

BIDS ESTIMATING

Client: (Hidden for Privacy)
 Project Name: (Hidden for Privacy)
 Project ID: (Hidden for Privacy)
 Last Updated: 08/03/2022



Website: bidsestimating.com
 Email: info@bidsestimating.com
 Contact: +1 (832) 346 0507

Quantity Takeoff Sheet

Mechanical (HVAC)

ITEM #	REF. SHEET	DETAIL	CSI SECT	Sub Contractor	DESCRIPTION	QTY.	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT LABOR HOURS	TOTAL LABOR HOURS	PER HOUR LABOR RATE	TOTAL LABOR COST	UNIT MATERIAL COST	TOTAL MATERIAL COST	ITEM COST	TRADE COST	
			DIV-01	General													\$	-
				Plan Design and Permitting														
1			DIV-01	General Requirements	Architecture (Assumed By Owner)	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
2			DIV-01	General Requirements	Engineering (Assumed By Owner)	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
3			DIV-01	General Requirements	Surveying	18,993	5%	19,943	SF		-	\$ 10.0	\$ -			\$ -		
4			DIV-01	General Requirements	Soils Report (Assumed By Owner)	18,993	0%	18,993	LS		-	\$ 10.0	\$ -			\$ -		
5			DIV-01	General Requirements	Geological Report (Assumed By Owner)	18,993	0%	18,993	LS		-	\$ 10.0	\$ -			\$ -		
6			DIV-01	General Requirements	Concrete Testing	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
7			DIV-01	General Requirements	Permit Running (Assumed By Owner)	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
8			DIV-01	General Requirements	Permits (Based on interior finish area)	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
9			DIV-01	General Requirements	Plan Coordination	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
10			DIV-01	General Requirements	Roof Inspection	18,993	5%	19,943	SF		-	\$ 10.0	\$ -			\$ -		
11			DIV-01	General Requirements	Blueprints	18,993	5%	19,943	SF		-	\$ 10.0	\$ -			\$ -		
				Utilities														
12			DIV-01	General Requirements	Utilities during construction (Based on interior finish area)	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
13			DIV-01	General Requirements	Port-o-Potty (Based on interior finish area)	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
14			DIV-01	General Requirements	Temporary Power (Based on interior finish area)	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
				Equipment and Tools														
15			DIV-01	General Requirements	Tool Rentals	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
16			DIV-01	General Requirements	Tool Shed	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
17			DIV-01	General Requirements	Dust Control	18,993	5%	19,943	SF		-	\$ 10.0	\$ -			\$ -		
18			DIV-01	General Requirements	Ice, Water, Beverages	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
19			DIV-01	General Requirements	Garbage Dumpster / Trash Containers	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
20			DIV-01	General Requirements	Mobilization	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
				Signage and Promotion														
21			DIV-01	General Requirements	Job Signs	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
22			DIV-01	General Requirements	Job Photos	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
23			DIV-01	General Requirements	Signage	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
24			DIV-01	General Requirements	Promotion/entertainment	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
25			DIV-01	General Requirements	Misc.	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
				Cleaning and Final														
26			DIV-01	General Requirements	Trash	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
27			DIV-01	General Requirements	Final Cleaning	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -		
28			DIV-01	General Requirements	Window washing (rough # of windows)	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
29			DIV-01	General Requirements	Punch List Items	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		
				Bonds, Insurance, Legal														
30			DIV-01	General Requirements	Casualty Insurance	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -		

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Mechanical (HVAC)

ITEM #	REF. SHEET	DETAIL	CSI SECT	Sub Contractor	DESCRIPTION	QTY.	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT LABOR HOURS	TOTAL LABOR HOURS	PER HOUR LABOR RATE	TOTAL LABOR COST	UNIT MATERIAL COST	TOTAL MATERIAL COST	ITEM COST	TRADE COST
31			DIV-01	General Requirements	Medical Insurance	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -	
32			DIV-01	General Requirements	General Liability Insurance	1	0%	1	LS		-	\$ 10.0	\$ -			\$ -	
					Supervision, Temporary Control & Facilities												
33			DIV-01	General Requirements	Project Management	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -	
34			DIV-01	General Requirements	Supervision	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -	
35			DIV-01	General Requirements	Hardscape Supervision	-	5%	-	SF		-	\$ 10.0	\$ -			\$ -	
36			DIV-01	General Requirements	Softscape Supervision	-	5%	-	SF		-	\$ 10.0	\$ -			\$ -	
37			DIV-01	General Requirements	Temporary Control & Facilities	37,986	5%	39,885	SF		-	\$ 10.0	\$ -			\$ -	
			DIV-02		Selective Removals And Demolition												\$ -
					Demolition												
					HVAC Demolition												
38	11.1A , H1.1	11.1A , H1.1	DIV-02	Demo - Building	Remove condensing unit on roof	22	0%	22	EA		-	\$ 10.0	\$ -			\$ -	
39	11.1A , H1.1	11.1A , H1.1	DIV-02	Demo - Building	Remove 4 X 4 Support rail and associated RS and RL piping	1,128	5%	1,184	LF		-	\$ 10.0	\$ -			\$ -	
40	11.1A , H1.1	11.1A , H1.1	DIV-02	Demo - Building	Remove existing DX coil in ventilator	22	0%	22	EA		-	\$ 10.0	\$ -			\$ -	
41	11.1A , H1.1	11.1A , H1.1	DIV-02	Demo - Building	Remove refrigerant pipe	110	5%	116	LF		-	\$ 10.0	\$ -			\$ -	
42	11.1A , H1.1	11.1A , H1.1	DIV-02	Demo - Building	Removal of ceiling tiles and grids to facilitate above ceiling piping	6,611	5%	6,942	SF		-	\$ 10.0	\$ -			\$ -	
43			DIV-02	Demo - Building	Dumpster and hauling allowance	6,611	5%	6,942	SF		-	\$ 10.0	\$ -			\$ -	
			DIV-09		Finishes												\$ -
					Ceiling Finish												
44	11.1A , H1.1	11.1A , H1.1	DIV-09	Dry Waller	Re-Installed ceiling tiles and grids to facilitate above ceiling piping	6,611	5%	6,942	SF		-	\$ 10.0	\$ -			\$ -	
			DIV-23		Heating, Ventilating, and Air Conditioning (HVAC)												\$ -
					Equipment												
45	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	Install new DX cooling coil in existing unit ventilator 80CFM Model # SVI1000 CC-1	4	0%	4	EA		-	\$ 10.0	\$ -			\$ -	
46	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	Install new DX cooling coil in existing unit ventilator 1100CFM Model # SVI1000 CC-2	9	0%	9	EA		-	\$ 10.0	\$ -			\$ -	
47	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	Install new DX cooling coil in existing unit ventilator 1400CFM Model # SVI1000 CC-3	9	0%	9	EA		-	\$ 10.0	\$ -			\$ -	
48	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	New condensing unit CU-2Model # ML 14X	9	0%	9	EA		-	\$ 10.0	\$ -			\$ -	
49	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	New condensing unit CU-1Model # ML 14X	4	0%	4	EA		-	\$ 10.0	\$ -			\$ -	
50	H2.1A ,H2.1H	H2.1A ,H2.1H	DIV-23	Mechanical	New condensing unit CU-3Model # ML 14X	9	0%	9	EA		-	\$ 10.0	\$ -			\$ -	

