TITLE 24 MECHANICAL & PLUMBING REQUIREMENTS (CODE REFERENCES ARE TO 2019 BUILDING ENERGY EFFICIENCY STANDARDS):

1. All air cooled HVAC units shall have minimum efficiencies per Table 110.2-A.
2. All furnaces shall have minimum efficiencies per Table 110.2-J.
3. All furnaces shall have stand by loss controls per section 110.2 (d).
4. All thermostats shall comply with 110 (b) or (c), as applicable.
5. All HVAC systems shall have outside (ventilation) air per 120.1 (b) 2. Also see mechanical plans for minimum outside air settings. Refer to table on plan.
6. When CO2 ventilation demand controls are specified, provide in accordance with 120.1 C. 4.
7. Minimum ventilation rates shall be initiated one hour prior to scheduled occupancy per 120.1 (c) 2.
8. Each HVAC system shall have shut-off and reset controls complying with 120.2 (e).
9. All outside and exhaust dampers shall automatically close per 120.2 (f).
10. All systems greater than a nominal 54 MBH cooling capacity shall have economizers equipped with fault detection and diagnostics per 120.2 (i).
11. All ductwork insulation shall comply with 120.4.
12. Set up all thermostats with a dead band of no less than three degrees to prevent cycling between heating and cooling.
13. Acceptance tests required prior to granting occupancy. NA refers to Non Residential appendices:
    - Outdoor air ventilation systems per NA 7.5.1.
    - Constant volume single zone system controls per NA 7.5.2.
    - Air economizers per NA 7.5.4.
    - Demand control (CO2) controls, when required, per NA 7.5.5.
    - Fault Detection & diagnostics (FDD) per NA 7.5.11.

Equipment Anchorage Notes:

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 2019 CBC, Sections 1617A.1.18 through 1617A.1.26 and ASCE 7-16 Chapters 13, 26 and 30.

1. All permanent equipment and components.
2. 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.
3. Temporary, moveable or mobile equipment which is heavier than 400 pounds or has a center mass located 4 feet or more above the adjacent floor or roof level that directly support the component are 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:

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 13.3 as defined in ASCE 7-16 Section 13.6.5., 13.6.6, 13.6.7, 13.6.8, and 2019 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., OSHPD 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 hanging 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):

MP ☐ MD ☑
PP ☐ E ☐ **Option 1:** Detailed on the approved drawings with project specific notes and details

MP ☐ MD ☐
PP ☐ E ☐ **Option 2:** Shall comply with the applicable OSHPD Pre-Approval (OPM#)

Codes:

California Code of Regulations (C.C.R)

Part 1 - 2022 California Standards Administrative Code, Title 24, C.C.R.
Part 2 - 2019 California Building Code (C.B.C.), Title 24, C.C.R. Volumes 1-3.
Part 3 - 2019 California Electrical Code, Title 24, C.C.R.
Part 4 - 2019 California Mechanical Code (C.M.C.), Title 24, C.C.R.
Part 5 - 2019 California Plumbing Code (C.P.C.), Title 24, C.C.R.
Part 6 - 2019 California Energy Code, Title 24, C.C.R.
Part 9 - 2019 California Fire Code, Title 24, C.C.R.
Part 11 - 2019 California Green Code, Title 24, C.C.R.

Standards and Guides:

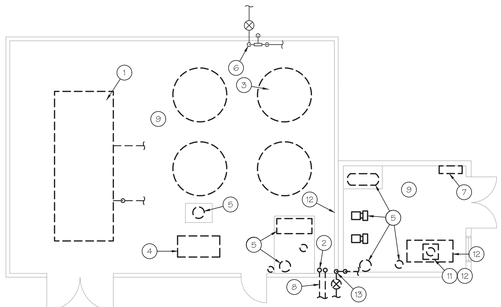
ADAAG - American with Disabilities Act, Accessibility Guidelines.
Fixtures - Plumbing fixtures to comply with table 5.303.6 of the California Green Building Standards - 2019 Edition.

Air Conditioning Legend

SYMBOL	ABBR.	ITEM	SYMBOL	ABBR.	ITEM
	A.C.	Air Conditioning		H.W.R.	Heating Water Return
	A.D.	Access Door		H.W.S.	Heating Water Supply
	A.F.F.	Above Finished Floor		INT.	Internal
	A.H.	Air Handler		LOC.	Location
	B.A.S.	Building Automation System		M.O.	Motor Operated
	B.V.	Butterfly Valve		(N)	New
	C.D.	Condensate Drain		N.C.	Normally Closed
	C.E.	Ceiling Exhaust Register		N.I.C.	Not in Contract
	C.W.R.	Condensor Water Return		N.O.	Normally Open
	C.W.S.	Condensor Water Supply		O.S.A.	Outside Air
	C.H.W.R.	Chilled/Hot Water Return		O.B.D.	Opposed Blade Damper
	C.H.W.S.	Chilled/Hot Water Supply		P.O.C.	Point of Connection
	COMB.	Combustion		P.P.	Petes Plug
	CONN.	Connection		PROV.	Provide
	CONT.	Continuation		P.R.V.	Pressure Reducing Valve
	C.R.	Ceiling Return Register		SIM.	Similar
	CLG.	Ceiling		S.F.D.	Smoke / Fire Damper w/ access panel
	C.S.	Ceiling Supply Register		S.M. or S/M	Sheet Metal
	C.V.	Check Valve		S.O.V.	Shut Off Valve
	D.C.W.	Domestic Cold Water		S.P.S.T.	Single Pole Single Throw
	DIA.	Diameter		STAT	Thermostat or Room Sensor
	D.L.	Door Louver		SURF.	Surface
	DN.	Down		(TYP)	Typical
	D.P.D.T.	Double Pole Double Throw		U.G.	Underground
	D.T.R.	Duct Thru Roof		U.N.O.	Unless Noted Otherwise
	(E)	Existing		V.D.	Volume Damper
	E.F.	Exhaust Fan		V.D.	Vol Damper w/ Remote Operator
	E.M.S.	Energy Management System		W/	With
	EX.	Exhaust		W.R.	Wall Return Register
	F.D.	Fire Damper w/ acc. panel		W.S.	Wall Supply Register
	Flex. Conn.	Flexible Connection			Duct w/ Acoustic Lining
	FLR.	Floor		T.V.	Turning Vanes
	F.T.R.	Flue Thru Roof			Extractor
	Furn.	Furnace			
	GA.	Gauge			
	GAL.	Gallon			CO2 SENSOR
	GALV.	Galvanized			
	G.P.M.	Gallons per Minute			Union
	GRD.	Grade			Reducer or Increaser
	G.V.	Gate Valve			

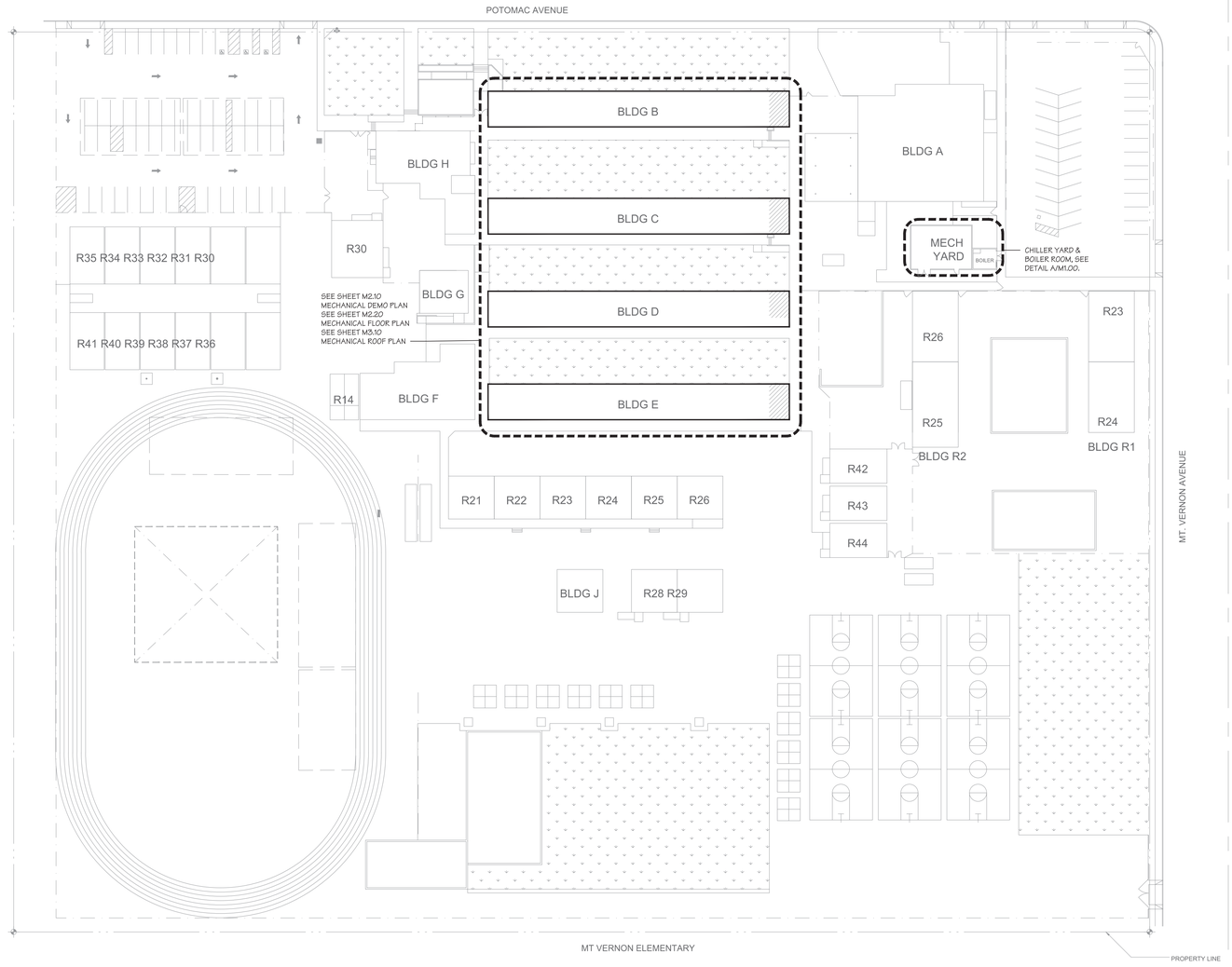
CENTRAL PLANT DEMO KEYNOTES:

1. Remove existing chillers, all chilled water piping, hangers, supports, etc.
2. Cap piping at 1" above grade.
3. Remove existing thermal storage tanks, all piping supports, etc.
4. Remove all existing pumps, expansion tanks, pot feeder, supports, accessories, etc.
5. Remove existing boiler, all hot water piping, supports, etc.
6. Remove existing EMS panel, all related conduits, wiring, controls, etc.
7. Demo back domestic CW pipe back to branch take-off and cap.
8. Note: Entire central plant yard shall be made free of all mechanical, plumbing, electrical, and control items related to items being removed. Confirm exact details based on field conditions.



