSTEMS AND COMPONENTS (INCLUDING BUT NOT LIMITED TO MECHANICAL, ELECTRICAL, PLUMBING, FIRE PROTECTION, ETC.) SHALL BE COORDINATED SUCH THAT THE SYSTEMS ARE PROPERLY INTEGRATED IN THE SPACE PROVIDED ABOVE CEILING AT THE CEILING HEIGHTS NOTED. IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO COORDINATE PATHWAYS WITHIN THE SPACE PROVIDED. CEILING HEIGHTS WILL NOT BE MODIFIED.
- COORDINATE LOCATIONS OF ALL DEVICES WITH ARCHITECTURAL AND ELECTRICAL PRIOR TO ROUGH-IN. ALL CONFLICTS WITH FINISHES, ADJACENT CONSTRUCTION, AND CONSTRUCTION DOCUMENTS ARE TO GENERATE AN RFI FROM THE MECHANICAL CONTRACTOR TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING AND COMPLETION OF WORK.
- CONTRACTOR SHALL FURNISH AND INSTALL BEVELED OR TAPERED TAKEOFFS AT ALL CONNECTIONS OF DUCT RUNOUTS TO TRUNKS. ALL FITTINGS SHALL BE IN ACCORDANCE WITH SMACNA.
- CONTRACTOR SHALL FURNISH AND INSTALL MANUAL BALANCING DAMPERS AT ALL SUPPLY, RETURN, AND EXHAUST TRUNK BRANCHES AND RUNOUTS.
- CONTRACTOR SHALL FURNISH AND INSTALL TEMPERATURE SENSORS FOR EQUIPMENT AWAY FROM HEAT PRODUCING EQUIPMENT U.N.O.
- MECHANICAL CONTRACTOR SHALL COORDINATE EQUIPMENT INSTALLATION WITH ROOFING CONTRACTOR OR ROOFING MANUFACTURER TO AVOID DAMAGE TO ROOFING SYSTEM.
- MECHANICAL CONTRACTOR SHALL PROVIDE WATER PROOF SHEET METAL CAP, INSULATED (EQUIVALENT TO ROOF) FOR ALL DEMOLISHED ROOF PENETRATIONS.
- ALL MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH COMBINATION MOTOR STARTERS COMPATIBLE WITH CONTROLS SYSTEM. COORDINATE WITH CONTROLS AND ELECTRICAL CONTRACTORS.
- UNLESS OTHERWISE INDICATED, ROOF OPENINGS MADE IN EXISTING ROOF STRUCTURE SHALL BE SUPPORTED ON ALL EDGES BY L4X4X1/4 FOR SPANS OF 5'-0" OR LESS, AND BY C8X11.5 FOR SPANS BETWEEN 5'-0" AND 10'-0". SPANS EXCEEDING 10'-0" SHALL REQUIRE SECTIONS APPROVED BY THE ENGINEER. CONNECTIONS SHALL BE WELDED IN ACCORDANCE WITH AWS D1.1 AND AISC, OR MINIMUM 2-BOLT CONNECTIONS ACCORDING TO AISC.
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- PROVIDE VIBRATION ISOLATION FOR ALL MECHANICAL EQUIPMENT TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
- ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH THE STRAIGHT SECTION OF PIPE AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER FOR GOOD ACCURACY.
- WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF EQUIPMENT ARE REQUIRED, THE PRODUCT OF ONE MANUFACTURER SHALL BE USED.
- COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURERS' CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL PIPING DIMENSIONS BEFORE FABRICATION.
- ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE AND DIVISION 26 OF THE SPECIFICATION.
- CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE SIZE AND LOCATION OF CONCRETE HOUSEKEEPING PADS WITH THE GENERAL CONTRACTOR.
- WHEN MECHANICAL WORK (HVAC, PLUMBING, SHEET METAL, FIRE PROTECTION, ETC.) IS SUBCONTRACTED, IT SHALL BE THE MECHANICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE SUBCONTRACTORS AND THE ASSOCIATED CONTRACTS. WHEN DISCREPANCIES ARISE PERTAINING TO WHICH CONTRACTOR PROVIDES A PARTICULAR ITEM OF THE MECHANICAL CONTRACT OR WHICH CONTRACTOR PROVIDES FINAL CONNECTIONS FOR A PARTICULAR ITEM OF THE MECHANICAL CONTRACT, IT SHALL BE BROUGHT TO THE ATTENTION OF THE MECHANICAL CONTRACTOR, WHOSE DECISION SHALL BE FINAL.
- THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- ALL PIPING, AND EQUIPMENT SUPPORTED FROM STRUCTURAL STEEL SHALL BE COORDINATED WITH THE GENERAL CONTRACTOR. ALL ATTACHMENTS TO STEEL BAR JOISTS, TRUSSES, OR JOIST GIRDERS SHALL BE AT PANEL POINTS. PROVIDE CONCENTRIC BEAM CLAMPS MEETING MSS STANDARDS. WELDING TO STRUCTURAL MEMBERS SHALL NOT BE PERMITTED. THE USE OF C-CLAMPS SHALL NOT BE PERMITTED.
- MECHANICAL EQUIPMENT, AND PIPING SHALL NOT BE SUPPORTED FROM A METAL DECK.
- ALL ROOF-MOUNTED EQUIPMENT CURBS FOR EQUIPMENT PROVIDED BY THE MECHANICAL CONTRACTOR SHALL BE FURNISHED BY THE MECHANICAL CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR.
- LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS SHALL BE COORDINATED WITH ALL OTHER TRADES INVOLVED.
- ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR AN APPROVED EQUAL.
- REFER TO TYPICAL DETAILS FOR PIPING, AND EQUIPMENT INSTALLATION.
- INSTALL PIPING SO ALL VALVES, STRAINERS, UNIONS, TRAPS, FLANGES, AND OTHER APPURTENANCES REQUIRING ACCESS ARE ACCESSIBLE.
- ALL VALVES SHALL BE INSTALLED SO THAT THE VALVE REMAINS IN SERVICE WHEN EQUIPMENT OR PIPING ON THE EQUIPMENT SIDE OF THE VALVE IS REMOVED.
- ALL BALANCING VALVES AND BUTTERFLY VALVES SHALL BE PROVIDED WITH POSITION INDICATORS AND THE MAXIMUM ADJUSTABLE STOPS (MEMORY STOPS).
- PROVIDE CHAINWHEEL OPERATORS FOR ALL VALVES 4" AND UP IN EQUIPMENT ROOMS MOUNTED GREATER THAN 7' ABOVE FLOOR LEVEL. CHAIN SHALL EXTEND TO 6" ABOVE FLOOR LEVEL. PROVIDE S-HOOKS TO STORE CHAIN.
- ALL VALVES (EXCEPT CONTROL VALVES) AND STRAINERS SHALL BE THE FULL SIZE OF THE PIPE BEFORE REDUCING IN SIZE TO MAKE CONNECTIONS TO EQUIPMENT AND CONTROLS.
- UNIONS AND/OR FLANGES SHALL BE INSTALLED AT EACH PIECE OF EQUIPMENT, IN BY-PASSES, AND IN LONG PIPING RUNS (100 FT. OR MORE) TO PERMIT DISASSEMBLY FOR ALTERATION AND REPAIRS.
- INSTALL ALL EQUIPMENT LEVEL AND PLUMB. PROVIDE BLOCKING AND HARDWARE AS REQUIRED.
- DUCT CONSTRUCTION SHALL COMPLY WITH THE LATEST VERSION OF SMACNA CONSTRUCTION STANDARDS FOR THE SPECIFIC PRESSURE CLASSIFICATIONS INDICATED BELOW. ALL 90 DEGREE ELBOWS.
- INSTALL DUCTWORK AS CLOSE AS POSSIBLE TO UNDERSIDE OF BEAMS AND/OR JOISTS.
- ALL DUCTWORK SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
- PROVIDE DUCTWORK TO TERMINAL AIR DEVICES AT SCHEDULED INLET SIZE UNLESS OTHERWISE INDICATED.
- PAINT FLAT BLACK THE INSIDE OF ALL DUCTWORK VISIBLE THROUGH DIFFUSERS, GRILLES AND REGISTERS.
- UNLESS NOTED OTHERWISE, ALL ROOF MOUNTED EQUIPMENT SHALL BE INSTALLED 10' FROM ANY ROOF EDGE. CONTRACTOR IS RESPONSIBLE FOR PROPER PLACEMENT TO AVOID ROOF EDGE GUARDS. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY TO ASSIST WITH LOCATING THE EQUIPMENT ON THE ROOF.

