RSN: 1881854 | PERMIT#: 25-2513934-CM

1 SYMBOLS

- INDICATES NOTES ELSEWHERE ON DRAWING
- DIRECTION OF FLOW
- SIDE CONNECTION
- TOP CONNECTION
- BOTTOM CONNECTION
- ELBOW (TEE) UP
- ELBOW DOWN
- VALVE, SEE SPECIFICATIONS FOR TYPE
- PIPE CAP
- LINE CONTINUED
- UNION
- FLANGE CONNECTION
- CHECK VALVE
- PRESSURE TEMPERATURE TAP
- WYE STRAINER WITH BALL VALVE DOWN
- FLEXIBLE DUCTWORK
- 10Ø ROUND DUCT (DIAMETER)
- 10x8 DUCT (SHOWN x HIDDEN)
- FC FLEXIBLE CONNECTION
- WG WAVE GUIDE (DUCT MOUNTED)
- AIR FLOW ARROW
- (S)D DUCT MOUNTED STATIC PRESSURE SENSOR
- (SP) STATIC PRESSURE SENSOR
- (CO2) CARBON DIOXIDE SENSOR
- 1 REVISION NUMBER
- (LD) LEAK DETECTION
- ACOUSTIC DUCT LINING
- VOLUME CONTROL DAMPER
- DUCT TRANSITION
- T THERMOSTAT
- (T) TEMPERATURE SENSOR
- (TH) TEMPERATURE/HUMIDITY SENSOR
- (DP) DIFFERENTIAL PRESSURE SENSOR
- (H) HUMIDITY SENSOR
- (D) DEWPOINT SENSOR
- (DT) DIFFERENTIAL TEMPERATURE SENSOR
- $(H)_2$ HYDROGEN DETECTOR
- (SD) DUCT MOUNTED SMOKE DETECTOR
- SQUARE ELBOW WITH TURNING VANES
- RADIUS ELBOW
- ROUND DUCT SECTION
- SUPPLY AIR DUCT SECTION
- RETURN/EXHAUST AIR DUCT SECTION
- OUTSIDE AIR DUCT SECTION
- CONICAL "T"
- STRAIGHT "T"
- BOOT CONNECTION
- M MOTOR OPERATED DAMPER
- F FIRE DAMPER
- C COMBINATION FIRE/SMOKE DAMPER
- SUPPLY DIFFUSER
- XX DIFFUSER NUMBER
- XXX CFM CAPACITY
- SECTION LETTER
- DRAWING NUMBER WHERE SHOWN

3 GENERAL NOTES

1. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS IN THE LOCATION OF DUCTWORK, PIPING, ETC.
2. ALL DUCTWORK AND PIPING SHALL BE INSTALLED AT ELEVATIONS INDICATED ON MECHANICAL AND ARCHITECTURAL DRAWINGS.
3. DO NOT SCALE DRAWINGS - ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR. NOTIFY ENGINEER OF ANY DEVIATIONS FROM THE DRAWINGS.
4. ALL PIPING, CONDUIT, DUCTWORK, ETC., SHALL BE INSTALLED IN A MANNER WHICH WILL NOT DEFACE OR ALTER ANY AREAS.
5. ALL WORK PERFORMED ON THIS BUILDING SHALL BE IN COMPLIANCE WITH ALL PERTINENT CODES, RULES, ORDINANCES, AND REGULATIONS OF THE LOCAL, STATE, AND NATIONAL GOVERNING AUTHORITIES.
6. ALL WORK PERFORMED UNDER AND IN CONNECTION WITH THESE DRAWINGS AND SPECIFICATIONS SHALL BE IN STRICT COMPLIANCE WITH THE LATEST SAFETY AND HEALTH STANDARDS.
7. REPORT ANY DISCREPANCIES FOUND IN THE DRAWINGS AND/OR IN THE SPECIFICATIONS DURING THE BIDDING PROCESS FOR CLARIFICATION BY THE ARCHITECT/ENGINEER.
8. CONTRACTOR SHALL PROVIDE AND INSTALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, FIRE DAMPERS, ETC. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF ACCESS PANELS WITH FINISH WORK AND ALL OTHER TRADES.
9. ALL PIPING AND DUCTWORK TO BE LOCATED AND COORDINATED WITH ARCHITECTURAL PLANS. ALL PIPING AND DUCTWORK TO BE CONCEALED IN FINISHED AREAS.
10. ALL PIPE PENETRATIONS THROUGH CHASES, WALLS, OR FLOORS WHICH ARE FIRE-RATED, SHALL BE PROPERLY SEALED TO MAINTAIN FIRE PROTECTION.
11. ALL DUCTS THAT PENETRATE CHASES, WALLS, OR FLOORS WHICH ARE FIRE-RATED, SHALL BE INSTALLED WITH FIRE DAMPERS IN ACCORDANCE WITH NFPA 90A. THIS APPLIES EVEN IF THEY ARE NOT SPECIFICALLY SHOWN ON THE DRAWING.
12. ANY PHYSICAL INSTALLATION MODIFICATIONS, DUE TO FIELD CONDITIONS, SHALL BE RESOLVED BY THE MECHANICAL CONTRACTOR IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MECHANICAL ENGINEER.
13. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR ABOVE SUSPENDED CEILING.
14. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW ONLY THE GENERAL ARRANGEMENTS OF ALL PIPING AND EQUIPMENT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO SHOW OR INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED TO AVOID PIPING, CONDUIT OR STRUCTURAL FEATURES.
15. PROVIDE 120V UNINTERUPTABLE POWER TO BMS CONTROL PANELS, COORDINATE WITH CONTROLS CONTRACTOR.
16. PROVIDE RELAY AND 120V POWER TO COMBINATION FIRE/SMOKE DAMPERS (COORDINATE WITH CONTROLS CONTRACTOR).
17. ALL TRANSFER AND RETURN AIR DUCTS WITHOUT A REGISTER OR GRILLE OVER THE OPENING SHALL BE PROVIDED WITH A 1/2" x 1/2" STAMPED METAL SCREEN OVER OPENINGS.
18. CONTRACTOR SHALL REFER TO ARCHITECTURAL DRAWINGS FOR DETALING OF ALL ROOF PENETRATIONS.
19. ALL THERMOSTATS TO BE MOUNTED AT 42" AFF UNLESS NOTED OTHERWISE.
20. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

6 FIRE SAFETY NOTES

1. EQUIPMENT (AIR HANDLING UNITS, FAN COIL UNITS, ETC) SHUT-DOWN: ALL HVAC UNITS, CSFD'S, ETC. SHALL SHUT DOWN UPON A SIGNAL FROM THE FIRE ALARM SYSTEM AND/OR ACTIVATION OF ANY SMOKE ALARM. PROVIDE ALL REQUIRED INTERFACE AND TESTING. COORDINATE REQUIREMENTS WITH FIRE LIFE SAFETY CONTRACTOR.
2. SMOKE DETECTORS: PROVIDE SMOKE DETECTORS IN THE SUPPLY AND RETURN OF ALL AIR HANDLING UNITS AND FAN COIL UNITS PER IMC AND NFPA STANDARDS. DETECTIONS SHALL BE FULLY COMPATIBLE WITH FIRE LIFE SAFETY SYSTEM.
3. FIRE ALARM & FIRE LIFE SAFETY: THE FIRE ALARM AND FIRE LIFE SAFETY SHALL COMPLY WITH ARTICLE 760 OF THE COLORADO ELECTRICAL CODE, APPLICABLE NFPA STANDARDS AND CITY OF AURORA ORDINANCES.
   FIRE ALARM SYSTEM SHALL BE SUBMITTED UNDER A SEPARATE PERMIT.

7 DUCTWORK NOTES

1. ALL DUCTWORK SIZES REFER TO THE INTERIOR FREE AREA, NOT THE EXTERNAL DIMENSIONS OF THE DUCT.
2. FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED.
3. ALL DUCT JUNCTIONS SHALL BE CONSTRUCTED OF STANDARD 45 DEGREES ENTRY BRANCHES WITH BALANCING DAMPERS DOWNSTREAM OF DUCT BRANCH ENTRY.
4. TOTAL STATIC PRESSURE NOTED IN SCHEDULES INCLUDES DUCT SYSTEM, TERMINAL UNITS, FILTERS, COILS, ETC.
5. TURNING VANES SHALL BE PROVIDED IN ALL MITERED SUPPLY AIR & MAKE-UP AIR ELBOWS.
6. CEILING DIFFUSER SIZES SHOWN ON FLOOR PLANS REFER TO NECK SIZE.
7. REFER TO SPECIFICATIONS FOR DUCTWORK PRESSURE AND LEAKAGE CLASS.
8. ALL SUPPLY AIR DIFFUSERS SHALL BE PROVIDED WITH AN ACCESSIBLE VOLUME CONTROL DAMPER LOCATED UPSTREAM IN DUCT (AS CLOSE TO BRANCH JUNCTION AS POSSIBLE). THIS APPLIES EVEN IF THEY ARE NOT SPECIFICALLY SHOWN ON THE DRAWING.
9. ALL DIFFUSERS IN INACCESSIBLE CEILINGS SHALL BE PROVIDED WITH A FLEXIBLE CABLE CONNECTED TO THE VOLUME CONTROL DAMPER TO MANUALLY ADJUST CFM THROUGH THE THROAT OF THE DIFFUSER.
10. NO RUN OF FLEXIBLE DUCTWORK SHALL CONTAIN MORE THAN 90 DEGREES OF TURN AND BE NO MORE THAN (6) SIX FEET IN LENGTH.
11. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF CEILING DIFFUSERS, REGISTERS, AND GRILLES.

8 PIPING NOTES

1. ALL DOWNFEED BRANCHES AND EQUIPMENT SHALL HAVE DRAIN COCKS INSTALLED AT LOWEST POINT.
2. ALL HORIZONTAL LINES SHALL BE RUN LEVEL WITHOUT POCKETS. WHERE POCKETS OCCUR, AUTO AIR VENTS SHALL BE INSTALLED AT EACH VERTICAL RISE.
3. ALL UPFEED RISERS SHALL BE MADE WITH TOP CONNECTIONS AT MAIN. ALL DOWNFEED RISERS SHALL BE MADE WITH BOTTOM CONNECTIONS AT MAIN.
4. CHANGES OF PIPE SIZES ON HORIZONTAL RUNS SHALL BE MADE WITH INVERTED ECCENTRIC REDUCERS WITH TOP OF PIPE LEVEL.
5. ARROWS ON SUPPLY AND RETURN LINES INDICATE DIRECTION OF FLOW.
6. PROVIDE VALVE WITH HOSE END ON ALL LOW POINTS OF PIPING SYSTEM AND AUTO AIR VENTS AT ALL HIGH POINTS OF THE PIPING SYSTEM UNLESS NOTED OTHERWISE.
7. FOR TYPICAL WATER PIPING CONNECTIONS TO EQUIPMENT, SEE DETAILS.
8. WATER PIPE CONNECTIONS TO AIR COOLING COILS SHALL BE MADE SO THERE WILL BE COUNTER FLOW BETWEEN WATER AND AIR.
9. DIELECTRIC UNIONS AND FLANGES SHALL BE USED ON ALL CONNECTION BETWEEN DISSIMILIAR METALS.
10. ALL LINES NOTED "BELOW FLR." OR "ABV. CLG." SHALL BE CONCEALED IN JOIST SPACE, THROUGH JOISTS, OR BETWEEN JOISTS, UNLESS CEILING IS FURRED OR LINES ARE BELOW SLAB ON GRADE. REFER TO SECTIONS FOR PIPING TO BE RUN BELOW RAISED FLOOR. COORDINATE WITH POWER, DATA CABLING AND FIRE PROTECTION PIPING PRIOR TO WORK.
11. SET ALL FUNNEL DRAINS OVER P-TRAPS.
12. COORDINATE LOCATIONS OF ALL LINES AND EQUIPMENT WITH OTHER CONTRACTORS.
13. PROVIDE P/T TAPS ON INLET AND OUTLET OF EACH PIECE OF EQUIPMENT AND CONTROL DEVICE (FMS, CONTROL VALVES, ETC.)
14. CONTRACTOR SHALL COORDINATE LOCATION AND QUANTITY OF TEMPERATURE SENSORS. PRESSURE SENSORS, ETC. W/BMS CONTRACTOR AND PROVIDE THE APPROPRIATE WELDOLET, FITTINGS, ETC.
15. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

QTS Federal Standard - Version Matrix
Project: QTS DEN1-DC2...

Design Deliverable:
QTS Design Standards will be utilized as the Basis Of Design for the Data Center Building.
Design Consultant team to notate Version of QTS Design Standards.

Design Discipline	QTS Design Standard		
	Design Narrative	DD Drawing Set	Reference File
Civil	V3.0	N/A	
General	V3.0	V3.0	
Structural	V3.0	V3.0	
Architectural	V3.0	V3.0	
Fire Alarm	V3.0	V3.0	
Fire Protection	V3.0	V3.0	
Plumbing	V3.0	V3.0	
Process (I&C)	See Below	V3.0	
Mechanical	V3.0	V3.0	
Electrical	V3.0	V3.0	
Technology (Telecom)	V3.0	V3.0	
Audio Visual	N/A	V3.0	
Security	V3.0	V3.0	
Interior Standards	V3.0	See Architectural	3.0-rev1
Signage			INTrev4 EXTrev3
SDIs	N/A	N/A	SDI-018(v3.0) thru 44
OFCI Catalog		V4.0	
SOO Catalog		V2.0	

Design Discipline	Q-Systems Design Standard BODs Version
Data Telecom BOD	Federal Standard - Data Telecom - 04.14.2024
Physical Security BOD	Federal Standard - Security Systems - 05.10.2024
DCIM - BMS BOD	Federal Standard - BMS Content Consolidation - 04.16.2024
DCIM - EPMS BOD	Federal Standard - EPMS Content Consolidation - 04.16.2024

9 QTS FEDERAL STANDARD - VERSION MATRIX

GROUP 1 SITE	GROUP 2 BUILDING	GROUP 3 EQUIPMENT	GROUP 4 SYSTEM/RM	GROUP 5 SEQUENCE
XXX#	– DC# –	XXX	– #### –	##

10 QTS MECHANICAL EQUIPMENT NAMING STANDARD

2 ABBREVIATIONS

AAV	AUTOMATIC AIR VENT
ABV	ABOVE
AC	ALTERNATING CURRENT
ACCU	AIR COOLED CONDENSING UNIT
AFF	ABOVE FINISHED FLOOR
AFM	AIR FLOW MONITOR
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AL	ACOUSTIC LINING
ALT	ALTERNATE
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APPROX	APPROXIMATELY
ASSOC	ASSOCIATED
ATC	AUTOMATIC TEMPERATURE CONTROL
AUTO	AUTOMATIC
AUX	AUXILIARY
AVG	AVERAGE
BAS	BUILDING AUTOMATION SYSTEM
BDD	BACKDRAFT DAMPER
BFV	BUTTERFLY VALVE
BHP	BRAKE HORSEPOWER/BOILERHOUSEPOWER
BI	BINARY INPUT
BLDG	BUILDING
BLW	BELOW
BO	BLOW OFF/BINARY OUTPUT
BTM	BOTTOM
BTUH	BRITISH THERMAL UNIT PER HOUR
BTWN	BETWEEN
C/L	CENTER LINE
CAP	CAPACITY
CC	COOLING COIL
CDL	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CHAR	CHARACTERISTIC
CIRC	CIRCULATING
CKT	CIRCUIT
CLG	CEILING
CNTR	CONTROLLER
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONST	CONSTRUCTION
CONTR	CONTRACTOR
COP	COEFFICIENT OF PERFORMANCE
CORR	CORRIDOR
CRAH	COMPUTER ROOM AIR HANDLING UNIT
CS	CURRENT SENSOR
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CVB	CONSTANT VOLUME BOX
CW	COLD WATER
D	DEEP
DA	DAMPER ACTUATOR
DAT	DISCHARGE AIR TEMPERATURE
Db	DRY BULB TEMPERATURE, °F
DC	DIRECT CURRENT
DCC	DIRECT DIGITAL CONTROL
DIA	DIAMETER
DIFF	DIFFUSER
DISCH	DISCHARGE
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DPC	DIFFERENTIAL PRESSURE CONTROLLER
DPI	DIFFERENTIAL PRESSURE INDICATOR (GAUGE)
DPR	DAMPER
DPS	DIFFERENTIAL PRESSURE SWITCH
DPT	DEW POINT TEMPERATURE, °F
DR	DRAIN
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE, °F
EC	ELECTRICAL CONTRACTOR
ECON	ECONOMIZER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEV	ELEVATION
EMS	ENERGY MANAGEMENT SYSTEM
ENCL	ENCLOSURE
ENT	ENTERING
EQUIP	EQUIPMENT
ER	ECCENTRIC REDUCER (BOTTOMS FLAT)
ERC	EXHAUST REGISTER CEILING
ERW	EXHAUST REGISTER WALL
ES	END SWITCH
ESP	EXTERNAL STATIC PRESSURE
EVAP	EVAPORATOR
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION
FA	FREE AREA
FAT	FINAL AIR TEMPERATURE, °F
FC	FLEXIBLE CONNECTION / FAIL CLOSED
FCD	FLOW CONTROL DEVICE
FD	FIRE DAMPER / FLOOR DRAIN
FDN	FOUNDATION
FIN	FINISHED
FLA	FULL LOAD AMPS
FLG	FLANGE
FLR	FLOOR
FNL	FUNNEL
FPB	FAN POWERED BOX
FR	FROM
FS	FLOW SWITCH
FSD	FIRE SMOKE DAMPER
FSP	FINAL STATIC PRESSURE
FT	FIN-TUBE/FEET
FTG	FITTING
FURN	FURNISH
FV	FACE VELOCITY
GA	GAUGE, GAGE
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GR	GRILLE
GRAV	GRAVITY
GRV	GRAVITY ROOF VENTILATOR
H	HEIGHT
HG	MERCURY
HGR	HANGER
HOA	HANDS-OFF-AUTOMATIC
HORIZ	HORIZONTAL
HP	HORSEPOWER/HEAT PUMP
HR	HOUR
HTG	HEATING
HTR	HEATER
HUH	HORIZONTAL UNIT HEATER
HUM	HUMIDIFIER
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HZ	HERTZ
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
ILF	IN-LINE FAN
IME	INSULATED METAL ENCLOSURE
IN	INCHES
INSUL	INSULATION
INV	INVERT
ISP	INITIAL STATIC PRESSURE
JB	JUNCTION BOX
KW	KILOWATT
KWH	KILOWATT HOUR
L	LENGTH
LAT	LEAVING AIR TEMPERATURE, °F
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LF	LINEAR FEET
LL	LOW LIMIT
LP	LOW PRESSURE
LPD	LOW PRESSURE DRIP
LRA	LOCK ROTOR AMPS
LTG	LIGHTING
LVG	LEAVING
MAN	MANUAL
MAU	MAKE-UP AIR UNIT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MBH	THOUSAND BTUH
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MER	MECHANICAL EQUIPMENT ROOM
MFG	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MOTOR OPERATED DAMPER
MS	MOTOR STARTER
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MTR	MOTOR
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED/NOISE CRITERIA
NEG	NEGATIVE
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
No	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAT	OUTSIDE AIR TEMPERATURE
OC	ON CENTER
OCC	OCCUPIED
OD	OUTSIDE DIAMETER
OPER	OPERATED
OPNG	OPENING
OPP	OPPOSITE
OVF	OVERFLOW
OZ	OUNCE
PC	PLUMBING CONTRACTOR/PERSONAL COMPUTER
PD	PRESSURE DROP/PUMP DISCHARGE
PG	PRESSURE GAUGE WITH COCK
PH	PHASE
PI	PRESSURE INDICATOR (GAUGE)
PNL	PANEL
PPD	PERFORATED PLATE DAMPER
PR	PANEL RADIATOR
PRESS	PRESSURE
PRV	POWER ROOF VENTILATOR/PRESSURE REDUCING VALVE
PS	PIPE SUPPORT
PSIA	POUNDS PER SQUARE INCH ABSOLUTE
PSIG	POUNDS PER SQUARE INCH GAGE
PT	PRESSURE/TEMPERATURE TAP
PV	PROCESS VARIABLE
QTY	QUANTITY
RA	RELIEF/RETURN AIR
RAD	RADIATOR
RAF	RETURN AIR FIXTURES
REC	RECESSED
REFRIG	REFRIGERANT
REG	REGISTER
REINF	REINFORCED
REQD	REQUIRED
RET	RETURN
REV	REVISION
RF	RETURN/RELIEF FAN
RGC	RELIEF/RETURN GRILLE CEILING
RGCP	RELIEF/RETURN GRILLE CEILING PERFORATED
RGW	RELIEF/RETURN GRILLE WALL
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RRC	RETURN REGISTER CEILING
RRCP	RETURN REGISTER CEILING PERFORATED
RRW	RETURN REGISTER WALL
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE
RWC	RAIN WATER CONDUCTOR
S/S	START/STOP
SA	SUPPLY AIR
SCH	SCHEDULE
SD	SMOKE DETECTOR
SDC-()	SUPPLY DIFFUSER CEILING - (THROWS)
SDCL	SUPPLY DIFFUSER CEILING LINEAR
SDCP-()	SUPPLY DIFFUSER CEILING PERFORATED - (THROWS)
SDCR	SUPPLY DIFFUSER CEILING ROUND
SDPR	SMOKE DAMPER
SENS	SENSIBLE
SF	SUPPLY FAN
SHT	SHEET
SP	STATIC PRESSURE (INCHES OF WATER)
SPEC	SPECIFICATION
SPGR	SPECIFIC GRAVITY
SPS	STATIC PRESSURE SENSOR
SQ	SQUARE
SQFT	SQUARE FEET
SRC	SUPPLY REGISTER CEILING
SRW	SUPPLY REGISTER WALL
SS	STAINLESS STEEL/SPLIT SYSTEM
ST	SPACE TEMPERATURE
STD	STANDARD
STL	STEEL
STR	STRAINER
STRUCT	STRUCTURAL
SUP	SUPPLY
SW	SWITCH
T	THERMOSTAT
TA	THROW AWAY
TAB	TESTING, ADJUSTING, AND BALANCING
TBD	TO BE DETERMINED
TC	TEMPERATURE CONTROLLER
TCV	TEMPERATURE CONTROL VALVE
TD	TEMPERATURE DIFFERENCE
TEMP	TEMPERATURE
TGC	TRANSFER GRILLE CEILING
TGCP	TRANSFER GRILLE CEILING PERFORATED
TGW	TRANSFER GRILLE WALL
TH	THERMOMETER
THK	THICK
TI	TEMPERATURE INDICATOR
TOT	TOTAL
TRANS	TRANSITION
TS	TIP SPEED/TEMPERATURE SENSOR (SPACE)
TSL	LOW TEMPERATURE PROTECTION
TSP	TOTAL STATIC PRESSURE/TEMPERATURE SETPOINT DEVICE
TSTAT	THERMOSTAT
TT	THERMOSTATIC TRAP/TEMPERATURE SENSOR (UNIT MOUNTED)
TV	TURNING VANES
TYP	TYPICAL
UC	UNDERCUT
UG	UNDERGROUND
UH	UNIT HEATER
UNOCC	UNOCCUPIED
V	VOLTAGE, VALVE
VA	VENTILATION AIR
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VCD	VOLUME CONTROL DAMPER (MANUAL)
VEL	VELOCITY
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W	WIDTH
W/	WITH
W/O	WITHOUT
Wb	WET BULB TEMPERATURE, °F
WC	WATER COLUMN
WG	WATER GAUGE
WH	WALL HEATER
WMS	WIRE MESH SCREEN
WP	WEATHERPROOF
WT	WEIGHT
WTD	WATER TEMPERATURE DROP, °F
X1, X2	TRANSFORMER SECONDARY TERMINALS
XFMR	TRANSFORMER
°F	FAHRENHEIT

4 APPLICABLE CODE

CODE ANALYSIS
THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF:

PARTIAL LIST OF APPLICABLE CODES

2021 INTERNATIONAL BUILDING CODE (IBC)
2021 INTERNATIONAL RESIDENTIAL CIDE (IRC)
2021 INTERNATIONAL MECHANICAL CODE (IMC)
2021 INTERNATIONAL FUEL GAS CODE (IFGC)
2021 INTERNATIONAL FIRE CODE (IFC)
2021 INTERNATIONAL PLUMBING CODE (IPC)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 24, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Heating system shall be capable of maintaining 68 degrees F at 3'0" above the floor.
2021 IMC 309.1, IRC 303.10 and IBC 1203.1

Provide proof of a flame spread less than 26 and a smoke development less than 50 for any material used in a plenum.
2021 IMC 602.2.1

Plastic fire sprinkler piping exposed within a plenum shall be used only in wet pipe systems and shall have a maximum: peak optical density of 0.50; average optical density of 0.15; flame spread of 5 feet in accordance with UL 1887. Piping shall be listed and labeled.
2021 IMC 602.2.1.2

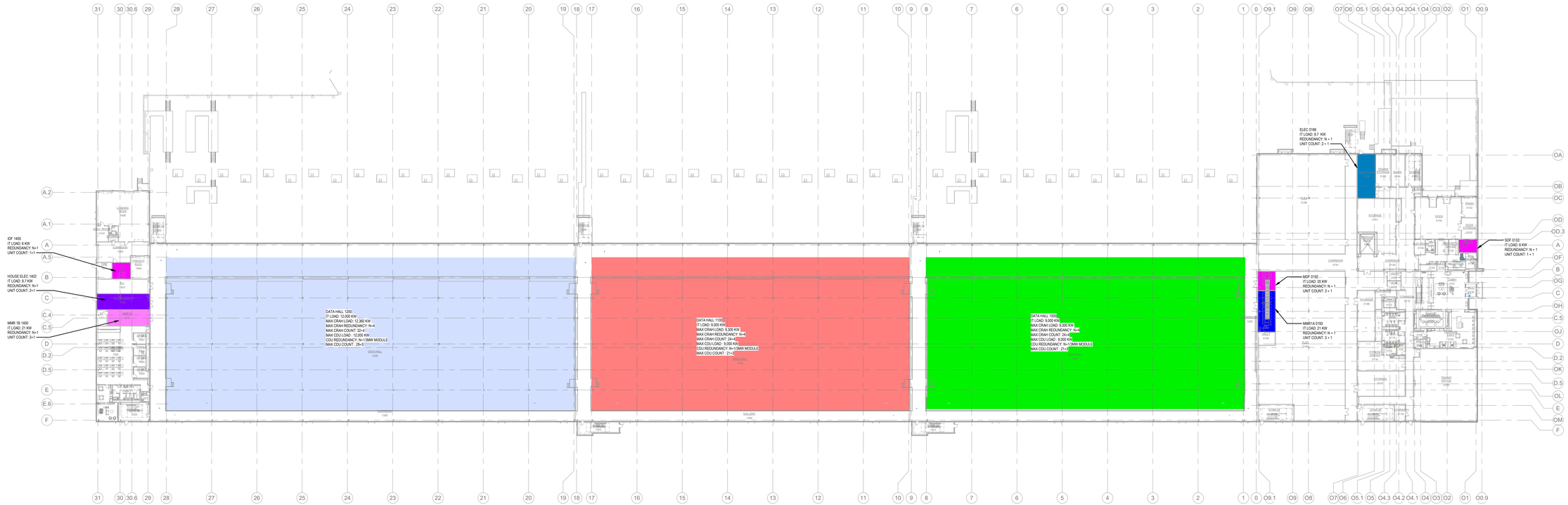
City of Aurora Building Division
Reviewed for Code Compliance
By: Rich Tenorio
Date: Apr 09, 2025
2021 International Codes & 2023 NEC
FIRE / LIFE SAFETY REVIEW ONLY

SEE THE GENERAL SET REGARDING FIRE PROTECTION SUBMITTAL

SEPARATE FIRE SPRINKLER PERMIT REQUIRED: Due to the proposed work the general contractor is required to obtain the services of a fire sprinkler contractor to determine if a separate sprinkler permit is required. If it is determined if a separate sprinkler permit is required. If it is determined that the spacing of the fire sprinkler heads is not in compliance, then a separate fire sprinkler permit is required. Approval of the documents is required prior to system installation or any requires for inspection. A Certificate of Occupancy or final approval cannot be issued by the Building Division without this fire protection system. **2021 IFC, Section 105.6.1**

5 SHEET LIST

NO.	TITLE	SCALE
M00-00	SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES	NONE
M00-01	LEVEL 1 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT	1" = 40'-0"
M00-02	LEVEL 2 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT	1" = 40'-0"
M01-01	HVAC ZONING PLAN - LEVEL ONE - OVERALL	1" = 40'-0"
M01-02	HVAC ZONING PLAN - LEVEL TWO - OVERALL	1" = 40'-0"
M02-01	HVAC FLOOR PLAN - LEVEL ONE - OVERALL	1" = 40'-0"
M02-01A	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT A	1/8" = 1'-0"
M02-01B	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT B	1/8" = 1'-0"
M02-01C	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
M02-01D	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT D	1/8" = 1'-0"
M02-01F	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT F	1/8" = 1'-0"
M02-01H	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT H	1/8" = 1'-0"
M02-01K	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT K	1/8" = 1'-0"
M02-01M	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT M	1/8" = 1'-0"
M02-01P	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT P	1/8" = 1'-0"
M02-01R	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT R	1/8" = 1'-0"
M02-01ST	HVAC FLOOR PLAN - LEVEL ONE - SEGMENT S-T	1/8" = 1'-0"
M02-02	HVAC FLOOR PLAN - LEVEL TWO - OVERALL	1" = 40'-0"
M02-02A	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT A	1/8" = 1'-0"
M02-02B	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT B	1/8" = 1'-0"
M02-02C	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT C	1/8" = 1'-0"
M02-02D	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT D	1/8" = 1'-0"
M02-02F	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT F	1/8" = 1'-0"
M02-02H	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT H	1/8" = 1'-0"
M02-02K	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT K	1/8" = 1'-0"
M02-02M	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT M	1/8" = 1'-0"
M02-02P	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT P	1/8" = 1'-0"
M02-02R	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT R	1/8" = 1'-0"
M02-02ST	HVAC FLOOR PLAN - LEVEL TWO - SEGMENT S-T	1/8" = 1'-0"
M02-03	HVAC ROOF PLAN - OVERALL	1" = 40'-0"
M02-03A	HVAC ROOF PLAN - SEGMENT A	1/8" = 1'-0"
M02-03B	HVAC ROOF PLAN - SEGMENT B	1/8" = 1'-0"
M02-03C	HVAC ROOF PLAN - SEGMENT C	1/8" = 1'-0"
M02-03D	HVAC ROOF PLAN - SEGMENT D	1/8" = 1'-0"
M02-03F	HVAC ROOF PLAN - SEGMENT F	1/8" = 1'-0"
M02-03H	HVAC ROOF PLAN - SEGMENT H	1/8" = 1'-0"
M02-03K	HVAC ROOF PLAN - SEGMENT K	1/8" = 1'-0"
M02-03M	HVAC ROOF PLAN - SEGMENT M	1/8" = 1'-0"
M02-03P	HVAC ROOF PLAN - SEGMENT P	1/8" = 1'-0"
M02-03R	HVAC ROOF PLAN - SEGMENT R	1/8" = 1'-0"
M02-03ST	HVAC ROOF PLAN - SEGMENT S-T	1/8" = 1'-0"
M03-01	HVAC PIPING PLAN - LEVEL ONE - OVERALL	1" = 40'-0"
M03-01A	HVAC PIPING PLAN - LEVEL ONE - SEGMENT A	1/8" = 1'-0"
M03-01B	HVAC PIPING PLAN - LEVEL ONE - SEGMENT B	1/8" = 1'-0"
M03-01C	HVAC PIPING PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
M03-01D	HVAC PIPING PLAN - LEVEL ONE - SEGMENT D	1/8" = 1'-0"
M03-01ST	HVAC PIPING PLAN - LEVEL ONE - SEGMENT S-T	1/8" = 1'-0"
M03-02	HVAC PIPING PLAN - LEVEL TWO - OVERALL	1" = 40'-0"
M03-02A	HVAC PIPING PLAN - LEVEL TWO - SEGMENT A	1/8" = 1'-0"
M03-02B	HVAC PIPING PLAN - LEVEL TWO - SEGMENT B	1/8" = 1'-0"
M03-02C	HVAC PIPING PLAN - LEVEL TWO - SEGMENT C	1/8" = 1'-0"
M03-02D	HVAC PIPING PLAN - LEVEL TWO - SEGMENT D	1/8" = 1'-0"
M03-02ST	HVAC PIPING PLAN - LEVEL TWO - SEGMENT S-T	1/8" = 1'-0"
M03-03	ROOF PIPING PLAN - OVERALL	1" = 40'-0"
M03-03A	ROOF PIPING PLAN - SEGMENT A	1/8" = 1'-0"
M03-03B	ROOF PIPING PLAN - SEGMENT B	1/8" = 1'-0"
M03-03C	ROOF PIPING PLAN - SEGMENT C	1/8" = 1'-0"
M03-03D	ROOF PIPING PLAN - SEGMENT D	1/8" = 1'-0"
M03-03ST	ROOF PIPING PLAN - SEGMENT S-T	1/8" = 1'-0"
M05-01	MECHANICAL DETAILS	NONE



1 LEVEL 1 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

2/4/2025 2:52:55 PM M00-01 LEVEL 1 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT

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401 N. Houston Street Dallas, TX
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	REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

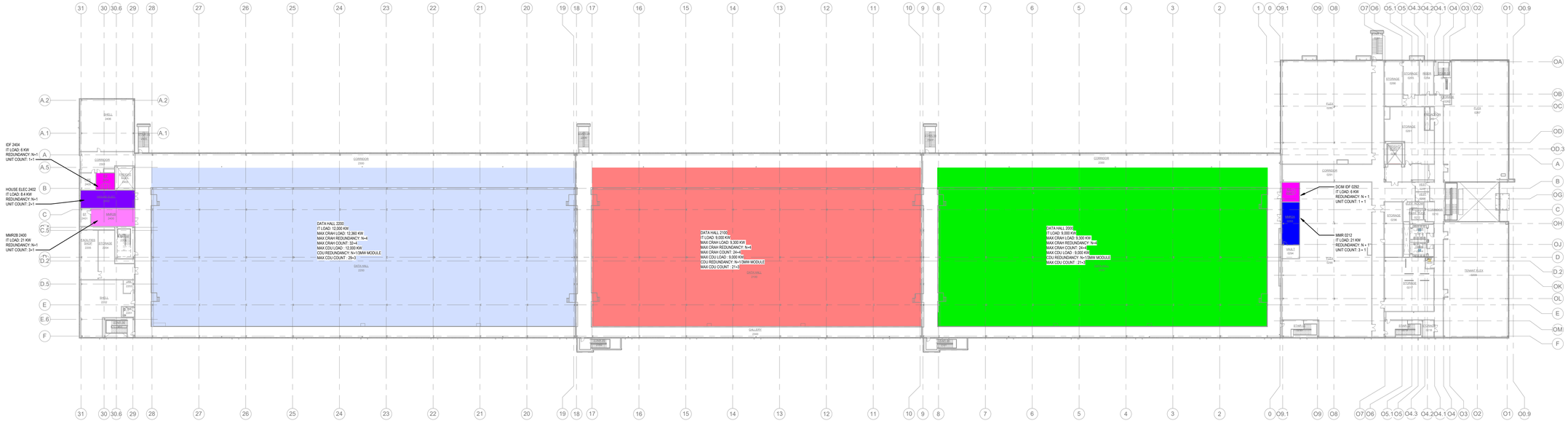
KEYPLAN

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LEVEL 1 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT

JOB 24464.0000
DATE 01.31.25
SHEET

M00-01



1 LEVEL 2 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

2/4/2025 2:52:59 PM M00-02 LEVEL 2 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT

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PROFESSIONAL ENGINEER
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AURORA, CO

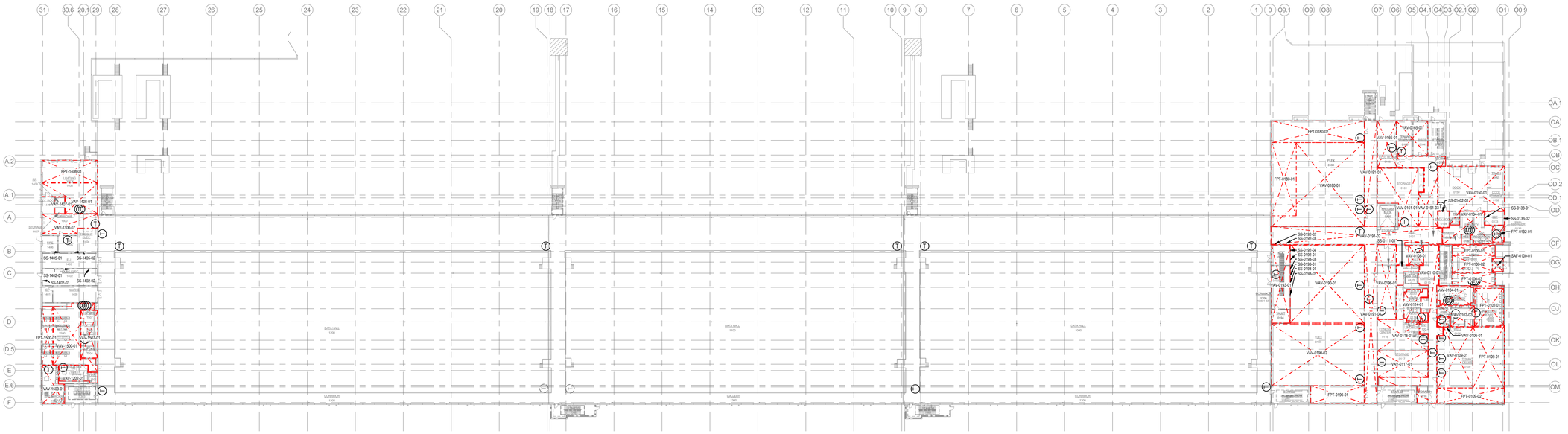
KEYPLAN

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LEVEL 2 - OVERALL PLAN - MASTER MECHANICAL EQUIPMENT

JOB 24464.0000
DATE 01.31.25
SHEET

M00-02



1 LEVEL 1 HVAC ZONING OVERALL PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

2/4/2025 2:53:08 PM M01-01 HVAC ZONING PLAN - LEVEL ONE - OVERALL

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PROFESSIONAL ENGINEER
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Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

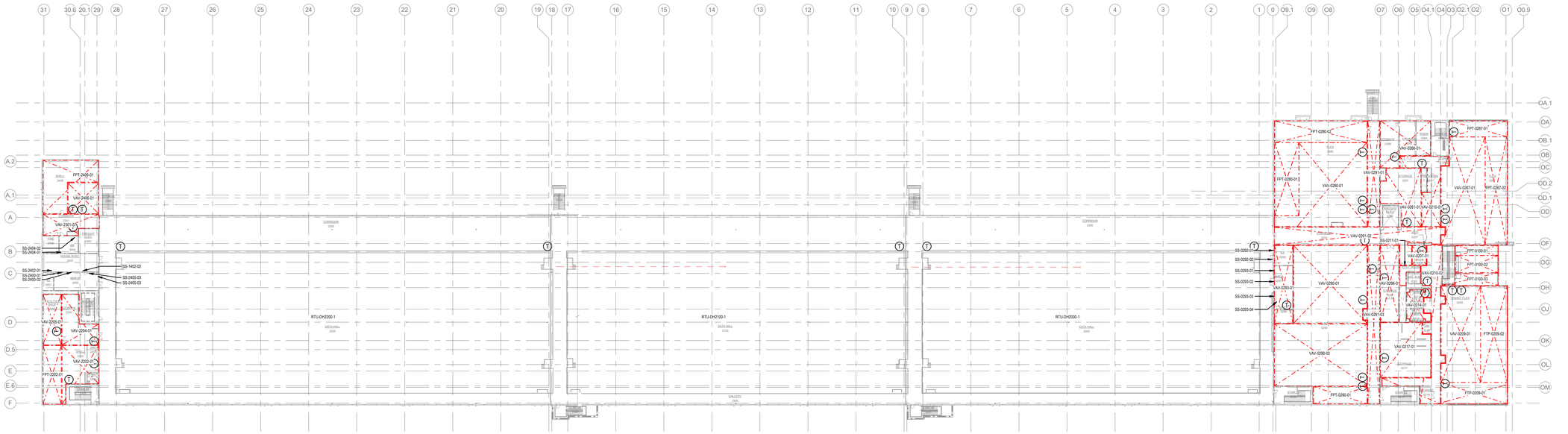
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HVAC ZONING PLAN - LEVEL ONE - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M01-01



1 LEVEL 2 HVAC ZONING OVERALL PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

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AURORA, CO

KEYPLAN

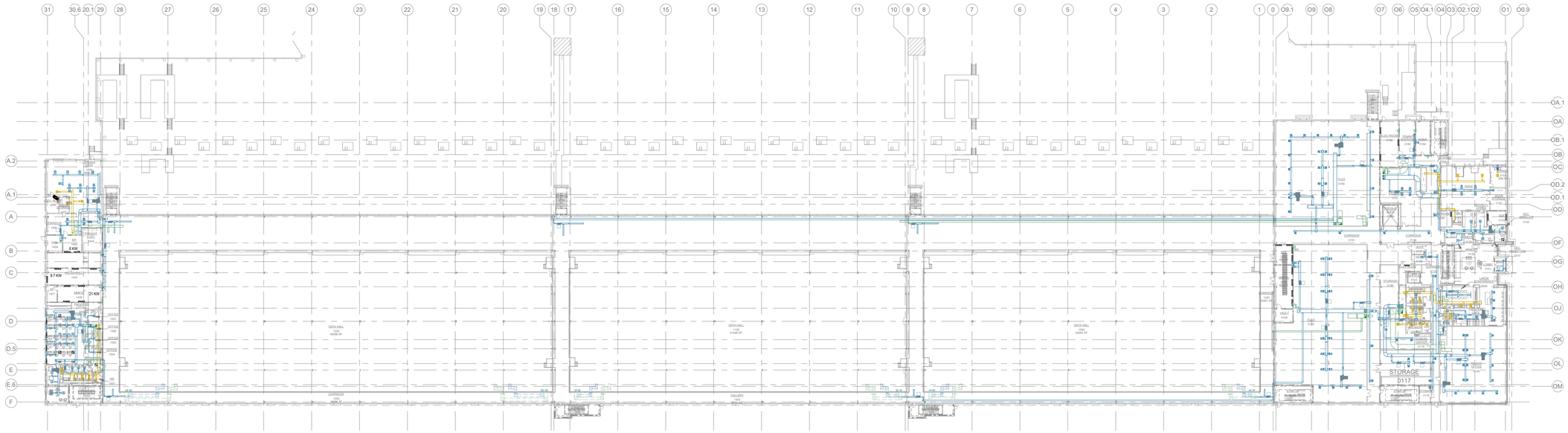
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HVAC ZONING PLAN - LEVEL TWO - OVERALL

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DATE 01.31.25
SHEET

M01-02

2/4/2025 2:53:13 PM M01-02 HVAC ZONING PLAN - LEVEL TWO - OVERALL



1 LEVEL 1 HVAC OVERALL PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

SHEET KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
75202
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

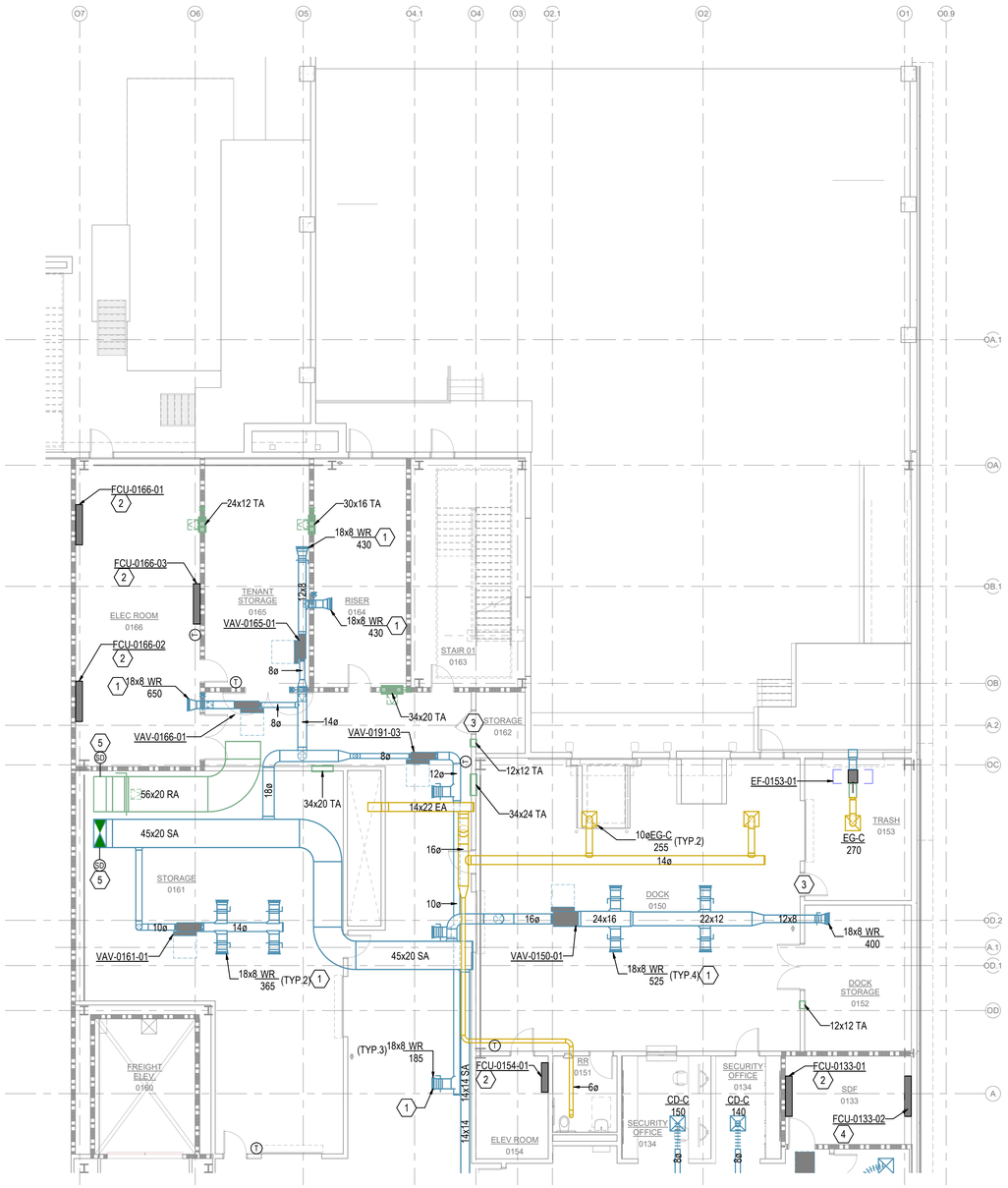
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HVAC FLOOR PLAN - LEVEL ONE - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01

2/4/2025 2:53:23 PM M02-01 HVAC FLOOR PLAN - LEVEL ONE - OVERALL



1 LEVEL 1 - HVAC PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 24, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.
2 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL 2" DEEP DRIP PAN BELOW SPLIT SYSTEM. DRIP PAN SHALL BE LARGER THAN UNIT BY 2" ON ALL SIDES. DRIP PAN SHALL FEATURE A 3/4" THREADED DRAIN WITH A CAP. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL RLE SEAHAWK SD-R01 SPOT-TYPE LEAK DETECTION (OR EQUIVALENT) IN DRIP PAN.
3 PROVIDE 3/4" DOOR UNDER CUT.
4 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
5 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

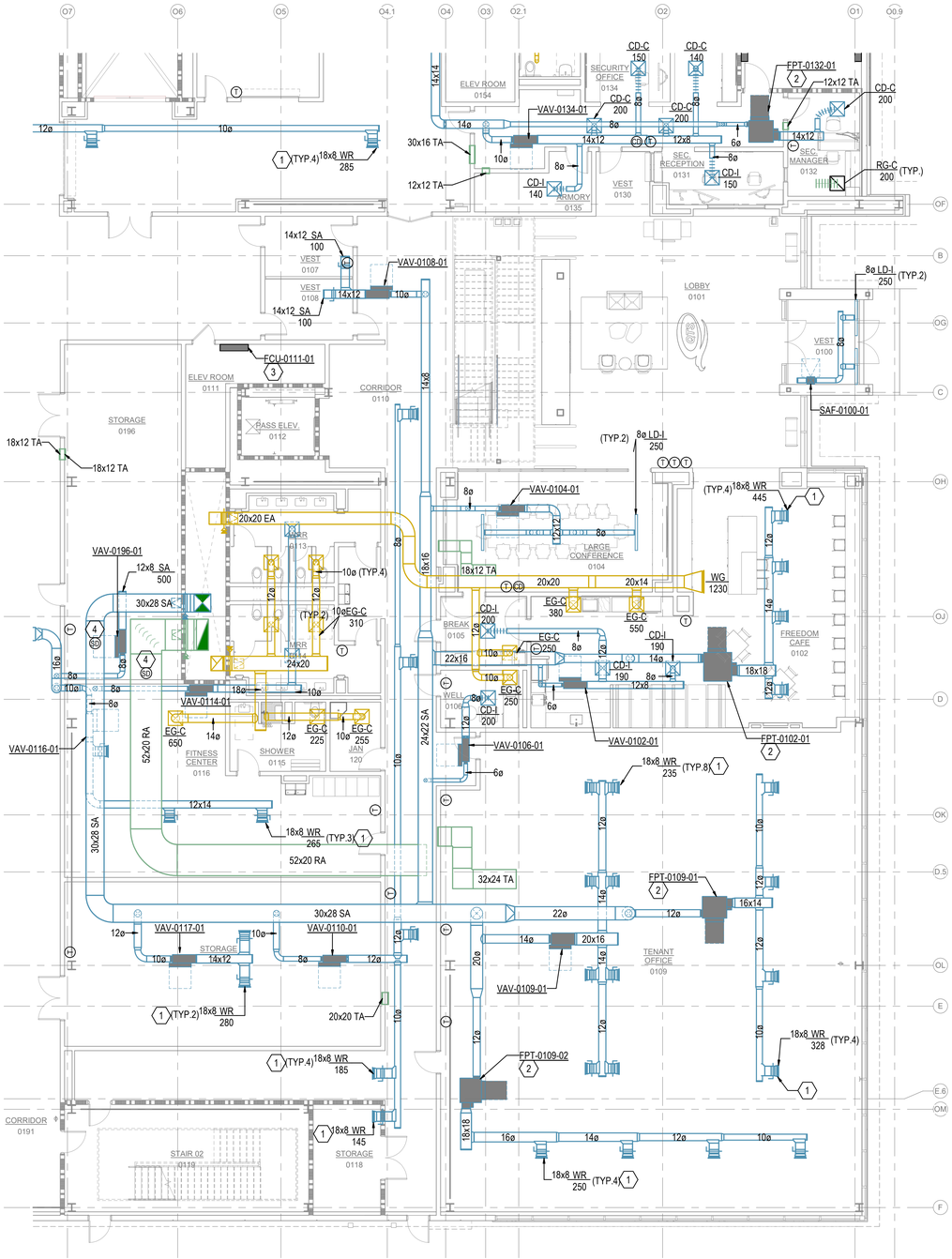
KEYPLAN

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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET
M02-01A

2/4/2025 2:53:28 PM M02-01A HVAC FLOOR PLAN - LEVEL ONE - SEGMENT A



1 LEVEL 1 - HVAC PLAN - B
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 24, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

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K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

2 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.

3 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL SPIRAL DUCTWORK FOR SPACES WITH NO CEILINGS. COORDINATE SPIRAL DUCTWORK FINISHES WITH ARCHITECT.

4 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CORGAN
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KEYPLAN

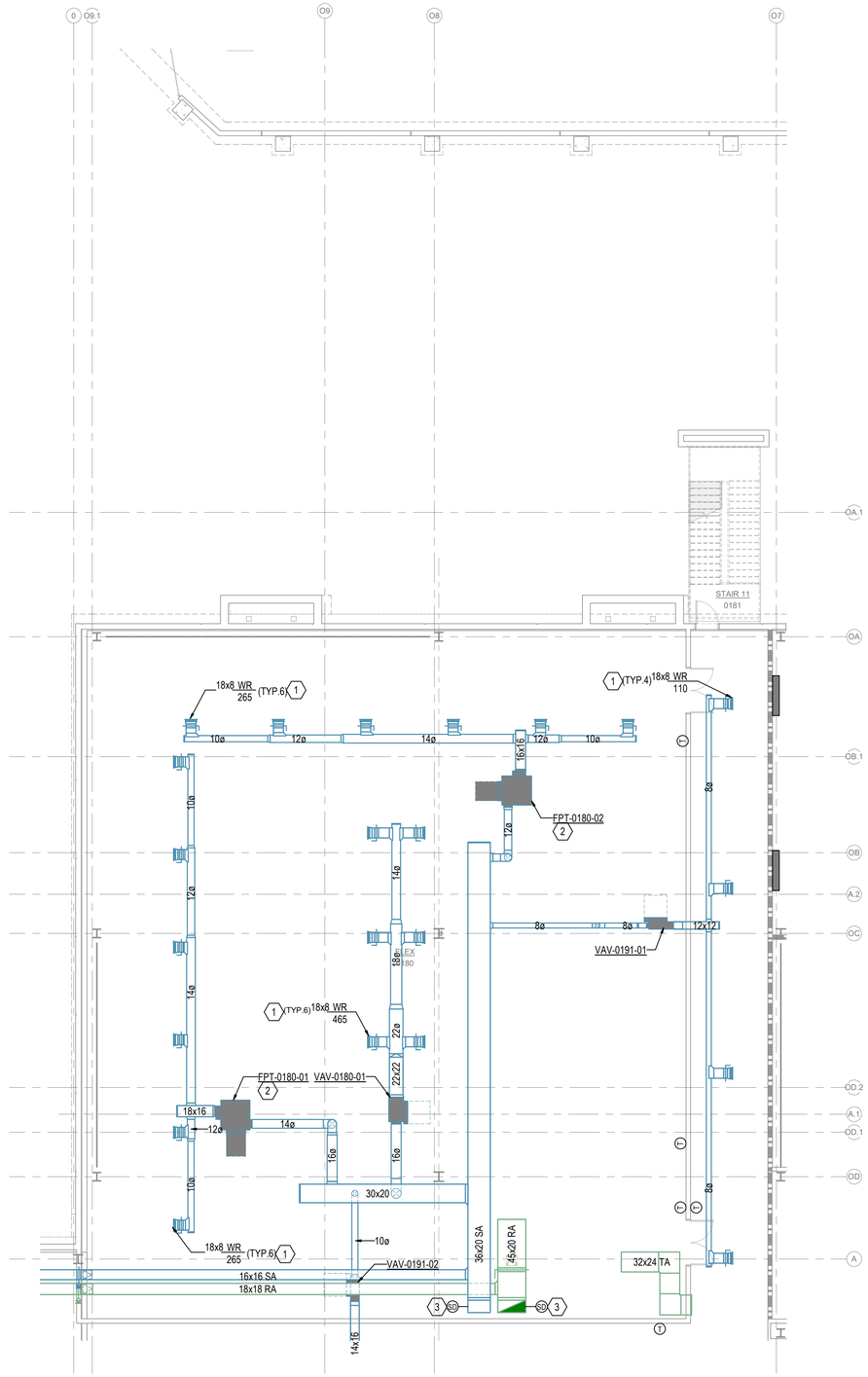
S	Q	N	L	J	G	E	C	A
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01B

2/4/2025 2:53:35 PM M02-01B HVAC FLOOR PLAN - LEVEL ONE - SEGMENT B



1 LEVEL 1 - HVAC PLAN - C
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED 'Z-BEND' CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.
2 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
3 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

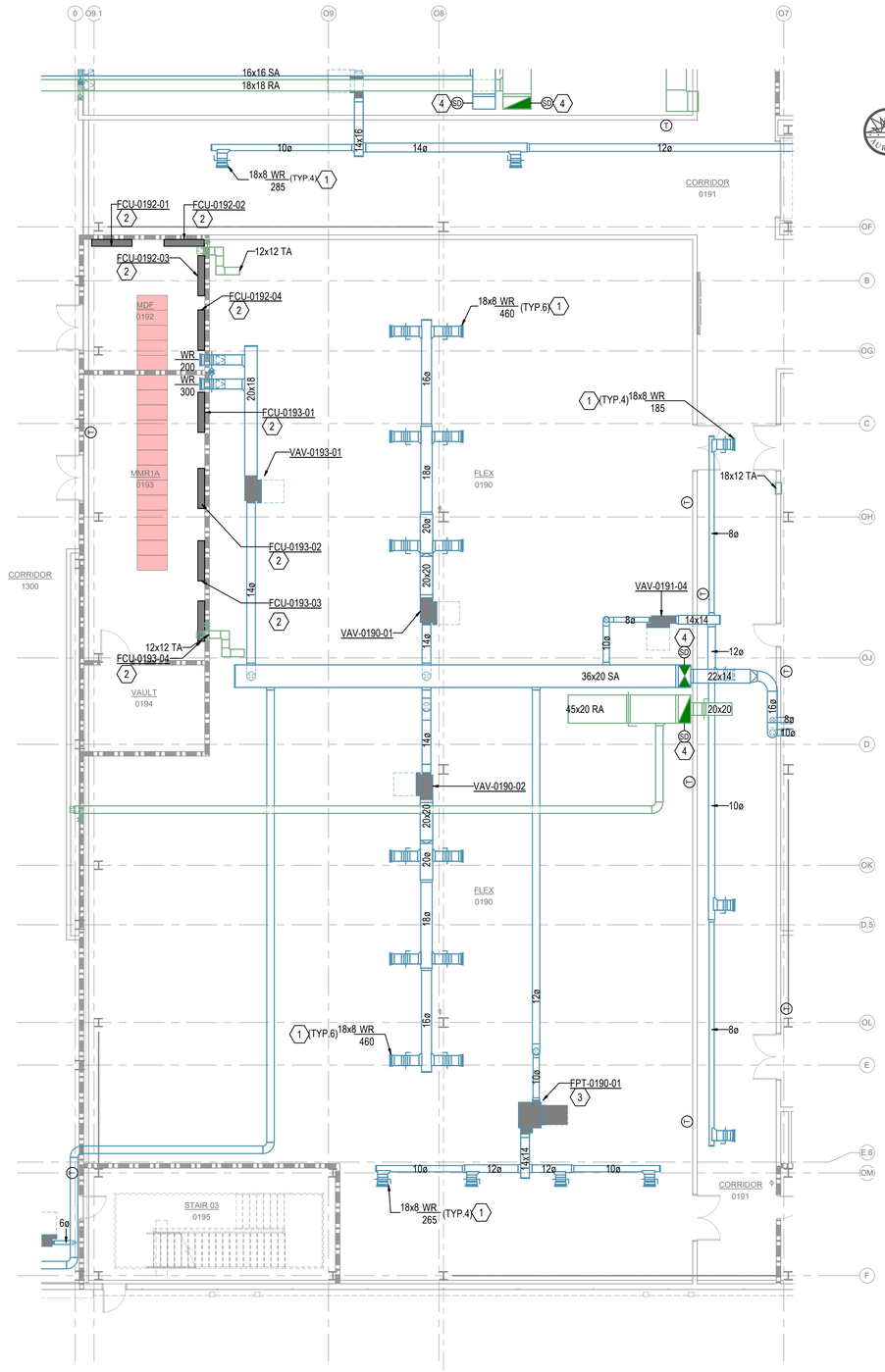
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01C

2/4/2025 2:53:40 PM M02-01C HVAC FLOOR PLAN - LEVEL ONE - SEGMENT C



1 LEVEL 1 - HVAC PLAN - D
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
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E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

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KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

2 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL 2" DEEP DRIP PAN BELOW SPLIT SYSTEM. DRIP PAN SHALL BE LARGER THAN UNIT BY 2" ON ALL SIDES. DRIP PAN SHALL FEATURE A 3/4" THREADED DRAIN WITH A CAP. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL RLE SEAHAWK SD-R01 SPOT-TYPE LEAK DETECTION (OR EQUIVALENT) IN DRIP PAN.

3 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.

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CORGAN
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AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

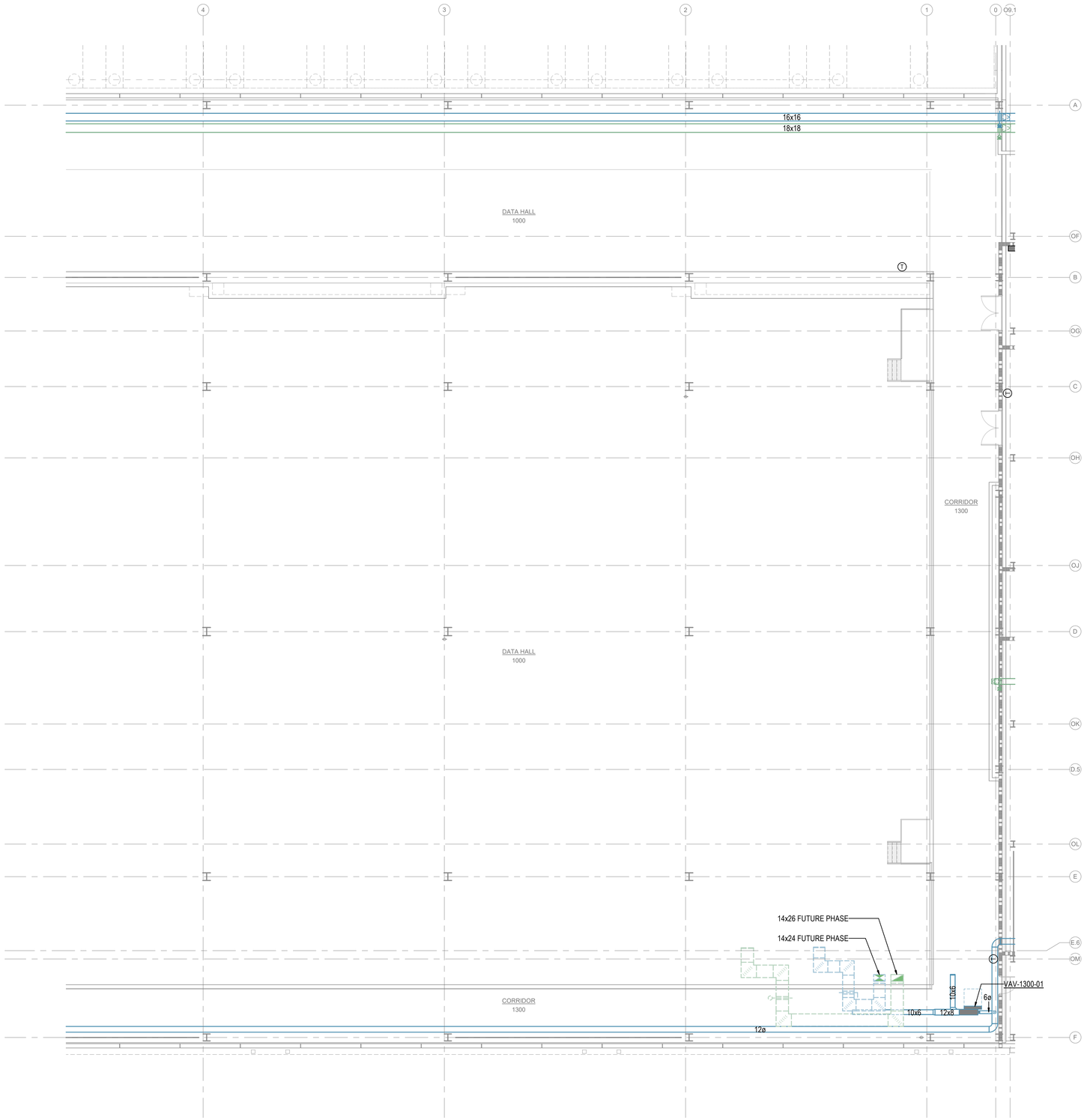
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01D

2/4/2025 2:53:45 PM M02-01D HVAC FLOOR PLAN - LEVEL ONE - SEGMENT D



1 LEVEL 1 - HVAC PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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City of Aurora Building Division
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Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
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KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

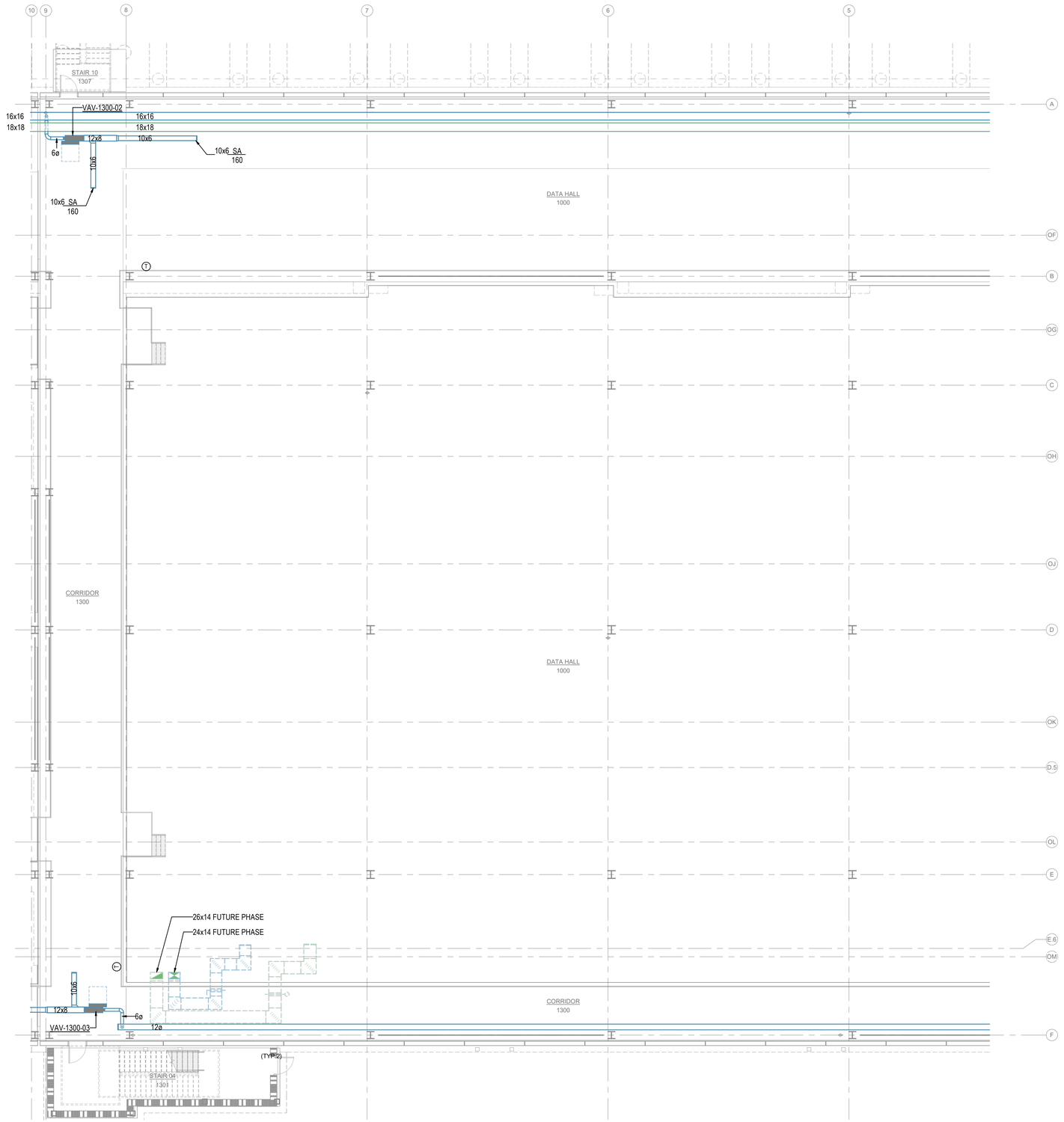
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01F

2/4/2025 2:53:51 PM M02-01F HVAC FLOOR PLAN - LEVEL ONE - SEGMENT F



1 LEVEL 1 - HVAC PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

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City of Aurora Building Division
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KEYNOTES

CORGAN
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75202
T: 214.748.2000

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SYSKA HENNESSY GROUP

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ISSUES		
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REVISIONS		

COLORADO LICENSED
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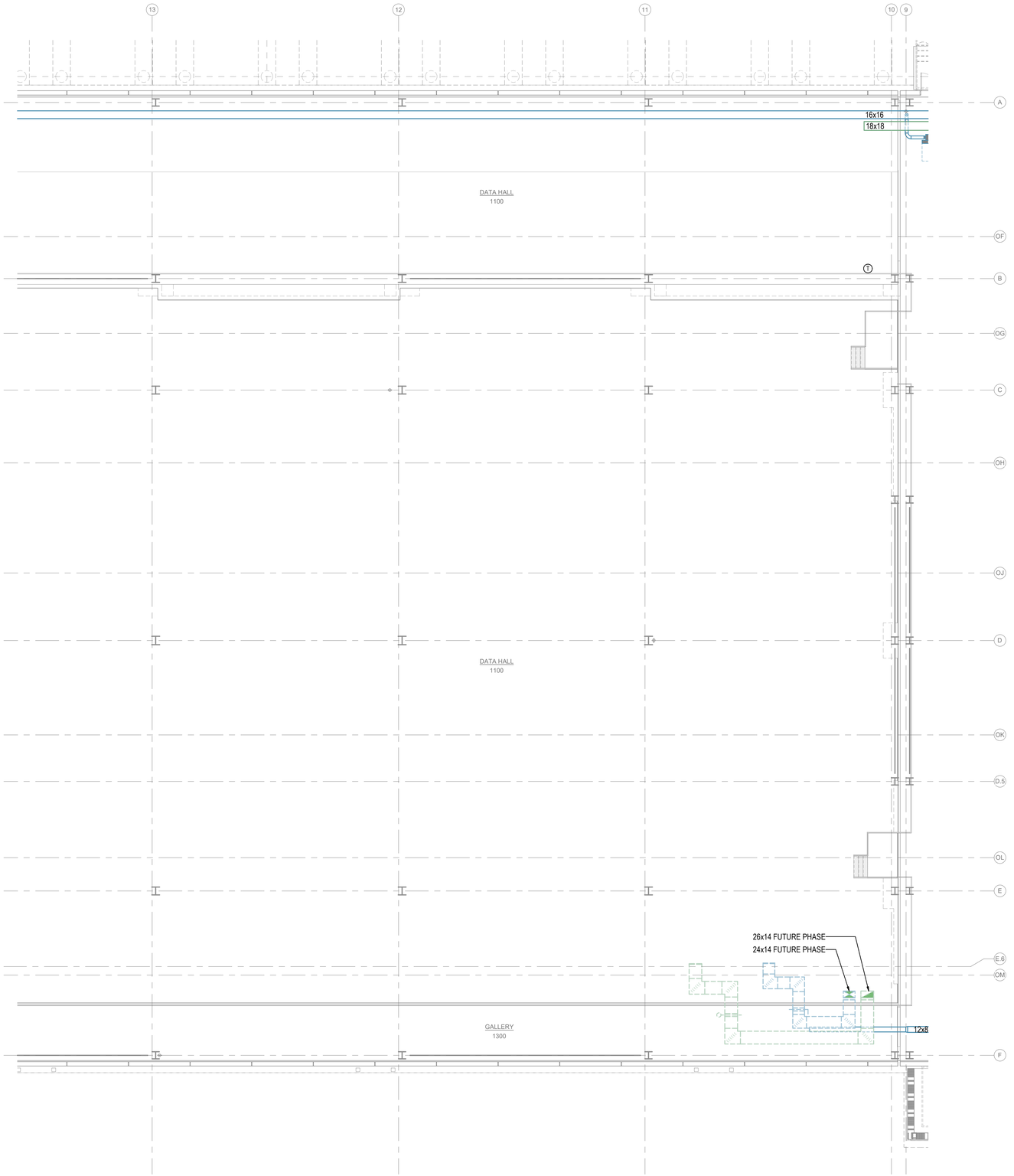
KEYPLAN

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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET
M02-01H

2/4/2025 2:53:56 PM M02-01H HVAC FLOOR PLAN - LEVEL ONE - SEGMENT H



1 LEVEL 1 - HVAC PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

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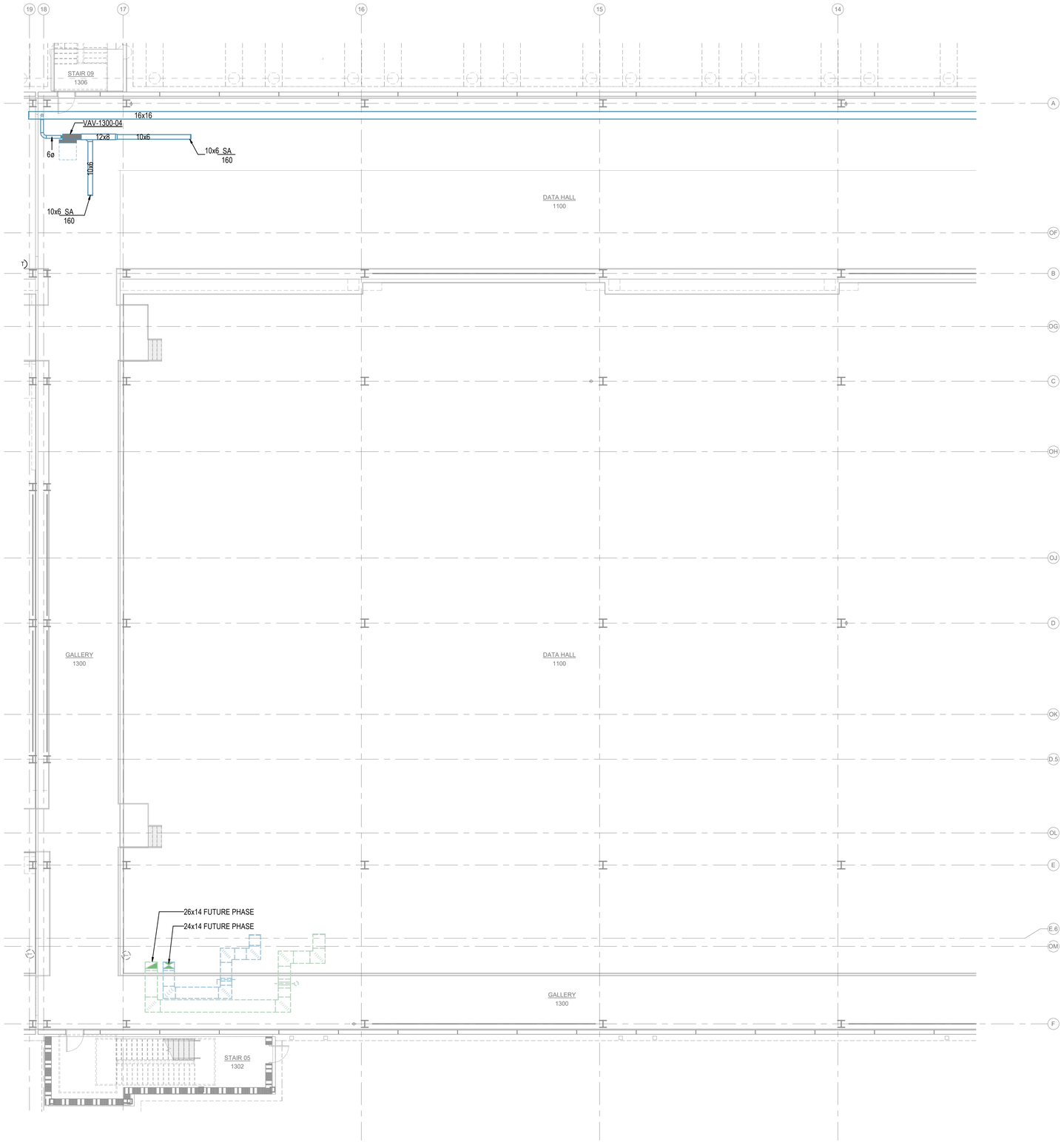
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

HVAC FLOOR PLAN - LEVEL ONE - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET
M02-01K

2/4/2025 2:54:00 PM M02-01K HVAC FLOOR PLAN - LEVEL ONE - SEGMENT K



1 LEVEL 1 - HVAC PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

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L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

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City of Aurora Building Division
Reviewed for Code Compliance
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Date: Mar 21, 2025
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CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

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2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

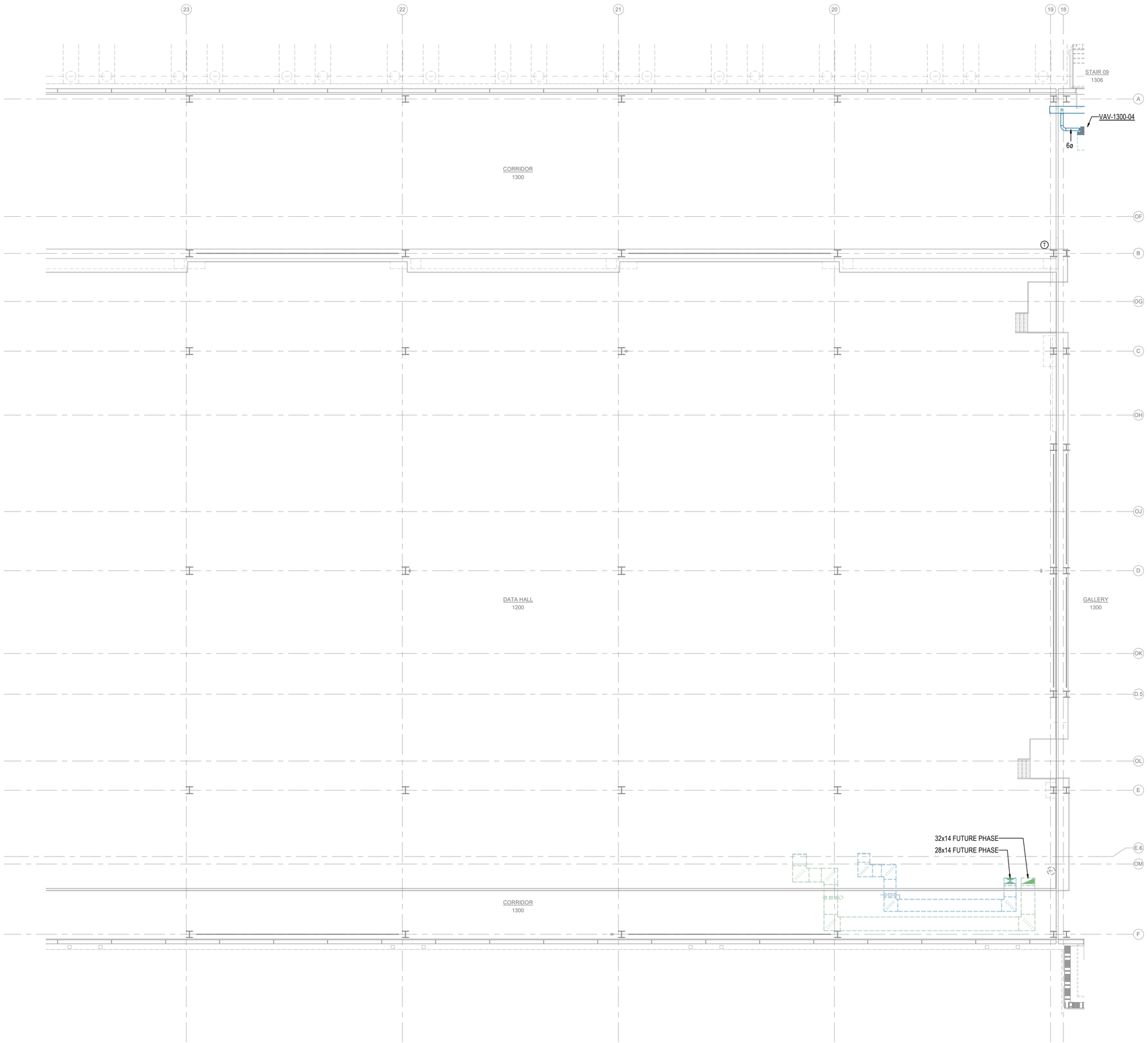
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

M02-01M

2/4/2025 2:54:04 PM M02-01MHVAC FLOOR PLAN - LEVEL ONE - SEGMENT M



1 LEVEL 1 - HVAC PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

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KEYNOTES

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401 N. Houston Street Dallas, TX
75202
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AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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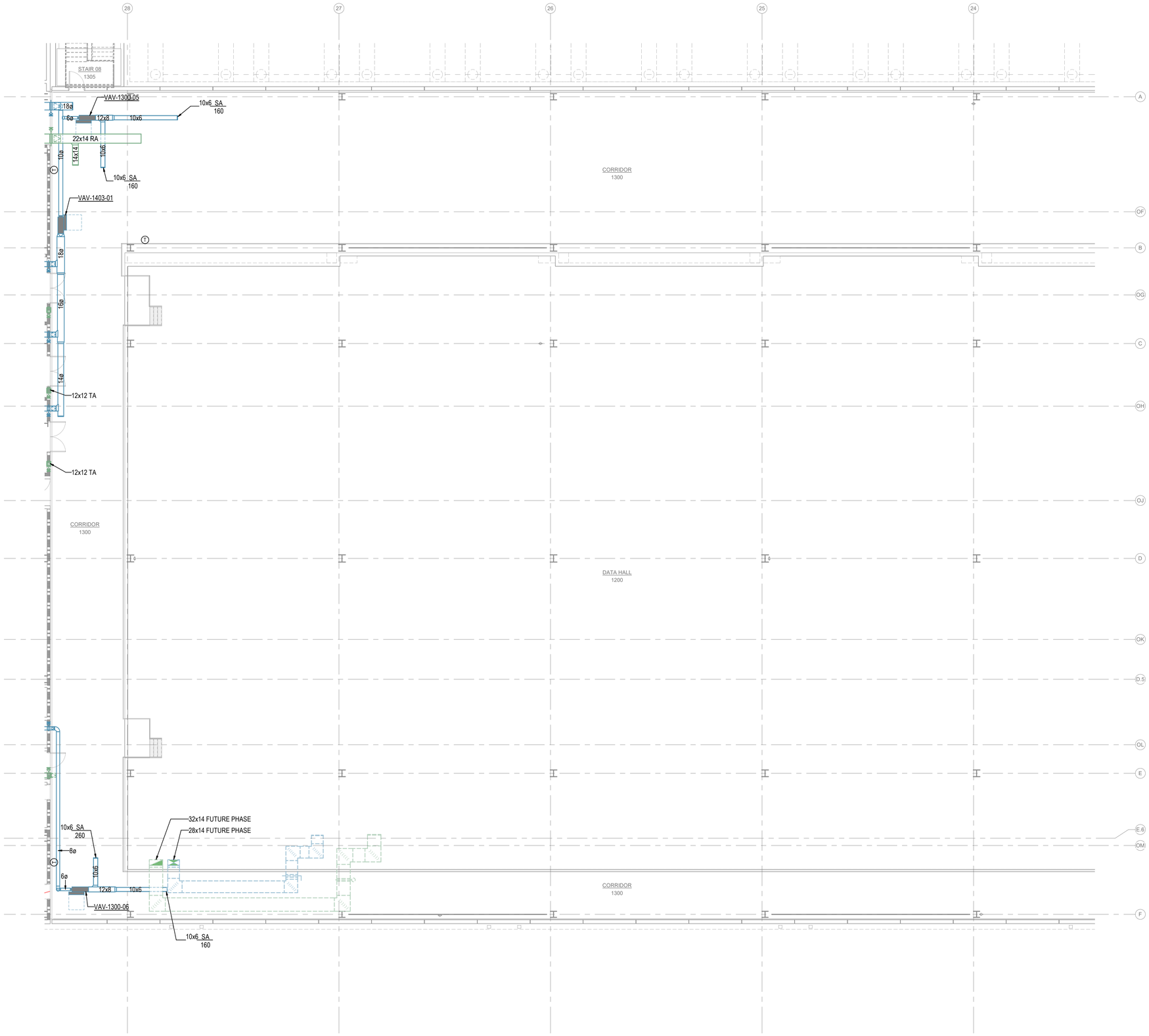
KEYPLAN

S	Q	N	L	J	G	E	C	A
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET M02-01P

2/4/2025 2:54:09 PM M02-01P HVAC FLOOR PLAN - LEVEL ONE - SEGMENT P



2 LEVEL 1 - HVAC PLAN - R
SCALE: 1/8" = 1'-0"

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AG/E

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TCD DESIGN CONSULTING LLC

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WILL B. HODGES
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PROFESSIONAL ENGINEER
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AURORA, CO

KEYPLAN

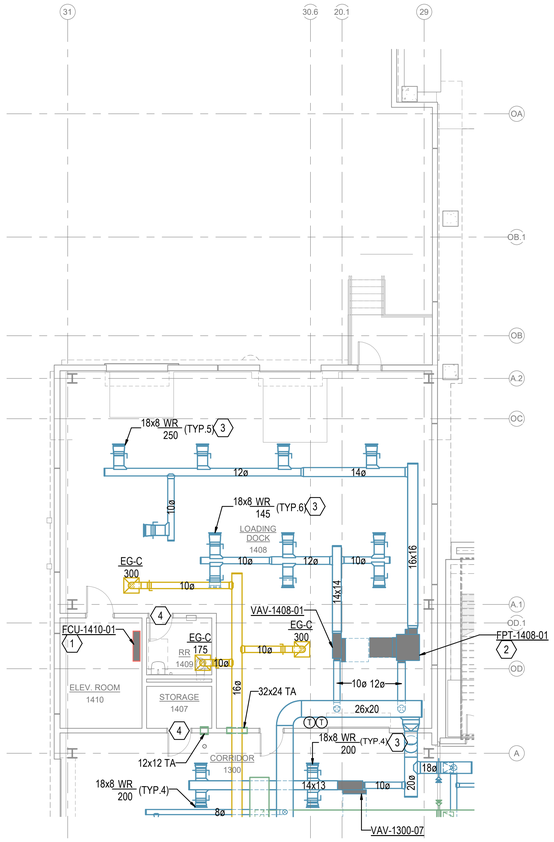
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT R

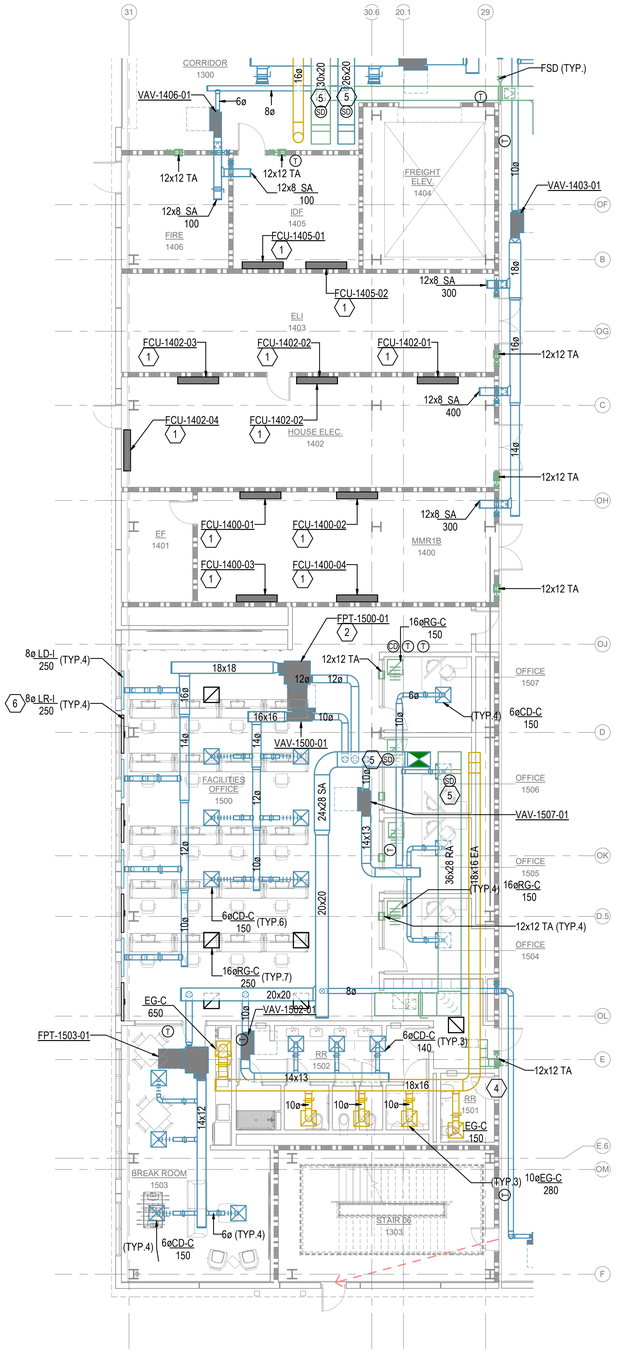
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M02-01R

2/4/2025 2:54:13 PM M02-01RHVAC FLOOR PLAN - LEVEL ONE - SEGMENT R



1 LEVEL 1 - HVAC PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 - HVAC PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

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KEYNOTES

1 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL 2" DEEP DRIP PAN BELOW SPLIT SYSTEM. DRIP PAN SHALL BE LARGER THAN UNIT BY 2" ON ALL SIDES. DRIP PAN SHALL FEATURE A 3/4" THREADED DRAIN WITH A CAP. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL RLE SEAHAWK SD-R01 SPOT-TYPE LEAK DETECTION (OR EQUIVALENT) IN DRIP PAN.

2 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.

3 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

4 PROVIDE 3/4" DOOR UNDER CUT.

5 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

6 CONTINUOUS LINEAR SLOT DIFFUSER, TITUS FL-20 OR APPROVED EQUIVALENT. ALL INACTIVE SECTIONS SHALL BE OPEN TO PLENUM WITH RETURN HOOD / LIGHT SHIELD.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

	ISSUES	
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
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KEYPLAN

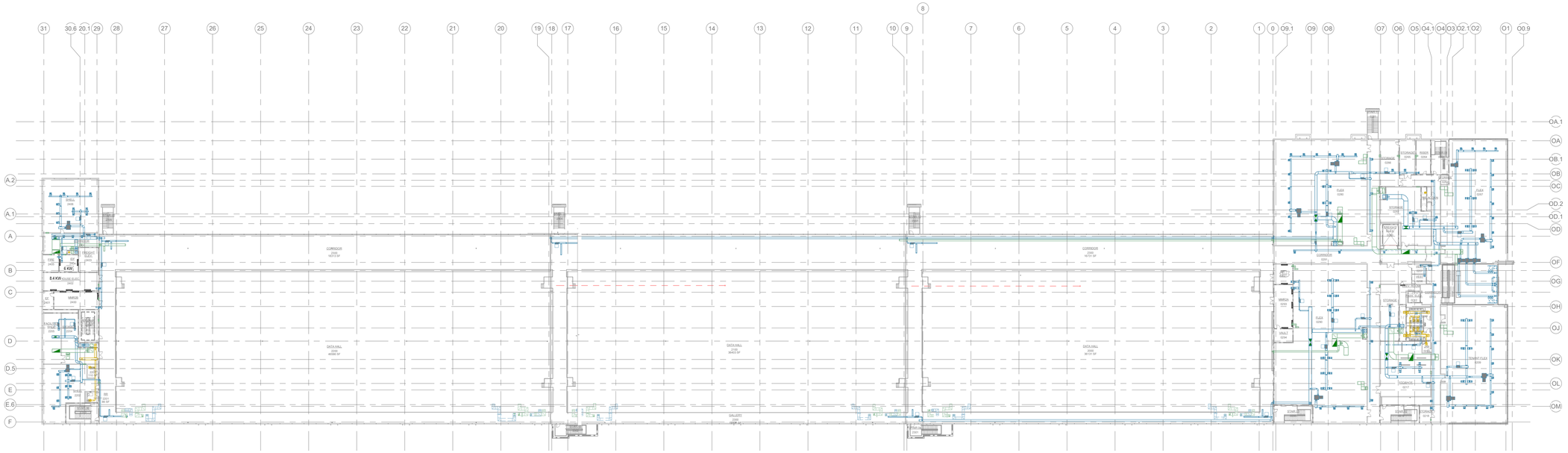
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HVAC FLOOR PLAN - LEVEL ONE - SEGMENT S-T

JOB 24464.0000
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SHEET

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1 LEVEL 2 HVAC OVERALL PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

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1140 N. GUN CLUB ROAD
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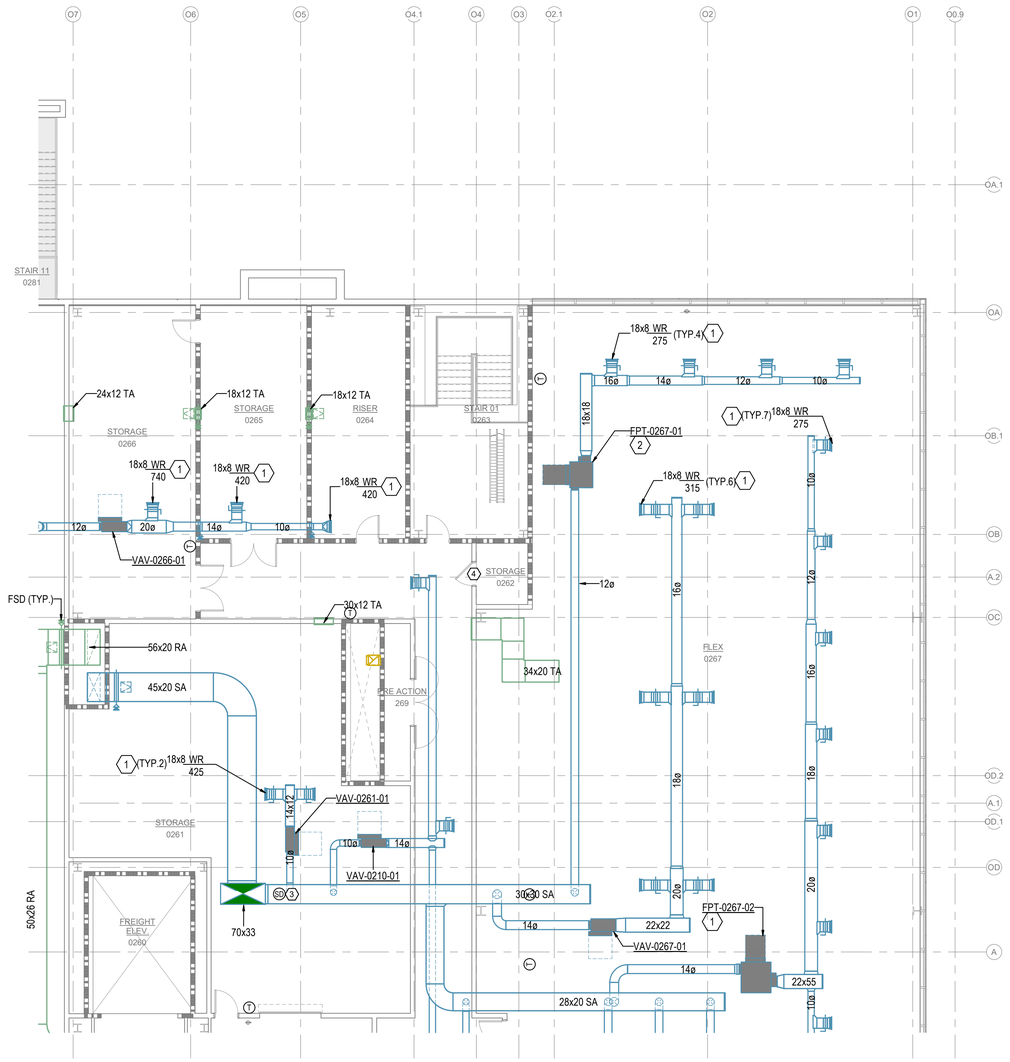
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HVAC FLOOR PLAN - LEVEL TWO - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

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2/4/2025 2:54:28 PM M02-02 HVAC FLOOR PLAN - LEVEL TWO - OVERALL



1 LEVEL 2 - HVAC PLAN - A
SCALE: 1/8" = 1'-0"

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G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 24, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.
2 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
3 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
4 PROVIDE 3/4" DOOR UNDER CUT.

CORGAN
401 N. Houston Street Dallas, TX
75202
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AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

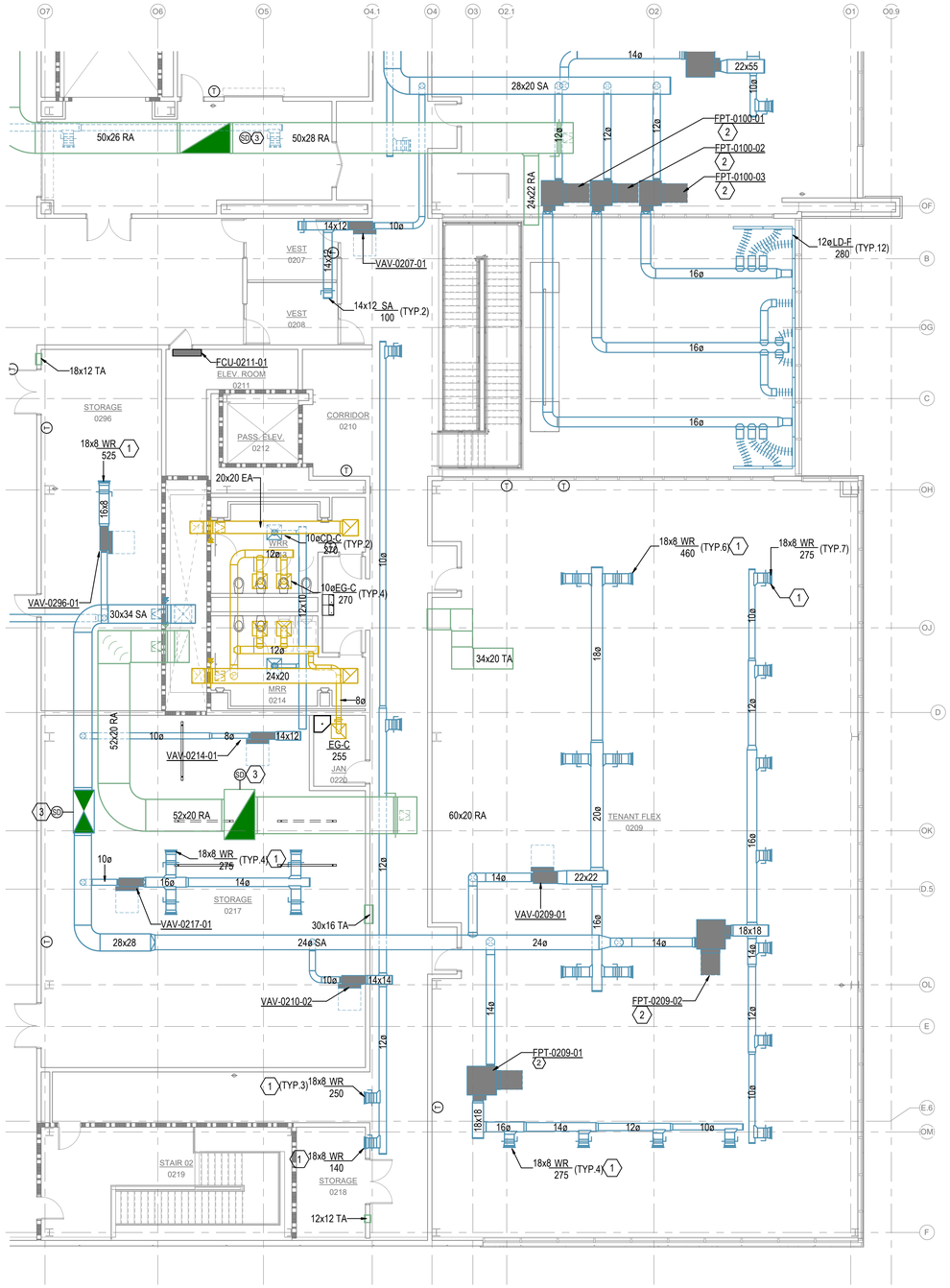
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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02A

2/4/2025 2:54:32 PM M02-02A HVAC FLOOR PLAN - LEVEL TWO - SEGMENT A



1 LEVEL 2 - HVAC PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

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L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.
2 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
3 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

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AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL S. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

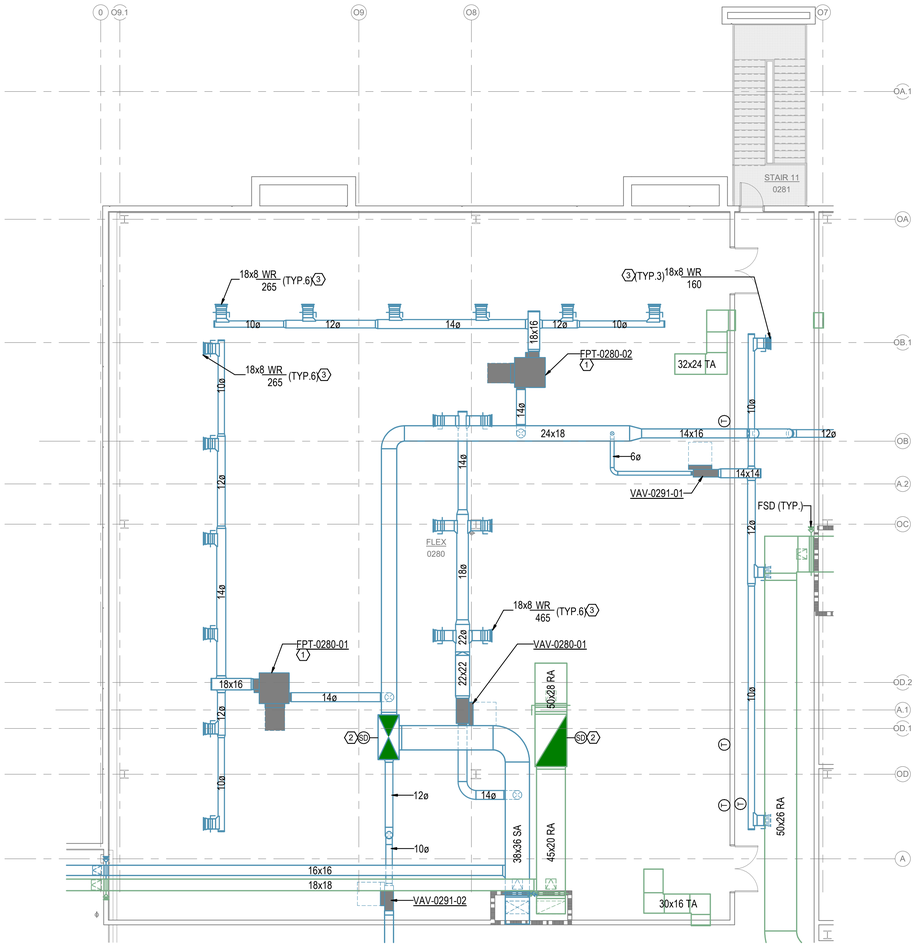
KEYPLAN

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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET
M02-02B

2/4/2025 2:54:37 PM M02-02B HVAC FLOOR PLAN - LEVEL TWO - SEGMENT B



1 LEVEL 2 - HVAC PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

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O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
2 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
3 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

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AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

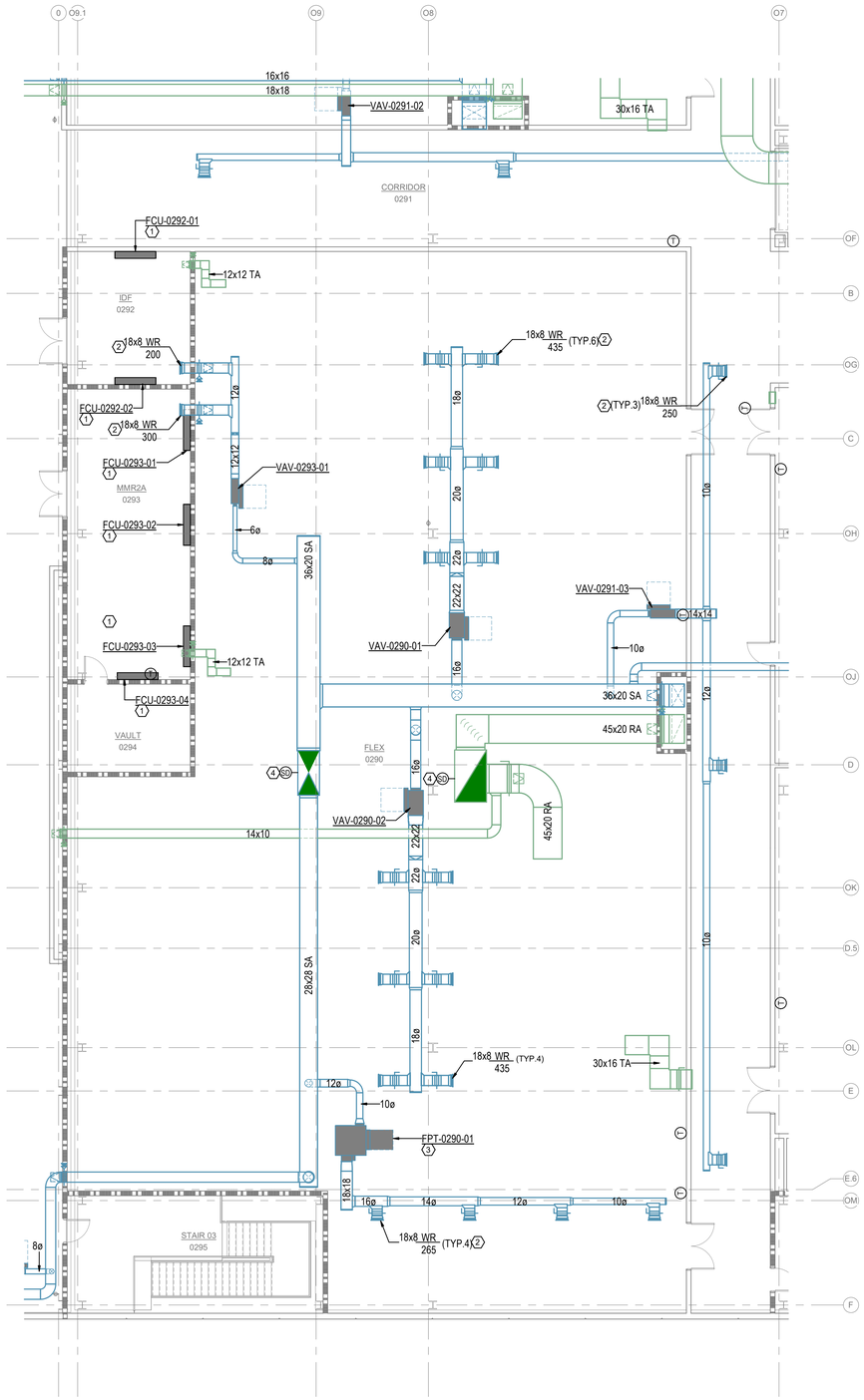
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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02C

2/4/2025 2:54:41 PM M02-02C HVAC FLOOR PLAN - LEVEL TWO - SEGMENT C



1 LEVEL 2 - HVAC PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

M. ALL DUCTWORK SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. WHERE SPACES HAVE NO CEILINGS, DUCTWORK SHALL BE MOUNTED AS HIGH AS POSSIBLE UNLESS NOTED OTHERWISE OR ILLUSTRATED IN BUILDING SECTIONS. COORDINATE INSTALLATION OF ALL OVERHEAD DUCTWORK WITH OTHER TRADES. EQUIPMENT REQUIRING MAINTENANCE (INCLUDING VAV BOXES) SHALL NOT BE MOUNTED HIGHER THAN 15' AFF.

N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

KEYNOTES

1 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL 2" DEEP DRIP PAN BELOW SPLIT SYSTEM. DRIP PAN SHALL BE LARGER THAN UNIT BY 2" ON ALL SIDES. DRIP PAN SHALL FEATURE A 3/4" THREADED DRAIN WITH A CAP. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL RLE SEAHAWK SD-R01 SPOT-TYPE LEAK DETECTION (OR EQUIVALENT) IN DRIP PAN.

2 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

3 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.

4 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

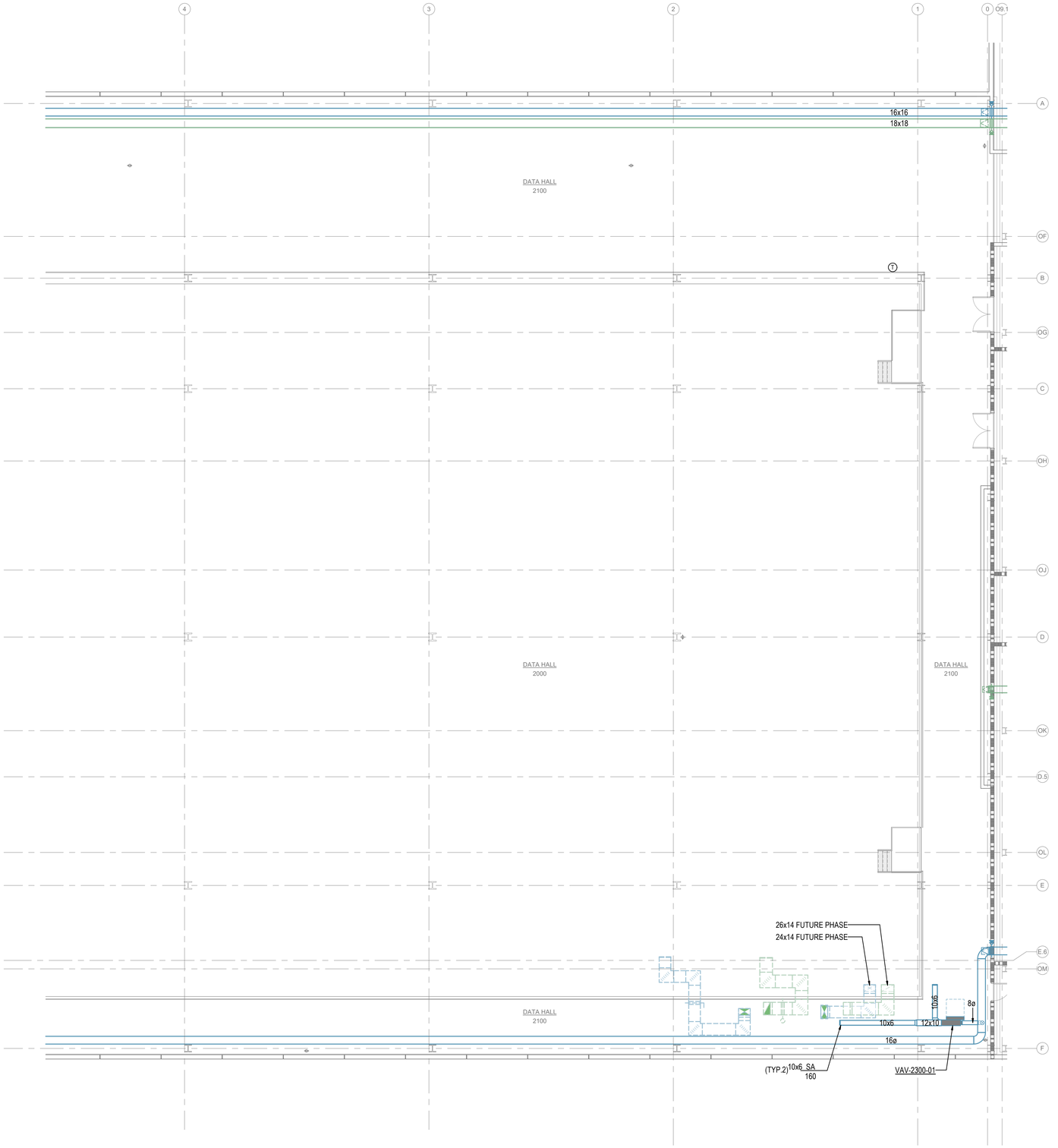
KEYPLAN

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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET M02-02D

2/4/2025 2:54:45 PM M02-02D HVAC FLOOR PLAN - LEVEL TWO - SEGMENT D



1 LEVEL 2 - HVAC PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS. EXPOSED DUCT OPENINGS IN FINISHED AREAS (EXCEPT DATA HALL) SHALL BE TERMINATED WITH A GRILLE.

E. ALL TRANSFER AIR DUCTS IN CRITICAL SPACE SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° ELBOWS.

F. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

G. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

H. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS, SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

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K. ALL RUN OUTS TO DIFFUSERS, SUPPLY, RETURN AND EXHAUST REGISTER/GRILLES SHALL BE FULL SIZE OF NECK OR FRAME UNLESS OTHERWISE NOTED.

L. VAV BOXES SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE A MINIMUM OF 3'-0" OF STRAIGHT DUCT RUN BEFORE AND AFTER THE VAV BOX PRIOR TO ANY ELBOWS AND OR SUPPLY OPENINGS.

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N. ALL DUCT TRANSITIONS SHALL BE ECCENTRIC.

O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

KEYNOTES

City of Aurora Building Division
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Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
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CORGAN
401 N. Houston Street Dallas, TX
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AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

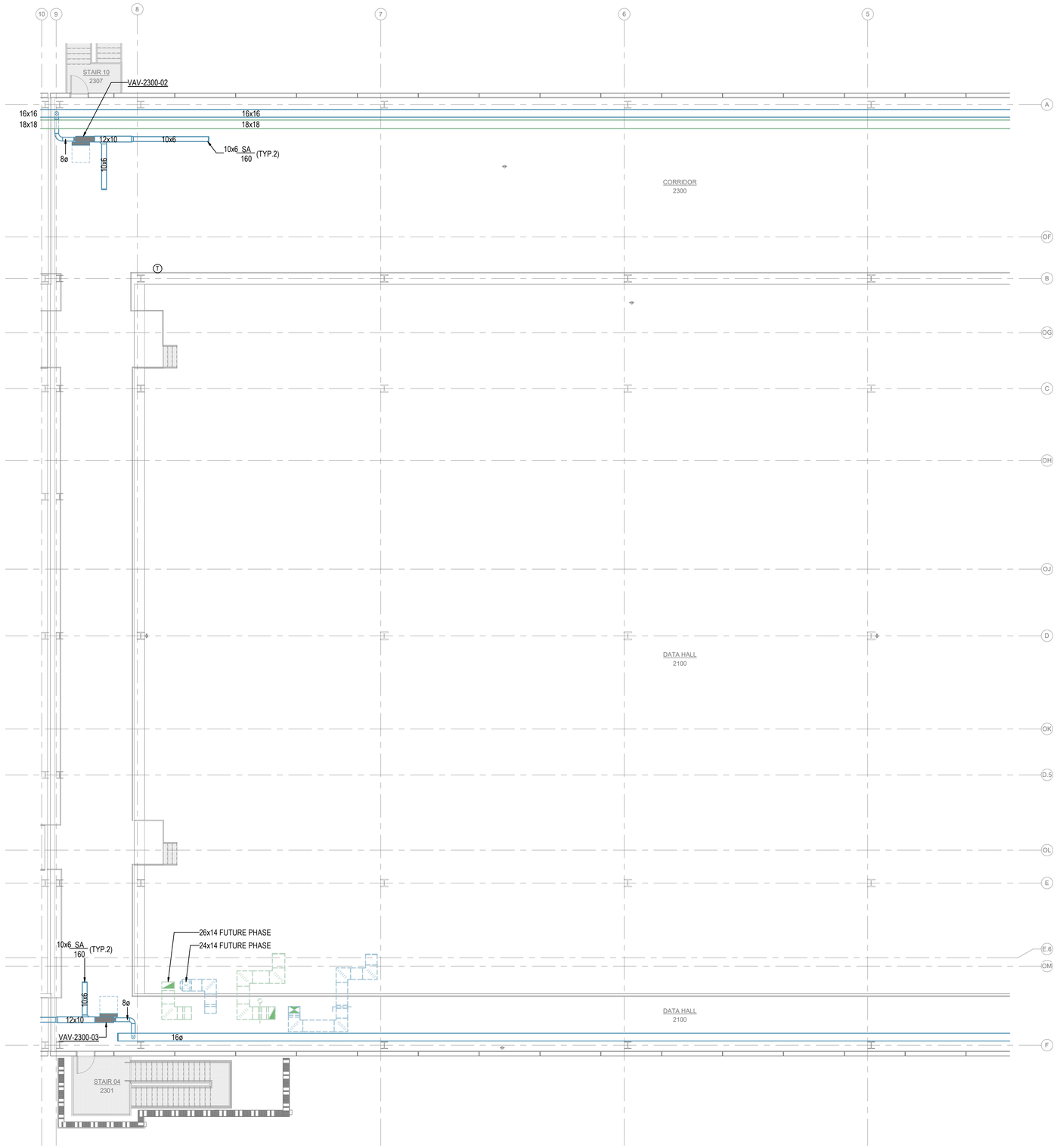
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T	R	P	M	K	H	F	D	B

HVAC FLOOR PLAN - LEVEL TWO - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02F

2/4/2025 2:54:48 PM M02-02F HVAC FLOOR PLAN - LEVEL TWO - SEGMENT F



1 LEVEL 2 - HVAC PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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I. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

J. ALL WORK INDICATED ON DRAWINGS IS DIAGRAMMATIC AND SHOULD NOT BE SCALED TO ESTABLISH LOCATIONS OF WORK. THE DRAWINGS ARE INTENDED TO ESTABLISH SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENTS OF DUCTWORK AND PIPING.

