TENANT IMPROVEMENTS

CJC - KITCHEN HOOD

2739 E. LAS VEGAS ST.
COLORADO SPRINGS CO 80906

PROJECT DESIGN TEAM

MECHANICAL, ELECTRICAL AND PLUMBING ENGINEERS

51EC

POC: AARON SPRINGFIELD

2960 N. ACADEMY BLVD. SUITE 101
COLORADO SPRINGS, CO 80917

PHONE: 719.445.0020
EMAIL: INFO@FIFTYONEEC.COM

OWNER INFORMATION

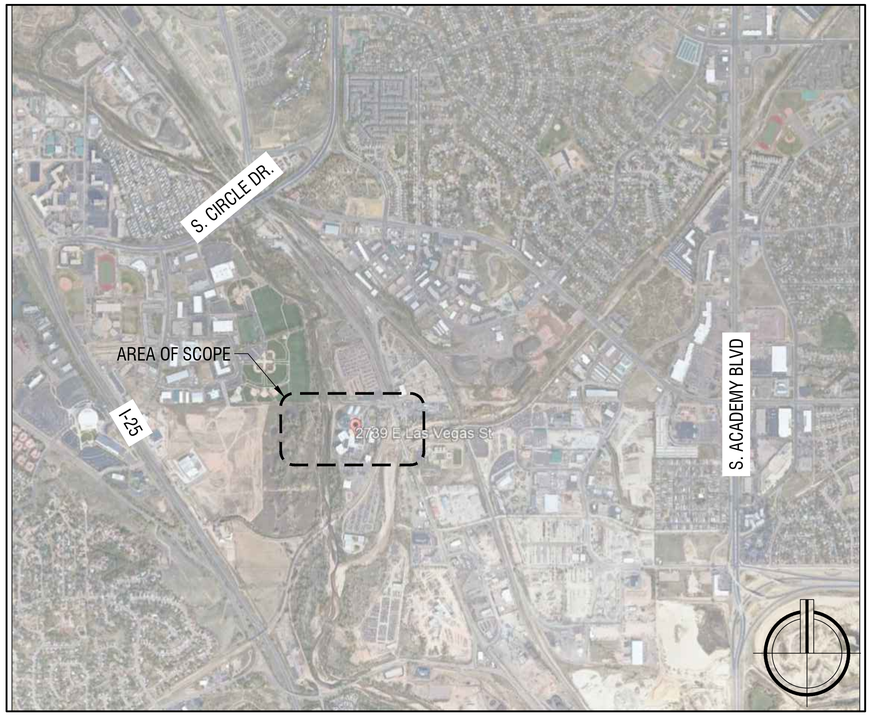
EL PASO COUNTY

200 S CASCADE AVE. STE. 150
COLORADO SPRINGS CO 80903

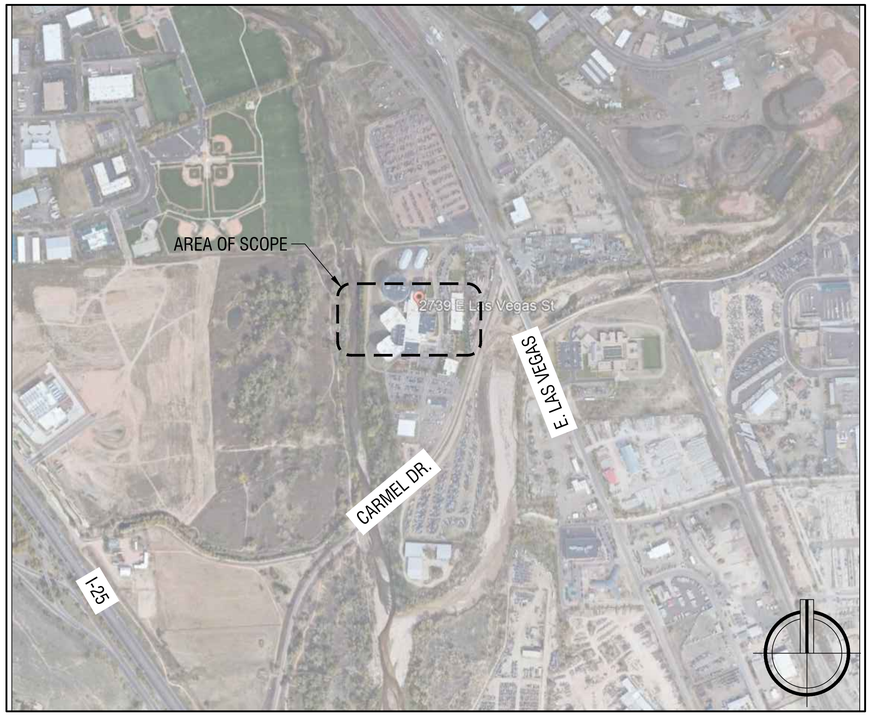
PHONE: 719.663.8041
EMAIL: SCOTTYJOHNSON@ELPASOCO.COM

PROJECT INFORMATION

SITE ADDRESS:	2739 E.LAS VEGAS
TAX SCHEDULE PARCEL NUMBER:	6433401001
LEGAL DESCRIPTION:	LOT 2 BLK 1 HASSLER + BATES SUB NO 3



VICINITY MAP
SCALE: NTS



PROJECT LOCATION MAP
SCALE: NTS

51EC INC.
2960 NORTH ACADEMY BLVD, SUITE 101
COLORADO SPRINGS, CO 80917
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TENANT IMPROVEMENTS
CJC - KITCHEN HOOD
2739 E. LAS VEGAS ST.
COLORADO SPRINGS, CO 80906

REV	DESCRIPTION	DRAWN	CHECK	APPR	DATE

ISSUANCE:
ISSUED FOR PERMIT

CLIENT:
EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
COVER SHEET

SHEET NO:
G-00

PLOT DATE: 10/27/21 9:25 AM BY: JERKA PROJ. FILE: P:\El Paso County\CJC - Greaseless hood\XREFS\CJC - Greaseless Hood - Cover.dwg

GENERAL NOTES

1. CONTRACTOR SHALL VERIFY DIMENSIONS IN FIELD PRIOR TO PROCEEDING WITH ANY WORK.
2. THESE DOCUMENTS HAVE BEEN PRODUCED TO THE BEST OF THE ENGINEER'S ABILITY FROM AVAILABLE EXISTING INFORMATION AND/OR SURVEY OF FIELD CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING FIELD CONDITIONS PRIOR TO BID AND PROVIDE A WRITTEN SUBMITTAL TO ENGINEER IDENTIFYING ANY DISCREPANCIES OR VARIANCES FOUND. THE SUBMITTAL MUST ALSO INCLUDE ANY COSTS REQUIRED FOR THE CONTRACTOR'S WORK TO MEET EXISTING CONDITIONS.
3. ALL WORK SHALL BE PERFORMED WITH QUALITY WORKMANSHIP, TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.
4. ALL WORK, MATERIAL AND INSTALLATION SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES AND ORDINANCES.
5. **CONTRACTOR TO VERIFY ANY CHANGES TO THIS SCOPE OF WORK WITH ENGINEER PRIOR TO ROUGH-IN OR INSTALLATION.**

POST CONSTRUCTION PHASE GENERAL NOTES

CONTRACTOR SHALL PROVIDE RECORD DRAWINGS TO ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, ACCEPTED REQUESTS FOR INFORMATION (RFI'S), CHANGE ORDERS, ALTERATIONS, REROUTING, FIELD SKETCHES, MARK-UPS, ETC.

SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.

CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS OR EQUIPMENT.

SYSTEMS AND THEIR COMPONENTS SHALL BE COMPLETE, OPERABLE AND READY FOR CONTINUOUS OPERATION.

SCOPE

THE SCOPE OF WORK COVERED HEREIN CONSISTS OF FURNISHING ALL LABOR, MATERIALS, NECESSARY EQUIPMENT, AND SERVICES TO COMPLETE THE DESIGN AND RELATED WORK IN FULL ACCORDANCE WITH THESE DRAWINGS, AS SPECIFIED HEREIN, OR BOTH, AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT.

CODES, RULES, PERMITS, AND FEES

THE CONTRACTOR (MECHANICAL, ELECTRICAL AND PLUMBING) IS GENERALLY RESPONSIBLE TO ENSURE ALL WORK, BOTH OLD AND NEW, COMPLIES WITH THE APPLICABLE CODE (SPECIFIED BY THE JURISDICTION IN WHICH THE WORK IS BEING COMPLETED) AS WELL AS ANY APPLICABLE LOCAL CODES, STATE CODES, ADDENDUMS, AND ORDINANCES.

SHOP DRAWINGS

SHOP DRAWINGS FOR MATERIALS OR PRODUCTS SPECIFIED HEREIN AND/OR INDICATED ON DRAWINGS BY TRADE NAME, MANUFACTURER'S NAME OR CATALOG NUMBER SHALL BE PROVIDED AS SPECIFIED.

SUBSTITUTIONS FOR EQUIPMENT SPECIFIED IN THIS SCOPE OF WORK MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

COOPERATION WITH OTHER TRADES

THE SUBCONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES AND SHALL FURNISH, IN WRITING, TO THE CONTRACTOR, WITH COPIES TO THE ENGINEER (OR ARCHITECT), ANY INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY. COORDINATE ALL INFORMATION ON EQUIPMENT FURNISHED BY OTHERS BEFORE BEGINNING INSTALLATION.

CUTTING, PATCHING AND FINISHING

UNLESS NOTED OTHERWISE THE CONTRACTOR SHALL DO ALL CUTTING, DRILLING, ETC. REQUIRED FOR WORK UNDER THIS SECTION OF THE SPECIFICATION, INSIDE THE BUILDING.

MATERIAL AND WORKMANSHIP

ALL MATERIALS AND APPARATUS REQUIRED FOR THE WORK SHALL BE NEW UNLESS INDICATED OTHERWISE IN THE PLANS.

RECORD DRAWINGS

THE CONTRACTOR SHALL KEEP ACCURATE RECORDS OF CHANGES OR ALTERATIONS DURING THE ACTUAL CONSTRUCTION PROCESS IF DIFFERENT FROM THE PLANS.

THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A REPRODUCIBLE SET OF PLANS FOR EACH DISCIPLINE OF THE COMPLETE INSTALLATION ALONG WITH FIRE ALARM SYSTEM, AS INSTALLED. THE SCALE ON THESE DRAWINGS SHALL BE NO SMALLER THAN THE SCALE USED ON THE ORIGINAL PLANS.

TESTING

FINAL TESTS SHALL BE MADE ONLY AFTER THE ENGINEER IS SATISFIED THAT ALL WORK HAS BEEN COMPLETED.

FINAL ACCEPTANCE

AFTER TESTING, A FINAL INSPECTION SHALL BE MADE BY THE ENGINEER AND OTHER AUTHORIZED PERSONS WITH THE CONTRACTOR.

FINAL ACCEPTANCE OF THE PROJECT SHALL NOT SUPERSEDE THE OWNER'S RIGHT TO REQUIRE REPLACEMENT AND/OR REPAIR ANY DEFECTIVE WORK OR MATERIALS.

MECHANICAL GENERAL NOTES

1. UNLESS NOTED OTHERWISE, BRANCH DUCTS TO INDIVIDUAL REGISTERS, DIFFUSERS AND GRILLES SHALL BE SAME SIZE AS NECK INLET.
2. PROVIDE EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS. INSTALLATION SHALL CONFORM TO MANUFACTURERS REQUIREMENTS AND APPLICABLE CODES. SUBMITTALS SHALL BE PROVIDED PER VENDOR SCHEDULE SUBMITTAL.
3. ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.
4. LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAXIMUM AND HORIZONTAL RUN WITH ONLY ONE 90 DEGREE ELBOW IS PERMITTED. SECURE FLEXIBLE DUCTWORK WITH SCREWS AND DRAWBANDS TO DIFFUSER. SUPPORT DUCT PER CODE TO PREVENT SAGGING.
5. DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS.
6. PROVIDE 18" X 18" MINIMUM ACCESS DOOR IN INACCESSIBLE CEILINGS AND WALLS FOR EQUIPMENT REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ENGINEER OR ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK. ACCESS DOORS LARGER THAN MINIMUM SHALL BE SIZED APPROPRIATELY TO ACCESS AND MAINTAIN EQUIPMENT. AT A MINIMUM PROVIDE CEILING OPERATORS FOR INACCESSIBLE M.V.D.'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE GEAR OPERATED WITH CEILING ESCUTCHEON. ALL ACCESS PANELS/DOORS SHALL BE SUBMITTED TO ENGINEERING FOR APPROVAL PRIOR TO PROCUREMENT OF EQUIPMENT.
7. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY WITH OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIPMENT PRIOR TO NAMEPLATE ORDER RELEASE. NAMEPLATES SHALL BE 4" X 3" BLUE PLASTIC WITH WHITE ENGRAVING AND WILL CALL OUT NAME OF EQUIPMENT AND ELECTRICAL PANEL FED FROM WITH VOLTAGE AND PHASE (COORDINATE WITH ELECTRICAL CONTRACTOR AND ELECTRICAL DRAWINGS).
8. CEILING DIFFUSERS SHALL BE 36" MINIMUM FROM CEILING MOUNTED SMOKE DETECTORS. COORDINATE WITH ELECTRICAL DIVISION FOR LIGHT, SMOKE DETECTORS AND OTHER EQUIPMENT MOUNTED ON THE CEILINGS. IT'S THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID ANY CEILING EQUIPMENT LOCATION INTERFERENCES.
9. SECURE DIFFUSERS AND GRILLES TO T-BAR CEILINGS USING ACT CLIPS (WHERE APPLICABLE). SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.
10. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATIONS OF GRILLES AND DIFFUSERS IN CEILING, AS WELL AS ACCESS DOORS.
11. COORDINATE EQUIPMENT DIMENSIONS AND LAYOUT WITH PLUMBING DRAWINGS WHERE FLOOR SINKS ARE INDICATED.
12. PIPES PASSING THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH U.L. LISTED MATERIAL EQUAL TO 3M FIRE BARRIER, CAULK OR PUTTY. SEALANT'S RATING SHALL MATCH THE RATING OF THE ASSEMBLY. ANY SUBSTITUTE SHALL BE SUBMITTED FOR APPROVAL TO ENGINEERING PRIOR TO INSTALLATION.
13. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS WITH CHAIN. IDENTIFICATION BANDS SHALL BE LOCATED EVERY 25' AND ON EITHER SIDE OF ANY INTERMEDIATE BARRIER (WALL) ALONG THE PIPE ROUTE.
14. TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT IN STRICT CONFORMANCE WITH MANUFACTURERS INSTRUCTIONS AND S.M.A.C.N.A. DUCT CONSTRUCTION STANDARDS.
15. VERIFY FIT OF DUCTWORK AND PIPING PRIOR TO FABRICATION.
16. INSULATED PIPING EXPOSED TO VIEW (THROUGHOUT THE FACILITY), SHALL BE COVERED FINISHED WITH PVC JACKET EQUAL TO MANVILLE PVC AND/OR PERMA-WELD PIPE JACKETING SYSTEM USING 30 MIL THICK JACKETS. FITTINGS, FLANGES, VALVES AND ACCESSORIES SHALL BE JACKETED. INSTALL PER MANUFACTURERS INSTRUCTIONS WITH SEAM ON TOP OF PIPE SO AS NOT TO BE VISIBLE FROM OCCUPIED SPACE.
17. DUCTWORK LOCATED BELOW 7'-6" IN MECHANICAL ROOMS SHALL BE EQUIPPED WITH PADDING MATERIAL ON ALL CORNERS, EDGES AND OTHER SURFACES WHICH MAYBE HAZARDOUS.
18. COORDINATE AND VERIFY ACTUAL APPROVED EQUIPMENT DIMENSIONS PRIOR TO POURING EQUIPMENT PADS.
19. ALL DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE UNLESS OTHERWISE INDICATED ON DRAWINGS.
20. CONDENSATE DRAIN PIPING FROM ALL EQUIPMENT SHALL BE INSTALLED SO AS NOT CREATE A TRIPPING HAZARD. COORDINATE DRAIN CONNECTIONS WITH PLUMBING DRAWINGS. CONDENSATE DRAIN TRAPS SHALL BE 3" DEEP, MINIMUM.
21. COORDINATE ALL CHASE, SLEEVE AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
22. PROVIDE ACCESS DOOR IN DUCTWORK UPSTREAM OF EACH REHEAT COIL. ACCESS DOOR TO BE EQUAL TO DUCTMATE M.E.T.U. ROUND DUCT ACCESS DOOR.
23. DUCTWORK VISIBLE BEHIND DIFFUSERS, REGISTERS, OR GRILLES SHALL BE PAINTED FLAT BLACK.
24. REFER TO EQUIPMENT DRAWINGS, SPECIFICATIONS AND SHOP DRAWINGS FOR CONNECTIONS TO EQUIPMENT.
25. MANUAL VOLUME DAMPERS AND VALVES ON INSULATED DUCTWORK AND PIPING SHALL HAVE EXTENDED SYSTEMS TO ALLOW FOR THE INSULATION THICKNESS. PROVIDE MINIMUM 12" LONG RED RIBBON QUADRANT LOCATOR ON VOLUME DAMPER HANDLES.
26. PERMANENT HVAC EQUIPMENT SHALL BE SEALED OFF, KEPT FREE FROM DEBRIS, AND SHALL REMAIN UNOPERATIONAL DURING CONSTRUCTION. CONTRACTOR SHALL PROVIDE TEMPORARY HEAT AS REQUIRED.
27. PROVIDE ONE (1) COPY OF THE TEST AND BALANCE REPORT TO THE ENGINEER AND THE MECHANICAL INSPECTOR AT THE TIME OF INSPECTION.
28. NEW WORK, ALTERATIONS OR ADDITIONS TO MECHANICAL SYSTEMS ARE SUBJECT TO FIELD INSPECTION.
29. HVAC SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH IMC CHAPTER 3 AND LOCAL BUILDING REQUIREMENTS, CODES AND AMENDMENTS.
30. DUCT CONSTRUCTION AND INSTALLATION SHALL CONFORM TO IMC SECTION 603AND SMACNA REQUIRED INSULATION REQUIREMENTS AND SHALL CONFORM TO IECC SECTION C403.2.9.
31. FACTORY-MADE FLEXIBLE AIR DUCT INSTALLATION SHALL CONFORM TO IMC SECTION 603.6.
32. INDOOR PIPE GAS REGULATOR SHALL VENT UP THROUGH ROOF OR OUT THROUGH WALL. IF GAS REGULATORS ARE NOT VENTED, CONTRACTOR SHALL USE VENTLESS REGULATORS.
33. MOTORS 3/4 HP AND LARGER SHALL BE PREMIUM EFFICIENCY.
34. MECHANICAL CONTROL PANELS TO BE RATED AT 5,000 SCR.