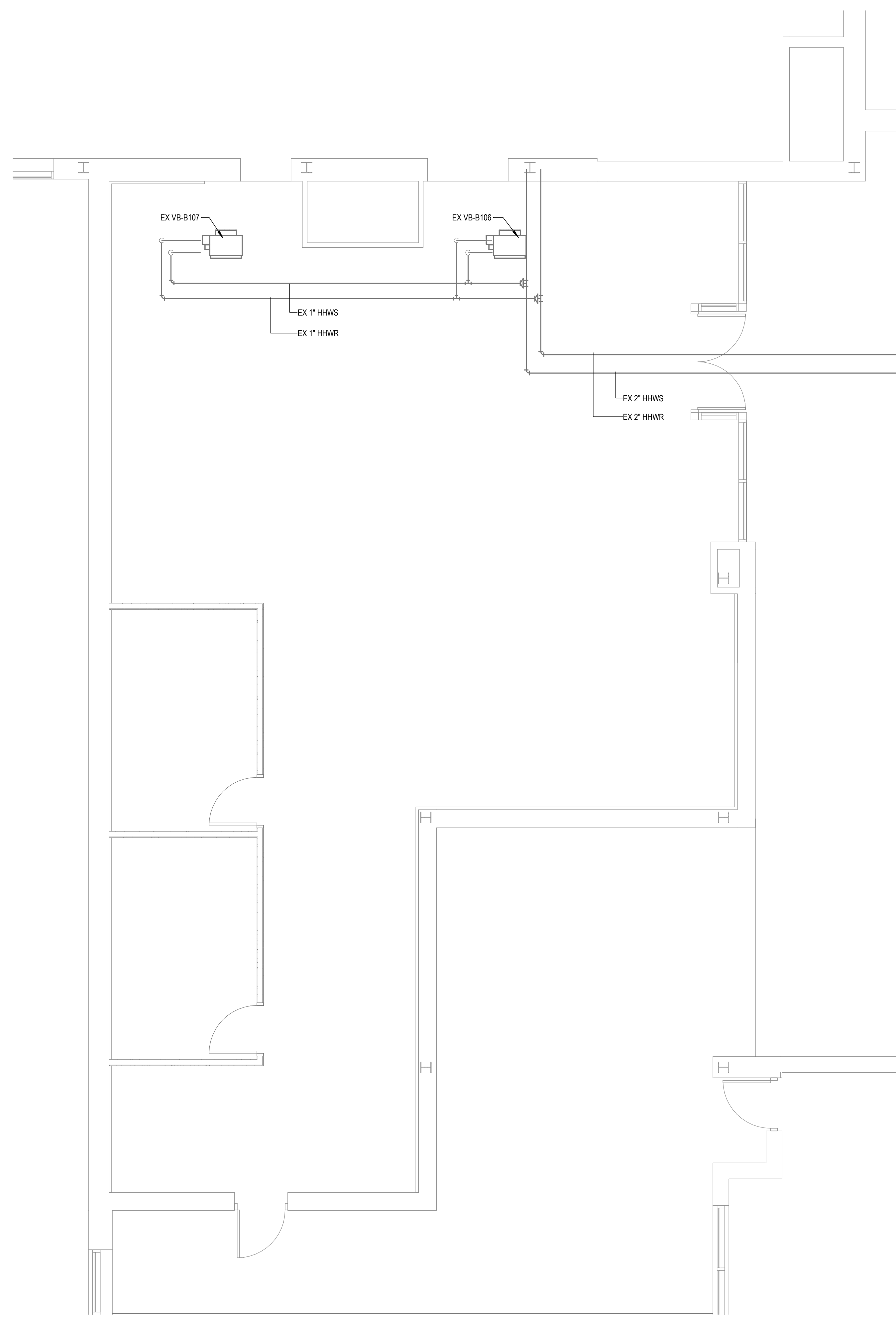
MECHANICAL LEGEND

EA	EXHAUST AIR	16"x8"	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)	BRANCH, CONICAL TEE FITTING W/VOLUME DAMPER ROUND OR OVAL MAIN & BRANCH	2-WAY ELECTRIC CONTROL VALVE	ALIGNMENT GUIDE
GE	GENERAL EXHAUST	16"x8"	OVAL DUCT SIZE TAG (WIDTH x HEIGHT)	FLEXIBLE CONNECTION TO EQUIPMENT	2-WAY PNEUMATIC CONTROL VALVE	PRESSURE GAUGE WITH COCK
RA	RETURN AIR	16"	ROUND DUCT SIZE TAG (DIAMETER)	ROUND FLEXIBLE DUCT	3-WAY ELECTRIC CONTROL VALVE	THERMOMETER
SA	SUPPLY AIR	EX 16"	EXISTING DUCT TAG	DUCT WITH LINER	3-WAY PNEUMATIC CONTROL VALVE	AUTOMATIC AIR VENT
TE	TOILET EXHAUST		DUCT BEING DEMOLISHED	DUCT WITH INSULATION OR FIRE WRAP	ANGLE VALVE	MANUAL AIR VENT WITH VALVE
OA	OUTSIDE AIR	DROP	RECTANGULAR SUPPLY/OUTSIDE AIR DUCT ELBOWS (DROP & RISE)	VOLUME DAMPER	AUTOMATIC DPCV	
GF	GAS FLUE	RISE	RECTANGULAR RETURN/TRANSFER AIR ELBOWS (DROP & RISE)	BACKDRAFT DAMPER	AUTOMATIC FLOW CONTROL VALVE	BALANCING VALVE