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O. ALL SUPPLY AND RETURN DUCTWORK SHALL BE INSULATED WITH 1-1/2" THICK INSULATION PER SPECIFICATION UNLESS OTHERWISE NOTED.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO LICENSED
WILLIAM B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

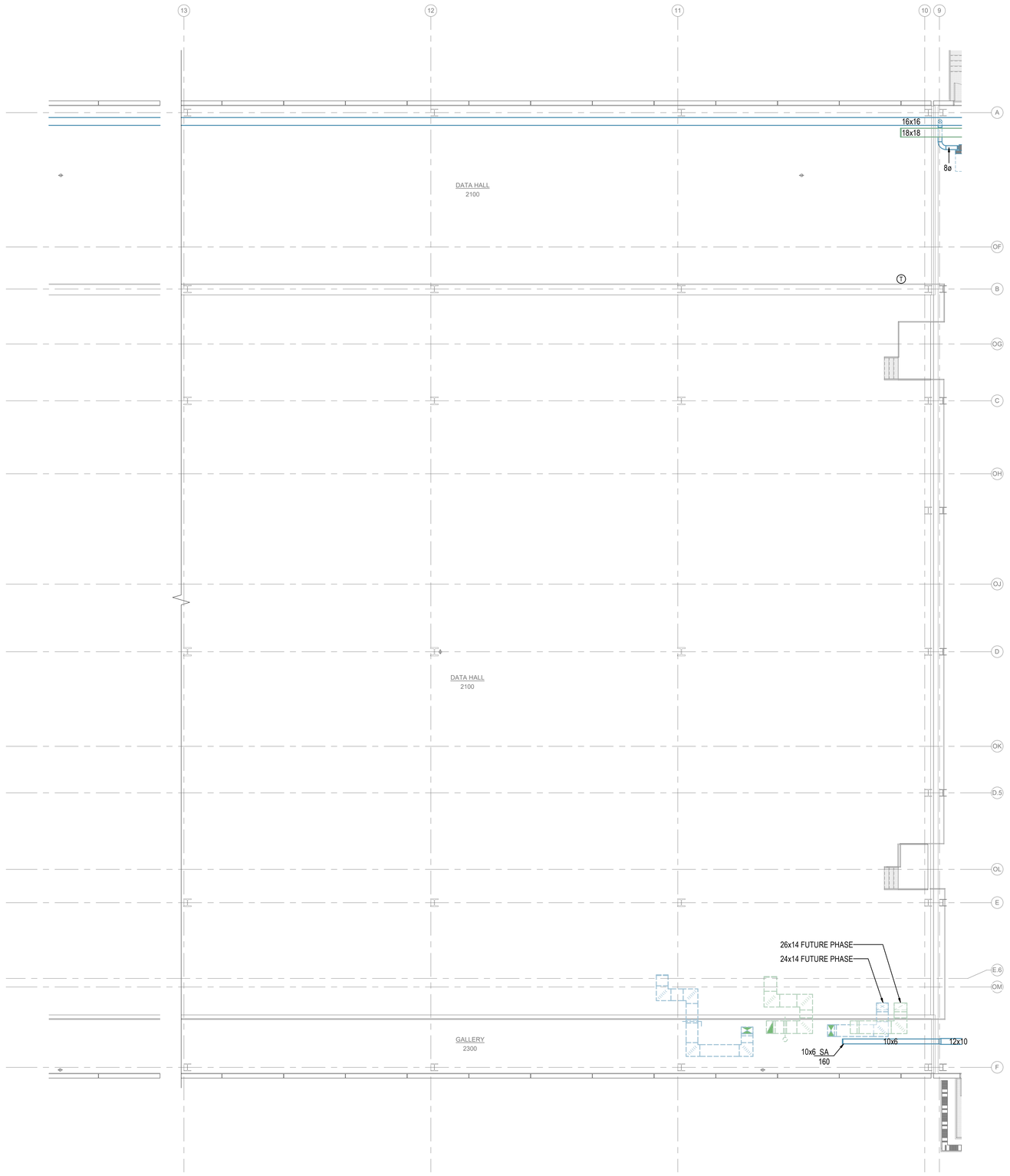
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T	R	P	M	K	H	F	D	B	

HVAC FLOOR PLAN - LEVEL TWO - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02H

2/4/2025 2:54:52 PM M02-02H HVAC FLOOR PLAN - LEVEL TWO - SEGMENT H



1 LEVEL 2 - HVAC PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

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PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
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AURORA, CO

KEYPLAN

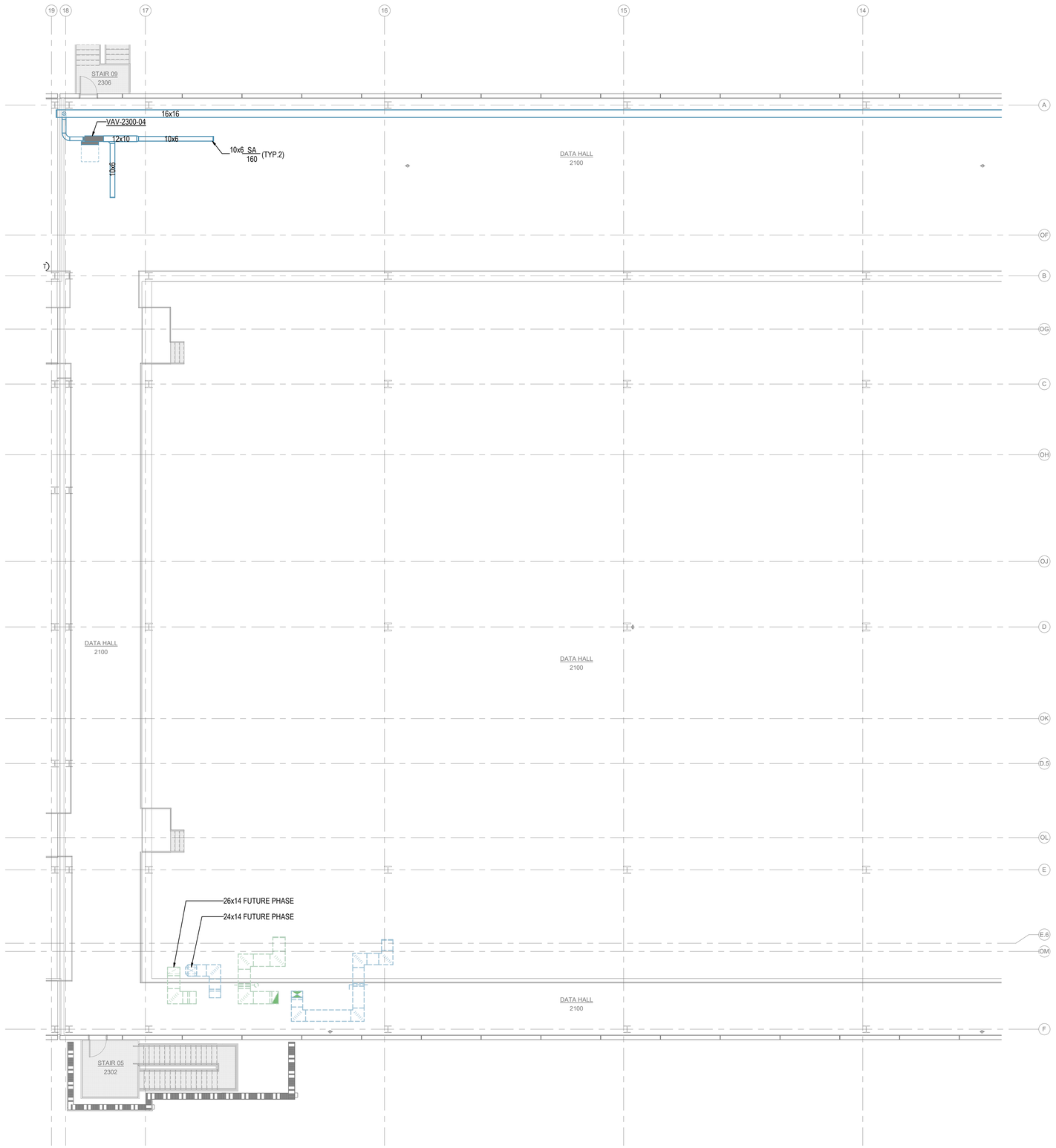
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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02K

2/4/2025 2:54:56 PM M02-02K HVAC FLOOR PLAN - LEVEL TWO - SEGMENT K



1 LEVEL 2 - HVAC PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

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PROFESSIONAL ENGINEER
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Date of issue:
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AURORA, CO

KEYPLAN

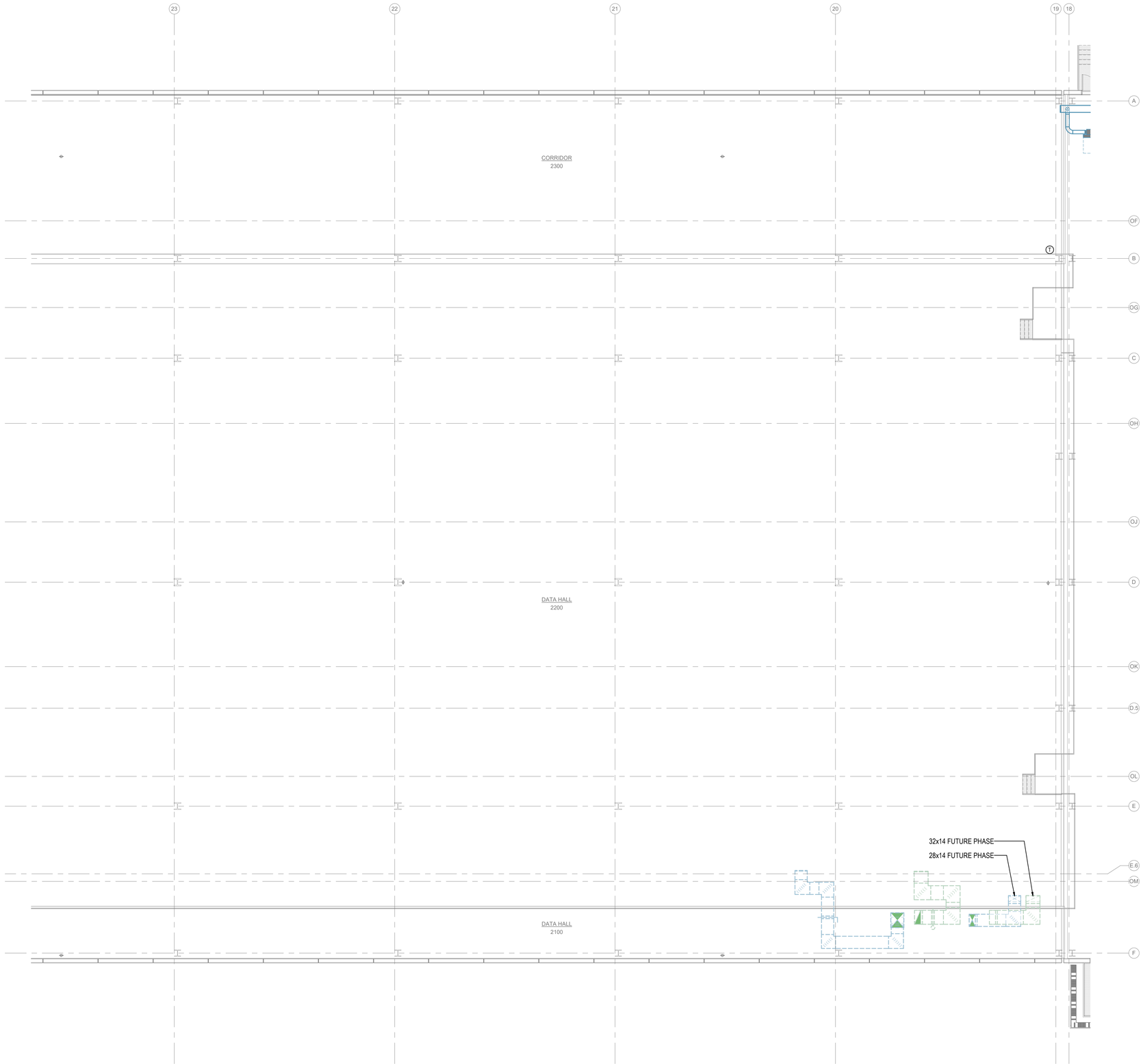
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T	R	P	M	K	H	F	D	B	

HVAC FLOOR PLAN - LEVEL TWO - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

M02-02M

2/4/2025 2:54:59 PM M02-02MHVAC FLOOR PLAN - LEVEL TWO - SEGMENT M



1 LEVEL 2 - HVAC PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

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401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

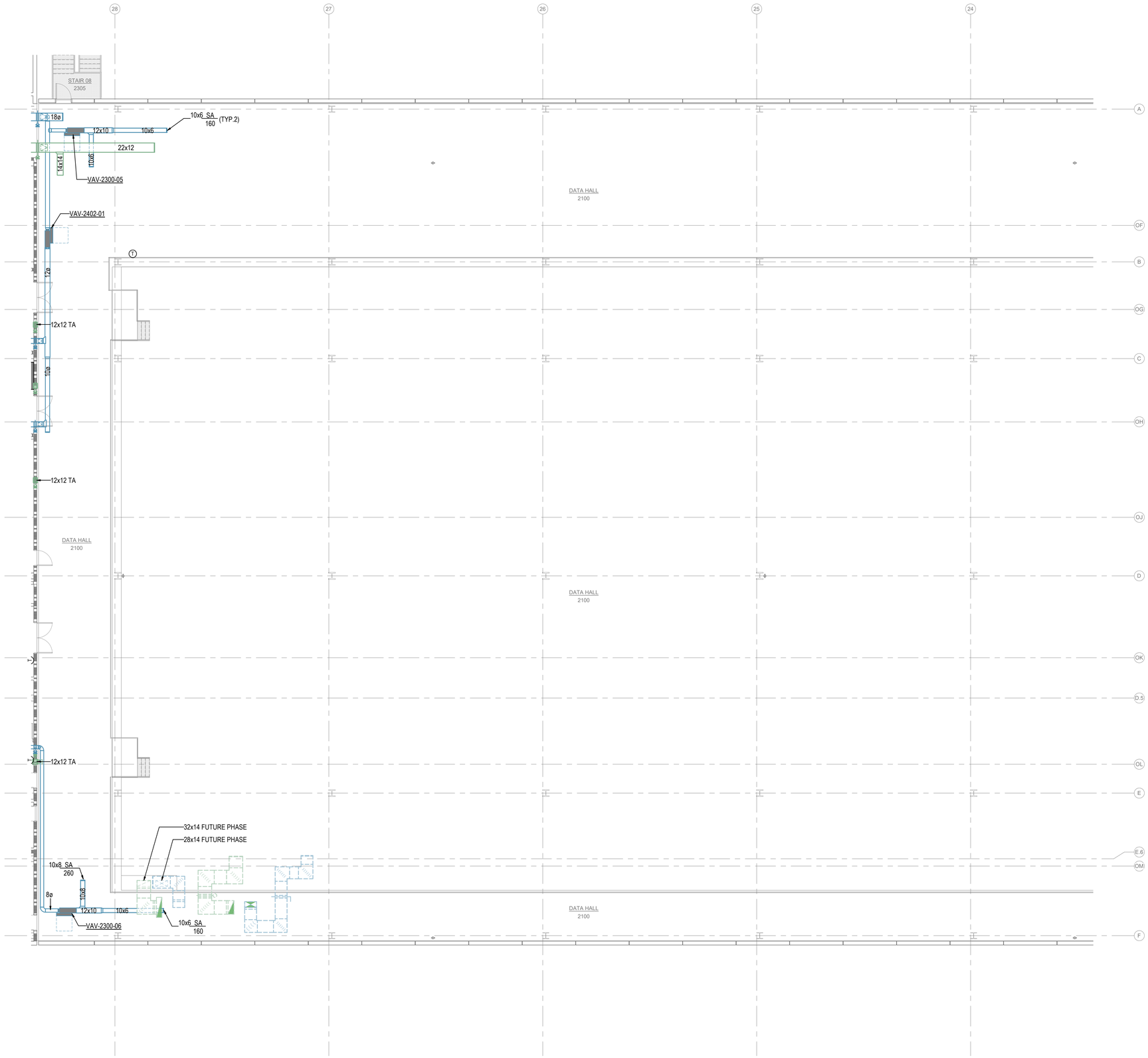
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

HVAC FLOOR PLAN - LEVEL TWO - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET
M02-02P

2/4/2025 2:55:03 PM M02-02P HVAC FLOOR PLAN - LEVEL TWO - SEGMENT P



1 LEVEL 2 - HVAC PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

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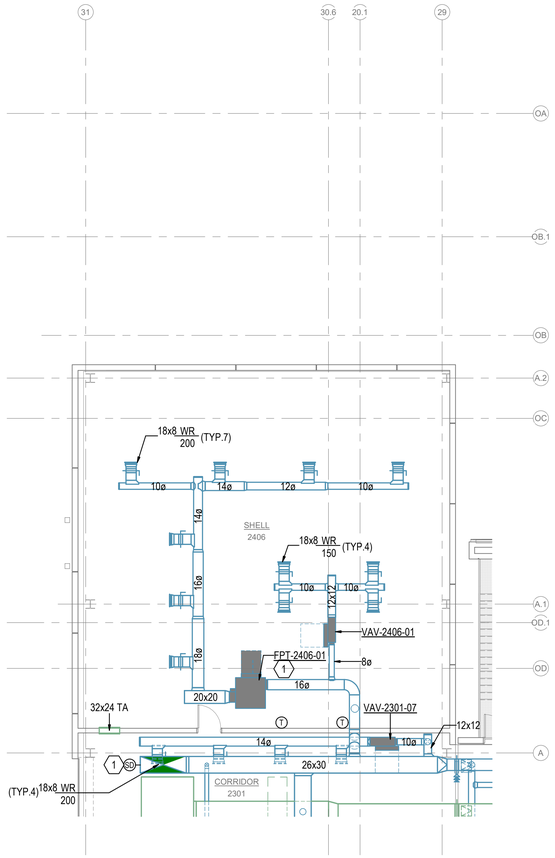
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T	R	P	M	K	H	F	D	B

HVAC FLOOR PLAN - LEVEL TWO - SEGMENT R

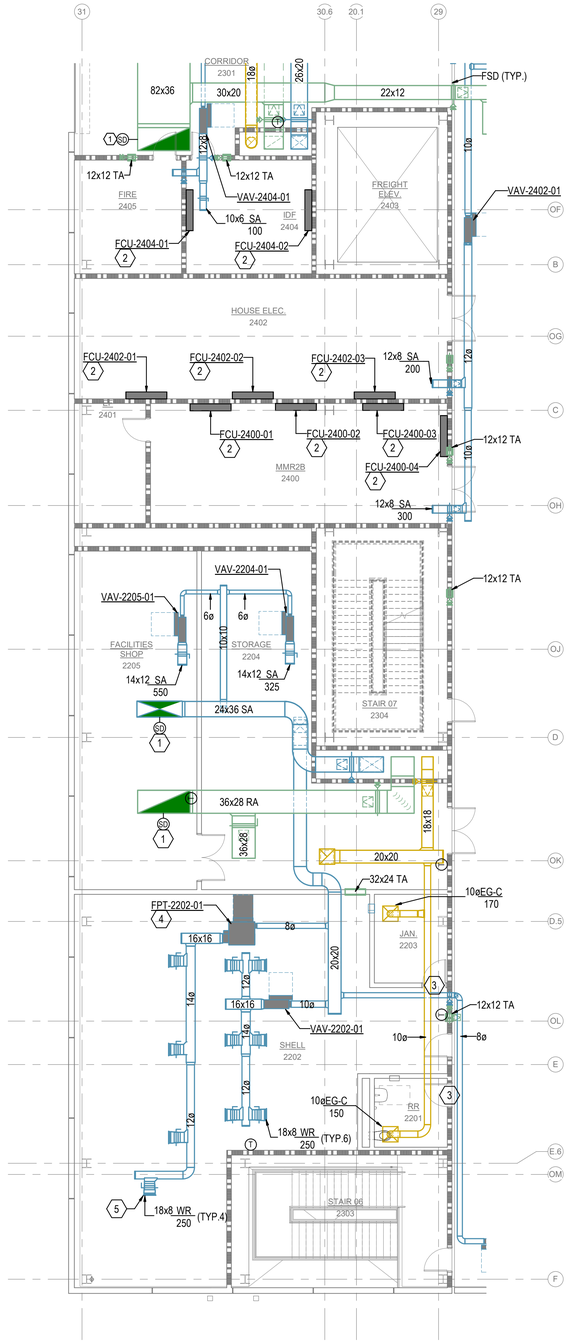
JOB 24464.0000
DATE 01.31.25
SHEET

M02-02R

2/4/2025 2:55:07 PM M02-02R HVAC FLOOR PLAN - LEVEL TWO - SEGMENT R



1 LEVEL 2 - HVAC PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 2 - HVAC PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

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City of Aurora Building Division
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Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 DUCT MOUNTED SMOKE DETECTOR INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
2 MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL 2" DEEP DRIP PAN BELOW SPLIT SYSTEM. DRIP PAN SHALL BE LARGER THAN UNIT BY 2" ON ALL SIDES. DRIP PAN SHALL FEATURE A 3/4" THREADED DRAIN WITH A CAP. MECHANICAL CONTRACTOR SHALL PROVIDE AND INSTALL RLE SEAHAWK SD-R01 SPOT-TYPE LEAK DETECTION (OR EQUIVALENT) IN DRIP PAN.
3 PROVIDE 3/4" DOOR UNDER CUT.
4 PARALLEL FAN-POWERED BOX W/ ELECTRIC REHEAT COIL. FAN SHALL RUN CONTINUOUSLY DURING OCCUPIED HOURS.
5 45° TAP ORIENTED 22.5° DOWNWARD AND DOUBLE-DEFLECTION AEROBLADE SUPPLY GRILLE WITH INTEGRATED VOLUME CONTROL DAMPER, TITUS 272RS OR APPROVED EQUIVALENT.

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

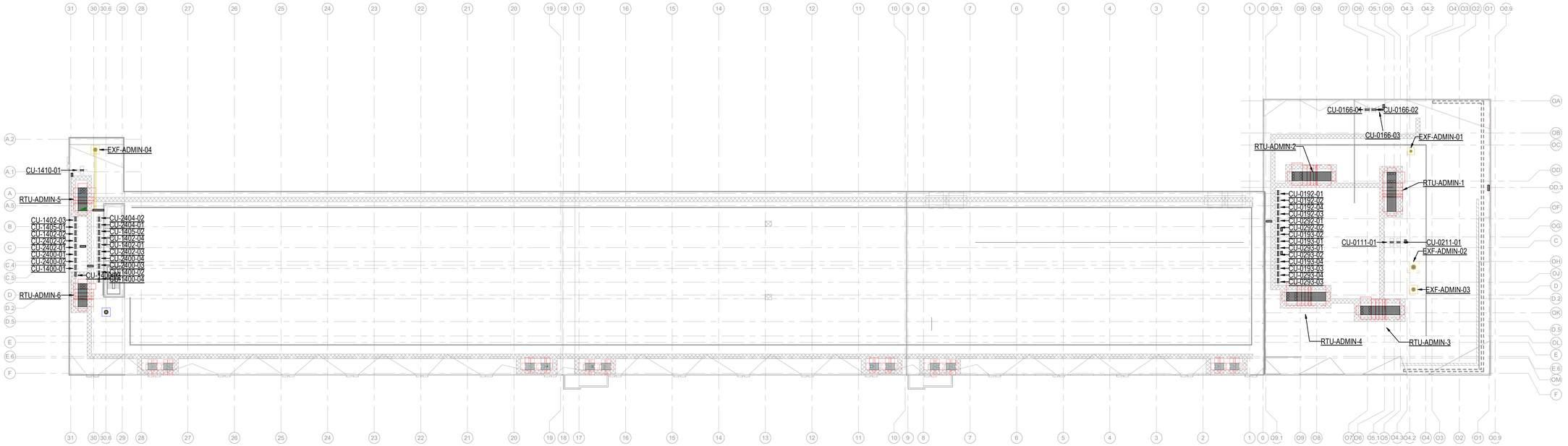
KEYPLAN

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HVAC FLOOR PLAN - LEVEL TWO - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET M02-02ST

2/4/2025 2:55:12 PM M02-02SHVAC FLOOR PLAN - LEVEL TWO - SEGMENT S-T



1 T.O. DATA CENTER PARAPET HVAC PLAN
SCALE: 1" = 40'-0"

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SHEET NOTES

SHEET KEYNOTES

2/4/2025 2:55:15 PM M02-03 HVAC ROOF PLAN - OVERALL

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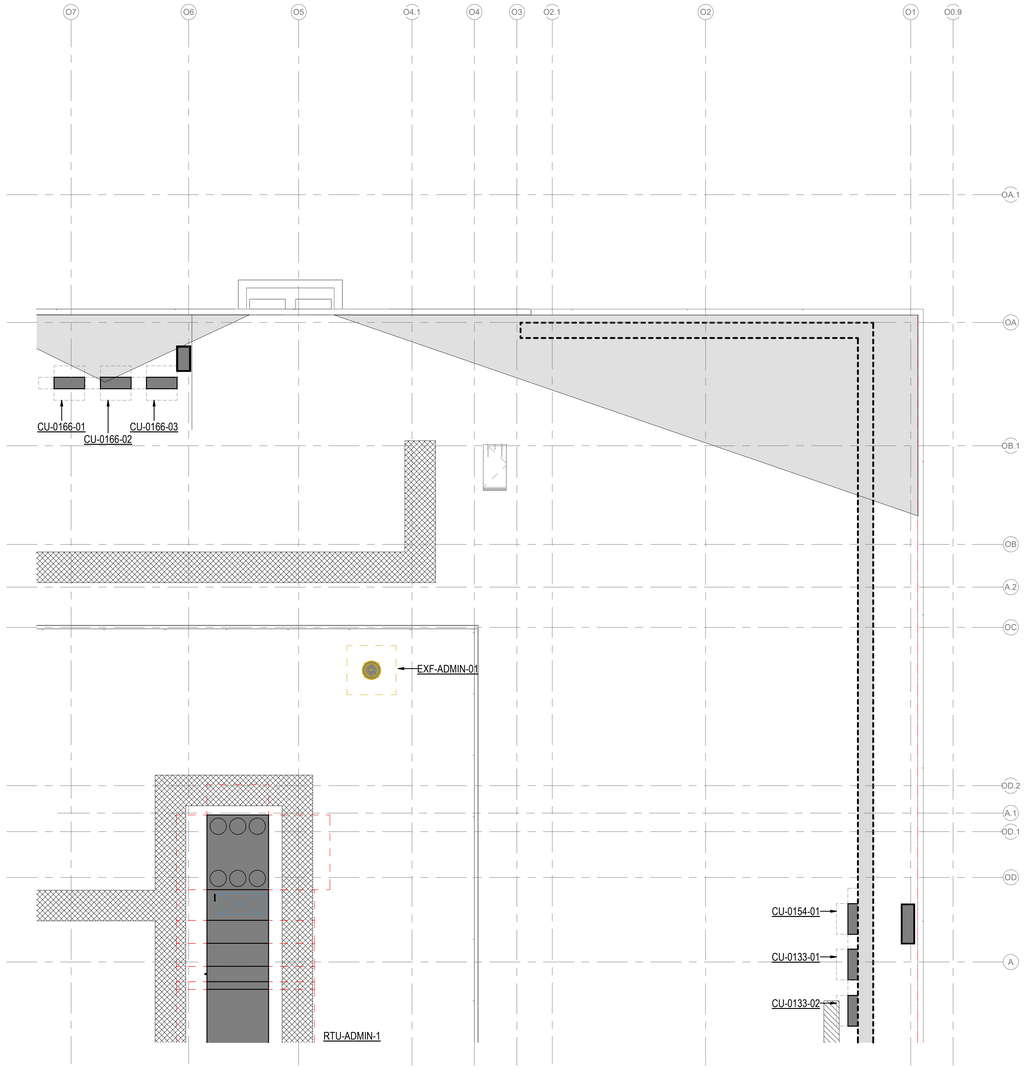
KEYPLAN

S Q N L J G E C A
T R P M K H F D B

HVAC ROOF PLAN - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03



1 T.O. DATA CENTER PARAPET HVAC PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ROOF MOUNTED EQUIPMENT SHALL NOT BE PLACED WITHIN 10 FEET FROM THE ROOF EDGE. IF BUILDING CONDITIONS ARE SUCH THAT EQUIPMENT NEEDS TO BE LOCATED CLOSER, HAND RAILS SHALL BE PROVIDED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE REQUIREMENTS

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KEYPLAN

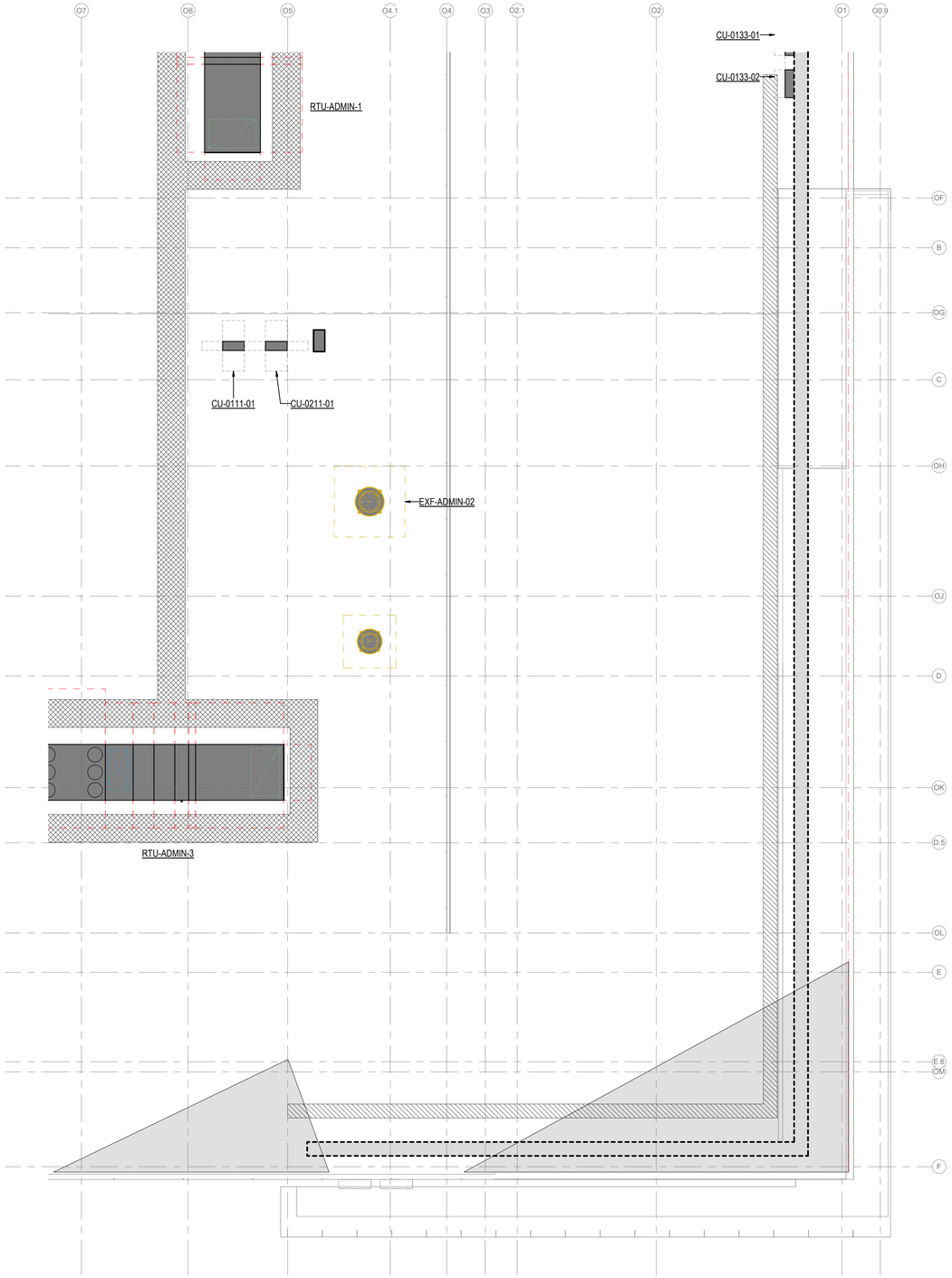
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HVAC ROOF PLAN - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03A

2/4/2025 2:55:19 PM M02-03A HVAC ROOF PLAN - SEGMENT A



1 T.O. DATA CENTER PARAPET HVAC PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

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KEYPLAN

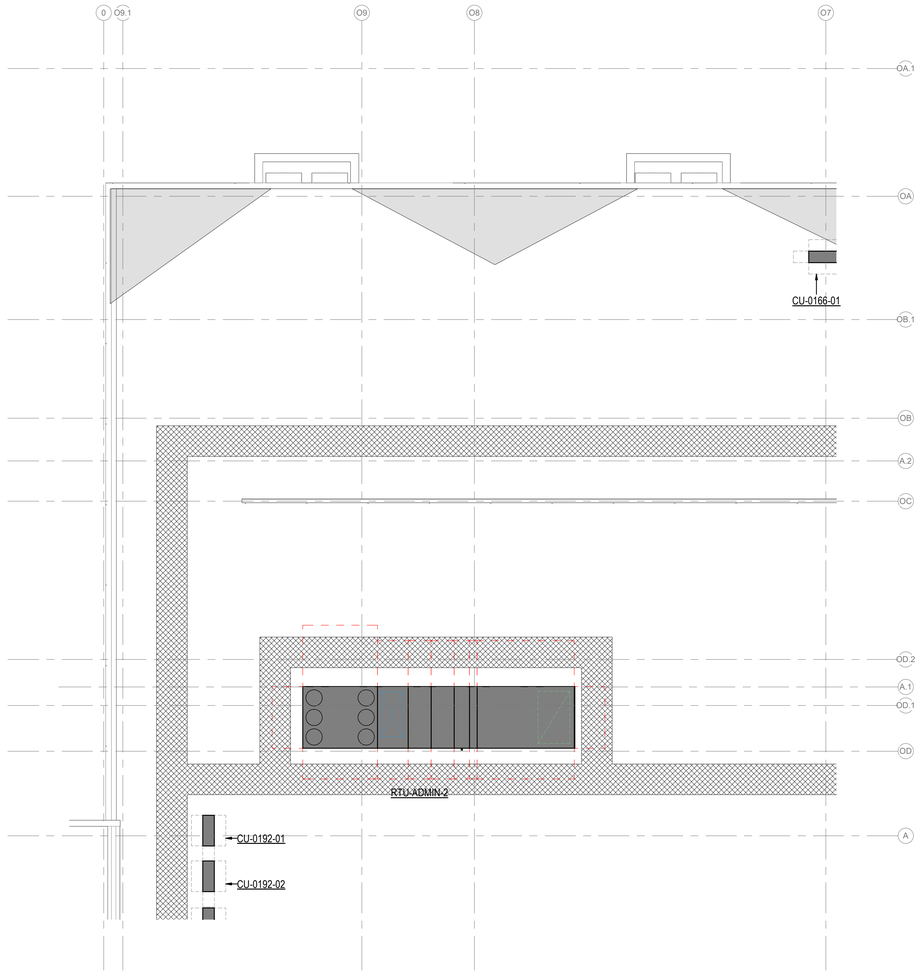
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HVAC ROOF PLAN - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03B

2/4/2025 2:55:21 PM M02-03B HVAC ROOF PLAN - SEGMENT B



1 T.O. DATA CENTER PARAPET HVAC PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ROOF MOUNTED EQUIPMENT SHALL NOT BE PLACED WITHIN 10 FEET FROM THE ROOF EDGE. IF BUILDING CONDITIONS ARE SUCH THAT EQUIPMENT NEEDS TO BE LOCATED CLOSER, HAND RAILS SHALL BE PROVIDED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE REQUIREMENTS

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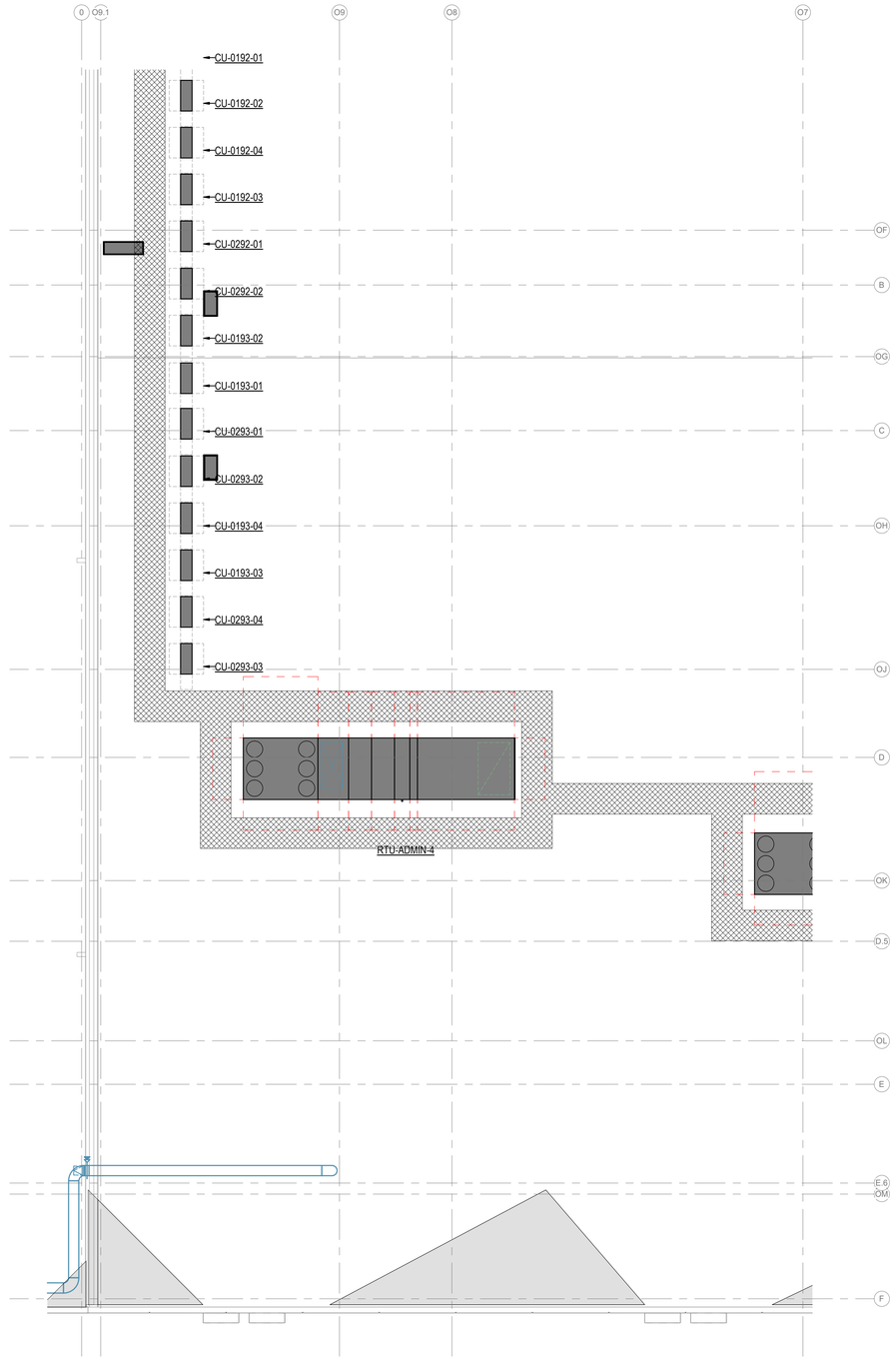
KEYPLAN

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HVAC ROOF PLAN - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET M02-03C

2/4/2025 2:55:25 PM M02-03C HVAC ROOF PLAN - SEGMENT C



1 T.O. DATA CENTER PARAPET HVAC PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

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KEYPLAN

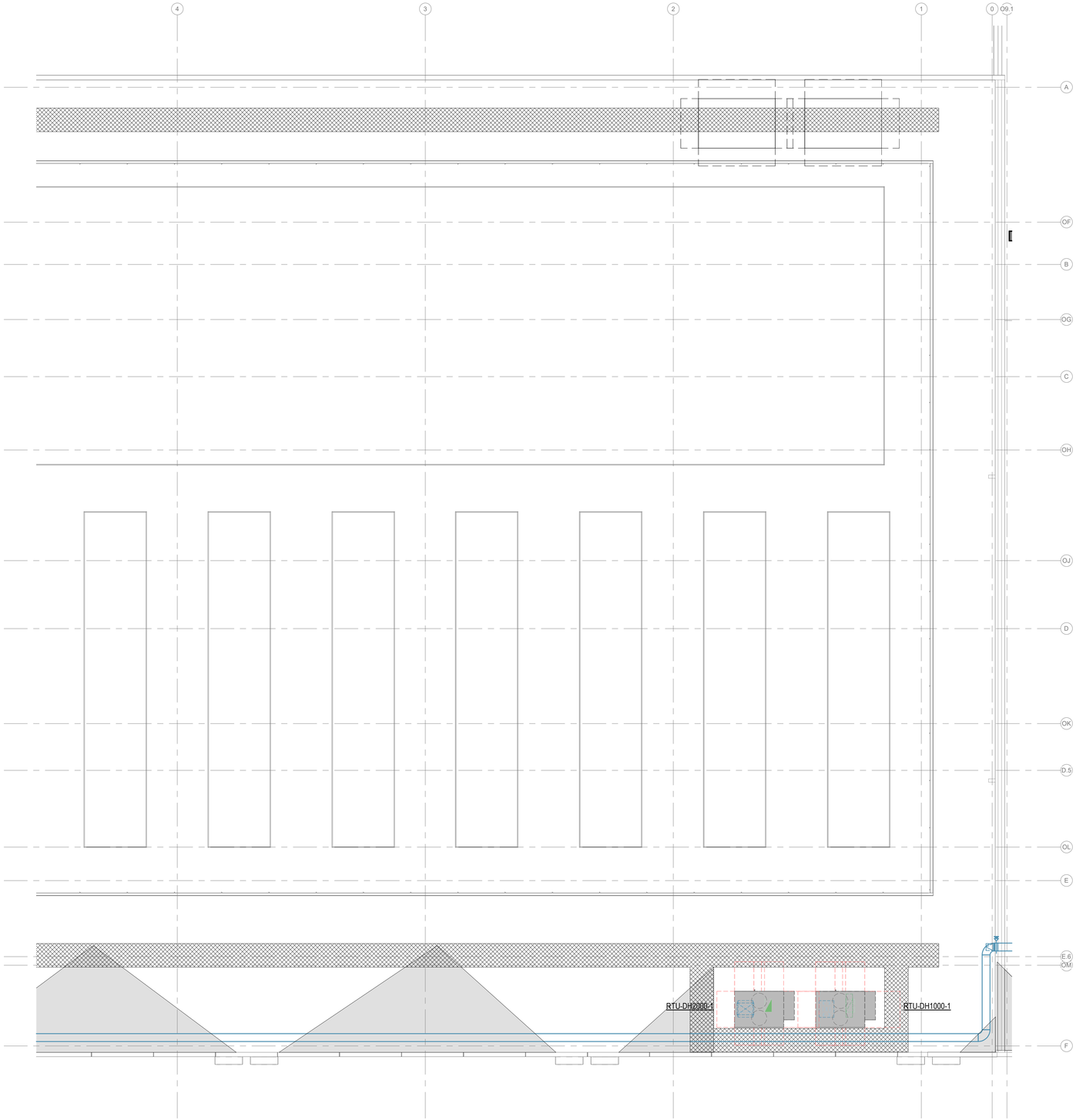
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HVAC ROOF PLAN - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03D

2/4/2025 2:55:27 PM M02-03D HVAC ROOF PLAN - SEGMENT D



1 T.O. DATA CENTER PARAPET HVAC PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ROOF MOUNTED EQUIPMENT SHALL NOT BE PLACED WITHIN 10 FEET FROM THE ROOF EDGE. IF BUILDING CONDITIONS ARE SUCH THAT EQUIPMENT NEEDS TO BE LOCATED CLOSER, HAND RAILS SHALL BE PROVIDED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE REQUIREMENTS

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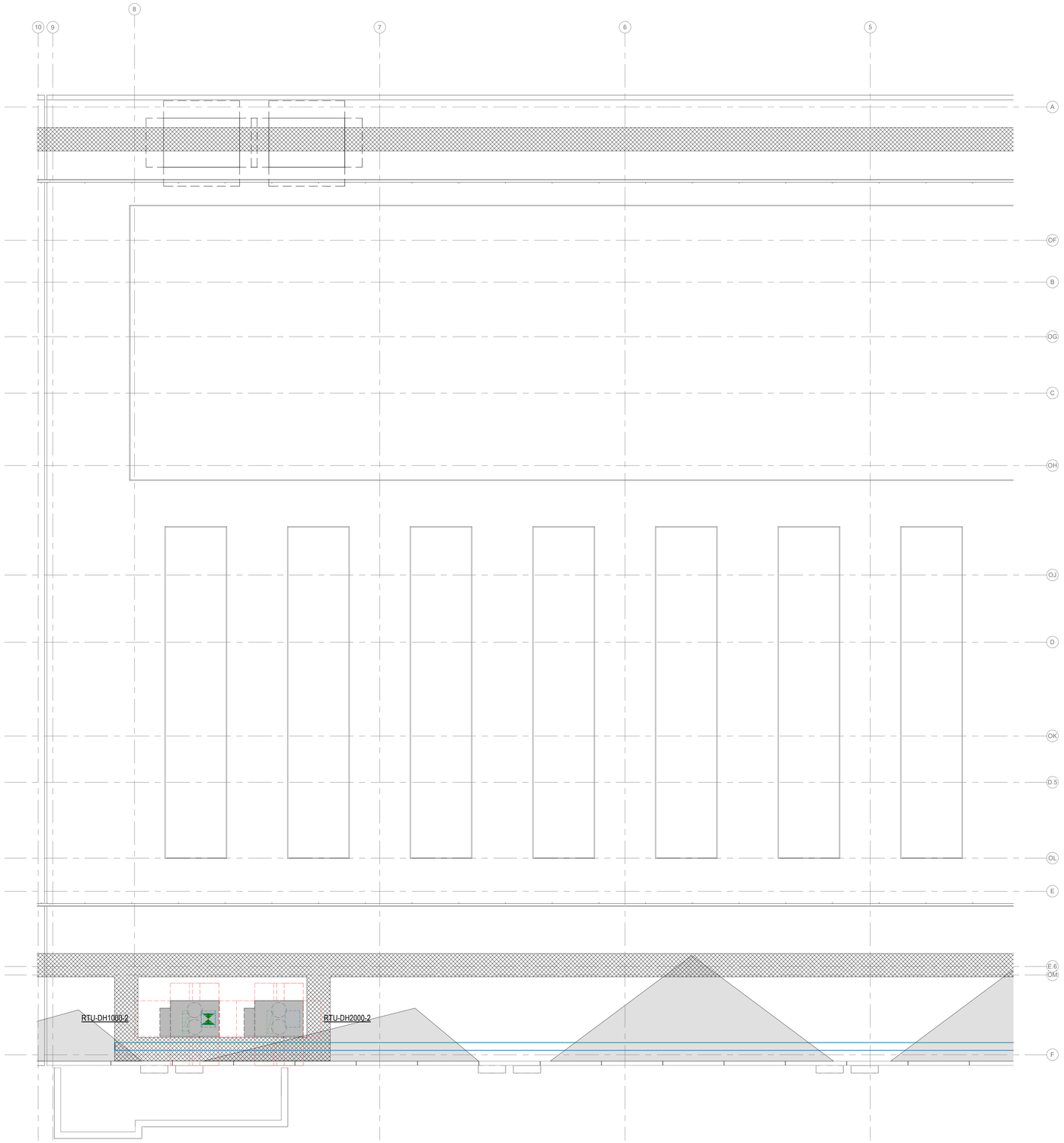
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HVAC ROOF PLAN - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03F

2/4/2025 2:55:31 PM M02-03F HVAC ROOF PLAN - SEGMENT F



1 T.O. DATA CENTER PARAPET HVAC PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

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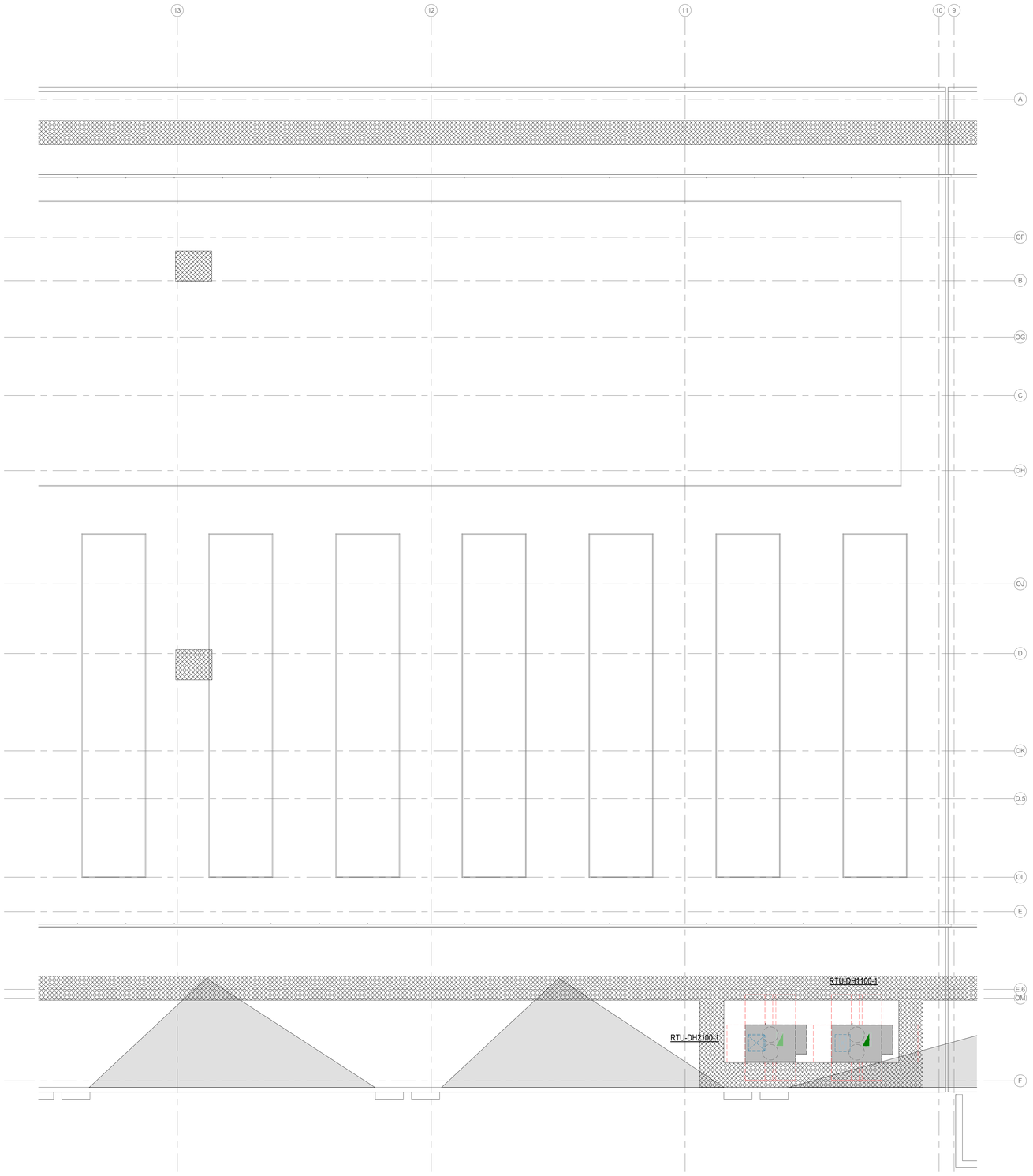
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HVAC ROOF PLAN - SEGMENT H

JOB 24464.0000
DATE 01.31.25
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M02-03H

2/4/2025 2:55:34 PM M02-03H HVAC ROOF PLAN - SEGMENT H



1 T.O. DATA CENTER PARAPET HVAC PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

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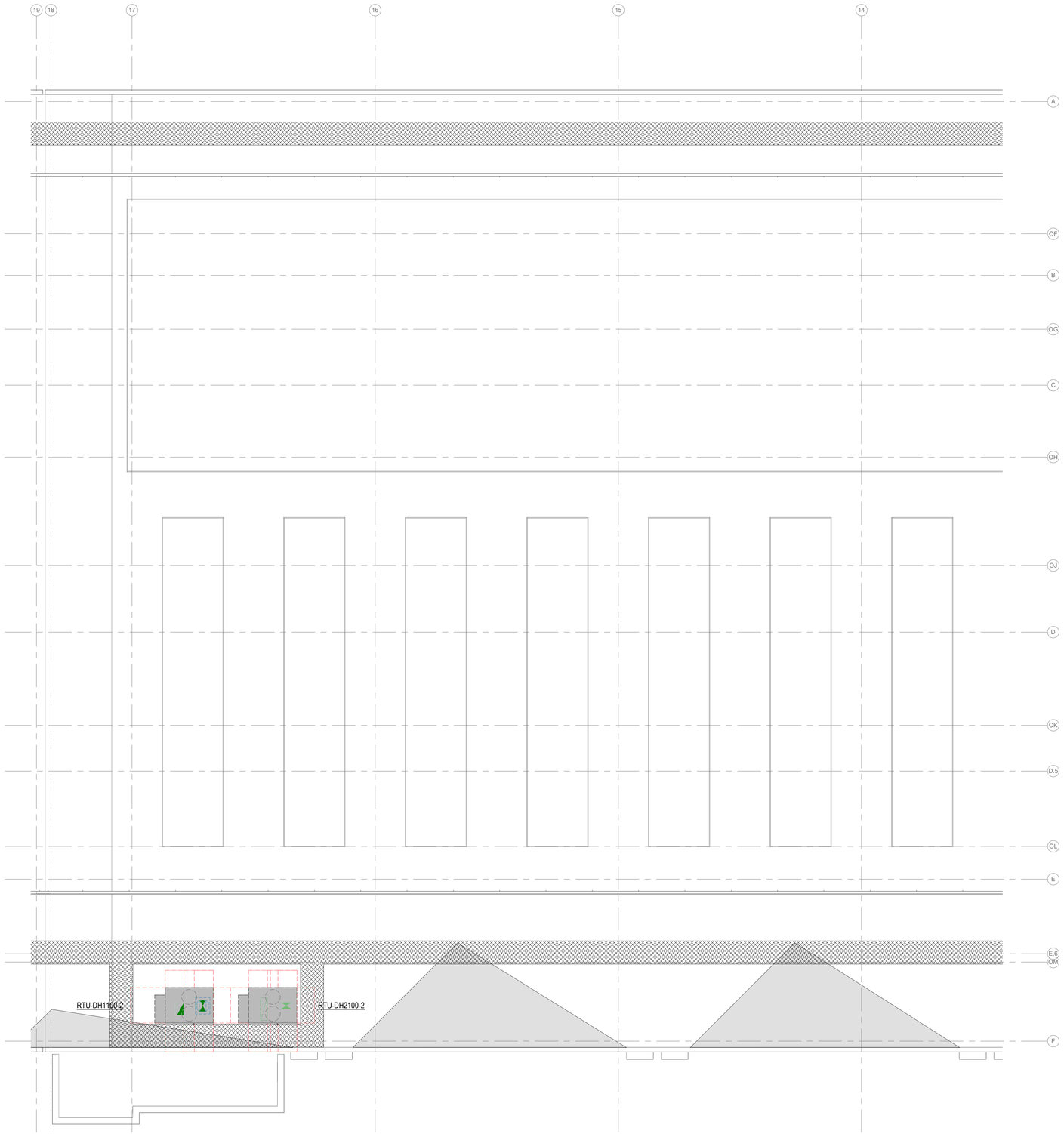
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HVAC ROOF PLAN - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

M02-03K

2/4/2025 2:55:38 PM M02-03K HVAC ROOF PLAN - SEGMENT K



1 T.O. DATA CENTER PARAPET HVAC PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

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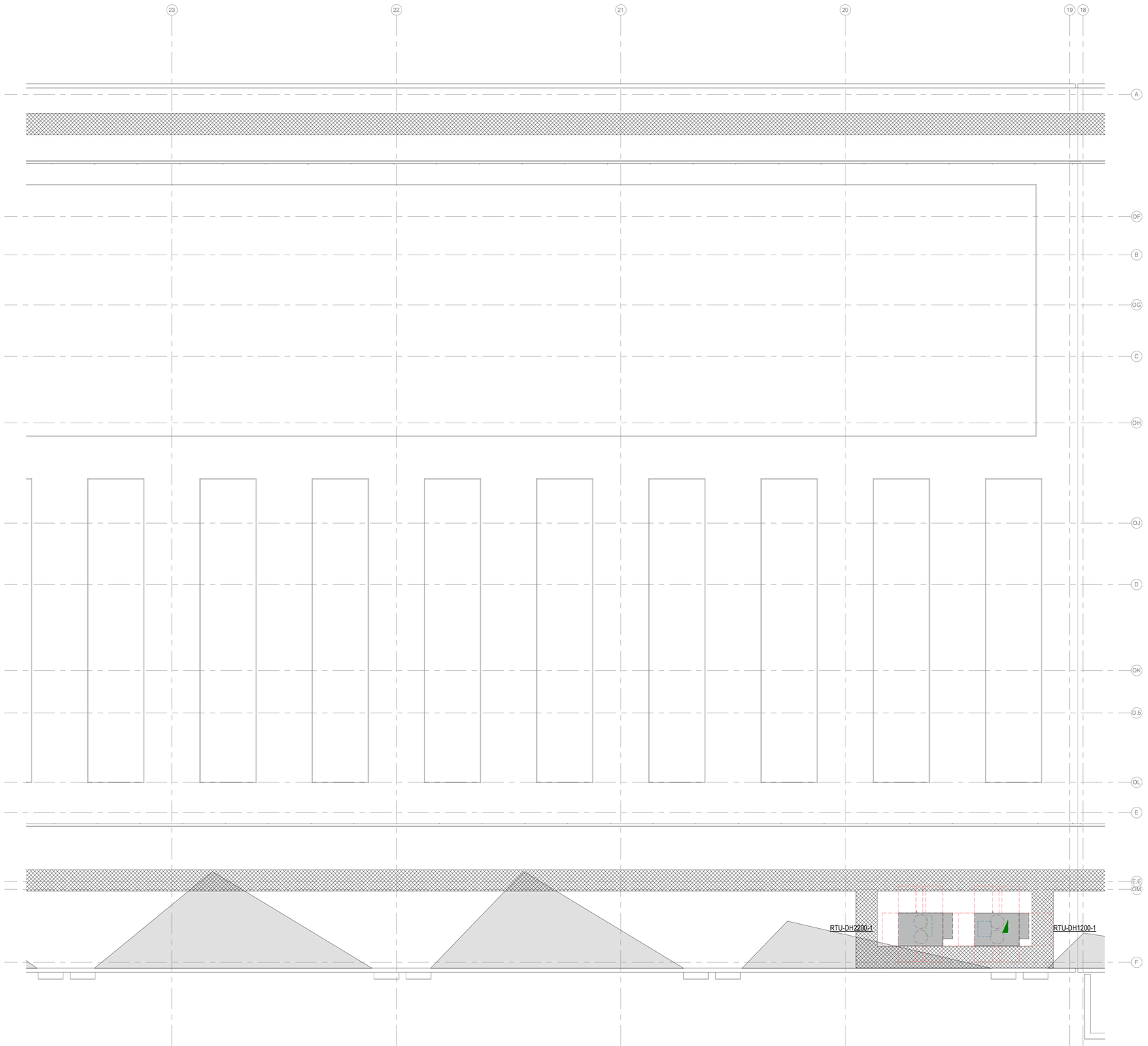
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HVAC ROOF PLAN - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET
M02-03M

2/4/2025 2:55:41 PM M02-03MHVAC ROOF PLAN - SEGMENT M



1 T.O. DATA CENTER PARAPET HVAC PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ROOF MOUNTED EQUIPMENT SHALL NOT BE PLACED WITHIN 10 FEET FROM THE ROOF EDGE. IF BUILDING CONDITIONS ARE SUCH THAT EQUIPMENT NEEDS TO BE LOCATED CLOSER, HAND RAILS SHALL BE PROVIDED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE REQUIREMENTS

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KEYPLAN

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HVAC ROOF PLAN - SEGMENT P

JOB 24464.0000
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1 T.O. DATA CENTER PARAPET HVAC PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

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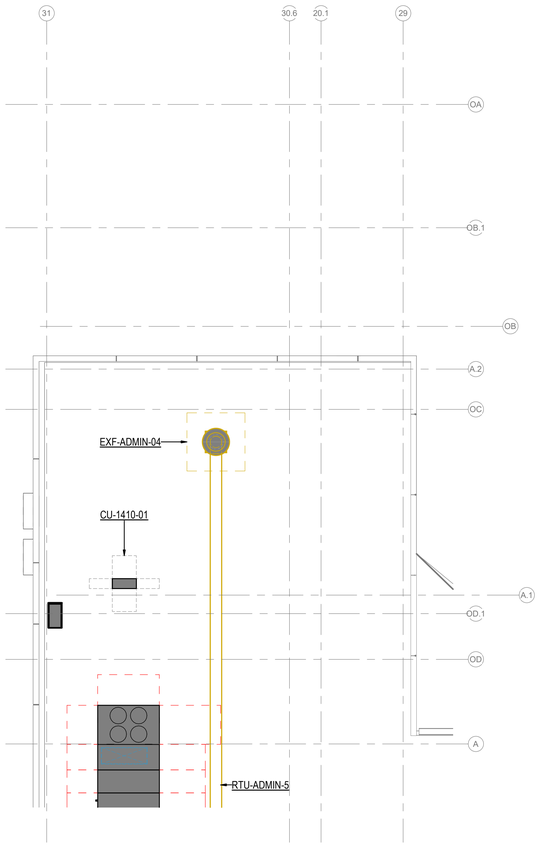
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HVAC ROOF PLAN - SEGMENT R

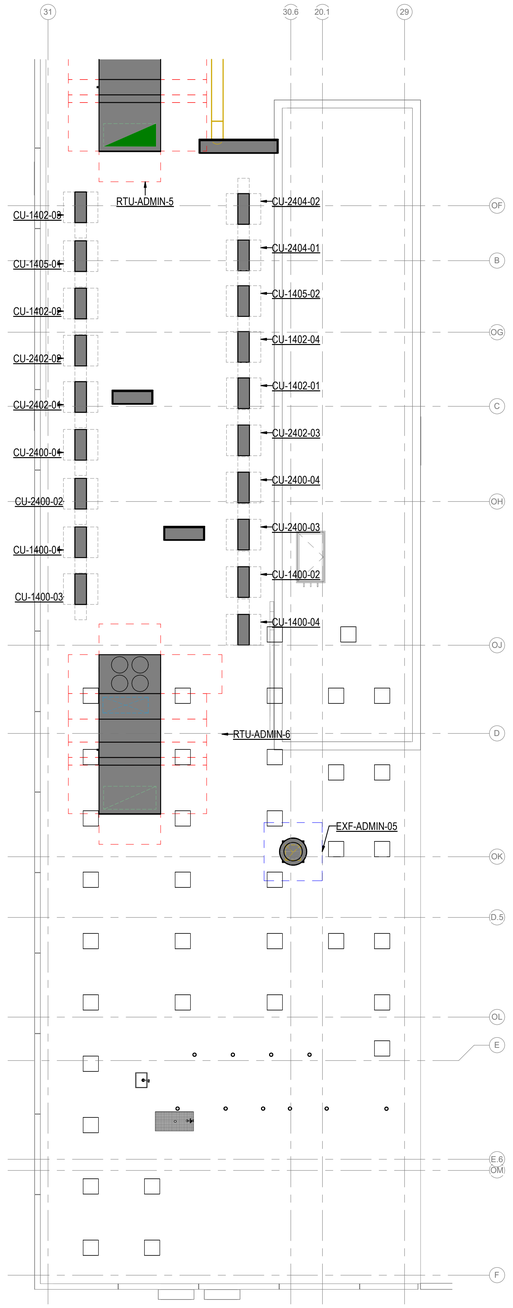
JOB 24464.0000
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SHEET

M02-03R

2/4/2025 2:55:48 PM M02-03R HVAC ROOF PLAN - SEGMENT R



1 T.O. DATA CENTER PARAPET HVAC PLAN - S
SCALE: 1/8" = 1'-0"



2 T.O. DATA CENTER PARAPET HVAC PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

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1140 N. GUN CLUB ROAD
AURORA, CO

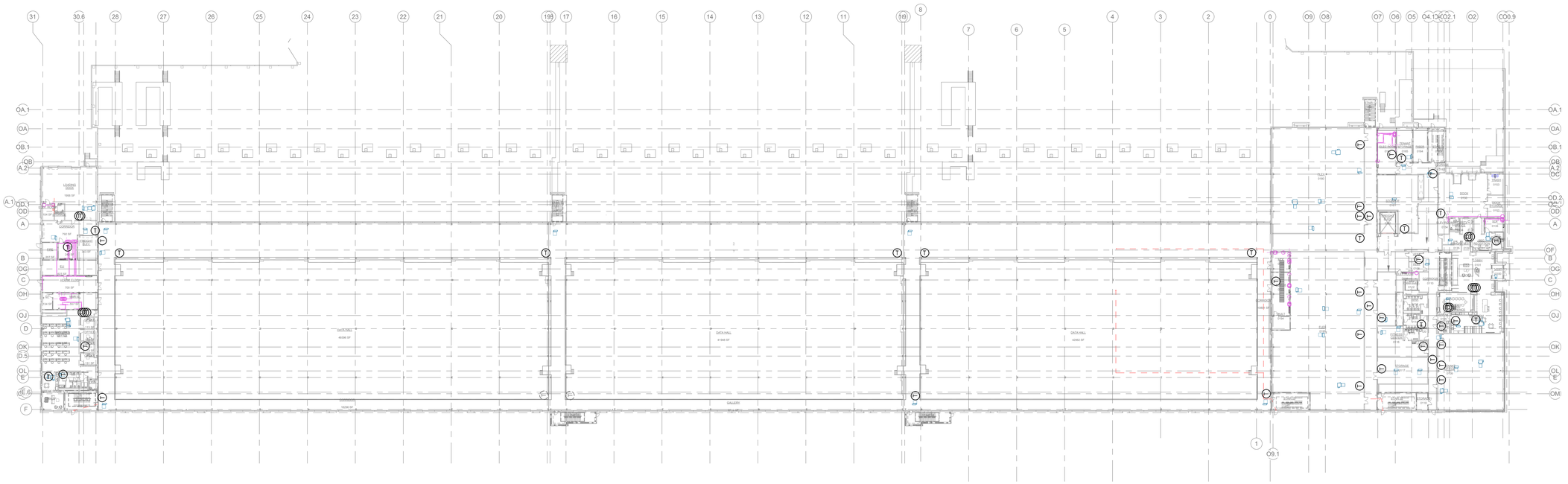
KEYPLAN

S	Q	N	L	J	G	E	C	A
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HVAC ROOF PLAN - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET M02-03ST

2/4/2025 2:55:54 PM M02-03SHVAC ROOF PLAN - SEGMENT S-T



1 LEVEL 1 HVAC PIPING OVERALL PLAN
SCALE: 1" = 40'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2' DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

I. PROVIDE NON-CONDUCTIVE BREAKS FOR ALL METALIC DUCTWORK, COUPLINGS, CONDUITS, AND SIGNAL WIRES. NON-CONDUCTIVE BREAKS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE.

J. NO EQUIPMENT WITH WIRELESS CAPABILITIES SHALL BE USE IN MECHANICAL CONTROL ROOM.

M. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK.

N. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

O. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

Q. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

R. ALL PIPE SUPPORTS TO BE A MINIMUM OF 30' AWAY FROM THE SECURE BOUNDARY.

S. ALL PIPE PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

T. PROVIDE DIELECTRIC COUPLINGS FOR ALL METALIC PIPING, COUPLINGS, CONDUITS, AND SIGNAL WIRES. DIELETRIC COUPLINGS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE

U. PROVIDE GROUNDING OF PIPING FOR BOTH SECURE AND NON-SECURE PIPING SEPERATELY. NO GROUNDING CONNECTIONS BETWEEN SECURE AND NON-SECURE SPACE. GROUND SECURE SIDE PIPING TO GROUNDING SYSTEM INSIDE OF SECURE SPACE. REFER TO ELECTRICAL PLANS FOR PROPER GROUNDING LOCATIONS AND CONNECTION TYPES.

V. CHILLED WATER EXPANSION LOOP SIZE, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

SHEET KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

	ISSUES	
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	REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

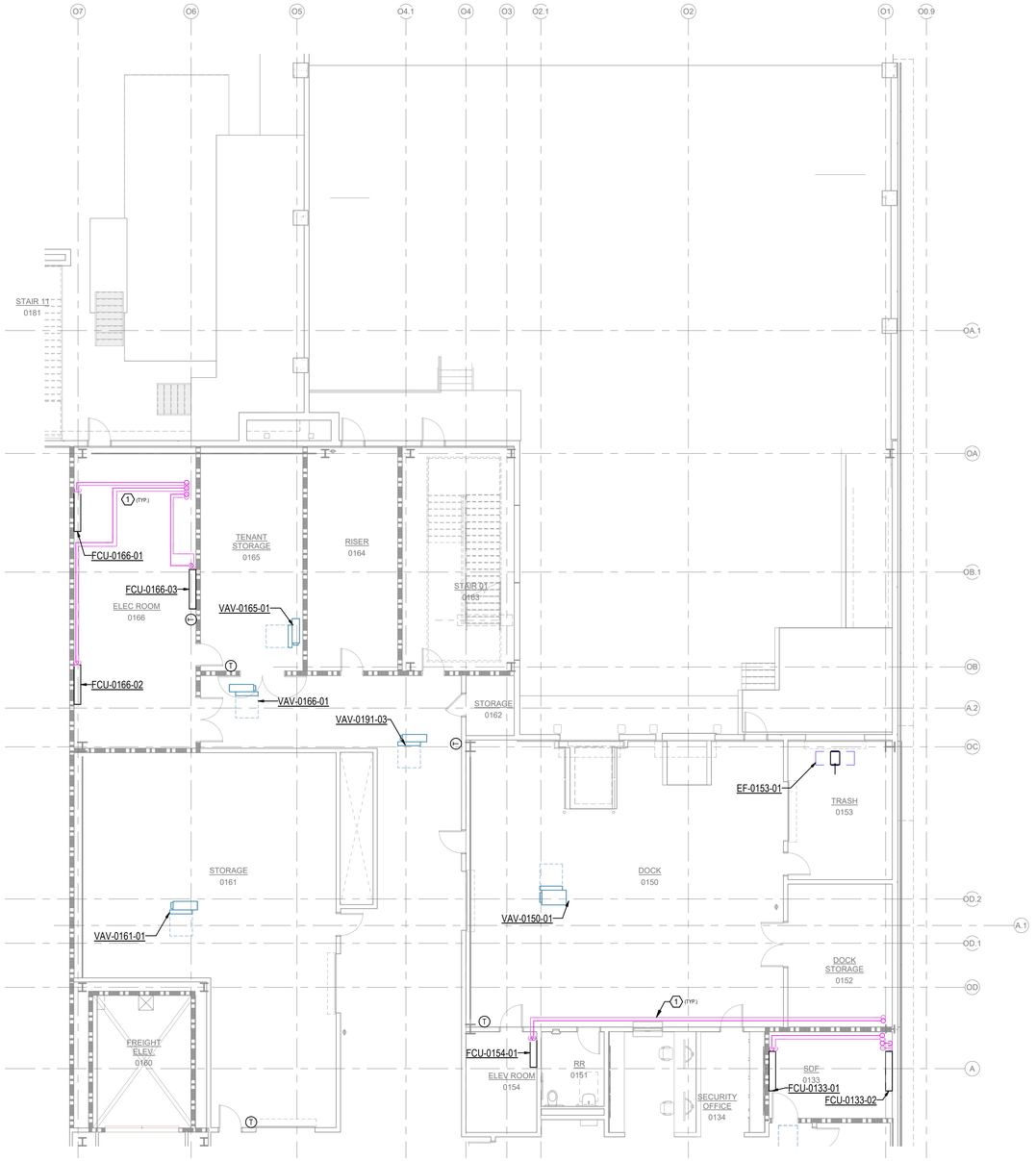
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HVAC PIPING PLAN - LEVEL ONE - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M03-01

2/4/2025 2:56:04 PM M03-01 HVAC PIPING PLAN - LEVEL ONE - OVERALL



1 LEVEL 1 - HVAC PIPING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

I. PROVIDE NON-CONDUCTIVE BREAKS FOR ALL METALIC DUCTWORK, COUPLINGS, CONDUITS, AND SIGNAL WIRES. NON-CONDUCTIVE BREAKS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE.

J. NO EQUIPMENT WITH WIRELESS CAPABILITIES SHALL BE USE IN MECHANICAL CONTROL ROOM.

K. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK.

L. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

M. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

N. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

O. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

Q. ALL PIPE SUPPORTS TO BE A MINIMUM OF 36" AWAY FROM THE SECURE BOUNDARY.

R. ALL PIPE PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

S. PROVIDE DIELECTRIC COUPLINGS FOR ALL METALIC PIPING, COUPLINGS, CONDUITS, AND SIGNAL WIRES. DIELETRIC COUPLINGS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE

T. PROVIDE GROUNDING OF PIPING FOR BOTH SECURE AND NON-SECURE PIPING SEPERATELY. NO GROUNDING CONNECTIONS BETWEEN SECURE AND NON-SECURE SPACE. GROUND SECURE SIDE PIPING TO GROUNDING SYSTEM INSIDE OF SECURE SPACE. REFER TO ELECTRICAL PLANS FOR PROPER GROUNDING LOCATIONS AND CONNECTION TYPES.

U. CHILLED WATER EXPANSION LOOP SIZIG, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
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KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

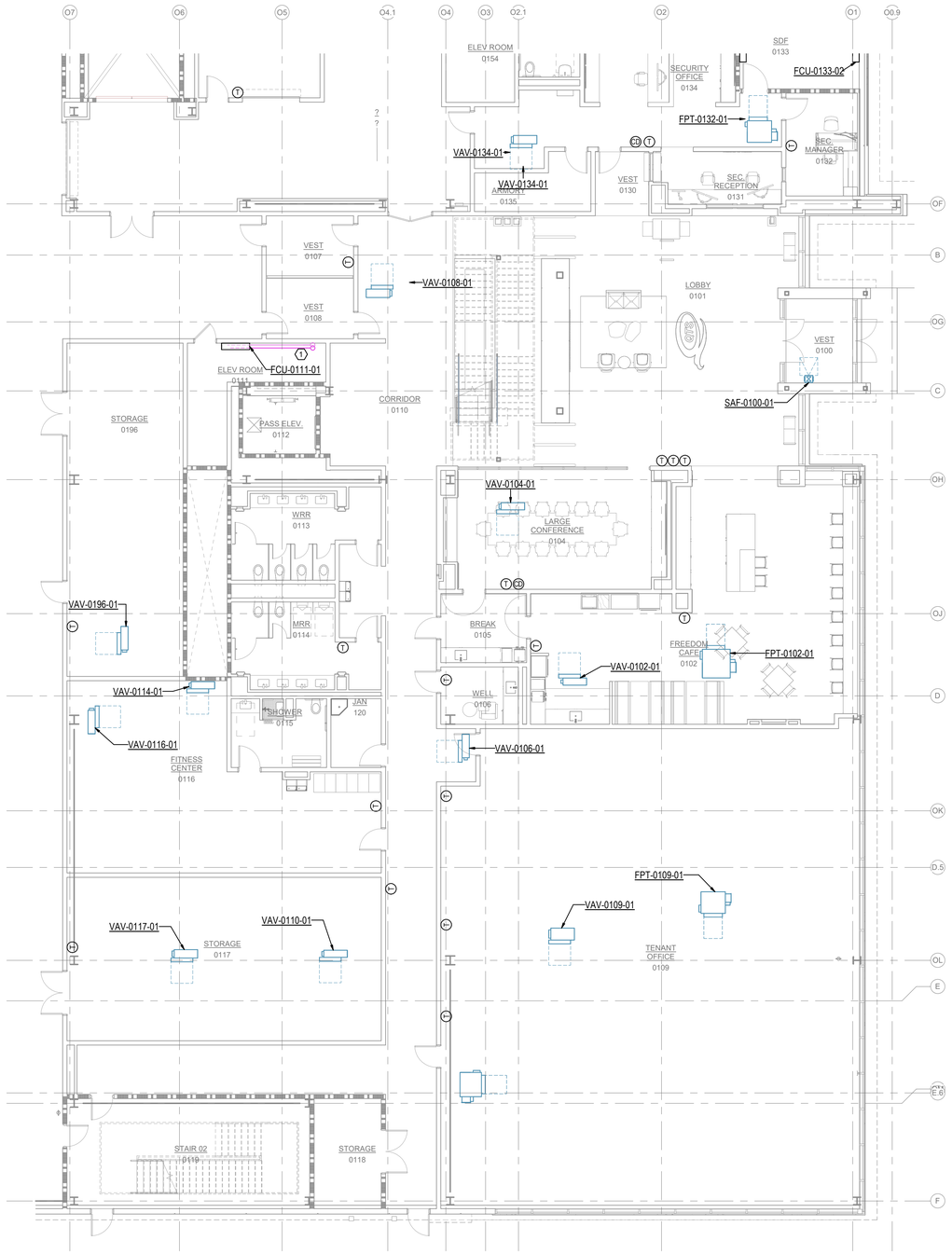
KEYPLAN

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HVAC PIPING PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET
M03-01A

2/4/2025 2:56:08 PM M03-01A HVAC PIPING PLAN - LEVEL ONE - SEGMENT A



1 LEVEL 1 - HVAC PIPING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

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N. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

O. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

Q. ALL PIPE SUPPORTS TO BE A MINIMUM OF 36" AWAY FROM THE SECURE BOUNDARY.

R. ALL PIPE PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

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U. CHILLED WATER EXPANSION LOOP SIZIG, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

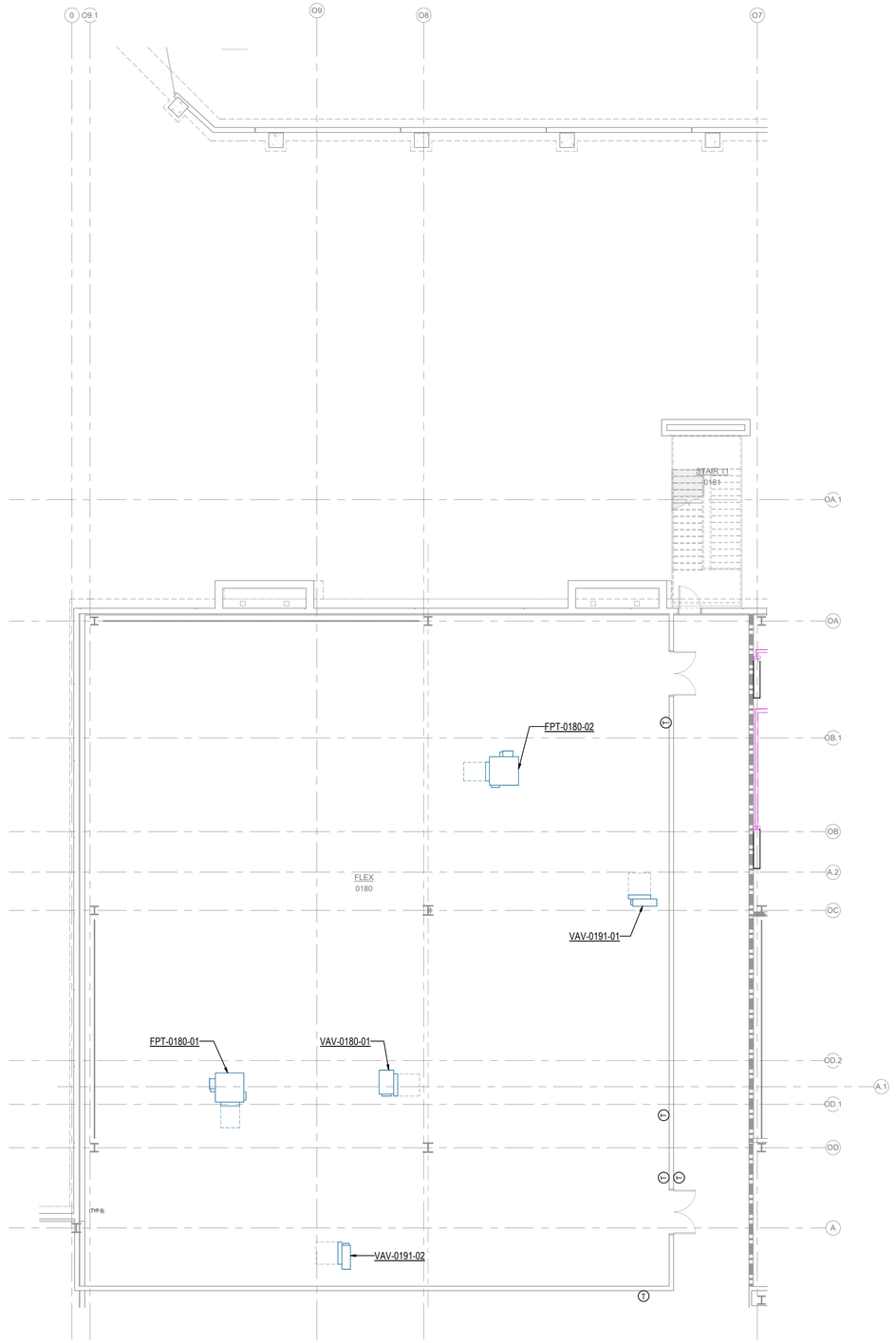
KEYPLAN

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HVAC PIPING PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET M03-01B

2/4/2025 2:56:13 PM M03-01B HVAC PIPING PLAN - LEVEL ONE - SEGMENT B



1 LEVEL 1 - HVAC PIPING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPIMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

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M. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

N. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

O. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

Q. ALL PIPE SUPPORTS TO BE A MINIMUM OF 36" AWAY FROM THE SECURE BOUNDARY.

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Date: Mar 21, 2025
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KEYNOTES

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AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL S. HODGES
47948
PROFESSIONAL ENGINEER
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Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
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KEYPLAN

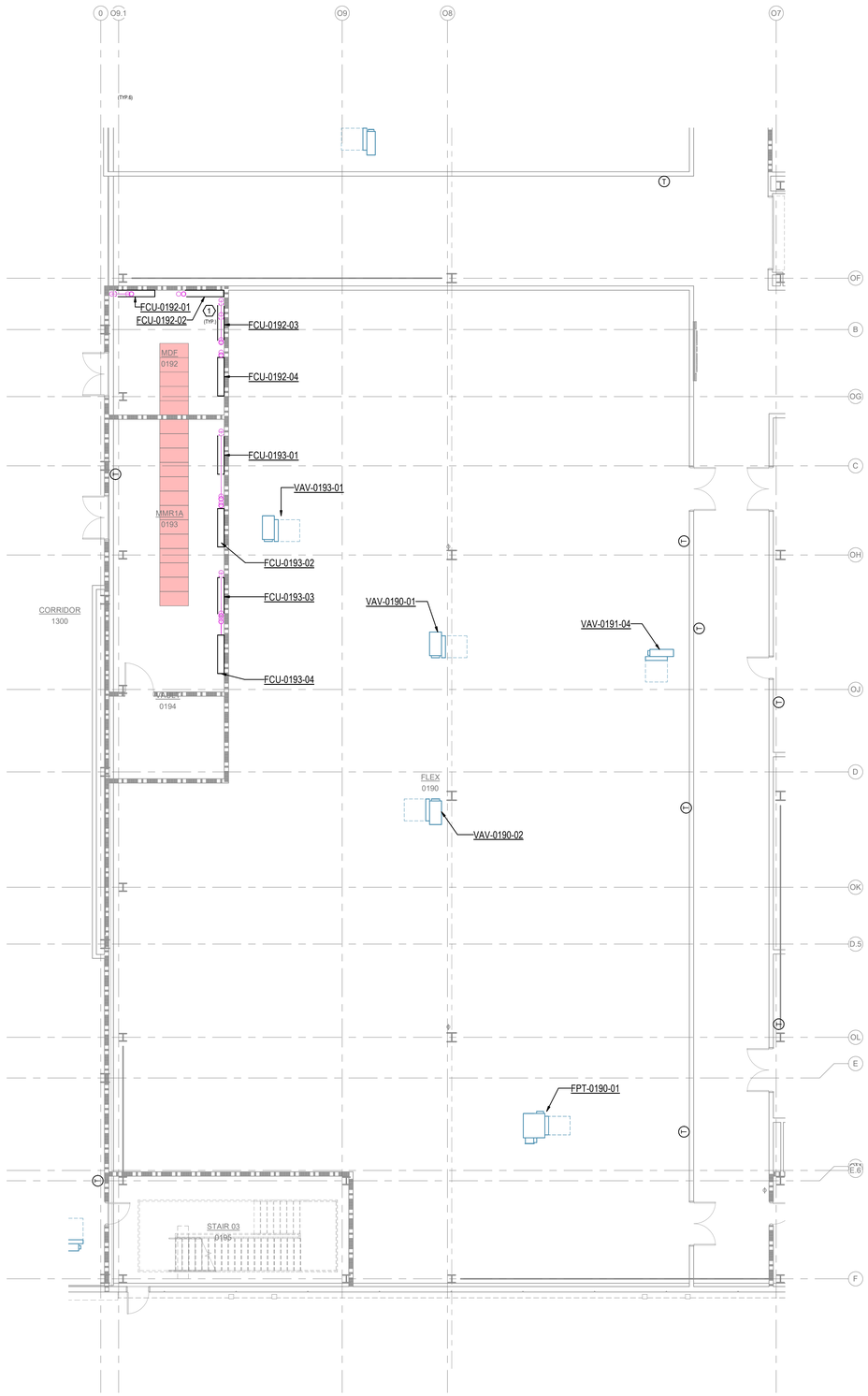
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HVAC PIPING PLAN - LEVEL ONE - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

M03-01C

2/4/2025 2:56:17 PM M03-01C HVAC PIPING PLAN - LEVEL ONE - SEGMENT C



1 LEVEL 1 - HVAC PIPING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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N. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

O. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

Q. ALL PIPE SUPPORTS TO BE A MINIMUM OF 36" AWAY FROM THE SECURE BOUNDARY.

R. ALL PIPE PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

S. PROVIDE DIELECTRIC COUPLINGS FOR ALL METALIC PIPING, COUPLINGS, CONDUITS, AND SIGNAL WIRES. DIELETRIC COUPLINGS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE

T. PROVIDE GROUNDING OF PIPING FOR BOTH SECURE AND NON-SECURE PIPING SEPERATELY. NO GROUNDING CONNECTIONS BETWEEN SECURE AND NON-SECURE SPACE. GROUND SECURE SIDE PIPING TO GROUNDING SYSTEM INSIDE OF SECURE SPACE. REFER TO ELECTRICAL PLANS FOR PROPER GROUNDING LOCATIONS AND CONNECTION TYPES.

U. CHILLED WATER EXPANSION LOOP SIZIG, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED WILLIAM S. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

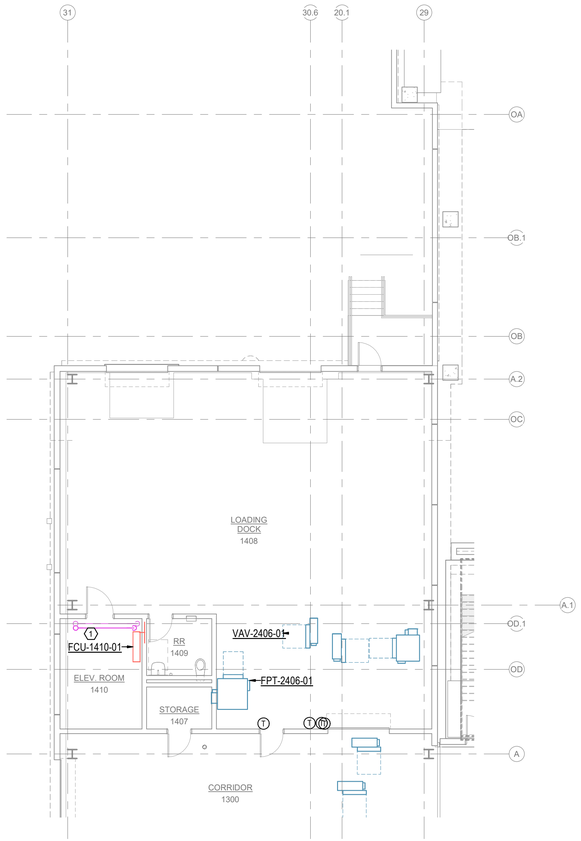
KEYPLAN

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T	R	P	M	K	H	F	D	B

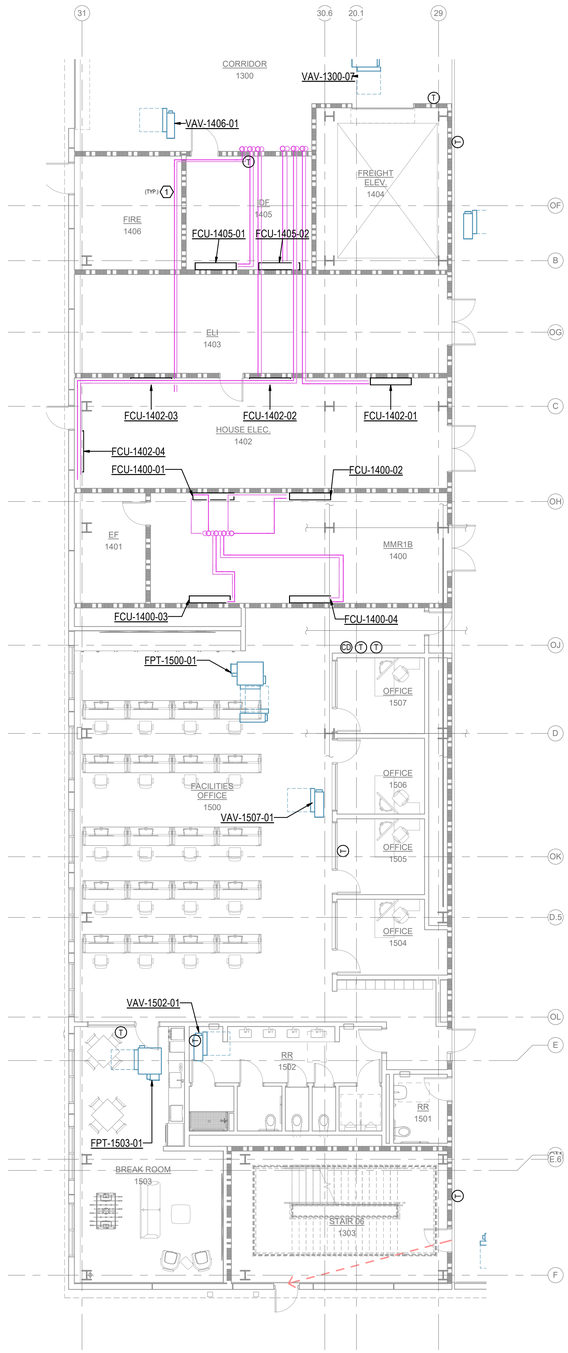
HVAC PIPING PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET
M03-01D

2/4/2025 2:56:21 PM M03-01DHVAC PIPING PLAN - LEVEL ONE - SEGMENT D



1 LEVEL 1 - HVAC PIPING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 - HVAC PIPING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

I. PROVIDE NON-CONDUCTIVE BREAKS FOR ALL METALIC DUCTWORK, COUPLINGS, CONDUITS, AND SIGNAL WIRES. NON-CONDUCTIVE BREAKS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE.

J. NO EQUIPMENT WITH WIRELESS CAPABILITIES SHALL BE USE IN MECHANICAL CONTROL ROOM.

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City of Aurora Building Division
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KEYNOTES

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CORGAN
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75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

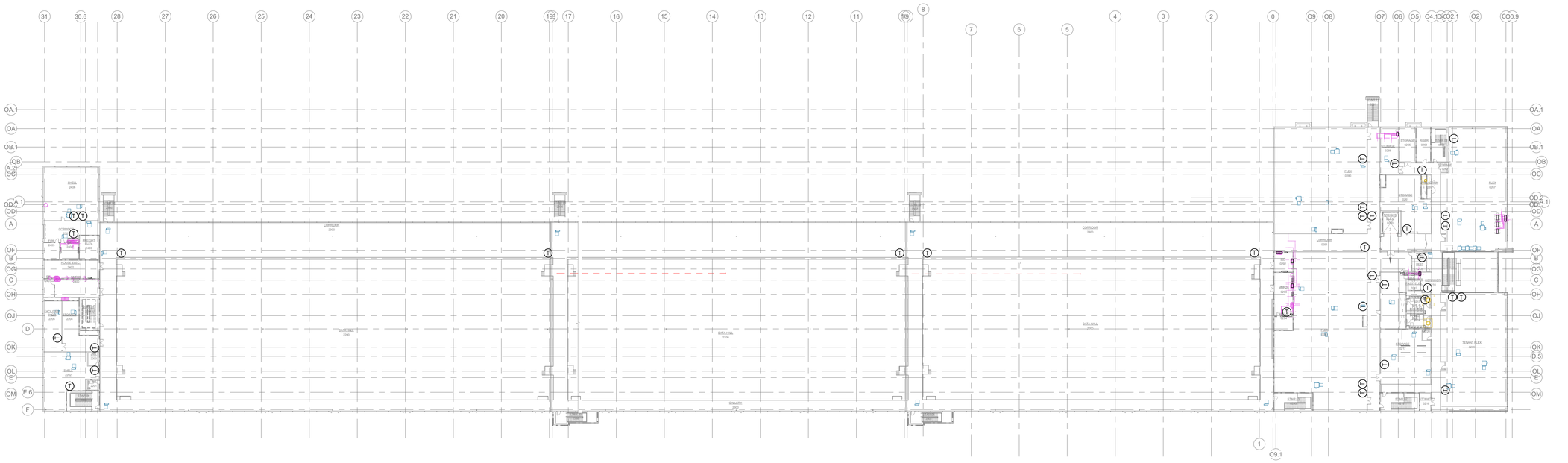
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HVAC PIPING PLAN - LEVEL ONE - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET

M03-01ST

2/4/2025 2:56:28 PM M03-01S'HVAC PIPING PLAN - LEVEL ONE - SEGMENT S-T



1 LEVEL 2 HVAC PIPING OVERALL PLAN
SCALE: 1" = 40'-0"

City of Aurora Building Division
Reviewed for Code Compliance
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Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

SHEET KEYNOTES

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PROFESSIONAL ENGINEER
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S Q N L J G E C A
T R P M K H F D B

HVAC PIPING PLAN - LEVEL TWO - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M03-02

2/4/2025 2:56:32 PM M03-02 HVAC PIPING PLAN - LEVEL TWO - OVERALL



1 LEVEL 2 - HVAC PIPING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

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City of Aurora Building Division
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KEYNOTES

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CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL S. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A	
T	R	P	M	K	H	F	D	B	

HVAC PIPING PLAN - LEVEL TWO - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

M03-02A

2/4/2025 2:56:36 PM M03-02A HVAC PIPING PLAN - LEVEL TWO - SEGMENT A



1 LEVEL 2 - HVAC PIPING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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KEYNOTES

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CORGAN
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AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
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PROFESSIONAL ENGINEER
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

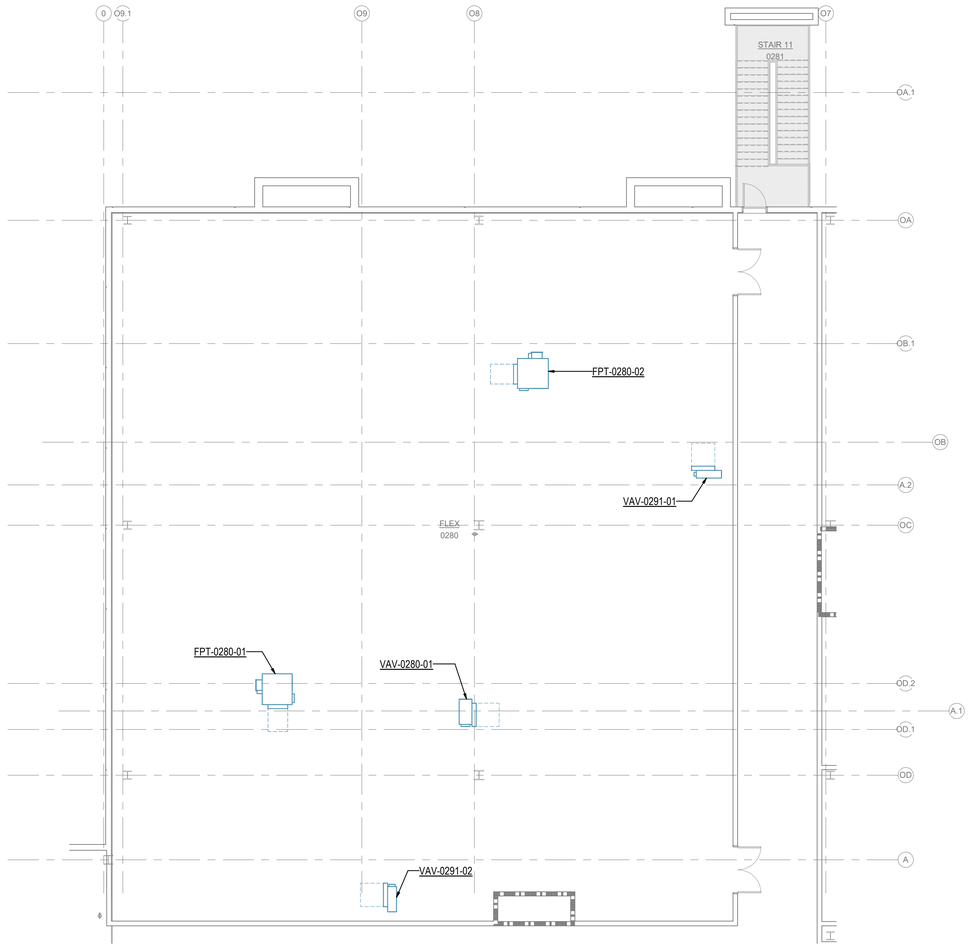
S	Q	N	L	J	G	E	C	A	
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HVAC PIPING PLAN - LEVEL TWO - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

M03-02B

2/4/2025 2:56:40 PM M03-02B HVAC PIPING PLAN - LEVEL TWO - SEGMENT B



1 LEVEL 2 - HVAC PIPING PLAN - C
SCALE: 1/8" = 1'-0"

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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

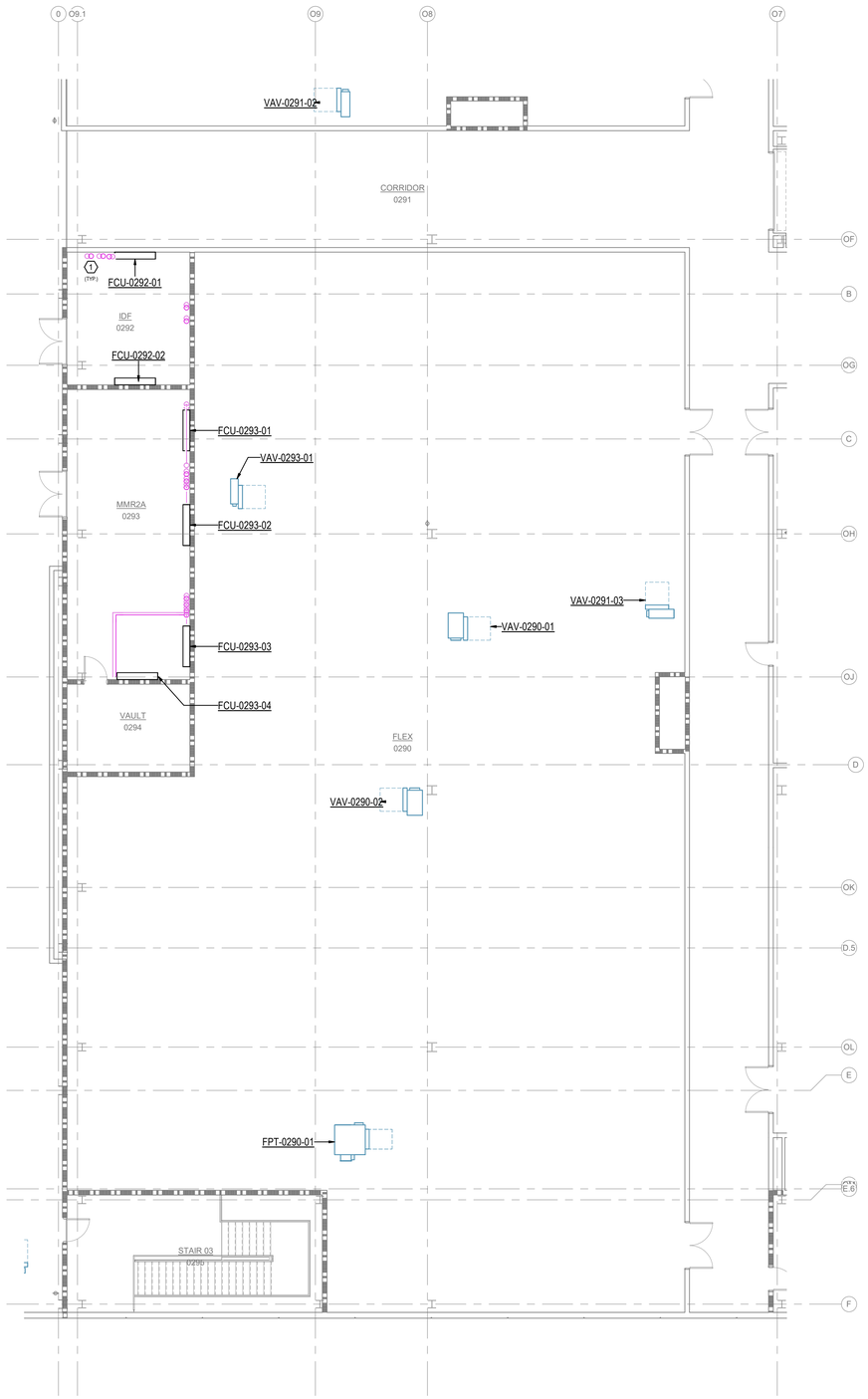
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HVAC PIPING PLAN - LEVEL TWO - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

M03-02C

2/4/2025 2:56:42 PM M03-02C HVAC PIPING PLAN - LEVEL TWO - SEGMENT C



1 LEVEL 2 - HVAC PIPING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

B. SEAL AROUND CONDUITS, PIPING, AND OTHER FLOOR PENETRATIONS TO MINIMIZE AIR LEAKAGE. REFER TO PENETRATION DETAILS ON M05 SERIES DRAWINGS FOR PROPER SEALING.

C. ALL RETURN AIR AND TRANSFER AIR DUCTS SHALL BE ACOUSTICALLY LINED AND INSTALLED AS HIGH AS POSSIBLE BELOW FLOOR/ROOF SLAB AND BETWEEN STRUCTURAL MEMBERS UNLESS OTHERWISE NOTED.

D. PROVIDE DUCT FLANGE WITH 1/2"x1/2" WIRE MESH SCREEN AT ALL DUCT OPENINGS EXPOSED OR ABOVE CEILINGS.

E. ALL TRANSFER AIR DUCTS SHALL FEATURE AN ACOUSTICALLY-LINED "Z-BEND" CONSISTING OF TWO 90 DEGREE BENDS FOR A TOTAL OF 180° OF ELBOWS.

F. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK

G. ALL DUCT 3'-0" MIN. UPSTREAM OF VAV BOX FULL SIZE OF INLET UNO.

H. ALL DUCTWORK PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS, WAVEGUIDE, INSPECTION PORT, & MANBARS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

I. PROVIDE NON-CONDUCTIVE BREAKS FOR ALL METALIC DUCTWORK, COUPLINGS, CONDUITS, AND SIGNAL WIRES. NON-CONDUCTIVE BREAKS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE.

J. NO EQUIPMENT WITH WIRELESS CAPABILITIES SHALL BE USE IN MECHANICAL CONTROL ROOM.

K. GROOVED END PIPE AND MECHANICAL COUPLINGS/ FITTINGS ARE NOT PERMITTED FOR USE UNDER DIVISION 23 WORK.

L. REFRIGERANT PIPE ROUTINGS SHOWN ARE FOR DESIGN INTENT ONLY. COORDINATE ALL NEW REFRIGERANT PIPE ROUTINGS WITH THE MANUFACTURER PRIOR TO COMMENCEMENT OF WORK.

M. REFRIGERANT PIPING TO BE SIZED AND INSTALLED PER MANUFACTURER'S REQUIREMENTS. SIZING SHALL BE CONFIRMED WITH MANUFACTURER BASED ON FINAL COORDINATED PIPE ROUTING PRIOR TO INSTALL.

N. CONTRACTOR TO PROVIDE REFRIGERANT AS REQUIRED TO FILL THE SYSTEM.

O. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" BALL VALVE AND BOILER DRAIN W/CAP IN BOTTOM OF PIPE.

P. ALL PIPING SECTIONS BETWEEN ISOLATION VALVES SHALL HAVE 1/2" WELDOLET W/ PLUG FOR VENTING IN TOP OF PIPE.

Q. ALL PIPE SUPPORTS TO BE A MINIMUM OF 36" AWAY FROM THE SECURE BOUNDARY.

R. ALL PIPE PENETRATIONS THROUGH SECURE BOUNDARIES SHALL INCLUDE NON-CONDUCTIVE BREAKS INSTALLED IN ACCORDANCE WITH OWNER APPROVED DETAILS. ANY DEVIATIONS IN INSTALLATION REQUIRE WRITTEN APPROVAL FROM THE OWNER PRIOR TO COMMENCEMENT OF WORK.

S. PROVIDE DIELECTRIC COUPLINGS FOR ALL METALIC PIPING, COUPLINGS, CONDUITS, AND SIGNAL WIRES. DIELETRIC COUPLINGS TO PROVIDE COMPLETE SIGNAL SEPERATION BETWEEN SECURE AND NON-SECURE SPACE

T. PROVIDE GROUNDING OF PIPING FOR BOTH SECURE AND NON-SECURE PIPING SEPERATELY. NO GROUNDING CONNECTIONS BETWEEN SECURE AND NON-SECURE SPACE. GROUND SECURE SIDE PIPING TO GROUNDING SYSTEM INSIDE OF SECURE SPACE. REFER TO ELECTRICAL PLANS FOR PROPER GROUNDING LOCATIONS AND CONNECTION TYPES.

U. CHILLED WATER EXPANSION LOOP SIZIG, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

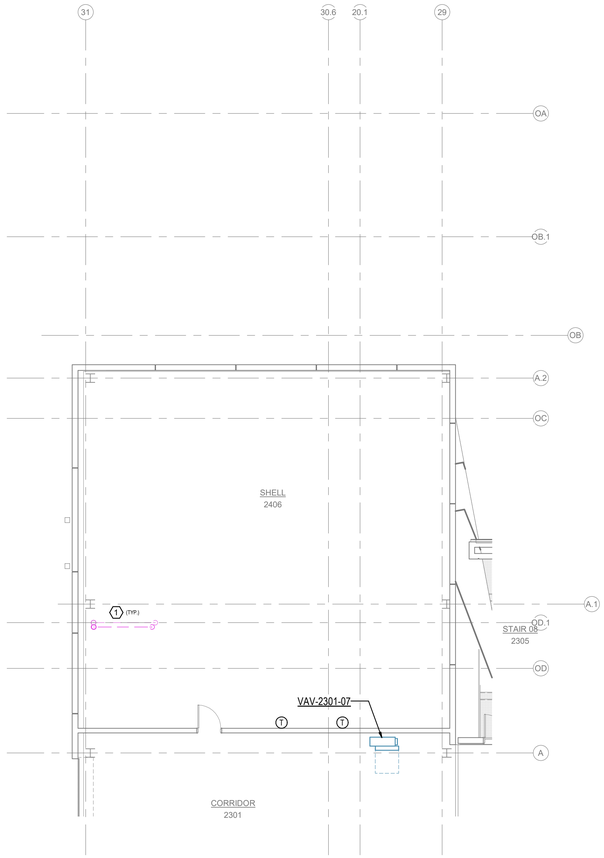
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T	R	P	M	K	H	F	D	B

HVAC PIPING PLAN - LEVEL TWO - SEGMENT D

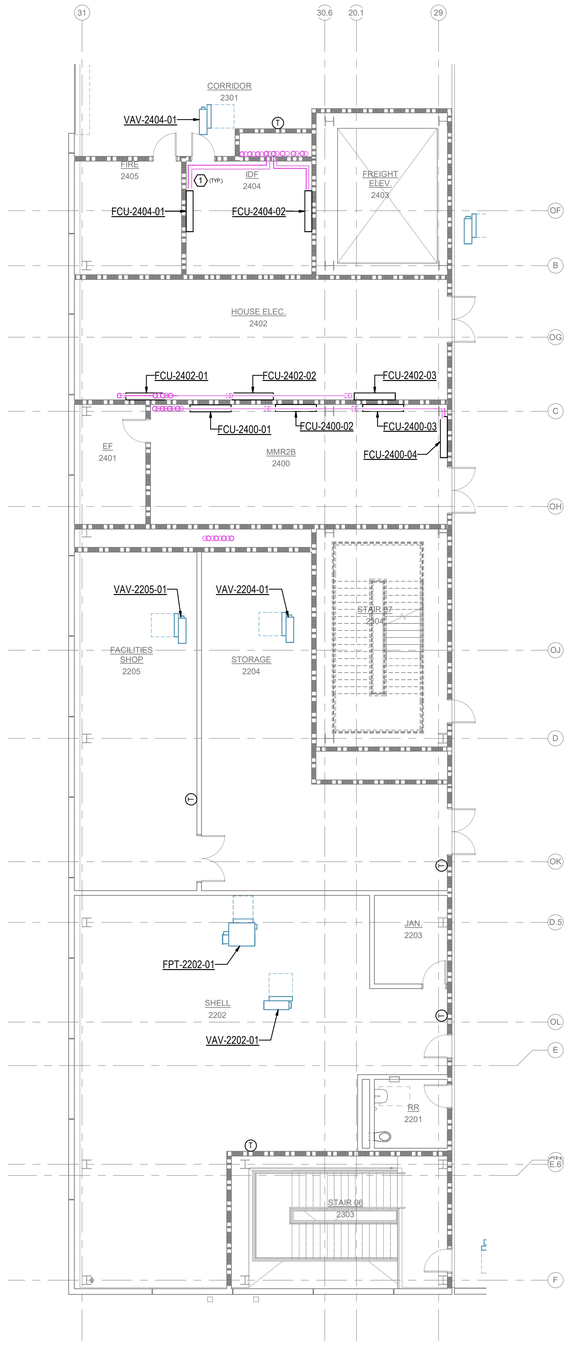
JOB 24464.0000
DATE 01.31.25
SHEET

M03-02D

2/4/2025 2:56:46 PM M03-02D HVAC PIPING PLAN - LEVEL TWO - SEGMENT D



1 LEVEL 2 - HVAC PIPING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 2 - HVAC PIPING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. MAINTAIN MINIMUM OF 6'-0" CLEAR ABOVE ALL ELECTRICAL EQUIPMENT. NO PIPING SHALL BE ROUTED ABOVE ELECTRICAL EQUIPMENT. PROVIDE 2" DEEP DRAIN PANS UNDER ALL DUCTWORK LOCATIONS ABOVE ANY ELECTRICAL EQUIPMENT IN ACCORDANCE W/ NEC.

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U. CHILLED WATER EXPANSION LOOP SIZIG, ANCHOR AND GUIDE PLACEMENT IS ASSUMED TO HAVE BEEN DESIGNED AS PART OF THE CORE AND SHELL SCOPE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

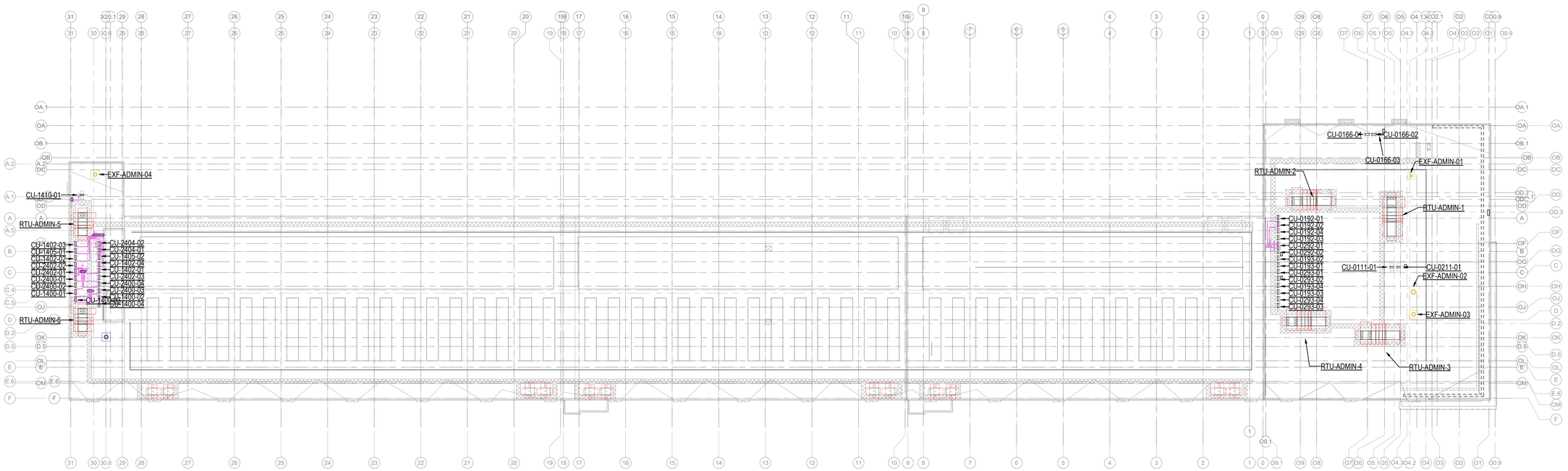
KEYPLAN

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HVAC PIPING PLAN - LEVEL TWO - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET M03-02ST

2/4/2025 2:56:51 PM M03-02S'HVAC PIPING PLAN - LEVEL TWO - SEGMENT S-T



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN
SCALE: 1" = 40'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

SHEET KEYNOTES

2/4/2025 2:56:55 PM M03-03 ROOF PIPING PLAN - OVERALL

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

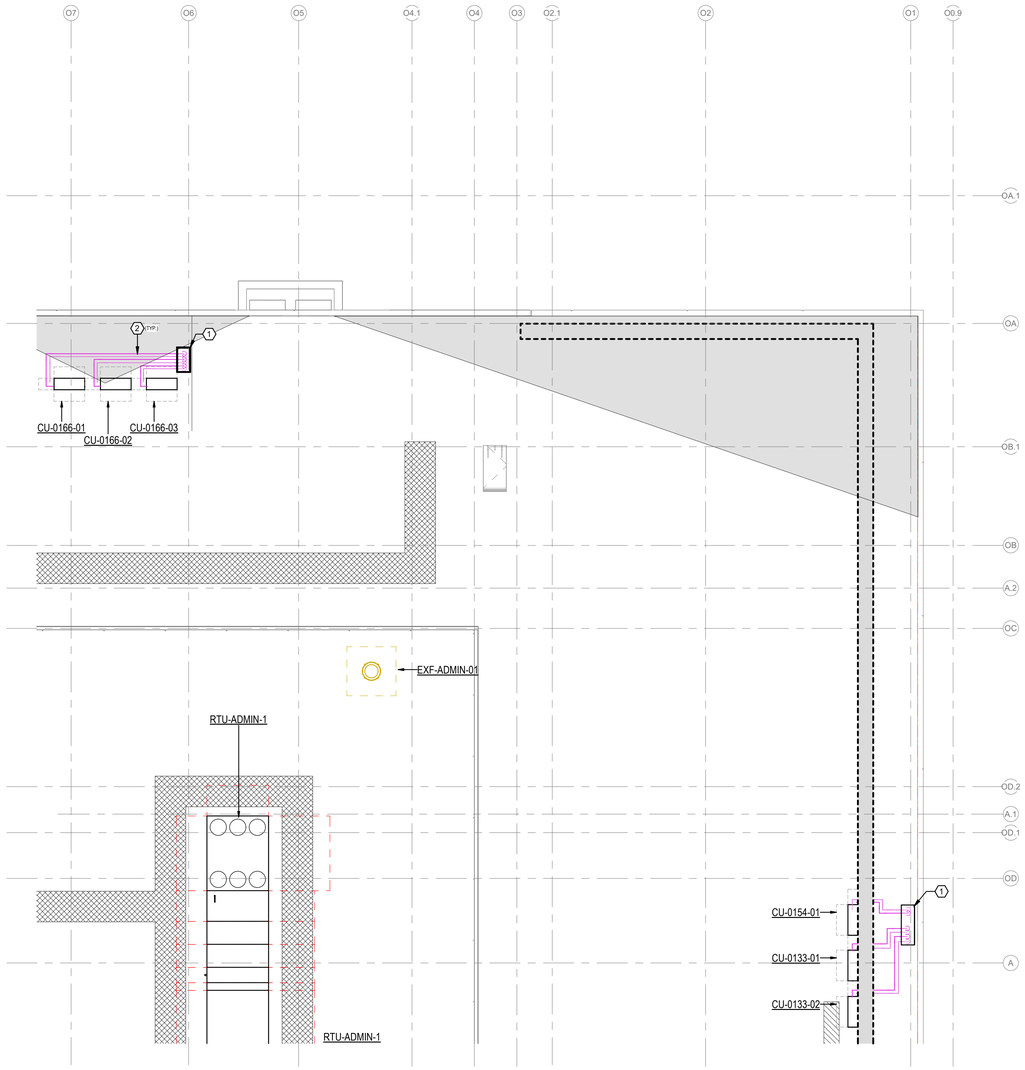
KEYPLAN

S Q N L J G E C A
T R P M K H F D B

ROOF PIPING PLAN - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

M03-03



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

1 PREFABRICATED PIPE CHASE HOUSING. REFER TO ARCH SERIES FOR SPECIFICATIONS.
2 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

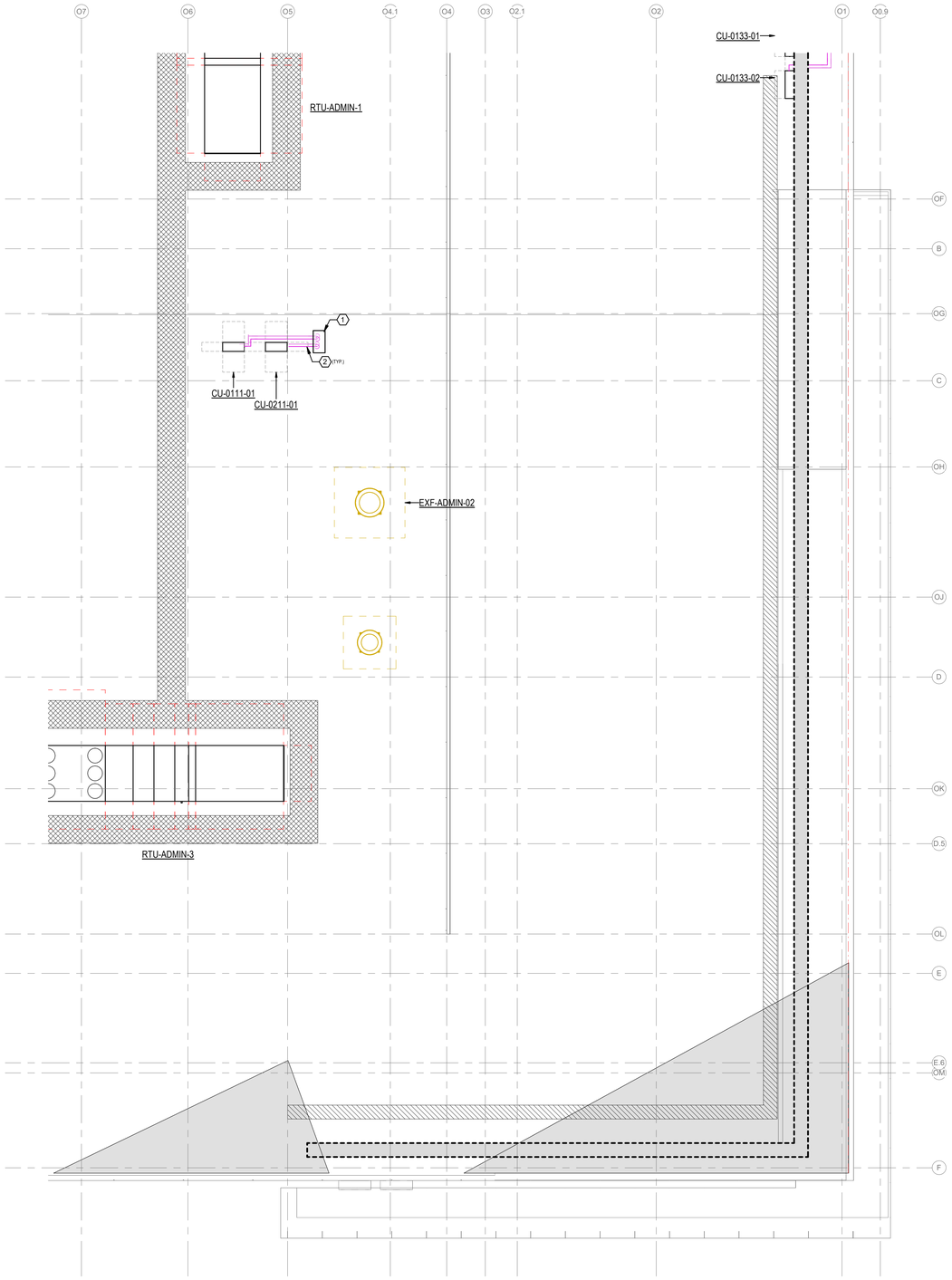
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ROOF PIPING PLAN - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

M03-03A

2/4/2025 2:56:59 PM M03-03A ROOF PIPING PLAN - SEGMENT A



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

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CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

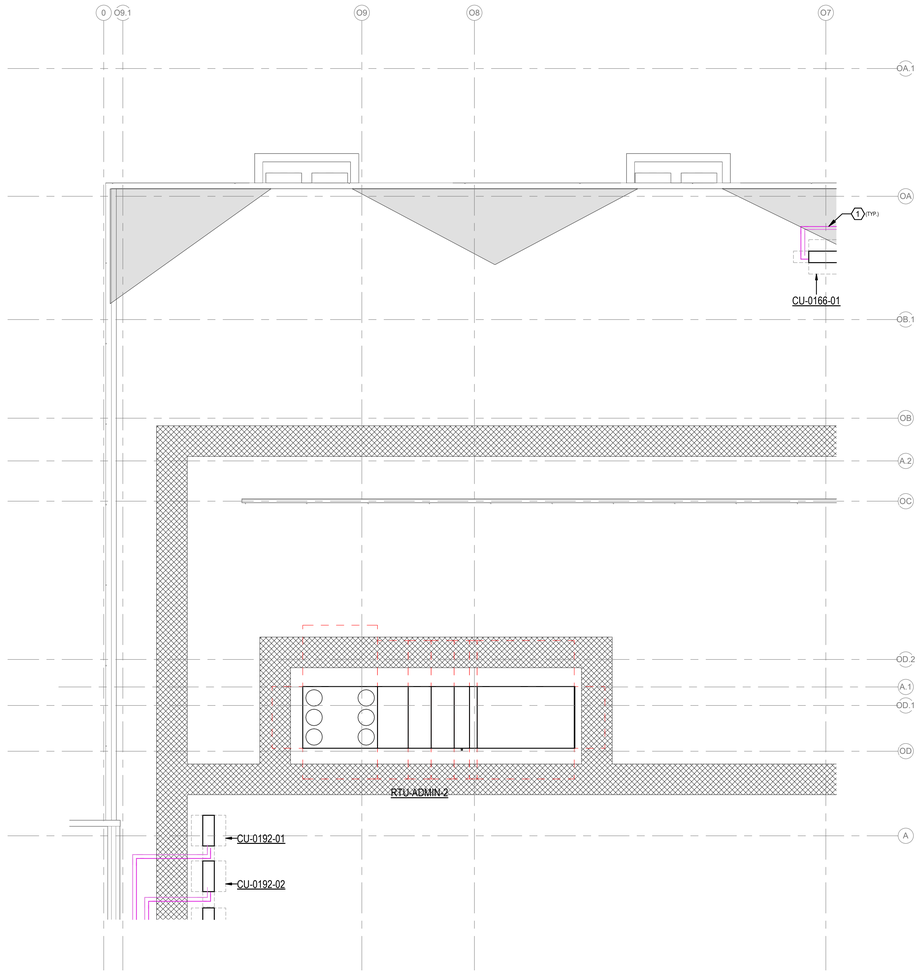
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ROOF PIPING PLAN - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

M03-03B

2/4/2025 2:57:02 PM M03-03B ROOF PIPING PLAN - SEGMENT B



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

KEYNOTES

1 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

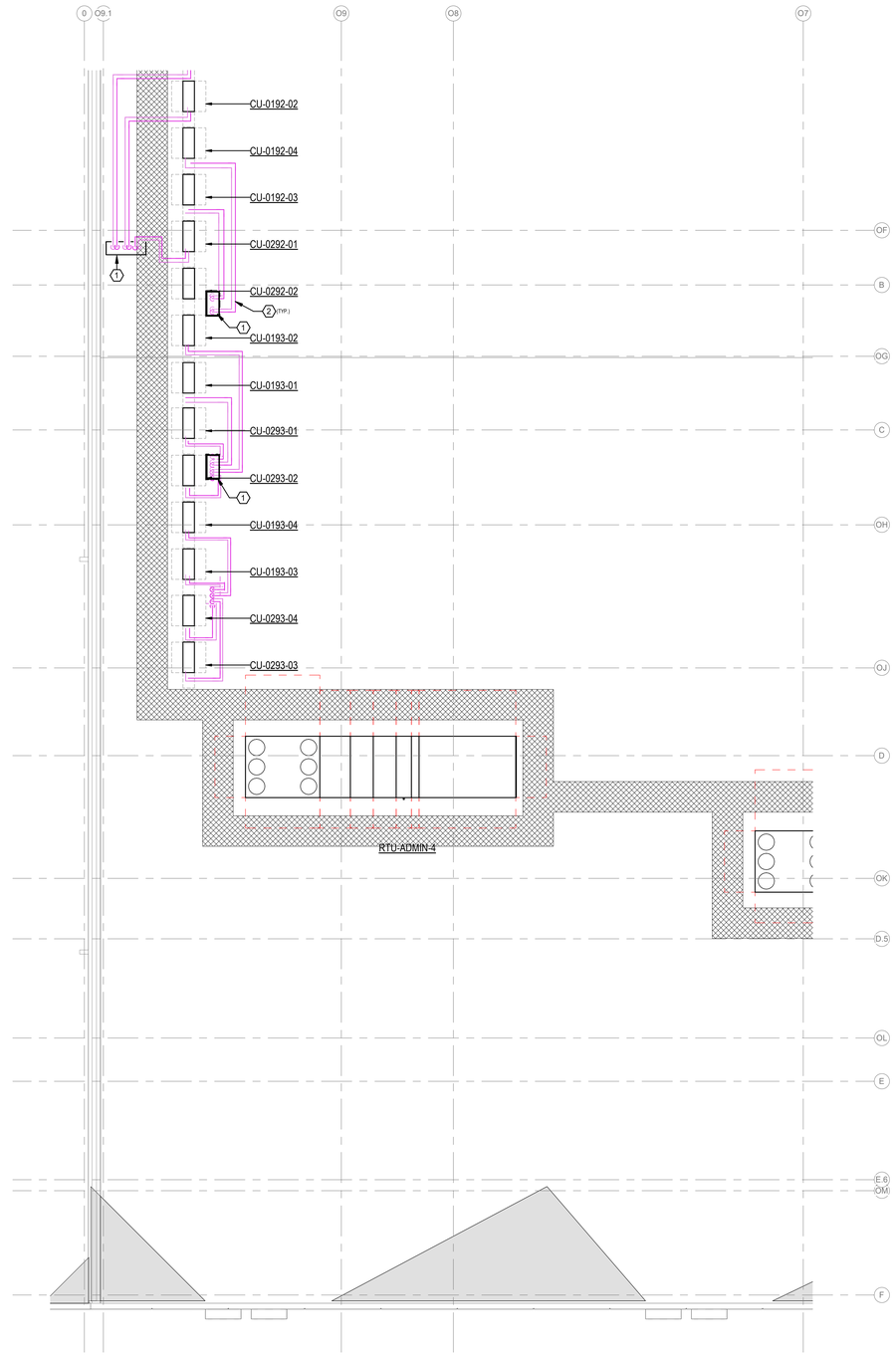
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ROOF PIPING PLAN - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

M03-03C

2/4/2025 2:57:06 PM M03-03C ROOF PIPING PLAN - SEGMENT C



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

KEYNOTES

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2 3/8" LIQUID AND 3/4" GAS REFRIGERANT PIPING FROM WALL-MOUNTED MINI-SPLIT SYSTEM TO ROOF MOUNTED CONDENSER.