CODES

WHERE APPLICABLE, THE GUIDANCE SET FORTH IN THE 2015 IECC CODE SHALL GOVERN THE SCOPE OF WORK UNDER THIS CONTRACT. THE CODE SECTIONS RELATING TO THE MECHANICAL SCOPE OF WORK INCLUDE, BUT ARE NOT LIMITED TO:

SECTION 302 - DESIGN CONDITIONS

SECTION 303 - MATERIALS, SYSTEMS AND EQUIPMENT
- SECTION 303.3 - MAINTENANCE INFORMATION

SECTION 402 - BUILDING ENVELOPE REQUIREMENTS
- SECTION 402.1 - GENERAL
- SECTION 402.2 - SPECIFIC BUILDING THERMAL ENVELOPE INSULATION REQUIREMENTS
- SECTION 402.3 - ROOF SOLAR REFLECTANCE AND THERMAL EMITTANCE
- SECTION 402.4 - FENESTRATION
- SECTION 402.5 - AIR LEAKAGE - THERMAL ENVELOPE

SECTION 403 - BUILDING MECHANICAL SYSTEMS

SECTION 406 - ADDITIONAL EFFICIENCY PACKAGE OPTIONS
- SECTION 406.1 - REQUIREMENTS
- SECTION 406.2 - MORE EFFICIENT HVAC EQUIPMENT PERFORMANCE
- SECTION 406.5 - ON-SITE RENEWABLE ENERGY
- SECTION 406.6 - DEDICATED OUTDOOR AIR SYSTEM

SECTION 407 - TOTAL BUILDING PERFORMANCE

SECTION 408 - SYSTEM COMMISSIONING
- SECTION 408.1 - GENERAL
- SECTION 408.2 - MECHANICAL SYSTEMS AND SERVICE WATER-HEATING SYSTEMS COMMISSIONING AND COMPLETION REQUIREMENTS

SECTION 501 - GENERAL

SECTION 502 - ADDITIONS

SECTION 503 - ALTERATIONS
- SECTION 503.1 - GENERAL
- SECTION 503.2 - CHANGE IN SPACE CONDITIONING
- SECTION 503.3 - BUILDING ENVELOPE
- SECTION 503.4 - HEATING AND COOLING SYSTEMS

SECTION 504 - REPAIRS
- SECTION 504.1 - GENERAL
- SECTION 504.2 - APPLICATION

SECTION 505 - CHANGE OF OCCUPANCY OR USE

LEGEND AND SYMBOLS

HVAC SYSTEM

SUPPLY DIFFUSER
RETURN GRILLE
EXHAUST GRILLE
GRILLE, REGISTER (FLOOR, DUCT)
TRANSFER GRILLE
GOOSENECK
MANUAL VOLUME DAMPER (MVD) WITH LOCKING QUADRANT
M — MOTORIZED DAMPER
F — FIRE DAMPER
FS — FIRE-SMOKE DAMPER
S — SMOKE DAMPER
BDD — BACKDRAFT DAMPER
T — THERMOSTAT
SUPPLY DUCT
RETURN DUCT
EXHAUST DUCT
FLEX DUCT
RECTANGULAR TAKE-OFF (BEVELED, PLAIN)
ROUND TAKE-OFF (PLAIN, CONICAL)

AIR TERMINAL TAG:

NECK SIZE
AIR TERMINAL DESIGNATION
X"Ø XX-# / XX CFM (#) ← TYPICAL OF
AIR VOLUME

GAS SYSTEM

GAS METER
GAS COCK
GAS SHUT-OFF VALVE
PRESSURE REDUCING VALVE

—G—	LOW PRESSURE GAS
—MPG—	MEDIUM PRESSURE GAS
—HPG—	HIGH PRESSURE GAS
—LPG—	LIQUEFIED PETROLEUM GAS

GAS PIPING LABEL:

X" G ← PIPE SIZE
XXX MBH ← PIPE GAS LOAD
XXX' TDL ← TOTAL DESIGN LENGTH

TRANSITIONS

PIPE CAP
PIPE TRANSITION UP
PIPE TRANSITION DOWN
PIPE TAP/TEE DOWN

PROCESS PIPING

—CHS—	CHILLED WATER SUPPLY
---CHR---	CHILLED WATER RETURN
—CWS—	CONDENSING WATER SUPPLY
---CWR---	CONDENSING WATER RETURN
—HWS—	HEATING WATER SUPPLY
---HWR---	HEATING WATER RETURN
----D----	CONDENSATE DRAIN
----R----	REFRIGERATION LINE

PROCESS FLOW DIAGRAM

AIR SEPARATOR
BACKFLOW PREVENTOR
PRESSURE GAUGE
TEMPERATURE GAUGE
UNION
FLEXIBLE PIPE CONNECTOR
PUMP
ISOLATION VALVE
GATE VALVE
PRESSURE REGULATING VALVE
CHECK VALVE
TEMP. & PRESSURE RELIEF VALVE
GLOBE VALVE
MIXING VALVE
THREE-WAY VALVE
STRAINER

GENERAL

— KEY NOTE
— FEEDER TAG
— GENERAL EQUIPMENT TAG
XXX # — M/E/P EQUIPMENT TAG
POINT OF CONNECTION
NOT IN CONTRACT
DEMOLITION

ABBREVIATIONS

GENERAL

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
DN	DOWN
EC	ELECTRICAL CONTRACTOR
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
POC	POINT OF CONNECTION
QTY	QUANTITY
TCC	TEMPERATURE CONTROL CONTRACTOR
W/	WITH
W/O	WITHOUT
WO	WALL OPENING (ABOVE CEILING)

SCOPE

(E)	EXISTING
(N)	NEW
(R)	RELOCATED
(V)	VENDOR

MECHANICAL

AV / MV	AUTOMATIC/MANUAL AIR VENT
BTUH	BRITISH THERMAL UNIT PER HOUR
CA	COMBUSTION AIR
CFM	CUBIC FEET PER MINUTE
DRN	DRAIN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
OA	OUTSIDE AIR
RA	RETURN AIR
RB	REBALANCE
SA	SUPPLY AIR
TDL	TOTAL DESIGN LENGTH
TOD	TOP OF DUCT (AFF)
UC	UNDER-CUT

SHEET NOMENCLATURE

X - X - # # # . X

LEVEL 1 DESIGNATION

M	MECHANICAL
E	ELECTRICAL
P	PLUMBING
MD	MECH. DEMOLITION
ED	ELEC. DEMOLITION
PD	PLUM. DEMOLITION

LEVEL 2 DESIGNATION *

* MAY NOT APPLY FOR COMBINED SHEETS

H	HVAC
G	GAS
D	PROCESS
P	POWER
L	LIGHTING
W	WATER
S	SANITARY (WASTE)

SHEET TYPE DESIGNATION

0	GENERAL
1	PLANS
2	ELEVATIONS
3	SECTIONS
4	LARGE SCALE PLANS
5	DETAILS
6	SCHEDULES & CALCULATIONS
7	DIAGRAMS
8	< NOT USED >
9	ISOMETRICS

SHEET NUMBER

01 - 99

SUPPLEMENTAL

1 - 9	FLOORS
B	BASEMENT
M	MEZZANINE
R	ROOF

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COLORADO LICENSED PROFESSIONAL ENGINEER 0051275 10-26-2021
EXP 10/31/21

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CLIENT:
EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

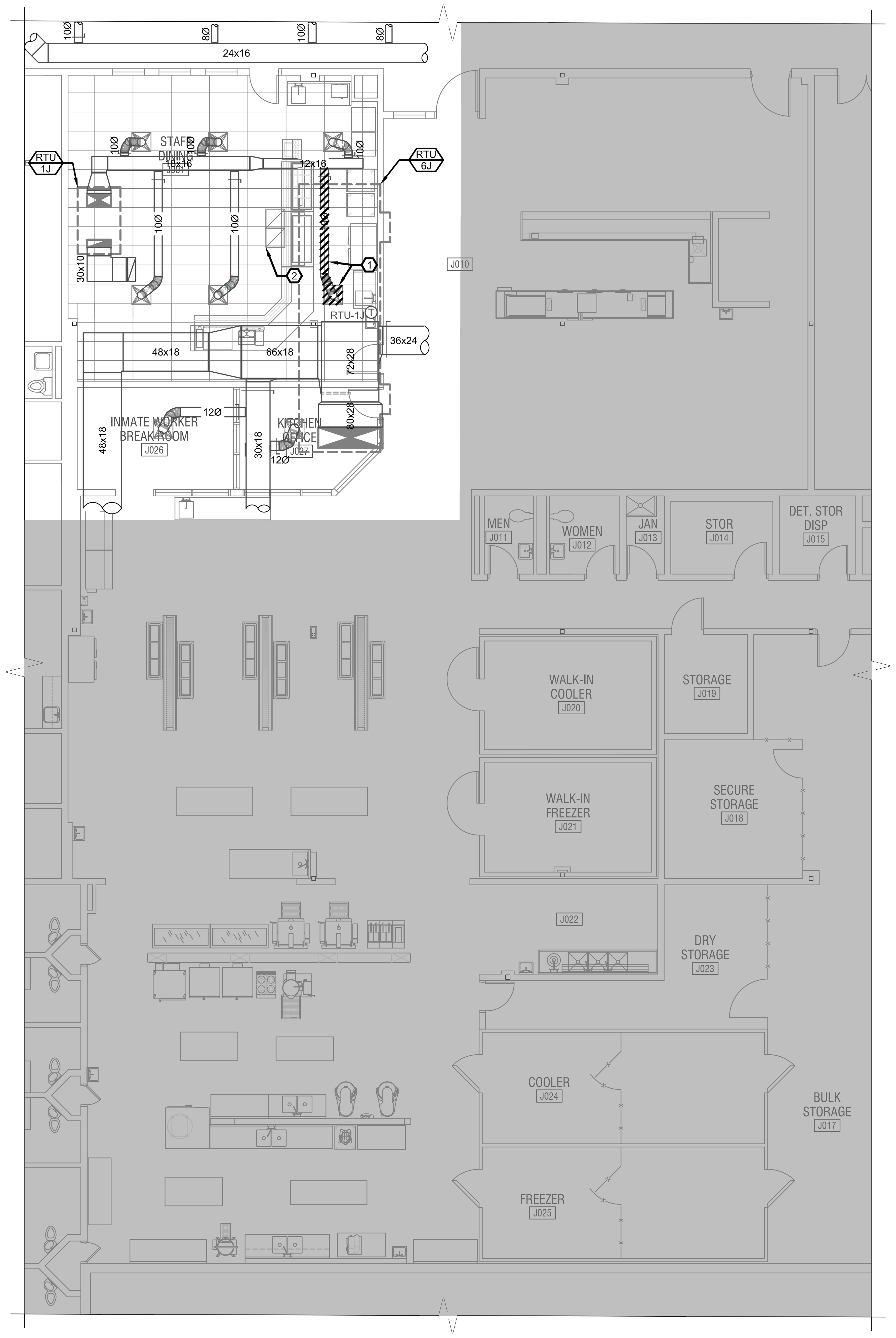
ARCHITECT:

PROJECT NO: 5156-21-02

TITLE: LEGEND, NOTES AND SPECIFICATIONS

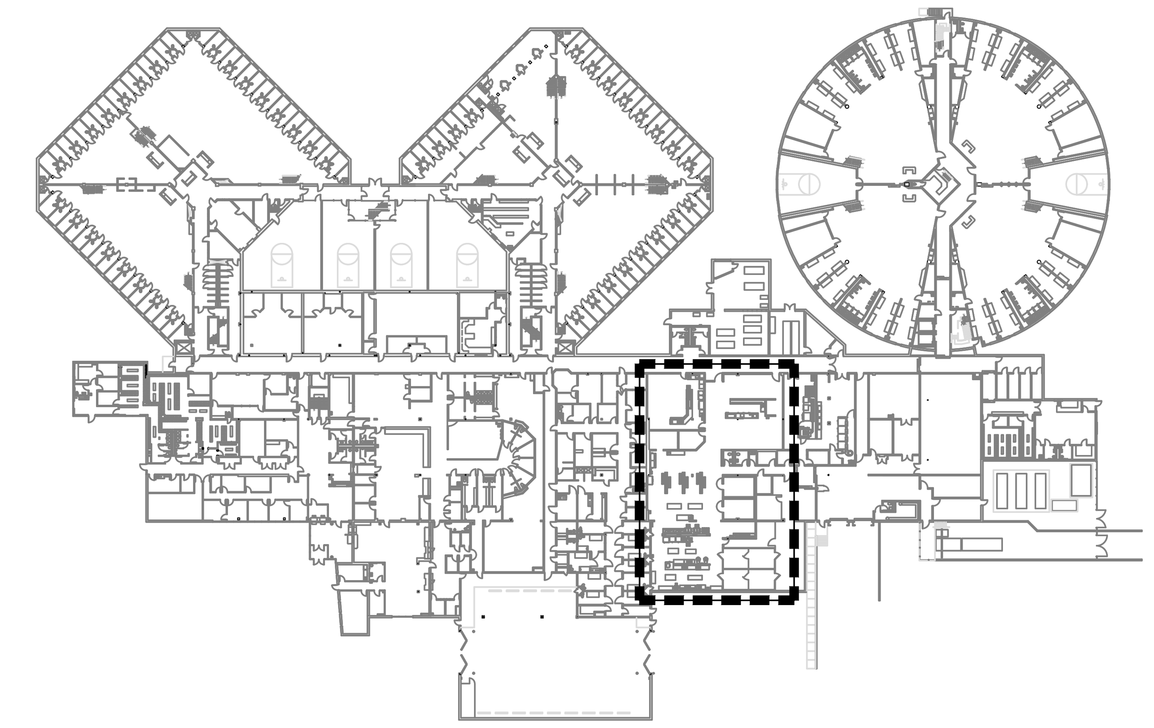
SHEET NO: M-001

PLOT DATE: 10/26/21 1:17 PM BY: JERIKA PROJ. FILE: P:\El Paso County\CJC - Greaseless hood\Mechanical\CJC - Greaseless Hood- Mechanical.dwg



HVAC DEMOLITION PLAN

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



KEY MAP

GENERAL NOTES:

EXISTING CONDITIONS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM LAYOUT SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

DEMOLITION KEY NOTES:

1. REMOVE EXISTING CEILING DIFFUSER, 10"Ø DUCT AND FLEX DUCT. CAP EXISTING SUPPLY DUCT AT MAIN DUCT TRUNK.
2. CONTRACTOR TO RELOCATE EXISTING RETURN GRILLE PER NEW WORK PLAN. (TYPICAL OF 2)

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5156-21-02

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HVAC DEMOLITION PLAN

SHEET NO:
MD-H-101

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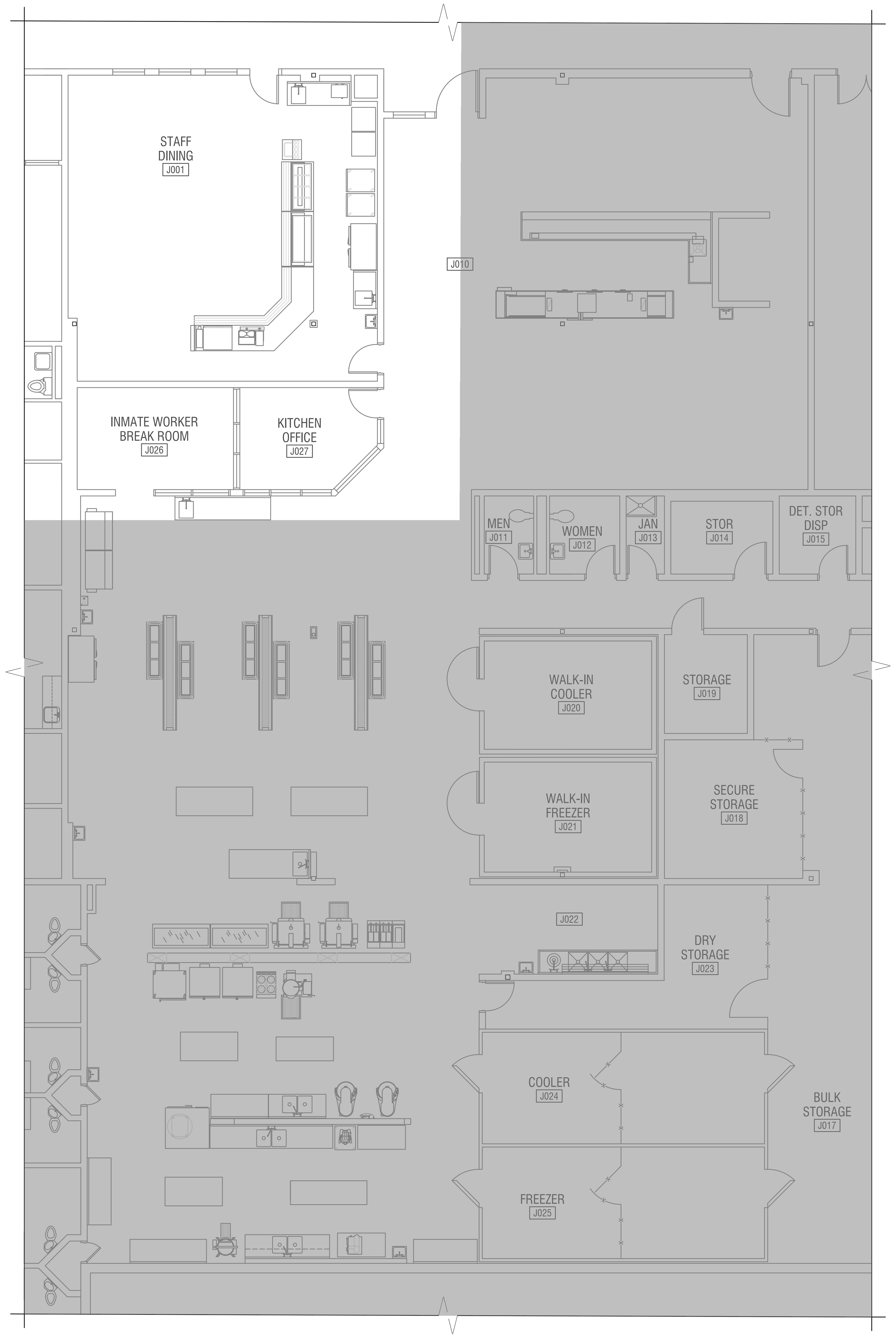
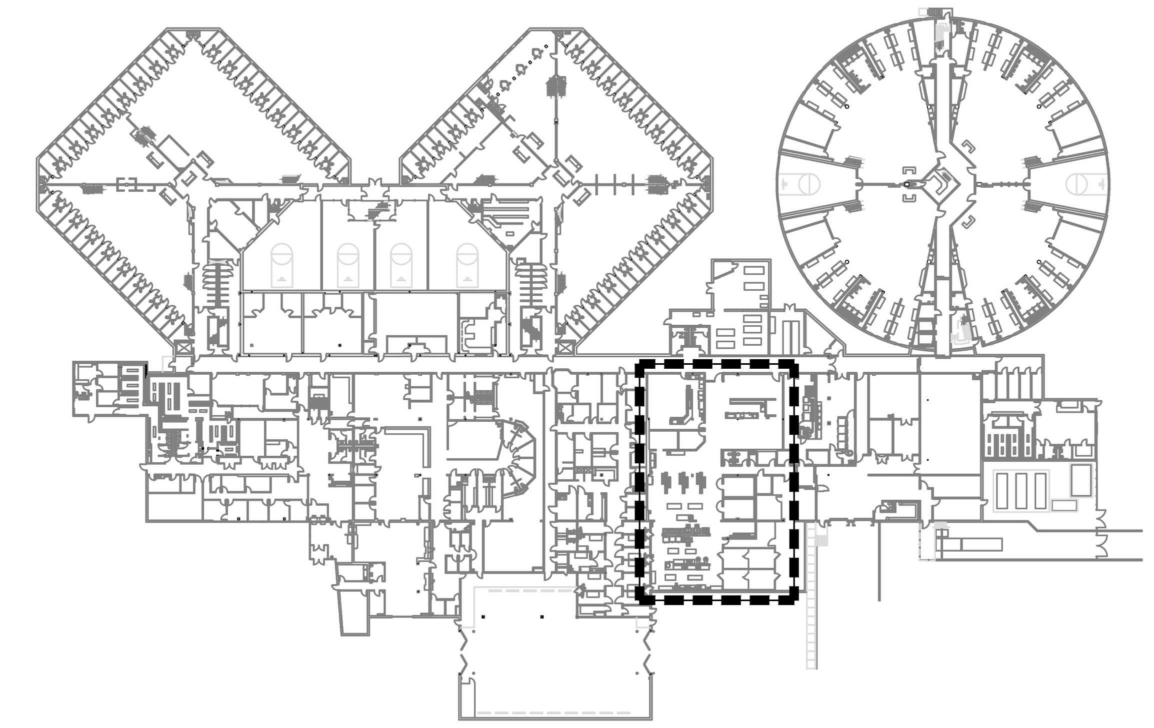


GAS DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



KEY MAP

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NO GAS DEMOLITION WORK. SHEET SHOWN FOR REFERENCE PURPOSES ONLY.

