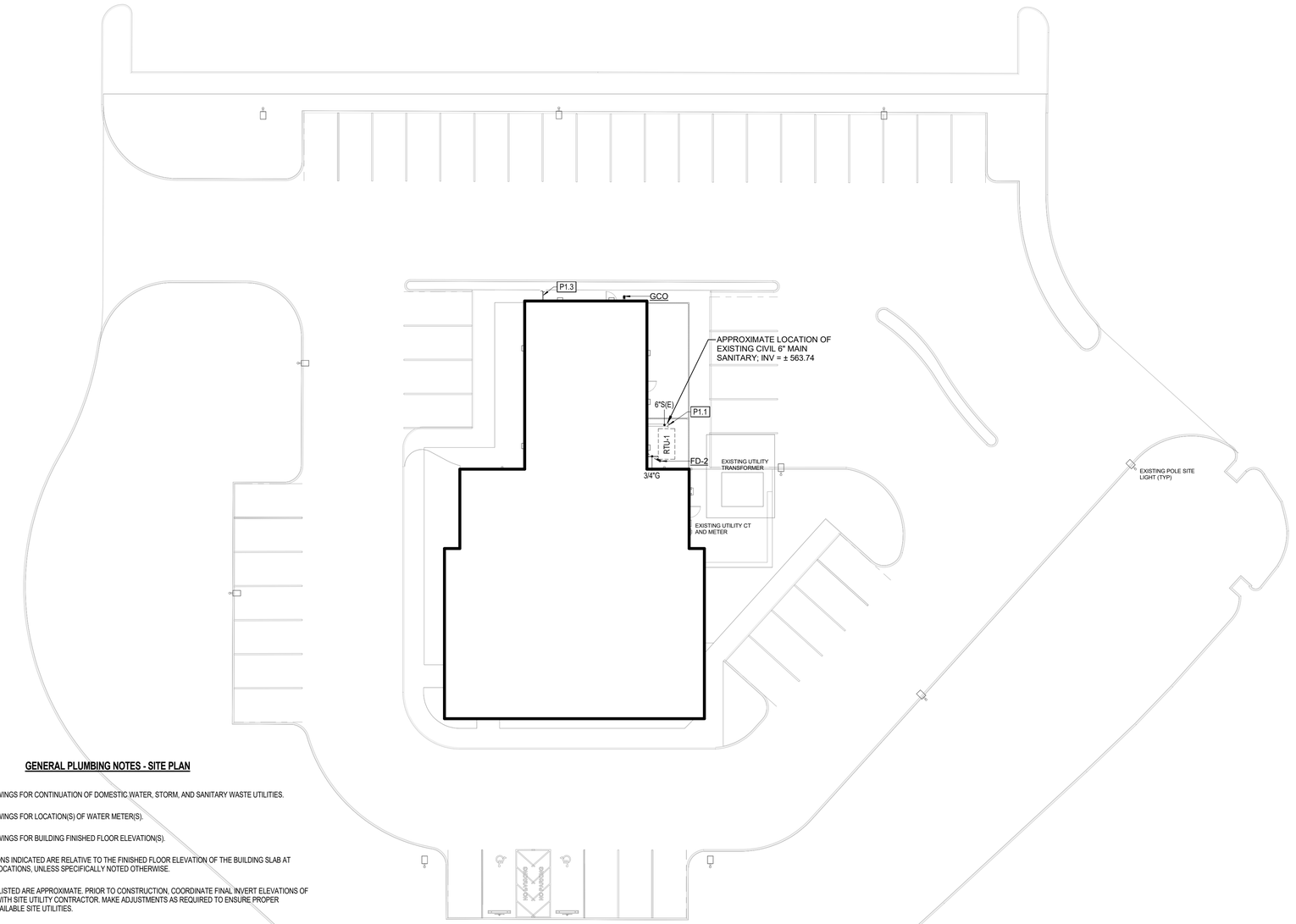

PLUMBING KEYED NOTES

P1.1 SANITARY BUILDING DRAIN, SIZE AS NOTED, REFER TO CIVIL UTILITY DRAWINGS FOR CONTINUATION BEYOND 5' OF THE BUILDING LINE.

P1.3 2" DOMESTIC WATER SERVICE, ~62 WSFUS; ~55 GPM. REFERENCE CIVIL DOCUMENTS FOR CONTINUATION.

GENERAL PLUMBING NOTES - SITE PLAN

A REFER TO CIVIL DRAWINGS FOR CONTINUATION OF DOMESTIC WATER, STORM, AND SANITARY WASTE UTILITIES.

B REFER TO CIVIL DRAWINGS FOR LOCATION(S) OF WATER METER(S).

C REFER TO CIVIL DRAWINGS FOR BUILDING FINISHED FLOOR ELEVATION(S).

D ALL INVERT ELEVATIONS INDICATED ARE RELATIVE TO THE FINISHED FLOOR ELEVATION OF THE BUILDING SLAB AT THEIR RESPECTIVE LOCATIONS, UNLESS SPECIFICALLY NOTED OTHERWISE.

E INVERT ELEVATIONS LISTED ARE APPROXIMATE. PRIOR TO CONSTRUCTION, COORDINATE FINAL INVERT ELEVATIONS OF GRAVITY OUTFALLS WITH SITE UTILITY CONTRACTOR. MAKE ADJUSTMENTS AS REQUIRED TO ENSURE PROPER CONNECTIONS TO AVAILABLE SITE UTILITIES.

F ROLL-DOWN AS NECESSARY AND PROVIDE PIPE, FITTINGS, AND ADAPTERS AS REQUIRED TO MAKE PROPER CONNECTIONS TO SITE UTILITY LINES.

G PROVIDE SCHEDULE 40 SOLID WALL PVC SLEEVES FOR ALL SITE GAS PIPING TO BE ROUTED BELOW CONCRETE, ASPHALT, OR PAVING. SLEEVES SHALL BE NO SMALLER THAN TWO TIMES THE DIAMETER OF THE GAS PIPING TO BE SERVED. PROVIDE 4'-0" X 4'-0" TEMPORARY LEAVE-OUTS IN THE PAVING AT ALL CHANGES IN DIRECTION ALONG THE ROUTE OF THE SLEEVING. ENSURE ALL SLEEVES ARE MAINTAINED FREE FROM DIRT AND DEBRIS. CLEARLY MARK ALL LOCATIONS.

H FIELD COORDINATE/CONFIRM THE ROUTING AND INSTALLATION OF GAS SERVICE PIPING WITH THE LOCAL UTILITY PROVIDER PRIOR TO ANY SITE PAVING WORK. MAKE ADJUSTMENTS AS REQUIRED.