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					Refrigerant Pipes													
51	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Refrigerant pipe sized by unit manufacturer Note : Material not found	1,139	5%	1,196	LF	-	-	\$ 10.0	\$ -			\$ -		
					Refrigerant Pipes Insulation													
52	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	1" Flexible elastomeric cellular insulation Note : Thickness assumed	1,139	5%	1,196	LF	-	-	\$ 10.0	\$ -			\$ -		
					Miscellaneous items													
53	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Pressure tap	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
54	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Equalizer	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
55	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Capillary bulb	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
56	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Liquid distributor	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
57	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Expansion valve	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
58	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Sight glass	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
59	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Solenoid valve	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
60	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Filter Dryer Note: Verify If Required Or Not.	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
61	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Shut off valve	42	0%	42	EA	-	-	\$ 10.0	\$ -			\$ -		
62	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Ball Valve	126	0%	126	EA	-	-	\$ 10.0	\$ -			\$ -		
63	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	4 X 4 Support rail	1,139	5%	1,196	LF	-	-	\$ 10.0	\$ -			\$ -		
64	Addendum Point. 13		DIV-23	Mechanical	Unistrut Required For Mounting The New	1,139	5%	1,196	LF	-	-	\$ 10.0	\$ -			\$ -		
65	H2.1A ,H2.1A	H2.1A ,H2.1A	DIV-23	Mechanical	Additional Cost Based on Mechanical work Area	6,611	5%	6,942	SF	-	-	\$ 10.0	\$ -			\$ -		
SUB TOTAL											Total Lab. Hours =	-	Total Lab	\$ -	Total Mat	\$ -	\$ -	\$ -
MATERIAL TAX													9.5%		\$ -	\$ -	\$ -	\$ -
OVERHEAD AND PR													25%	\$ -	\$ -	\$ -	\$ -	
TOTAL BASE BID														\$ -	\$ -	\$ -	\$ -	

MECHANICAL GENERAL NOTES	
1.	THE DRAWINGS INDICATE THE GENERAL SCOPE OF WORK ASSOCIATED WITH THE INSTALLATION OF HVAC EQUIPMENT AND SYSTEMS BUT ARE NOT NECESSARILY INCLUSIVE OF ACTUAL CONDITIONS. THE FULL EXTENT OF THE WORK SHALL BE DETERMINED IN THE FIELD BASED ON THE ACTUAL CONDITIONS ENCOUNTERED AND AS REQUIRED FOR THE SATISFACTORY EXECUTION OF THE NEW WORK.
2.	THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HVAC EQUIPMENT AND SYSTEMS WITH THE PROJECT CONSTRUCTION SCHEDULE.
3.	THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF HVAC EQUIPMENT AND SYSTEMS WITH ALL OTHER TRADES (PLUMBING, ELECTRICAL, ETC.) TO AVOID CONFLICTS DUE TO FAILURE OF THIS CONTRACTOR TO OTHER TRADES SHALL BE THEIR RESPONSIBILITY TO RESOLVE.
4.	ALL CUTTING AND PATCHING OF WALLS, FLOORS, ROOF TO INSTALL DUCTWORK, PIPING, ROOF CURBS ETC. SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. PATCHING SHALL MATCH EXISTING METHODS, MATERIALS AND FINISHES.
5.	WHERE THE DRAWINGS SPECIFICALLY INDICATE, CUTTING SHALL BE PERFORMED BY THE GENERAL CONTRACTOR. THE CONTRACTOR SHALL PROVIDE THE CONSTRUCTION AND EXACT LOCATIONS OF THE OPENINGS.
6.	THE CONTRACTOR SHALL PROVIDE ALL METHODS AND MATERIALS FOR THE PROTECTION OF EXISTING STRUCTURE AND ALL EQUIPMENT, PIPING, AND DUCTWORK FURNISHED UNDER THIS CONTRACT. ALL AREAS OF BAR JOIST CONSTRUCTION ALL PIPING, DUCTWORK AND EQUIPMENT WITH A CONCENTRATED LOAD (I.E. HANGER) SHALL BE SUPPORTED FROM THE TOP CHORD OF THE BAR JOIST OR DUCTWORK FROM THE ROOF DECK.
7.	SEAL ALL DUCT AND PIPING PENETRATIONS OF FIRE AND FLOORS WITH FIRE STOPPING MATERIALS AS SPECIFIED. WHERE FIRE STOPPING MATERIALS ARE NOT SPECIFIED, FIRE STOPPING MATERIALS SHALL BE U.L. LISTED FC BY 3M OR EQUAL.
8.	DO NOT UTILIZE AIR HANDLING EQUIPMENT AND DUCTWORK FOR THIS CONTRACT AS A MEANS OF TEMPORARY HEAT DURING CONSTRUCTION. WRITTEN APPROVAL FROM THE ENGINEER PRIOR TO OPERATION.
9.	PROVIDE LOCATION IDENTIFICATION MARKERS ON CEILING ACCESS DOORS AS APPLICABLE, JUST BELOW CONCEALED VALVES, AND HVAC EQUIPMENT.
10.	THE CONTRACTOR SHALL COORDINATE THE RIGGING, MOVING AND HOISTING OF EQUIPMENT FURNISHED UNDER THIS CONTRACT WITH EXISTING ARCHITECTURAL CONSTRAINTS.
11.	ALL REFRIGERANT PIPE SIZES SHALL BE VERIFIED BY THE CONDENSING UNIT MANUFACTURER.
12.	THE H.C. SHALL REMOVE, STORE, AND REINSTALL CEILINGS AS REQUIRED TO ACCESS CEILING SPACE FOR REFRIGERANT PIPING DEMOLITION AND INSTALLATION. ANY TILES OR GRID LOST OR DAMAGED AS A RESULT OF THIS WORK SHALL BE REPLACED BY THE CONTRACTOR LIKE IN KIND.