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILLIAM B. HODGES
47948
PROFESSIONAL ENGINEER
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
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KEYPLAN

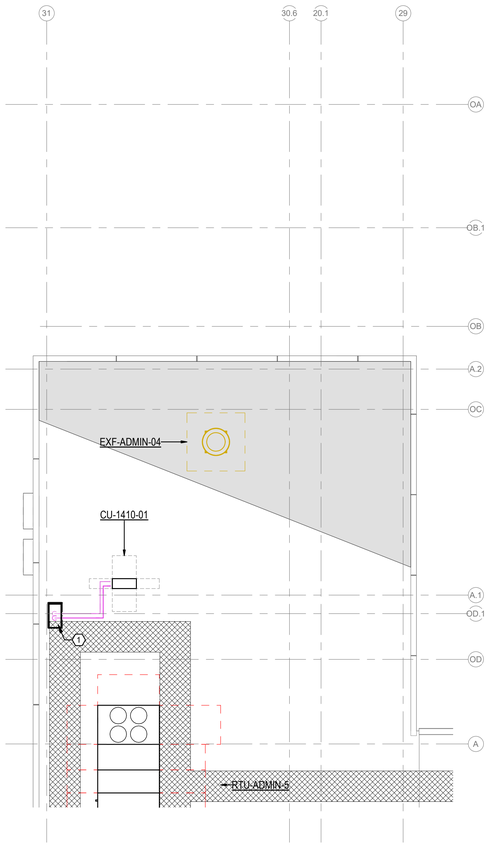
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ROOF PIPING PLAN - SEGMENT D

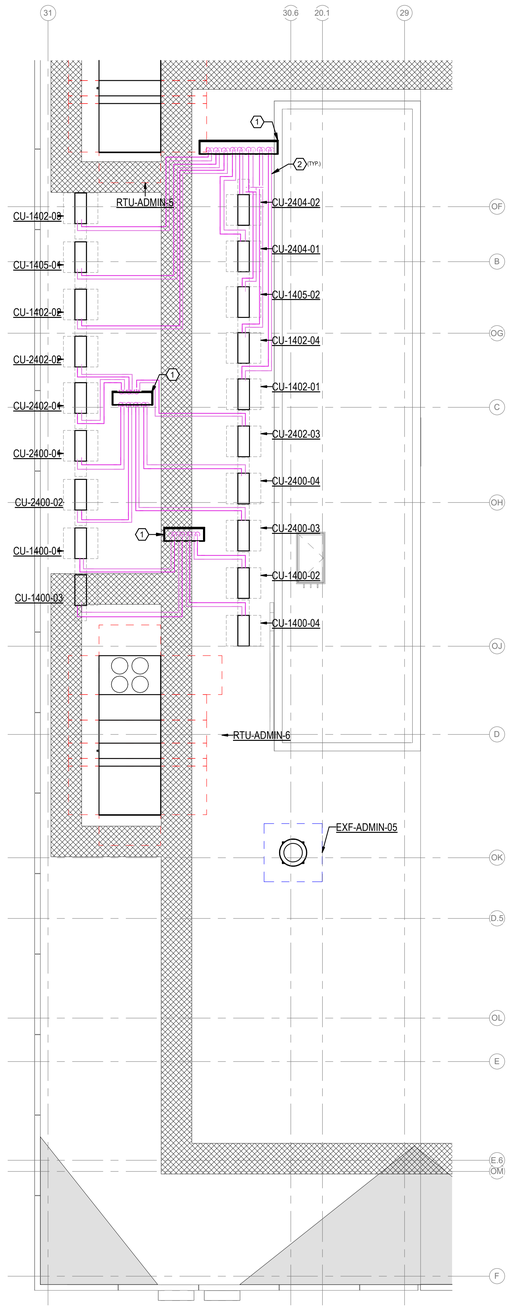
JOB 24464.0000
DATE 01.31.25
SHEET

M03-03D

2/4/2025 2:57:09 PM M03-03D ROOF PIPING PLAN - SEGMENT D



1 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - S
SCALE: 1/8" = 1'-0"



2 T.O. DATA CENTER PARAPET HVAC PIPING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ROOF MOUNTED EQUIPMENT SHALL NOT BE PLACED WITHIN 10 FEET FROM THE ROOF EDGE. IF BUILDING CONDITIONS ARE SUCH THAT EQUIPMENT NEEDS TO BE LOCATED CLOSER, HAND RAILS SHALL BE PROVIDED TO COMPLY WITH CURRENT INTERNATIONAL BUILDING CODE REQUIREMENTS

City of Aurora Building Division
Reviewed for Code Compliance
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KEYNOTES

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CORGAN
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AG/E

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TCD DESIGN CONSULTING LLC

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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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T	R	P	M	K	H	F	D	B

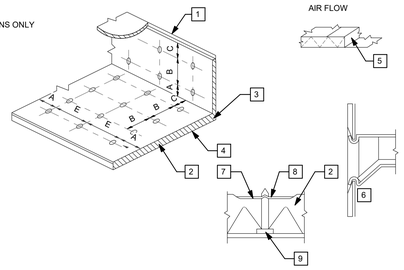
ROOF PIPING PLAN - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET

M03-03ST

2/4/2025 2:57:14 PM M03-03SROOF PIPING PLAN - SEGMENT S-T

1 LAPPED AND BUTTED CORNER
2 1 " THICK DUCT LINER OR AS SPECIFIED
3 ALTERNATIVE FOLDED CORNER
4 ALL TRANSVERSE EDGES TO BE COATED WITH LINER ADHESIVE ADHERED TO THE DUCT WITH A 100% AREA COVERAGE OF ADHESIVE
5 USE METAL NOSING ON INITIAL LEADING EDGE. NOSING MAY BE FORMED OF DUCT OR BE CHANNEL OR ZEE ATTACHED BY SCREWS, RIVETS OR WELDS
6 LINED DUCT CONNECTION (NO EXPOSED LINER EDGES)
7 INTEGRAL OR PRESSED ON HEAD
8 WASHER
9 WELDED PINS ONLY

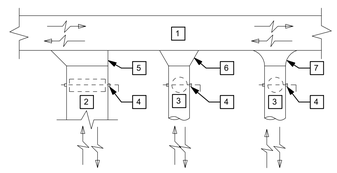


1 ACOUSTICAL LINING

1 MAIN SUPPLY, RETURN OR EXHAUST DUCT (LOW OR MEDIUM PRESS.)
2 RECTANGULAR BRANCH TAKE-OFF DUCT (LOW OR MEDIUM PRESS.)
3 ROUND BRANCH TAKE-OFF DUCT (LOW OR MEDIUM PRESS.)
4 VOLUME DAMPER AS INDICATED ON PLANS
5 45 DEGREE ENTRY FITTING
6 CONICAL DUCT TAKE-OFF FITTING
7 BELLMOUTH DUCT TAKE-OFF FITTING

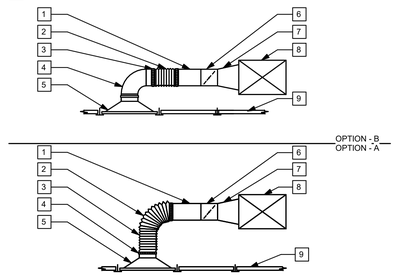
NOTES:

1. SPIN-IN DUCT TAKE-OFF FITTINGS MAY BE USED IN LIEU OF CONICAL OR BELLMOUTH FITTINGS ONLY WHERE MAIN DUCT DIMENSIONS ARE NOT SUFFICIENT TO ALLOW THE USE OF A CONICAL OR BELLMOUTH. SEAL ALL TAKE-OFF & OTHER DUCT FITTINGS AIR TIGHT AS PER SPEC. FABRICATE BRANCH DUCT TAKE-OFF FITTING PER LATEST EDITION OF SMACNA DUCT CONSTRUCTION MANUAL, AS INDICATED ON PLANS, OR AS DESCRIBED IN SPECIFICATION.
2. FOLLOW SPECIFIED VERSION OF SMACNA STANDARD FOR ALL DUCT CONSTRUCTION.



2 DUCTWORK BRANCH TYPES

1 SINGLE WALL ROUND SHEETMETAL DUCT (RUNOUT DUCT SIZE SHALL BE SAME AS DIFFUSER NECK DIAMETER UNLESS NOTED OTHERWISE ON PLANS)
2 FLEXIBLE DUCT
3 DRAWBAND
4 ELBOW CL RADIUS TO BE 1-1/2 TIMES DUCT DIAMETER
5 LAY-IN DIFFUSER
6 BALANCING DAMPER
7 CONICAL, BELL-MOUTH OR RECTANGULAR TO ROUND TAKE-OFF
8 RECTANGULAR SUPPLY AIR DUCT (ROUND SIMILAR)
9 LAY-IN CEILING

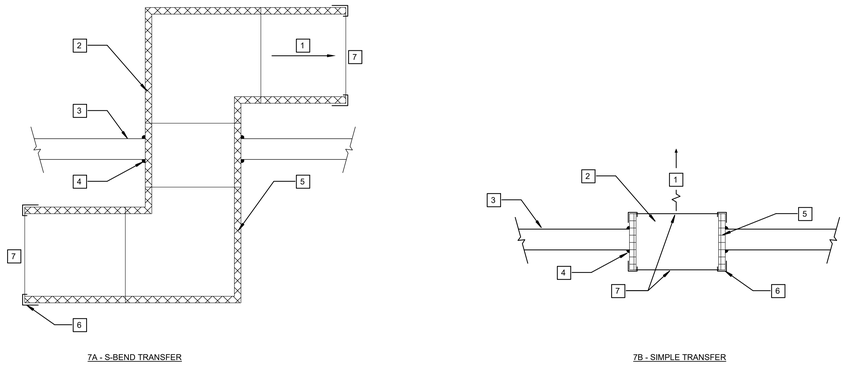


3 LAY-IN DIFFUSER

1 AIR FLOW
2 TRANSFER AIR DUCT. SEE PLANS FOR SIZES.
3 WALL
4 ACOUSTICAL SEALANT ALL ROUND
5 1" ACOUSTICAL LINING SEE SPECIFICATION
6 METAL NOSING TYP. BOTH ENDS
7 OED WITH WIRE MESH SCREEN ON BOTH SIDES OF DUCT

NOTES:
PROVIDE FIRE OR SMOKE DAMPER AS REQUIRED

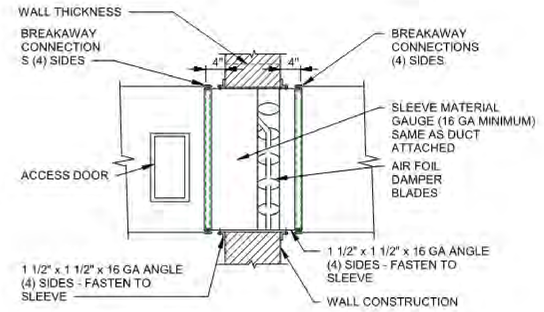
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC



7A - S-BEND TRANSFER

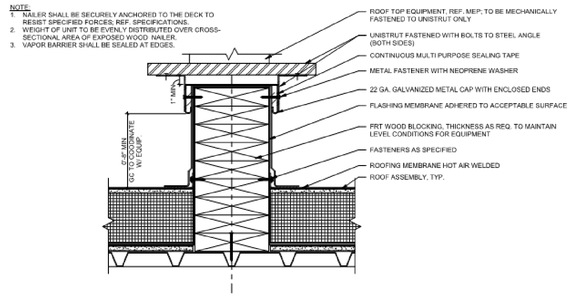
7B - SIMPLE TRANSFER

4 TRANSFER DUCT - NON RATED

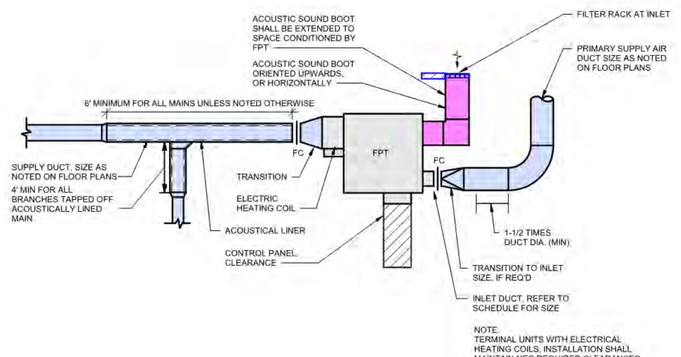


5 COMBINATION SMOKE/FIRE DAMPER

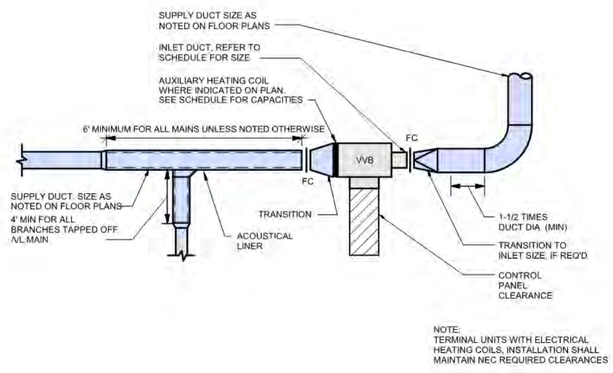
NOTE:
1. NAILER SHALL BE SECURELY ANCHORED TO THE DECK TO RESIST SPECIFIED FORCES; REF. SPECIFICATIONS.
2. WEIGHT OF UNIT TO BE EVENLY DISTRIBUTED OVER CROSS-SECTIONAL AREA OF EXPOSED WOOD NAILER.
3. VAPOR BARRIER SHALL BE SEALED AT EDGES.



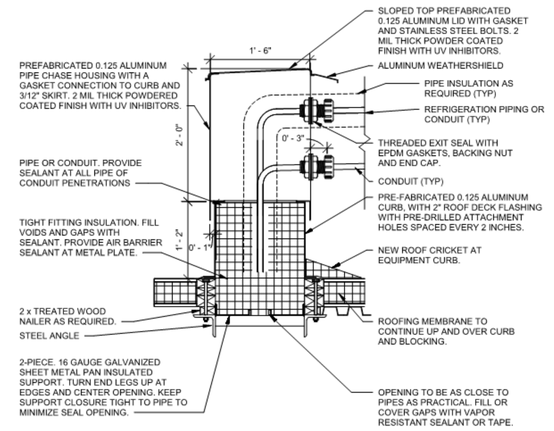
6 EQUIPMENT RAIL



7 FAN POWERED BOX



8 VARIABLE/CONSTANT AIR VOLUME BOX



9 SECTION AT PRE-FAB PIPE CHASE HOUSING

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000
AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO LICENSED WILL S. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

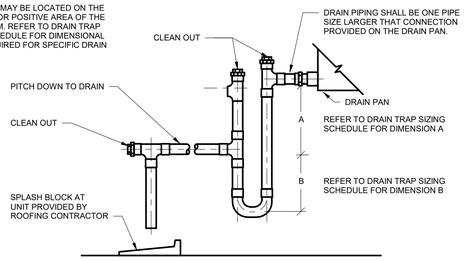
MECHANICAL DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

M05-01

2/4/2025 2:57:16 PM M05-01 MECHANICAL DETAILS

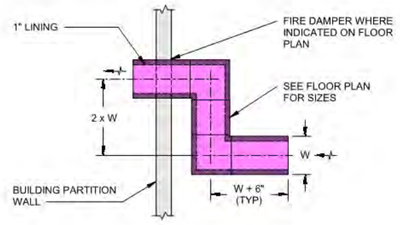
NOTE:
DRAIN PAN MAY BE LOCATED ON THE NEGATIVE OR POSITIVE AREA OF THE AIR STREAM. REFER TO DRAIN TRAP SIZING SCHEDULE FOR DIMENSIONAL DATA REQUIRED FOR SPECIFIC DRAIN LOCATION.



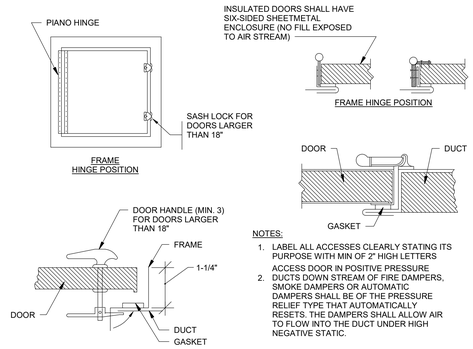
DIMENSION	DRAIN TRAP LOCATION FOR NEGATIVE PRESSURE	DRAIN TRAP LOCATION FOR POSITIVE PRESSURE
A	FAN DUCT PRESSURE +1"	2"
B	A/2	FAN OUTLET PRESSURE +1" (4" MINIMUM)

SIZING SCHEDULE

1 AHU CONDENSATE DRAIN TRAP PIPING DETAIL



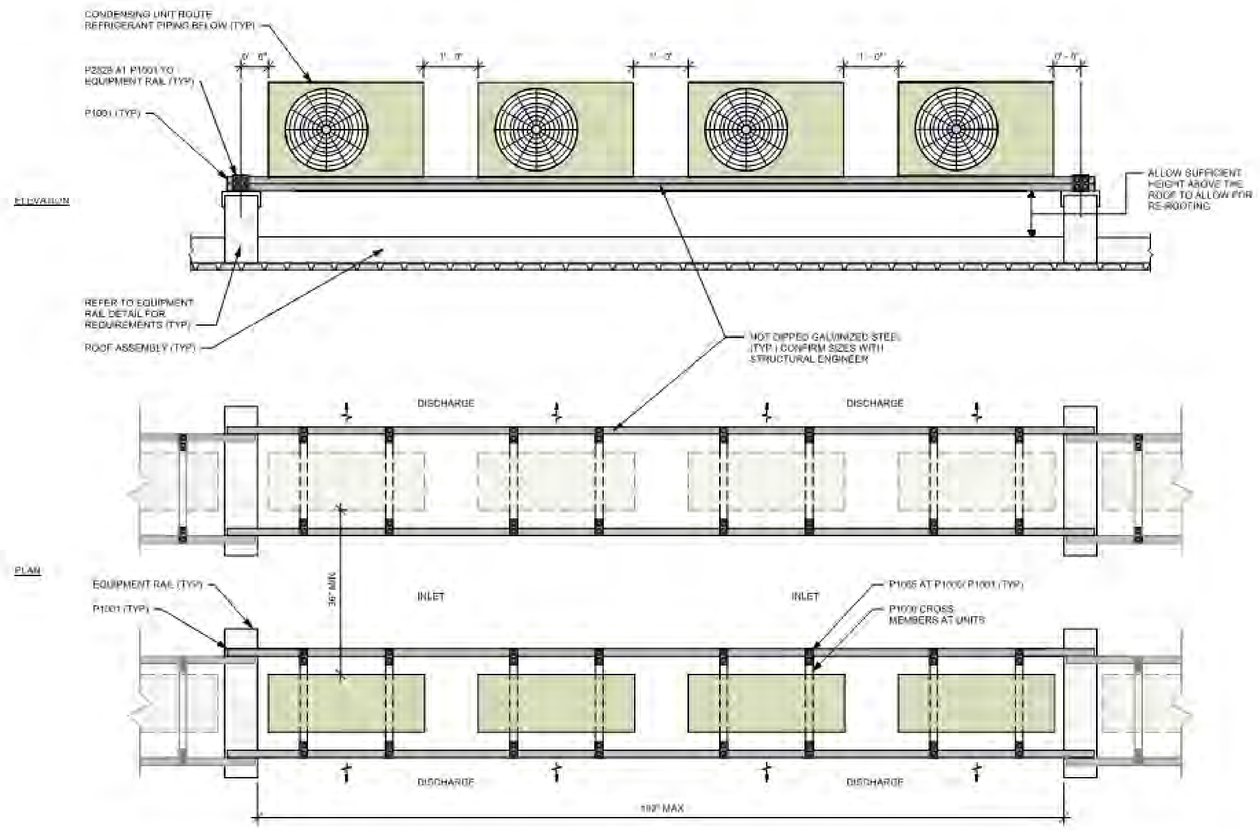
2 TRANSFER AIR DUCT



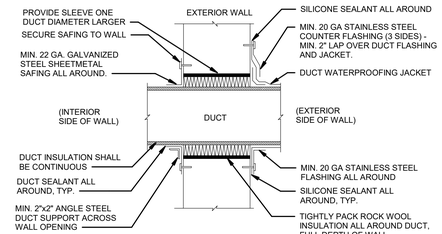
NOTES:
1. LABEL ALL ACCESSES CLEARLY STATING ITS PURPOSE WITH MIN OF 2" HIGH LETTERS
   ACCESS DOOR IN POSITIVE PRESSURE
2. DUCTS DOWN STREAM OF FIRE DAMPERS, SMOKE DAMPERS OR AUTOMATIC DAMPERS SHALL BE OF THE PRESSURE RELIEF TYPE THAT AUTOMATICALLY RESETS. THE DAMPERS SHALL ALLOW AIR TO FLOW INTO THE DUCT UNDER HIGH NEGATIVE STATIC.

4 DUCT ACCESS DOOR DETAIL

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

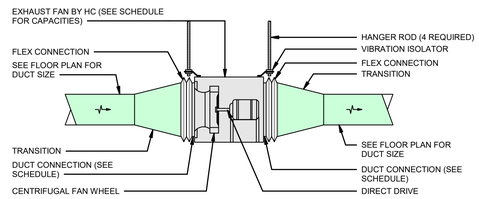


7 MINI-SPLIT CONDENSER SUPPORT RAIL



NOTE:
1. ALL EXTERIOR FASTENERS SHALL HAVE GASKETED SEALING WASHERS.
2. PAINT FLASHING TO MATCH EXTERIOR COLOR OF BUILDING.

5 DUCT PENETRATION DETAIL - EXTERIOR WALL



6 IN-LINE EXHAUST FAN DETAIL

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000
AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
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REVISIONS

COLORADO LICENSED WILL S. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue: 01.31.25

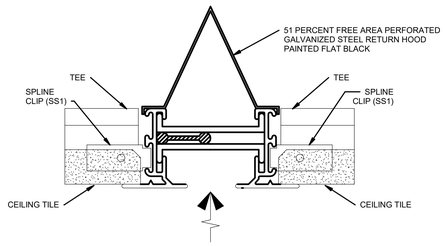
QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

MECHANICAL DETAILS

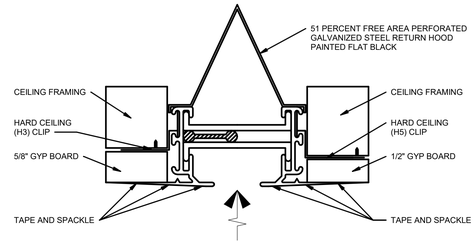
JOB 24464.0000
DATE 01.31.25
SHEET

M05-02

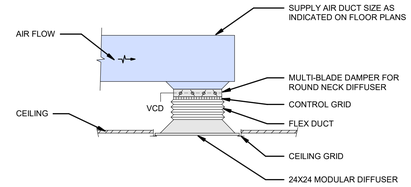
2/4/2025 2:57:19 PM M05-02 MECHANICAL DETAILS



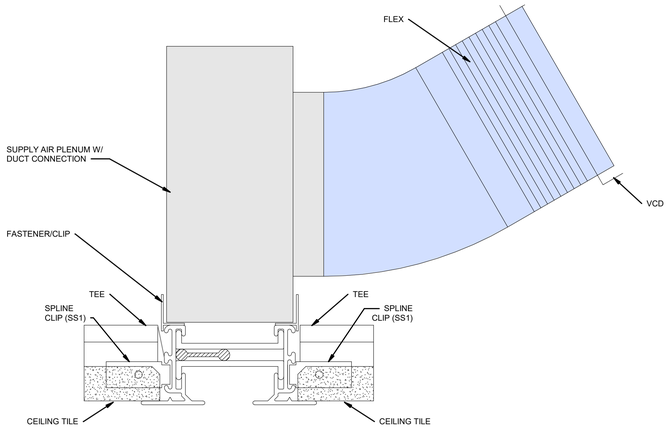
1 RETURN LINEAR SLOT DIFFUSER DETAIL - ACT



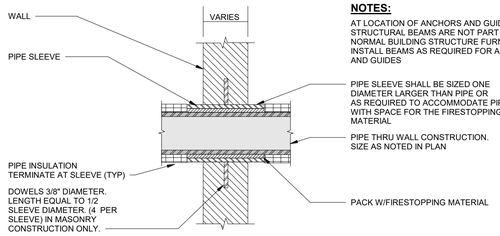
2 RETURN LINEAR SLOT DIFFUSER DETAIL - HARD CEILING



3 SUPPLY AIR DIFFUSER SQUARE TYPICAL CONNECTION



4 SUPPLY LINEAR SLOT DIFFUSER DETAIL - ACOUSTICAL CEILING



NOTES:

AT LOCATION OF ANCHORS AND GUIDES WHERE STRUCTURAL BEAMS ARE NOT PART OF THE NORMAL BUILDING STRUCTURE FURNISH AND INSTALL BEAMS AS REQUIRED FOR ANCHORS AND GUIDES

PIPE SLEEVE SHALL BE SIZED ONE DIAMETER LARGER THAN PIPE OR AS REQUIRED TO ACCOMMODATE PIPE WITH SPACE FOR THE FIRESTOPPING MATERIAL

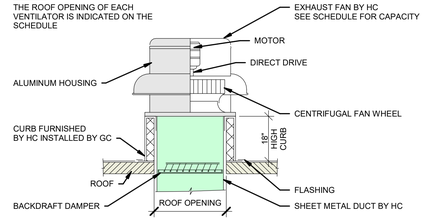
PIPE THRU WALL CONSTRUCTION. SIZE AS NOTED IN PLAN

PACK W/FIRESTOPPING MATERIAL

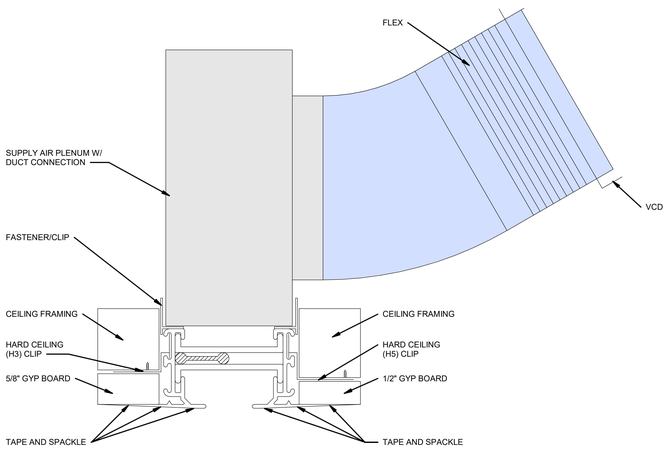
5 WALL SLEEVE

NOTE:

THE ROOF OPENING OF EACH VENTILATOR IS INDICATED ON THE SCHEDULE



6 ROOF EXHAUST FAN



7 SUPPLY LINEAR SLOT DIFFUSER DETAIL - HARD CEILING

8 NOT USED

9 NOT USED

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 21, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
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AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

	ISSUES	
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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	REVISIONS	

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

MECHANICAL DETAILS

JOB 24464.0000
DATE 01.31.25
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M05-03

2/4/2025 2:57:21 PM M05-03 MECHANICAL DETAILS

ROOF TOP UNIT SCHEDULE

MARK	SERVES	TOTAL CFM	COOLING COIL								GAS REHEAT COIL				SUPPLY FAN					FILTER		RETURN FAN			ELECTRICAL							BASIS OF DESIGN			NOTES
			FACE VELOCITY	EAT		LAT		TOTAL MBH	SENSIBLE MBH	ROWS	APD (IN. W.G.)	EAT (°F)	LAT (°F)	APD (IN. W.G.)	TOTAL MBH	ESP (IN W.G.)	DRIVE TYPE	FAN CFM	QTY	MOTOR BHP	RPM	EFFICIENCY	FILTER SP (IN W.G.)	ESP (IN. H2O)	FAN CFM	DRIVE TYPE	QTY	MOTOR BHP	RPM	RESISTANCE (KW)	VOLTS	PHASE	HERTZ	MCA (AMP)	MOCP (AMP)	VARIABLE SPEED DRIVE	EER	MFR	MODEL	WEIGHT (LB)	
				DB (°F)	WB (°F)	DB (°F)	WB (°F)																															
DEN1-DC2-RTU-ADMIN-1	ADMIN-1	22,750	467	81.7	61.3	50.1	50.1	657	640	2	0.22	50.4	70.0	0.22	422	2.0	DIRECT	12000	6	4.7	2397	MERV 13	0.37	0.75	12000	DIRECT	6	2.33	930.0	180	460	3	60	470	500	YES	11.0	DAIKIN	DPSA060	13433	1-3
DEN1-DC2-RTU-ADMIN-2	ADMIN-2	22,750	467	81.7	61.3	50.1	50.1	657	640	2	0.22	50.4	70.0	0.22	422	2.0	DIRECT	12000	6	4.7	2397	MERV 13	0.37	0.75	12000	DIRECT	6	2.33	930.0	180	460	3	60	470	500	YES	11.0	DAIKIN	DPSA060	13433	1-3
DEN1-DC2-RTU-ADMIN-3	ADMIN-3	22,750	467	81.7	61.3	50.1	50.1	657	640	2	0.22	50.4	70.0	0.22	422	2.0	DIRECT	12000	6	4.7	2397	MERV 13	0.37	0.75	12000	DIRECT	6	2.33	930.0	180	460	3	60	470	500	YES	11.0	DAIKIN	DPSA060	13433	1-3
DEN1-DC2-RTU-ADMIN-4	ADMIN-4	22,750	467	81.7	61.3	50.1	50.1	657	640	2	0.22	50.4	70.0	0.22	422	2.0	DIRECT	12000	6	4.7	2397	MERV 13	0.37	0.75	12000	DIRECT	6	2.33	930.0	180	460	3	60	470	500	YES	11.0	DAIKIN	DPSA060	13433	1-3
DEN1-DC2-RTU-ADMIN-5	ADMIN-5	10,000	378	79.8	61.5	51.5	51.4	266	254	1	0.4	51.5	70.0	0.07	175	2.0	DIRECT	10000	2	9.95	1770	MERV 13	0.16	0.75	10000	DIRECT	2	9.95	1770.0	75	460	3	60	160	175	-	10.5	DAIKIN	DPSA020	7100	1-3
DEN1-DC2-RTU-ADMIN-6	ADMIN-6	10,000	378	79.8	61.5	51.5	51.4	266	254	1	0.4	51.5	70.0	0.07	175	2.0	DIRECT	10000	2	9.95	1770	MERV 13	0.16	0.75	10000	DIRECT	2	9.95	1770.0	75	460	3	60	160	175	-	10.5	DAIKIN	DPSA020	7100	1-3
Grand total: 6																																							

NOTES:
1. ROUTE CONDENSATE IMMEDIATELY UNDERNEATH ROOF AND TRAP UNDERNEATH ROOF FOR FREEZE PROTECTION.
2. PROVIDE MODULATING 100% OUTSIDE AIR ECONOMIZER.
3. PROVIDE OUTDOOR AIRFLOW MONITORING STATION.

SPLIT SYSTEM - FAN COIL UNIT SCHEDULE (CRITICAL SPACES)

MARK	SERVES	AIRFLOW (CFM)	COOLING CAPACITY (BTU/H)	TYPE	ELECTRICAL DATA				WEIGHT (LB)	MANUFACTURER	MODEL	NOTES
					VOLTS	PHASE	FREQUENCY (HZ)	INPUT POWER (KW)				
FCU-0133-01	SDF 0133	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0133-02	SDF 0133	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0166-01	ELEC 0166	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0166-02	ELEC 0166	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0166-03	ELEC 0166	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0192-01	MDF 0192	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0192-02	MDF 0192	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0192-03	MDF 0192	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0192-04	MDF 0192	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0193-01	MMR1A 0193	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0193-02	MMR1A 0193	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0193-03	MMR1A 0193	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0193-04	MMR1A 0193	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0292-01	IDF 0292	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0292-02	IDF 0292	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0293-01	MMR2A 0293	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0293-02	MMR2A 0293	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0293-03	MMR2A 0293	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-0293-04	MMR2A 0293	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1400-01	MMR1B 1400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1400-02	MMR1B 1400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1400-03	MMR1B 1400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1400-04	MMR1B 1400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1402-01	HOUSE ELEC 1402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1402-02	HOUSE ELEC 1402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1402-03	HOUSE ELEC 1402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1402-04	HOUSE ELEC 1402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1405-01	IDF 1405	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-1405-02	IDF 1405	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2400-01	MMR2B 2400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2400-02	MMR2B 2400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2400-03	MMR2B 2400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2400-04	MMR2B 2400	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2402-01	HOUSE ELEC 2402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2402-02	HOUSE ELEC 2402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2402-03	HOUSE ELEC 2402	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2404-01	IDF 2404	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
FCU-2404-02	IDF 2404	1320	32900	WALL-MOUNT	208-230	1	60	0.4	370	LIEBERT	DME037E	1
Grand total: 38												

NOTES:
1. PROVIDE EXTERNAL CONDENSATE PUMP ON SEPERATE 120V CIRCUIT.

SPLIT SYSTEM - CONDENSING UNIT SCHEDULE (CRITICAL SPACES)

MARK	SERVES	AMBIENT TEMP	COOLING CAPACITY (BTU/H)	REFRIGERANT TYPE	ELECTRICAL DATA				WEIGHT (LB)	MANUFACTURER	MODEL	NOTES
					VOLTS	PHASE	FREQUENCY (HZ)	INPUT POWER (KW)				
CU-0133-01	SDF 0133	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0133-02	SDF 0133	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0166-01	ELEC 0166	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0166-02	ELEC 0166	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0166-03	ELEC 0166	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0192-01	MDF 0192	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0192-02	MDF 0192	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0192-03	MDF 0192	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0192-04	MDF 0192	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0193-01	MMR1A 0193	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0193-02	MMR1A 0193	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0193-03	MMR1A 0193	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0193-04	MMR1A 0193	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0292-01	IDF 0292	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0292-02	IDF 0292	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0293-01	MMR2A 0293	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0293-02	MMR2A 0293	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0293-03	MMR2A 0293	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-0293-04	MMR2A 0293	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1400-01	MMR1B 1400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1400-02	MMR1B 1400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1400-03	MMR1B 1400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1400-04	MMR1B 1400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1402-01	HOUSE ELEC 1402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1402-02	HOUSE ELEC 1402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1402-03	HOUSE ELEC 1402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1402-04	HOUSE ELEC 1402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1405-01	IDF 1405	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-1405-02	IDF 1405	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2400-01	MMR2B 2400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2400-02	MMR2B 2400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2400-03	MMR2B 2400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2400-04	MMR2B 2400	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2402-01	HOUSE ELEC 2402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2402-02	HOUSE ELEC 2402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2402-03	HOUSE ELEC 2402	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2404-01	IDF 2404	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
CU-2404-02	IDF 2404	102.8	32900	R-407C	208-230	1	60	3	245	LIEBERT	PFH036A-L	
Grand total: 38												

SPLIT SYSTEM - FAN COIL UNIT SCHEDULE (NON-CRITICAL SPACES)

MARK	SERVES	AIRFLOW (CFM)	COOLING CAPACITY (BTU/H)	TYPE	ELECTRICAL DATA			WEIGHT (LB)	MANUFACTURER	MODEL	NOTES
					VOLTS	PHASE	FREQUENCY (HZ)				
FCU-0111-01	ELEV ROOM 0111	1095	19360	WALL-MOUNT	208	1	60	50	LG	LSN363HLV3	1
FCU-0154-01	ELEV ROOM 0154	1095	19360	WALL-MOUNT	208	1	60	50	LG	LSN363HLV3	1
FCU-0211-01	ELEV ROOM 0211	1095	19360	WALL-MOUNT	208	1	60	50	LG	LSN363HLV3	1
FCU-1410-01	ELEV ROOM 1410	1095	19360	WALL-MOUNT	208	1	60	50	LG	LSN363HLV3	1
Grand total: 4											

NOTES:
1. PROVIDE EXTERNAL CONDENSATE PUMP ON SEPERATE 120V CIRCUIT.

SPLIT SYSTEM - CONDENSING UNIT SCHEDULE (NON-CRITICAL SPACES)

MARK	SERVES	AMBIENT TEMP	COOLING CAPACITY (BTU/H)	REFRIGERANT TYPE	ELECTRICAL DATA						WEIGHT (LB)	MANUFACTURER	MODEL	NOTES
					VOLTS	PHASE	FREQUENCY (HZ)	FLA	MCA	MOP				
CU-0111-01	ELEV ROOM 0111	93.4	19360	R-410A	208	1	60	15	23	30	150	LG	LSU363HLV3	
CU-0154-01	ELEV ROOM 0154	102.8	19360	R-407C	208	1	60	15	23	30	150	LG	LSU363HLV3	
CU-0211-01	ELEV ROOM 0211	93.4	19360	R-410A	208	1	60	15	23	30	150	LG	LSU363HLV3	
CU-1410-01	ELEV ROOM 1410	93.4	19360	R-410A	208	1	60	15	23	30	150	LG	LSU363HLV3	
Grand total: 4														

DIFFUSERS, REGISTERS, AND GRILLES SCHEDULE

MARK	STYLE	MIN CFM	MAX CFM	NECK SIZE (IN)	MAX SP (IN WC)	MAX NC	BASIS OF DESIGN		NOTES
							MANUFACTURER	MODEL	
EG-C	CEILING MOUNTED EXHAUST	141	250	8ø	0.00	0	TITUS	OMNI	2,3
EG-C	CEILING MOUNTED EXHAUST	251	380	10ø	0.00	0	TITUS	OMNI	2,3
EG-C	CEILING MOUNTED EXHAUST	551	750	14ø	0.00	0	TITUS	OMNI	2,3
RG-C	CEILING MOUNTED RETURN	0	100	16ø	0.10	0	PRICE	PDDR	2,3
CD-C	CEILING MOUNTED SUPPLY	0	135	6ø	0.00	0	TITUS	PDMC	2,3
WG	DUCT MOUNTED EXHAUST	0	1250	36x18	0.04	25	TITUS	23RS	
WR	DUCT MOUNTED SUPPLY	0	650	18x8	0.04	26	TITUS	300RL	
CD-C	PERFORATED CEILING MOUNTED SUPPLY	1	140	6ø	0.10	25	TITUS	PAR	1,2,3,5
CD-I	PERFORATED CEILING MOUNTED SUPPLY	136	250	8ø	0.10	0	TITUS	PDMC	1,2,3,5
CD-C	PERFORATED CEILING MOUNTED SUPPLY	141	210	8ø	0.10	25	TITUS	PAR	1,2,3,5
CD-C	PERFORATED CEILING MOUNTED SUPPLY	211	350	10ø	0.10	25	TITUS	PAR	1,2,3,5

LINEAR DIFFUSER SCHEDULE

MARK	DESIGN RANGE		SIZE			NECK SIZE (IN)	MAX SP (IN WC)	MAX NC	BASIS OF DESIGN		NOTES
	MIN CFM	MAX CFM	NO OF SLOTS	SLOT WIDTH	LENGTH				MANUFACTURER	MODEL	
LD-F			1	2"	4'-0"	10ø	0.08	25	TITUS	FBP	4
LD-I			1	2"	5'-0"	8ø	0.00	0	TITUS	FBP	4
LR-I			1	2"	5'-0"	8ø	0.00	0	TITUS	FBP	4

NOTES:
1. 4-WAY FLOW UNLESS NOTED OTHERWISE ON PLANS BY FLOW ARROWS. PROVIDE DIRECTIONAL FLOW CLIPS TO ACHIEVE FLOW PATTERN INDICATED ON PLANS.
2. PROVIDE FRAMING ACCESSORY TO MOUNT IN CEILING GRID AS REQUIRED.
3. COORDINATE LOCATIONS AND MOUNTING TYPES WITH ARCHITECT PRIOR TO PURCHASE AND INSTALLATION.
4. PROVIDE 1-SLOT LINEAR DIFFUSER WITH 2" SLOT WIDTH. PROVIDE WITH HIGH THROW PATTERN AND FACTORY PLENUM. REFER TO DETAILS.
5. PROVIDE WITH PERFORATED DIFFUSER FACE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S Q N L J G E C A
T R P M K H F D B

MECHANICAL SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET M07-01

2/4/2025 2:57:30 PM M07-01 MECHANICAL SCHEDULES

FAN POWERED BOX WITH AUXILIARY COIL SCHEDULE

TAG	SERVES	CFM		Heating...	BOX DIMENSIONS			INLET DUCT...	FAN MOTOR			AUXILIARY HEATING COIL			BASIS OF DESIGN		NOTES
		MAX	MIN		L (IN)	W (IN)	H (IN)		HP	FAN...	V/PH/HZ	KW	EAT	LAT	MANUFACTU...	MODEL	
FPT-1503-01	BREAK ROOM 1503	600	100	720	40 7/8	36 1/8	17 1/8	10	0.5	620	277/1/60	6.0	65	95	Titus	DTQP	
FPT-0100-01	LOBBY 0100	1125	45	1350	40 7/8	36 1/8	17 1/8	12	0.5	1305	277/1/60	11.0	65	95	Titus	DTQP	
FPT-0100-02	LOBBY 0100	1125	80	1350	40 7/8	36 1/8	17 1/8	12	0.5	1270	277/1/60	11.0	65	95	Titus	DTQP	
FPT-0100-03	LOBBY 0100	1125	55	1350	40 7/8	36 1/8	17 1/8	12	0.5	1295	277/1/60	11.0	65	95	Titus	DTQP	
FPT-0102-01	FREEDOM CAFE 0102	1775	210	2130	46 7/8	48 1/8	20 1/8	14	0.5	1920	277/1/60	17.0	65	95	Titus	DTQP	
FPT-0109-01	TENANT OFFICE 0109	1310	165	1572	40 7/8	36 1/8	17 1/8	12	0.5	1407	277/1/60	12.0	65	95	Titus	DTQP	
FPT-0109-02	TENANT OFFICE 0109	1475	125	1770	40 7/8	36 1/8	17 1/8	12	0.5	1645	277/1/60	14.0	65	95	Titus	DTQP	
FPT-0132-01	SEC MANAGER 0132	700	170	840	40 7/8	36 1/8	17 1/8	6	0.5	670	277/1/60	7.0	65	95	Titus	DTQP	
FPT-0180-01	FLEX 0180	1340	155	1608	46 7/8	48 1/8	20 1/8	14	0.5	1453	277/1/60	13.0	65	95	Titus	DTQP	
FPT-0180-02	FLEX 0180	1840	155	2208	46 7/8	48 1/8	20 1/8	14	0.5	2053	277/1/60	17.0	65	95	Titus	DTQP	
FPT-0190-01	FLEX 0190	1060	80	1272	40 7/8	36 1/8	17 1/8	10	0.5	1192	277/1/60	10.0	65	95	Titus	DTQP	
FPT-0209-01	TENANT FLEX 0209	1250	125	1500	46 7/8	48 1/8	20 1/8	14	0.5	1375	277/1/60	12.0	65	95	Titus	DTQP	
FPT-0209-02	TENANT FLEX 0209	1890	210	2268	46 7/8	48 1/8	20 1/8	14	0.5	2058	277/1/60	18.0	65	95	Titus	DTQP	
FPT-0267-01	FLEX 0267	1470	80	1764	40 7/8	36 1/8	17 1/8	12	0.5	1684	277/1/60	14.0	65	95	Titus	DTQP	
FPT-0267-02	FLEX 0267	1875	195	2250	46 7/8	48 1/8	20 1/8	14	0.5	2055	277/1/60	18.0	65	95	Titus	DTQP	
FPT-0280-01	FLEX 0280	1400	160	1680	46 7/8	48 1/8	20 1/8	14	0.5	1520	277/1/60	13.0	65	95	Titus	DTQP	
FPT-0280-02	FLEX 0280	1790	170	2148	46 7/8	48 1/8	20 1/8	14	0.5	1978	277/1/60	17.0	65	95	Titus	DTQP	
FPT-0290-01	FLEX 0290	1060	80	1272	40 7/8	36 1/8	17 1/8	10	0.5	1192	277/1/60	10.0	65	95	Titus	DTQP	
FPT-1408-01	LOADING DOCK 1408	1120	110	1344	40 7/8	36 1/8	17 1/8	12	0.5	1234	277/1/60	11.0	65	95	Titus	DTQP	
FPT-1500-01	FACILITIES OFFICE 1500	950	80	1140	40 7/8	36 1/8	17 1/8	12	0.5	1060	277/1/60	9.0	65	95	Titus	DTQP	
FPT-2202-01	SHELL 2202	840	115	1008	40 7/8	36 1/8	17 1/8	8	0.5	893	277/1/60	8.0	65	95	Titus	DTQP	
FPT-2406-01	SHELL 2406	1730	170	2076	46 7/8	48 1/8	20 1/8	16	0.5	1906	277/1/60	16.0	65	95	Titus	DTQP	

CONSTANT / VARIABLE VOLUME BOX SCHEDULE

TAG	SERVES	CFM		INLET DUCT (IN)	ELECTRIC HEATING COIL DATA				ELEC CHAR (V/PH)	BASIS OF DESIGN	NOTES
		MIN	MAX		CFM	EAT (°F)	LAT (°F)	KW			
VAV-0102-01	FREEDOM CAFE 102	100	380	6	190	50	95	3	277/1	TITUS	
VAV-0104-01	LARGE CONFERENCE 0104	100	525	8	263	50	95	3	277/1	TITUS	
VAV-0106-01	TENANT OFFICE 0109	50	200	6	100	50	95	2	277/1	TITUS	
VAV-0108-01	VEST 0108	100	200	10	100	50	95	2	277/1	TITUS	
VAV-0109-01	TENANT FLEX 0109	200	1880	14	940	50	95	11	277/1	TITUS	
VAV-0110-01	CORRIDOR 01910	150	885	8	443	50	95	6	277/1	TITUS	
VAV-0114-01	MRR 0114	100	620	8	310	50	95	4	277/1	TITUS	
VAV-0116-01	FITNESS CENTER 0116	350	795	10	398	50	95	5	277/1	TITUS	
VAV-0117-01	STORAGE 0117	150	560	10	280	50	95	4	277/1	TITUS	
VAV-0134-01	SECURITY OFFICE 0134	100	980	10	490	50	95	6	277/1	TITUS	
VAV-0150-01	DOCK 0150	300	2500	16	1250	50	95	15	277/1	TITUS	
VAV-0161-01	STORAGE 0161	200	1460	10	730	50	95	9	277/1	TITUS	
VAV-0165-01	TENANT STORAGE 0165	100	860	8	430	50	95	5	277/1	TITUS	
VAV-0166-01	ELEC ROOM 0166	150	650	8	325	50	95	4	277/1	TITUS	
VAV-0180-01	FLEX 0180	550	2790	16	1395	50	95	16	277/1	TITUS	
VAV-0190-01	FLEX 0190	500	2760	14	1380	50	95	16	277/1	TITUS	
VAV-0190-02	FLEX 0190	500	2760	14	1380	50	95	16	277/1	TITUS	
VAV-0191-01	CORRIDOR 0191	100	440	8	220	50	95	3	277/1	TITUS	
VAV-0191-02	CORRIDOR 0191	200	1140	10	570	50	95	7	277/1	TITUS	
VAV-0191-03	CORRIDOR 0191	100	555	8	278	50	95	4	277/1	TITUS	
VAV-0191-04	CORRIDOR 0191	100	740	8	370	50	95	5	277/1	TITUS	
VAV-0193-01	MMR 0193	200	500	14	250	50	95	3	277/1	TITUS	
VAV-0196-01	STORAGE 0196	150	500	8	250	50	95	3	277/1	TITUS	
VAV-0207-01	VEST 0207	50	200	6	100	50	95	2	277/1	TITUS	
VAV-0209-01	TENANT FLEX 0209	350	2760	16	1380	50	95	16	277/1	TITUS	
VAV-0210-01	CORRIDOR 0210	200	750	10	375	50	95	5	277/1	TITUS	
VAV-0210-02	CORRIDOR 0210	150	750	10	375	50	95	5	277/1	TITUS	
VAV-0214-01	MRR 0214	100	540	10	270	50	95	4	277/1	TITUS	
VAV-0217-01	STORAGE 0217	250	1100	10	550	50	95	7	277/1	TITUS	
VAV-0261-01	STORAGE 0261	200	850	10	425	50	95	5	277/1	TITUS	
VAV-0266-01	STORAGE 0266	200	1580	12	790	50	95	10	277/1	TITUS	
VAV-0267-01	FLEX 0267	400	1890	12	945	50	95	11	277/1	TITUS	
VAV-0280-01	FLEX 0280	550	2790	16	1395	50	95	16	277/1	TITUS	
VAV-0290-01	FLEX 0290	500	2610	16	1305	50	95	15	277/1	TITUS	
VAV-0290-02	FLEX 0290	500	2610	16	1305	50	95	15	277/1	TITUS	
VAV-0291-01	CORRIDOR 0291	100	480	8	240	50	95	3	277/1	TITUS	
VAV-0291-02	CORRIDOR 0291	150	1020	8	510	50	95	6	277/1	TITUS	
VAV-0291-03	CORRIDOR 0291	100	750	8	375	50	95	5	277/1	TITUS	
VAV-0293-01	MMR2A 0293	250	500	8	250	50	95	3	277/1	TITUS	
VAV-0296-01	STORAGE 0296	150	525	8	263	50	95	3	277/1	TITUS	
VAV-1300-01	CORRIDOR 1300	300	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-02	CORRIDOR 1300	300	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-05	CORRIDOR 1300	300	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-07	CORRIDOR 1300	50	800	10	400	50	95	5	277/1	TITUS	
VAV-1300-03	CORRIDOR 1300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-04	CORRIDOR 1300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-06	CORRIDOR 1300	350	420	8	210	50	95	3	277/1	TITUS	
VAV-1403-01	ELI 1403	1000	1000	8	500	50	95	6	277/1	TITUS	
VAV-1406-01	FIRE 1406	200	200	8	100	50	95	2	277/1	TITUS	
VAV-1408-01	LOADING DOCK 1408	150	870	10	435	50	95	5	277/1	TITUS	
VAV-1500-01	FACILITIES OFFICE 1500	150	900	10	450	50	95	6	277/1	TITUS	
VAV-1502-01	RR 1502	50	420	10	210	50	95	3	277/1	TITUS	
VAV-1507-01	OFFICE 1506	100	600	10	300	50	95	4	277/1	TITUS	
VAV-2202-01	SHELL 2202	150	1500	12	750	50	95	9	277/1	TITUS	
VAV-2205-01	FACILITIES SHOP 2205	100	550	8	275	50	95	4	277/1	TITUS	
VAV-2300-01	CORRIDOR 2300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-2300-02	CORRIDOR 2300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-1300-03	CORRIDOR 2300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-2300-04	CORRIDOR 2300	250	320	8	160	50	95	2	277/1	TITUS	
VAV-2300-05	CORRIDOR 2300	250	320	8	160	50	95	2	277/1	TITUS	
VAV-2300-06	CORRIDOR 2300	320	320	8	160	50	95	2	277/1	TITUS	
VAV-2301-07	CORRIDOR 2301	350	420	8	210	50	95	3	277/1	TITUS	
VAV-2402-01	HOUSE ELEC 2402	500	500	8	250	50	95	3	277/1	TITUS	
VAV-2404-01	IDF 2404	200	200	6	100	50	95	2	277/1	TITUS	
VAV-2406-01	SHELL 2406	100	600	8	300	50	95	4	277/1	TITUS	

EXAHUST FAN SCHEDULE

MARK	SERVES	TYPE	DRIVE TYPE	CFM	STATIC PRESSURE	HP	BHP	RPM	ELECT CHAR (V/HZ/PH)	BASIS OF DESIGN		NOTES
										MANUFACTURER	MODEL	
EF-0153-01	TRASH 0153	IN-LINE	DIRECT	270	0.5	1/4	0.08	1368	208/60/1	GREENHECK	SQ-98-VG	
EF-ADMIN-01	DOCK 0150, RR 0151	CENTRIFUGAL	DIRECT	585	0.5	1/6	0.11	1629	208/60/1	GREENHECK	CUE-095-VG	
EF-ADMIN-02	FREEDOM CAFE 0102, WELL 0156	CENTRIFUGAL	DIRECT	2660	0.5	1	0.7	1657	208/60/1	GREENHECK	CUE-140-VG	
EF-ADMIN-03	RESTROOMS	CENTRIFUGAL	DIRECT	3705	0.75	2	1.17	1539	208/60/1	GREENHECK	CUE-160-VG	
EF-ADMIN-04	LOADING DOCK 1408, RR 1409	CENTRIFUGAL	DIRECT	775	0.5	1/4	0.14	1503	208/60/1	GREENHECK	CUE-99-VG	
EF-ADMIN-05	RR 1501, 1502, BREAK1503	CENTRIFUGAL	DIRECT	2365	0.75	3/4	0.52	1184	208/60/1	GREENHECK	CUE-160-VG	

City of Aurora Building Division
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CORGAN
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75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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10		

REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

MECHANICAL SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET

M07-02

2/4/2025 2:57:35 PM M07-02 MECHANICAL SCHEDULES

RTU Design East	Minimum OSA Check/ Validation											
		LAMC 403.2.1 (ASHRAE 62.1)										OSA PROVIDED
ROOM	Zone Name	Occupancy Category	Required OA per person (Table 6-1)	CMC Def Occpancy	CMC OA	Trace Zone Population		Required OA per unit area (Table 6-1)	Zone Floor Area		Total Breathing Zone OA Quantity Required (CFM)	Required OA
			Rp	Pz	Rp*Pz	Pz	Rp*Pz	Ra	Az	Ra*Az	(Rp*Pz) + (Ra*Az)	
FLEX 0180	L1-FTP-0180-01	OFFICE SPACE	5	6.75	33.75	14.0	70	0.06	1350	81	151	155.00
FLEX 0180	L1-FTP-0180-02	OFFICE SPACE	5	7.70	38.50	15.0	75	0.06	1540	92.4	167.4	170.00
FLEX 0180	L1- VAV-0180-01	OFFICE SPACE	5	22.99	114.93	46.0	230	0.06	4597	275.82	505.82	510.00
CORRIDOR 0191	L1- VAV-0191-01	CORRIDORS	0	1.96	0.00	10.0	0	0.06	980	58.8	58.8	60.00
CORRIDOR 0191	L1- VAV-0191-02	CORRIDORS	0	5.87	0.00	30.0	0	0.06	2934	176.04	176.04	180.00
CORRIDOR 0191	L1- VAV-0191-03	CORRIDORS	0	2.31	0.00	12.0	0	0.06	1154	69.24	69.24	70.00
CORRIDOR 0191	L1- VAV-0191-04	CORRIDORS	0	3.01	0.00	15.0	0	0.06	1507	90.42	90.42	95.00
TENANT STORAGE 0165, RISER 0164	L1- VAV-0165-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.34	6.71	7.0	35	0.06	671	40.26	75.26	80.00
ELEC ROOM 0166	L1- VAV-0166-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.60	7.98	8.0	40	0.06	798	47.88	87.88	90.00
STORAGE 0161	L1-VAV-0161-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	2.78	13.92	14.0	70	0.06	1392	83.52	153.52	155.00
DOCK 0150, RR 0151, DOCK STORAGE 152, TRASH 0153	L1-VAV-0150-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	4.61	23.05	23.0	115	0.06	2305	138.3	253.3	255.00
SEC RECEPTION 0131, SECURITY OFFICE 0134, SEC. ARMORY 0135	L1-VAV-0134-01	OFFICE SPACE	5	4.14	20.68	6.0	30	0.06	827	49.62	79.62	80.00
SEC MANAGER 0132	L1-FPT-0132-01	OFFICE SPACE	5	0.72	3.60	2.0	10	0.06	144	8.64	18.64	20.00
MDF 0192, MMR 0193, VAULT 0194	L1-VAV-0193-01	MEDIA CENTER	10	26.85	268.50	6.0	60	0.12	1074	128.88	188.88	190.00
FLEX 0190	L1-VAV-0190-01	OFFICE SPACE	5	22.18	110.90	42.0	210	0.06	4436	266.16	476.16	480.00
FLEX 0190	L1-VAV-0190-02	OFFICE SPACE	5	21.87	109.35	42.0	210	0.06	4374	262.44	472.44	475.00
FLEX 0190	L1-FPT-0190-01	OFFICE SPACE	5	3.65	18.23	7.0	35	0.06	729	43.74	78.74	80.00
STORAGE 0196	L1-VAV-0108-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.51	7.57	2.0	10	0.06	757	45.42	55.42	60.00
CORRIDOR 0110	L1-VAV-0110-01	CORRIDORS	0	3.40	0.00	17.0	0	0.06	1702	102.12	102.12	105.00
FITNESS CENTER 0116, SHOWER 0115	L1-VAV-0116-01	GYM, STADIUM (PLAY AREA)	0	7.18	0.00	10.0	0	0.3	1025	307.5	307.5	310.00
STORAGE 0117	L1-VAV-0117-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	2.01	10.05	10.0	50	0.06	1005	60.3	110.3	115.00
TENANT OFFICE 0109	L1-FTP-0109-01	OFFICE SPACE	5	7.32	36.58	15.0	75	0.06	1463	87.78	162.78	165.00
TENANT OFFICE 0109	L1-FTP-0109-02	OFFICE SPACE	5	3.94	19.68	15.0	75	0.06	787	47.22	122.22	125.00
TENANT OFFICE 0109	L1-VAV-0109-01	OFFICE SPACE	5	8.12	40.60	15.0	75	0.06	1624	97.44	172.44	175.00
BREAK 0105, STORAGE 0103	L1-VAV-0102-01	BREAK ROOMS	5	12.18	60.88	5.0	25	0.06	487	29.22	54.22	55.00
WELL 0106	L1-VAV-0106-01	HEALTH CLUB/ AEROBICS ROOM	20	3.48	69.60	1.0	20	0.06	87	5.22	25.22	30.00
FREEDOM CAFÉ 0102	L1-FTP-0102-01	BREAK ROOMS	5	20.60	103.00	8.0	40	0.06	824	49.44	89.44	90.00
LARGE CONFERENCE 0104	L1-VAV-0104-01	CONFERENCE/ MEETING	5	24.90	124.50	14.0	70	0.06	498	29.88	99.88	100.00
MRR 0114, WRR 0113	L1-VAV-0114-01	MEDIA CENTER	10	10.65	106.50	4.0	40	0.12	426	51.12	91.12	95.00
STORAGE 0196	L1-VAV-0196-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	2.09	10.46	11.0	55	0.06	1046	62.76	117.76	120.00
VEST 0100	L1-SAF-0100-01	CORRIDORS	0	0.24	0.00	1.0	0	0.06	120	7.2	7.2	10.00
CORRIDOR 1300-1	L1-VAV-1300-01	CORRIDORS	0	10.79	0.00	50.0	0	0.06	5395	323.7	323.7	325.00
CORRIDOR 1300-1	L1-VAV-1300-02	CORRIDORS	0	10.79	0.00	50.0	0	0.06	5395	323.7	323.7	325.00
CORRIDOR 1300-2	L1-VAV-1300-03	CORRIDORS	0	9.11	0.00	50.0	0	0.06	4556	273.36	273.36	275.00
CORRIDOR 1300-2	L1-VAV-1300-04	CORRIDORS	0	9.11	0.00	50.0	0	0.06	4556	273.36	273.36	275.00
CORRIDOR 1300-4	L1-VAV-1300-07	CORRIDORS	0	1.56	0.00	8.0	0	0.06	782	46.92	46.92	50.00
FLEX 0280	L2-FTP-0280-01	OFFICE SPACE	5	6.75	33.75	15.0	75	0.06	1350	81	156	160.00
FLEX 0280	L2-FTP-0280-02	OFFICE SPACE	5	7.71	38.53	15.0	75	0.06	1541	92.46	167.46	170.00
FLEX 0280	L2- VAV-0280-01	OFFICE SPACE	5	22.85	114.25	46.0	230	0.06	4570	274.2	504.2	505.00
CORRIDOR 0291	L2- VAV-0291-01	CORRIDORS	0	1.96	0.00	10.0	0	0.06	980	58.8	58.8	60.00
CORRIDOR 0291	L2- VAV-0291-02	CORRIDORS	0	4.86	0.00	24.0	0	0.06	2432	145.92	145.92	150.00
CORRIDOR 0291	L2- VAV-0291-03	CORRIDORS	0	3.01	0.00	12.0	0	0.06	1507	90.42	90.42	95.00
STORAGE 0262, PRE-ACTION 269	L2- VAV-0210-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	3.01	15.07	12.0	60	0.06	1507	90.42	150.42	155.00
STORAGE 0266, STORAGE 0265, RISER 0264	L2- VAV-0266-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	2.95	14.75	15.0	75	0.06	1475	88.5	163.5	165.00
STORAGE 0261	L2-VAV-0261-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	3.32	16.62	17.0	85	0.06	1662	99.72	184.72	185.00
FLEX 0290	L2-VAV-0267-01	OFFICE SPACE	5	16.57	82.85	34.0	170	0.06	3314	198.84	368.84	370.00
FLEX 0290	L2-FTP-0267-01	OFFICE SPACE	5	3.43	17.13	7.0	35	0.06	685	41.1	76.1	80.00
FLEX 0290	L2-FPT-0267-02	OFFICE SPACE	5	8.65	43.23	18.0	90	0.06	1729	103.74	193.74	195.00
MMR 0293, MDF 0292, VAULT 0294	L2-VAV-0293-01	MEDIA CENTER	10	27.18	271.75	11.0	110	0.12	1087	130.44	240.44	245.00
FLEX 0290	L2-VAV-0290-01	OFFICE SPACE	5	22.10	110.50	42.0	210	0.06	4420	265.2	475.2	480.00
FLEX 0290	L2-VAV-0290-02	OFFICE SPACE	5	22.28	111.38	42.0	210	0.06	4455	267.3	477.3	480.00
FLEX 0290	L2-FPT-0290-01	OFFICE SPACE	5	3.65	18.23	7.0	35	0.06	729	43.74	78.74	80.00
CORRIDOR 2300-1	L2-VAV-2300-01	CORRIDORS	0	10.15	0.00	50.0	0	0.06	5075	304.5	304.5	305.00
CORRIDOR 2300-1	L2-VAV-2300-02	CORRIDORS	0	10.15	0.00	50.0	0	0.06	5075	304.5	304.5	305.00
CORRIDOR 2300-2	L2-VAV-2300-03	CORRIDORS	0	8.20	0.00	50.0	0	0.06	4100	246	246	250.00
CORRIDOR 2300-2	L2-VAV-2300-04	CORRIDORS	0	8.20	0.00	50.0	0	0.06	4100	246	246	250.00
VEST 0207, VEST 0208	L2-VAV-0207-01	CORRIDORS	0	0.43	0.00	2.0	0	0.06	217	13.02	13.02	15.00
CORRIDOR 0291	L2-VAV-0210-02	CORRIDORS	0	4.05	0.00	20.0	0	0.06	2025	121.5	121.5	125.00
STORAGE 0217	L2-VAV-0217-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	4.06	20.32	20.0	100	0.06	2032	121.92	221.92	225.00
STORAGE 0296	L2-VAV-0296-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.61	8.03	20.0	100	0.06	803	48.18	148.18	150.00
TENANT FLEX 0209	L2-VAV-0209-01	OFFICE SPACE	5	14.20	70.98	28.0	140	0.06	2839	170.34	310.34	315.00
TENANT FLEX 0209	L2-FTP-0209-01	OFFICE SPACE	5	5.47	27.33	11.0	55	0.06	1093	65.58	120.58	125.00
TENANT FLEX 0209	L2-FTP-0209-02	OFFICE SPACE	5	9.57	47.83	19.0	95	0.06	1913	114.78	209.78	210.00
LOBBY 0101	L2-FTP-0100-01	LOBBIES/ PREFUNCTION	7.5	9.69	72.68	3.0	22.5	0.06	323	19.38	41.88	45.00
LOBBY 0101	L2-FTP-0100-02	LOBBIES/ PREFUNCTION	7.5	16.95	127.13	6.0	45	0.06	565	33.9	78.9	80.00
LOBBY 0101	L2-FTP-0100-03	LOBBIES/ PREFUNCTION	7.5	12.24	91.80	4.0	30	0.06	408	24.48	54.48	55.00
MRR 0214, WRR 0213	L2-VAV-0214-01	MEDIA CENTER	10	10.725	107.25	4.0	40	0.12	429	51.48	91.48	95.00
			Required Outdoor Intake Flow (Vot) (CFM)								11906.68	13283
			Project Design Outdoor Airflow (CFM)								13300	

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/4/2025 12:55:04 PM M07-03 VENTILATION AIR COMPLIANCE SCHEDULES

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A	
T	R	P	M	K	H	F	D	B	

VENTILATION AIR COMPLIANCE SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET

M07-03

RTU Design West	Minimum OSA Check/ Validation											
ROOM	Zone Name	LAMC 403.2.1 (ASHRAE 62.1)									LEED IEQp1 Compliance	OSA PROVIDED
		Occupancy Category	Required OA per person (Table 6-1)	CMC Def Occpancy	CMC OA	Trace Zone Population		Required OA per unit area (Table 6-1)	Zone Floor Area		Total Breathing Zone OA Quantity Required (CFM)	Required OA
			Rp	Pz	Rp*Pz	Pz	Rp*Pz	Ra	Az	Ra*Az	(Rp*Pz)+(Ra*Az)=Vbz	
LOADING DOCK 1408	L1-FPT-1408-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.89	9.46	10	50.0	0.06	946	56.8	107	110.00
LOADING DOCK 1408	L1-VAV-1408-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	2.02	10.10	10	50.0	0.06	1010	60.6	111	115.00
STORAGE 1407, RR 1409	L1-VAV-1408-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	0.22	1.10	1	5.0	0.06	110	6.6	12	15.00
CORRIDOR 1300	L1-VAV-1300-07	CORRIDORS	0	1.49	0.00	7	0.0	0.06	744	44.6	45	45.00
SHELL 2406	L2-FPT-2406-01	OFFICE SPACE	5	7.54	37.70	15.0	75.0	0.06	1508	90.5	165	170.00
SHELL 2406	L2-VAV-2406-01	OFFICE SPACE	5	3.78	18.90	8.0	40.0	0.06	756	45.4	85	90.00
CORRIDOR 2301	L2-VAV-2301-07	CORRIDORS	0	1.58	0.00	8.0	0.0	0.06	789	47.3	47	50.00
CORRIDOR 1300-3	L1-VAV-1300-05	CORRIDORS	0	11.64	0.00	50.0	0.0	0.06	5821	349.26	349	350.00
CORRIDOR 2300-3	L2-VAV-2300-05	CORRIDORS	0	10.05	0.00	50.0	0.0	0.06	5025	301.5	302	305.00
CORRIDOR 2300-3	L2-VAV-2300-06	CORRIDORS	0	10.05	0.00	50.0	0.0	0.06	5025	301.5	302	305.00
CORRIDOR 1300-3	L1-VAV-1300-06	CORRIDORS	0	11.64	0.00	50.0	0.0	0.06	5821	349.26	349	350.00
FACILITIES OFFICE 1500	L1-FTP-1500-01	OFFICE SPACE	5	4.83	24.15	10	50.0	0.06	966	58.0	108	110.00
FACILITIES OFFICE 1500	L1-VAV-1500-01	OFFICE SPACE	5	4.83	24.15	10	50.0	0.06	966	58.0	108	110.00
OFFICE 1507, OFFICE 1506, OFFICE 1505, OFFICE 1504	L1-VAV-1507-01	OFFICE SPACE	5	2.66	13.28	8.0	40.0	0.06	531	31.9	72	75.00
RR 1502	L1-VAV-1202-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	0.84	4.18	2.0	10.0	0.06	418	25.1	35	40.00
BREAK ROOM 1503	L1-FPT-1503-01	BREAK ROOMS	5	14.38	71.88	12.0	60.0	0.06	575	34.5	95	95.00
FACILITIES SHOP 2205	L2-VAV-2205-01	OFFICE SPACE	5	3.53	17.65	7.0	35.0	0.06	706	42.4	77	80.00
STORAGE 2204	L2-VAV-2204-01	OCCUPIABLE STORAGE ROOMS FOR DRY MATERIALS	5	1.95	9.74	10.0	50.0	0.06	974	58.4	108	110.00
SHELL 2202	L2-FPT-2202-01	OFFICE SPACE	5	4.29	21.43	15.0	75.0	0.06	857	51.4	126	130.00
SHELL 2202, JAN 2203, RR 2201	L2-VAV-2202-01	OFFICE SPACE	5	5.40	26.98	10.0	50.0	0.06	1079	64.7	115	115.00
			Required Outdoor Intake Flow (Vot) (CFM)								2718	2720.00
			Project Design Outdoor Airflow (CFM)								2800	

City of Aurora Building Division
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2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

VENTILATION AIR COMPLIANCE SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET

M07-04

2/4/2025 12:55:04 PM M07-04 VENTILATION AIR COMPLIANCE SCHEDULES

COM*check* Software Version COMcheckWeb

Mechanical Compliance Certificate

Project Information

Energy Code:	2021 IECC
Project Title:	QTS DEN1 DC2
Location:	Aurora, Colorado
Climate Zone:	5b
Project Type:	New Construction

Construction Site: Owner/Agent: Designer/Contractor:

Additional Efficiency Package(s)

Credits: 10.0 Required 0.0 Proposed

Mechanical Systems List

Quantity **System Type & Description**

4 Right Admin RTU (Multiple-Zone):
Heating: 1 each - Other (Heating), Electric, Capacity = 588 kBtu/h
No minimum efficiency requirement applies
Cooling: 1 each - Single Package DX Unit (Cooling), Capacity = 657 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.00 EER, Required Efficiency = 10.00 EER
Proposed Part Load Efficiency = 17.40 IEER, Required Part Load Efficiency = 13.20 IEER
Fan System: FAN RTU Right -- Compliance (Brake HP and fan efficiency method) : Passes

Fans:
FAN RTU Right Return, Multi-Zone VAV, 22750 CFM, 5.0 motor nameplate hp, 2.3 design brake hp (2.3 max. BHP), 1.24 fan energy index , fan exception: Single fan < 1 HP or < 0.89 kW
FAN RTU Right Supply, Multi-Zone VAV, 22750 CFM, 30.0 motor nameplate hp, 22.2 design brake hp (22.2 max. BHP), 1.24 fan energy index , fan exception: Single fan <= 5HP
Pressure Drop Credits:
Particulate filtration credit: MERV 13 through 15, 4.9564 credit

2 Left Admin RTU (Multiple-Zone):
Heating: 1 each - Other (Heating), Electric, Capacity = 125 kBtu/h
No minimum efficiency requirement applies
Cooling: 1 each - Single Package DX Unit (Cooling), Capacity = 266 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 10.50 EER, Required Efficiency = 10.00 EER
Proposed Part Load Efficiency = 16.50 IEER, Required Part Load Efficiency = 13.20 IEER
Fan System: FAN RTU LEFT -- Compliance (Brake HP and fan efficiency method) : Passes

Fans:
FAN Supply, Multi-Zone VAV, 10000 CFM, 12.2 motor nameplate hp, 9.9 design brake hp (9.9 max. BHP), 1.27 fan energy index , fan exception: Single fan <= 5HP
FAN Return, Multi-Zone VAV, 10000 CFM, 5.0 motor nameplate hp, 2.3 design brake hp (2.3 max. BHP), 1.27 fan energy index , fan exception: Single fan < 1 HP or < 0.89 kW
Pressure Drop Credits:
Particulate filtration credit: MERV 13 through 15, 2.1786 credit

38 Split Libert (Single Zone):
Cooling: 1 each - Split System (Cooling), Capacity = 37 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 19.00 SEER2, Required Efficiency = 13.40 SEER2
Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00
Fan System: FAN Split libert -- Compliance (Motor nameplate HP and fan efficiency method) : Passes

Fans:
FAN Split libert Supply, Single-Zone VAV, 1146 CFM, 0.5 motor nameplate hp, 1.00 fan energy index , fan exception: Single fan < 1 HP or < 0.89 kW

Quantity	System Type & Description
4	Split LG (Single Zone): Cooling: 1 each - Split System (Cooling), Capacity = 39 kBtu/h, Air-Cooled Condenser, Unknown Economizer Proposed Efficiency = 13.40 SEER2, Required Efficiency = 13.40 SEER2 Proposed Part Load Efficiency = 0.00 , Required Part Load Efficiency = 0.00 Fan System: FAN Split LG -- Compliance (Motor nameplate HP and fan efficiency method) : Passes Fans: FAN Split LG Supply, Single-Zone VAV, 1095 CFM, 0.5 motor nameplate hp, 1.00 fan energy index , fan exception: Single fan <= 5HP

Mechanical Compliance Statement

Compliance Statement: The proposed mechanical design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed mechanical systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Will Hodges	Will B Hodges	01.31.2025
Name - Title	Signature	Date



COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 90.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR2][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the mechanical and service water heating systems and document where exceptions to the standard are claimed. Load calculations per acceptable engineering standards and handbooks. Hot water system sized per manufacturer's sizing guide.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Plumbing Rough-In Inspection	Complies?	Comments/Assumptions
C404.5, C404.5.1, C404.5.2 [PL6][3]	Heated water supply piping conforms to pipe length and volume requirements. Refer to section details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C402.2.6 [ME41][3]	Thermally ineffective panel surfaces of sensible heating panels have insulation >= R-3.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.12.3 [ME61][2]	HVAC piping insulation insulated in accordance with Table C403.11.3. Insulation exposed to weather is protected from damage and is provided with shielding from solar radiation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.1 [ME65][3]	HVAC fan systems at design conditions do not exceed allowable fan system motor nameplate hp or fan system bhp.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values.*
C403.8.2 [ME21][2]	HVAC fan motors not oversized beyond allowable limits.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.3 [ME117][2]	Fans have a fan energy index (FEI) >= 1.00. Variable volume fans will have an FEI >= 0.95.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.3 [ME117][2]	Fans have a fan energy index (FEI) >= 1.00. Variable volume fans will have an FEI >= 0.95.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.4 [ME142][2]	Motors for fans that are not less than 1/12 hp and less than 1 hp are electronically commutated motors or have a minimum motor efficiency of 70 percent. These motors have the means to adjust motor speed.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.8.6 [ME143][2]	Each DX cooling system > 65 kBtu and chiller water/evaporative cooling system with fans > 1/4 hp are designed to vary the indoor fan airflow as a function of load and comply with detailed requirements of this section.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.9 [ME144][2]	Large diameter fans where installed shall be tested and labeled in accordance with AMCA 230.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.13.1 [ME71][2]	Systems that heat outside the building envelope are radiant heat systems controlled by an occupancy sensing device or timer switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.3 [ME55][2]	HVAC equipment efficiency verified.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Mechanical Systems list for values.*
C403.2.1 [ME112][3]	Zone isolation devices and controls installed where applicable.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.5.5 [ME113][2]	Fault detection and diagnostics installed with air-cooled unitary DX units or VRF units having economizers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.2.2 [ME59][1]	Natural or mechanical ventilation is provided in accordance with International Mechanical Code Chapter 4. Mechanical ventilation has capability to reduce outdoor air supply to minimum per IMC Chapter 4.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.7.1 [ME59][1]	Demand control ventilation provided for spaces >500 ft2 and >15 people/1000 ft2 occupant density and served by systems with air side economizer, auto modulating outside air damper control, or design airflow >3,000 cfm.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.7.2 [ME115][3]	Enclosed parking garage ventilation has automatic contaminant detection and capacity to stage or modulate fans to 50% or less of design capacity.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.3 [ME140][3]	Units that provide ventilation air to multiple zones and operate in combination with zone heating and cooling systems do not use heating or heat recovery to warm supply air to a temperature greater than 60°F when representative building loads or outdoor air temperatures indicate that the majority of zones require cooling.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.7.6 [ME141][3]	HVAC systems serving guestrooms in Group R-1 buildings with > 50 guestrooms: Each guestroom is provided with controls that automatically manage temperature setpoint and ventilation (see sections C403.7.6.1 and C403.7.6.2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.4 [ME57][1]	Exhaust air energy recovery on systems meeting Table C403.7.4(1) and C403.7.4(2).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.7.5 [ME116][3]	Kitchen exhaust systems comply with replacement air and conditioned supply air limitations, and satisfy hood rating requirements and maximum exhaust rate criteria.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.12.1, C403.12.2 [ME60][2]	HVAC ducts and plenums insulated in accordance with C403.11.1 and constructed in accordance with C403.11.2, verification may need to occur during Foundation Inspection.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5, C403.5.1, C403.5.2 [ME62][1]	Air economizers provided where required, meet the requirements for design capacity, control signal, ventilation controls, high-limit shut-off, integrated economizer control, and provide a means to relieve excess outside air during operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.5.2 [ME16][1]	Economizer operation will not increase heating energy use during normal operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Economizers on VAV systems.
C403.5.3.3 [ME124][1]	Air economizers automatically reduce outdoor air intake to the design minimum outdoor air quantity when outdoor air intake will not reduce cooling energy usage. See Table C403.5.3.3 for applicable device types and climate zones.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5.3.4 [ME125][1]	System capable of relieving excess outdoor air during air economizer operation to prevent over pressurizing the building. The relief air outlet located to avoid recirculation into the building.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.5.3.5 [ME126][1]	Return, exhaust/relief and outdoor air dampers used in economizers have motorized dampers that automatically shut when not in use and meet maximum leakage rates. Reference section C403.7.7 for details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.1 [ME75][2]	Hydronic and multizone HVAC system controls are VAV fans driven by mechanical or electrical variable speed drive per Table C403.4.1.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.9 [ME67][2]	VAV fans have static pressure sensors located so controller setpoint <=1.2 w.c..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.3 [ME24][2]	Reset static pressure setpoint for DDC controlled VAV boxes reporting to central controller based on the zones requiring the most pressure.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.1 [ME130][3]	Supply air systems serving multiple zones have VAV systems with controls configured to reduce the volume of air that is reheated, recooled or mixed in each zone. See section for details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.2 [ME131][3]	Single-duct VAV systems use terminal devices configured to reduce the supply of primary supply air before reheating or recooling takes place.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.3 [ME132][3]	Systems that have 1 warm air duct and 1 cool air duct use terminal devices configured to reduce the flow from one duct to a minimum before mixing of air from the other duct takes place.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.6.4 [ME133][3]	Individual dual-duct or mixing heating and cooling systems with a single fan and with total capacities > 90,000 Btu/h not equipped with air economizers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.6.5 [ME134][3]	Multiple zone HVAC systems have supply air temperature reset controls based on building loads or outside temperatures.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.7 [ME136][3]	Parallel-flow fan-powered VAV air terminals have automatic controls configured to 1) turn off the terminal fan except when space heating is required or where required for ventilation, 2) turn on the terminal fan as the first stage of heating before the heating coil is activated, and 3) during heating for warmup or setback temperature control, either operate the terminal fan and heating coil without primary air or, reverse the terminal damper logic and provide heating from the central air handler by primary air.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.8 [ME137][3]	Systems with DDC of individual zones reporting to the central control panel configured to reset the static pressure setpoint based on zone requiring the most pressure. The DDC is capable of monitoring zone damper positions or have an alternative method of indicating the need for static pressure. See section for details.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.6.9 [ME138][3]	Static pressure sensors used to control VAV fans located such that the controller setpoint is <= 1.2 inches w.c.. Where this results in one or more sensors being located downstream of major duct splits, not less than one sensor located on each major branch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.4 [ME63][2]	Heating for vestibules and air curtains with integral heating include automatic controls that shut off the heating system when outdoor air temperatures > 45F. Vestibule heating and cooling systems controlled by a thermostat in the vestibule with heating setpoint <= 60F and cooling setpoint >= 80F.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.6.6 [ME135][3]	Multiple zone VAV systems with DDC of individual zone boxes have static pressure setpoint reset controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. *See the Mechanical Systems list for values.*
C403.3.3 [ME35][1]	Hot gas bypass limited to: <=240 kBtu/h – 50% >240 kBtu/h – 25%	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.2.1 [ME53][3]	Air outlets and zone terminal devices have means for air balancing.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Mechanical Rough-In Inspection	Complies?	Comments/Assumptions
C403.11.3, C403.11.3.1, C403.11.3.2 [ME123][3]	Refrigerated display cases, walk-in coolers or walk-in freezers served by remote compressors and remote condensers not located in a condensing unit, have fan-powered condensers that comply with Sections C403.11.3.1 and refrigeration compressor systems that comply with C403.11.3.2..	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.7 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9.1, C405.9.2 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.10 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.1.1 [EL30][2]	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.11, C405.11.1 [EL31][2]	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.3 [FI8][3]	Furnished O&M manuals for HVAC systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.1.1 [FI50][3]	HVAC systems and equipment design loads calculated in accordance with ANSI/ASHRAE/ACCA Standard 183 or by an approved equivalent computational procedure	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.3.1 [FI27][3]	HVAC systems and equipment capacity does not exceed calculated loads.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1 [FI47][3]	Heating and cooling to each zone is controlled by a thermostat control. Minimum one humidity control device per installed humidification/dehumidification system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.2 [FI38][3]	Thermostatic controls have a 5 °F deadband.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.1.3 [FI20][3]	Temperature controls have setpoint overlap restrictions.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C403.4.2 [FI39][3]	Each zone equipped with setback controls using automatic time clock or programmable control system.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.2.1, C403.4.2.2 [FI40][3]	Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C403.4.2.3 [FI41][3]	Systems include optimum start controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.1 [FI28][1]	Commissioning plan developed by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C408.2.3.1 [FI31][1]	HVAC equipment, systems and system-to-system relationships have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.2 [FI10][1]	HVAC and service water heating control systems have been tested to ensure proper operation, calibration and adjustment of controls.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.3.3 [FI32][1]	Economizers have been tested to ensure proper operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.4 [FI29][1]	Preliminary commissioning report completed and certified by registered design professional or approved agency.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5 [FI7][3]	Furnished HVAC as-built drawings submitted within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.1 [FI43][1]	An air and/or hydronic system balancing report is provided for HVAC systems.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5.2 [FI30][1]	Final commissioning report due to building owner within 90 days of receipt of certificate of occupancy.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

2 SYMBOLS

- W — WATER SERVICE LINE
- PRWC — PRIMARY RAIN WATER CONDUCTOR
- SRWC — SECONDARY RAIN WATER CONDUCTOR
- CDL — CONDENSATE DRAIN LINE
- SAN — SANITARY SEWER LINE (SAN)
- V — BRANCH VENT LINE (V)
- CW — COLD WATER LINE (CW)
- HW — HOT WATER LINE (HW)
- HWR — HOT WATER RETURN LINE (HWR)
- TP — TRAP PRIMER LINE (TP)
- PD — PLUMBING DISCHARGE (PD)
- WATER RISER
- SANITARY/WASTE OR VENT STACK
- AUTOMATIC AIR VENT
- BACK FLOW PREVENTER
- BALANCING VALVE
- BALL VALVE LEVER
- BALL VALVE SOLENOID
- CHECK VALVE
- CIRCULATING PUMP
- END OF LINE CLEANOUT
- CLEANOUT EXTENDED UP TO FLOOR/GRADE
- DOUBLE CHECK VALVE
- CAP OR PLUG
- FILTER
- FLEX CONNECTION
- FLOOR DRAIN
- FLOW DIRECTION ARROW
- FUNNEL DRAIN
- PRESSURE REGULATOR VALVE
- SOLENOID VALVE
- WATER HAMMER ARRESTER
- METER
- PIPE ANCHOR
- PIPE BOTTOM CONNECTION
- C — PIPE DOWN
- PIPE GUIDE
- PRESSURE GAUGE
- PRESSURE REDUCING VALVE
- PRESSURE SWITCH
- THERMOSTATIC MIXING VALVE (TMV)
- RELIEF VALVE
- ROOF DRAIN (RD)
- STRAINER
- TEMPERATURE GAUGE
- UNION
- VALVE AND VALVE BOX
- HB — HOSE BIBB
- WH — WALL HYDRANT
- X — INDICATES NOTE LOCATED ELSEWHERE ON DRAWING AND NOTE NUMBER
- SQUARE FOOT
- X / PXXX — DETAIL/PLAN REFERENCE SYMBOL: X INDICATES DETAIL/PLAN NUMBER; PXXX INDICATES DRAWING No. FOR WHICH THE DETAIL/PLAN IS LOCATED.
- CONNECT TO EXISTING
- HD — ROOF HYDRANT (HD)

3 GENERAL NOTES

1. EXTEND ALL CLEANOUTS ON SEWER LINES BELOW SLAB ON GRADE TO FINISHED FLOOR LEVEL.
2. COORDINATE LOCATIONS OF ALL LINES AND EQUIPMENT WITH OTHER CONTRACTORS.
3. AT LOCATIONS INDICATED TO CONNECT NEW PLUMBING LINES TO EXISTING LINES; CONTRACTOR TO DETERMINE EXACT SIZE, LOCATION AND ELEVATION OF EXISTING LINES AT SITE BEFORE INSTALLING NEW LINES.
4. THE LOCATIONS, SIZES AND ELEVATIONS OF EXISTING LINES SHOWN ON PLAN ARE RESULTS OF INFORMATION OBTAINED FROM EXISTING DRAWING AND FIELD SURVEYS. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, SIZE AND ELEVATIONS OF EXISTING LINES AT THE SITE BEFORE THE START OF NEW WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH ALL UTILITY AUTHORITIES FOR INSTALLATION REQUIREMENTS, REGULATIONS, FEES, PERMITS AND APPROVALS BEFORE THE START OF WORK.
6. ALL INTERIOR STORMWATER PIPING, 4" AND LARGER, SHALL BE SLOPED AT 1/8" PER FOOT, UNLESS NOTED OTHERWISE. ALL INTERIOR STORMWATER PIPING, 3" AND SMALLER, SHALL BE SLOPED AT 1/4" PER FOOT, UNLESS OTHERWISE NOTED.
7. THE CONTRACTOR SHALL REFER TO APPLICABLE CODES DRAINAGE SYSTEM FITTINGS.
8. ALL INTERIOR, ABOVE GROUND, HORIZONTAL AND VERTICAL STORM DRAINAGE SYSTEMS SHALL BE INSULATED AS SPECIFIED.
9. DIELECTRIC UNIONS AND FLANGES SHALL BE USED ON ALL CONNECTIONS BETWEEN DISSIMILAR METALS.
10. THE DRAWINGS ARE DIAGRAMMATIC AND SHOW ONLY THE GENERAL ARRANGEMENTS OF ALL PIPING AND EQUIPMENT. BECAUSE OF THE SMALL SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO SHOW OR INDICATE ALL OFFSETS, FITTINGS, AND ACCESSORIES WHICH MAY BE REQUIRED TO AVOID STRUCTURAL FEATURES.
11. ALL PIPE PENETRATIONS THROUGH CHASE, WALLS OR FLOORS WHICH ARE FIRE-RATED, SHALL BE PROPERLY SEALED TO MAINTAIN FIRE PROTECTIONS. CONTRACTOR SHALL SUMMIT PROPOSED UL LISTED SYSTEM FOR REVIEW.
12. REPORT AND DISCREPANCIES FOUND IN THE DRAWINGS AND/OR IN THE SPECIFICATIONS DURING THE BIDDING PROCESS FOR CLARIFICATION BY THE ENGINEER AND/OR ARCHITECT.
13. MEANS OF ACCESS SHALL BE PROVIDED TO CONCEALED TRAPS, VALVES, CLEANOUTS, DRAIN POINTS OR SIMILAR ITEMS. CONTRACTORS SHALL COORDINATE THE LOCATIONS AND QUANTITIES OF ALL ACCESS PANELS DURING BIDDING PHASE. ACCESS PANELS WILL BE FURNISHED AND INSTALLED BY OTHERS.
14. PROVIDE CLEANOUTS IN SANITARY AND STORM PIPING SYSTEMS AT ENDS OF RUNS, AT CHANGES IN DIRECTION, AT BASE OF STACKS, AND AT 50 FOOT INTERVALS IN HORIZONTAL PIPING, AND ELSEWHERE AS INDICATED.
15. ALL PIPING NOTED ABOVE OR AT CEILING, SHALL BE TIGHT TO UNDERSIDE OF FLOOR SLAB WITH THE SPACE FOR INSULATION AND HANGERS AS REQUIRED.
16. WHERE DOMESTIC COLD WATER, DOMESTIC HOT WATER AND DOMESTIC HOT WATER RETURN LINES ARE NOTED TO BE RUN AT CEILING AND/OR ABOVE CEILING, RUN LINES AS HIGH AS POSSIBLE.
17. WHERE SANITARY SEWER, SANITARY AND VENT LINES ARE NOTED TO BE RUN AT CEILING, ABOVE CEILING AND/OR BELOW FLOOR, RUN LINES AS HIGH AS POSSIBLE UNLESS LINES ARE RUN BELOW SLAB ON GRADE.
18. DEEP SEAL TRAPS WITH TRAP PRIMERS, SHALL BE INSTALLED ON ALL FLOOR DRAINS WHICH ARE LOCATED IN ROOMS CONTAINING AIR HANDLING MACHINERY WHEN SUCH ROOM IS USED AS AN AIR PLENUM.
19. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
20. ALL SANITARY PIPING FOR THIS PROJECT SHALL BE INSTALLED AT 1/8"FT SLOPE, UNLESS NOTED OTHERWISE.
21. CONDENSATE DRAIN LINES SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8" PER FOOT SLOPED, UNLESS OTHERWISE NOTED COORDINATED WITH ALL OTHER TRADES.
22. PROVIDE TRAP PRIMERS OR TRAP SEAL BARRIER DEVICES AT FLOOR DRAINS, PER LOCAL AUTHORITY HAVING JURISDICTION.
23. PLUMBING CONTRACTOR SHALL INSTALL TRAP PRIMERS OR TRAP GUARDS TO SATISFY LOCAL CODE AUTHORITIES.

4 SHEET LIST

NO.	TITLE	SCALE
P02-02D	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT D	1" = 40'-0"
P02-02F	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT F	1" = 40'-0"
P02-02H	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT H	1" = 40'-0"
P02-02K	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT K	1" = 40'-0"
P02-02M	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT M	1" = 40'-0"
P02-02P	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT P	1/8" = 1'-0"
P02-02R	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT R	1/8" = 1'-0"
P02-02ST	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT S-T	1/8" = 1'-0"
P02-03	PLUMBING ROOF PLAN - OVERALL	1" = 40'-0"
P02-03A	PLUMBING ROOF PLAN - SEGMENT A	1" = 40'-0"
P02-03B	PLUMBING ROOF PLAN - SEGMENT B	1" = 40'-0"
P02-03C	PLUMBING ROOF PLAN - SEGMENT C	1/8" = 1'-0"
P02-03D	PLUMBING ROOF PLAN - SEGMENT D	1" = 40'-0"
P02-03F	PLUMBING ROOF PLAN - SEGMENT F	1" = 40'-0"
P02-03H	PLUMBING ROOF PLAN - SEGMENT H	1" = 40'-0"
P02-03K	PLUMBING ROOF PLAN - SEGMENT K	1" = 40'-0"
P02-03M	PLUMBING ROOF PLAN - SEGMENT M	1" = 40'-0"
P02-03P	PLUMBING ROOF PLAN - SEGMENT P	1/8" = 1'-0"
P02-03R	PLUMBING ROOF PLAN - SEGMENT R	1/8" = 1'-0"
P02-03ST	PLUMBING ROOF PLAN - SEGMENT S-T	1/8" = 1'-0"
P04-01	PLUMBING ENLARGED PLANS	1/4" = 1'-0"
P04-02	PLUMBING ENLARGED PLANS	1/4" = 1'-0"
P05-01	DETAILS	NONE
P05-02	DETAILS	NONE
P06-01	SANITARY AND VENT RISER DIGRAM SEGMENT A/D	NONE
P06-02	SANITARY AND VENT RISER DIGRAM SEGMENT F/H	NONE
P06-03	SANITARY AND VENT RISER DIGRAM SEGMENT M/R	NONE
P06-04	SANITARY AND VENT RISER DIGRAM SEGMENT S/T	NONE
P06-05	WATER RISER DIAGRAM SEGMENT A/D	NONE
P06-06	WATER RISER DIAGRAM SEGMENT F/H	NONE
P06-07	WATER RISER DIAGRAM SEGMENT M/R	NONE
P06-08	WATER RISER DIAGRAM SEGMENT T/S	NONE
Grand total: 64		

NO.	TITLE	SCALE
P00-00	SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES	NONE
P00-01	PLUMBING SCHEDULES	NONE
P00-02	PLUMBING SCHEDULES	NONE
P01-01	PLUMBING SITE PLAN	1" = 40'-0"
P02-00	PLUMBING FLOOR PLAN - LEVEL ONE UG - OVERALL	1" = 40'-0"
P02-00A	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT A	1" = 40'-0"
P02-00B	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT B	1" = 40'-0"
P02-00C	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT C	1/8" = 1'-0"
P02-00D	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT D	1" = 40'-0"
P02-00F	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT F	1" = 40'-0"
P02-00H	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT H	1" = 40'-0"
P02-00K	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT K	1" = 40'-0"
P02-00M	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT M	1" = 40'-0"
P02-00P	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT P	1/8" = 1'-0"
P02-00R	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT R	1/8" = 1'-0"
P02-00ST	PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT S-T	1/8" = 1'-0"
P02-01	PLUMBING FLOOR PLAN - LEVEL ONE - OVERALL	1" = 40'-0"
P02-01A	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT A	1" = 40'-0"
P02-01B	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT B	1" = 40'-0"
P02-01C	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
P02-01D	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT D	1" = 40'-0"
P02-01F	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT F	1" = 40'-0"
P02-01H	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT H	1" = 40'-0"
P02-01K	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT K	1" = 40'-0"
P02-01M	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT M	1" = 40'-0"
P02-01P	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT P	1/8" = 1'-0"
P02-01R	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT R	1/8" = 1'-0"
P02-01ST	PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT S-T	1/8" = 1'-0"
P02-02	PLUMBING FLOOR PLAN - LEVEL TWO - OVERALL	1" = 40'-0"
P02-02A	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT A	1" = 40'-0"
P02-02B	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT B	1" = 40'-0"
P02-02C	PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT C	1/8" = 1'-0"

1 ABBREVIATIONS

ABV	ABOVE	HW	HOT WATER
AFF	ABOVE FINISHED FLOOR	HWR	HOT WATER RETURN
BLW	BELOW	INV ELEV	INVERT ELEVATION
CDL	CONDENSATE DRAIN LINE	L	LAVATORY
CLG	CEILING	PD	PUMP DISCHARGE
CW	COLD WATER	PRWC	PRIMARY RAIN WATER CONDUCTOR
DCVA	DOUBLE CHECK VALVE ASSEMBLY	RD	ROOF DRAIN
DFU	DRAINAGE FIXTURE UNIT	RPZBP	REDUCED PRESSURE ZONE BACKFLOW PREVENTER
DN	DOWN	S	SINK
DR	DRAIN	SAN	SANITARY
DWH	DOMESTIC WATER HEATER	SH	SHOWER
EF	EMERGENCY FIXTURE	SQ FT	SQUARE FOOT
EWC	ELECTRIC WATER COOLER	SRWC	SECONDARY RAIN WATER CONDUCTOR
EX	EXISTING	TD	TRENCH DRAIN
FD	FLOOR DRAIN	TYP	TYPICAL
FLR	FLOOR	U	URINAL
FNL	FUNNEL	UOD	UNDERSIDE OF DECK ABOVE
GPF	GALLON PER FLUSH	V	VENT
GPH	GALLON PER HOUR	VTR	VENT THROUGH ROOF
GPM	GALLONS PER MINUTE	WC	WATER CLOSET
HB	HOSE BIBB	WCO	WALL CLEANOUT
HD	HUB DRAIN	WH	WALL HYDRANT
HDL	HUMIDIFIER DRAIN LINE	WS	WASTE STACK
		WSFU	WATER SUPPLY FIXTURE UNIT

3 QTS FREEDOM STANDARD - VERSION MATRIX

QTS Freedom Standard - Version Matrix
Project: QTS DEN1-DC2...

Design Deliverable:
QTS Design Standards will be utilized as the Basis Of Design for the Data Center Building.
Design Consultant team to notate Version of QTS Design Standards.

Design Discipline	QTS Design Standard		
	Design Narrative	DD Drawing Set	Reference File
Civil	V3.0	N/A	
General	V3.0	V3.0	
Structural	V3.0	V3.0	
Architectural	V3.0	V3.0	
Fire Alarm	V3.0	V3.0	
Fire Protection	V3.0	V3.0	
Plumbing	V3.0	V3.0	
Process (I&C)	See Below	V3.0	
Mechanical	V3.0	V3.0	
Electrical	V3.0	V3.0	
Technology (Telecom)	V3.0	V3.0	
Audio Visual	N/A	V3.0	
Security	V3.0	V3.0	
Interior Standards	V3.0	See Architectural	3.0-rev1
Signage			INTrev4 EXTrev3
SDIs	N/A	N/A	SDI-018(v3.0) thru 44
OFCI Catalog	V4.0		
SOO Catalog	V2.0		

Design Discipline	Q-Systems Design Standard BODs Version
Data Telecom BOD	Freedom Standard - Data Telecom - 04.14.2024
Physical Security BOD	Freedom Standard - Security Systems - 05.10.2024
DCIM - BMS BOD	Freedom Standard - BMS Content Consolidation - 04.16.2024
DCIM - EPMS BOD	Freedom Standard - EPMS Content Consolidation - 04.16.2024

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000
AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO LICENSED PROFESSIONAL ENGINEER — 47948 — WILLIAM B. HOOPER — 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

JOB 24464.0000
DATE 01.31.25
SHEET

P00-00

2/4/2025 4:08:27 PM P00-00 SYMBOLS, ABBREVIATIONS, AND GENERAL NOTES

ROOF HYDRANT SCHEDULE

ID	DESCRIPTION	MOUNTING REQUIREMENTS	BASIS OF DESIGN	ACCESSORISES	NOTES
RH-1	EXTERIOR SANITARY ROOF HYDRANT - NON-FREEZE WITH INTEGRAL STAINLESS STEEL DRAINAGE CANISTER BELOW ROOF	MOUNTED 24" MINIMUM ABOVE FINISH ROOF	FULLY SELF CONTAINED NON-FREEZE HYDRANT WITH BACKFLOW PREVENTION, 3/4" WATER SUPPLY AND BRASS PARTS HOEPTNER MODEL #2131RE	AUTOMATIC DRAINAGE WITH OPERATION OF HYDRANT - NO DRAIN REQUIRED OR WATER WASTE MINIMUM OPERATING PRESSURE 20 PSI - MAXIMUM 100 PSI	

WALL HYDRANT SCHEDULE

ID	DESCRIPTION	MOUNTING REQUIREMENTS	BASIS OF DESIGN	ACCESSORISES	NOTES
WH-1	EXTERIOR WALL HYDRANT RECESSED WALL BOX AND FLUSH WALL COVER (EXTERIOR BLDG PERIMETER)	24" ABOVE FINISH GRADE RECESSED WITH FLUSH WALL MOUNTED COVER	NON-FREEZE, AUTOMATIC DRAINING ANTI-SIPHON WITH BACKFLOW PREVENTION, ALL BRONZE PARTS AND CHROME PLATED BOX AND COVER WOODFORD MODEL RB65	REMOVABLE KEY FOR LOCKING COVER AND HYDRANT OPERATION WITH "WATER" STAMPED IN COVER	

HOSE BIBBS SCHEDULE

ID	DESCRIPTION	MOUNTING REQUIREMENTS	BASIS OF DESIGN	ACCESSORISES	NOTES
HB-1	INTERIOR HOSE BIBB (EXPOSED SUPPLY) GENERAL SERVICE AND MAINTENANCE AREA USE AND APPLICATIONS	WALL MOUNTED 42" ABOVE FINISH FLOOR OR AS DESIGNATED ON DRAWING	SOLID BRONZE BODY WITH CHROME PLATED FINISH, LEVER HANDLE W/ 3/4" HOSE END VACUUM BREAKER OUTLET, 3/4" INLET ZURN Z-80707	REMOVABLE LOOSE KEY HANDLE FOR RESTRICTED USE	

CIRCULATION PUMP SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	LOCATION	MOTOR				CAPACITY EACH GPM	HEAD FT	REMARKS
					HP	RPM	VOLTS	PHASE			
CP -1	CIRCULATION PUMP	BELL & GOSSETT XYLEM BRAND	ECOCIRC XL N 36-45	JAN. 120	0.17	-	208	1	2	16	1,2,3
CP -1	CIRCULATION PUMP	BELL & GOSSETT XYLEM BRAND	ECOCIRC XL N 36-45	JAN. 2203	0.17	-	208	1	2	16	1,2,3

NOTES:
1. CONTROL BY AQUA-STAT AND TIME CLOCK
2. CONNECT TO BMS.
3. LEAD FREE

ELEVATOR SUMP PUMP SCHEDULE

TAG	DESCRIPTION	MANUFACTURER	MODEL	LOCATION	MOTOR				CAPACITY EACH GPM	TDH	REMARKS
					HP	RPM	VOLTS	PHASE			
ESP-1	ELEVATOR SUMP PUMP	STANCOR, INC.	SE-50-O/M	FREIGHT ELEV. 0160	0.50	-	208	1	40	25	
ESP-2	ELEVATOR SUMP PUMP	STANCOR, INC.	SE-50-O/M	PASS ELEV. 0112	0.50	-	208	1	40	25	
ESP-3	ELEVATOR SUMP PUMP	STANCOR, INC.	SE-50-O/M	FREIGHT ELEV. 2403	0.50	-	208	1	40	25	

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Floor drains may not be installed in a crawl space or attic.
2021 COA 22-201

Provide self-closing or metered faucets in public restrooms.
2021 COA 22-326 (a)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide cleanouts per IPC Section 708

PENETRATIONS -ANNULAR SPACES SHALL COMPLY WITH IPC 315.1 IBC 714

PROVIDE A DIRECTIONAL SIGNAGE FOR ROUTE TO REQUIRED PUBLIC TOILET FACILITIES IBC 2902.4.1

PROVIDE PIPE INSULATION PER 2021 IECC TABLE C403.12.3

PLUMBING FIXTURE SCHEDULE

ID	DESCRIPTION	FLOW RATE	FIXTURE					ACCESSORIES			CONNECTIONS					NOTES
			MAKE	MODEL	MOUNTING REQ.	SIZE	FINISH	MAKE	MODEL	FINISH	HW	CW	WASTE	SOIL	VENT	
EWC-1	ELECTRICAL WATER COOLER	-	ELKAY	LZSTL8WSSP	WALL - ADA HT	-		-	-	-	-	3/4"	2"	-	2"	1, 2
L-1	LAVATORY	0.35 GPM	KOHLER	K-2882	UNDERMOUNT - ADA HT	21-1/4"X18-1/8"	WHITE	SLOAN	EAF-200PLG-IR-0.35GPM-AER-CP-IS	CP	1/2"	3/4"	2"	-	2"	1, 2, 3, 4, 5
L-2	LAVATORY	0.35 GPM	KOHLER	K-2007	WALLMOUNT - ADA HT	17-1/4"X13"	WHITE	SLOAN	EAF-200PLG-IR-0.35GPM-AER-CP-IS	CP	1/2"	3/4"	2"	-	2"	1, 2, 3, 4, 5
S-1	SINK	1 GPM	ELKAY	ELUHAD191855	COUNTER - ADA HT	19"X18"	SS	KOHLER	K-7507	CP	3/4"	3/4"	2"	-	2"	1, 2, 4, 6
S-2	SINK	1 GPM	ELKAY	ELUHAD191855	COUNTER - ADA HT	19"X18"	SS	KOHLER	K-7507	CP	3/4"	3/4"	2"	-	2"	1, 2, 4, 6
SH-1	SHOWER	1.5	BY G.C	BY G.C	ADA HT	-	-	MOEN	8342EP15	-	3/4"	3/4"	2"		2"	1, 2, 9, 10
SS-1	SERVICE SINK	-	FLORESTONE	MSR-2424	FLOOR	24"X24"X10"H	-	CHICAGO	540-LD897SWXFABCP	CP	3/4"	3/4"	3"		2"	1, 2, 11, 12
U-1	URINAL	0.125 GPF	SLOAN	SU-1009-STG	WALL MTD STD HT	-	WHITE	SLOAN	ECOS 186-ESS	CP	-	3/4"	2"		2"	1, 2, 17
U-2	URINAL	0.125 GPF	SLOAN	SU-1009-STG	WALL MTD ADA HT	-	WHITE	SLOAN	ECOS 186-ESS	CP	-	3/4"	2"		2"	1, 2, 17
WC-1	WALL CLOSET	1.28/1.1 GPF	SLOAN	ST-2459-STG	WALL MTD STD HT	-	WHITE	SLOAN	ECOS 8111-1.28-TMO-HW			1-1/2"	4"		2"	1, 2, 13
WC-2	WALL CLOSET	1.28/1.1 GPF	SLOAN	ST-2459-STG	WALL MTD ADA HT	-	WHITE	SLOAN	ECOS 8111-1.28-TMO-HW			1-1/2"	4"		2"	1, 2, 13
TP-1	TRAP PRIMER	MIFAB	-	M1-100	-	-	-	-	-	-		3/4"				1, 15
TP-2	TRAP PRIMER	MIFAB	-	M2-500	-	-	-	-	-	-		3/4"				1, 16

NOTES:
1. REFER TO SPECIFICATIONS FOR MATERIALS, COLOR, FINISHES, INSTALLATION, APPROVED EQUAL MANUFACTURERS, ETC.
2. PROVIDE COMPLETE WITH SUPPLY AND WASTE ROUGH-IN ASSEMBLIES IN ACCORDANCE WITH SPECIFICATIONS.
3. INCLUDE 0.35 GPM AERATOR OR FLOW CONTROL FITTING, PROVIDE WITH WATTS LFG480 MIXING VALVE.
4. PROVIDE THERMOSTATIC MIXING VALVE FOR EACH FAUCET TO LIMIT HW TO 105°F MAXIMUM FOR LAVATORY AND 110°F MAXIMUM FOR KITCHEN/PANTERY SINK: AMERICAN STANDARD 605XTMV1070, OR APPROVED EQUAL.
5. PROVIDE A PLUG-IN TRANSFORMER TO SERVE EACH SET OF TWO (2) LAVATORY FAUCETS IN EACH FIRST, SECOND, AND THIRD FLOOR RESTROOM: SLOAN ETF-233, OR APPROVED EQUAL.
6. INCLUDE 1.0 GPM AERATOR.
7. PROVIDE A FOOD WASTE DISPOSER AT SINK: INSINKERATOR EVOLUTION COMPACT 3/4 HP W/SOUND SEAL TECHNOLOGY OR APPROVED EQUAL. COORDINATE WITH EC FOR REQUIRED WALL SWITCH.
8. INCLUDE DISHWASHER TAIL PIECE CONNECTION.
9. BUILT-UP SHOWER. INCLUDE ALL RECOMMENDED ACCESSORIES: #503218 GRAB BAR, #5018 GRAB BAR, #660 SOAP DISH, #400 N/L-LH-32"-SDL FOLDING SEAT, BRASS DRAIN, #CH-SSMV-1 MIXING VALVE, #ZHGB-24 HAND HELD SHOWER, #IN-36 CURTAIN ROD, AND CURTAIN.
10. SHOWER HEAD SHALL INCLUDE FLOW CONTROL FITTING TO LIMIT VOLUMETRIC FLOW TO 1.25 GPM AT 65 PSI: BRICOR B125AM-GT, OR APPROVED EQUAL.
11. INCLUDE TWO (2) 24" PANELS FOR WALL SPLASH PLATES: FLORESTONE MR-377, OR APPROVED EQUAL.
12. PROVIDE UTILITY SHELF WITH MOP, BROOM, AND RAG HOOKS: BOBRICK B-224, OR APPROVED EQUAL.
13. PROVIDE WITH CARRIER AND OPEN-FRONT, ELONGATED SEAT, BEMIS 1955SSCT-WHITE, OR EQUAL. PROVIDE 0.128 GPF EXPOSED URINAL FLUSH VALVE, 3/4" TOP SPUD, HARDWIRE POWERED SUPPLY HANDS FREE OPERATION.
14. PROVIDE SOAP DISPENSER SLOAN MODEL ESD-2000-CP, WITH OPTIONAL AC ADAPTER NO. 0346090 INCLUDING TWO BOTTLES 1500 ML SOAP.
15. ELECTRONIC TRAP PRIMER, 120V, 5 AMPS, RECESSED METAL CABINET, VACUUM BREAKER, SOLENOID VALVE, MANUAL SHUTOFF VALVE, 24-HOUR TIMER AND DISCHARGE MANIFOLD TO SERVE MULTIPLE FLOOR DRAINS. COORDINATE WITH ELECTRICAL DESIGN AND ARCHITECT.
16. PRESSURE DROP ACTIVATED AT 3 PSI, ONE QUARTER OUNCE PER OPERATION, INTEGRAL FILTER. PROVIDE ACCESS PANEL IF LOCATED IN WALL.
17. HIGH EFFICIENCY URINAL, WHITE VITREOUS CHINA, 3/4" TOP SPUD, WALL HUNG MOUNTED. PROVIDE 0.125 GPF EXPOSED URINAL FLUSH VALVE, 3/4" TOP SPUD, HARDWIRE POWERED SUPPLY HANDS FREE OPERATION.

FLOOR DRAIN AND FLOOR SINK SCHEDULE

ID	APPLICATION	DESCRIPTION	BASIS OF DESIGN	NOTES
FD-1	TOILET AND SHOWER FACILITIES GENERAL FINISHED AREAS	COATED CAST IRON BODY WITH ADJUSTABLE STAINLESS STEEL 6" STRAINER TOP W/ SEDIMENT BUCKET AND CLAMPING COLLAR	ZS-415-6SS-Y-P	1, 2, 3
FD-2	ROOM OR AREAS ON SLAB GRADE	MEDIUM DUTY COATED CAST IRON	Z-551-Y	1, 2, 3
FS-1	ROOM OR AREAS ON SLAB GRADE	16" x 16" x 12" DEEP SQUARE FLOOR SINK; CAST IRON BODY, WHITE ACID RESISTING PROCELAIN ENAMEL INTERIOR AND TOP, ANTI-SPLASH INTERIOR BOTTOM DOME STRAINER, NICKEL BRONZE FRAME AND FULL GRATE	ZN-1926	1, 2, 3

NOTES:
1. REFER TO SPECIFICATIONS FOR MATERIALS, COLOR, FINISHES, INSTALLATION, APPROVED EQUAL MANUFACTURERS.
2. PROVIDE COMPLETE WITH INDIVIDUAL FIXTURE TRAP FOR ALL FLOOR DRAINS UNLESS OTHERWISE INDICATED.
3. PROVIDE TRAP SEAL PROTECTION INSERT; PRO-SET "TRAP GUARD" SEREIS T...
COMPATIBLE WITH SCHEDULED AND SPECIFIED DRAINS. FURNISH WITH ALL DRAINS UNLESS NOTED TO INCLUDE TRAP PRIMER SUPPLY SYSTEMS.

DOMESTIC WATER HEATER SCHEDULE

ID	LOCATION	TYPE	CAPACITY (GAL)	RECOVERY (GPH) @ 90°F RISE	SERVICE WATER (°F)		ELECTRICAL				DIMENSIONS (IN)		MANUFACTURER AND MODEL NO.	OPERATING WEIGHT (LBS)	REMARKS
					TEMP. IN	TEMP. OUT	VOLTAGE	PH	AMPERAGE	kW	HEIGHT	DIAMETER			
EWH-1	JAN. 120	STORAGE	119	109	50	140	480	3	28.9	24.0	62-1/4"	29-1/2"	AO SMITH DVE-80-24	1382	SEE NOTES
EWH-2	JAN. 2203	STORAGE	80	82	50	140	480	3	21.7	18.0	60-1/4"	25-1/2"	AO SMITH DVE-80-18	1275	SEE NOTES
IWH-1	RR 0151	-	-	-	50	106	277	1	4.1	15.0	10-3/4" Hx5-1/4" Wx3" D		EEMAX SPEX4277	3	SEE NOTES
IWH-2	RR 1409	-	-	-	50	106	277	1	4.1	15.0	10-3/4" Hx5-1/4" Wx3" D		EEMAX SPEX4277	3	SEE NOTES
IWH-3	GATE HOUSE	-	-	-	50	106	277	1	4.1	15.0	10-3/4" Hx5-1/4" Wx3" D		EEMAX SPEX4277	3	SEE NOTES

NOTES:
1. PROVIDE WITH EXPANSION TANK (ET-1,2).
2. PROVIDE SEISMIC BRACING.
3. PROVIDE WITH PRESSURE TEMPERATURE RELIEF VALVE.
4- CONNECT TO BMS.
5. PROVIDED WITH 3 HEATING ELEMENTS W/SIMULTANEOUS OPERATION.
6. 0.5 GPM ACTIVATION. SET HOT WATER TO 106°F.HARD WIRED CONNECT

DOMESTIC TRIPLEX BOOSTER PUMP SCHEDULE

TAG	MANUFACTURER & MODEL NO.	GPM	HEAD (FT) EACH	SECTION PRESSURE (PSI)	HP	VOLTAGE	PHASE	TYPE	SYSTEM FLOW RATE	REMARK
BSP -01	GRUNDFOS HYDRO MULTI-E 3 CRE 10-8 UL A-A-A-U-A	EACH 53 GPM	161	70	7.5	460	3	CRE 10-8	159 GPM	1. VARIABLE FREQUENCY DRIVE. CONSTANT PRESSURE AUTOMATIC VERTICAL IN-LINE PUMP. 2. PRESSURE SENSOR ON PUMP DISCHARGE. 3. PROVIDE INTEGRATED VARIABLE FREQUENCY DRIVE (VFD). 4. CONNECT PIMP ON AND OFF TO BUILDING MANAGEMENT SYSTEM. 5. UL TYPE 3R/12 RATED ELECTRICAL PANEL. 6. PROVIDE EXPANSION TANK. AMTROL, MODEL WX-448C, 80 GALLONA.

NOTE: COMPACT PUMP SYSTEM WITH ENERGY EFFICIENT INTEGRATED VFD/ECM MOTORS WITH ONE MOTOR HAVING GRAPHICAL INTERFACE CONTROLLER FOR CONTROL OF PUMP SYSTEM. AVAILABLE WITH 2-3 PARALLEL CONNECTED PUMPS, SINGLE POINT POWER CONNECTION, AND DUAL MASTER MOTORS FOR COMPLETE PUMP SYSTEM CONTROL REDUNDANCY.

MASTER MIXING VALVE SCHEDULE

ID	DESCRIPTION	LOCATION	MANUFACTURER AND MODEL NO.	CONNECTION (IN)			TEMPERATURE (°F)			MINIMUM FLOW (GPM)	MAXIMUM FLOW (GPM)	PRESSURE DROP	REMARKS
				CW	HW	TW	HW IN	CW IN	TW OUT				
TMV-1	THERMOSTATIC MIXING VALVE	JAN. 120	POWER INTELLISTATION JR, LFIS100VL	1 1/4"	1 1/4"	1 1/4"	140	50	125	1/0/1900	39	5	1
TMV-2	THERMOSTATIC MIXING VALVE	JAN. 120	POWER INTELLISTATION JR, LFIS100VL	1 1/4"	1 1/4"	1 1/4"	140	50	125	1/0/1900	39	5	1

NOTES: DIGITAL MIXING VALVE WITH CHECK STOPS, INTEGRAL RTD SENSOR, RETURN PIPING ASSEMBLY, AUTO HOT/COLD WATER SHUTOFF UPON HOT/COLD WATER INLET SUPPLY FAILURE.

EXPANSION TANK SCHEDULE

TAG	LOCATION	SIZE	CAPACITY (GAL)	MANUFACTURER	OPERATING WEIGHT (LBS)	REMARKS
ET-1,2	JAN 120, 2203	8" DIA x 14" H	2.0	AMTROL ST-5C-DD	10	ASME RATED, PROVIDE SEISMIC RESTRAINT

NOTES:

WATER METER SCHEDULE

TAG	LOCATION	SERVICE	SIZE (IN)	MANUFACTURER & MODEL NO.	REMARKS
WM-1	RISER 0164	DOMESTIC COLD WATER	3"	BADGER METER TURBO SERIES 450	POSITIVE DISPLACEMENT METER WITH PULSE OUTPUT, NSF/ANSI 61.

NOTES:
1. PROVIDE CONNECTION TO BMS FOR ALL PLUMBING EQUIPMENT.

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED PROFESSIONAL ENGINEER 47948 WILLIAM B. HODGES NATIONAL COUNCIL OF ENGINEERING EXAMINERS 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD AURORA, CO

PLUMBING SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET

P00-01

2/4/2025 4:08:36 PM P00-01 PLUMBING SCHEDULES

RSN: PRELIMINARY FOR CONSTRUCTION

PLUMBING FIXTURE CALCULATIONS - COLD WATER

FIXTURE	FIXTURE	LEVEL 1	LEVEL 2	ROOF	TOTAL	FU EA.	TOTAL FU
WC	WATER CLOSET	13	7		20	10	200
UR	URINAL	4	2		6	5	30
LAV	LAVATORY	14	7		21	2	42
HB	HOSE BIB (2.5 FU)	1			1	2.5	3
HB+	HOSE BIB (1 FU)	30	25		55	1	55
RH	ROOF HYDRANT (2.5 FU)	1		1	2	2.5	5
RH+	ROOF HYDRANT (1 FU)	28		26	54	1	54
MS	MOP SINK	1	2		3	3	9
SH	SHOWER	2			2	4	8
KS	BREAK ROOM SINK	2			2	2	4
S-1	WELLNESS SINK	2			2	2	4
EWC	ELECTRIC WATER COOLER	4	2		6	0.25	2
DW	DISHWASHER	2	2		4	1.5	6
BASED ON INTERNATIONAL PLUMBING CODE						TOTAL	421.0
						FUTURE FU	25.0
						SUBTOTAL	446.0
EQUIVALENT COLD WATER FLOW RATE (GPM)						FU TO GPM	135.0

PLUMBING FIXTURE CALCULATIONS - HOT WATER

FIXTURE	FIXTURE	LEVEL 1	LEVEL 2	ROOF	TOTAL	FU EA.	TOTAL FU
LAV	LAVATORY	14	7		21	1.5	32
MS	MOP SINK	1	2		3	2.25	7
SH	SHOWER	2			2	3	6
KS	BREAK ROOM SINK	2			2	1	2
S-1	WELLNESS SINK	2			2	1	2
DW	DISHWASHER	2	2		4	1.5	6
BASED ON INTERNATIONAL PLUMBING CODE						TOTAL	54.3

PLUMBING FIXTURE CALCULATIONS - SANITARY

FLR.	1ST FLR	ROOF	TOTAL	FU EA.	TOTAL FU
WC	13	7	20	4	80
UR	4	2	6	4	24
LAV	14	7	21	1	21
MS	1	2	3	3	9
SK	4		4	2	8
SH. DR.	2		2	3	6
FS (4")	26	26	26	6	156
FD (4")	6	2	6	6	36
FD (2")	9	5	9	2	18
EWC	4		4	1	4
BASED ON INTERNATIONAL PLUMBING CODE				SUBTOTAL	362.0
				FUTURE	50.0
				MISC	0.0
				TOTAL	412.0

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

PROJECT NAME: QTS Mission Critical Data Center Facility_DEN1 DC2 SHEET 1 OF 1

SYSTEM: WATER CALCULATION - DOMESTIC BOOSTER PUMP

BY: Basir Hussaini DATE 1/30/2025

A	WATER PRESSURE:	MAX:	70	PSI			
		MIN:	62.5	PSI			
B	SYSTEM FU'S	TOTAL ALLOWABLE FU	446	FU	=	135	GPM
C	CONT. FLOW GPM OF MECHANICAL EQP..				=	25	GPM
D	TOTAL SYSTEM GPM				=	160	GPM
E	METER SIZE (@ 160 GPM) MODEL:		3	Inch	LOSS AT PEAK FLOW	3.3	PSI
F	BACKFLOW PREVENTER (@ 160 GPM) MODEL: WILKINS 375A REDUCED PRESSURE ASSEMBLY		3	Inch	LOSS AT PEAK FLOW =	12	PSI
G	ELEVATION LOSS = BOOSTER PUMP LOCATED ON LEVEL 1		8.5	FT. X	0.433 =	3.7	PSI
H	MINIMUM PUMP SUCTION PRESSURE				=	43.5	PSI
I	RESIDUAL PRESSURE REQUIRED AT REMOTE OUTLET (WATER CLOSET)				=	35	PSI
J	ELEVATION LOSS =		54	FT. X	0.433 =	23.4	PSI
K	MISCELLANEOUS PRESSURE LOSS:		N/A	Inch		0	PSI
L	TOTAL SYSTEM LOSSES (I+J+K)				=	58.4	PSI
M	PRESSURE REQUIRED FOR FRICTION LOSS				=	3.0	PSI
N	DEVELOPED LENGTH:	1651	FT. PLUS 30% FOR FITTINGS		=	2146.3	FT
O	MAX. FRICITION LOSS PER 100 FEET =		(M) 2.6 / (N) 2146		X 100 =	55.8	PSI
P	TOTAL PUMP BOOST (L+M-H)				=	70.7	PSI
Q	CONVERTING PRESSURE TO T.D.H				70.2 PSI X 2.31 =	163.2...	FT

PIPE SIZING SCHEDULE

SIZE	GPM	FLUSH TANK (DCW)	FLUSH VALVE (DCW)	FLUSH TANK (DHW)
1/2"	-	-	-	-
3/4"	4	4	-	4
1"	8	12	-	12
1-1/4"	15	21	-	21
1-1/2"	24	42	8	42
2"	50	135	52	119
2-1/2"	88	337	205	245
3"	140	611	521	406
4"	290	1668	1668	1668
6"	650	4480	4480	4480
8"	1100	8300	8300	8300
MAX. DESIGN VELOCITY =			8 FPS	5 FPS
FRICTION LOSS PER 100 FT.			2.6 PSI	

TO ENSURE ADEQUATE PRESSURE TO ANY FUTURE FIXTURES, A TRIPLEX BOOSTER PUMP AS BEEN PROVIDED EACH PUMP HAS A CAPACITY OF 53 GPM. THE OVERALL DOMESTIC WATER SYSTEM WILL BE BOOSTED BY 70 PSI.