I NO PLUMBING PIPING SHALL BE ROUTED OVER MAJOR MECHANICAL EQUIPMENT, MDF/IDF/DATA CLOSETS, ELECTRICAL ROOMS, OR ANY SUCH EQUIPMENT.

GENERAL PLUMBING NOTES - UNDERGROUND

A COORDINATE ROUTING OF PIPING BELOW SLAB ON GRADE WITH COLUMN FOOTINGS, GRADE BEAMS, UNDERGROUND PLUMBING AND ELECTRICAL UTILITIES, AND ANY OTHER SUB-SURFACE BUILDING ELEMENTS. MAKE ADJUSTMENTS AS REQUIRED.

B DO NOT ROUGH-IN FOR FIXTURES FROM THESE DRAWINGS. REFER TO LATEST ARCHITECTURAL DRAWINGS FOR DIMENSIONED LOCATIONS.

C COORDINATE ALL FIXTURE AND EQUIPMENT LOCATIONS AND CONNECTION REQUIREMENTS WITH LATEST ARCHITECTURAL DRAWINGS, SPECIFICATIONS, AND MANUFACTURER RECOMMENDATIONS PRIOR TO ANY ROUGH-INS.

D COORDINATE IN FIELD TO ENSURE NO LESS THAN 6 INCHES OF EARTHEN COVER FROM TOPS OF PIPES TO BOTTOMS OF GRADE BEAMS, FOUNDATION WALLS, OR SIMILAR ELEMENTS. IN LOCATIONS WHERE SUCH MINIMUM COVER CANNOT BE PROVIDED DUE TO LIMITATIONS OF AVAILABLE PIPE INVERTS, PROVIDE CAST IRON SLEEVES THROUGH THE FOUNDATION ELEMENTS. SLEEVES SHALL BE NO SMALLER THAN TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE GRADE BEAM/FOUNDATION WALL. COORDINATE WITH, AND ADHERE TO, ALL RELATED REQUIREMENTS INDICATED BY THE STRUCTURAL ENGINEER.

E ALL WORK, METHODS AND INSTALLATIONS INVOLVED IN THE PLUMBING DESIGN SHALL BE IN ACCORDANCE WITH THE PREVAILING CODE AND INSPECTION REGULATIONS AND ALL OTHER OFFICIALS HAVING JURISDICTION.

F FIELD VERIFY AS NECESSARY THE EXACT LOCATION, SIZE, DEPTH, ROUTING, DIRECTION OF FLOW, CAPACITY, PIPE MATERIAL, AND CONDITION OF EXISTING PIPING. MAKE ADJUSTMENTS AS REQUIRED.

G AT POINTS OF CONNECTION TO EXISTING, MODIFY/REPLACE EXISTING PIPING AS REQUIRED TO ENSURE PROPER CONNECTIONS. FIELD VERIFY EXISTING PIPE SIZES AND ONLY CONNECT NEW LINES TO SUITABLE EXISTING LINES OF EQUAL OR GREATER SIZE.

1 MEP SITE PLAN
MEP1.01 1/16" = 1'-0"

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KENNETH L. ROLAND
NUMBER PE-2021000128
PROFESSIONAL ENGINEER

Date: **08-30-2022**
Dwn: **DBR** Chk: **DBR**
Project No.: **2231**
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MEP SITE PLAN

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ABBREVIATIONS

A

A	AIR (COMPRESSED)
ABV	ABOVE
A/C	AIR CONDITIONING
AC	ALTERNATING CURRENT, AIR COMPRESSOR
ACCH	AIR COOLED CHILLER
ACCU	AIR COOLED CONDENSING UNIT
AD	ACCESS DOOR, AREA DRAIN
ADJ	ADJUSTABLE
AF	AIR FILTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHRI	AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE
AHU	AIR HANDLING UNIT
AL	ALUMINUM
AMB	AMBIENT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARCH	ARCHITECT, ARCHITECTURAL
AS	AIR SEPARATOR
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AV	ACID VENT, AIR VENT
AVG	AVERAGE
AW	ACID WASTE
AWS	AMERICAN WELDING SOCIETY
AUX	AUXILIARY

B

B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFF	BELOW FINISHED FLOOR
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BP	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE

C

C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS,CONTINUATION
CTR	CENTER
CU	COPPER

D

D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DDMB	DUAL DUCT MIXING BOX
DESIG	DESIGNATION
DTL	DETAIL
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION

E

EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRICAL CONTRACTOR
ECC	ECCENTRIC
EDB	ENTERING DRY BULB
EDH	ELECTRIC DUCT HEATER
EF	EXHAUST FAN
EFF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
EX	EXPLOSION PROOF
EXT	EXTERNAL
EXTG	EXISTING

F

F	FAHRENHEIT, FIRE
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN OUT
FCS	FLOOR CONTROL STATION
FCU	FAN COIL UNIT
FD	FLOOR DRAIN, FIRE DAMPER
FDC	FIRE DEPARTMENT SIAMESE CONNECTION
FDV	FIRE DEPARTMENT VALVE
FH	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FLA	FULL LOAD AMPS
FLEX	FLEXIBLE
FLR	FLOOR
FPTU	FAN POWERED TERMINAL UNIT
FT	FOOT, FEET
FUT	FUTURE

G

G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPM	GALLONS PER MINUTE
GV	GATE VALVE

H

HORIZ	HORIZONTAL
HP	HORSEPOWER
HSTAT	HUMIDISTAT
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ

I

ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
INV	INVERT
IW	INDIRECT WASTE

J

JB	JUNCTION BOX
JP	JOCKEY PUMP

K

KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT- AMPS
KW	KILOWATT

L

L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M

MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU'S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER
MSAH	MINI-SPLIT AIR HANDLER
MSCU	MINI-SPLIT CONDENSING UNIT

N

N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O

OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFCU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P

PG	PRESSURE GAUGE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q

QTY	QUANTITY

R

RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
RAT	RETURN AIR TEMPERATURE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE	REFERENCE, REFER
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCING
REQD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE

S

SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SAG	SUPPLY AIR GRILLE
SAN	SANITARY SEWER
SAR	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SD	STORM DRAIN
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SM	SHEETMETAL
SP	STATIC PRESSURE, SUMP PUMP
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT
SW	SOFT WATER

T

TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CORNEAL COMPRESSOR
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TF	TRANSFER FAN
TH BLK	THRUST BLOCK
THERM	THERMOMETER
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TPD	TRAP PRIMER DEVICE
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TW	TEMPERED HOT WATER
TYP	TYPICAL

U

U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB

V

V	VOLT
VA	VOLT- AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VIB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF

W

W	WATT, WIDTH
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WWF	WELDED WIRE FABRIC

