

4/23/2019

Subject: Scotten Elementary School HVAC Replacement

Grass Valley School District Architects Project No. 2018045

DSA File No. 29-11

DSA Application No. 02-117268

ADDENDUM NO. 1 (Total # of Pages - 13)

CHANGES AND/OR CLARIFICATION'S OF THE DRAWINGS AND SPECIFICATIONS AS FOLLOWS:

SPECIFICATIONS

No Changes

DRAWINGS

CIVIL

No Changes

ARCHITECTURAL

No Changes

STRUCTURAL

No Changes

MECHANICAL

DRAWINGS – SHEET: M0.00

Remove and Replace with attached sheet AD1 – M0.00

M0.01

Remove and Replace with attached sheet AD1 – M0.01

M0.02

Remove and Replace with attached sheet AD1 – M0.02

M0.03

Remove and Replace with attached sheet AD1 – M0.03

M2.22

Remove and Replace with attached sheet AD1 – M2.22

M2.32

Remove and Replace with attached sheet AD1 – M2.32

M2.42

Remove and Replace with attached sheet AD1 – M2.42



M3.41

Remove and Replace with attached sheet AD1 - M3.41

Remove and Replace with attached sheet AD1 – M5.21

M5.41

Remove and Replace with attached sheet AD1 – M5.41

M7.01

Remove and Replace with attached sheet AD1 - M7.01

PLUMBING

No Changes

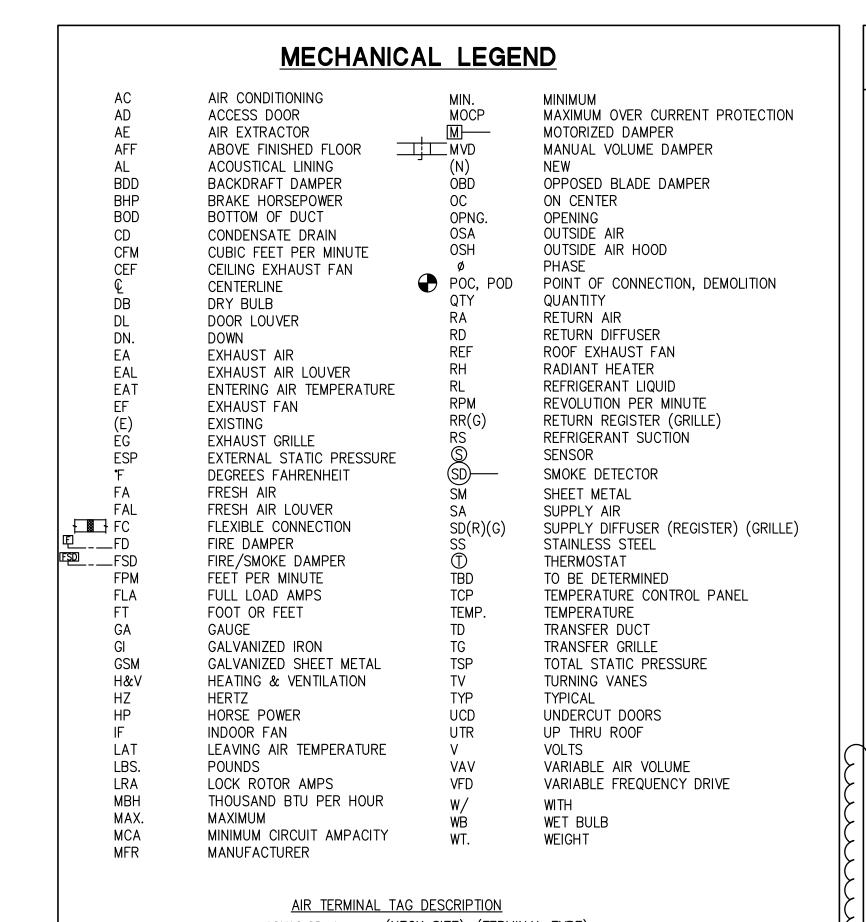
ELECTRICAL

DRAWINGS

No Changes

Attachment:

AD1 – M0.00	AD1 – M2.22	AD1 – M5.21
AD1 – M0.01	AD1 – M2.32	AD1 – M5.41
AD1 – M0.02	AD1 – M2.42	AD1 – M7.01
AD1 – M0.03	AD1 – M3.41	



MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.

2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING AND CONDUIT.

THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. 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 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., SMACNA OR OSHPD OPM), 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 PIING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E): MP X MD X PP X 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 #)

MP 🗌 MD 🗌 PP 🗌

OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SMACNA SEISMIC RESTRAINT MANUAL. OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL ___ AND CONNECTION LEVEL ___ FOR THE PROJECT AND CONDITIONS.

		•		O GRILLE SCHE SHOWN ON FLOOR PLAI	
MARK	TITUS MODEL	BORDER TYPE	OBD	FINISH	REMARKS
SD-D	TMR	DUCT MOUNTED	NO	WHITE	ROUND THREE CONE 360° DIFFUSER
RG-S	50F	SURFACE	NO	WHITE	1/2x1/2x1/2 CORE

symbols, notes & schedules .00 symbols, notes & schedules .01 schedule .02 title 24 .03 title-24 .01 overall floor plan - demolition .22 buildings a & b roof - demolition .31 building d & l floor - demolition .32 building d roof - demolition .41 building n roof - demolition .42 building n roof - demolition .43 building n roof - demolition .44 building n roof - demolition .45 building d floor - mechanical .41 buildings m & n roof - mechanical	Sheet	t List Table
SCHEDULE 102 TITLE 24 103 TITLE—24 111 OVERALL FLOOR PLAN — DEMOLITION 122 BUILDINGS A & B ROOF — DEMOLITION 131 BUILDING D & L FLOOR — DEMOLITION 132 BUILDING L ROOF — DEMOLITION 134 BUILDING M FLOOR — DEMOLITION 140 BUILDING N ROOF — DEMOLITION 141 OVERALL FLOOR PLAN — MECHANICAL 131 BUILDINGS M & N — MECHANICAL 141 BUILDINGS M & N — MECHANICAL 151 BUILDINGS A & B ROOF — MECHANICAL 161 BUILDINGS M & N ROOF — MECHANICAL 171 BUILDINGS M & N ROOF — MECHANICAL 172 BUILDINGS M & N ROOF — MECHANICAL 173 BUILDINGS M & N ROOF — MECHANICAL 174 BUILDINGS M & N ROOF — MECHANICAL	neet Number	Sheet Title
TITLE 24 .03 TITLE—24 .11 OVERALL FLOOR PLAN — DEMOLITION .22 BUILDINGS A & B ROOF — DEMOLITION .31 BUILDING D & L FLOOR — DEMOLITION .32 BUILDING L ROOF — DEMOLITION .41 BUILDING M FLOOR — DEMOLITION .42 BUILDING N ROOF — DEMOLITION .11 OVERALL FLOOR PLAN — MECHANICAL .31 BUILDINGS M & N — MECHANICAL .41 BUILDINGS M & N — MECHANICAL .41 BUILDINGS A & B ROOF — MECHANICAL .31 BUILDINGS A & B ROOF — MECHANICAL .31 BUILDINGS M & N ROOF — MECHANICAL .31 BUILDINGS M & N ROOF — MECHANICAL	.00	SYMBOLS, NOTES & SCHEDULES
.03 TITLE-24 .11 OVERALL FLOOR PLAN - DEMOLITION .22 BUILDINGS A & B ROOF - DEMOLITION .31 BUILDING D & L FLOOR - DEMOLITION .32 BUILDING L ROOF - DEMOLITION .41 BUILDING M FLOOR - DEMOLITION .42 BUILDING N ROOF - DEMOLITION .11 OVERALL FLOOR PLAN - MECHANICAL .31 BUILDINGS M & N - MECHANICAL .41 BUILDINGS M & N - MECHANICAL .21 BUILDINGS A & B ROOF - MECHANICAL .31 BUILDINGS A & B ROOF - MECHANICAL .31 BUILDINGS M & N ROOF - MECHANICAL .31 BUILDINGS M & N ROOF - MECHANICAL	.01	SCHEDULE
OVERALL FLOOR PLAN — DEMOLITION BUILDINGS A & B ROOF — DEMOLITION BUILDING D & L FLOOR — DEMOLITION BUILDING L ROOF — DEMOLITION BUILDING M FLOOR — DEMOLITION BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.02	TITLE 24
BUILDINGS A & B ROOF — DEMOLITION BUILDING D & L FLOOR — DEMOLITION BUILDING L ROOF — DEMOLITION BUILDING M FLOOR — DEMOLITION BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.03	TITLE-24
BUILDING D & L FLOOR — DEMOLITION BUILDING L ROOF — DEMOLITION BUILDING M FLOOR — DEMOLITION BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.11	OVERALL FLOOR PLAN - DEMOLITION
BUILDING L ROOF — DEMOLITION BUILDING M FLOOR — DEMOLITION BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.22	BUILDINGS A & B ROOF - DEMOLITION
BUILDING M FLOOR — DEMOLITION BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDING L ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.31	BUILDING D & L FLOOR - DEMOLITION
BUILDING N ROOF — DEMOLITION OVERALL FLOOR PLAN — MECHANICAL BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDING L ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.32	BUILDING L ROOF - DEMOLITION
.11 OVERALL FLOOR PLAN — MECHANICAL .31 BUILDING D FLOOR — MECHANICAL .41 BUILDINGS M & N — MECHANICAL .21 BUILDINGS A & B ROOF — MECHANICAL .31 BUILDING L ROOF — MECHANICAL .41 BUILDINGS M & N ROOF — MECHANICAL	.41	BUILDING M FLOOR — DEMOLITION
BUILDING D FLOOR — MECHANICAL BUILDINGS M & N — MECHANICAL BUILDINGS A & B ROOF — MECHANICAL BUILDING L ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL BUILDINGS M & N ROOF — MECHANICAL	.42	BUILDING N ROOF - DEMOLITION
.41 BUILDINGS M & N - MECHANICAL .21 BUILDINGS A & B ROOF - MECHANICAL .31 BUILDING L ROOF - MECHANICAL .41 BUILDINGS M & N ROOF - MECHANICAL	.11	OVERALL FLOOR PLAN — MECHANICAL
.21 BUILDINGS A & B ROOF — MECHANICAL .31 BUILDING L ROOF — MECHANICAL .41 BUILDINGS M & N ROOF — MECHANICAL	.31	BUILDING D FLOOR - MECHANICAL
.31 BUILDING L ROOF — MECHANICAL .41 BUILDINGS M & N ROOF — MECHANICAL	.41	BUILDINGS M & N - MECHANICAL
.41 BUILDINGS M & N ROOF - MECHANICAL	.21	BUILDINGS A & B ROOF - MECHANICAL
	.31	BUILDING L ROOF - MECHANICAL
.01 MECHANICAL DETAILS	.41	BUILDINGS M & N ROOF - MECHANICAL
	.01	MECHANICAL DETAILS

