Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565

PROJECT DIRECTORY

OWNER

WALNUT CREEK SCHOOL DISTRICT
WALNUT CREEK, CA 94549 PHONE: 925.944.6850
CONTACT: PHILIP ATKINSON,
DIRECTOR OF FACILITIES
WWW.WALNUTCREEKSD.ORG

MECHANICAL & PLUMBING

McCRACKEN & WOODMAN, INC.
3470 MT. DIABLO BLVD., STE. A305 PHONE: 925.283.4841
LAFAYETTE, CA 94549
CONTACT: MARC WOODMAN,
P.E., LEED AP
WWW.MCCRACKEN-WOODMAN.COM

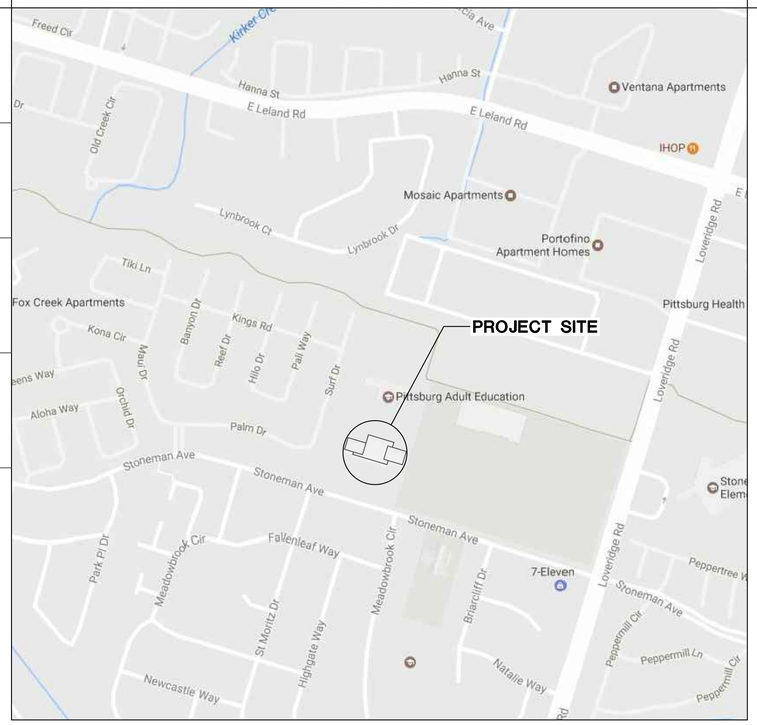
STRUCTURAL

IDA STRUCTURAL ENGINEERS
1629 TELEGRAPH AVE., STE. 300 PHONE: 510.834.1629
OAKLAND, CA 94612
CONTACT: STEPHEN DEJESSE,
STRUCTURAL ENGINEER
WWW.IDA-SE.COM

ELECTRICAL

BRK ASSOCIATES
1290 B ST., STE. 201 PHONE: 510.889.7100
HAYWARD, CA 94541
CONTACT: JOSEPH PHO,
ELECTRICAL ENGINEER
WWW.BRKEE.COM

VICINITY MAP



GOVERNMENT CODES

2016 CALIFORNIA ADMINISTRATIVE CODE
PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.),
CALIFORNIA BUILDING STANDARDS COMMISSION
2016 CALIFORNIA BUILDING CODE
PART 2, TITLE 24, C.C.R.
2012 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS
2016 CALIFORNIA ELECTRICAL CODE (CEC)
PART 3, TITLE 24, C.C.R.
2011 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA
2016, MECHANICAL CODE (CMC)
PART 4, TITLE 24, C.C.R.
2012 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS, IAPMO
2016 CALIFORNIA ENERGY CODE
PART 6, TITLE 24, C.C.R.
CALIFORNIA BUILDING STANDARDS COMMISSION
2016 CALIFORNIA FIRE CODE (CFC)
PART 9, TITLE 24, C.C.R.

PROJECT NOTES

1. DRAWINGS AND SPECIFICATIONS REPRESENT FINISHED CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION INCLUDING BUT NOT LIMITED TO SHORING AND TEMPORARY BRACING.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. FIGURE DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.
4. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS CONTRACT OR EQUIPMENT BY OTHERS.
5. REPETITIVE FEATURES ARE NOT DRAWN IN THEIR ENTIRETY AND SHALL BE COMPLETELY PROVIDED AS IF DRAWN IN FULL.
6. ALL EXISTING WORK WHICH IS DAMAGED, CUT OR REMOVED DURING AND AS A RESULT OF WORK UNDER THIS CONTRACT, AND WHICH IS TO REMAIN IN THE COMPLETED WORK SHALL BE RESTORED. PRINCIPAL ITEMS INCLUDE THE PATCHING OF WORK CUT AS ARESULT OF THE INSTALLATION OF OR REPAIR TO MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS; AND DEMOLITION ASSOCIATED WITH REMODELING.
7. WHEN SUBSTITUTIONS OR REVISION OF EITHER A DETAIL OR AN ASSEMBLY SHOWN WITH A UL, UBC, OR GA LISTING NUMBER IS PROPOSED BY THE CONTRACTOR, A SIMILAR OR EQUAL TESTING MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY DSA.
8. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO EITHER FACE OF (E) FINISH, FACE OF (N) STUDS, FACE OF CONCRETE AND CMU, OR CENTER LINE.
9. PROVIDE AND VERIFY SIZE AND LOCATION OF THE FOLLOWING; REQUIRED ACCESS DOORS, OPENINGS, FURRINGS, ANCHORS, INSERTS AND BLOCKING REQUIRED FOR ACCESSORIES, AND MECHANICAL AND ELECTRICAL EQUIPMENT. CONTRACTOR IS RESPONSIBLE FOR ALL ACCESS DOORS WHETHER SHOWN OR NOT SHOWN ON DRAWINGS.
10. ALL NOTED ITEMS ARE TO BE PROVIDED NEW UNLESS NOTED AS EXISTING (E) OR OTHERWISE NOTED. REPLACE MEANS TO REMOVE EXISTING (E), IF NOT MISSING, AND PROVIDE NEW (N). U.O.N. SALVAGE MEANS TO REMOVE INTACT, DELIVER OR STORE AND PROTECT FOR RE-USE AS INDICATED. DELIVER TO DISTRICT MEANS DELIVER TO A LOCATION ON THIS CAMPUS WHERE DIRECTED BY THE SCHOOL DISTRICT.
11. HOLES IN WOOD FOR LAG SCREWS SHALL FIRST BE BORED TO THE SAME DIAMETER AND DEPTH AS THE SHANK. HOLES FOR THE THREADED PORTION SHALL BE BORED WITH A BIT NOT LARGER THAN THE BASE OF THE THREADS.
12. GENERAL CONTRACTORS AND ALL SUBCONTRACTORS ARE STRONGLY ADVISED TO VERIFY EXISTING SITE CONDITIONS PRIOR TO BID. SEE "INSTRUCTION TO BIDDERS" FOR TIME OF PRE-BID JOB WALK.
13. ANY EXISTING EQUIPMENT INCLUDING BUT NOT LIMITED TO LOW VOLTAGE WIRING OR SYSTEM THAT IS DAMAGED OR LEADS TO ANY COMPONENT MALFUNCTION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE SCHOOL DISTRICT. ALL EXISTING EQUIPMENT OR SYSTEMS ARE ASSUMED IN PROPER FUNCTIONING ORDER U.O.N. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE THE SCHOOL DISTRICT OF ANY MALFUNCTIONING EQUIPMENT OR SYSTEMS PRIOR TO WORK IN THE AREA OF SCOPE OF WORK.
14. SUBSTITUTE MATERIALS AND SYSTEMS - SECTION 17(f) TITLE 21, GOVERNS AND READS IN PART. "THE ESTIMATED COST OF A PROJECT SHALL BE INCREASED AS NECESSARY TO INCLUDE THE ESTIMATED COST OF EVERY ALTERNATE BUILDING OR PORTION THEREOF SHOWN ON THE PLANS AND SPECIFICATIONS AS IF EACH ALTERNATE BUILDING AND PORTION WERE TO BE CONSTRUCTED SEPARATELY AND SIMULTANEOUSLY.
15. ALL REQUIRED WORK SHALL BE COMPLETED TO ENTIRETY.
16. ALL EXISTING FINISHES DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE RESTORED, PATCHED, RECONSTRUCTED AND/OR PAINTED TO MATCH EXISTING ADJACENT SURFACE. MATCH PAINTING SHALL BE EXTENDED TO NATURAL BREAKS IN MATERIAL.

DRAWING INDEX

McCRACKEN & WOODMAN incorporated
TEL 925-283-4891 FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

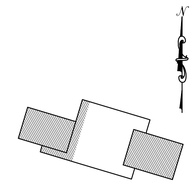
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	SCALE
BC	AS NOTED
APPROVED BY	JOB NUMBER
MW	1717

SHEET TITLE

TITLE SHEET AND NOTES

SHEET NUMBER

T0.1

P:\1717\dwgs\T0.1.dwg, T1 Project Information Sheet, 5/23/2017 1:24:05 PM

PLEASE RECYCLE

MECHANICAL AND PLUMBING
COMPONENT ANCHORAGE NOTE

ALL MECHANICAL AND PLUMBING COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE 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 CHAPTERS 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED TO THE BUILDING UTILITY SERVICES SUCH AS GAS OR WATER PIPING.
3. 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. THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL 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 AND PIPING.

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. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK SYSTEMS BRACING NOTE

PIPING AND DUCTWORK 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 SECTIONS 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) AND PLUMBING PIPING (PP):

MP ☐ MD ☐ PP ☐ – OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
MP ☐ MD ☐ PP ☐ – OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #0052-13).
MP ☐ MD ☐ PP ☐ – OPTION 3: SHALL COMPLY WITH SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTNERS 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.

SYSTEM ACOUSTICS NOTES

1. ALL HVAC EQUIPMENT IS TO BE ADJUSTED SO THAT IT IS OPERATING AT OR BELOW THE MANUFACTURER'S LISTED NOISE LEVELS.
   A. SINGLE PHASE MOTOR HUM IS NOT ACCEPTABLE. ANY MOTORS THAT EXHIBIT MOTOR HUM ARE TO BE REPLACED.
   B. EXCESSIVE EQUIPMENT VIBRATION IS NOT ACCEPTABLE. EQUIPMENT THAT EXHIBITS EXCESSIVE OR LOUD VIBRATIONS IS TO BE CORRECTED OR REPLACED.
2. ALL POSSIBLE SOURCES OF NOISE ARE TO BE REVIEWED AND ADDRESSED SO THAT THE SYSTEMS ARE OPERATING QUIETLY INCLUDING THE FOLLOWING:
   A. ALL FAN SYSTEMS INCLUDING AC UNITS, AND EXHAUST FANS ARE TO BE ADJUSTED SUCH THAT THE SYSTEMS DELIVER THE REQUIRED CFM AIRFLOW AT THEIR LOWEST POSSIBLE SPEED SETTINGS. THIS ADJUSTMENT IS TO INCLUDE DRIVE AND/OR SHEAVE CHANGES AS REQUIRED ON ANY FAN SYSTEMS THAT DO NOT MEET AIRFLOW OR ACOUSTICAL REQUIREMENTS.
   B. AIR BALANCE PROCEDURE IS TO BE AS FOLLOWS:
      1. ADJUST ALL DAMPERS IN DUCT SYSTEM TO THEIR FULL OPEN POSITION.
      2. MEASURE AND RECORD THE TOTAL DELIVERED AIRFLOW OF FAN SYSTEM.
      3. REDUCE FAN SPEED TO DELIVER TOTAL REQUIRED CFM AIRFLOW AS SHOWN ON THE FLOOR PLANS.
      4. ADJUST INDIVIDUAL BALANCING DAMPERS IN THE DUCTWORK TO PROPORTION CFM TO AIRFLOW VALUES SHOWN ON THE FLOOR PLANS.
3. VARY TOTAL SYSTEM AIR QUANTITIES BY ADJUSTMENT OF FAN SPEEDS. INSTALL DRIVE AND/OR SHEAVE CHANGES AS REQUIRED. VARY BRANCH AIR QUANTITIES BY DAMPER REGULATION.
4. AIR BALANCING OF THE DUCT SYSTEMS IS TO BE MADE SO THAT AIR NOISE IS KEPT TO A MINIMUM. AIR BALANCING IS TO BE MADE STARTING WITH THE FARTHEST REGISTER FROM THE FAN, WORKING BACK TO THE EQUIPMENT. PINCHING A IN-LINE DAMPER THAT IS CLOSE TO THE FAN IS NOT ACCEPTABLE.
5. BALANCING DAMPERS ARE TO BE INSTALLED IN ALL BRANCH SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCTS WHETHER OR NOT SHOWN ON THE DRAWINGS. ALL BALANCING DAMPERS ARE TO BE INSTALLED IN THE WYE BRANCHES, OR IN THE BRANCH DUCT AS FAR AWAY FROM THE REGISTER OR GRILLE AS POSSIBLE. STRAIGHT RUNS OF EXPOSED DUCT WITH DUCT MOUNTED REGISTERS OR GRILLES ARE TO INCLUDE BALANCING DAMPERS AT THE MID-POINTS BETWEEN THE REGISTERS OR GRILLES. INSTALL CABLE OPERATED DAMPERS AT INACCESSIBLE AREAS.
6. FLEXIBLE FABRIC DUCT CONNECTORS ARE TO BE INSTALLED AT ALL CONNECTIONS TO EQUIPMENT.
7. FLEXIBLE ELECTRICAL AND PLUMBING CONNECTORS ARE TO BE USED AT ALL CONNECTIONS TO NON-RIGIDLY MOUNTED EQUIPMENT.
8. ALL ROOF, CEILING, AND WALL PENETRATIONS (DUCT AND PIPING) ARE TO BE CAULKED AND SEALED. INSULATION MAY BE USED IN CONCEALED AREAS TO FILL VOIDS. FIRE CAULK ALL PENETRATIONS THROUGH RATED WALLS WITH 3M FIRESTOPPING SYSTEMS, OR EQUAL.
9. COMPRESSORS ARE TO BE RELEASED FROM THEIR SHIPPING BOLTS.