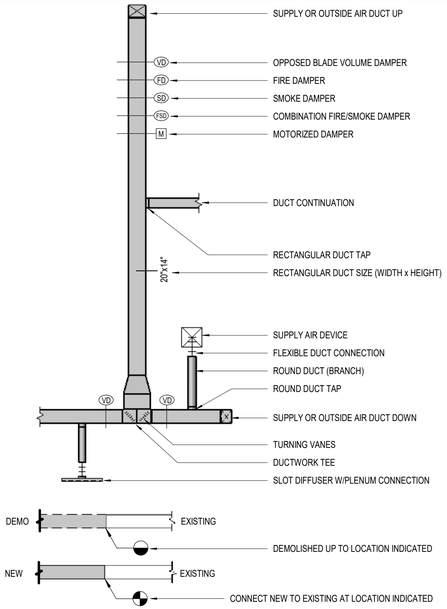
Y

Y	YARD HYDRANT

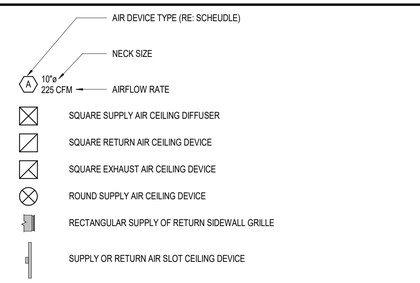
Z

Z	ZONE

DUCTWORK



AIR DEVICE TYPES



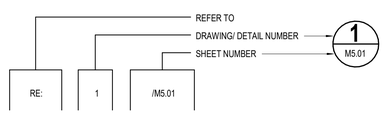
WALL MOUNTED SENSOR TYPES

T	THERMOSTAT
H	HUMIDISTAT
C	CARBON DIOXIDE SENSOR
CO	CARBON MONOXIDE SENSOR
N	NITROGEN DIOXIDE SENSOR
S	ON/OFF SWITCH

PIPING TYPES

CD	CONDENSATE DRAIN LINE
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
REF	REFRIGERANT PIPING SIZED BY MFR.

DRAWING/DETAIL REFERENCE KEY



MECHANICAL GENERAL NOTES

1. PIPING AND DUCTWORK SHOWN ON PLANS ARE SCHEMATIC ONLY. COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING. OFFSET AND RUN PIPING DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ALL NECESSARY PIPING, DUCTWORK, FITTING, INSULATION, AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATIONS.
2. EXISTING DUCT SYSTEM SCHEDULED TO REMAIN AND REUSED SHALL BE CLEANED IN ACCORDANCE WITH THE CURRENT PUBLISHED STANDARDS OF ASHRAE AND NADCA AND AS INDICATED IN SPECIFICATIONS.
3. EXACT LOCATIONS OF MECHANICAL EQUIPMENT, GRILLES, AND DAMPERS SHALL BE FIELD COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ALLOW ADEQUATE CLEARANCES.
4. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER DRAWINGS AND CUTSHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF CONCRETE HOUSEKEEPING PADS.
5. ZONE THERMOSTAT CONTROLL SHALL PROVIDE A TEMPERATURE RANGE OR DEADBAND OF AT LEAST 5°F WITHIN WHICH THE SUPPLY OF HEATING AND COOLING ENERGY TO THE ZONE IS CAPABLE OF BEING SHUT DOWN OR REDUCED TO A MINIMUM.
6. PROVIDE CONICAL SPIN-IN CONNECTOR FOR ALL ROUND DUCT CONNECTIONS TO VAV TERMINAL UNITS.
7. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
8. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE DIMENSIONS.
9. PROVIDE RECTANGULAR BRANCH DUCT TAP FOR ALL RECTANGULAR DUCT CONNECTIONS TO RECTANGULAR DUCT TRUNKS.
10. ALL MEDIUM AND LOW PRESSURE DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR MEDIUM AND LOW PRESSURE DUCTWORK.
11. ALL OUTSIDE AIR, SUPPLY AIR, AND RETURN AIR DUCTWORK AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND SHALL BE INSULATED WITH A MINIMUM OF R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING. REFER TO SPECIFICATION 23 07 13 DUCT INSULATION FOR FURTHER INFORMATION AND ADDITIONAL REQUIREMENTS.
12. ALL DUCTWORK SHALL BE CONSTRUCTED TO SEAL CLASS 'A' AS REFERENCED IN SMACNA STANDARDS. ALL NON-WELDED JOINTS AND SEAMS SHALL BE SEALED. THIS INCLUDES BUT IS NOT LIMITED TO TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS, SPIN-INS, TAPS, AND OTHER BRANCH CONNECTIONS, ACCESS DOORS, ACCESS PANELS, AND DUCT CONNECTIONS TO EQUIPMENT. OPENINGS FOR ROTATING SHAFTS SHALL ALSO BE SEALED WITH BUSHINGS. REFER TO SPECIFICATION 23 31 13 METAL DUCTWORK FOR FURTHER INFORMATION.
13. DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO ACTUAL INSTALLATION OF TEMPERATURE SENSORS AND HUMIDITY SENSORS.
14. PROVIDE REMOTE SPIN-IN DAMPER OPERATOR FOR SPIN-IN CONNECTIONS AND VOLUME DAMPERS LOCATED OVER GYPSUM CEILINGS.
15. PROVIDE AIRFOIL TYPE TURNING VANES IN ALL 90 DEGREE ELBOWS.
16. CONTRACTOR TO VERIFY PROPER OPERATION OF EXISTING THERMOSTATS. PROVIDE NEW TO MATCH EXISTING IF NOT FUNCTIONING PROPERLY.
17. CONTRACTOR SHALL NOTE THAT ALL MAERIALS BEING USED WITHIN THE CEILING PLENUM MUST BE PLENUM RATED.
18. PROVIDE INSULATED ACCESS DOORS FOR DUCTWORK DOWNSTREAM OF AIR HANDLING UNITS AT EVERY 20'-0" TO FACILITATE DUCT CLEANING. PROVIDE ACCESS DOORS WITHIN 5'-0" OF EACH ELBOW.
19. COORDINATE LOCATIONS OF FLOOR AND WALL OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
20. ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICE FINISHES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
21. NO PIPE HANGERS SHALL BE SPACED MORE THAN 10'-0" O.C. COMPLY WITH PIPE SPACING AS SPECIFIED IN THE PIPING SUPPORT SPECIFICATIONS.
22. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL OUTSIDE AIR INTAKES TO MAINTAIN 15 FEET DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY EXHAUST AIR OUTLET, FLUES OR PLUMBING VENTS.
23. MECHANICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR ALL CONDENSATE DRAIN PIPES CONNECTING TO A SINK DRAIN TAIL PIECE.
24. ALL EXISTING EQUIPMENT SCHEDULED TO BE REUSED MUST BE CLEANED, SERVICED AND ALL DAMAGE PARTS MUST BE REPAIRED OR REPLACED.
25. CONTRACTOR SHALL NOTIFY ENGINEER ALL DISCREPENCIES BETWEEN EXISTING DUCTWORK AND DUCTWORK SHOWN ON DRAWING, WHICH MAY REQUIRED MODIFICATION (PRIOR TO FABRICATION OF ANY DUCTWORK).