16. ALL DUCTS THAT HAVE INTERNAL LIINNG, THE SIZE REPRESENTS THE NET INSIDE DIMENSION.

GENERAL NOTES		DUCT S	YMBOLS	
	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
 ALL PLANS TO BE DESIGNED TO CODES 2016 CBC, CRC, CAL GREEN CODE CMC, CEC, 2016 CPC, (BASED ON THE 2015 IBC, 2015 IRC, 2016 CAL GREEN BUILDING STANDARDS CODE, 2015 UMC, 2015 UPC, 2014 NEC), AND 2016 ENERGY STANDARDS, AS AMENDED BY THE STATE OF CALIFORNIA AND LOCAL JURISDICTIONS. PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR 	24x12	LINED DUCT SECTION AT EXHAUST DUCT RISER R 24x12 EXHAUST DUCT DROP	14 10/14 10/14 24x12 16x12	24x12 ————————————————————————————————————
SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.	2 24×12	24x12 SECTION AT RETURN	15 10/14 14×10	10" 14x10 SQUARE ELBOW
3. ALL WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, CITY AND LOCAL CODES AND ORDINANCES.	12x12	R = 1.5 TRANSITIONAL TURN 12x12 R=36	MVD	W/ DUCT TURN 10/14
4. THE CONTRACTOR SHALL READ ALL OF THE GENERAL NOTES, SPECIFICATIONS AND PLANS AND SHALL BE SATISFIED TO THEIR TRUE MEANING AND INTENT AND SHALL BE RESPONSIBLE FOR COMPLYING WITH EACH. WHEREVER TWO OR MORE SPECIFICATIONS MAY CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL TAKE PRECEDENCE.	3	TURNING VANES SECTION AT SUPPLY	24x12— 16x12 16 4/36/8— 10x8	10x8 TRANSITIONAL RADIUS ELBOW
5. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIAL NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THIS WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES THAT MAY EXIST IN THE PLANS AND/OR SPECIFICATIONS PRIOR TO SUBMITTING BID. THE OWNER'S REPRESENTATIVE AND THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE.	24x12 24x12	SUPPLY DUCT DROP CONVERGING OR DIVERGING VANE ANGLE 24x12 CONVERGING OR DIVERGING 24x12	48x12 12x12 38x12 17 4/36/8 10x12	36" 4/36/8 48x12 38x12 12x12 TRANSITION 10x8 4" SQUARE ELBOW W/ DUCT TURN
6. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNERS REPRESENTATIVE.	12x12	TURNING VANES VANE ANGLE TURNING VANES 20°-29° 15° DEFLECTROL	48x12 38x12	36" 48x12 48x12 38x12
7. CONTRACTOR SHALL INSTALL ALL PIPING AND DUCTWORK SYSTEMS TO BEST SUIT FIELD CONDITIONS, AND COORDINATE WITH THE INSTALLATION WORK OF OTHER TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF PIPING. NOTIFY CONSTRUCTION MANAGER OF ANY DEVIATIONS FROM THESE DRAWINGS PRIOR TO FABRICATION AND/OR INSTALLATION.	5 12x127	30°-50° AIRTURN	12x12 - 1 18 12x12 - 1	12x12 12x12 12x12 1 IN 6 MAX. 12x12 1 IN 6 MAX. 12x12
8. LOCATIONS AND DIMENSIONS OF EQUIPMENT, PIPING, AND THEIR SUPPORTS ARE SHOWN DIAGRAMMATICALLY AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF PIPING OR DUCTWORK. ACTUAL DIMENSIONS AND LOCATIONS ARE DEPENDENT ON MATERIAL SUPPLIED BY CONTRACTORS. CONTRACTORS SHALL PROVIDE OR DETERMINE DIMENSIONS AND PROVIDE LAYOUT	12"ø MVD	SQUARE TO ROUND TRANSITION 24x7 ABOVE 7/5 SPLIT		MAX. CONCENTRIC DIVERGING FLOW
DRAWINGS FOR COORDINATION WITH OTHER TRADES IN ACCORDANCE WITH THE SPECIFICATIONS. 9. CONTRACTOR SHALL REMOVE RUBBISH WASTE MATERIALS ON DAILY BASIS AND PROTECT AREAS FROM DAMAGE WHICH MAY OCCUR DURING CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE WHICH MAY OCCUR. 10. ALL WORK SHOWN ANYWHERE ON THE DRAWINGS IS INCLUDED; SHOULD AN ITEM (SUCH AS A VALVE) BE	24x12 -16x12 30x5 -7/5	24x7 ABOVE 7/5 SPLIT TRANSITION 16x12 TRANSITIONAL RADIUS ELBOW 24x5 BELOW 30x5	12x127 24x12	1 IN 2 24x12 MAX. 1 IN 2 CANTRACTING FLOW
SHOWN ON A DETAIL OR SCHEMATIC BUT NOT ON A PLAN VIEW OR VICE VERSA, IT MUST BE PROVIDED AS THOUGH IT WERE SHOWN IN ALL PLACES ON THE DRAWINGS. 11. CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, HANGING DEVICES, MISCELLANEOUS ANGLES, CHANNELS, UNISTRUT ETC. FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND ALL BUILDING TRADES TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.	7 24x12 7 30x5 16x12	24x7 ABOVE————————————————————————————————————	20 —24x12 12x6 — 🔯 ——	DEFLECTROL & 24x12 BRANCH DUCT SAME SIZE CEILING DIFFUSER DIFFUSER DIFFUSER 24x12 12x6 10'MAX. LENGTH - OVER 10' USE NO. 6,7,8 OR 9
12. EACH MECHANICAL APPLIANCE SHALL BE APPROVED BY THE ADMINISTRATIVE AUTHORITY FOR SAFE USE OR COMPLY WITH APPLICABLE NATIONALLY RECOGNIZED STANDARDS AS EVIDENCED BY THE LISTING AND LABEL OF AN APPROVED AGENCY.	8 14/10 716x12	14" TRANSITION 24x12 16x12	21	DEFLECTROL AND BRANCH SAME SIZE 24x12 DEFLECTROL FIRE DAMPER 10'MAX.
13. THERMOSTAT SETPOINTS SHALL BE PER CALIFORNIA T-24 REQUIREMENT. ANY DEVIATION FROM THESE SETPOINTS BECOMES THE RESPONSIBILITY OF THE USER OR CONTRACTOR.	24x12—14x10	14/10 TRANSITIONAL RADIUS ELBOW	↓	SIDEWALL REGISTER OR GRILLE LENGTH - OVER 10' USE NO. 6,7,8 OR 9
14. SUMMARY OF INDIVIDUALLY SUPPORTED PIPING SYSTEMS THAT ARE EXEMPT FROM DESIGN FOR SEISMIC FORCES:	9 14/10 \ \tag{16x12}	14" TRANSITION	22	DEFLECTROL LESS 24x12
SYSTEM (E.G.) — STEEL OR COPPER IP EXEMPTIONS HEATING HOT AND CHILLED WATER 1.0 1. ALL PIPES ≤ 3" DIAMETER 2. ALL PIPES EXEMPTED FOR THE IP 1.5 CASE BELOW 2. ALL PIPES EXEMPTED FOR THE IP 1.5 CASE BELOW 2. ALL PIPES EXEMPTED FOR THE IP 1.5 CASE BELOW 3. ALL PIPES EXEMPTED FOR T	24x12 — 14x12 INCHES UNLESS OTHERWISE NOTED.	24x12 SQUARE ELBOW 14/10 10 ² W/ TURNING VANES		AND BRANCH SAME SIZE AS NECK SIZE CEILING DIFFUSER
HIGH TEMPERATURE HOT WATER STEAM AND STEAM VENT CONDENSATE RETURN WATER BOILER FEED WATER AND BLOWDOWN DOMESTIC HOT AND COLD WATER FUEL OIL, GAS AND COMPRESSED AIR MEDICAL GASES AND VACUUM 1. THE FOLLOWING PIPES (≤5 LBS/FT) WHERE A FLEXIBLE CONNECTION IS PROVIDED BETWEEN PIPES AND COMPONENTS. a. ≤2" DIAMETER VENT, GAS OR EMPTY SCH 40 STEEL PIPE. b. ≤1-1/2" DIAMETER SCH 40 STEEL PIPE. c. ≤3" DIAMETER VENT, GAS OR EMPTY COPPER PIPE. d. ≤2" DIAMETER COPPER PIPE e. ANY OTHER PIPING WITH AN OPERATING WEIGHT ≤5	10 10"ø 12"ø 10"ø INDICATES ROUND DUCTS IN INCHES, TYPICAL	12"ø 10"ø 10"ø 10"ø 45øTEE ELONGATED TEE	23 FLEX DUCT	BRANCH-SEE PLAN FOR SIZE CEILING DIFFUSER
INDUSTRIAL AND IRRIGATION WATER SOFT WATER EMERGENCY COLD WATER GREASE WASTER AND VENT SANITARY WASTE AND VENT SANITARY WASTE AND VENT LBS/FT. (NOTE: PIPES WITH HAZARDOUS CONTENTS, E.G. NATURAL GAS LINES, SHALL BE BRACED REGARDLESS OF WEIGHT. PIPE SIZE EXEMPTION 2 BELOW STILL APPLIES.) 2. ALL OTHER PIPES ≤1" DIAMETER	11	SUPPLY DUCT RISE AIR FLOW AIR FLOW	24	SHOE FITTING WITH MVD
BRACING SHALL BE PER CBC SECTION 1616A. ACCEPTABLE SEISMIC BRACING DETAILS INCLUDE THOSE SHOWN IN EATON COOPER B-LINE (OPM-0052-13) AND MASON WEST, INC. (OPM-0043-13).	12	SUPPLY DUCT DROP RETURN OR EXHAUST AIR RISE	25	
15. IF THE CONTRACTOR CHOOSES TO SUBMIT AN ALTERNATE MANUFACTURER FOR ANY PIECE OF EQUIPMENT OR MATERIAL, THE CONTRACTOR IS RESPONSIBLE TO PROVIDE A SUBSTITUTION REQUEST AND COMPARISON OF SUBSTITUTION COMPARED TO THE BASIS OF DESIGN SCHEDULES EQUPMENT OR MATERIAL FOR REVIEW BY THE ENGINEER.		AIR FLOW AIR FLOW RETURN OR EXHAUST AIR DROP		CONICAL FITTING WITH MVD

CONICAL FITTING

MALON MARTIN MAR

www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

PROJECT **MARGARET** SCOTTEN ES **MODERNIZATION**

GRASS VALLEY SCHOOL DISTRICT

CONSULTANT



M31176 EXP. 12/31/19

PLOT DATE: 4/10/2019

STATE

DSA FILE NUMBER 29-11 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APPL# 01-AC _____ FLS ____ SS____

ACOUSTICALLY LINED SHEET METAL DUCT SIZE SHOWN IS NET INSIDE DIMENSION

24 x 36 AL

REVISIONS No. Description Date

1\ ADDENDUM - 1 4/23/19

MILESTONES SD DD 50% CD 90% CD

DSA SUB

SYMBOLS, NOTES & SCHEDULES

11/15/2018 ^{JOB #} 2018045

										ROOF	F TO	P G	AS	ELEC	TRI	IC UI	NIT S	CHE	DUL	.E											
	EXISTING	REPLACEMENT			S	UPPLY FAN					D)	X COOL	ING CC	OIL		NATURA	L GAS HEA	ATING	СО	MPRESS	ORS	CONDENS	ER FAN	El	ECTRICA				APPROX.	APPROX.	
MARK	MANUFACTURER & MODEL NUMBER	CARRIER MODEL NUMBER	AIRFLOW (CFM)	MIN. OSA (CFM)	ESP (INCHES)	RPM	DRIVE	FLA	ВНР	CAPACIT	- ` 	EAT		LAT °F		INPUT (MBH)	OUTPUT (MBH)	AFUE (%)	QTY.	LRA (EA)	RLA (EA)	QTY.	FLA (EA)	VOLTS/ PHASE	MCA (AMPS)	MOCP (AMPS)	ARI EER	ARI SEER	OPER. WEIGHT	DIMENSIONS (INCHES) (H"xW"xD")	REMARKS
AC-A1	DAY & NIGHT 585HPW048080ACEG	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	SENSIBLE 35.7	37.1	DB 80	WB 67	1	WB 57.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	<u>LBS</u> 698	34"x74"x44"	SEE NOTES 1-7,12
AC-A2	DAY & NIGHT 585HPW048080ACEG	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-A3	YORK D4NA048N06525NXB	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-A4	YORK D4NZ048N06525NXC	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-B1	DAY & NIGHT 585HPW048080ACEG	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-B2	DAY & NIGHT 585HPW048080ACEG	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-B3	DAY & NIGHT 585HPW048080ACEG	48GCDM05	1600	315	0.4	1649	DIRECT	6.1	0.48	35.7	37.1	80	67	58.6 5	7.2	67	53	0.80	1	83	14	1	1.5	208/3	30	40	12.59	16.0	698	34"x74"x44"	SEE NOTES 1-7,12
AC-B4	YORK PCG4B480653X1	STAYS AS IS	_	_	-	-	DIRECT	-	-	-	_	_	-	-	-	-	_	-	-	_	_	_	_	208/3	_	_	_	-	_	_	STAYS AS IS
AC-L1	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-L2	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-L3	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-L4	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-L14	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-L15	PAYNE -	48GCDM05	1600	380	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-N1	PAYNE -	48GCDM06	2000	340	0.4	1832	DIRECT	8.6	0.65	46.4	61.1	80	67	57.6 5	57.1	67	53	0.80	1	147	22.9	1	1.5	208/1	39	60	12.31	16.0	900	41"x74"x44"	SEE NOTES 1-5 SEE NOTES 7-11
AC-N2	PAYNE -	48GCDM05	1600	170	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67	58.6 5	57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
AC-N3	CARRIER 48JHE006	48GCDM05	1600	200	0.4	1649	DIRECT	6.1	0.48	37.1	48.6	80	67		57.9	67	53	0.80	1	122	20.4	1	1.5	208/1	34	50	12.59	16.0	666	34"x74"x44"	SEE NOTES 1-7,12
NOTES:	DE LINIT WITH CEDVICE	NITIET COODDINATE WITH	 !				SOR. PROVIDE			AIR DUCT				CONNECT TO			12.					HORIZONTAL									

PROVIDE UNIT WITH SERVICE OUTLET. COORDINATE WITH

ELECTRICAL FOR POWER AND DISCONNECT AS REQUIRED. CAPACITIES @ 95°F AMB, 80° DB/67° WEB EAT. . PROVIDE 14" TALL ROOF CURB.

. R410A REFRIGERANT. 5. RECONNECT UNIT TO EXISTING PROGRAMMABLE PELICAN

EXTRA WIRING NECESSARY AS PER SITE STANDARD. 6. PROVIDE WITH OUTSIDE AIR HOOD AND MANUAL DAMPER. 7. UNIT WEIGHT INCLUDES CURB, ECONOMIZER(IF APPLICABLE),

10. PROVIDE SEPARATE 208-230/3/60 FLA=3.1 POWER FOR POWER EXHAUSTER ON UNIT. POWER EXHAUST (IF APPLICABLE), AND ALL EXTRAS. 8. PROVIDE KELE SM-501-N SMOKÉ DETECTOR AND STS-2.5

11. PROVIDE UNIT WITH BELIMO ECONOMIZER ACTUATOR, PEARL ECONOMIZER CONTROLLER, AND TS250 THERMOSTAT CO2 SAMPLING TUBE TO BE INSTALLED BY MECHANICAL ON SUPPLY SENSOR IF EXISTING PELICAN THERMOSTAT IS NOT THE TS250.

PROVIDE ECONOMIZER AND POWER EXHAUST.

12. UNIT TO BE FIELD CONVERTED TO HORIZONTAL SUPPLY AND RETURN AIR OPENINGS FOR CORRESPONDING SUPPLY AND

RETURN DUCTWORK CONNECTIONS.