KHE	KITCHEN HOOD EXHAUST		RECTANGULAR EXHAUST/RELIEF AIR ELBOWS (DROP & RISE)	MOTORIZED DAMPER	BALL VALVE (ISOLATION OR THROTTLING)	BACKFLOW PREVENTER
MUA	MAKE-UP AIR		RECTANGULAR EXHAUST/RELIEF AIR ELBOWS (DROP & RISE)	FIRE DAMPER (HORIZ. & VERT.)	BUTTERFLY VALVE (ISOLATION OR THROTTLING)	HUMIDIFIER
LA	RELIEF AIR		RECTANGULAR EXHAUST/RELIEF AIR ELBOWS (DROP & RISE)	SMOKE DAMPER (HORIZ. & VERT.)	CHECK VALVE	STEAM TRAP
TA	TRANSFER AIR		RECTANGULAR EXHAUST/RELIEF AIR ELBOWS (DROP & RISE)	FIRE/SMOKE DAMPER (HORIZ. & VERT.)	FLEXIBLE CONNECTION	SUB METER
?	COMBUSTION AIR		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	SECURITY BARS	FLOW INDICATING BALANCE VALVE	
PHE	PERCHLORIC HOOD EXHAUST		ECCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	EXHAUST / RETURN AIRFLOW	FLOW METER	
RHE	RADIATION HOOD EXHAUST		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	EXHAUST / RETURN AIRFLOW - EXISTING	ISOLATION VALVE	
FHE	FUME HOOD EXHAUST		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	SUPPLY AIRFLOW	PLUG VALVE (ISOLATION OR THROTTLING)	