MECHANICAL SYMBOLS & ABBREVIATIONS			
G.C.	GENERAL CONTRACTOR	C.D.	CONDENSATE DRAIN
H.C. / M.C.	MECHANICAL CONTRACTOR	F.D.	FLOOR DRAIN
E.C.	ELECTRICAL CONTRACTOR	RS	REFRIGERANT SUCTION

COIL SCHEDULE																				
TAG No.	UNIT SERVED	MFR.	APPLICATION	TUBE DIA.	TUBE WALL	FIN HxL	CFM	EAT°F		LAT°F		SENSIBLE MBH	TOTAL MBH	REFRIG.	ROWS	FPF	APD	F.V. FPM	DRY WEIGHT	NOTES
								DB	WB	DB	WB									
CC-1	EX UV-1	MOORE/HEATCRAFT	COOLING	3/8"	0.016	16x38	800	80.1	66.9	54.4	52.4	22.16	35.44	R410-A	3	64	0.06"	189.5	49.38	1,2
CC-2	EX UV-2	MOORE/HEATCRAFT	COOLING	3/8"	0.016	16x38	1100	81.3	67.7	54.9	53.5	31.34	48.76	R410-A	3	120	0.15"	260.5	53.76	1,2
												53.3	40.06	R410-A	3	120	0.17"	284.2	63.08	1,2

- Pressure tap
- Equilizer
- Capillary bulb
- Liquid distributor
- Expansion valve
- Sight glass
- Solenoid valve
- Shut off valve
- Filter dryer

CONDENSING UNIT SCHEDULE									
UNIT No.	TYPE	SIZE	MODEL No.	COND. METHOD	ADD. CAP.	REFRIG.	ROWS	FPF	NOTES
CU-1	EX UV-1	12000 BTU	CU-12000-1	CONDENSING	CONDENSING	R410-A	3	64	1
CU-2	EX UV-2	15000 BTU	CU-15000-1	CONDENSING	CONDENSING	R410-A	3	120	1
CU-3	EX UV-3	18000 BTU	CU-18000-1	CONDENSING	CONDENSING	R410-A	3	120	1

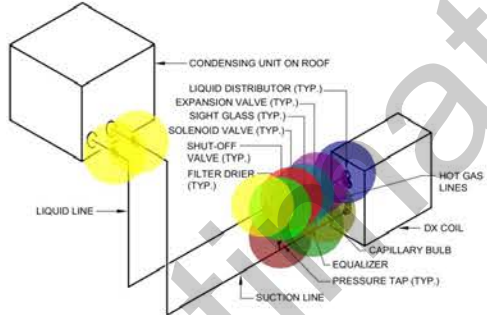
ELECTRICAL	OPERATING WEIGHT LBS.		NOTES
	MCA	MOP	
17.0	25	208/160	1
18.6	30	208/160	1
24.2	40	208/160	1

DESIGN CODE COMPLIANCE	
PA - UCC	PENNSYLVANIA UNIFORM CONSTRUCTION CODE, 2015
IBC	ICC - INTERNATIONAL BUILDING CODE, 2015
IMC	ICC - INTERNATIONAL MECHANICAL CODE, 2015
IEEC	ICC - INTERNATIONAL ENERGY CONSERVATION CODE, 2015
IFGC	ICC - INTERNATIONAL FUEL GAS CODE, 2015
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NEC	NATIONAL ELECTRIC CODE, 2014

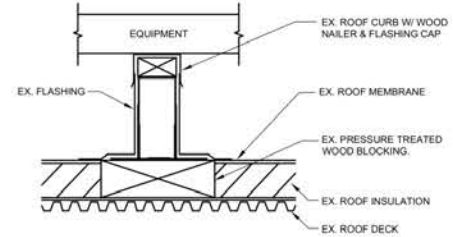
(SD)	DUCT MOUNTED SMOKE DETECTOR	(RV)	RELIEF VALVE
(T)	TEMPERATURE/HUMIDITY SENSOR	(CV)	CHECK VALVE
(C)	CARBON DIOXIDE SENSOR	(TDV)	TRIPLE DUTY VALVE
(S)	SWITCH	(STR)	STRAINER
(P)	PRESSURE SENSOR	(PA)	PIPE ANCHOR
(V)	VOLUME DAMPER	(PG)	PIPE GUIDE
(ATC)	AUTOMATIC TEMPERATURE CONTROL DAMPER	(FC)	FLEXIBLE CONNECTION
(BDD)	BACKDRAFT DAMPER	(T)	THERMOMETER
(SD)	SMOKE DAMPER	(PG)	PRESSURE GAUGE
(AP)	ACCESS PANEL	(OS&V)	OS&Y VALVE
(FD)	FIRE DAMPER	(PRV)	PRESSURE REDUCING VALVE
(DP)	DIFFERENTIAL PRESSURE SENSOR	(U)	UNION

NOTE: NOT ALL SYMBOLS & ABBREVIATIONS SHOWN ARE USED ON THIS PROJECT.

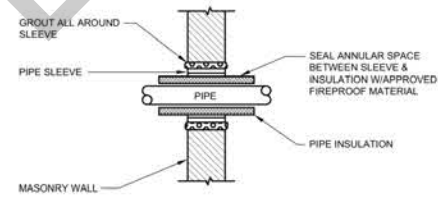
MECHANICAL EQUIPMENT TAGS	
(CC #)	COOLING COIL # = MARK
(CU #)	CONDENSING UNIT # = MARK