CHILLER YARD AND BOILER ROOM DEMO PLAN (A)

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



MECHANICAL SITE PLAN

SCALE: 1"=40'-0"

EQUIPMENT SCHEDULE

HP-1 (C / M4.10)

Carrier 50GCQM06 Rooftop Heat Pump, 1,800 CFM @ 0.60 E.S.P., 0.66 BHP direct drive supply fan drive vane-axial fan with electrically commutated motor, 1,200 CFM low speed (staged air volume), 61,300 BTUH total / 46,320 sensible gross cooling / 54,860 heating capacity / 16.2 SEER / 11.7 EER / 8.3 HSPF at ARI conditions. Two stage cooling, 5 year compressor warranty, high and low pressure switches, adjustable defrost timer, and anti-short cycle timer, (4) 16" x 16" x 2" MERV 13 return air filters, 5.5 kW electric strip heater factory mounted and wired, single point power connection for heat pump and strip heater. Integrated modulating economizer with dry bulb control, fault diagnostics and detection per T24 regulations, modulating power exhaust fan module, demand control ventilation package with wall mounted CO2 sensor set to 1000 ppm. Adjust outside airflow to modulate between hi-low settings per O.A. schedule on plans. Include information on both settings in air balance report. Provide sperate power feed and disconnect for economizer power exhaust fan. Sloped roof curb with seismic hold down clips, internal high and low compressor protection.

Electrical: 26 MCA / 30 MOCP @ 460v-3ph. (HP Unit) Operating Weight: 816 Lbs.

1.9 MCA / 3.4 MOCP @ 460v-3ph. (Power Exhaust) Curb: 107 lbs.

EF-1 (G / M4.11)

Greenheck CUE-099-VG Centrifugal Upblast Roof Mounted Exhaust Fan. 450 CFM @ 0.50" E.S.P., 1172 RPM, .07 BHP, 5.8 sones, 1/6 HP direct drive ECM motor. Provide with sloped roof curb, backdraft damper, dial on motor for balancing, bird screen, and NEMA-1 toggle switch. Interlock fan operation with Pelican EMS system.

Electrical: 1/6 HP @ 115v-1ph. Operating Weight: 37 Lbs.

EF-2 (G / M4.11)

Greenheck CUE-095-VG Centrifugal Upblast Roof Mounted Exhaust Fan. 300 CFM @ 0.50" E.S.P., 1345 RPM, .06 BHP, 6.7 sones, 1/6 HP direct drive ECM motor. Provide with sloped roof curb, backdraft damper, dial on motor for balancing, bird screen, and NEMA-1 toggle switch. Interlock fan operation with Pelican EMS system.

Electrical: 1/6 HP @ 115v-1ph. Operating Weight: 37 Lbs.

EF-3 (G / M4.11)

Greenheck CUE-070-VG Centrifugal Upblast Roof Mounted Exhaust Fan. 150 CFM @ 0.40" E.S.P., 1589 RPM, .02 BHP, 4.1 sones, 1/15 HP direct drive ECM motor. Provide with sloped roof curb, backdraft damper, dial on motor for balancing, bird screen, and NEMA-1 toggle switch. Interlock fan operation with Pelican EMS system.

Electrical: 1/15 HP @ 115v-1ph. Operating Weight: 22 Lbs.

EF-4 (I / M4.11)

Greenheck SPA-50-90-VG Ceiling Mounted Exhaust Fan. 90 CFM @ 0.20" E.S.P., 887 RPM, 6 watts ECM motor, 0.7 sones. Provide with backdraft damper, full size discharge to roof cap, and NEMA-1 toggle switch. Interlock fan operation with light circuit. Dial on fan speed control with time delay set to fifteen minutes.

Electrical: 6 Watts @ 115v-1ph. Operating Weight: 12 Lbs.

General Project Note:

1. Coordination of work: Layout of materials, equipment and systems is generally diagrammatic unless specifically dimensioned. Some work may be shown offset for clarity. The actual location of all materials, piping, ductwork, fixtures, equipment, supports, etc. shall be carefully planned, prior to installation of any work to avoid all interferences with each other, or with structural, electrical, architectural or other elements. Verify the proper voltage and phase of all equipment with the electrical plans. All conflicts shall be called to the attention of the architect and the engineer prior to the installation of any work or the ordering of any equipment.

2. Cutting, boring, saw cutting or drilling through the new or existing structural elements to be done only when so detailed in the drawings or accepted by the Architect and Structural engineer with the approval of DSA representative.

DIFFUSER SIZING CHART

CFM	TITUS MCD, SQUARE NECK	CFM	TITUS TDC, SQUARE NECK
0 - 200	6" x 6"	0 - 150	6" x 6"
201 - 325	8" x 8"	151 - 275	9" x 9"
326 - 450	10" x 10"	276 - 475	12" x 12"
451 - 600	12" x 12"	476 - 700	15" x 15"
601 - 700	14" x 14"	701 - 950	18" x 18"
701 - 850	16" x 16"	951 - 1250	21" x 21"
851 - 950	18" x 18"	1251 - 1700	24" x 24"
951 - 1150	20" x 20"	1701 - 2500	30" x 30"

GRILLE SCHEDULE

CD-1

Titus Model TDC Louvered Face Diffuser with T-Bar mount frame and O.B.D. See diffuser sizing chart for neck sizes.

CD-2

Titus Model TDC Louvered Face Diffuser with surface mount frame and O.B.D. See diffuser sizing chart for neck sizes.

CR-1

Titus Model 50F eggcrate T-Bar mount return grille.

CE-1

Titus Model 35RL, 35 degree deflection, surface mounting frame, O.B.D.

Note: Paint all visible surfaces behind diffusers and grilles flat black.

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CAMPUS HVAC SYSTEM UPGRADE & SITE IMPROVEMENTS

Mt Vernon Elementary School

2161 Potomac Ave, Bakersfield, CA, 93307
Bakersfield City School District

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REGISTERED PROFESSIONAL ENGINEER MARK JAMES BASKIN No. M26537 EXP. 06-30-24 MECHANICAL STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

REVISIONS

No	Date	Item

02.02.24 13:15

MECHANICAL SITE PLAN, SCHEDULES, NOTES

M1.00

BASKIN MECHANICAL ENGINEERS
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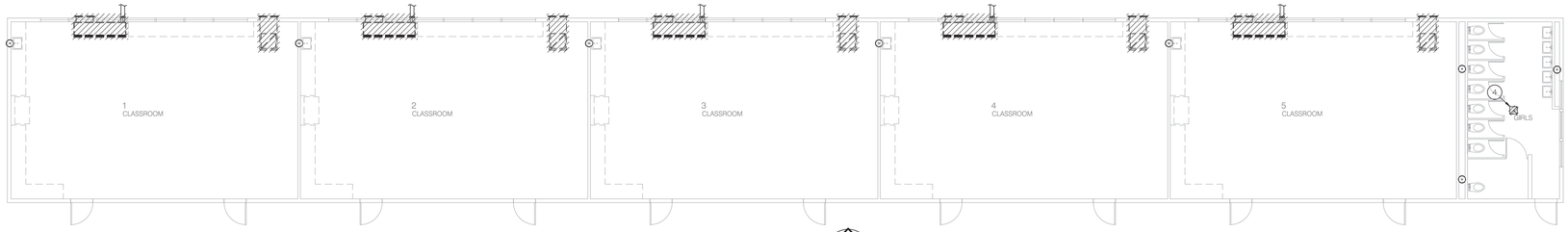
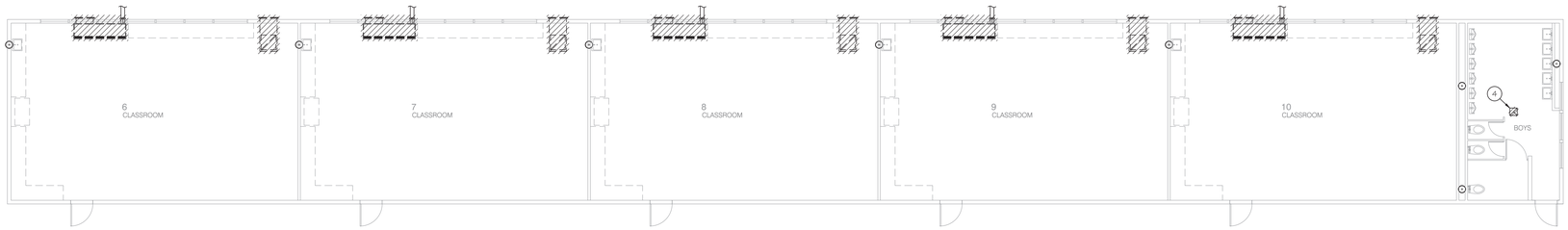
Plt: 02-02-24