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MD-G-101

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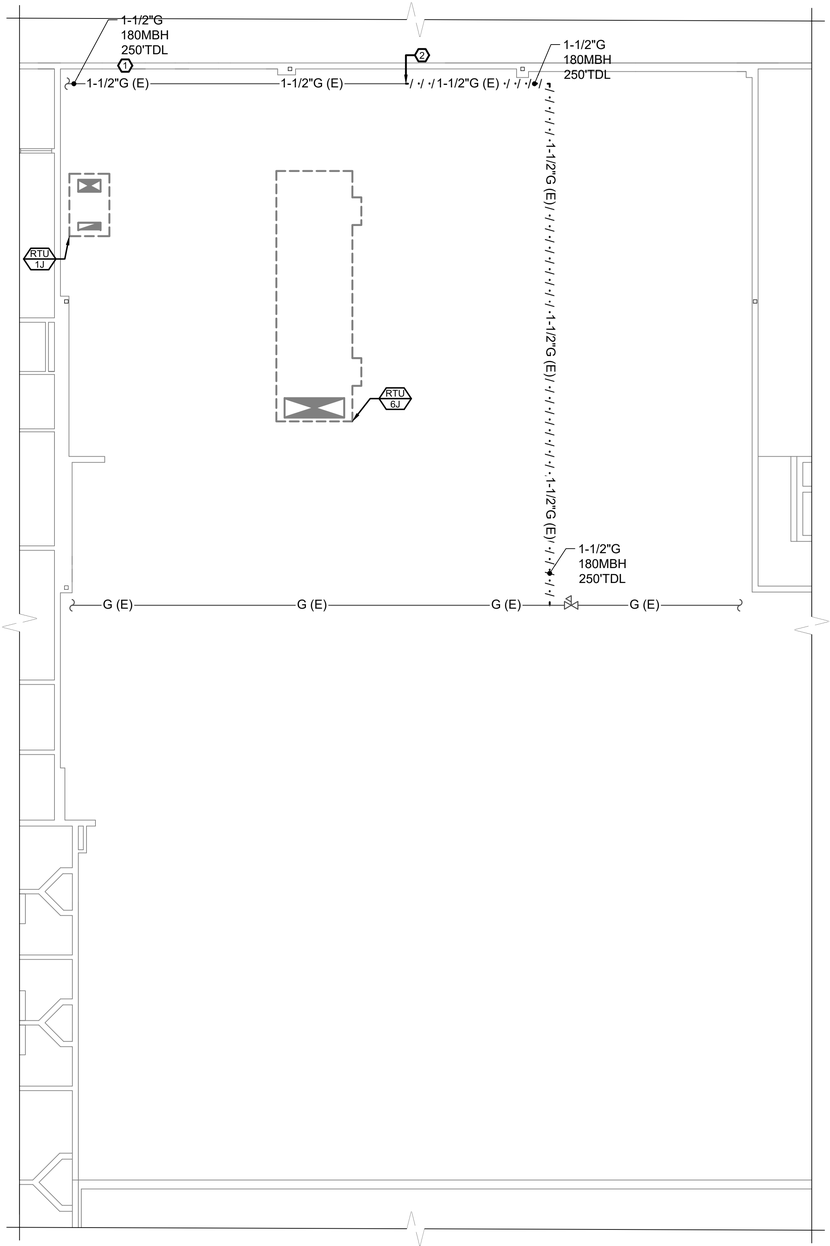
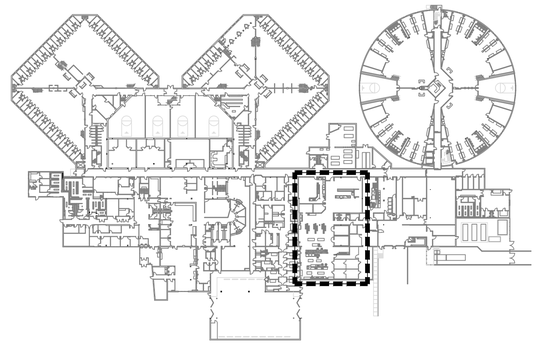


GAS PIPING DEMOLITION ROOF PLAN

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



KEY MAP

GENERAL NOTES:

EXISTING CONDITIONS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM LAYOUT SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

DEMOLITION KEY NOTES:

1. CONTINUATION TO EXISTING 180MBH RTU UNIT TO REMAIN.
2. CONTRACTOR TO DEMOLISH EXISTING GAS PIPE TO APPROXIMATE LOCATION SHOWN. CONTRACTOR TO COORDINATE FINAL LOCATION OF NEW EQUIPMENT PRIOR TO REMOVING EXISTING GAS PIPING.

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COLORADO LICENSED PROFESSIONAL ENGINEER
0051275
10-26-2021
EXP 10/31/21

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TENANT IMPROVEMENTS
CJC - KITCHEN HOOD
2739 E. LAS VEGAS ST.
COLORADO SPRINGS, CO 80906

REV	DESCRIPTION	DRAWN	CHECK	APPR	DATE

ISSUANCE:
ISSUED FOR PERMIT

CLIENT:
EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
GAS PIPING DEMOLITION ROOF PLAN

SHEET NO:
MD-G-101.R

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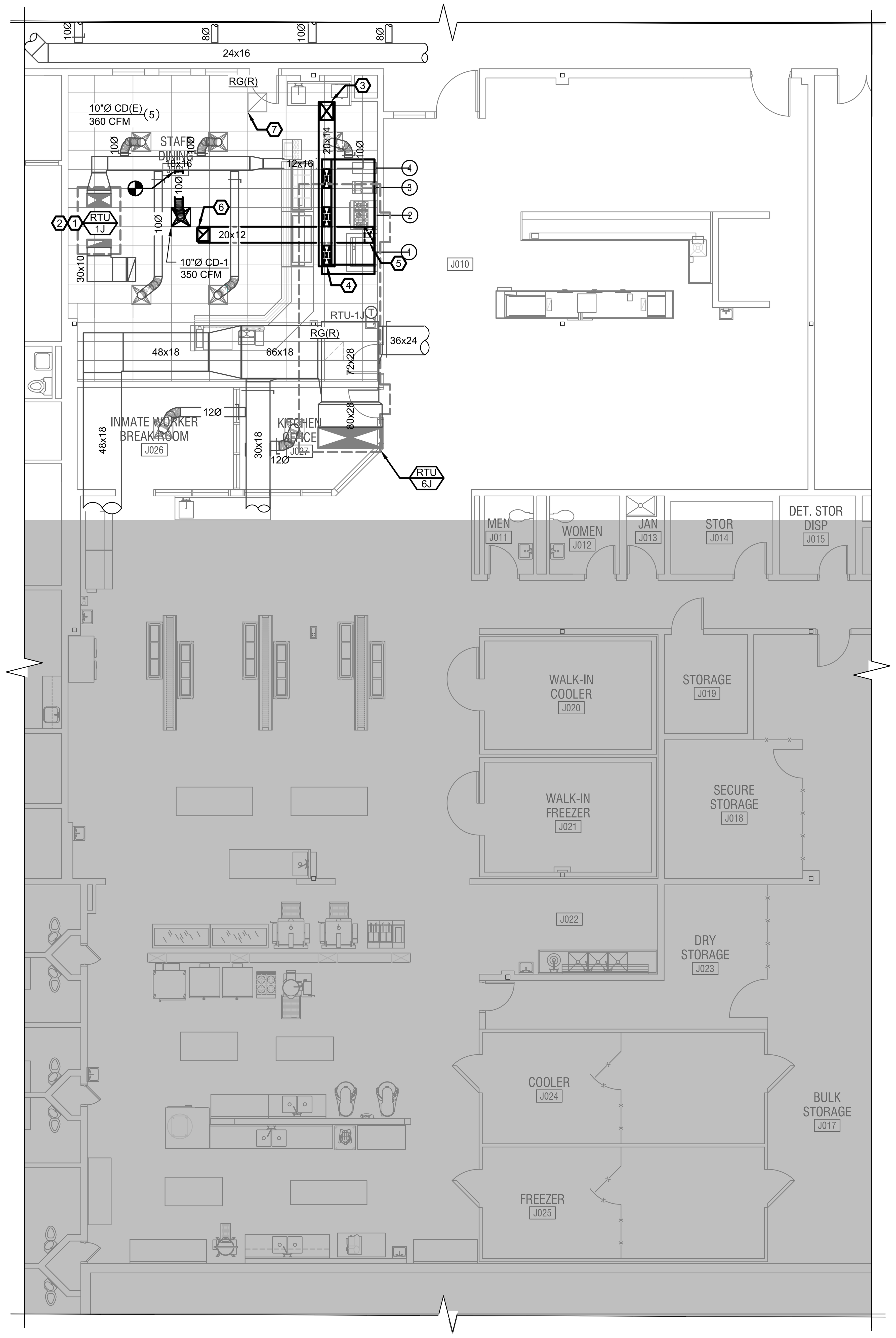
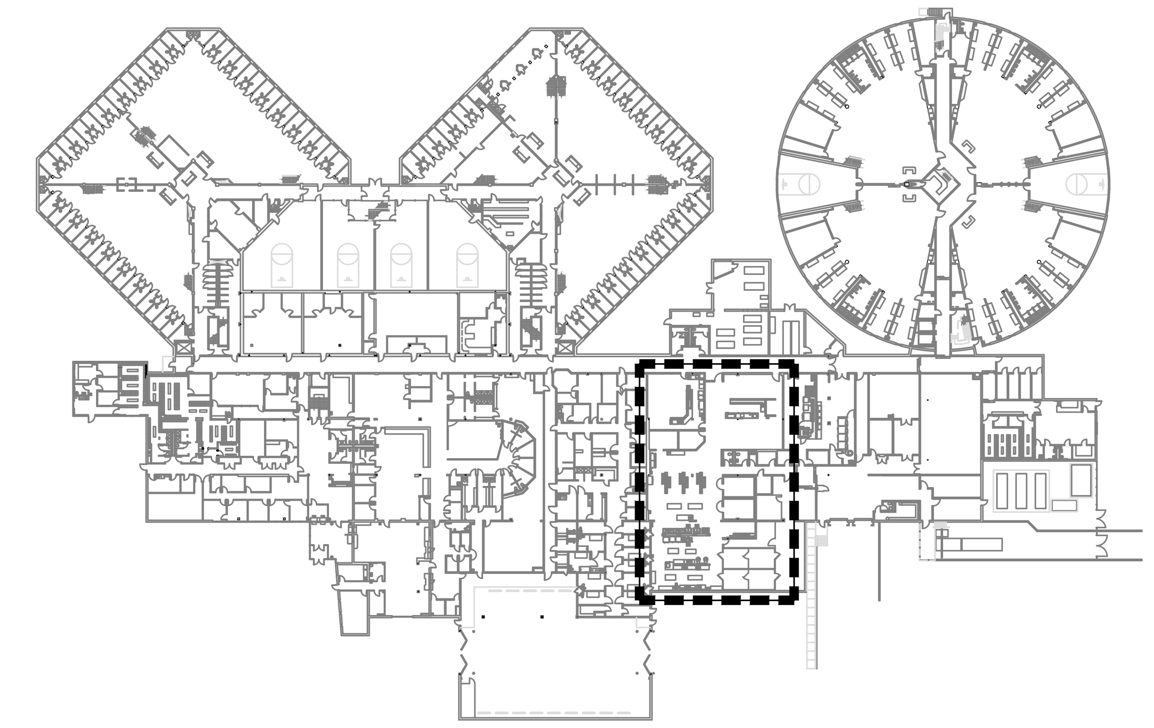


HVAC NEW WORK PLAN

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



KEY MAP

GENERAL NOTES:

ALL PIPING PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED AND PROTECTED BY FIRE RESISTANT CAULKING.

PROVIDE CLEANOUTS WITH FIRE RATED ACCESS PANELS AT ALL 90° TURNS IN GREASE DUCTWORK.

GREASE DUCT SHALL HAVE A CLEARANCE TO COMBUSTIBLE CONSTRUCTION OF NOT LESS THAN 18 INCHES AND SHALL HAVE A CLEARANCE TO NONCOMBUSTIBLE CONSTRUCTION AND GYPSUM WALLBOARD ATTACHED TO NONCOMBUSTIBLE STRUCTURES OF NOT LESS THAN 3 INCHES.

HORIZONTAL GREASE DUCT SHALL BE SLOPED NOT LESS THAN ONE-FOURTH UNIT VERTICAL IN 12 UNITS HORIZONTAL (2% SLOPE) TOWARDS THE HOOD.

SEE GREASE DUCT INSULATION DETAIL ON SHEET M-501 FOR ALL GREASE DUCTWORK.

NEW WORK KEY NOTES:

1. CONTRACTOR TO ADJUST EXISTING RTU OUTSIDE AIR SETTING TO 20%.
2. CONTRACTOR TO INTERLOCK EXISTING RTU WITH KEF-1, MAU-1.
3. 22"x16" SUPPLY DUCT DOWN FROM MAU-1 LOCATED ON ROOF.
4. 8"x24" SUPPLY AIR DUCT DOWN TO KH-2 SUPPLY COLLAR, 667 CFM. (TYPICAL OF 3)
5. 20"x12" GREASE EXHAUST DUCT UP FROM HOOD.
6. 20"x12" GREASE EXHAUST DUCT TRANSITION TO 16"x16" GREASE DUCT AND UP TO KEF-1 ON ROOF. SEE SHEET M-501 FOR GREASE DUCT DETAIL.
7. RELOCATE EXISTING RETURN GRILLE TO NEW LOCATION. (TYPICAL OF 2)

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COLORADO SPRINGS, CO 80903

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TITLE:
HVAC
NEW WORK PLAN

SHEET NO:
M-H-101

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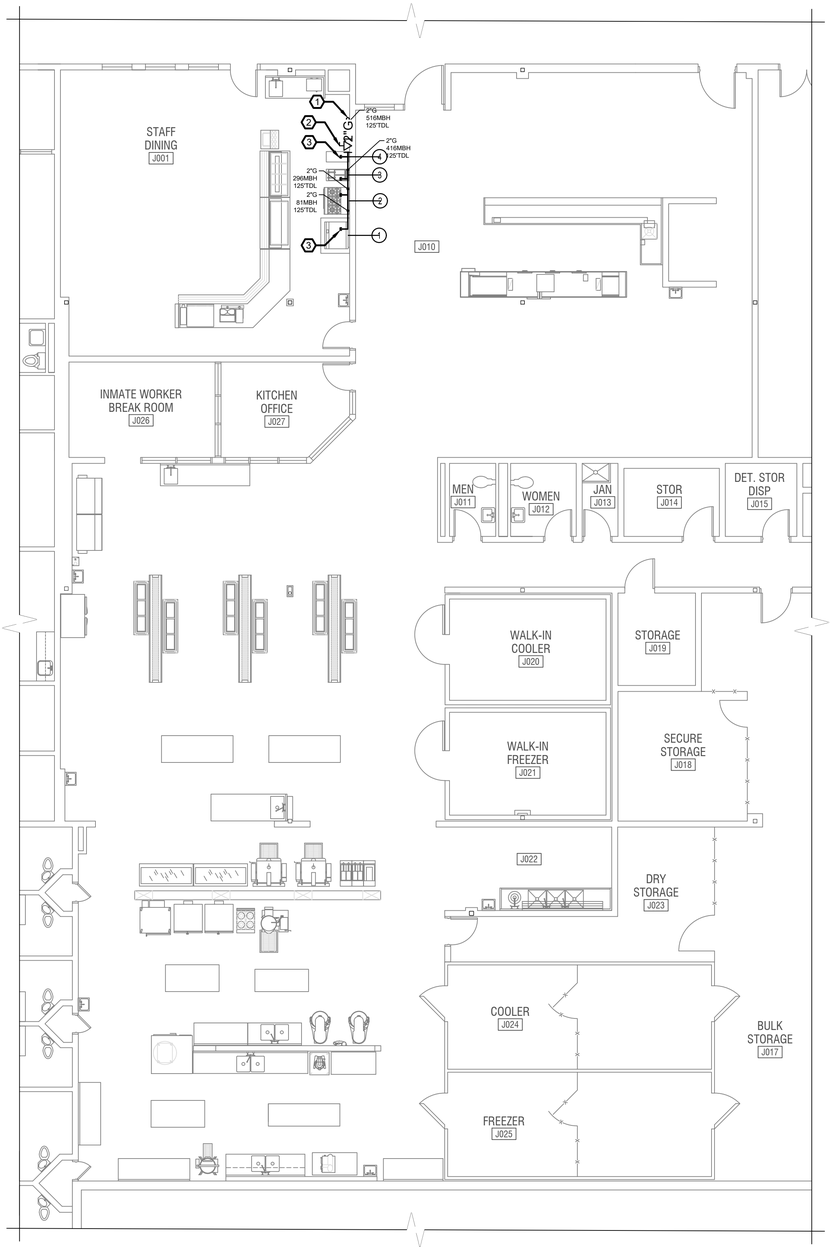
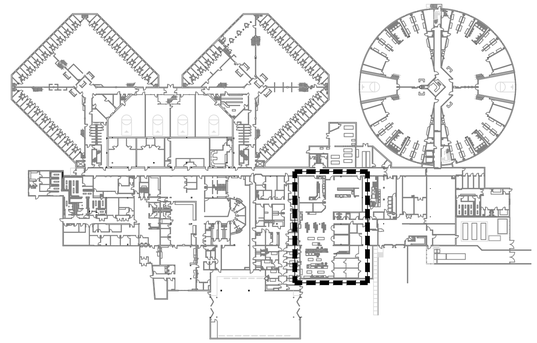


GAS PIPING NEW WORK PLAN

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



KEY MAP

GENERAL NOTES:

ALL PIPING PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED AND PROTECTED BY FIRE RESISTANT CAULKING.

NEW WORK KEY NOTES:

1. 2"G DOWN FROM ROOF SEE ROOFTOP MECHANICAL PLAN ON SHEET M-G-101.R FOR CONTINUATION
2. PROVIDE MECHANICAL SPRING LOADED VALVE. SUPPLIED BY TYPE I GREASE HOOD ANSUL FIRE PROTECTION CONTRACTOR. INSTALLED BY MECHANICAL CONTRACTOR. VALVE TO BE INTERLOCKED WITH KH-1 SYSTEM. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR INTERCONNECTION DIAGRAM.
3. PROVIDE DORMONT SNAPFAST QUICK DISCONNECT ASSEMBLIES (MODEL #1675KIT48) AT EACH KITCHEN EQUIPMENT. SIZE PER EQUIPMENT MANUFACTURER INSTRUCTION, RECOMMENDATIONS AND EQUIPMENT GAS LOAD. SEE SHEET M-601 FOR ADDITIONAL INFORMATION ON KITCHEN EQUIPMENT. (TYPICAL OF 3).
4. PROVIDE FUTURE 1" STUB OUT AND CAP FOR FUTURE EQUIPMENT CONNECTION.

