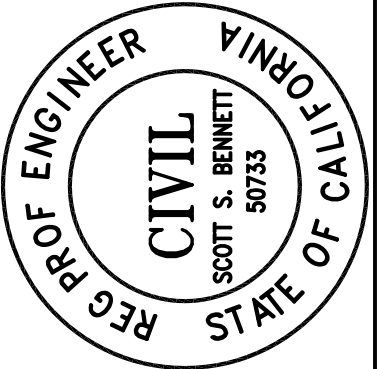
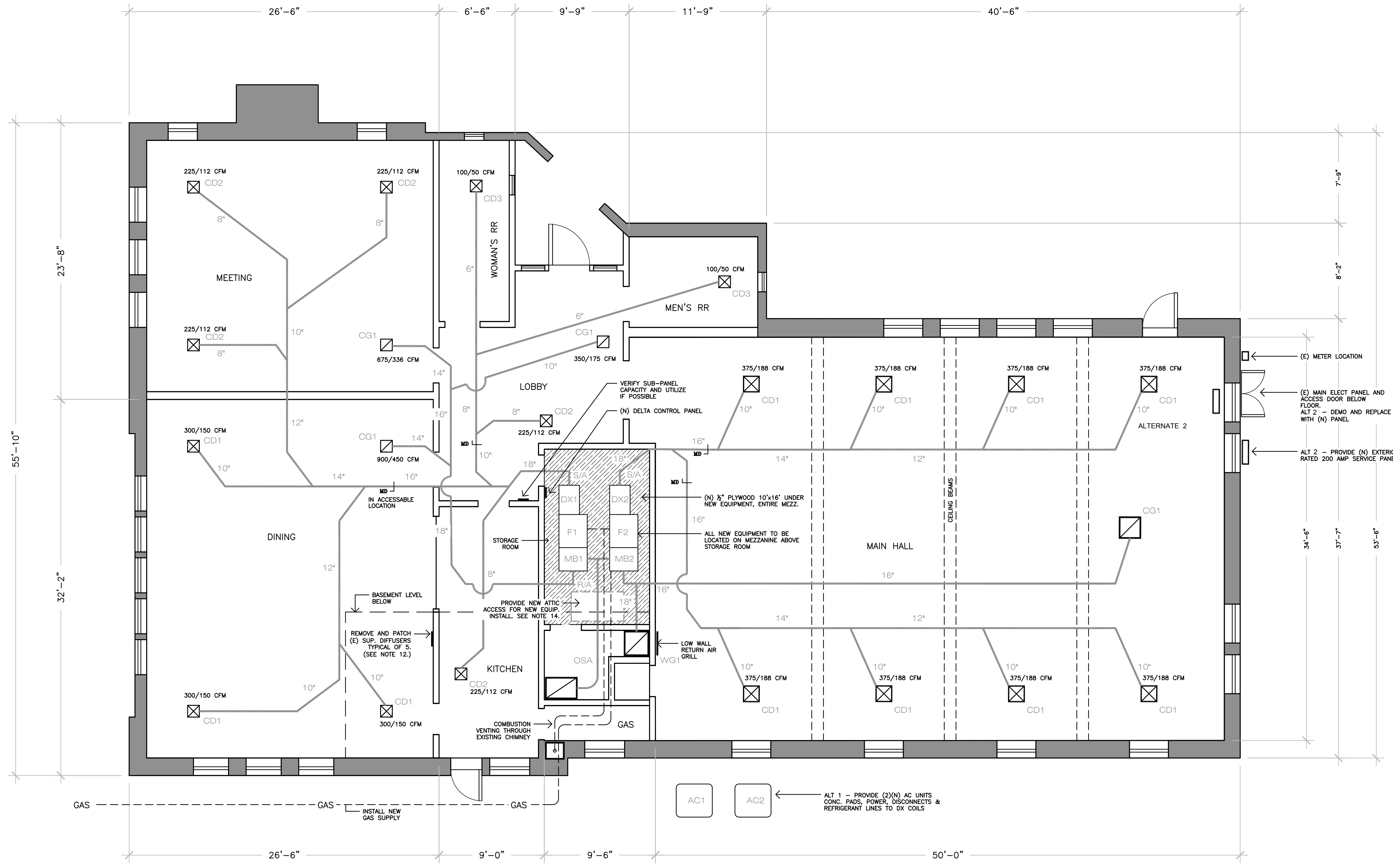