	WALL MOUNT HEAT PUMP REPLACEMENT UNIT SCHEDULE																							
	EXISTING	REPLACEMENT					S	UPPLY FAN				DX CC	OOLING COIL	HP HEATING	COMPR	ESSORS	Е	LECTRICAL				HEAT-	APPROX. OPER.	
MARK	BARD MODEL NUMBER	BARD MODEL NUMBER	BLDG.	SCHOOL	AIRFLOW (CFM)	DESIGN OSA (CFM)	ESP (INCHES)	RPM	DRIVE	FLA	HP	CAP/ TOTAL	ACITY (MBH) SESNSIBLE	CAP (MBH)	QTY.	RLA (EA)	VOLTS/ PHASE	MCA MOCP (AMPS)	ARI EER	ARI COP	IPVL	STRIP KW	WEIGHT (POUNDS) (E)/(N)	REMARKS
WHP-D1	WH482-A10VX4XXX	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D2	WH482-A10VX4XXX	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D3	WH482-A10VX4XXX	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D4	WH482-A10VX4XXX	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D5	48WH6-A10C	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D6	48WH6-A10C	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D7	48WH6-A10C	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D8	48WH6-A10C	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-D9	48WH6-A10C	C48HA10VP4	D	SCOTTEN	1000	350	0.15	825	DIRECT	4.4	1/3	35.8	33.8	29.2	1	16/19	208/230/1	88 90	11.0	3.4	15	10	540/613	SEE NOTES
WHP-E1	EUBANK HW60CS20BIF	T60SA10SP4XXE	E	SCOTTEN	1650	350	0.15	1025	DIRECT	4.9	1/2	56.0	52.8	52.1	1	21.4/23	208/230/1	97 100	10.7	3.3	15	10	530/621	SEE NOTES

NOTES:

- 1. EXISTING WALL MOUNTED BARD UNITS TO BE REPLACED WITH NEW BARD UNITS. NEW UNITS TO BE OF SAME VOLTAGE, PHASE, AND CURRENT AS EXISTING UNITS.
- 2. VERIFY AND COORDINATE WITH EXISTING ELECTRICAL SERVICE AND DISCONNECT TO VERIFY EXISTING SAME AS NEW BEFORE ORDERING UNITS. . PROVIDE WITH ONE INCH DISPOSABLE FILTER AND FILTER RACK INTEGRAL TO UNIT.
- 4. PROVIDE FACTORY FULL LENGTH MOUNTING BRACKETS AND APPURTENANCES NEEDED TO INSTALL REPLACEMENT UNIT TO EXISTING CONDITION. FIELD VERIFY CONDITION BEFORE ORDERING UNIT.
- 5. NEW BARD UNIT REPLACEMENT MODEL NUMBER PROVIDED BY BARD VENDOR FOR LIKE FOR LIKE REPLACEMENT IN ORDER TO NOT ALTER EXISTING ELECTRICAL REQUIREMENT AS INDICATED TO VENDOR PRIOR TO SELECTION OF REPLACEMENT EQUIPMENT.
- 6. RECONNECT EXISTING PELICAN SENSOR AND CONTROL TO NEW REPLACEMENT UNIT. 7. PROVIDE WITH 20x30x2 MERV 8 RETURN AIR FILTER.

										HEAT	PUN	MP (UNIT	SC	HED	ULE										
MARK	CARRIER AND MODEL NO.		JPPLY FAN	BHP	MBH	NG COIL EAT	МВН	NG COIL EAT		ELECTRIC HEATER		CC	OMPRES	SOR	COND F/		ELECTRICAL SERVICE	MIN. CIRCUIT	MOCP	MAX	SEER	EER	SERVES	APPROX. OPERATING	FILTERS	REMARKS
		OI W	ESP		SENS/TOT	DB °F WB °F	INTEGRATED /TOT	EAT OUTDOOR DB °F	KW	MCA MOCP	FLA	NO.	RLA EA	LRA EA	NO.	FLA EA	V/PH/HZ	AMPS		FUSE				WT. (LBS)	THROWAWAY	
HP-M1	50HCQA06A2A5-0A1A0	2000	1232/0.7	1.35	52.2/54.4	83 67	37.1/42.2	70 29	4.9		13.6	1	15.9	110	1	1.4	208/3/60	47.0	50	_	15.0	9.1	STAGE	951	(4) 16x16x2	SEE NOTES
DISCO 2. CAPA 3. PROV 208/	RDINATE WITH ELECTRICAL FOR FONNECT AS REQUIRED. ACITIES © 105°F AMB, 83.0° DB/ MIDE WITH CR HEATER 102A00 M230/-240-1/3-60 VOLT. MIDE KELE SM-501-N SMOKE DE	67.4° WE	В ЕАТ.	5. 6.	CONTRACTOR SHUTDOWN. PROVIDE 14 th PROVIDE MC EXHAUST.	R ON SUPPLY A CONNECT TO L "TALL ROOF C DDULATING ECON		DWER	8. 9.	FOR POWER E R410A REFRIC PROVIDE PRO OCCUPANCY S CONTROLS SY AS PER SITE CONTROL TWO	GERANT. GRAMMAI SENSOR 'STEM. P STANDAI	BLE PEI TO CON ROVIDE RD. NEV	LICAN TH NNECT TO ALL WIF W PELICA	O SITE F RING NEC AN SYST	ELICAN ESSARY EM TO	11	DAMPER UP H MECHANICAL I LOCATIONS. D. UNIT WEIGHT EXHAUST AND I. SEE M7.02 FO	PLAN M3.41 INCLUDES () ALL EXTR	FOR OU CURB, EC AS.	JTSIDE A	AIR LOUV					

	MAKE UP AIR UNIT (MAU-1) UNIT SCHEDULE																							
		SUPF	PLY FAN			DIRECT	EVAPORA	ATIVE SE	CTION			HEA	TING	CON	NDENSER	FAN	ELECT MIN	LINIT	APPROX.	MINIMITM	FII TERS			
	CEM	ESP	DDM	LID	ME	ВН	EAT	Γ°F	LAT	°F	PUMPM	MI	ВН	ОТУ	ΔL	DDM				OUTSIDE	(QTY) NUMBER	SERVES	REMARKS	
MODEL NO.	CFIVI	(IN.)	KEIVI	ПР	SENSIBLE	TOTAL	DB	WB	DB	WB	HP	INPUT	OUTPUT	7 Qıı.	(EA)	(EA)	V/Ø/HZ AMPS		LBS.	AIR(CFM)				
RPBL-400	12000	1.0	1468	20	-	_	83.3	63.7	53.6	51.0	_	400	320	_		-	208-3-60 74.2	59.6	1615	50%	(2) 16x16, (1) 16x25 (4) 12x25, (4) 12x23	MULTIPURPOSE ROOM	SEE NOTES	
	REZNOR MODEL NO. RPBL-400	MODEL NO. CFM	REZNOR MODEL NO. CFM ESP (IN.)	MODEL NO. CFM ESP (IN.) RPM	REZNOR MODEL NO. CFM ESP (IN.) HP	REZNOR MODEL NO. CFM ESP (IN.) RPM HP SENSIBLE	REZNOR MODEL NO. CFM ESP (IN.) RPM HP SENSIBLE TOTAL	REZNOR MODEL NO. CFM ESP (IN.) RPM HP SENSIBLE TOTAL DB	REZNOR MODEL NO. CFM ESP (IN.) RPM HP SENSIBLE TOTAL DB WB	REZNOR MODEL NO. CFM ESP (IN.) RPM HP SENSIBLE TOTAL DB WB DB	SUPPLY FAN DIRECT EVAPORATIVE SECTION	SUPPLY FAN DIRECT EVAPORATIVE SECTION	SUPPLY FAN DIRECT EVAPORATIVE SECTION HEAD	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	REZNOR MODEL NO. $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	REZNOR MODEL NO. CFM $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	REZNOR MODEL NO. CFM $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	REZNOR MODEL NO. $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	REZNOR MODEL NO. CFM $\begin{array}{ c c c c c c c c c c c c c c c c c c c$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{ SUPLYFAN }{ SUPLN } = \frac{ SUPLYFAN }{ SUPLN } = \frac{ SUPLN }{ SU$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\frac{ SUPLYFAN }{ SENSIBLE } = \frac{ SUPLYFAN }{ SUPLYFAN } = \frac{ SUPLYFAN }{ SENSIBLE } = \frac{ SUPLYFAN }{ SUPLYFAN } $

EXISTING MAU-1 TO BE REPLACED WITH NEW MAU-1.

- PROVIDE WITH 16" HIGH CURB. PROVIDE DUCT SMOKE DETECTOR ON SUPPLY AIR WITH SMOKE DETECTION
- SHUT-DOWN INTEGRAL TO UNIT AND CONTROLS. PROVIDE KELE SM-501-N
- PROVIDE UNIT VERTICAL RETURN AND HORIZONTAL SUPPLY CONFIGURATION.
- SEE M3.41
- 5. PROVIDE WITH FILTER RACK AND 2" DISPOSABLE PLEATED FILTERS. VERIFY
- QUANTITY AND SIZE WITH MANUFACTURER. PROVIDE CONVENIENCE OUTLET.
- PROVIDE WITH OUTSIDE AND RETURN AIR DAMPERS. 8. PROVIDE SINGLE POINT ELECTRICAL CONNECTION.
- PROVIDE NONFUSE DISCONNECT. 10. PROVIDE ALL NECESSARY APPURTENANCES FOR A COMPLETE WORKING SYSTEM. 11. MECHANICAL CONTRACTOR TO COORDINATE WITH CONTROLS CONTRACTOR TO

PRODUCE A COMPLETE WORKING SYSTEM. INCLUDE OUTSIDE, RETURN, AND SUPPLY TEMPERATURE SENSORS. INCLUDE ALL NEW AND REPLACEMENT OF

EXISTING CABLING AND RELIEF/EXHAUST ACTUATORS.