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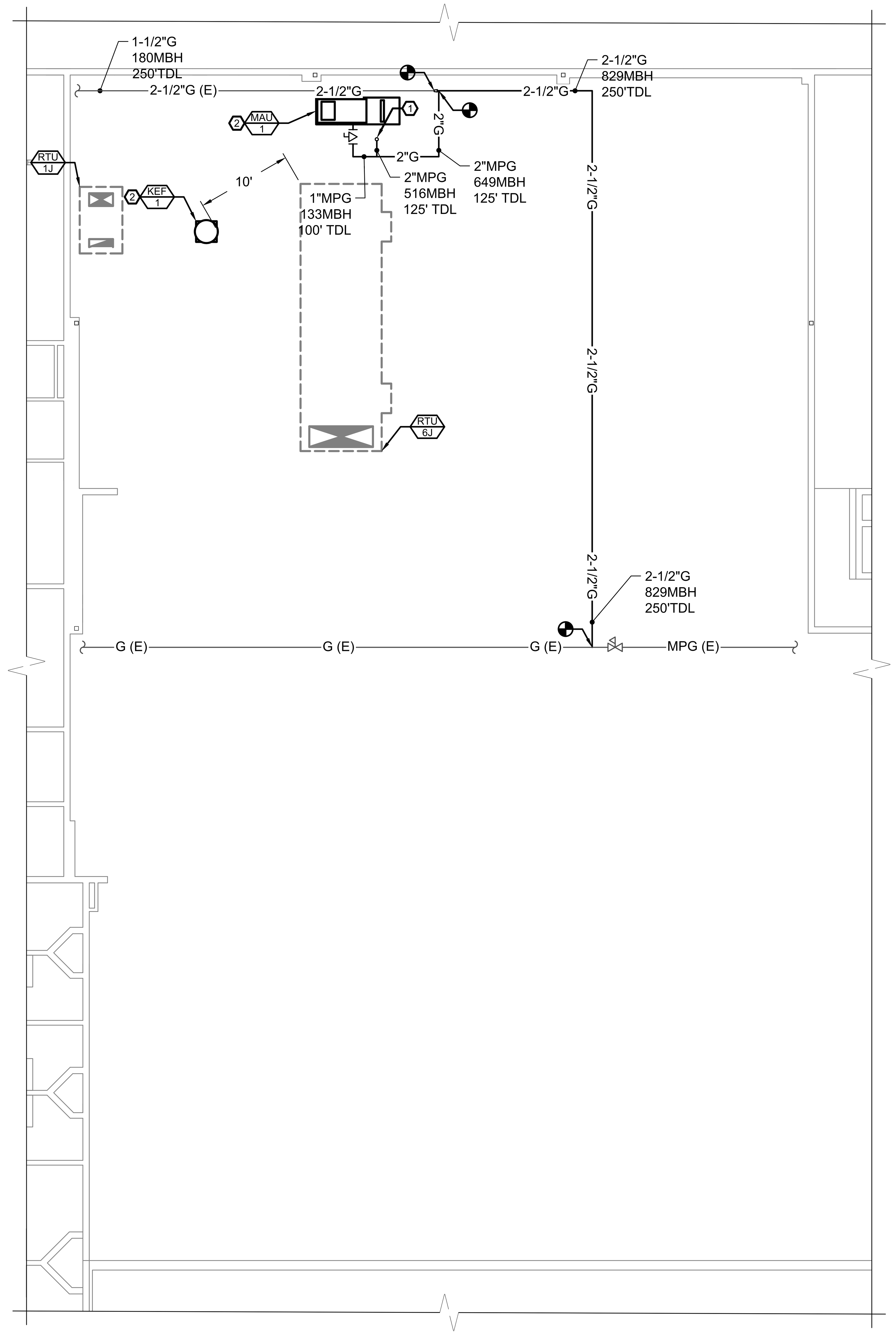
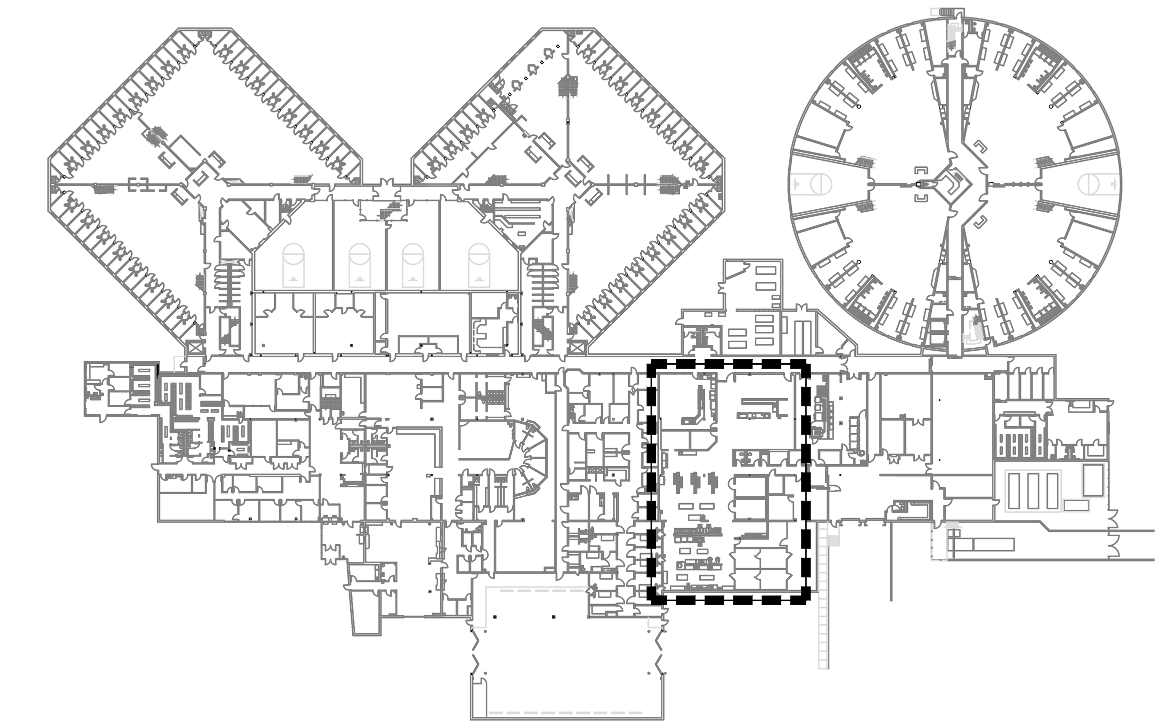


GAS PIPING NEW WORK ROOF PLAN

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



KEY MAP

GENERAL NOTES:

EXISTING CONDITIONS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM LAYOUT SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

NEW WORK KEY NOTES:

1. 2" G DOWN TO COOKLINE. SEE SHEET M-G-101 FOR CONTINUATION.
2. SEE SHEET M-501 FOR ROOF PENETRATION DETAIL.

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FIRE WRAP NOTES:

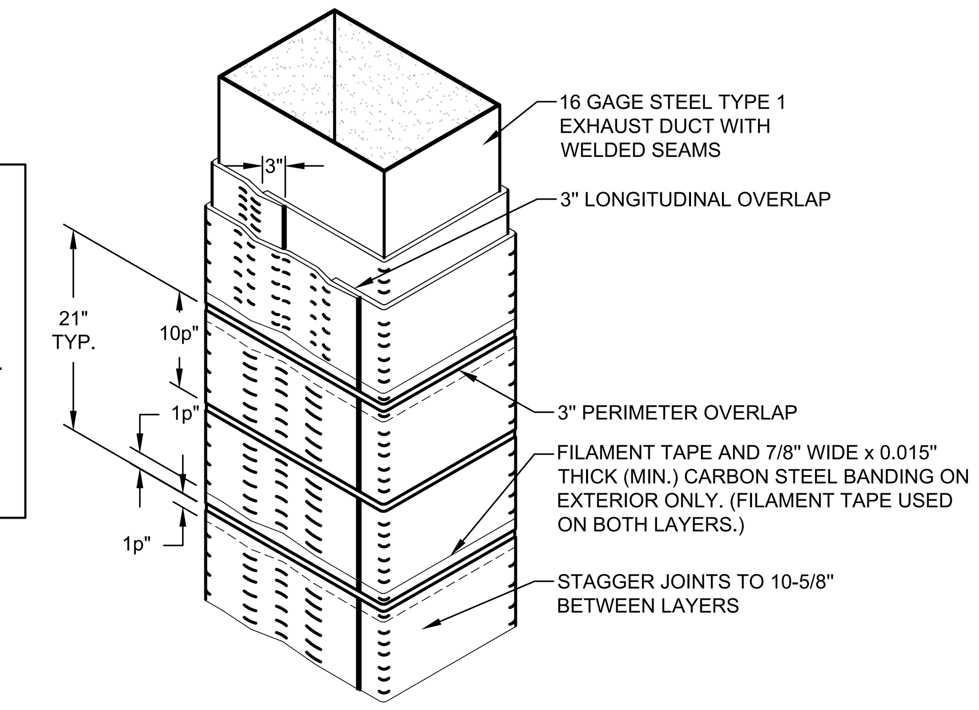
(2) LAYERS "FIREMASTER" FIRE-WRAP, OR APPROVED EQUAL, AS ALLOWED BY CODE.

TO BE RATED FOR (1) HOUR AT 1,000 DEGREES FAHRENHEIT.

TO BE INSTALLED PER MANUFACTURER'S BEST PRACTICES & METHODS.

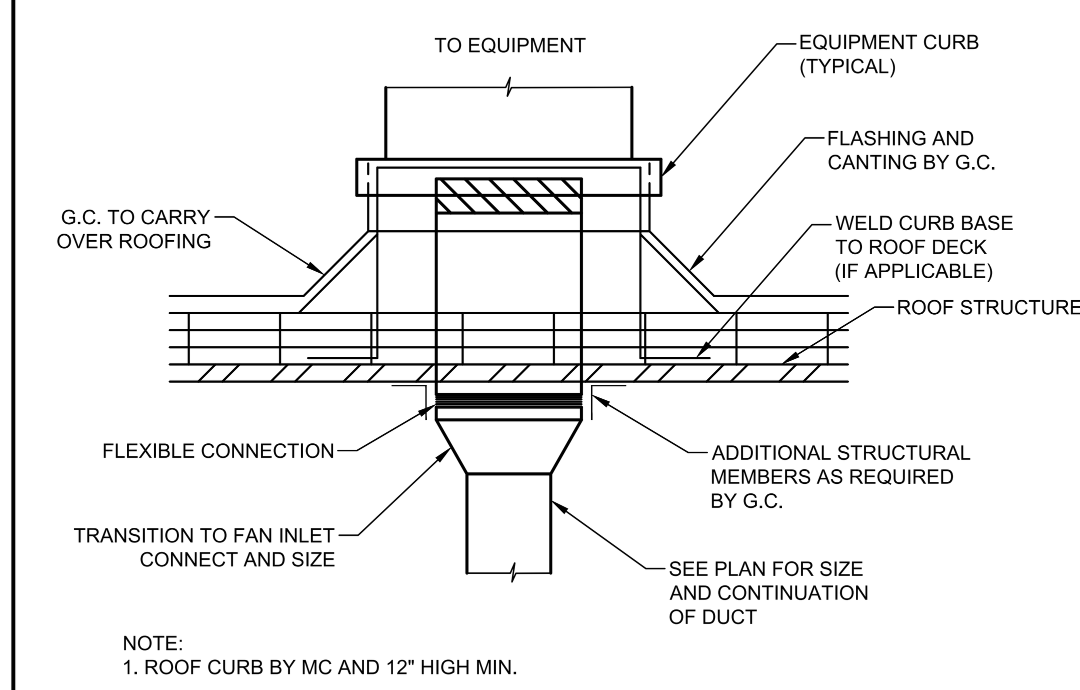
REFER TO MANUFACTURER'S METHODS FOR ACCESS DOOR INSTALLATION.

APPLICABLE LISTINGS: U.L. # 1978, I.C.O.B. # 4975



GREASE DUCT INSULATION DETAIL

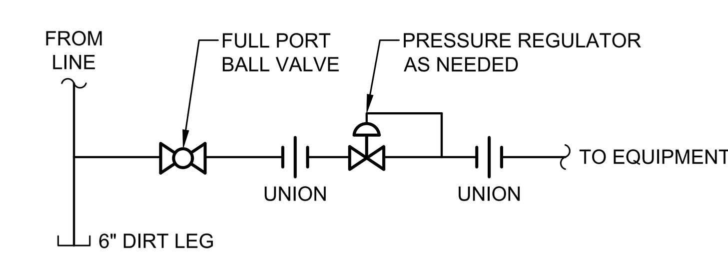
SCALE: NTS



NOTE:
1. ROOF CURB BY MC AND 12" HIGH MIN.

ROOF PENETRATION DETAIL

SCALE: NTS



GAS PIPING CONNECTION DETAIL

SCALE: NTS

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COLORADO SPRINGS, CO 80903

ARCHITECT:

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5156-21-02

TITLE:
DETAILS

SHEET NO:
M-501

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OUTSIDE AIR SCHEDULE

UNIT TAG NO.	MAXIMUM UNIT CFM	OUTSIDE AIR CAPABLE (%)	ROOM	ROOM AREA (SF)	OCCUPANCY CLASSIFICATION	IMC TABLE 403.3.1.1 SUB-NOTE	Ez	OCC.	Rp	Ra	EXHAUST			Pz	Vbz	Voz	EXHAUST CFM DESIGNED PER ROOM	OUTSIDE AIR CFM DESIGNED PER ROOM
							IMC TABLE 403.3.1.1.2 EFFECTIVENESS FACTOR	OCCUPANT DENSITY (# / 1000 SF)	CFM / PERSON	CFM / SF	CONTINUOUS EXHAUST	NUMBER OF FIXTURES	CFM / SF OR CFM / FIXTURE	ZONE POPULATION	BREATHING ZONE CFM	MINIMUM OUTSIDE AIR CFM REQUIRED		
RTU-1J	2150	20%	J001	1028	Kitchens [COOKING]	-	0.8	0	0	0			720	0.0	0	0		430
															SYSTEM TOTAL	0	0	430

KITCHEN EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	QUANTITY	DIMENSIONS	GAS (MBH)	NOTES
(1)	COUNTERTOP GRIDDLE	VULCAN	MSA36	1	36" x 31-1/2" x 15-1/4"	81	1
(2)	6 BURNER RANGE	VULCAN	36S-6BN		36" x 46-1/2" x 58"	215	1
(3)	GAS FLOOR FRYER	VULCAN	1GR45M	1	15-1/2" x 30-1/4" x 47"	120	1
(4)	FUTURE 14" COOKTOP STOVE	FUTURE	FUTURE	1	TBD	100	2

NOTES:

1	CONTRACTOR TO VERIFY FINAL EQUIPMENT SELECTION WITH SPECIFICATIONS IN THIS SCHEDULE AND INFORM ENGINEER OF ANY DISCREPANCIES PRIOR TO ROUGH-INS OR INSTALLATION.
2	EQUIPMENT IS FUTURE AND IS ESTIMATED. OWNER TO NOTIFY ENGINEERING FOR ANALYSIS IF EQUIPMENT SIZE OR GAS LOAD EXCEEDS WHAT IS SHOWN ON THIS SCHEDULE.
3	

EXISTING ROOFTOP UNIT SCHEDULE

MARK	MFR	MODEL #	WEIGHT (LBS)	TONS	INPUT (MBH)	ACFM	O/A	ESP	HP	VOLTS / Ø	MCA	MOCP	ECONOMIZER	SMOKE SHUTDOWN	NOTES
RTU-1J (E)	MCQUAY	LGA088	EXISTING	5.0	N/A	2150	20%	2.0	N/A	480V / 3Ø	EXISTING	EXISTING	EXISTING	EXISTING	1

NOTES:

1	UNIT IS EXISTING. CONTRACTOR TO VERIFY CAPACITY AND CONDITION IS CONSISTENT WITH THE DATA IN THIS SCHEDULE AND NOTIFY ENGINEER OF ANY DISCREPANCIES.
2	

KITCHEN HOOD SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	WEIGHT (LBS)	LENGTH	EXHAUST CFM	SUPPLY CFM	LIGHTING		CONTROL	NOTES
								VOLTS / Ø	WATTS		
KH-1	STAFF DINING RM. KITCHEN HOOD	ACCUREX	XXEW-132-S	418	132"	2500	2000	115V / 1Ø	40	KITCHEN FAN CONTROL CENTER XKC-CV-S-11-1-1-10 (SEE ACCUREX DRAWINGS)	1,2,3

NOTES:

1	HOOD TO BE INTERLOCKED WITH KEF-1, MAU-1, RTU-1J, AND GAS SOLENOID VALVE.
2	ANSUL R102 FIRE SYSTEM
3	BACKSPLASH 122.00 IN HIGH AND 168.00 IN LONG.
4	
5	

KITCHEN AIR BALANCE

MARK	EXHAUST (CFM)	MAKE-UP AIR (CFM)
KEF-1	2500	
MAU-1		2000
RTU-1J		430
TOTAL CFM	2500	2430
NET CFM	70 CFM NEGATIVE (3% NEGATIVE)	

KITCHEN EXHAUST FAN SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	ACFM	VOLTS / Ø	FLA	HP	WEIGHT (LBS)	CONTROL	NOTES
KEF-1	STAFF DINING RM. KITCHEN EXHAUST FAN	ACCUREX	XRUD-160-VG	2500	208V / 1Ø	13.2A	2	122	KITCHEN FAN CONTROL CENTER XKC-CV-S-11-1-1-10 (SEE ACCUREX DRAWINGS)	1, 2

NOTES:

1	KEF-1 TO BE INTERLOCKED WITH MAU-1, KH-1, RTU-1J, AND GAS SOLENOID VALVES.
2	
3	
4	

GAS PIPING MATERIALS SCHEDULE

ALL PIPE AND FITTINGS LISTED ARE ONLY TO BE USED WHERE PERMITTED BY CODE	
1/2" TO 2-1/2"	THREADED BLACK IRON
3" TO 12"	WELDED BLACK IRON

HOT WATER PIPING MATERIALS SCHEDULE

ALL PIPE AND FITTINGS LISTED ARE ONLY TO BE USED WHERE PERMITTED BY CODE	
HEATING WATER	TYPE "L" COPPER PIPING, WITH SOLDERED OR BRAZED FITTINGS WITH BALL VALVES FOR SHUTOFF AND FLOW CONTROL.
	ALTERNATE: PEX-A WITH OXYGEN BARRIER, COLD-EXPANSION FITTINGS, AND GALVANIZED STEEL PIPE SUPPORTS
INSULATION	1-1/2" THICK CLOSED CELL FOAM (INTERIOR PIPING)

MAKE-UP AIR UNIT SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	WEIGHT (LBS)	SUPPLY FAN					HEATING		EVAPORATIVE COOLING		CONTROL	NOTES
					ACFM	ESP	VOLTS / Ø	MCA	MOCP	MBH	TEMP. RISE	ENTERING DB TEMP.	LEAVING DB TEMP.		
MAU-1	MAKE-UP AIR UNIT	ACCUREX	XDGX-P112-H12-MF	779	2000	1.43"	208V / 3Ø	9.7A	15A	132.1	70°F	90.3°F	63.3°F	KITCHEN FAN CONTROL CENTER XKC-CV-S-11-1-1-0 (SEE ACCUREX DRAWINGS)	1, 2, 3, 4

NOTES:

1	MAKE-UP AIR UNIT IS INTERLOCKED WITH KH-1, KEF-1, RTU-1J, AND GAS SOLENOID VALVE.
2	INLET BACKDRAFT DAMPER.
3	PROVIDED WITH ROOF CURB.
4	FREEZE PROTECTION DRAIN KIT FOR EVAPORATIVE COOLERS
5	COMMERCIAL SMOKE DETECTOR/ALARM INTERLOCK (SUPPLIED BY OTHERS)

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AARON IVAN SPRINGFIELD
0051275
10-26-2021
EXP 10/31/21

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CLIENT:
EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
SCHEDULES AND CALCULATIONS

SHEET NO:
M-601

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GENERAL NOTES

1. CONTRACTOR SHALL VERIFY DIMENSIONS IN FIELD PRIOR TO PROCEEDING WITH ANY WORK.
2. THESE DOCUMENTS HAVE BEEN PRODUCED TO THE BEST OF THE ENGINEER'S ABILITY FROM AVAILABLE EXISTING INFORMATION AND/OR SURVEY OF FIELD CONDITIONS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTING FIELD CONDITIONS PRIOR TO BID AND PROVIDE A WRITTEN SUBMITTAL TO ENGINEER IDENTIFYING ANY DISCREPANCIES OR VARIANCES FOUND. THE SUBMITTAL MUST ALSO INCLUDE ANY COSTS REQUIRED FOR THE CONTRACTOR'S WORK TO MEET EXISTING CONDITIONS.
3. ALL WORK SHALL BE PERFORMED WITH QUALITY WORKMANSHIP, TO THE APPROVAL AND SATISFACTION OF THE ENGINEER.
4. ALL WORK, MATERIAL AND INSTALLATION SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES AND ORDINANCES.
5. **CONTRACTOR TO VERIFY ANY CHANGES TO THIS SCOPE OF WORK WITH ENGINEER PRIOR TO ROUGH-IN OR INSTALLATION.**

POST CONSTRUCTION PHASE GENERAL NOTES

CONTRACTOR SHALL PROVIDE RECORD DRAWINGS TO ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, ACCEPTED REQUESTS FOR INFORMATION (RFI'S), CHANGE ORDERS, ALTERATIONS, REROUTING, FIELD SKETCHES, MARK-UPS, ETC.

SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.

CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS OR EQUIPMENT.

SYSTEMS AND THEIR COMPONENTS SHALL BE COMPLETE, OPERABLE AND READY FOR CONTINUOUS OPERATION.

SCOPE

THE SCOPE OF WORK COVERED HEREIN CONSISTS OF FURNISHING ALL LABOR, MATERIALS, NECESSARY EQUIPMENT, AND SERVICES TO COMPLETE THE DESIGN AND RELATED WORK IN FULL ACCORDANCE WITH THESE DRAWINGS, AS SPECIFIED HEREIN, OR BOTH, AND IS SUBJECT TO THE TERMS AND CONDITIONS OF THE CONTRACT.