REVISIONS	DATE

BENNETT ENGINEERING
CIVIL & MECHANICAL ENGINEERING
 * RES & COMM DESIGN * P.E. REG # CE50733, #ME21162 *
 3720 MAIN ST. KELSEYVILLE, CA 95451 (707) 263-5814
 SCOTT S. BENNETT, P.E. CELL: (707) 349-2010



UKIAH VETERANS HALL - HVAC
 293 SEMINARY AVE.
 UKIAH, CA 95482
CONSTRUCTION PLANS



CONSTRUCTION NOTES

- DUCT INSULATION - ALL HVAC SYSTEM DUCTWORK SHALL BE INSULATED AS REQUIRED BY CHAPTER 10 OF THE CALIFORNIA MECHANICAL CODE, TITLE 24, PART 4.27.
- DUCT CONSTRUCTION - ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND TESTED TO STANDARDS SET IN THE ASHRAE EQUIPMENT HANDBOOK LATEST EDITION AND TO METHODS ADOPTED BY SMACNA. HVAC DUCT CONSTRUCTION STANDARDS.
- MAIN DUCTS TO BE INSULATED, 24 GA. MIN. GALV. STEEL, OR ALUMINUM UNLESS OTHERWISE INDICATED BY THE PLANS. SEAL ALL JOINTS WITH TAPE.
- LATERAL RUNOUTS SHALL BE ALUMINUM OR UL-181 LISTED FIBERGLASS INSULATED FLEXIBLE DUCT WITH GALV. COATED STEEL HELIX CORE. FLEXDUCT RUNS SHALL BE LIMITED TO THE FINAL 8' MAX OF THE RUN UNLESS OTHERWISE NOTED ON PLANS.
- PROVIDE MANUAL BALANCING DAMPERS WHERE INDICATED ON PLANS. PROVIDE A BALANCE REPORT TO THE OWNER UPON COMPLETION OF THE WORK.
- ALL DUCTS AND PIPING RUNS SHALL AVOID ARCHITECTURAL OPENINGS, STRUCTURAL MEMBERS, ELECTRICAL FIXTURES AND OTHER OBSTRUCTIONS AND SHALL BE PROPERLY SUPPORTED OR HUNG ACCORDING TO THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS.
- ALL SQUARE ELBOWS IN RECTANGULAR DUCTWORK SHALL HAVE AIR TURNING VANES.
- REFER TO MANUFACTURERS CERTIFIED DRAWINGS FOR EXACT DIMENSIONS AND COMPLY WITH ALL MANUFACTURERS INSTALLATION SPECIFICATIONS, CLEARANCES AND REQUIREMENTS.
- DRAWINGS ARE DIAGRAMMATIC ONLY - INSTALL TO SUIT FIELD CONDITIONS. NOTIFY ENGINEER OR ARCHITECT IF FIELD MODIFICATIONS MAY AFFECT PERFORMANCE OF SYSTEM.
- ALL EXTERIOR DUCTWORK SEAMS AND JOINTS TO BE SEALED WITH WATERPROOF MASTIC OR METAL TAPE. ALL PENETRATIONS THROUGH BUILDING ARE TO BE FLASHED AND PROPERLY SEALED FOR WEATHER PROTECTION.
- ALL ELECTRICAL SHALL BE IN EMT CONDUIT.
- REVIEW LEAD AND ASBESTOS REPORT PRIOR TO ANY CONSTRUCTION OR DEMOLITION.
- IT IS THE INTENTION TO PROVIDE FULL (100%) OUTSIDE AIR/ECONOMIZER COOLING WHEN CONDITIONS PERMIT. CONTRACTOR SHALL PROVIDE PROPOSED CONTROL SCHEMATIC FOR REVIEW BY OWNER & ENGINEER. CONTROLS BY DELTA/ESI. EXCESS RETURN AIR MAY BE 'DUMPED' INTO ATTIC SPACE DURING ECONOMIZER MODE. MINIMUM OSA (FRESH AIR) ON LOW FAN = 400 CFM, MIN. OSA ON HIGH FAN = 800 CFM.
- PROVIDE WERNER WH3010 30.5in W x 54in L x 10ft H Ceiling Heavy Duty Wood Attic Ladder. INSTALL PER MANUFACTURER INSTRUCTIONS.
- HARD PIPE CONDENSATE DRAINS TO SANITARY SEWER