11/15/2018

www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

PROJECT

MARGARET

SCOTTEN ES

MODERNIZATION

GRASS VALLEY SCHOOL

PETERS and electrical

2411 Alhambra Blvd, Ste. 10

M31176 EXP. 12/31/19

PLOT DATE: <u>4/10/2019</u>

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT

AC _____ FLS _____ SS_____

DSA FILE NUMBER 29-11

No. Description Date

1 ADDENDUM - 1 4/23/19

APPL# 01-

STATE

REVISIONS

MILESTONES

50% CD

90% CD

DSA SUB

SCHEDULE

SHEET

Sacramento, CA 95817

Tel (916) 447-2841

www.peterseng.com Job no. 18.098

mechanical

engineers

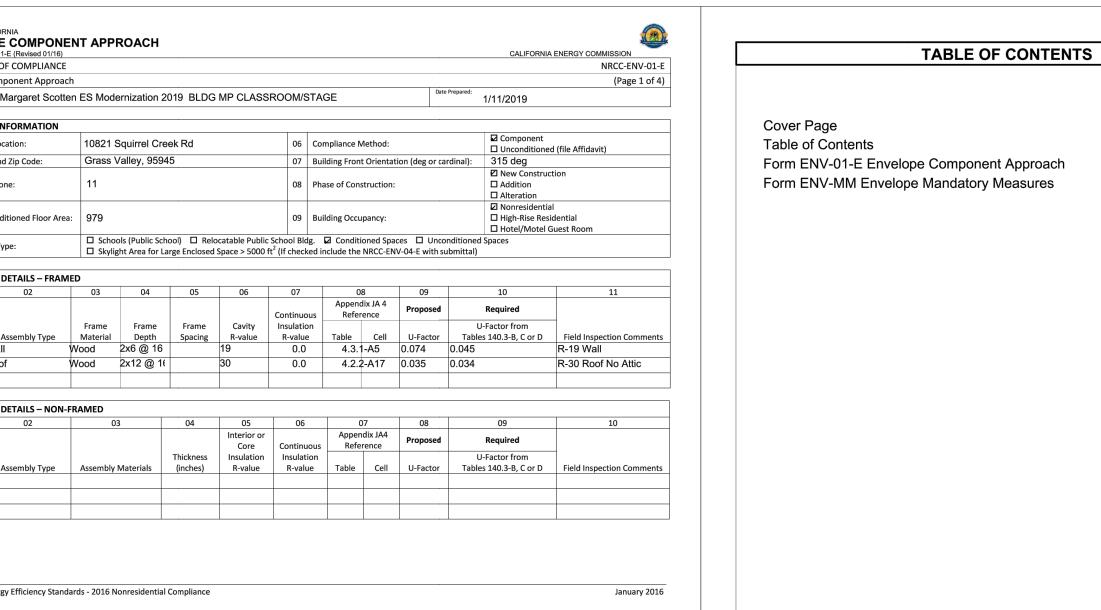
DISTRICT

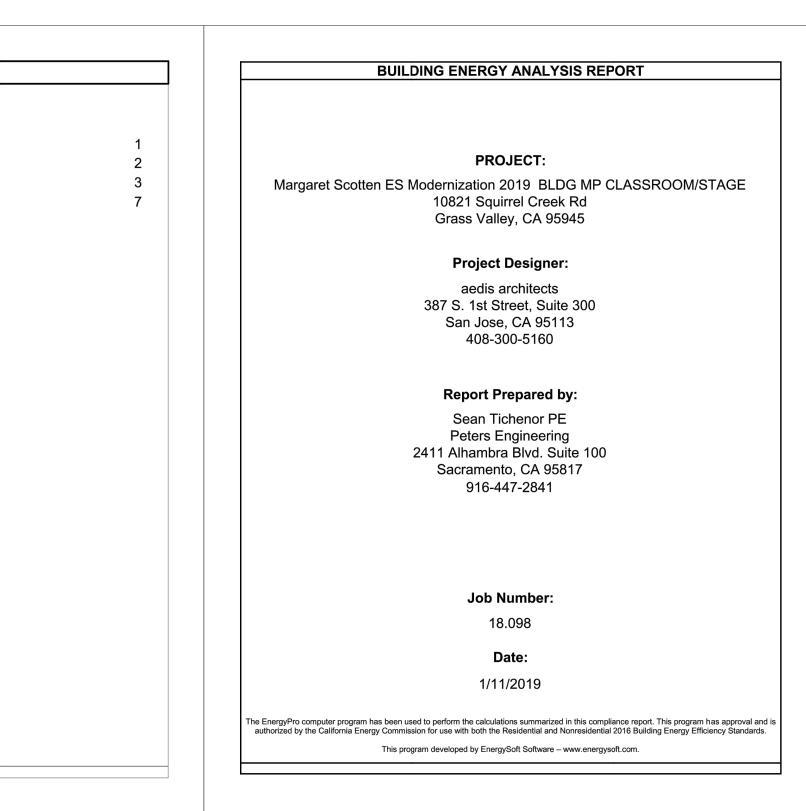
CONSULTANT

^{JOB#} 2018045

	IV-01-E (Revised TE OF COMPLI	•								CAL	IFORNIA	ENERGY COMMISSION NRCC-ENV-01-I
	Component Ar											(Page 2 of 4
		otten ES Mode	ernization 20	19 BLDG MI	P CLASSRO	OM/STAGE			Date	Prepared: 1/11/2019		(, age = 0, .
	nargarot coc	Thom Lo Mode	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- 5250 1111	02/100/10	0111/01/102				1/11/2019		
D. ENVELO	PE DETAILS -	MASS										
01	02	03	04	05	06	07	0	18	09	10		11
			Mass	Furring Strip	Interior	Exterior	Appen Refe	dix JA4 rence	Proposed	Required		
Tag/ID	Mass Type	Density (lb/ft ³)	Thickness (inches)	Thickness (inches)	Insulation R-value	Insulation R-value	Table	Cell	U-factor	U-Factor from Tables 140.3-B, C		Field Inspection Comments
E DOOEIN	C DDODUCTS	(COOL ROOF)		,					,			
01	02	03	04	05	06	07		08	09	10		11
Mass Roof			Proposed Minimum Required									
25 lb/ft ² or Greater	Roof Pitch	CRRC Product ID Number	Product Typ	Aged Sol e Reflectar				ed Solar lectance	Therma Emittan			Comments
☐ An aged	solar reflectance	e less than 0.63	is allowed prov	ided the maxim	um roof / ceilin	g U-factor in T	ABLE 140.3	3 is not ex	ceeded			
☐ High-rise	residential bui	ldings and Hotels	and Motels wi	th low-sloped r	oofs in Climate	Zones 1 throug	h 8, 12 an	d 16 are e	exempted fro	m aged Solar		
		nittance requirer			f- i- Clit- 7-	1 1 10 -		· f	d Calar Daffa	ctance and thermal		
	e residentiai bui equirements.	idings and Hotels	s/ivioteis with s	teep-sloped roo	ors in Climate 20	ones 1 and 16 a	re exempt	Trom age	a Solar Kelle	ctance and thermal		
			ated photovolta	aic panels and b	uilding integrat	ed solar therm	al panels a	are exemp	t from aged S	Solar Reflectance		
	l emittance req		oating must be	applied across	the entire roof	surface and me	et the dry	/ mil thick	ness or cover	age recommended		
		er and meet min	-							-8		
☐ Aluminur	n-Pigmented As	sphalt Roof Coat	ing 🔲 Ceme	nt-Based Roof (Coating 🗆 O	ther						
NOTES:		101 0										
										•		where the Initial Reflectance and B is either set to 0.65 for
		or it is set to 0.70						ance varae	c. Where p is	the mittal solal Reflec	iturice u	na B is entirel set to 0.05 joi
2. Calculat	e the SRI Value	by using the SRI	- Calculator Worl	ksheet at (<u>http:</u>	//energy.ca.gov	<u>//title24/2016s</u>	tandards/	document	s/solar reflec	tance/) and enter the	resultin	ng value in the SRI column
ahove a	nd attach a cop	y of the SRI-Worl	ksheet (NRCC-E	NV-03-E) to the	to this complia	nce document.						

CEF	RTIFICA	ATE OF COMPLIANCE											NRCC-ENV-01-
		Component Approac	h										(Page 1 of 4
Proje	ct Name:	Margaret Scotte	en ES Mod	ernization 2	019 BLDG	MP CLASS	ROOM/ST	ΓAGE		Date	Prepared:	1/11/2019	
Α. (GENER	AL INFORMATION											
01	Proje	ct Location:	10821	Squirrel Cre	ek Rd		06	Compliance I	∕lethod:			☑ Component ☐ Unconditioned	d (file Affidavit)
02	CA Ci	ty and Zip Code:	Grass '	Valley, 9594	5		07 I	Building Fron	t Oriental	ion (deg or ca	rdinal):	315 deg	. (
			44					n				☑ New Construc	tion
03	Clima	ate Zone:	11				08	Phase of Con	struction:			☐ Addition☐ Alteration	
												✓ Nonresidentia	
04	Total	Conditioned Floor Area	a: 979				09	Building Occi	ipancy:			☐ High-Rise Resi☐ Hotel/Motel @	
	<u> </u>		☐ Scho	ools (Public Sch	ool) 🗆 Relo	ocatable Public	School Bldg.	. 🛭 Condit	ioned Spa	ces 🗆 Unco	nditioned		Juest NOOH
05	Build	ing Type:				Space > 5000 f						-	
		OPE DETAILS - FRAM		0.4		06	07				1		
	01	02	03	04	05	06	07		8 dix JA 4	09		10	11
							Continuous	s Refe	rence	Proposed		Required	
Т	ıg/ID	Assembly Type	Frame Material	Frame Depth	Frame Spacing	Cavity R-value	Insulation R-value	Table	Cell	U-Factor		-Factor from s 140.3-B, C or D	Field Inspection Comment
1	ig/ID	Wall	Wood	2x6 @ 16	Spacing	19	0.0		1-A5	0.074	0.045	S 140.3-B, C 01 D	R-19 Wall
2		Roof	Wood	2x12 @ 16		30	0.0	4.2.	2-A17	0.035	0.034		R-30 Roof No Attic
		1			L.								
C. E	NVEL	OPE DETAILS - NON-	FRAMED										
	01	02	0)3	04	05	06		07	08		09	10
						Interior or Core	Continuo	us Refe	ndix JA4 erence	Proposed		Required	
Та	ıg/ID	Assembly Type	Assembly	Materials	Thickness (inches)	Insulation R-value	Insulatio R-value	II	Cell	U-Factor		-Factor from s 140.3-B, C or D	Field Inspection Comment
	18/10	Assembly Type	Assembly	Waterials	(inches)	it value	It value	Table	CCII	O Tactor	Table	3 140.3 6, 6 61 6	Tield inspection comment
		1	1			1	1		1		1		







January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance



www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

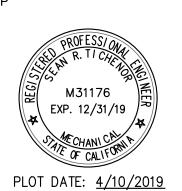
PROJECT **MARGARET** SCOTTEN ES **MODERNIZATION**

GRASS VALLEY SCHOOL DISTRICT

CONSULTANT



STAMP



STATE DSA FILE NUMBER 29-11 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APPL# 01-AC _____ FLS ____ SS____

REVISIONS

No. Description Date

ADDENDUM - 1 4/23/19

MILESTONES SD DD

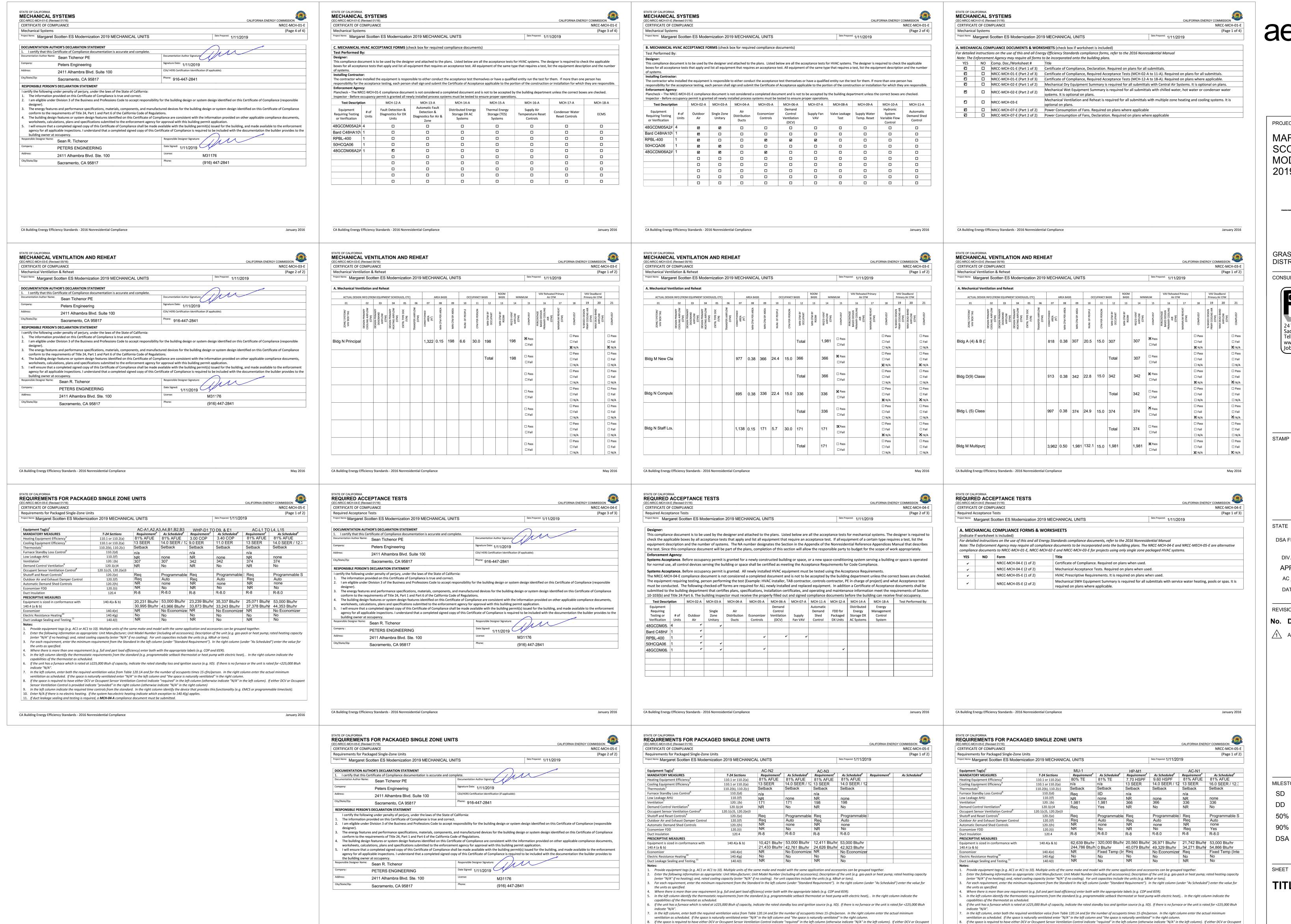
50% CD 90% CD DSA SUB

SHEET

TITLE 24

11/15/2018

AD1 - M0.02



Sensor Ventilation Control is provided indicate "provided" in the right column (otherwise indicate "N/A" in the right column)

10. Enter N/A if there is no electric heating. If the system has electric heating indicate which exception to 140.4(g) applies.

11. If duct leakage sealing and testing is required, a MCH-04-A compliance document must be submitted.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

9. In the left column indicate the required time controls from the standard. In the right column identify the device that provides this functionality (e.g. EMCS or programmable timeclock).

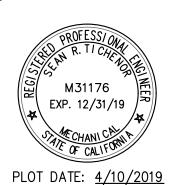
www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

PROJECT MARGARET SCOTTEN ES MODERNIZATION

GRASS VALLEY SCHOOL

DISTRICT

CONSULTANT mechanica electrical 2411 Alhambra Blvd, Ste. 1 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 18.098



DSA FILE NUMBER 29-11 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APPL# 01-AC _____ FLS ____ SS____

REVISIONS

No. Description Date

1 ADDENDUM - 1 4/23/19

MILESTONES DD

50% CD 90% CD DSA SUB

SHEET

Sensor Ventilation Control is provided indicate "provided" in the right column (otherwise indicate "N/A" in the right column)

10. Enter N/A if there is no electric heating. If the system has electric heating indicate which exception to 140.4(g) applies.