CODES, RULES, PERMITS, AND FEES

THE CONTRACTOR (MECHANICAL, ELECTRICAL AND PLUMBING) IS GENERALLY RESPONSIBLE TO ENSURE ALL WORK, BOTH OLD AND NEW, COMPLIES WITH THE APPLICABLE CODE (SPECIFIED BY THE JURISDICTION IN WHICH THE WORK IS BEING COMPLETED) AS WELL AS ANY APPLICABLE LOCAL CODES, STATE CODES, ADDENDUMS, AND ORDINANCES.

SHOP DRAWINGS

SHOP DRAWINGS FOR MATERIALS OR PRODUCTS SPECIFIED HEREIN AND/OR INDICATED ON DRAWINGS BY TRADE NAME, MANUFACTURER'S NAME OR CATALOG NUMBER SHALL BE PROVIDED AS SPECIFIED.

SUBSTITUTIONS FOR EQUIPMENT SPECIFIED IN THIS SCOPE OF WORK MUST BE SUBMITTED TO ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.

COOPERATION WITH OTHER TRADES

THE SUBCONTRACTOR SHALL GIVE FULL COOPERATION TO OTHER TRADES AND SHALL FURNISH, IN WRITING, TO THE CONTRACTOR, WITH COPIES TO THE ENGINEER (OR ARCHITECT), ANY INFORMATION NECESSARY TO PERMIT THE WORK OF ALL TRADES TO BE INSTALLED SATISFACTORILY AND WITH THE LEAST POSSIBLE INTERFERENCE OR DELAY. COORDINATE ALL INFORMATION ON EQUIPMENT FURNISHED BY OTHERS BEFORE BEGINNING INSTALLATION.

CUTTING, PATCHING AND FINISHING

UNLESS NOTED OTHERWISE THE CONTRACTOR SHALL DO ALL CUTTING, DRILLING, ETC. REQUIRED FOR WORK UNDER THIS SECTION OF THE SPECIFICATION, INSIDE THE BUILDING.

MATERIAL AND WORKMANSHIP

ALL MATERIALS AND APPARATUS REQUIRED FOR THE WORK SHALL BE NEW UNLESS INDICATED OTHERWISE IN THE PLANS.

RECORD DRAWINGS

THE CONTRACTOR SHALL KEEP ACCURATE RECORDS OF CHANGES OR ALTERATIONS DURING THE ACTUAL CONSTRUCTION PROCESS IF DIFFERENT FROM THE PLANS.

THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A REPRODUCIBLE SET OF PLANS FOR EACH DISCIPLINE OF THE COMPLETE INSTALLATION ALONG WITH FIRE ALARM SYSTEM, AS INSTALLED. THE SCALE ON THESE DRAWINGS SHALL BE NO SMALLER THAN THE SCALE USED ON THE ORIGINAL PLANS.

TESTING

FINAL TESTS SHALL BE MADE ONLY AFTER THE ENGINEER IS SATISFIED THAT ALL WORK HAS BEEN COMPLETED.

FINAL ACCEPTANCE

AFTER TESTING, A FINAL INSPECTION SHALL BE MADE BY THE ENGINEER AND OTHER AUTHORIZED PERSONS WITH THE CONTRACTOR.

FINAL ACCEPTANCE OF THE PROJECT SHALL NOT SUPERSEDE THE OWNER'S RIGHT TO REQUIRE REPLACEMENT AND/OR REPAIR ANY DEFECTIVE WORK OR MATERIALS.

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL EQUIPMENT SHALL BE U.L. LISTED. ALL EQUIPMENT SHALL BE INSTALLED PER U.L. REQUIREMENTS.
2. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS, SPLICES, AND INSPECTIONS.
3. ELECTRICAL CONTRACTOR SHALL SUBMIT ELECTRONIC COPIES OF ALL ELECTRICAL EQUIPMENT AND LIGHT FIXTURES TO ENGINEERING THROUGH THE GENERAL CONTRACTOR FOR APPROVAL PRIOR TO ORDERING.
4. FOR ALL EQUIPMENT IDENTIFIED AS PROVIDED BY OTHERS, THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO ROUGH-IN.
5. ALL WIRE SHALL BE THWN/THHW, 75 DEGREE CELSIUS RATED FOR GENERAL USE UNLESS NOTED OTHERWISE.
6. MINIMUM WIRE SIZE SHALL BE #12 AWG UNLESS NOTED OTHERWISE.
7. ALL WIRE SIZES INDICATED ARE FOR INSTALLATION IN A MAXIMUM OF 30-DEGREE CELSIUS AMBIENT. CONDUCTOR AMPACITY SHALL BE DERATED FOR HIGHER AMBIENT INSTALLATION. CONTRACTOR SHALL COORDINATE WIRE SIZE ADJUSTMENT IN AMBIENT TEMPERATURES HIGHER THAN 30-DEGREE CELSIUS.
8. WIRE TERMINATION PROVISIONS FOR PANEL BOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES AND ALL OTHER ELECTRICAL APPARATUS SHALL BE LISTED SUITABLE FOR AT A MINIMUM 75-DEGREE CELSIUS.
9. PROVIDE MAINTENANCE RECEPTACLES WITHIN 25' OF ALL MECHANICAL, MOTORIZED OR ROOFTOP MOUNTED EQUIPMENT.
10. RECEPTACLES INSTALLED OUTSIDE, ON BUILDING EXTERIOR, ON THE ROOF, WITHIN 6' OF ANY SINK (OR WATER SOURCE CONNECTION), VENDING MACHINES, BATHROOM, AND KITCHEN AREAS SHALL BE GFCI TYPE OR PROTECTED BY GFCI CIRCUIT BREAKERS PER NEC.
11. CONNECTION AND ROUGH-IN REQUIREMENTS TO EQUIPMENT SHALL BE PER MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH VENDOR'S EQUIPMENT SPECIFIED.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT, WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING, PROVIDED UNDER THIS SECTION OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SCOPE OF WORK.
13. CONTRACTOR SHALL PROVIDE FINAL CONNECTIONS TO ANY EQUIPMENT FURNISHED AND PROVIDED BY OWNER. EXACT LOCATION OF EQUIPMENT SHALL BE VERIFIED PRIOR TO ROUGH-IN.
14. ALL NEW EQUIPMENT SUCH AS SWITCHBOARDS, DISTRIBUTION BOARDS, DISCONNECT SWITCHES, TRANSFORMERS AND PANEL-BOARDS SHALL BE BY THE SAME MANUFACTURER UNLESS APPROVED BY ENGINEERING.
15. COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATIONS OF MECHANICAL EQUIPMENT. SHOULD MECHANICAL EQUIPMENT LOCATIONS DIFFER FROM THOSE SHOWN ON ELECTRICAL DRAWINGS, MECHANICAL DRAWINGS SHALL GOVERN. ENGINEER SHALL BE NOTIFIED OF ANY NECESSARY ADJUSTMENTS THEREIN.
16. PROVIDE FUSES OR HACR TYPE CIRCUIT BREAKERS FOR ALL AIR CONDITIONING EQUIPMENT. FUSES AND BREAKERS FOR AIR CONDITIONING EQUIPMENT SHALL BE SIZED IN ACCORDANCE WITH MANUFACTURERS NAMEPLATE. CONTRACTOR SHALL IDENTIFY AND CONTACT ENGINEERING UPON ANY DISCREPANCIES.
17. ALL MECHANICAL EQUIPMENT SHALL BE FURNISHED WITH FUSIBLE DISCONNECTS. THE DISCONNECTS SHALL USE CLASS "R" TYPE FUSES UNLESS NOTED OTHERWISE.
18. FOR ALL MULTI-WIRED BRANCH CIRCUITS, HANDLE TIES SHALL BE PROVIDED. HANDLE TIES SHALL BE REQUIRED IF INDIVIDUAL NEUTRAL CONDUCTORS ARE PROVIDED PER NEC 210.4(B).
19. SHARED NEUTRALS AND TIE-HANDLES FOR BREAKERS SHALL NOT BE ALLOWED UNLESS APPROVED BY ENGINEERING.
20. ALL PANEL DIRECTORIES SHALL BE PROTECTED AND INSTALLED UNDER CLEAR PLASTIC COVERS.
21. ALL POWER TYPE ELECTRICAL EQUIPMENT (I.E. PANEL-BOARDS, SWITCHES, SWITCHBOARDS, ETC.) SHALL BE PROVIDED WITH ENGRAVED NAMEPLATES INDICATING EQUIPMENT DESIGNATION, EQUIPMENT SERVED, SIZE, AND VOLTAGE. NAMEPLATES SHALL BE FASTENED PERMANENTLY WITH ADHESIVE OR MECHANICAL CONNECTION.
22. ALL WIRING SHALL BE INSTALLED IN LISTED METALLIC RACEWAYS UNLESS NOTED OTHERWISE.
23. CONDUIT SHALL BE A MINIMUM OF ¾" UNLESS APPROVED BY ENGINEERING.
24. ALL CIRCUITS SHALL HAVE A CODE SIZED COPPER GROUNDING CONDUCTOR. THE CONDUIT SIZE SHALL BE INCREASED AS REQUIRED.
25. PIPES PASSING THROUGH 1 HOUR FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH U.L. LISTED MATERIAL 2M FIRE BARRIER, CAULK OR PUTTY OR ENGINEERING APPROVED EQUAL.
26. ALL SPLICES OR CONNECTIONS SHALL BE MADE IN OUTLET BOXES, JUNCTION BOXES OR EQUIPMENT, WHERE ACCESSIBLE.

PANEL BOARDS

PANELS SHALL BE OF SIZES, RATINGS, AND REQUIREMENTS SHOWN ON THE PLANS. PANELS SHALL BE OF DEAD FRONT CONSTRUCTION.

ALL BUSSING SHALL BE AS SPECIFIED ON PANEL SCHEDULES.

MULTI-POLE BREAKERS SHALL HAVE A SINGLE HANDLE TO TRIP ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY.

PANEL-BOARD CIRCUIT DIRECTORY SHALL BE UPDATED WITH CURRENT WORK SHOWN IN FINAL REVISIONS OF DRAWINGS.

LIGHTING

ALL LIGHTING SHALL BE LISTED BY A RECOGNIZED TESTING LAB (I.E. UL, ETC.)

LUMINAIRES IN CONTACT WITH INSULATION SHALL BE U.L. LISTED FOR THERMAL BARRIER OR PROVIDED WITH 3-INCH MINIMUM CLEARANCE.

CONTRACTOR TO ENSURE THAT ALL LIGHTING EXPOSED TO THE PLENUM IS PLENUM RATED.

GROUNDING

PROVIDE A COMPLETE GROUNDING NETWORK FOR THE ENTIRE ELECTRICAL SYSTEM TO COMPLY WITH NEC REQUIREMENTS.

ALL CONDUITS SHALL HAVE A GROUND WIRE INSTALLED.

A CONDUIT GROUND SHALL NOT BE USED, UNLESS APPROVED BY ENGINEER.

BOND SERVICE ENTRANCE GROUND TO BUILDING STEEL, METAL WATER MAINS, MODE ELECTRODES, ETC.

DISCONNECT SWITCHES

EQUIPMENT DISCONNECT SWITCHES SHALL BE GENERAL DUTY, OR HEAVY DUTY OF THE TYPE AND RATING SHOWN ON THE PLANS. FUSES SHALL BE PROVIDED OF THE APPROPRIATE TYPE AND RATING FOR THE EQUIPMENT TO BE SERVED.

EQUIPMENT PROVIDED BY OTHERS

E.C. SHALL PROVIDE CONDUIT, WIRE AND DISCONNECT SWITCHES INDICATED ON DRAWINGS, TO CONNECT ELECTRICAL EQUIPMENT SUPPLIED BY OTHERS, WHICH SHALL INCLUDE BOTH NEW, AND RELOCATION OF EXISTING EQUIPMENT. ALL FINAL ELECTRICAL CONNECTIONS ARE TO BE BY ELECTRICAL CONTRACTOR.

CONDUCTORS

CONDUCTORS - ALL CONDUCTORS SHALL BE RATED 600V, COPPER, TYPE THWN/THHW OR APPROVED BY ENGINEER. CONDUCTORS OF #8 AWG AND LARGER SHALL BE STRANDED.

CONDUCTORS SHALL BE PULLED WITHOUT THE USE OF OIL OR GREASE. WIRE PULLING LUBRICANTS WHICH ARE APPROVED FOR USE WITH CONDUCTOR INSULATION MAY BE USED. CARE SHALL BE TAKEN IN PULLING WIRE TO ASSURE THAT MAXIMUM ALLOWABLE PULLING TENSION OF WIRE IS NOT EXCEEDED. WIRING WITH DAMAGED CONDUCTORS OR INSULATION WILL NOT BE ACCEPTED.

CONDUIT

CONDUIT SHALL BE EMT, GRC, PVC (SCH 40 OR SCH 80), LIQUID TIGHT METAL FLEXIBLE, OR METAL FLEXIBLE OR APPROVED BY THE ENGINEER.

FLEX SHALL BE USED FOR CONNECTION TO ALL FIXED EQUIPMENT, EXCEPT IN DAMP OR WET LOCATIONS, WHERE LIQUID TIGHT METAL FLEXIBLE SHALL BE USED.

INSULATING BUSHINGS WITH DOUBLE LOCK-NUTS SHALL BE USED FOR ENTRANCES OF 1-1/4" OR LARGER INTO ENCLOSURES.

SIZES INDICATED ARE MINIMUMS; LARGER SIZES MAY BE USED TO FACILITATE WIRE PULLING, ETC.

ICC/ANSI A117.1-2009

MOUNTING HEIGHT OF ALL EXISTING AND NEW ELECTRICAL RECEPTACLES, SWITCHES AND CONTROLS SHALL COMPLY WITH ICC/ANSI A117.1-2009.

PER SECTION 308.2 FORWARD REACH

UNOBSTRUCTED - MINIMUM OF 15 INCHES AND A MAXIMUM OF 48 INCH ABOVE FINISHED FLOOR.

OBSTRUCTED - WHERE OBSTRUCTION IS 20 INCHES MAX A MAXIMUM OF 48 INCHES ABOVE FINISHED FLOOR. WHERE OBSTRUCTION EXCEEDS 20 INCHES A MAXIMUM OF 44 INCHES ABOVE FINISHED FLOOR.

PER SECTION 308.3 SIDE REACH

UNOBSTRUCTED - MINIMUM OF 15 INCHES AND A MAXIMUM OF 48 INCHES ABOVE FINISHED FLOOR.

CODES

WHERE APPLICABLE, THE GUIDANCE SET FORTH IN THE 2015 IECC CODE SHALL GOVERN THE SCOPE OF WORK UNDER THIS CONTRACT. THE CODE SECTIONS RELATING TO THE ELECTRICAL SCOPE OF WORK INCLUDE, BUT ARE NOT LIMITED TO:

SECTION 303 - MATERIALS, SYSTEMS AND EQUIPMENT
- SECTION 303.3 - MAINTENANCE INFORMATION

SECTION 402 - BUILDING ENVELOPE REQUIREMENTS
- SECTION 402.1 - GENERAL (PRESCRIPTIVE)
- SECTION 402.4 - FENESTRATION
- SECTION 402.5 - AIR LEAKAGE - THERMAL ENVELOPE

SECTION 405 - ELECTRICAL POWER AND LIGHTING SYSTEMS
- SECTION 405.2 - LIGHTING CONTROLS
- SECTION 405.3 - EXIST SIGNS
- SECTION 405.4 - INTERIOR LIGHTING POWER REQUIREMENTS
- SECTION 405.5 - EXTERIOR LIGHTING
- SECTION 405.6 - ELECTRICAL ENERGY CONSUMPTION
- SECTION 405.7 - ELECTRICAL TRANSFORMERS
- SECTION 405.8 - ELECTRICAL MOTORS

SECTION 406 - ADDITIONAL EFFICIENCY PACKAGE OPTIONS
- SECTION 406.1 - REQUIREMENTS
- SECTION 406.3 - REDUCED LIGHTING POWER DENSITY
- SECTION 406.4 - ENHANCED DIGITAL LIGHTING CONTROLS
- SECTION 406.5 - ON-SITE RENEWABLE ENERGY

SECTION 407 - TOTAL BUILDING PERFORMANCE

SECTION 408 - SYSTEM COMMISSIONING
- SECTION 408.1 - GENERAL
- SECTION 408.3 - LIGHTING SYSTEM FUNCTIONAL TESTING

SECTION 501 - GENERAL

SECTION 502 - ADDITIONS

SECTION 503 - ALTERATIONS
- SECTION 503.1 - GENERAL
- SECTION 503.6 - LIGHTING SYSTEMS

SECTION 504 - REPAIRS
- SECTION 504.1 - GENERAL
- SECTION 504.2 - APPLICATION

SECTION 505 - CHANGE OF OCCUPANCY OR USE

LEGEND AND SYMBOLS

LIGHTING

(FLUSH MOUNT) (SURFACE MOUNT)

- 2'x4' TROFFER
- 2'x2' TROFFER
- 1'x4' TROFFER
- CAN FIXTURE
- SCONCE FIXTURE
- WALL MOUNTED FIXTURE
- TRACK LIGHTING
- OCCUPANCY SENSOR
- PHOTOCELL SWITCH
- EXIT SIGN (WITH BATTERY BACKUP - 1 HR)
- FROGEYE EMERGENCY FIXTURE (WITH BATTERY BACKUP - 1 HR)
- CIRCUIT HOME-RUN
- INDICATES MULTIPLE CIRCUITS IN ONE CONDUIT
- SWITCH, * = *4: FOUR-WAY, 3: THREE-WAY, OS: OCCUPANCY SENSOR, VS: VACANCY SENSOR, D: DIMMER*

POWER

- RECEPTACLE, * = *G: GFCI, W: WEATHER-PROOF, AC: ABOVE COUNTER, IG: ISOLATED GROUND*
- RECEPTACLE, QUAD
- RECEPTACLE, TAMPER-PROOF
- RECEPTACLE, SPECIAL
- RECEPTACLE, HALF-SWITCH
- RECEPTACLE, * = *C: CEILING, F: FLOOR*
- RECEPTACLE, SPECIAL
- JUNCTION BOX, TYPICAL
- JUNCTION BOX, SPECIAL
- CIRCUIT HOME-RUN
- INDICATES MULTIPLE CIRCUITS IN ONE CONDUIT
- PANEL, NEW
- PANEL, EXISTING
- METER

FIRE/ALARM

- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- SMOKE/CARBON MONOXIDE COMBINATION DETECTOR
- FIRE PULL LEVER
- FIRE HORN
- FIRE HORN AND SPEAKER

COMMUNICATIONS

- CATV OUTLET (ROUGH-IN)
- TELEPHONE OUTLET (ROUGH-IN)
- DATA OUTLET (ROUGH-IN)
- TELEPHONE/DATA COMBINATION OUTLET (ROUGH-IN)

SINGLE-LINE DIAGRAM

- SOURCE TIE-IN
- METER
- MOTOR
- WEATHERHEAD
- SERVICE ENTRANCE GROUND
- GROUND
- CURRENT TRANSFORMER (CT)
- SHORT CIRCUIT
- DISCONNECT SWITCH
- FUSE
- BREAKER
- BUS DUCT
- STARTER (VENDOR PROVIDED, SPECIFIED)

FACILITY GENERATOR

TRANSFER SWITCH

GENERATOR

CURRENT TRANSFORMER (CT) CABINET

TRANSFORMER

GENERAL

- KEY NOTE
- FEEDER TAG
- GENERAL EQUIPMENT TAG
- M/E/P EQUIPMENT TAG
- POINT OF CONNECTION
- NOT IN CONTRACT
- DEMOLITION

ABBREVIATIONS

GENERAL

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AG	ABOVE GRADE
DN	DOWN
EC	ELECTRICAL CONTRACTOR
GC	GENERAL CONTRACTOR
MC	MECHANICAL CONTRACTOR
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
POC	POINT OF CONNECTION
QTY	QUANTITY
TCC	TEMPERATURE CONTROL CONTRACTOR
W/	WITH
W/O	WITHOUT
WO	WALL OPENING (ABOVE CEILING)

SCOPE

(E)	EXISTING
(N)	NEW
(R)	RELOCATED
(V)	VENDOR

ELECTRICAL

FLA	FULL LOAD AMPS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
MCA	MINIMUM CURRENT AMPACITY
MOCP	MAXIMUM OVER-CURRENT PROTECTION
OS	OCCUPANCY SENSOR
TTB	TELEPHONE TERMINATION BLOCK
W	WEATHERPROOF