REFRIGERANT PIPING DIAGRAM, SINGLE CIRCUIT
NO SCALE

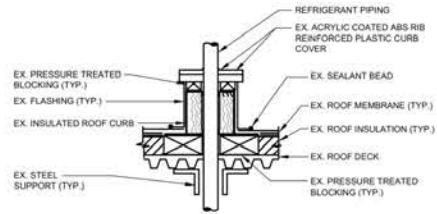


EQUIPMENT SUPPORT CURB DETAIL
NO SCALE

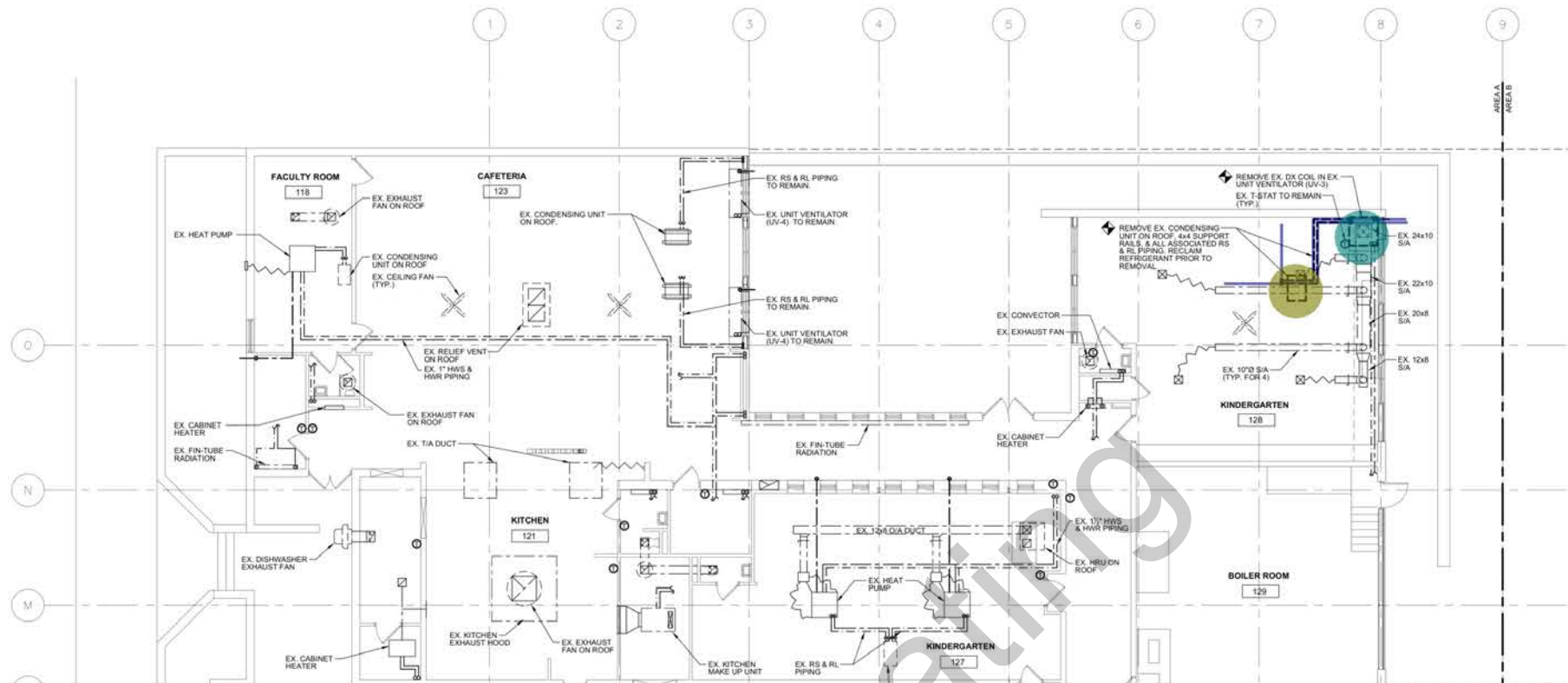






PIPE SLEEVE DETAIL
NO SCALE





NOTE:
1. PROVIDE ESCUTCHEONS AT WALL PENETRATIONS IN EXPOSED AREAS.

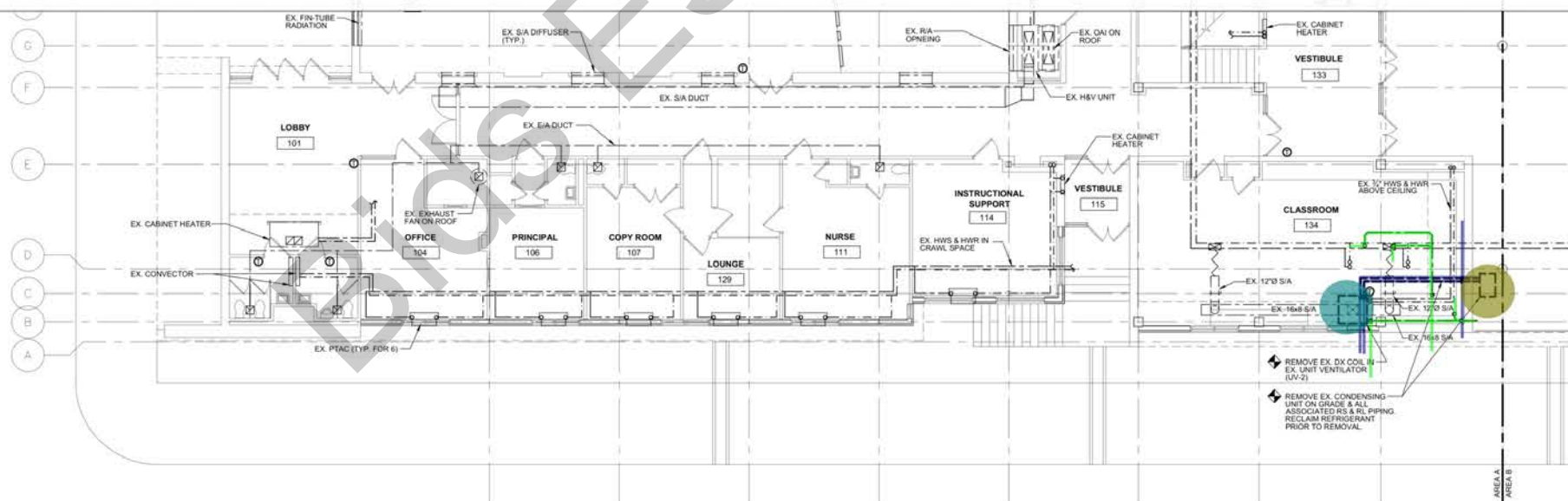


PIPE PORTAL DETAIL
NO SCALE



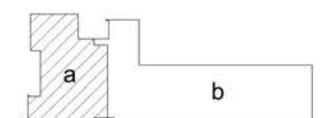
-  Remove 4 X 4 Support rail and associated RS and RL piping
-  Remove refrigerant pipe
-  Remove condensing unit on roof
-  Remove existing DX coil in ventilator

-  121.2 FT
-  56.3 FT
-  2.0 EA
-  2.0 EA



FIRST FLOOR PLAN - AREA "A" - DEMOLITION - HVAC

SCALE: 1/8"=1'-0"
 NOTE:
 1. REMOVE AND REINSTALL CEILING TILES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING PIPING.
 2. DISASSEMBLE EXISTING UNIT VENTILATOR, COIL FLASHINGS, AND PIPE CHASE CABINET TO ACCOMMODATE REMOVAL OF EXISTING COOLING COIL AND REFRIGERANT PIPING.