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ISSUES

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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

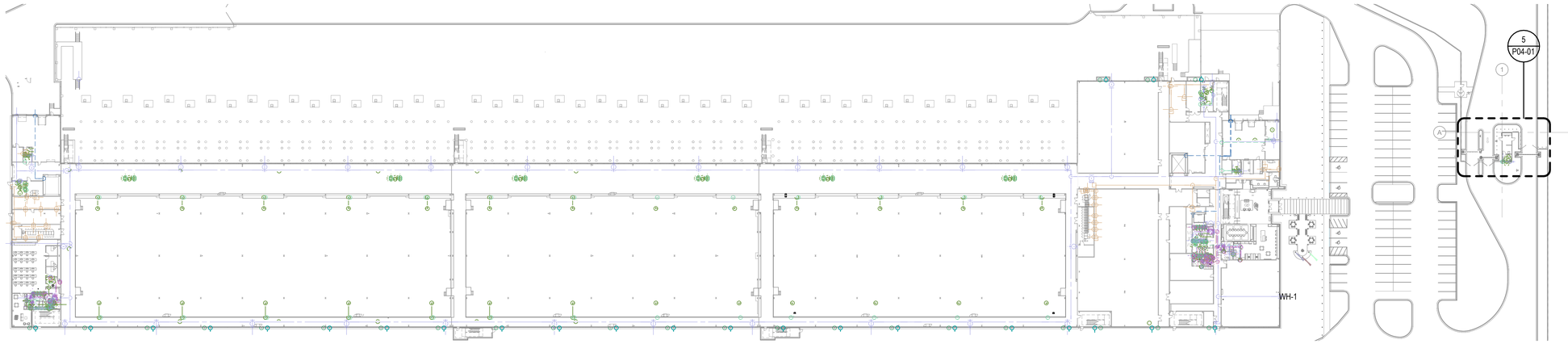
PLUMBING SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET P00-02

2/4/2025 4:08:41 PM P00-02 PLUMBING SCHEDULES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

The City of Aurora Building Division does not permit review or inspect bac flow prevention devices on building domestic water supply entry. Please contact Aurora Water-Water Service Cross Connection Control 303-326-8510



1 LEVEL 1 PLUMBING SITE PLAN
SCALE: 1" = 50'-0"

SHEET NOTES

SHEET KEYNOTES

2/4/2025 4:09:25 PM P01-01 PLUMBING SITE PLAN

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WILLIAM B. HODGES
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PROFESSIONAL ENGINEER
01.31.25

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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

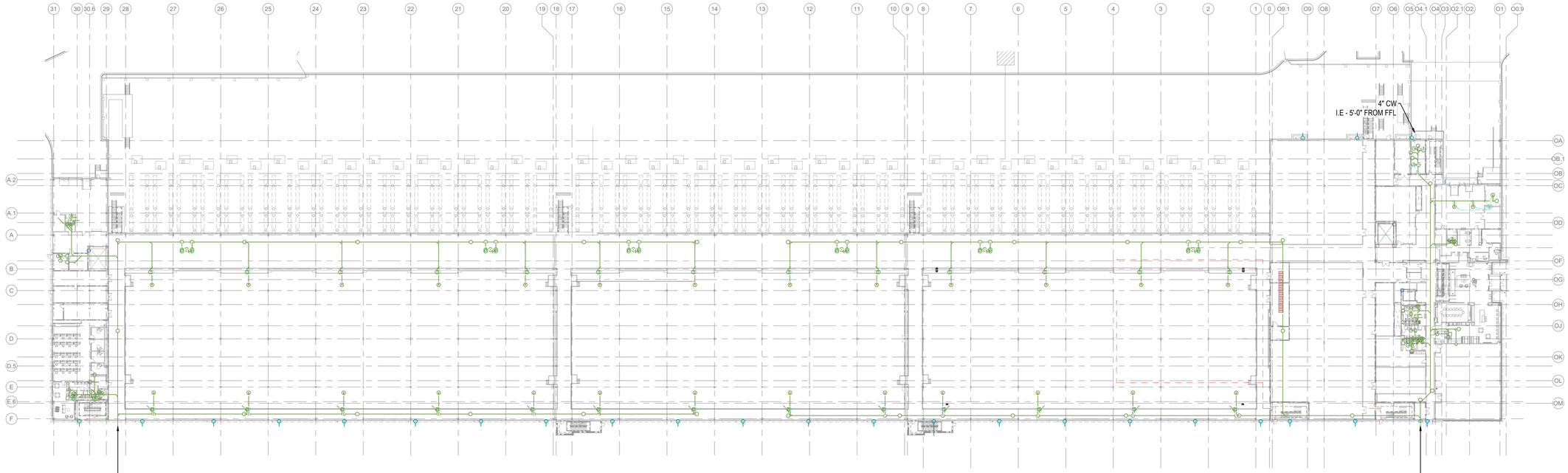
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

PLUMBING SITE PLAN

JOB 24464.0000
DATE 01.31.25
SHEET

P01-01



City of Aurora Building Division
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2021 INTERNATIONAL CODES & 2023 NEC

1 LEVEL 1 UG PLUMBING PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

2/4/2025 3:40:03 PM P02-00 PLUMBING FLOOR PLAN - LEVEL ONE UG - OVERALL

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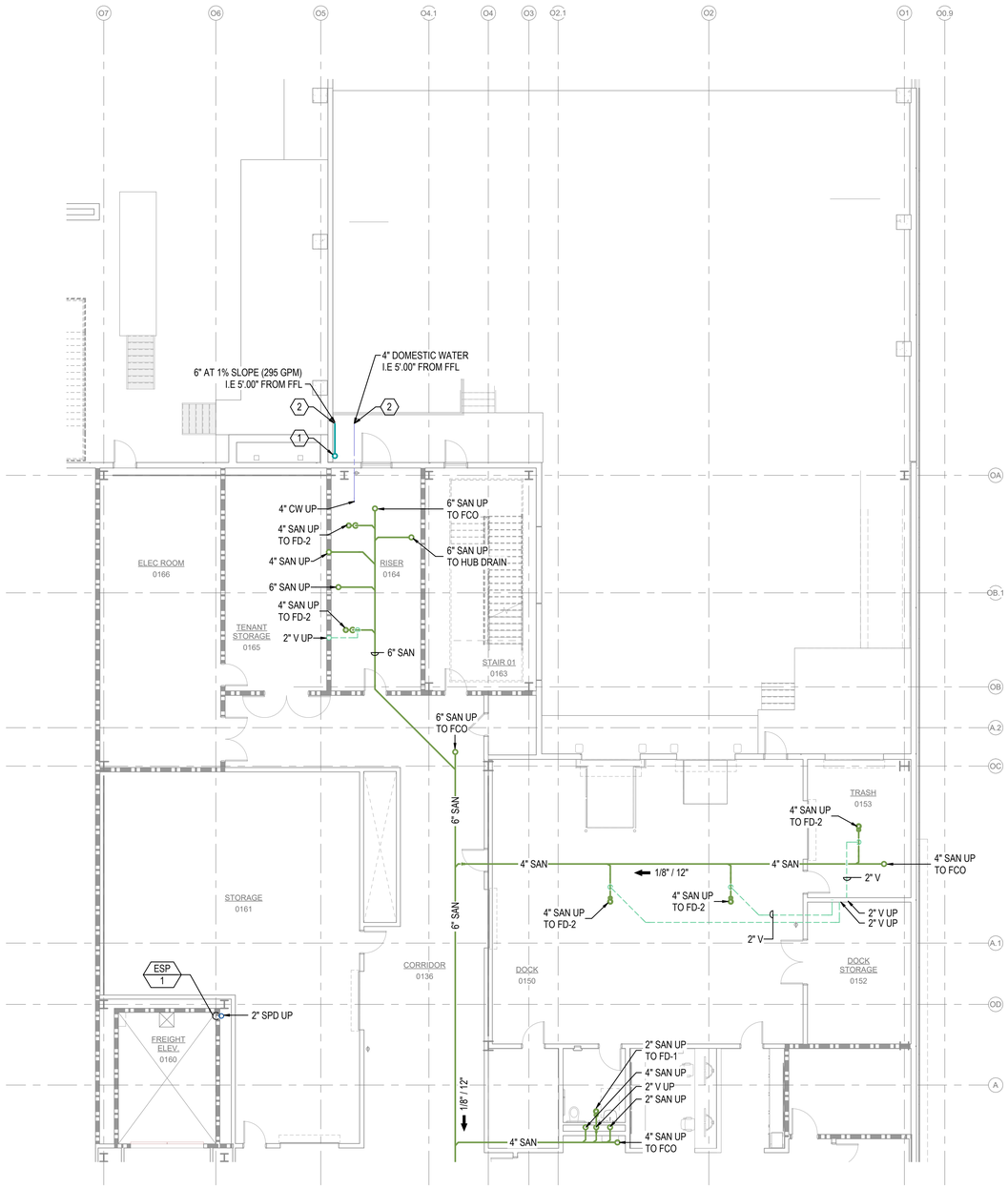
KEYPLAN

S Q N L J G E C A
T R P M K H F D B

PLUMBING FLOOR PLAN - LEVEL ONE UG - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00



1 LEVEL 1 UG PLUMBING PLAN - A
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. FOR PIPING CONTINUATIONS OUTSIDE OF BUILDING - REFER TO CIVIL DRAWINGS.
3. COMPACT PUMP SYSTEM WITH ENERGY EFFICIENT INTEGRATED VFD/ECM MOTORS WITH ONE MOTOR HAVING GRAPHICAL INTERFACE CONTROLLER FOR CONTROL OF PUMP SYSTEM. AVAILABLE WITH 2-3 PARALLEL CONNECTED PUMPS, SINGLE POINT POWER CONNECTION, AND DUAL MASTER MOTORS FOR COMPLETE PUMP SYSTEM CONTROL REDUNDANCY.

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QTS DEN1 DC2
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AURORA, CO

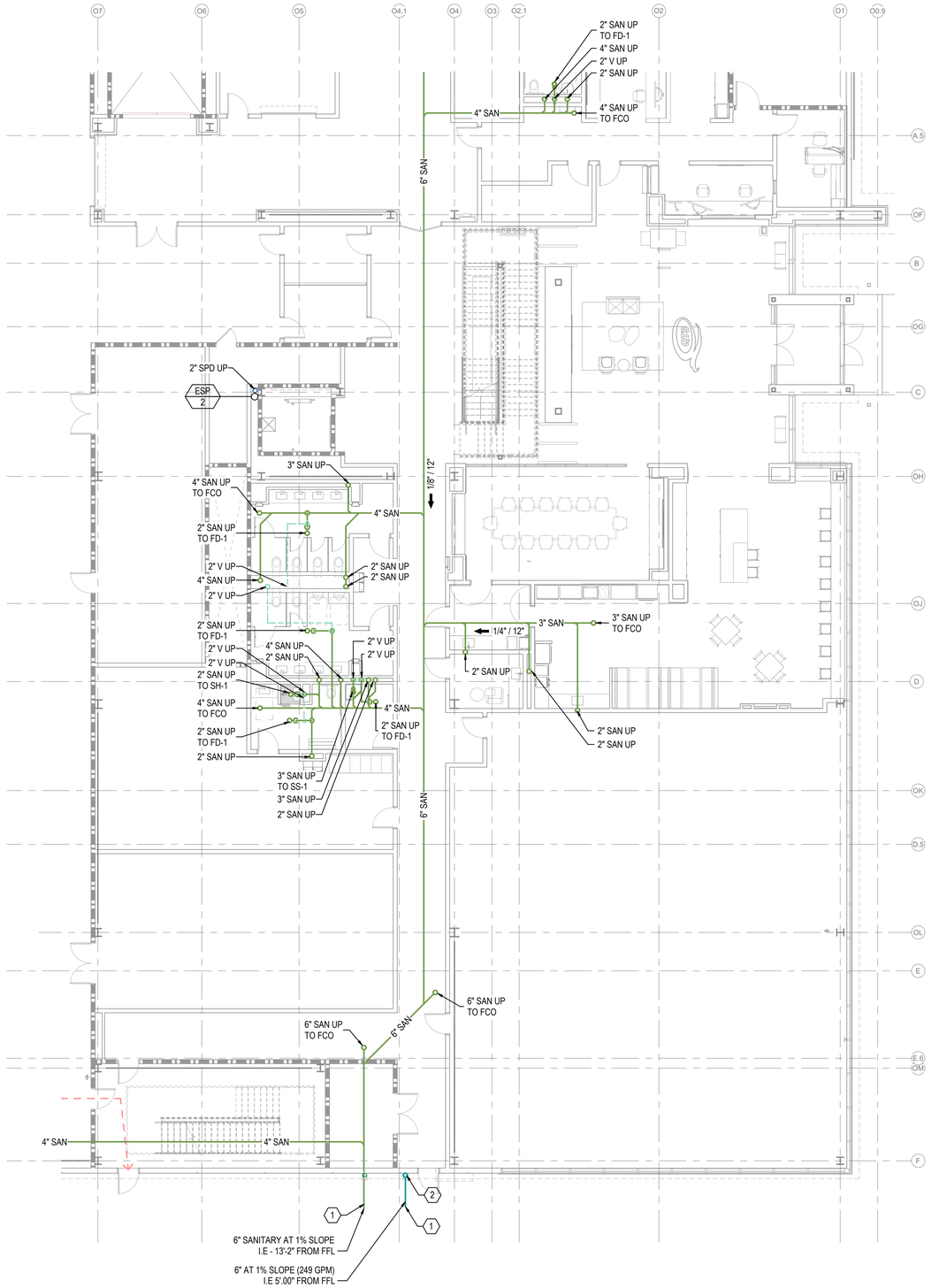
KEYPLAN

S	Q	N	L	J	G	E	C	A	
T	R	P	M	K	H	F	D	B	

PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET P02-00A

2/4/2025 4:09:47 PM P02-00A PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT A



1 LEVEL 1 UG PLUMBING PLAN - B
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. FOR PIPING CONTINUATIONS OUTSIDE OF BUILDING - REFER TO CIVIL DRAWINGS.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.

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KEYPLAN

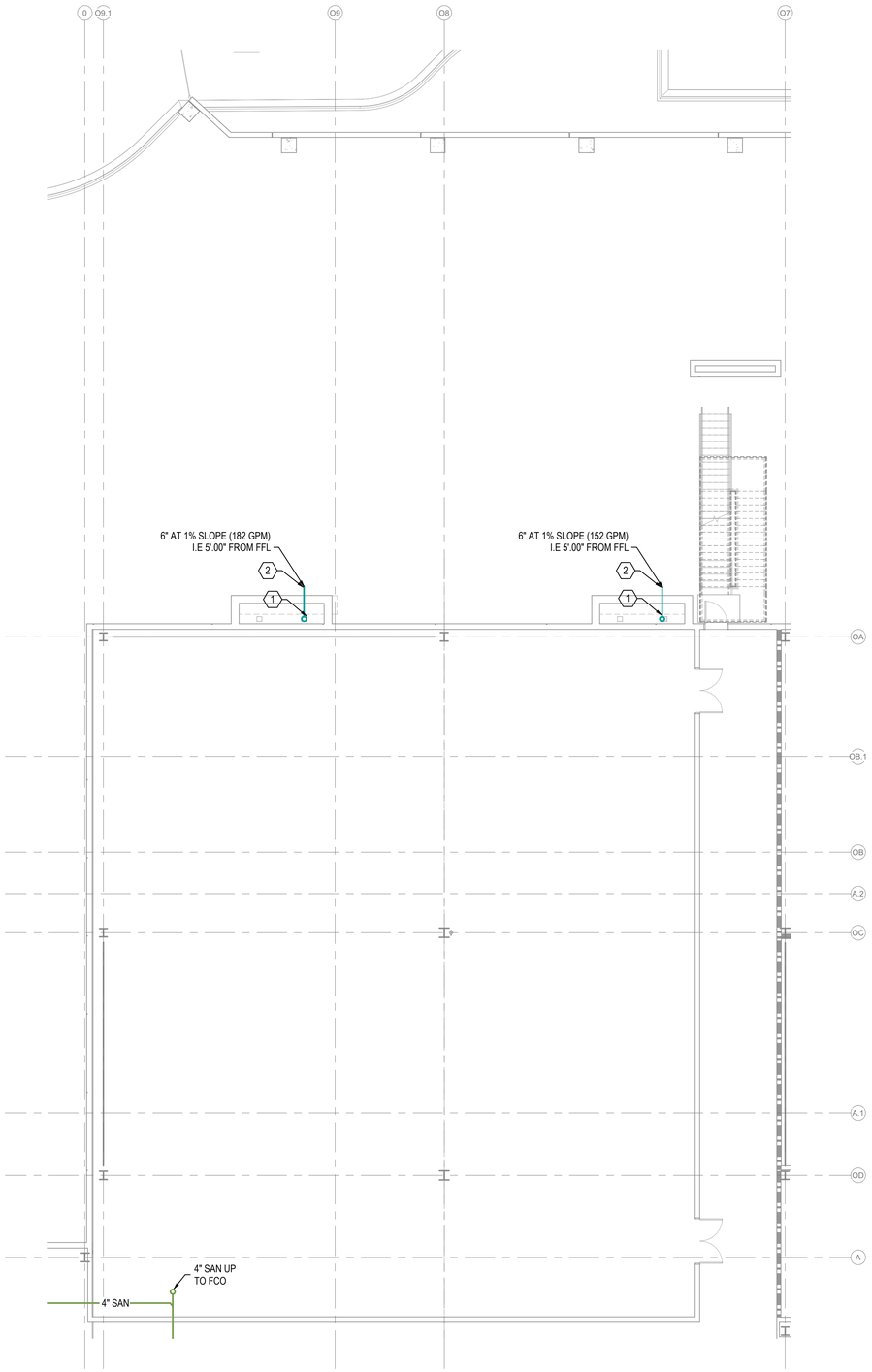
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00B

2/4/2025 4:09:54 PM P02-00B PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT B



1 LEVEL 1 UG PLUMBING PLAN - C
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
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2. FOR PIPING CONTINUATIONS OUTSIDE OF BUILDING - REFER TO CIVIL DRAWINGS.

CORGAN
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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

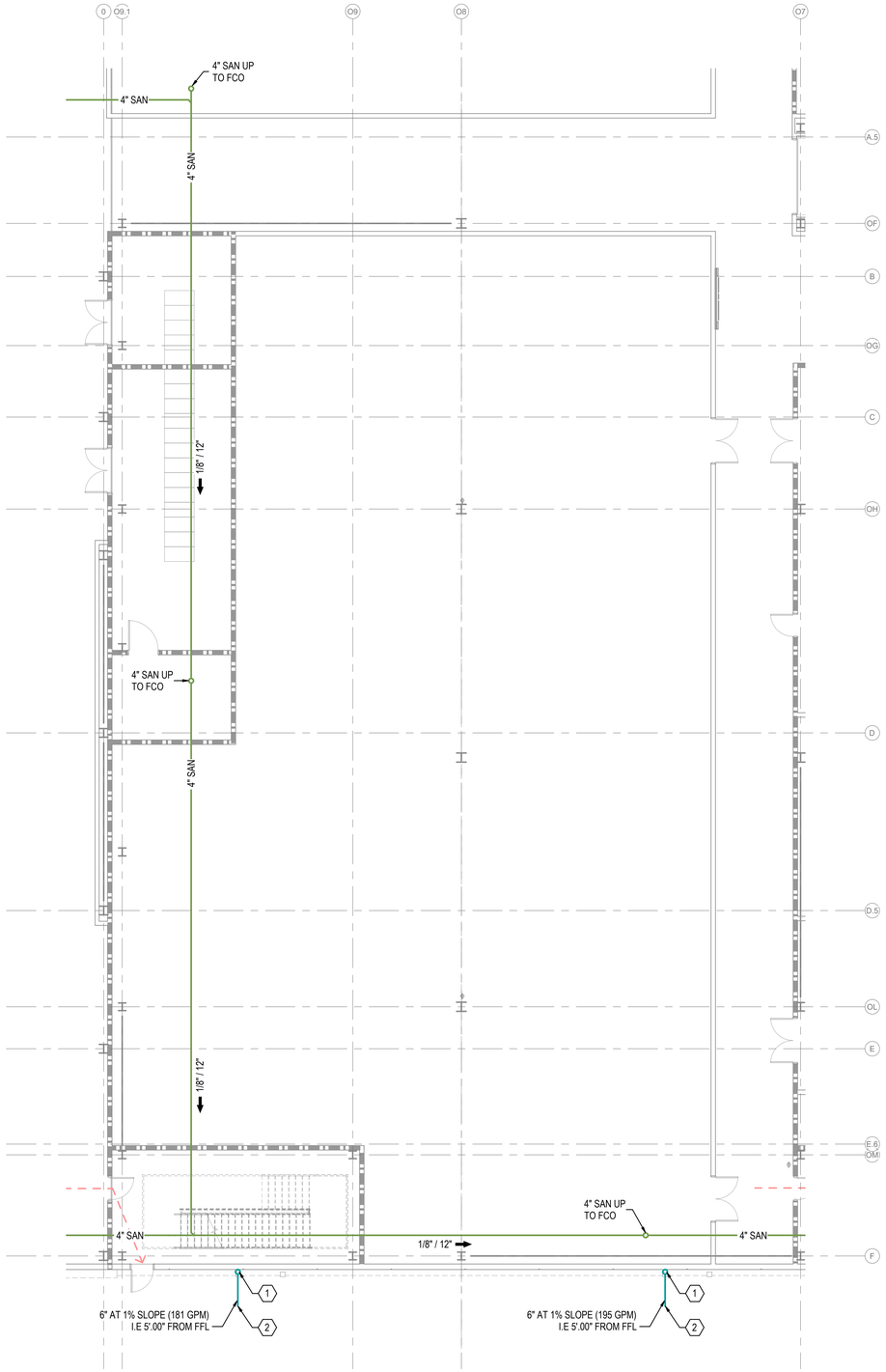
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T	R	P	M	K	H	F	D	B

PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00C

2/4/2025 4:09:59 PM P02-00C PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT C



1 LEVEL 1 UG PLUMBING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

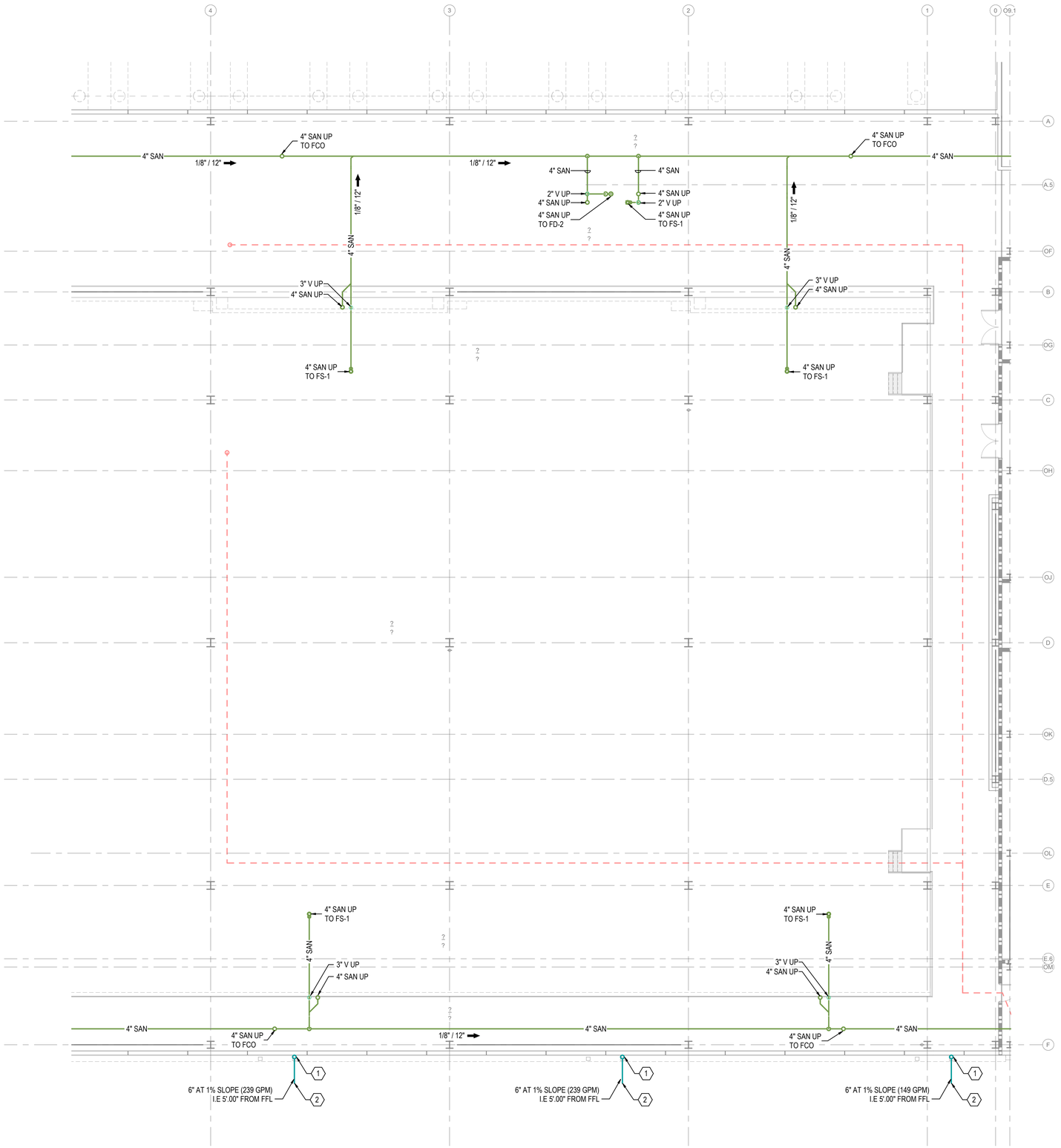
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00D

2/4/2025 4:10:05 PM P02-00D PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT D



1 LEVEL 1 UG PLUMBING PLAN - F
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. FOR PIPING CONTINUATIONS OUTSIDE OF BUILDING - REFER TO CIVIL DRAWINGS.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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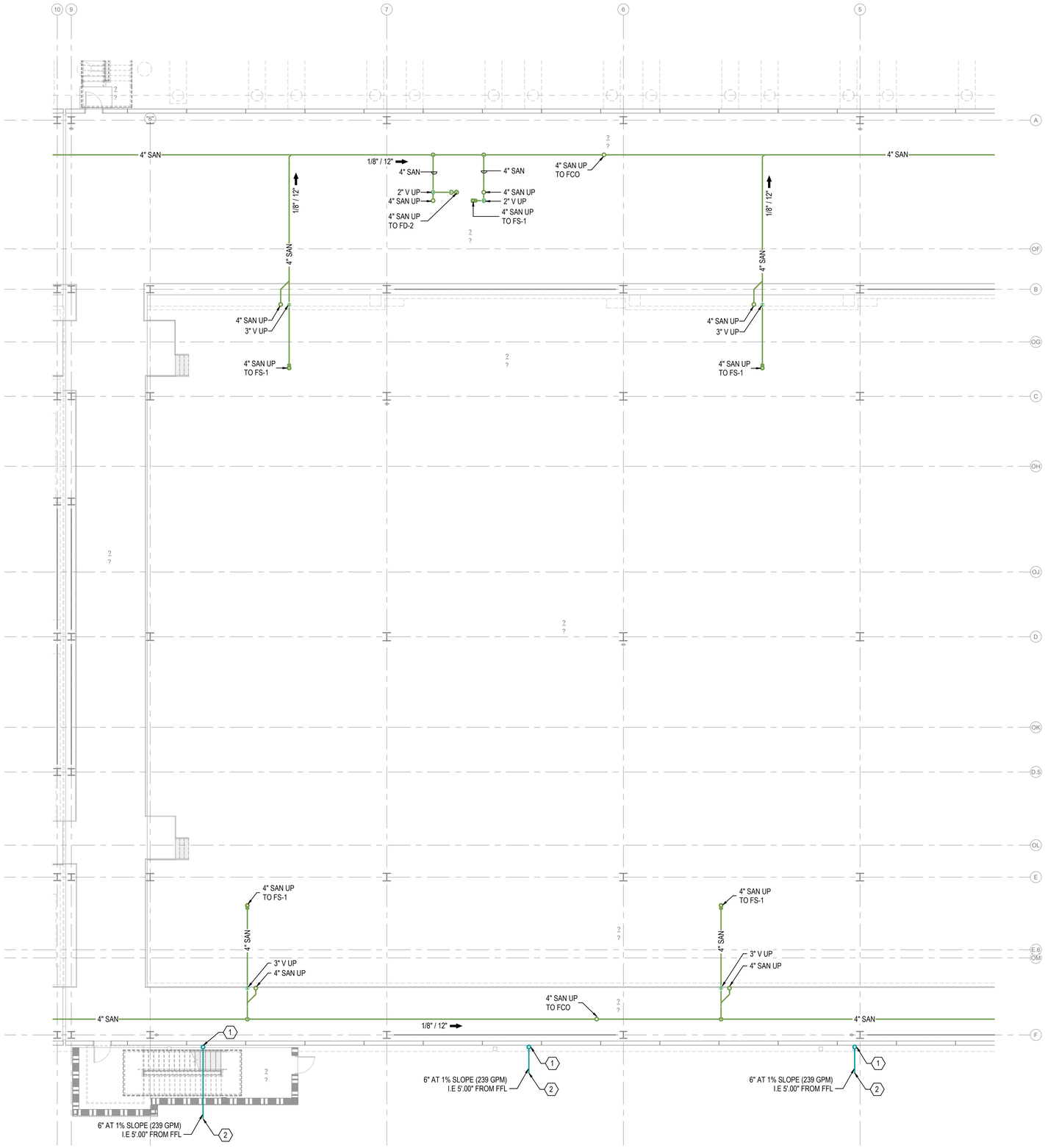
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00F

2/4/2025 4:10:11 PM P02-00F PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT F



1 LEVEL 1 UG PLUMBING PLAN - H
SCALE: 1/8" = 1'-0"

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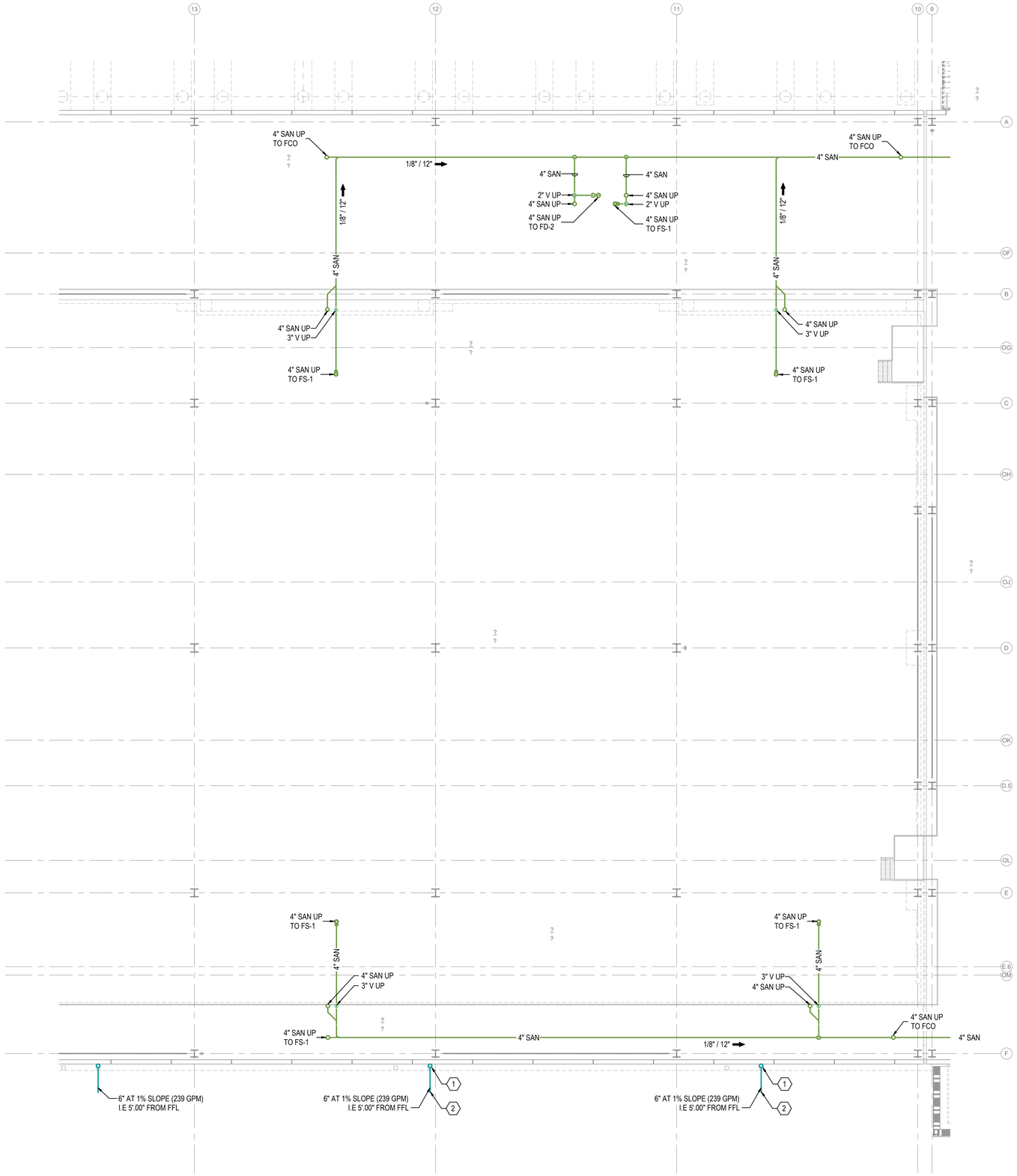
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET P02-00H

2/4/2025 4:10:17 PM P02-00H PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT H



1 LEVEL 1 UG PLUMBING PLAN - K
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
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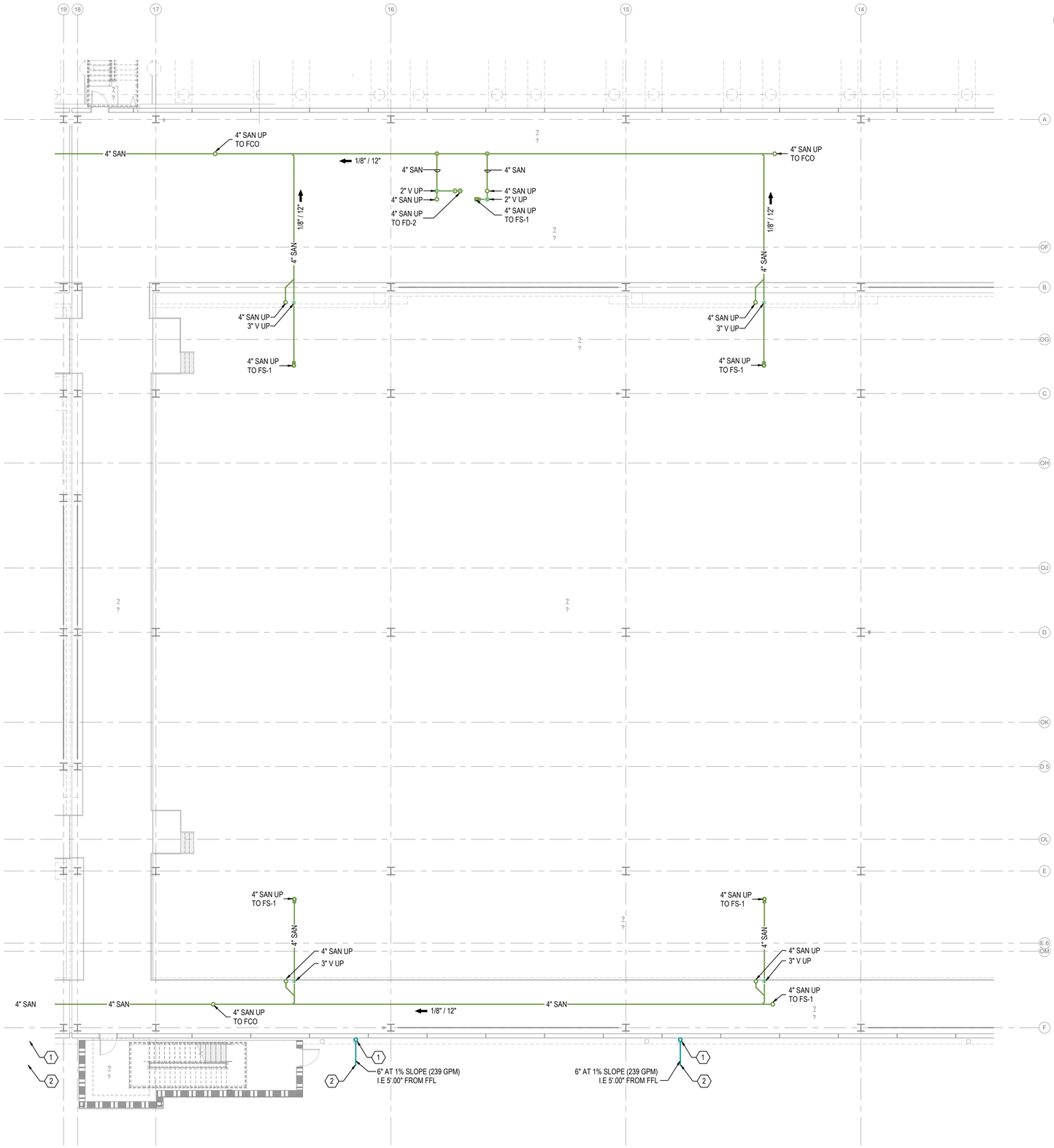
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00K

2/4/2025 4:10:23 PM P02-00K PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT K



1 LEVEL 1 UG PLUMBING PLAN - M
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
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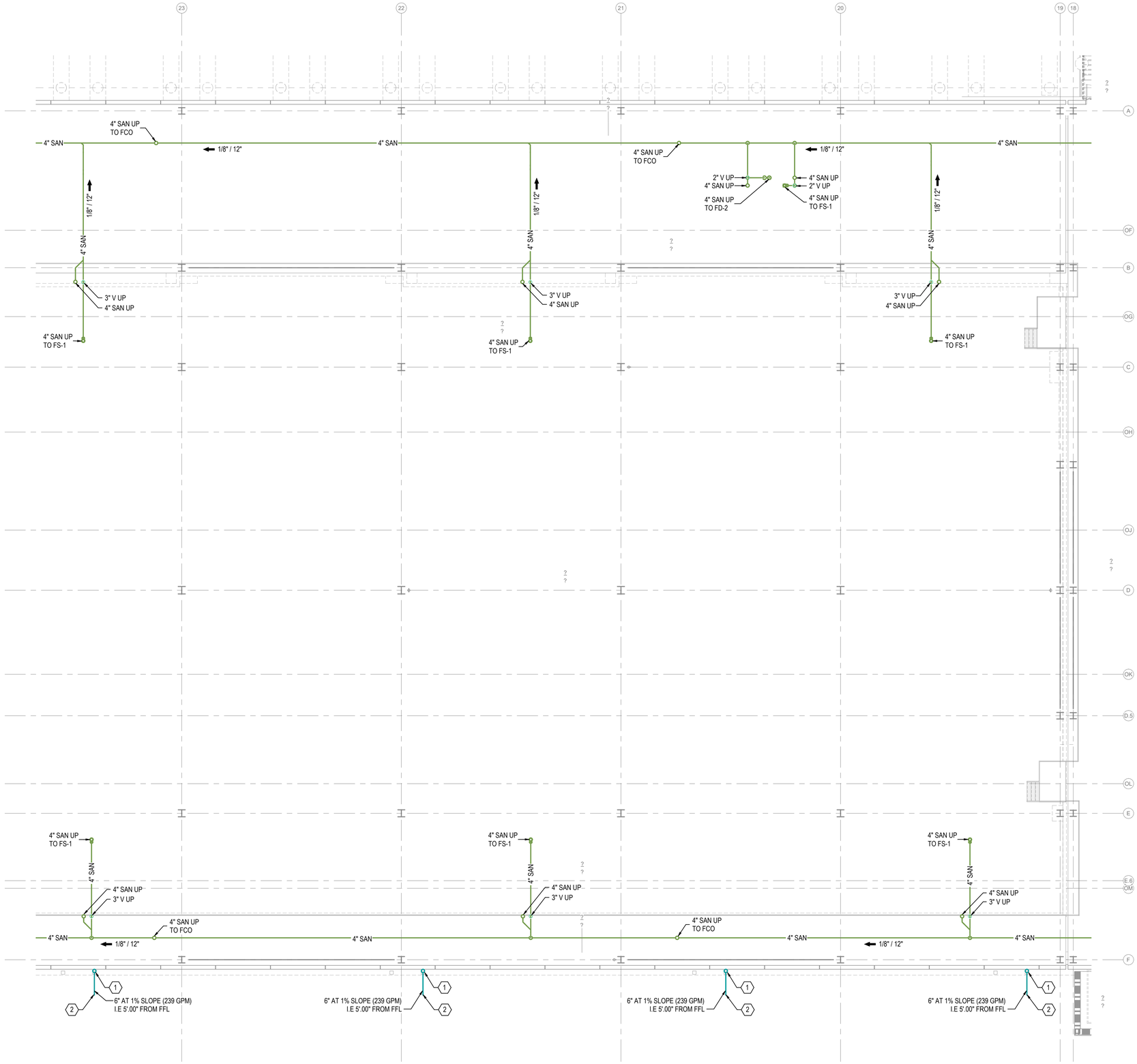
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00M

2/4/2025 4:10:29 PM P02-00M PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT M



1 LEVEL 1 UG PLUMBING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

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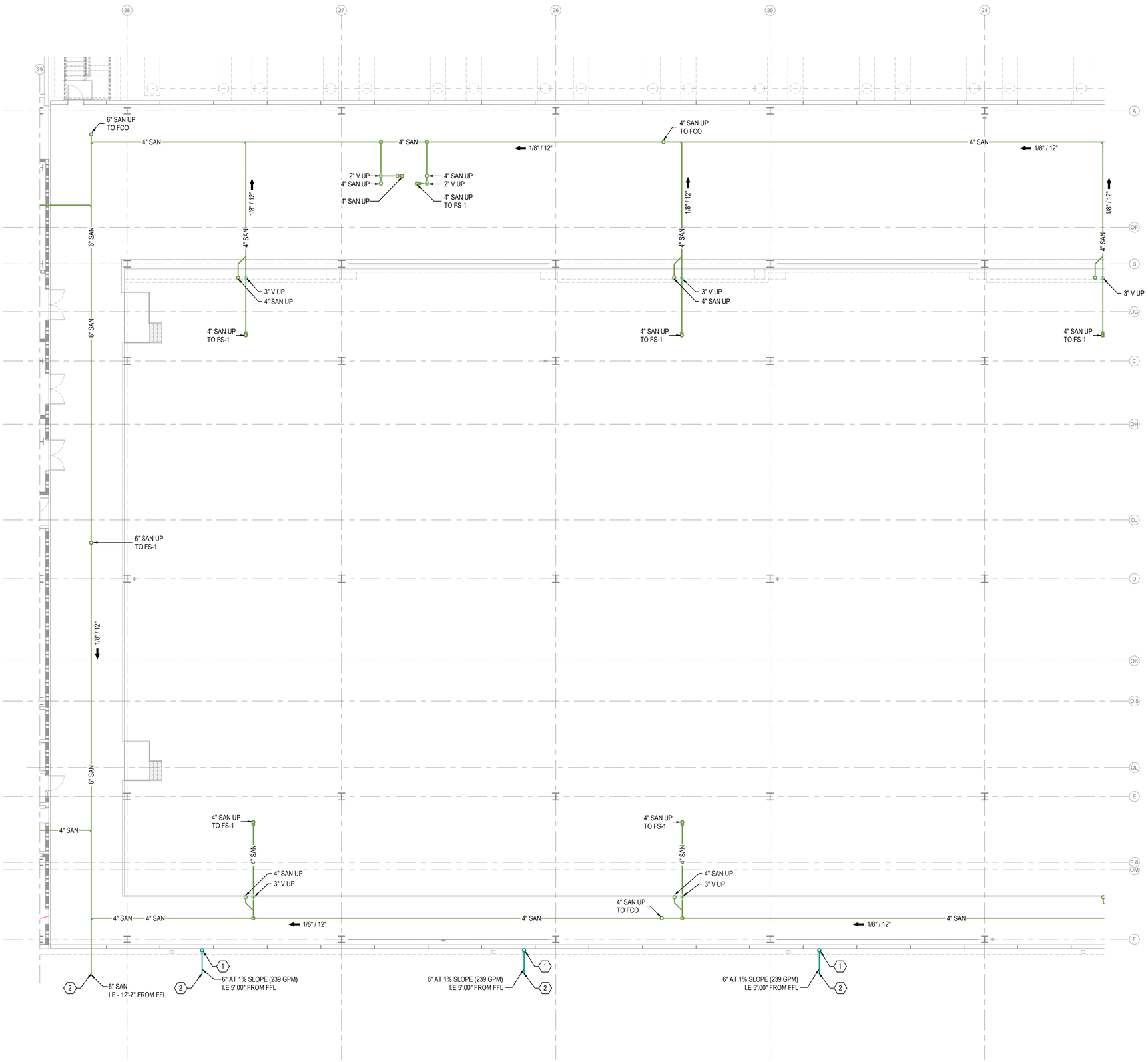
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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

P02-00P

2/4/2025 4:10:36 PM P02-00P PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT P



1 LEVEL 1 UG PLUMBING PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.

SHEET KEYNOTES

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TLD DESIGN CONSULTING LLC

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AURORA, CO

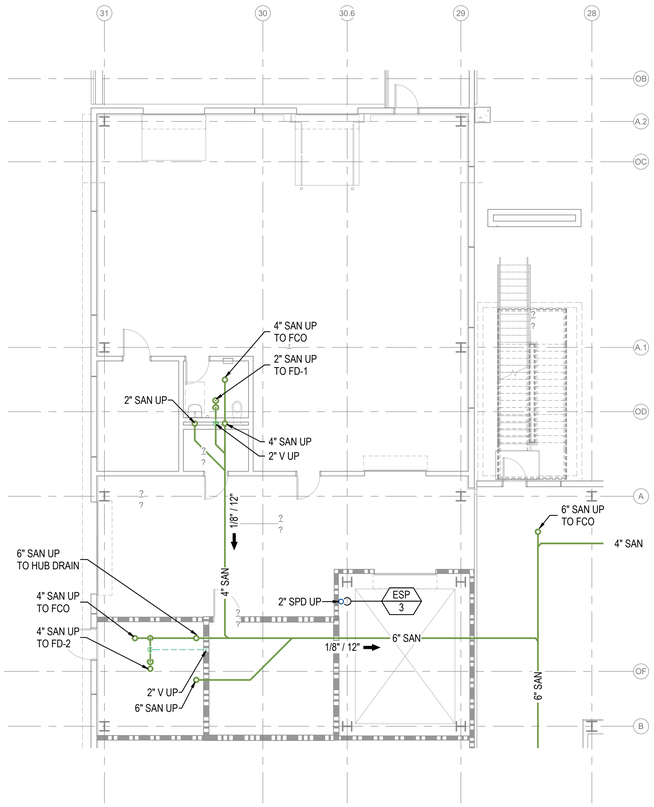
KEYPLAN

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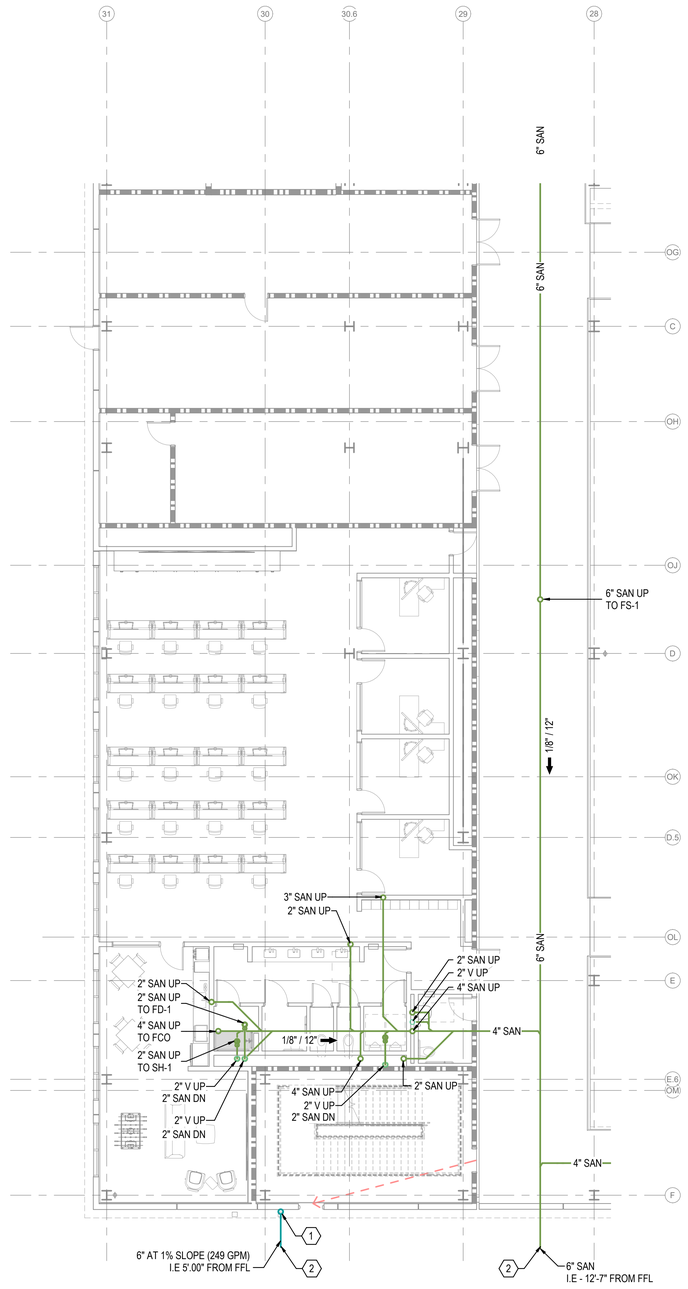
PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT R

JOB 24464.0000
DATE 01.31.25
SHEET P02-00R

2/4/2025 4:10:42 PM P02-00R PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT R



1 LEVEL 1 UG PLUMBING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 UG PLUMBING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

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CORGAN
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75202
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AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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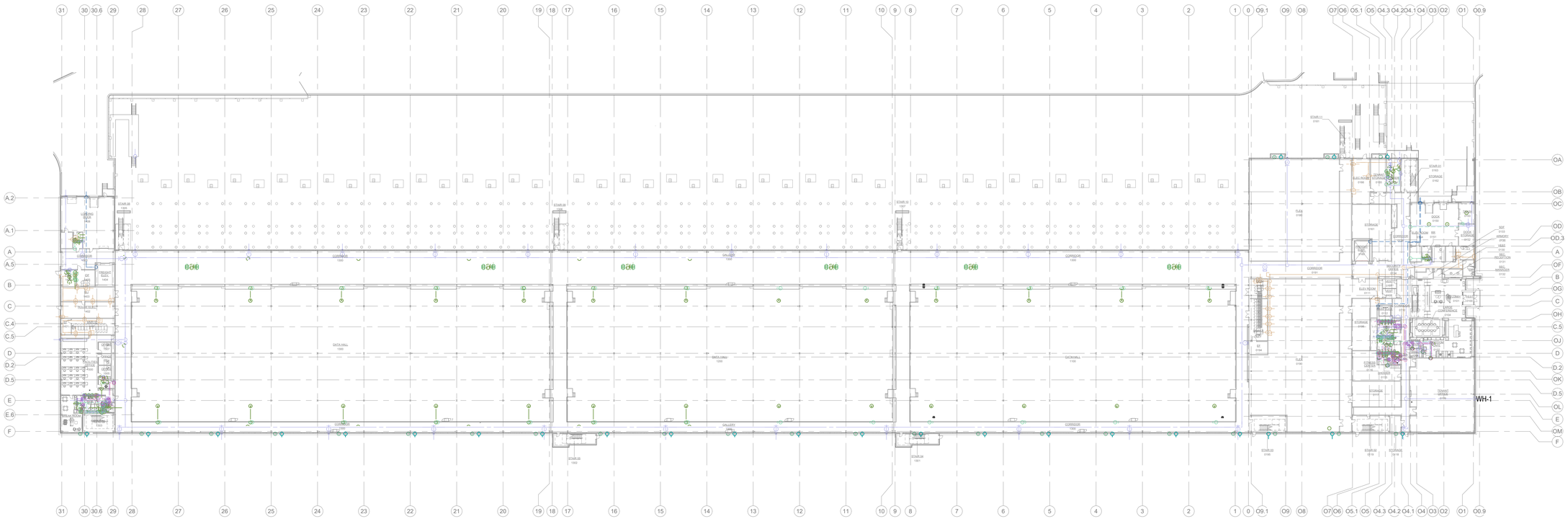
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET P02-00ST

2/4/2025 4:10:53 PM P02-00ST PLUMBING FLOOR PLAN - LEVEL ONE UG - SEGMENT S-T



1 LEVEL 1 PLUMBING PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
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2/4/2025 3:40:18 PM P02-01 PLUMBING FLOOR PLAN - LEVEL ONE - OVERALL

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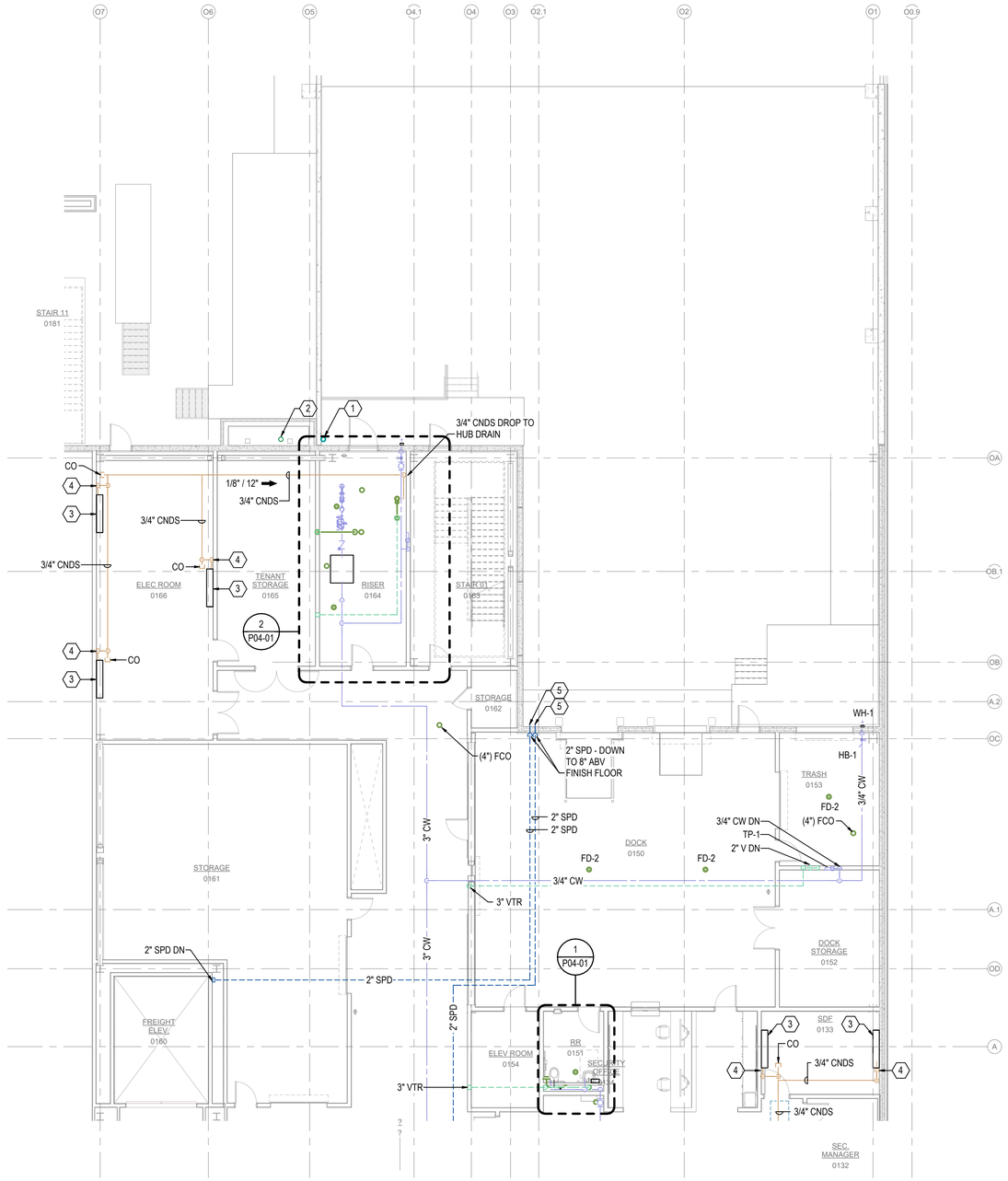
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PLUMBING FLOOR PLAN - LEVEL ONE - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

P02-01



1 LEVEL 1 PLUMBING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION, INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.
5. 2" SUMP DISCHARGE - EXTEND THRU WALL AND TERMINATE ABOVE FINISH GRADE.

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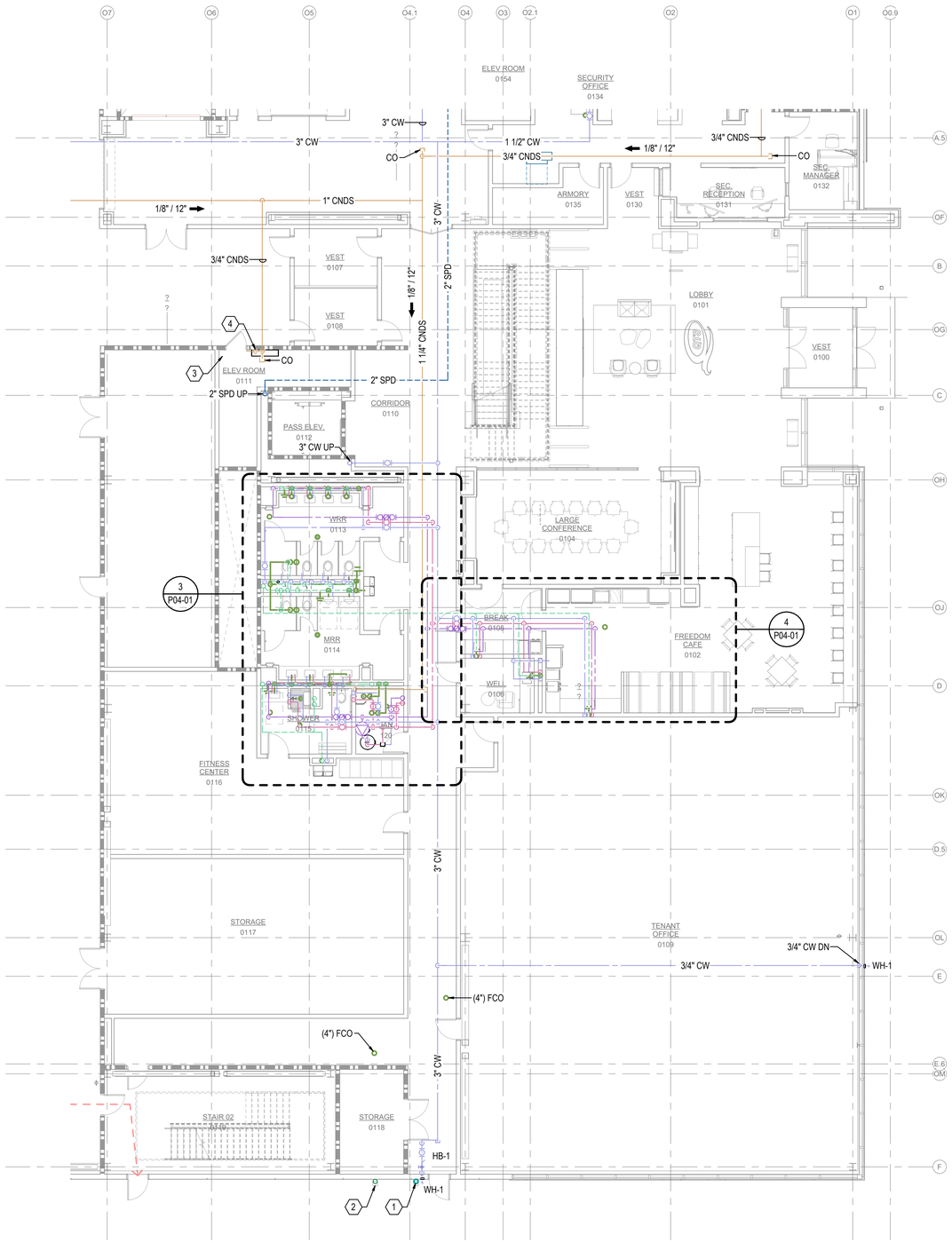
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET P02-01A

2/4/2025 4:11:31 PM P02-01A PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT A



1 LEVEL 1 PLUMBING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.

City of Aurora Building Division
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Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
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AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

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REVISIONS		

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

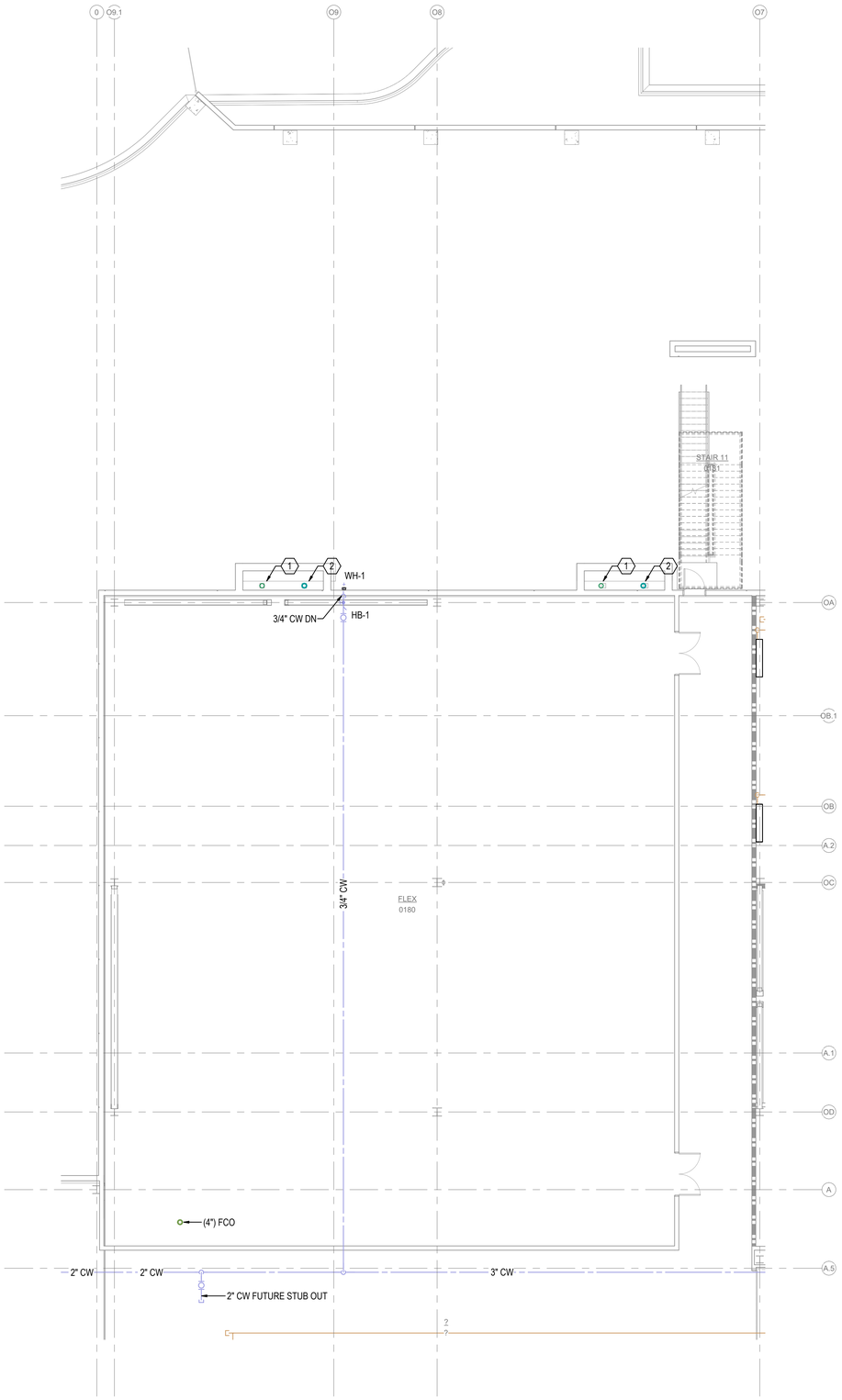
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET P02-01B

2/4/2025 4:11:42 PM P02-01B PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT B



1 LEVEL 1 PLUMBING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

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SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

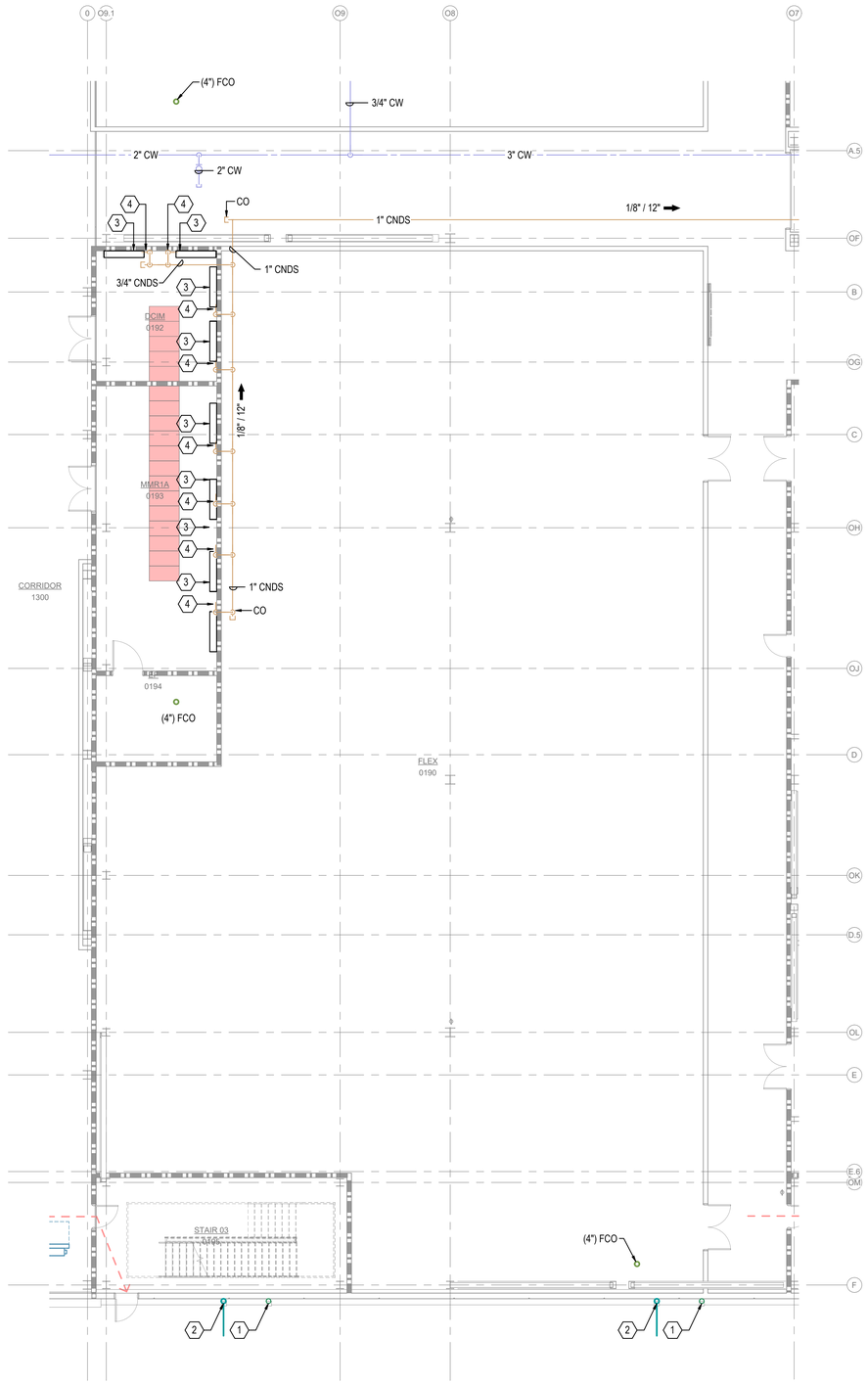
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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

P02-01C

2/4/2025 4:11:48 PM P02-01C PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT C



1 LEVEL 1 PLUMBING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

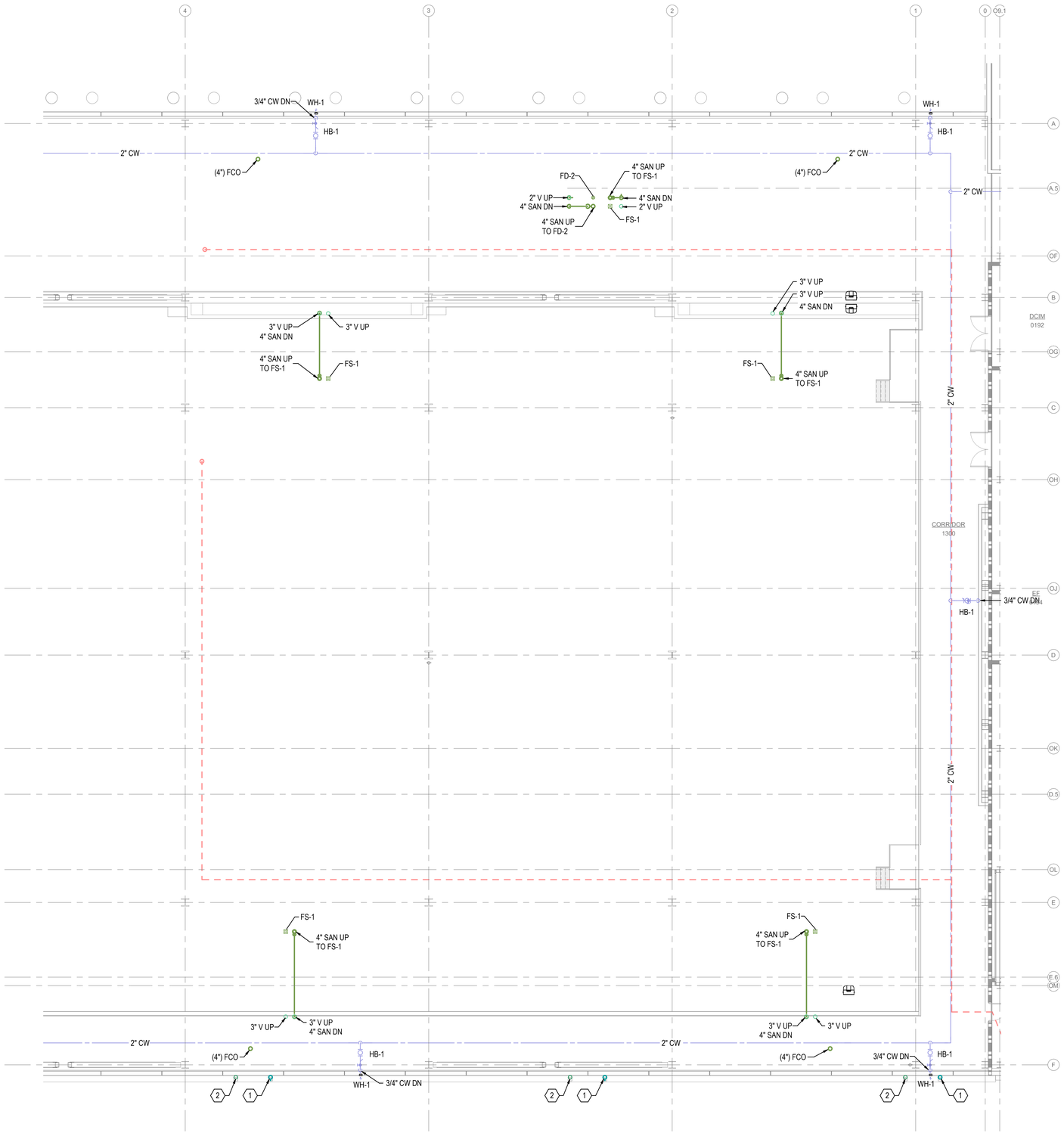
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET P02-01D

2/4/2025 4:11:56 PM P02-01D PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT D



1 LEVEL 1 PLUMBING PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

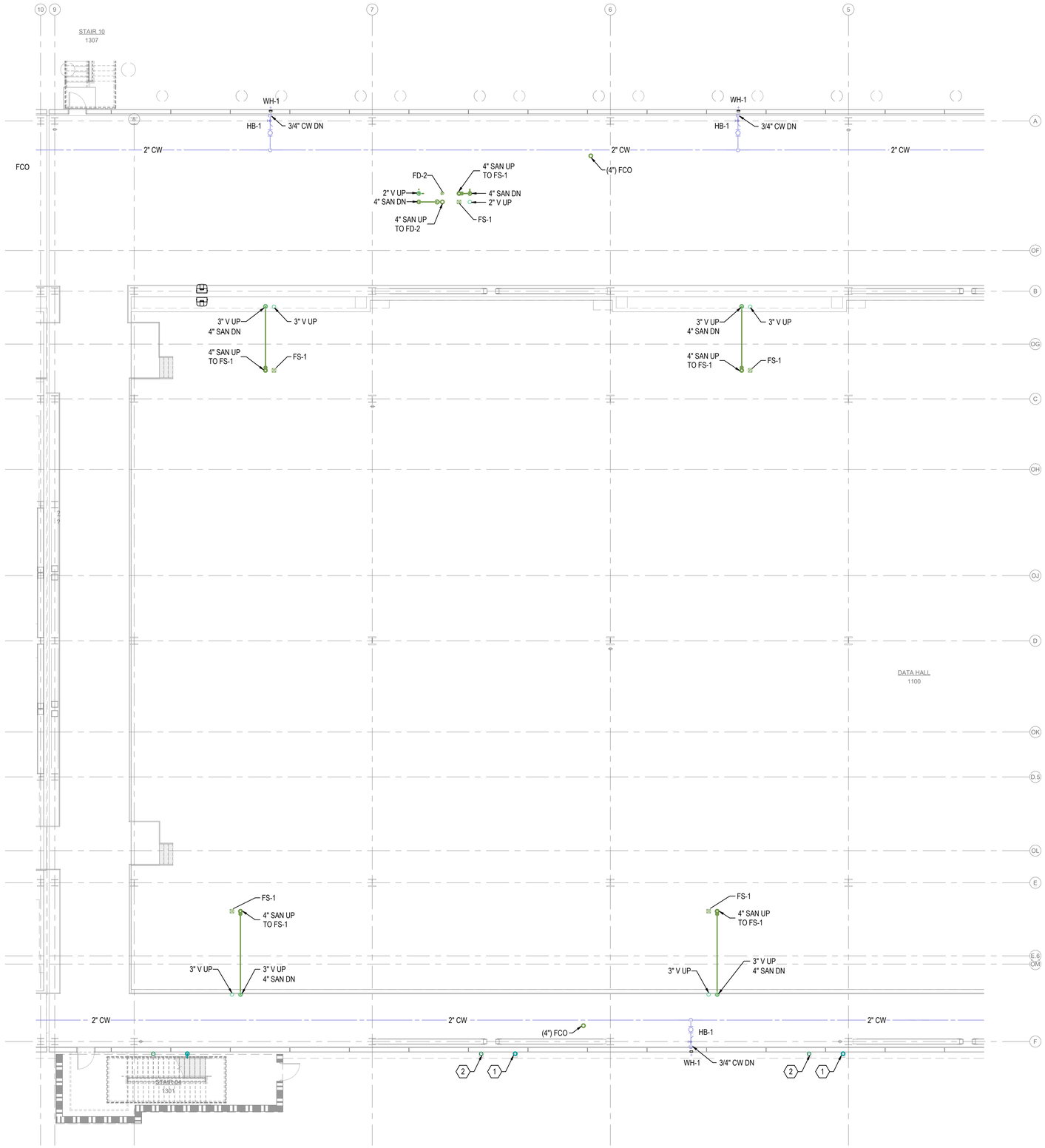
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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

P02-01F

2/4/2025 4:12:02 PM P02-01F PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT F



1 LEVEL 1 PLUMBING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

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City of Aurora Building Division
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Date: Mar 18, 2025
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75202
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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

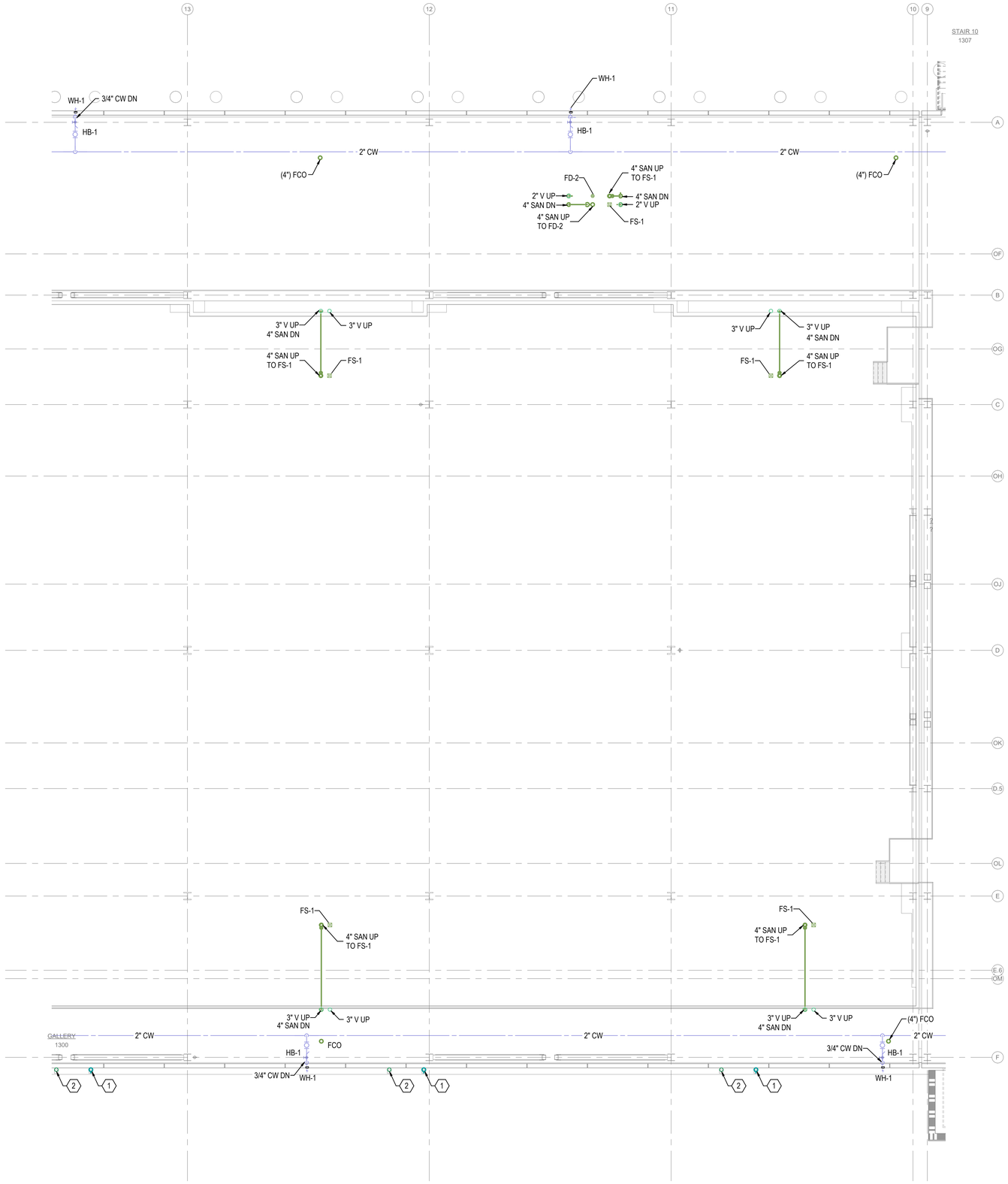
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET P02-01H

2/4/2025 4:12:09 PM P02-01H PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT H



1 LEVEL 1 PLUMBING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

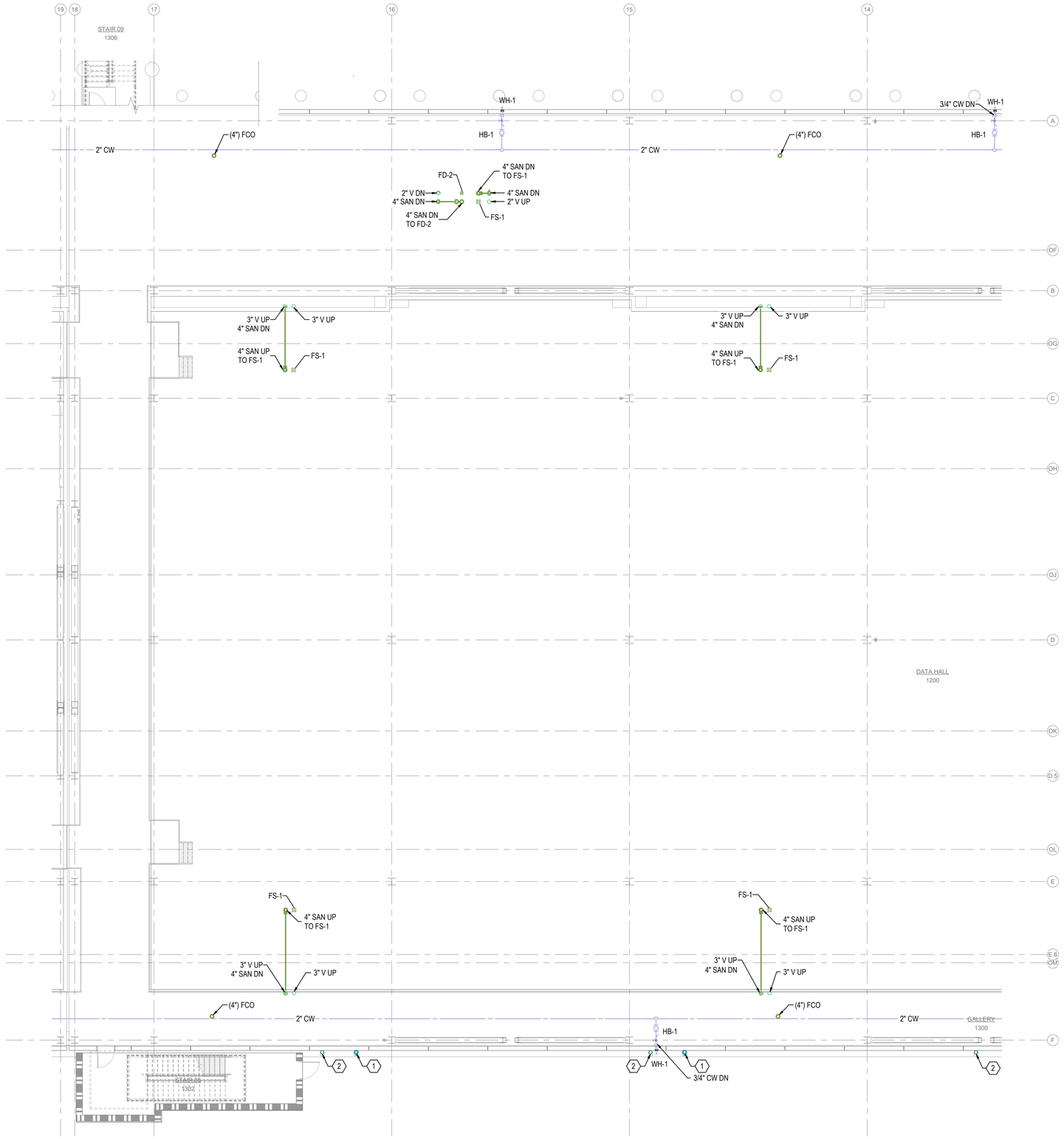
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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT K

JOB 24464.0000
DATE 01.31.25
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P02-01K

2/4/2025 4:12:15 PM P02-01K PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT K



1 LEVEL 1 PLUMBING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

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REVISIONS

COLORADO LICENSED PROFESSIONAL ENGINEER WILL B. HODGES 47948 01.31.25

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

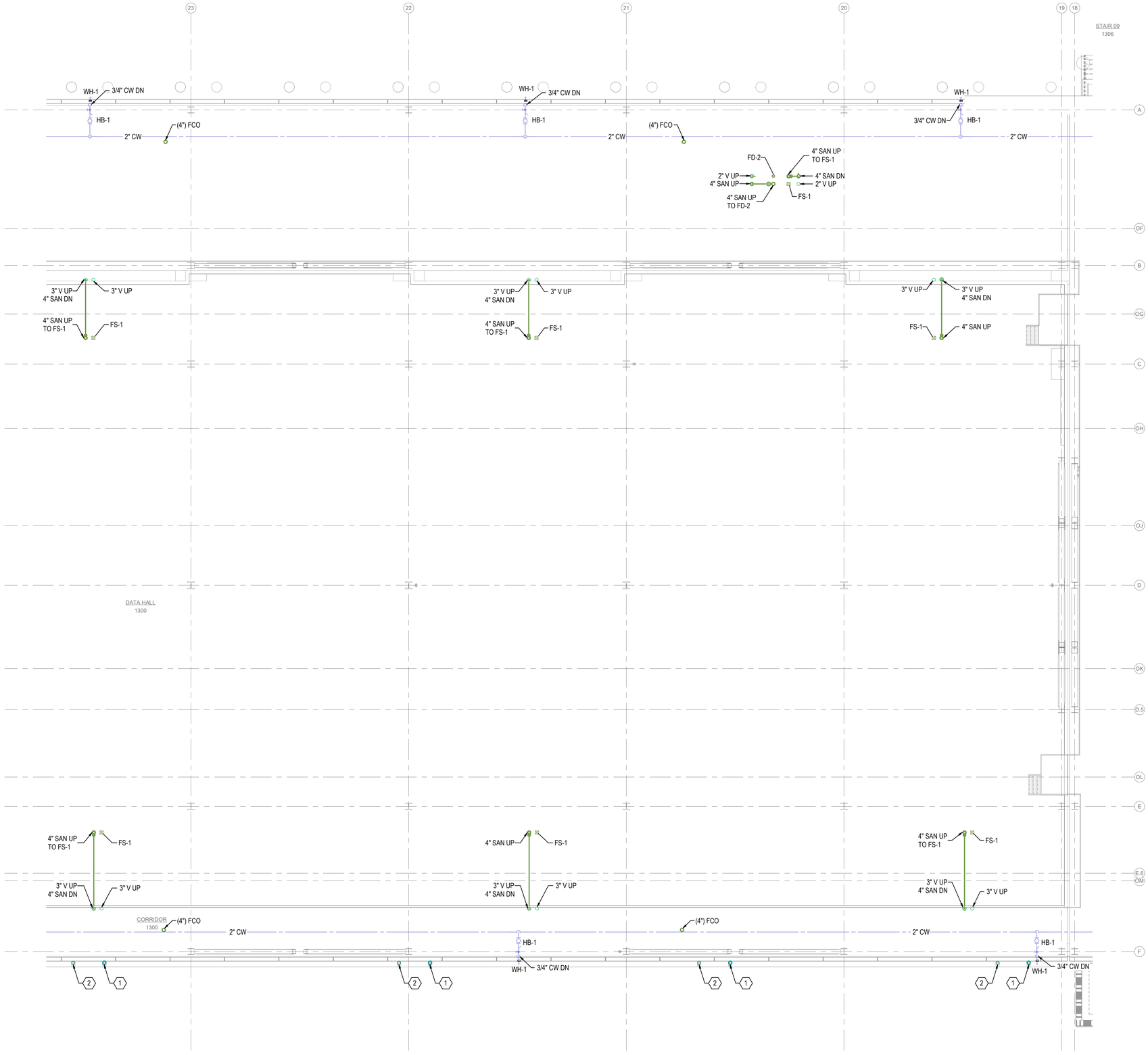
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET P02-01M

2/4/2025 4:12:21 PM P02-01M PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT M



1 LEVEL 1 PLUMBING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

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SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 8" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 8" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 8" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 8" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION, INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000
AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

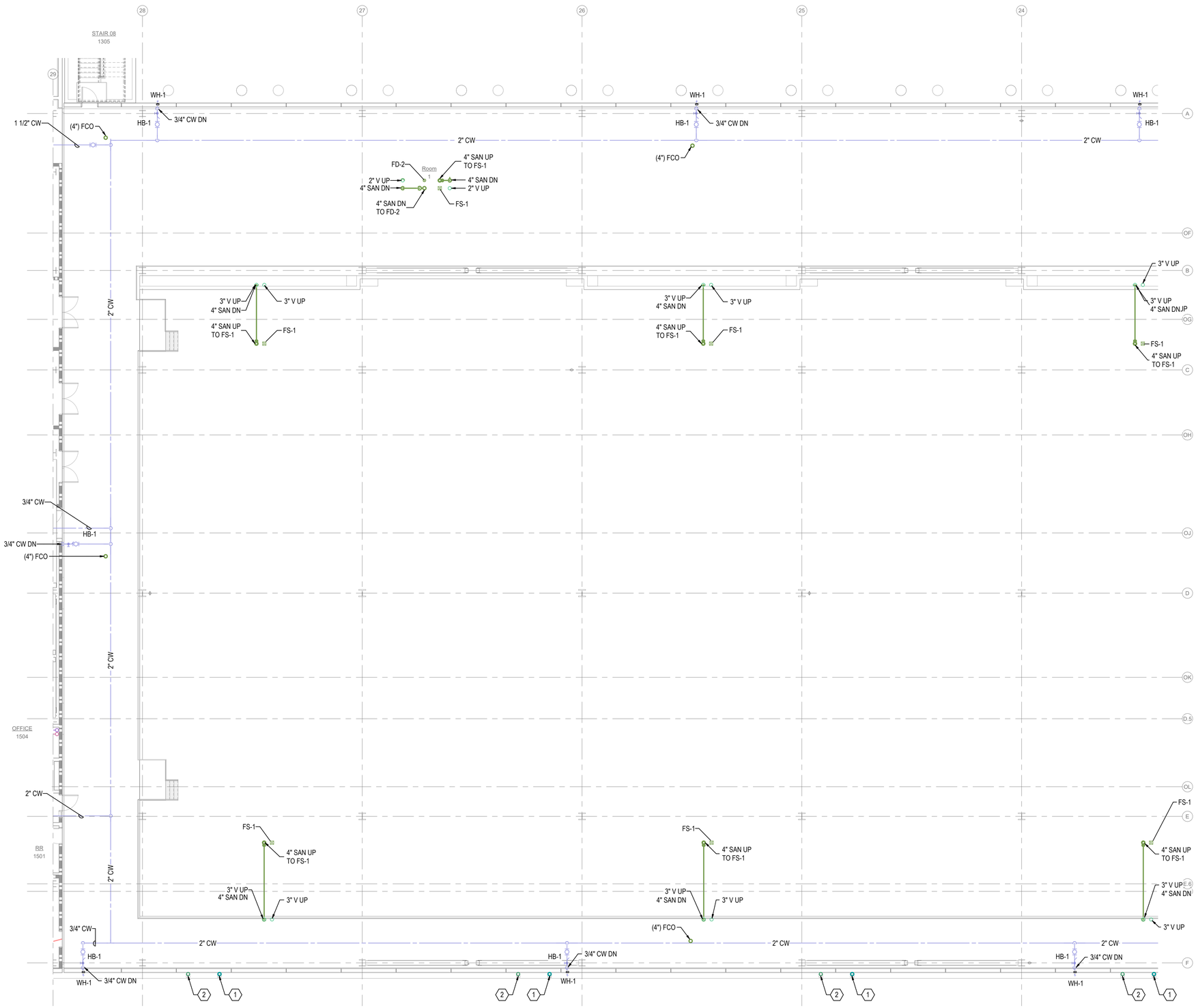
KEYPLAN

S	Q	N	L	J	G	E	C	A
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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET P02-01P

2/4/2025 4:12:27 PM P02-01P PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT P



1 LEVEL 1 PLUMBING PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.

City of Aurora Building Division
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75202
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

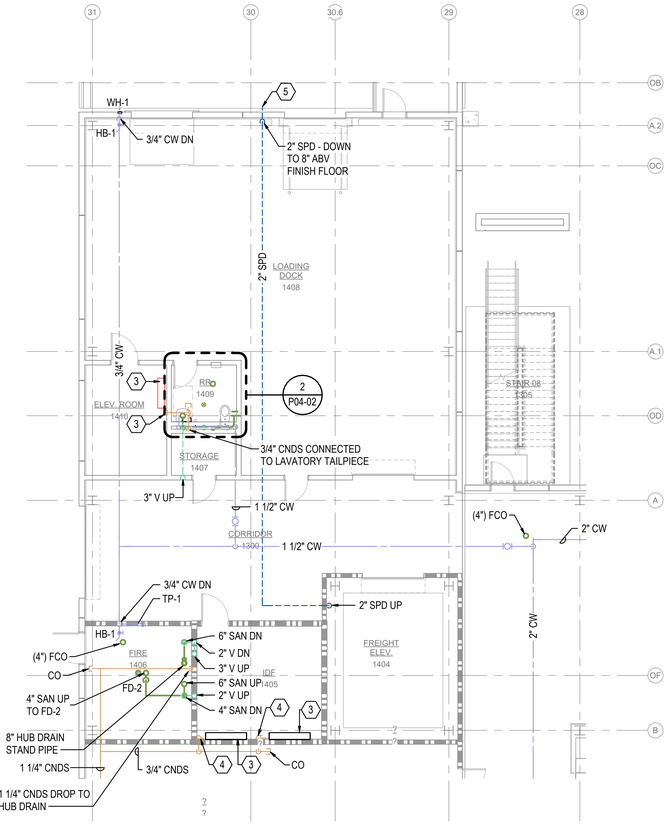
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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT R

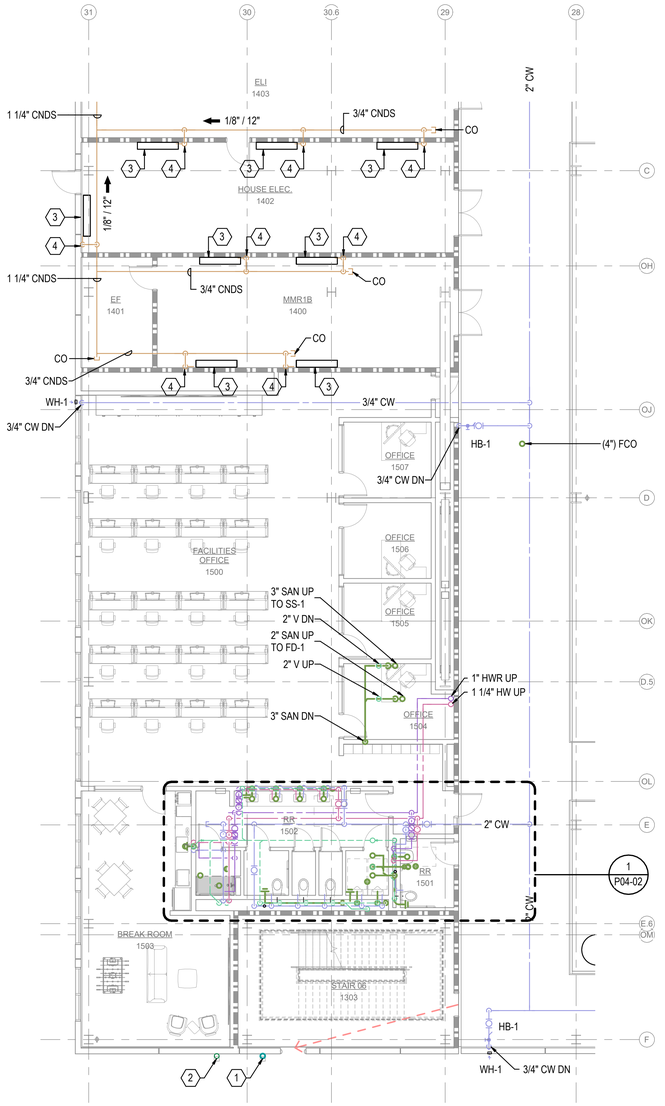
JOB 24464.0000
DATE 01.31.25
SHEET

P02-01R

2/4/2025 4:12:34 PM P02-01R PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT R



1 LEVEL 1 PLUMBING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 PLUMBING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.
5. 2" SUMP DISCHARGE - EXTEND THRU WALL AND TERMINATE ABOVE FINISH GRADE.

City of Aurora Building Division
Reviewed for Code Compliance
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Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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REVISIONS		

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER
01.31.25

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

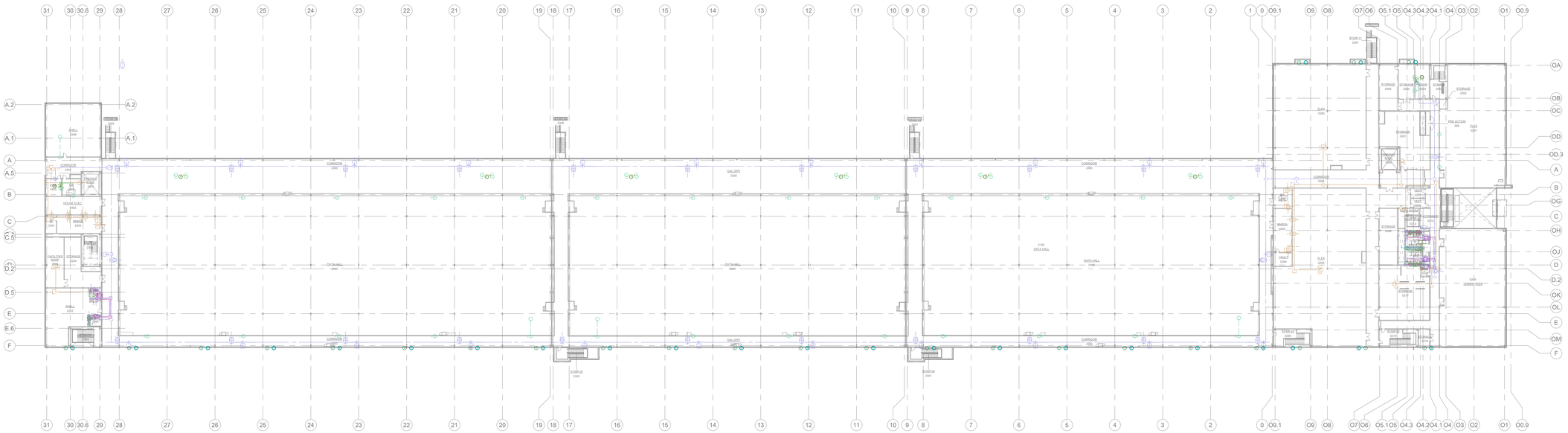
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET P02-01ST

2/4/2025 4:12:49 PM P02-01ST PLUMBING FLOOR PLAN - LEVEL ONE - SEGMENT S-T



1 LEVEL 2 PLUMBING PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
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Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/4/2025 3:40:25 PM P02-02 PLUMBING FLOOR PLAN - LEVEL TWO - OVERALL

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COLORADO LICENSED
WILLIAM B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

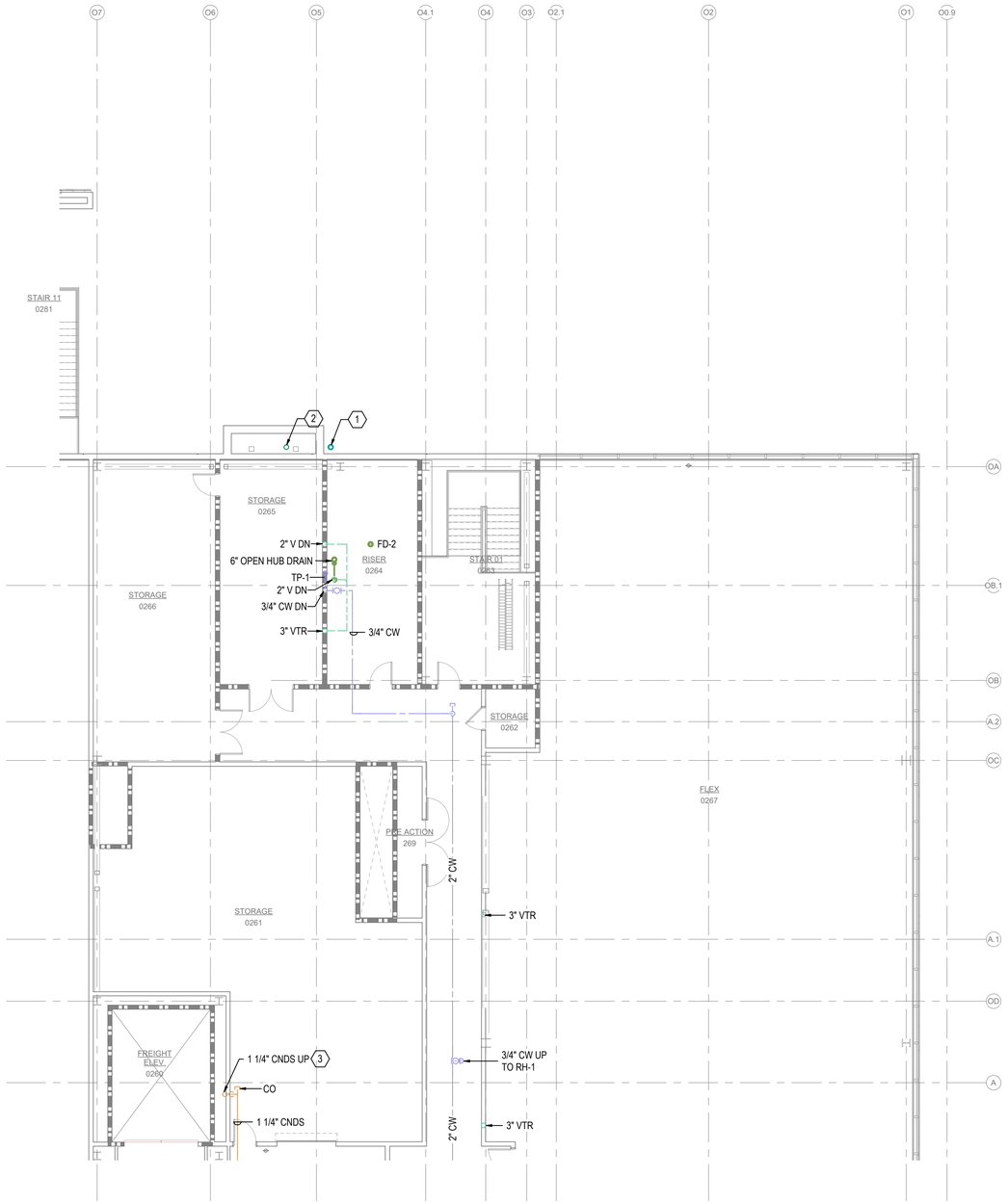
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL TWO - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET P02-02



1 LEVEL 2 PLUMBING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. FROM ROOF TOP UNIT - UNDER DIVISION 23 WORK. CONNECT 1 1/4" FROM THE RTU UNITS TO THE CONDENSATE GRAVITY DRAIN LINE.

City of Aurora Building Division
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

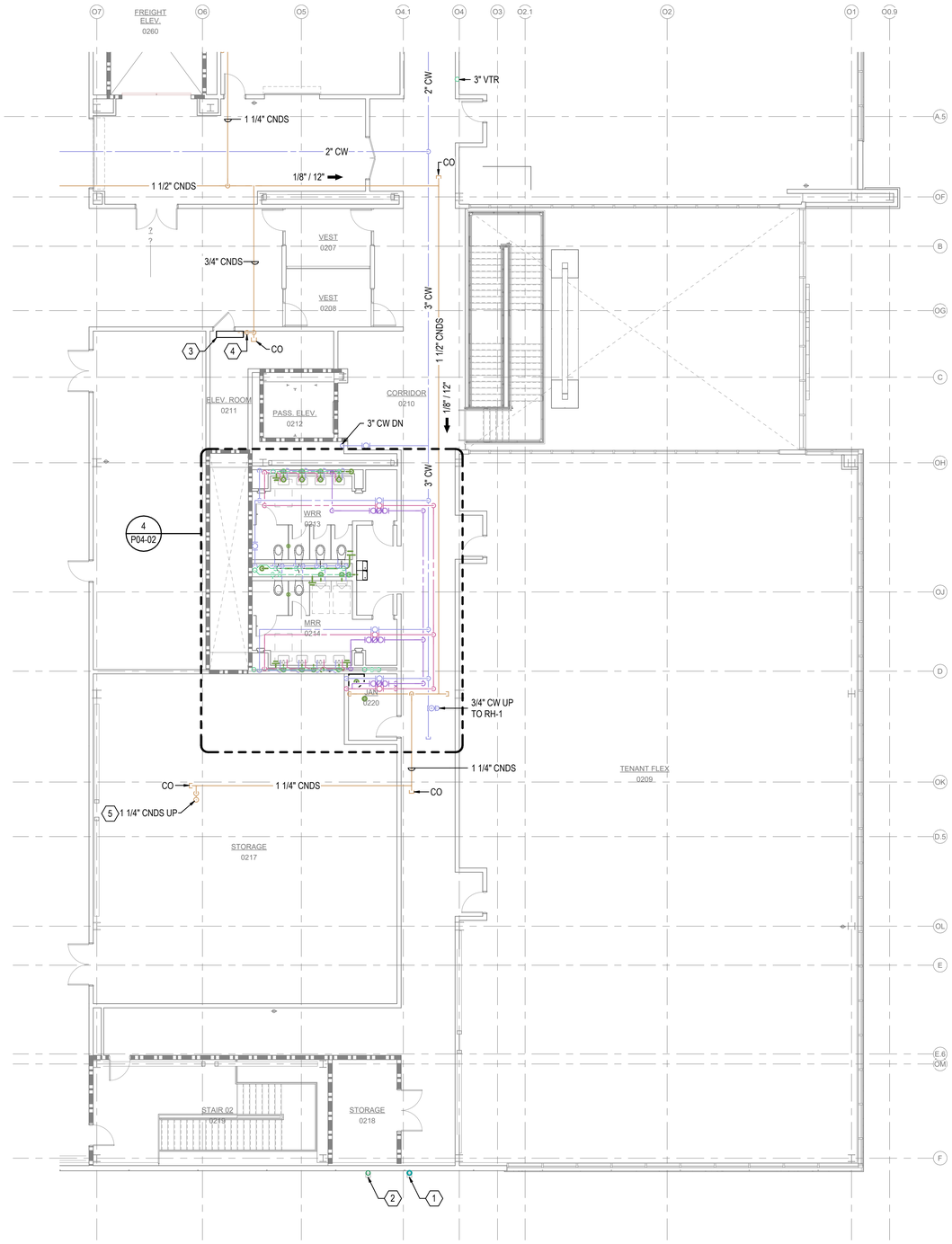
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

P02-02A

2/4/2025 4:13:09 PM P02-02A PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT A



1 LEVEL 2 PLUMBING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.
5. FROM ROOF TOP UNIT - UNDER DIVISION 23 WORK. CONNECT TO 1 1/4" FROM THE RTU UNITS TO THE CONDENSATE GRAVITY DRAIN LINE.

City of Aurora Building Division
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

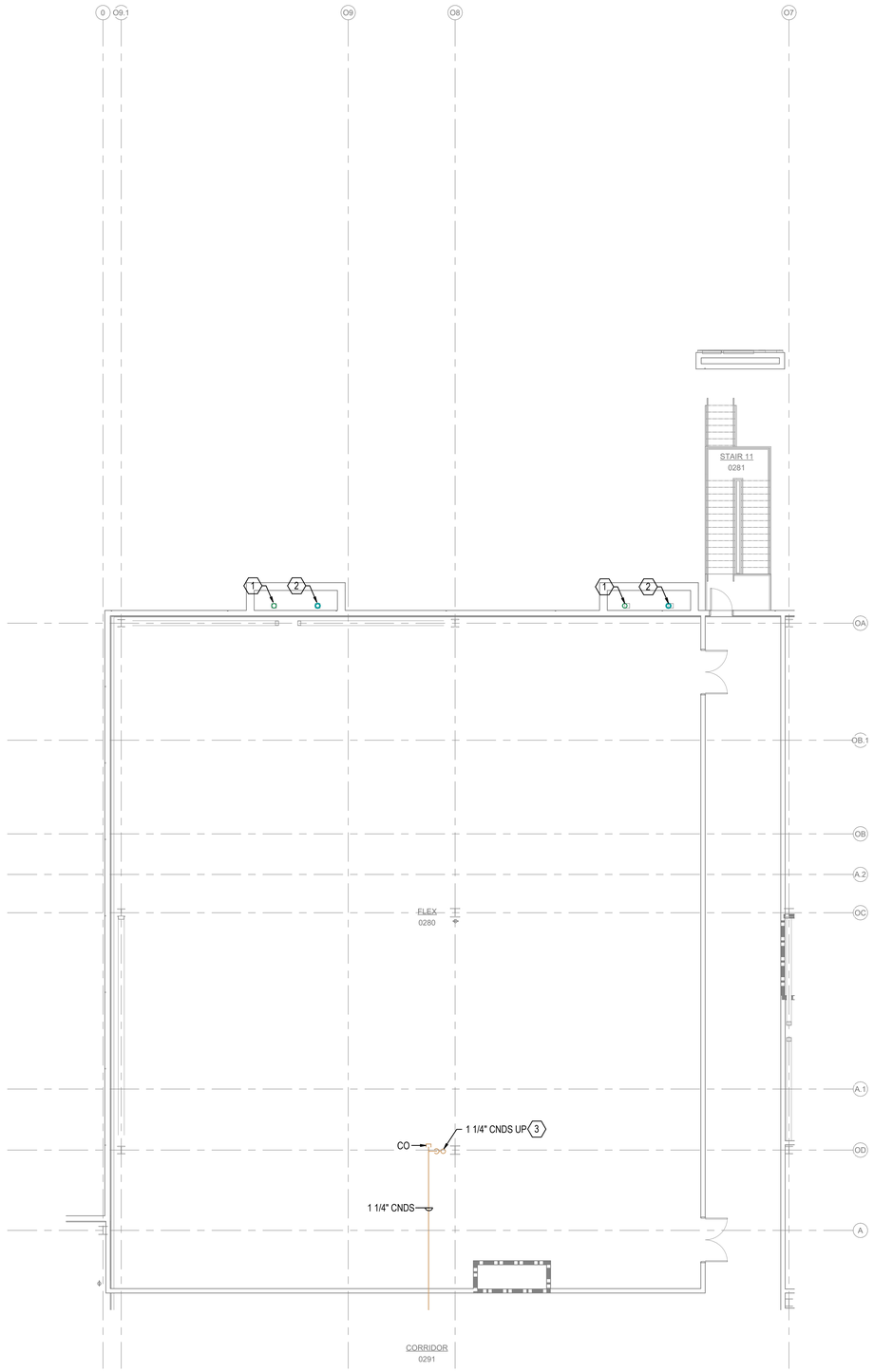
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET P02-02B

2/4/2025 4:13:17 PM P02-02B PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT B



1 LEVEL 2 PLUMBING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
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2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION, INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. FROM ROOF TOP UNIT - UNDER DIVISION 23 WORK. CONNECT TO 1 1/4" FROM THE RTU UNITS TO THE CONDENSATE GRAVITY DRAIN LINE.

City of Aurora Building Division
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SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
REGISTERED PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

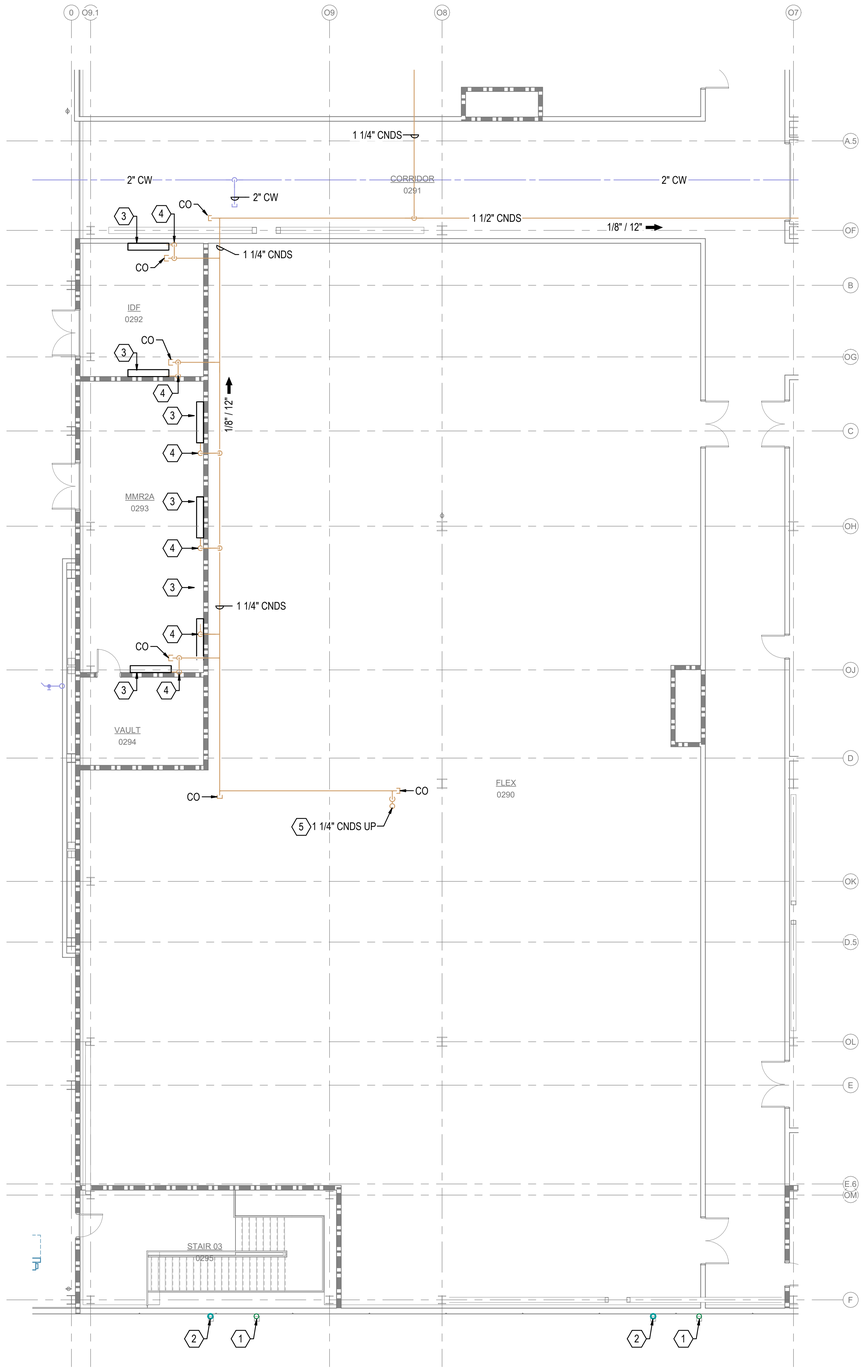
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET
P02-02C

2/4/2025 4:13:22 PM P02-02C PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT C



1 LEVEL 2 PLUMBING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
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3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.
5. FROM ROOF TOP UNIT - UNDER DIVISION 23 WORK. CONNECT TO 1 1/4" FROM THE RTU UNITS TO THE CONDENSATE GRAVITY DRAIN LINE.