SHEET NOMENCLATURE

X - X - # # # . X

LEVEL 1 DESIGNATION
- M MECHANICAL
- E ELECTRICAL
- P PLUMBING
- MD MECH. DEMOLITION
- ED ELEC. DEMOLITION
- PD PLUM. DEMOLITION

LEVEL 2 DESIGNATION *
* MAY NOT APPLY FOR COMBINED SHEETS
- H HVAC
- G GAS
- D PROCESS
- P POWER
- L LIGHTING
- W WATER
- S SANITARY (WASTE)

SHEET TYPE DESIGNATION
- 0 GENERAL
- 1 PLANS
- 2 ELEVATIONS
- 3 SECTIONS
- 4 LARGE SCALE PLANS
- 5 DETAILS
- 6 SCHEDULES & CALCULATIONS
- 7 DIAGRAMS
- 8 < NOT USED >
- 9 ISOMETRICS

SHEET NUMBER
01 - 99

SUPPLEMENTAL
- 1 - 9 FLOORS
- B BASEMENT
- M MEZZANINE
- R ROOF

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2739 E. LAS VEGAS ST.
COLORADO SPRINGS, CO 80906

REV	DESCRIPTION	DRAWN	CHECK	APPR	DATE

ISSUANCE: **ISSUED FOR PERMIT**

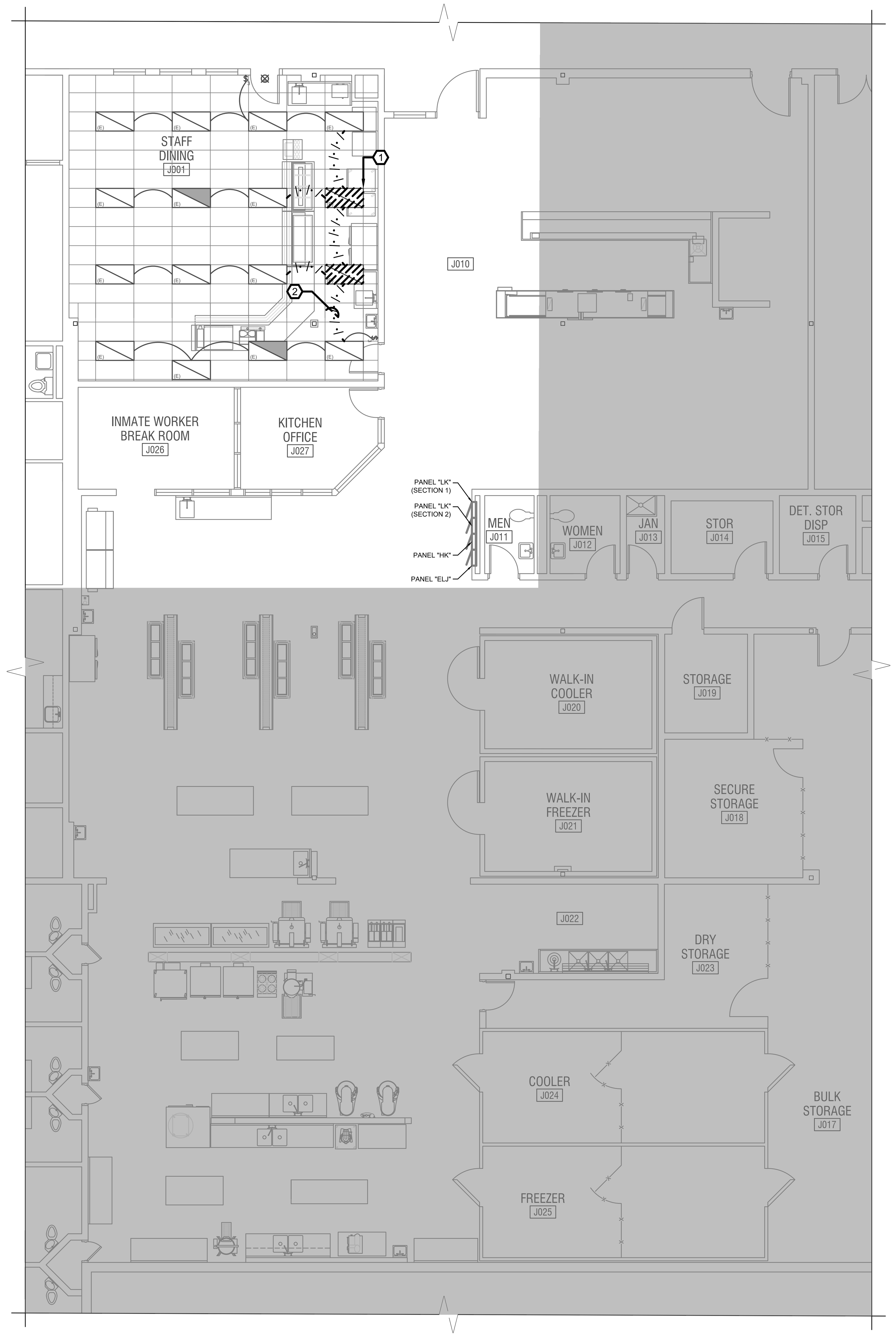
CLIENT: EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

ARCHITECT:

PROJECT NO: 5156-21-02

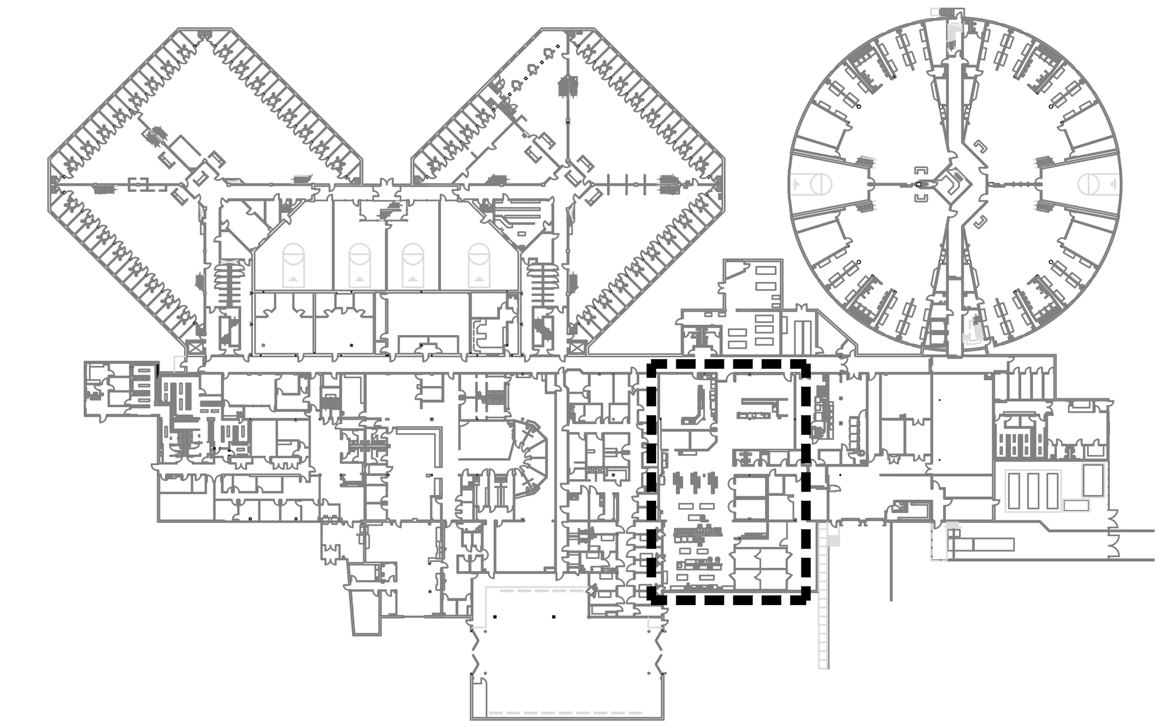
TITLE: LEGEND, NOTES AND SPECIFICATIONS

SHEET NO: E-001



LIGHTING DEMOLITION PLAN

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



KEY MAP

GENERAL NOTES:

EXISTING CONDITIONS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM LAYOUT SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

DEMOLITION KEY NOTES:

1. CONTRACTOR TO REMOVE EXISTING LIGHTS IN THEIR ENTIRETY. LIGHTS TO BE RETURNED TO OWNER. (TYPICAL OF 2)
2. CONTRACTOR TO REMOVE ALL SWITCH AND POWER LEGS TO ALL LIGHTS TO BE REMOVED. CONTRACTOR TO ENSURE CONTINUITY AND OPERATION OF ALL REMAINING LIGHTS ON CIRCUIT AND SWITCH.

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ARCHITECT:

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5156-21-02

TITLE:
LIGHTING DEMOLITION PLAN

SHEET NO:
ED-L-101

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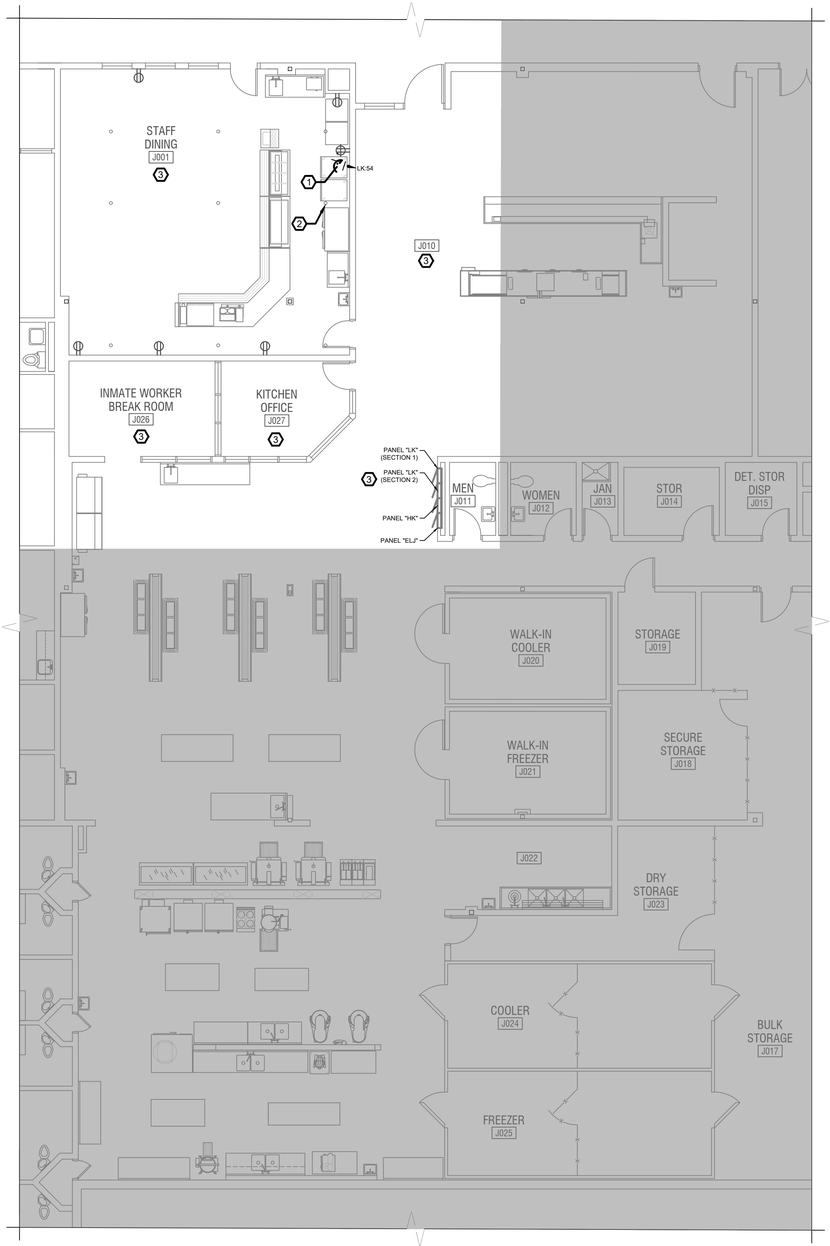
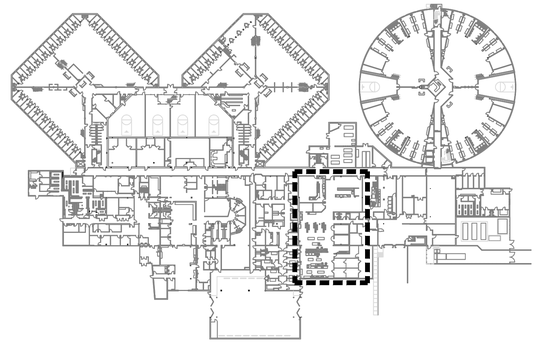


POWER DEMOLITION PLAN
SCALE: 1/8" = 1'-0"



KEY MAP

GENERAL NOTES:

EXISTING CONDITIONS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM LAYOUT SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

ALL EXISTING RECEPTACLES ARE TO BE VERIFIED, TRACE AND THE FRONT OF THE EXISTING RECEPTACLE SHALL BE LABELED WITH THE SOURCE PANEL AND IT'S ASSOCIATED CIRCUIT.

DEMOLITION KEY NOTES:

1. CONTRACTOR TO REMOVE BRANCH CIRCUIT AND REMOVE RECEPTACLE FOR NEW EQUIPMENT INSTALLATION BACK TO PANEL AND LABEL AS "SPARE" (IF DEDICATED). CONTRACTOR TO TRACE AND VERIFY CIRCUIT PRIOR TO REMOVAL. CONTRACTOR TO ENSURE CONTINUITY (IF APPLICABLE) OF REMAINING CIRCUITS.
2. G.C. TO COORDINATE WITH FIRE PROTECTION CONTRACTOR TO REMOVE AND CAP EXISTING SPRINKLER FOR INSTALLATION OF NEW HOOD. FIRE PROTECTION CONTRACTOR TO VERIFY COVERAGE OF AREA IS STILL WITHIN ALLOWABLE LIMITS.
3. CONTRACTOR TO FIELD LOCATE CIRCUITS LK (SECTION 2): 68 AND 72 PRIOR TO DEMOLITION WORK. CIRCUITS TO BE RE-TERMINATED TO LK (SECTION 2): 44 AND 54 BREAKERS RESPECTIVELY. CIRCUITS NEED TO BE RELOCATED TO MAKE PHYSICAL SPACE FOR NEW BREAKERS. SEE SHEET E-602 FOR ADDITIONAL INFORMATION.

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ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
POWER DEMOLITION PLAN

SHEET NO:
ED-P-101

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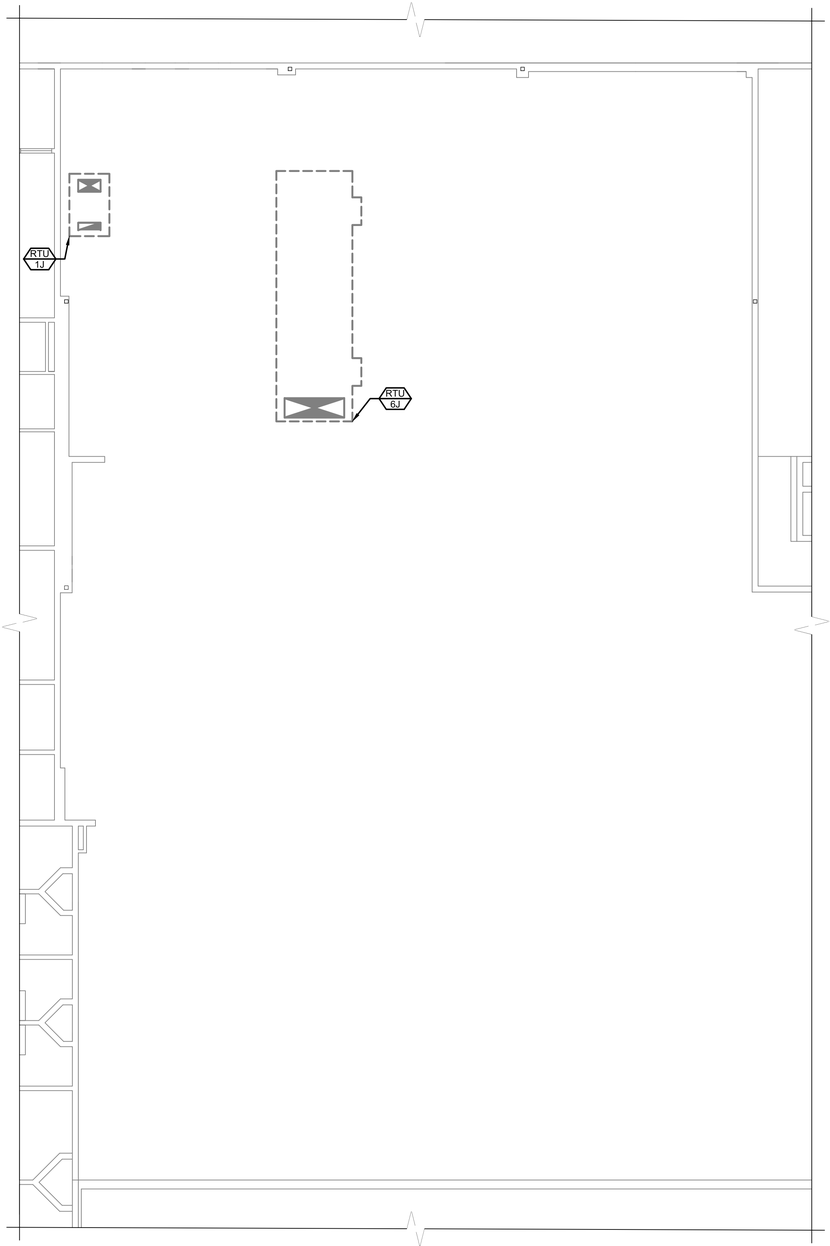
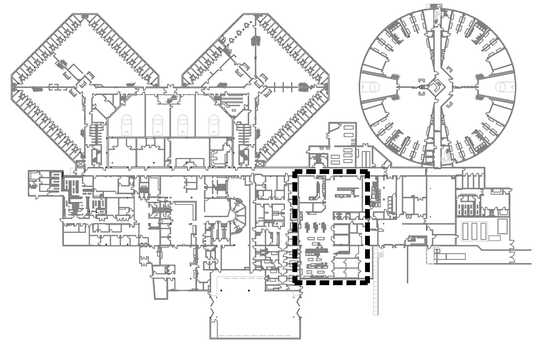


POWER DEMOLITION ROOF PLAN

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



KEY MAP

GENERAL NOTES:

ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, CONNECTION TYPES, AND WIRING REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT PRIOR TO ROUGH-IN. CONTRACTOR TO NOTIFY ENGINEER ON ANY DIFFERENCES UPON EQUIPMENT DELIVERY THAT DIFFER FROM THESE PLANS.

NO DEMOLITION WORK REQUIRED. DRAWING IS SHOWN FOR REFERENCE PURPOSES ONLY.