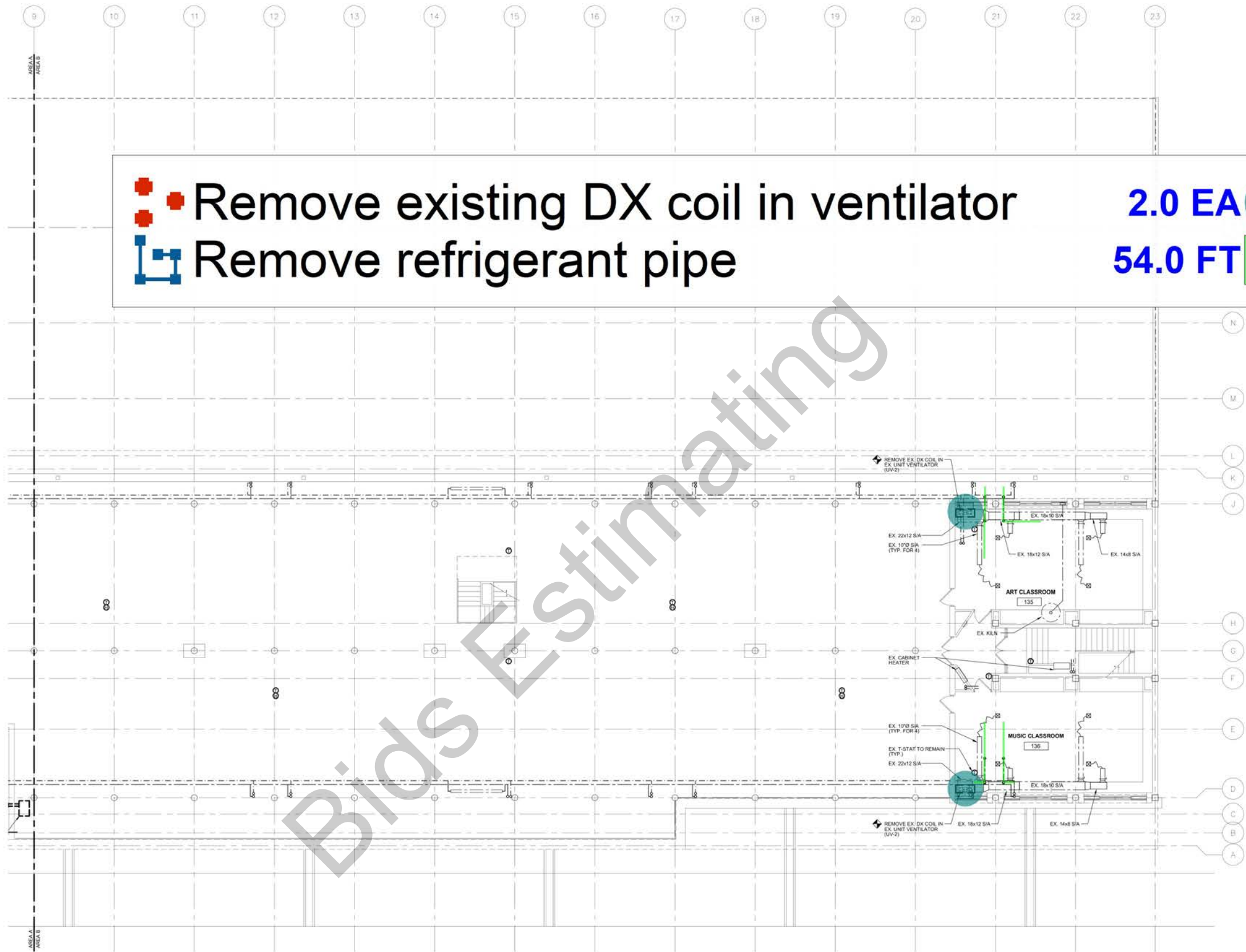




Remove existing DX coil in ventilator

Remove refrigerant pipe

2.0 EA 
54.0 FT 

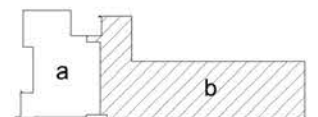


FIRST FLOOR PLAN - AREA "B" - DEMOLITION - HVAC

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

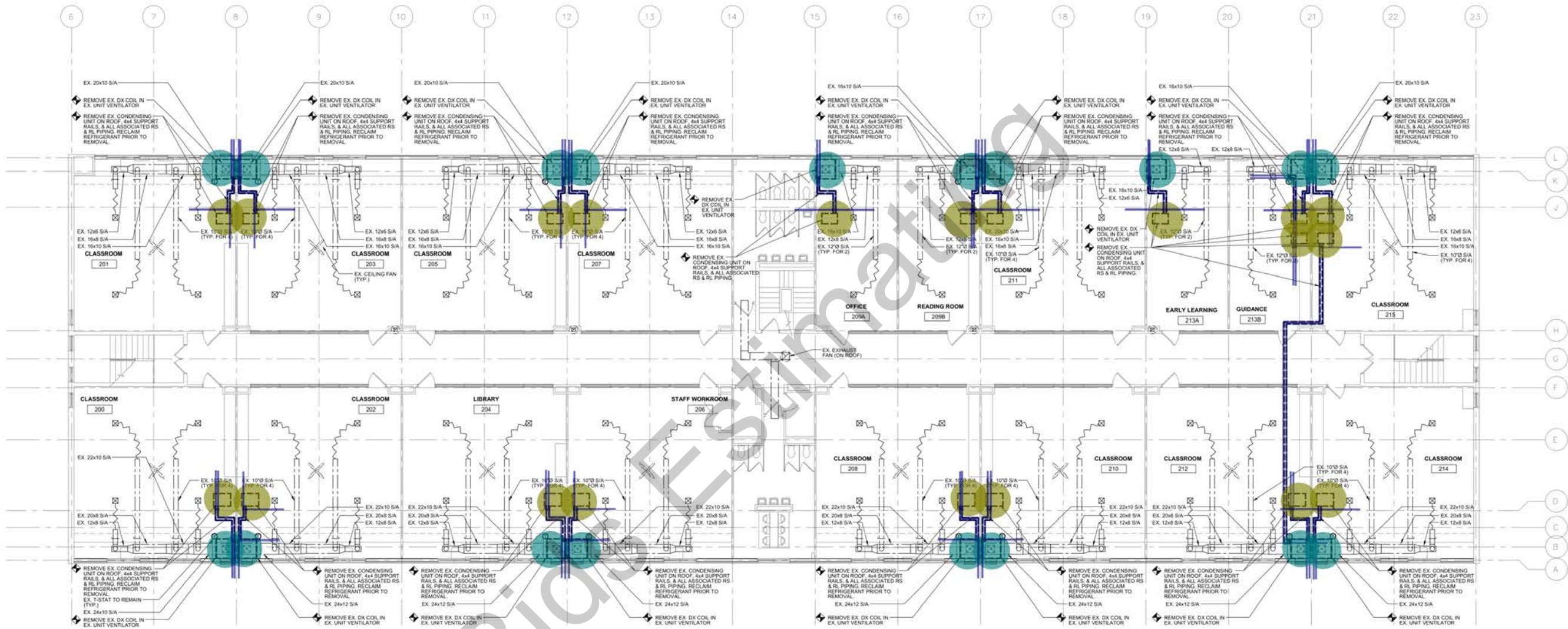
NOTES

1. REMOVE AND REINSTALL CEILING TIES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING WORK.
2. DISASSEMBLE EXISTING UNIT VENTILATOR, COIL FLASHINGS AND PIPE CHASE CABINET TO ACCOMMODATE REMOVAL OF EXISTING COOLING COIL AND REFRIGERANT PIPING.



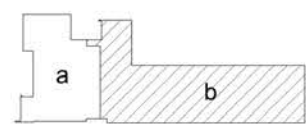
- Remove condensing unit on roof
- Remove 4 X 4 Support rail and associated RS and RL piping
- Remove existing DX coil in ventilator