MECHANICAL DEMO PLAN - BUILDING B

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



MECHANICAL DEMO PLAN - BUILDING C

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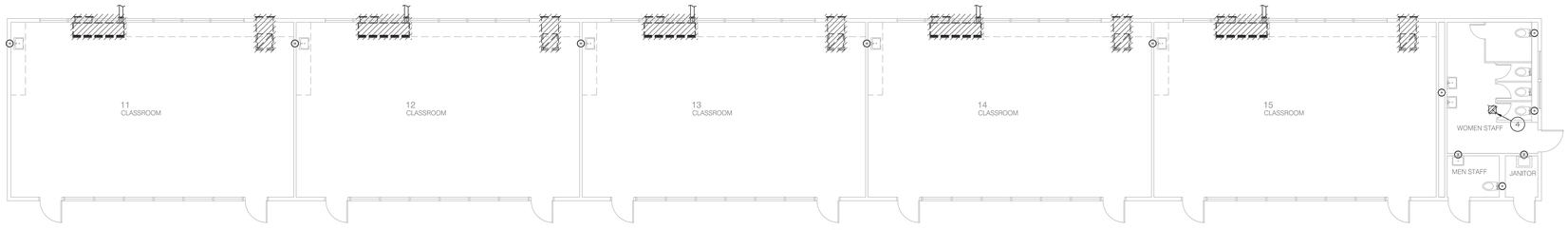
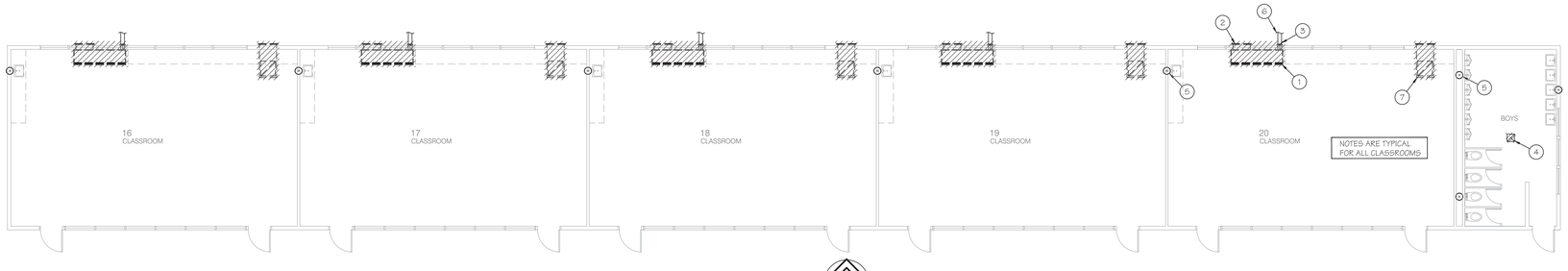


MECHANICAL DEMO PLAN - BUILDING D

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



MECHANICAL DEMO PLAN - BUILDING E

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

DEMOLITION KEY NOTES:

1. Remove existing unit ventilator, all related mechanical piping, condensate piping, controls, supports, anchorage, etc. Patch existing surfaces to match existing.
2. Remove existing outside air louvers. Infill / patch wall to match existing.
3. Remove existing hydronic and condensate piping and exterior chase. Remove piping to 12" below grade. Cap piping and abandon in place. Patch all surfaces to match existing.
4. Remove existing exhaust fan or gravity relief vent, roof curb, ductwork, grille, etc. Patch roof to match existing.
5. Existing waste vent, typical. Confirm exact location in field.
6. Abandon in place below grade site hydronic piping.
7. Remove existing barometric relief assembly. Infill and patch wall to match existing.

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PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

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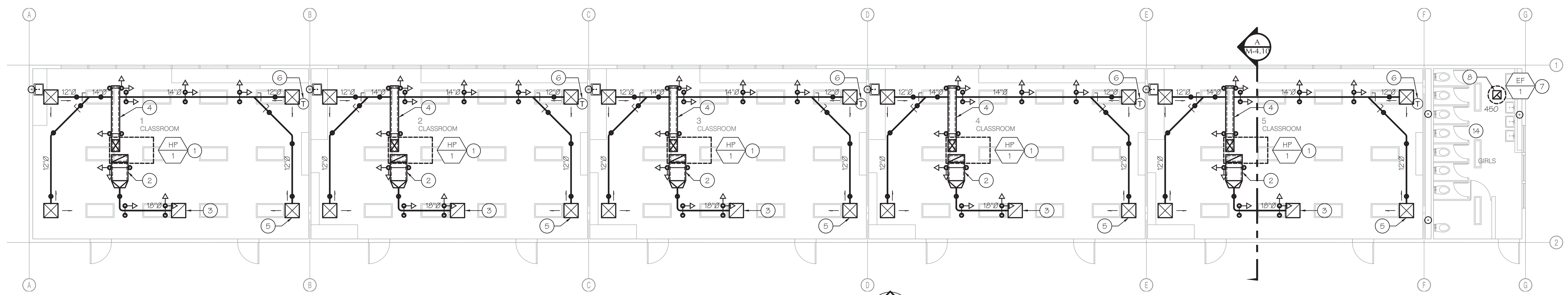
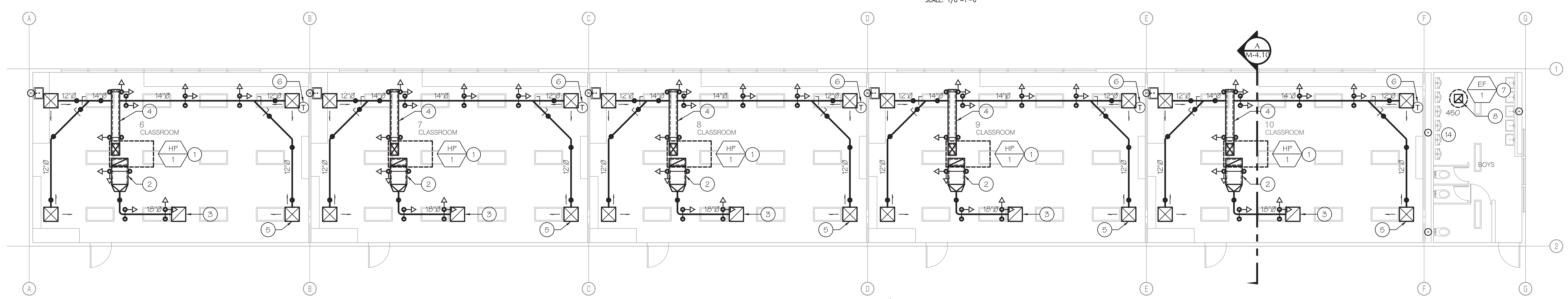
MECHANICAL DEMOLITION PLAN

M2.10



MECHANICAL FLOOR PLAN - BUILDING B

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



MECHANICAL FLOOR PLAN - BUILDING C

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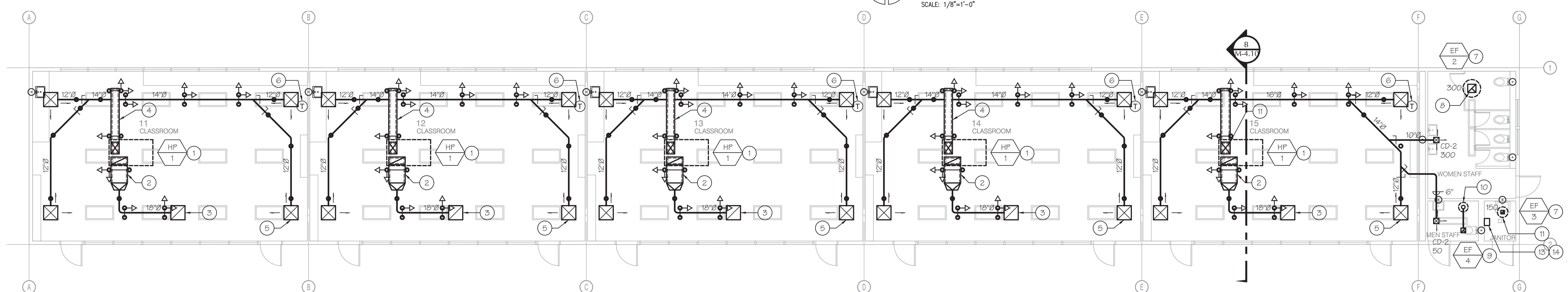
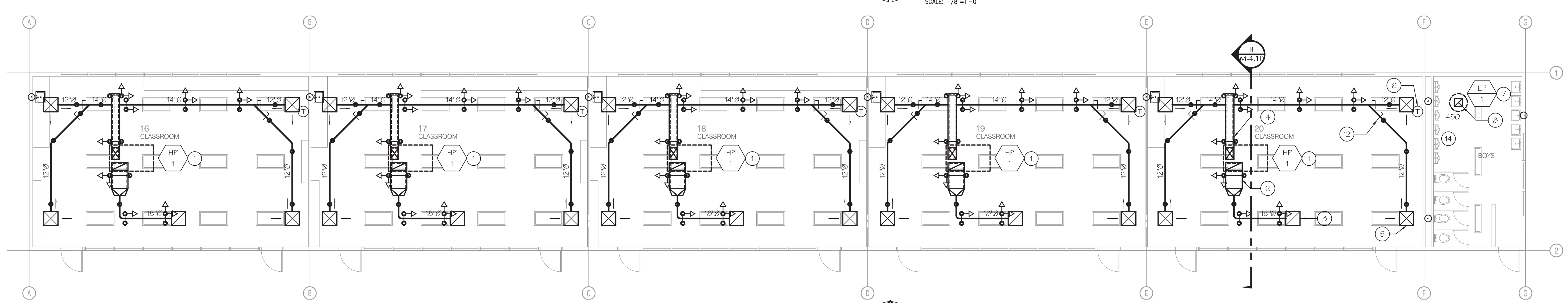


MECHANICAL FLOOR PLAN - BUILDING D

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



MECHANICAL FLOOR PLAN - BUILDING E

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

SEISMIC RESTRAINT LEGEND

(SEE DETAILS ON SHEET M4.12.)