MAE	MEDICAL AIR EXHAUST		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	SUPPLY AIRFLOW - EXISTING	PRESSURE REDUCING VALVE	
BCSE	BIOSAFETY CABINET EXHAUST		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	THERMOSTAT	PRESSURE REGULATING VALVE - FLANGED	
ETOE	ETHYLENE OXIDE EXHAUST		CONCENTRIC TRANSITION RECTANGULAR, ROUND OR OVAL	THERMOSTAT - DUCT MOUNTED	PRESSURE REGULATING VALVE - THREADED	
CHWR	CHILLED WATER RETURN	UP	INCLINE RISE WITH RESPECT TO AIR FLOW RECTANGULAR, ROUND OR OVAL	HUMIDISTAT	SAFETY RELIEF VALVE	
CHWS	CHILLED WATER SUPPLY	DN	INCLINE DROP WITH RESPECT TO AIR FLOW RECTANGULAR, ROUND OR OVAL	SENSOR	SELF ACTUATING TYPE DIFFERENTIAL PRESSURE CONTROL VALVE (DPCV)	
CA	COMPRESSED AIR		SQUARE ELBOW W/TURNING VANES RECTANGULAR	SENSOR	SOLENOID VALVE	
CD	CONDENSATE DRAIN		SQUARE ELBOW W/O TURNING VANES RECTANGULAR	SENSOR	STATIC PRESSURE SENSOR	
CWR	CONDENSER WATER RETURN		SMOOTH RADIUS ELBOW W/SPLITTER VANES RECTANGULAR	SENSOR	STRAINER	
CWS	CONDENSER WATER SUPPLY		SMOOTH RADIUS ELBOW RECTANGULAR	SENSOR	THROTTLING VALVE	