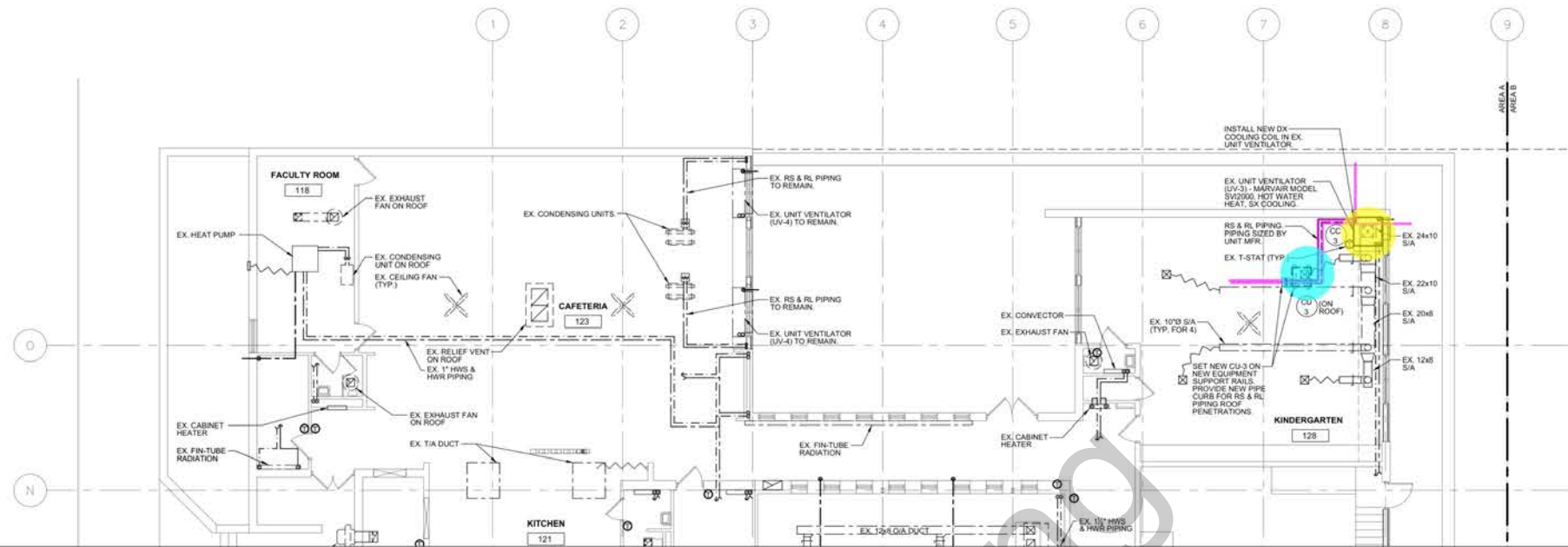
20.0 EA
1006.4 FT
18.0 EA



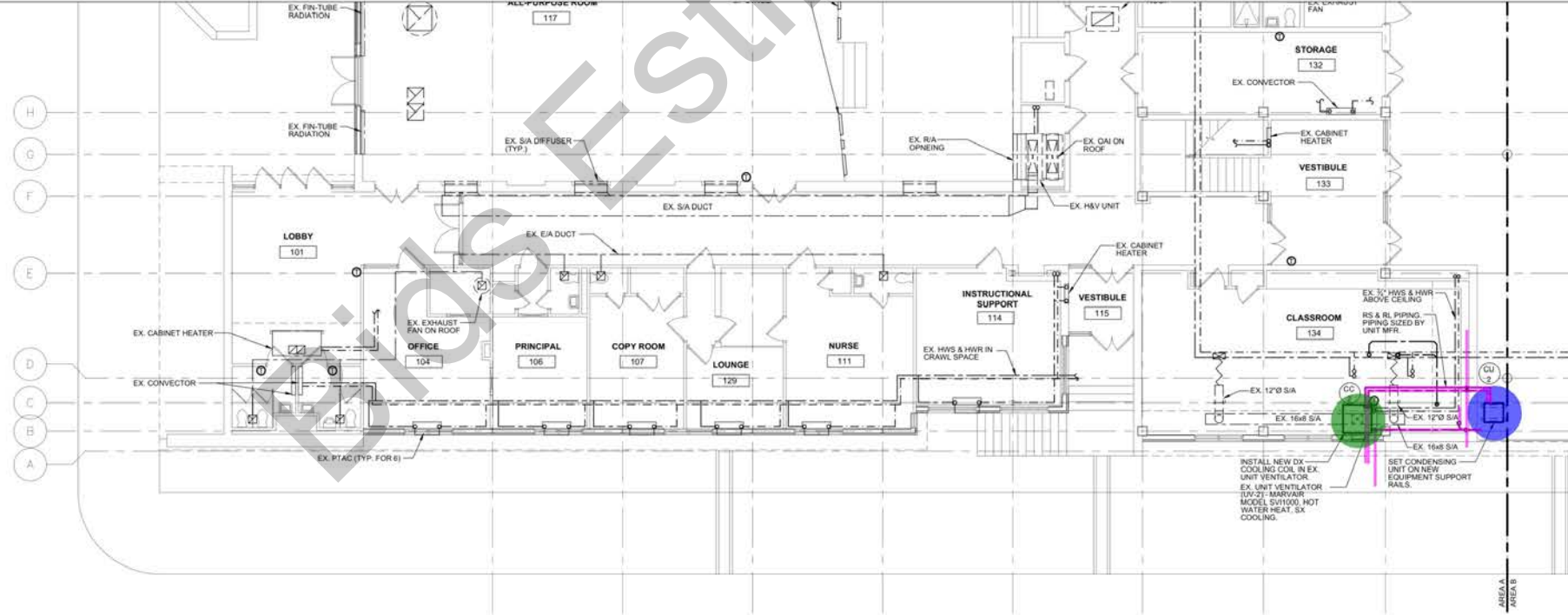
SECOND FLOOR PLAN - DEMOLITION - HVAC

SCALE: 1/8"=1'-0"
NOTES:
1. REMOVE AND REINSTALL CEILING TILES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING PIPING.
2. DISASSEMBLE EXISTING UNIT VENTILATOR, COIL FLASHINGS, AND PIPE CHASE CABINET TO ACCOMMODATE REMOVAL OF EXISTING COOLING COIL AND REFRIGERANT PIPING.





••	Install new DX cooling coil in existing unit ventilator	1.0 EA	
••	Install new DX cooling coil in existing unit ventilator	1.0 EA	