	TRANSVERSE SEISMIC BRACE LOCATION
	TRANSVERSE AND LONGITUDINAL SEISMIC BRACE LOCATION
	- (INDIVIDUALLY HUNG AND TRAPEZE SUPPORTED)

MECHANICAL FLOOR PLAN KEY NOTES:

1. ROOF MOUNTED HP UNIT. SEE MECHANICAL ROOF PLAN.
2. 26" X 11" RETURN AIR RISER WITH 1" LINER, 28" X 13" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/M4.11.
3. CR-1 TYPICAL.
4. 12" X 18" SUPPLY AIR DROP WITH 1" LINER, 14" X 20" NET. PROVIDE MITERED LINED ELBOW AT BOTTOM OF RISER. SEE DETAIL C/M4.11.
5. CD-1, TYPICAL. SEE DETAIL A/M4.11.
6. T-STAT LOCATION TYPICAL. USE PELICAN TS250 WITH CO2 SENSOR AND DEMAND CONTROL VENTILATION. SEE TYPICAL DETAIL D/M4.11.
7. ROOF MOUNTED EXHAUST FAN. SEE MECHANICAL ROOF PLAN.
8. 12" X 12" EXHAUST DUCT DROP WITH 1" LINER, WITH CE-1, 14" X 14" EXHAUST GRILLE.
9. CEILING EXHAUST FAN. SEE DETAIL I/M4.11.
10. 6" ROUND EXHAUST DUCT ROUTED THRU ROOF TO ROOF CAP.
11. 12" X 12" EXHAUST DUCT DROP WITH CE-1, 12" X 12" EXHAUST GRILLE.
12. BRANCH DUCT VOLUME DAMPER, TYPICAL. SEE DETAIL B/M4.11.
13. LOCATE PELICAN WIRELESS GATEWAY AT THIS LOCATION ALONG WITH 120V CONNECTION AND ROUTER CONNECTION. SEE DETAIL E/M4.11.
14. PROVIDE WIRELESS RELAY MODULE TO CONTROL EXHAUST FANS IN THIS BUILDING. SEE DETAIL F/M4.11.

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REVISIONS

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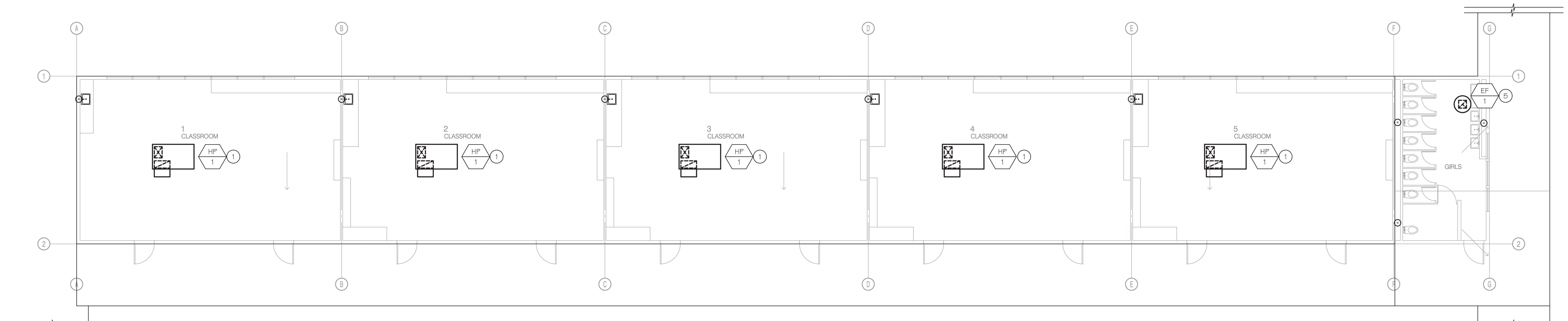
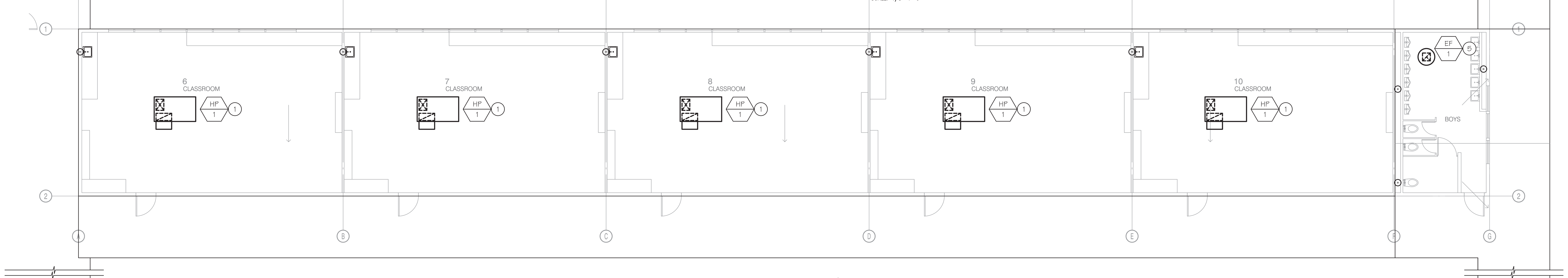
MECHANICAL FLOOR PLAN

M2.20



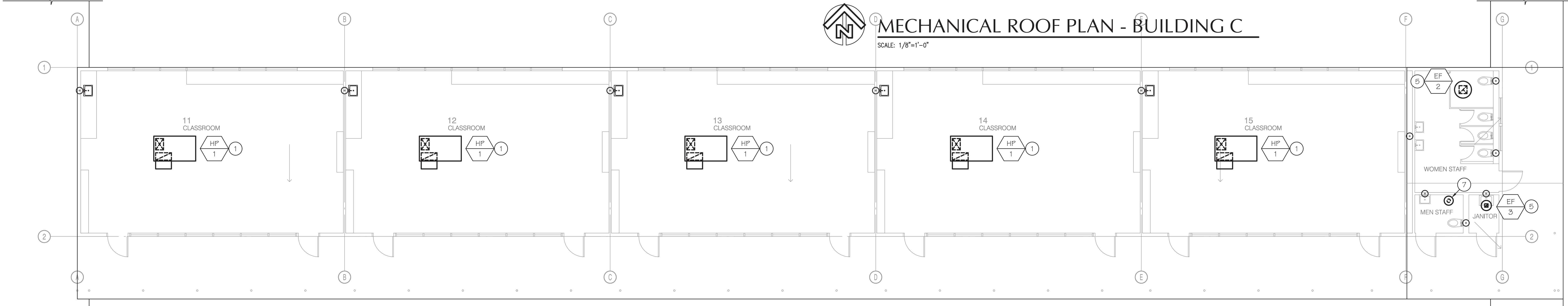
MECHANICAL ROOF PLAN - BUILDING B

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



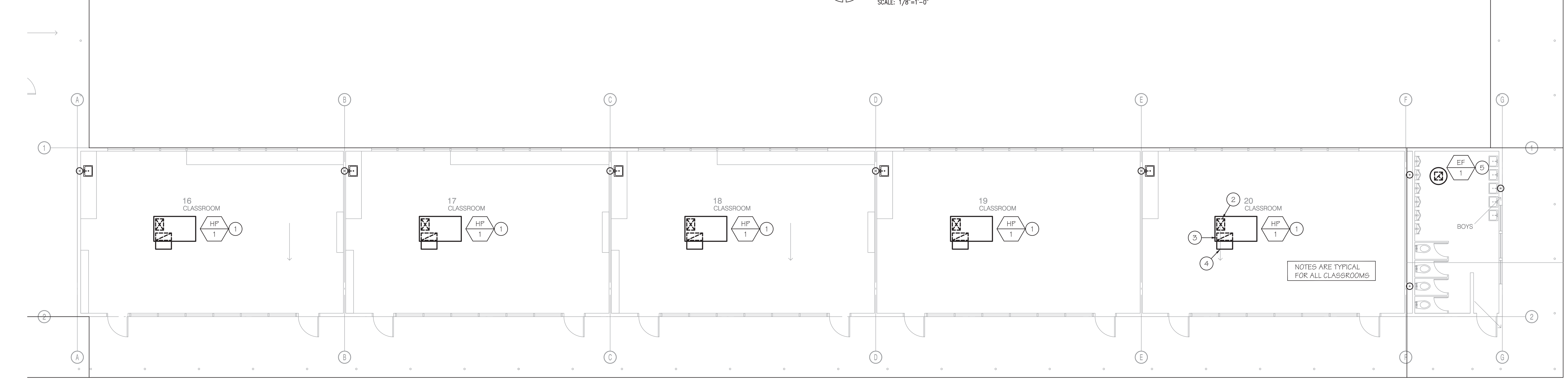
MECHANICAL ROOF PLAN - BUILDING C

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



MECHANICAL ROOF PLAN - BUILDING D

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



MECHANICAL ROOF PLAN - BUILDING E

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

MECHANICAL ROOF PLAN KEYNOTES:

1. NEW HP UNIT ON SLOPED ROOF CURB. SEE DETAIL C/M4.10
2. 12" X 18" SUPPLY DUCT DROP THRU ROOF WITH 1" LINER, 14" X 20" NET.
3. 26" X 11" RETURN DUCT RISER THRU ROOF WITH 1" LINER, 28" X 13" NET.
4. ECONOMIZER WITH POWER EXHAUST MODULE. SET MINIMUM OUTSIDE EQUAL TO 150 CFM WITH DEMAND CONTROL VENTILATION OVERRIDE TO 400 CFM.
5. NEW ROOF MOUNTED EXHAUST FAN WITH 12" X 12" LINED EXHAUST RISER THRU ROOF, 14" X 14" NET. SEE DETAIL G/M4.11.
6. NEW ROOF MOUNTED EXHAUST FAN WITH 12" X 12" EX. RISER THRU ROOF. SEE DETAIL G/M4.11
7. NEW ROOF CAP FOR CEILING EXHAUST FAN.