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EXP 10/31/21

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325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
POWER DEMOLITION ROOF PLAN

SHEET NO:
E-DP-101.R

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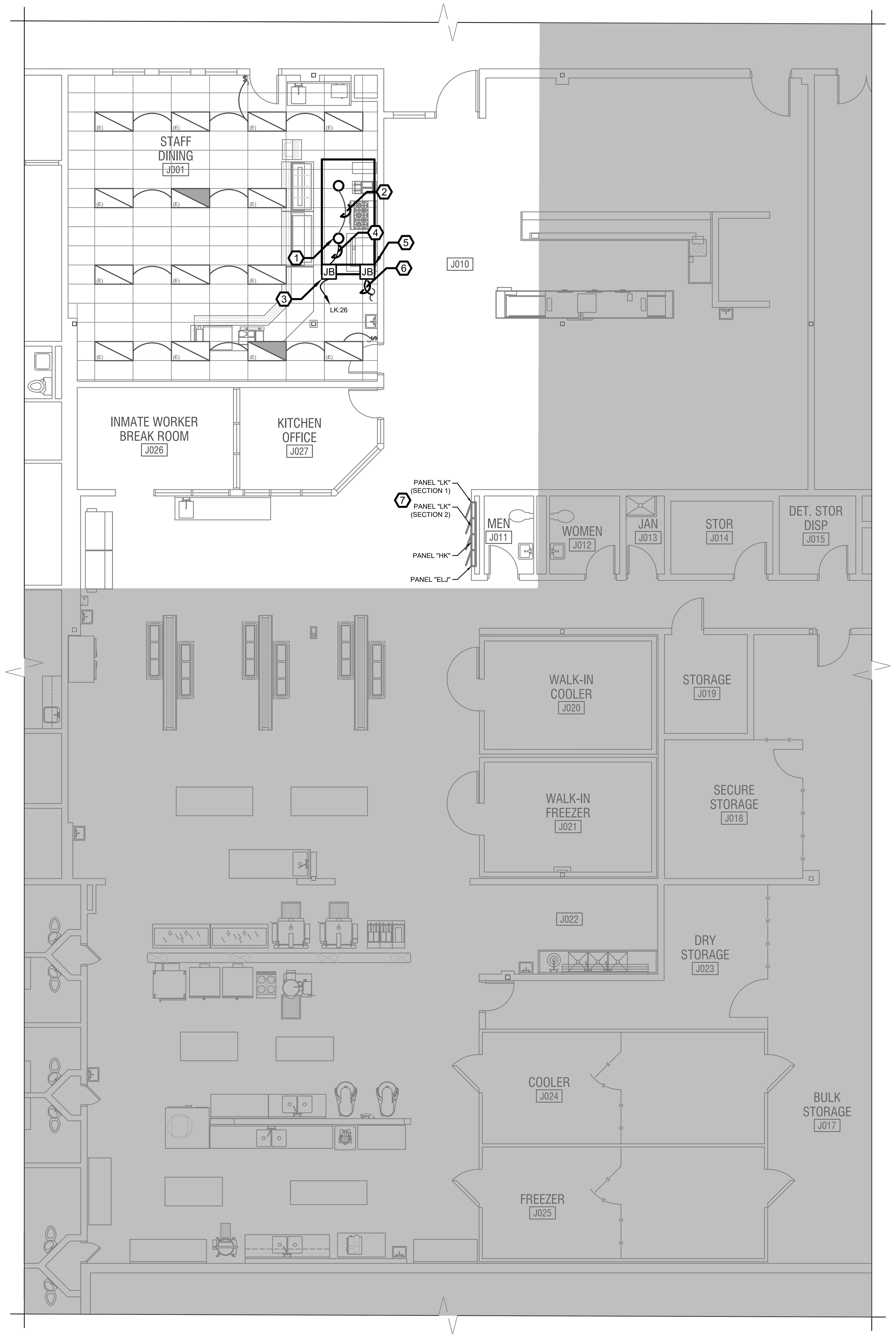
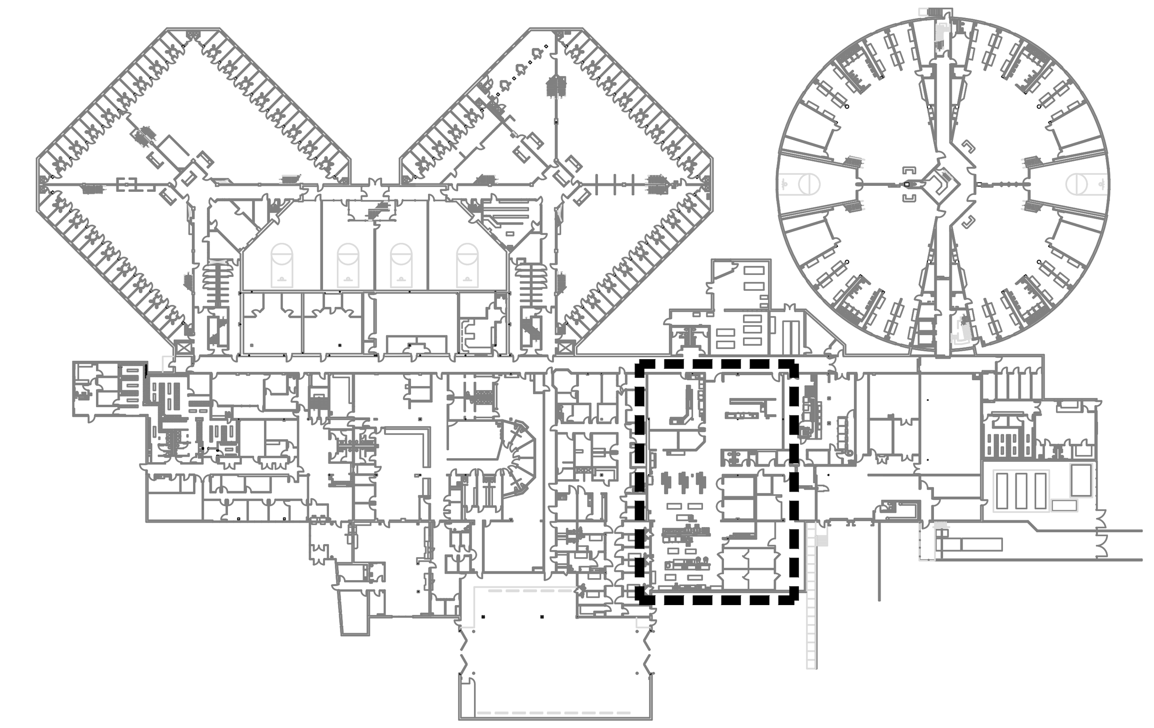


LIGHTING NEW WORK PLAN

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



KEY MAP

GENERAL NOTES:

ALL EMERGENCY EGRESS LIGHTING (INCLUDING WALL PACKS AND EXIT SIGNS) SHALL BE CONNECTED TO THE NEAREST NON-SWITCHED LIGHTING CIRCUIT AND SHALL OPERATE ON INTERNAL BATTERY BACKUP UPON NORMAL POWER LOSS.

PROVIDE DOCUMENTATION SHOWING THE INSTALLED LIGHTING CONTROLS MEET PERFORMANCE CRITERIA OF SECTION C405 OF THE IECC AND SHALL BE PROVIDED TO THE OWNER WITHIN 90 DAYS FROM THE DATE OF RECEIVING THE CERTIFICATE OF OCCUPANCY.

THE SCOPE OF THIS WORK MODIFIES LESS THAN 50% OF THE LIGHTING, THEREFORE, IECC CALCULATION IS NOT REQUIRED.

NEW WORK KEY NOTES:

1. LIGHTING FIXTURE PROVIDED WITH KITCHEN HOOD.
2. LIGHTING FIXTURE INTERNAL WIRING PROVIDED BY KITCHEN HOOD MANUFACTURER.
3. CONNECTION FOR KITCHEN HOOD POWER IS AT MAIN CONTROL PANEL. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
4. CONTRACTOR TO WIRE FROM MAIN CONTROL PANEL ON KITCHEN HOOD TO FIRST FACTORY PROVIDED LIGHT. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
5. FIRE INTERCONNECTION CONNECTION POINT LOCATED AT KITCHEN HOOD MAIN CONTROL PANEL. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
6. FIRE PROTECTION CONTRACTOR TO PROVIDE WIRING TO FIRE SYSTEM DRY CONTACT. COORDINATE WITH OWNER FOR LOCATION OF MAIN FIRE CONTROL PANEL. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
7. SEE SHEET E-602 FOR ADDITIONS AND MODIFICATIONS TO EXISTING PANEL.

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TENANT IMPROVEMENTS
CJC - KITCHEN HOOD
2739 E. LAS VEGAS ST.
COLORADO SPRINGS, CO 80906

REV	DESCRIPTION	DRAWN	CHECK	APPR	DATE

ISSUANCE:
ISSUED FOR PERMIT

CLIENT:
EL PASO COUNTY
325 S. CASCADE AVE.
COLORADO SPRINGS, CO 80903

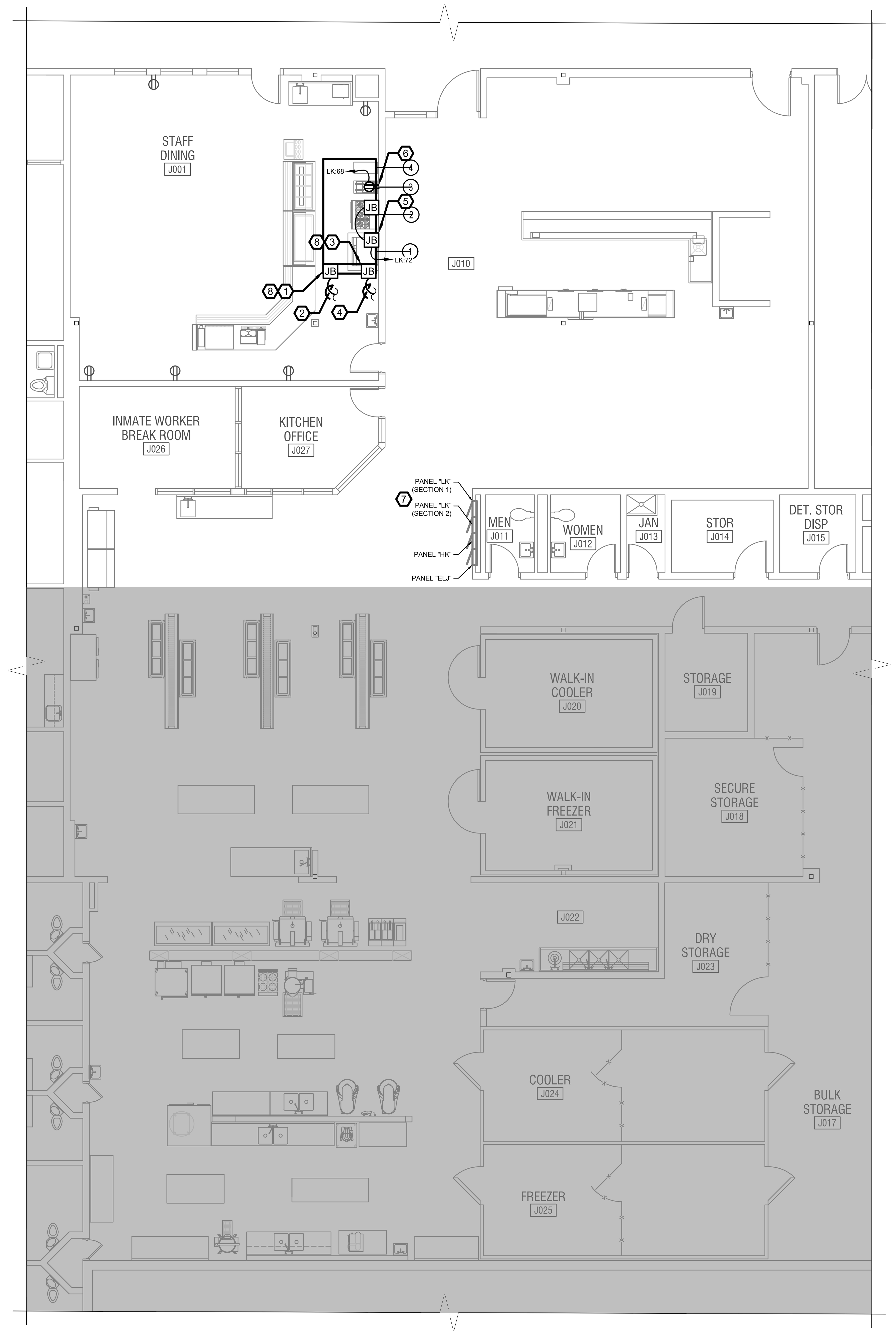
ARCHITECT:

PROJECT NO:
5156-21-02

TITLE:
LIGHTING NEW WORK PLAN

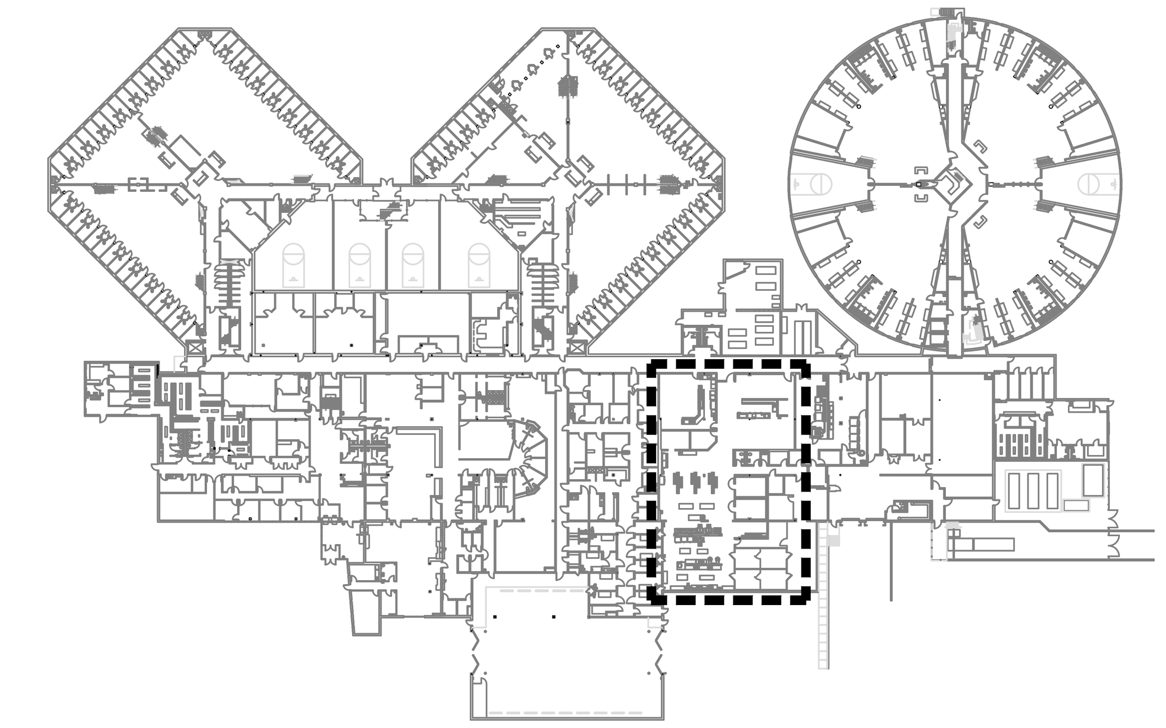
SHEET NO:
E-L-101

PLOT DATE: 10/26/21 1:19 PM BY: JERKA PROJ. FILE: P:\El Paso County\CJC – Greaseless hood\Electrical\CJC – Greaseless Hood – Electrical.dwg



POWER NEW WORK PLAN

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



KEY MAP

GENERAL NOTES:

ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, CONNECTION TYPES, AND WIRING REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT PRIOR TO ROUGH-IN. CONTRACTOR TO NOTIFY ENGINEER ON ANY DIFFERENCES UPON EQUIPMENT DELIVERY THAT DIFFER FROM THESE PLANS.

ELECTRICAL CONTRACTOR TO PROVIDE RECEPTACLES IN KITCHEN, PREP, DISHWASHING, AND STORAGE AREAS IN COMPLIANCE WITH 2014 NEC SECTION 210.8(B) AND BE READILY ACCESSIBLE. (TYPICAL OF ALL KITCHEN, BAR, AND PREP AREA RECEPTACLES)

NEW WORK KEY NOTES:

1. CONTROL WIRING FOR FAN SPEED IS LOCATED AT MAIN CONTROL PANEL OF KITCHEN HOOD. CONTRACTOR TO PROVIDE WIRING BETWEEN MAIN CONTROL PANEL AND KEF-1. SEE SHEET E-P-101.R FOR LOCATION OF KEF-1. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
2. CONTRACTOR TO PROVIDE CONTROL WIRING AND CONDUIT FOR FAN SPEED. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
3. CONTROL WIRING FOR OUTPUT IS LOCATED AT MAIN CONTROL PANEL OF KITCHEN HOOD. CONTRACTOR TO PROVIDE WIRING BETWEEN MAIN CONTROL PANEL AND MUA-1. SEE SHEET E-P-101.R FOR LOCATION OF MUA-1. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
4. CONTRACTOR TO PROVIDE CONTROL WIRING AND CONDUIT FOR INTERLOCK OF MUA.. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.
5. PROVIDE JUNCTION BOX FOR EQUIPMENT AT GAS IGNITER LOCATION. FINAL CONNECTION TO BE MADE BY EQUIPMENT INSTRUCTIONS AND RECOMMENDATIONS. SEE SHEET E-602 FOR ADDITIONAL INFORMATION. (TYPICAL OF 2)
6. PROVIDE RECEPTACLE FOR EQUIPMENT. CONTRACTOR TO VERIFY CONNECTION TYPE WITH EQUIPMENT PURCHASE PRIOR TO ROUGH IN OR FINAL INSTALLATION. SEE SHEET E-602 FOR ADDITIONAL INFORMATION.
7. SEE SHEET E-602 FOR ADDITIONS AND MODIFICATIONS TO EXISTING PANEL.
8. FIRE PROTECTION CONTRACTOR TO REFERENCE HOOD MANUFACTURER DRAWINGS AND MAKE ALL FIRE PROTECTION AND INTERCONNECTIONS SHOWN. SEE KITCHEN HOOD MANUFACTURER DRAWINGS FOR ADDITIONAL INFORMATION.

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ARCHITECT:

PROJECT NO: 5156-21-02

TITLE: POWER NEW WORK PLAN

SHEET NO: E-P-101

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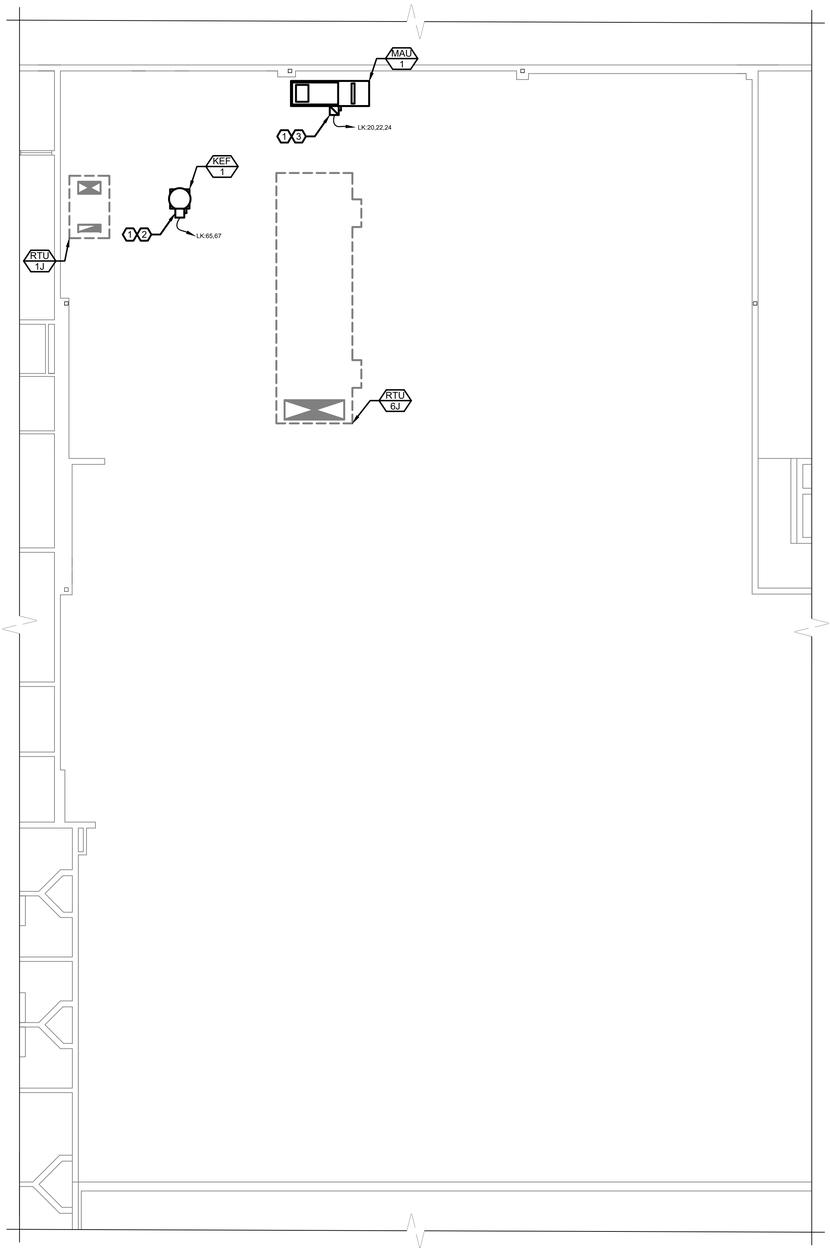
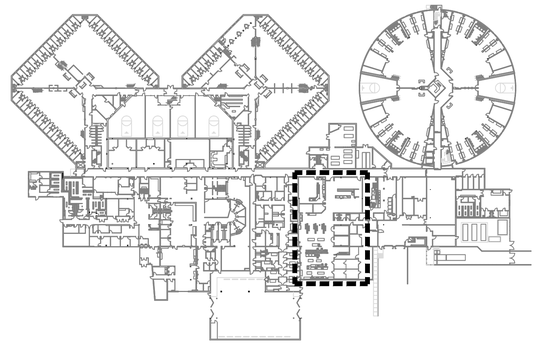


POWER NEW WORK ROOF PLAN
SCALE: 1/8" = 1'-0"



KEY MAP

GENERAL NOTES:

ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, CONNECTION TYPES, AND WIRING REQUIREMENTS OF ALL OWNER PROVIDED EQUIPMENT PRIOR TO ROUGH-IN. CONTRACTOR TO NOTIFY ENGINEER ON ANY DIFFERENCES UPON EQUIPMENT DELIVERY THAT DIFFER FROM THESE PLANS.