••	New condensing unit CU-2	1.0 EA	
	4 X 4 Support rail and Refrigerant pipe sized by unit manufacturer	148.4 FT	
••	CU-3	1.0 EA	

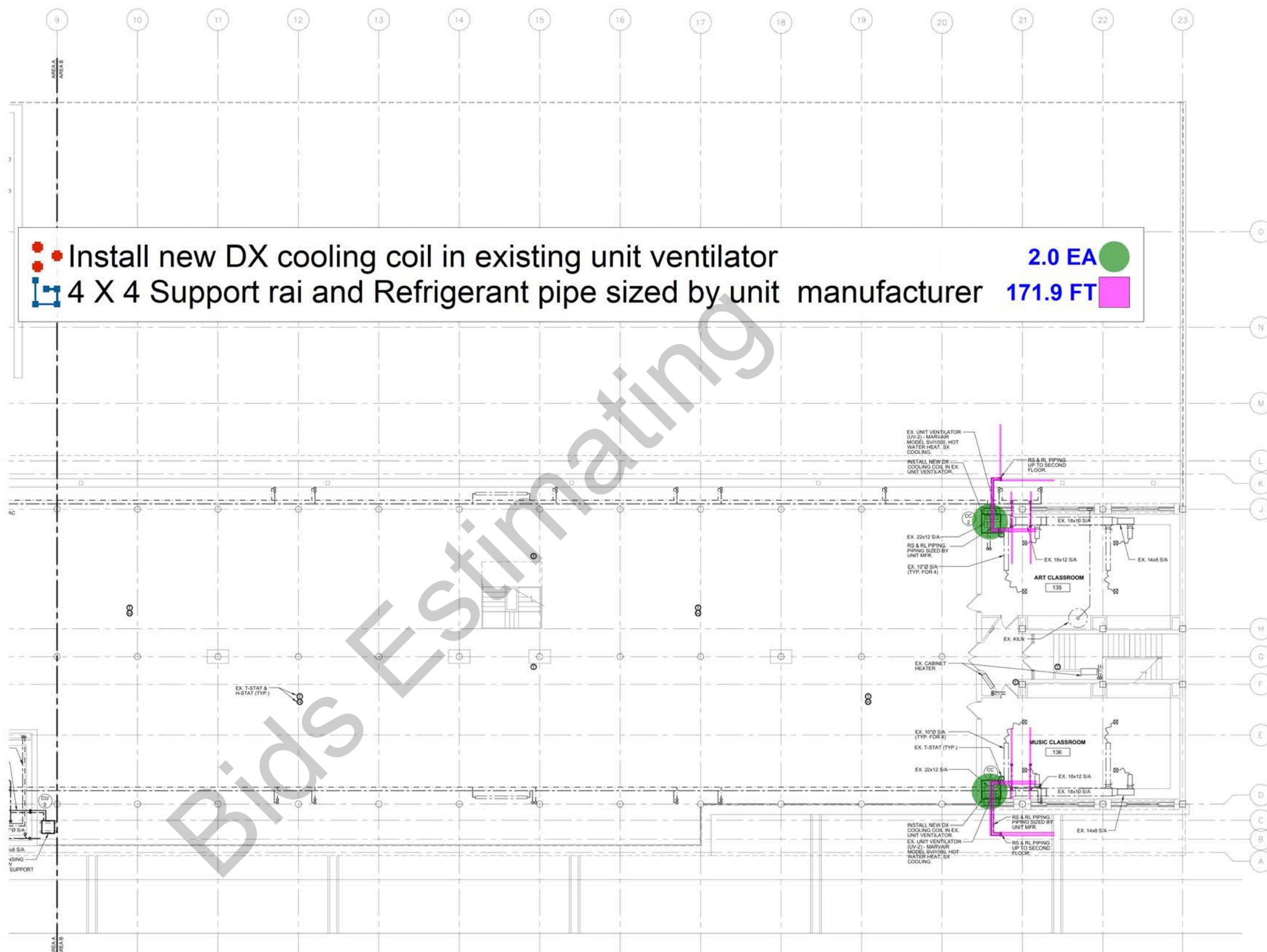


FIRST FLOOR PLAN - AREA "A" - HVAC

SCALE: 1/8"=1'-0"
 NOTES:
 1. REMOVE AND REINSTALL CEILING TILES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING PIPING.
 2. REASSEMBLE EXISTING UNIT VENTILATOR, COIL FLASHINGS, AND PIPE CHASE CABINET TO ACCOMMODATE INSTALLATION OF NEW COOLING COIL AND REFRIGERANT PIPING.
 3. REPLACE ENERGY RECOVERY WHEEL BELT ON EACH UNIT VENTILATOR.