BASKIN MECHANICAL ENGINEERS
175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22012
Plt: 02-02-24

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DATE: 02/28/2024

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CAMPUS HVAC SYSTEM UPGRADE & SITE IMPROVEMENTS

Mt Vernon
Elementary School

2161 Potomac Ave. Bakersfield. CA. 93307
Bakersfield City School District

ARCHITECT

LICENSED ARCHITECT
JAMES PATRICK FOGARTY
No. C-19670
11-30-25
STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER
No. M26579
Exp. 9-30-24
MECHANICAL
STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

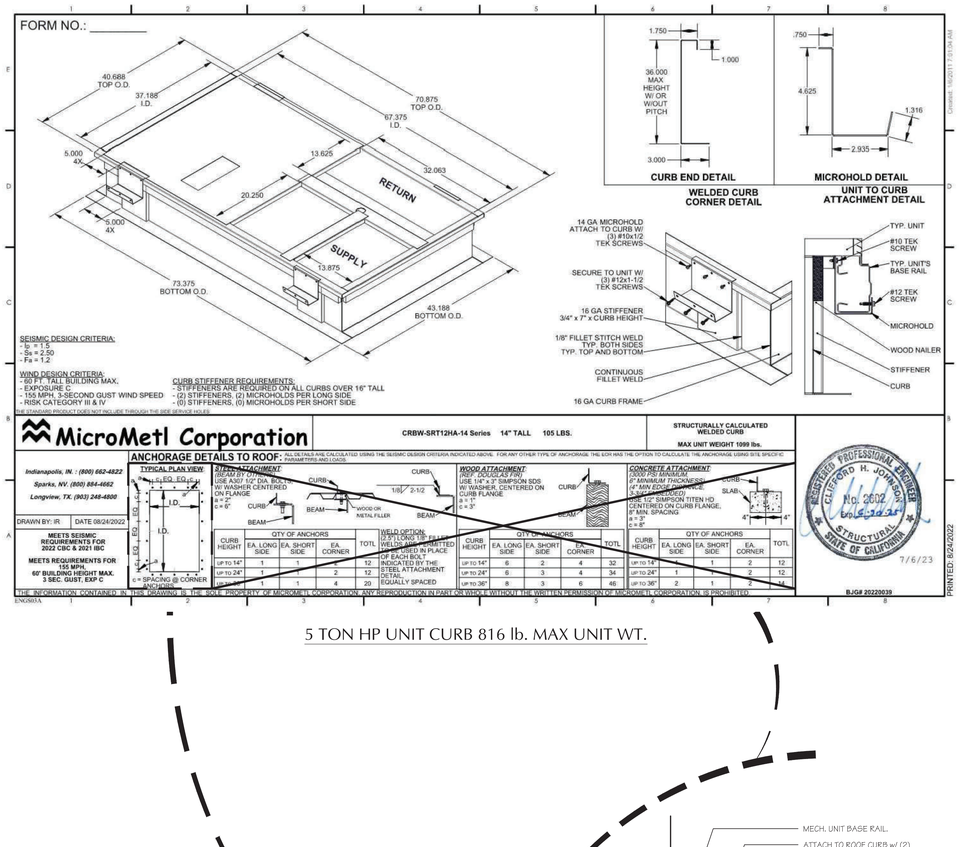
REVISIONS

No	Date	Item

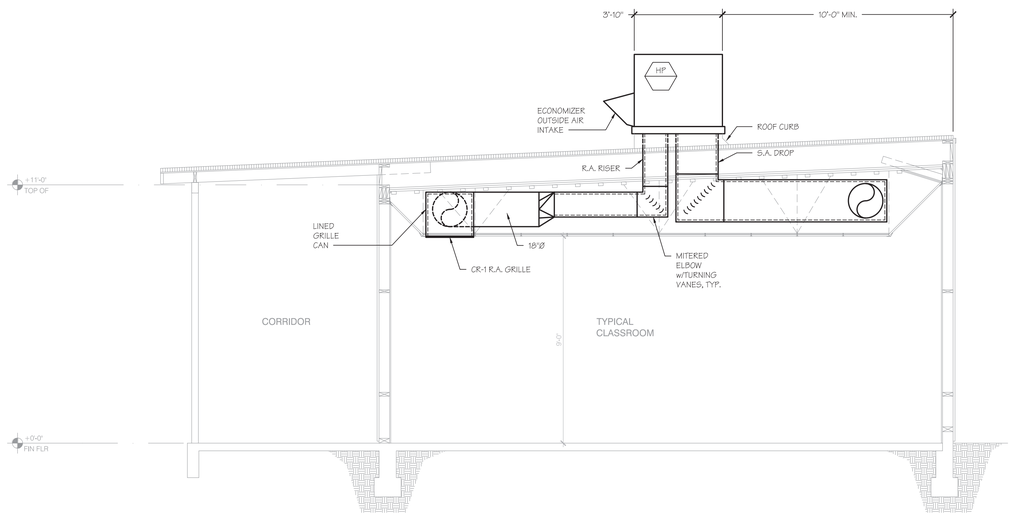
02.02.24 13:15

MECHANICAL ROOF PLAN

M3.10

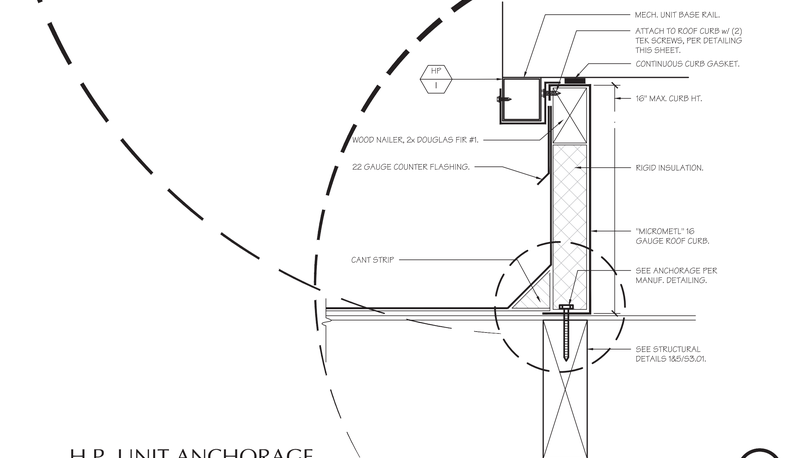


5 TON HP UNIT CURB 816 lb. MAX UNIT WT.



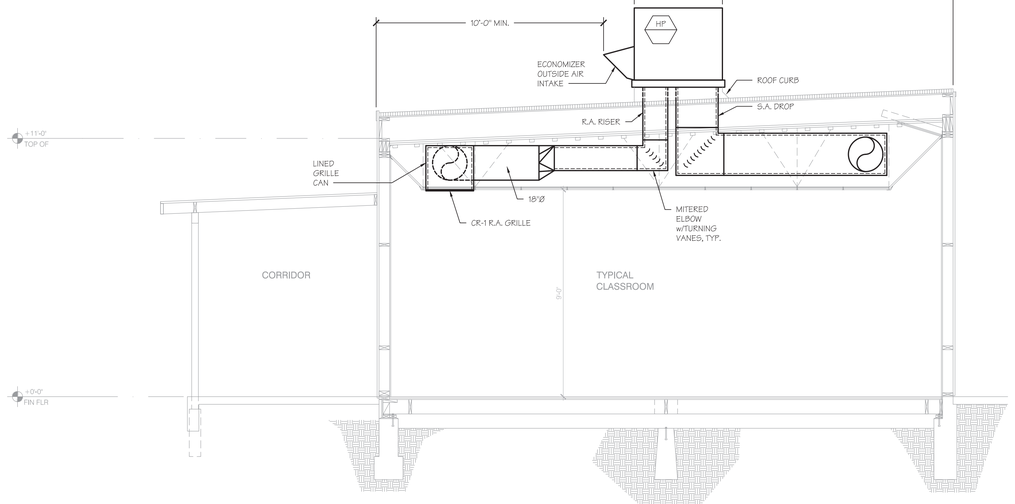
MECHANICAL SECTION - BUILDING B&C (A)

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



H.P. UNIT ANCHORAGE (C)

SCALE: N.T.S.



MECHANICAL SECTION - BUILDING D&E (B)

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

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Mt Vernon Elementary School

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Bakersfield City School District

ARCHITECT

LICENSED ARCHITECT JAMES PATRICK FOGARTY No. C-19670 EXP. 08-30-25 STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER MARK JAMES BASKIN No. M26537 EXP. 06-30-24 MECHANICAL STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

REVISIONS

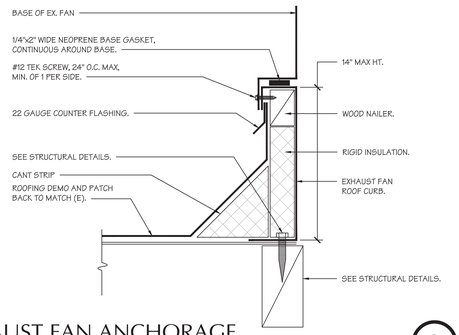
No	Date	Item

02.02.24 13:15

MECHANICAL DETAILS

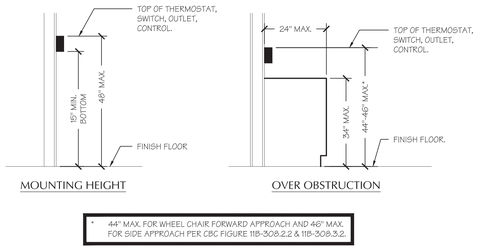
M4.10

BASKIN MECHANICAL ENGINEERS
175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22012
Plt: 02-02-24



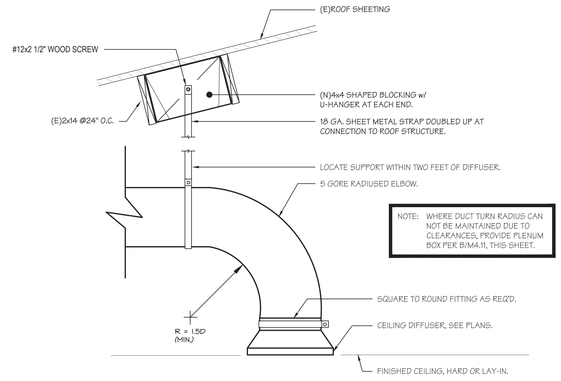
EXHAUST FAN ANCHORAGE — G

SCALE: N.T.S.