MECHANICAL LEGEND AND ABBREVIATIONS

SYMBOL	DESCRIPTION
S	SWITCH OR SENSOR - MOUNT AT +48" AFF
T	THERMOSTAT - MOUNT AT +48" AFF
4	SHEET NOTE DESIGNATION
M	ITEM FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
E	ITEM FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR
P	ITEM FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR
1 / M2.1	DETAIL REFERENCE - UPPER NUMBER=DETAIL NUMBER, LOWER NUMBER=SHEET NUMBER
AC 1	EQUIPMENT TAG
	EXISTING DUCT, PIPING OR EQUIPMENT TO REMAIN
	EXISTING DUCT, PIPING OR EQUIPMENT TO BE REMOVED

ABBREVIATION	DESCRIPTION
Φ	DIAMETER
Φ	PHASE
AC, A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
AP	ACCESS PANEL
APPROX.	APPROXIMATE
BD	BOTTOM OF DUCT
BF	BELOW FLOOR
BG	BELOW GRADE
BLDG.	BUILDING
CFM	CUBIC FEET PER MINUTE
ARCH.	CIRCUIT
℄	CENTERLINE
CLG	CEILING
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUATION
CONTR.	CONTRACTOR
CTE	CONNECT TO EXISTING
DEG.	DEGREE
DF	DOUGLAS FIR
DIA.	DIAMETER
DIM.	DIMENSION
DIV.	DIVISION
DN	DOWN
DWG	DRAWING
DWGS.	DRAWINGS
DX	DIRECT EXPANSION
(E)	EXISTING
EAT	ENTERING AIR TEMPERATURE
ECM	ELECTRICALLY COMMUTATED MOTOR
EFF.	EFFICIENT, EFFICIENCY
ELEC.	ELECTRICAL
ELEC. CHAR.	ELECTRICAL CHARACTERISTICS
ELEV.	ELEVATION
EMBED.	EMBEDMENT
ENT.	ENTERING
EQ.	EQUAL
EXH	EXHAUST
EXIST.	EXISTING
FF, F.F.	FINISHED FLOOR
FT.	FEET
FPS	FEET PER SECOND
GA.	GAUGE
GAL.	GALLON
GC	GENERAL CONTRACTOR
GSM	GALVANIZED SHEET METAL
GYP. BD.	GYPSUM BOARD

ABBREVIATION	DESCRIPTION
H&V	HEATING & VENTILATING
HT.	HEIGHT
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
IFC	IN FURRED CEILING
IN.	INCH, INCHES
LBS., #	POUNDS
LAN	LOCAL AREA NETWORK
LVG.	LEAVING
MAT'L, MATL.	MATERIAL
MAX.	MAXIMUM
MBH	1,000 BTU/HR.
MECH.	MECHANICAL
MED.	MEDIUM
MFG.	MANUFACTURER
MIN.	MINIMUM
MIN.	MINUTE
MTD.	MOUNTED
(N)	NEW
NC	NORMALLY CLOSED
NIC, N.I.C.	NOT IN CONTRACT
NO	NORMALLY OPEN
OC	ON CENTER
O.D.	OUTSIDE DIAMETER
OPNG.	OPENING
OSA	OUTSIDE AIR
PC	PLUMBING CONTRACTOR
PCF	POUNDS PER CUBIC FOOT
PLMB.	PLUMBING
POC	POINT OF CONNECTION
PRESS.	PRESSURE
PSI	POUNDS PER SQUARE INCH
R	RADIUS
REF.	REFERENCE
REQD.	REQUIRED
REV.	REVISION
RHWS	ROUND HEAD WOOD SCREWS
SED	SEE ELECTRICAL DRAWINGS
SENS.	SENSIBLE
SF, S.F.	SQUARE FEET
SIM	SIMILAR
SM	SHEET METAL
SPD	SEE PLUMBING DRAWINGS
SS	STAINLESS STEEL - TYPE 316 UNO
STL.	STEEL
TD	TOP OF DUCT
TYP.	TYPICAL
UL, U.L.	UNDERWRITERS' LABORATORY
UNO	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
WG	WATER GAGE
W.O.G.	WATER OIL GAS
W.P.	WATERPROOF
W/	WITH

MECHANICAL LIST OF DRAWINGS

McCRACKEN & WOODMAN
incorporated
TEL 925-283-4891
FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. MCCRACKEN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

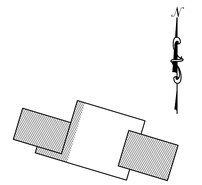
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	SCALE
BC	AS NOTED
APPROVED BY	JOB NUMBER
MW	1717

SHEET TITLE

MECHANICAL LEGEND AND NOTES

SHEET NUMBER

M0.1

P:\1717\dwgs\M0.1.dwg, M0.1 MECHANICAL LEGEND AND NOTES, 5/23/2017 1:22:53 PM

AIR CONDITIONING UNIT SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	CONFIGURATION	NOMINAL TONS	COOLING CAPACITY GROSS TOTAL (BTU/HR)	COOLING CAPACITY GROSS SENSIBLE (BTU/HR)	HEATING CONFIGURATION	NATURAL GAS HEATING INPUT HIGH / LOW (BTU/HR)	NATURAL GAS HEATING OUTPUT HIGH / LOW (BTU/HR)	SUPPLY AIR FAN				POWER EXHAUST		VOLTAGE PHASE	MINIMUM CIRCUIT AMPACITY	MAXIMUM FUSE SIZE	EER (ARI)	IEER	THERMAL EFFICIENCY (%)	ECONOMIZER (YES / NO)	ECONOMIZER OUTSIDE AIR (CFM) MAX. / MIN.	MIN. OUTSIDE AIR (CFM)	SMOKE DETECTOR REQUIRED	APPROX. OPER. WT. (LBS)	NOTES
										SUPPLY AIR FAN CAPACITY (CFM)	EXTERNAL STATIC PRESSURE (IN. W.G.)	MOTOR HP	MOTOR BHP	FAN CAPACITY (CFM)	EXTERNAL STATIC PRESSURE (IN W.G.)											
AC 1	CARRIER	48HCDD28	VERTICAL	25	305,870	231,810	LOW, 2-STAGE	220,000/176,000	178,000/142,000	10,000	1.00	7.5	6.92	8,606	0.5	208V/3Φ	143.3	175	11.2	12.0	81	YES	10,000 / 3,000	3,000	NO	3,644	1 2 3 4 5

AIR CONDITIONING UNIT NOTES:

1. THE AIR CONDITIONING UNIT LISTED ABOVE IS TO INCLUDE THE FOLLOWING FEATURES:
   - A. HIGH EFFICIENCY UNIT.
   - B. BASE ELECTOMECHANICAL CONTROLS. VERIFY UNIT CONTROLS ARE COMPATIBLE WITH (E) THERMOSTAT.
   - C. TWO-STAGE COMPRESSORS.
   - D. COMPRESSOR(S) TO HAVE STANDARD FIVE (5) YEAR FACTORY WARRANTY.
   - E. LOW AMBIENT COOLING TO 35°F.
   - F. 2" FILTER RACK WITH 2" THROWAWAY FILTERS ARE PROVIDED WITH THE UNIT. REPLACE WITH MERV-11 FILTERS AFTER COMPLETION OF START-UP AND AIR BALANCING.
   - G. U.L. LISTED AND LABELED.
   - H. FOIL FACED AND EDGE CAPTURED INSULATION.
   - I. HIGH AND LOW PRESSURE CONTROL, PHASE MONITORING PROTECTION.
   - J. CALIFORNIA COMPLIANT, INCLUDING LOW NOx.
   - K. ANTI-SHORT CYCLE TIMER AND TIME DELAY BETWEEN COMPRESSORS.
   - L. FROSTAT AND CRANKCASE HEATERS.
   - M. HINGED ACCESS DOORS.
   - N. BELT DRIVE, INDOOR FAN MOTOR WITH FACTORY INSTALLED AND WIRED VFD.
   - O. ASHRAE 90.1 COMPLIANT.
2. MICROMETL OR EQUAL LOW LEAK CA TITLE 24 FULLY MODULATING 0-100% ECONOMIZER WITH CA TITLE 24 FAULT DETECTION AND DIAGNOSTICS. ECONOMIZER IS TO HAVE FIXED DRY BULB CONTROL. PROVIDE 100% SHUT-OFF WHEN UNIT IS OFF LINE. ECONOMIZER IS TO BE FIIELD INSTALLED IN COMPLETE ACCORDANCE WITH MANUFACTURER'S INSTALLATON INSTRUCTIONS FOR VERTICAL INSTALLATION.
3. MICROMETL PCD-MRT69TA-D000-2M4 OR EQUAL MODULATING POWER EXHAUST. 208/3Φ, TWO -2 HP MOTORS, 11.2 FLA, 14.0 MCA, 18.2 MOCP. A SEPARATE POWER SUPPLY IS REQUIRED FOR THE POWER EXHAUST. POWER EXHAUST IS TO BE FIELD INSTALLED IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS INCLUDING INSTALLATION OF ROOM PRESSURE SENSOR TUBING.
4. PROVIDE AND INSTALL A TRANSITION CURB FROM THE EXISTING ROOF CURB TO THE NEW AIR CONDITIONING UNIT. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF THE EXISTING ROOF CURB AND SUPPLY AND RETURN OPENING DIMENSIONS AND FOR PROVIDING THE CORRECT TRANSITION CURB REQUIRED.
5. PROVIDE MANUFACTURER'S FULLY PROGRAMMALBE THERMOSTAT, TO BE PROGRAMMABLE BOTH AT THERMOSTAT AND USING WI-FI, CAPABLE OF CONTROLLING FAN FOR CONTINUOUS OPERATION DURING OCCUPIED HOURS AND ALL HEATING AND COOLING STAGES. THERMOSTAT IS TO MEET REQUIREMENT OF 2016 CA TITLE 24. SET OCCUPANCY SCHEDULE TO MEET THE TENANT'S REQUIREMENTS.

HEATING AND VENTILATING UNIT SCHEDULE

SYMBOL	MANUFACTURER	MODEL	GAS INPUT (MBH)	HEAT OUTPUT (MBH)	SUPPLY AIR QUANTITY (CFM)	OUTSIDE AIR QUANTITY (CFM)	EXTERNAL STATIC PRESSURE (IN.)	MOTOR HP	VOLTAGE/ PHASE	APPROX. OPER. WT. (LBS)	NOTES
F 1	REZNOR	RPB-250	230	184	3,700	1,500	0.2	1.5	208V/3Φ	1,000	I THRU II
F 2	REZNOR	RPB-250	230	184	3,700	1,500	0.2	1.5	208V/3Φ	1,000	I THRU II
F 3	REZNOR	RPB-250	230	184	3,700	1,500	0.2	1.5	208V/3Φ	1,000	I THRU II
F 4	REZNOR	RPB-250	230	184	3,700	1,500	0.2	1.5	208V/3Φ	1,000	I THRU II

HEATING AND VENTILATING UNIT NOTES:

1. POWER VENTED UNIT WITH SINGLE STAGE GAS VALVE.
2. 409 STAINLESS STEEL HEAT EXCHANGER, BURNERS AND DRIP PAN.
3. MANUAL RETURN AIR DAMPER.
4. MOTORIZED 100% OUTSIDE AIR DAMPER TO BE SET FOR OUTSIDE AIR QUANTITY SHOWN WHEN UNIT IS OPERATING AND TO BE FULLY CLOSED WHEN UNIT IS SHUT OFF.
5. 100% OUTSIDE AIR RAIN BAFFLED INTAKE HOOD.
6. 2" FILTER RACK WITH 2" THROWAWAY FILTERS ARE PROVIDED WITH THE UNIT. REPLACE WITH MERV-11 FILTERS AFTER COMPLETION OF START-UP AND AIR BALANCING.
7. TEFC FAN MOTOR WITH MOTOR STARTER.
8. UL LISTED.
9. UNIT IS TO BE DERATED TO GAS INPUT AND OUTPUT SHOWN TO MATCH (E) UNIT TO BE REPLACED.
10. (N) UNIT IS TO BE A DIRECT REPLACEMENT OF (E) UNIT. (N) UNIT IS TO MOUNT ON (E) ROOF CURB AND SUPPLY AND RETURN OPENINGS AT (N) UNIT ARE TO LINE UP EXACTLY WITH SUPPLY AND RETURN OPENINGS AT (E) ROOF CURB. MECHANICAL CONTRACTOR IS TO CONFIRM (N) UNIT IS A DIRECT REPLACEMENT OF (E) UNIT PRIOR TO SUBMITTING.
11. UNIT IS TO BE CONTROLLED FROM (E) TIMER SWITCH. SUPPLY FAN IS TO BE ENERGIZED AT ANY TIME TIMER SWITCH IS TURNED FOR UNIT OPERATION. UNIT IS TO HAVE FACTORY MOUNTED THERMOSTAT IN RETURN AIR SECTION FOR CONTROL OF HEATING, SET FOR 70°F.