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ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

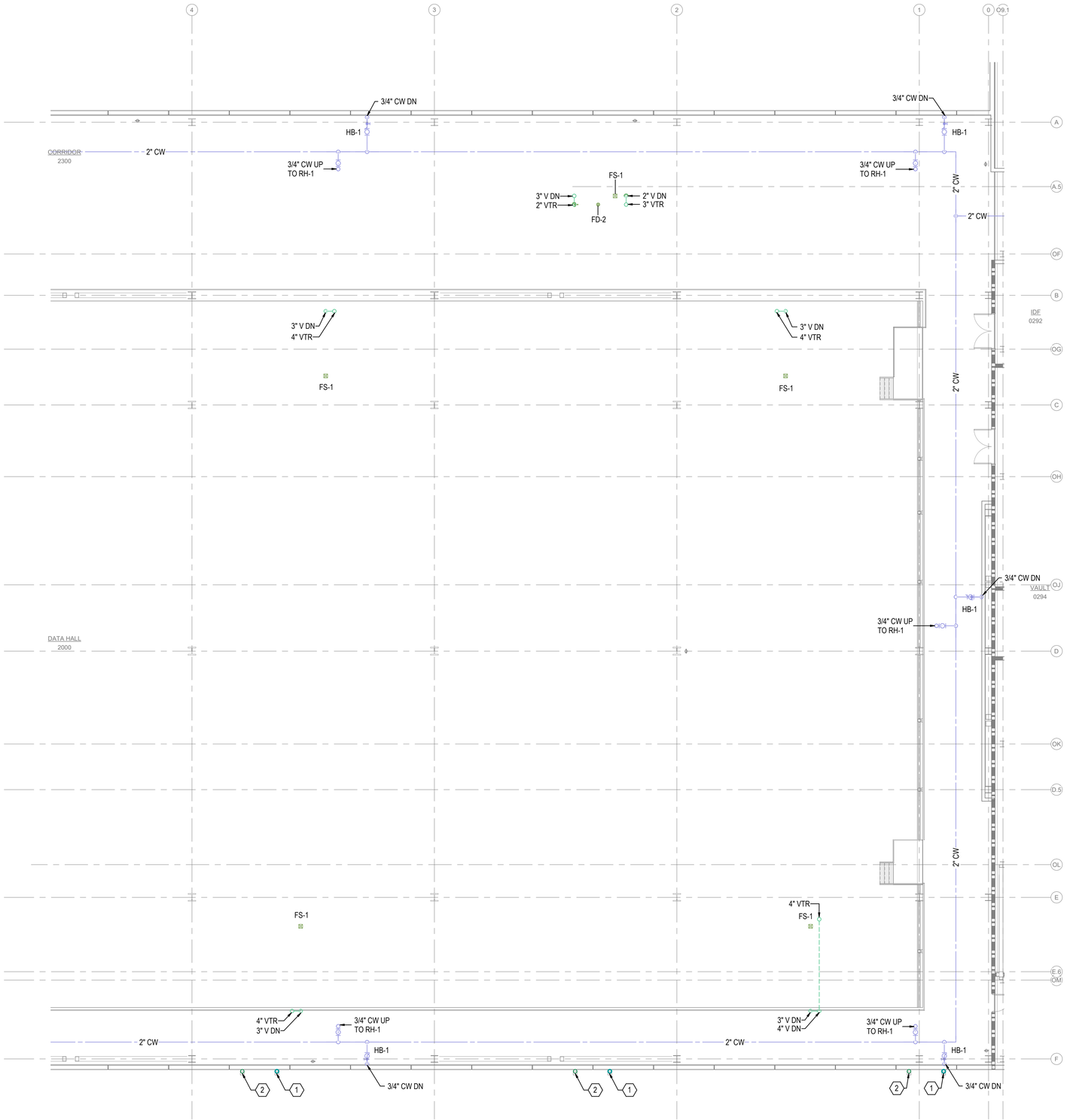
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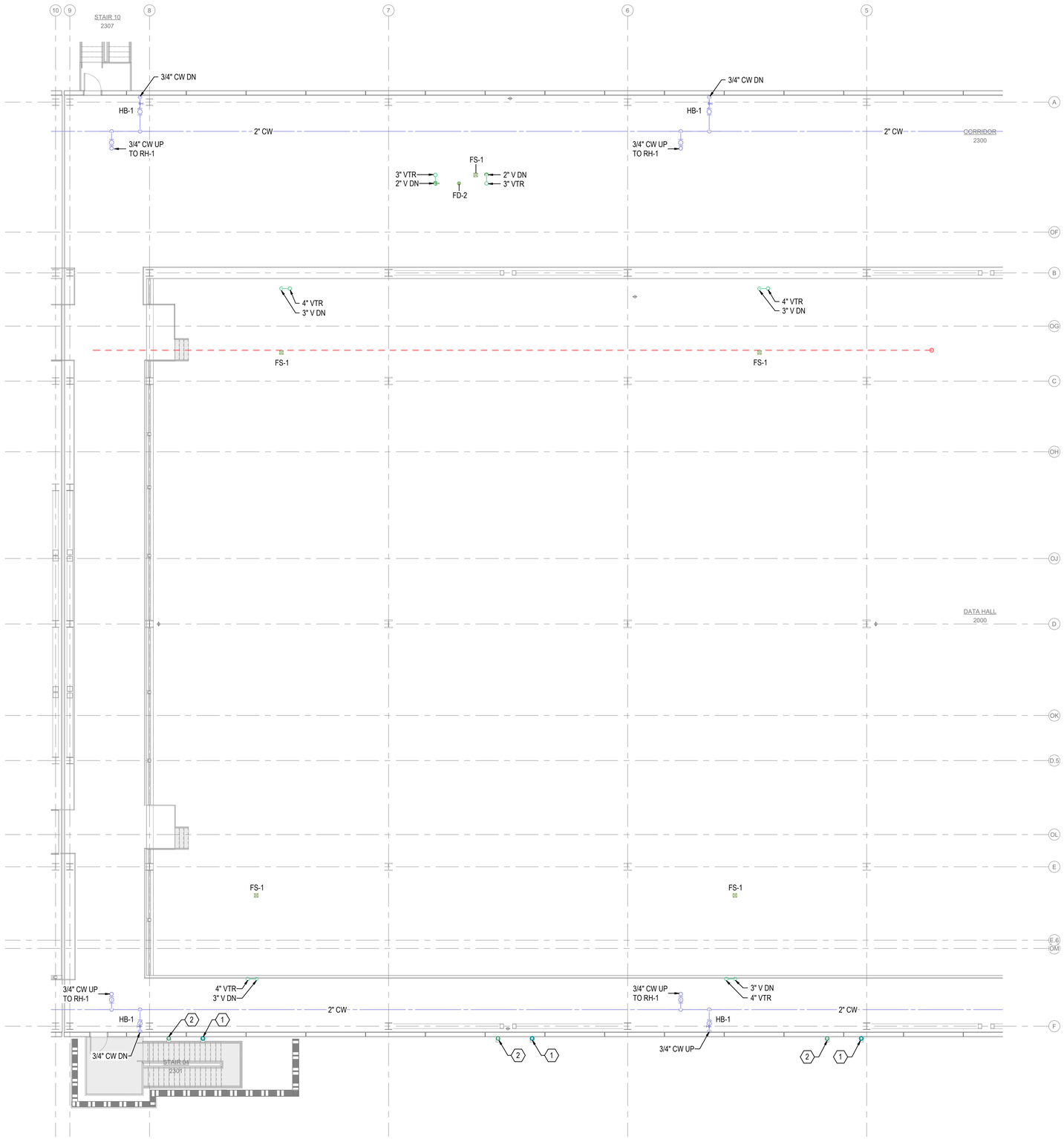
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET P02-02D

2/4/2025 4:13:26 PM P02-02D PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT D


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TO RH-1
HB-1
3/4" CW DN
2" CW
2" CW
2" CW



1 LEVEL 2 PLUMBING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 8" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 8" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

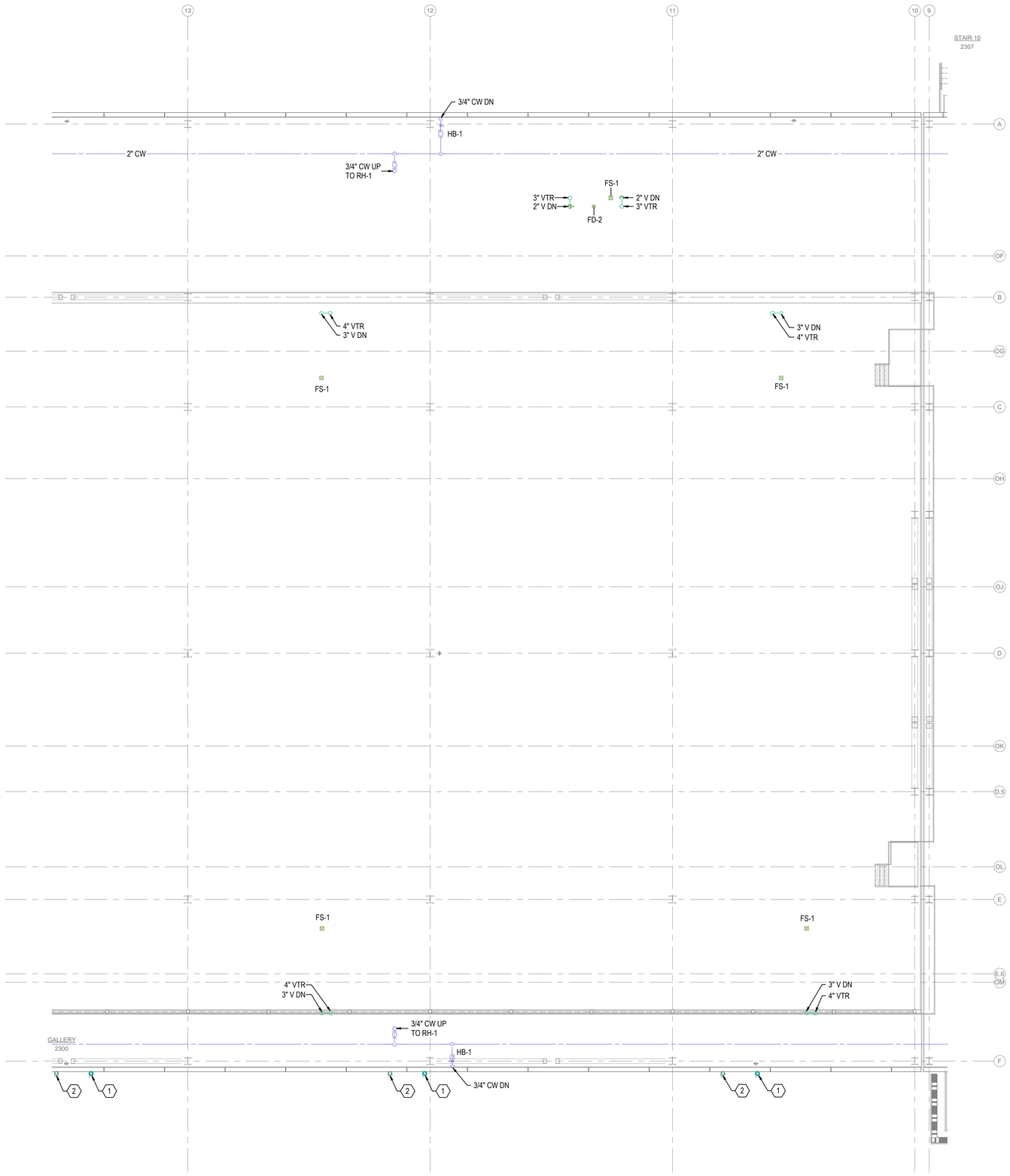
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

P02-02H

2/4/2025 4:13:35 PM P02-02H PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT H



1 LEVEL 2 PLUMBING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

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MILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

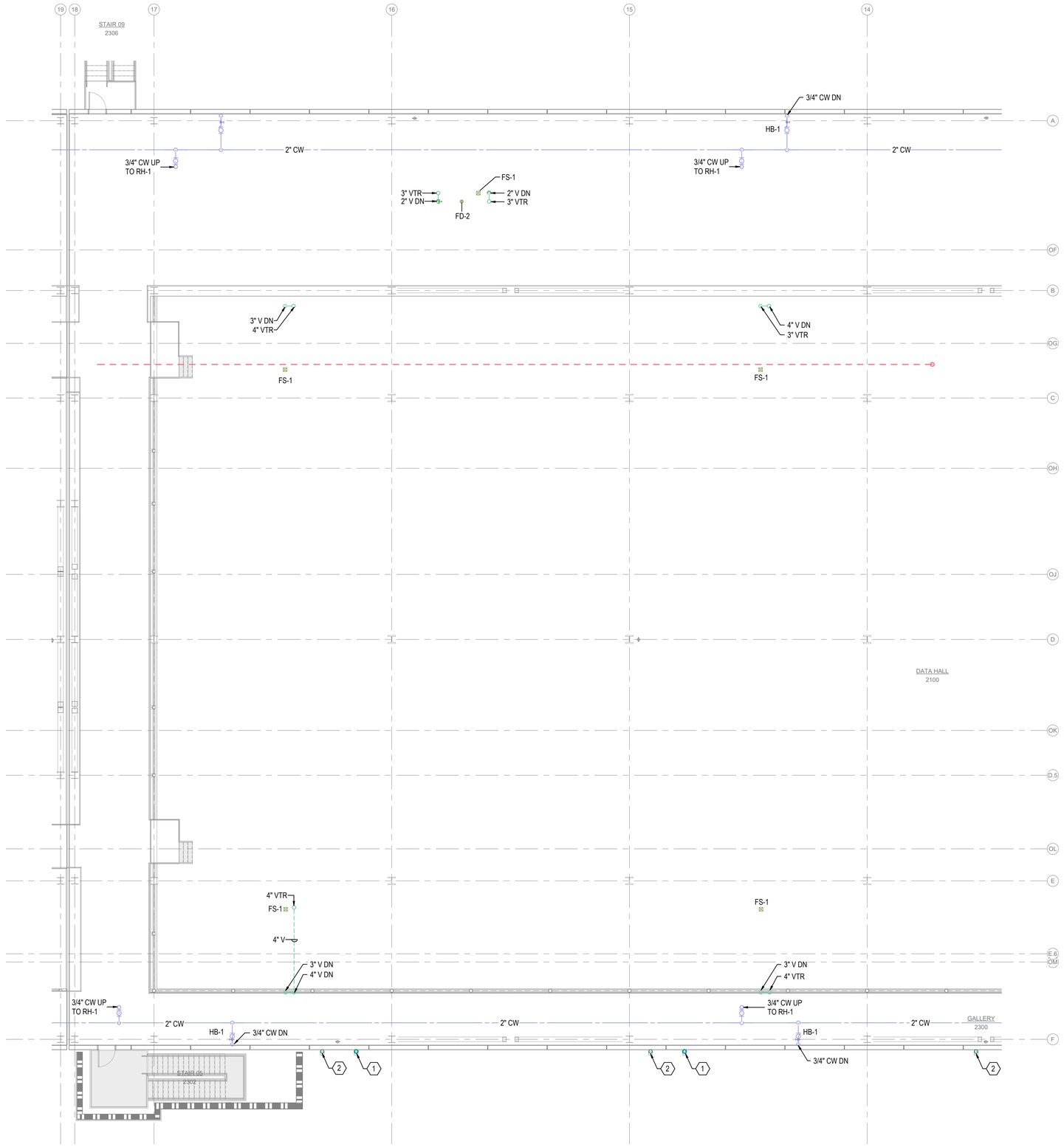
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

P02-02K

2/4/2025 4:13:39 PM P02-02K PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT K



1 LEVEL 2 PLUMBING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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City of Aurora Building Division
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2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000
AG/E
SYSKA HENNESSY GROUP
TLD DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO LICENSED
WILLIAM B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

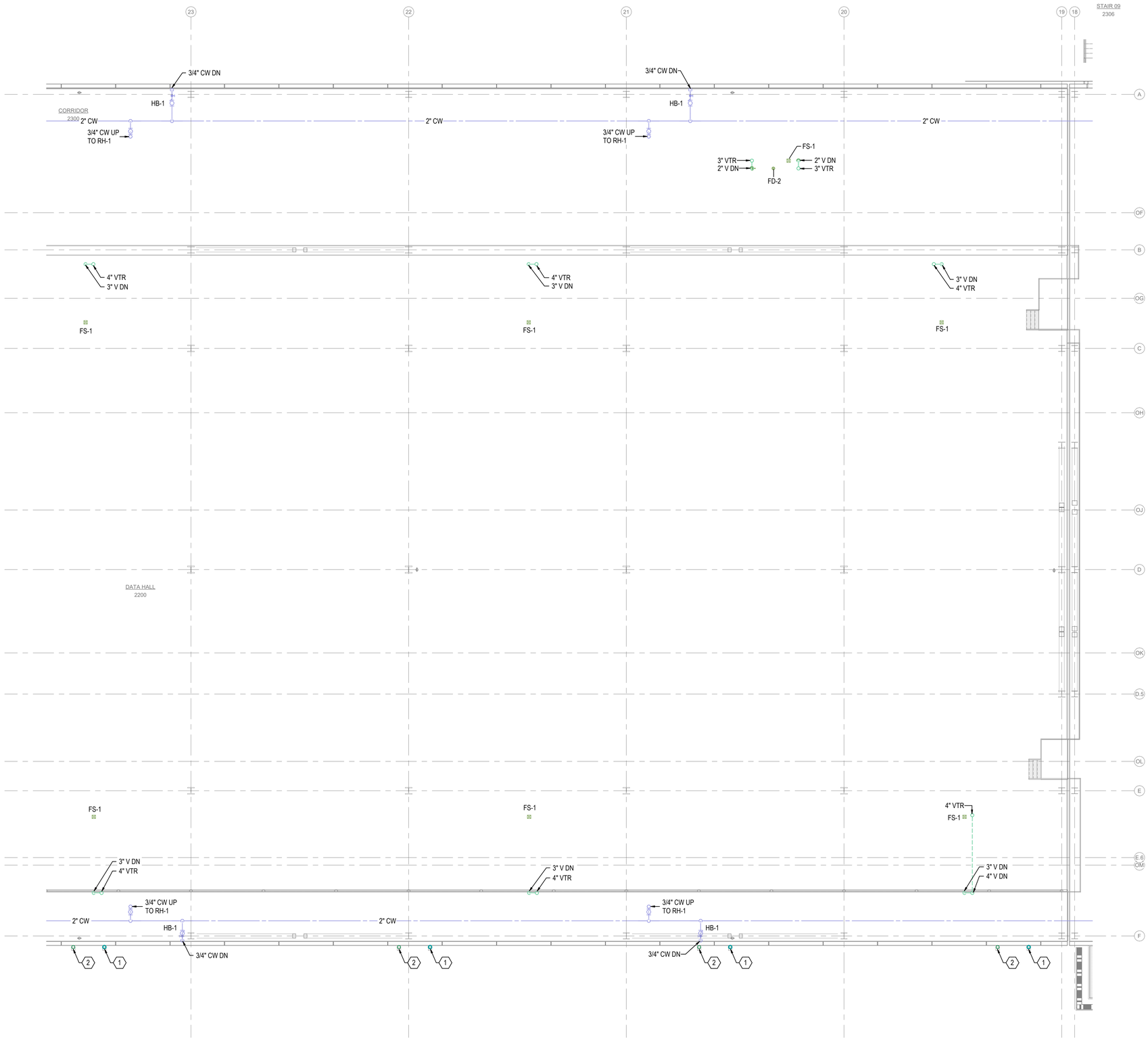
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET P02-02M

2/4/2025 4:13:44 PM P02-02M PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT M



1 LEVEL 2 PLUMBING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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CORGAN
401 N. Houston Street Dallas, TX 75202
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AG/E
SYSKA HENNESSY GROUP
DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

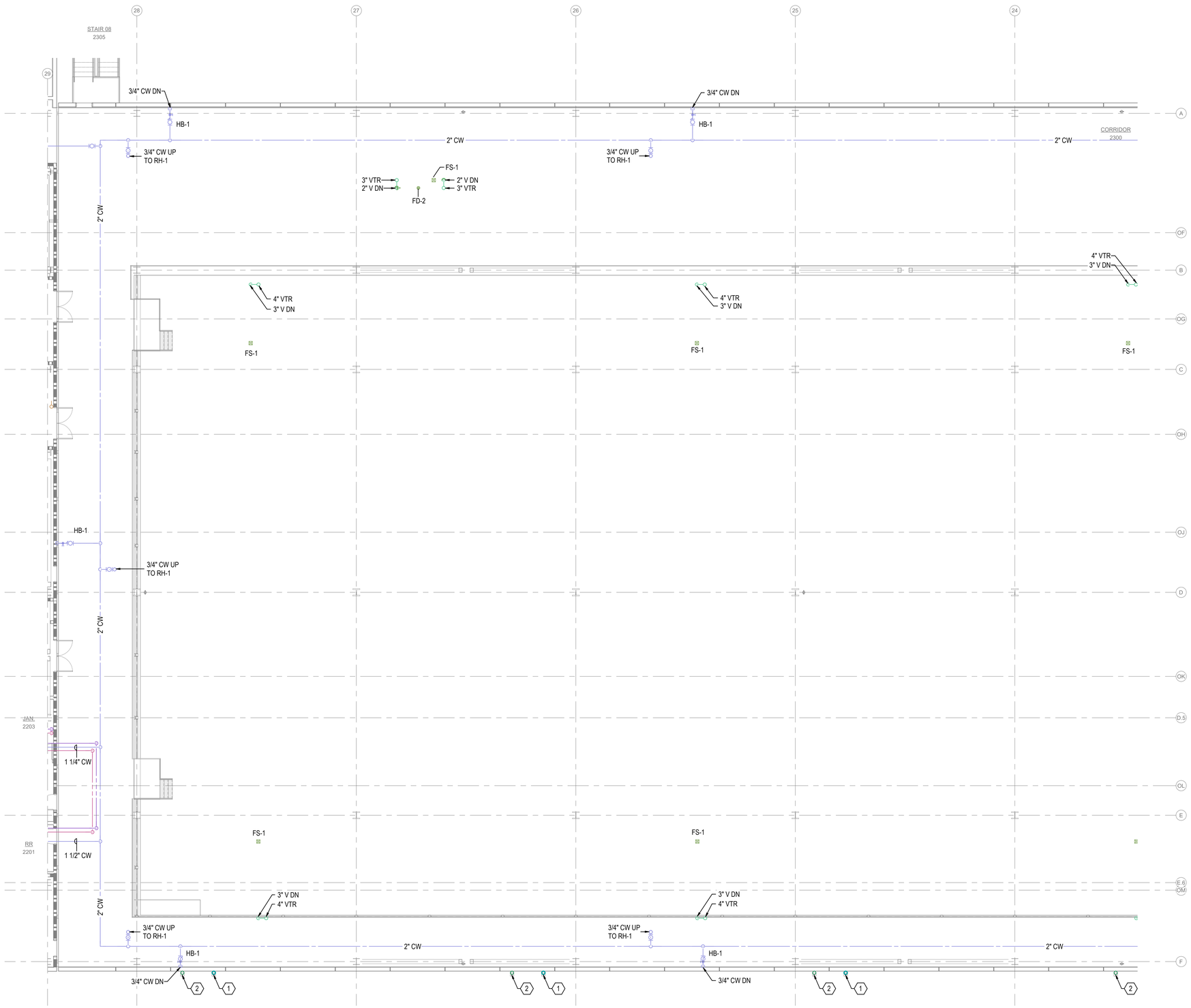
KEYPLAN

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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET P02-02P

2/4/2025 4:13:49 PM P02-02P PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT P



2 LEVEL 2 PLUMBING PLAN - R

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

SHEET NOTES

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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

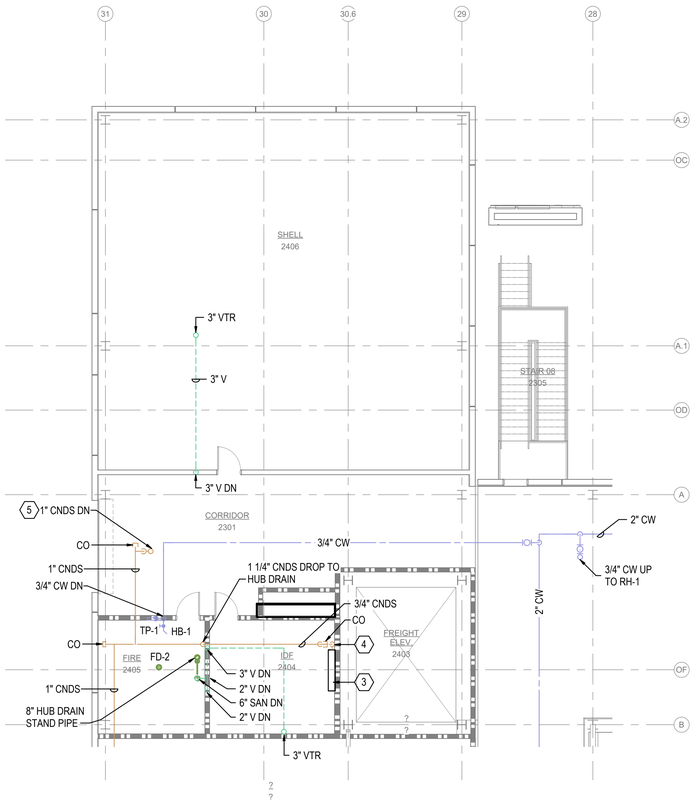
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT R

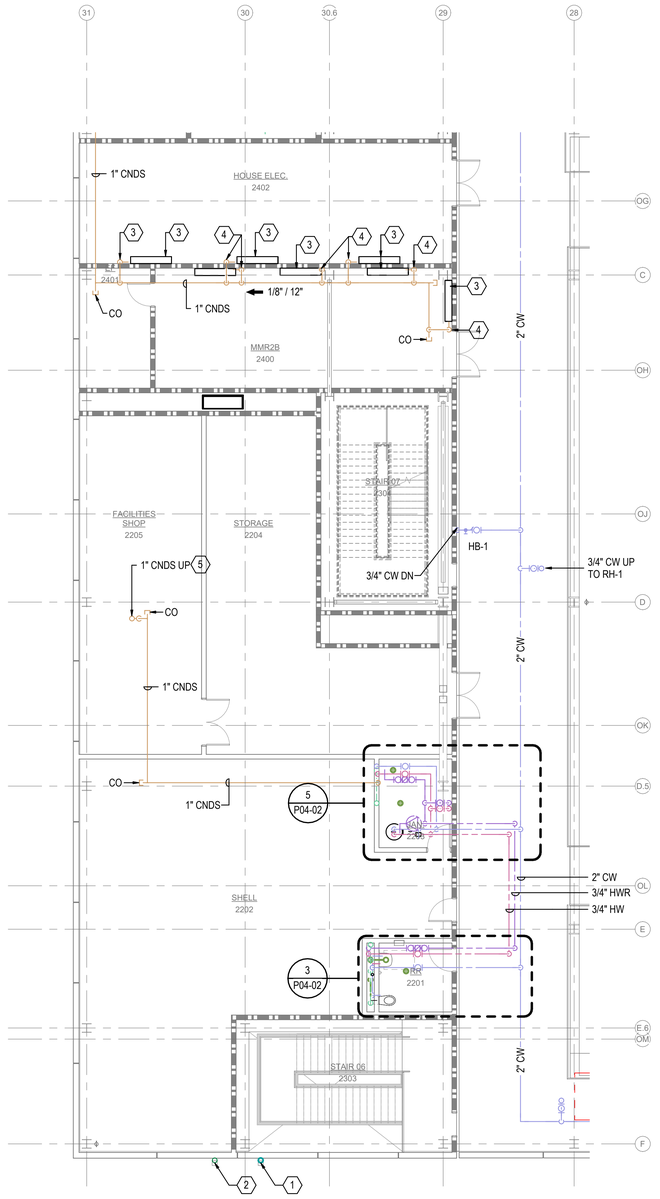
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DATE 01.31.25
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P02-02R

2/4/2025 4:13:54 PM P02-02R PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT R



1 LEVEL 2 PLUMBING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 2 PLUMBING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
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3. SPLIT SYSTEM AIR CONDITIONING UNIT - UNDER DIVISION 23 WORK. CONNECT TO 3/4" CONDENSATE PUMP DISCHARGE AND RISE TO TOP CONNECT TO CONDENSATE GRAVITY DRAIN LINE.
4. PUMP DISCHARGE LINE SHALL TOP CONNECT TO GRAVITY DRAIN LINE - TYPICAL.
5. FROM ROOF TOP UNIT - UNDER DIVISION 23 WORK. CONNECT 1" FROM THE RTU UNITS TO THE CONDENSATE GRAVITY DRAIN LINE.

City of Aurora Building Division
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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

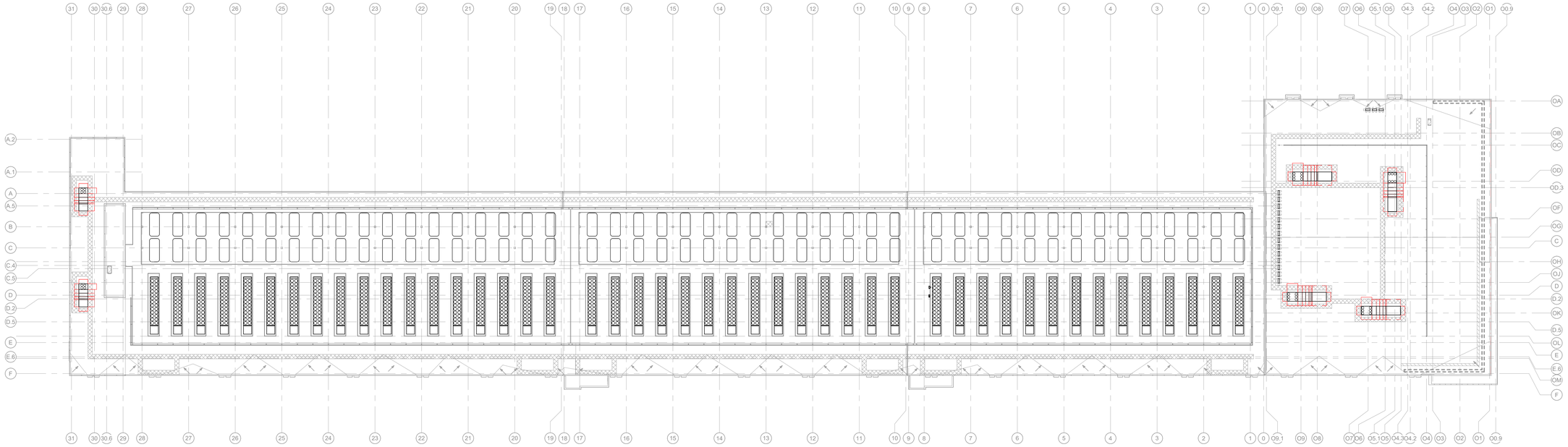
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PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET

P02-02ST

2/4/2025 4:14:04 PM P02-02ST PLUMBING FLOOR PLAN - LEVEL TWO - SEGMENT S-T



1 T.O. DATA CENTER PARAPET PLUMBING PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

City of Aurora Building Division
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2/4/2025 3:40:34 PM P02-03 PLUMBING ROOF PLAN - OVERALL

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SYSKA HENNESSY GROUP

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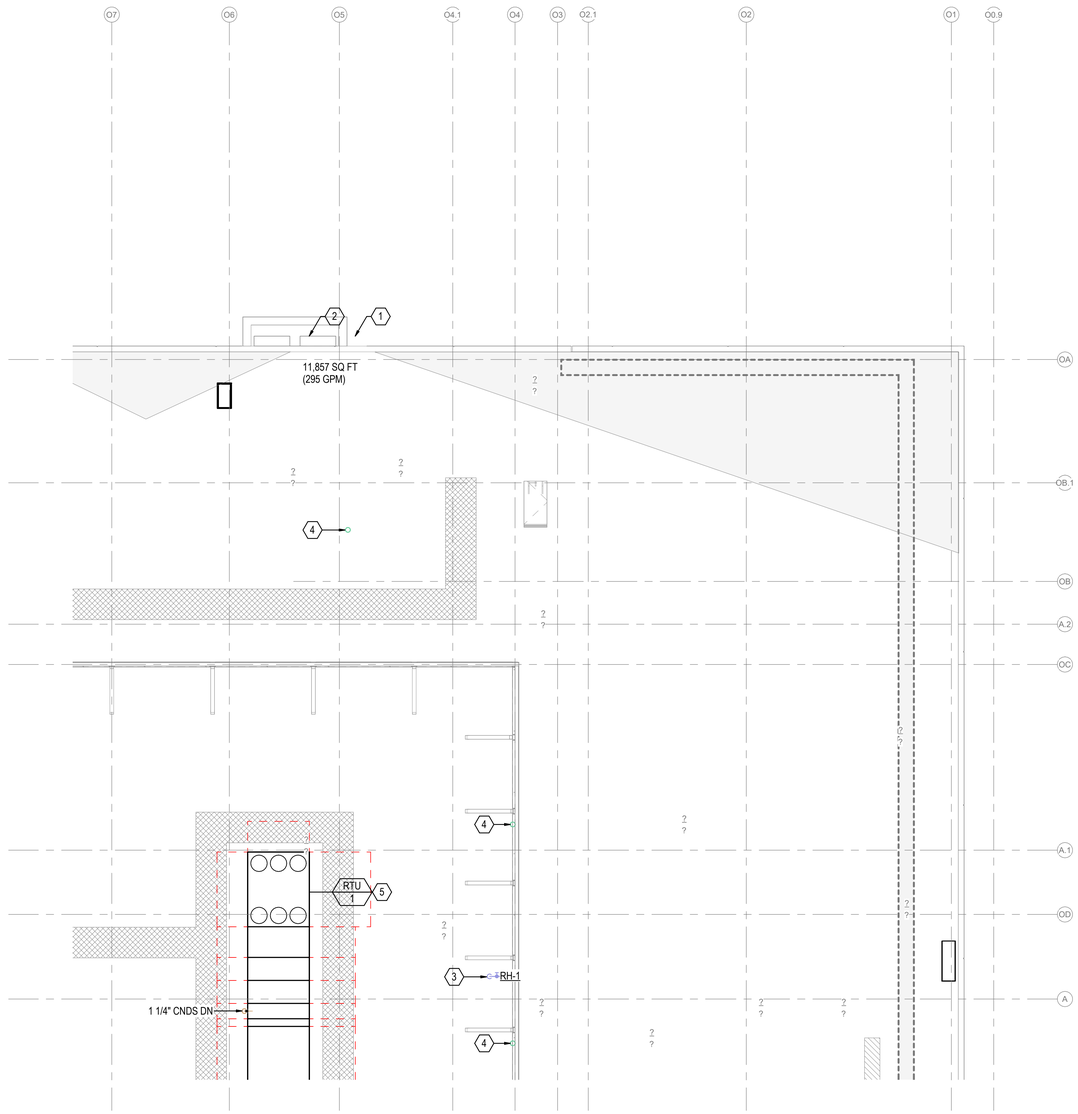
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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PLUMBING ROOF PLAN - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET
P02-03



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5-0- OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. 3/4" NON-FREEZE ROOF HYDRANT MOUNTED 24" MINIMUM ABOVE THE FINISH ROOF.
4. 3" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
5. ROOF TOP UNIT - UNDER DIVISION 23.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
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COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

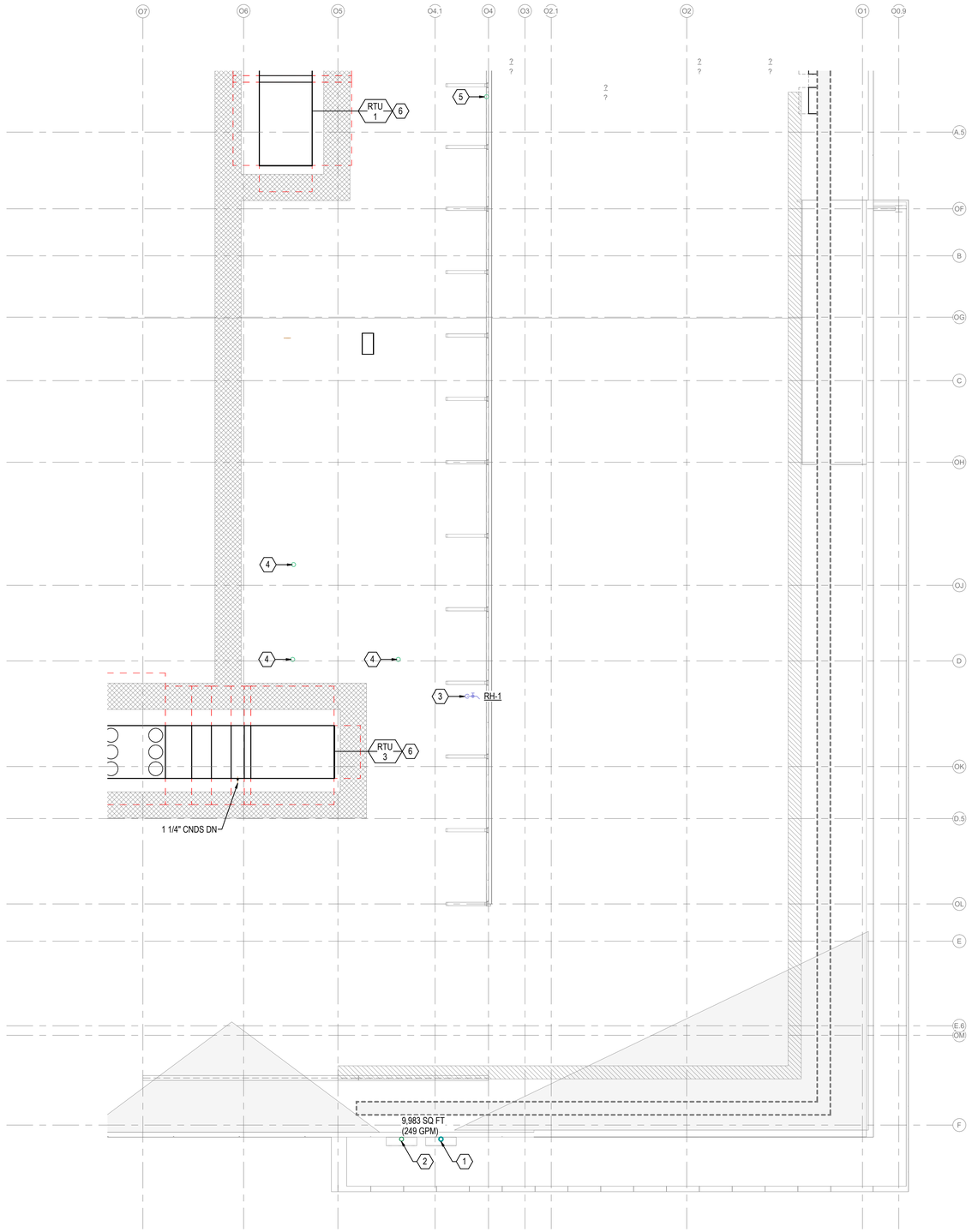
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PLUMBING ROOF PLAN - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03A

2/4/2025 4:14:25 PM P02-03A PLUMBING ROOF PLAN - SEGMENT A



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 6" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. 3/4" NON-FREEZE ROOF HYDRANT MOUNTED 24" MINIMUM ABOVE THE FINISH ROOF.
4. 4" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
5. 3" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
6. ROOF TOP UNIT - UNDER DIVISION 23.

City of Aurora Building Division
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

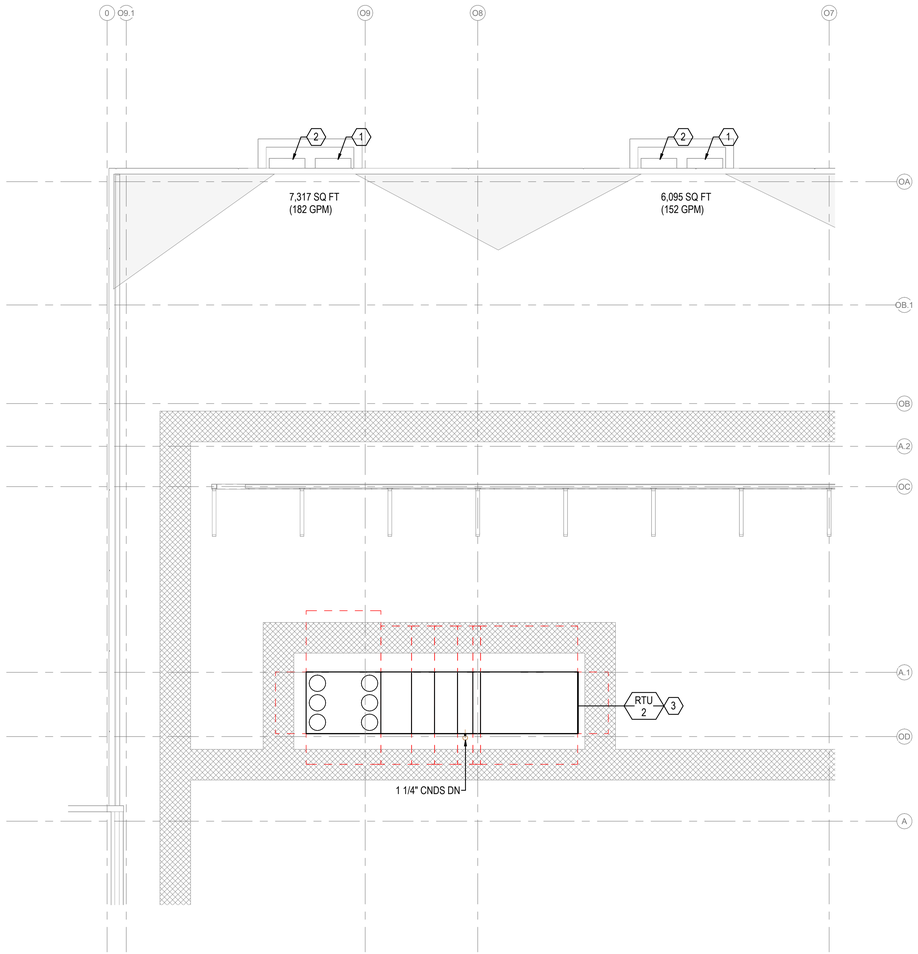
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PLUMBING ROOF PLAN - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03B

2/4/2025 4:14:29 PM P02-03B PLUMBING ROOF PLAN - SEGMENT B



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 8" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 8" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
2. PLUMBING CONTRACTOR SHALL CONNECT 8" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 8" SECONDARY STORM PIPING TO APPROXIMATELY 18" ABOVE GRADE AND EXTEND HORIZONTALLY AND TERMINATE AT EXTERIOR OF BUILDING WITH SECONDARY STORM CONDUCTOR TERMINATION FITTING AS SPECIFIED. TERMINATION SHALL BE COORDINATED TO BE INSTALLED BELOW THE PANEL JOINT. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR MORE INFORMATION, INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION SCUPPER BOX AND TRANSITION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
3. ROOF TOP UNIT - UNDER DIVISION 23.

City of Aurora Building Division
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2021 INTERNATIONAL CODES & 2023 NEC

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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

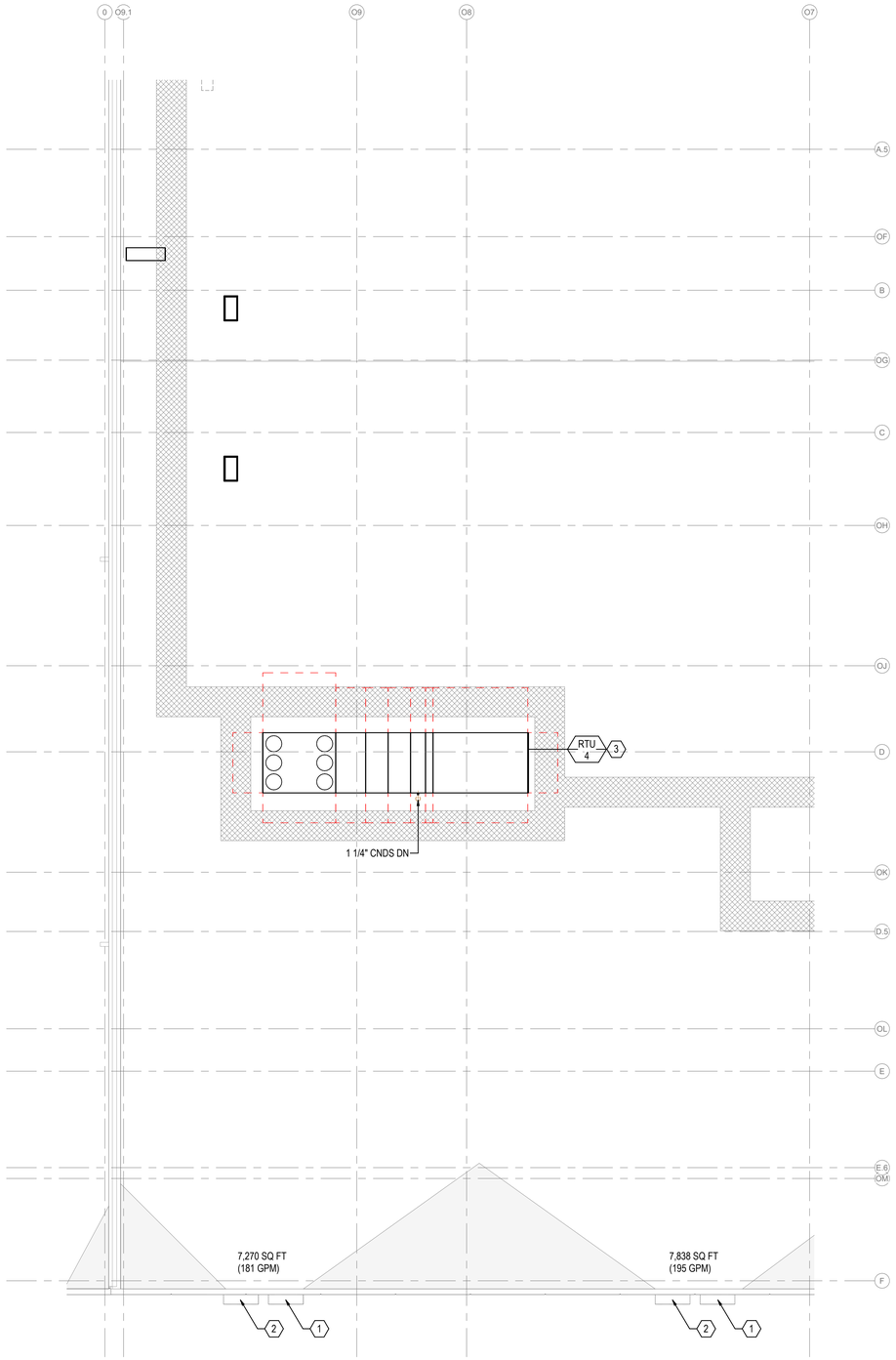
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PLUMBING ROOF PLAN - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03C

2/4/2025 4:14:34 PM P02-03C PLUMBING ROOF PLAN - SEGMENT C



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 4" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. ROOF TOP UNIT - UNDER DIVISION 23.

City of Aurora Building Division
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

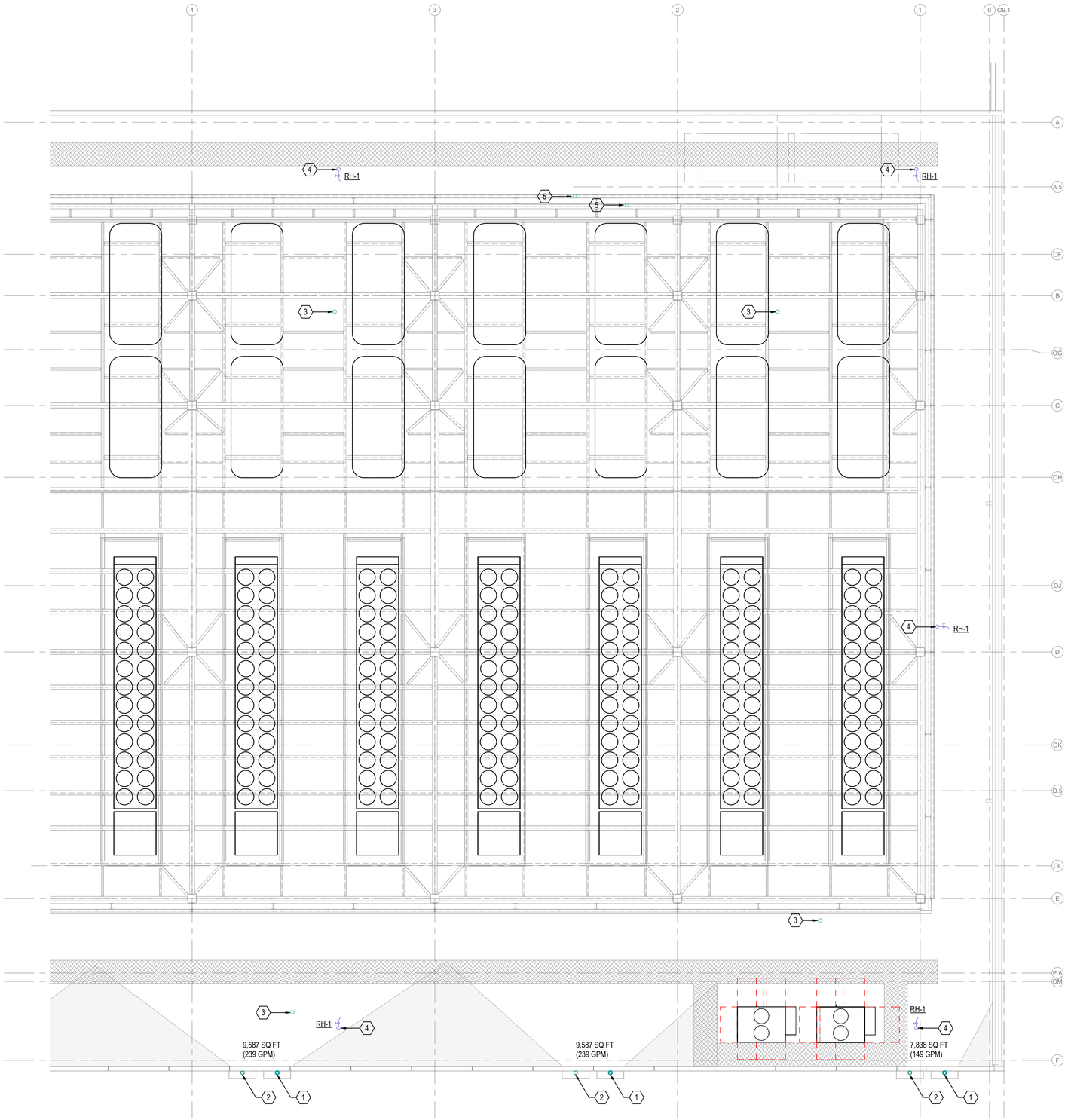
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PLUMBING ROOF PLAN - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03D

2/4/2025 4:14:37 PM P02-03D PLUMBING ROOF PLAN - SEGMENT D



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 4" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5-'0- OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. 4" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
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NEIL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
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PLUMBING ROOF PLAN - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET P02-03F

2/4/2025 4:14:44 PM P02-03F PLUMBING ROOF PLAN - SEGMENT F



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 4" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

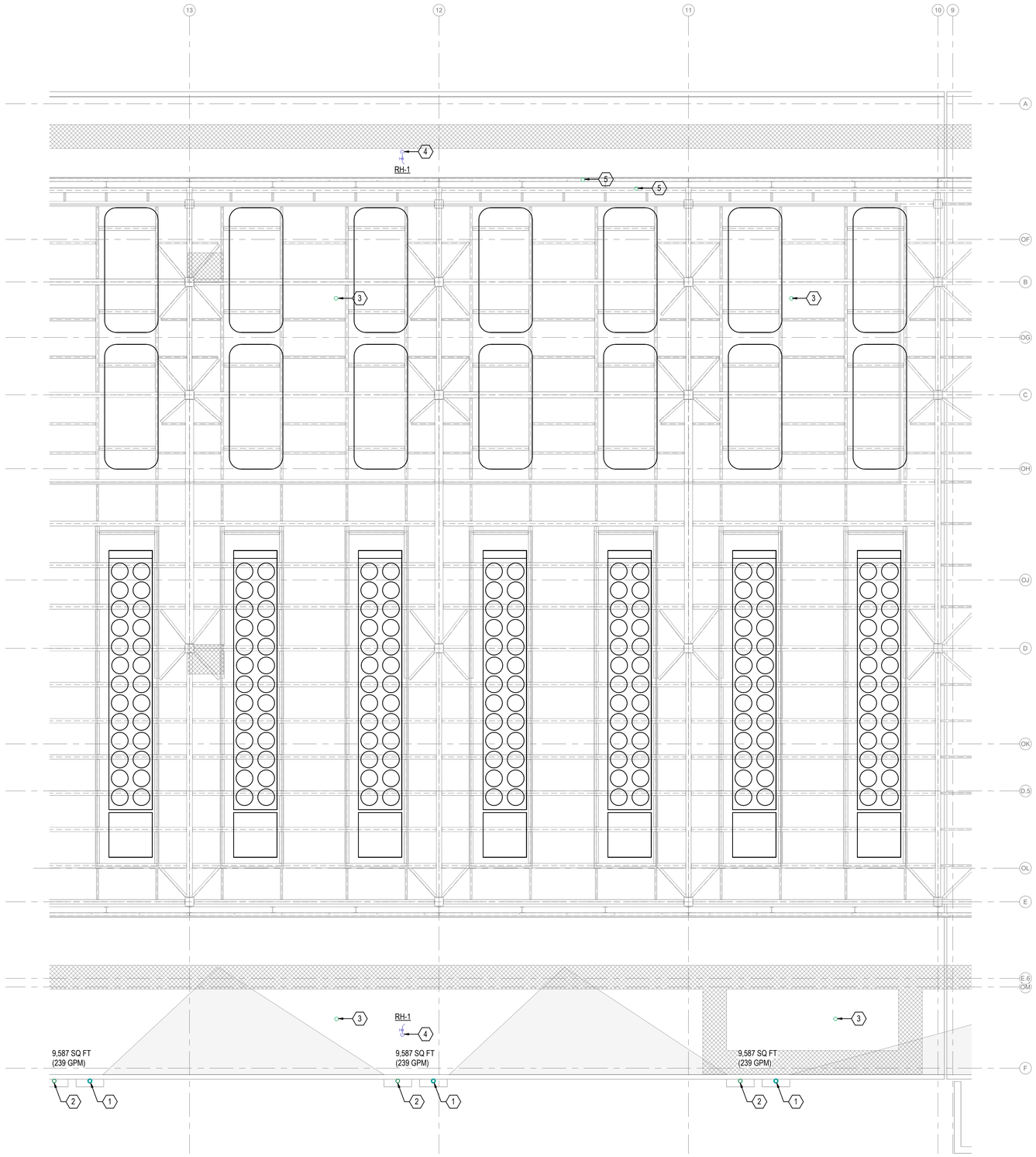
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PLUMBING ROOF PLAN - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03H

2/4/2025 4:14:51 PM P02-03H PLUMBING ROOF PLAN - SEGMENT H



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

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REVISIONS

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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

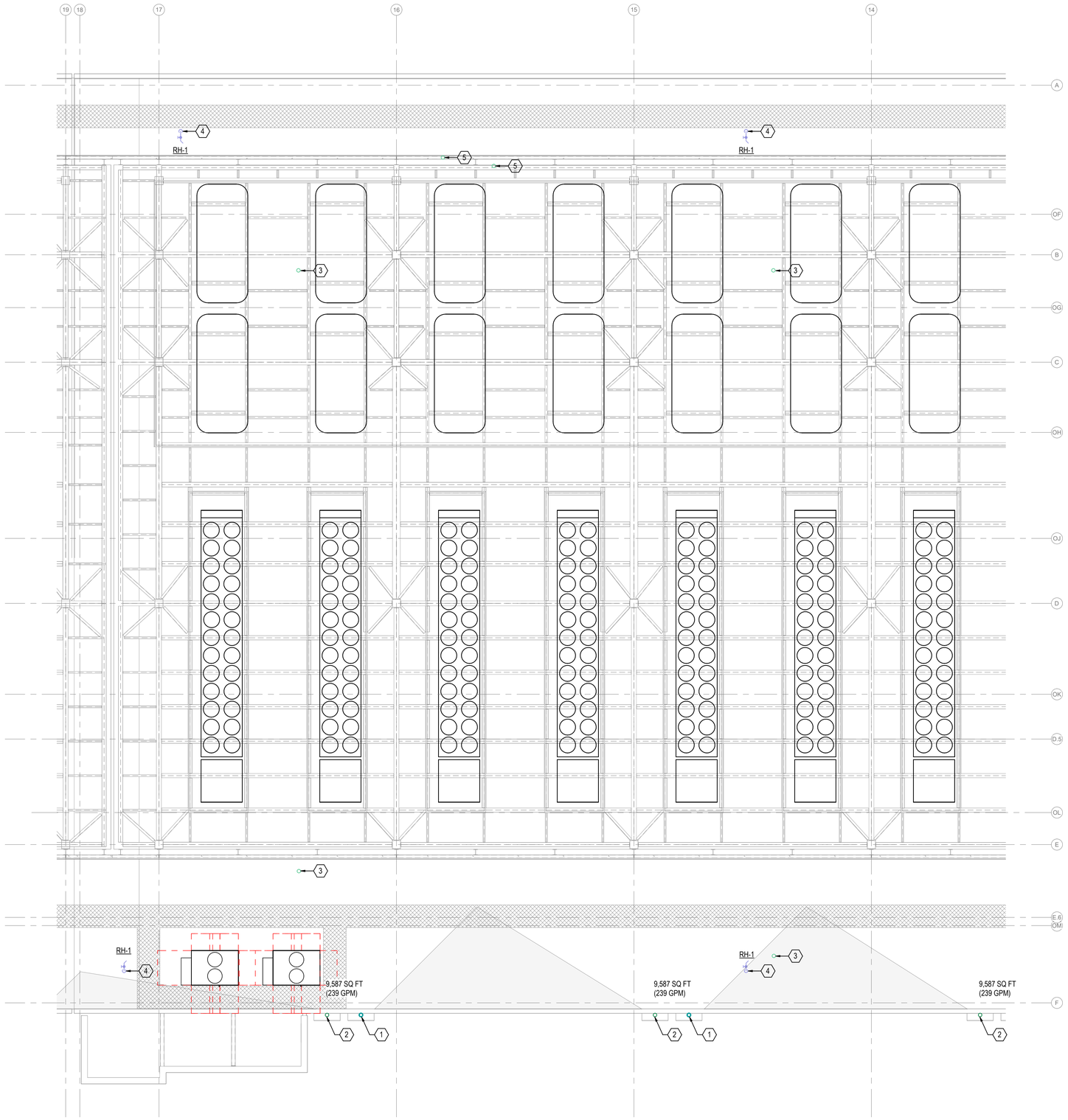
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PLUMBING ROOF PLAN - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03K

2/4/2025 4:14:59 PM P02-03K PLUMBING ROOF PLAN - SEGMENT K



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 4" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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PLUMBING ROOF PLAN - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET P02-03M

2/4/2025 4:15:07 PM P02-03M PLUMBING ROOF PLAN - SEGMENT M



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. PLUMBING CONTRACTOR SHALL CONNECT 6" SCHEDULE 80 PVC TO TRANSITION FITTING ON SCUPPER BOX, AND SHALL DROP 4" PRIMARY STORM PIPING TO BELOW GRADE AND EXTEND 5'-0" OUT FROM BUILDING. INVERT ELEVATION OF PIPING SHALL BE INSTALLED TO RESULT IN PROPER BURIAL DEPTH AND COVER TO COMPLY WITH APPLICABLE CODES. THE CIVIL CONTRACTOR WILL CONNECT TO STORM PIPING AT 5'-0" OUTSIDE OF BUILDING AND EXTEND TO SITE STORM SYSTEMS. INCLUDE ALL NECESSARY HANGERS AND SUPPORTS FOR A COMPLETE INSTALLATION. SCUPPER BOX AND TRANSISTION FITTING PROVIDED UNDER GENERAL CONTRACTOR WORK.
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3. 4" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
4. 3/4" NON-FREEZE ROOF HYDRANT MOUNTED 24" MINIMUM ABOVE THE FINISH ROOF.
5. 3" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
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REVISIONS

COLORADO LICENSED
NEIL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

PLUMBING ROOF PLAN - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

P02-03P

2/4/2025 4:15:15 PM P02-03P PLUMBING ROOF PLAN - SEGMENT P



2 T.O. DATA CENTER PARAPET PLUMBING PLAN - R

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

SHEET NOTES

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SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

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PROFESSIONAL ENGINEER
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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

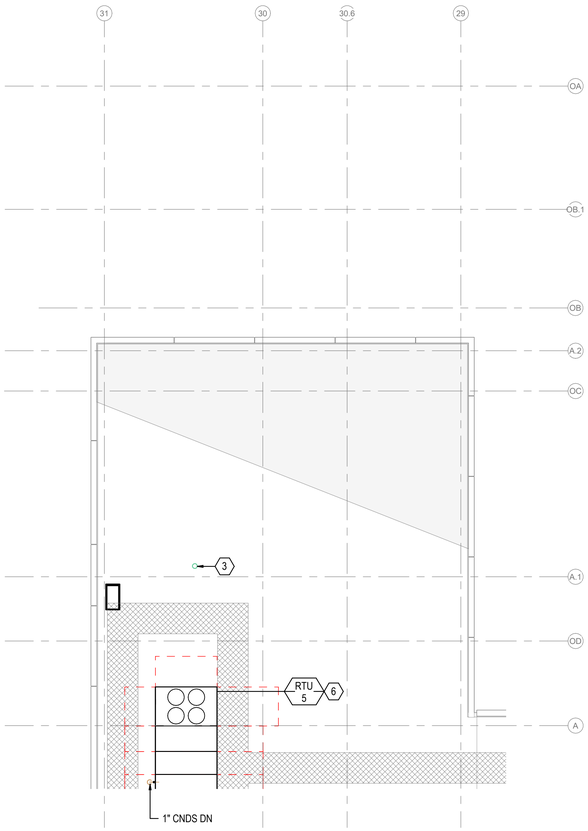
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T	R	P	M	K	H	F	D	B

PLUMBING ROOF PLAN - SEGMENT R

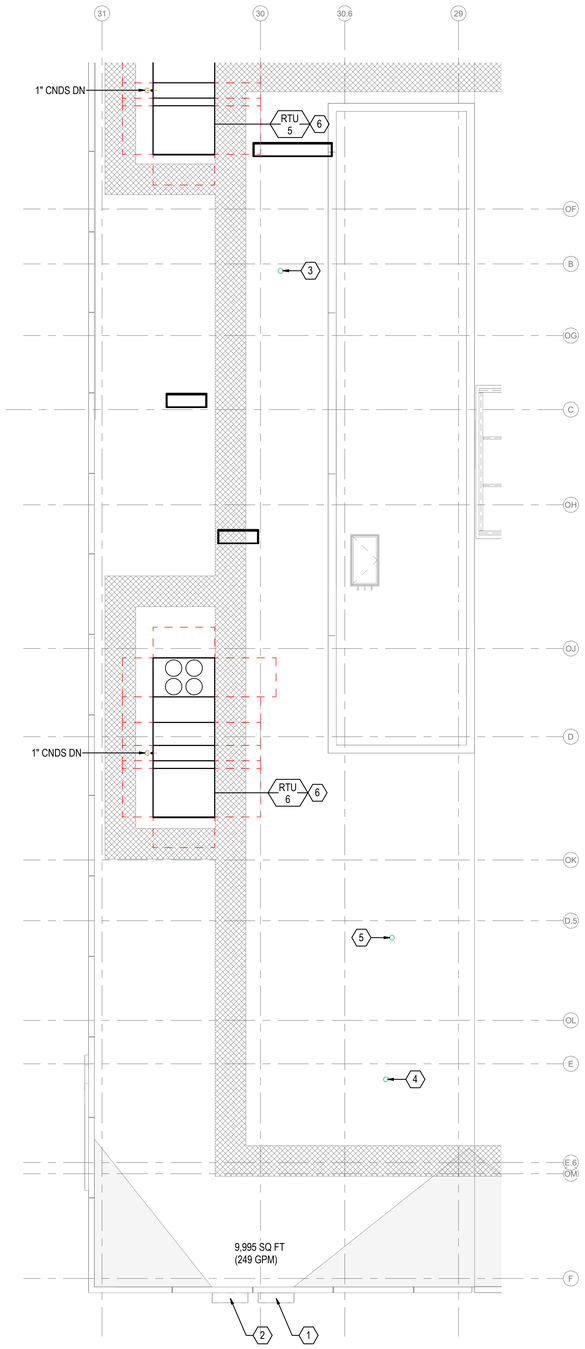
JOB 24464.0000
DATE 01.31.25
SHEET

P02-03R

2/4/2025 4:15:23 PM P02-03R PLUMBING ROOF PLAN - SEGMENT R



1 T.O. DATA CENTER PARAPET PLUMBING PLAN - S
SCALE: 1/8" = 1'-0"



2 T.O. DATA CENTER PARAPET PLUMBING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

1. ALL SANITARY PIPING SHALL BE INSTALLED AT 1/8"/FT SLOPE, UNLESS NOTED OTHERWISE.
2. DOMESTIC COLD AND HOT WATER PIPING SHALL BE INSTALLED AS HIGH AS POSSIBLE AT UNDERSIDE OF STRUCTURE. COORDINATE WITH ALL OTHER TRADES.
3. CONDENSATE DRAIN LINE SHALL BE INSTALLED AS HIGH AS POSSIBLE AT 1/8"/FT SLOPE, UNLESS OTHERWISE NOTED. COORDINATE WITH ALL OTHER TRADES.

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4. 4" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
5. 2" VENT THROUGH ROOF. EXTEND 2'-6" ABOVE ROOF LEVEL WITH PROPER SUPPORT.
6. ROOF TOP UNIT - UNDER DIVISION 23.

City of Aurora Building Division
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75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED
NEIL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

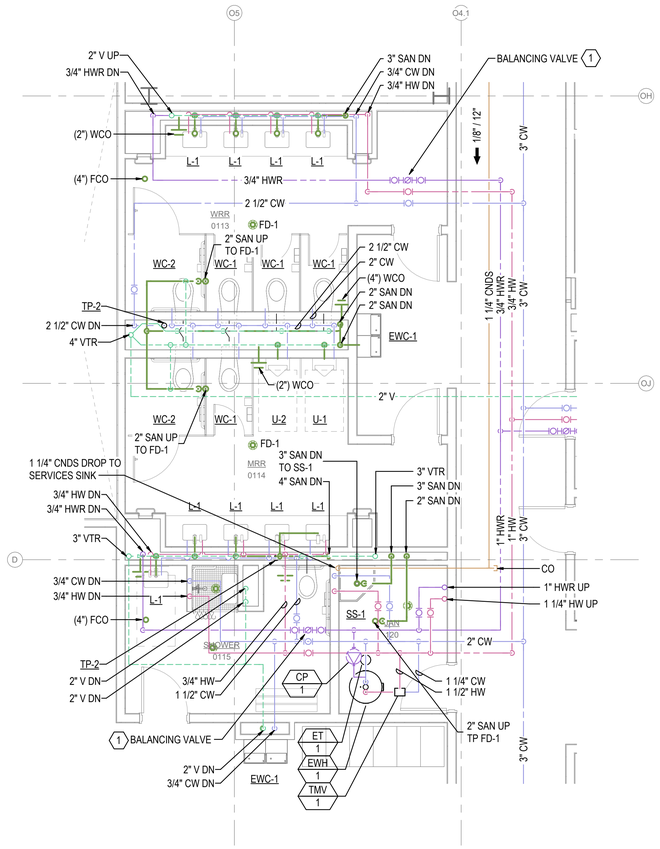
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

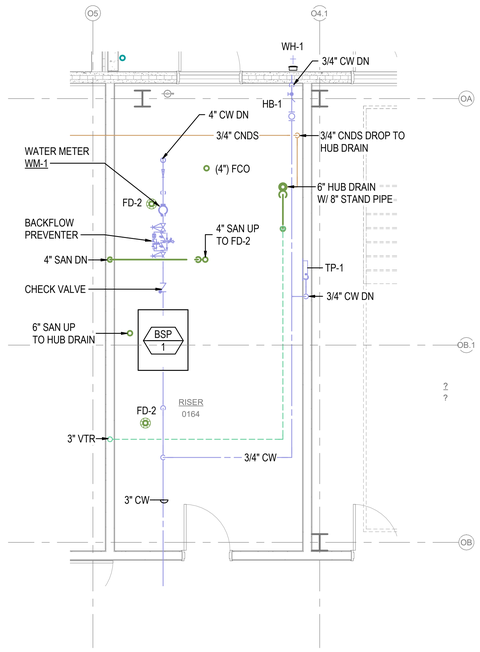
PLUMBING ROOF PLAN - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET
P02-03ST

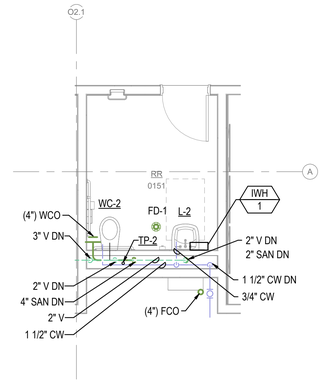
2/4/2025 4:15:28 PM P02-03STPLUMBING ROOF PLAN - SEGMENT S-T



3 LEVEL 1 SEGMENT B - PLUMBING - ENLARGED WRR & MRR
SCALE: 1/4" = 1'-0"

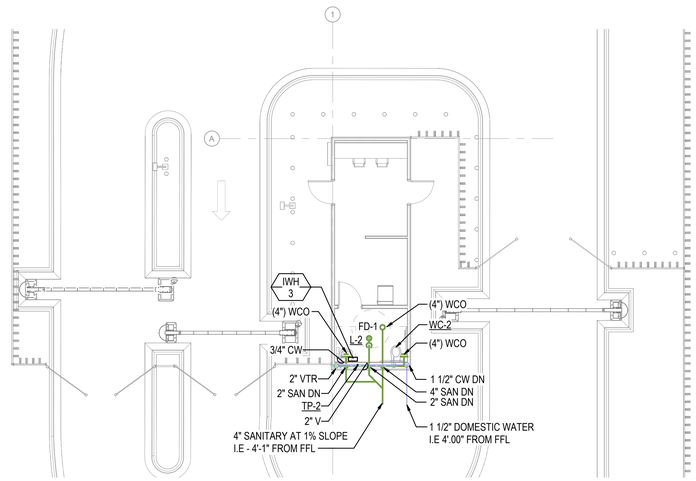


2 LEVEL 1 SEGMENT A - PLUMBING - ENLARGED RISER
SCALE: 1/4" = 1'-0"

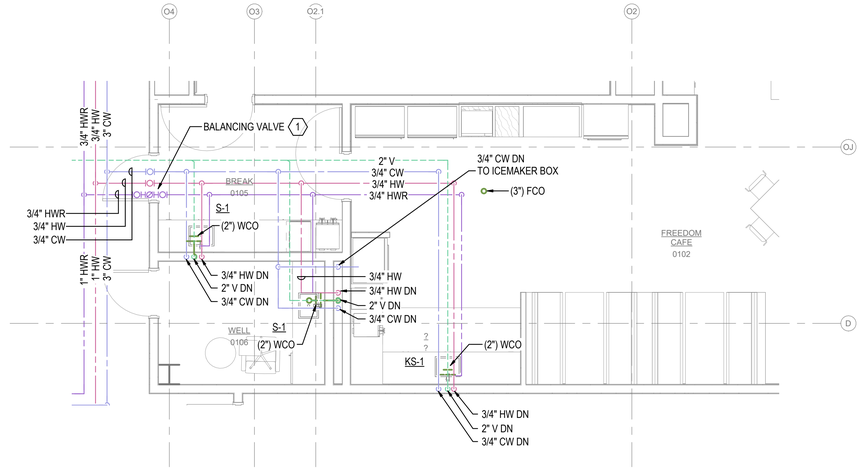


1 LEVEL 1 SEGMENT A - PLUMBING - ENLARGED RR
SCALE: 1/4" = 1'-0"

Provide self-closing or metered faucets in public restrooms.
2021 COA 22-326 (a)



5 LEVEL 1 PLUMBING SITE PLAN - GATE HOUSE
SCALE: 1/8" = 1'-0"



4 LEVEL 1 SEGMENT B - PLUMBING - ENLARGED FREEDOM CAFE, WELL & BREAK
SCALE: 1/4" = 1'-0"

SHEET NOTES

SHEET KEYNOTES

1. ALL SHUT OFF VALVES AND BALANCING VALVE ASSEMBLIES ARE LOCATED WITHIN ACCESS OF THE CEILING SPACE. PROVIDE ACCESS DOORS WHERE NECESSARY.

City of Aurora Building Division
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Date: Mar 18, 2025
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CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED PROFESSIONAL ENGINEER
WILLIAM B. HODGES
47948
01.31.25

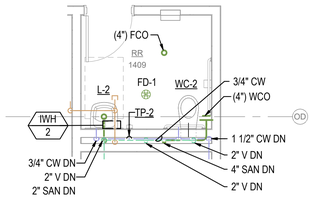
Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

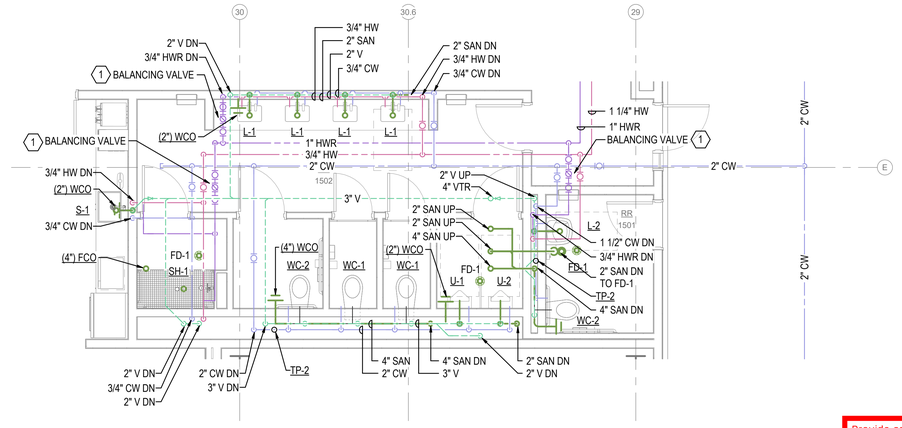
PLUMBING ENLARGED PLANS

JOB 24464.0000
DATE 01.31.25
SHEET
P04-01

2/4/2025 4:15:51 PM P04-01 PLUMBING ENLARGED PLANS

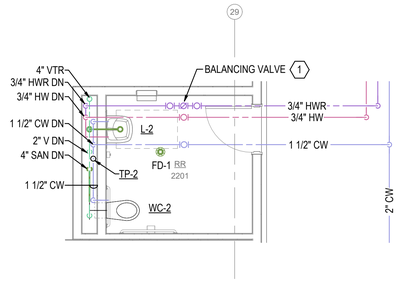


2 LEVEL 1 SEGMENT S - PLUMBING - ENLARGED RR
SCALE: 1/4" = 1'-0"

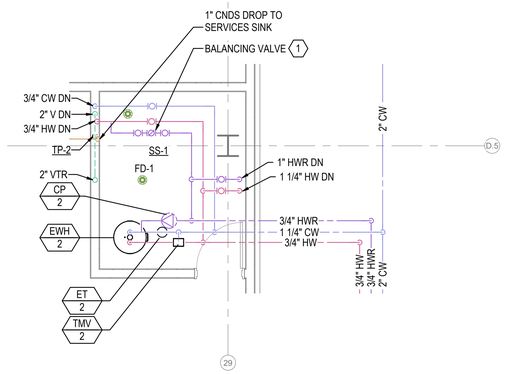


1 LEVEL 1 SEGMENT T- PLUMBING - ENLARGED BREAK SPACE, UNISEX RR, AND JANITOR CLOSET
SCALE: 1/4" = 1'-0"

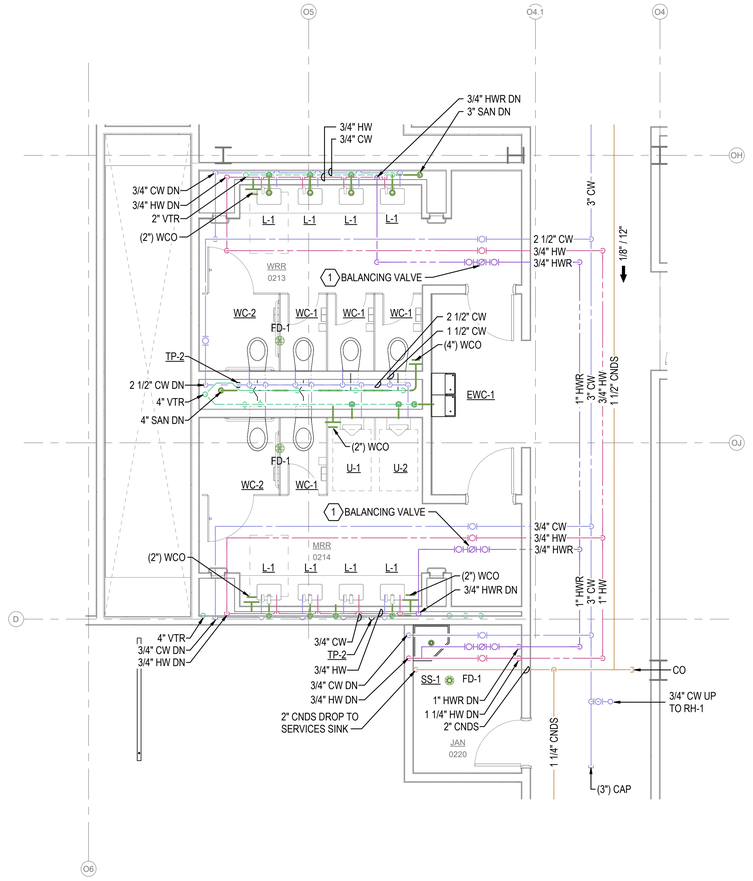
Provide self-closing or metered faucets in public restrooms.
2021 COA 22-326 (a)



3 LEVEL 2 SEGMENT T - PLUMBING - ENLARGED RR
SCALE: 1/4" = 1'-0"



5 LEVEL 2 SEGMENT T - PLUMBING - ENLARGED JAN.
SCALE: 1/4" = 1'-0"



4 LEVEL 2 SEGMENT B - PLUMBING - ENLARGED WRR & MRR
SCALE: 1/4" = 1'-0"

SHEET NOTES

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REVISIONS		

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
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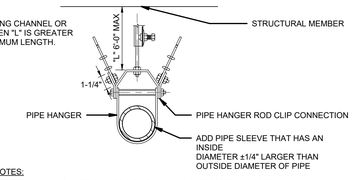
QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

PLUMBING
ENLARGED PLANS

JOB 24464.0000
DATE 01.31.25
SHEET
P04-02

2/4/2025 4:16:08 PM P04-02 PLUMBING ENLARGED PLANS

NOTE:
ADD FRAMING CHANNEL OR ANGLE WHEN "L" IS GREATER THAN MAXIMUM LENGTH.



SEISMIC NOTES:

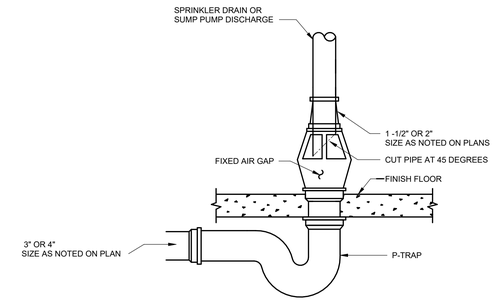
SEISMIC BRACING SHALL BE INSTALLED UNDER THE FOLLOWING CONDITIONS:

1. GAS PIPING 1" DIAMETER AND GREATER.
2. ALL PIPING 2.5" DIAMETER AND GREATER.
3. EXCEPTION: ALL PIPING SUSPENDED BY INDIVIDUAL HANGERS 12" OR LESS IN LENGTH FROM THE TOP OF PIPE TO THE POINT OF ATTACHMENT OF THE HANGER TO THE STRUCTURE DOES NOT REQUIRE SEISMIC BRACING. THE SIZE, TYPE, SPACING, AND METHOD OF INSTALLATION OF SEISMIC BRACING SHALL BE IN ACCORDANCE WITH THE LATEST "SMACNA SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS." GAS PIPING IS TO BE CLASSIFIED UNDER "SEISMIC HAZARD LEVEL A" AND ALL OTHER PIPING SYSTEMS "SEISMIC HAZARD LEVEL C" IN THE SMACNA MANUAL

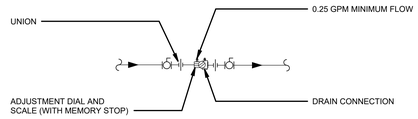
SMACNA SEISMIC MANUAL NOTES:

1. REFER TO CHAPTER 3 FOR GENERAL REQUIREMENTS.
2. SEE PAGE 4.14 FOR LONGITUDE BRACING.
3. SEE TABLE 5-4, 6-4 OR 7-4 FOR VERTICAL HANGERS, DIAGONAL BRACING, SIZE, CONNECTION TO SUPPORTING STRUCTURE, AND SPACING OF BRACING.

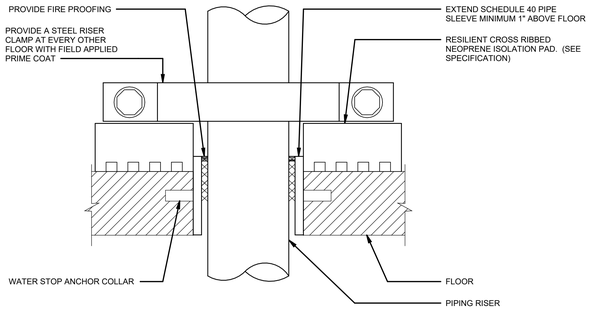
1 CABLE BRACING DETAIL



2 FIXED AIR GAP DETAIL

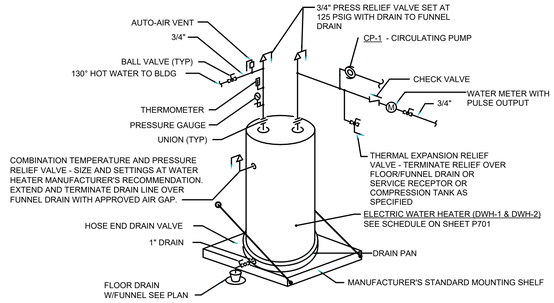


3 HOT WATER RETURN AUTOMATIC BALANCING VALVE UNIT

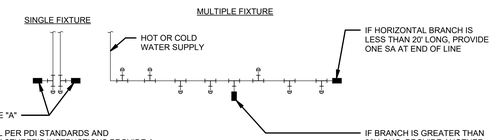


4 PIPE FLOOR SLEEVE

Provide for thermal expansion on hot-water supply system as required by **2021 IPC 607.3 or IRC 2903.4**



5 SHELF MOUNTED WATER HEATER

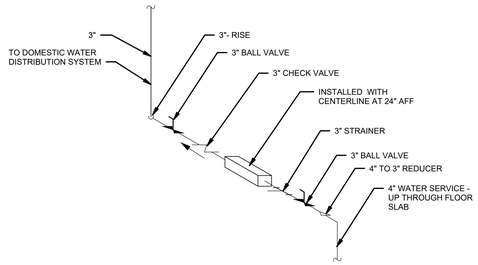


INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS PROVIDE A SHOCK ARRESTOR AT ALL QUICK-CLOSING VALVES.

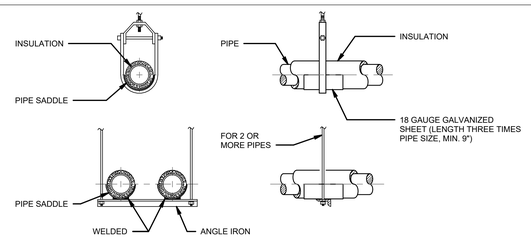
PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	155-330

PLUMBING CONTRACTOR TO PROVIDE SHOCK ARRESTORS BY ZURN OR APPROVED EQUIVALENT WITH PISTON O-RING CONSTRUCTION, HAVING PDI #WH-201, ASSE #1010 AND ANSI #A112.26.1M CERTIFICATION. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE SIZE THE UNITS AS PER THE TABLES SHOWN ABOVE. SHOCK ARRESTORS TO BE INSTALLED IN AN ACCESSIBLE LOCATION. PROVIDE ACCESS PANELS WHERE REQUIRED.

6 SHOCK ARRESTERS



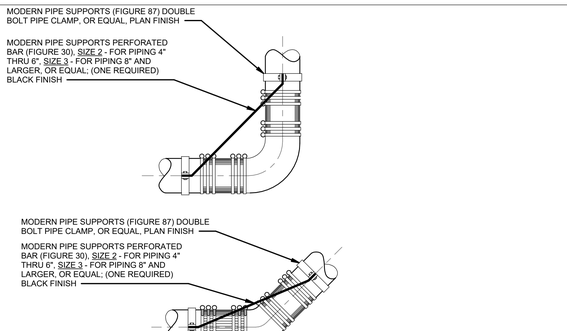
7 WATER ENTRANCE RISER



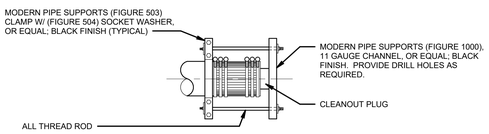
NOTES:

1. INSULATION ABOVE SADDLES SHALL BE RIGID, OF SAME THICKNESS AS PIPE INSULATION AND A COMPRESSIVE STRENGTH OF NOT LESS THAN 3,300 PSI.
2. HANGER RODS SHALL BE OF THE SAME SIZE REQUIRED BUT NOT SMALLER THAN 1/2" DIAMETER
3. HANGERS ARE ALSO TYPICAL FOR UNINSULATED PIPING (WITHOUT INSULATION AND SADDLES).
4. CONNECT TO TOP OR BOTTOM CHORD OF JOISTS.

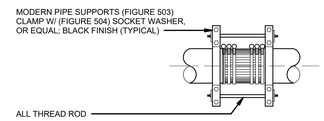
8 TYPICAL HANGER FOR INSULATED PIPING



HUBLESS FITTING RESTRAINTS



HUBLESS CLEANOUT RESTRAINTS

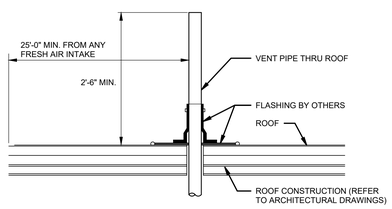


HUBLESS PIPING RESTRAINTS

NOTE:
ALL JOINTS ON THE ENTIRE ABOVE GROUND RAIN WATER CONDUCTOR SYSTEM IN THE BUILDING SHALL INCLUDE RESTRAINTS.

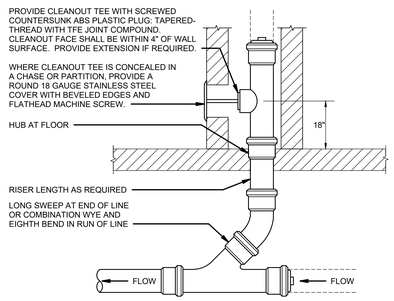
City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

9 VENT PIPING ROOF PENETRATION



NOTE:
ALL VENT RISERS SHALL BE OFFSET AS REQUIRED TO CLEAR ROOF STRUCTURE, DUCTWORK OR ROOF TOP UNITS. PLUMBING CONTRACTOR MUST COORDINATE WITH OTHER TRADES.

10 WALL CLEANOUT DETAIL



NOTE:
REFER TO PLUMBING FIXTURE AND SPECIFICATIONS FOR FURTHER INFORMATION. COORDINATE WITH ARCHITECTURAL PLANS.

11 STORM DRAINAGE PIPING RESTRAINING DETAILS

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000
AGE
SYSKA HENNESSY GROUP
TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED WILLIAM B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue: 01.31.25

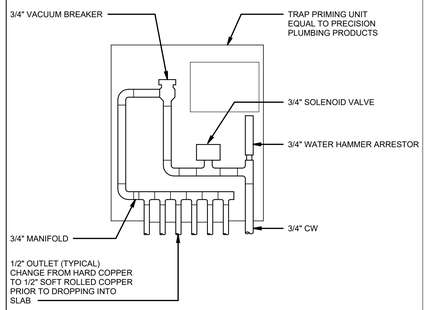
QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

P05-01

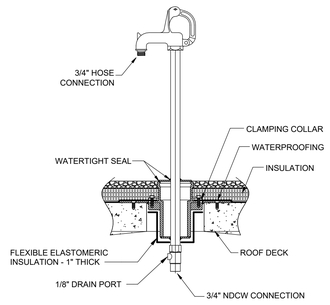
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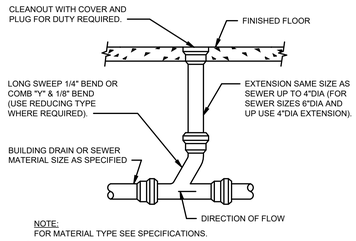
NOTES:

1. RUN PIPING TIGHT TO WALL. PROVIDE INSULATION SLEEVES OR PVC COVERED SOFT COPPER WHERE PIPES PASS INTO SLAB.

1 AUTOMATIC TRAP PRIMER UNIT

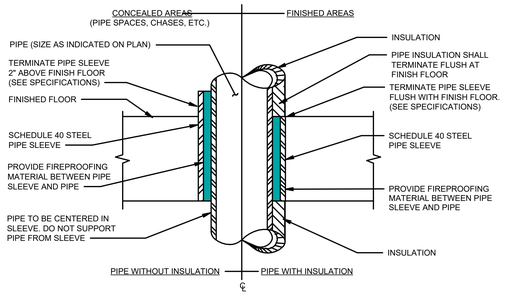


2 ROOF HYDRANT DETAIL

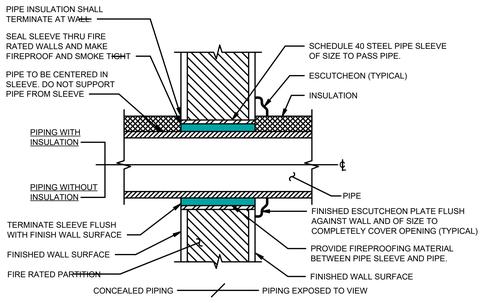


NOTE:
FOR MATERIAL TYPE SEE SPECIFICATIONS.

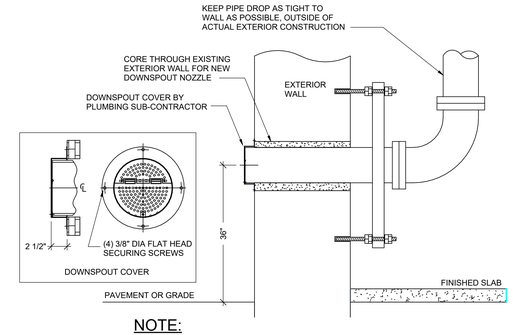
3 INTERIOR FLOOR CLEANOUT DETAIL



4 PIPE SLEEVE THRU FLOOR DETAIL



5 PIPE SLEEVE THROUGH WALL DETAIL

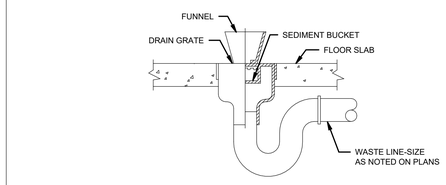


NOTE:
REFER TO ARCHITECT'S PLANS FOR PENETRATION THROUGH TILT WALL PANELS.

6 OVERFLOW STORM LEADER DOWNSPOUT COVER DETAIL

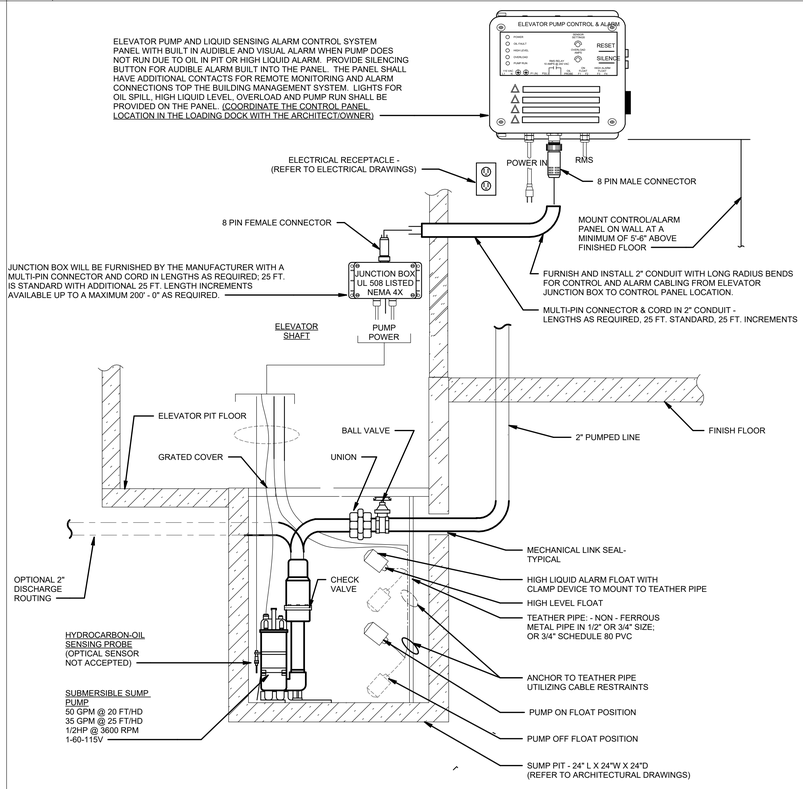
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City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC



8 DOMESTIC AND FIRE WATER SERVICE BUILDING ENTRANCE DETAIL

9 FLOOR AND FUNNEL DRAIN DETAILS



10 ELEVATOR SUMP PUMP

2/4/2025 4:16:16 PM P05-02 DETAILS

CORGAN
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AG/E
SYSKA HENNESSY GROUP
TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO LICENSED PROFESSIONAL ENGINEER PHILIP B. HOOBER 47948 01.31.25

Date of issue: 01.31.25

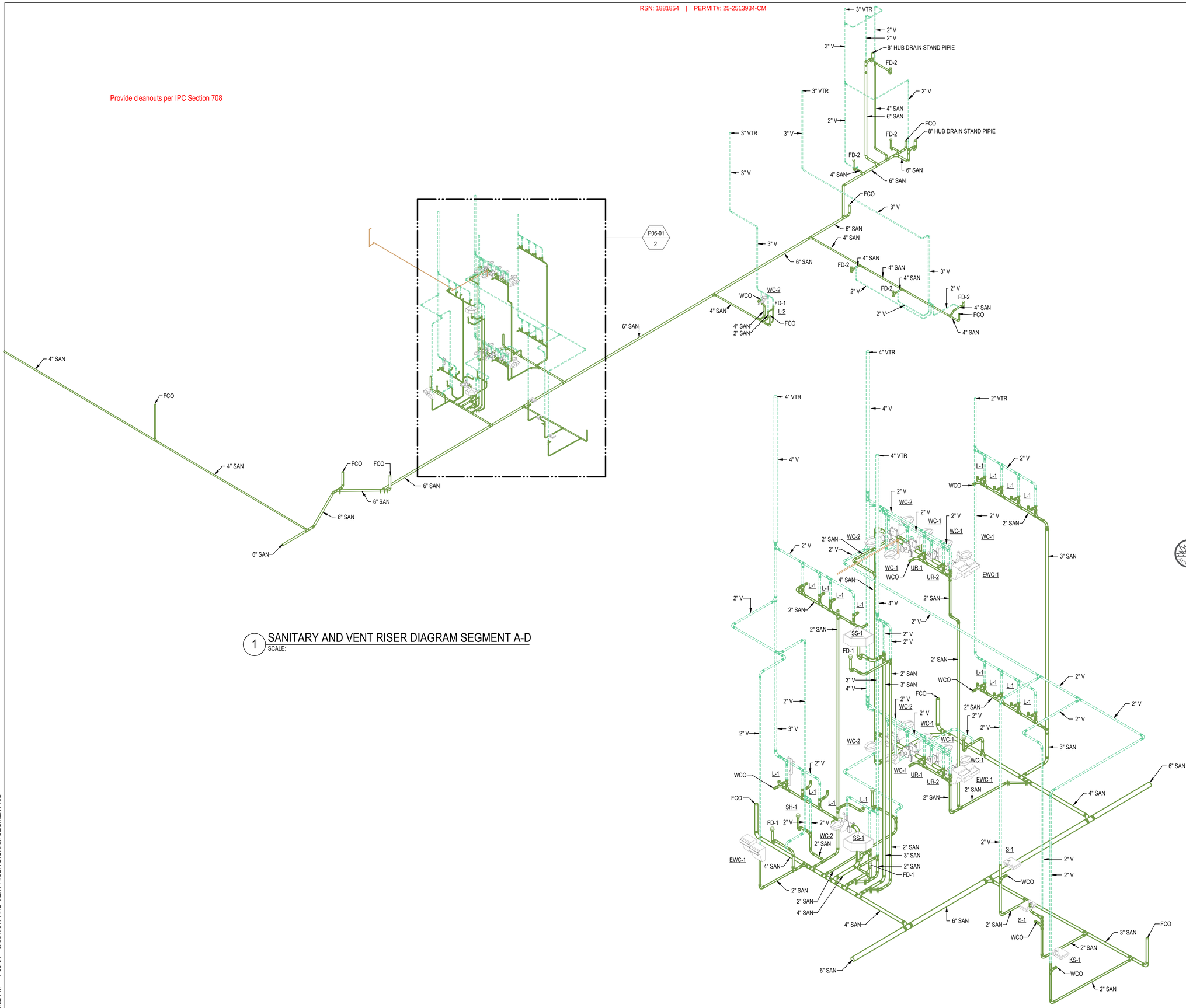
QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

P05-02

Provide cleanouts per IPC Section 708



1 SANITARY AND VENT RISER DIAGRAM SEGMENT A-D
SCALE:

2 ENLARGED MAIN RESTROOM ISOMETRIC
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES		
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COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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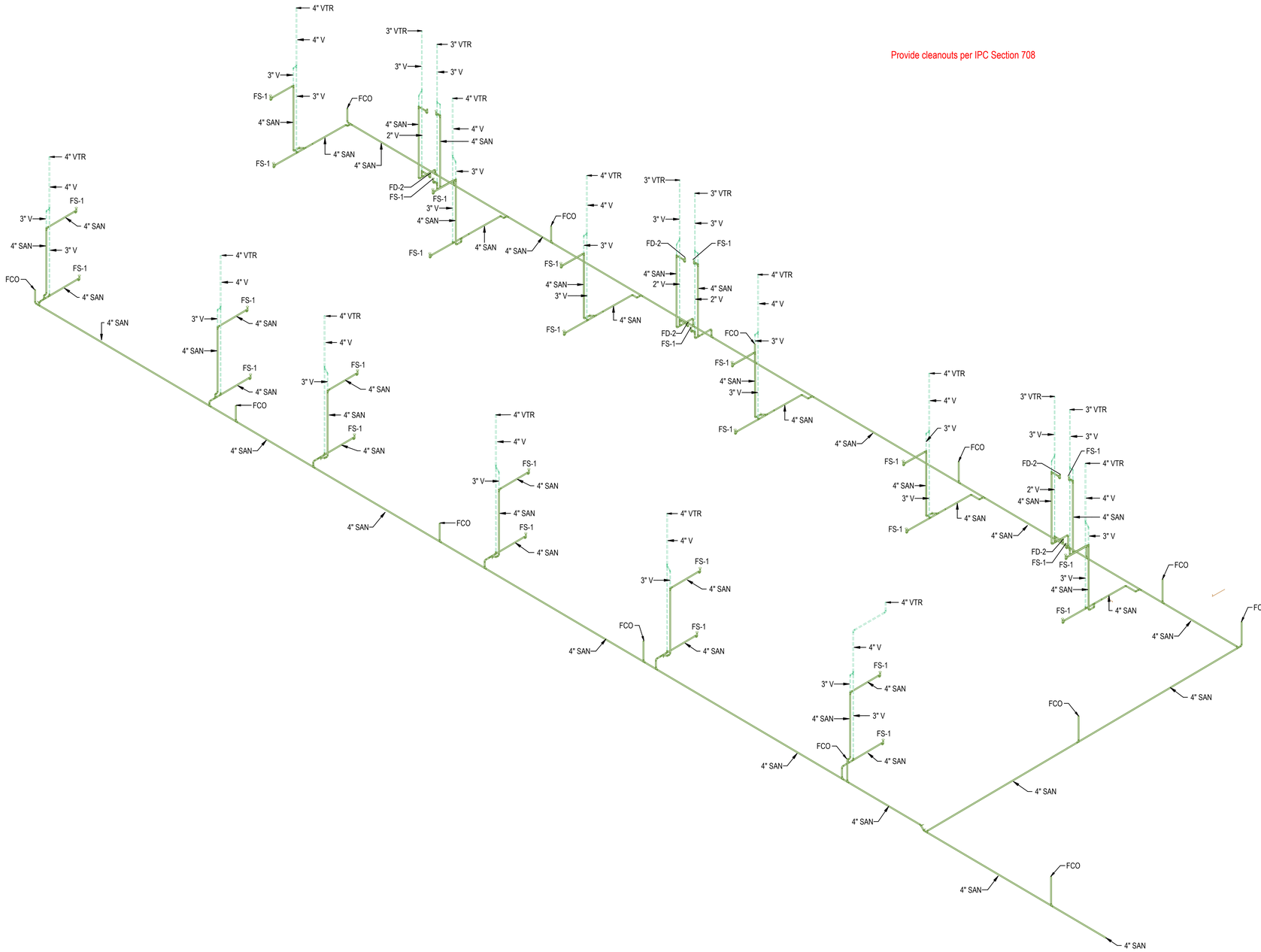
1140 N. GUN CLUB ROAD
AURORA, CO

SANITARY AND VENT RISER DIGRAM SEGMENT A/D

JOB 24464.0000
DATE 01.31.25
SHEET

P06-01

2/4/2025 4:16:32 PM P06-01 SANITARY AND VENT RISER DIGRAM SEGMENT A/D



Provide cleanouts per IPC Section 708

1 SANITARY AND VENT RISER DIAGRAM SEGMENT F-K
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES		
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

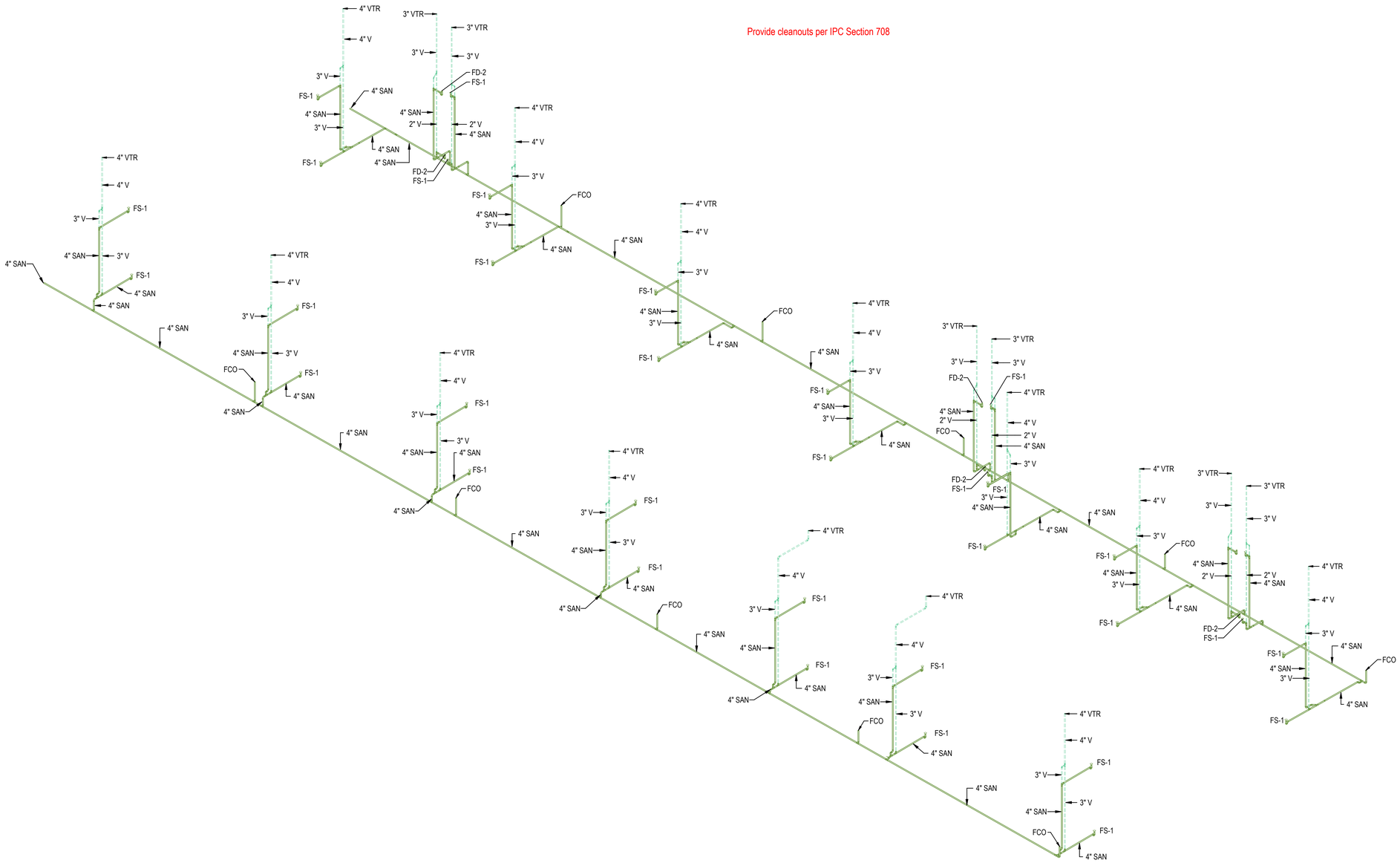
SANITARY AND VENT RISER DIGRAM SEGMENT F/H

JOB 24464.0000
DATE 01.31.25
SHEET

P06-02

2/4/2025 4:16:44 PM P06-02 SANITARY AND VENT RISER DIGRAM SEGMENT F/H

Provide cleanouts per IPC Section 708



1 SANITARY AND VENT RISER DIAGRAM SEGMENT M-R
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

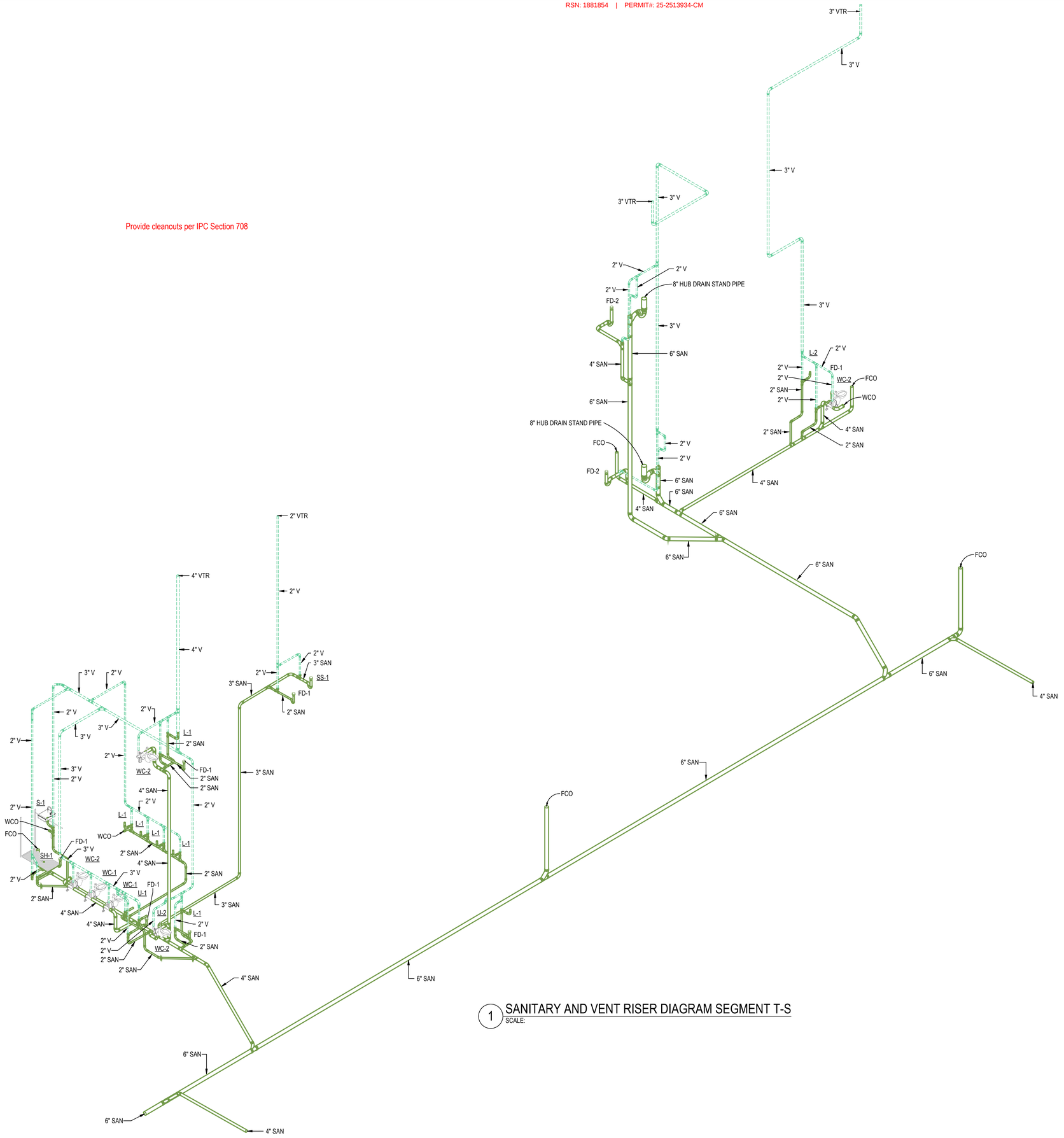
SANITARY AND VENT RISER DIGRAM SEGMENT M/R

JOB 24464.0000
DATE 01.31.25
SHEET

P06-03

2/4/2025 4:16:53 PM P06-03 SANITARY AND VENT RISER DIGRAM SEGMENT M/R

Provide cleanouts per IPC Section 708



1 SANITARY AND VENT RISER DIAGRAM SEGMENT T-S
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

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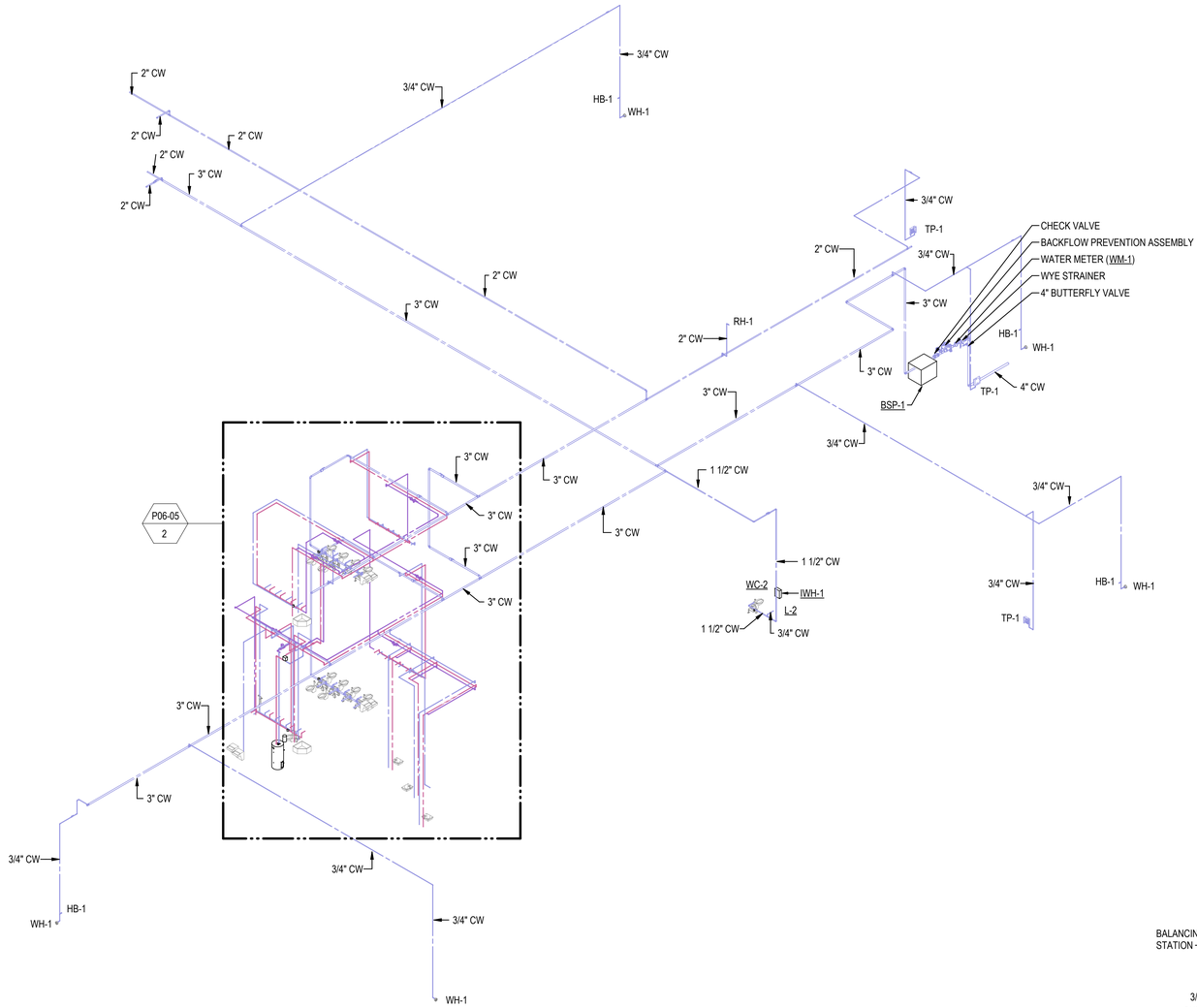
1140 N. GUN CLUB ROAD
AURORA, CO

SANITARY AND VENT RISER DIGRAM SEGMENT S/T

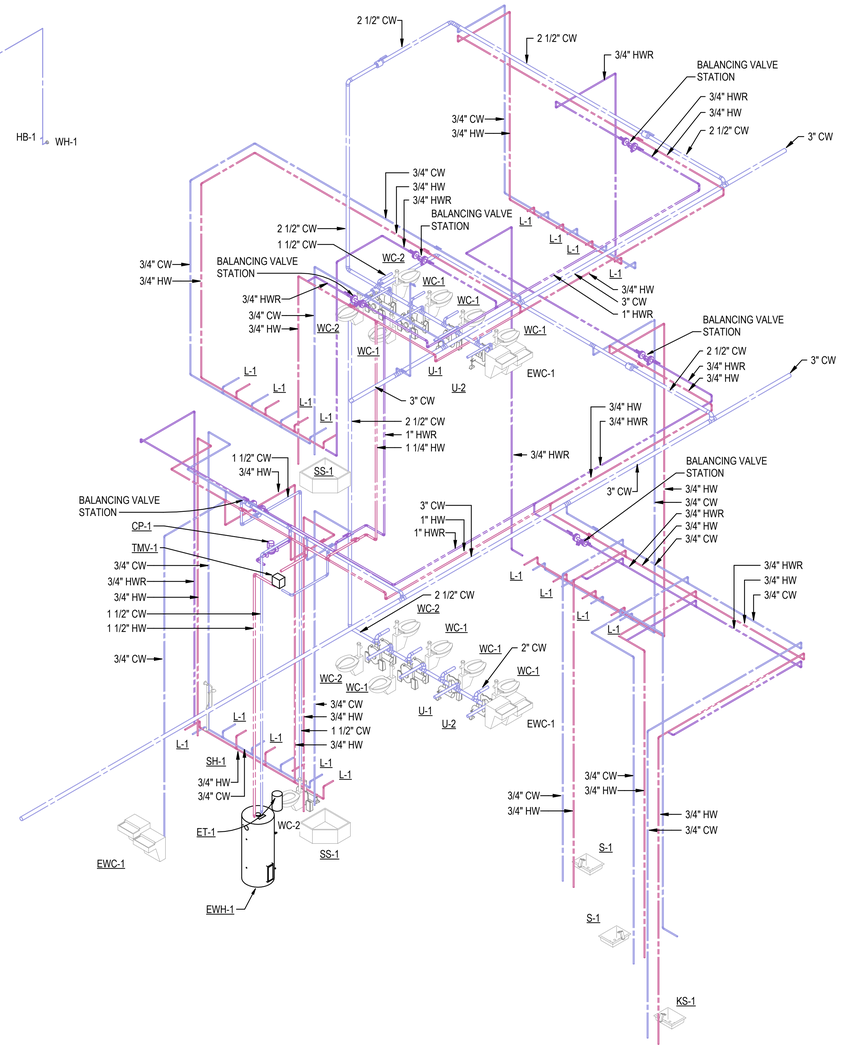
JOB 24464.0000
DATE 01.31.25
SHEET

P06-04

2/4/2025 4:17:01 PM P06-04 SANITARY AND VENT RISER DIGRAM SEGMENT S/T



1 WATER RISER DIAGRAM SEGMENT A-D
SCALE:



2 WATER RISER DIAGRAM SEGMENT A-D - ENLARGED RR
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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AGE
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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue:
01.31.25

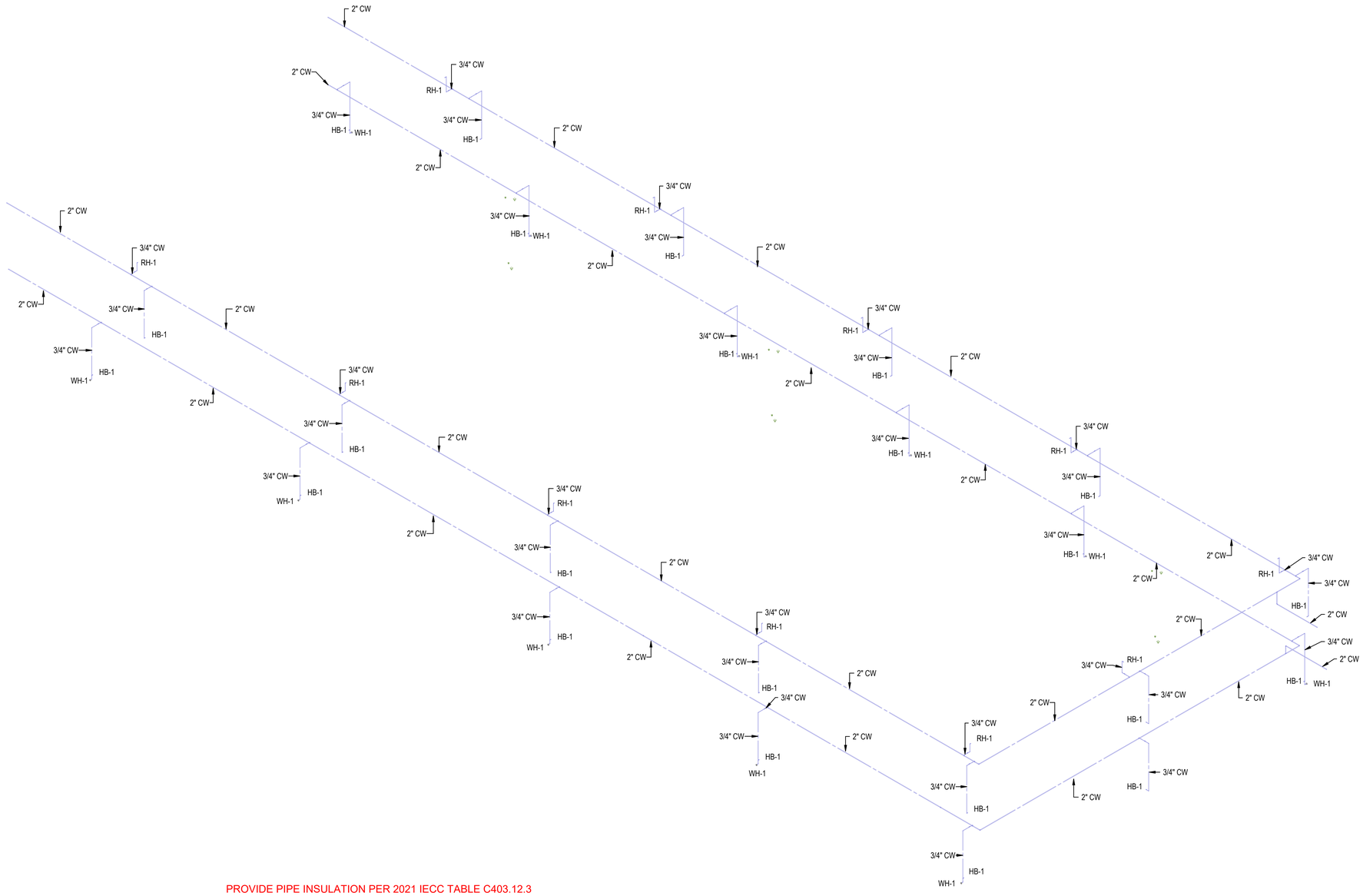
QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

WATER RISER DIAGRAM SEGMENT A/D

JOB 24464.0000
DATE 01.31.25
SHEET

P06-05

2/4/2025 4:17:14 PM P06-05 WATER RISER DIAGRAM SEGMENT A/D



PROVIDE PIPE INSULATION PER 2021 IECC TABLE C403.12.3

1 WATER RISER DIAGRAM SEGMENT F-K
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO LICENSED
CHRISTOPHER B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

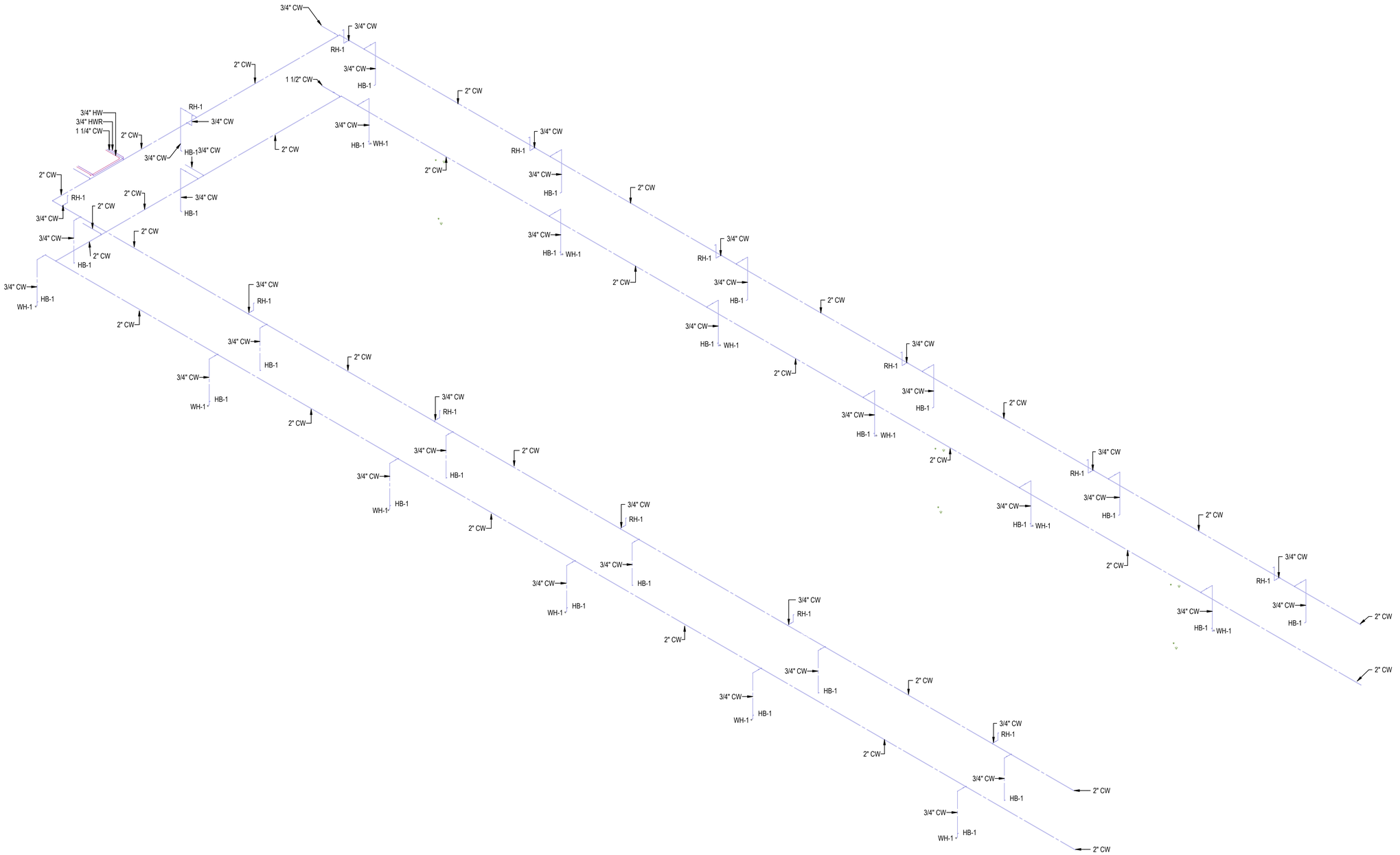
1140 N. GUN CLUB ROAD
AURORA, CO

WATER RISER DIAGRAM SEGMENT F/H

JOB 24464.0000
DATE 01.31.25
SHEET

P06-06

2/4/2025 4:17:20 PM P06-06 WATER RISER DIAGRAM SEGMENT F/H



PROVIDE PIPE INSULATION PER 2021 IECC TABLE C403.12.3

1 WATER RISER DIAGRAM SEGMENT M-R
SCALE:

City of Aurora Building Division
Reviewed for Code Compliance
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Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX
75202
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ISSUES		
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REVISIONS

COLORADO LICENSED WILL B. HODGES 47948 PROFESSIONAL ENGINEER 01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

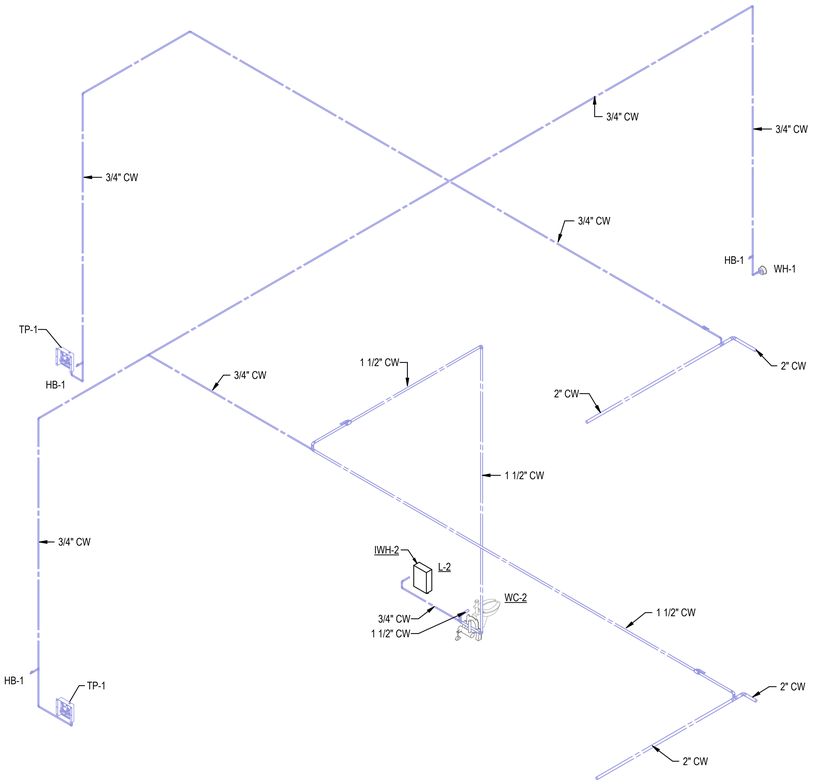
1140 N. GUN CLUB ROAD
AURORA, CO

WATER RISER DIAGRAM SEGMENT M/R

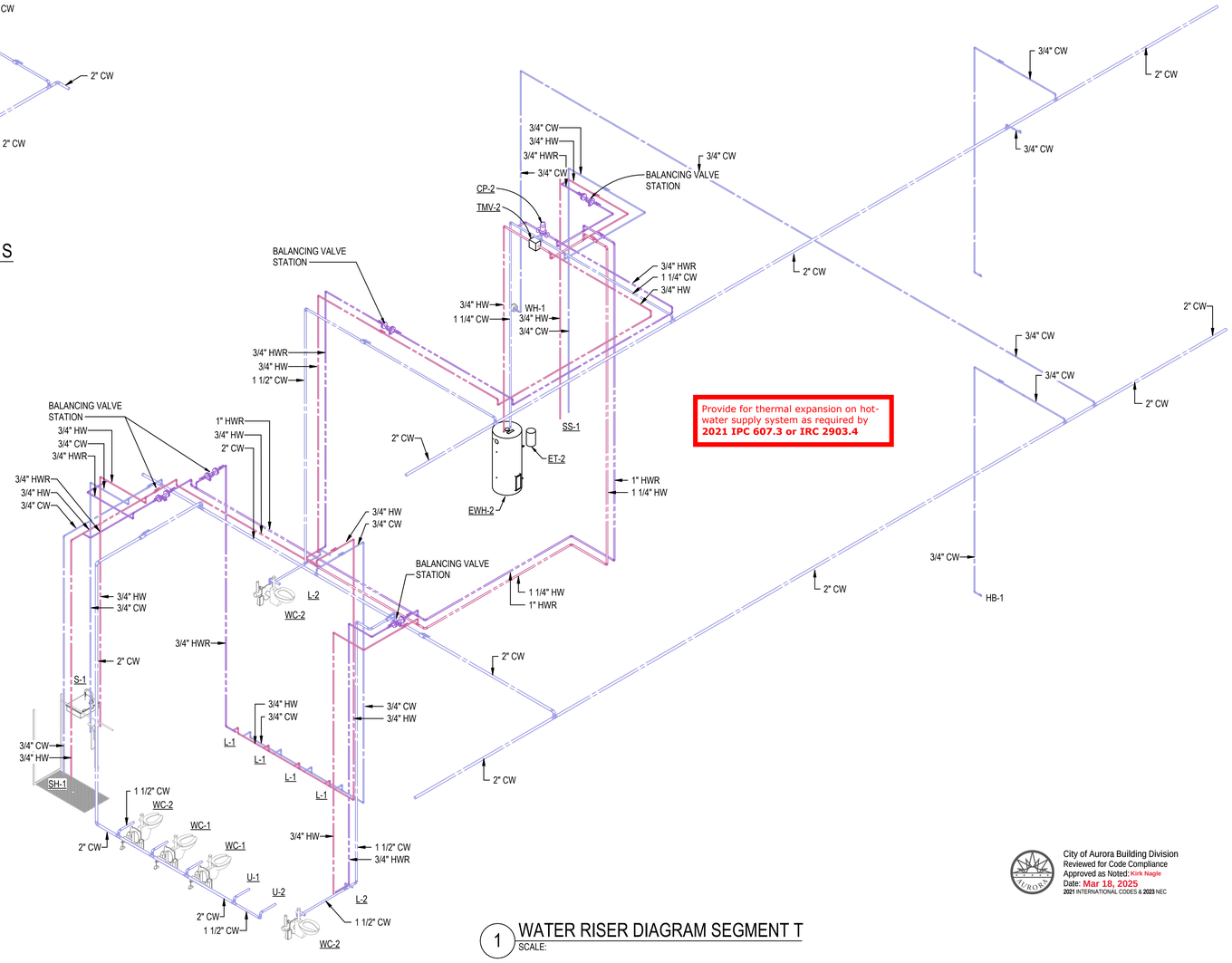
JOB 24464.0000
DATE 01.31.25
SHEET

P06-07

2/4/2025 4:17:26 PM P06-07 WATER RISER DIAGRAM SEGMENT M/R



2 WATER RISER DIAGRAM SEGMENT S
SCALE:



Provide for thermal expansion on hot-water supply system as required by **2021 IPC 607.3 or IRC 2903.4**