MECHANICAL LEGEND

- MECHANICAL EQUIP IDENTIFICATION UNIT NUMBER
- AIR DISTRIBUTION FIXTURE UNIT NUMBER
- RETURN REGISTER - HIGH/LOW SPEED CFM RATING
- SUPPLY REGISTER - HIGH/LOW SPEED CFM RATING
- MOTORIZED ZONE DAMPER & CONTROLLER
- MANUAL DAMPER, BALANCING
- INSULATED ROUND DUCTING - DIAMETER
- RECTANGULAR METAL DUCT, WxH
- RECTANGULAR TO ROUND DUCT TRANSITION
- CONDENSATE DRAIN LINE

ABBREVIATIONS

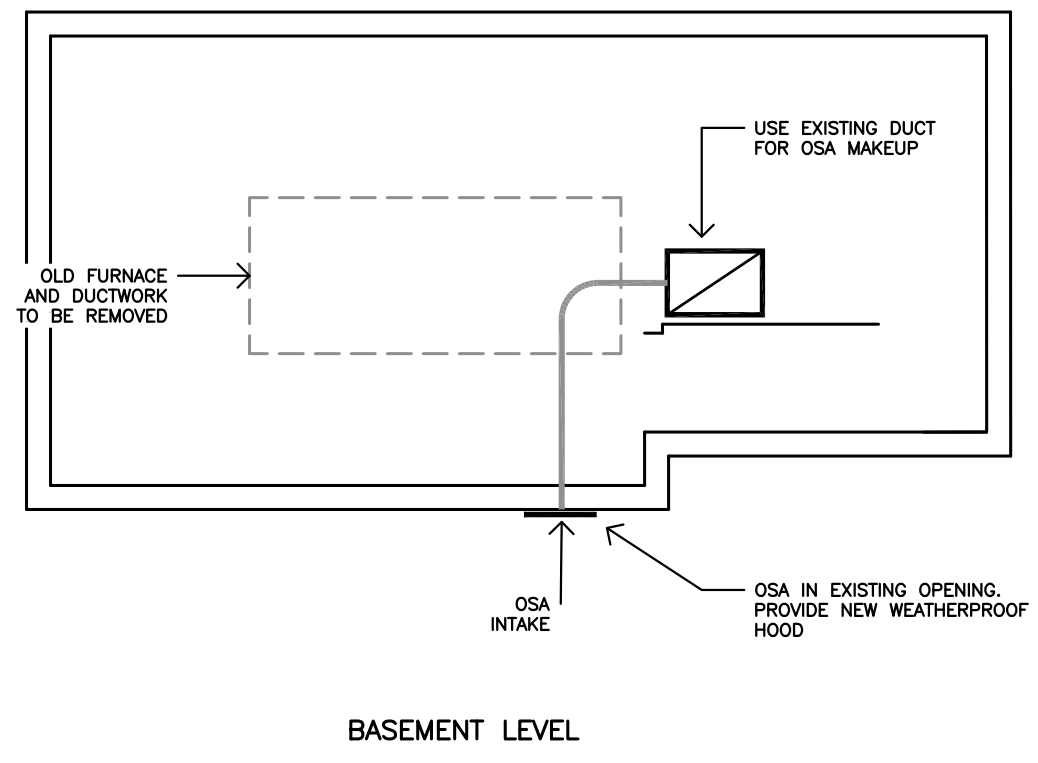
- S/A SUPPLY AIR
- R/A RETURN AIR
- OSA OUTSIDE AIR
- CD CEILING SUPPLY DIFFUSER
- CG CEILING RETURN GRILLE
- WD WALL SUPPLY DIFFUSER
- WG WALL RETURN GRILLE
- MD MANUAL DAMPER
- MB MIXING BOX
- EER ENERGY EFFICIENCY RATIO
- SEER SEASONAL EER
- COP COEFFICIENT OF PERFORMANCE
- AFUE ANNUAL FUEL UTILIZATION EFFICIENCY
- MOCP MAX. OVERCURRENT PROTECTION FULL LOAD AMPS
- IFM INSIDE FAN MOTOR
- OFM OUTSIDE FAN MOTOR
- FD FUSED DISCONNECT
- LP LIQUID PROPANE
- CFM CUBIC FEET PER MINUTE
- T THERMOSTAT
- AC AIR CONDITIONER
- P PUMP