11. If duct leakage sealing and testing is required, a MCH-04-A compliance document must be submitted.

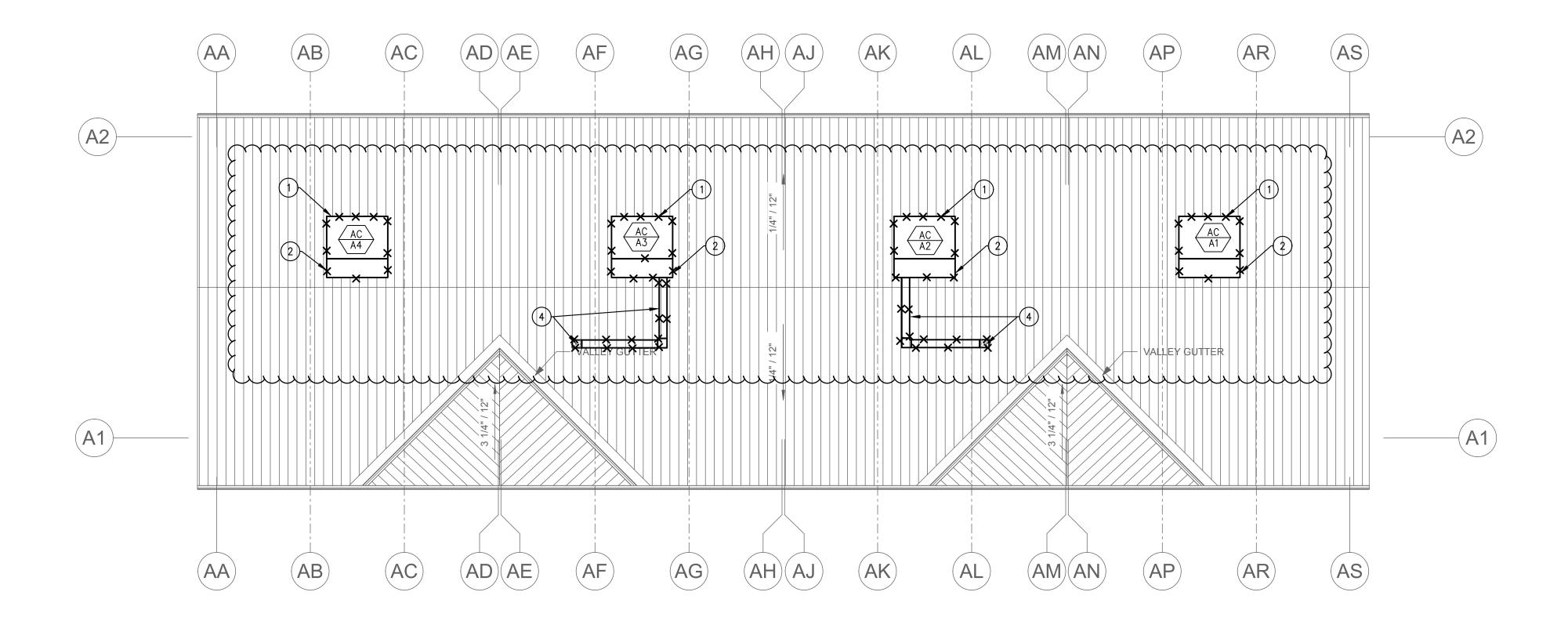
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

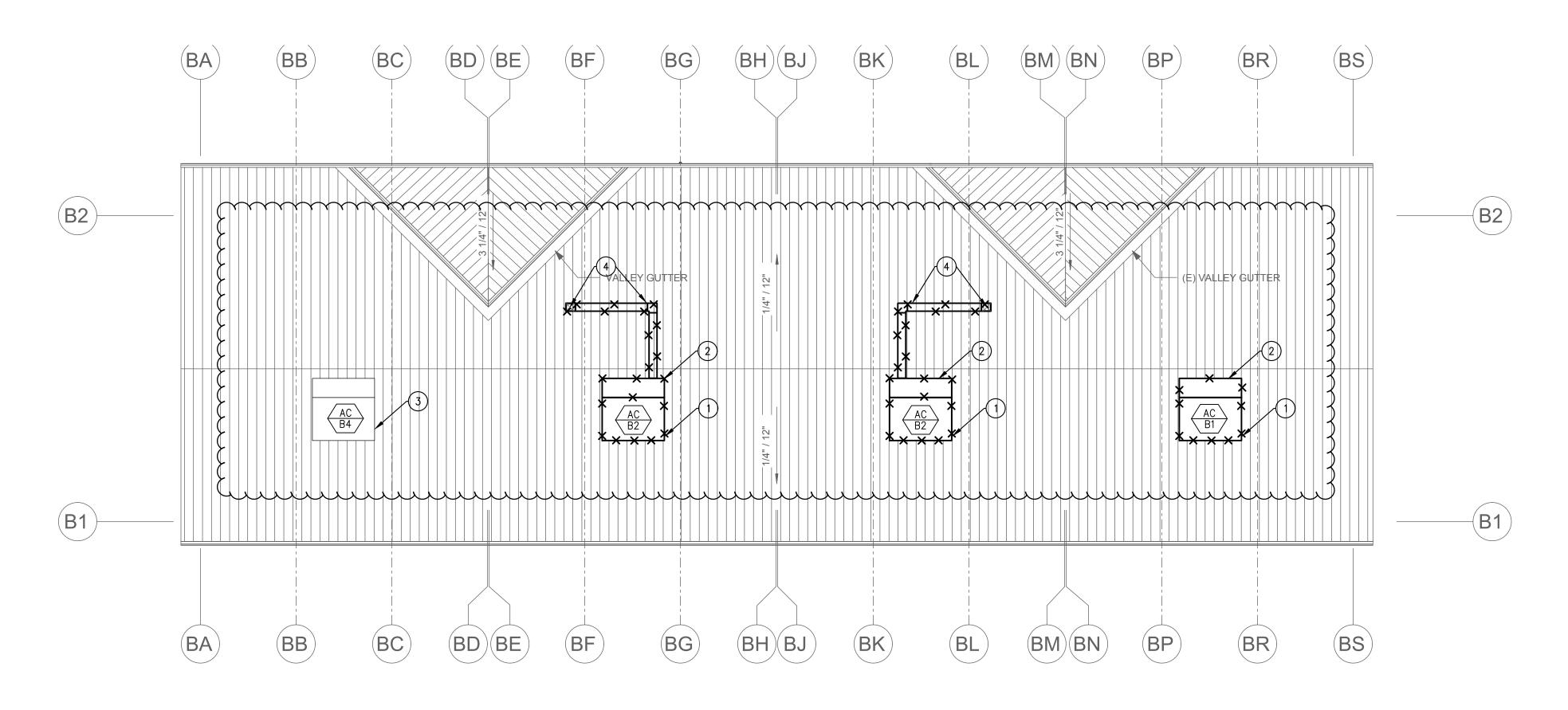
9. In the left column indicate the required time controls from the standard. In the right column identify the device that provides this functionality (e.g. EMCS or programmable timeclock).

11/15/2018

January 2016



BUILDING A DEMOLITION PLAN SCALE: 1/8" - 1"-0"

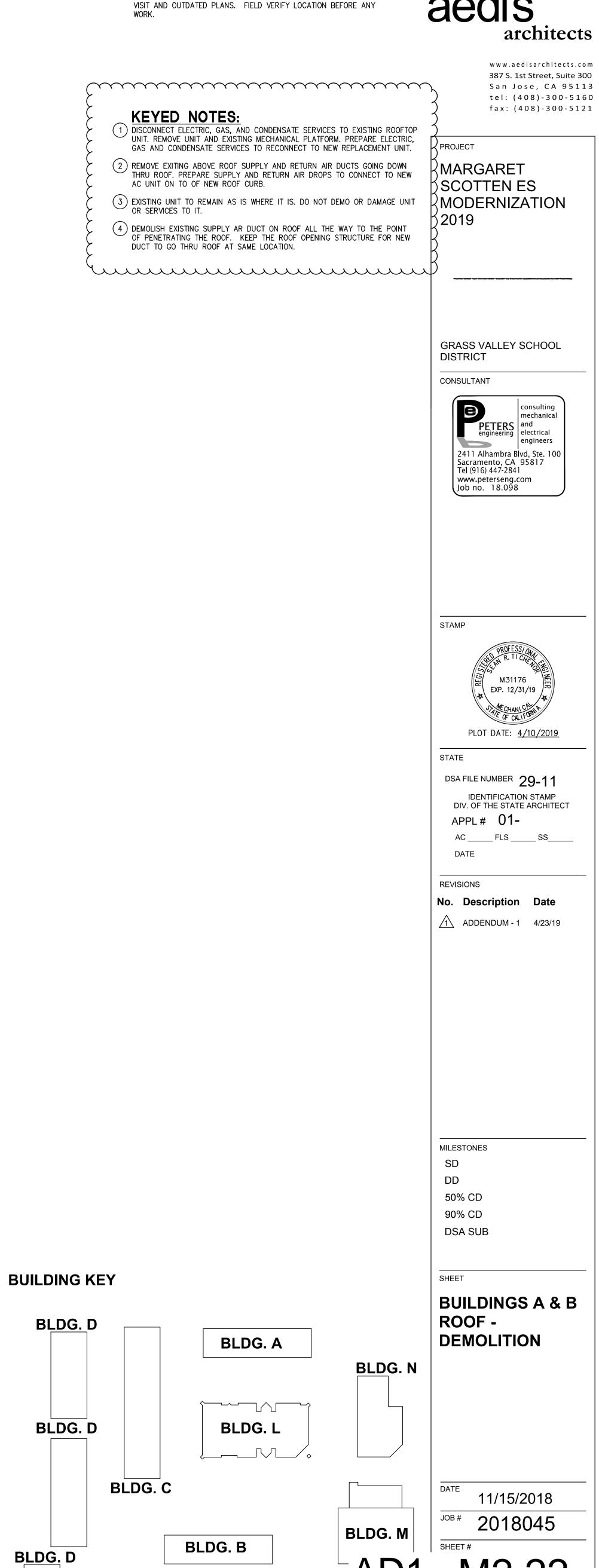


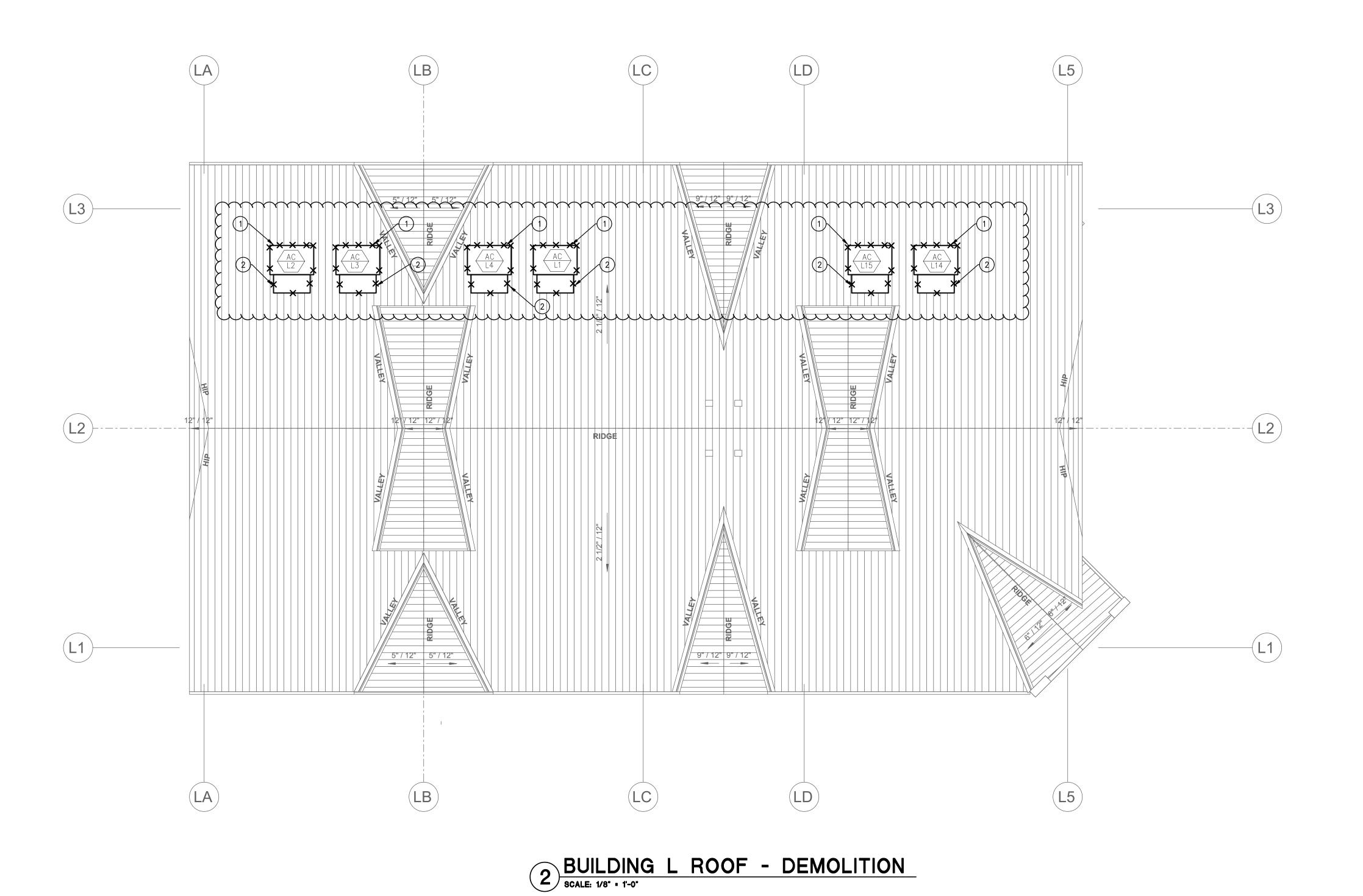
BUILDING B DEMOLITION PLAN

SCALE: 1/8' · 1'-0'

SHEET NOTES: APPROXIMATE LOCATION OF EQUIPMENT AND SENSORS BASED ON FIELD VISIT AND OUTDATED PLANS. FIELD VERIFY LOCATION BEFORE ANY







SHEET NOTES:

1. APPROXIMATE LOCATION OF EQUIPMENT AND SENSORS BASED ON FIELD VISIT AND OUTDATED PLANS. FIELD VERIFY LOCATION BEFORE ANY WORK.

MEYED NOTES:

DISCONNECT ELECTRIC, GAS, AND CONDENSATE SERVICES TO EXISTING ROOFTOP UNIT. REMOVE UNIT AND EXISTING MECHANICAL PLATFORM. PREPARE ELECTRIC, GAS, AND CONDENSATE SERVICES TO RECONNECT TO NEW REPLACEMENT UNIT.