BALANCING NOTES:
 REBALANCE EACH UNIT VENTILATOR AS FOLLOWS:
 UV-1: SUPPLY AIR: 800 CFM
 OUTSIDE AIR: 215 CFM
 UV-2: SUPPLY AIR: 1,100 CFM
 OUTSIDE AIR: 375 CFM
 UV-3: SUPPLY AIR: 1,500 CFM
 OUTSIDE AIR: 375 CFM



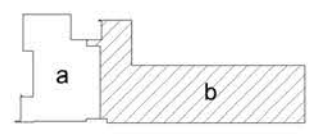


■ ■ Install new DX cooling coil in existing unit ventilator 2.0 EA ■
■ 4 X 4 Support rail and Refrigerant pipe sized by unit manufacturer 171.9 FT ■

FIRST FLOOR PLAN - AREA "B" - HVAC

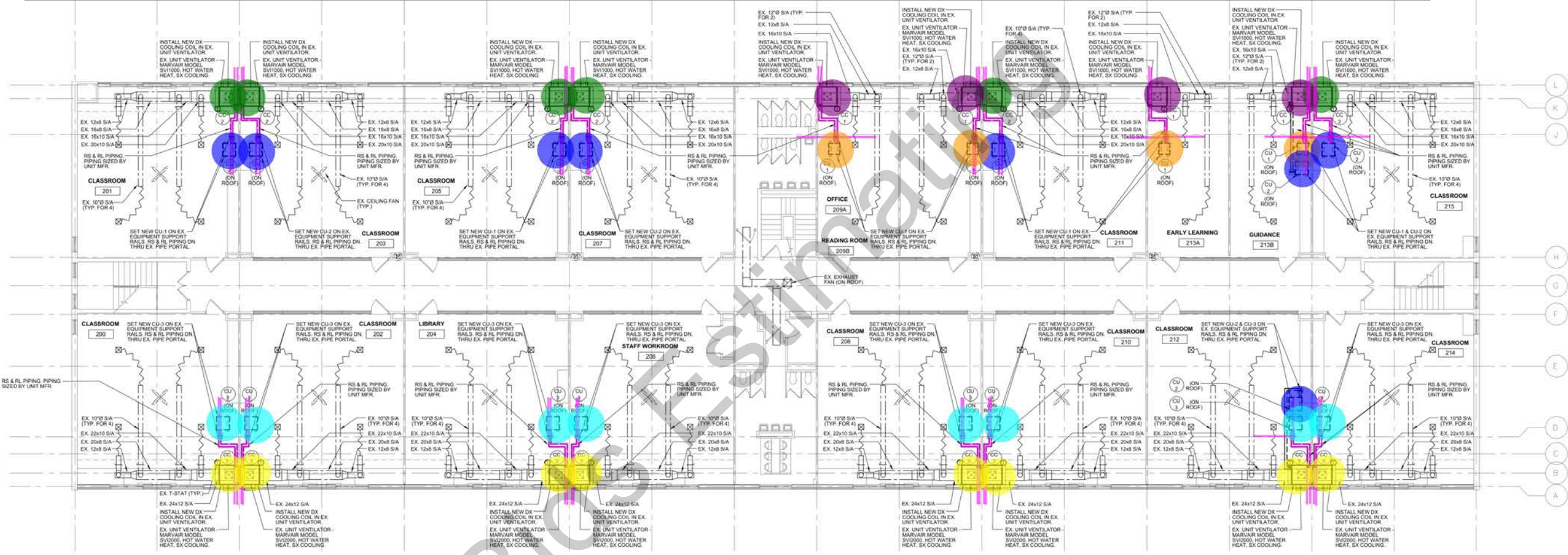
SCALE: 1/8"=1'-0"
 NOTES:
 1. REMOVE AND REINSTALL CEILING TILES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING PIPING.
 2. REASSEMBLE EXISTING UNIT VENTILATOR, COIL FLASHINGS, AND PIPE CHASE CABINET TO ACCOMMODATE INSTALLATION OF NEW COOLING COIL AND REFRIGERANT PIPING.
 3. REPLACE ENERGY RECOVERY WHEEL BELT ON EACH UNIT VENTILATOR.

BALANCING NOTES:
 REBALANCE EACH UNIT VENTILATOR AS FOLLOWS:
 UV-1: SUPPLY AIR - 800 CFM
 OUTSIDE AIR - 215 CFM
 UV-2: SUPPLY AIR - 1,100 CFM
 OUTSIDE AIR - 375 CFM
 UV-3: SUPPLY AIR - 1,500 CFM
 OUTSIDE AIR - 375 CFM



- Install new DX cooling coil in existing unit ventilator
- Install new DX cooling coil in existing unit ventilator
- New condensing unit CU-1
- New condensing unit CU-2
- 4 X 4 Support rail and Refrigerant pipe sized by unit manufacturer
- Install new DX cooling coil in existing unit ventilator
- CU-3

- 6.0 EA 
- 4.0 EA 
- 4.0 EA 
- 8.0 EA 
- 818.5 FT 
- 8.0 EA 
- 8.0 EA 



SECOND FLOOR PLAN - HVAC

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

NOTES:

1. REMOVE AND REINSTALL CEILING TILES AND GRIDS AS REQUIRED TO FACILITATE ABOVE CEILING PIPING.
2. REASSEMBLE EXISTING UNIT VENTILATOR COIL FLASHINGS AND PIPE CHASE CABINET TO ACCOMMODATE INSTALLATION OF NEW COOLING COIL AND REFRIGERANT PIPING.
3. REPLACE ENERGY RECOVERY WHEEL BELT ON EACH UNIT VENTILATOR.

BALANCING NOTES:

- REBALANCE EACH UNIT VENTILATOR AS FOLLOWS:
- UV-1: SUPPLY AIR: 600 CFM
OUTSIDE AIR: 215 CFM
 - UV-2: SUPPLY AIR: 1,100 CFM
OUTSIDE AIR: 375 CFM
 - UV-3: SUPPLY AIR: 1,500 CFM
OUTSIDE AIR: 375 CFM



KEY PLAN
NOT TO SCALE