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

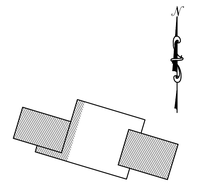
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY: ET
DATE: 05.22.2017
CHECKED BY: BC
SCALE: AS NOTED
APPROVED BY: MW
JOB NUMBER: 1717

SHEET TITLE

MECHANICAL SCHEDULES

SHEET NUMBER

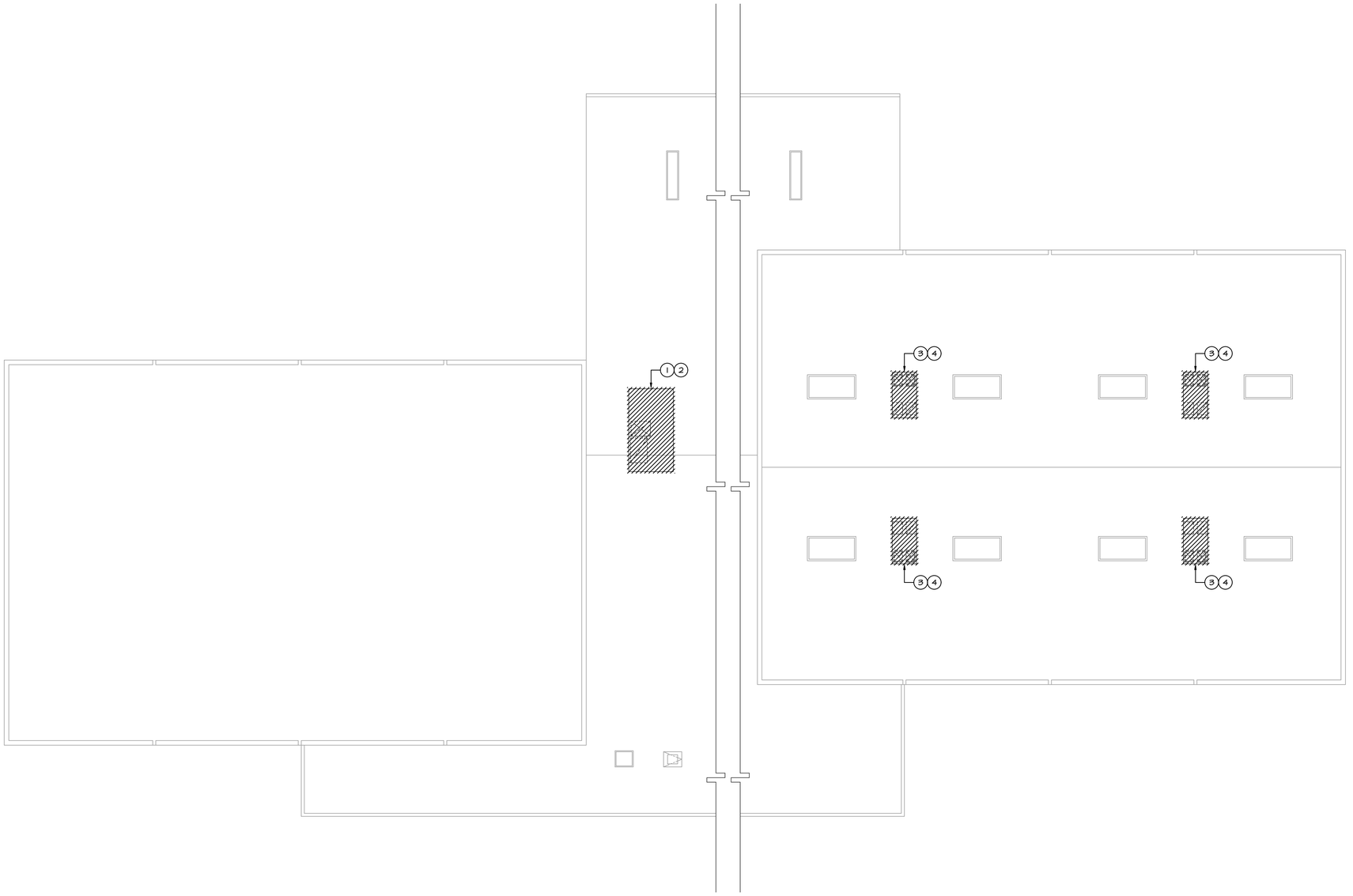
M0.2

P:\1717\dwgs\M0.2.dwg, M02, 5/23/2017 1:22:26 PM

PLEASE RECYCLE

SHEET NOTES

1. REMOVE (E) AC UNIT, POWER EXHAUST AND ALL RELATED ACCESSORIES IN PREPARATION FOR THE INSTALLATION OF A (N) AC UNIT AND TRANSITION CURB MOUNTED TO THE (E) ROOF CURB.
2. (E) CONTROL WIRING IS TO BE PROTECTED FOR CONTROL OF (N) AC UNIT.
3. REMOVE (E) HEATING AND VENTILATING UNIT AND ALL RELATED ACCESSORIES IN PREPARATION FOR THE INSTALLATION OF A (N) HEATING AND VENTILATING UNIT MOUNTED TO THE (E) ROOF CURB.
4. (E) CONTROL WIRING IS TO BE PROTECTED FOR CONTROL OF (N) HEATING AND VENTILATING UNIT.



MECHANICAL DEMOLITION ROOF PLAN
SCALE: 1/8" = 1'-0"

1 M1.1 PROJECT NORTH

McCRACKEN & WOODMAN
Incorporated
TEL 925-283-4891
FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

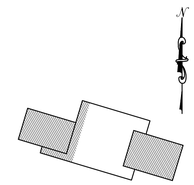
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	SCALE
BC	AS NOTED
APPROVED BY	JOB NUMBER
MW	1717

SHEET TITLE

MECHANICAL DEMOLITION ROOF PLAN

SHEET NUMBER

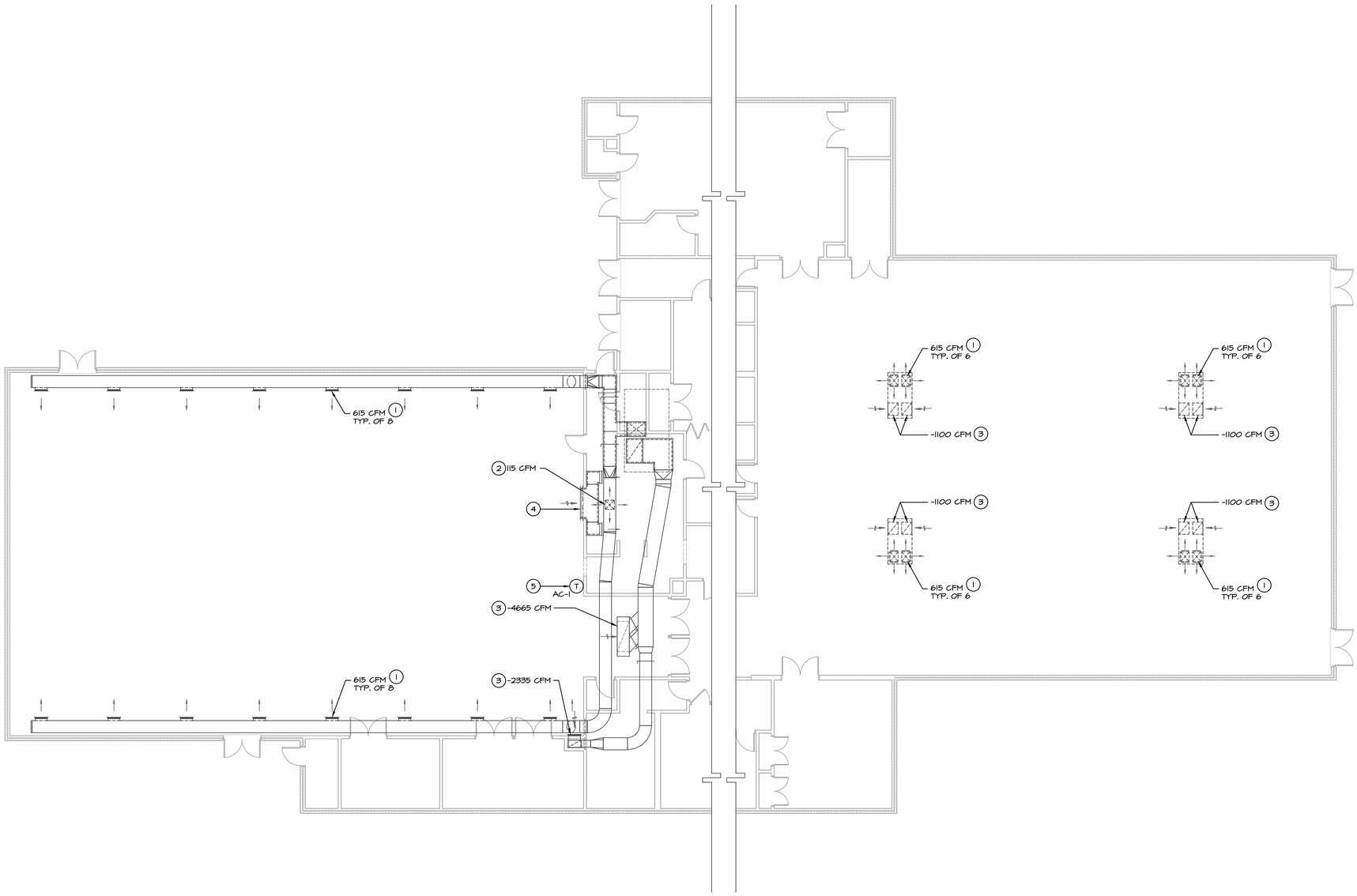
M1.1

P:\1717\dwgs\M1.1 Mech Demo Roof Plan.dwg, M1.1 Mech PartialDemo Roof Plan, 5/23/2017 1:21:54 PM

PLEASE RECYCLE

SHEET NOTES

1. AIR BALANCE (E) SIDE-DUCT MOUNTED SUPPLY AIR REGISTER TO (N) AIR QUANTITY SHOWN.
2. AIR BALANCE (E) SUPPLY AIR DIFFUSER TO (N) AIR QUANTITY SHOWN.
3. AIR BALANCE (E) RETURN GRILLE TO (N) AIR QUANTITY SHOWN.
4. (E) TRANSFER AIR GRILLES AND DUCT TO REMAIN WITHOUT MODIFICATION.
5. REPLACE (E) THERMOSTAT WITH (N) THERMOSTAT IN (E) LOCKING COVER. USE (E) CONTROL WIRING AND BYPASS TIMER AND CONNECT TO (N) THERMOSTAT. VERIFY (N) AC UNIT IS OPERATING CORRECTLY FROM (N) THERMOSTAT AND (E) BYPASS TIMER.



MECHANICAL FLOOR PLAN

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

1 M2.1 PROJECT NORTH

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

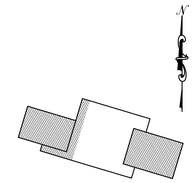
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY: ET	DATE: 05.22.2017
CHECKED BY: BC	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