CONTROLS SCHEMATIC SYMBOLS LEGEND

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI/BI	DIGITAL/BINARY INPUT
DO/BO	DIGITAL/BINARY OUTPUT
MD	ON-OFF MOTORIZED DAMPER
MMD	MODULATING TYPE MOTORIZED DAMPER
AFMS	AIR FLOW MEASURING STATION
MCV	CONTROL VALVE MODULATING TYPE
VFD	VARIABLE FREQUENCY DRIVE
CSR	CURRENT SENSING RELAY
FRZ	FREEZESTAT
HSL	HIGH STATIC LIMIT
SPT	STATIC PRESSURE TRANSMITTER
DPT	DIFFERENTIAL PRESSURE TRANSDUCER
FM	FLOW METER
FS	FLOW SWITCH
DAT	DISCHARGE AIR TEMPERATURE SENSOR
S	WALL SENSOR
T	THERMOSTAT
CO2	CARBON DIOXIDE SENSOR
SP	SET POINT
S/A	SUPPLY AIR
R/A	RETURN AIR
O/A	OUTSIDE AIR
HC	HEATING COIL
CC	COOLING COIL
DX	DIRECT EXPANSION COOLING COIL
PICCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
AFC	AIRFLOW CROSS
DPS	DIFFERENTIAL PRESSURE SWITCH

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STATE OF MISSOURI
KENNETH L. ROLAND
NUMBER PE-2021000128
PROFESSIONAL ENGINEER
8/30/22

Date: **08-30-2022**
Dwn: **DBR** Chk: **DBR**
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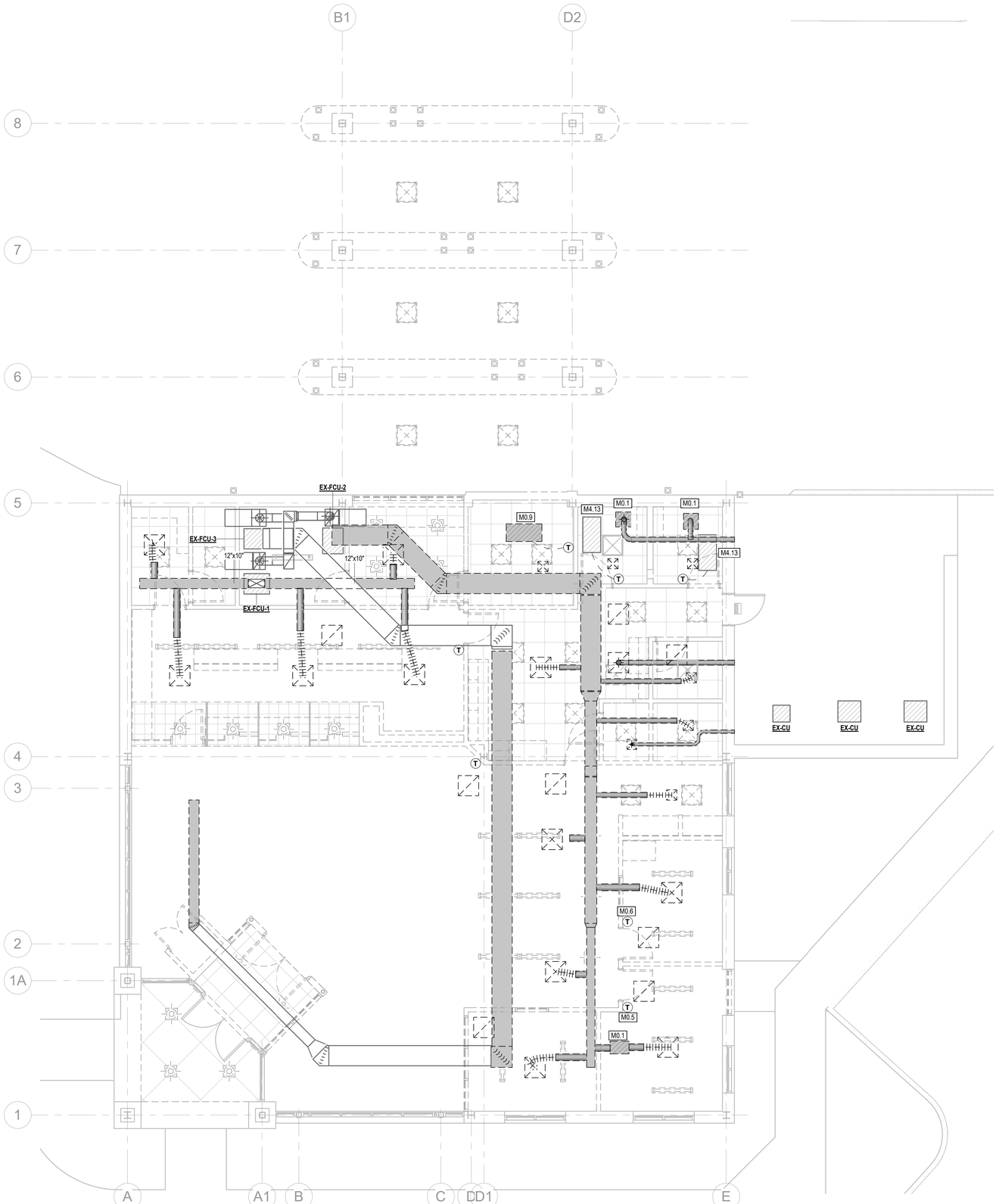
MECHANICAL SYMBOLS LEGEND

M0.01



1 MD2.11 **LEVEL 1 MECHANICAL DEMO PLAN**
3/16" = 1'-0"

MECHANICAL KEYED NOTES

M0.1 EXISTING EQUIPMENT AND ALL ASSOCIATED CONTROLS, ELECTRICAL, VALVES, HANGERS, SUPPORTS, AND ACCESSORIES SHALL BE REMOVED.

M0.5 EXISTING THERMOSTAT AND ALL ASSOCIATED WIRING SHALL BE REMOVED IN THEIR ENTIRETY.

M0.6 REMOVE AND RELOCATE EXISTING THERMOSTAT ASSOCIATED WITH MECHANICAL EQUIPMENT. REFER TO NEW PLAN FOR LOCATION.