1 WATER RISER DIAGRAM SEGMENT T
SCALE:

PROVIDE PIPE INSULATION PER 2021 IECC TABLE C403.12.3

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Kirk Nagle
Date: Mar 18, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO LICENSED
WILL B. HODGES
47948
PROFESSIONAL ENGINEER
01.31.25

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

WATER RISER DIAGRAM SEGMENT T/S

JOB 24464.0000
DATE 01.31.25
SHEET

P06-08

2/4/2025 4:17:35 PM P06-08 WATER RISER DIAGRAM SEGMENT T/S

RSN: 1881854 | PERMIT#: 25-2513934-CM

QUADRAPLEX RECEPTACLE	
WC WATER COOLER - DUPLEX RECEPTACLE	
DUPLEX RECEPTACLE - MOUNTED 1'-6" ABOVE FINISHED FLOOR	
2 DOUBLE DUPLEX RECEPTACLE - MOUNTED 1'-6" ABOVE FINISHED FLOOR	
USB DUPLEX RECEPTACLE W/ USB-A & USB-C CONNECTIONS	
AB DUPLEX RECEPTACLE ABOVE COUNTER - MOUNTED 1'-6" ABOVE FINISHED FLOOR	
GFI DUPLEX GROUND FAULT INTERRUPTER TYPE RECEPTACLE	
TV TELEVISION POWER OUTLET - 12" BELOW CEILING UNO	
WP DUPLEX WEATHERPROOF RECEPTACLE	
T TWISTLOCK RECEPTACLE - RATING AS SHOWN ON DRAWINGS	
IG DUPLEX ISOLATED GROUND TYPE RECEPTACLE	
SPECIAL PURPOSE OUTLET - CONFIGURATION TO MATCH EQUIPMENT SUPPLIED	
FINAL CONNECTION BY EC TO EQUIPMENT	
J JUNCTION BOX	
R RELAY	
PP POWER POLE	
M MANUAL MOTOR SWITCH, ONE POLE FOR EVERY MOTOR PHASE	
MAGNETIC MOTOR STARTER-RATING AS NOTED	
VFD VARIABLE FREQUENCY DRIVE BY EC	
COMBINATION DISCONNECT SWITCH AND STARTER-RATING AS NOTED	
	DISCONNECT SWITCH - RATING AS NOTED
	ELECTRICAL PANELBOARD
M	MOTOR
	MULTI-OUTLET ASSEMBLY (RATING AS NOTED)
1	INDICATES NOTES ELSEWHERE
∅	PHASE
	BUSWAY
T	TRANSFORMER - SIZE AND VOLTAGE AS NOTED
	CROSSHATCHING INDICATES EQUIPMENT AND/OR WIRING TO BE RENDERED DEAD AND REMOVED BY EC
	SWITCH LEG
	BRANCH CIRCUIT
	SWITCHED CIRCUIT
	CONTROL WIRING
	HOMERUN TO PANELBOARD - 3 #12-3/4"C UNO
	EXISTING
	FUTURE
	NEW
	COMBINATION FURNITURE POWER AND TELE/DATA CONNECTION FLOOR BOX (FLUSH IN FLOOR)
	DEDICATED COPIER/ PRINTER/ FAX POWER AND TELE/ DATA FLOOR BOX. COORDINATE RECEPTACLE REQUIREMENTS WITH EQUIPMENT SUPPLIER.
MOD	MOTOR OPERATED DAMPER
	POWER FLEX CONDUIT FEED TO WORKSTATION - MOUNTED 18" ABOVE FINISHED FLOOR UNLESS NOTED OTHERWISE
F	POWER FLEX CONDUIT FEED TO WORKSTATION FROM FLUSH FLOOR BOX
P	POWER FLEX CONDUIT FEED TO WORKSTATION - FED FROM FLOOR MOUNTED PEDESTAL
WP	POWER FLEX CONDUIT FEED TO WORKSTATION - FED FROM WALL
	COMBINATION DUPLEX RECEPTACLE/INFORMATION OUTLET FLUSH IN FLOOR
	MUSHROOM STYLE HEAD PUSHBUTTON - EMERGENCY FUNCTION AS NOTED
	GROUND TEST WELL
	GROUND ROD. 3/4" X 10'-0", COPPER CLAD
PP	POWER POLE CONNECTION - 8 WIRE CONFIGURATION
PS	SECURITY OR DOOR HARDWARE POWER SUPPLY CONNECTION. VERIFY TERMINATION WITH VENDOR.
	GROUNDING - INTERIOR GROUND LOOP
	GROUNDING - EQUIPMENT BONDING CONDUCTOR
	GROUNDING - GROUNDNG CONDUCTOR
	GROUNDING - RF BARRIER

1 POWER SYMBOLS LEGEND

A	AMPERE
AB	ABOVE COUNTER
AC	ALTERNATING CURRENT
AF	AMP FRAME, AMP FUSE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
AT	AMP TRIP OR AMP TAP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAGE
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TV
CKT	CIRCUIT
℄	CENTERLINE
CLG	CEILING
CT	CURRENT TRANSFORMER
CU	COPPER
DIA	DIAMETER
DC	DIRECT CURRENT
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING (EXIST)
EWC	ELECTRIC WATER COOLER
FA	FIRE ALARM / FEEDER AMPLIFIER
FDR	FEEDER
FS	FUSIBLE SWITCH
FU	FUSE
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GRD	GROUND
HH	HAND HOLE
HP	HORSEPOWER
HUH	HORIZONTAL UNIT HEATER
HZ	FREQUENCY IN CYCLES PER SECOND
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATT
KWH	KILOWATT HOURS
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOD	MOTOR OPERATED DAMPER
MTD	MOUNTED
NC	NORMALLY CLOSED
NE	NORMAL EMERGENCY
NEC	NATIONAL ELECTRICAL CODE
NEUT	NEUTRAL
NL	NIGHTLIGHT
NF	NON FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OCP	OVERCURRENT PROTECTIVE DEVICE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
OL	OVERLOAD ELEMENT
P	POLE(S) OR PILOT
PB	PULLBOX
PF	POWER FACTOR
PL	PILOT LIGHT
PNL	PANELBOARD
PR	PAIR
PRI	PRIMARY
PVC	POLYVINYL CHLORIDE
PT	POTENTIAL TRANSFORMER
R	RELAY
RECP	RECEPTACLE
REV	REVISION
RTU	ROOF TOP UNIT
SEC	SECONDARY
SMR	SURFACE MOUNTED RACEWAY
SPECS	SPECIFICATIONS
STR	STARTER
SW	SWITCH
SWD	SWITCHBOARD
SWR	SWITCHGEAR
TEMP	TEMPORARY
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLT
W	WIRE
W/	WITH
WP	WEATHERPROOF
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

2 SECTION AND ELEVATION MARKS

INDICATES DETAIL NUMBER ON SHEET
INDICATES SECTION / ELEVATION VIEW (1 / E301)
INDICATES SHEET NUMBER

INDICATES DETAIL NUMBER ON SHEET
INDICATES A DETAIL VIEW (1 / E501)
INDICATES SHEET NUMBER

INDICATES DETAIL NUMBER ON SHEET
INDICATES ENLARGED PLAN (1 / E401)
INDICATES SHEET NUMBER

4 ELECTRICAL ABBREVIATIONS

5 LIGHTING & LIGHTING CONTROL SYMBOLS LEGEND

	LIGHTING FIXTURE - RECESSED MOUNTED
	EMERGENCY LIGHTING FIXTURE - RECESSED MOUNTED
	LIGHTING FIXTURE - SURFACE MOUNTED
	LIGHTING FIXTURE - PENDANT MOUNTED
	LIGHTING FIXTURE - WALL MOUNTED
	LIGHTING FIXTURE STRIP
	EMERGENCY LIGHTING FIXTURE STRIP
	RECESSED DOWN LIGHT
	LIGHTING FIXTURE - WALL MOUNTED
	FLOOD TYPE LIGHTING FIXTURE OR TRACK HEAD
	EMERGENCY BATTERY PACK LIGHTING FIXTURE - WALL MOUNTED
	PENDANT MOUNTED LIGHTING FIXTURE
	PENDANT MOUNTED LIGHTING FIXTURE W/ QUARTZ RESTRIKE
	PENDANT MOUNTED LIGHTING FIXTURE W/ EMERGENCY ONLY QUARTZ SOCKET
	NOTE: DESIGNATION INDICATES LIGHTING FIXTURE TYPE. REFER TO SPECIFICATIONS FOR LIGHTING FIXTURE SCHEDULE.
	EXIT SIGN - WALL MOUNTED - SINGLE FACE
	EXIT SIGN - WALL MOUNTED - DOUBLE FACE
	EXIT SIGN - CEILING MOUNTED - SINGLE FACE
	EXIT SIGN - CEILING MOUNTED - DOUBLE FACE
	NOTE: SEE FLOOR PLANS FOR EXIT SIGNS REQUIRING DIRECTIONAL ARROWS.
$	SINGLE POLE SWITCH
$OS	SENSOR SWITCH WSD-PDT(DUAL-TECHNOLOGY LINE VOLTAGE WALL SWITCH OCCUPANCY SENSOR).
$3	3-WAY SWITCH
$4	4-WAY SWITCH
$K	KEY OPERATED SWITCH
$D	IN WALL-TYPE DIMMER
$OSD	DUAL TECHNOLOGY LINE VOLTAGE SWITCH VACANCY SENSOR WITH DIMMING CAPABILITY
$VSD	VACANCY SWITCH WITH DIMMING CAPABILITY
$WP	WEATHERPROOF SWITCH
$VS	SENSOR SWITCH WSD-PDT-VA (DUAL-TECHNOLOGY LINE VOLTAGE WALL SWITCH VACANCY SENSOR)
$LV	DATALINE SWITCH
$3LV	DATALINE SWITCH 3 WAY
OS1	SENSOR SWITCH CM-11 (PASSIVE INFRARED LOW VOLTAGE CEILING OCCUPANCY SENSOR FOR HALLWAYS)
OS2	SENSOR SWITCH CM-10 (PASSIVE INFRARED LOW VOLTAGE CEILING OCCUPANCY SENSOR)
OS3	SENSOR SWITCH CM-PDT-9 (DUAL TECHNOLOGY LOW VOLTAGE CEILING OCCUPANCY SENSOR)
OS4	WATTSTOPPER LMDC-100 (DUAL TECHNOLOGY LOW VOLTAGE CEILING OCCUPANCY SENSOR) OR APPROVED EQUAL
PP	SENSOR SWITCH PP-20 (POWER PACK FOR LOW VOLTAGE OCCUPANCY SENSORS)

6 ELECTRICAL SINGLE LINE SYMBOLS LEGEND

	INVERTER
	DISCONNECT SWITCH
	DRAWOUT CIRCUIT BREAKER ABOVE 600V
	DRAWOUT AIR CIRCUIT BREAKER 600V AND LOWER
< >	PROVISIONAL SPACE
	FUSED SWITCH ABOVE 600V
	FUSED SWITCH 600V AND LOWER
	MOLDED CASE AIR CIRCUIT BREAKER 600V & LOWER
	TRANSFORMER
	POTENTIAL TRANSFORMER
	CURRENT TRANSFORMER - SINGLE CONDUCTOR
	LIGHTNING ARRESTER WITH GROUND
S.A.	SURGE ARRESTOR
K	KIRK KEY
SKRU	SOLENOID KEY RELEASE UNIT
F	FREQUENCY METER
V	VOLTMETER
VS	VOLTMETER SWITCH
A	AMMETER
AS	AMMETER SWITCH
51 50	INSTANTANEOUS/TIME OVERCURRENT RELAY
51N 50N	INSTANTANEOUS/TIME GROUND FAULT RELAY RESIDUAL CT CONNECTION
27	UNDERVOLTAGE RELAY
86	LOCKOUT RELAY
G	GENERATOR
XXXX	FEEDER SCHEDULE TAG
	EPMS EQUIPMENT CONNECTION
	BREAKER TRIP UNIT
GW	SERIAL TO ETHERNET GATEWAY
PQM	POWER QUALITY MONITOR
PQMT	POWER QUALITY MONITOR WITH TRANSIENT CAPTURE
VR	VOLTAGE RELAY

7 ELECTRICAL DRAWING LIST

NO.	TITLE	SCALE
E05-01	DETAILS	NONE
E05-02	DETAILS	NONE
E05-03	DETAILS	NONE
E05-11	DETAILS	NONE
E05-12	DETAILS	NONE
E05-13	DETAILS	NONE
E05-14	DETAILS	NONE
E05-15	DETAILS	NONE
E05-16	DETAILS	NONE
E05-17	DETAILS	NONE
E05-18	DETAILS	NONE
E06-01	SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (SUBSTATION)	NONE
E06-02	SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1100/2100)	NONE
E06-03	SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH 1200/2200)	NONE
E06-04	SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1300)	NONE
E06-05	SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH2300)	NONE
E06-06	SINGLE LINE DIAGRAM - HOUSE BLOCK (FRONT OF HOUSE)	NONE
E06-07	SINGLE LINE DIAGRAM - HOUSE UPS BLOCK	NONE
E06-08	SINGLE LINE DIAGRAM - HOUSE BLOCK (BACK OF HOUSE)	NONE
E07-01	SCHEDULES	NONE
E07-10	TYPICAL FEEDER SCHEDULE	NONE
E07-11	PANEL SCHEDULES - FRONT OF HOUSE	NONE
E07-12	PANEL SCHEDULES - FRONT OF HOUSE	NONE
E07-13	PANEL SCHEDULES - FRONT OF HOUSE	NONE
E07-14	PANEL SCHEDULES - BACK OF HOUSE	NONE
E07-15	PANEL SCHEDULES - BACK OF HOUSE	NONE
E07-16	PANEL SCHEDULES - BACK OF HOUSE	NONE
Grand total: 104		

This sheet of drawings has not been reviewed for code compliance.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

NO.	TITLE	SCALE
E00-02	MASTER BLOCK DIAGRAM (1 OF 2)	NONE
E00-03	MASTER BLOCK DIAGRAM (2 OF 2)	NONE
E01-01	POWER SITE PLAN	1" = 40'-0"
E01-02	LIGHTING SITE PLAN	1" = 40'-0"
E02-01A	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT A	1/8" = 1'-0"
E02-01B	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT B	1/8" = 1'-0"
E02-01C	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
E02-01D	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT D	1/8" = 1'-0"
E02-01F	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT F	1/8" = 1'-0"
E02-01H	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT H	1/8" = 1'-0"
E02-01K	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT K	1/8" = 1'-0"
E02-01M	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT M	1/8" = 1'-0"
E02-01P	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT P	1/8" = 1'-0"
E02-01R	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT R	1/8" = 1'-0"
E02-01ST	LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT S-T	1/8" = 1'-0"
E02-02A	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT A	1/8" = 1'-0"
E02-02B	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT B	1/8" = 1'-0"
E02-02C	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT C	1/8" = 1'-0"
E02-02D	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT D	1/8" = 1'-0"
E02-02F	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT F	1/8" = 1'-0"
E02-02H	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT H	1/8" = 1'-0"
E02-02K	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT K	1/8" = 1'-0"
E02-02M	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT M	1/8" = 1'-0"
E02-02P	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT P	1/8" = 1'-0"
E02-02R	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT R	1/8" = 1'-0"
E02-02ST	LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT S-T	1/8" = 1'-0"
E03-01	POWER FLOOR PLAN - LEVEL ONE - OVERALL	1" = 40'-0"
E03-01A	POWER FLOOR PLAN - LEVEL ONE - SEGMENT A	1/8" = 1'-0"
E03-01B	POWER FLOOR PLAN - LEVEL ONE - SEGMENT B	1/8" = 1'-0"
E03-01C	POWER FLOOR PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
E03-01D	POWER FLOOR PLAN - LEVEL ONE - SEGMENT D	1/8" = 1'-0"
E03-01E	POWER FLOOR PLAN - LEVEL ONE - SEGMENT E	1/8" = 1'-0"
E03-01F	POWER FLOOR PLAN - LEVEL ONE - SEGMENT F	1/8" = 1'-0"
E03-01G	POWER FLOOR PLAN - LEVEL ONE - SEGMENT G	1/8" = 1'-0"
E03-01H	POWER FLOOR PLAN - LEVEL ONE - SEGMENT H	1/8" = 1'-0"
E03-01J	POWER FLOOR PLAN - LEVEL ONE - SEGMENT J	1/8" = 1'-0"
E03-01K	POWER FLOOR PLAN - LEVEL ONE - SEGMENT K	1/8" = 1'-0"
E03-01L	POWER FLOOR PLAN - LEVEL ONE - SEGMENT L	1/8" = 1'-0"
E03-01M	POWER FLOOR PLAN - LEVEL ONE - SEGMENT M	1/8" = 1'-0"
E03-01N	POWER FLOOR PLAN - LEVEL ONE - SEGMENT N	1/8" = 1'-0"
E03-01P	POWER FLOOR PLAN - LEVEL ONE - SEGMENT P	1/8" = 1'-0"
E03-01Q	POWER FLOOR PLAN - LEVEL ONE - SEGMENT Q	1/8" = 1'-0"
E03-01R	POWER FLOOR PLAN - LEVEL ONE - SEGMENT R	1/8" = 1'-0"
E03-01ST	POWER FLOOR PLAN - LEVEL ONE - SEGMENT S-T	1/8" = 1'-0"
E03-02	POWER FLOOR PLAN - LEVEL TWO - OVERALL	1" = 40'-0"
E03-02A	POWER FLOOR PLAN - LEVEL TWO - SEGMENT A	1/8" = 1'-0"
E03-02B	POWER FLOOR PLAN - LEVEL TWO - SEGMENT B	1/8" = 1'-0"
E03-02C	POWER FLOOR PLAN - LEVEL TWO - SEGMENT C	1/8" = 1'-0"
E03-02D	POWER FLOOR PLAN - LEVEL TWO - SEGMENT D	1/8" = 1'-0"
E03-02F	POWER FLOOR PLAN - LEVEL TWO - SEGMENT F	1/8" = 1'-0"
E03-02H	POWER FLOOR PLAN - LEVEL TWO - SEGMENT H	1/8" = 1'-0"
E03-02K	POWER FLOOR PLAN - LEVEL TWO - SEGMENT K	1/8" = 1'-0"
E03-02M	POWER FLOOR PLAN - LEVEL TWO - SEGMENT M	1/8" = 1'-0"
E03-02P	POWER FLOOR PLAN - LEVEL TWO - SEGMENT P	1/8" = 1'-0"
E03-02R	POWER FLOOR PLAN - LEVEL TWO - SEGMENT R	1/8" = 1'-0"
E03-02ST	POWER FLOOR PLAN - LEVEL TWO - SEGMENT S-T	1/8" = 1'-0"
E03-03	POWER ROOF PLAN - OVERALL	1" = 40'-0"
E03-21A	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT A	1/8" = 1'-0"
E03-21B	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT B	1/8" = 1'-0"
E03-21C	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT C	1/8" = 1'-0"
E03-21D	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT D	1/8" = 1'-0"
E03-21E	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT E	1/8" = 1'-0"
E03-21F	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT F	1/8" = 1'-0"
E03-21G	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT G	1/8" = 1'-0"
E03-21H	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT H	1/8" = 1'-0"
E03-21J	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT J	1/8" = 1'-0"
E03-21K	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT K	1/8" = 1'-0"
E03-21L	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT L	1/8" = 1'-0"
E03-21M	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT M	1/8" = 1'-0"
E03-21N	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT N	1/8" = 1'-0"
E03-21P	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT P	1/8" = 1'-0"
E03-21Q	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT Q	1/8" = 1'-0"
E03-21R	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT R	1/8" = 1'-0"
E03-21ST	GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT S & T	1/8" = 1'-0"
E03-24	GROUNDING RISER DIAGRAM	NONE
E04-01	POWER ENLARGED PLAN - LEVEL ONE	1/8" = 1'-0"
E04-02	POWER ENLARGED PLAN - LEVEL TWO	1/8" = 1'-0"

8 ELECTRICAL EQUIPMENT NAMING STANDARD

FORMAT

GROUP 1 SITE	GROUP 2 BUILDING	GROUP 3 EQUIPMENT	GROUP 4 SYSTEM	GROUP 5 SEQUENCE
XXXX	XXX	XXXX	XXXX	XX

XXXX-XXX EXAMPLES

XXXX-XXX-UTL-A (UTILITY FEED A)
XXXX-XXX-UTL-B (UTILITY FEED B)
XXXX-XXX-MVG-01 (MEDIUM VOLTAGE GEAR 01)
XXXX-XXX-SUB-A11 (SUBSTATION A1)
XXXX-XXX-SUB-B11 (SUBSTATION B1)
XXXX-XXX-SUB-A1-2 (SUBSTATION A1 FEEDER BREAKER #2)
XXXX-XXX-UPS-A11 (UPS SYSTEM A11)
XXXX-XXX-UPS-A1-3 (UPS SYSTEM A11 - UNIT #3)
XXXX-XXX-COD-A11 (COD BOARD A11)
XXXX-XXX-COD-A11-1 (COD BOARD A11 - BREAKER #1)
XXXX-XXX-STS-A11R11-03 (SRD STS UNIT FED FROM CODs A11 AND R11)
XXXX-XXX-PDU-A11R11-03 (PDU UNIT FED FROM STS-A11R11-03)
XXXX-XXX-PNL-A11R11-03-A (PANEL A FED FROM PDU-A11R11-03)
XXXX-XXX-CKT-A11R11-03-A-01,03,05 (3-PHASE CIRCUIT)

9 VOLTAGE DROP REQUIREMENTS

VOLTAGE DROP NOTE:

THE FOLLOWING LIST APPLIES TO ALL NEW 20A BRANCH WIRING PROVIDED UNDER THIS CONTRACT. LISTS INDICATED THE NECESSARY GAUGE OF CONDUCTORS NECESSARY FOR BRANCH CIRCUITS ONE WAY FROM PANEL TO LAST OUTLET OR LIGHTING FIXTURE ON THE CIRCUIT:

120/208V CIRCUITS	WIRE SIZE	277V CIRCUITS
• 0-65 FEET	No. 12 AWG	0-150 FEET
• 66-145 FEET	No. 10 AWG	151-250 FEET
• 146-160 FEET	No. 8 AWG	251-375 FEET

10 CODES

CODES AND AMENDMENTS

- 2021 INTERNATIONAL BUILDING CODE
- 2021 INTERNATIONAL PLUMBING CODE
- 2021 INTERNATIONAL MECHANICAL CODE
- 2021 INTERNATIONAL ENERGY CONSERVATION CODE
- 2021 INTERNATIONAL FUEL GAS CODE
- 2021 INTERNATIONAL FIRE CODE
- 2023 NFPA 70, NATIONAL ELECTRICAL CODE (NEC)
- LOCAL FIRE DEPARTMENT REQUIREMENTS
- COLORADO ACCESSIBILITY CODE 2017/ANSI A117.1
- NATIONAL FIRE PROTECTION ASSOCIATION CODES
- ENGINEER OF RECORD SHALL INCLUDE ALL INTERNATIONAL, STATE AND LOCAL CODES APPLICABLE BASED ON LOCATION AND JURISDICTION OF BUILDING SITE. ENGINEER OF RECORD SHALL USE THE LATEST VERSIONS OF CODES ADOPTED BY THE JURISDICTION OF BUILDING SITE.

11 ELECTRICAL GENERAL NOTES

1. THIS SCHEDULE IS A STANDARD SCHEDULE. CERTAIN SYMBOLS & ABBREVIATIONS INDICATED ON THIS SCHEDULE MAY NOT APPEAR ON THE DRAWINGS. EQUIPMENT SYMBOLS SHOWN DASHED ON THE DRAWINGS INDICATE EXISTING EQUIPMENT.
2. FOR ADDITIONAL INFORMATION, COORDINATION AND WORK REFER TO TELECOMMUNICATION DRAWINGS.
3. THE EC SHALL COORDINATE EXACT LOCATION OF FLOOR BOXES WITH THE USING AGENCY PRIOR TO INSTALLATION.
4. EQUIPMENT SYMBOLS SHOWN DASHED ON THE DRAWINGS INDICATE EXISTING EQUIPMENT OR FUTURE EQUIPMENT.
5. REFER TO ARCHITECTURAL DETAILS AND REFLECTED CEILING DRAWINGS FOR LOCATION AND COORDINATION OF LIGHTING FIXTURES IN CEILING CONSTRUCTION.

CAUTION NOTICE TO CONTRACTOR:

- THE ENGINEER OF RECORD SHALL REVIEW THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND INCORPORATE INTO THE CONSTRUCTION DOCUMENTS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE ENGINEER OF RECORD SHALL INVESTIGATE THE LOCATION OF THE PROPOSED UTILITIES TO CONFIRM COMPLIANCE WITH THE LOCAL AUTHORITY HAVING JURISDICTION AND ALL APPLICABLE CODES. UTILITY FEEDS TO THE FACILITY SHALL BE DIVERSE PATHS AS REQUIRED AND OUTLINED WITHIN THE OPR DOCUMENT.
- THE CONTRACTOR SHALL CONFIRM ALL FINAL CONNECTION POINTS TO EXISTING UTILITIES.
- THIS SITE CONTAINS BOTH UTILITY AND OWNER UNDERGROUND UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL EXCAVATING ACTIVITIES WITH BOTH OWNER AND UTILITY.

12 DESIGN STANDARDS

QTS Freedom Standard - Version Matrix
Project: QTS DEN1-DC2...

Design Deliverable:
QTS Design Standards will be utilized as the Basis Of Design for the Data Center Building.
Design Consultant team to notate Version of QTS Design Standards.

Design Discipline	QTS Design Standard		
	Design Narrative	DD Drawing Set	Reference File
Civil	V3.0	N/A	
General	V3.0	V3.0	
Structural	V3.0	V3.0	
Architectural	V3.0	V3.0	
Fire Alarm	V3.0	V3.0	
Fire Protection	V3.0	V3.0	
Plumbing	V3.0	V3.0	
Process (I&C)	See Below	V3.0	
Mechanical	V3.0	V3.0	
Electrical	V3.0	V3.0	
Technology (Telecom)	V3.0	V3.0	
Audio Visual	N/A	V3.0	
Security	V3.0	V3.0	
Interior Standards	V3.0	See Architectural	3.0-rev1
Signage			INTrev4 EXTrev3
SDIs	N/A	N/A	SDI-018(v3.0) thru 44
OFCI Catalog		V4.0	
SOO Catalog		V2.0	

Design Discipline	Q-Systems Design Standard BODs Version
Data Telecom BOD	Freedom Standard - Data Telecom - 04.14.2024
Physical Security BOD	Freedom Standard - Security Systems - 05.10.2024
DCIM - BMS BOD	Freedom Standard - BMS Content Consolidation - 04.16.2024
DCIM - EPMS BOD	Freedom Standard - EPMS Content Consolidation - 04.16.2024

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO REGISTERED JAMES SCOTT CORGAN 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

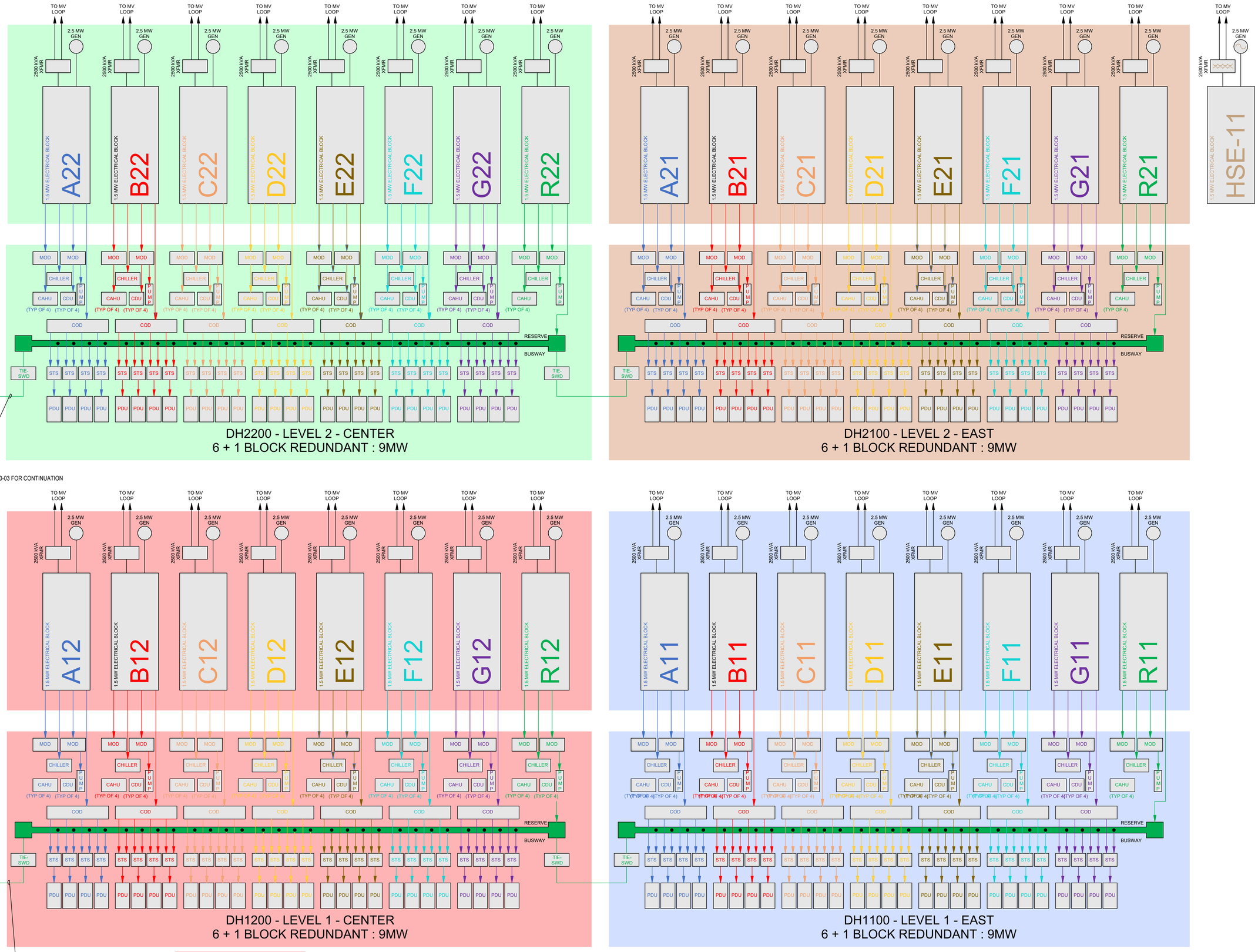
QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

SYMBOLS, ABBREVIATIONS AND GENERAL NOTES

JOB 24464.0000
DATE 01.31.25
SHEET

E00-01

2/5/2025 9:43:15 AM E00-01 SYMBOLS, ABBREVIATIONS AND GENERAL NOTES



This sheet of drawings has not been reviewed for code compliance.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

2/5/2025 9:43:18 AM E00-02 MASTER BLOCK DIAGRAM (1 OF 2)

CORGAN
401 N. Houston Street Dallas, TX 75202
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AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

	ISSUES	
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

△	REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

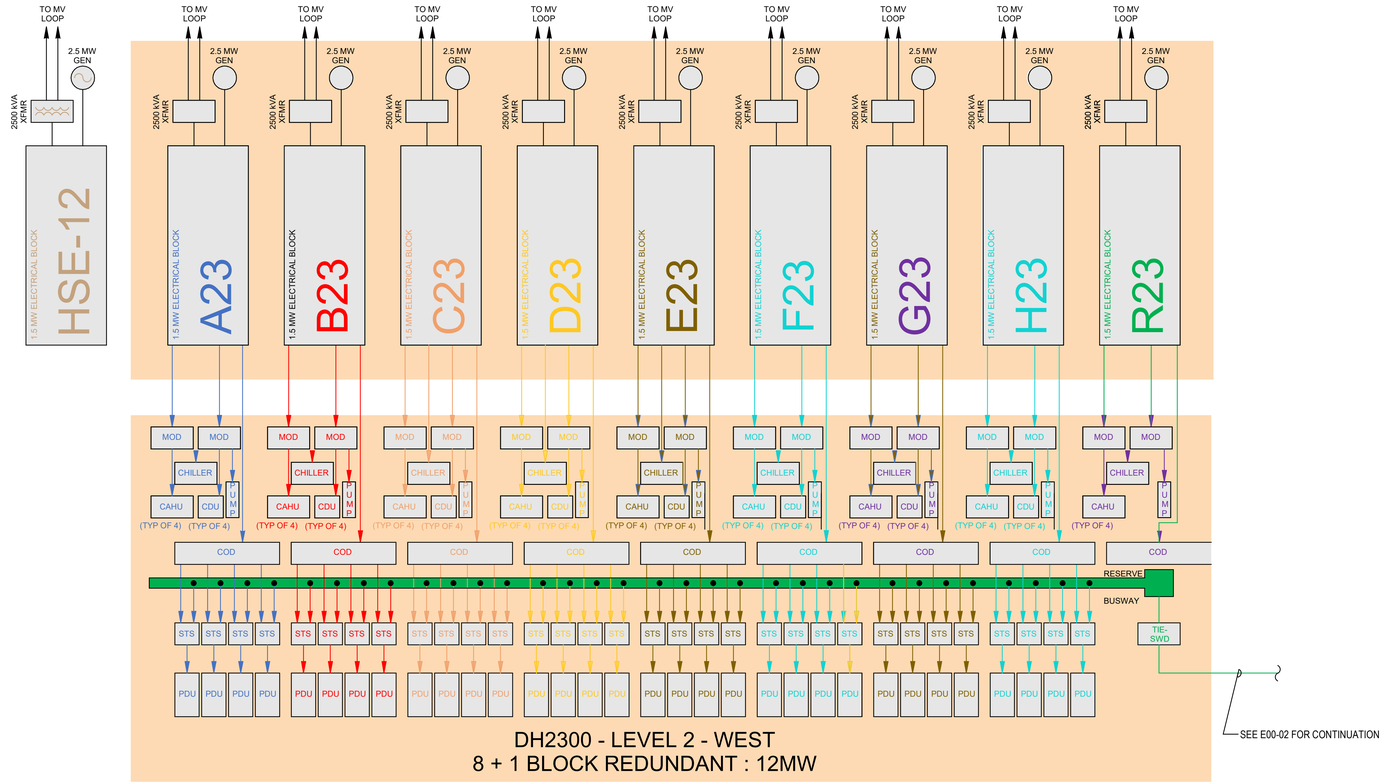
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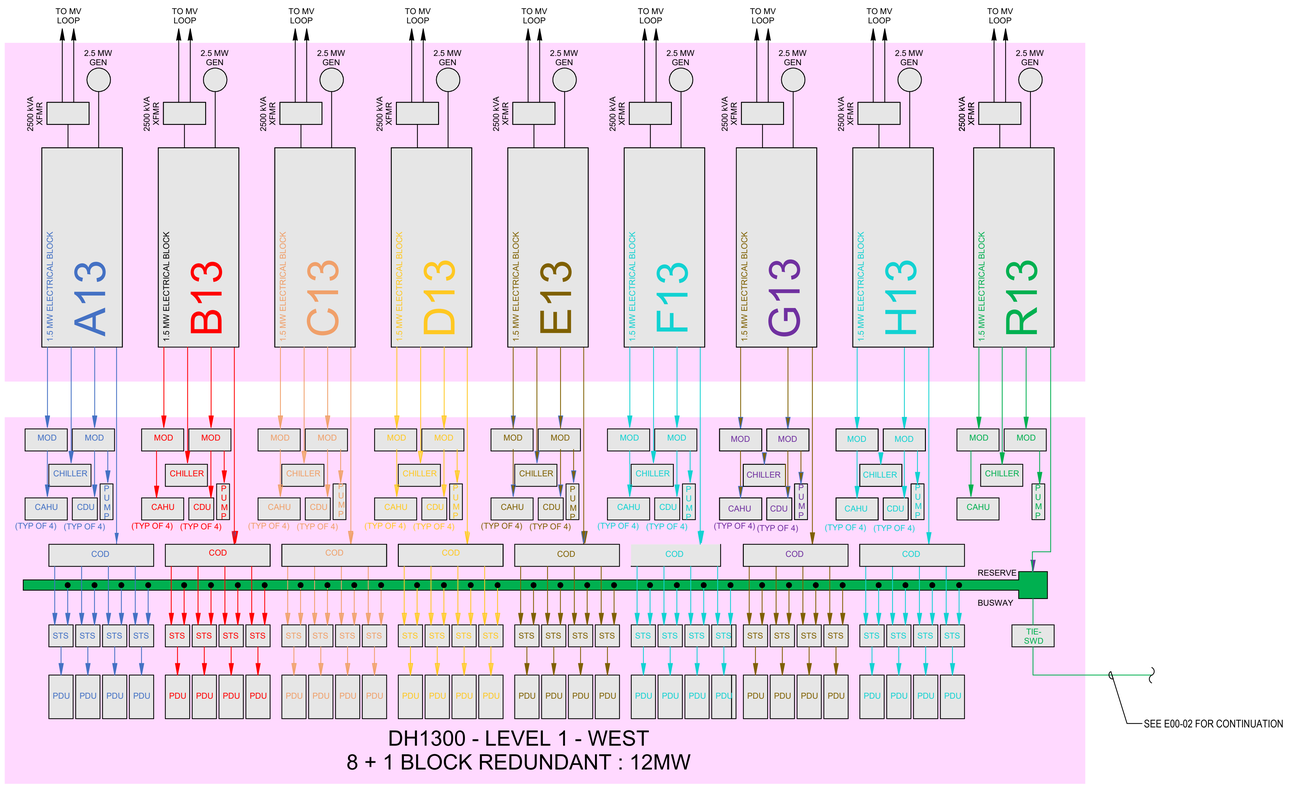
S	Q	N	L	J	G	E	C	A
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MASTER BLOCK DIAGRAM (1 OF 2)

JOB 24464.0000
DATE 01.31.25
SHEET

E00-02





This sheet of drawings has not been reviewed for code compliance.

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

2/5/2025 9:43:20 AM E00-03 MASTER BLOCK DIAGRAM (2 OF 2)

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ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

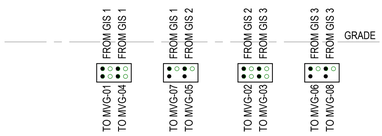
KEYPLAN

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MASTER BLOCK DIAGRAM (2 OF 2)

JOB 24464.0000
DATE 01.31.25
SHEET

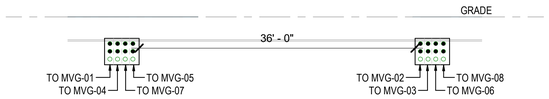
E00-03



COORDINATE DUCTBANK DEPTH AND FINAL DEMARCATION POINT WITH SUBSTATION INSTALLER.

2 DUCTBANK SECTION - SUBSTATION ENTRY

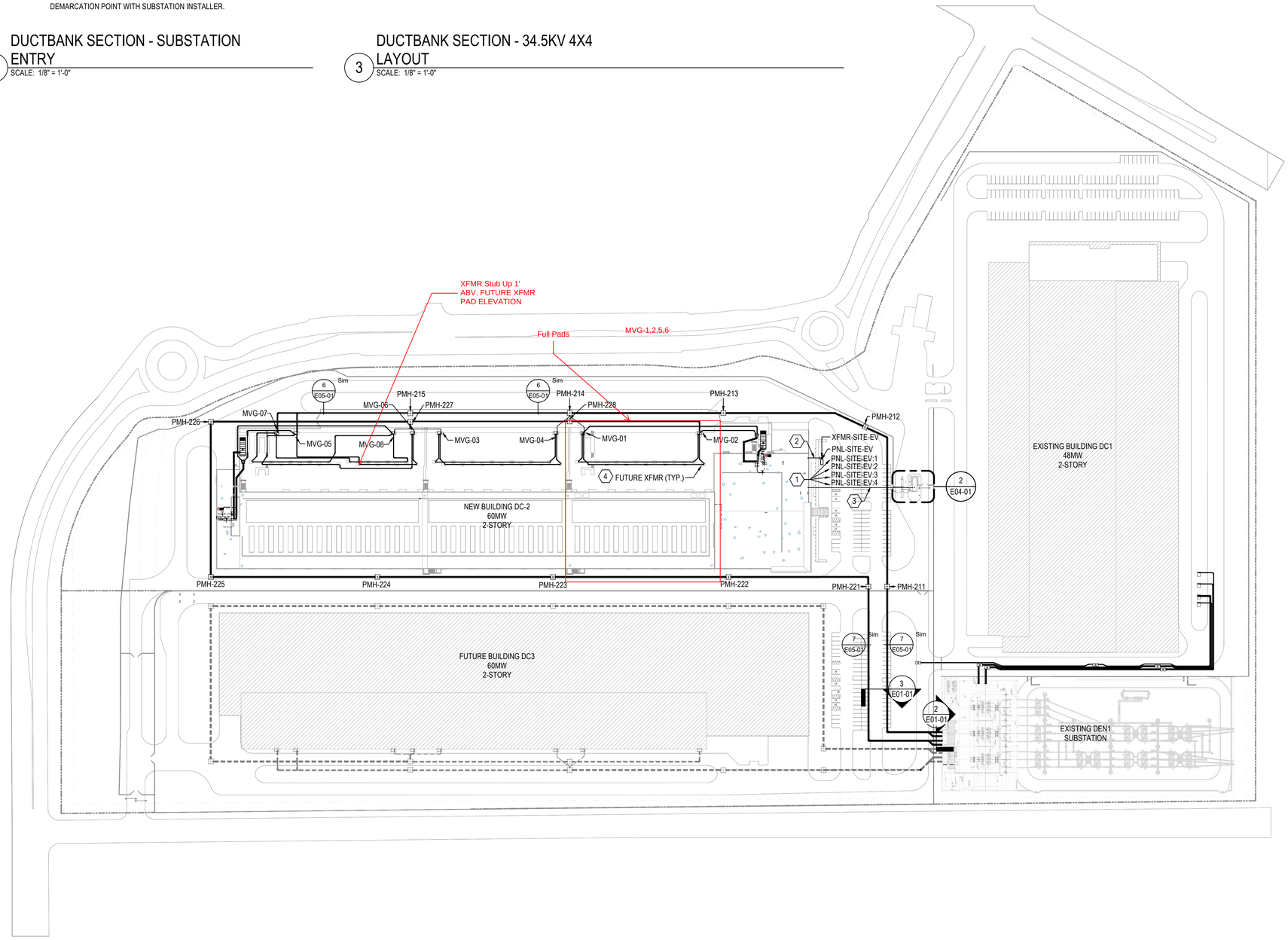
SCALE: 1/8" = 1'-0"



SEE DETAIL 7/E05-01 FOR FURTHER INFORMATION ON DUCTBANK REQUIREMENTS.

3 DUCTBANK SECTION - 34.5KV 4X4 LAYOUT

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



1 LEVEL 1 POWER SITE PLAN

SCALE: 1" = 100'-0"

SHEET NOTES:

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAWINGS.
C. COORDINATE STUB UP LOCATIONS WITH EQUIPMENT MANUFACTURER SITE SPECIFIC SHOP DRAWINGS PRIOR TO INSTALLATION.
D. UNDERGROUND DUCT BANKS OUTSIDE OF THE BUILDING SHALL BE INSTALLED AS SHALLOW AS POSSIBLE, MINIMUM 30" COVER. COORDINATE MAXIMUM ALLOWED DEPTHS AND INFILL REQUIREMENTS WITH E5 SERIES.
E. COORDINATE UNDERGROUND CONDUITS WITH OTHER TRADES PRIOR TO INSTALLATION.
F. COORDINATE VAULT QUANTITY AND LOCATIONS WITH CABLING/PULL CALCULATIONS AND CONTRACTOR SUBMITTALS.
G. REFER TO TELECOM DRAWINGS FOR COMMUNICATIONS SITE PLAN.
H. ALL ROUTING OF UNDERGROUND FEEDERS SHALL BE COORDINATED WITH ALL OTHER UTILITIES.
I. ALL LOCATIONS AND ROUTING OF ELECTRICAL UTILITIES ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS, CONDUIT, ROUTING, AND ELEVATIONS WITH ALL TRADES INCLUDING CIVIL DRAWINGS SO THAT OTHER UTILITIES WILL PASS BELOW ELECTRICAL DUCT BANK AND NOTIFY ENGINEER OF ANY DISCREPANCIES ENCOUNTERED.
J. MANHOLES AND DUCTBANK ASSOCIATED WITH BUILDING DC3 IS FUTURE.
K. CABLE BUS ROUTING IS DIAGRAMMATIC AND SHALL BE COORDINATED WITH MANUFACTURER. PROVIDE SHOP DRAWINGS FOR ENGINEERING REVIEW AND APPROVAL PRIOR TO INSTALLATION.
L. MAXIMUM DISTANCE BETWEEN VAULTS FOR UNDERGROUND MEDIUM VOLTAGE FEEDERS SHALL BE 450 FEET.

KEYNOTES:

1. PROVIDE CONNECTION TO EV CHARGING STATION - 1"C.-2#8 & 1#10 GND.
2. PROVIDE (1) 2 1/2"C + (1) SPARE 2 1/2"C FOR POWER TO EV TRANSFORMER. CONDUIT SHALL STUB UP WITHIN THE BUILDING AND ROUTE OVERHEAD BACK TO THE HOUSE ELECTRICAL ROOM.
3. PROVIDE (1) 1"C + (1) SPARE 1"C FOR POWER TO GUARD HOUSE. CONDUIT SHALL STUB UP WITHIN THE BUILDING AND ROUTE OVERHEAD BACK TO THE HOUSE ELECTRICAL ROOM.
4. PROVIDE TRANSFORMER SLAB BOX WITH CONDUIT STUB-UPS AS INDICATED ON SINGLE LINE. PROVIDE VOID SPACE FOR PRIMARY CONDUIT TERMINATION IN ACCORDANCE WITH NEC REQUIREMENTS FOR WIRE BENDING SPACE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:43:51 AM E01-01 POWER SITE PLAN

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REVISIONS

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1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

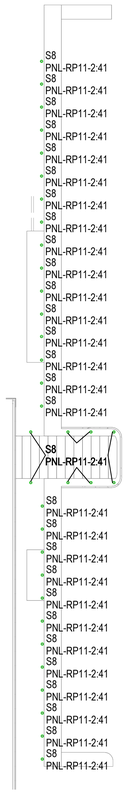
KEYPLAN

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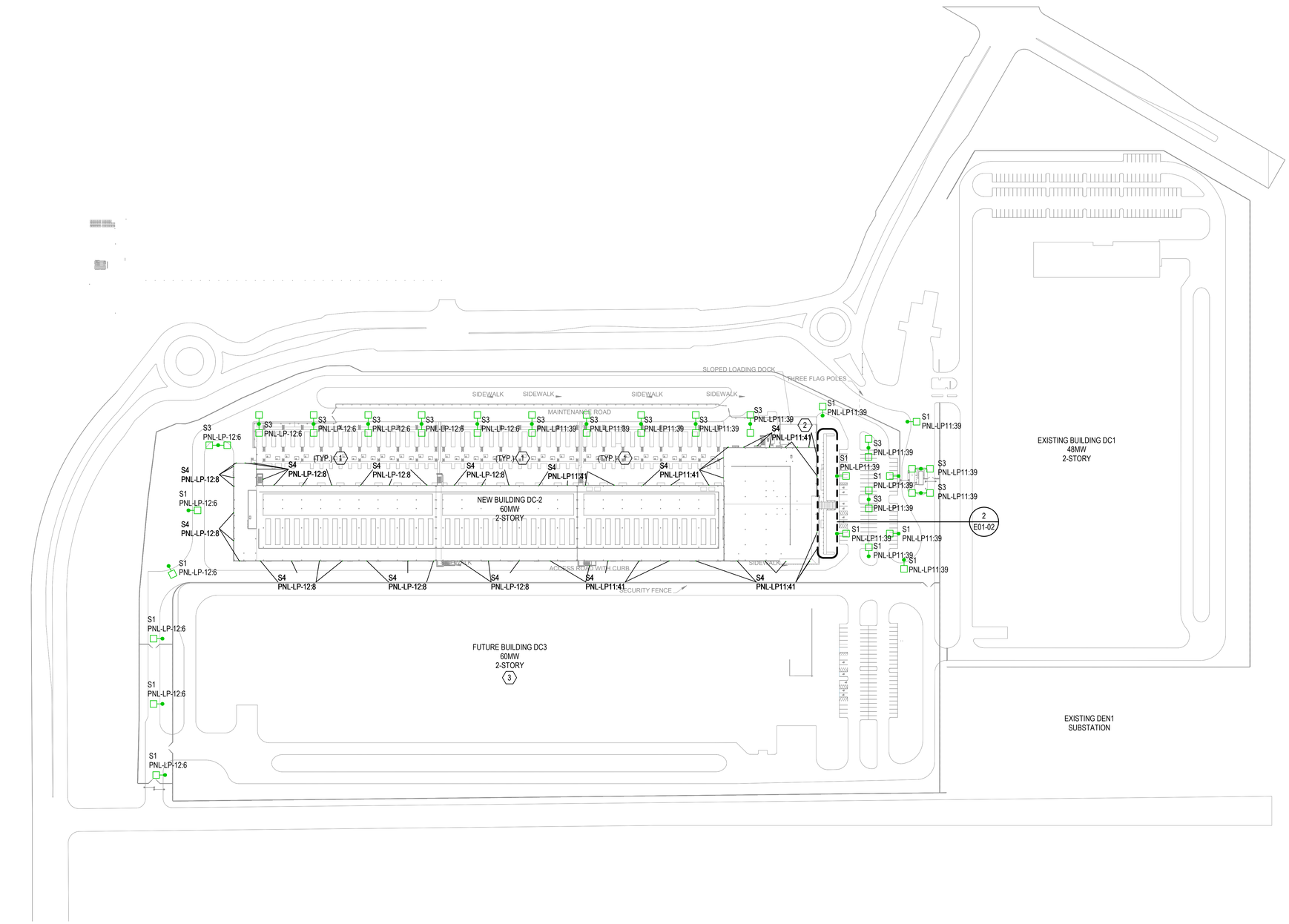
POWER SITE PLAN

JOB 24464.0000
DATE 01.31.25
SHEET

E01-01



2 LEVEL 1 LIGHTING ENTRANCE PLAN
SCALE: 3/64" = 1'-0"



Wet and Damp Locations. Luminaires installed In wet or damp locations shall be installed such That water cannot enter or accumulate in Wiring compartments, lampholders, or other Electrical parts. All luminaires installed in wet Locations shall be marked, "Suitable for Wet Locations". All luminaires installed in damp Locations shall be marked, "Suitable for Wet Locations or "Suitable for Damp Locations" Per 2023 NEC 410.10(A).

1 LEVEL 1 LIGHTING SITE PLAN
SCALE: 1" = 100'-0"

SHEET NOTES:

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHT FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER.
D. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAWINGS.
E. SITE POLE LOCATIONS SHOWN FOR CIRCUITING INTENT ONLY. COORDINATE FINAL LOCATIONS WITH CIVIL SITE PLANS.
F. REFER TO CIVIL DRAWINGS FOR SITE PHOTOMETRICS AND POLE BASE DETAILS.
G. COORDINATE CONDUITS FOR POWER AND SECURITY LV AT EACH LOCATION PRIOR TO INSTALLATION OF CONCRETE BASE.
H. COORDINATE UNDERGROUND CONDUITS WITH OTHER TRADES PRIOR TO INSTALLATION.
I. SITE LIGHTING SHALL BE 2#6 AND #10 GROUND IN A 1" CONDUIT, UNLESS OTHERWISE NOTED.
J. FOR POLE MOUNTED SECURITY DEVICES PROVIDE POLE THAT IS RATED AND DRILLED FROM FACTORY TO SUPPORT LIGHT FIXTURE AND SECURITY DEVICE.
K. SITE LIGHTING OPERATION SHALL BE TIMECLOCK CONTROLLED WITH PHOTOCELL OVERRIDE AND SHALL BE DAWN TO DUSK OPERATION.

KEYNOTES:

1. ELECTRIC YARD LIGHT FIXTURE 'S4' SHALL BE MOUNTED AT 27'-0" ABOVE FIRST FLOOR SLAB.
2. LOADING DOCK BUILDING MOUNTED AND WALL MOUNTED LIGHTING FIXTURE 'S4' SHALL BE MOUNTED AT 17'-0" ABOVE FIRST FLOOR SLAB.
3. DC3 SITE LIGHTING TO BE UNDER SEPARATE PERMIT.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:44:04 AM E01-02 LIGHTING SITE PLAN

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1/31/2025

Date of issue:
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1140 N. GUN CLUB ROAD
AURORA, CO

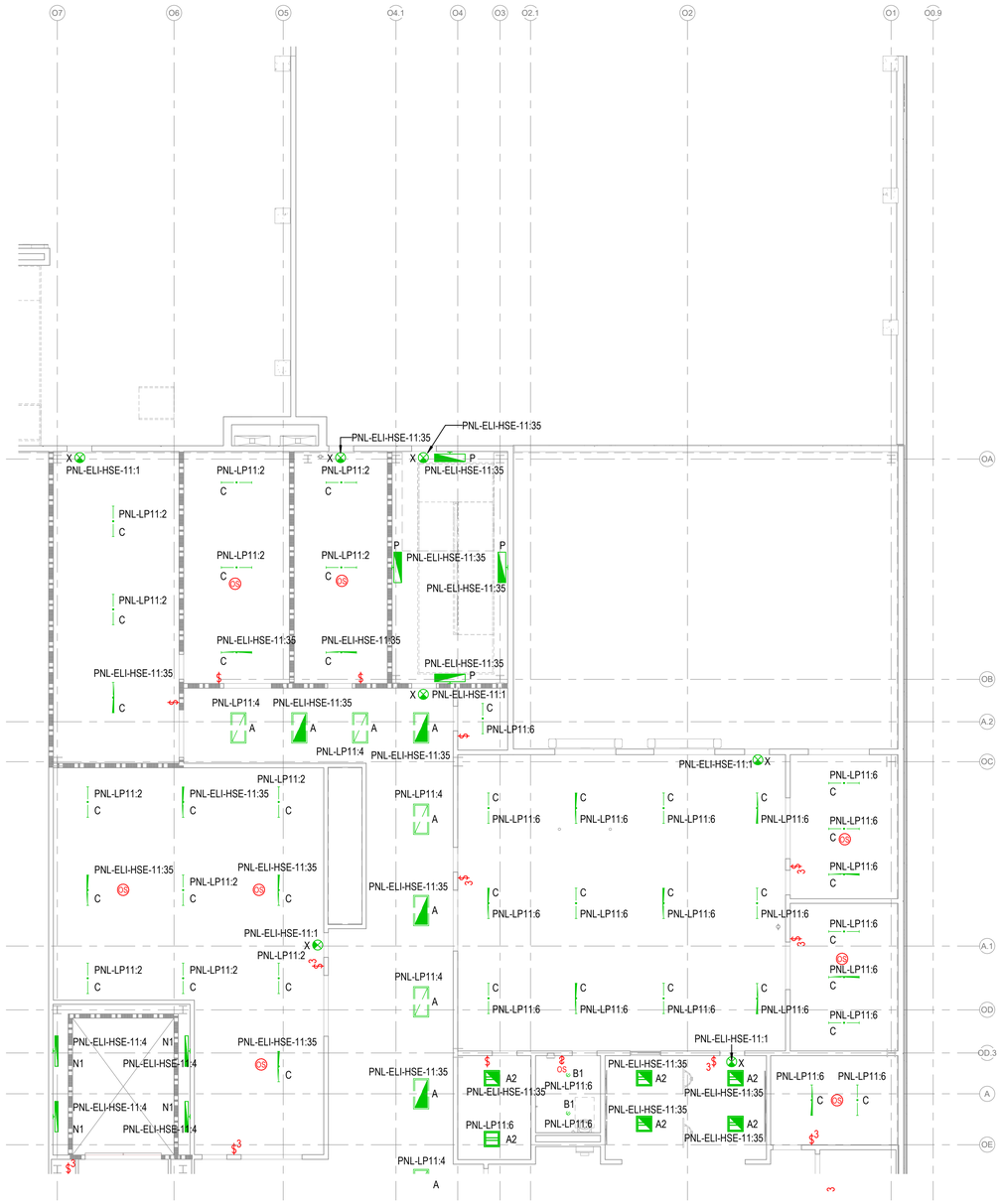
KEYPLAN

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LIGHTING SITE PLAN

JOB 24464.0000
DATE 01.31.25
SHEET

E01-02



1 LEVEL 1 LIGHTING CEILING PLAN - A
SCALE: 1/8" = 1'-0"

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

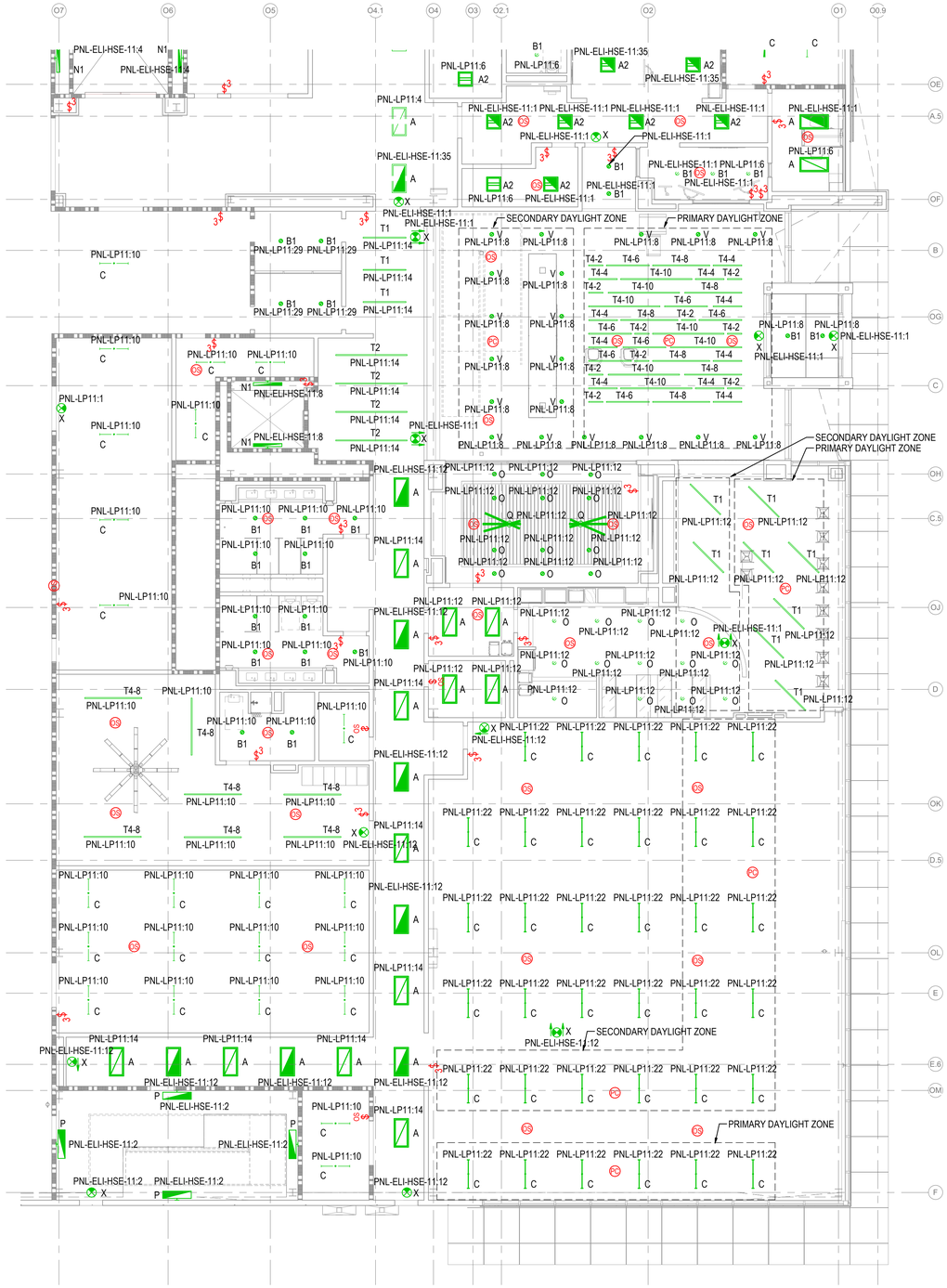
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET E02-01A

2/5/2025 9:44:07 AM E02-01A LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT A



1 LEVEL 1 LIGHTING CEILING PLAN - B
SCALE: 1/8" = 1'-0"

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

SHEET KEYNOTES

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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD AURORA, CO

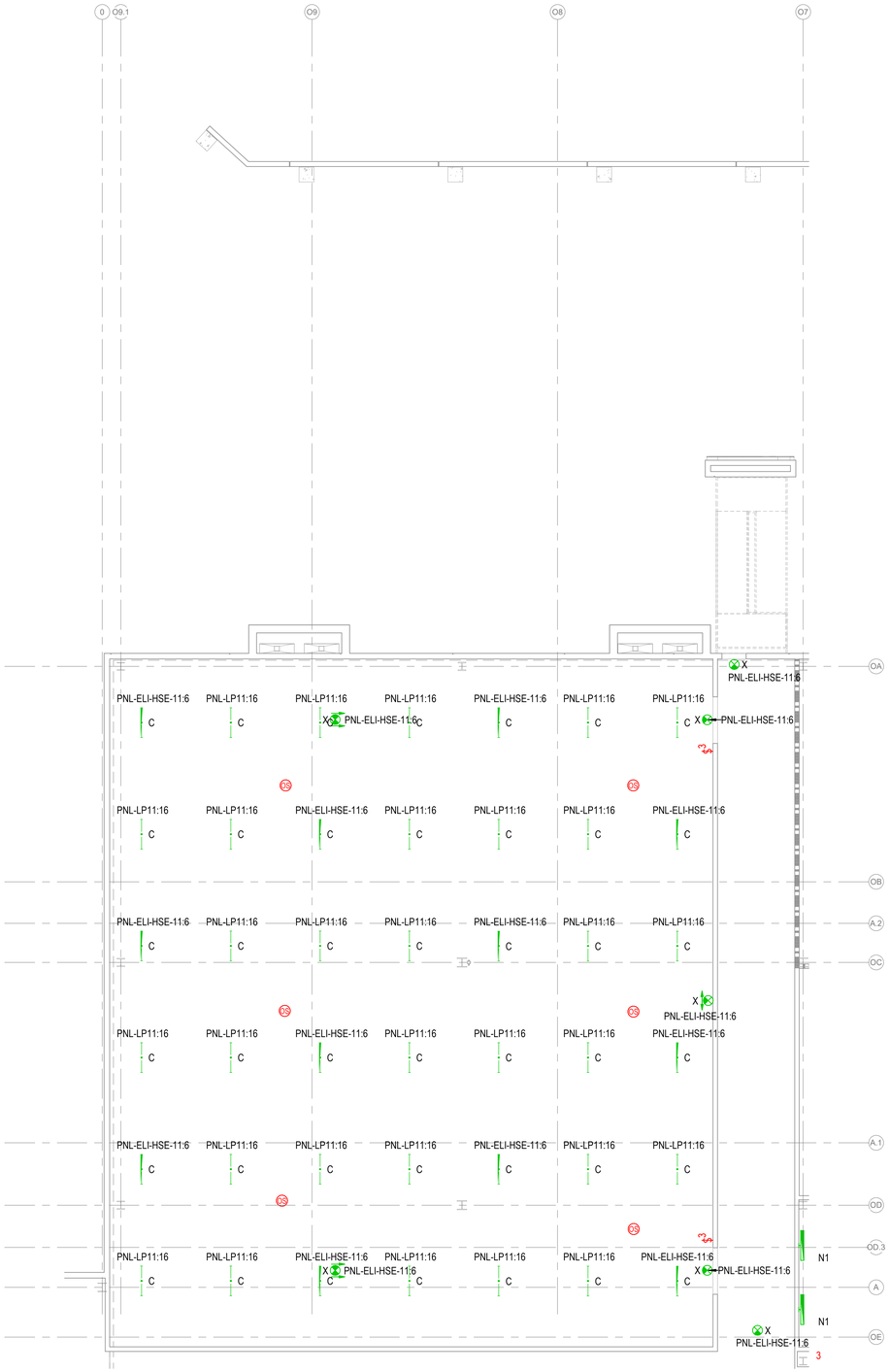
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET E02-01B

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC



1 LEVEL 1 LIGHTING CEILING PLAN - C
SCALE: 1/8" = 1'-0"

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

SHEET KEYNOTES

1. 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
2. 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

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1/31/2025

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

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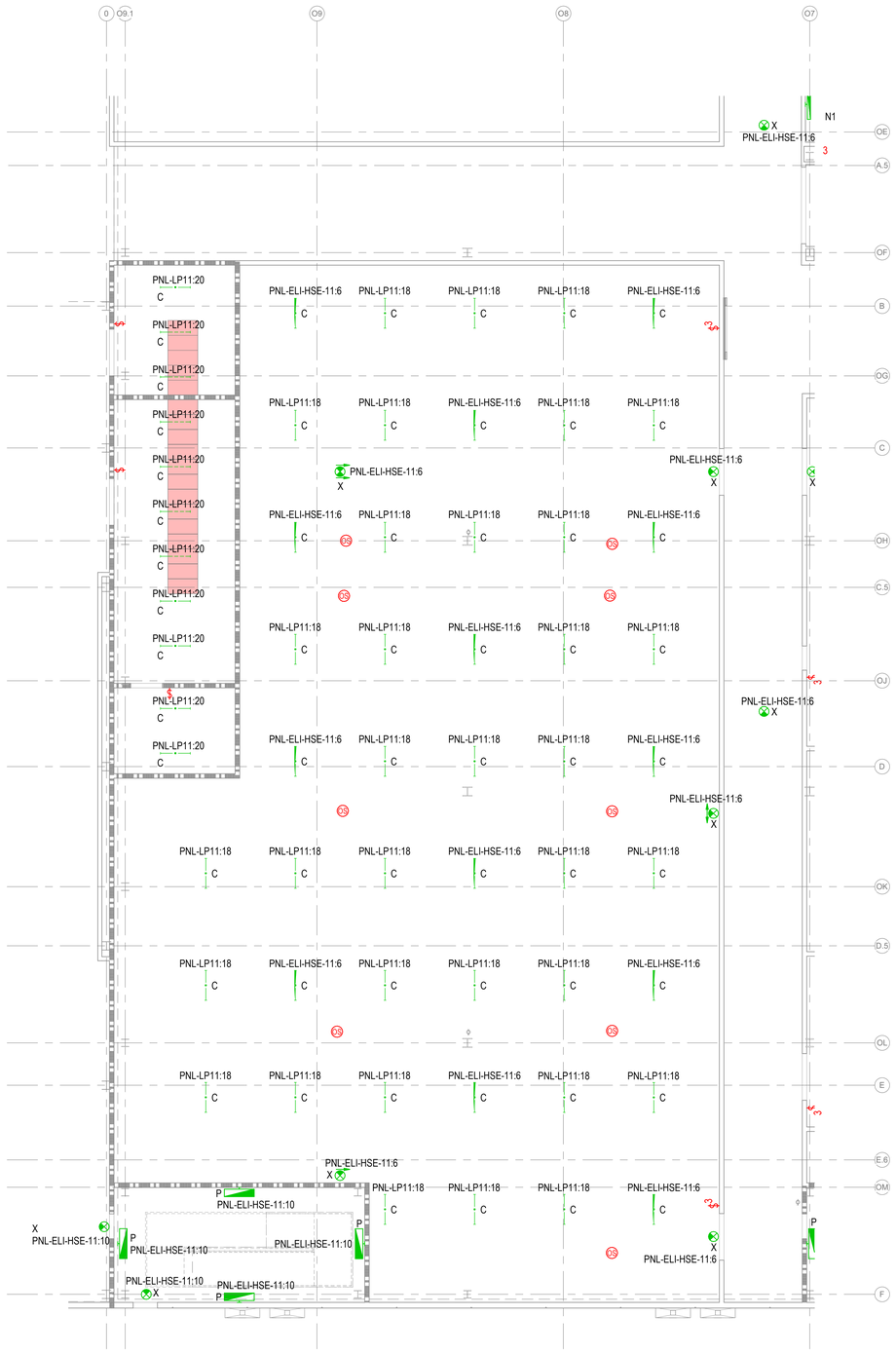
LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01C

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:44:15 AM E02-01C LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT C



1 LEVEL 1 LIGHTING CEILING PLAN - D
SCALE: 1/8" = 1'-0"

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

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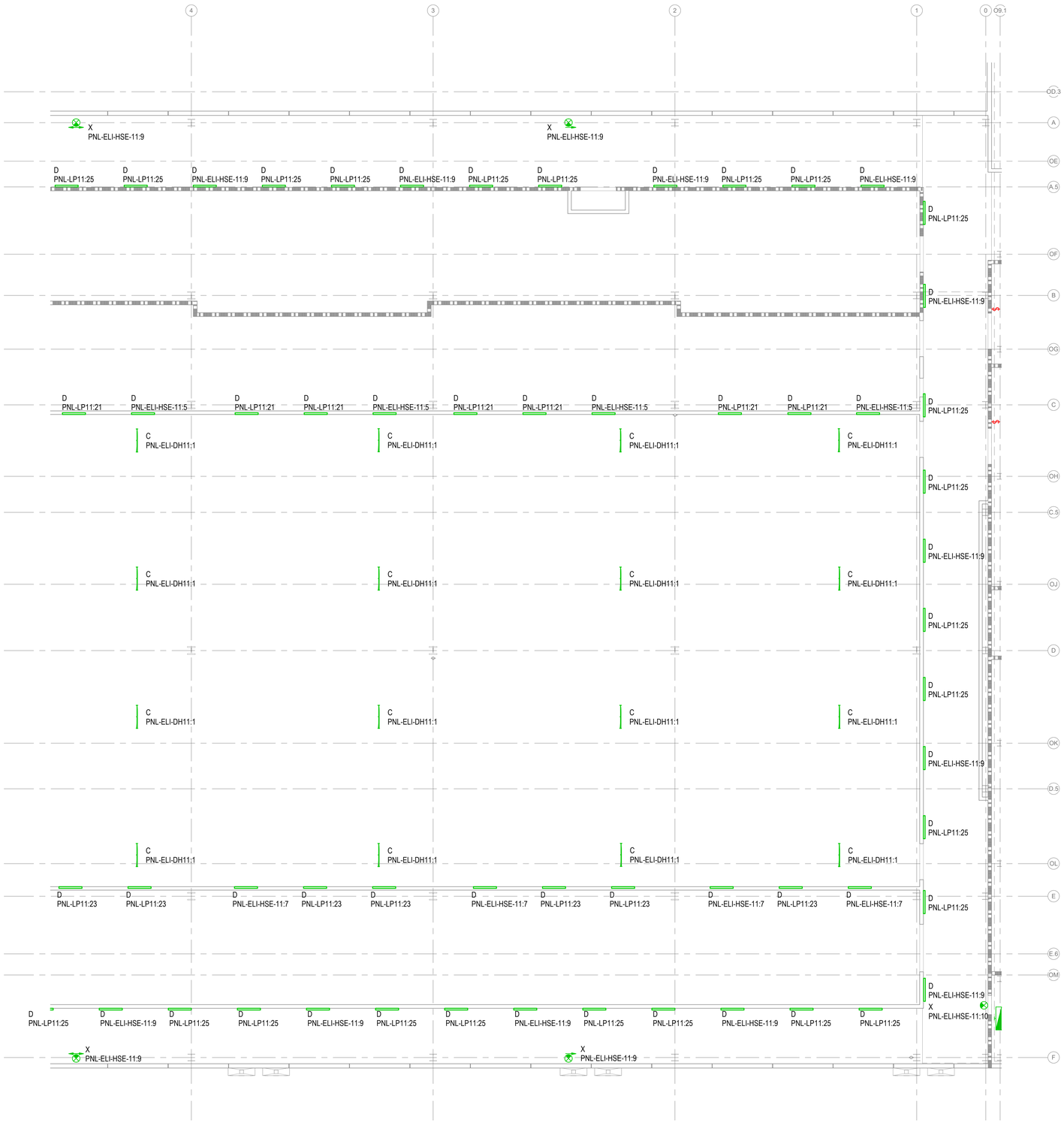
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01D

2/5/2025 9:44:17 AM E02-01D LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT D



1 LEVEL 1 LIGHTING CEILING PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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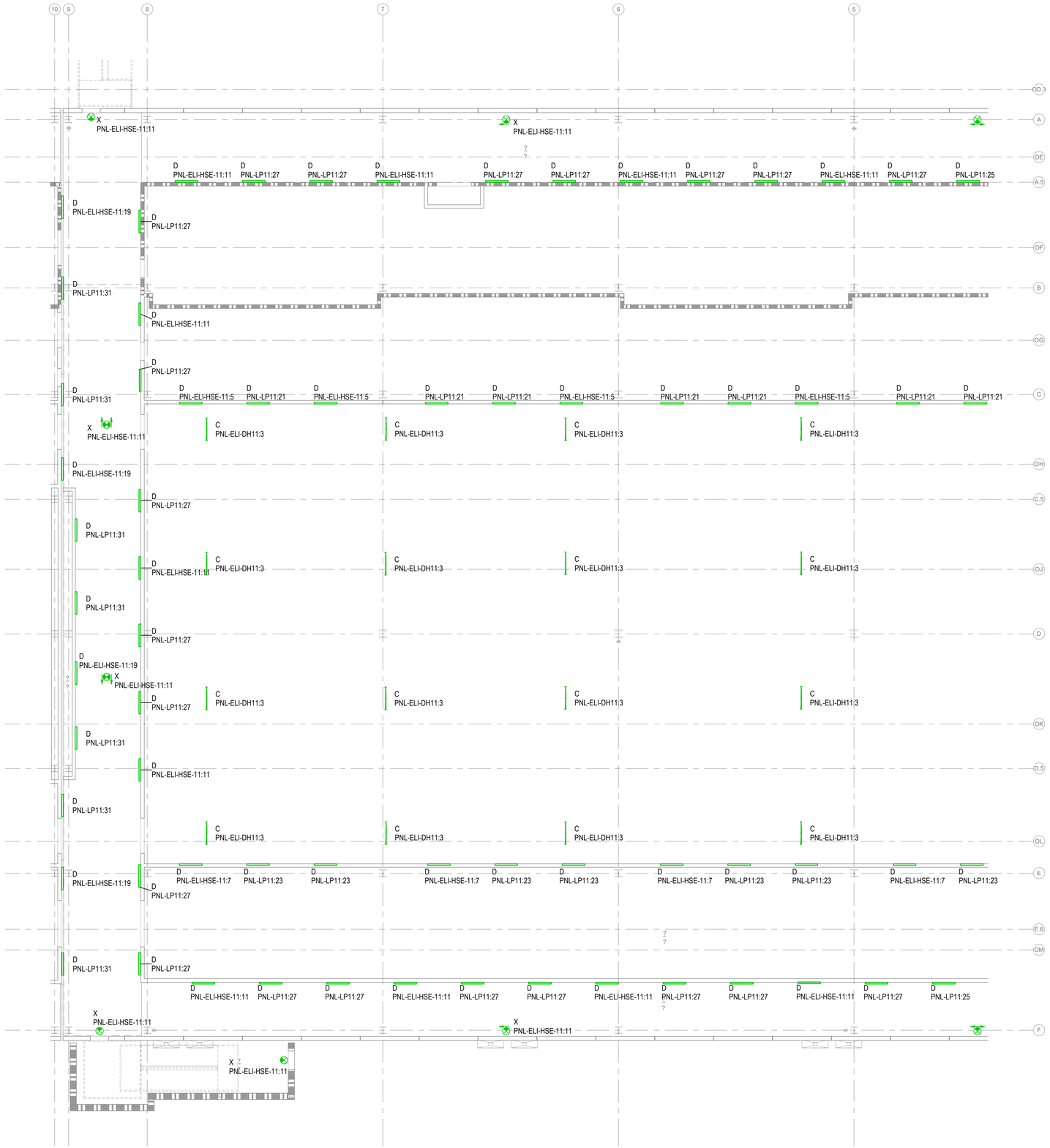
LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01F

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:44:20 AM E02-01F LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT F



1 LEVEL 1 LIGHTING CEILING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

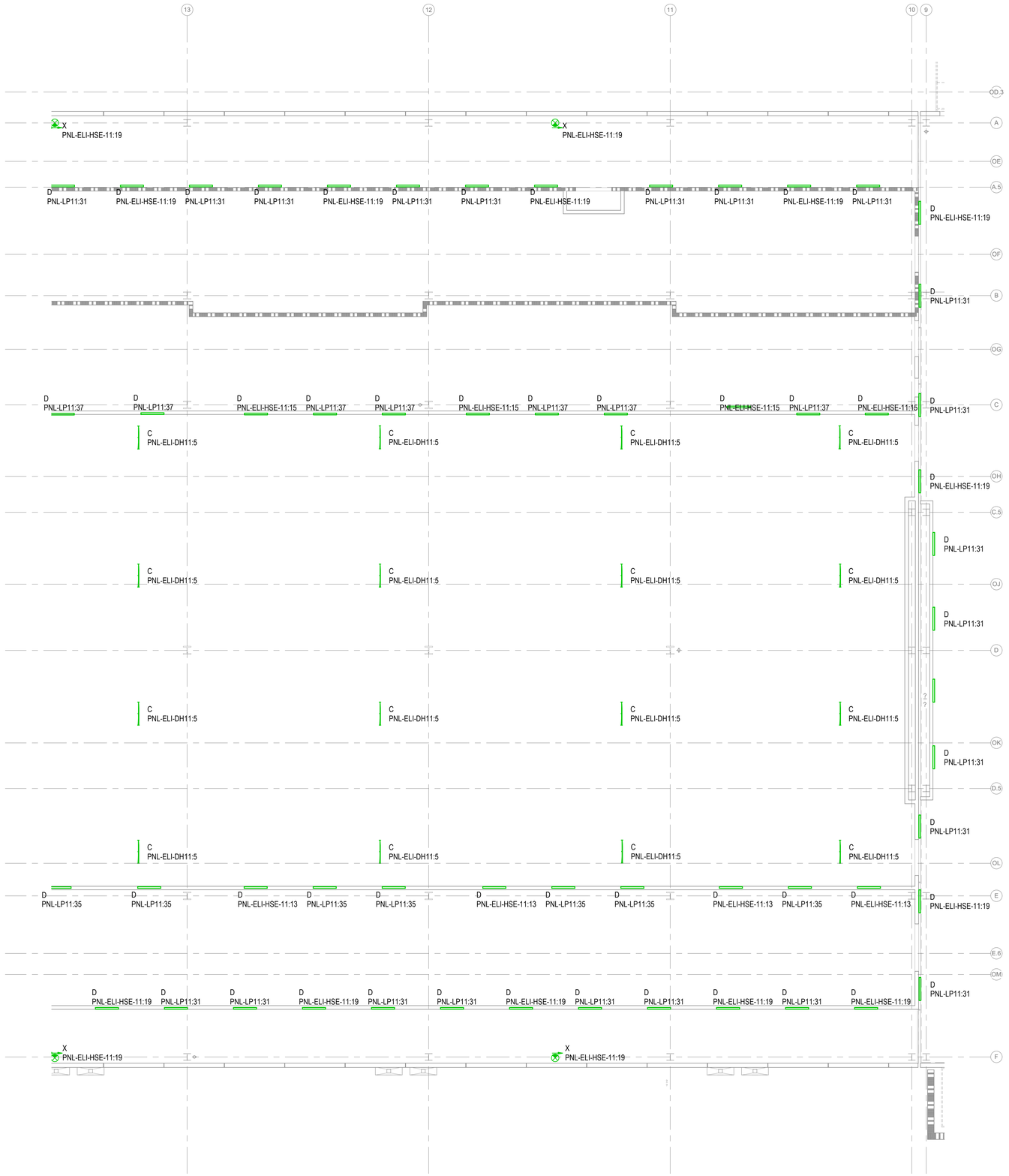
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01H

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC



1 LEVEL 1 LIGHTING CEILING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

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SHEET KEYNOTES

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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

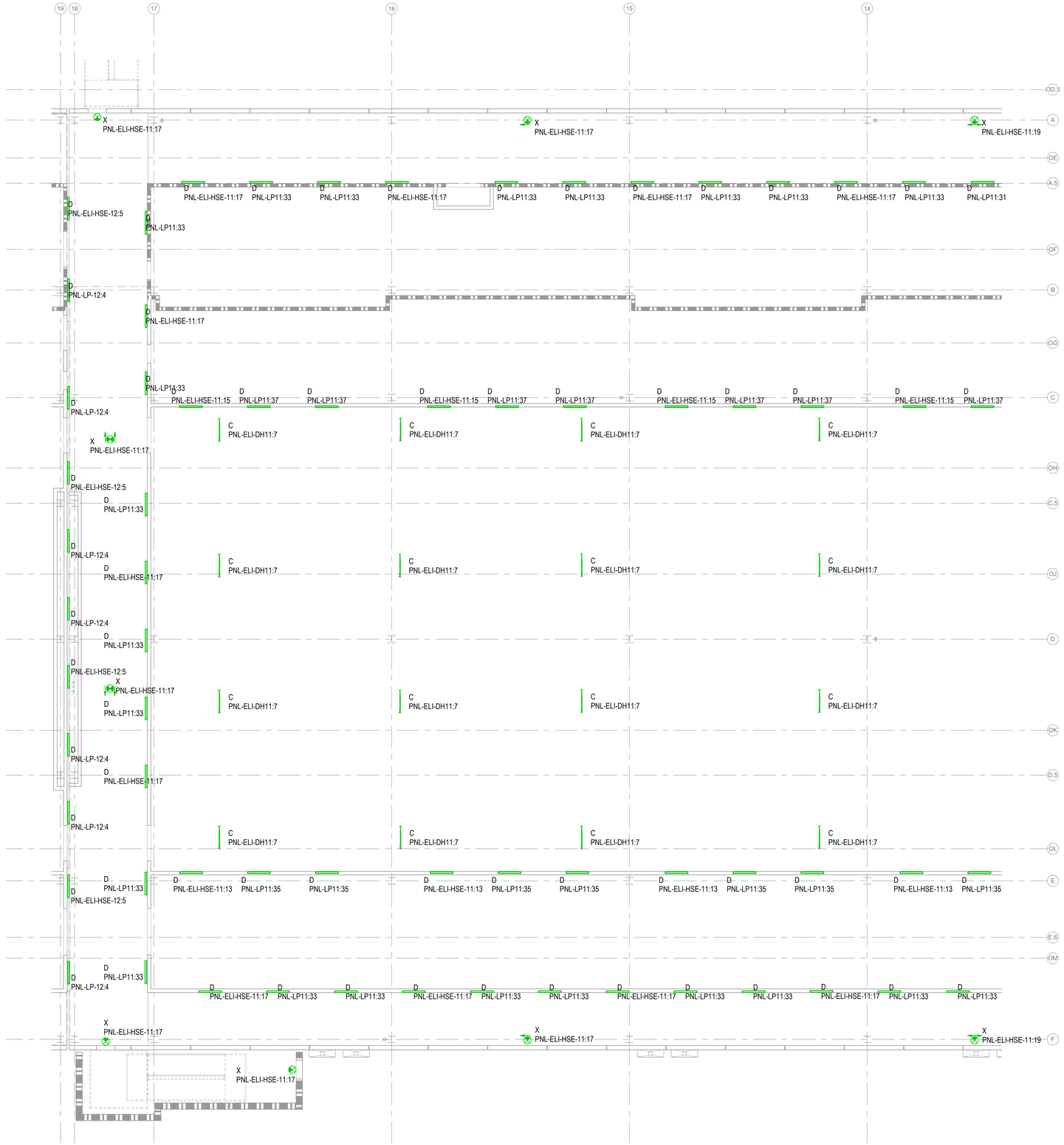
KEYPLAN

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T	R	P	M	K	H	F	D	B

LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET E02-01K

2/5/2025 9:44:26 AM E02-01K LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT K



1 LEVEL 1 LIGHTING CEILING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

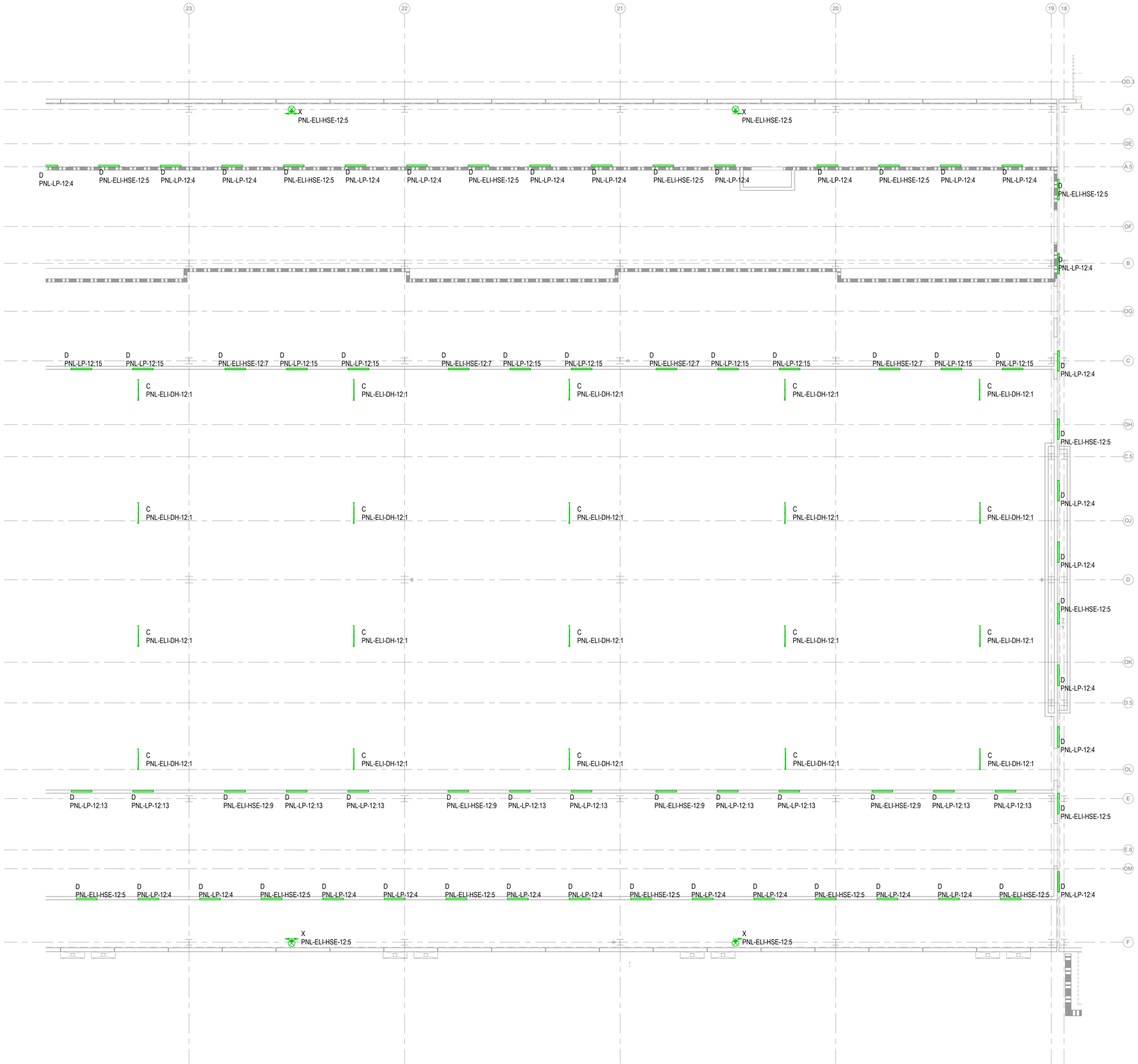
KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01M



1 LEVEL 1 LIGHTING CEILING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
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SHEET KEYNOTES

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TCD DESIGN CONSULTING LLC

ISSUES

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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

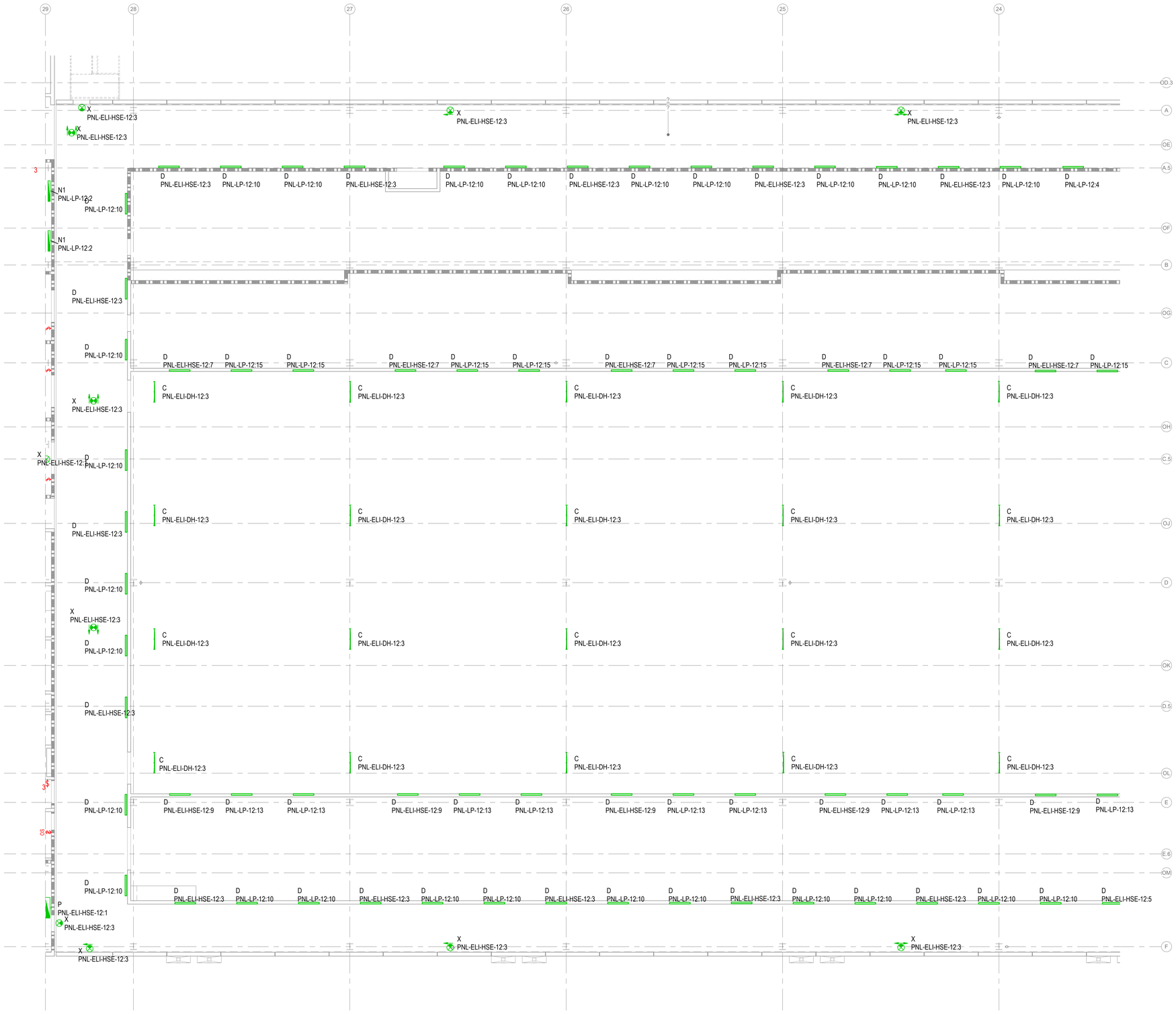
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

E02-01P

2/5/2025 9:44:32 AM E02-01P LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT P



1 LEVEL 1 LIGHTING CEILING PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

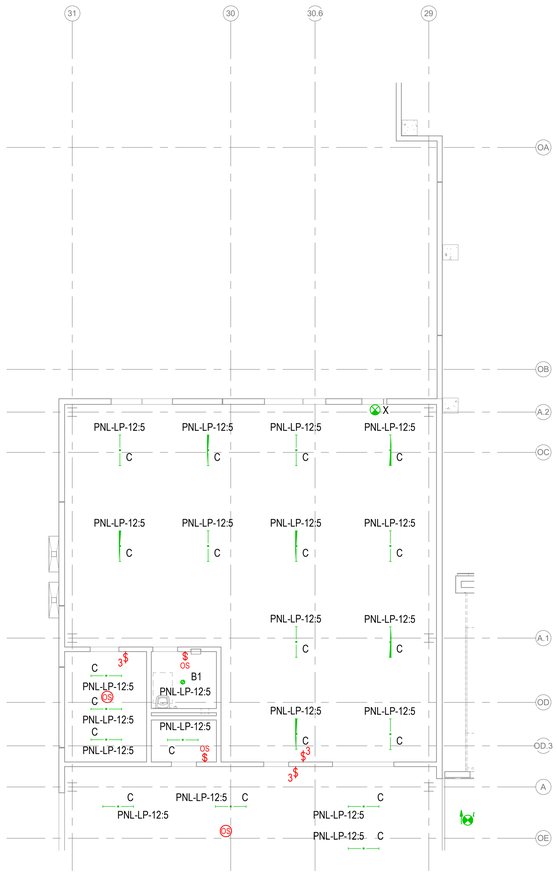
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LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT R

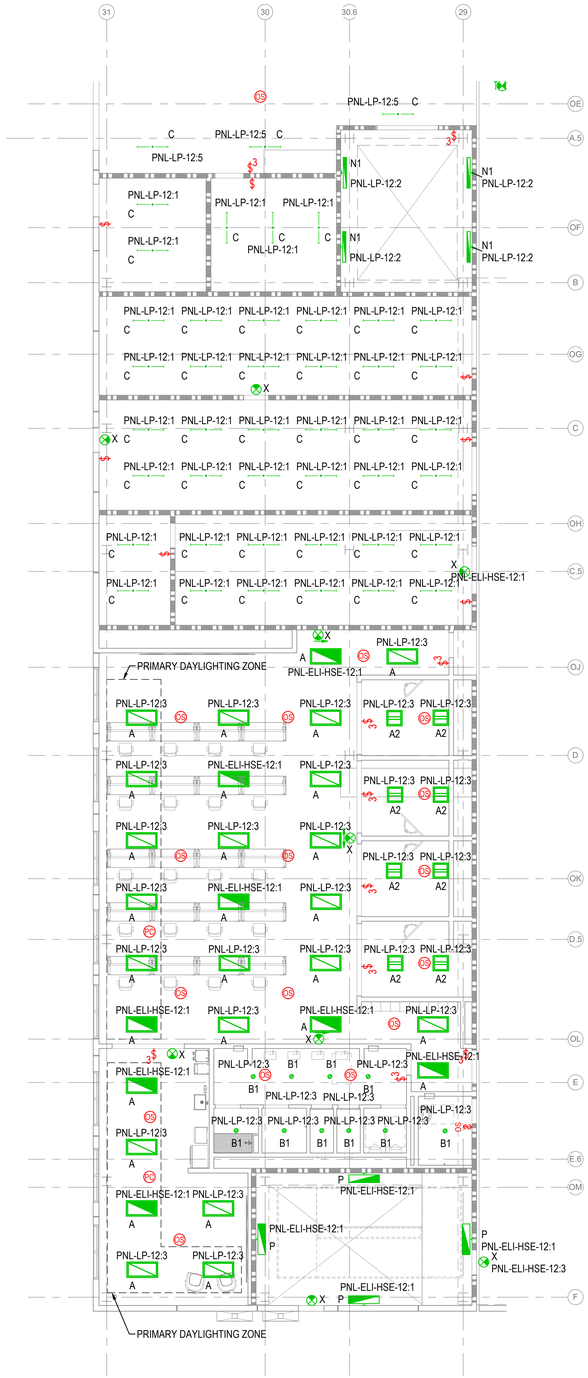
JOB 24464.0000
DATE 01.31.25
SHEET

E02-01R

2/5/2025 9:44:35 AM E02-01R LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT R



1 LEVEL 1 LIGHTING CEILING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 LIGHTING CEILING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
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G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

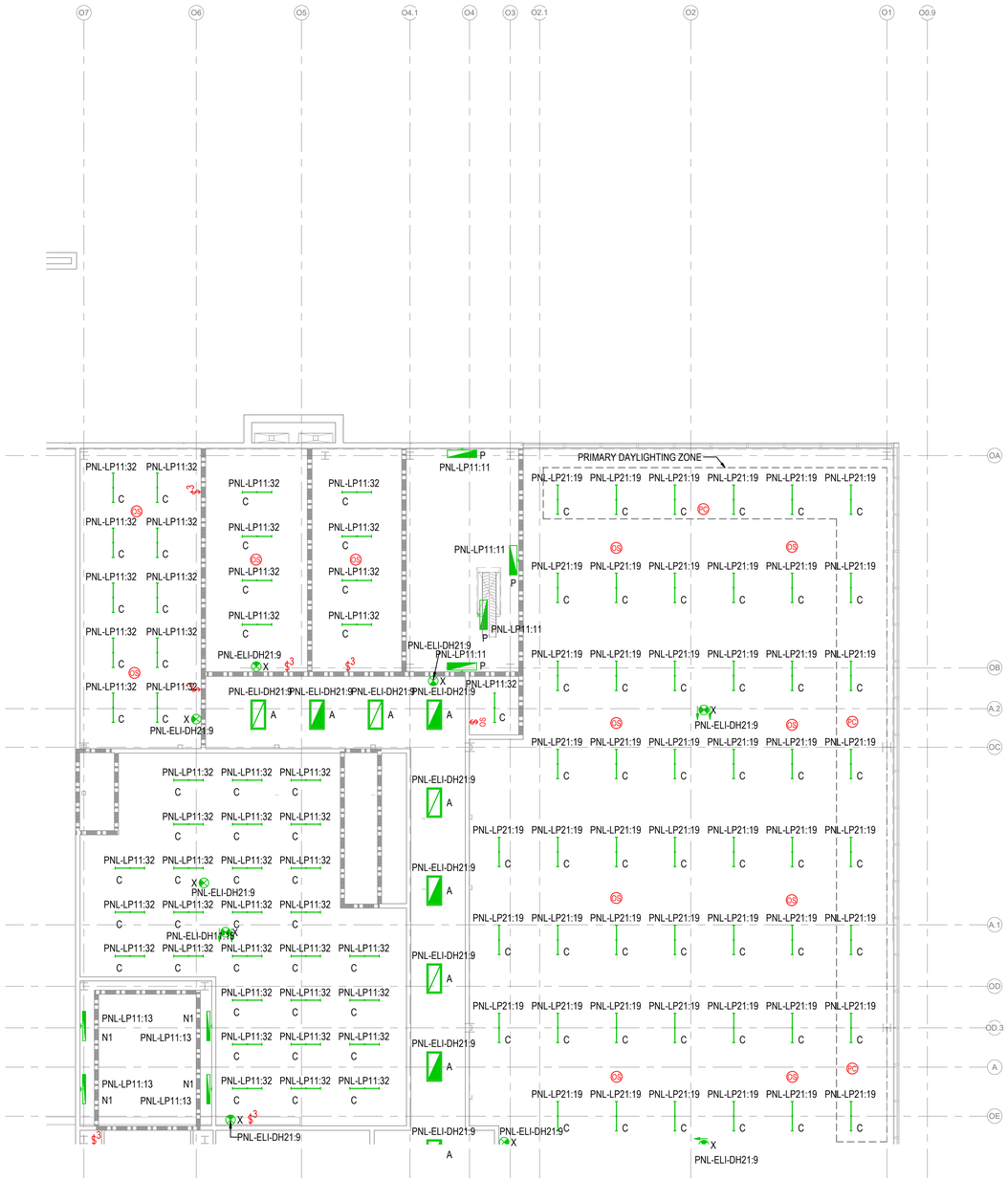
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET E02-01ST

2/5/2025 9:44:39 AM E02-01ST LIGHTING FLOOR PLAN - LEVEL ONE - SEGMENT S-T



1 LEVEL 2 LIGHTING CEILING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. ~~SEE DRAWING E0001 FOR LEGENDS, NOTES AND ABBREVIATIONS.~~
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
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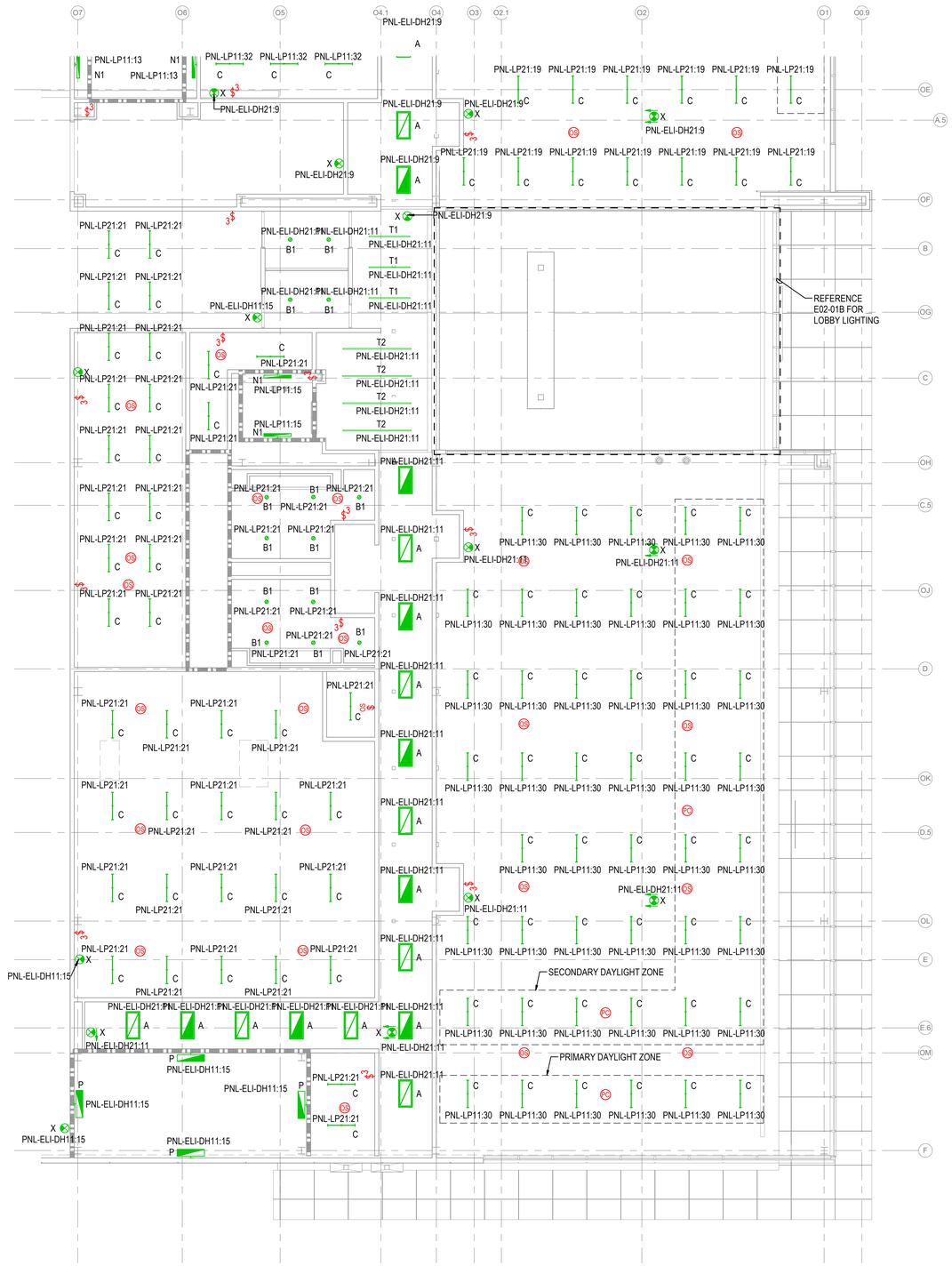
KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET E02-02A

2/5/2025 9:44:42 AM E02-02A LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT A



1 EXTERIOR WALL MOUNTED LIGHTING
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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SHEET KEYNOTES

CORGAN
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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02B

City of Aurora Building Division
Reviewed for Code Compliance
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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC



1 LEVEL 2 LIGHTING CEILING PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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SHEET KEYNOTES

1- 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
2- 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

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ISSUES		
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REVISIONS

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1/31/2025

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02C

2/5/2025 9:44:48 AM E02-02C LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT C



1 LEVEL 2 LIGHTING CEILING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
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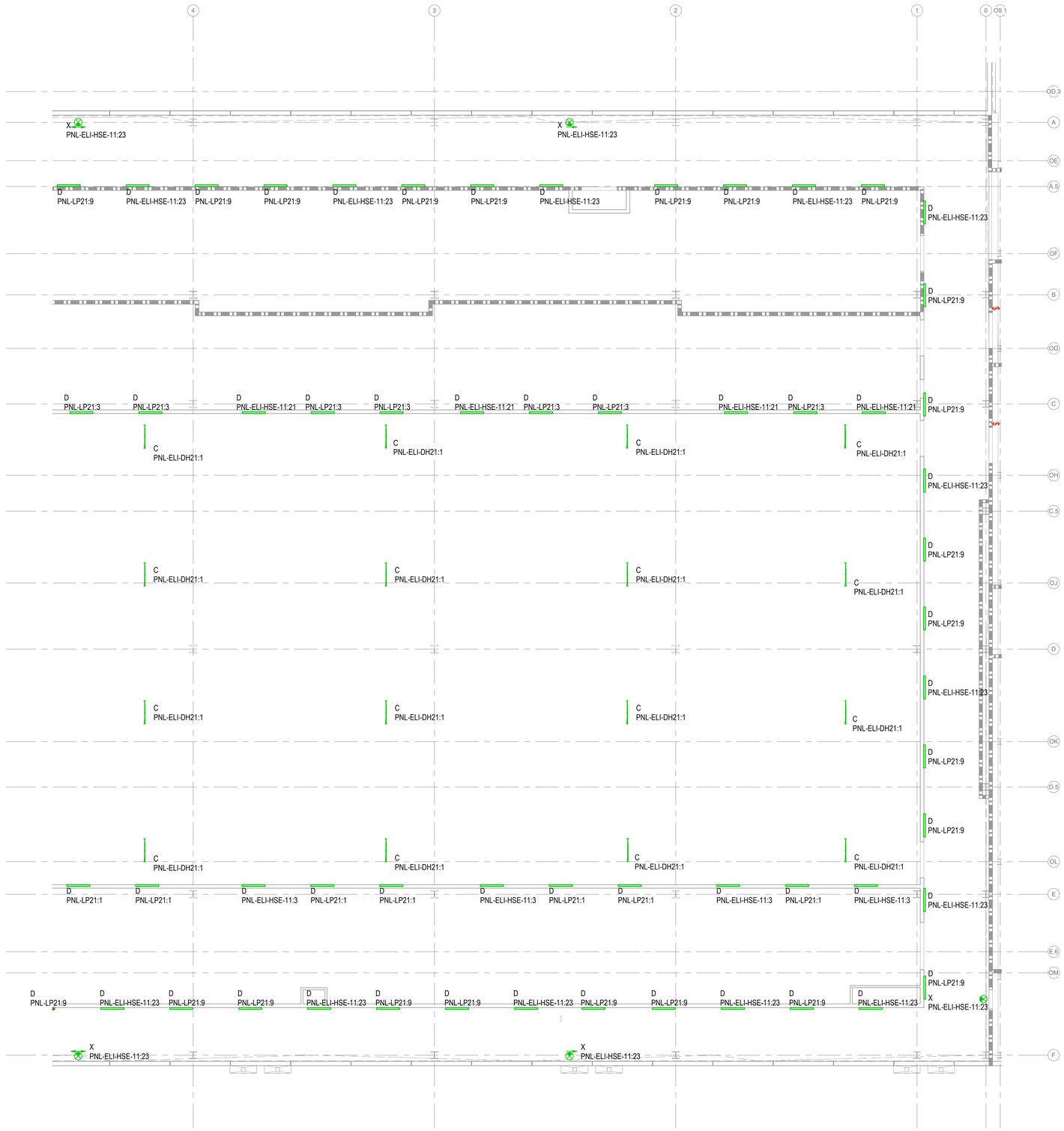
QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET E02-02D



1 LEVEL 2 LIGHTING CEILING PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
D. FIXTURES IN AREA CONTROLLED WITH TIMERS SHALL BLINK 2 MINUTES BEFORE THEY TURN OFF.
E. EXIT SIGN ELEVATIONS SHALL BE COORDINATED WITH CABLE TRAY ELEVATIONS TO OPTIMIZE VIEWING ANGLES.
F. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.
G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT CORGAN 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

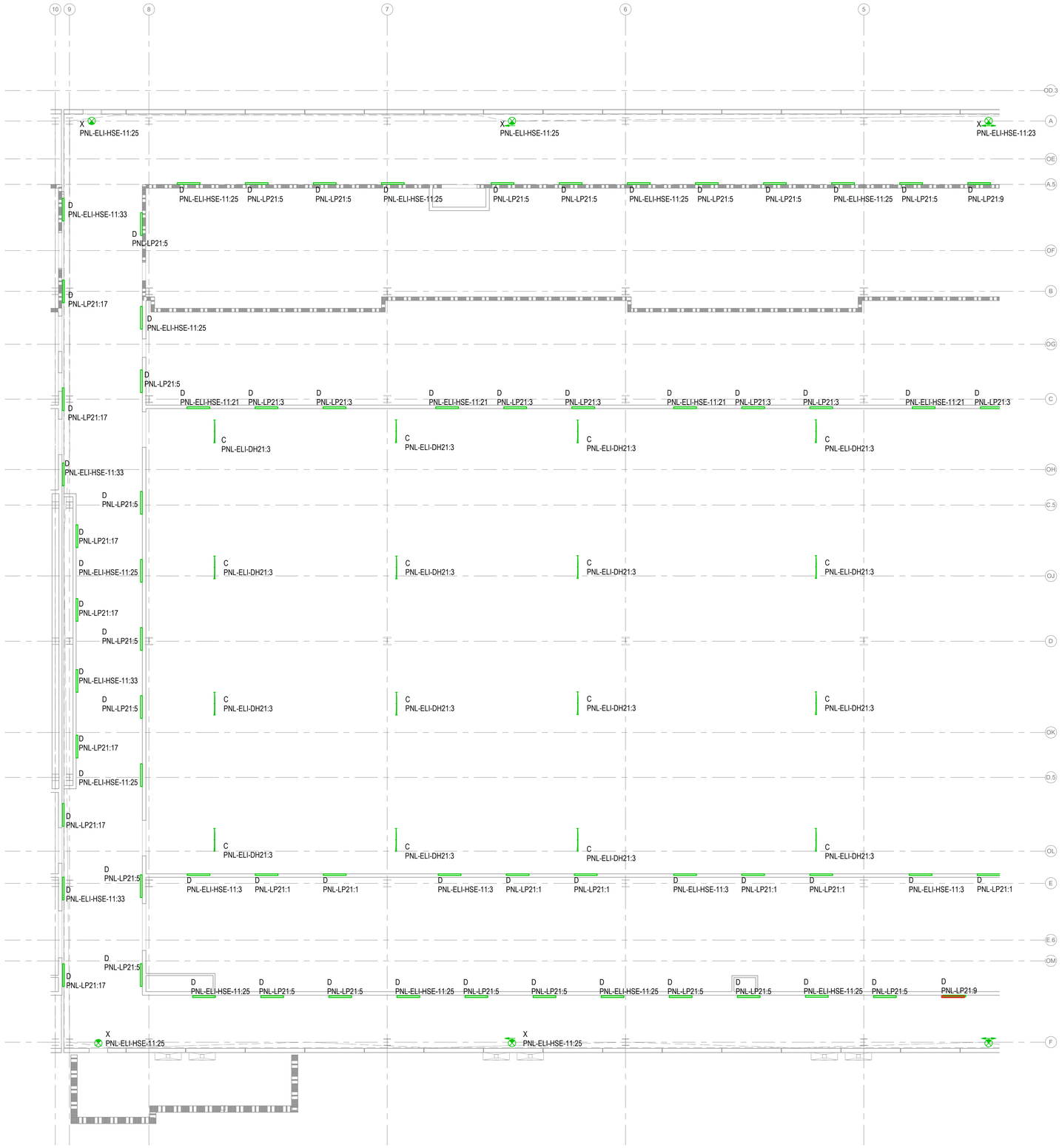
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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02F

2/5/2025 11:05:46 AM E02-02F LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT F



1 LEVEL 2 LIGHTING CEILING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
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Provide Emergency Illumination that complies with 2023 NEC 700.16

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SHEET KEYNOTES

City of Aurora Building Division
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Date: May 06, 2025
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CORGAN
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1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED PROFESSIONAL ENGINEER JAMES SCOTT CORP 34544
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

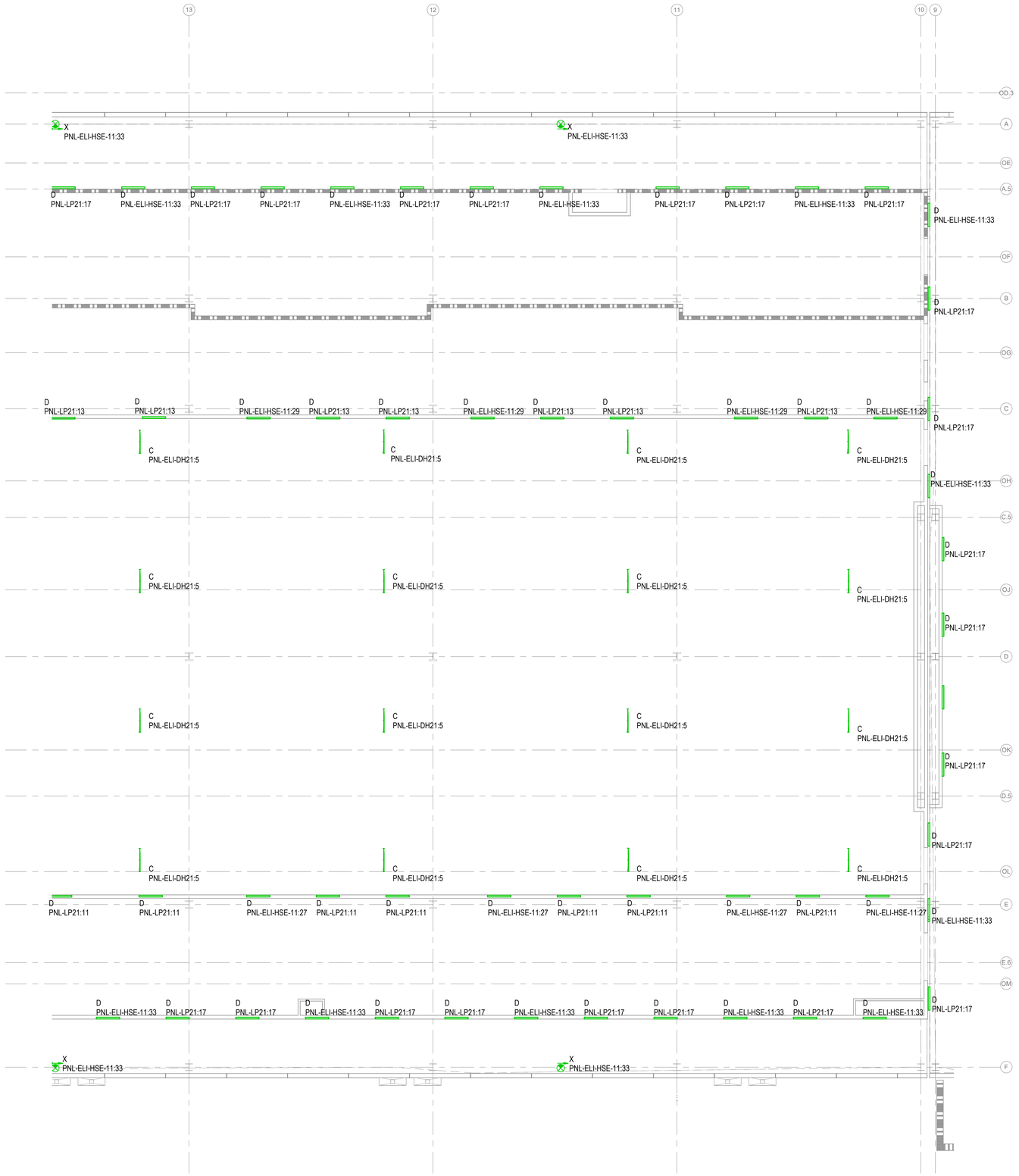
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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02H

2/5/2025 11:06:04 AM E02-02H LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT H



1 LEVEL 2 LIGHTING CEILING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
C. EMERGENCY FIXTURES (EM) AND EXIT SIGNS SHALL BE LEFT UNSWITCHED AND CIRCUITED TO THE INVERTER. REFER TO THE INVERTER LOAD SCHEDULE ON E7 SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
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G. SEE SPECIFICATION 26 51 00 INTERIOR LIGHTING AND 26 09 23 LIGHTING CONTROL DEVICES FOR ADDITIONAL REQUIREMENTS.

Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES R. SCOTT 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02K

2/5/2025 11:06:22 AM E02-02K LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT K



1 LEVEL 2 LIGHTING CEILING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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SHEET KEYNOTES

City of Aurora Building Division
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Date: May 06, 2025
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T: 214.748.2000

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

E02-02M

2/5/2025 11:06:39 AM E02-02M LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT M



1 LEVEL 2 LIGHTING CEILING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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SHEET KEYNOTES

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401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COTE 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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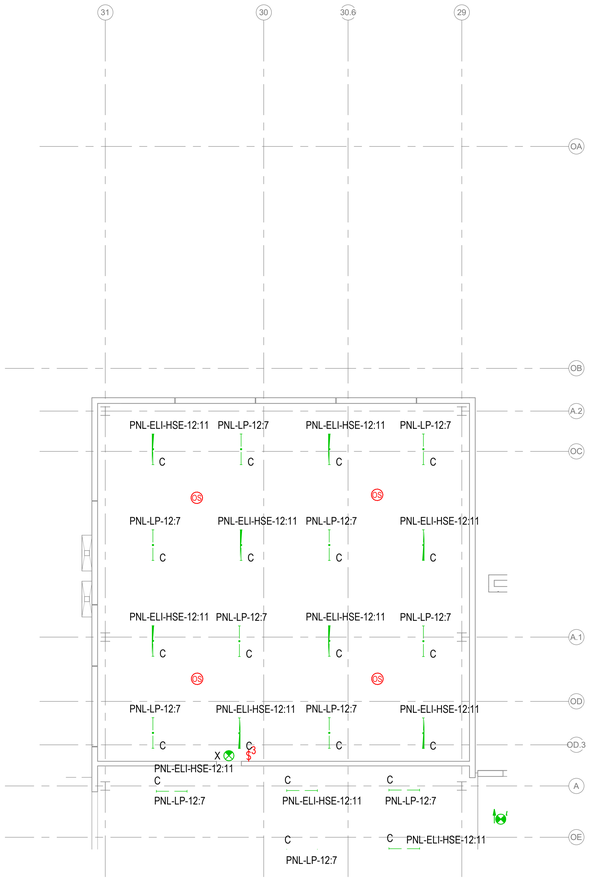
LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

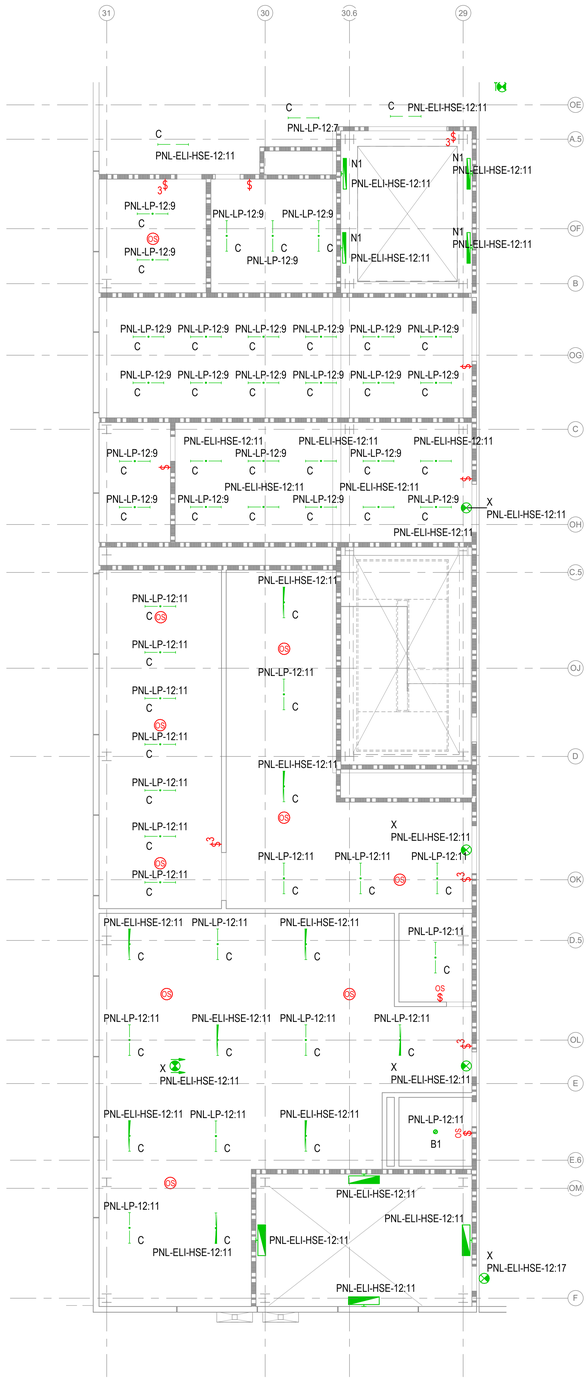
E02-02P

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 11:06:57 AM E02-02P LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT P



1 LEVEL 2 LIGHTING CEILING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 2 LIGHTING CEILING PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E07-01 FOR LIGHTING FIXTURE SCHEDULE.
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Provide Emergency Illumination that complies with 2023 NEC 700.16

Suspended Ceiling Systems and the Luminaires They support shall meet the requirements of 410.36(B) 2023 NEC

SHEET KEYNOTES

City of Aurora Building Division
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Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
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LIGHTING FLOOR PLAN - LEVEL TWO - SEGMENT S-T

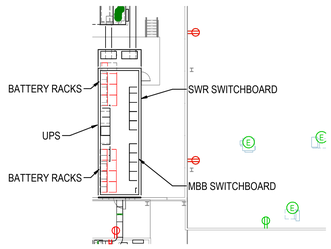
JOB 24464.0000
DATE 01.31.25
SHEET

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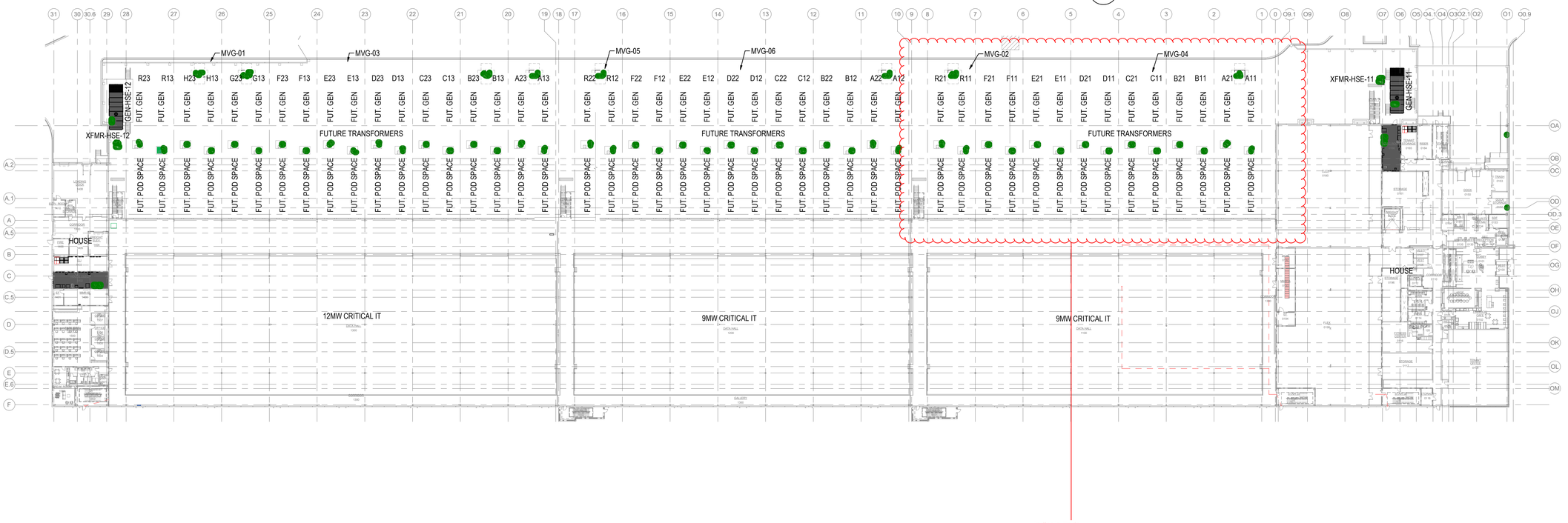
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Provide matrix of Day 1 v Day 2 and graphical legend



TYPICAL UPS POD LAYOUT - FOR REFERENCE ONLY

2 SCALE: 1" = 20'-0"



Indicate Pads

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

1 LEVEL 1 POWER PLAN

SCALE: 1" = 40'-0"

SHEET NOTES

A. SEE DRAWINGS E00-01 FOR LEDGEND , NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

City of Aurora Building Division
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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 11:22:34 AM E03-01 POWER FLOOR PLAN - LEVEL ONE - OVERALL

CORGAN
401 N. Houston Street Dallas, TX 75202
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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT CORE 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD AURORA, CO

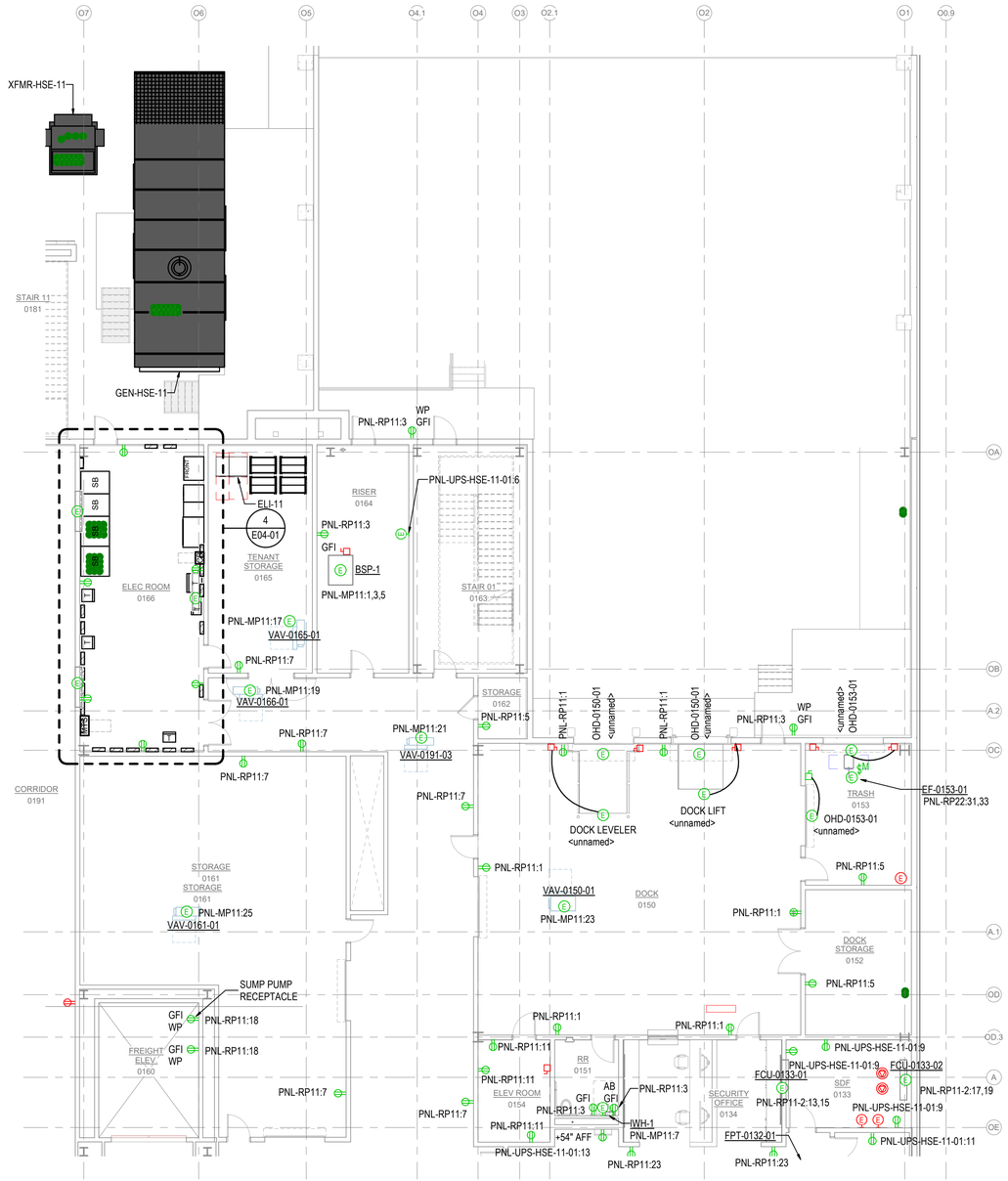
KEYPLAN

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T R P M K H F D B

POWER FLOOR PLAN - LEVEL ONE - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
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SYSKA HENNESSY GROUP

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ISSUES

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REVISIONS

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

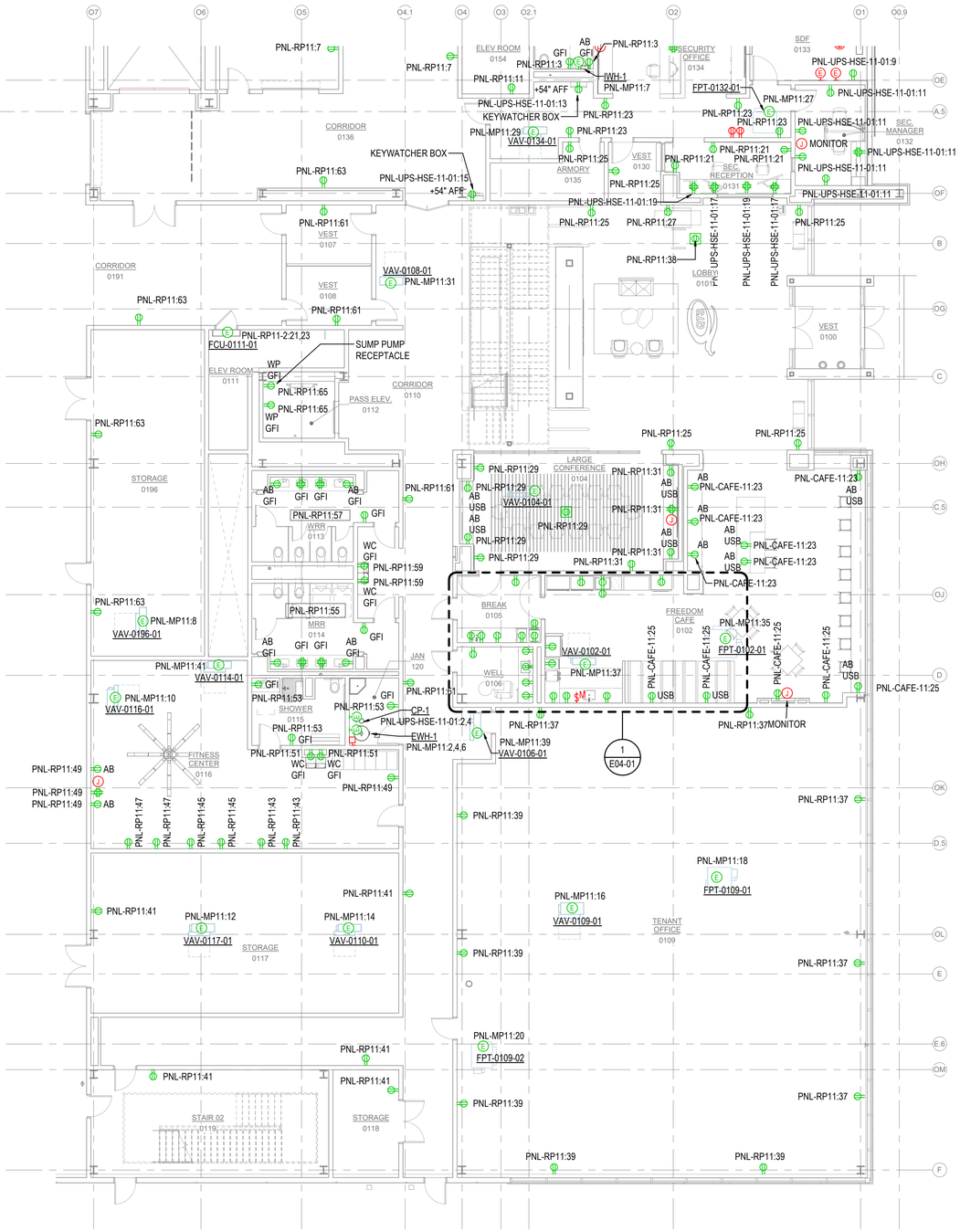
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01A

2/5/2025 9:45:12 AM E03-01A POWER FLOOR PLAN - LEVEL ONE - SEGMENT A



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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POWER FLOOR PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01B



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
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75202
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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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POWER FLOOR PLAN - LEVEL ONE - SEGMENT C

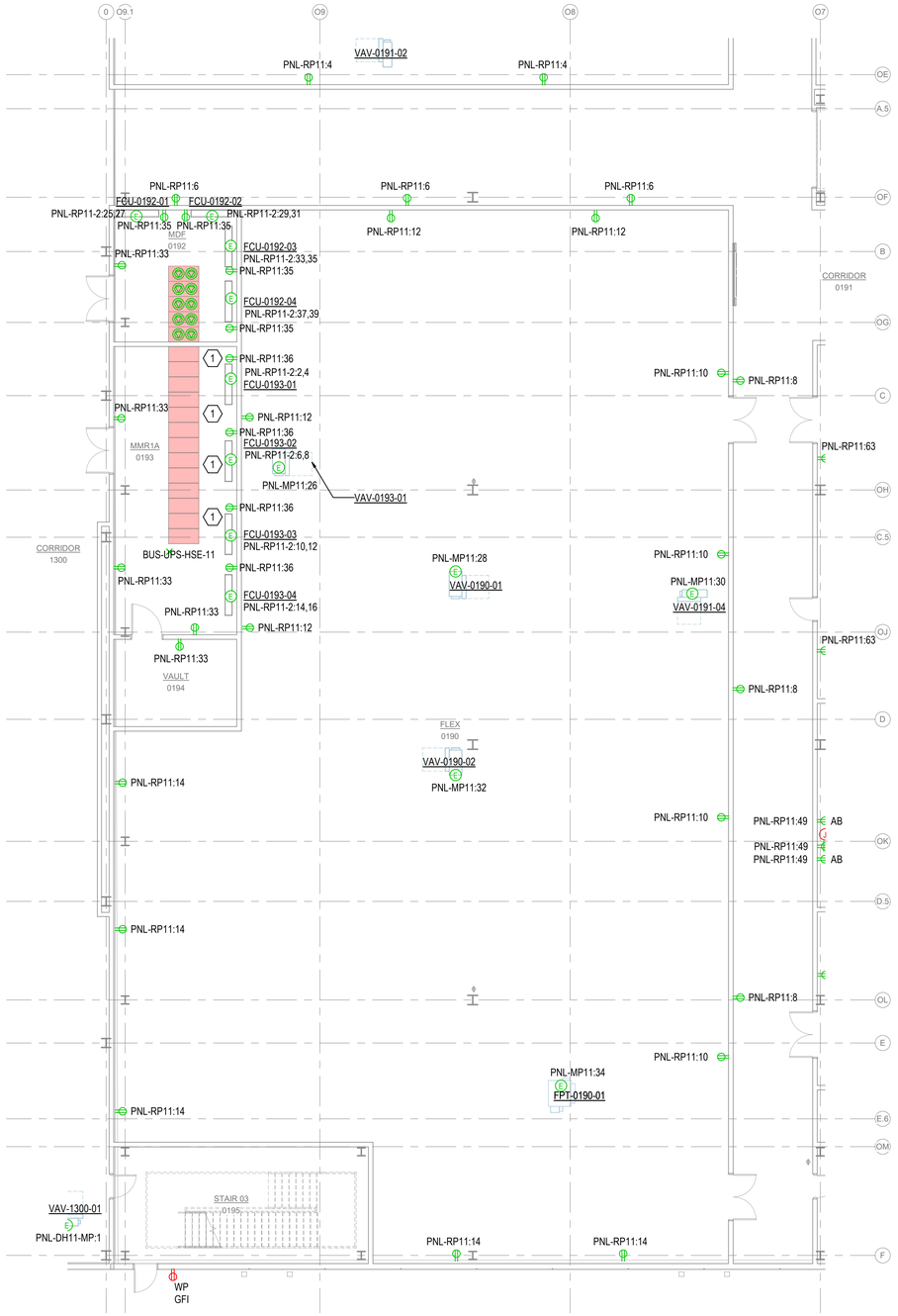
JOB 24464.0000
DATE 01.31.25
SHEET

E03-01C

2/5/2025 9:45:21 AM E03-01C POWER FLOOR PLAN - LEVEL ONE - SEGMENT C

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1. CONTRACTOR SHALL INSTALL RECEPTACLE AT 150" AFF FOR SPLIT SYSTEM LEAK DETECTION.
2. RECEPTACLE FOR POTS LINE PANEL. COORDINATE FINAL LOCATION AND ELEVATION ABOVE FINISHED FLOOR WITH INSTALLING CONTRACTOR.

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

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DESIGN CONSULTING LLC

ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

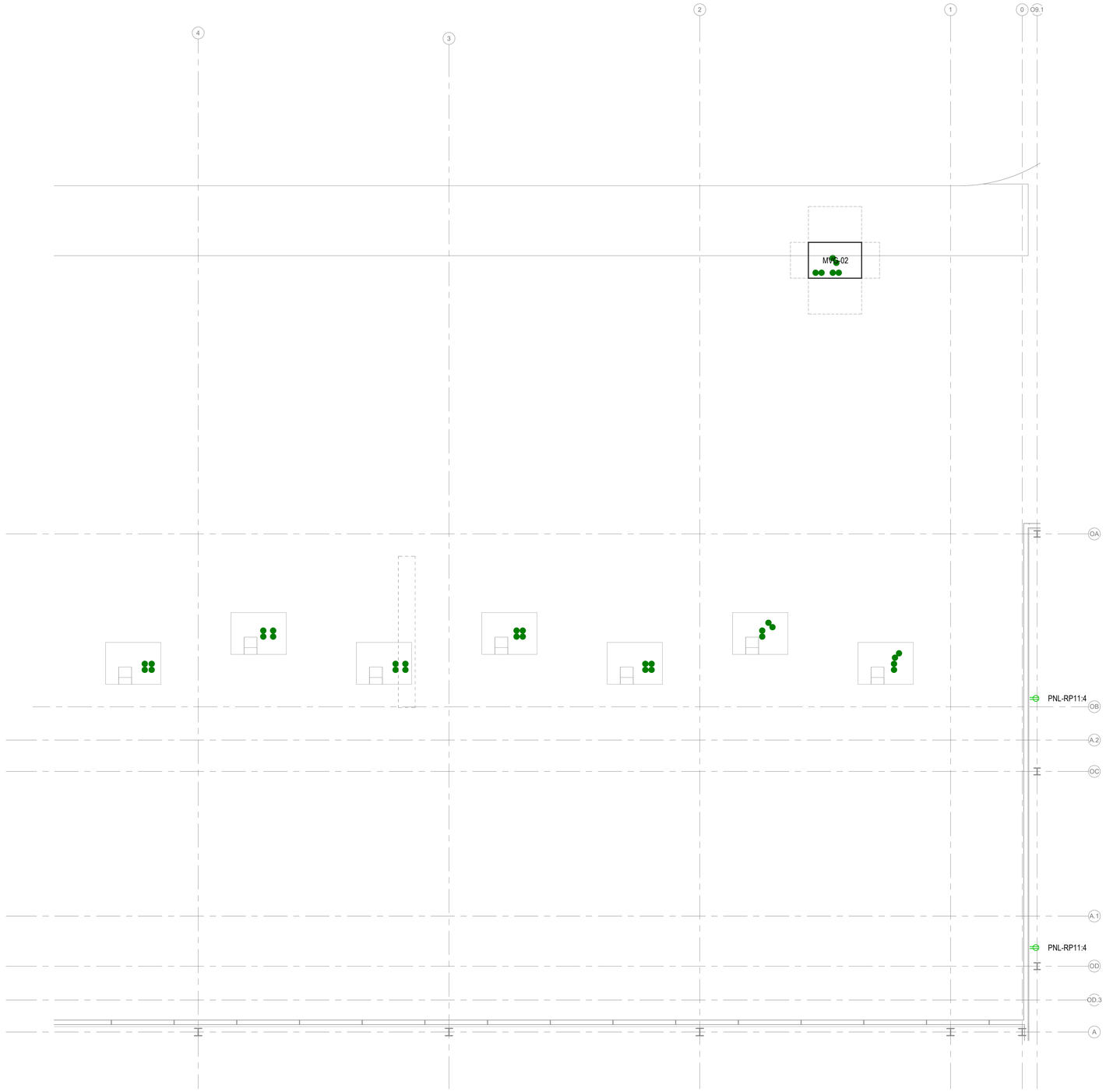
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01D

2/5/2025 9:45:25 AM E03-01D POWER FLOOR PLAN - LEVEL ONE - SEGMENT D



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1. 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
2. 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

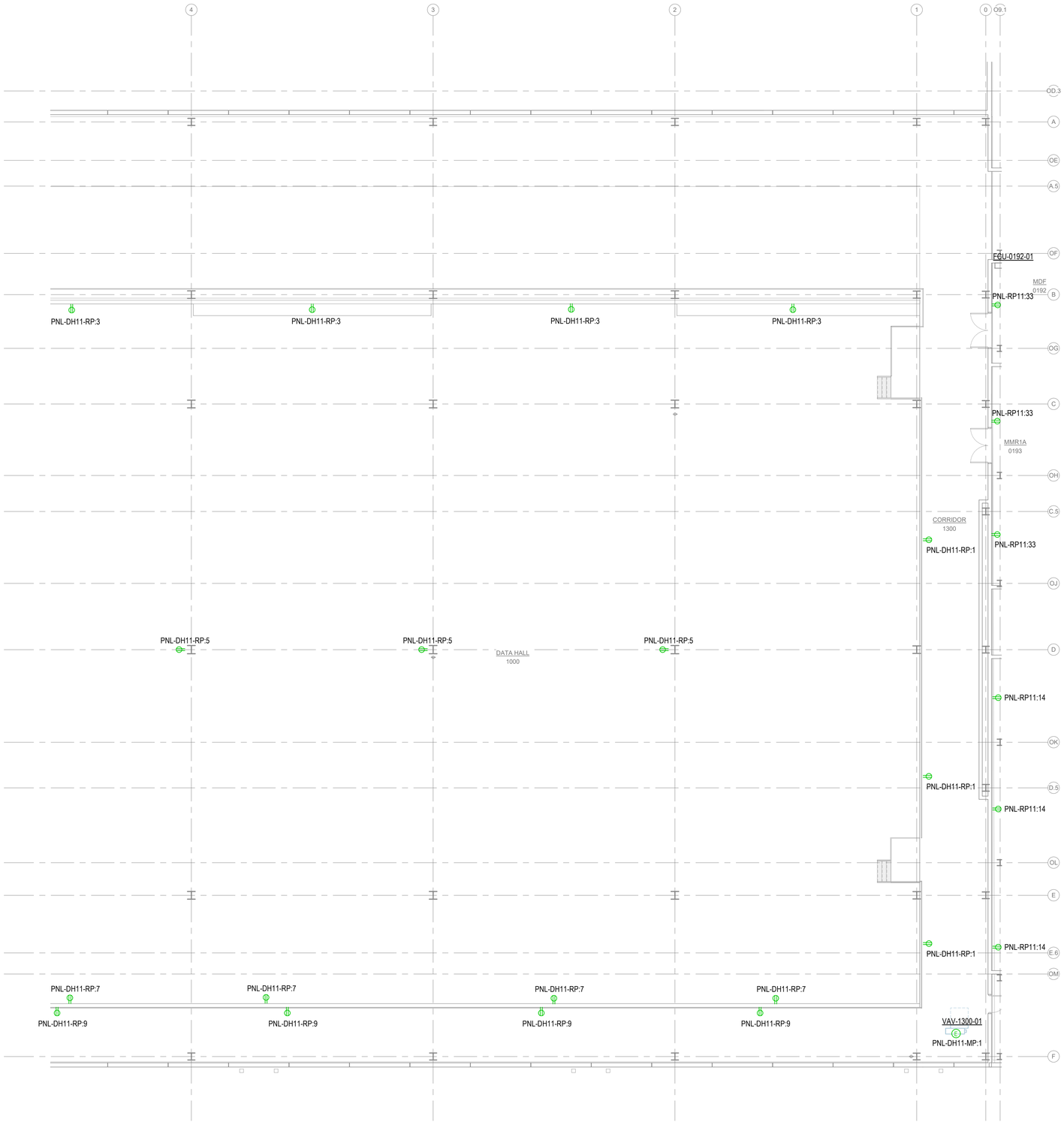
KEYPLAN

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POWER FLOOR PLAN - LEVEL ONE - SEGMENT E

JOB 24464.0000
DATE 01.31.25
SHEET
E03-01E

2/5/2025 9:45:28 AM E03-01E POWER FLOOR PLAN - LEVEL ONE - SEGMENT E



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

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC
175 of 271 MPE

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES		
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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

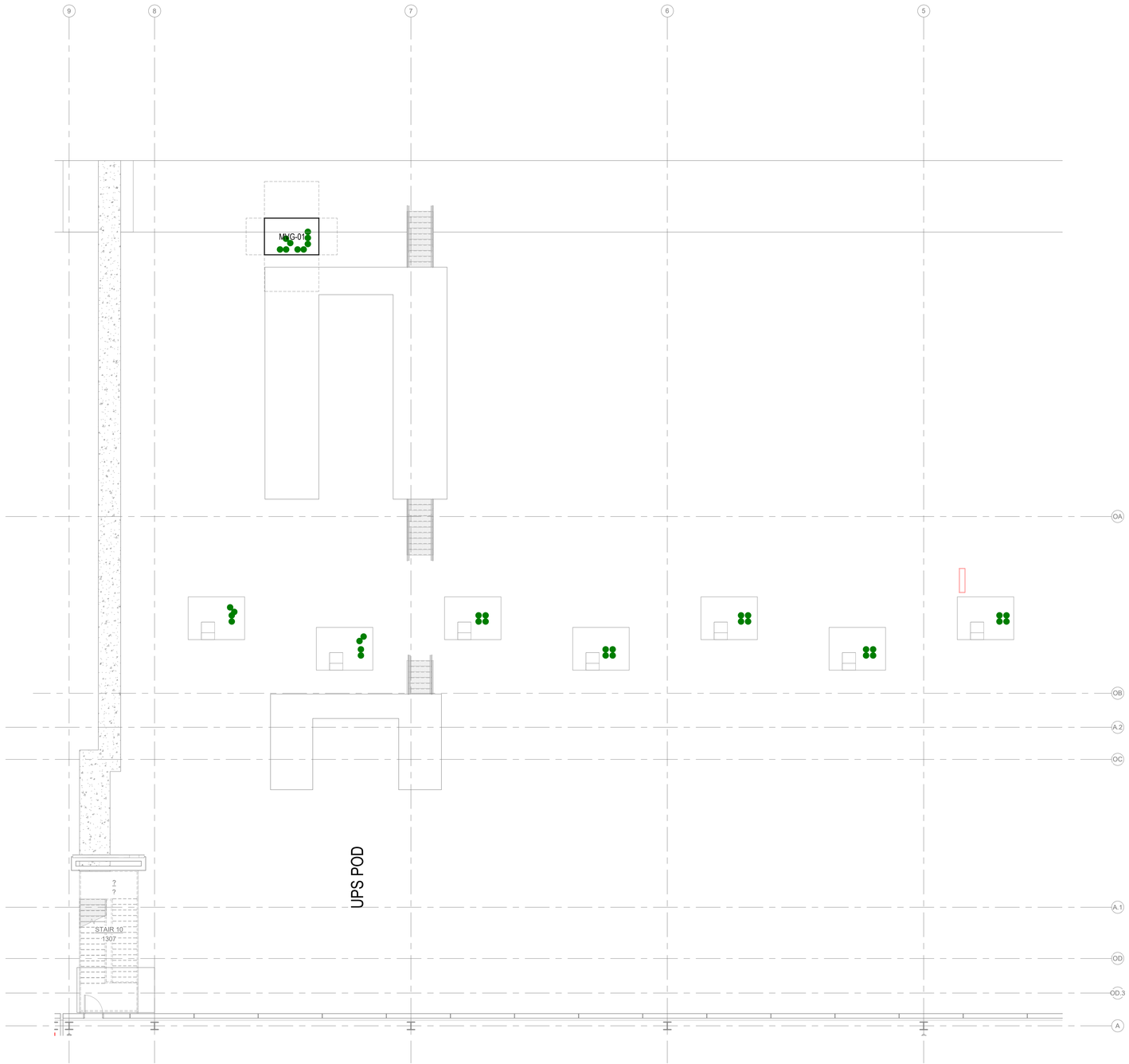
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01F

2/5/2025 9:45:31 AM E03-01F POWER FLOOR PLAN - LEVEL ONE - SEGMENT F



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

This sheet of drawings has not been reviewed for code compliance.

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
2 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

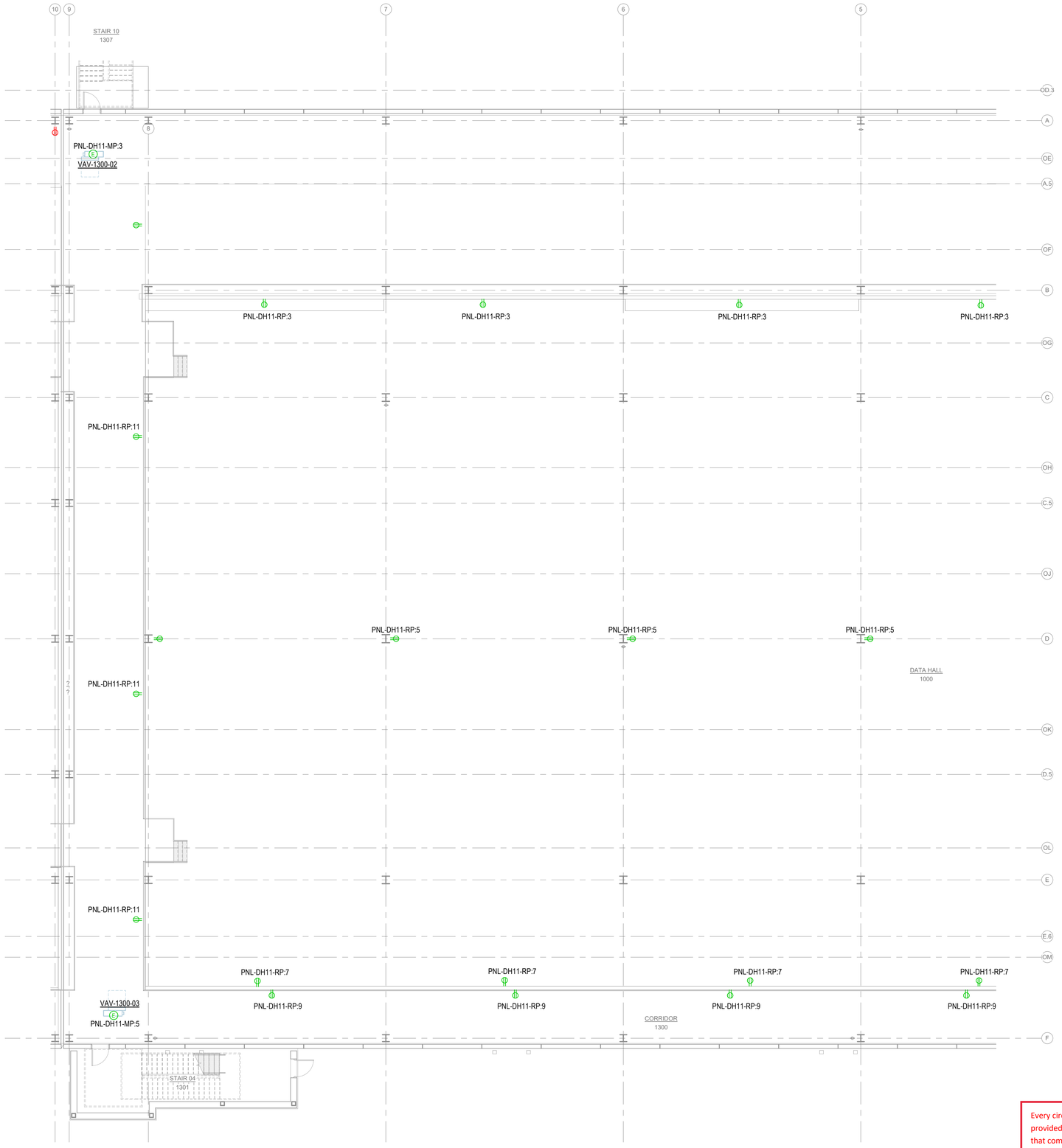
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT G

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01G

2/5/2025 9:45:35 AM E03-01G POWER FLOOR PLAN - LEVEL ONE - SEGMENT G



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

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

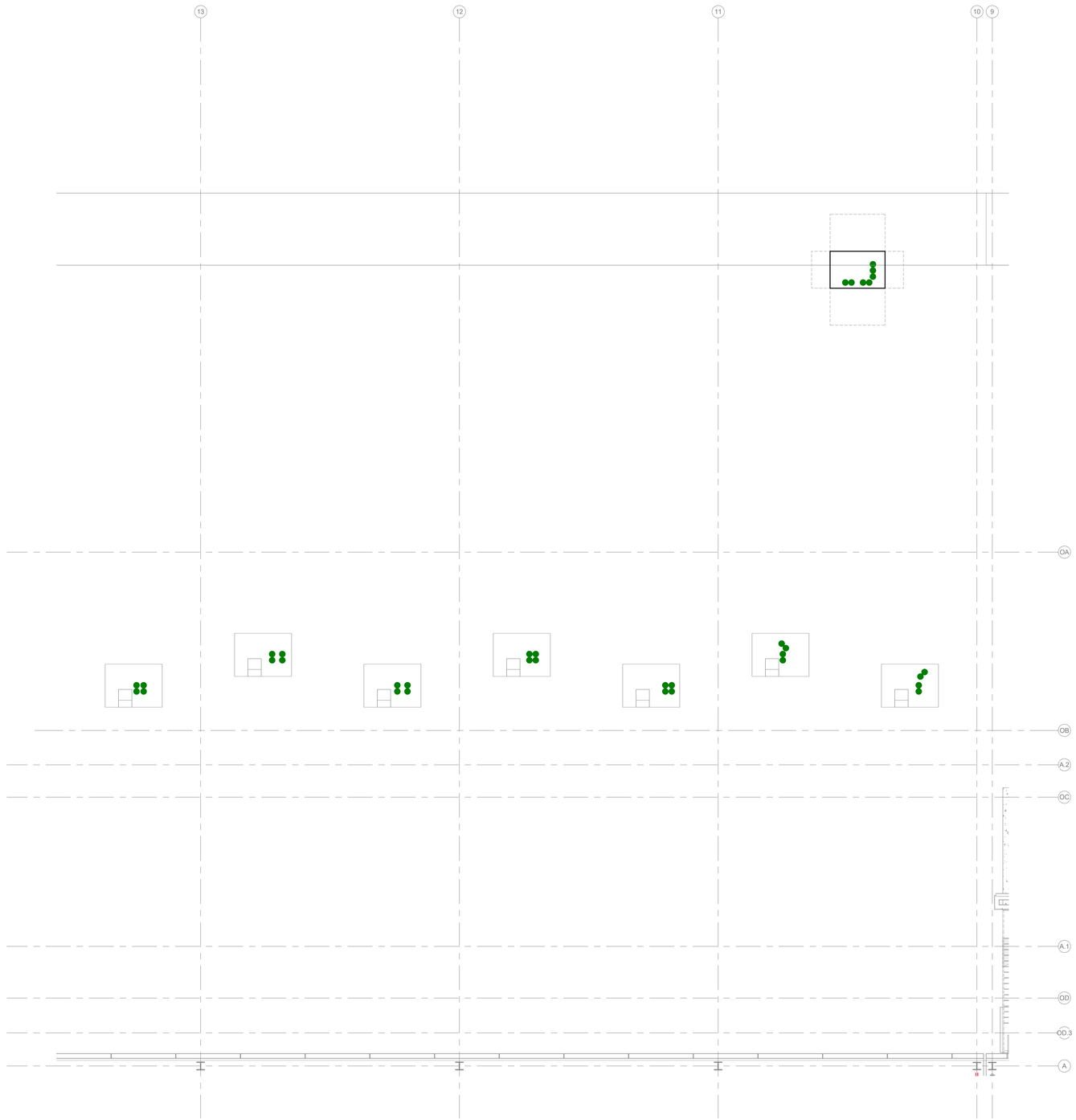
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01H

2/5/2025 9:45:39 AM E03-01H POWER FLOOR PLAN - LEVEL ONE - SEGMENT H



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

This sheet of drawings has not been reviewed for code compliance.

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

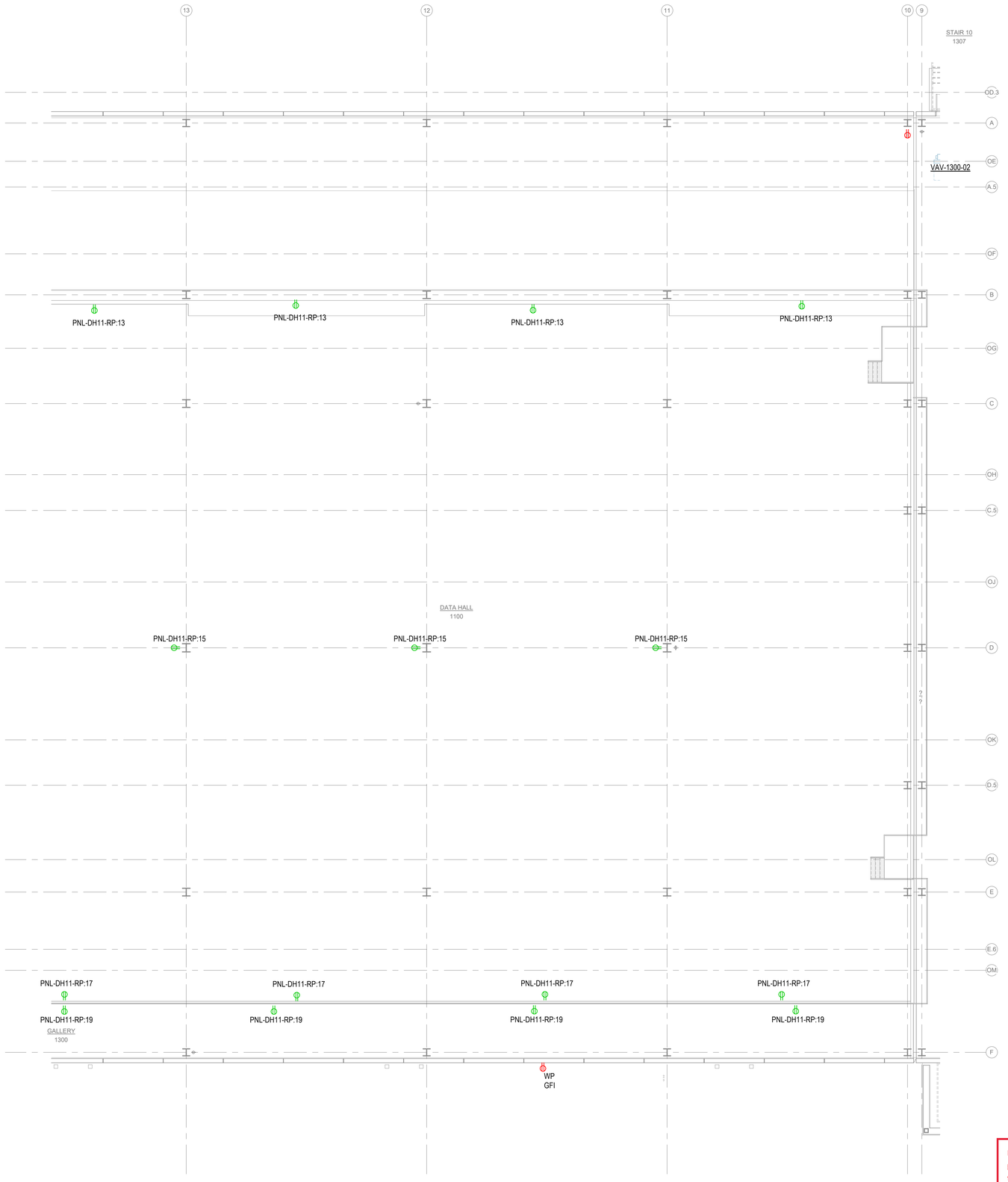
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT J

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01J

2/5/2025 9:45:43 AM E03-01J POWER FLOOR PLAN - LEVEL ONE - SEGMENT J



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

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC
179 of 271 MPE

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES		
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REVISIONS

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

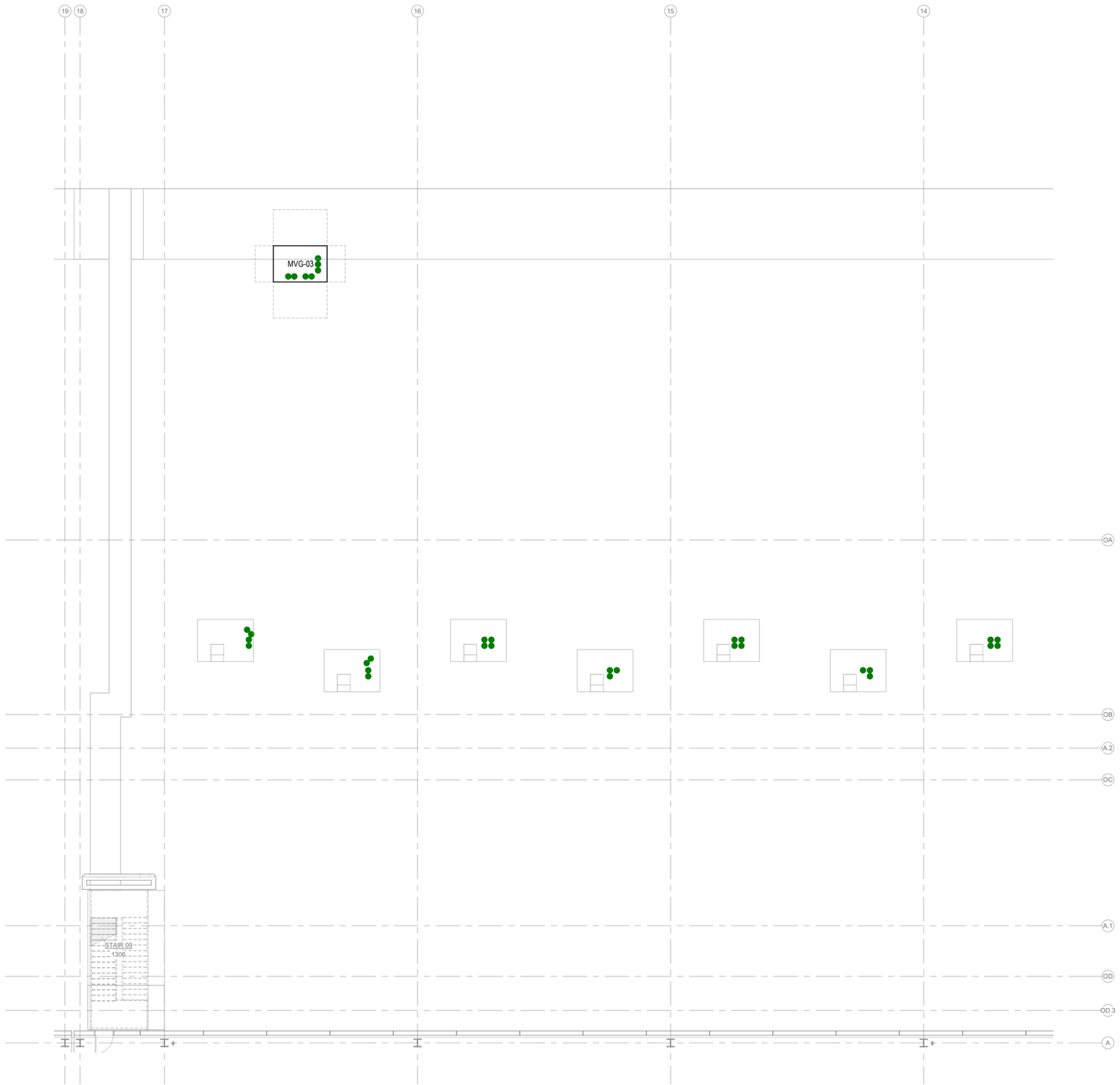
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01K

2/5/2025 9:45:47 AM E03-01K POWER FLOOR PLAN - LEVEL ONE - SEGMENT K



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

This sheet of drawings has not been reviewed for code compliance.

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

(1) 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
(2) 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

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REVISIONS		

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PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

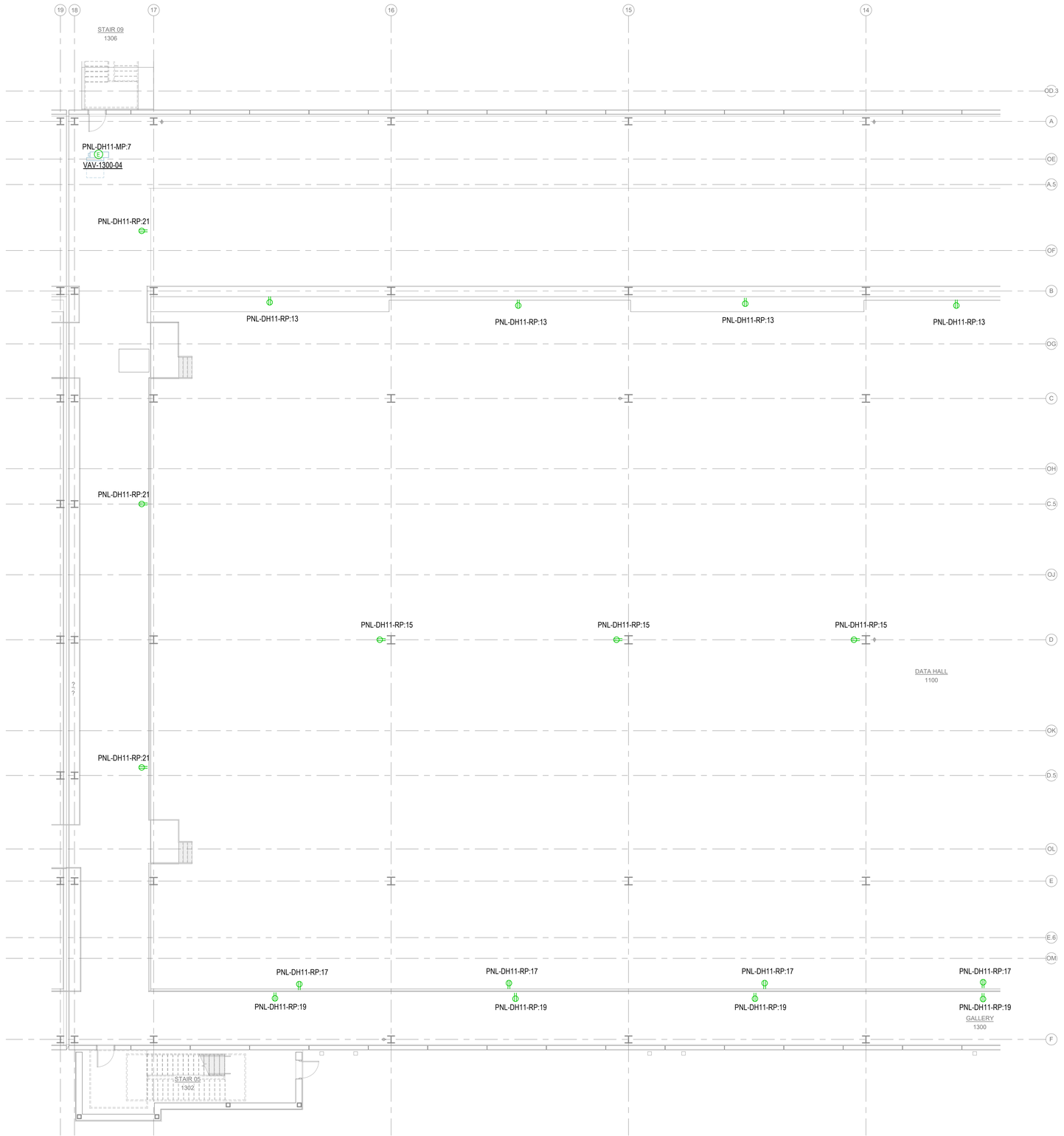
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT L

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01L

2/5/2025 9:45:50 AM E03-01L POWER FLOOR PLAN - LEVEL ONE - SEGMENT L



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

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:45:55 AM E03-01M POWER FLOOR PLAN - LEVEL ONE - SEGMENT M

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES		
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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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POWER FLOOR PLAN - LEVEL ONE - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01M



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

This sheet of drawings has not been reviewed for code compliance.

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

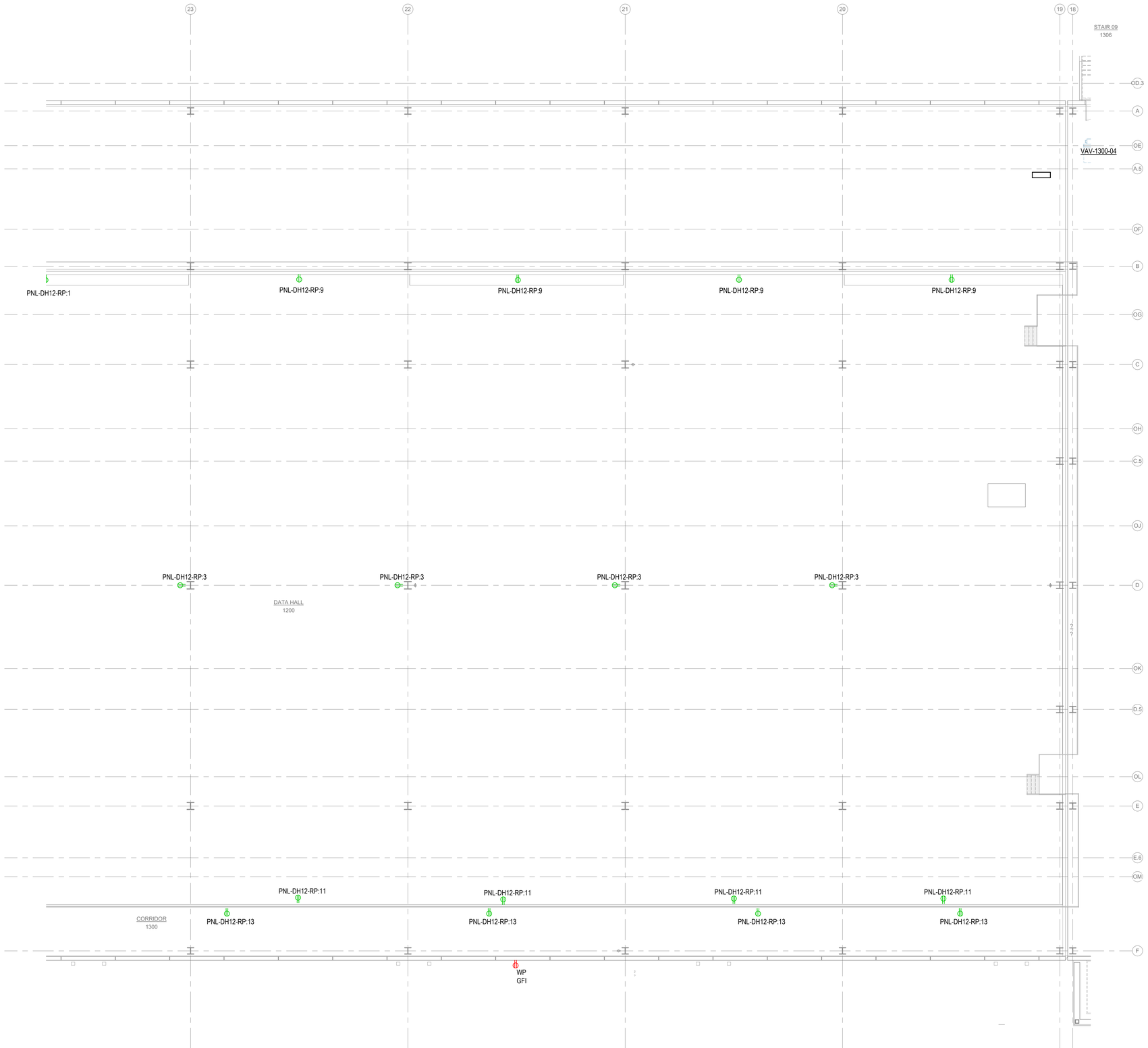
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT N

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01N

2/5/2025 9:45:58 AM E03-01N POWER FLOOR PLAN - LEVEL ONE - SEGMENT N



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

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

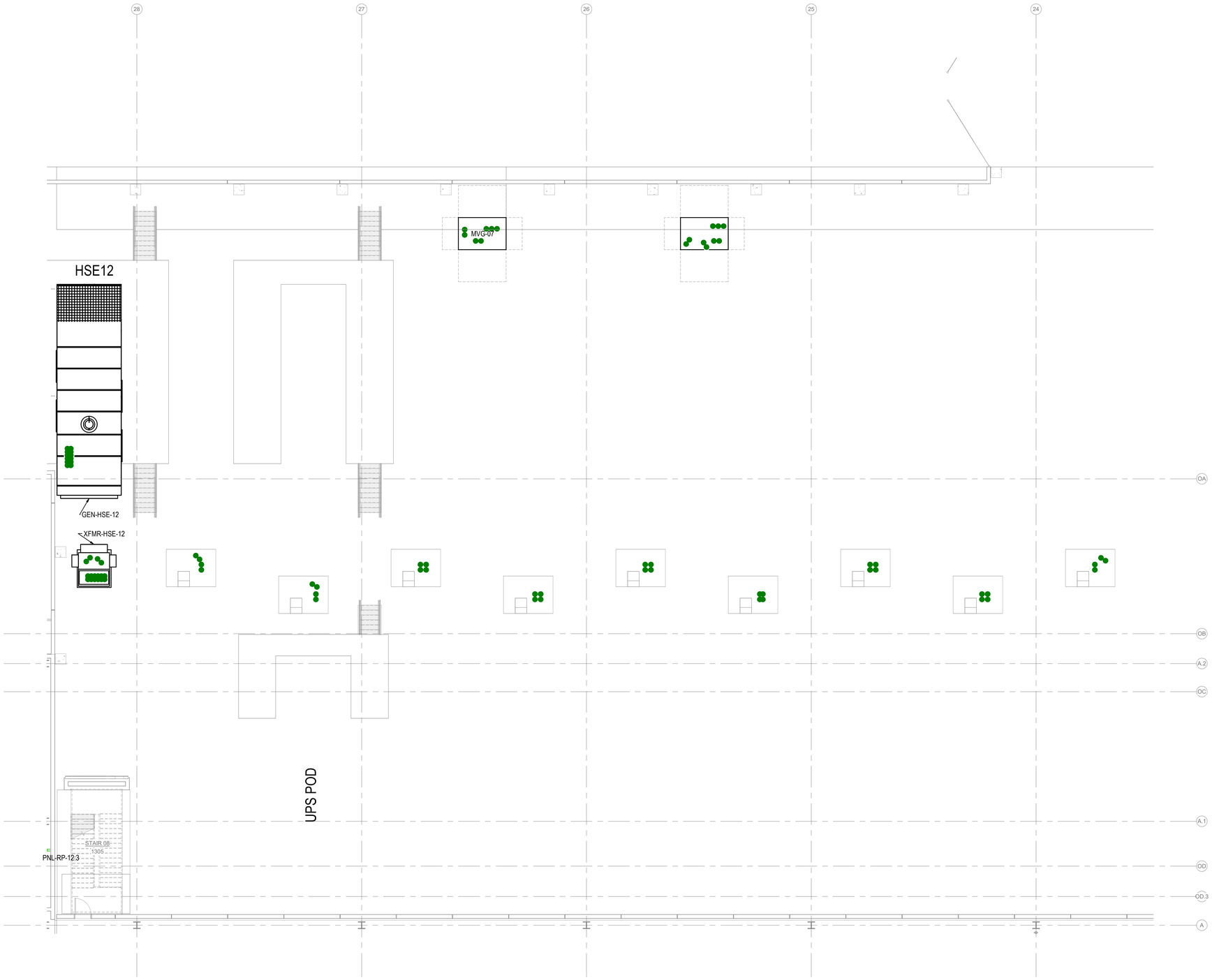
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01P

2/5/2025 9:46:02 AM E03-01P POWER FLOOR PLAN - LEVEL ONE - SEGMENT P



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

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

2 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
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Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

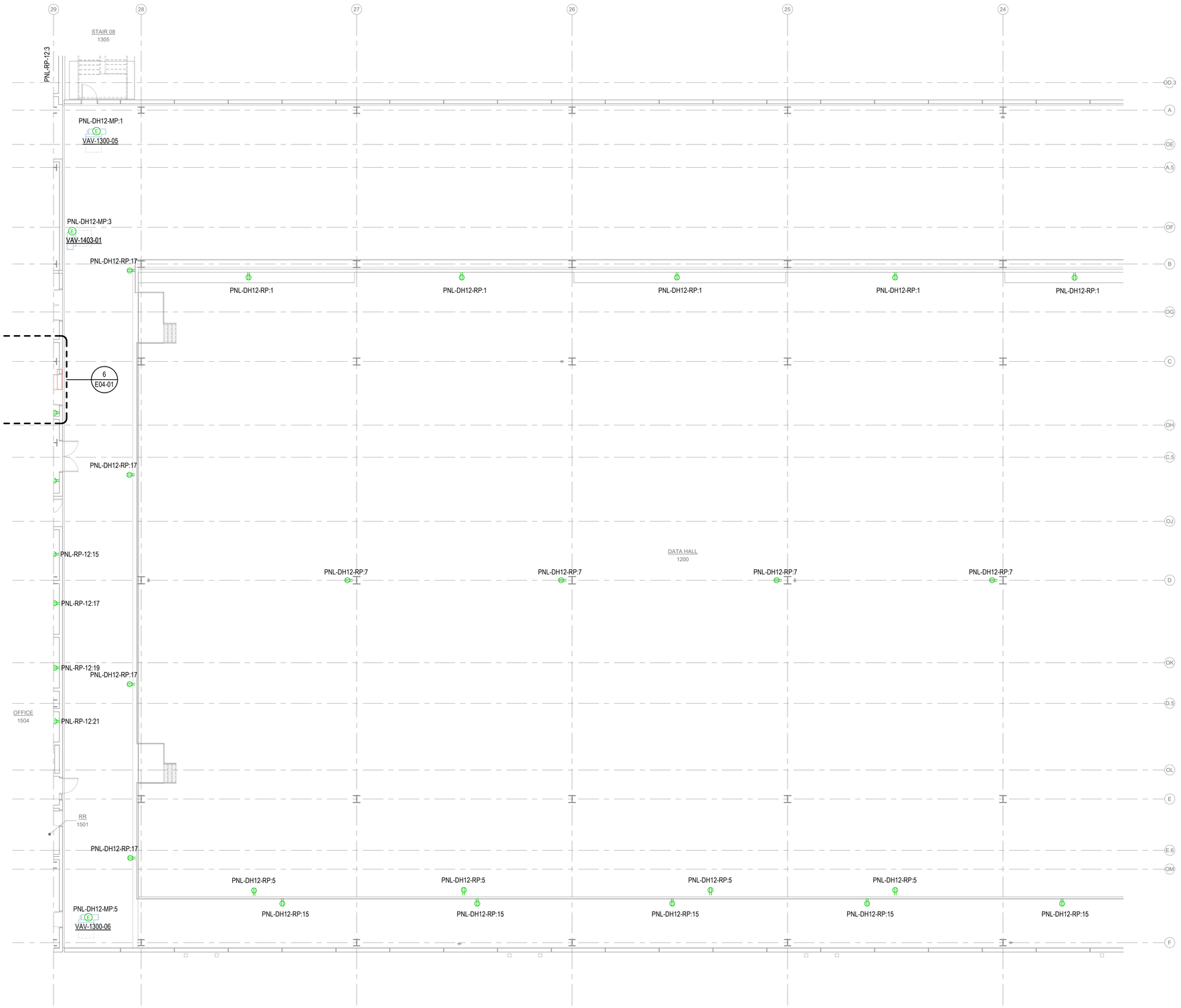
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT Q

JOB 24464.0000
DATE 01.31.25
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E03-01Q

2/5/2025 9:46:06 AM E03-01Q POWER FLOOR PLAN - LEVEL ONE - SEGMENT Q



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

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 9:46:10 AM E03-01R POWER FLOOR PLAN - LEVEL ONE - SEGMENT R

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
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T: 214.748.2000

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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

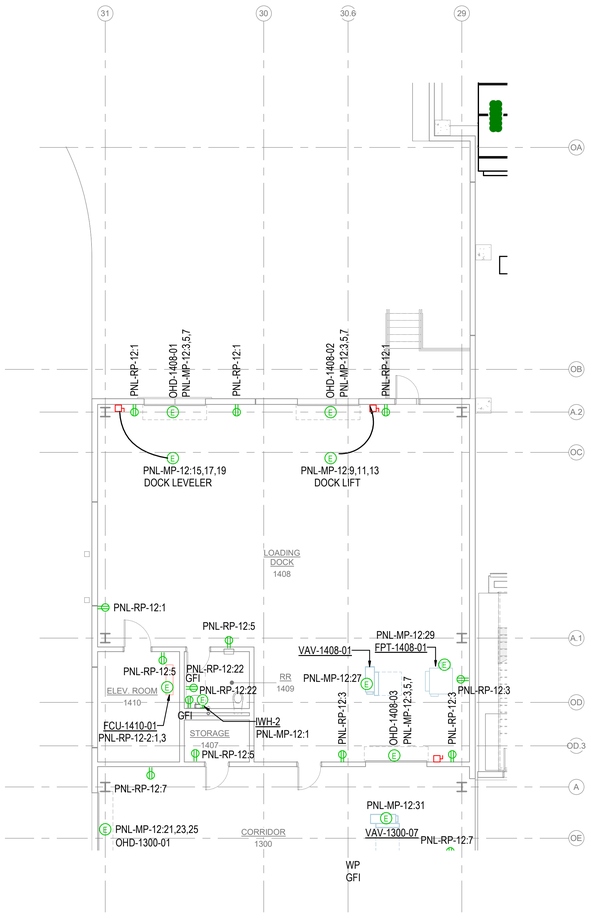
KEYPLAN

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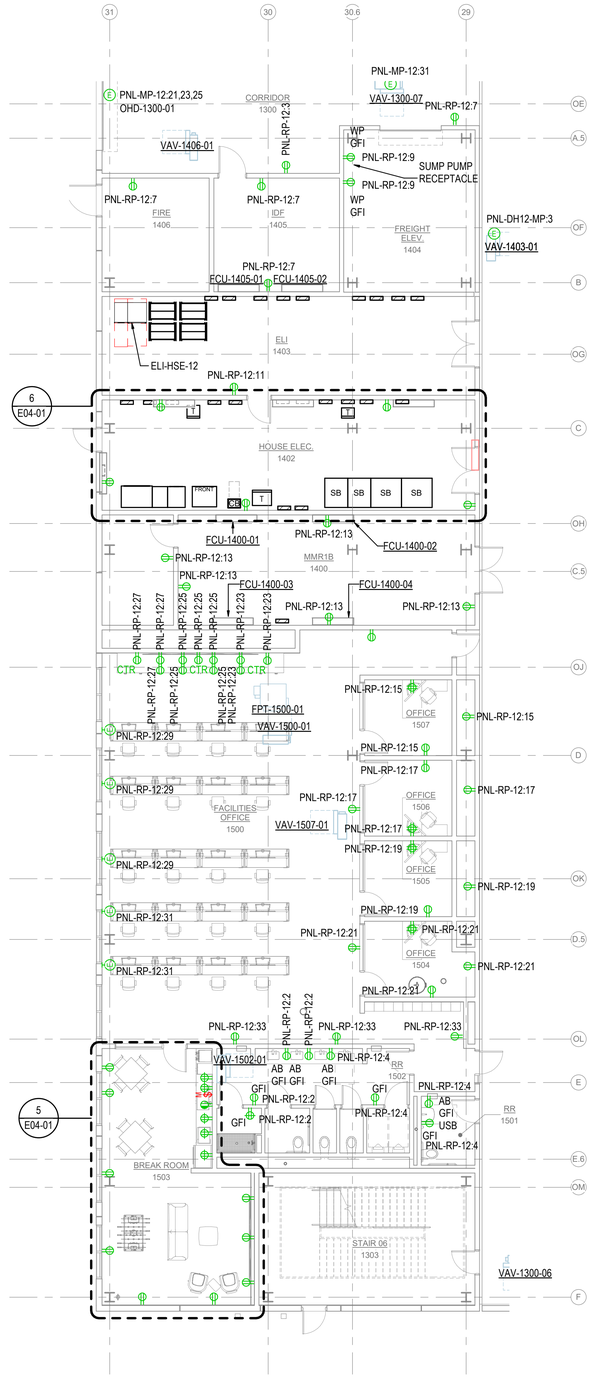
POWER FLOOR PLAN - LEVEL ONE - SEGMENT R

JOB 24464.0000
DATE 01.31.25
SHEET

E03-01R



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



2 LEVEL 1 POWER PLAN - T
SCALE: 1/8" = 1'-0"

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

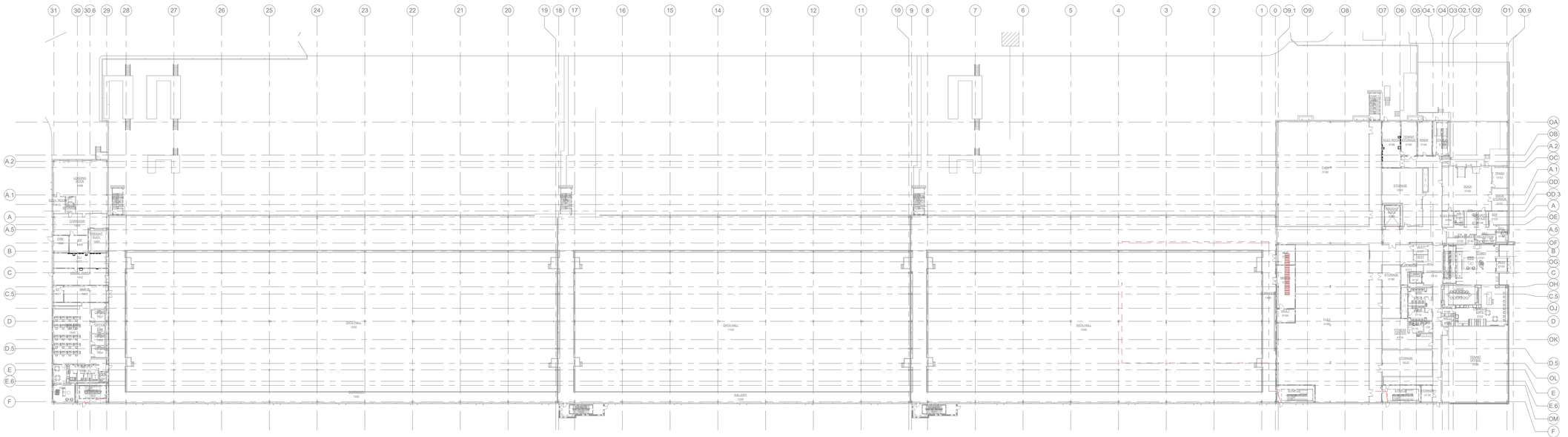
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POWER FLOOR PLAN - LEVEL ONE - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET E03-01ST

2/5/2025 9:46:17 AM E03-01STPOWER FLOOR PLAN - LEVEL ONE - SEGMENT S-T

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.



This sheet of drawings has not been reviewed for code compliance.

1 LEVEL 2 POWER PLAN
SCALE: 1" = 40'-0"

SHEET NOTES

SHEET KEYNOTES

2/5/2025 9:46:27 AM E03-02 POWER FLOOR PLAN - LEVEL TWO - OVERALL

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	ISSUES	
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	REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

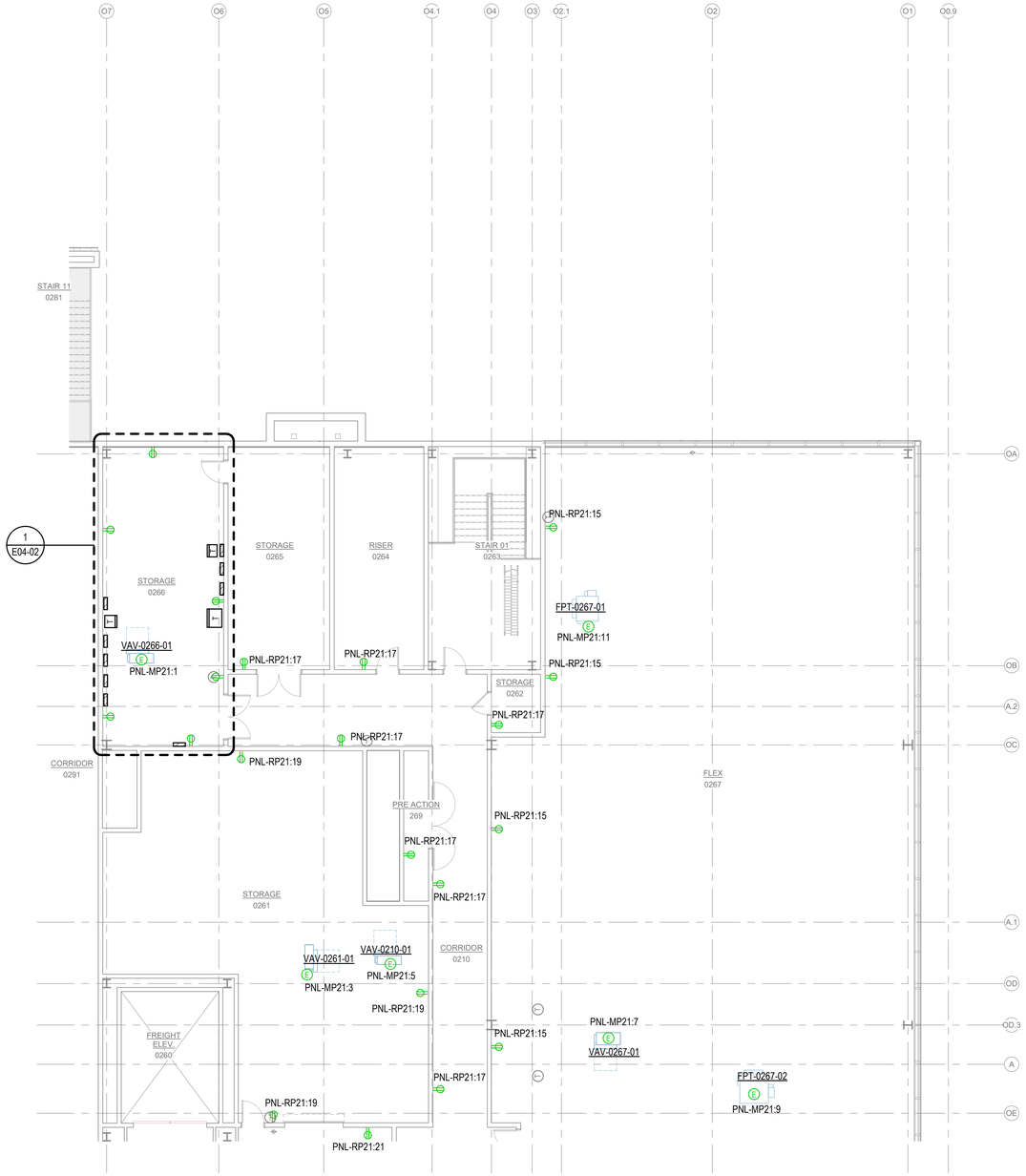
KEYPLAN

S Q N L J G E C A
T R P M K H F D B

POWER FLOOR PLAN - LEVEL TWO - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02



1 LEVEL 2 POWER PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

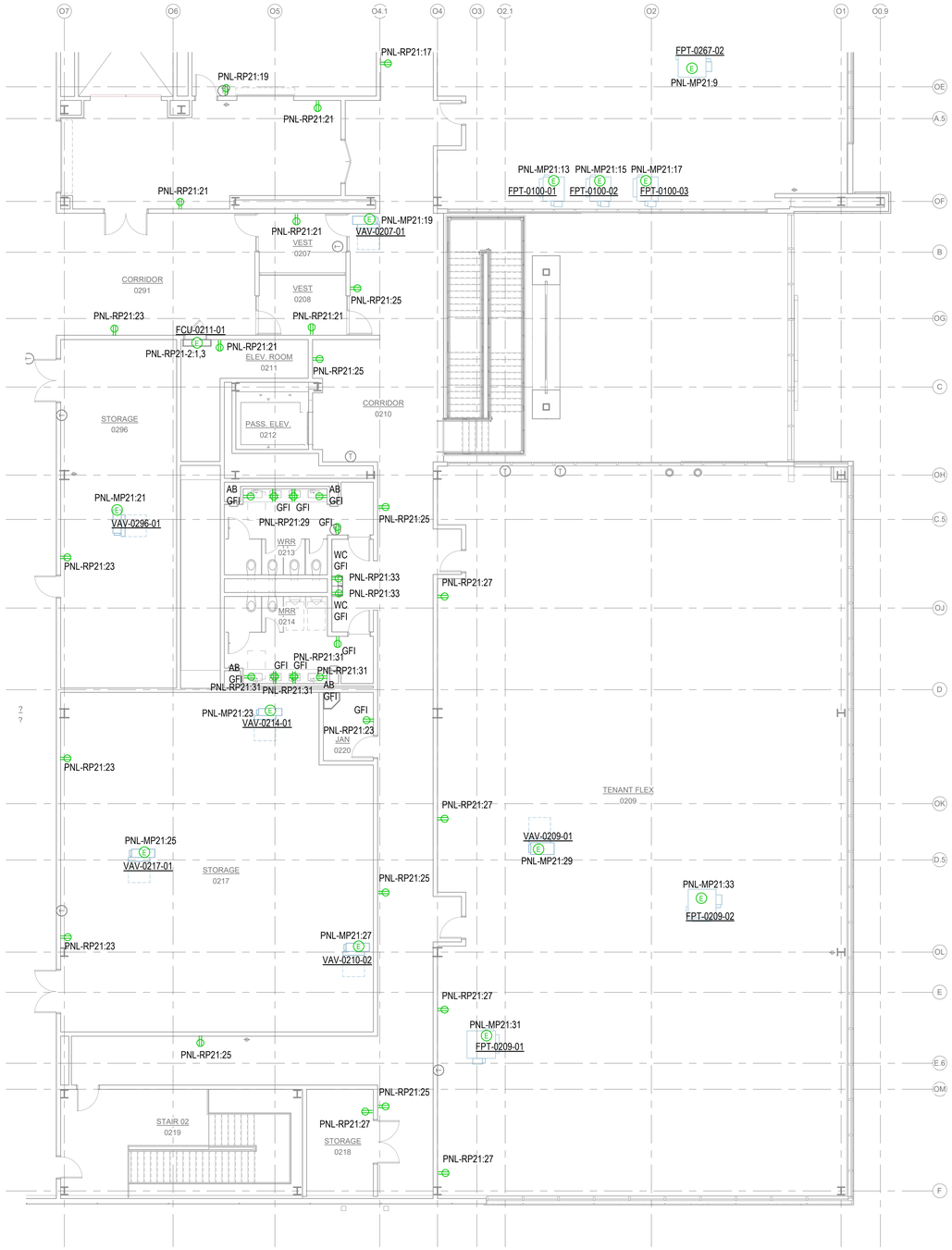
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02A

2/5/2025 9:46:29 AM E03-02A POWER FLOOR PLAN - LEVEL TWO - SEGMENT A



1 LEVEL 2 POWER PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

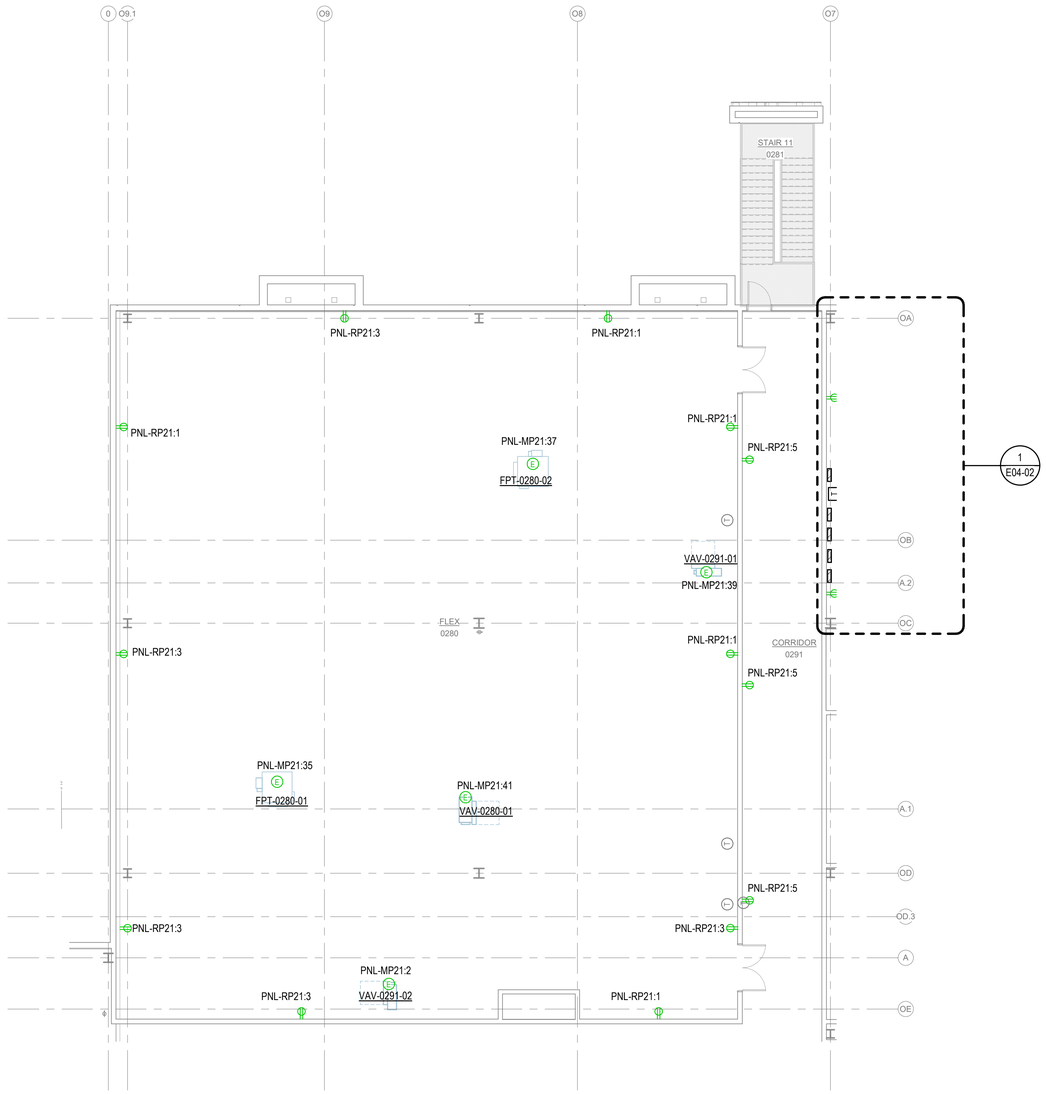
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02B

2/5/2025 9:46:33 AM E03-02B POWER FLOOR PLAN - LEVEL TWO - SEGMENT B



1 LEVEL 2 POWER PLAN - C
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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POWER FLOOR PLAN - LEVEL TWO - SEGMENT C

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02C



1 LEVEL 2 POWER PLAN - D
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1. CONTRACTOR SHALL INSTALL RECEPTACLE AT 150" AFF FOR SPLIT SYSTEM LEAK DETECTION.
2. RECEPTACLE FOR POTS LINE PANEL. COORDINATE FINAL LOCATION AND ELEVATION ABOVE FINISHED FLOOR WITH INSTALLING CONTRACTOR.

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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

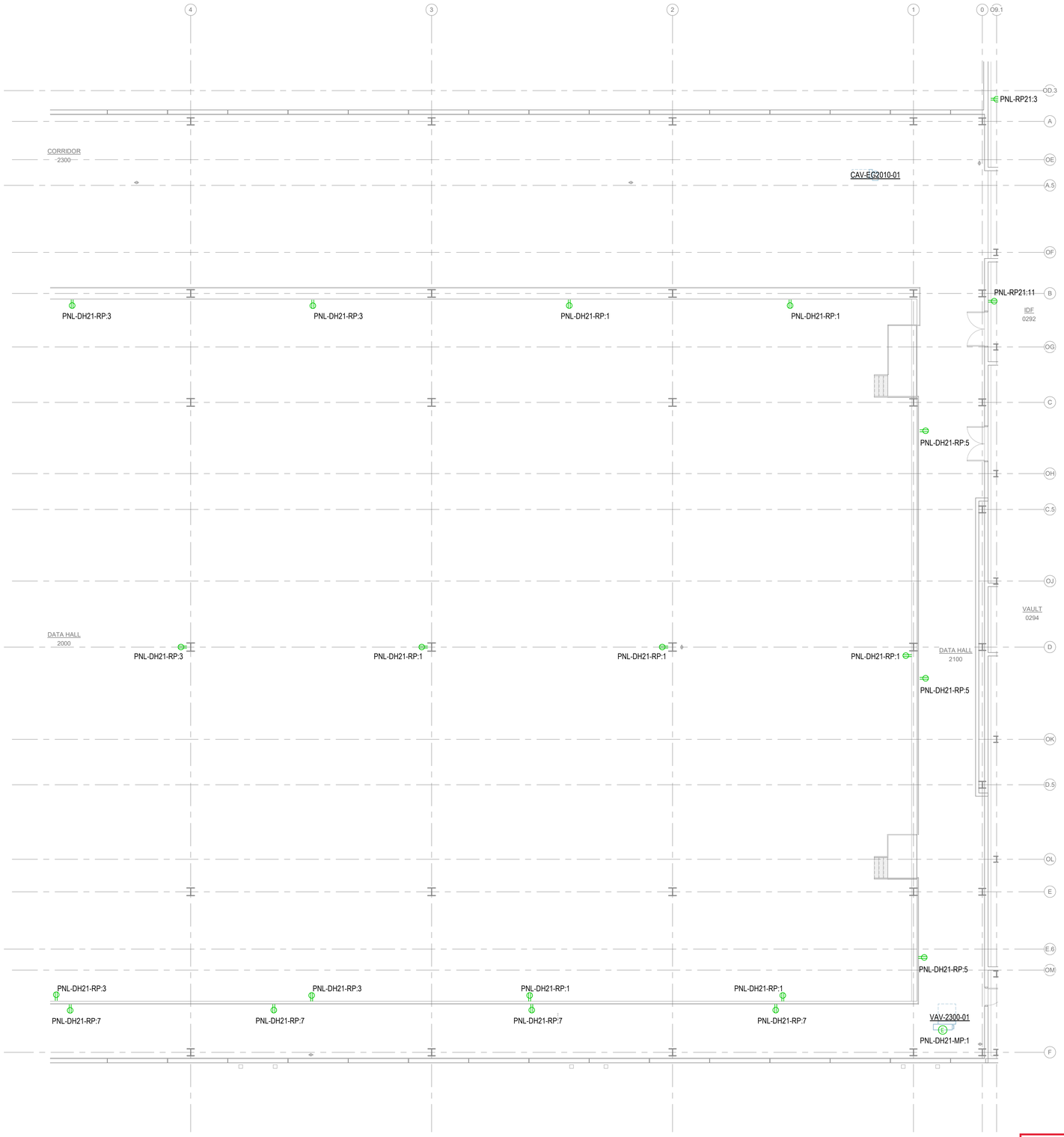
QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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POWER FLOOR PLAN - LEVEL TWO - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET E03-02D



1 LEVEL 2 POWER PLAN - F
SCALE: 1/8" = 1'-0"

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

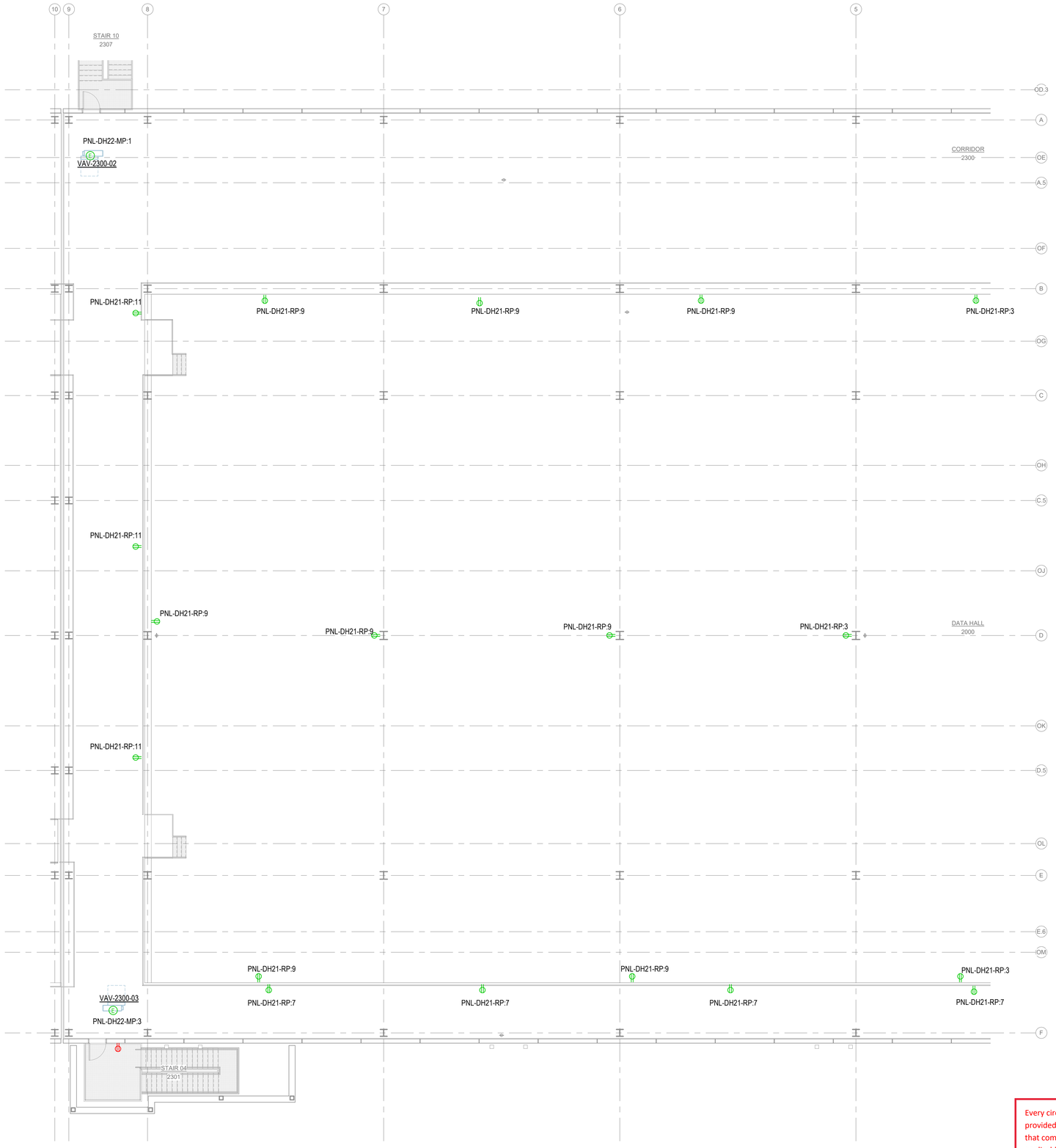
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02F

2/5/2025 9:46:42 AM E03-02F POWER FLOOR PLAN - LEVEL TWO - SEGMENT F



1 LEVEL 2 POWER PLAN - H
SCALE: 1/8" = 1'-0"

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Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC
193 of 271 MPE

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
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SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

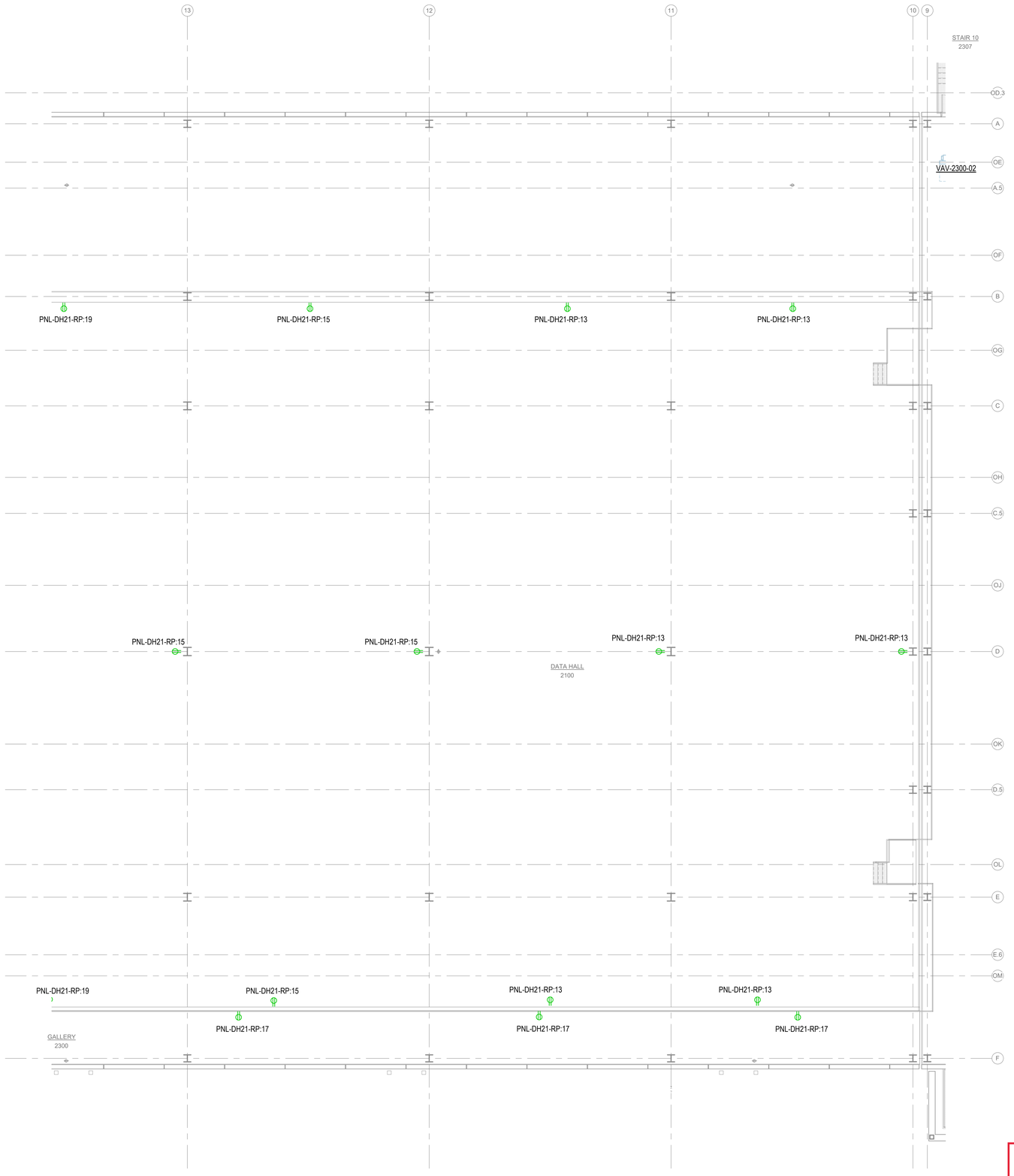
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02H

2/5/2025 9:46:45 AM E03-02H POWER FLOOR PLAN - LEVEL TWO - SEGMENT H



1 LEVEL 2 POWER PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

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Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODE COUNCIL CODES
1174 OF 2744 PAGE

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SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

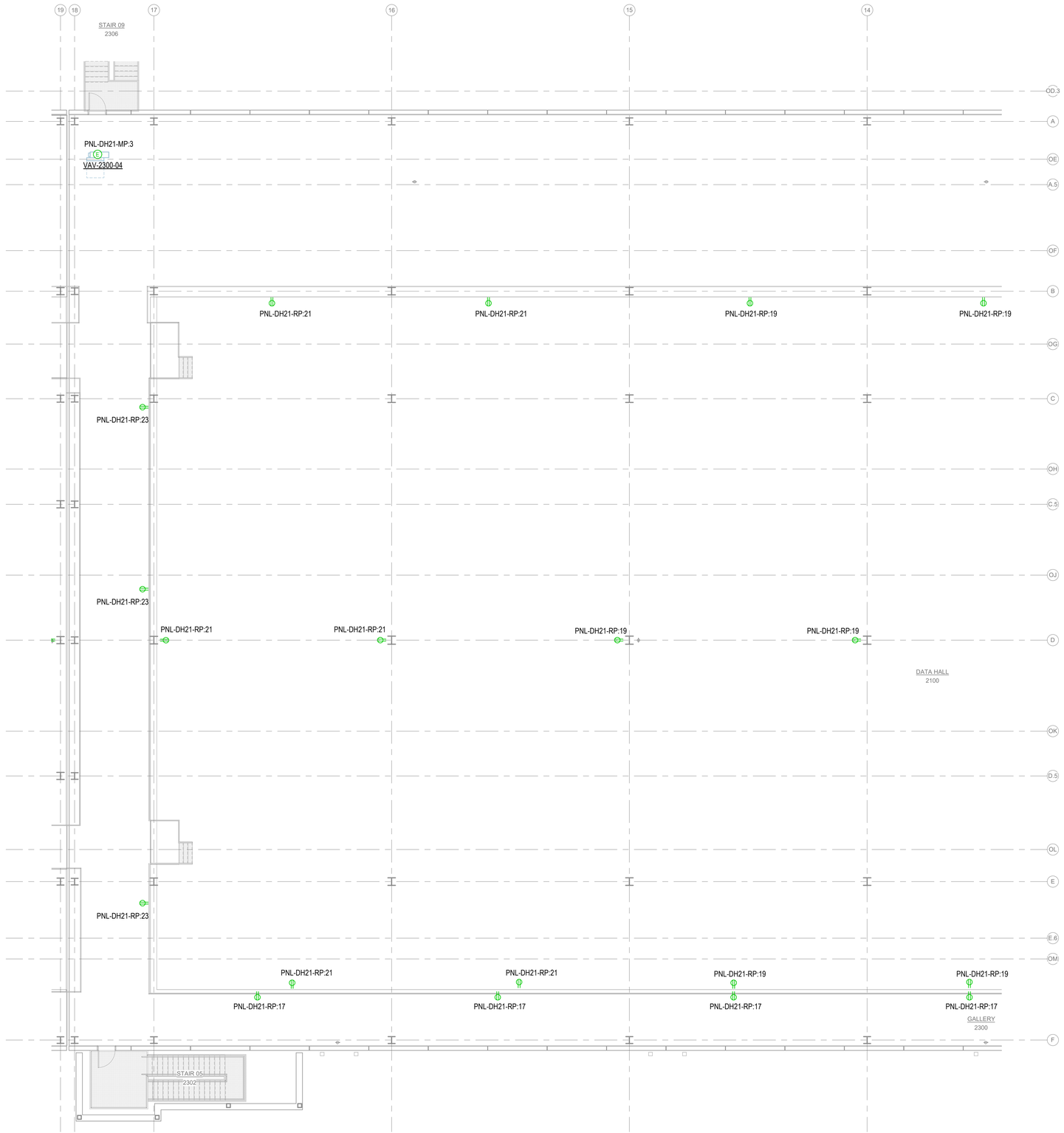
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02K

2/5/2025 9:46:48 AM E03-02K POWER FLOOR PLAN - LEVEL TWO - SEGMENT K



1 LEVEL 2 POWER PLAN - M
SCALE: 1/8" = 1'-0"

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
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SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

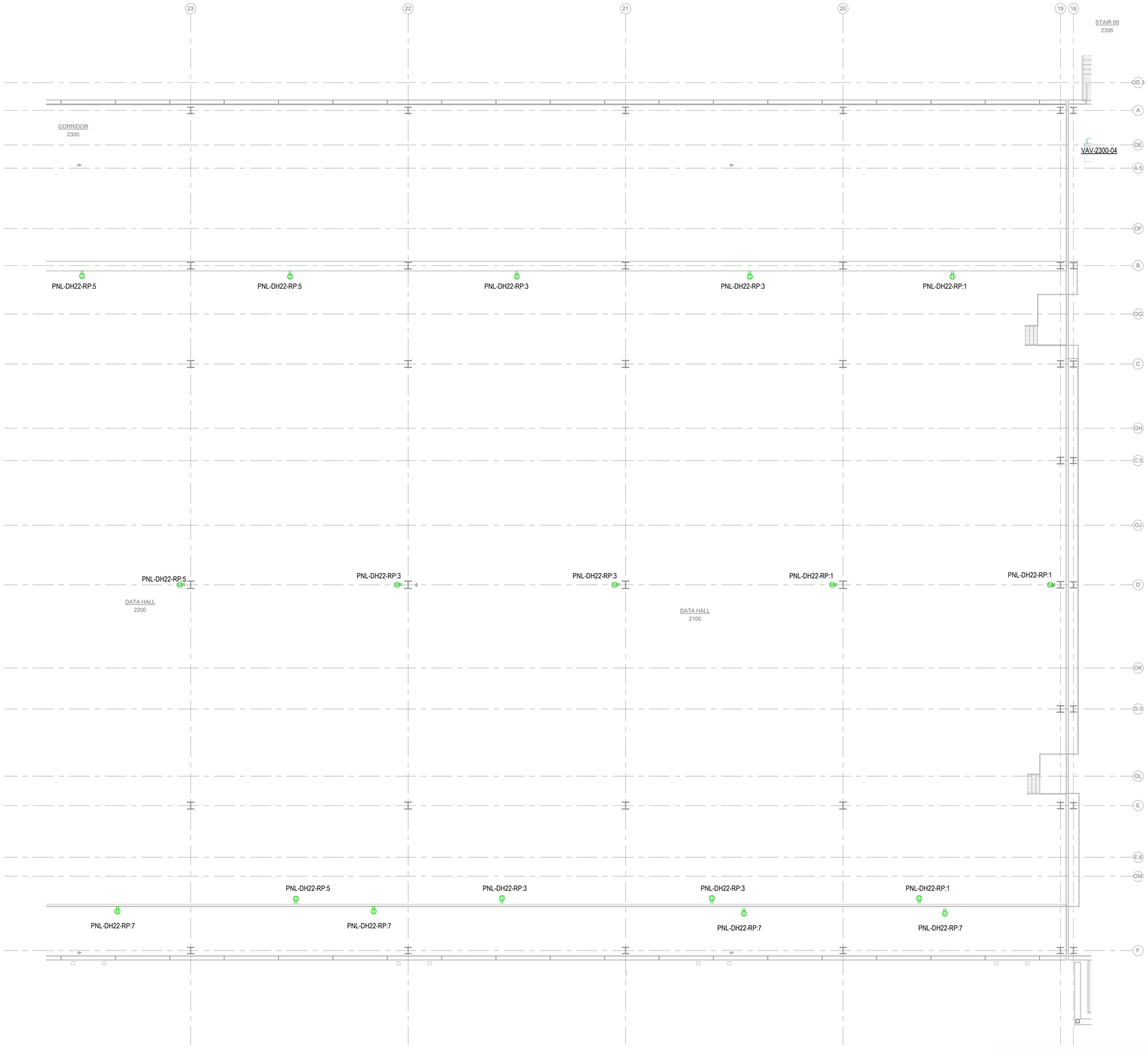
KEYPLAN

S	Q	N	L	J	G	E	C	A
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02M



1 LEVEL 2 POWER PLAN - P
SCALE: 1/8" = 1'-0"

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2024 IECC & 2023 NEC
110 of 271 MPE

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

CORGAN
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DESIGN CONSULTING LLC

ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

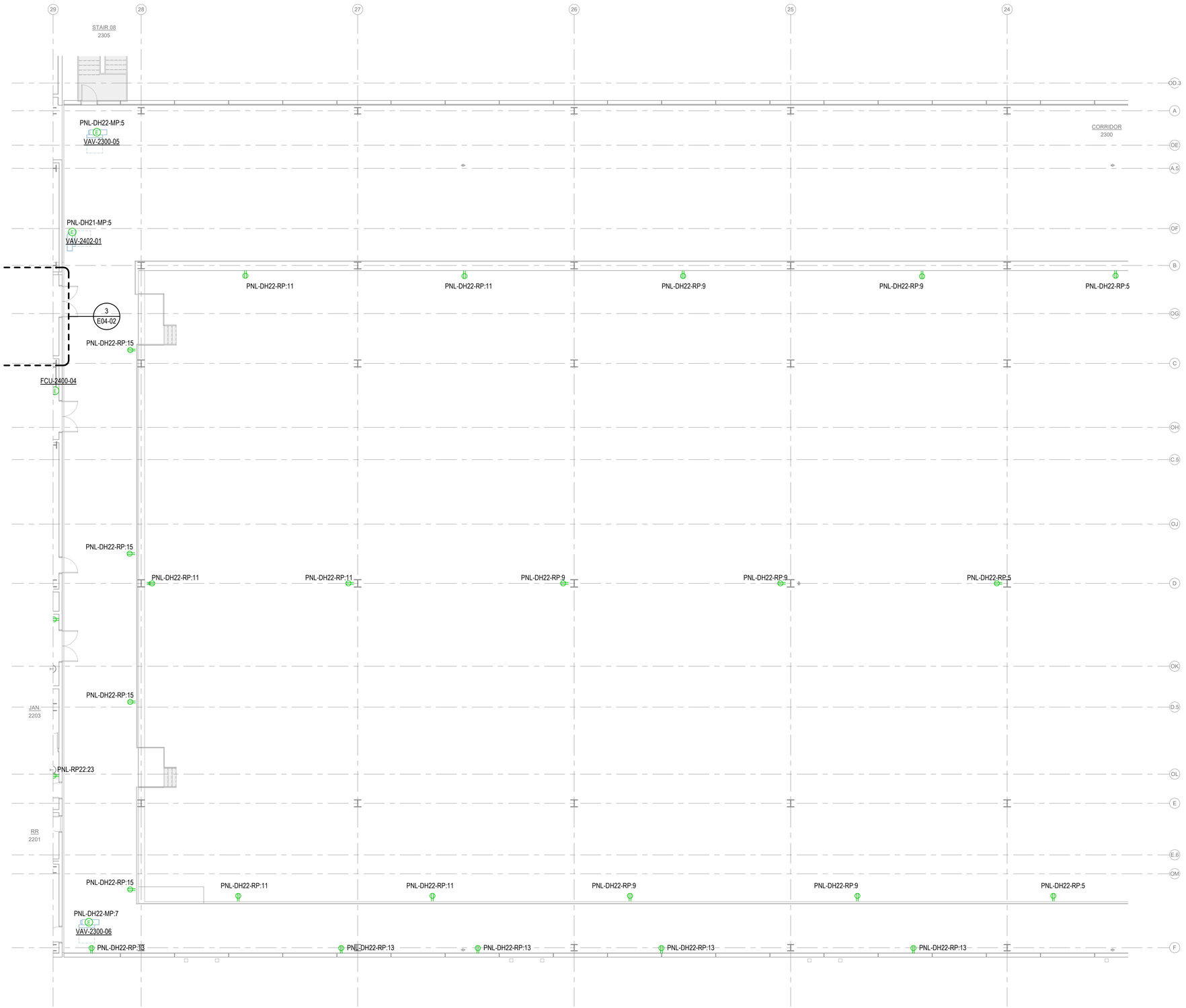
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02P

2/5/2025 9:46:54 AM E03-02P POWER FLOOR PLAN - LEVEL TWO - SEGMENT P



1 LEVEL 2 POWER PLAN - R
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
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SYSKA HENNESSY GROUP

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

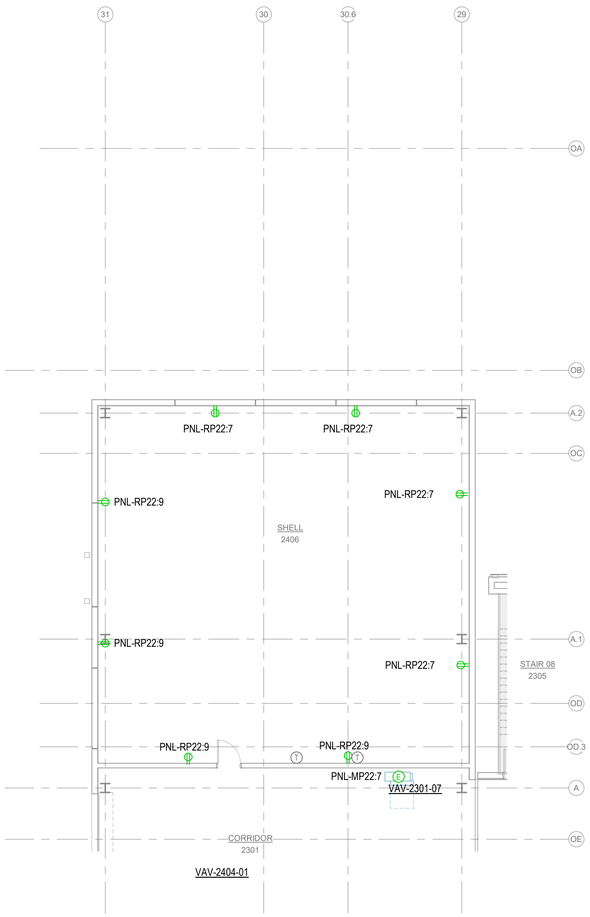
KEYPLAN

S	Q	N	L	J	G	E	C	A
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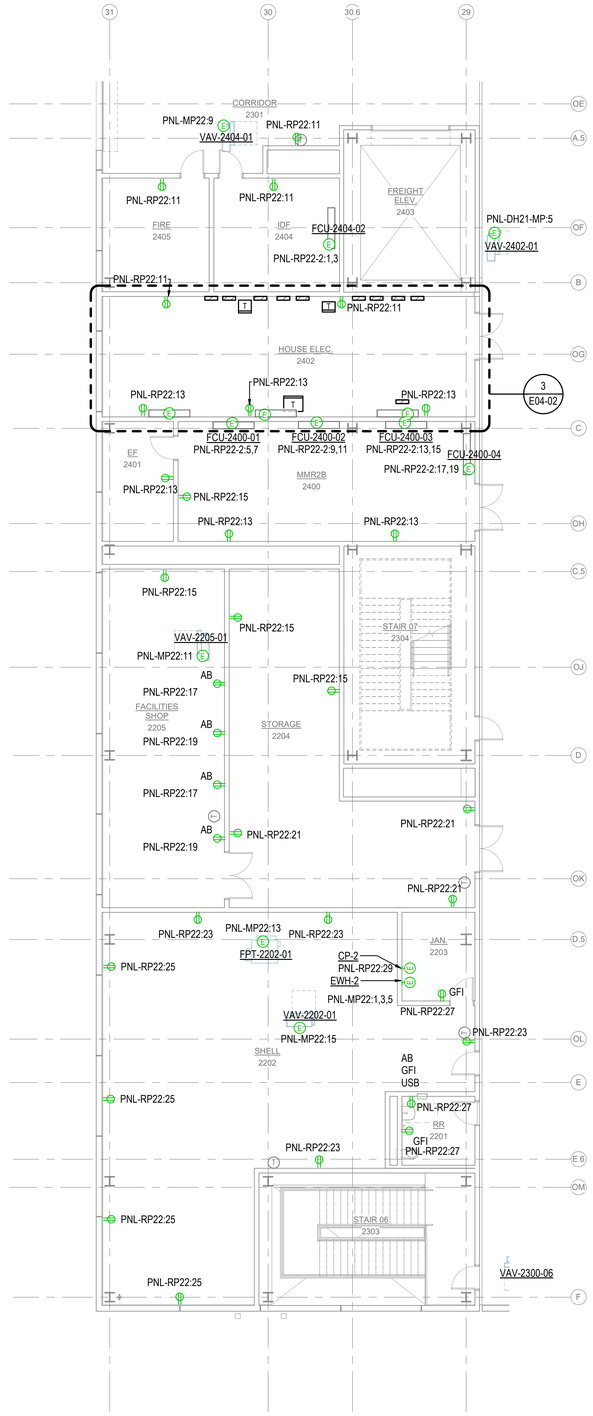
POWER FLOOR PLAN - LEVEL TWO - SEGMENT R

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02R



1 LEVEL 2 POWER PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 2 POWER PLAN - T
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

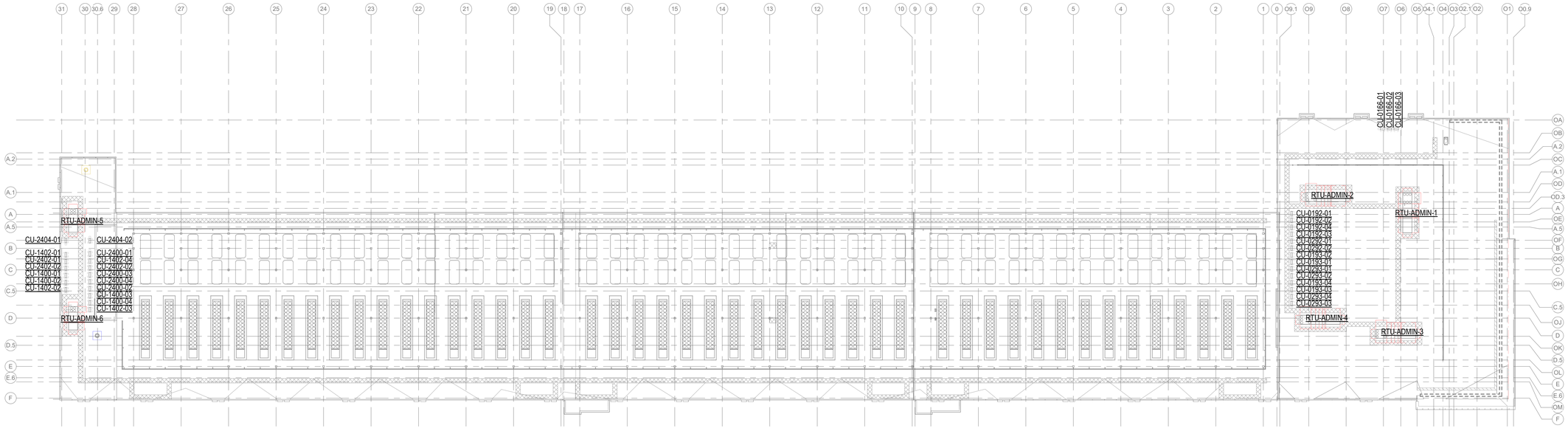
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POWER FLOOR PLAN - LEVEL TWO - SEGMENT S-T

JOB 24464.0000
DATE 01.31.25
SHEET

E03-02ST

2/5/2025 9:47:03 AM E03-02STPOWER FLOOR PLAN - LEVEL TWO - SEGMENT S-T



1 T.O. DATA CENTER PARAPET POWER PLAN
SCALE: 1" = 40'-0"

This sheet of drawings has not been reviewed for code compliance.

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E01-01 FOR UNDERGROUND CONDUIT REQUIREMENTS.
C. COORDINATE ALL CONDUIT ROOF PENETRATIONS WITH ROOF DRAINS.

SHEET KEYNOTES

1. PROVIDE ELECTRICAL CONNECTION AND DISCONNECT SWITCH FOR NEW MECHANICAL EQUIPMENT. REFER TO EQUIPMENT FEEDER SCHEDULE FOR ADDITIONAL INFORMATION.