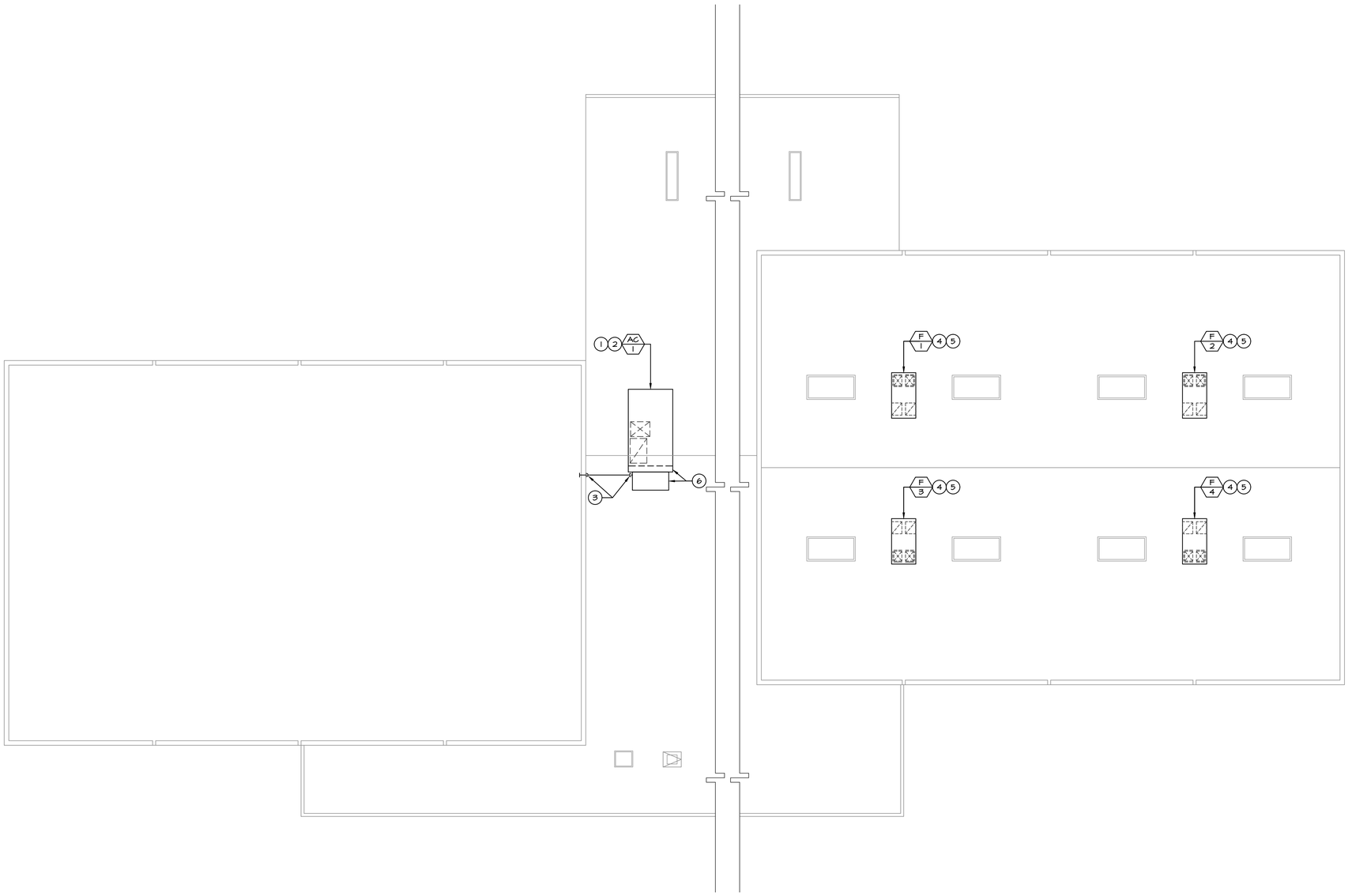
MECHANICAL FLOOR PLAN

SHEET NUMBER

M2.1

P:\1717\dwgs\M2.1 Mech Floor Plan.dwg, M21, 5/23/2017 1:21:34 PM

PLEASE RECYCLE



SHEET NOTES

1. (N) TRANSITION CURB AND (N) AC UNIT ARE TO BE MOUNTED TO (E) ROOF CURB. REFER TO STRUCTURAL DRAWING S-1 FOR ATTACHMENT OF (N) TRANSITION CURB TO (E) ROOF CURB. ATTACH AC UNIT TO TRANSITION CURB IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE FLASHING AND COUNTERFLASHING AS REQUIRED FOR A COMPLETE WEATHERPROOF INSTALLATION.
2. (N) AC UNIT CONTROL IS TO BE FROM A (N) FULLY PROGRAMMABLE WI-FI THERMOSTAT USING (E) CONTROL WIRING AND OFF HOURS OPERATION FROM (E) BYPASS TIMER. PROVIDE CONTROL WIRING AS REQUIRED AND PROGRAM THERMOSTAT BASED ON THE TENANT'S HOURS OF OPERATION.
3. CONNECT 3/16" TUBING TO POWER EXHAUST PRESSURE TRANSDUCER ROOM PRESSURE SENSOR LOCATION. EXTEND TUBING IN 1" CONDUIT ABOVE ROOF, ELBOW UP TO 12" ABOVE LOW ROOF AND STUB TUBING THRU WALL TO SENSE PRESSURE IN ROOM. CONDUIT IS TO BE PROVIDED BY ELECTRICAL CONTRACTOR, SEE ELECTRICAL DRAWINGS. FOR MOUNTING OF CONDUIT ON ROOF SEE 3/M3.1. SEAL CONDUIT PENETRATIONS AT AC UNIT AND EXTERIOR WALL AIR AND WATERTIGHT. PATCH AND REPAIR EXTERIOR WALL PENETRATION AND PAINT TO MATCH ADJACENT SURFACES AT EXTERIOR AND INTERIOR SIDES OF WALL.
4. (N) H&V UNIT IS TO BE MOUNTED TO THE (E) ROOF CURB, SEE 1/M3.1. PROVIDE FLASHING AND COUNTERFLASHING AS REQUIRED FOR A COMPLETE WEATHERPROOF INSTALLATION.
5. FOR (N) H&V UNIT CONTROL SEE 2/M3.1.
6. INSTALL, WIRE AND COMMISSION FIELD INSTALLED ECONOMIZER AND MODULATING POWER EXHAUST AT AC UNIT IN COMPLETE ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. POWER EXHAUST TO BE SECURELY MOUNTED TO UNIT SUCH THAT SUPPORT LEGS ARE NOT NECESSARY AND ARE NOT TO BE INSTALLED.

MECHANICAL ROOF PLAN

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

1 / M2.2

PROJECT NORTH

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 8/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565

Key Plan

REVISIONS	DATE

DRAWN BY: ET	DATE: 05.22.2017
CHECKED BY: BC	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

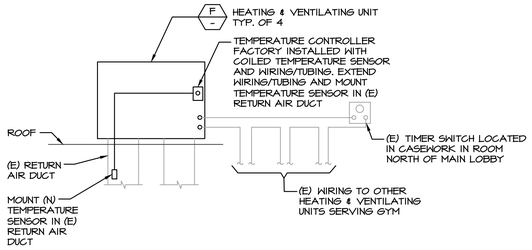
MECHANICAL ROOF PLAN

SHEET NUMBER

M2.2

P:\1717\dwgs\M2.2 Mech Roof Plan.dwg, M22, 5/23/2017 1:21:11 PM

PLEASE RECYCLE



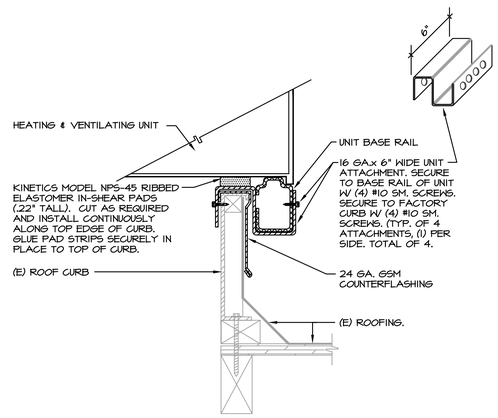
HEATING & VENTILATING UNIT CONTROL DIAGRAM

NO SCALE

2 / M3.1

HEATING AND VENTILATING CONTROL NOTES:

1. (E) TIMER SWITCH AND WIRING FOR GYM IS TO ENERGIZE SUPPLY FAN AT EACH HEATING AND VENTILATING UNIT, TYP. OF 4, FOR DURATION SET AT TIMER SWITCH.
2. EACH HEATING AND VENTILATING UNIT IS TO HAVE A FACTORY MOUNTED TEMPERATURE CONTROLLER WITH COILED WIRING/TUBING AND SENSOR. THE CONTRACTOR IS TO EXTEND WIRING/TUBING AND MOUNT THE SENSOR IN THE (E) RETURN DUCT.
3. THE TEMPERATURE CONTROLLER IN EACH HEATING AND VENTILATING UNIT IS TO CONTROL THE UNIT HEATING AND DETERMINE IF HEATING IS REQUIRED AND, IF SO, WHAT HEATING STAGES ARE TO BE FIRED. INITIALLY, SET EACH TEMPERATURE CONTROLLER FOR 72°F.



HEATING & VENTILATING UNIT CURB MOUNTING DETAIL

NO SCALE

1 / M3.1

CONDUIT SUPPORT DETAIL

NO SCALE

3 / M3.1

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

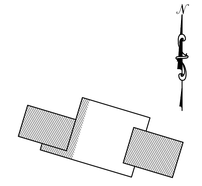
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY: ET	DATE: 05.22.2017
CHECKED BY: BC	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

MECHANICAL DETAILS AND DIAGRAMS

SHEET NUMBER

M3.1

P:\1717\dwgs\M3.1 Mech Details.dwg, M31, 5/23/2017 1:20:49 PM

PLEASE RECYCLE

GENERAL NOTES

1. PLUMBING FLOOR PLANS ARE DIAGRAMMATIC. ALL ABOVE GRADE PIPING SHOWN NEAR A PLUMBING CHASE IS TO BE LOCATED WITHIN THE PLUMBING CHASE, UNLESS OTHERWISE NOTED. OFFSET PIPING AROUND BEAMS, COLUMNS, WALLS, ETC., AS REQUIRED.

2. ALL CONDITIONS HAVE BEEN SHOWN AS ACCURATELY AS POSSIBLE. CONTRACTOR IS TO INCLUDE IN HIS BID ADJUSTMENTS TO THE WORK AS REQUIRED TO ACCOMODATE THE ACTUAL FIELD CONDITIONS.

3. FIELD VERIFY LOCATIONS OF OPENINGS INTO BUILDINGS AND AIR CONDITIONING (A/C) UNIT OUTSIDE AIR INTAKES. VENT PIPING TERMINATIONS IN ALL CASES ARE TO BE A MINIMUM OF TEN (10) FEET FROM OPENINGS INTO BUILDINGS AND A/C UNIT OUTSIDE AIR INTAKES; OFFSET PIPING AS REQUIRED. ALL VENT PIPING SUPPORTS, ETC., NECESSARY TO MEET THIS REQUIREMENT ARE TO BE INCLUDED.

4. ALL HORIZONAL CONDENSATE DRAINAGE PIPING SHALL MAINTAIN A MINIMUM 2% SLOPE TO POINT OF DISPOSAL.

5. ALL HORIZONTAL WASTE PIPING SHALL MAINTAIN A MINIMUM 2% SLOPE TO POINT OF DISPOSAL.

6. ALL CORING AND PENETRATIONS OF WALLS AND/OR FLOORS FOR PIPING ARE TO BE AS SMALL AS POSSIBLE. OVERSIZING OF OPENINGS IS TO BE AVOIDED.

   WALL PENETRATIONS ARE TO BE COORDINATED WITH ALL OTHER TRADES AND THE DRAWINGS. WALL PENETRATIONS ARE TO BE KEPT AS HIGH AS POSSIBLE AND ARE TO BE MADE IN AREAS WHERE PIPING WILL BE CONCEALED. IF PENETRATIONS IN EXPOSED LOCATIONS ARE UNAVOIDABLE, INSTALL ESCUTCHEON RINGS AT THESE LOCATIONS.

7. FIRE CAULK ALL PENETRATIONS THROUGH FIRE RATED WALLS WITH 3M FIRE STOPPING SYSTEMS, OR EQUAL.

MECHANICAL AND PLUMBING COMPONENT ANCHORAGE NOTE

ALL MECHANICAL AND PLUMBING COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE 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 1616A1.18 THROUGH 1616A1.26 AND ASCE 7-10 CHAPTERS 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED TO THE BUILDING UTILITY SERVICES SUCH AS GAS OR WATER PIPING.
3. 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 THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL 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 AND PIPING.

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. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING AND DUCTWORK SYSTEMS BRACING NOTE

PIPING AND DUCTWORK 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 SECTIONS 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC SECTIONS 1616A1.24, 1616A1.25 AND 1616A1.26.
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) AND PLUMBING PIPING (PP):

MP ☐ MD ☐ PP ☐ – OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ – OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #0052-13).

MP ☐ MD ☐ PP ☐ – OPTION 3: SHALL COMPLY WITH SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA. FASTNERS 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.

PLUMBING LEGEND AND ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
(4)		SHEET NOTE DESIGNATION
(M)		ITEM FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR
(E)		ITEM FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR
(P)		ITEM FURNISHED AND INSTALLED BY PLUMBING CONTRACTOR
1 / P2.1		DETAIL REFERENCE – UPPER NUMBER=DETAIL NUMBER, LOWER NUMBER=SHEET NUMBER
CD	CD	CONDENSATE DRAIN PIPING
G	G	NATURAL GAS PIPING
G	(E)G	EXISTING NATURAL GAS PIPING TO REMAIN
	BV	BALL VALVE
		UNION
		CHANGE IN PIPE SIZE
		EXISTING FIXTURES, PIPING OR EQUIPMENT TO REMAIN
		EXISTING FIXTURES, PIPING OR EQUIPMENT TO BE REMOVED

ABBREVIATION	DESCRIPTION
Ø	DIAMETER
Ø	PHASE
AC, A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
ALT.	ALTERNATE
AP	ACCESS PANEL
APPROX.	APPROXIMATE
BF	BELOW FLOOR
BFF	BELOW FINISHED FLOOR
BG	BELOW GRADE
BLDG.	BUILDING
BV	BALL VALVE
CFH	CUBIC FEET PER HOUR
℄	CENTERLINE
CI	CAST IRON
CKV	CHECK VALVE
CLG	CEILING
CO	CLEANOUT
ARCH.	COMPARTMENT
CONC.	CONCRETE
CONN.	CONNECT, CONNECTION
CONT.	CONTINUATION
CONTR.	CONTRACTOR
CTE	CONNECT TO EXISTING
DEMO	DEMOLITION
DIA.	DIAMETER
DIM.	DIMENSION
DIR.	DIRECT
DN	DOWN
DWG	DRAWING
DWGS.	DRAWINGS
(E)	EXISTING
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMBED.	EMBEDMENT
EQ.	EQUAL
EST.	ESTIMATED
EXIST.	EXISTING
FF, F.F.	FINISHED FLOOR
F.H.	FLAT HEAD
FIN.	FINISHED
F & I	FURNISHED AND INSTALLED
FT.	FEET
FU	FIXTURE UNITS
GA.	GAUGE
GC, G.C.	GAS COCK
GC, G.C.	GENERAL CONTRACTOR

ABBREVIATION	DESCRIPTION
GSM	GALVANIZED SHEET METAL
H&V	HEATING & VENTILATING
HT.	HEIGHT
IE, I.E.	INVERT ELEVATION (FT.)
IFC	IN FURRED CEILING / ABOVE FINISHED CEILING
IN.	INCHES
IND.	INDIRECT
INV	INVERT
LBS., #	POUNDS
MAX.	MAXIMUM
MECH.	MECHANICAL
MFG.	MANUFACTURER
MIN.	MINIMUM
(N)	NEW
OC	ON CENTER
OFCI	OWNER FURNISHED / CONTRACTOR INSTALLED
OPER.	OPERABLE
PC, P.C.	PLUMBING CONTRACTOR
PLMB.	PLUMBING
P.O.C.	POINT OF CONNECTION
PRESS.	PRESSURE
PSI, PSI.	POUNDS PER SQUARE INCH
P/T	PRESSURE/TEMPERATURE
REF.	REFERENCE
REQD.	REQUIRED
REV.	REVISION
SCH 40, 80	SCHEDULE 40 OR 80 PIPE
SED	SEE ELECTRICAL DRAWINGS
S.F., SF	SQUARE FEET
SM	SHEET METAL
SMD	SEE MECHANICAL DRAWINGS
SOV	SHUT-OFF VALVE
SS	SANITARY SEWER
T&P	TEMPERATURE AND PRESSURE
TYP, TYP.	TYPICAL
U/C	UNDER COUNTER
UNO	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WC	WATER COLUMN (PRESS.)
WOG	WATER OIL GAS
WT.	WEIGHT