M0.9 EXISTING ELECTRIC RADIANT HEATER AND ALL ASSOCIATED CONTROLS AND ACCESSORIES TO BE DEMOLISHED.

M4.13 EXISTING ELECTRIC RADIANT HEATER AND ALL ASSOCIATED CONTROLS AND ACCESSORIES EXISTING TO REMAIN.

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BOGEY HILLS ANIMAL HOSPITAL REMODEL
2665 MUEGGE RD.
ST. CHARLES, MO 63303

STATE OF MISSOURI
KENNETH L. ROLAND
NUMBER PE-2021000128
PROFESSIONAL ENGINEER
07/12

Date: **08-30-2022**
Dwn: **DBR** Chk: **DBR**
Project No.: **2231**
Issue:

1	100% CD	08/30/22

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DBR Project Number	226035.000

JC	VL	CL	WJ	---

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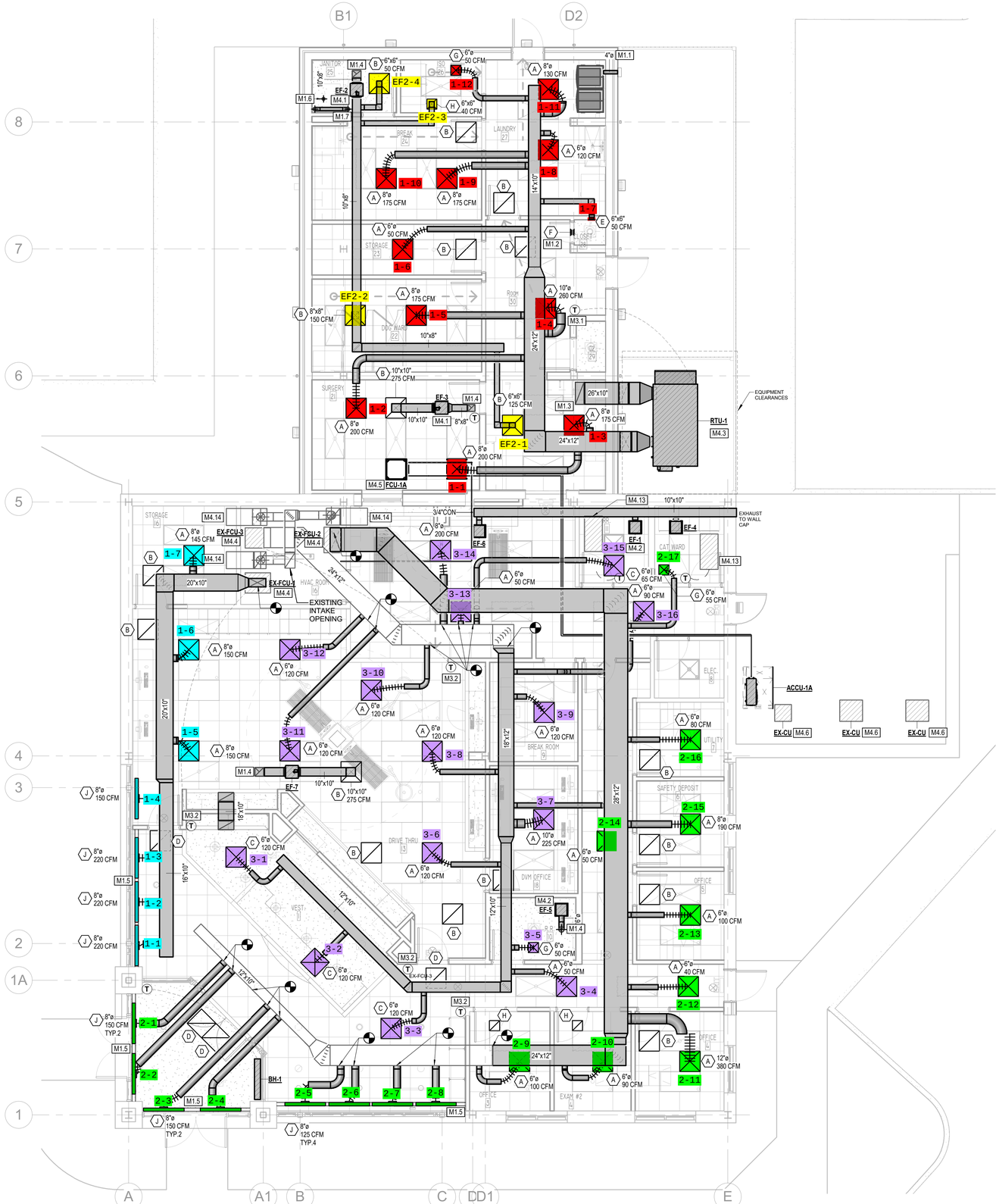
Sheet Name:
LEVEL 1 MECHANICAL DEMO PLAN

MD2.11



1 M2.11 **LEVEL 1 MECHANICAL PLAN**
3/16" = 1'-0"

MECHANICAL KEYED NOTES

M1.1 ROUTE 4"Ø DRYER VENT EXHAUST DUCT OUT THROUGH EXTERIOR WALL CAP AS SHOWN. VERIFY WITH DRYER MANUFACTURER INSTALLATION INSTRUCTIONS FOR EXACT EXHAUST DUCT SIZE. RE: DETAIL 6/M6.01

M1.2 PROVIDE 6"x6" DOOR MOUNTED RETURN AIR TRANSFER GRILLE.

M1.3 PROVIDE UPWARD FACING DUCT ELBOW FULL SIZE OF ASSOCIATED RETURN AIR DUCT AT APPROXIMATE LOCATION SHOWN.

M1.4 ROUTE AND TERMINATE EXHAUST DUCTWORK UP TO ROOF CAP. MAINTAIN 10' DISTANCE FROM EDGE OF ROOF.

M1.5 PROVIDE CONTINUOUS LINEAR SLOT DIFFUSER.

M1.6 ROUTE 4"Ø FLUE VENT UP TO ROOF. PROVIDE ALL NECESSARY CLEARANCES RECOMMENDED BY MANUFACTURER. COORDINATE WITH PLUMBING DRAWINGS FOR EXACT LOCATION OF WATER HEATER.

M1.7 ROUTE 4"Ø IN TAKE VENT UP TO ROOF. MAINTAIN RECOMMENDED DISTANCE FROM FLUE VENT.

M3.1 PROVIDE THERMOSTAT AT APPROXIMATE LOCATION SHOWN. THERMOSTAT SHALL BE INSTALLED AT SAME ELEVATION AS LIGHT SWITCHES. COORDINATE FINAL LOCATION WITH ARCHITECT AND OTHER TRADES TO AVOID CONFLICTS.