HEATING, VENTILATION, AND AIR CONDITIONING EQUIPMENT SCHEDULE

MARK	QUANTITY	HEATING BTU/HPIF	HEATING EFF %	COOLING BTU CAPACITY	COOLING EFF SEER	VENTILATION TOTAL CFM	OSA	ELEC DATA VOLTS/Hz/PH	FLA	MANUFACTURER, MODEL, DATA	ACCESSORIES	HVAC ACCESSORIES
F1, F2	2	76,600 - 120,000	97.0	-	-	1123-2250	250	120/1/60	13.9	TRANE 89V2D1205V FURNACE	1,3	1. BAYFLTR206 - FILTER ACCESS DOOR KIT
AC1, AC2	2	-	-	60,000	17.0	-	-	208/230/1/60	32	TRANE 4TR8061C1000A A/C UNIT	-	2. ECONIMIZER WITH SOLID STATE ENTHALPY CONTROL
DX1, DX2	2	-	-	60,000	-	1123-2250	-	-	-	TRANE 4TXCD010DS3 COIL	-	3. DELTA CONTROLS BY ESI - ENVIRONMENTAL SYSTEMS, INC. SACRAMENTO, CA (916) 344-1711
MB1, MB2	2	-	-	-	-	-	-	230/60/1	-	MICROMETL MB-6P20CA-DYDB MIXING BOX	2	

SUPPLY/RETURN/DIFFUSER/GRILL/VENT SCHEDULE

MARK	QTY	TYPE	NOM CFM	NOMINAL SIZE	MANUFACTURER - MODEL/DESCRIPTION	ACCESS.	HVAC ACCESSORIES
CD1	11	4-WAY CEILING DIFFUSER, FLUSH	394	14 X 14	SHOEMAKER CB40, ALUM, SOFT WHITE	1.	1. CB40-O OPPOSED BLADE DAMPER
CD2	5	4-WAY CEILING DIFFUSER, FLUSH	283	12 X 12	SHOEMAKER CB40, ALUM, SOFT WHITE	1.	
CD3	2	4-WAY CEILING DIFFUSER, FLUSH	116	8 X 8	SHOEMAKER CB40, ALUM, SOFT WHITE	1.	
CG1	4	4-WAY CEILING DIFFUSER, FLUSH	1340	18 X 18	SHOEMAKER 600, ALUM, SOFT WHITE		
WG1	1	WALL RETURN GRILL ALU. LATTICE	1340	18 X 18	SHOEMAKER 905, ALUM, SOFT WHITE		



DATE	AUG 2018
SCALE	3/16"=1'-0"
DRAWN	SSB
JOB	1807-03
SHEET	1
OF 1	