PLUMBING LIST OF DRAWINGS

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER MARC A. MCCRACKEN No. M026405 Exp. 8/30/17 MECHANICAL STATE OF CALIFORNIA

OWNER:

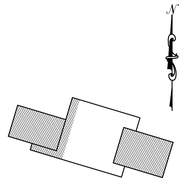
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY: ET	DATE: 05.22.2017
CHECKED BY: BC	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

PLUMBING LEGEND NOTES AND SCHEDULES

SHEET NUMBER

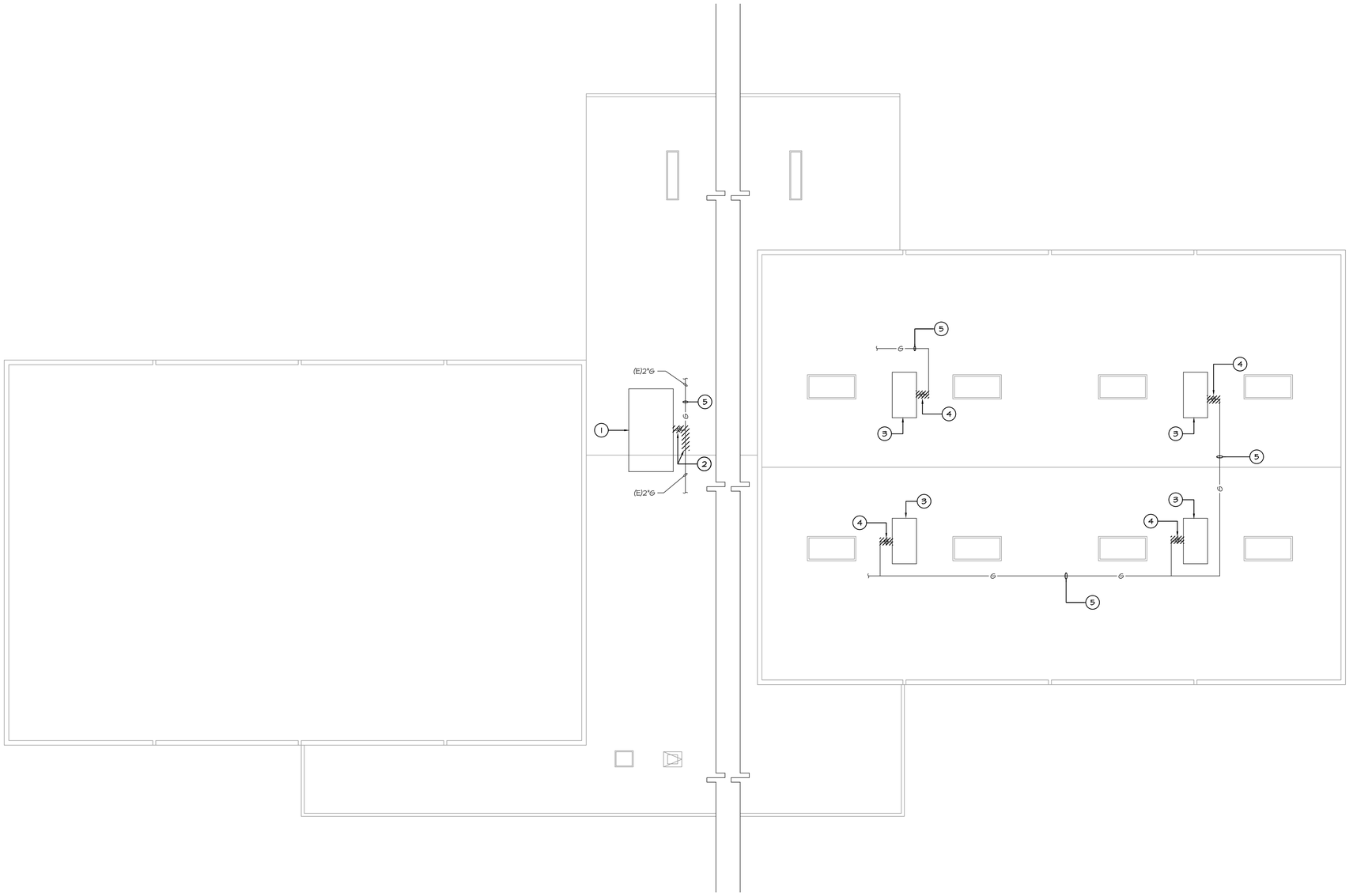
P0.1

P:\1717\dwgs\P0.1.dwg, P0.1 PLUMBING LEGEND AND NOTES, 5/23/2017 1:20:29 PM

PLEASE RECYCLE

SHEET NOTES

1. (E) ROOF MOUNTED AC UNIT TO BE REMOVED IN PREPARATION FOR THE INSTALLATION OF A (N) UNIT IN A SIMILAR LOCATION, SEE MECHANICAL DRAWINGS.
2. REMOVE (E) 2"G, VALVES, SUPPORTS AND ALL RELATED ACCESSORIES IN PREPARATION FOR (N) GAS PIPING TO BE CONNECTED TO THE (N) AC UNIT.
3. (E) ROOF MOUNTED H&V UNIT TO BE REMOVED IN PREPARATION FOR THE INSTALLATION OF A (N) UNIT IN A SIMILAR LOCATION, SEE MECHANICAL DRAWINGS.
4. REMOVE (E) 3/4"G, VALVES, SUPPORTS AND ALL RELATED ACCESSORIES IN PREPARATION FOR (N) GAS PIPING TO BE CONNECTED TO (N) H&V UNIT.
5. (E) ROOF MOUNTED GAS PIPING, FIELD VERIFY ACTUAL SIZE AND LOCATION OF (E) PIPING.



PLUMBING DEMOLITION ROOF PLAN

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

1 / P1.1

PROJECT NORTH

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

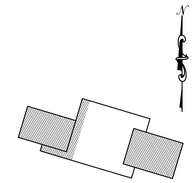
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	**SCALE**
BG	AS NOTED
APPROVED BY	**JOB NUMBER**
MW	1717

SHEET TITLE

PLUMBING DEMOLITION ROOF PLAN

SHEET NUMBER

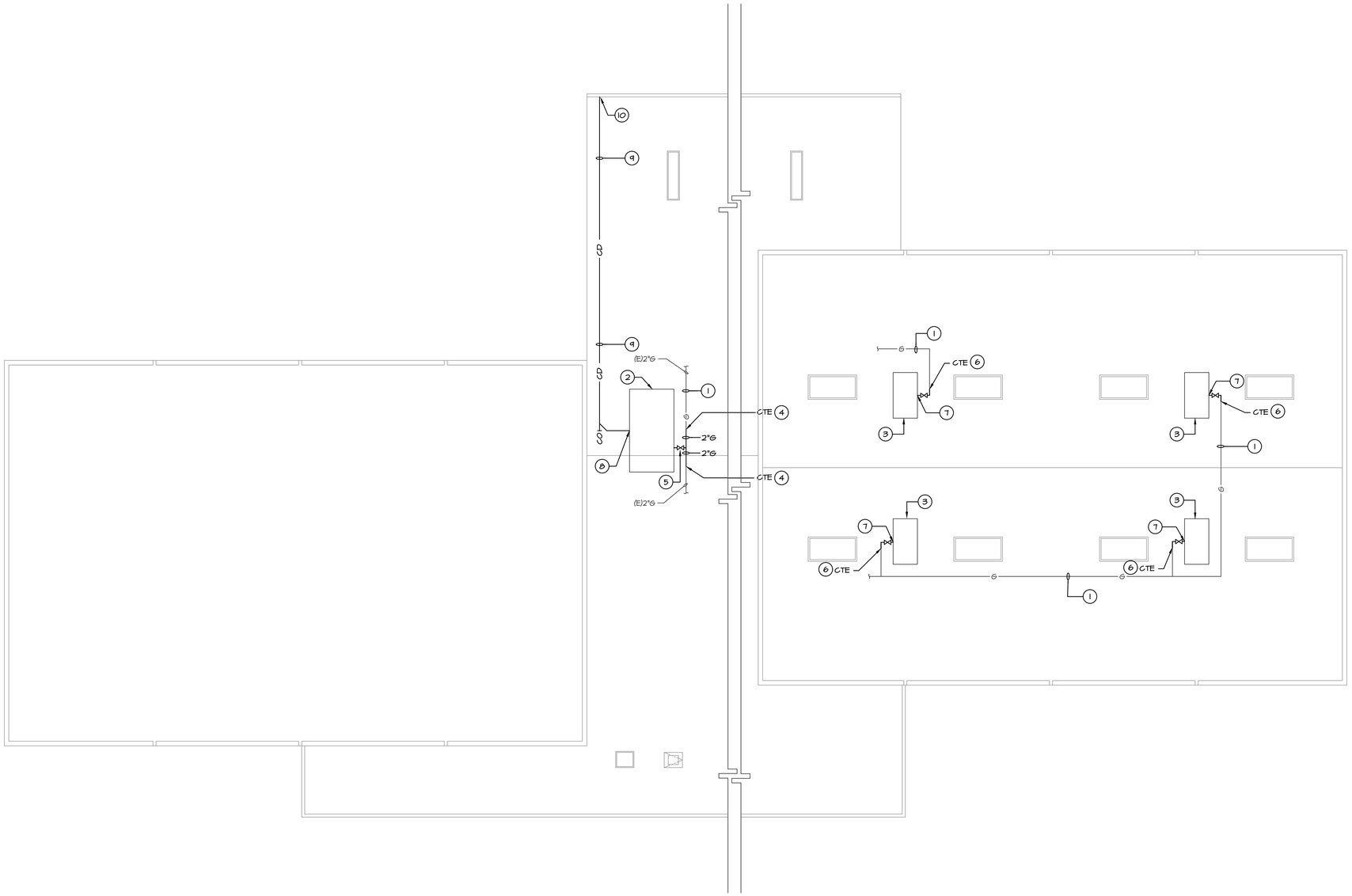
P1.1

P:\1717\dwgs\P1.1 Plumb Demo Roof Plan.dwg, P1.1, 5/23/2017 1:20:05 PM

PLEASE RECYCLE

SHEET NOTES

1. (E) ROOF MOUNTED GAS PIPING, FIELD VERIFY ACTUAL SIZE AND LOCATION OF (E) PIPING.
2. (N) AC UNIT AND TRANSITION CURB MOUNTED ON (E) ROOF CURB, SEE MECHANICAL DRAWINGS.
3. (N) H&V UNIT MOUNTED ON (E) ROOF CURB. SEE MECHANICAL DRAWINGS.
4. CONNECT (N) GAS PIPE TO MATCH SIZE OF (E) GAS PIPING. ESTIMATED SIZE OF (E) GAS PIPING IS 2". SEE 4/P3.1 FOR GAS PIPE MOUNTING ON ROOF.
5. CONNECT (N) 2"G TO (N) AC UNIT, SEE 1/P3.1.
6. CONNECT (N) GAS PIPE TO MATCH SIZE OF (E) GAS PIPING. SEE 4/P3.1 FOR GAS PIPE MOUNTING ON ROOF.
7. CONNECT (N) 1-1/2"G TO (N) H&V UNIT, SEE 1/P3.1.
8. CONNECT 1"CD TO (N) AC UNIT, SEE 2/P3.1.
9. 1"CD MOUNTED ON ROOF, SEE 3/P3.1.
10. TERMINATE 1"CD WITH ELBOW TO DRAIN INDIRECTLY INTO (E) DOWNSPOUT AT GUTTER. FIELD VERIFY ACTUAL LOCATION OF (E) DOWNSPOUT.