M3.2 INSTALL RELOCATED THERMOSTAT REMOVED DURING DEMOLITION TO APPROXIMATE LOCATION SHOWN. THERMOSTAT SHALL BE INSTALLED AT SAME ELEVATION AS LIGHT SWITCHES. COORDINATE FINAL LOCATION WITH ARCHITECT AND OTHER TRADES TO AVOID CONFLICT.

M4.1 PROVIDE IN-LINE FAN AT APPROXIMATE LOCATION SHOWN. SUSPEND FAN FROM STRUCTURE. PROVIDE NECESSARY DUCT TRANSITIONS FROM FAN INLET AND DISCHARGE. RE: DETAIL 9/M6.01.

M4.2 PROVIDE CEILING MOUNTED EXHAUST FAN AT APPROXIMATE LOCATION INDICATED. MOUNT FAN FROM STRUCTURE. RE: DETAIL 12/M6.01.

M4.3 PROVIDE GROUND MOUNTED PACKAGED ROOFTOP UNIT AS SCHEDULED AT APPROXIMATE LOCATION SHOWN. MAINTAIN MANUFACTURER SERVICE CLEARANCE REQUIREMENTS. INSTALL UNIT ON 6" HOUSEKEEPING PAD. PROVIDE NECESSARY TRANSITION FROM UNIT TO DUCT SIZE INDICATED.

M4.4 EXISTING AIR HANDLING UNIT TO REMAIN AND REUSE. REBALANCE TO CFM SCHEDULED.

M4.5 PROVIDE CEILING CASSETTE FAN COIL UNIT AT APPROXIMATE LOCATION SHOWN. ROUTE REFRIGERANT PIPING TO ASSOCIATED CONDENSING UNIT. REFRIGERANT LINE SHALL BE SIZED PER MANUFACTURER'S RECOMMENDATION. PROVIDE 3/4" CONDENSATE DRAIN LINE AND ROUTE TO EXISTING FLOOR DRAIN LOCATED IN MECHANICAL ROOM. FIELD COORDINATE EXISTING LOCATION OF FLOOR DRAIN.

M4.6 EXISTING CONDENSING UNIT TO REMAIN AND REUSE.

M4.13 EXISTING ELECTRIC RADIANT HEATER AND ALL ASSOCIATED CONTROLS AND ACCESSORIES EXISTING TO REMAIN.

M4.14 PROVIDE APPROPRIATELY SIZED FILTER RACK AT RETURN AIR DUCTWORK. CONTRACTOR TO FIELD VERIFY EXACT SIZE PRIOR TO ORDERING.

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Sheet Name:
LEVEL 1 MECHANICAL PLAN

M2.11

TN PN

AIR DEVICE SCHEDULE

MARK	MFR. & MODEL	TYPE	REMARKS
A	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING.
B	TITUS PAR-AA	PERFORATED FACE RETURN AIR GRILLE	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING. PROVIDE 22"x22" NECK UNLESS OTHERWISE NOTED. PROVIDE O.B.D. FOR DUCTED EXHAUST.
C	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT.
D	TITUS PAR-AA	PERFORATED FACE RETURN AIR GRILLE	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR GYP-BOARD CEILING. PROVIDE 22"x22" NECK UNLESS OTHERWISE NOTED. PROVIDE O.B.D. FOR DUCTED EXHAUST.
E	TITUS 300FL	SIDEWALL SUPPLY AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, DOUBLE DEFLECTION WITH FRONT BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D.
F	TITUS 350FL	SIDEWALL RETURN AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, 35° DEFLECTION WITH BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D. FOR DUCTED EXHAUST.
G	TITUS TDC-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT.
H	TITUS PAR-AA	PERFORATED FACE RETURN AIR GRILLE	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING. PROVIDE 10"x10" NECK UNLESS OTHERWISE NOTED. PROVIDE O.B.D. FOR DUCTED EXHAUST.
J	TITUS ML-39	LINEAR SLOT DIFFUSER	4'-0" LONG, WITH 4 SLOTS, 1" WIDE, CONCEALED MOUNTING FLANGE BORDER AND INSULATED PLENUM, LENGTH AS INDICATED ON PLAN.

NOTES:
1. REFER TO ARCHITECTURAL DRAWINGS FOR FINISH.
2. REFER TO MECHANICAL FLOOR PLAN FOR NECK SIZES.

PACKAGED DX ROOF TOP UNIT SCHEDULE

MARK	RTU-1
SERVES	ADDITION
DUCT CONFIGURATION	HORIZONTAL
DESIGN SUPPLY AIR (CFM)	1,760
DESIGN OUTDOOR AIR (CFM)	675
E.E.R. (AT AHRI CONDITIONS)	11.8
EXT. S.P. (IN. W.G.)	0.50
FAN MOTOR HORSEPOWER	0.7
FAN DRIVE	DIRECT
COOLING DATA	
AMBIENT AIR (°F)	100.0
TOTAL COOLING CAPACITY (MBH)	50.4
TOTAL SENSIBLE CAPACITY (MBH)	39.0
EAT DB/WB (°F)	80.1/67.1
LAT DB/WB (°F)	59.6/58.4
HEATING DATA	
GAS HEATING CAPACITY (MBH)	74
HEATING TYPE	10:0 MODULATING GAS
EAT (°F)	46.0
LAT (°F)	85.0
ELECTRICAL DATA	
VOLTS/PHASE/HERTZ	208/3/60
MCA	73.0
MOCP	110.0
MANUFACTURER	TRANE
MODEL NO.	OABD060A3
DIMENSIONS LXWLH	119" x 52" x 55"
OPERATING WEIGHT (LBS)	1,413
NOTES	1,2,3,4,5,6,7,8,9,10,11

NOTES:
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
2. PROVIDE UNIT WITH 2" DOUBLE WALL CONSTRUCTION R-13 CASING
3. PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION WITH 65K SCCR RATING.
4. PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN TO DE-ENERGIZE THE UNIT WHEN PRIMARY DRAIN LINE BECOMES RESTRICTED.
5. PROVIDE UNITS WITH MINIMUM MERV 13 FILTERS.
6. PROVIDE WITH MANUFACTURE PROVIDED DDC CONTROLLER WITH TOUCHSCREEN INTERFACE.
8. PROVIDE UNIT WITH CONDENSER HAIL GUARD AND SLIDE OUT SUPPLY FAN FOR SERVICE.
9. PROVIDE UNIT WITH COMPARATIVE ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF.
10. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH.
11. EQUIPMENT SHALL BE PROVIDED WITH MODULATING HOT GAS REHEAT WITH AT LEAST 6" DOWNSTREAM OF COOLING COIL.