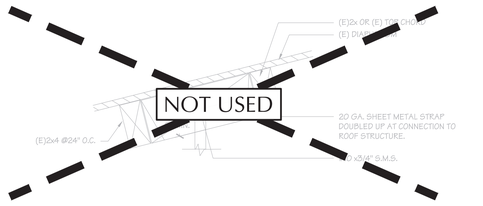
THERMOSTAT MOUNTING LOCATION — D

SCALE: N.T.S.



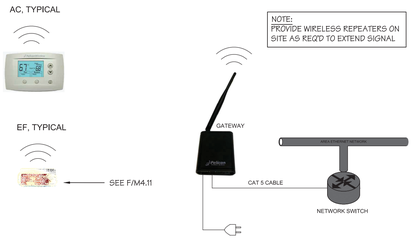
CEILING DIFFUSER/REGISTER CONNECTION — A

SCALE: N.T.S.



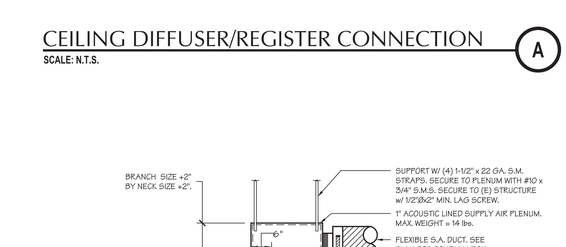
DUCT HANGER UPPER ATTACHMENT — H

SCALE: N.T.S.



LAN ARCHITECTURE — E

SCALE: N.T.S.



SUPPLY AIR PLENUM & BRANCH TAKE-OFFS — B

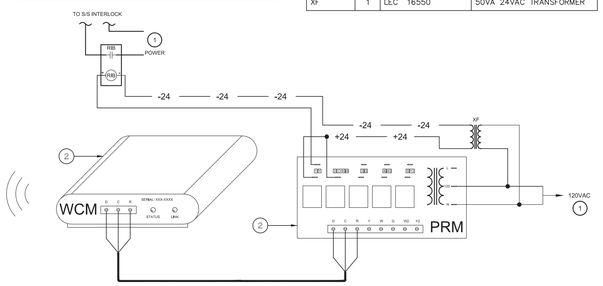
SCALE: N.T.S.

CEILING EX FAN — I

SCALE: N.T.S.

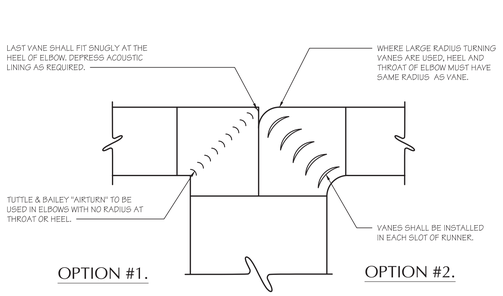
Sheet Notes
1 LINE VOLTAGE & CONDUIT BY DIVISION 16. ELEC. CONTRACTOR
2 INSTALL IN ATM ROOM ADJACENT TO WIRELESS GATEWAY

Control Components			
TAG	QTY	PART NUMBER	DESCRIPTION
WCM+PRM	1	PEL PM5	WIRELESS RELAY MODULE KIT
RIB	2	FUN RUBU1C	RELAY IN A BOX
XF	1	LEC 16550	50VA 24VAC TRANSFORMER



EX. FAN CONTROL DETAIL — F

SCALE: N.T.S.



NOTE:
1. TYPICAL FOR ALL RECTANGULAR SUPPLY AND RETURN DUCTS.
2. REFER TO SMACNA FIG. 2-1 & 2-2, TYPICAL.

NINETY DEGREE ELBOW — C

SCALE: N.T.S.

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CAMPUS HVAC SYSTEM UPGRADE & SITE IMPROVEMENTS

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Bakersfield City School District

ARCHITECT

LICENSED ARCHITECT JAMES PATRICK FOGARTY No. C-19670 EXP. 08-30-25 STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER DEREK JAMES BASKIN No. M26577 EXP. 09-30-24 MECHANICAL STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

REVISIONS

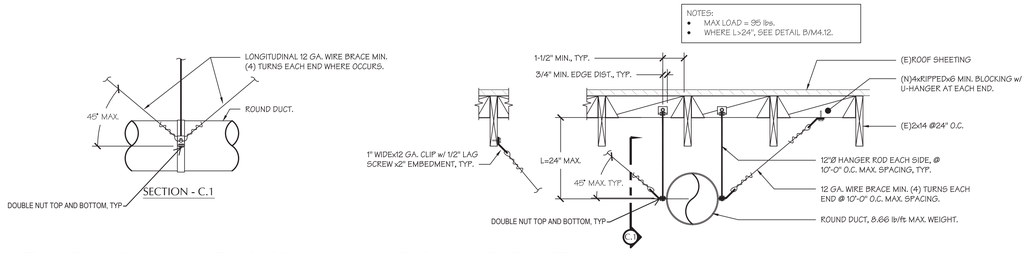
No	Date	Item

02.02.24 13:15

MECHANICAL DETAILS

M4.11

BASKIN MECHANICAL ENGINEERS
175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22012
Plt: 02-02-24

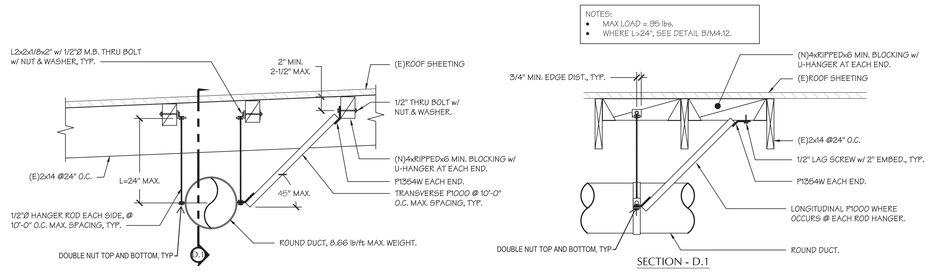


STANDARD HANGERS & BRACING FOR ROUND DUCTS

(NOT APPLICABLE AT PERIMETER CONDITIONS)

SCALE: N.T.S.

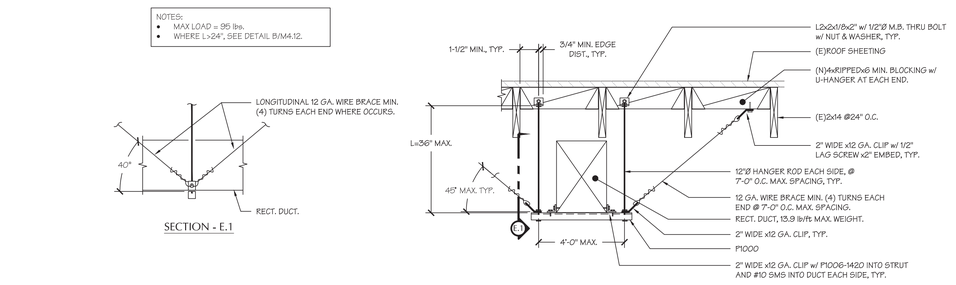
C



ALTERNATIVE HANGERS & BRACING FOR ROUND DUCTS

SCALE: N.T.S.

D

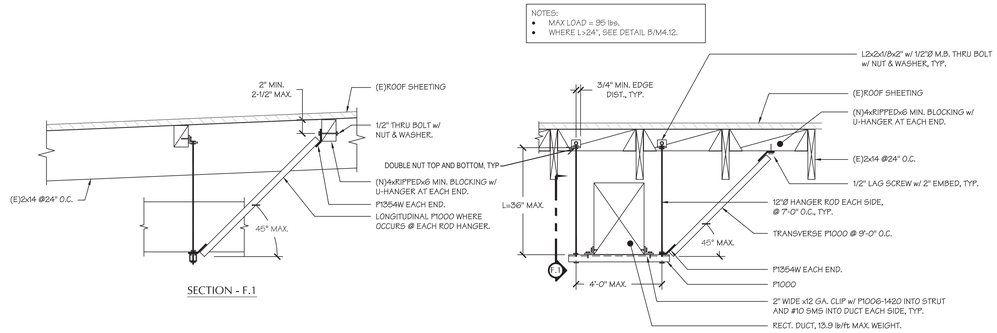


STANDARD HANGERS & BRACING FOR RECT. DUCTS

(NOT APPLICABLE AT PERIMETER CONDITIONS)

SCALE: N.T.S.

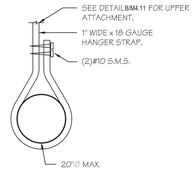
E



ALTERNATIVE HANGERS & BRACING FOR RECT. DUCTS

SCALE: N.T.S.