HHWR	HEATING HOT WATER RETURN		SMOOTH RADIUS ELBOW RECTANGULAR	SENSOR	FLOW SWITCH	
HHWS	HEATING HOT WATER SUPPLY		DIVIDED FLOW FITTING, RECTANGULAR BRANCH AIRFLOW AT LEAST 25% OF MAIN	SENSOR	ELBOW DOWN	
RL	REFRIGERANT LIQUID		TAP-IN BRANCH W/VOLUME DAMPER RECTANGULAR MAIN & BRANCH	SENSOR	ELBOW UP	
RS	REFRIGERANT SUCTION		SPIN-IN STRAIGHT TAP W/VOLUME DAMPER RECTANGULAR MAIN, ROUND OR OVAL BRANCH	SENSOR	TEE DOWN	
			SPIN-IN CONICAL TAP W/VOLUME DAMPER RECTANGULAR MAIN, ROUND OR OVAL BRANCH	SENSOR	TEE UP	
			BRANCH, CONICAL LATERAL FITTING W/VOLUME DAMPER ROUND OR OVAL MAIN & BRANCH	SENSOR	DIRECTION OF FLOW	
				SENSOR	VALVE IN VERTICAL RISE	
				SENSOR	VALVE IN VERTICAL DROP	
				SENSOR	ORIFICE PLATE	
				SENSOR	REDUCER - CONCENTRIC	
				SENSOR	REDUCER - ECCENTRIC	
				SENSOR	PIPE UNION	
				SENSOR	PIPE ANCHOR	

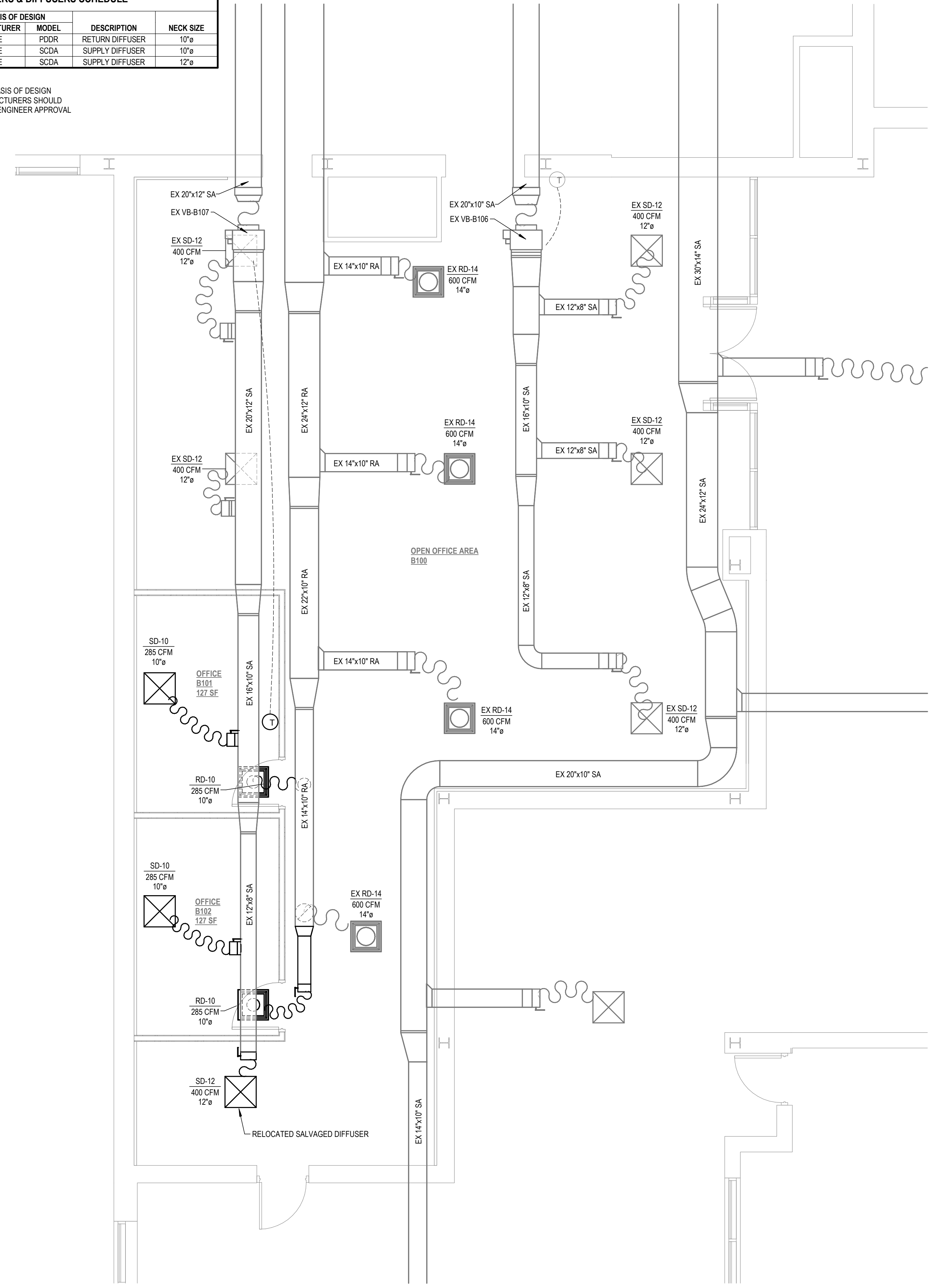
GRILLES, REGISTERS & DIFFUSERS SCHEDULE

BASIS OF DESIGN				
MARK	MANUFACTURER	MODEL	DESCRIPTION	NECK SIZE