PLUMBING ROOF PLAN

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

1 P2.1 PROJECT NORTH

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

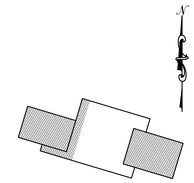
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	**SCALE**
BG	AS NOTED
APPROVED BY	**JOB NUMBER**
MW	1717

SHEET TITLE

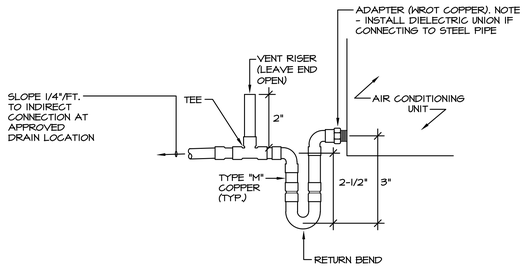
PLUMBING ROOF PLAN

SHEET NUMBER

P2.1

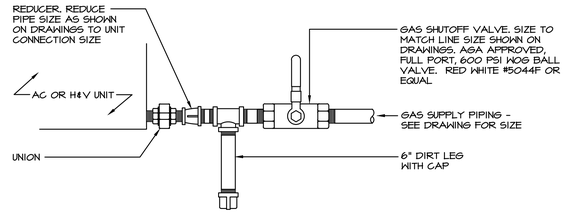
P:\1717\dwgs\P2.1 Plumb Roof Plan.dwg, P2.1, 5/23/2017 1:19:27 PM

PLEASE RECYCLE



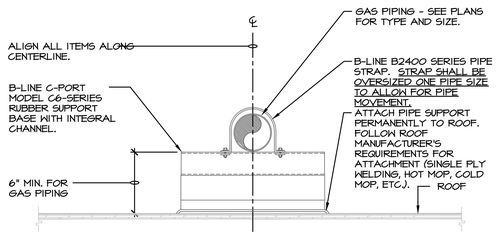
CONDENSATE DRAIN PIPING CONNECTION DETAIL — 2 / P3.1

NO SCALE



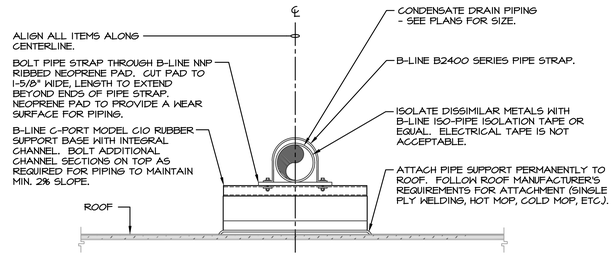
GAS PIPING CONNECTION DETAIL — 1 / P3.1

NO SCALE



GAS PIPE SUPPORT DETAIL — 4 / P3.1

NO SCALE



CONDENSATE DRAIN PIPING SUPPORT DETAIL — 3 / P3.1

NO SCALE

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

REGISTERED PROFESSIONAL ENGINEER
MARC A. WOODMAN
No. M026405
Exp. 6/30/17
MECHANICAL
STATE OF CALIFORNIA

OWNER:

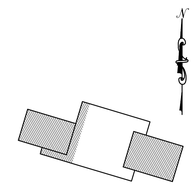
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565



Key Plan

REVISIONS	DATE

DRAWN BY	DATE
ET	05.22.2017
CHECKED BY	SCALE
BC	AS NOTED
APPROVED BY	JOB NUMBER
MW	1717

SHEET TITLE

PLUMBING DETAILS

SHEET NUMBER

P3.1

P:\1717\dwgs\P3.1 Mech Details.dwg, P3.1, 5/23/2017 1:23:22 PM

PLEASE RECYCLE

GENERAL NOTES
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE.
2. THESE NOTES SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE NOTED OR SHOWN.
3. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS.
4. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS WITH MECHANICAL DRAWING AS TO ALL LAYOUTS, DIMENSIONS AND ELEVATIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE STRUCTURAL ENGINEER FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK.
5. IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN FOR SIMILAR CONDITIONS.
6. BEAMS, JOISTS AND ANY OTHER STRUCTURAL ELEMENTS SHALL NOT BE CUT OR PENETRATED, EXCEPT AS SHOWN IN STRUCTURAL DETAILS OR AS APPROVED BYTHE STRUCTURAL ENGINEER.
7. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO POURING CONCRETE; ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE STRUCTURAL ENGINEER BEFORE PROCEEDING WITH THE WORK.
8. FEATURES OF EXISTING CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD AND DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF STRUCTURAL ENGINEER.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES AND SEQUENCES OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PROGRAMS AND PROCEDURES DURING CONSTRUCTION.
10. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY SHORE AND BRACE EXISTING BUILDING AS REQUIRED DURING CONSTRUCTION.
11. THE CONTRACTOR SHALL FOLLOW ALL INSTRUCTIONS, RECOMMENDATIONS AND SAFETY PRECAUTIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER OF ANY MATERIAL OR PRODUCT NOTED IN GENERAL NOTES OR DRAWINGS.
12. CONTRACTOR SHALL FIELD VERIFY EXISTING FRAMING CONDITIONS AND SHALL NOTIFY STRUCTURAL ENGINEER OF ANY VARIATION FROM CONDITIONS ASSUMED ON DRAWINGS. CONTRACTOR SHALL VERIFY THAT EXISTING FRAMING IS RE-SUPPORTED AND ALL LOADS ARE TRANSFERRED TO NEW OR EXISTING FOOTINGS. CONTRACTOR SHALL CONSULT WITH THE STRUCTURAL ENGINEER AS REQUIRED.
13. MECHANICAL UNIT LOCATIONS SHOWN ON STRUCTURAL DRAWINGS ARE SCHEMATIC ONLY. GENERAL CONTRACTOR TO COORDINATE STRUCTURAL TRADES WITH MECHANICAL CONTRACTOR TO DETERMINE EXACT LOCATION OF UNITS AND SUPPORTING STRUCTURE.
14. DO NOT SCALE DRAWINGS.

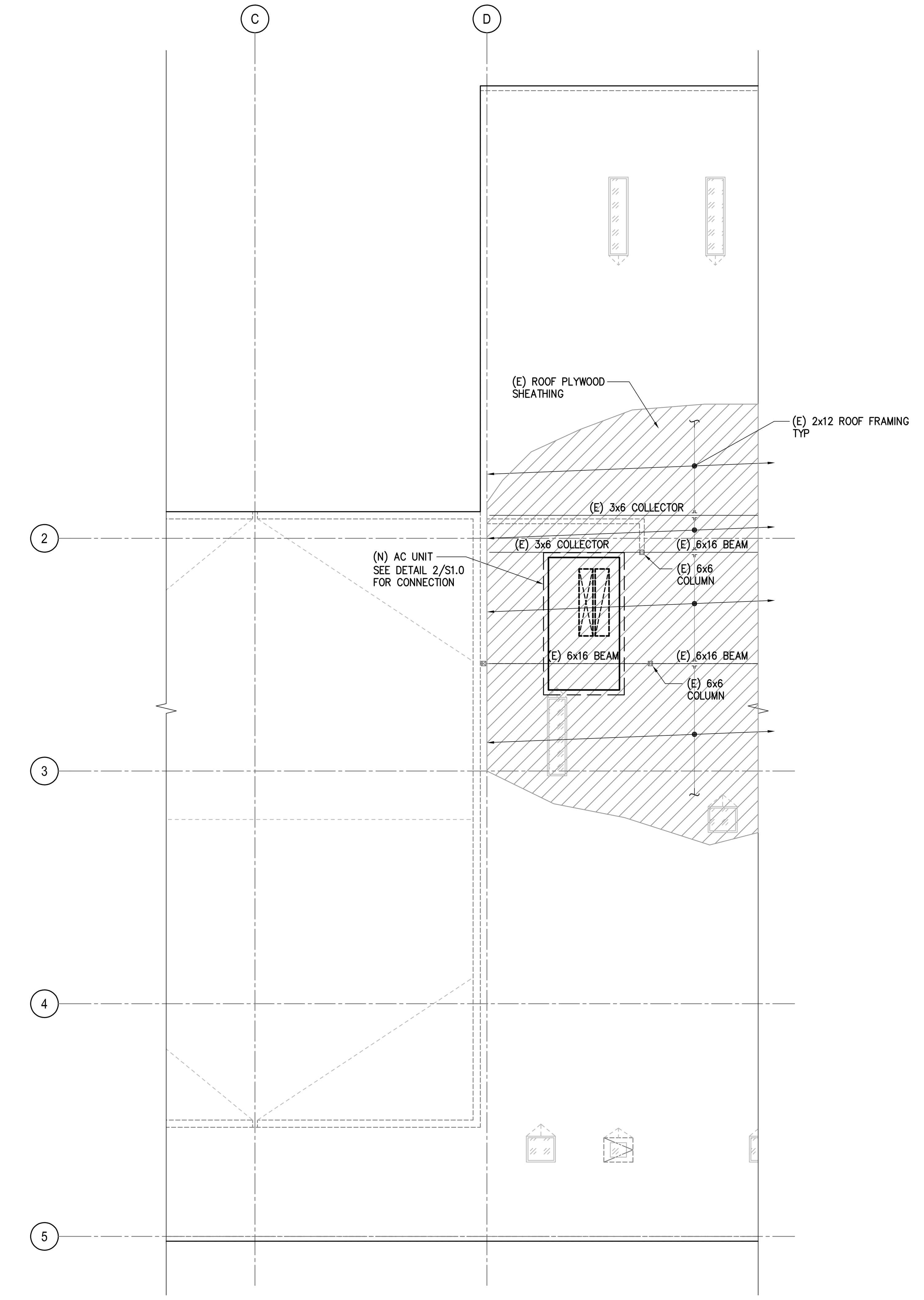
DESIGN CRITERIA
1. GRAVITY LOADS
   AC UNIT OPERATING WEIGHT — Wp = 3573 #

2. LATERAL LOADS
   A. SEISMIC LOADS – PER CHAPTERS 13 OF ASCE 7-10
   AC UNIT:

RISK CATEGORY – CLASSROOM/GYM/PHYSICAL ED./THEATER	III	
SITE CLASS	D	
MAPPED SHORT PERIOD ACCELERATION	Ss	= 1.73 g
SITE COEFFICIENT FOR SHORT PERIOD	Fa	= 1.0
DESIGN SHORT PERIOD ACCELERATION	SDS	= 1.15 g
MAPPED ONE SECOND PERIOD ACCELERATION	S1	= 0.6 g
SITE COEFFICIENT FOR LONG PERIOD	Fv	= 1.5
DESIGN ONE SECOND ACCELERATION	SD1	= 0.6 g
COMPONENT AMPLIFICATION FACTOR	ap	= 2.5
COMPONENT RESPONSE MODIFICATION FACTOR	Rp	= 2
IMPORTANCE FACTOR	Ip	= 1.0
OVERSTRENGTH FACTOR	Ωo	= 2.5

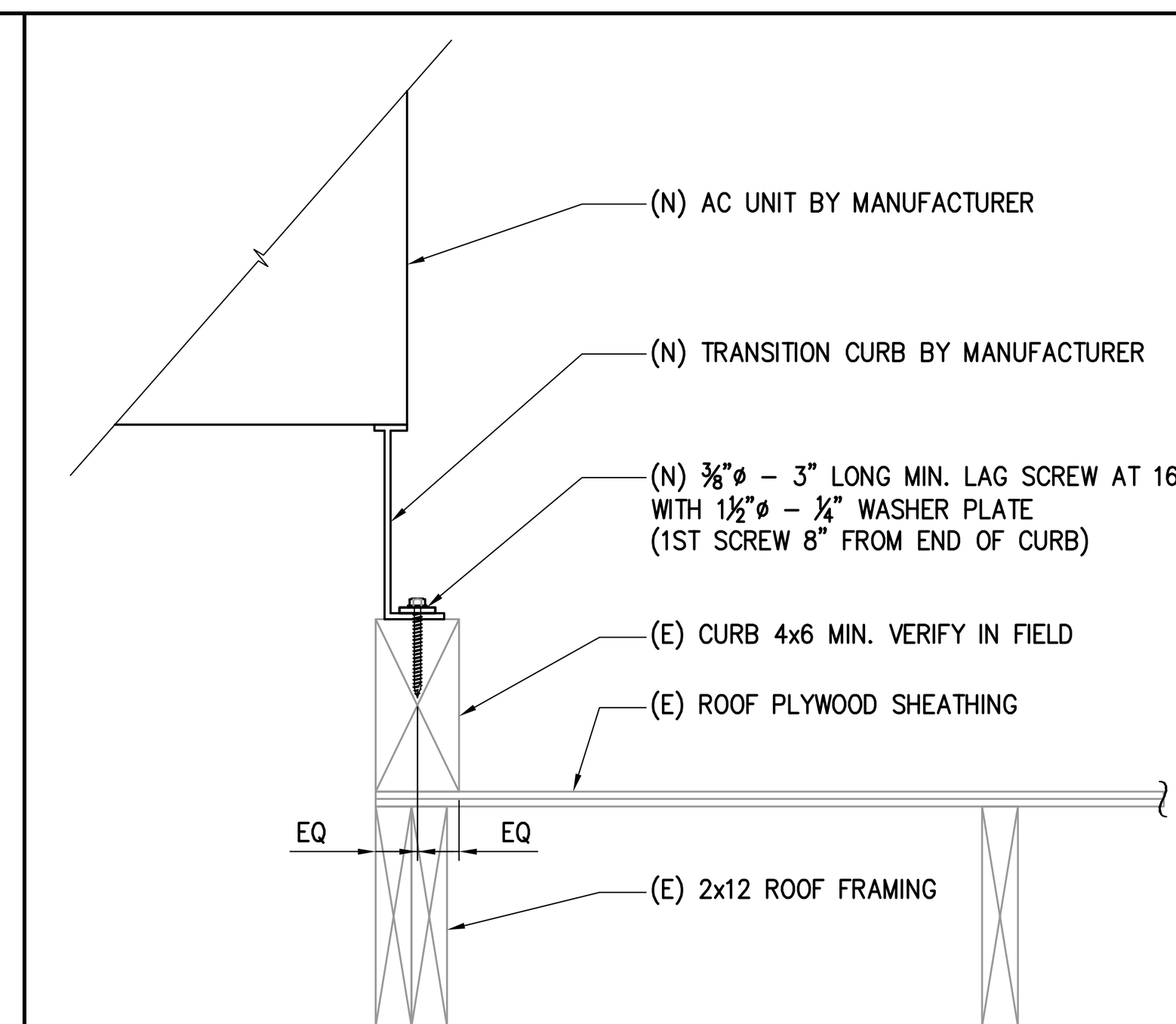
SEISMIC LOADS, Fp = 1.53 *Wp

CARPENTRY NOTES
1. LAG SCREWS SHALL BE SCREWED (NOT DRIVEN) INTO PLACE. DRILL HOLES SAME DIAMETER AND DEPTH AS SHANK. THEN DRILL HOLE 60-70% OF DIAMETER AT BASE OF THREAD FOR THE THREADED PORTION. USE STEEL PLATE WASHERS AS REQUIRED FOR THE SAME BOLT SIZE.



1 / S1.0 **ROOF FRAMING PLAN**

1/8" = 1'-0"



NOTE
1. SEE MECHANICAL DRAWING FOR ROOF WATERPROOFING FINISH INFO;
2. LAG SCREW EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED.