F



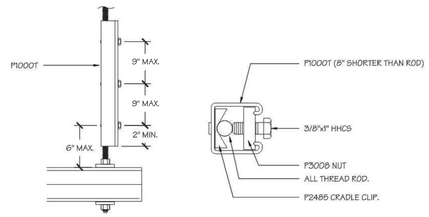
ROUND DUCT

ROUND DUCT HANGERS						
CONSTRUCTION	DIA.	GA.	WEIGHT lb./ft.			MAX SPACING
			DUCT	1" INS.	TOTAL	1"x18 GA. STRAP
SPIRAL	20"	26	4.74	3.92	8.66	12 ft.
SPIRAL	18"	26	4.26	3.53	7.79	12 ft.
SPIRAL	16"	26	3.79	3.13	6.92	12 ft.
SPIRAL	14"	28	2.29	2.75	5.04	12 ft.
SPIRAL	12"	28	1.96	2.36	4.32	12 ft.
SPIRAL	10"	28	1.64	1.96	3.60	12 ft.
SPIRAL	9"	28	1.47	1.76	3.23	12 ft.
SNAP LOCK	8"	28	1.30	1.57	2.87	12 ft.
SNAP LOCK	6"	28	0.98	1.18	2.16	12 ft.

ROUND DUCT HANGER WITHOUT BRACING

SCALE: N.T.S.

A



HANGER ROD REINFORCEMENT

SCALE: N.T.S.

B

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CAMPUS HVAC SYSTEM UPGRADE & SITE IMPROVEMENTS

Mt Vernon Elementary School

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Bakersfield City School District

ARCHITECT

LICENSED ARCHITECT JAMES PATRICK FOGARTY No. C-19670 EXP. 08-30-25 STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER BAKER JAMES BASKIN No. M26537 EXP. 06-30-24 MECHANICAL STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

REVISIONS

No	Date	Item

02.02.24 13:15

DUCT BRACING DETAILS

M4.12

BASKIN MECHANICAL ENGINEERS
175 Fulton Street
Fresno, CA 93721
Tel: (559) 237-0376
Job: 22012
Plt: 02-02-24

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 1 of 13
Project Address:	2161 Patomac Avenue Bakersfield 93307	Calculation Date/Time:	11:44, Tue, Sep 27, 2022
Input File Name:	Mt Vernon B C D E T24.cibd19x		

A. GENERAL INFORMATION

1	Project Location (city)	Bakersfield	8	Standards Version	Compliance2019
2	CA Zip Code	93307	9	Compliance Software (version)	EnergyPro 8.3
3	Climate Zone	13	10	Weather File	BAKERSFIELD_723840_CZ2010.epw
4	Total Conditioned Floor Area in Scope	4,680 ft^2	11	Building Orientation (deg)	(S) 180 deg
5	Total Unconditioned Floor Area	0 ft^2	12	Permitted Scope of Work	ExistingAdditionAndAlteration
6	Total # of Stories (Habitable Above Grade)	1	13	Building Type(s)	Nonresidential
7	Total # of dwelling units	0	14	Gas Type	NaturalGas

B. PROJECT SUMMARY

Table Instructions: Table B shows which building components are included in the performance calculation. If indicated as not included, the project must show compliance prescriptively if within permit application.

Building Components Complying via Performance						Building Components Complying Prescriptively	
Envelope (see Table G)	☒	Performance	Covered Process: Commercial Kitchens	☐	Performance	*The following building components are ONLY eligible for prescriptive compliance and should be documented on the NRCC form listed if within the scope of the permit application (i.e. compliance will not be shown on the NRCC-PRF-E).*	
	☐	Not Included		☒	Not Included		
Mechanical (see Table H)	☒	Performance	Covered Process: Computer Rooms	☐	Performance	Indoor Lighting (Unconditioned)§140.6	*NRCC-LTI-E*
	☐	Not Included		☒	Not Included	Outdoor Lighting §140.7	*NRCC-LTO-E*
Domestic Hot Water (see Table I)	☐	Performance	Covered Process: Laboratory Exhaust	☐	Performance	Sign Lighting §140.8	*NRCC -LTS-E*
	☒	Not Included		☒	Not Included	Mandatory Measures	
Lighting (Indoor Conditioned, see Table K)	☒	Performance				*Electrical power systems, commissioning, solar ready, elevator and escalator requirements are mandatory and should on the NRCC form listed if applicable (i.e. compliance will not be shown on the NRCC-PRF-E.)*	
	☐	Not Included				Electrical Power Distribution S110.11	*NRCC-ELC-E*
Solar Thermal Water Heating (see Table I)	☐	Performance				Commissioning S120.8	*NRCC-CXR-E*
	☒	Not Included				Solar Ready S110.10	*NRCC-SRA-E*

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 2 of 13
Project Address:	2161 Patomac Avenue Bakersfield 93307	Calculation Date/Time:	11:44, Tue, Sep 27, 2022
Input File Name:	Mt Vernon B C D E T24.cibd19x		

C1. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft ^{2}-yr)

COMPLIES

Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Space Heating	14.77	27.55	-12.78
Space Cooling	147.38	99.62	47.76
Indoor Fans	198.61	73.44	125.17
Heat Rejection	--	--	--
Pumps & Misc.	--	--	--
Domestic Hot Water	14.07	14.07	--
Indoor Lighting	40.01	40.01	--
ENERGY STANDARDS COMPLIANCE TOTAL	**414.84**	**254.69**	**160.15 (38.6%)**

[1] *Notes: The number in parenthesis following the Compliance Margin in column 4. represents the Percent Better than Standard.*

C2. RESULTS FOR 'ABOVE CODE' QUALIFICATIONS[1]

☐ This project is pursuing CalGreen Tier 1 ☐ This project is pursuing CalGreen Tier 2

Miscellaneous Energy Component	Standard Design (TDV)	Proposed Design (TDV)	Compliance Margin (TDV)[1]
Receptacle	72.74	72.74	--
Process	--	--	--
Other Ltg	--	--	--
Process Motors	--	--	--
COMPLIANCE TOTAL PLUS MISCELLANEOUS COMPONENTS	**487.58**	**327.43**	**160.2 (32.8%)**

[1] *Notes: This table is used to document compliance with programs OTHER THAN Title 24 Part 6, if applicable.*

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 3 of 13
Project Address:	2161 Patomac Avenue Bakersfield 93307	Calculation Date/Time:	11:44, Tue, Sep 27, 2022
Input File Name:	Mt Vernon B C D E T24.cibd19x		

C3. ENERGY USE SUMMARY

Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Space Heating	--	5.2	-5.2	33.4	--	33.4
Space Cooling	16.0	10.3	5.7	--	--	--
Indoor Fans	30.8	11.3	19.5	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	--	--	36.6	36.6	0.0
Indoor Lighting	6.7	6.7	0.0	--	--	-->
Compliance Total	**53.5**	**33.5**	**20.0**	**70.0**	**36.6**	**33.4**
Receptacle	12.4	12.4	0.0	--	--	--
Process	--	--	--	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	**65.9**	**45.9**	**20.0**	**70.0**	**36.6**	**33.4**

D. EXCEPTIONAL CONDITIONS

The building does not include service water heating. Verify that service water heating is not required and is not included in the design.

E. HERS VERIFICATION

This Section Does Not Apply

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 4 of 13
Project Address:	2161 Patomac Avenue Bakersfield 93307	Calculation Date/Time:	11:44, Tue, Sep 27, 2022
Input File Name:	Mt Vernon B C D E T24.cibd19x		

G1. ENVELOPE GENERAL INFORMATION (conditioned spaces only)

1	2	3	4
Opaque Surfaces & Orientation	Total Gross Surface Area (ft^2)	Total Fenestration Area (ft^2)	Window to Wall Ratio (%)
North-Facing[1]	1,920 ft^2	960 ft^2	50.0%
East-Facing[2]	0 ft^2	0 ft^2	00.0%
South-Facing[3]	1,920 ft^2	480 ft^2	25.0%
West-Facing[4]	720 ft^2	0 ft^2	00.0%
Total	**4,560 ft^2**	**1,440 ft^2**	**31.6%**
Roof	4,680 ft^2	0 ft^2	00.0%

Notes:
[1] *North-Facing is oriented to within 45 degrees of true north, including 45°00'00" east of north (NE), but excluding 45°00'00" west of north (NW).*
[2] *East-Facing is oriented to within 45 degrees of true east, including 45°00'00" south of east (SE), but excluding 45°00'00" north of east (NE).*
[3] *South-Facing is oriented to within 45 degrees of true south, including 45°00'00" west of south (SW), but excluding 45°00'00" east of south (SE).*
[4] *West-Facing is oriented to within 45 degrees of true west, including 45°00'00" north of due west (NW), but excluding 45°00'00" south of west (SW).*

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

1	2	3	4	5	6	7	8	9	10
Surface Name	Surface Type	Area (ft^2)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status[1]
R-30 Roof Attic6	Roof	4680	Wood	30	NA	U-Factor	0.038	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-30 Gypsum Board - 1/2 in.	E
R-11 Wall8	ExteriorWall	4560	Wood	11	NA	U-Factor	0.110	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.	E

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 5 of 13
Project Address:	2161 Patomac Avenue Bakersfield 93307	Calculation Date/Time:	11:44, Tue, Sep 27, 2022
Input File Name:	Mt Vernon B C D E T24.cibd19x		

G3. OPAQUE SURFACE ASSEMBLY SUMMARY

1	2	3	4	5	6	7	8	9	10
Surface Name	Surface Type	Area (ft^2)	Framing Type	Cavity R-Value	Continuous R-Value	Units	Value	Description of Assembly Layers	Status[1]
Slab On Grade14	UndergroundFloor	4680	NA	0	NA	F-Factor	0.73	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0	E

[1] *Status: N - New, A – Altered, E – Existing*

G5. FENESTRATION ASSEMBLY SUMMARY

1	2	3	4	5	6	7	8	9
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product Type / Frame Type	Certification Method[1]	Assembly Method	Area ft^2	Overall U-factor	Overall SHGC	Overall VT	Status[2]
Single Metal Clear	VerticalFenestration FixedWindow MetalFraming	Default Performance	SiteBuilt	1440	1.19	0.83	0.77	E

[1] *Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Center of Glass (COG) values are for the glass-only, determined by the manufacturer, and are shown for ease of verification. Site-built fenestration values are calculated per Nonresidential Appendix NA6 and are used in the analysis.*
[2] *Status: N - New, A – Altered, E – Existing*

G6. OVERHANG DETAILS

1	2	3	4	5	6
Fenestration Tag/ID	Orientation	Depth(ft.)	Height from Bottom of Sill to Overhang(ft)	Right Extent(ft)	Left Extent(ft)
Window11	South	12.0	4	10.0	10.0
Window19	South	12.0	4	10.0	10.0
Window25	South	12.0	4	10.0	10.0
Window31	South	12.0	4	10.0	10.0
Window37	South	12.0	4	10.0	10.0

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H1. DRY SYSTEM EQUIPMENT (furnaces, air handling units, heat pumps, VRF, economizers etc.)