2 REMOVE EXITING ABOVE ROOF SUPPLY AND RETURN AIR DUCTS GOING DOWN THRU ROOF. PREPARE SUPPLY AND RETURN AIR DROPS TO CONNECT TO NEW AC UNIT ON TO OF NEW ROOF CURB.

www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

aedis

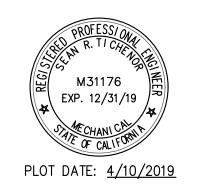
PROJECT MARGARET SCOTTEN ES MODERNIZATION

GRASS VALLEY SCHOOL

DISTRICT

CONSULTANT

engineers 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 18.098



STATE

DSA FILE NUMBER 29-11

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APPL # 01-

AC _____ FLS _____ SS_____

REVISIONS

No. Description Date

△ ADDENDUM - 1 4/23/19

MILESTONES SD

DD 50% CD 90% CD DSA SUB

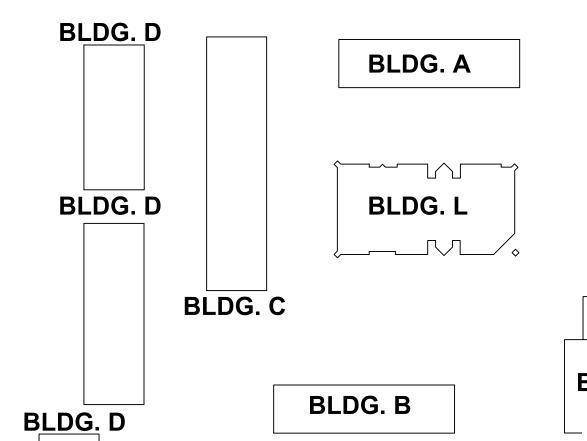
SHEET **BUILDING L ROOF**

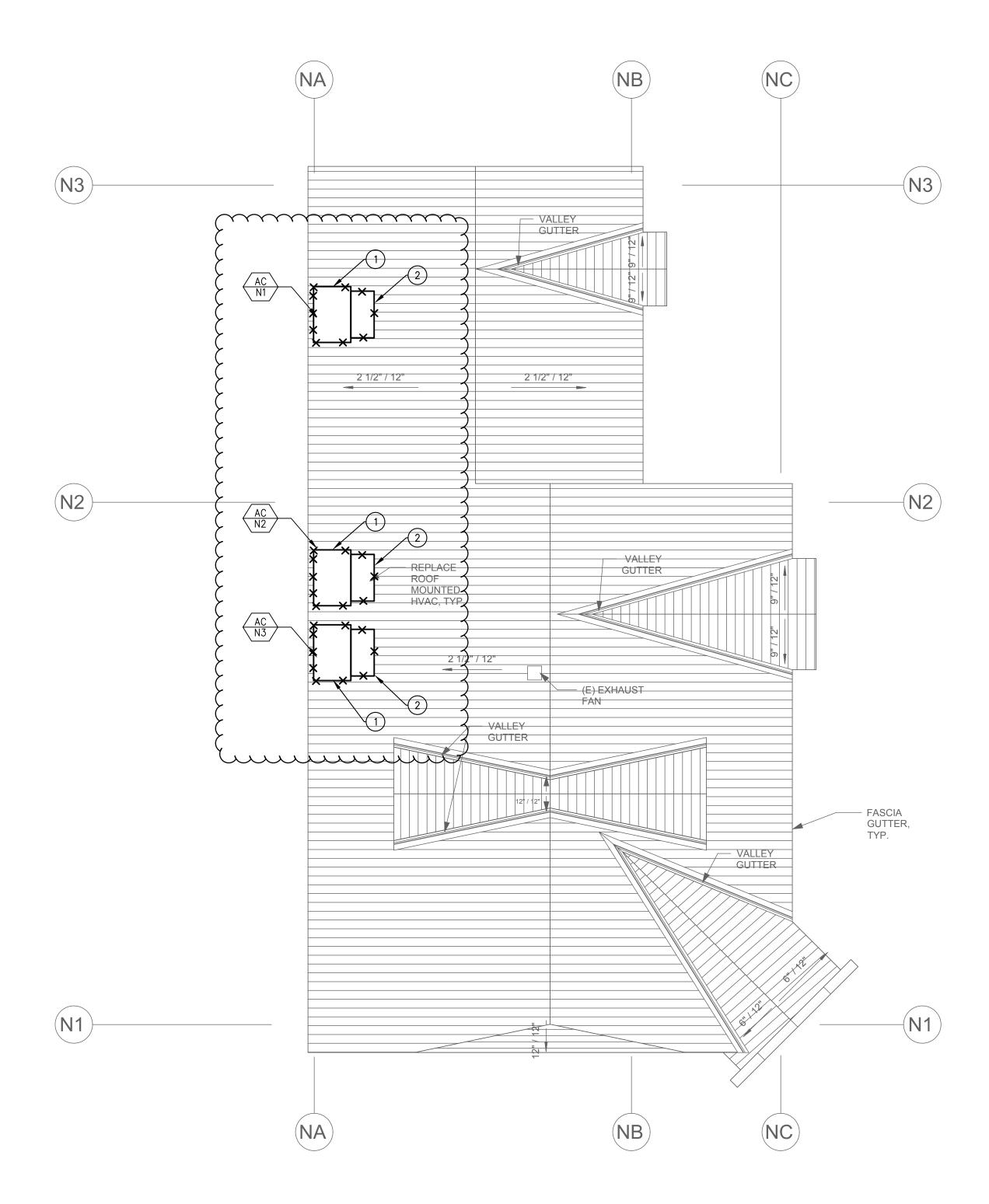
- DEMOLITION BLDG. N 11/15/2018

BLDG. M 2018045
SHEET #

AD1 - M2.32

BUILDING KEY





BUILDING N ROOF - DEMOLITION

SCALE: 1/8" • 1'-0"



SHEET NOTES: 1. APPROXIMATE LOCATION OF EQUIPMENT AND SENSORS BASED ON FIELD VISIT AND OUTDATED PLANS. FIELD VERIFY LOCATION BEFORE ANY WORK.

> 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

www.aedisarchitects.com

(1) KEYED NOTES:
DISCONNECT ELECTRIC, GAS, AND CONDENSATE SERVICES TO EXISTING ROOFTOP UNIT. REMOVE UNIT AND EXISTING MECHANICAL PLATFORM. PREPARE ELECTRIC, GAS, AND CONDENSATE SERVICES TO RECONNECT TO NEW REPLACEMENT UNIT.

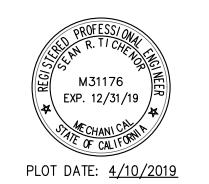
2 REMOVE EXITING ABOVE ROOF SUPPLY AND RETURN AIR DUCTS GOING DOWN THRU ROOF. PREPARE SUPPLY AND RETURN AIR DROPS TO CONNECT TO NEW AC UNIT ON TO OF NEW ROOF CURB.

PROJECT MARGARET SCOTTEN ES MODERNIZATION 2019

GRASS VALLEY SCHOOL DISTRICT

CONSULTANT

PETERS and electrical engineers 2411 Alhambra Blvd, Ste. 100 Sacramento, CA 95817 Tel (916) 447-2841 www.peterseng.com Job no. 18.098



STATE

DSA FILE NUMBER 29-11 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APPL # 01-

AC _____ FLS _____ SS_____

REVISIONS

No. Description Date

△ ADDENDUM - 1 4/23/19

MILESTONES SD DD 50% CD

DSA SUB SHEET

90% CD

BUILDING N ROOF - DEMOLITION

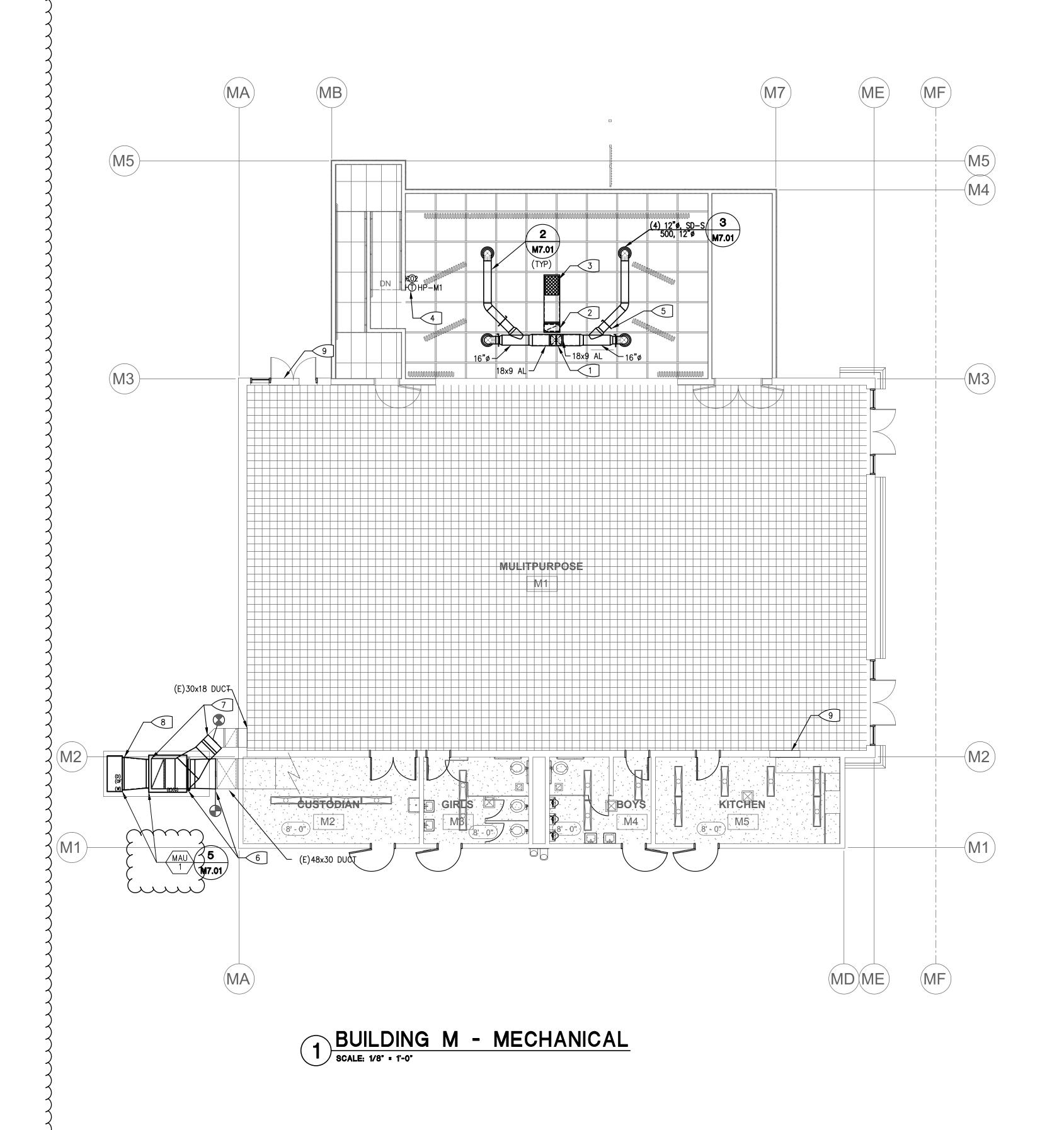
BLDG. D BLDG. A BLDG. N BLDG. D BLDG. L BLDG. C BLDG. B BLDG. D

BUILDING KEY

11/15/2018

BLDG. M 2018045
SHEET #

AD1 - M2.42



TULLING THE TENT OF THE TENT O

SHEET NOTES:

1. APPROXIMATE LOCATION OF EQUIPMENT AND THERMOSTATS. SEE

ARCHITECTURAL AND STRUCTURAL PLANS FOR EXACT LOCATION.

KEYED NOTES:

1 18x18 AL SUPPLY AIR DROP DOWN FROM ABOVE TRANSITION TO TWO 18x9 AL SUPPLY AIR DUCTS WITH MITER ELBOWS AND TURNING VANES TO SUPPLY AIR DIFFUSERS. SEE M5.41 FOR ROOF CONTINUATION.

2 25x14 AL RETURN AIR DROP FROM ABOVE WITH MITER ELBOW AND TURNING VANES ABOVE GRID. SEE M5.41 FOR ROOF CONTINUATION.

3> 25x14 AL RETURN AIR DUCT WITH 22x30 RG-S GRILLE ON TOP SIDE OF CUT FOR RETURN AIR BACK TO UNIT. LOCATE HIGH ABOVE GRID.

4> PROVIDE PROGRAMMABLE PELICAN THERMOSTAT AND OCCUPANCY SENSOR TO CONNECT TO SITE PELICAN CONTROLS SYSTEM. PROVIDE ALL WIRING NECESSARY AS PER SITE STANDARD.

5> MANUAL VOLUME DAMPER. TYPICAL

BUILDING KEY

BLDG. D

BLDG. D

BLDG. D

BLDG. C

BLDG. A

BLDG. L

BLDG. B

6 CONNECT NEW AL 46x16 SUPPLY AIR DUCT FROM UNIT TO EXISTING 48x30. VERIFY SIZES PRIOR TO ANY WORK OR ORDERING OF PART.

7 CONNECT NEW AL 48x20 RETURN AIR DUCT FROM UNIT TO EXISTING 38x18. VERIFY SIZES PRIOR TO ANY WORK OR ORDERING OF PART.

8 AL 48x38 FIELD DUCTWORK CONNECTION FROM EVAPORATIVE COOLING SECTION TO REST OF MAKE UP AIR UNIT. VERIFY SIZES PRIOR TO ANY WORK OR

9 EXISTING HIGH ON WALL 48x48 MOTORIZED OUTSIDE AIR LOUVER. CONNECT TO NEW PELICAN SYSTEM. UPDATE OR REPLACE ACTUATOR AS NEEDED TO FUNCTION WITH NEW SYSTEM. TYPICAL OF TWO.