RD-10	PRICE	PDDR	RETURN DIFFUSER	10"ø
SD-10	PRICE	SCDA	SUPPLY DIFFUSER	10"ø
SD-12	PRICE	SCDA	SUPPLY DIFFUSER	12"ø

NOTE:
PRICE DIFFUSERS BASIS OF DESIGN
ALTERNATE MANUFACTURERS SHOULD
BE SUBMITTED FOR ENGINEER APPROVAL



1 PARTIAL B-WING HYDRONIC PIPING PLAN
SCALE: 1/4" = 1'-0"
NOTE: SEE A2.0 FOR OVERALL FLOOR PLAN



2 PARTIAL B-WING HVAC DUCT PLAN
SCALE: 1/4" = 1'-0"
NOTE: SEE A2.0 FOR OVERALL FLOOR PLAN

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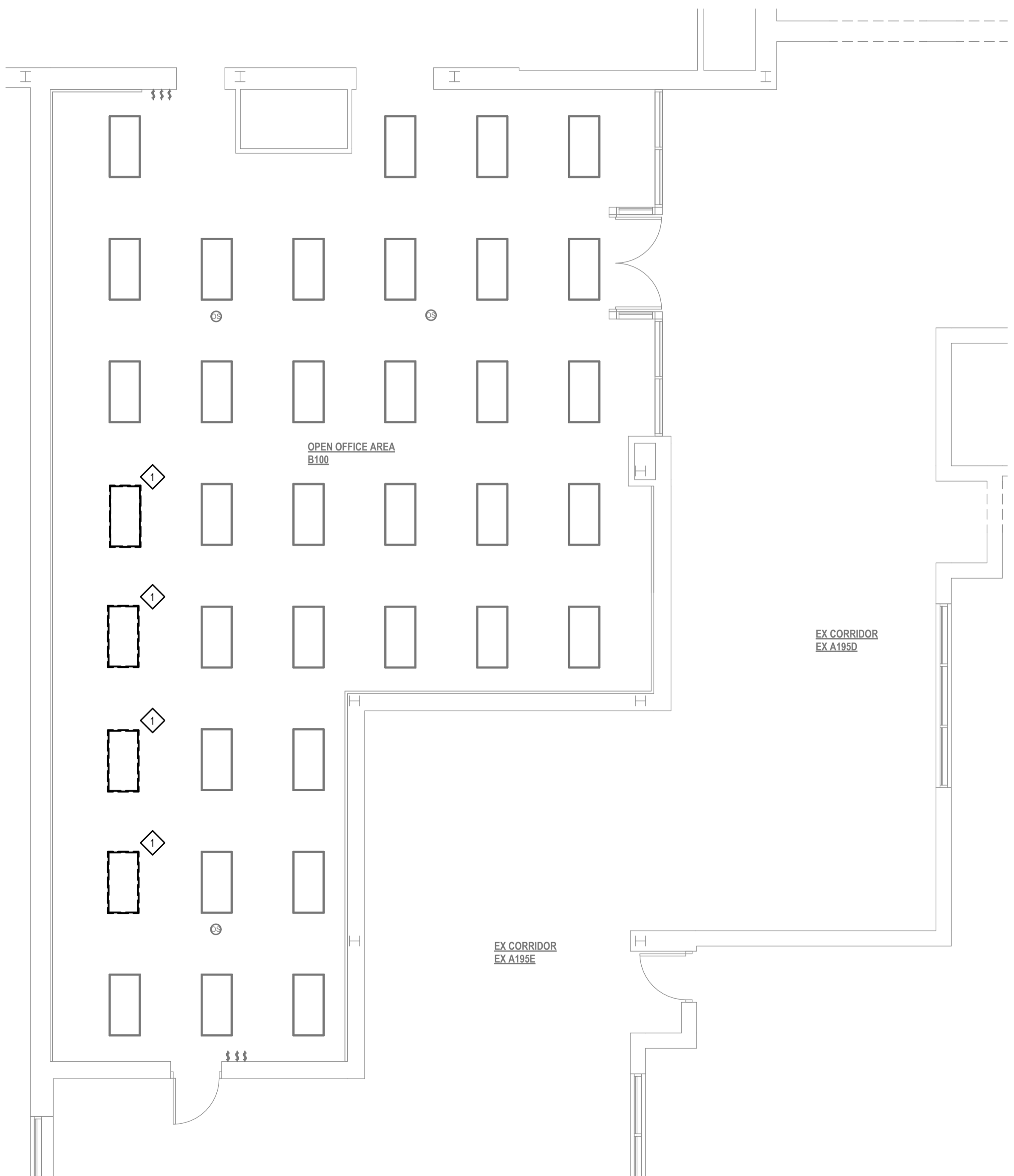
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DATE	2-04-25
2-11-25	
STATUS / REVISIONS	
B-WING OWNER REVIEW	
B-WING ISSUED FOR BIDS	
NO.	
CHECKED BY:	E. MARTER
DESIGNED BY:	B. KUSHION
DRAWN BY:	B. KUSHION
PROJ #:	24-0543-0248
SHEET	E3.0

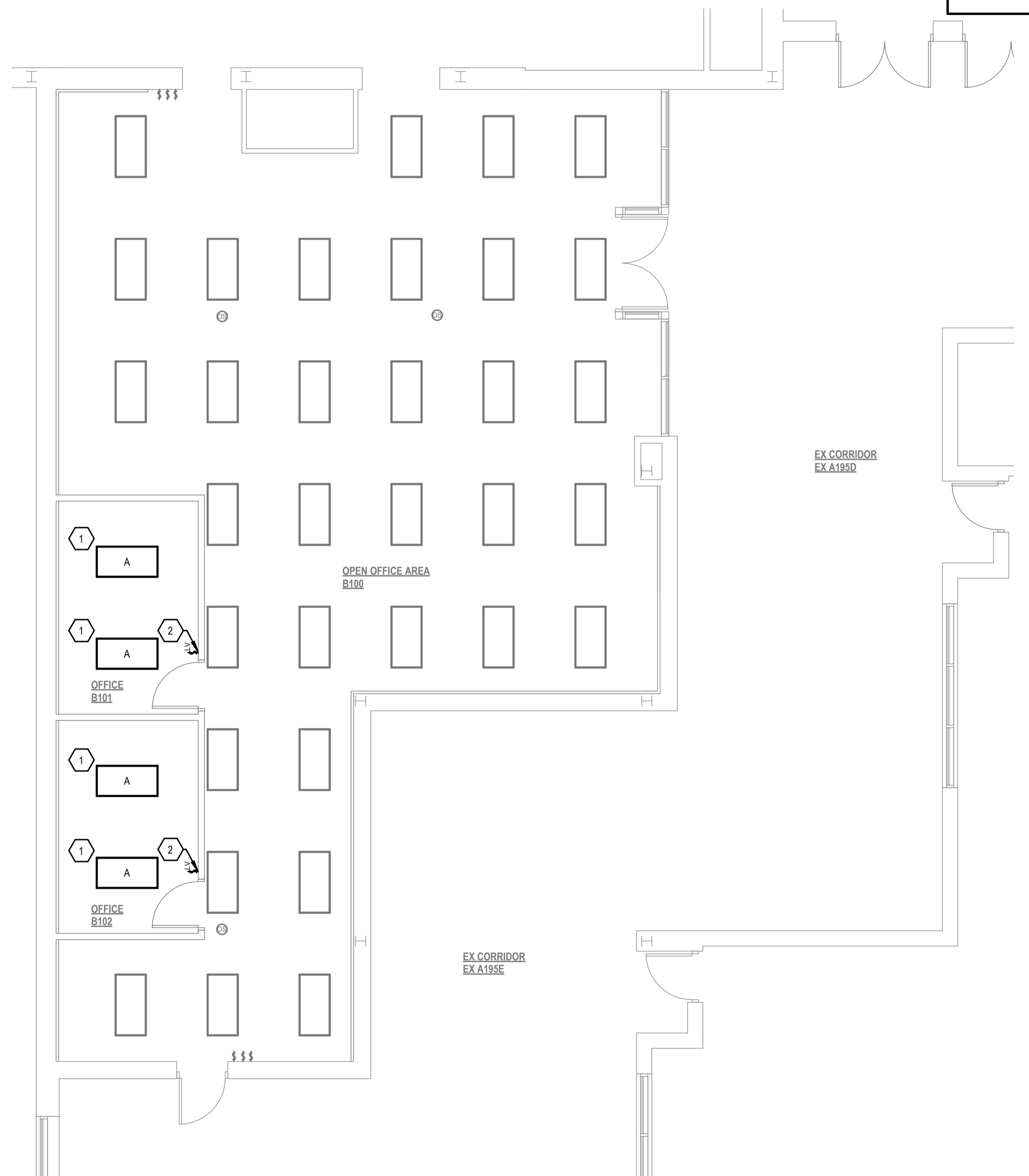
LIGHTING FIXTURE SCHEDULE				BASIS OF DESIGN		COMMENTS
TYPE	LAMP			MANUFACTURER	CAT. NO.	
A	LED	29.0 VA	120 V	2x4' LED FLAT PANEL, 4,000 LUMENS, 80 CRI, 4000K, INTEGRAL SENSOR	LITHONIA LIGHTING EPANL 2X4 4000LM 80CRI 40K MIN1 EZT MVOLT RES7PDT	