1	2	3	4	5	6	7	8	9	10	11	12
			Heating				Cooling				
Equipment Name	Equipment Type	Qty	Total Heating Output (kBtu/h)	Supp Heat Output (kBtuh)	Efficiency Unit	Efficiency	Total Cooling Output (kBtu/h)	Efficiency Unit	Efficiency	Economizer Type (if present)	Status[1]
HP-1 Classroom 1 6 11	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 Classroom 2 7 12	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 Classroom 3 8 13	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 Classroom 4 9 14	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N
HP-1 Classroom 5 10 15	SZVAVHP (Packaged3Phase)	1	57	19	HSPF	8.30	59	SEER/EER	16.20/11.70	FixedDryBulb	N

[1] *Status: N - New, A – Altered, E – Existing*

H2. FAN SYSTEMS SUMMARY

1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Design OA	Supply Fan					Return Fan					
Name or Item Tag	Qty	CFM	CFM	Modeling Method	Power	Power Units	Control	CFM	Modeling Method	Power	Power Units	Control	Status[1]
HP-1 Classroom 1 6 11	1	351	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDrive	NA	NA	NA	NA	NA	N
HP-1 Classroom 2 7 12	1	351	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDrive	NA	NA	NA	NA	NA	N
HP-1 Classroom 3 8 13	1	351	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDrive	NA	NA	NA	NA	NA	N
HP-1 Classroom 4 9 14	1	351	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDrive	NA	NA	NA	NA	NA	N
HP-1 Classroom 5 10 15	1	351	1800	BrakeHorsePower	0.660	bhp	VariableSpeedDrive	NA	NA	NA	NA	NA	N

[1] *Status: N - New, A – Altered, E – Existing*

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H3. EXHAUST FAN SUMMARY

This Section Does Not Apply

H4. Wet System Equipment(boilers,chillers,cooling towers,etc.)

This Section Does Not Apply

H5. PUMPS

This Section Does Not Apply

H6. SYSTEM SPECIAL FEATURES

1	2	3	4
System Name	Equipment Type	Window Interlocks per §140.4(n)	Other Special Features and Controls
HP-1 Classroom 1 6 11	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 Classroom 2 7 12	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 Classroom 3 8 13	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 Classroom 4 9 14	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer
HP-1 Classroom 5 10 15	SZVAVHP	NA	Zones With CO2Sensor Vent. Control Fixed Drybulb Economizer

Notes: This table includes controls related to the performance path only. For projects using the prescriptive path, mandatory and prescriptive controls requirements are documented on the NRCC-MCH-E.

H7. NONRESIDENTIAL VENTILATION

1	2	3	4	5	6	7
	Mechanical Ventilation					
Zone Name	Ventilation Function	# of people	Supply OA CFM	Exhaust CFM	Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
1-Classroom 1 6 11 16	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV

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H7. NONRESIDENTIAL VENTILATION

1	2	3	4	5	6	7
	Mechanical Ventilation					
Zone Name	Ventilation Function	# of people	Supply OA CFM	Exhaust CFM	Conditioned Area (sf)	DCV or Occupant Sensor Controls, or Both
2-Classroom 2 7 12 17	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
3-Classroom 3 8 13 18	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
4-Classroom 4 9 14 19	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV
5-Classroom 5 10 15 20	Education - Classrooms (ages 5-8)	23.40	351	0	936	DCV

H8. HIGH-RISE RESIDENTIAL DWELLING UNIT AND HOTEL/MOTEL VENTILATION

This Section Does Not Apply

H9. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY

1	2	3	4	5	6	7	8	9	10	11	12	13
				Rated Capacity (kBtuh)		Airflow (cfm)			Fan			
System ID	Zone Name	System Type	Qty	Heating	Cooling	Design	Min.	Min. Ratio	Power	Power Units	Cycles	VSD
1-Classroom 1 6 11 16-Trm	1-Classroom 1 6 11 16	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	☐
2-Classroom 2 7 12 17-Trm	2-Classroom 2 7 12 17	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	☐
3-Classroom 3 8 13 18-Trm	3-Classroom 3 8 13 18	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	☐
4-Classroom 4 9 14 19-Trm	4-Classroom 4 9 14 19	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	☐
5-Classroom 5 10 15 20-Trm	5-Classroom 5 10 15 20	VAVNoReheatBox	1	NA	NA	1800	1200	0.67	0.660	bhp	NA	☐

H10. EVAPORATIVE COOLER SUMMARY

This Section Does Not Apply

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H11. HEAT RECOVERY SUMMARY

This Section Does Not Apply

K1. INDOOR CONDITIONED LIGHTING GENERAL INFO

1	2	3	4	5	6
				Additional (Custom) Allowance	
Occupancy Type[1]	Conditioned Floor Area[2] (ft^2)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Area Category Footnotes (Watts)	Tailored Method (Watts)
Classroom, Lecture, Training, Vocational Areas	4,680	3,275	0	0	0
Building Totals:	**4,680**	**3,275**	**0**	**0**	**0**

[1] *See Table 140.6-C*
[2] *See NRCC-LTI-01-E for unconditioned spaces*
[3] *Lighting information for existing spaces modeled is not included in the table*

K4. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS

Building Level Controls

1	2
Mandatory Demand Response §110.12(c)	Shut-Off Controls §130.1(c)

Area Level Controls (includes all lighting controls installed in conditioned space to meet mandatory requirements per §130.1)

4	5	6	7	8	9	10
Area Description	Area Category Primary Function Area	Area Controls 130.1(a)	Multi-Level Controls 130.1(b)	Shut-Off Controls 130.1(c)	Primary Daylighting 130.1(d)	Secondary Daylighting 140.5(d)

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DATE: 02/28/2024

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CAMPUS HVAC SYSTEM UPGRADE & SITE IMPROVEMENTS

Mt Vernon Elementary School
2161 Potomac Ave. Bakersfield, CA. 93307
Bakersfield City School District

ARCHITECT

LICENSED ARCHITECT JAMES PATRICK FOGARTY No. C-19670 1-30-25 STATE OF CALIFORNIA

JAMES PATRICK FOGARTY, AIA
ARCHITECT C-19670

CONSULTANT

REGISTERED PROFESSIONAL ENGINEER MARK JAMES BASKIN No. M26578 Exp. 9-30-24 MECHANICAL STATE OF CALIFORNIA

PROJECT INFO

Project No	566-0015
Date	10.12.23
DSA File No	15-6
DSA No	03-122659

REVISIONS

No	Date	Item

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MECHANICAL TITLE 24 SHEETS

BASKIN MECHANICAL ENGINEERS
175 Fulton Street
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Tel: (559) 237-0376
Job: 22012
Plt: 02-02-24

M5.00

Project Name:	Mt. Vernon B / C / D / E	NRCC-PRF-01-E	Page 10 of 13
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L. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Installation must be submitted for the features to be recognized for compliance. These documents bust be retained and provided to the building inspector during construction and can be found online at: https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Building Component	Form/Title
Mechanical	NRCI-MCH-01-E - Must be submitted for all buildings

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M. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections shall be made by Documentation Author to indicate which Certificates of Acceptance must be submitted for the features to be recognized for compliance. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit:https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Building Component	Form/Title
Mechanical	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap
	NRCA-MCH-05-A Air Economizer Controls
	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3 can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints
	NRCA-MCH-07-A Supply Fan Variable Flow Controls
	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units
	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance
	NRCA-MCH-16-A Supply Air Temperature Reset Controls

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Mark Baskin	Signature: Mark Baskin, P.E. (Digitally signed by Mark Baskin, P.E. DN: C=US, E=MBaskin@BaskinME.com, O=Baskin Mechanical Engineers, CN="Mark Baskin, P.E." Reason: I have reviewed this document Date: 2022-09-27 11:47:09-07'00')
Company: Baskin Mechanical Engineers	
Address: 175 Fulton St.	Signature Date: 2022-09-27
City/State/Zip: Fresno CA 93721	CEA/ HERS Certification Identification (if applicable): M26578
Phone: 5592370376	

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Envelope Designer Name:	Signature:	
Company:		
Address:	Date Signed:	
City/State/Zip:		
Phone:	Title:	License #:
Responsible Lighting Designer Name:	Signature:	
Company:		
Address:	Date Signed:	
City/State/Zip:		
Phone:	Title:	License #:
Responsible Mechanical Designer Name: Mark Baskin, P.E.	Signature: Mark Baskin, P.E. (Digitally signed by Mark Baskin, P.E. DN: C=US, E=MBaskin@BaskinME.com, O=Baskin Mechanical Engineers, CN="Mark Baskin, P.E." Reason: I have reviewed this document Date: 2022-09-27 11:47:28-07'00')	
Company: Baskin Mechanical Engineers		
Address: 5500 Ming Avenue, #251	Date Signed: 09-27-2022	
City/State/Zip: Bakersfield CA 93309		
Phone: (661) 397-2114	Title: P.E.	License #: M26578

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REVISIONS

No	Date	Item

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MECHANICAL TITLE 24 SHEETS

M5.01

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