Luci Linguis de la constanta d

architects

www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

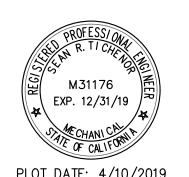
PROJECT **MARGARET** SCOTTEN ES

MODERNIZATION

GRASS VALLEY SCHOOL

DISTRICT





STATE

DSA FILE NUMBER 29-11 IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APPL# 01-AC _____ FLS _____ SS____

REVISIONS No. Description Date

ADDENDUM - 1 4/23/19

MILESTONES

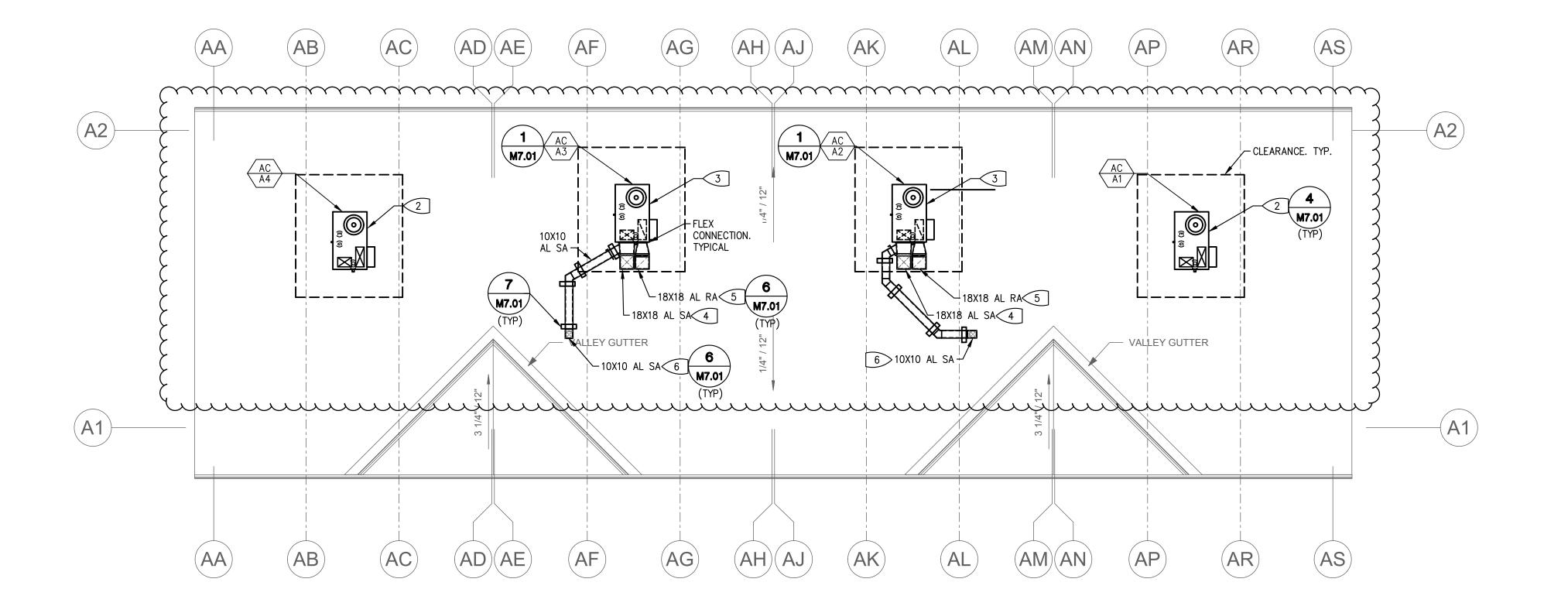
DD 50% CD

90% CD DSA SUB

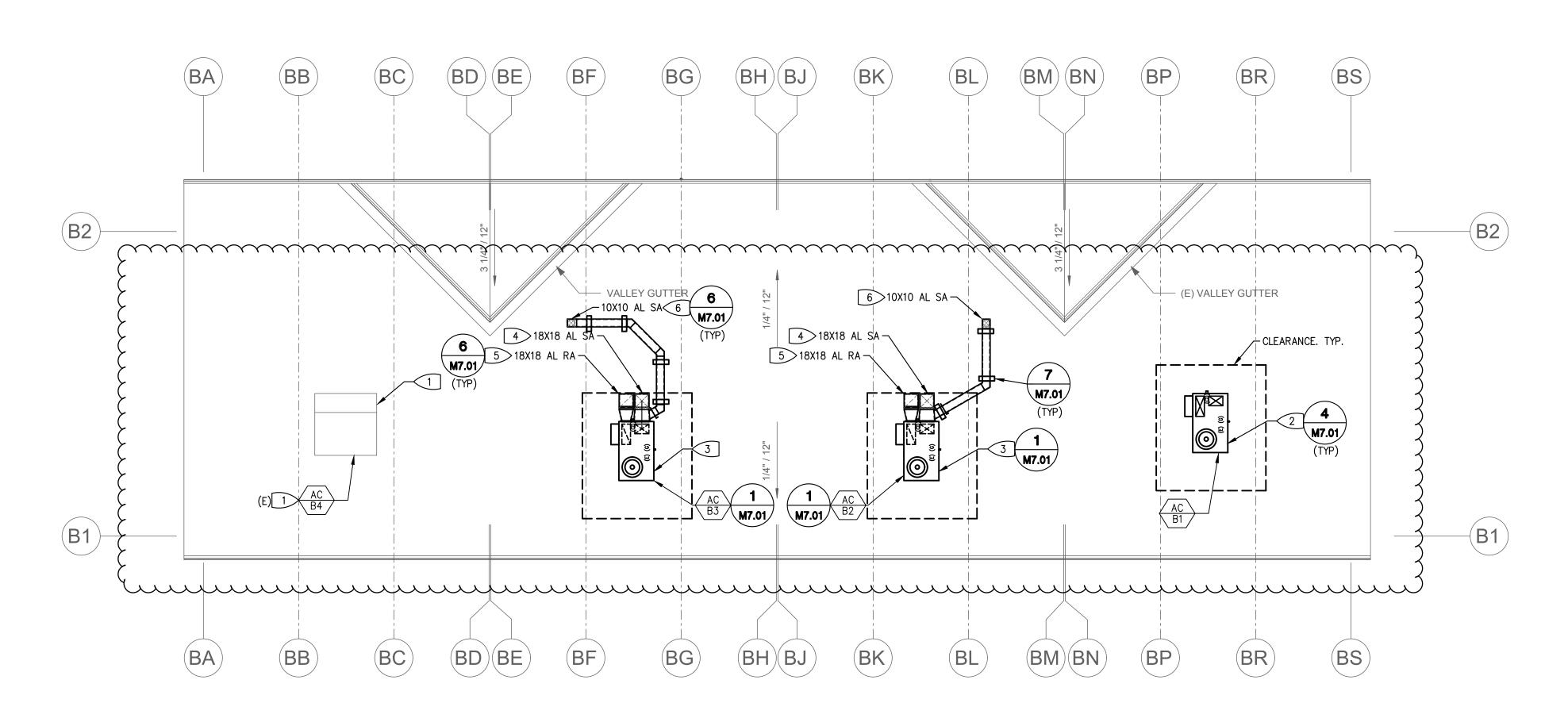


11/15/2018

BLDG. M



1 BUILDING A - MECHANICAL SCALE: 1/8" - 1'-0"



BUILDING B - MECHANICAL

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

SHEET NOTES:

APPROXIMATE LOCATION OF EQUIPMENT BASED ON FIELD VISIT, OUTDATED PLANS AND ARCHITECTURAL PLAN. LOCATION OF FIELD SUPPLY AND RETURN AIR DROPS WILL DICTATE FINAL LOCATION OF REPLACEMENT UNIT AS WELL AS NEW ROOF CURB. NEW CURB TO BE LOCATED AS TO BEST FIT NEW UNITS SUPPLY AND RETURN AIR DROPS TO EXISTING SUPPLY AND RETURN AIR DUCT DOWN THRU ROOF AND TO DIFFUSERS AND



387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121

www.aedisarchitects.com

KEYED NOTES:

- EXISTING ROOF TOP UNIT TO REMAIN AS IS. ROOFING TO BE ACCOMPLISH WITHOUT DAMAGING UNIT SERVICES, CONNECTIONS, AND PENETRATIONS.

 2 NEW ROOF MOUNTED VERTICAL SUPPLY AND RETURN AIR DROP UNIT TO REPLACE OLD UNIT. UNIT TO SIT ON NEW ROOF CURB. RECONNECT NEW SUPPLY AND RETURN AIR DROPS FROM REPLACEMENT UNIT TO EXISTING DUCTS DOWN TO SUPPLY AIR DIFFUSERS AND RETURN AIR GRILLES. MODIFY EXISTING DROPS WITH TRANSITIONS TO ACCOMMODATE NEW DROPS FORM NEW ROOF CURB. RE—CONNECT ELECTRIC, GAS, AND CONDENSATE SERVICES. VERIFY SIZES BEFORE ORDERING OR MANUFACTURING DUCTWORK.
- 3 NEW ROOF MOUNTED HORIZONTAL SUPPLY AND RETURN AIR OPENING UNIT TO REPLACE OLD UNIT. UNIT TO SIT ON NEW ROOF CURB. RE-CONNECT ELECTRIC, GAS, AND CONDENSATE SERVICES.
- 4 NEW TRANSITION FROM 18x12 SUPPLY AIR OPENING AT UNIT TO 18x18 AL SUPPLY AIR DROP DOWN THRU ROOF TO CONNECT TO EXISTING 18x18 AL SUPPLY AIR DROP TO EXISTING DIFFUSERS. VERIFY SIZE BEFORE ORDERING OR MANUFACTURING DUCTWORK.
- 5 NEW TRANSITION FROM 11x26 RETURN AIR OPENING AT UNIT TO 18x18 AL RETURN AIR DROP DOWN THRU ROOF TO CONNECT TO EXISTING 18x18 AL RETURN AIR DROP TO EXISTING GRILLE. VERIFY SIZE BEFORE ORDERING OR MANUFACTURING DUCTWORK.
- 6 NEW SUPPLY AIR DUCTS BRANCH ON ROOF FROM MAIN TO RESOURCES ROOM BETWEEN CLASSROOMS. RUN DUCT TO CONNECT TO EXISTING DUCTS DOWN THRU ROOF TO EXISTING SUPPLY AIR DIFFUSER. VERIFY SIZE BEFORE ORDERING OR MANUFACTURING DUCTWORK.

MARGARET SCOTTEN ES MODERNIZATION 2019

PROJECT

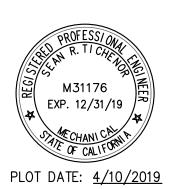
GRASS VALLEY SCHOOL

CONSULTANT

DISTRICT



STAMP



STATE

DSA FILE NUMBER 29-11

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT

APPL # 01
AC _____ FLS ____ SS____

NEV (1010 N.O.

REVISIONS

No. Description Date

ADDENDUM - 1 4/23/19

MILESTONES
SD
DD

50% CD 90% CD DSA SUB

BUILDINGS A & B

ROOF - MECHANICAL
BLDG. N

11/15/2018
10B# 2018045

201804 SHEET #

BLDG. D

BLDG. B

BLDG. B

BLDG. M

AD

BLDG. A

BUILDING KEY

BLDG. D

ROOF CURB. RECONNECT NEW SUPPLY AND RETURN AIR DROPS FROM

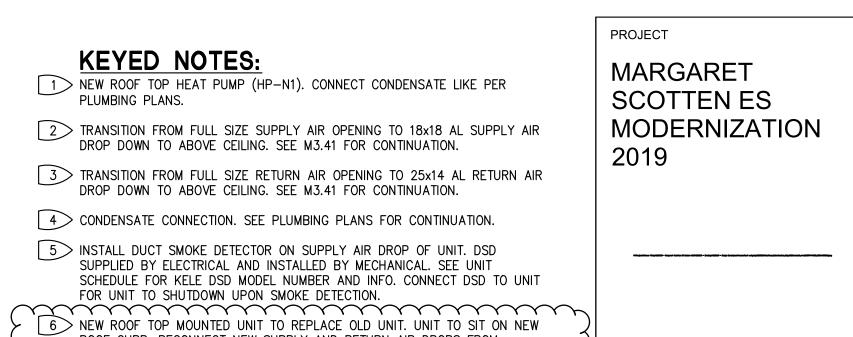
RETURN AIR GRILLES. MODIFY EXISTING DROPS WITH TRANSITIONS TO ACCOMMODATE NEW DROPS FORM NEW ROOF CURB. RE—CONNECT ELECTRIC,

GAS, AND CONDENSATE SERVICES.