2 / S1.0 **TRANSITION CONNECTION DETAIL**

NTS

McCRACKEN & WOODMAN incorporated
TEL 925-283-4891
FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

No. S03527

OWNER:

Pittsburg Unified School District

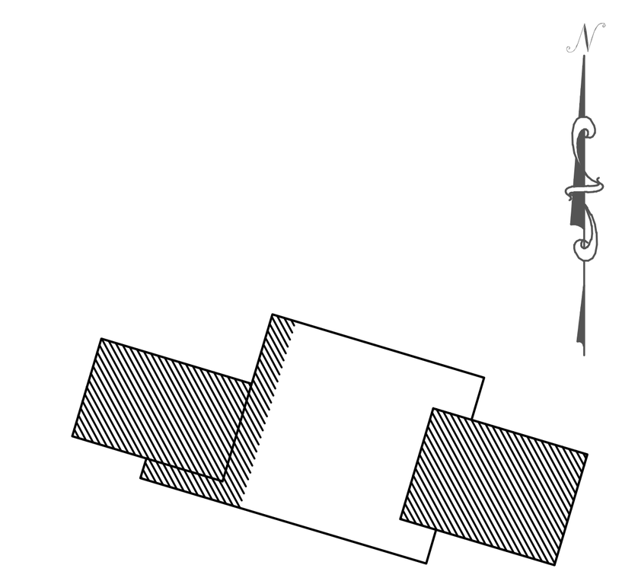
2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 94565

STRUCTURAL ENGINEERS
1629 Telegraph Ave, Suite 300 | Oakland, CA 94612 | t: 510.834.1629
ida-se.com
IDA PROJECT #17031



Key Plan

REVISIONS	DATE
PERMIT SUBMITTAL	05.22.2017

DRAWN BY: AI	DATE: 05.22.2017
CHECKED BY: CL	SCALE: AS NOTED
APPROVED BY:	JOB NUMBER: 1717

SHEET TITLE

GENERAL NOTES ROOF FRAMING PLAN AND DETAIL

SHEET NUMBER

S1.0

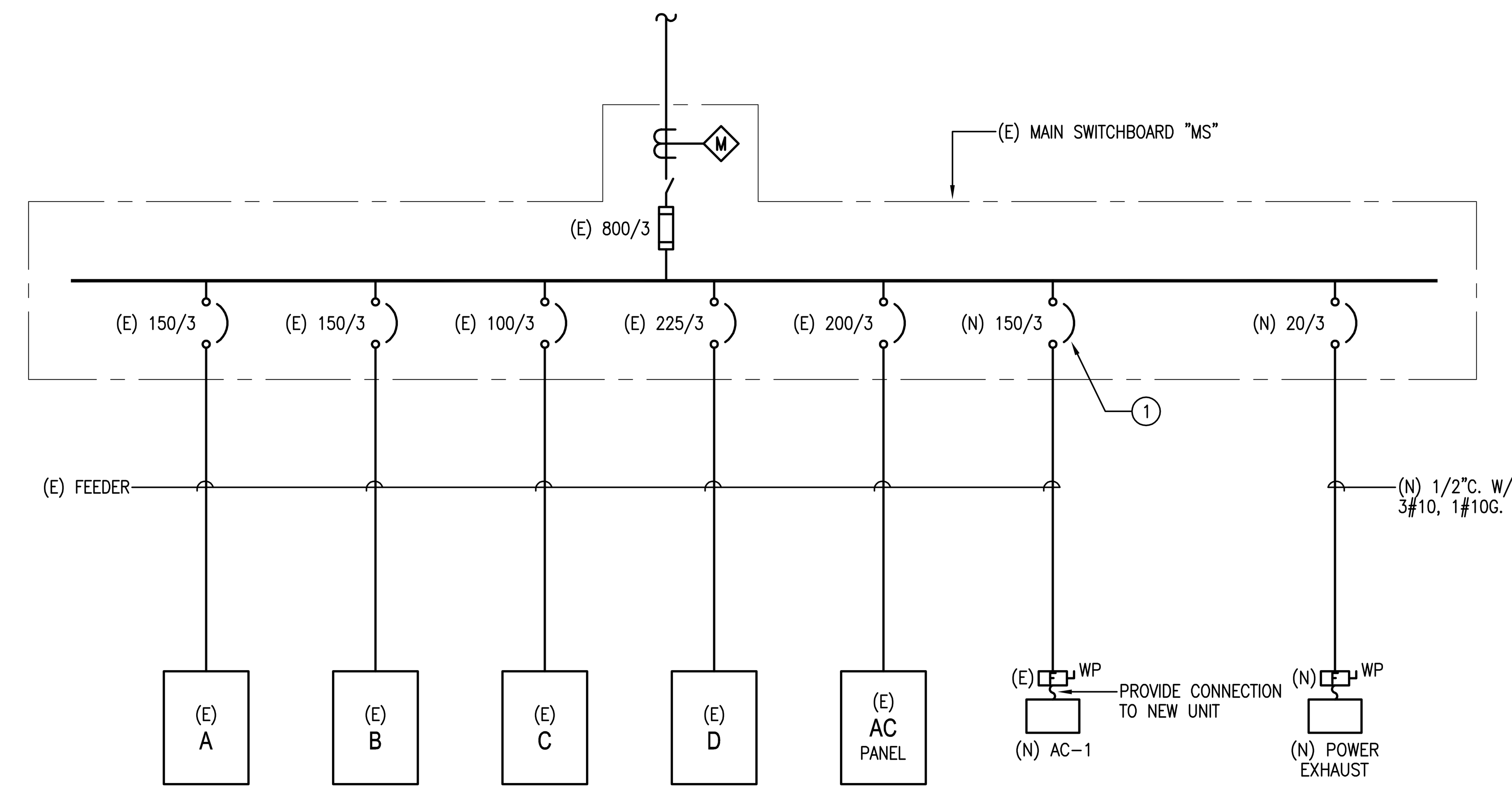
PLEASE RECYCLE

SYMBOLS LIST

SYMBOL	DESCRIPTION
WP GFI	WEATHERPROOF, GFI TYPE DUPLEX RECEPTACLE WITH WHILE-IN-USE COVER, WALL MOUNTED, +18" AFF.
	JUNCTION BOX, MOUNTED ABOVE ACCESSIBLE CEILING.
	JUNCTION BOX, WALL MOUNTED.
	PANEL, SURFACE OR FLUSH MOUNTED.
	FUSED SAFETY DISCONNECT.
	CONDUIT RUN EXPOSED ON WALL OR CEILING.
	CONDUIT RUN CONCEALED IN SLAB, UNDERSLAB OR UNDERGROUND.
	CONDUIT RUN CONCEALED IN WALL OR CEILING.
	CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET. PROVIDE JUNCTION BOX AS REQUIRED.
	FLEXIBLE METALLIC CONDUIT.
	CONDUIT TURN UP.
	CONDUIT TURN DOWN.
	CONDUIT OR DUCT STUB, MARK THE EXACT LOCATION ON THE AS-BUILT DRAWINGS.
M	METER.
	CIRCUIT BREAKER.
	FUSED SWITCH.
	CURRENT TRANSFORMER.
	EQUIPMENT CONNECTION. PROVIDE FLEX CONDUIT, WIRE, FITTINGS AND WIRE TERMINATIONS.
2	NUMBERED SHEET NOTE: APPLIES TO DRAWING CONTAINING NOTE ONLY.
A / E-1	DETAIL REFERENCE: SHEET NUMBER. DETAIL DESIGNATION.
F / 1	EQUIPMENT TAG.

ABBREVIATIONS

A	AMPERE.
AFF	ABOVE FINISHED FLOOR.
C	CONDUIT.
CO	CONDUIT ONLY.
CU	COPPER.
(E)	EXISTING.
F	FUSED.
G	GROUND.
GFI	GROUND FAULT INTERRUPTER.
JB	JUNCTION BOX.
KVA	KILOVOLT AMPERE.
MSB	MAIN SWITCHBOARD.
(N)	NEW.
NIEC	NOT IN ELECTRICAL CONTRACT.
NL	NIGHT LIGHT.
OC	ON CENTER.
PH	PHASE.
PNL	PANEL.
(R)	RELOCATED.
T	TRANSFORMER.
TYP	TYPICAL.
UGPS	UNDERGROUND PULL SECTION.
UON	UNLESS OTHERWISE NOTED.
V	VOLT.
W	WIRE.
WP	WEATHERPROOF.
W/	WITH.
+48"	MOUNT 48" ABOVE FINISHED FLOOR FROM THE CENTER LINE OF DEVICE.



NUMBERED SHEET NOTES:

1. REPLACE EXISTING CIRCUIT BREAKER WITH NEW BREAKER AS SHOWN. CIRCUIT BREAKER SHALL HAVE INTERRUPTING CAPACITY TO MATCH EXISTING.

A / E-1 EXISTING ONE LINE DIAGRAM

NOT TO SCALE

DRAWING LIST

McCRACKEN & WOODMAN incorporated
TEL 925-283-4891
FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

B·R·K ASSOCIATES, INC.
ELECTRICAL ENGINEERING
1290 B Street, Suite 209
Hayward, CA 94541
TEL: (510) 889-7770
FAX: (510) 889-7791

REGISTERED PROFESSIONAL ENGINEER
EDWIN PHO
E20640
Exp. 3/31/2018
STATE OF CALIFORNIA

OWNER:

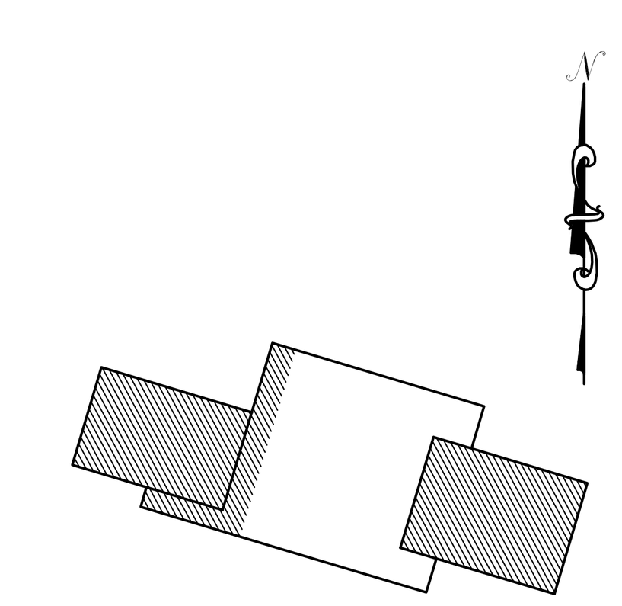
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 9565



Key Plan

REVISIONS	DATE

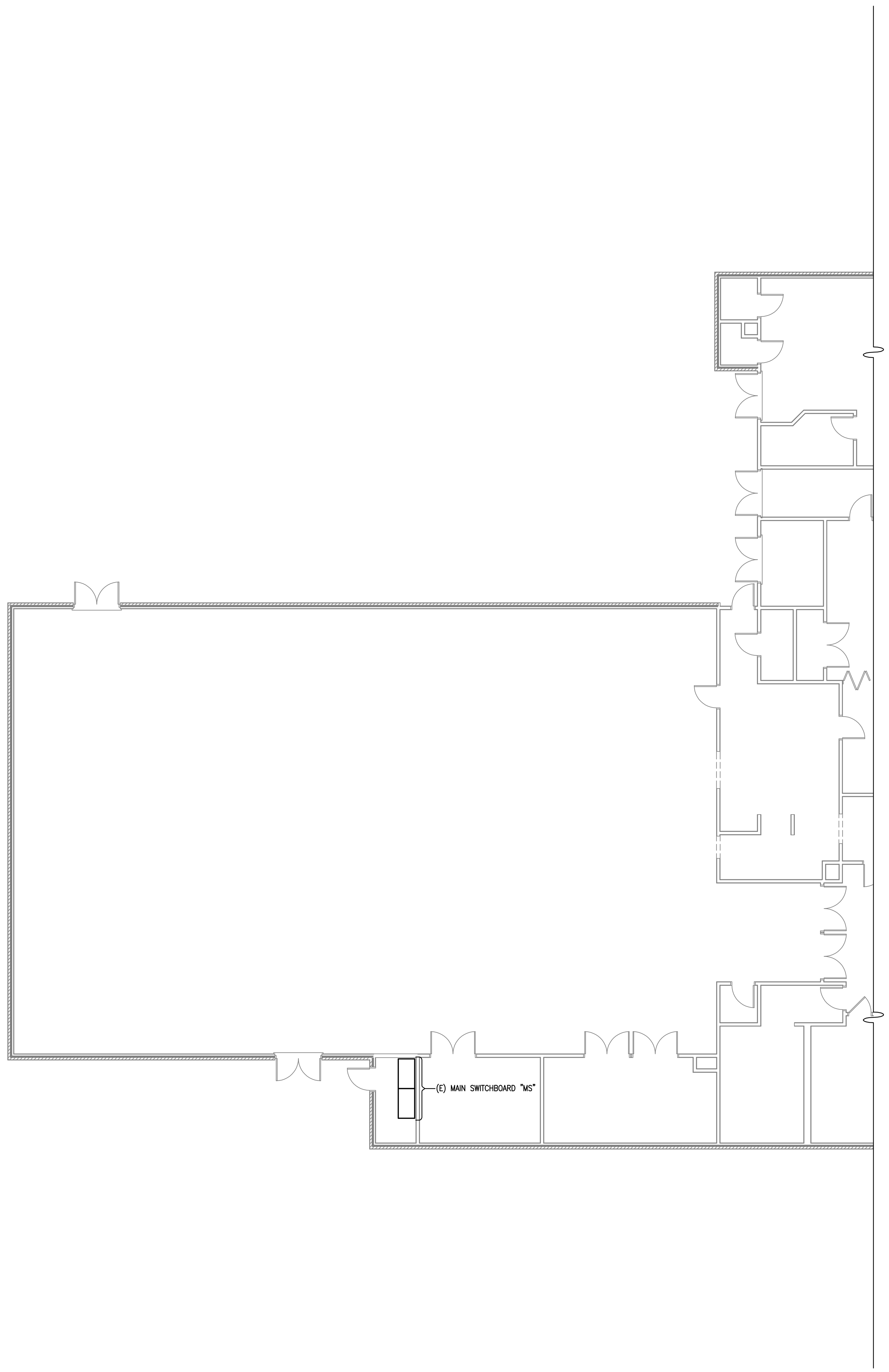
DRAWN BY: WD	DATE: 05-22-17
CHECKED BY: JP	SCALE: N.T.S.
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