EXHAUST FAN SCHEDULE

MARK	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	EF-7
SERVES	RESTROOM	ADDITION	SURGERY	CAT WARD	RESTROOM	DENTAL	TREATMENT
TYPE/DRIVE	CEILING/DIRECT	INLINE/DIRECT	INLINE/DIRECT	CEILING/DIRECT	CEILING/DIRECT	CEILING/DIRECT	INLINE/DIRECT
INTERLOCK	LIGHT SWITCH	RTU-1	LIGHT SWITCH	EX-FCU-2	LIGHT SWITCH	EX-FCU-3	EX-FCU-3
CFM (MIN./MAX.)	75	365	275	100	75	175	275
EXT. S.P. (IN. W.G.)	0.300	0.400	0.300	0.300	0.350	0.350	0.300
HORSEPOWER	16W	1/10.	1/10.	16W	16W	49W	1/10.
FAN SPEED (RPM)	950	1,478	1,454	971	950	1,109	1,446
SONES (MAX.)	0.9	6.8	6.5	2.5	0.9	0.3	6.5
VOLTS/PHASE/HERTZ	120/1/60	120/1/60	120/1/60	120/1/60	120/1/60	120/1/60	120/1/60
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER	SP-A110	SQ-90-VG	SQ-80-VG	SP-A390-VG	SP-A110	CSP-A710-VG	SQ-80-VG
NOTES	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4	1,2,3,4

NOTES:
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO FILTERS, HOUSING, NOR ACCESSORIES.
2. PROVIDE WITH DIRECT DRIVE, ELECTRONICALLY COMMUTATED FAN MOTOR (ECM).
3. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. PROVIDE WITH VIBRATION ISOLATORS.
4. PROVIDE WITH FAN MOUNTED MOTOR RATED TOGGLE SWITCH.

DX FAN COIL UNIT SCHEDULE

MARK	FCU-1A
SERVES	SURGERY ROOM
SUPPLY AIR (CFM)	525
OUTSIDE AIR (CFM)	0
EXT. S.P. (IN. W.G.)	0.3
COOLING EAT DB/WB (°F)	78.8/66.7
COOLING LAT DB/WB (°F)	59.4/58.3
TOTAL COOLING CAPACITY (MBH)	14.5
SENSIBLE COOLING CAPACITY (MBH)	11.0
HEATING EAT DB (°F)	70.0
HEATING LAT DB (°F)	89
DESIGN HEATING CAPACITY (MBH)	10.8
ACTUAL HEATING CAPACITY (MBH)	18.7
NO. OF HEATING STAGES	1
VOLTS/PHASE/HERTZ	208/1/60
MANUFACTURER	MITSUBISHI
MODEL NO.	TPLA0A018
NOTES	1,2,3,4

NOTES:
1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
2. PROVIDE WITH CONDENSATE DRAIN PUMP.
3. UNIT SHALL BE SELECTED FOR A 4 WAY THROW CEILING CASSETTE UNIT.
4. PROVIDE UNIT WITH MERV 13 FILTER.

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	ACCU-1A
SERVES	FCU-1A
TOTAL COOLING CAPACITY (MBH)	18
AMBIENT TEMP. (°F)	100
STEPS OF CAPACITY	1
EER/SEER	13.0/18.60
VOLTS/PHASE/HERTZ	208/1/60
MCA	11.0
MOCP	28.0
VOLTS/PHASE/HERTZ	208/1/60
MANUFACTURER	MITSUBISHI
MODEL NUMBER	TRUZA018
NOTES	1,2,3,4,5,6,7

NOTES:
1. INSTALL PER MANUFACTURER'S SPECIFICATIONS.
2. REFRIGERANT LINES TO BE SIZED BY MANUFACTURER.
3. PROVIDE 5 YEAR PARTS AND LABOR WARRANTY ON CONDENSING UNITS.
4. PROVIDE WITH CONDENSER COIL HAIL GUARD.
5. PROVIDE WITH LOW AMBIENT HEAD PRESSURE CONTROL.
6. PROVIDE ECM CONDENSER FAN MOTOR.
7. UNTIL SHALL BE CAPABLE TO FULL COOL DOWN TO 0 DEGREES F.

ADDITION AIR BALANCE SUMMARY

DESCRIPTION	OUTSIDE AIR QUANTITY IN CFM	EXHAUST AIR DESCRIPTION	EXHAUST QUANTITY IN CFM
FCU-1A	0	EF-2	365
RTU-1A	675	EF-3	275
TOTAL OUTSIDE AIR	**675**	**TOTAL EXHAUST AIR**	**640**
TOTAL AIR BALANCE		**35**	(POSITIVE)

EXISTING BUILDING AIR BALANCE SUMMARY

DESCRIPTION	OUTSIDE AIR QUANTITY IN CFM	EXHAUST AIR DESCRIPTION	EXHAUST QUANTITY IN CFM
EX-FCU-1	200	EF-1	75
EX-FCU-2	250	EF-4	100
EX-FCU-3	410	EF-5	75
		EF-6	175
		EF-7	275
TOTAL OUTSIDE AIR	**860**	**TOTAL EXHAUST AIR**	**700**
TOTAL AIR BALANCE		**160**	(POSITIVE)

REBALANCE FAN COIL UNIT SCHEDULE

TAG	OUTSIDE AIR	TOTAL AIRFLOW
EX-FCU-1	200 CFM	1255 CFM
EX-FCU-2	250 CFM	2140 CFM
EX-FCU-3	410 CFM	1810 CFM

BASEBOARD HEATERS SCHEDULES

TAG	LENGTH	WATTS	VOLTS/PHASE/HERTZ	MODEL	MANUFACTURER
BH-1	4'	1000	120/1/60	2514W	BERKO

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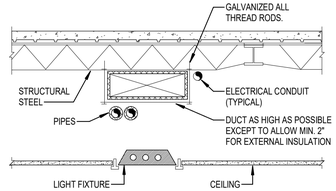
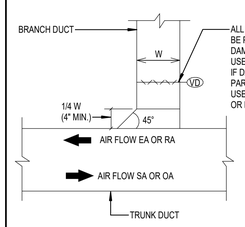
M5.01



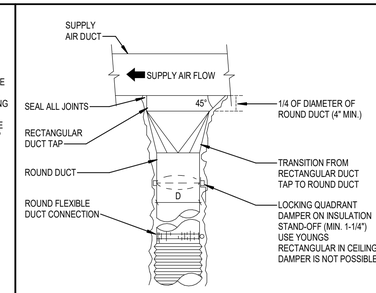
NOTES:
1. PIPES (INCLUDING SPRINKLER PIPING) AND ELECTRICAL CONDUIT CAN BE ROUTED BETWEEN JOISTS OR THROUGH JOIST WEB SPACE AS REQUIRED. DUCT SHALL BE LOCATED AS HIGH AS POSSIBLE.
2. U.L. DESIGN ASSEMBLY NUMBERS ARE SHOWN ON ARCHITECTURAL PLANS WHEN REQUIRED.
3. INSTALLATION OF ALL SERVICES MUST BE COORDINATED BY THE CONTRACTOR.