REPLACEMENT UNIT TO EXISTING DUCTS DOWN TO SUPPLY AIR DIFFUSERS AND

aedis

www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160 fax: (408)-300-5121



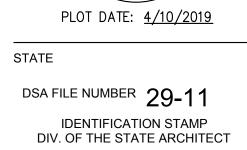
GRASS VALLEY SCHOOL DISTRICT

CONSULTANT

PETERS
engineering

2411 Alhambra Blvd, Ste. 100
Sacramento, CA 95817
Tel (916) 447-2841
www.peterseng.com
Job no. 18.098

PROFESS/OW R. T/ CHIMA M31176 EXP. 12/31/19



APPL # 01
AC _____ FLS ____ SS____

DATE

No. Description Date

1 ADDENDUM - 1 4/23/19

MILESTONES
SD
DD
50% CD

90% CD DSA SUB

BLDG. N

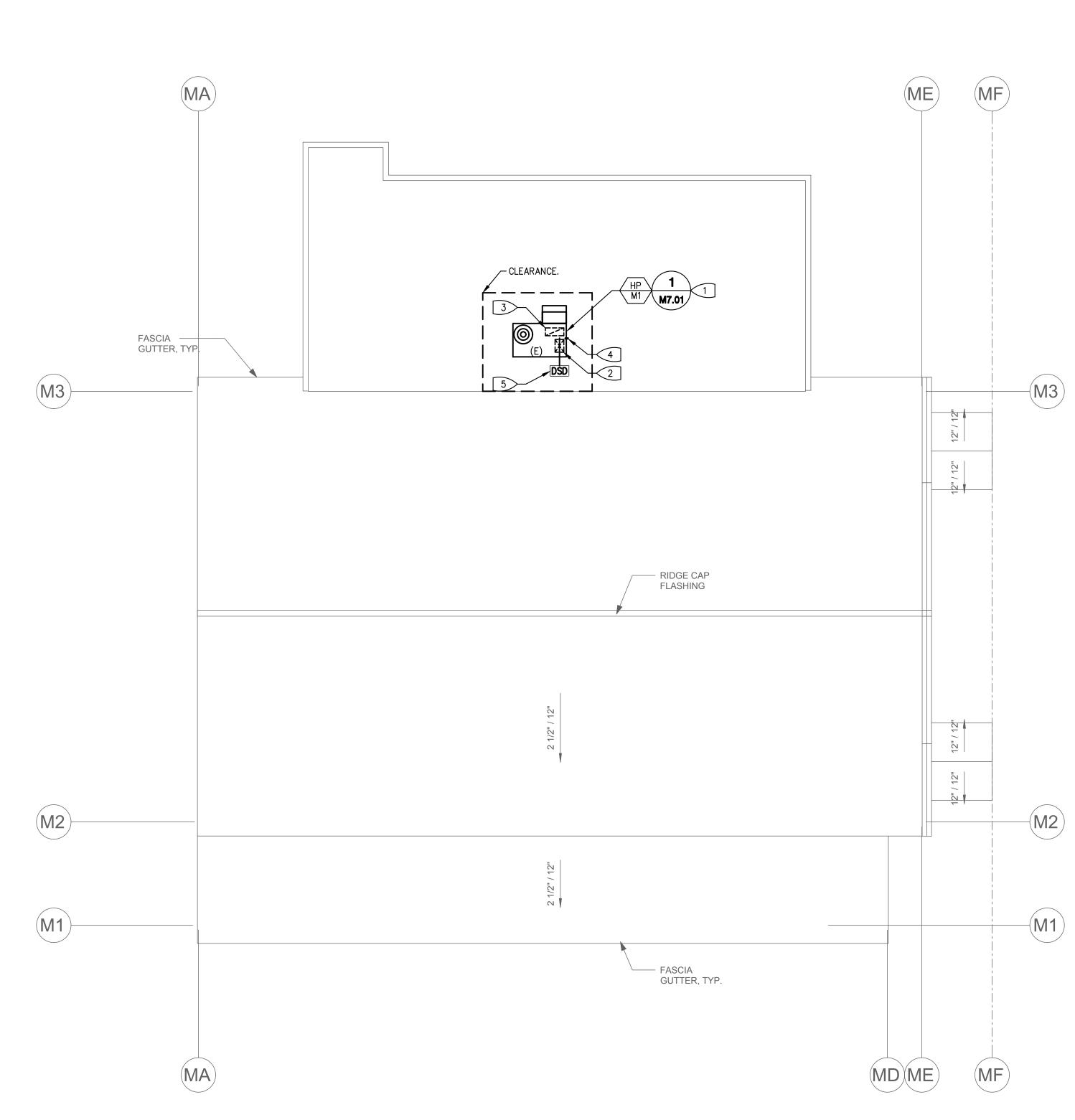
BUILDINGS M & N
ROOF MECHANICAL

ATE

11/15/2018
JOB# 2018045

BLDG. M 2018045
SHEET #

AD1 - M5.41





M7.01

2 1/2" / 12"

4 M7.01

CLEARANCE. TYP.

N2

N1

2 1/2" / 12"

2 1/2" / 12"

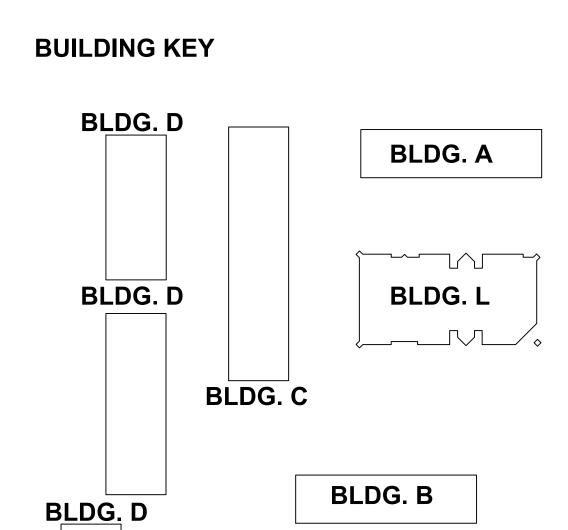
VALLEY GUTTER

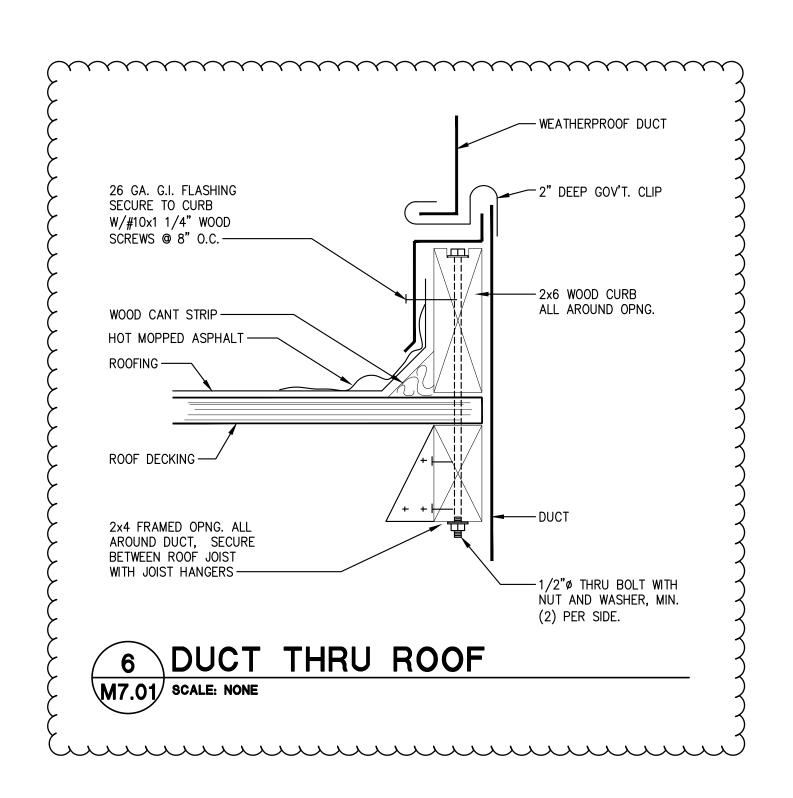
N2

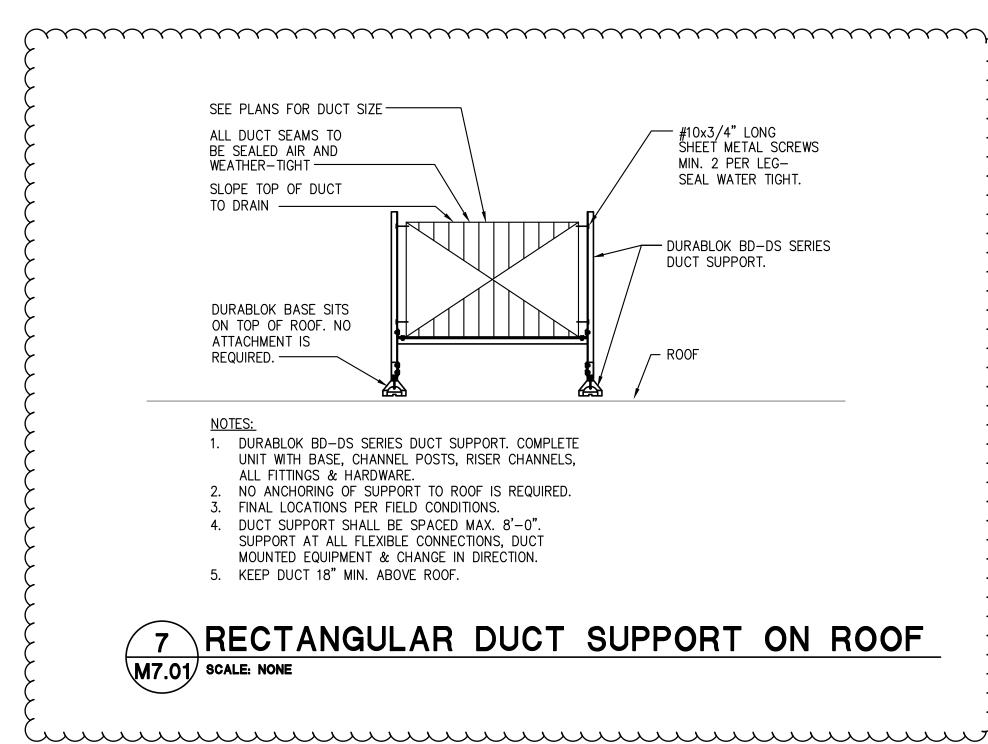
FASCIA GUTTER, TYP.

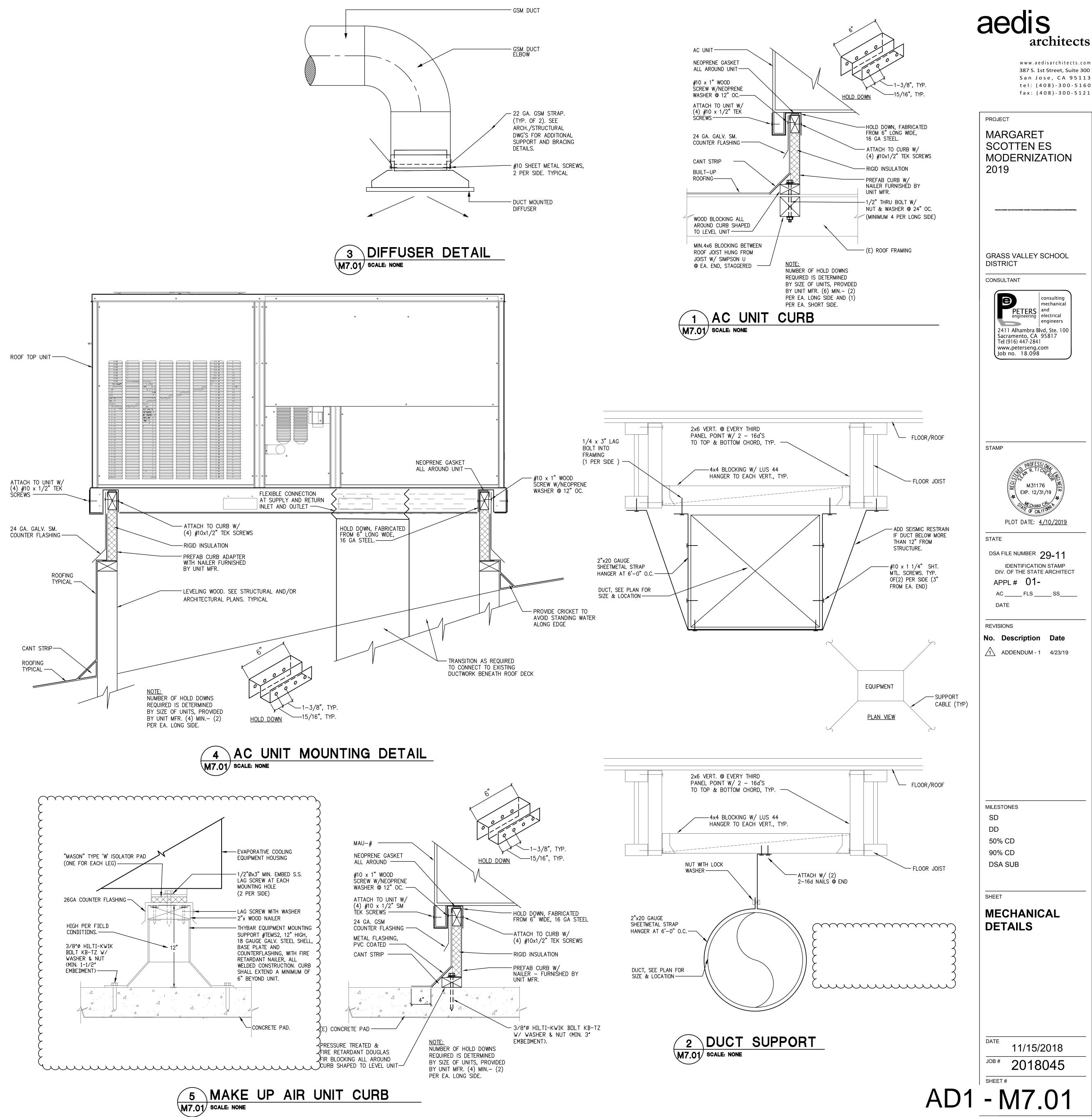
VALLEYGUTTER











www.aedisarchitects.com 387 S. 1st Street, Suite 300 San Jose, CA 95113 tel: (408)-300-5160