SYMBOLS, NOTES AND DIAGRAMS

SHEET NUMBER

E-1

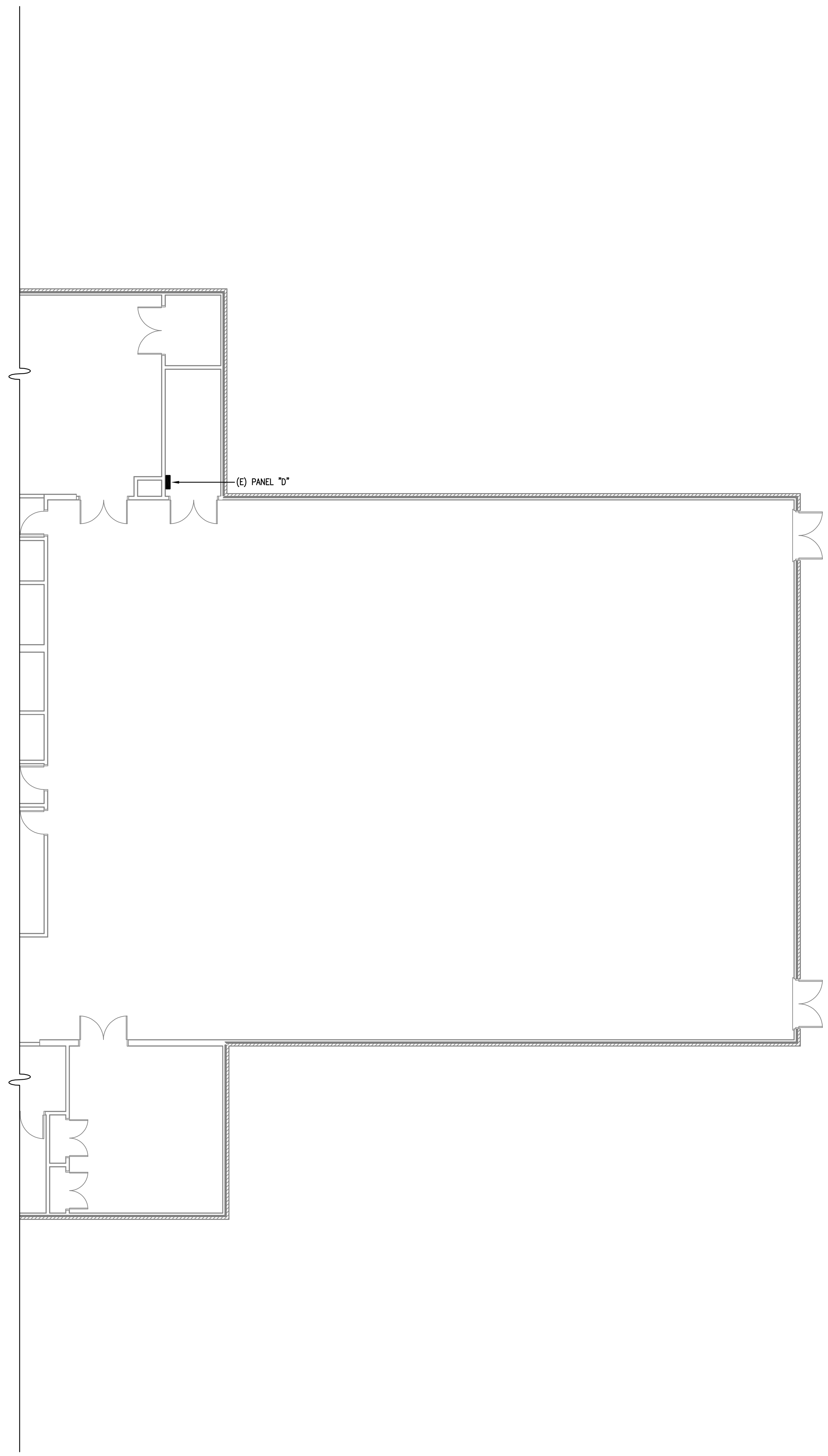


B
E-2

POWER PLAN - COMMUNITY ROOM

SCALE (FT.):
0 8 16

PROJECT NORTH



A
E-2

POWER PLAN - GYMNASIUM

SCALE (FT.):
0 8 16

PROJECT NORTH

McCRACKEN & WOODMAN
incorporated

TEL 925-283-4891
FAX 925-283-4892
3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

B·R·K
ASSOCIATES, INC.
ELECTRICAL ENGINEERING
1290 B Street, Suite 209
Hayward, CA 94541
TEL: (510) 889-7770
FAX: (510) 889-7791

REGISTERED PROFESSIONAL ENGINEER
EDWIN PHO
E20640
Exp. 3/31/2018
STATE OF CALIFORNIA

OWNER:

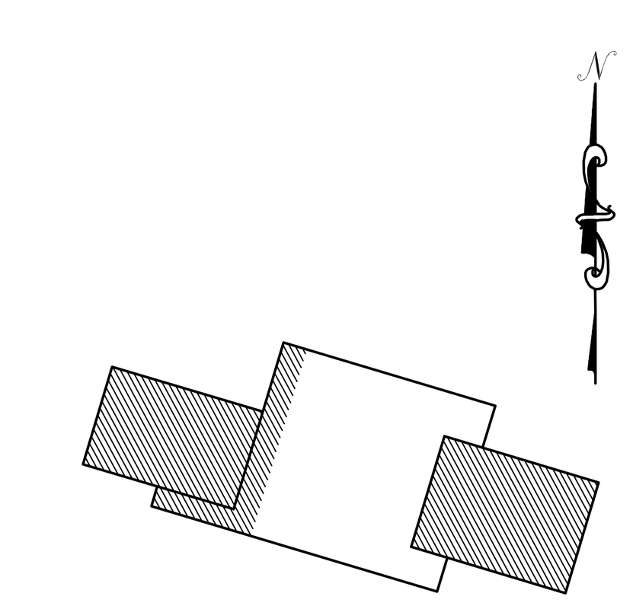
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 9565



Key Plan

REVISIONS	DATE

DRAWN BY: WD	DATE: 05-22-17
CHECKED BY: JP	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

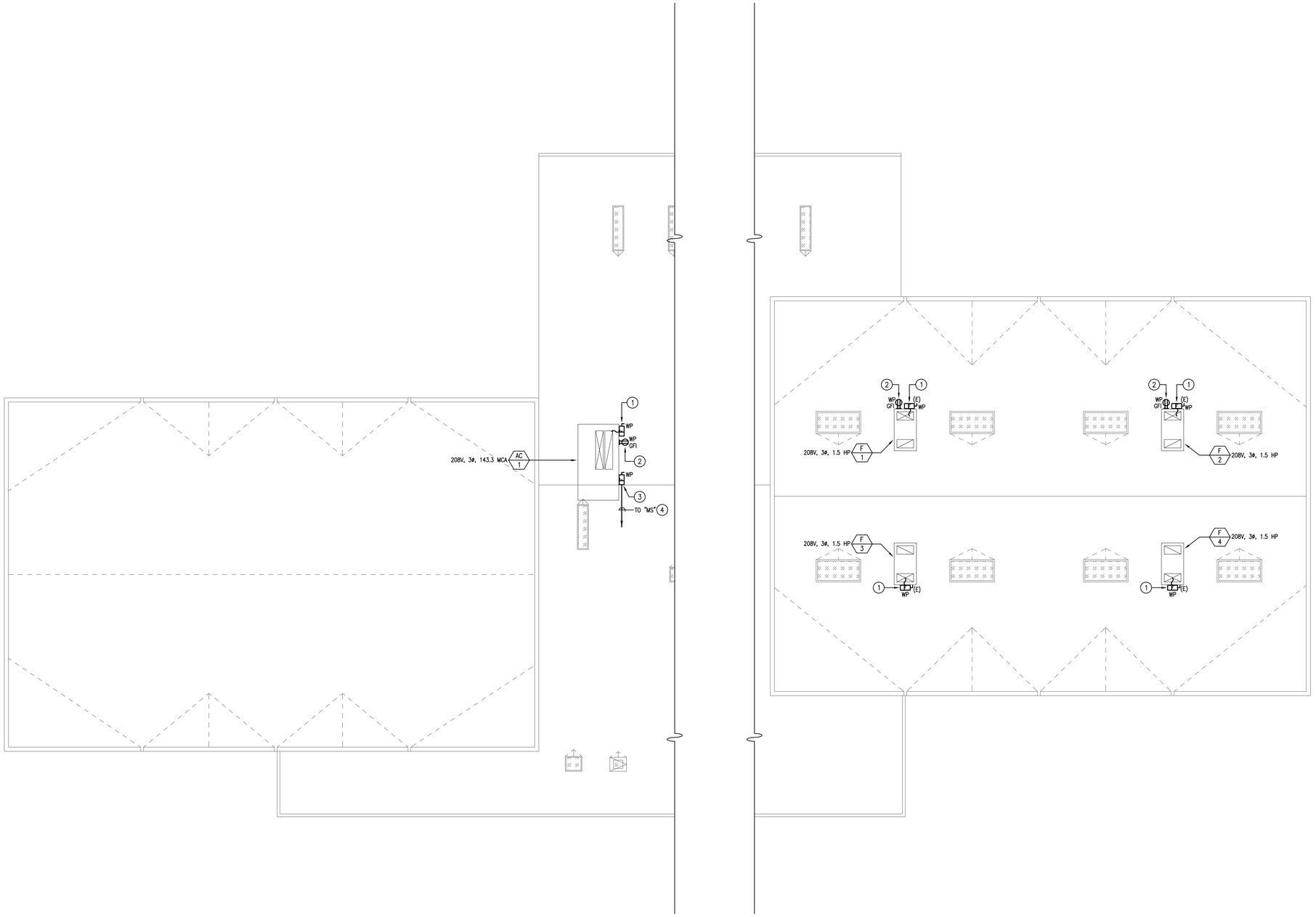
SHEET TITLE

POWER PLAN - GYMNASIUM AND COMMUNITY ROOM

SHEET NUMBER

E-2

G:\Pittsburg Youth Development Center\Elect Dwgs\Permit\PITTSBURG YOUTH DEVELOPMENT CENTER E-2.dwg May 22, 2017 - 10:48am



NUMBERED SHEET NOTES:

1. DISCONNECT POWER TO EXISTING UNIT DURING THE EXISTING UNIT REMOVAL AND RECONNECT TO NEW UNIT USING EXISTING FUSED DISCONNECT SWITCH AND BRANCH CIRCUIT WIRES. PROVIDE NEW FUSED DISCONNECT SWITCH PER MANUFACTURER'S RECOMMENDATIONS.
2. REMOVE EXISTING DUPLEX RECEPTACLE AND REPLACE WITH A NEW GFI TYPE, WEATHERPROOF RECEPTACLE AND WHILE-IN-USE COVER PLATE. RECONNECT NEW RECEPTACLE TO EXISTING CIRCUIT.
3. PROVIDE POWER CONNECTION TO POWER EXHAUST FAN. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR. PROVIDE FUSES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. REFER TO ONE LINE DIAGRAM FOR FEEDER SIZE.

GENERAL SHEET NOTES:

1. PROVIDE 1/2" EMPTY CONDUIT WITH PULL WIRE FOR HVAC CONTROL WIRING AT ALL EXTERIOR LOCATIONS AND EXPOSED LOCATIONS WITHIN THE BUILDING. COORDINATE EXACT LOCATIONS WITH THE MECHANICAL CONTRACTOR.
2. PROVIDE 1" RIGID CONDUIT FOR POWER EXHAUST PRESSURE SENSING TUBING. COORDINATE EXACT REQUIREMENTS AND CONDUIT ROUTING WITH THE MECHANICAL CONTRACTOR. REFER TO DETAIL 3/M3.1 FOR THE SUPPORT OF THE CONDUIT ON THE ROOF.

A / E-3 ROOF ELECTRICAL PLAN

SCALE (FT.): 0 . 8 . 16

PROJECT NORTH

McCRACKEN & WOODMAN incorporated

TEL 925-283-4891
FAX 925-283-4892

3470 Mt. Diablo Blvd, Suite A305
Lafayette, CA 94549
www.mccracken-woodman.com

B·R·K ASSOCIATES, INC.
ELECTRICAL ENGINEERING
1290 B Street, Suite 209
Hayward, CA 94541
TEL: (510) 889-7770
FAX: (510) 889-7791

REGISTERED PROFESSIONAL ENGINEER — E20640 — Exp. 3/31/2018 — STATE OF CALIFORNIA

OWNER:

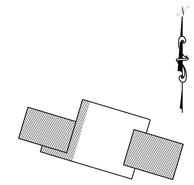
Pittsburg Unified School District

2000 Railroad Avenue
Pittsburg, CA 94565

PROJECT:

Pittsburg Youth Development Center - HVAC Equipment Replacement

1001 Stoneman Ave
Pittsburg, CA 9565



Key Plan

REVISIONS	DATE

DRAWN BY: WD	DATE: 05-22-17
CHECKED BY: JP	SCALE: AS NOTED
APPROVED BY: MW	JOB NUMBER: 1717

SHEET TITLE

ROOF ELECTRICAL PLAN

SHEET NUMBER

E-3