ALL PIPING PENETRATIONS THROUGH RATED ASSEMBLIES ARE TO BE SEALED AND PROTECTED BY FIRE RESISTANT CAULKING.

SEE SHEET E-603 FOR ADDITIONAL INFORMATION ON MECHANICAL EQUIPMENT CONNECTIONS AND FUSING INFORMATION.

NEW WORK KEY NOTES:

1. PROVIDE FUSED DISCONNECT AND CIRCUIT AS INDICATED. SEE SHEET E-602 FOR ADDITIONAL INFORMATION ON EQUIPMENT, SWITCH AND FUSE PROTECTION.
2. PROVIDE NON-FUSED DISCONNECT AND CIRCUIT AS INDICATED. SEE SHEET E-602 FOR ADDITIONAL INFORMATION.
3. SEE SHEET E-P-101 FOR LOCATION OF PANEL "LK".

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PROJECT NO:
5156-21-02

TITLE:
POWER
NEW WORK ROOF
PLAN

SHEET NO:
E-P-101.R

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PANEL SCHEDULE - "LK (SECTION 1)"

R/E/N	EXISTING	MAIN CIRCUIT	400A AMPS
TYPE	NEMA 1	MCB/PANEL RATING	22,000A AIC
MOUNT	FLUSH	MAIN LUGS	N/A AMPS
PHASE	3	MAIN SHUNT TRIP	NO
WIRE	4W	BRANCH RATING	22,000A AIC
L-N	120	BRANCH TYPE	BOLT ON
L-L	208	BUS MATERIAL	COPPER
RATED	FULLY	FEED THRU LUGS	NO
FEED FROM	PANEL "DPHJ"		

NOTES	WIRE SIZE	CKT. NO.	ITEM/DESCRIPTION	POLES	BREAKER SIZE	LOAD VA/PHASE	PHASE LEG	LOAD VA/PHASE	BREAKER SIZE	POLES	ITEM/DESCRIPTION	CKT. NO.	WIRE SIZE	NOTES
		1	SLICER	1	20	864	A	1900	20	1	HEATED CART REC.	2		
		3	PREP TABLE REC.	1	20	1900	B	1900	20	1	HEATED CART REC.	4		
		5	PREP TABLE REC.	1	20	1900	C	1900	20	1	HEATED CART REC.	6		
		7	DISPOSER	3	15	490	A	1900	20	1	HEATED CART REC.	8		
		9				490	B	1900	20	1	HEATED CART REC.	10		
		11				490	C	1900	20	1	HEATED CART REC.	12		
		13	VERTICAL CUTTER/MIXER	3	30	2800	A	1900	20	1	HEATED CART REC.	14		
		15				2800	B	1279	20	2	HOT FOOD WELL UNIT REC.	16		
		17				2800	C	1279				18		
		19	WORK TABLE REC.	1	20	360	A	**1164**	**15**	**3**	**MAKE UP AIR UNIT (MAU-1)**	**20**	**#12**	7
		21	WORK TABLE REC.	1	20	360	B	**1164**				**22**		
		23	WORK TABLE REC.	1	20	180	C	**1164**				**24**		
		25	MIXER REC.	1	20	1176	A	**50**	**20**	**1**	**KITCHEN HOOD (KH-1)**	**26**	**#12**	7
		27	PREP TABLE REC.	1	20	560	B	180	20	1	WORK TABLE REC.	28		
		29	SPACE	1		0	C	1404	20	1	MISC.	30		
		31	HOOD 3 EXHAUST FN. HOOD 3 TO OVEN CONTROL RACK HOOD 3 LIGHTS	3	20	600	A	0			SHUNT TRIP SPACE	32		
		33				600	B	1300	20	3	ICE MAKER	34		
		35				600	C	1300				36		
		37	MIXER REC.	3	15	650	A	1300				38		
		39				650	B	1300	20	2	ICE MAKER	40		
		41				650	C	1300				42		

NOTES	
1	BREAKERS TO BE AFCI TYPE
2	BREAKERS TO BE GFCI TYPE
3	BREAKER TO BE HARC TYPE
4	EXISTING CIRCUIT TO REMAIN
5	RECONNECT EXISTING CIRCUIT
6	LOAD INCLUDES FEED-THROUGH OR SECOND SECTION PANEL
7	PROVIDE NEW BREAKER AS INDICATED. MAKE AND MODEL SHALL MATCH EXISTING PANEL MAKE AND MANUFACTURER.
8	
9	

CONNECTED LOAD		
TOTAL (VA) PHASE A	TOTAL (VA) PHASE B	TOTAL (VA) PHASE C
15154	**16383**	**16867**
11%	12%	12%
CONNECTED LOAD SUMMARY		
TOTAL (VA)		48404
TOTAL AMPERAGE		135
DEMAND LOAD		
TOTAL (VA)		**142269**
TOTAL AMPERAGE		**395**

LOAD SUMMARY (SEE NOTE 6)				
TYPE OF LOAD	**DEMAND FACTOR**	**VA**		**DEMAND**
LIGHTING (L)	125%	0		0
TOTAL RECEPTACLES (R)		34850		
<=10KVA RECEPTACLES	100%	10000		10000
>10KVA RECEPTACLES	50%	3040		1520
MOTORS (M)	100%	26224		26224
LARGEST MOTOR	125%	5700		7125
ELECTRIC HEAT (H)	100%	0		0
KITCHEN (K)	100%	66358		71750
NON-CONTINOUS (O)	100%	25650		25650

PANEL SCHEDULE - "LK (SECTION 2)"

R/E/N	EXISTING	MAIN CIRCUIT	N/A AMPS
TYPE	NEMA 1	MCB/PANEL RATING	22,000A AIC
MOUNT	FLUSH	MAIN LUGS	400A AMPS
PHASE	3	MAIN SHUNT TRIP	NO
WIRE	4W	BRANCH RATING	22,000A AIC
L-N	120	BRANCH TYPE	BOLT ON
L-L	208	BUS MATERIAL	COPPER
RATED	FULLY	FEED THRU LUGS	NO
FEED FROM	PANEL "DPHJ"		

NOTES	WIRE SIZE	CKT. NO.	ITEM/DESCRIPTION	POLES	BREAKER SIZE	LOAD VA/PHASE	PHASE LEG	LOAD VA/PHASE	BREAKER SIZE	POLES	ITEM/DESCRIPTION	CKT. NO.	WIRE SIZE	NOTES
		43	MIXER	3	15	696	A	**1900**	**20**	**1**	**PREP. TABLE REC.**	**44**		1
		45				696	B	1900	20	1	AUCS	46		
		47				696	C	1900	20	1	BEVERAGE TABLE REC.	48		
		49	EX HOOD LIGHTS/FAN	1	20	1676	A	1900	20	1	COUNTER REC.	50		
		51	SPARE	1	20	0	B	1900	20	1	REACH IN REFRIG	52		
		53	FIRE SUPPRESSION	1	20	1920	C	**1900**	**20**	**1**	**WORK TABLE REC.**	**54**		1
		55	FIRE SUPPRESSION	1	20	1920	A	1900	80	1	VENDING MACHINE	56		
		57	SPARE	1	20	0	B	1900	20	1	MICROWAVE	58		
		59	HEATED CART (STAFF)	1	20	1920	C	0	20	1	SPARE	60		
		61	SPARE	1	20	0	A	1900	30	2	HOT FOOD COUNTER	62		
		63	REACH-IN REFRIG	1	20	1920	B	1900				64		
7	**#12**	**65**	**KITCHEN EXHAUST FAN 9KEF-1)**	**2**	**20**	**1716**	C	1900	20	1	COLD FOOD COUNTER	66		
		67				**1716**	A	**1440**	**20**	**2**	**NEW GREASE FRYER (#3)**	**68**	**#12**	7,9
		69	SHUNT TRIP SPACE			0	B	**0**			**SHUNT TRIP**	**70**		
		71	HOOD 3 FUTURE OVENS	1	20	1900	C	**1000**	**20**	**2**	**NEW GAS RANGE AND GRIDDLE**	**72**	**#12**	7,9
		73	WALK IN COOLER	3	15	1400	A	**0**			**SHUNT TRIP**	**74**		
		75				1400	B	8000	100	2	LOAD CENTER DRY BEVERAGE	76		
		77				1400	C	8000				78		
		79	WALK IN FREEZER	3	60	5700	A	1920	20	3	UTILITY SIDT. SYS	80		
		81				5700	B	1920				82		
		83				5700	C	1920				84		

NOTES	
1	RELOCATE EXISTING CIRCUIT 68 TO NEW CIRCUIT 44 AND RELOCATE EXISTING CIRCUIT 72 TO 54. CONTRACTOR TO TRACE CIRCUIT PRIOR TO NEW WORK.
2	BREAKERS TO BE GFCI TYPE
3	BREAKER TO BE HARC TYPE
4	EXISTING CIRCUIT TO REMAIN
5	RECONNECT EXISTING CIRCUIT
6	LOAD INCLUDES FEED-THROUGH OR SECOND SECTION PANEL
7	PROVIDE NEW BREAKER AS INDICATED. MAKE AND MODEL SHALL MATCH EXISTING PANEL MAKE AND MANUFACTURER.
8	RELABEL CIRCUIT AS INDICATED
9	SHUNT TRIP BREAKER TO BE WIRED TO KITCHEN HOOD CONTROL PANEL.

CONNECTED LOAD		
TOTAL (VA) PHASE A	TOTAL (VA) PHASE B	TOTAL (VA) PHASE C
24068	**27236**	**31872**
446%	505%	591%
CONNECTED LOAD SUMMARY		
TOTAL (VA)		83176
TOTAL AMPERAGE		0
DEMAND LOAD		
TOTAL (VA)		**5392**
TOTAL AMPERAGE		**0**

LOAD SUMMARY				
TYPE OF LOAD	**DEMAND FACTOR**	**VA**		**DEMAND**
LIGHTING (L)	125%	0		0
TOTAL RECEPTACLES (R)		21810		
<=10KVA RECEPTACLES	100%	0		0
>10KVA RECEPTACLES	50%	0		0
MOTORS (M)	100%	0		0
LARGEST MOTOR	125%	0		0
ELECTRIC HEAT (H)	100%	0		0
KITCHEN (K)	100%	5392		5392
NON-CONTINOUS (O)	100%	0		0

KITCHEN EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	QUANTITY	DIMENSIONS	GAS (MBH)	VOLTS / Ø	FLA	MCA	MOCP	WIRE	PLUG TYPE	NOTES
1	COUNTERTOP GRIDDLE	VULCAN	MSA36	1	36" x 31-1/2" x 15-1/4"	81	120V / 1Ø	N/A	N/A	N/A	#12	J-BOX	1
2	6 BURNER RANGE	VULCAN	36S-6BN	1	36" x 46-1/2" x 58"	215	120V / 1Ø	N/A	N/A	N/A	#12	J-BOX	1
3	GAS FLOOR FRYER	VULCAN	1GR45M	1	15-1/2" x 30-1/4" x 47"	120	120V / 1Ø	N/A	N/A	N/A	#12	NEMA 5-15	1

NOTES:

1	EQUIPMENT IS GAS FEED, NO VENDOR INFORMATION ON FLA, MCA, ETC. CONTRACTOR TO VERIFY EQUIPMENT AND CONNECTION TYPE IN THE FIELD PRIOR TO FINAL INSTALLATION OR ROUGH IN.
2	

EQUIPMENT SCHEDULE

MARK	DESCRIPTION	MFR	MODEL #	QTY	VOLTS / Ø	MCA	MOCP	WIRE	DISC.	FUSE SIZE	TYPE	NOTES
KEF 1	KITCHEN EXHAUST FAN	ACCUREX	XRUD-160-VG	1	208V / 1Ø	16.5A	N/A	#12	20A	N/A	NEMA3R	
KH 1	KITCHEN HOOD	ACCUREX	XXEW-132-S	1	120V / 1Ø	.42A	N/A	#12	N/A	N/A	J-BOX	
MAU 1	KITCHEN MAKE UP AIR UNIT	ACCUREX	XDGX-P112-H12-MF	1	208V / 3Ø	9.7A	15A	#12	20A	15A	NEMA3R	1

NOTES:

1	CONTRACTOR TO INSTALL LOW PEAK CLASS RK5 DUAL ELEMENT TIME DELAY FUSES FRS-R (OR APPROVED EQUAL. VALUE SHOWN ON TABLE IS LET-THROUGH CURRENT PER AVAILABLE SHORT CIRCUIT CURRENT AVAILABLE PER VENDOR INFORMATION.
2	

CALCULATED SHORT VALUES

	SCA	AIC	SCCR
SC1	22,000		
MUA-1	22,000	1,000*	5,000**

NOTE* - CONTRACTOR TO INSTALL LOW PEAK CLASS RK5 DUAL ELEMENT TIME DELAY FUSES FRS-R (OR APPROVED EQUAL. VALUE SHOWN ON TABLE IS LET-THROUGH CURRENT PER AVAILABLE SHORT CIRCUIT CURRENT AVAILABLE PER VENDOR INFORMATION.

NOTE** - RATING SHOWN ON CHART IS MINIMUM EQUIPMENT SCCR RATING.

LOAD SUMMARY

	CONNECTED LOAD
-EXISTING LOAD PANEL "LK"	= 132,855VA (369A @ 208V,3-PHASE)
-ADDED LOAD TO PANEL "LK"	=9,414VA (26A @ 208V, 3-PHASE)
TOTAL CONNECTED LOAD	= 142,269VA (395A @ 208V, 3PHASE)

PANEL "LK" IS RATED FOR 400A. FEEDERS FOR PANEL "LK" ARE RATED FOR 400A.

EXISTING DEMAND LOAD AT PANEL "LK"	= 113,815VA (316A @ 208V, 3-PHASE)
EXISTING DEMAND LOAD AT PANEL "LK2"	= 32,386VA (90A @ 208V, 3-PHASE)
TOTAL DEMAIND LOAD AT T-3	= 146,201VA (406A @ 208V, 3PHASE)

T-3 IS RATED FOR 150kVA (416A @ 208V, 3-PHASE AND 180A @ 480V, 3-PHASE)

TOTAL LOAD ADDED AT PANEL "DPHJ" IS 26A. THE ALLOWABLE AMPERAGE CHANGE ALLOWED IS 5% (40A). THE INCREASE OF LOAD CHANGE AT PANEL "DPHJ" IS **3.25% AND IS BELOW THE ALLOWABLE INCREASE.**

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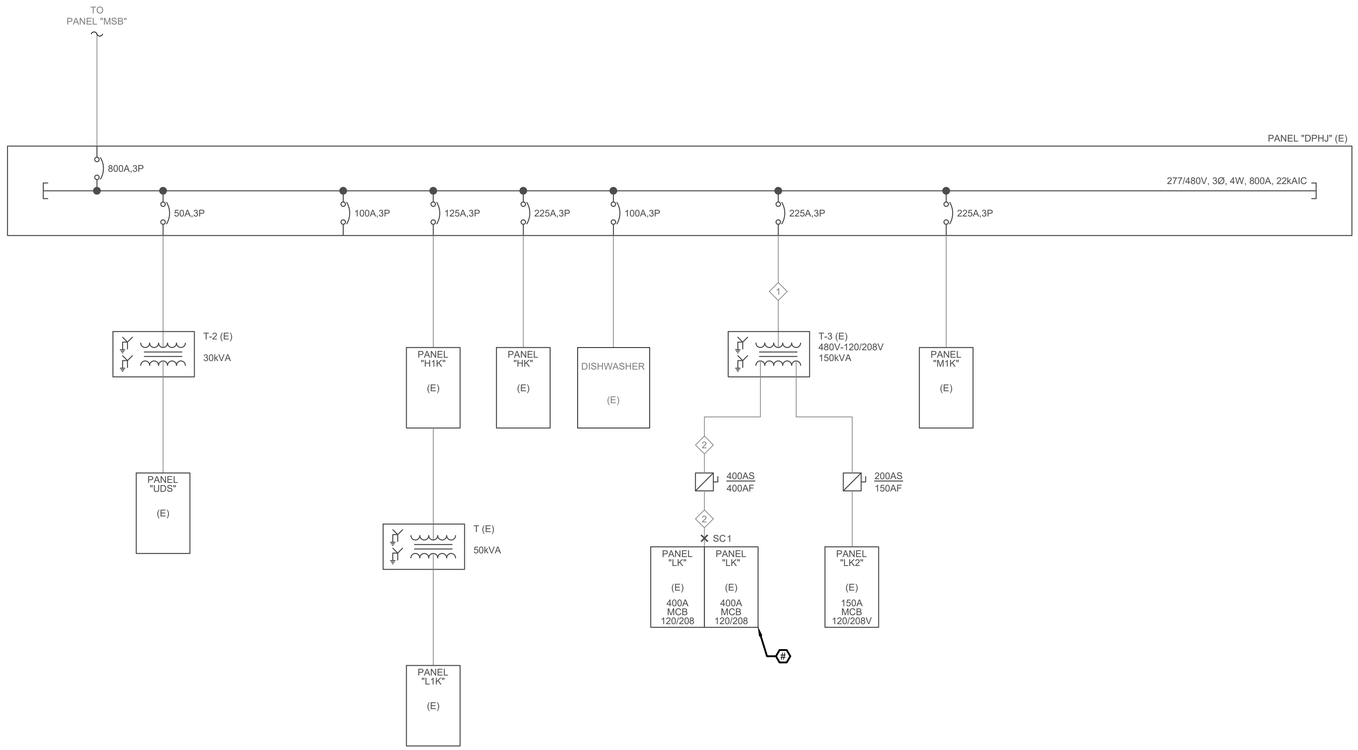
ARCHITECT:

PROJECT NO: 5156-21-02

TITLE: PANEL SCHEDULES AND CALCULATIONS

SHEET NO: E-602



PARTIAL EXISTING SINGLE-LINE DIAGRAM

GENERAL NOTES:

EXISTING CONDUIT AND FEEDERS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM DIAGRAM SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.

CONTRACTOR TO ENSURE ALL EXISTING GROUNDING IS CONTINUOUS AND INSTALLED PER NEC 250.

DEMOLITION KEY NOTES:

1. SEE SHEET E-602 FOR ADDITIONS AND MODIFICATIONS TO EXISTING PANELS.

FEEDER SCHEDULE

ID	SETS OF CONDUCTORS	CONDUCTOR SIZE	TYPE	GROUND	TYPE	CONDUIT	SIZE	AMPS	LENGTH	NOTES
1	1	3 - #4/0 AWG	CU	#4	CU	2-1/2"	EMT	230A	EXISTING	1
2	2	4 - #3/0 AWG	CU	#3	CU	2-1/2"	EMT	400A	EXISTING	1

NOTES:

1	EXISTING CONDUIT AND FEEDERS HAVE BEEN COMPLETED TO THE BEST OF THE ENGINEER'S ABILITY. SHOULD EXISTING CONDITIONS DIFFER FROM DIAGRAM SHOWN, CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ENGINEER TO ADDRESS ANY DISCREPANCIES.
2	
3	

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SHEET NO:
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