KEYED DEMOLITION NOTES	
SYMBOL	DESCRIPTION
◇	1 REMOVE EXISTING LIGHTS. SALVAGE CIRCUITS TO USE WITH NEW LIGHTING.

KEYED CONSTRUCTION NOTES	
SYMBOL	DESCRIPTION
○	1 VERIFY EXISTING CIRCUIT. SHOULD BE CONSTANT POWER TO FIXTURE AND NEW SWITCHING.
	2 RPODLA-4S-MVOLT-WH-G2 WITH MATCHING WALL PLATE. CONTRACTOR TO PROVIDE CUSTOM ENGRAVED BUTTONS FROM THE MANUFACTURER TO READ THE FOLLOWING: "ON", "DIMMED", "BRIGHT", AND "OFF" IN ORDER TOP TO BOTTOM. CONTRACTOR SHALL SUBMIT ENGRAVE FORM WITH SUBMITTAL PACKAGE FOR APPROVAL PRIOR TO ORDERING.
	3 UTILIZE EXISTING CIRCUITS IN WIREMOLD RACEWAY FOR NEW RECEPTACLE CIRCUITS. VERIFY CIRCUITS DO NOT HAVE MORE THAN SIX RECEPTACLES CONNECTED.
	4 PROVIDE ROUGH IN FOR DATA. COORDINATE INSTALLATION WITH OWNER IT.



1 PARTIAL B-WING LIGHTING DEMOLITION PLAN
SCALE: 3/16" = 1'-0"
NOTE: SEE A2.0 FOR OVERALL FLOOR PLAN



2 PARTIAL B-WING LIGHTING PLAN
SCALE: 3/16" = 1'-0"
NOTE: SEE A2.0 FOR OVERALL FLOOR PLAN

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