1 TYP. MEP INSTALLATION DETAIL
NOT TO SCALE M40.dwg



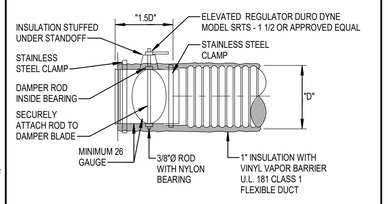
NOTES:
THIS CONNECTION SHALL BE TYPICAL FOR ALL RECTANGULAR BRANCH DUCT CONNECTIONS TO RECTANGULAR TRUNK DUCTS, INCLUDING SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST DUCTS.

2 RECTANGULAR BRANCH DUCT TAP
NOT TO SCALE M40.dwg



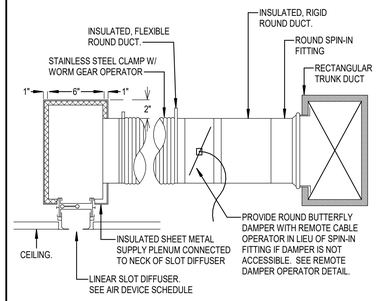
RE: FLOOR PLAN FOR SIZES

3 RECTANGULAR TAP TO ROUND TRANSITION
NOT TO SCALE M40.dwg

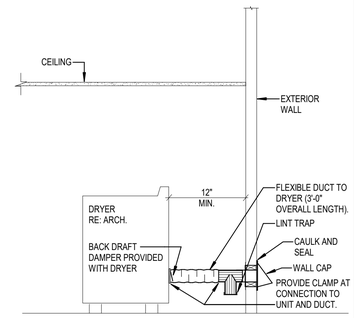


NOTES:
1. ALL FLEXIBLE DUCT OFFSETS AND BENDS SHALL MAINTAIN A RADIUS OF 1.5 X ("D") MINIMUM 3'-0" AND MAXIMUM 6'-0"
2.TYPICAL OF ROUND DUCT CONNECTIONS TO RECTANGULAR DUCTS
3.ALL JOINTS SHALL BE SEALED WITH MASTIC AND FIBER CLOTH PER SPECIFICATIONS.

4 SPIN-IN DETAIL
NOT TO SCALE M40.dwg



5 SLOT DIFFUSER CONNECTION
NOT TO SCALE M40.dwg



6 DRYER EXHAUST TO WALL CAP
NOT TO SCALE M40.dwg

NOTE:
PROVIDE CLEARANCE AROUND UNIT FOR AIR FLOW AND SERVICE PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

7 HEAT PUMP MOUNTING DETAIL
NOT TO SCALE

NOTES:
1. REFER TO ARCH. FOR ROOF & FLASHING DETAILS
2. ALL CONDENSATE DRAIN PIPING SHALL BE SCHEDULE 40 GALV. STEEL WITH MALLEABLE IRON SCREWED FITTINGS.

8 RTU PACKAGED DX (HOR. DISCHG.)
NOT TO SCALE

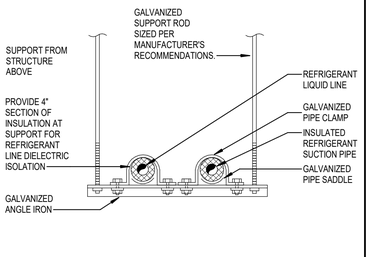
9 IN-LINE EXHAUST FAN DETAIL
NOT TO SCALE

10 COOLING COIL CONDENSATE PUMP
NOT TO SCALE

11 PIPE ENTRY THRU EXTERIOR WALL
NOT TO SCALE

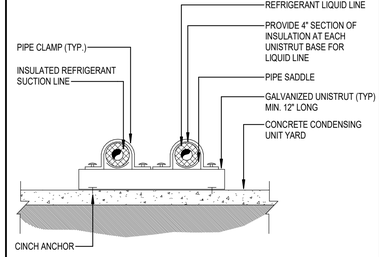
NOTE: PROVIDE FAN U.L RADIATION DAMPER FOR FIRE RATED CEILING.

12 CEILING MOUNTED EXHAUST FAN
NOT TO SCALE



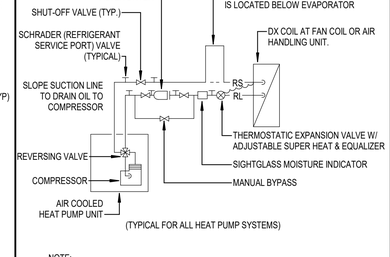
NOTE: PROVIDE SUPPORTS AT 3'-0" ON CENTER MAX. AND WITHIN 1'-0" OF ALL CHANGES IN PIPE DIRECTION.

13 REFRIGERANT PIPE HANGER
NOT TO SCALE



NOTE: PROVIDE SUPPORTS AT 3'-0" ON CENTER AND WITHIN 1'-0" OF ALL CHANGES IN PIPE DIRECTION.

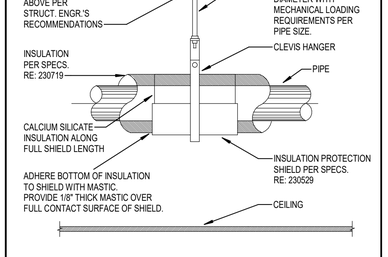
14 FLOOR MOUNTED REFR. PIPE
NOT TO SCALE



(TYPICAL FOR ALL HEAT PUMP SYSTEMS)

NOTE:
1. COMPLY WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS.
2. TYPICAL FOR EACH SEPARATE REFRIGERANT CIRCUIT.
3. PROVIDE REPLACEABLE CORE FILTER DRYER WITH BYPASS ON ALL SYSTEMS.
4. USE "ACR" HARD DRAWN COPPER REFRIGERANT PIPE.

15 HEAT PUMP PIPING DETAIL
NOT TO SCALE



NOTE:
CONTRACTOR SHALL SECURE STRUCT. ENGR. APPROVAL FOR ANY AND ALL PIPE MOUNTING DETAILS TO CONCRETE OR STEEL STRUCTURE. CONTRACTOR SHALL CONFORM TO ALL MAXIMUM SPAN DISTANCES PER SPECIFICATIONS FOR HANGER SPACING. RE: 230529

16 PIPE HANGER DETAIL (1-PIPE)
NOT TO SCALE

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