2/5/2025 9:47:15 AM E03-03 POWER ROOF PLAN - OVERALL

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	ISSUES	
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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1/31/2025

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
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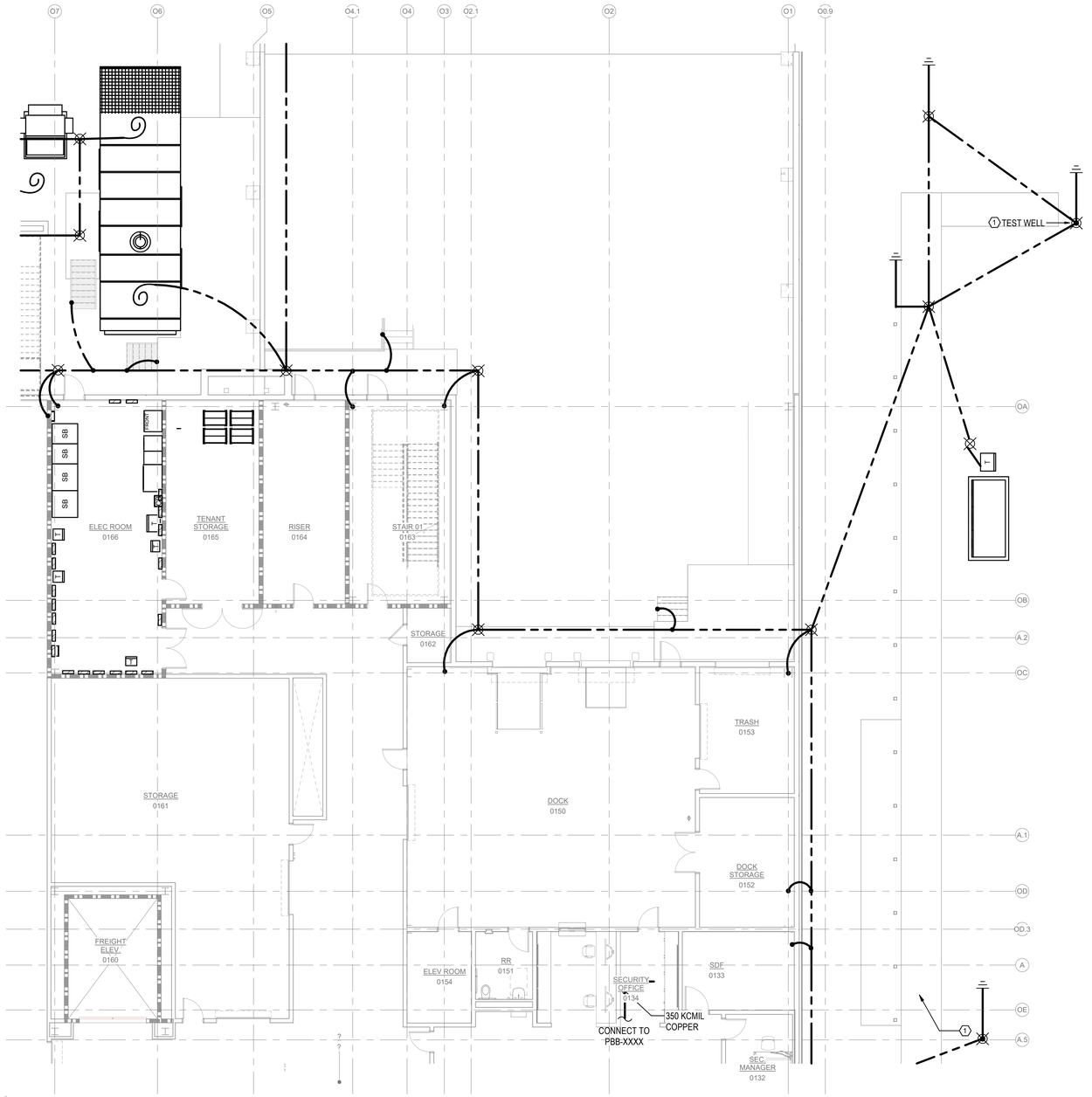
KEYPLAN

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POWER ROOF PLAN - OVERALL

JOB 24464.0000
DATE 01.31.25
SHEET

E03-03



1 LEVEL 1 GROUNDING PLAN - A
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

1. PROVIDE GROUND TEST WELL AT CONNECTION SHOWN.

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1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED
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34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT A

JOB 24464.0000
DATE 01.31.25
SHEET

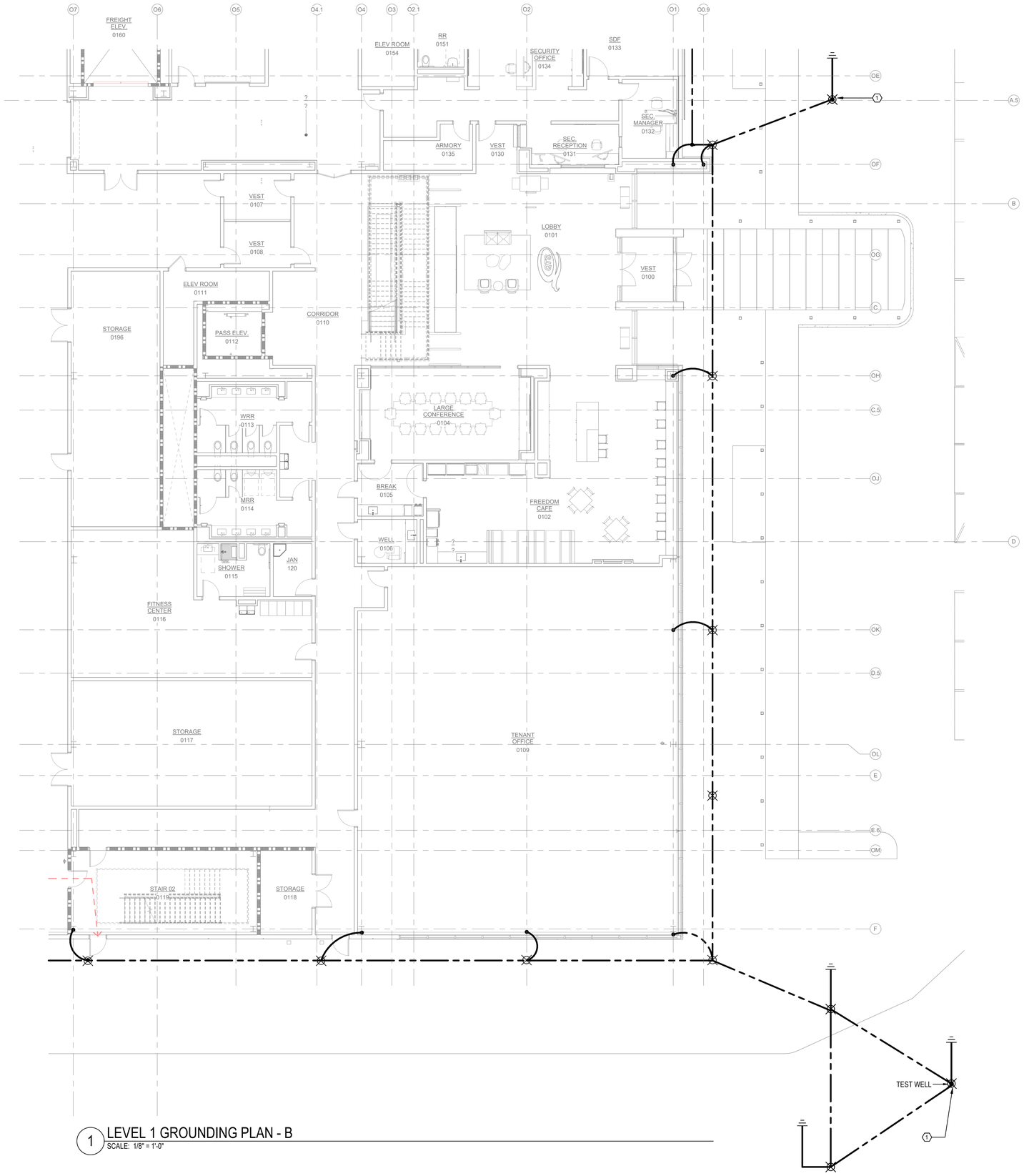
E03-21A

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

2/5/2025 9:47:19 AM E03-21A GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT A

RSN: 1881854 | PERMIT#: 25-2513934-CM



1 LEVEL 1 GROUNDING PLAN - B
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. ~~SEE DRAWING E0.01 FOR LEGENDS, NOTES AND ABBREVIATIONS.~~
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

1. PROVIDE GROUND TEST WELL AT CONNECTION SHOWN.

City of Aurora Building Division
Reviewed for Code Compliance
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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
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Per 2023 NEC 250.50 and 250.104

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ISSUES		
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REVISIONS

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

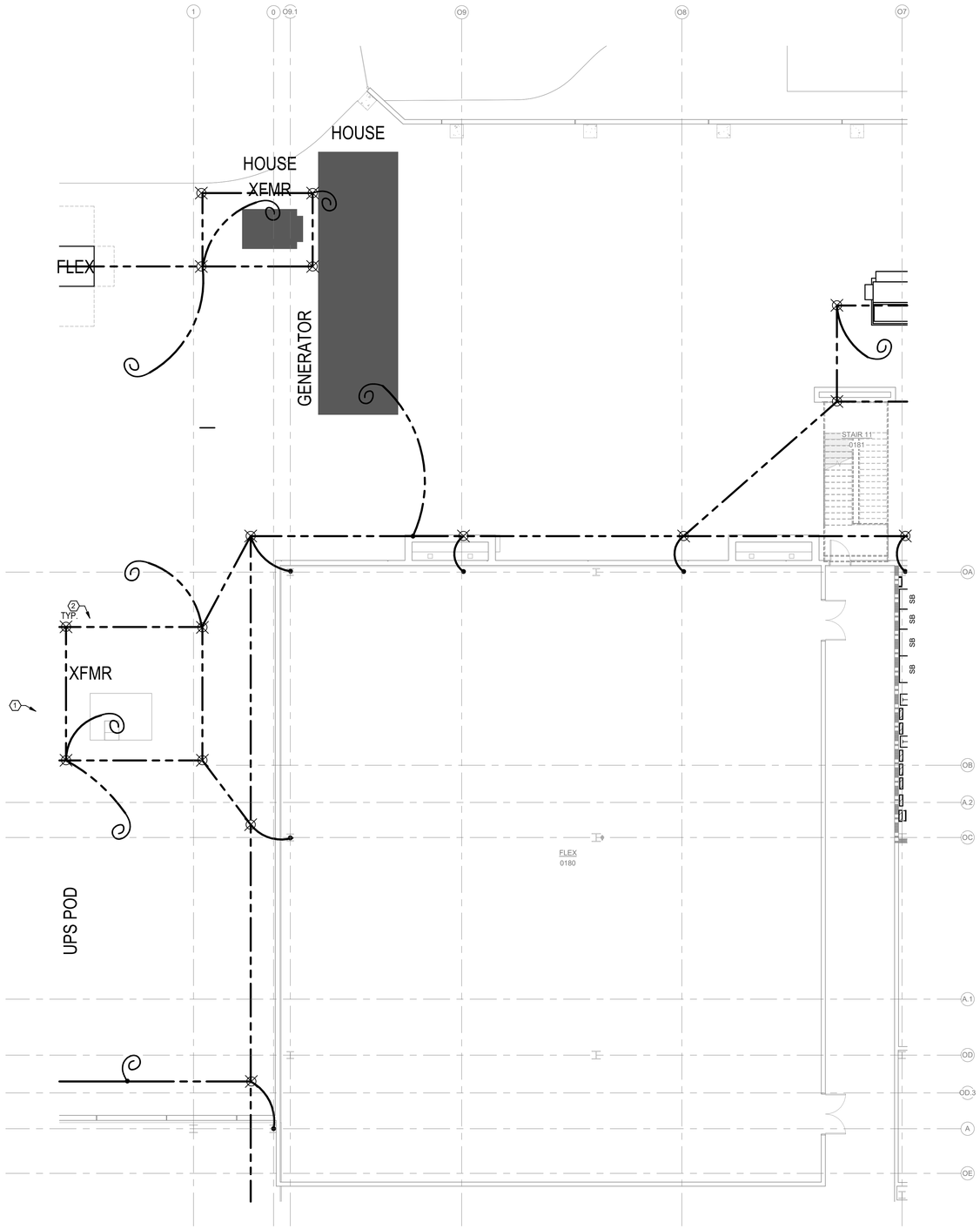
KEYPLAN

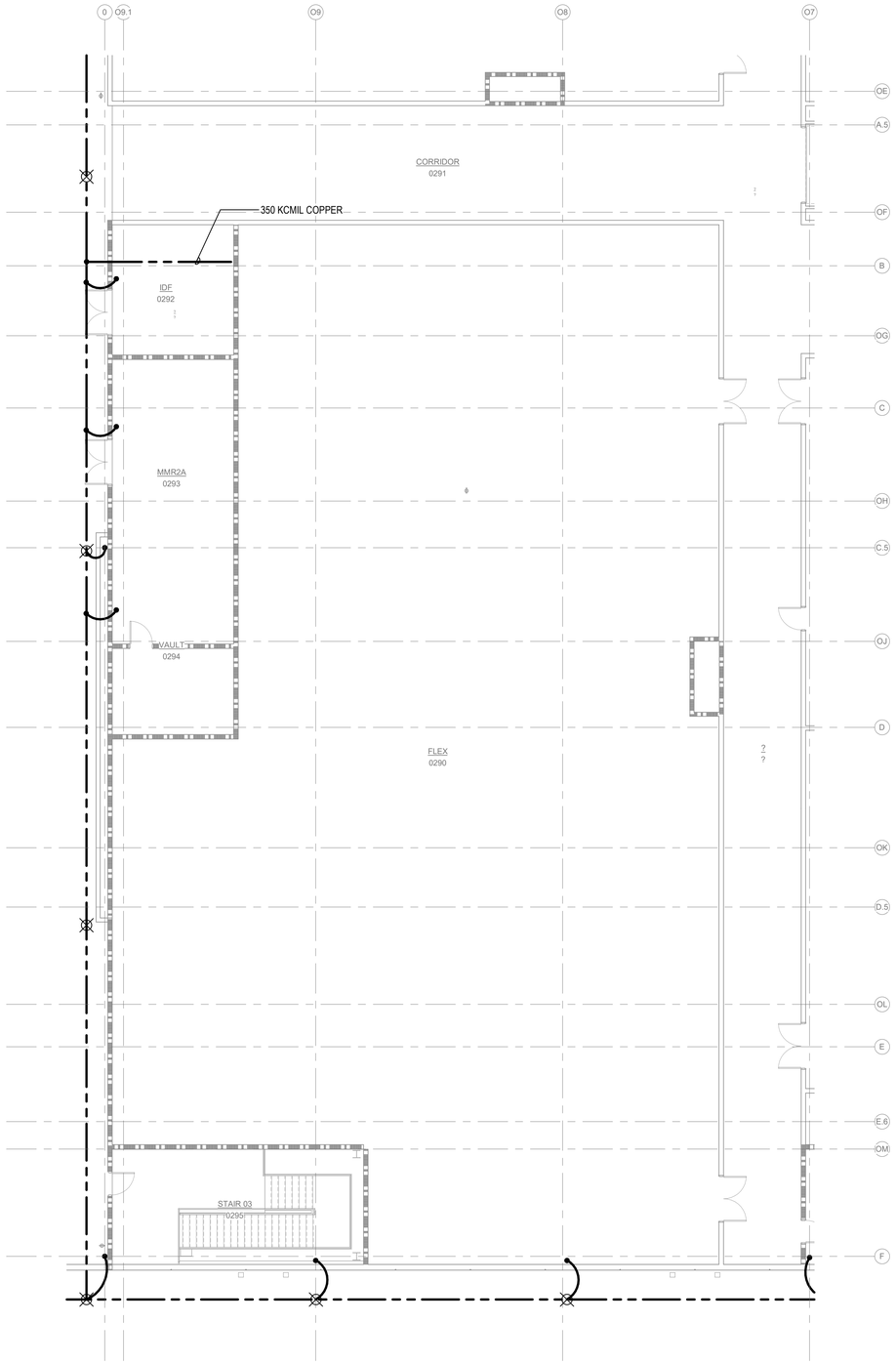
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT B

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21B


HOUSE
HOUSE
XFMR
FLEX
GENERATOR
STAIR 11
0181
TYP.
XFMR
UPS POD
FLEX
0180
SB
SB
SB



1 LEVEL 1 GROUNDING PLAN - D
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

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ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

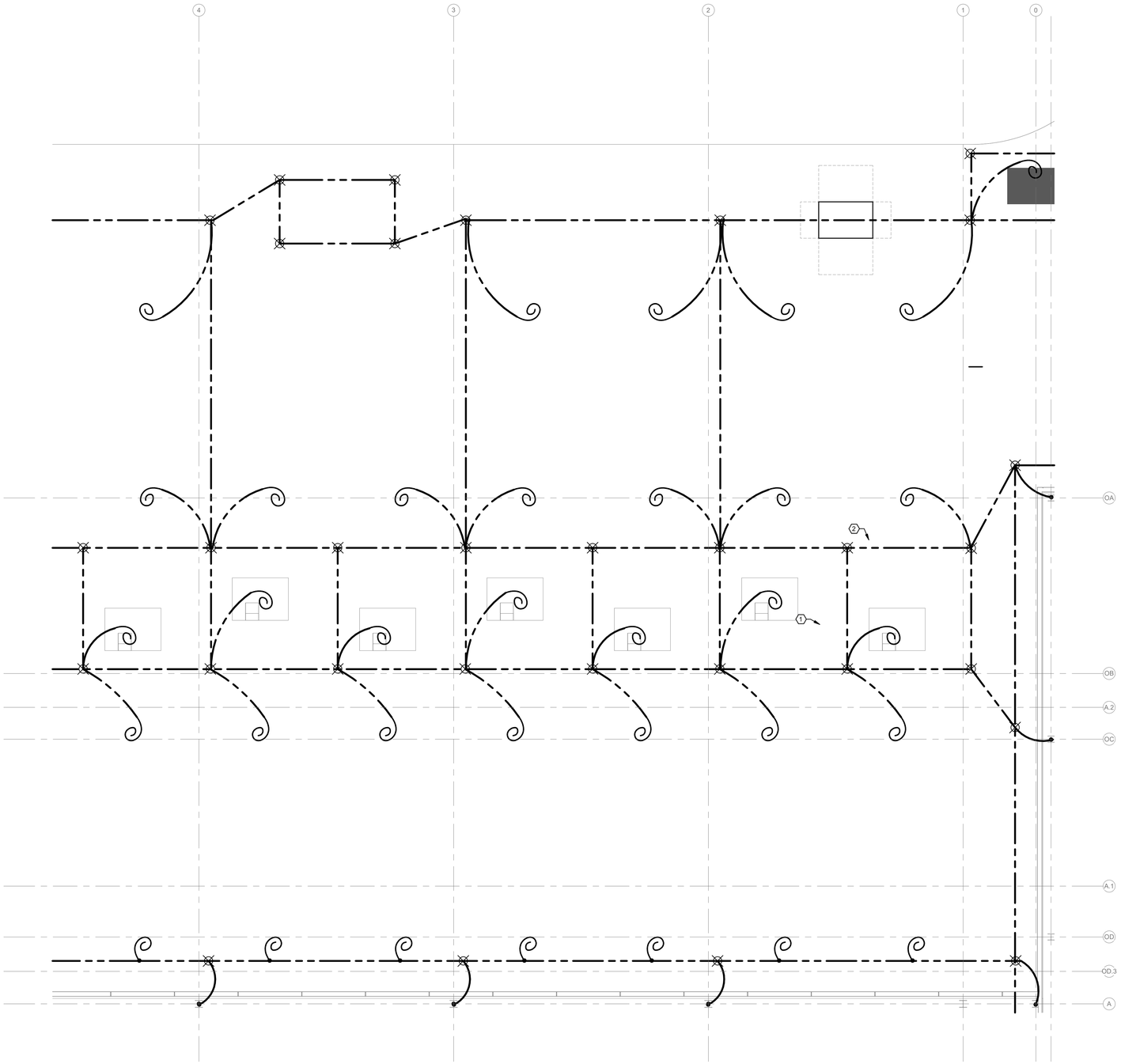
S	Q	N	L	J	G	E	C	A
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT D

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21D

2/5/2025 9:47:31 AM E03-21D GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT D



1 LEVEL 1 GROUNDING PLAN - E
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
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SHEET KEYNOTES

City of Aurora Building Division
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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

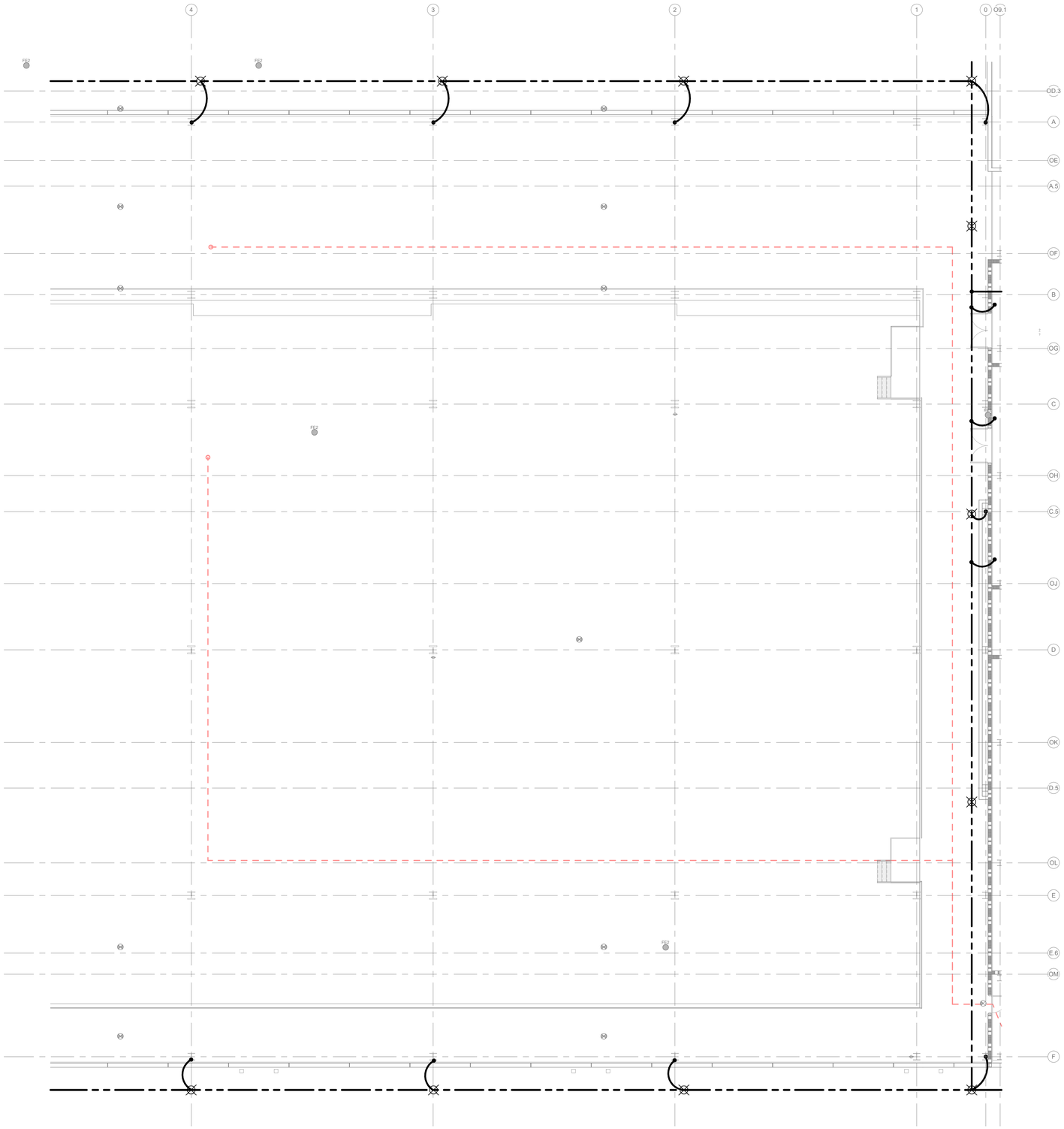
KEYPLAN

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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT E

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21E



1 LEVEL 1 GROUNDING PLAN - F
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. ~~SEE DRAWING E0.01 FOR LEGENDS, NOTES AND ABBREVIATIONS.~~
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

1 PROVIDE GROUND TEST WELL AT CONNECTION SHOWN.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC
205 of 271 MPE

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

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ISSUES		
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

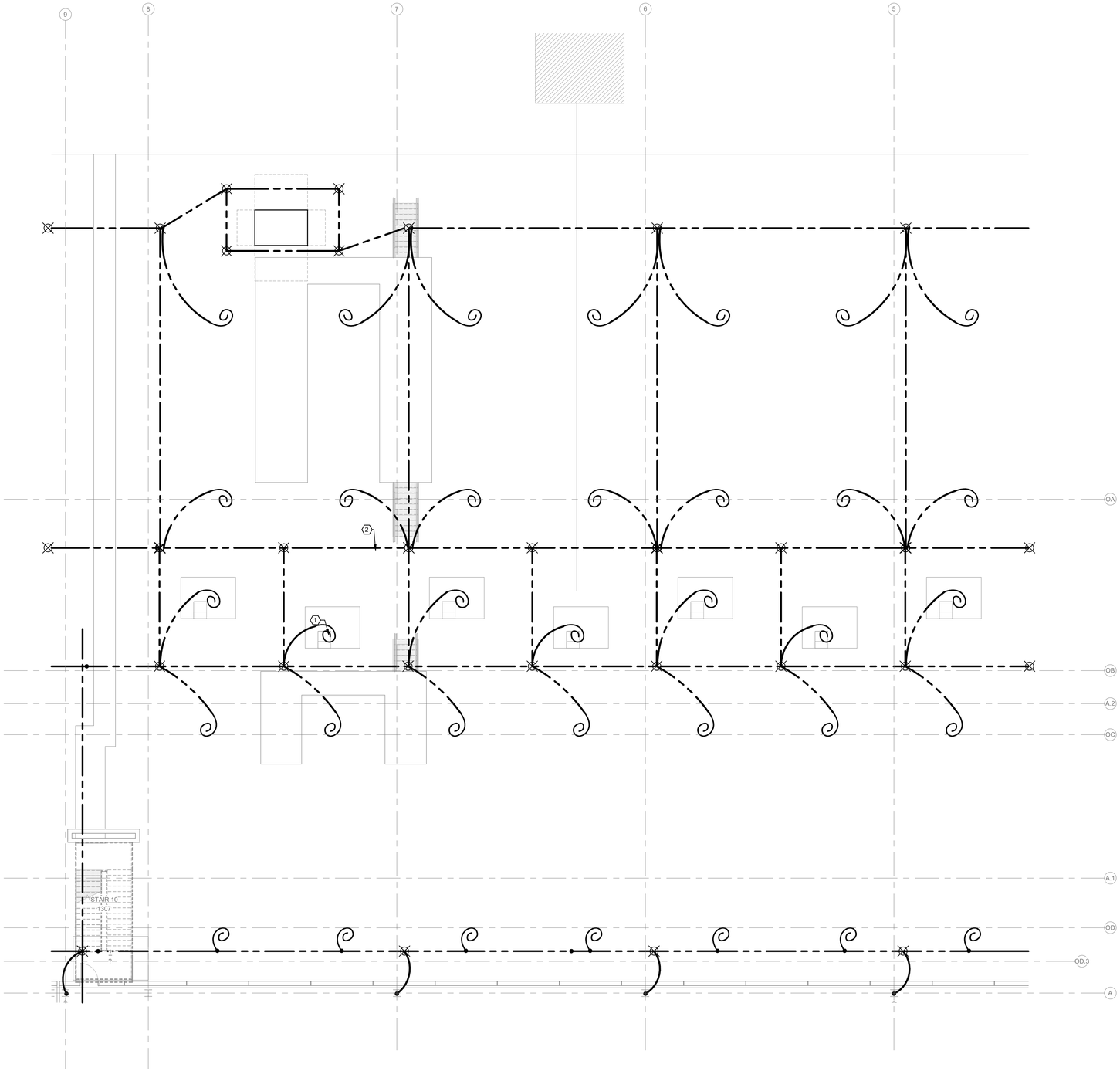
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT F

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21F

2/5/2025 9:47:38 AM E03-21F GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT F



1 LEVEL 1 GROUNDING PLAN - G
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

1 3000A CABLE BUS FROM TRANSFORMER TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)
2 3000A CABLE BUS FROM GENERATOR TO UPS POD. PROVIDE WITH FRP CABLE BUS COVER (MANUFACTURED BY ADVANTIC)

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ISSUES

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT G

JOB 24464.0000
DATE 01.31.25
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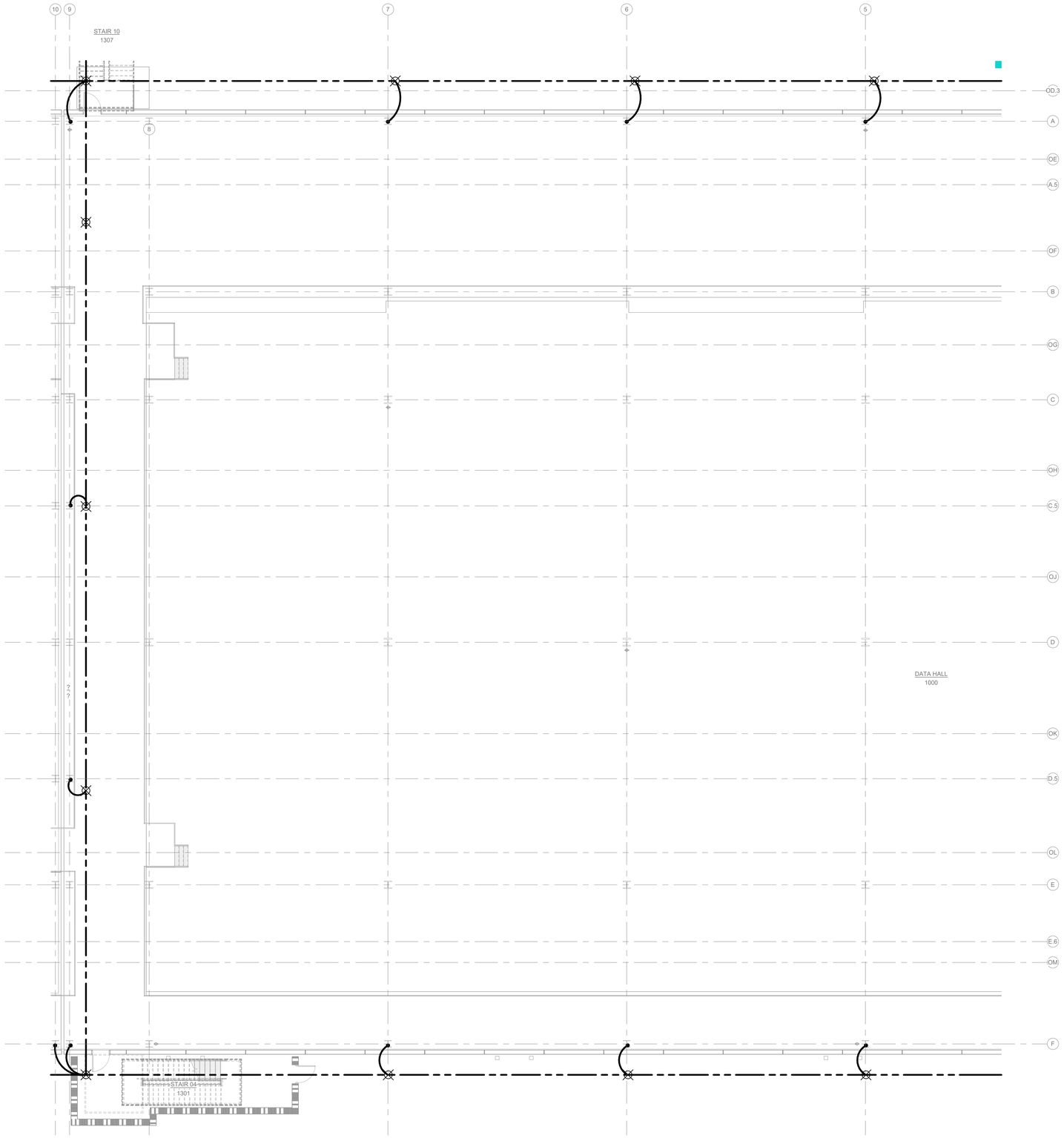
E03-21G

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

206 of 271 MPE

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

2/5/2025 9:47:40 AM E03-21G GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT G



1 LEVEL 1 GROUNDING PLAN - H
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

207 of 271 MPE

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

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DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

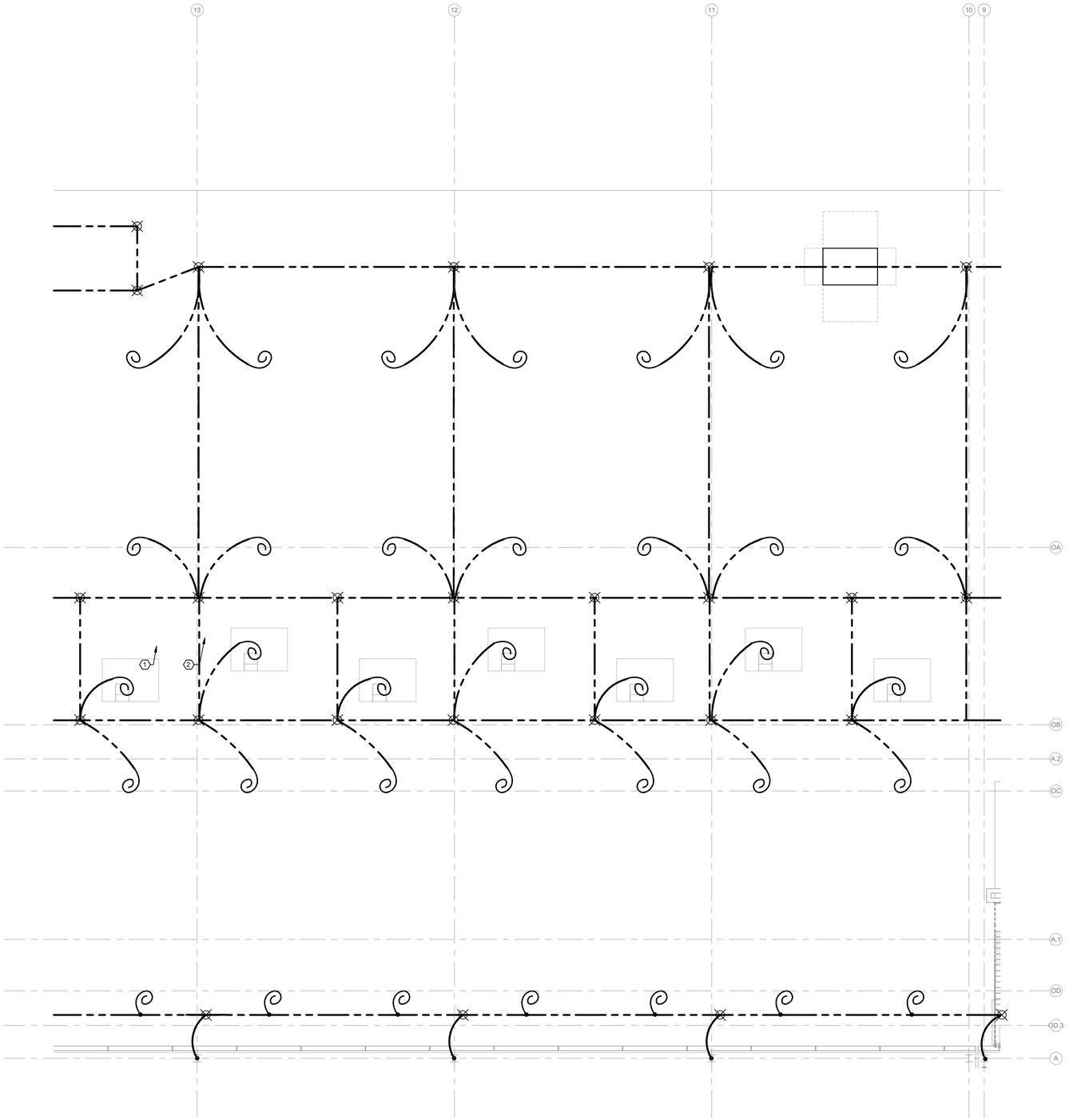
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT H

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21H

2/5/2025 9:47:43 AM E03-21H GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT H



1 LEVEL 1 GROUNDING PLAN - J
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
D. COORDINATE CLOSELY WITH LOCAL AUTHORITY HAVING JURISDICTION AND APPROPRIATE CONTRACTOR(S) TO CONFIRM ALL FINAL INTERCONNECTION LOCATIONS AND REQUIREMENTS.
E. WHERE EQUIPMENT IS CALLED OUT AS HAVING TWO GROUND CONNECTIONS, EACH PIGTAIL SHALL CONNECT BACK TO A SEPARATE GROUND GRID LATERAL.
F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

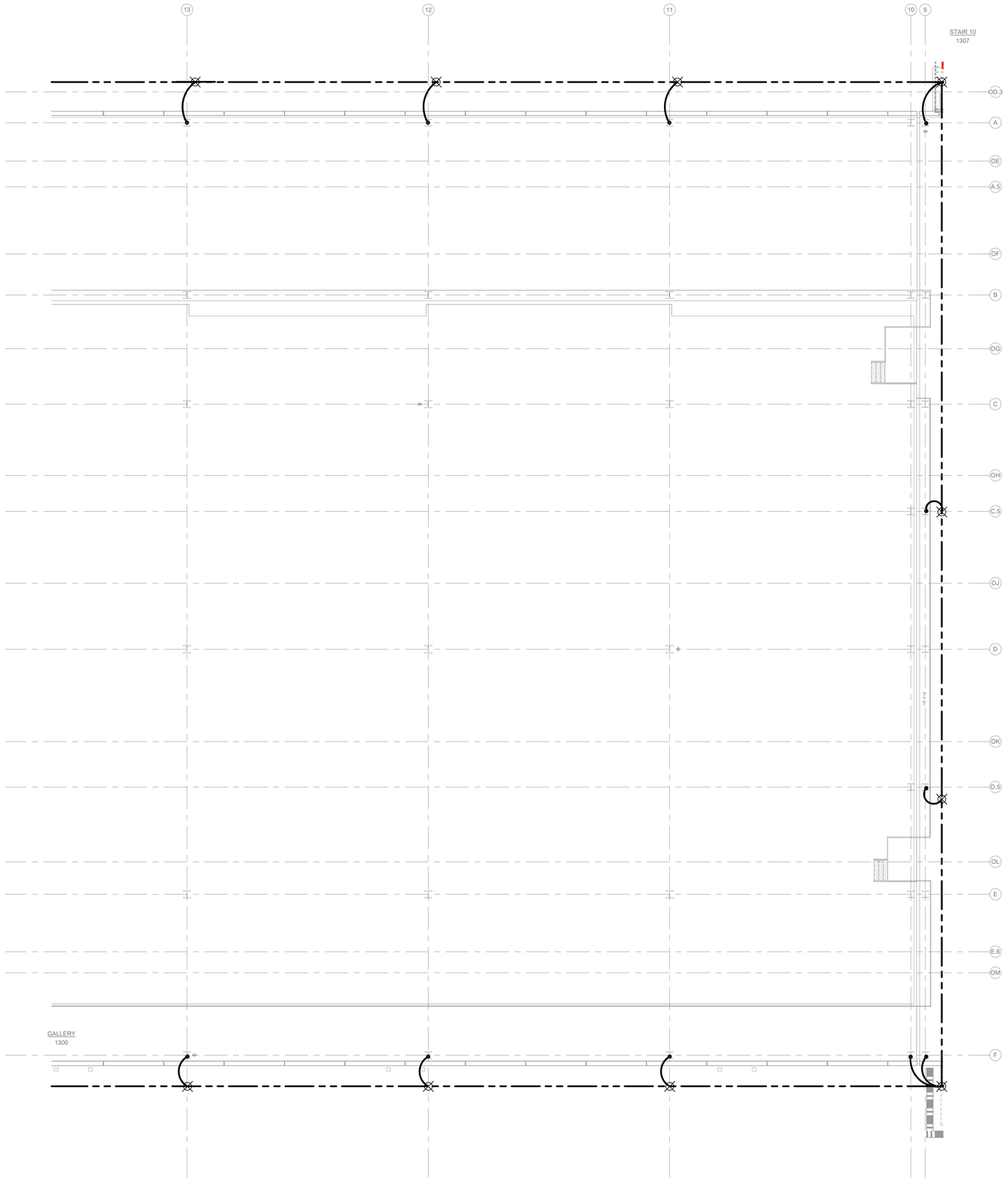
KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT J

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21J



1 LEVEL 1 GROUNDING PLAN - K
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
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SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC
209 of 271 MPE

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

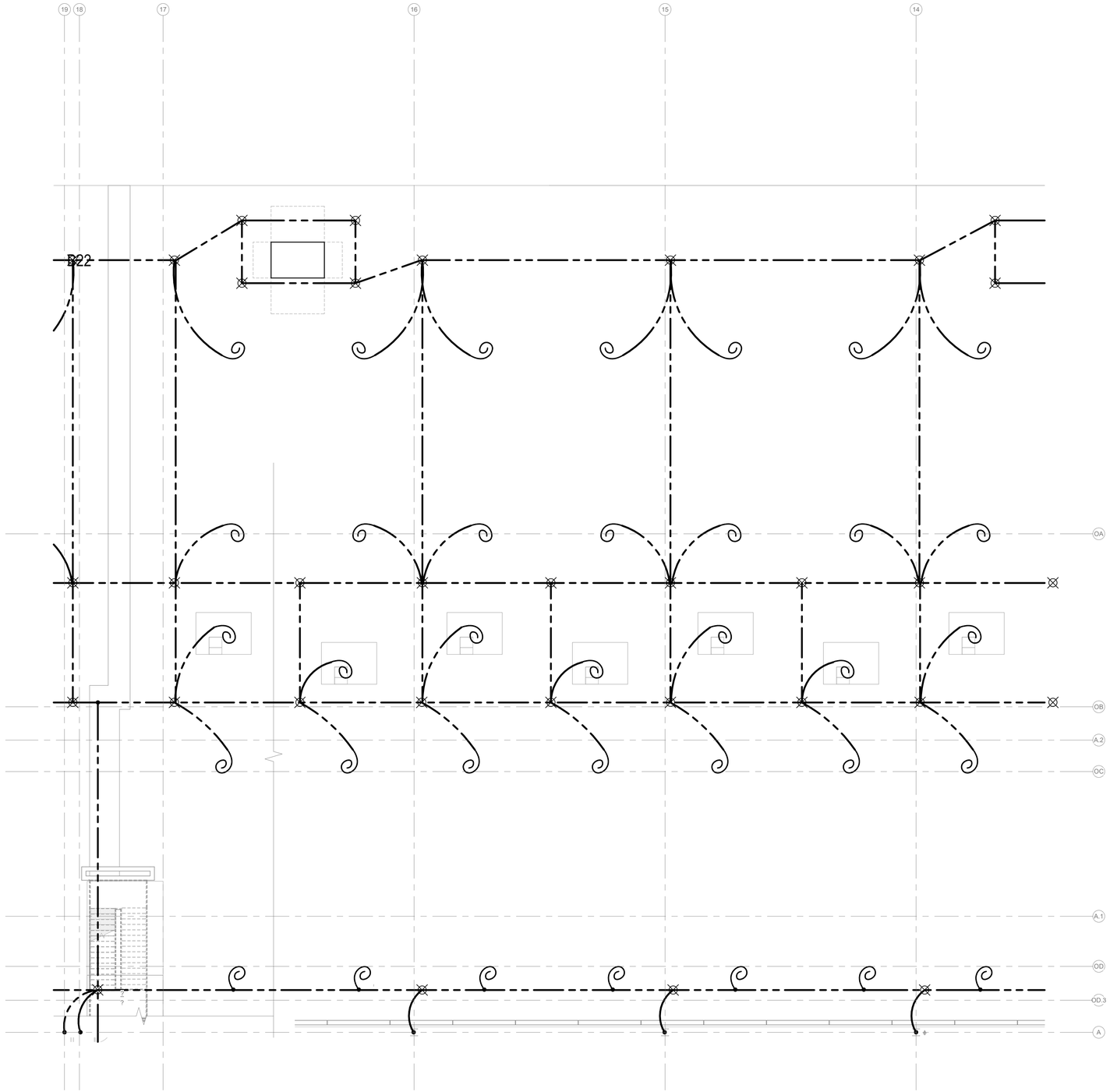
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT K

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21K

2/5/2025 9:47:51 AM E03-21K GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT K



1 LEVEL 1 GROUNDING PLAN - L
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
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SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

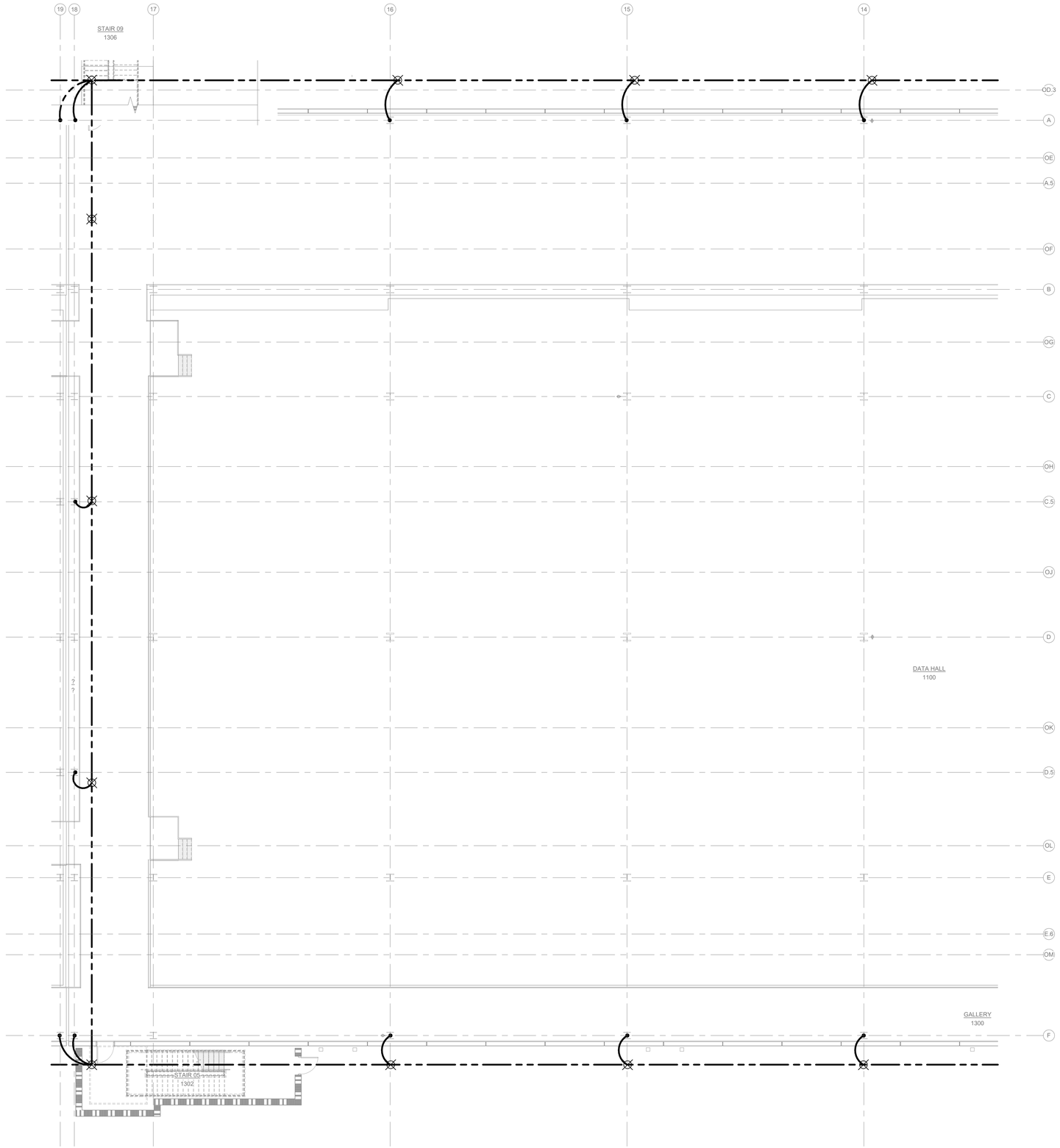
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT L

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21L

2/5/2025 9:47:55 AM E03-21L GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT L



1 LEVEL 1 GROUNDING PLAN - M
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
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SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 05, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX 75202
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DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

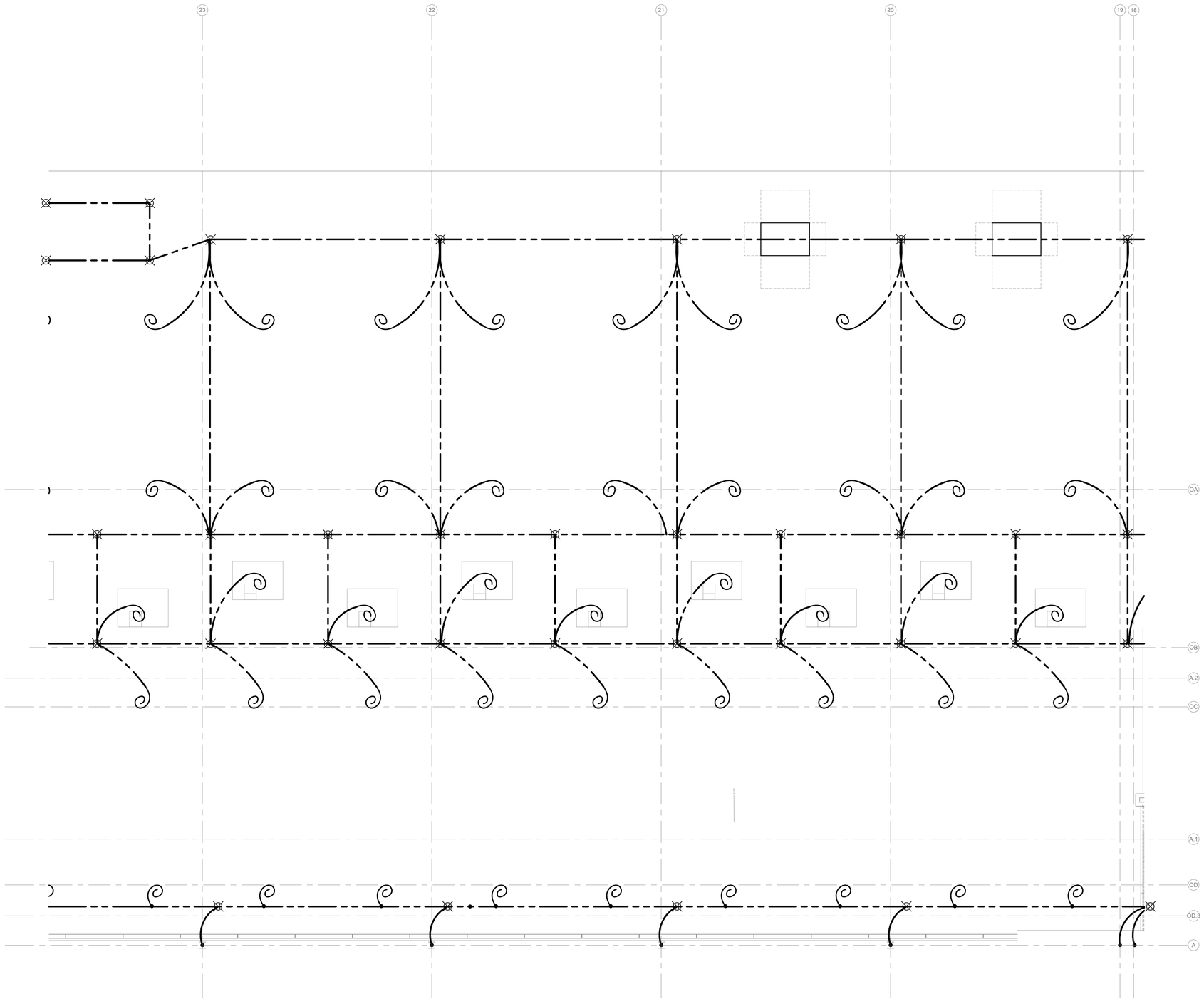
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT M

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21M

2/5/2025 9:47:58 AM E03-21M GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT M



1 LEVEL 1 GROUNDING PLAN - N
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
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SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

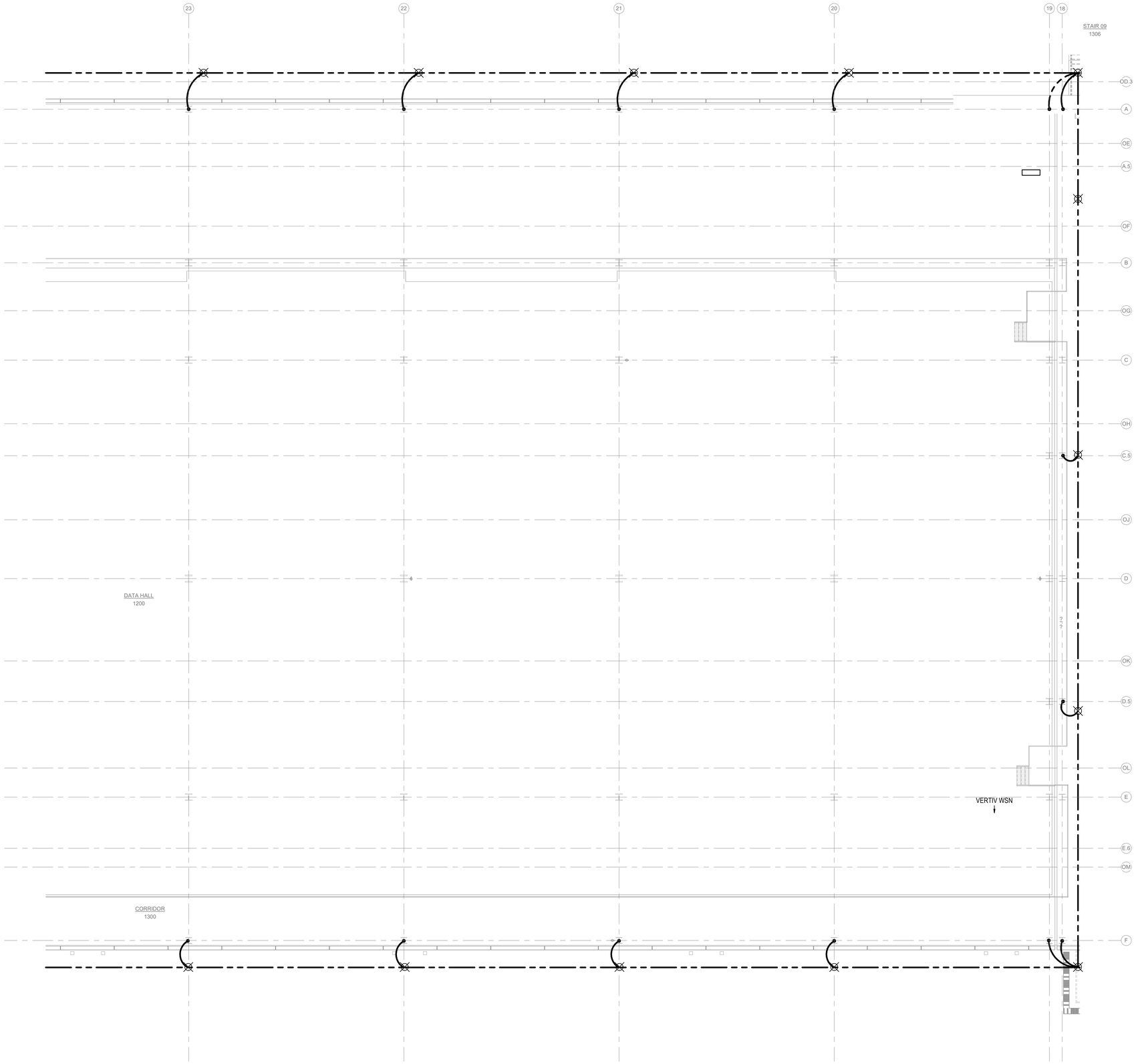
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT N

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21N

2/5/2025 9:48:02 AM E03-21N GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT N



1 LEVEL 1 GROUNDING PLAN - P
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
C. REFER TO SPECIFICATION 25 05 26 FOR ADDITIONAL GROUNDING REQUIREMENTS.
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SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

213 of 271 MPE

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

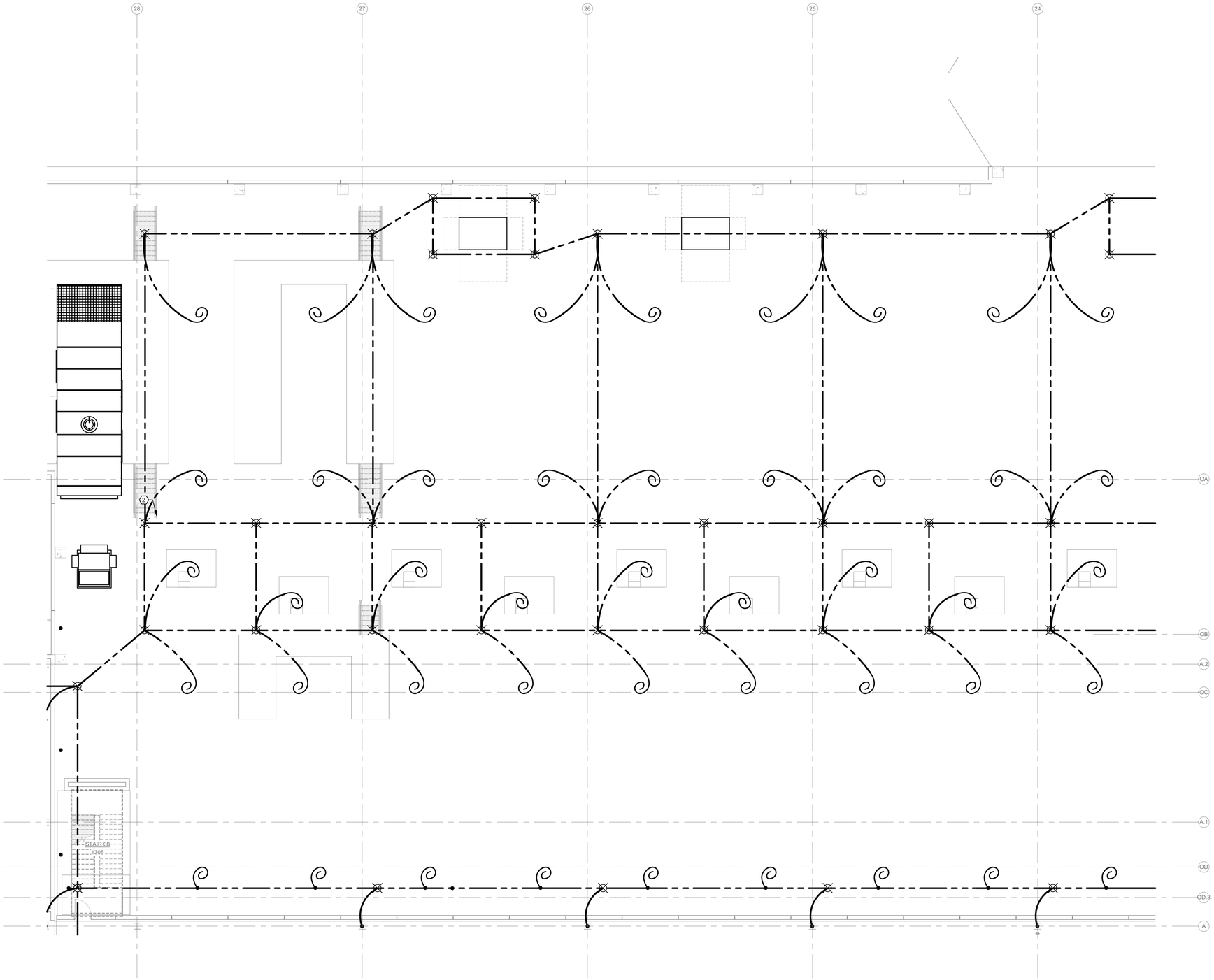
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T	R	P	M	K	H	F	D	B

GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT P

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21P

2/5/2025 9:48:06 AM E03-21P GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT P



1 LEVEL 1 GROUNDING PLAN - Q
SCALE: 1/8" = 1'-0"

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
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SHEET KEYNOTES

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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
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CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

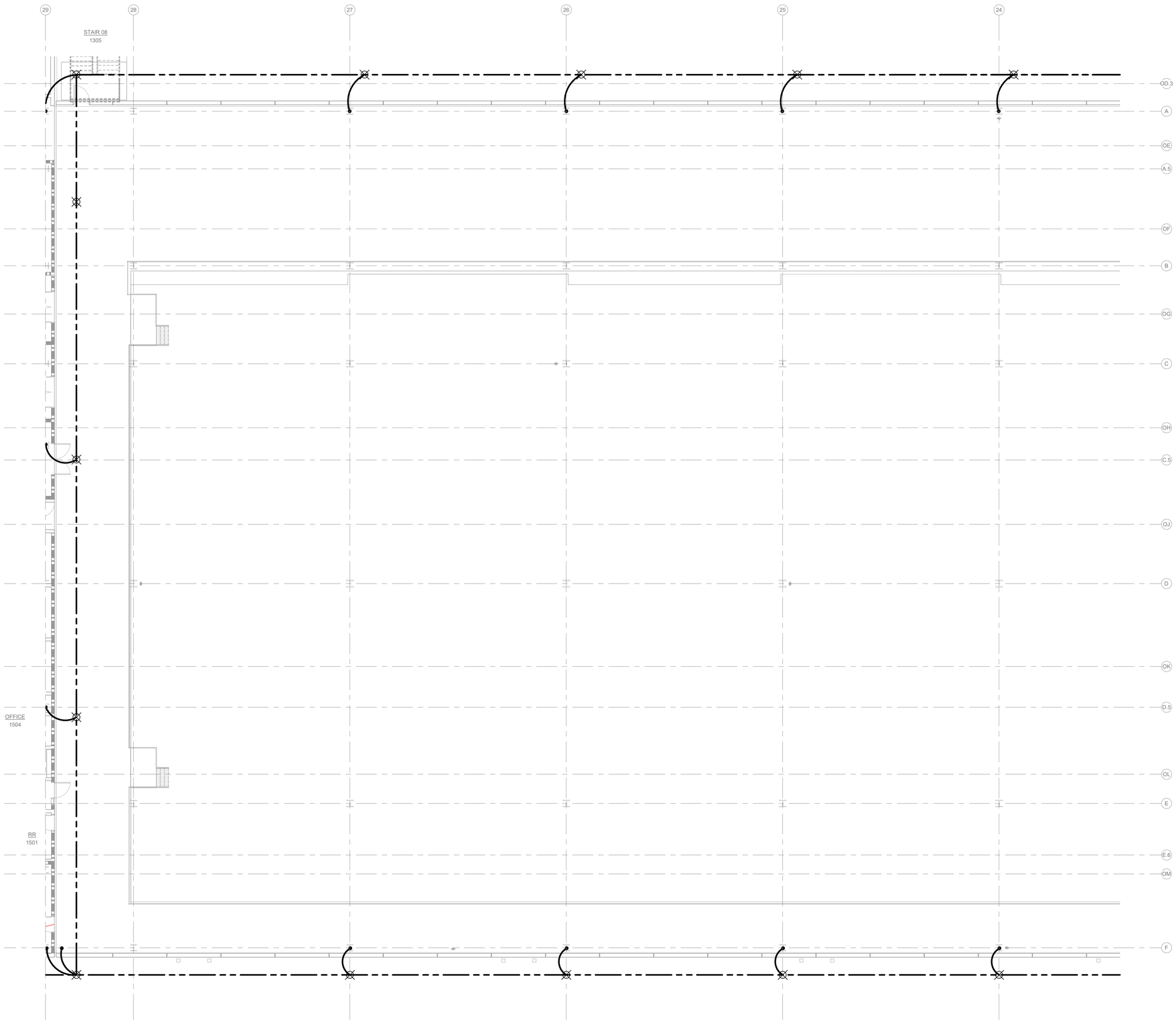
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT Q

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21Q

2/5/2025 9:48:09 AM E03-21Q GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT Q



1 LEVEL 1 GROUNDING PLAN - R
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
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Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

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SHEET NOTES

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B. SEE DRAWING E05 SERIES FOR GROUNDING DETAILS AND DRAWING E03-24 FOR GROUNDING RISER DIAGRAM.
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SHEET KEYNOTES

CORGAN
401 N. Houston Street Dallas, TX
75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO REGISTERED
JAMES SCOTT COX
34544
PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

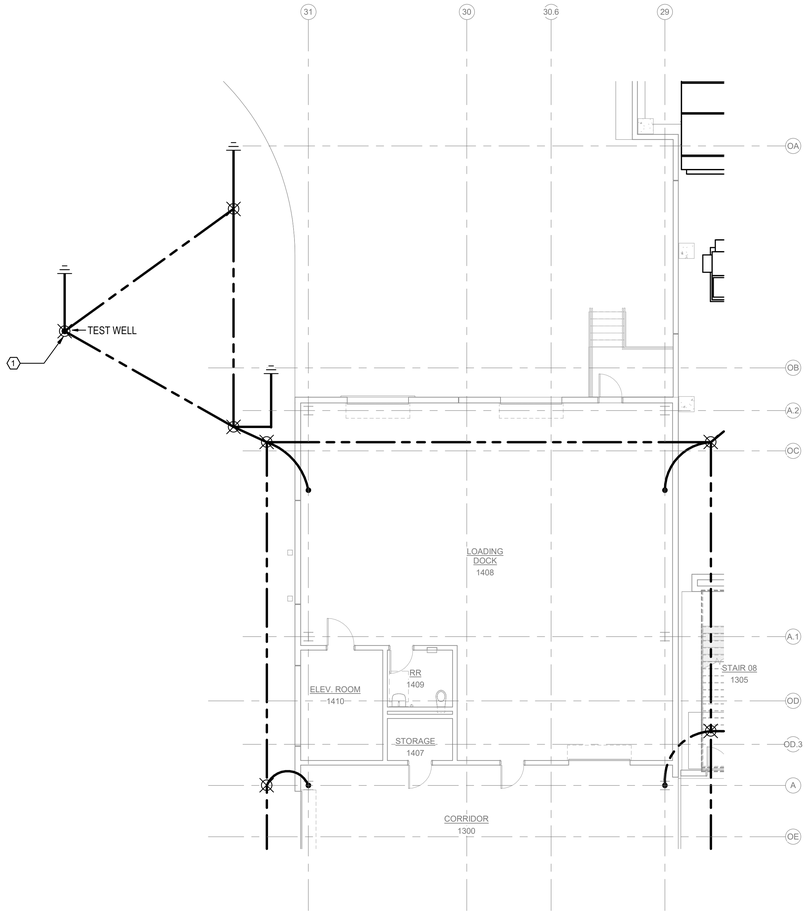
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT R

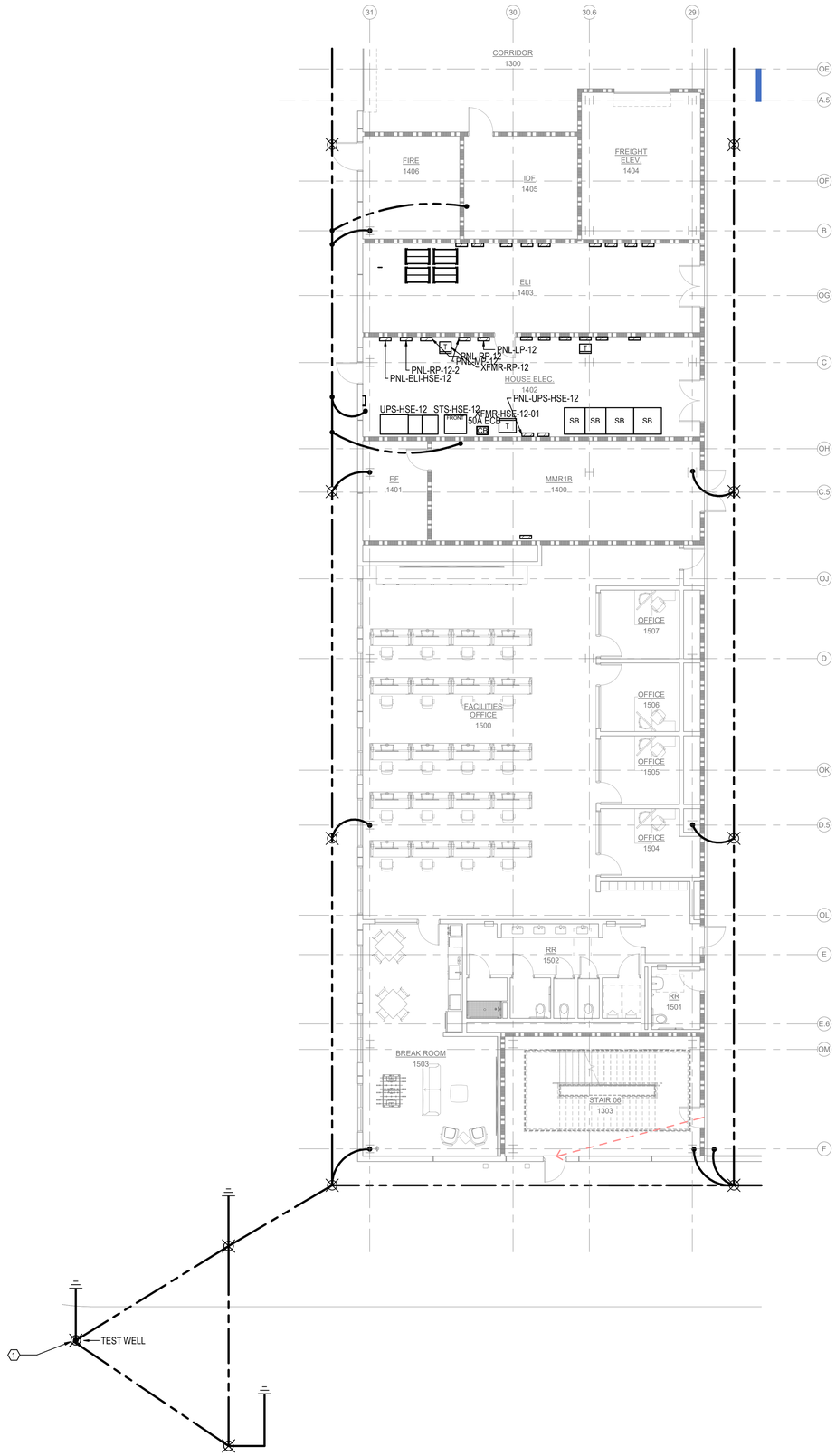
JOB 24464.0000
DATE 01.31.25
SHEET

E03-21R

2/5/2025 9:48:13 AM E03-21R GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT R



1 LEVEL 1 GROUNDING PLAN - S
SCALE: 1/8" = 1'-0"



2 LEVEL 1 GROUNDING PLAN - T
SCALE: 1/8" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES AND ABBREVIATIONS.
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F. ALL UNDERGROUND CONNECTIONS SHALL BE EXOTHERMIC CONNECTION TYPE.

SHEET KEYNOTES

1 PROVIDE GROUND TEST WELL AT CONNECTION SHOWN.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

KEYPLAN

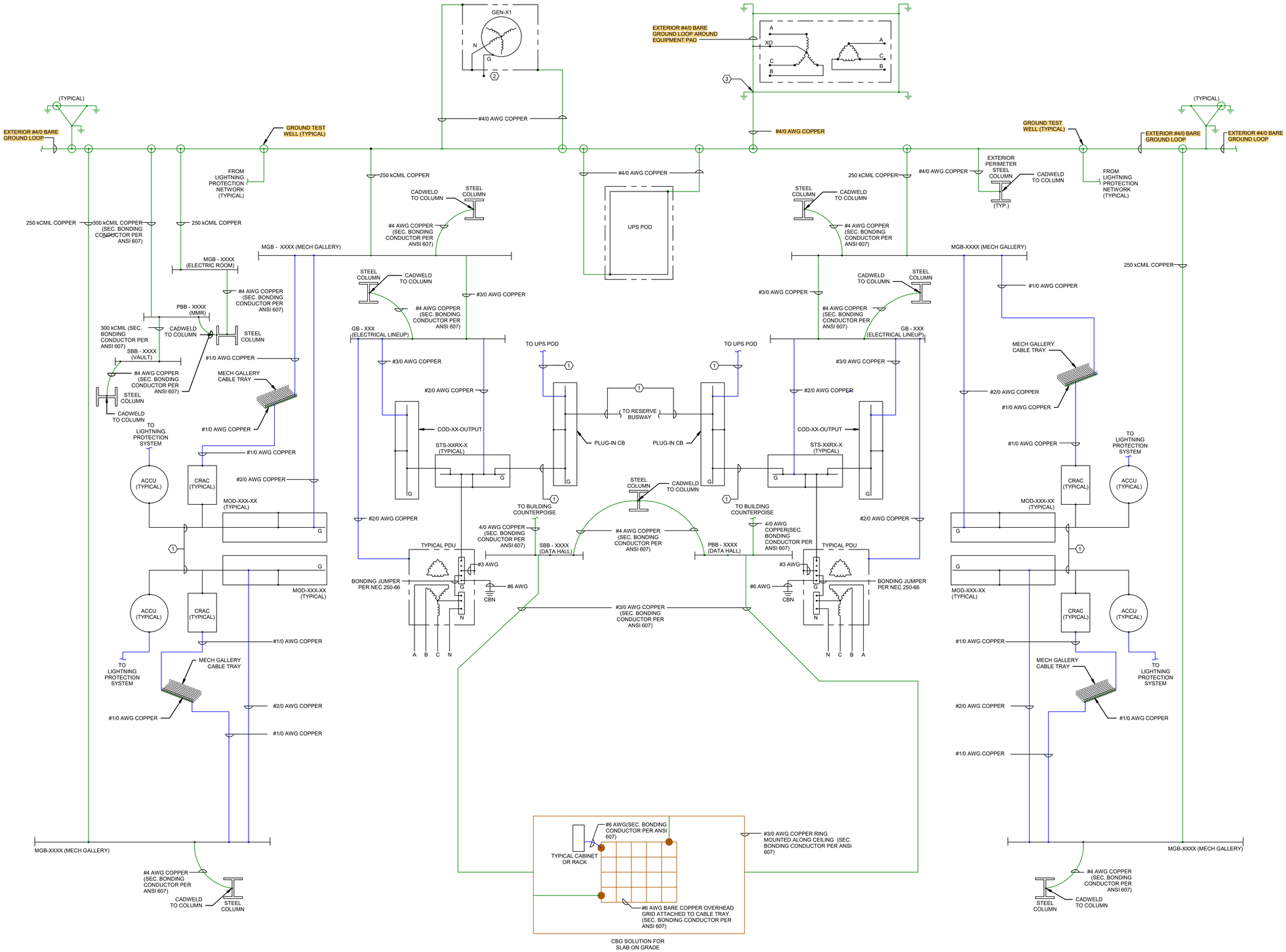
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GROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT S & T

JOB 24464.0000
DATE 01.31.25
SHEET

E03-21ST

2/5/2025 9:48:19 AM E03-21STGROUNDING FLOOR PLAN - LEVEL ONE - SEGMENT S & T



2/5/2025 9:48:20 AM E03-24 GROUNDING RISER DIAGRAM

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AGE

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

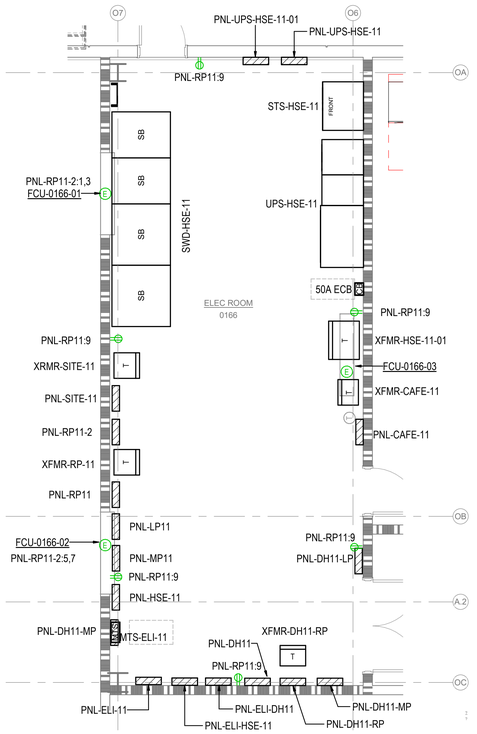
KEYPLAN

S	Q	N	L	J	G	E	C	A
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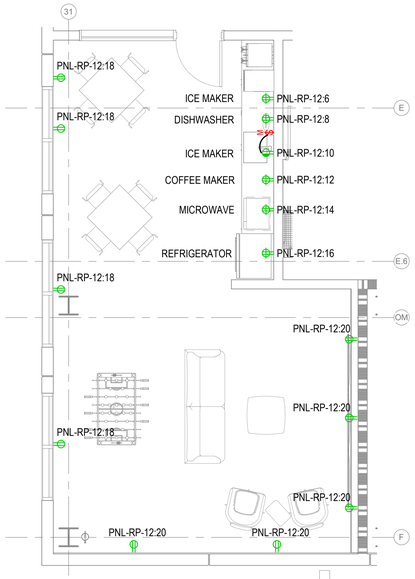
GROUNDING RISER DIAGRAM

JOB 24464.0000
DATE 01.31.25
SHEET

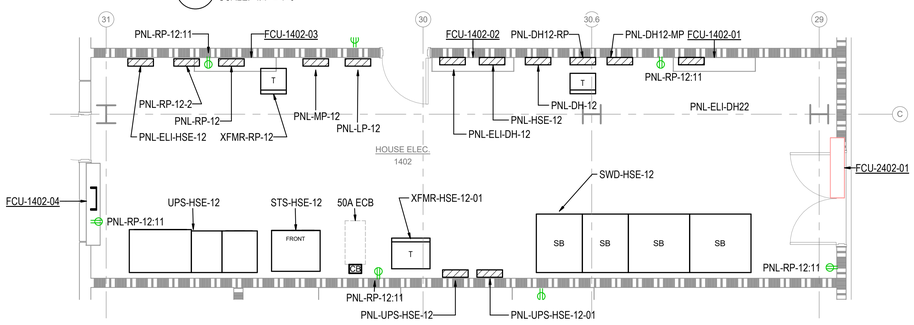
E03-24



4 LEVEL 1 POWER PLAN - C - ENLARGED ELEC
SCALE: 1/4" = 1'-0"



5 LEVEL 1 POWER PLAN - T - ENLARGED BREAK ROOM 1203
SCALE: 1/4" = 1'-0"



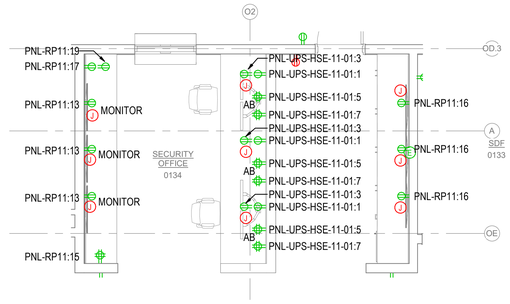
6 LEVEL 1 POWER PLAN - T - ENLARGED HOUSE ELEC 1402
SCALE: 1/4" = 1'-0"

110.14. Identify disconnects per 2023 NEC 110.22 and provide working space and egress to and around electrical equipment per 2023 NEC 110.26

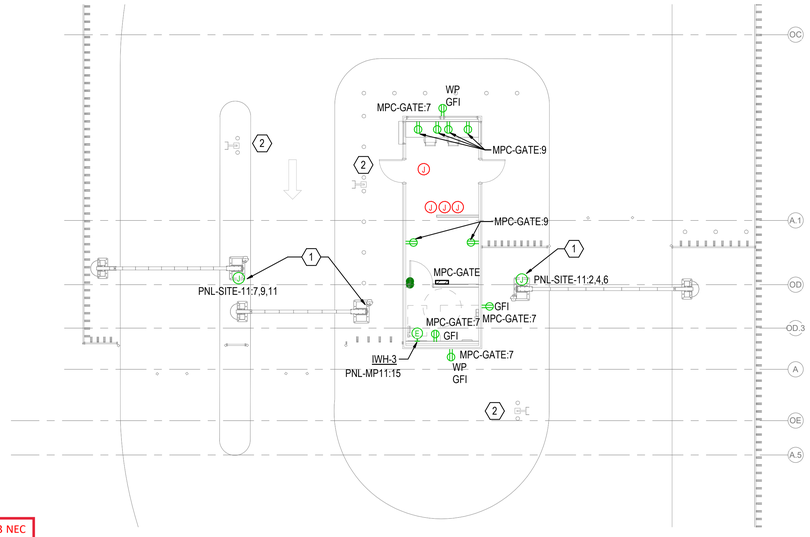
Service Equipment shall be permanently And legibly marked to show the available Fault current and date. 2023 NEC 110.24(A)(B)

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

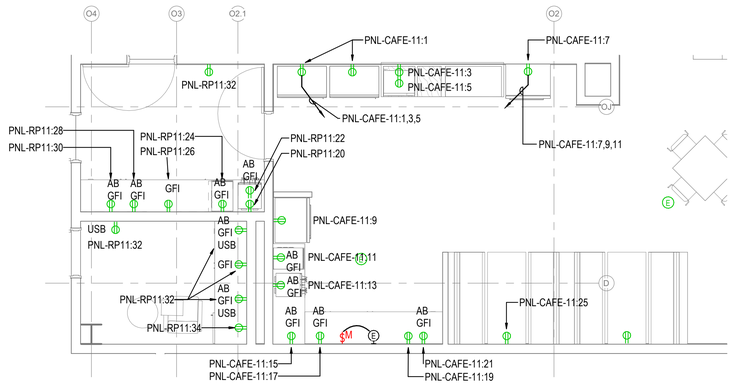
Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC



3 LEVEL 1 POWER PLAN - A - ENLARGED SECURITY OFFICE
SCALE: 1/4" = 1'-0"



2 LEVEL 1 POWER SITE PLAN - GATE HOUSE
SCALE: 1/8" = 1'-0"



1 LEVEL 1 POWER PLAN - B - ENLARGED FREEDOM CAFE, BREAK, WELL.
SCALE: 1/4" = 1'-0"

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A- SEE DRAWING E.001 FOR LEGENDS, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

1. PROVIDE POWER CONNECTION TO GATE ARM - 1*C.-3#8 & 1#10 GND.
2. PROVIDE POWER CONNECTION TO GATE CARD READER - 3/4*C.-2#12 & 1#12 GND.

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75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

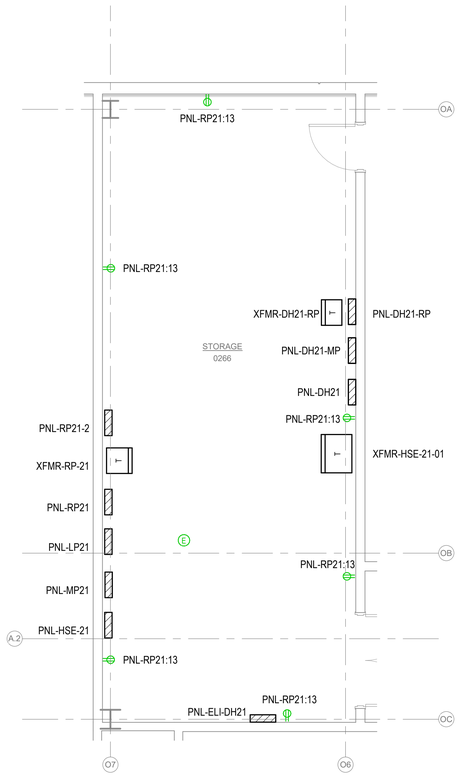
S	Q	N	L	J	G	E	C	A	
T	R	P	M	K	H	F	D	B	

POWER ENLARGED PLAN - LEVEL ONE

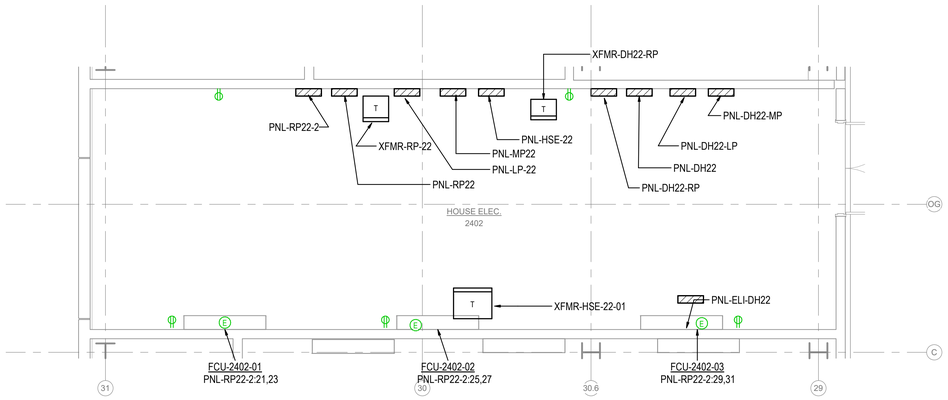
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DATE 01.31.25
SHEET

E04-01

2/5/2025 9:48:34 AM E04-01 POWER ENLARGED PLAN - LEVEL ONE



1 LEVEL 2 POWER PLAN - A - ENLARGED ELEC
SCALE: 1/4" = 1'-0"



3 LEVEL 2 POWER PLAN - T - ENLARGED HOUSE ELEC
SCALE: 1/4" = 1'-0"

110.14. Identify disconnects per 2023 NEC 110.22 and provide working space and egress to and around electrical equipment per 2023 NEC 110.26

Service Equipment shall be permanently And legibly marked to show the available Fault current and date. 2023 NEC 110.24(A)(B)

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

Provide Ground-Fault-Circuit-Interrupter Protection per 210.8(A) through (F) 2023 NEC

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A- SEE DRAWING E.001 FOR LEGENDS, NOTES AND ABBREVIATIONS.

SHEET KEYNOTES

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75202
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TLD DESIGN CONSULTING LLC

	ISSUES	
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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	REVISIONS	

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue:
01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A	
T	R	P	M	K	H	F	D	B	

POWER ENLARGED PLAN - LEVEL TWO

JOB 24464.0000
DATE 01.31.25
SHEET

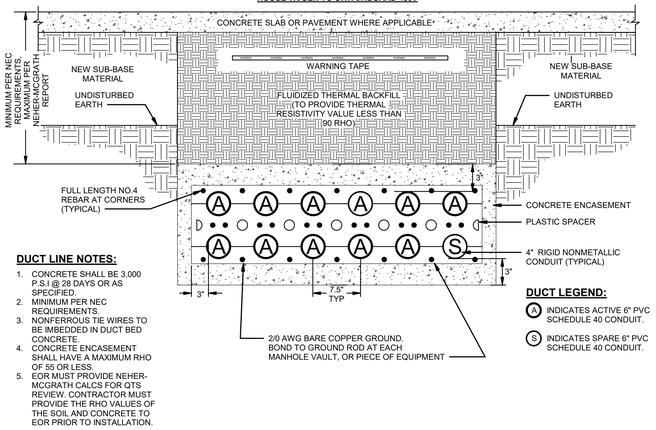
E04-02

2/5/2025 9:48:37 AM E04-02 POWER ENLARGED PLAN - LEVEL TWO

RSN: 1881854 | PERMIT#: 25-2513934-CM

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HOUSE TX/GEN TO SWITCHBOARD 480V



DUCT LINE NOTES:

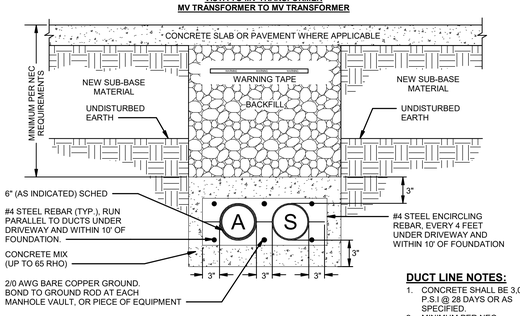
1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

1 DUCTBANK DETAIL - MV XFMR/GEN TO HOUSE - 2 x 6 DUCT

VISTA TO MV TRANSFORMER
MV TRANSFORMER TO MV TRANSFORMER



DUCT LINE NOTES:

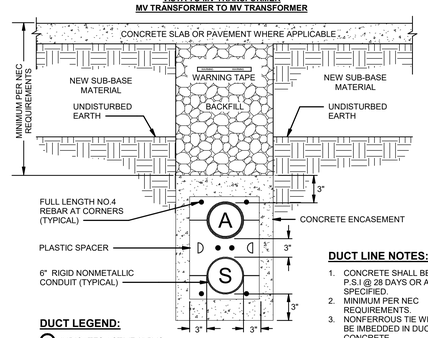
1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

2 DUCTBANK DETAIL - MV SWGR TO MV XFMR - 1 x 2 DUCT

VISTA TO MV TRANSFORMER
MV TRANSFORMER TO MV TRANSFORMER



DUCT LINE NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

3 DUCTBANK DETAIL - MV SWGR TO MV XFMR - 2 x 1 DUCT

VISTA TO MV TRANSFORMER

DUCT LINE NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

4 DUCTBANK DETAIL - MV SWGR TO MV XFMR - 2 x 2 DUCT

MV CAMPUS LOOP: SUBSTATION TO VISTA

DUCT LINE NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

5 DUCTBANK DETAIL - SUBSTATION TO MVG - 1 x 3 DUCT

MV CAMPUS LOOP: SUBSTATION TO VISTA

DUCT LINE NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

FOR REFERENCE ONLY

6 DUCTBANK DETAIL - SUBSTATION TO MVG - 2 x 3 DUCT

MV CAMPUS LOOP: SUBSTATION TO VISTA

DUCT LINE NOTES:

1. CONCRETE SHALL BE 3,000 P.S.I @ 28 DAYS OR AS SPECIFIED.
2. MINIMUM PER NEC REQUIREMENTS.
3. NONFERROUS TIE WIRES TO BE IMBEDDED IN DUCT BED CONCRETE.
4. CONCRETE ENCASEMENT SHALL HAVE A MAXIMUM RHO OF 55 OR LESS.
5. EOR MUST PROVIDE NEHER-MCGRATH CALCS FOR QTS REVIEW. CONTRACTOR MUST PROVIDE THE RHO VALUES OF THE SOIL AND CONCRETE TO EOR PRIOR TO INSTALLATION.

DUCT LEGEND:

- (A) INDICATES ACTIVE 6" PVC SCHEDULE 40 CONDUIT.
- (S) INDICATES SPARE 6" PVC SCHEDULE 40 CONDUIT.

FOR REFERENCE ONLY. ACTIVE CONDUIT POSITIONS MAY VARY BY LOCATION.

7 DUCTBANK DETAIL - SUBSTATION TO MVG - 3 x 4 DUCT

NOTES:

1. CONDUIT STUBS SHALL BE ADJACENT TO WALL (< 3") WHEN SHOWN NEAR WALL (TYPICAL)
2. EMPTY CONDUITS SHALL BE CAPPED, OCCUPIED CONDUITS SHALL BE APPROPRIATELY SEALED.

8 UNDERSLAB ELECTRICAL CONDUIT DETAIL

3000A 600V 3 PHASE 4 WIRE SYSTEM WITH GROUND
(MAX OPERATING TEMP 75°C W/ 40°C AMBIENT)
APPROXIMATE WEIGHT: 45 LBS/FT
NEC 110.14(C) COMPLIANT

9 CABLE BUS CROSS SECTION

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401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

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SYSKA HENNESSY GROUP

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	ISSUES	
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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	REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

E05-01

2/5/2025 9:48:39 AM E05-01 DETAILS

POLE FOUNDATION NOTES:

GENERAL NOTES

DO NOT SCALE DRAWINGS.

ALL WORK SHALL BE DONE IN COMPLIANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

INSPECTION AND TESTING FOR THE ACCEPTANCE OF MATERIALS, INSTALLATION, FABRICATION, ERECTION OR PLACEMENT OF COMPONENTS AND CONNECTIONS FOR SPECIAL INSPECTION AND FOR QUALITY ASSURANCE SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE (IBC) AND LOCAL ENFORCEMENT AGENCY. ALL CONTRACTORS ARE REQUIRED TO COOPERATE, ACCOMMODATE AND COORDINATE WITH INSPECTING AND TESTING PERSONNEL.

GEOTECHNICAL/EXCAVATION BACKFILL:
DESIGN ALLOWABLE SOIL BEARING PRESSURE IS ASSUMED TO BE 2000 PSF AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER A MINIMUM OF 24 HOURS PRIOR TO PLACING THE FIRST FOOTINGS.

STRUCTURAL FILL MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE STANDARD PROCTOR METHOD (ASTM D 698). THE MOISTURE CONTENT OF THE FILL AREA SHOULD BE AT LEAST TWO (2) PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT.

CONCRETE:
ALL CONCRETE WORK SHALL COMPLY WITH THE AMERICAN CONCRETE INSTITUTE'S BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE ACI 318-08.

CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH 0F 4000 PSI AT THE END OF 28 DAYS.

SUBMITTALS:
A. DESIGN FOR EACH MIX, INCLUDING MATERIALS AND ADMIXTURES
B. REINFORCEMENT AND EMBEDDED ITEMS

ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1 INCH CHAMFER, UNLESS NOTED OTHERWISE.

REINFORCING BARS SHALL BE GRADE 60 DEFORMED BARS CONFORMING TO ASTM A615.

MINIMUM LENGTH OF LAP FOR TENSION LAP SPLICES OF DEFORMED REINFORCING STEEL SHALL BE AS REQUIRED FOR CLASS B SPLICES IN ACCORDANCE WITH ACI 318-08 UNLESS NOTED OTHERWISE.

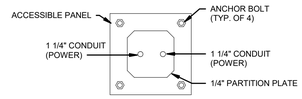
CAST-IN-PLACE CONCRETE SHALL HAVE THE FOLLOWING COVER OVER REINFORCEMENT UNLESS OTHERWISE NOTED:
A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES
B. CONCRETE EXPOSED TO EARTH AND WEATHER:
#6 THRU #18 BARS 2 INCHES
#5 BAR W31 OR D31 WIRE 1 1/2 INCHES
#11 BAR AND SMALLER 3/4 INCHES
BONDING AGENT SHALL COMPLY WITH ASTM C 881, TWO COMPONENT EPOXY RESIN, TYPE IV AND V LOAD BEARING.

GALVANIZING REPAIR PAINT SHALL COMPLY WITH ASTM A780.

NON-METALLIC, NON-SHRINKAGE GROUT: PREMIXED, FACTORY PACKAGED, NON-FERROUS AGGREGATE GROUT, COMPLYING WITH ASTM C 1107, OF CONSISTENCY SUITABLE FOR APPLICATION, AND A 30-MINUTE WORKING TIME.

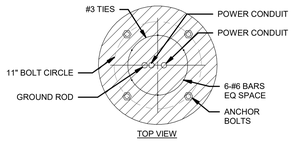
ELECTRICAL NOTES:

1. POLE BASES SHALL BE LOCATED AS INDICATED ON DESIGN DOCUMENTS.
2. ALL RACEWAY ELBOWS SHALL BE LONG RADIUS.
3. APPLY A RUBBED FINISH TO CONCRETE BASE ABOVE GRADE.
4. ALL CONDUCTORS FOR POWER CIRCUITS SHALL BE INSTALLED IN MINIMUM 1-1/4" DIAMETER PVC CONDUIT AT MINIMUM 18" BELOW GRADE. ALL CONDUITS UNDER ROADWAYS, DRIVEWAYS, AND PARKING LOTS SHALL BE A MINIMUM 24" BELOW GRADE.



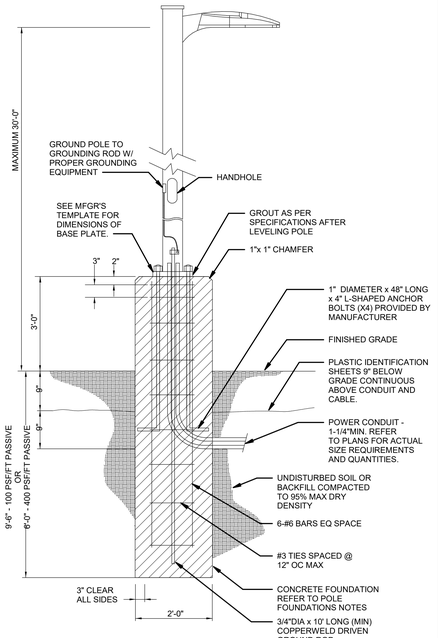
TOP VIEW

LIGHT POLE BASE PLATE

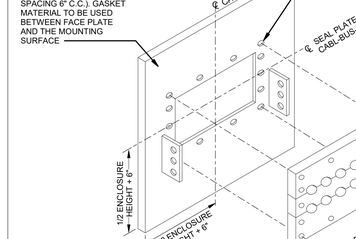


TOP VIEW

POLE FOUNDATION



1 SITE LIGHT POLE BASE DETAIL

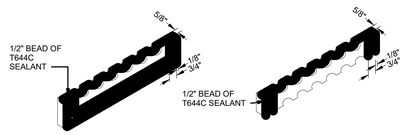


MINIMUM EQUIPMENT OPENING SHOULD BE THE SAME WIDTH & HEIGHT AS THE CABL-BUS HOUSING. THE HOUSING WIDTH & HEIGHT ARE INCLUDED IN THE SEAL PLATE CATALOG NUMBER (SEE EXAMPLE BELOW):

ESF2 - 2410 - 12B4 - 24 - R
CABL-HOUSING HEIGHT
CABL HOUSING WIDTH

TYPICAL BILL OF MATERIAL

QTY	PART	DESCRIPTION	MATERIAL
1	ESF2-XXXX-XXXX-XX-X	FACE PLATE	ALUMINUM/STEEL
1	BES-XXXX-X	SEAL BLOCK	HDPE
AS REQ'D	B-6	1/4" - 20 x 2" HEX HEAD BOLT	PLATED STEEL
AS REQ'D	W-6	1/4" RUBBER BONDED WASHER	PLATED STEEL
2	-----	T644C	SILICONE GEL
6	B-100	3/8"-16 ROUND HEAD BOLT	PLATED STEEL
6	N-100	3/8"-16 HEX NUT & LOCK WASHER	PLATED STEEL
AS REQ'D	-----	FT 1/8" x 2" FACE PLATE GASKET	CORK



DETAIL "A" DETAIL "B"

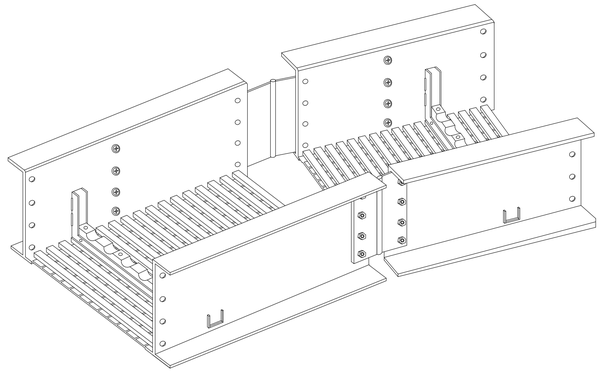
NOTE:
IF CONDITION EXISTS WHERE BLOCK HAS MORE THAN THREE (3) SEGMENTS, REPEAT STEPS 5 AND 6. IF BLOCK HAS LESS THAN THREE (3) SEGMENTS, OMIT STEPS 5 & 6.

*IMPORTANT:
FULLY INSTALL SEAL BLOCK BEFORE TERMINATING CABLES:

IMPORTANT: READ DIRECTIONS ON TUBE OF SEALANT BEFORE PERFORMING THE FOLLOWING STEPS:

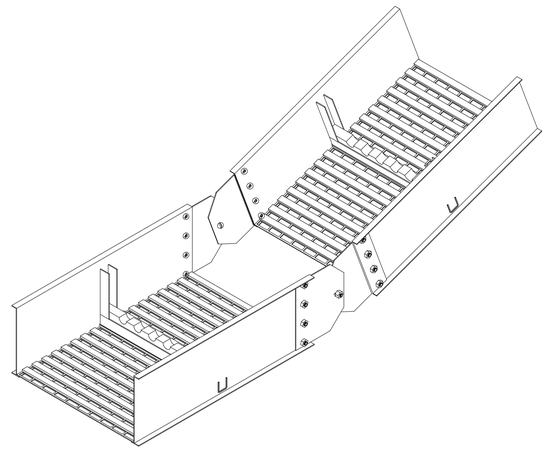
1. PULL ALL CABLES THROUGH PLATE OPENING. *
2. PREPARE ALL CABLES FOR TERMINATION.
3. APPLY SEALANT TO BOTTOM SEGMENT OF BLOCK (SEE DETAIL "A") AND INSTALL ON OUTSIDE OF PLATE WITH HARDWARE PROVIDED (B-6 & W-7).
4. LAY BOTTOM ROW OF CABLE IN BOTTOM SEGMENT OF BLOCK.
5. APPLY SEALANT TO MIDDLE SEGMENT OF BLOCK (SEE DETAIL "B") AND INSTALL ON OUTSIDE OF PLATE WITH HARDWARE PROVIDED (B-6 & W-7).
6. LAY TOP ROW OF CABLES IN MIDDLE SEGMENT OF BLOCK.
7. APPLY SEALANT TO TOP SEGMENT OF BLOCK (SEE DETAIL "A") AND INSTALL ON OUTSIDE OF PLATE WITH HARDWARE PROVIDED (B-6 & W-7).
8. NOTE: MOUNT ALL BLOCKS WITH SEALANT SIDE OF BLOCK TOWARD THE MOUNTING SURFACE.
9. TERMINATE ALL CABLES.
10. AFTER ALL CABLES ARE TERMINATED, APPLY LIBERAL LAYER OF T644C SEALANT TO SEAL BLOCK AND MOUNTING SURFACE AREA. (ALLOW 24 HOURS IN DRY ENVIRONMENT FOR SEALANT TO CURE).

2 ENVIRONMENTAL EQUIPMENT SEAL

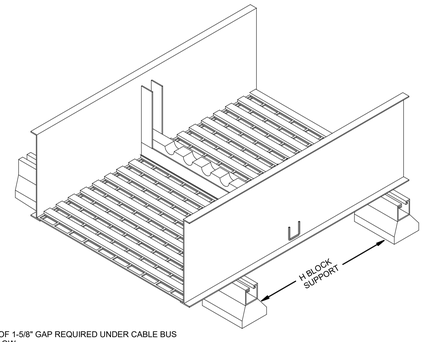


4 ADJUSTABLE HORIZONTAL HINGED SPLICE PLATE

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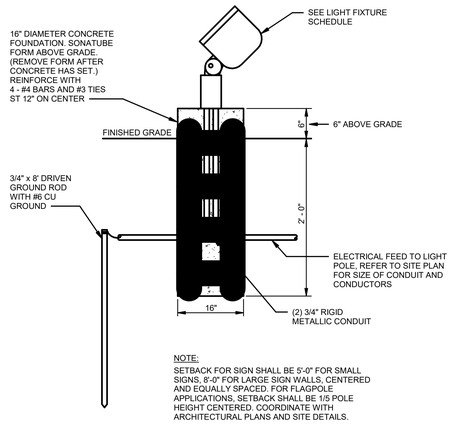


3 ADJUSTABLE VERTICAL HINGED SPLICE PLATE



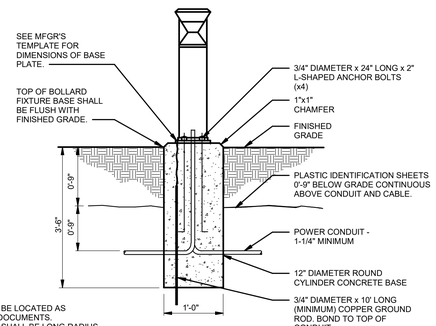
NOTE:
MINIMUM OF 1-5/8" GAP REQUIRED UNDER CABLE BUS FOR AIRFLOW

5 EQUIPMENT YARD CABLE BUS MOUNTING



NOTE:
SETBACK FOR SIGN SHALL BE 5'-0" FOR SMALL SIGNS, 8'-0" FOR LARGE SIGN WALLS, CENTERED AND EQUALLY SPACED. FOR FLAGPOLE APPLICATIONS, SETBACK SHALL BE 1/5 POLE HEIGHT CENTERED. COORDINATE WITH ARCHITECTURAL PLANS AND SITE DETAILS.

6 FLOOD LIGHT/FLAG POLE BASE DETAIL



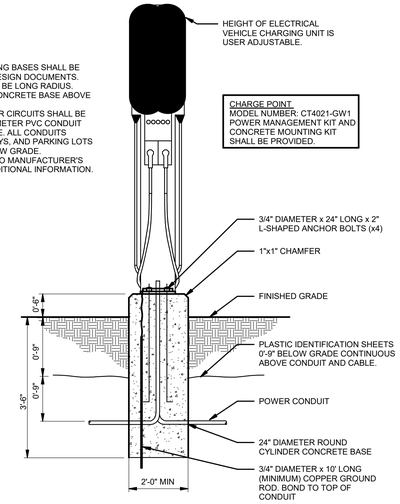
ELECTRICAL NOTES:

1. BOLLARD BASES SHALL BE LOCATED AS INDICATED ON DESIGN DOCUMENTS.
2. ALL RACEWAY ELBOWS SHALL BE LONG RADIUS.
3. APPLY A RUBBED FINISH TO CONCRETE BASE ABOVE GRADE.
4. ALL CONDUCTORS FOR POWER CIRCUITS SHALL BE INSTALLED IN MINIMUM 1-1/4" DIAMETER PVC CONDUIT AT MINIMUM 18" BELOW GRADE. ALL CONDUITS UNDER ROADWAYS, DRIVEWAYS, AND PARKING LOTS SHALL BE A MINIMUM 24" BELOW GRADE.

7 BOLLARD FIXTURE BASE DETAIL

ELECTRICAL NOTES:

1. ELECTRICAL VEHICLE CHARGING BASES SHALL BE LOCATED AS INDICATED ON DESIGN DOCUMENTS.
2. ALL RACEWAY ELBOWS SHALL BE LONG RADIUS.
3. APPLY A RUBBED FINISH TO CONCRETE BASE ABOVE GRADE.
4. ALL CONDUCTORS FOR POWER CIRCUITS SHALL BE INSTALLED IN MINIMUM 1" DIAMETER PVC CONDUIT AT MINIMUM 18" BELOW GRADE. ALL CONDUITS UNDER ROADWAYS, DRIVEWAYS, AND PARKING LOTS SHALL BE A MINIMUM 24" BELOW GRADE.
5. CONTRACTOR SHALL REFER TO MANUFACTURER'S INSTALLATION GUIDE FOR ADDITIONAL INFORMATION.



8 ELECTRICAL VEHICLE CHARGING BASE DETAIL

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T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TED DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

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1140 N. GUN CLUB ROAD AURORA, CO

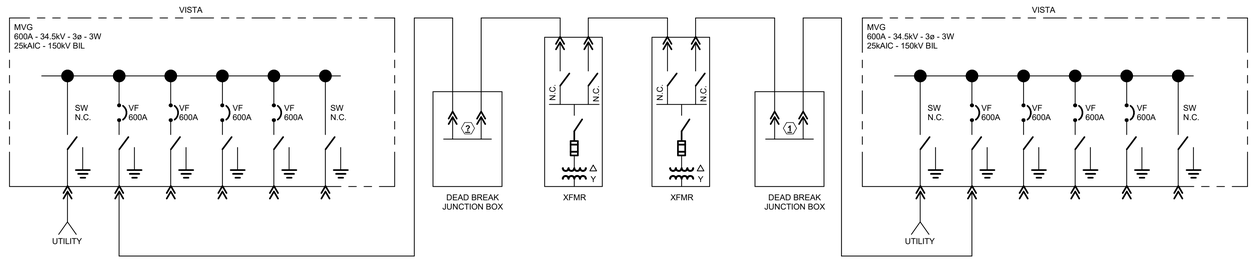
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JOB 24464.0000
DATE 01.31.25
SHEET

E05-02

2/5/2025 9:48:41 AM E05-02 DETAILS

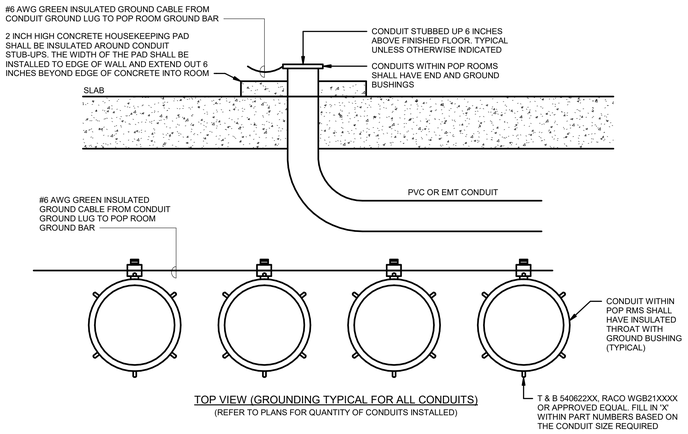
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ELECTRICAL NOTES:

1. MEDIUM VOLTAGE ABOVE GRADE PULL BOX. FUTURE TRANSFORMER CONCRETE PADS AND CONDUIT SHALL BE INSTALLED DAY ONE. CONTRACTOR SHALL INSTALL FEEDER CONDUCTORS WITH SUFFICIENT SLACK WITHIN ABOVE GRADE PULL BOX FOR FUTURE TERMINATIONS.

1 TYPICAL MEDIUM VOLTAGE TRANSFORMER LOOP



TOP VIEW (GROUNDING TYPICAL FOR ALL CONDUITS)
(REFER TO PLANS FOR QUANTITY OF CONDUITS INSTALLED)

GENERAL NOTES:

1. COORDINATE VAPOR BARRIER REQUIREMENTS WITH STRUCTURAL DRAWINGS.

2 TELECOM CONDUIT STUB-UP

3 NOT USED

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75202
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AURORA, CO

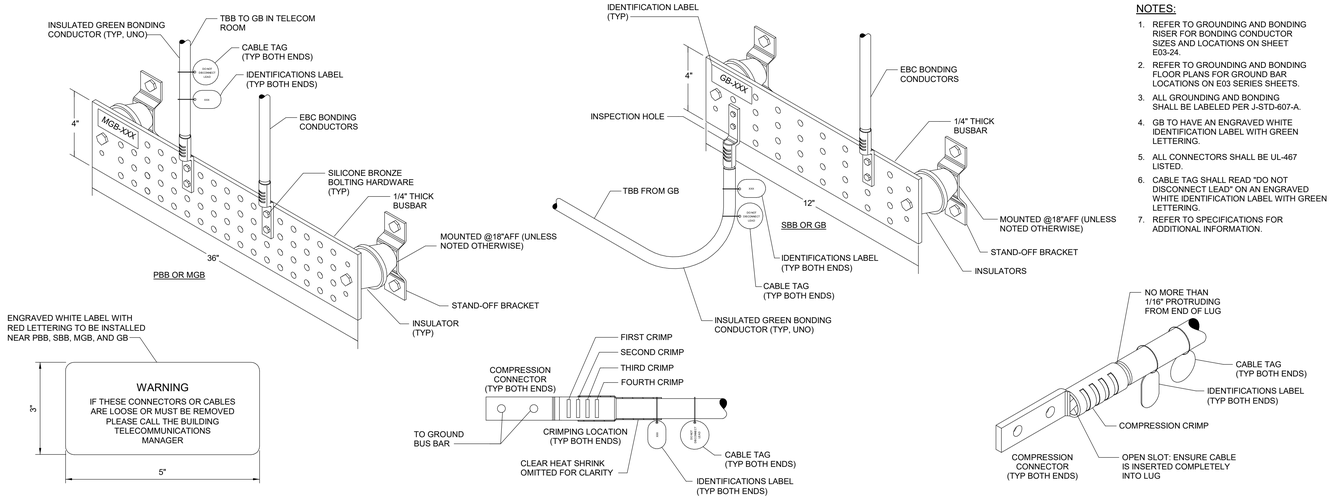
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DATE 01.31.25
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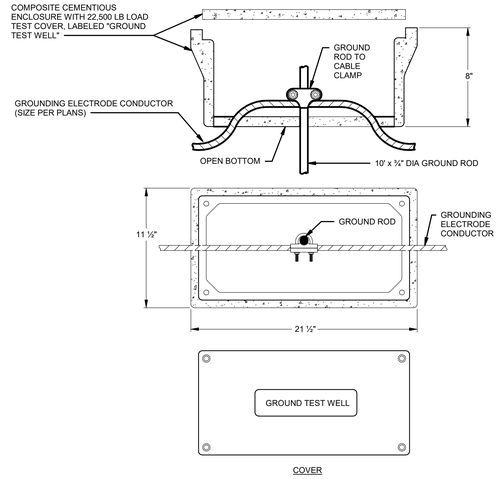
1 GROUND BUS DETAIL



NOTES:

1. REFER TO GROUNDING AND BONDING RISER FOR BONDING CONDUCTOR SIZES AND LOCATIONS ON SHEET E03-24.
2. REFER TO GROUNDING AND BONDING FLOOR PLANS FOR GROUND BAR LOCATIONS ON E03 SERIES SHEETS.
3. ALL GROUNDING AND BONDING SHALL BE LABELED PER J-STD-607-A.
4. GB TO HAVE AN ENGRAVED WHITE IDENTIFICATION LABEL WITH GREEN LETTERING.
5. ALL CONNECTORS SHALL BE UL-467 LISTED.
6. CABLE TAG SHALL READ "DO NOT DISCONNECT LEAD" ON AN ENGRAVED WHITE IDENTIFICATION LABEL WITH GREEN LETTERING.
7. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

2 GROUND ROD TEST WELL



COVER

3 GROUND ROD TRIAD DETAIL

NOTES:

1. AREA OF EXOTHERMIC WELD TO BE PREPARED BY GRINDING OR WIRE BRUSH CLEAN.
2. ALL UNDERGROUND EXOTHERMIC WELDED CONNECTIONS SHALL BE COMPLETELY
3. COVERED WITH BIUMASTIC 50 OR APPROVED EQUAL.
4. SEE GROUND ROD DETAIL FOR GROUND CABLE TO GROUND ROD CONNECTION.
5. TOP OF GROUND ROD SHALL BE AT A MINIMUM OF 30 INCHES BELOW GRADE.

4 FENCE GATE POST GROUNDING

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

5 CABLE TO GROUND ROD CONNECTION

6 FIRST FLOOR CABINET/RACK GROUNDING DETAIL

7 TYPICAL METAL PIPE BONDING DETAIL

NOTES:

1. INSTALL TO ENSURE DIRECT METAL TO METAL CONTACT FOR PROPER GROUNDING CONNECTION.
2. PROVIDE NRTL LISTED UL 467 GROUNDING CLAMP.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

223 of 271 MPE

8 TRANSFORMER AND PANEL GROUNDING

GROUNDING ELECTRODE CONDUCTOR AND BONDING JUMPER SIZE					
PHASE CONDUCTOR		GEC		BONDING JUMPER	
COPPER	ALUMINUM	COPPER	ALUMINUM	COPPER	ALUMINUM
< #2 AWG	< 1/0 AWG	#8 AWG	#6 AWG	#8 AWG	#6 AWG
#1 OR 1/0 AWG	2/0 OR 3/0 AWG	#6 AWG	#4 AWG	#6 AWG	#4 AWG
2/0 OR 3/0 AWG	4/0 AWG - 250 KCMIL	#4 AWG	#2 AWG	#4 AWG	#2 AWG
4/0 AWG - 350 KCMIL	300 -500 KCMIL	#2 AWG	1/0 AWG	#2 AWG	1/0 AWG
400 - 600 KCMIL	600 - 900 KCMIL	1/0 AWG	3/0 AWG	1/0 AWG	3/0 AWG
700 - 1100 KCMIL	1000 - 1750 KCMIL	2/0 AWG	4/0 AWG	2/0 AWG	4/0 AWG
> 1100 KCMIL	> 1750 KCMIL	3/0 AWG	250 KCMIL	SEE NEC 250.102	SEE NEC 250.102

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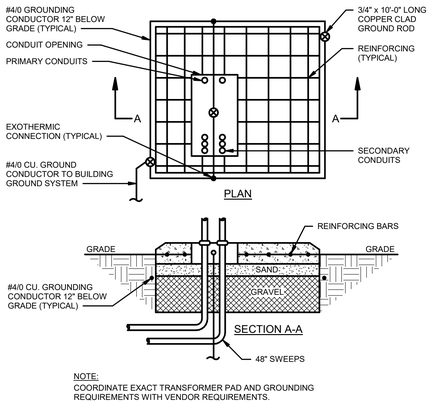
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1/21/2025

Date of issue: 01.31.25

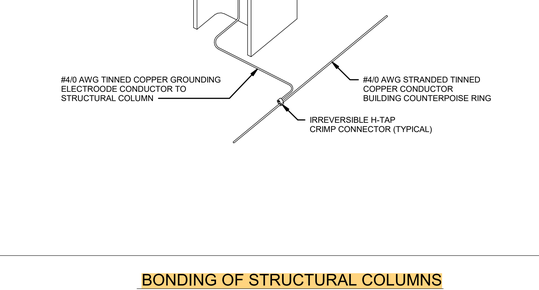
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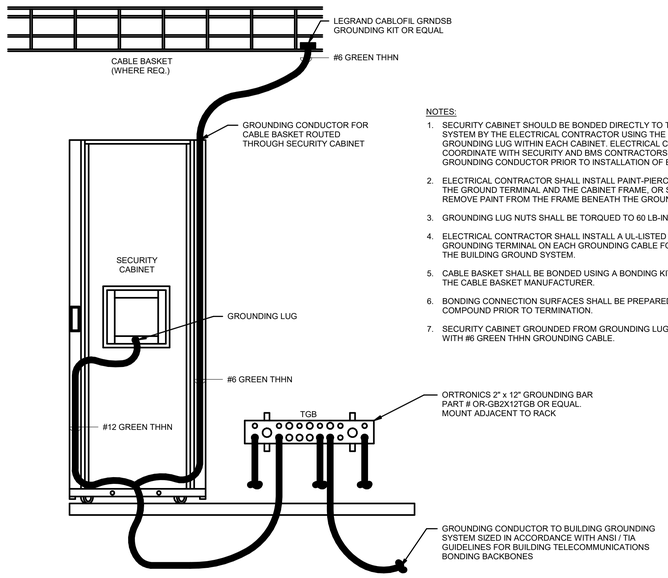
NOTE:
COORDINATE EXACT TRANSFORMER PAD AND GROUNDING REQUIREMENTS WITH VENDOR REQUIREMENTS.



NOTES:

1. USE ALL 36" LONG RADIUS ELBOWS ON PRIMARY AND SECONDARY CONDUITS.
2. GROUND GRID SHALL CONSIST OF #4/0 BARE COPPER CONDUCTOR. GROUND RODS SHALL BE 3/4" DIAMETER x 10' LONG.
3. CONCRETE SHALL BE 3000 PSI AIR ENTRAINED CONCRETE WITH 1/2" REINFORCING RODS AS SHOWN.
4. LEAVE 5 FEET OF SLACK FROM GROUNDING CONDUCTOR TO CONNECTIONS TO PRIMARY AND SECONDARY SECTIONS.
5. AREA OF EXOTHERMIC WELD TO BE PREPARED BY GRINDING OR WIRE BRUSH CLEANING.

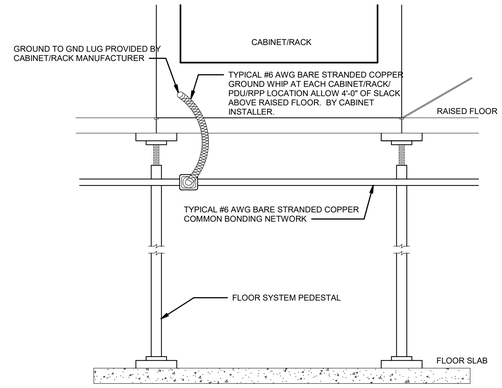
1 PAD MOUNTED TRANSFORMER GROUNDING DETAIL



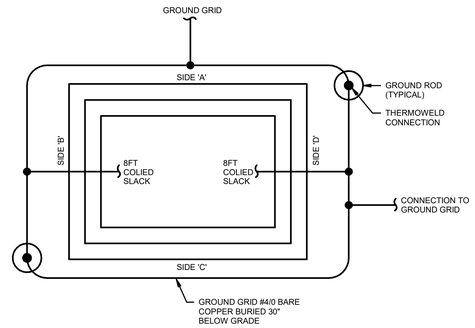
NOTES:

1. SECURITY CABINET SHOULD BE BONDED DIRECTLY TO THE BUILDING GROUND SYSTEM BY THE ELECTRICAL CONTRACTOR USING THE DESIGNATED GROUNDING LUG WITHIN EACH CABINET. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH SECURITY AND BMS CONTRACTORS FOR INSTALLATION OF GROUNDING CONDUCTOR PRIOR TO INSTALLATION OF ELECTRONIC EQUIPMENT.
2. ELECTRICAL CONTRACTOR SHALL INSTALL PAINT-PIERCING WASHERS BETWEEN THE GROUND TERMINAL AND THE CABINET FRAME, OR SHALL COMPLETELY REMOVE PAINT FROM THE FRAME BENEATH THE GROUND TERMINALS.
3. GROUNDING LUG NUTS SHALL BE TORQUED TO 60 LB-IN.
4. ELECTRICAL CONTRACTOR SHALL INSTALL A UL-LISTED COMPRESSION-STYLE GROUNDING TERMINAL ON EACH GROUNDING CABLE FOR CONNECTION INTO THE BUILDING GROUND SYSTEM.
5. CABLE BASKET SHALL BE BONDED USING A BONDING KIT AS RECOMMENDED BY THE CABLE BASKET MANUFACTURER.
6. BONDING CONNECTION SURFACES SHALL BE PREPARED WITH AN ANTI-OXIDANT COMPOUND PRIOR TO TERMINATION.
7. SECURITY CABINET GROUNDED FROM GROUNDING LUG TO GROUNDING BAR WITH #6 GREEN THHN GROUNDING CABLE.

2 CABLE BASKET & CABINET GROUNDING/BONDING DIAGRAM



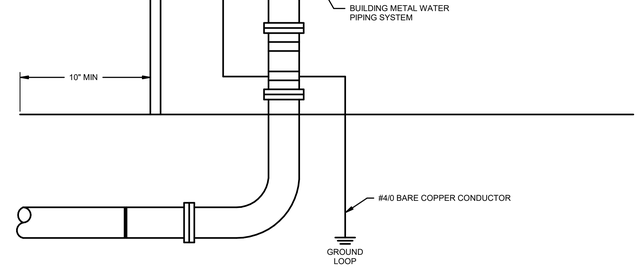
3 CABINET/RACK GROUNDING DETAIL



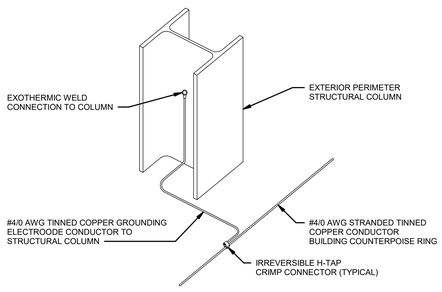
Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

GROUNDING: Busways shall be marked with the voltage and current rating for which they are designed, and with the manufacturer's name or trademark in such a manner as to be visible after installation

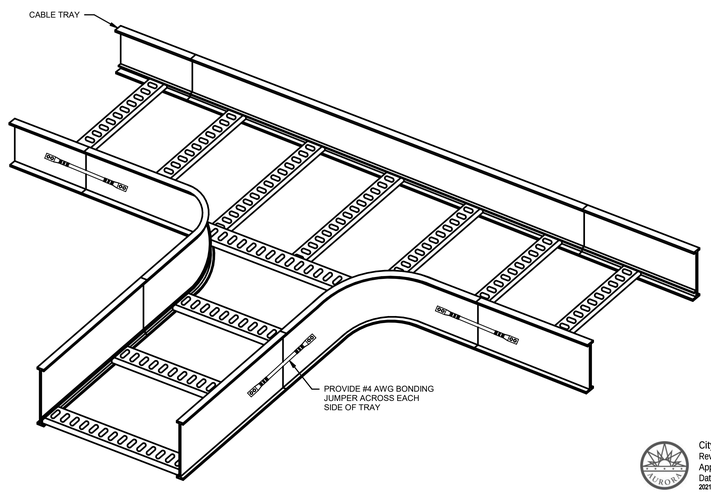
4 VISTA GROUNDING DETAIL (PLAN VIEW)

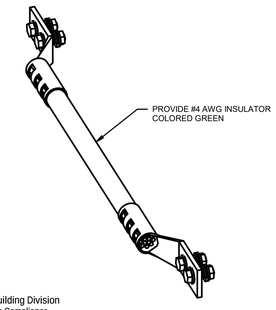


5 WATER MAIN GROUNDING



6 BONDING OF STRUCTURAL COLUMNS





City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

7 CABLE TRAY GROUNDING

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CLASS 1 MAIN CONDUCTOR



BASKET WEAVE ALUMINUM CABLE WITH MINIMUM 98,600 CIRCULAR MILLS OF CONDUCTIVITY. EXCEEDS CLASS I REQUIREMENTS.

SECONDARY CONDUCTOR

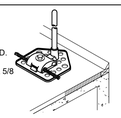


BASKET WEAVE ALUMINUM CABLE WITH MINIMUM 41,400 CIRCULAR MILLS OF CONDUCTIVITY. EXCEEDS CLASS I REQUIREMENTS.

ADHESIVE BASE



A CAST BRONZE BASE WITH 2-WAY BOLT PRESSURE CABLE HOLDER. CAP CAN BE ROTATED 90 DEGREES. SUITABLE FOR USE ON BUILT-UP, SINGLE MEMBRANE, OR OTHER ROOF SURFACES WHERE ALL MECHANICAL PENETRATIONS MUST BE AVOIDED. FOR USE WITH ADHESIVES COMPATIBLE TO ROOF SURFACE. 5/16-18 STAINLESS STEEL BOLT AND WASHER. 4-1/4"x4" ; APPROXIMATELY 16 OZ. USE SUFFIX 3/8, 1/2 OR 5/8 TO DENOTE AIR TERMINAL THREAD SIZE.

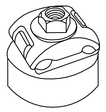




CABLE TO THREADED ROD

HEX BRASS 2-BOLT SPLICER FOR CABLE TO THREADED ROD OR AIR TERMINAL. 5/46-18 STAINLESS STEEL BOLT. 2-7/8" x 3/4" HEX (7.3CMx2.15CM); APPROXIMATELY 5 OZ (142 GRAMS). USE SUFFIX 3/8, 1/2 OR 5/8 TO DENOTE AIR TERMINAL THREAD SIZE.





CONDUIT CAP

CAST BRONZE CAP MACHINED TO FIT SNUGLY ON SCHEDULE 40 1-1/2" PVC TUBING. THREADED TO ACCEPT 1/2-13 THREADED ROD. COMES WITH 1/2" FLAT WASHER AND 1/2" NUT. APPROXIMATELY 9.0 OZ.





CABLE CONNECTORS

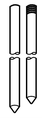
CAST BRONZE BOLT PRESSURE CABLE TO CABLE OR CABLE TO ROD CLAMP. 1-1/2" STAINLESS STEEL CARRIAGE BOLT. SPECIFICALLY DESIGNED FOR CABLE SPLICES ON SINGLE MEMBRANE ROOFS 1-9/16"x1-3/4" ; APPROXIMATELY 7.6 OZ



GROUND RODS

UL LISTED COPPER CLAD STEEL GROUND RODS.

3/4" x 10'



BLUNT AIR TERMINALS

CLASS I - 1/2" DIAMETER, THREADED BASE, UL LISTED

1/2" x 24"



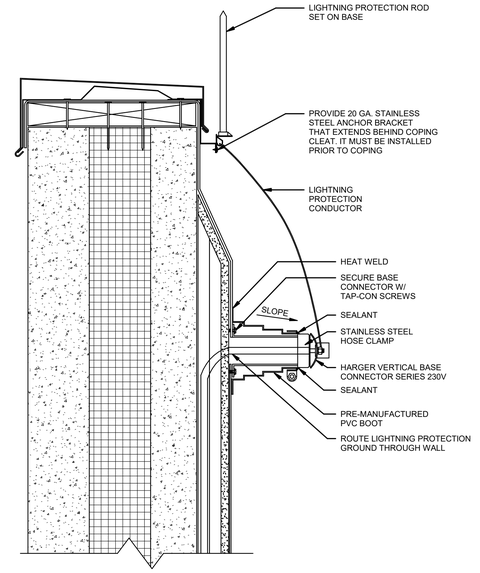


CAST BRONZE CABLE TO 5/8" GROUND ROD CLAMP. HAS TWO STAINLESS STEEL BOLTS 3/8"-16 x 1-1/4". (APPROXIMATELY 9.3 OZ)

GENERAL NOTES:

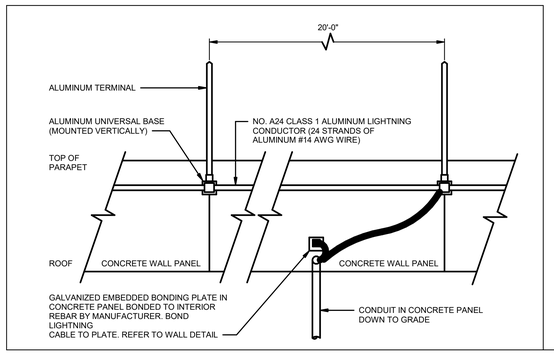
1. CONTRACTOR SHALL CERTIFY ENTIRE GROUNDING SYSTEM INCLUDING COMPONENTS UPON COMPLETION OF CONSTRUCTION.
2. THE COMPLETED CLASS I LIGHTING PROTECTION INSTALLATION SHALL MEET NFPA 780 AND UL 96A. THE U.L. MASTER LABEL WILL BE ISSUED 90 DAYS AFTER WORK IS COMPLETED.
3. BARE COPPER MATERIALS SHALL NOT BE INSTALLED ON ALUMINUM SURFACES AND ALUMINUM MATERIALS SHALL NOT BE INSTALLED ON COPPER SURFACES.
4. ANY GROUNDED METALLIC BODY WITHING 6' OF THE LIGHTNING CONDUCTOR SHALL BE BONDED TO THE LIGHTING PROTECTION SYSTEM. SUCH AS EXHAUST FANS, ROOF VENTS, METAL COOLING TOWERS, H.V.A.C UNITS, LADDERS, RAILINGS, ANTENNAS, SKYLIGHTS, METAL STACKS, AND ANY OTHER LARGE METAL BODIES.
5. ALL METALLIC UNDERGROUND PIPING ENTERING THE STRUCTURE SHALL BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
6. AIR TERMINALS ON FLAT ROOF AREAS, SHALL BE SPACED AT MAXIMUM 20' INTERVALS AROUND THE ROOF PERIMETER AND AT MAXIMUM 50' IN THE INTERIOR ROOF AREA AND EXTEND A MINIMUM OF 12" ABOVE THE HIGHEST POINT SUCH AS EXHAUST FANS, ROOF VENTS, METAL COOLING TOWERS, H.V.A.C. UNITS, LADDERS, RAILINGS, ANTENNAS, SKYLIGHTS, METAL STACKS, AND ANY OTHER LARGE METAL BODIES WHOSE HEIGHT EXCEEDS THAT OF AIR TERMINAL IN USE, UNLESS PROTECTED BY HIGHER STRUCTURE WITH LIGHTNING PROTECTION.
7. SURGE TRANSIENT PROTECTION OF SERVICES IS THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR OF THE SUPPLIER OF SENSITIVE EQUIPMENT. (I.E. COMPUTERS, COPIERS, TELEPHONES, ETC.)
8. ACTUAL JOBSITE CONDITIONS MAY REQUIRE SLIGHT ALTERATIONS IN AIR TERMINAL, DOWN CONDUCTOR AND GROUNDROD LOCATIONS.
9. CONTRACTOR SHALL REFERENCE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ALL ROOF PENETRATIONS.
10. REFER TO ARCHITECTURAL DRAWINGS FOR ALL ROOF PENETRATIONS.

1 MISCELLANEOUS LIGHTNING PROTECTION DEVICES



2 LIGHTNING PROTECTION DETAIL

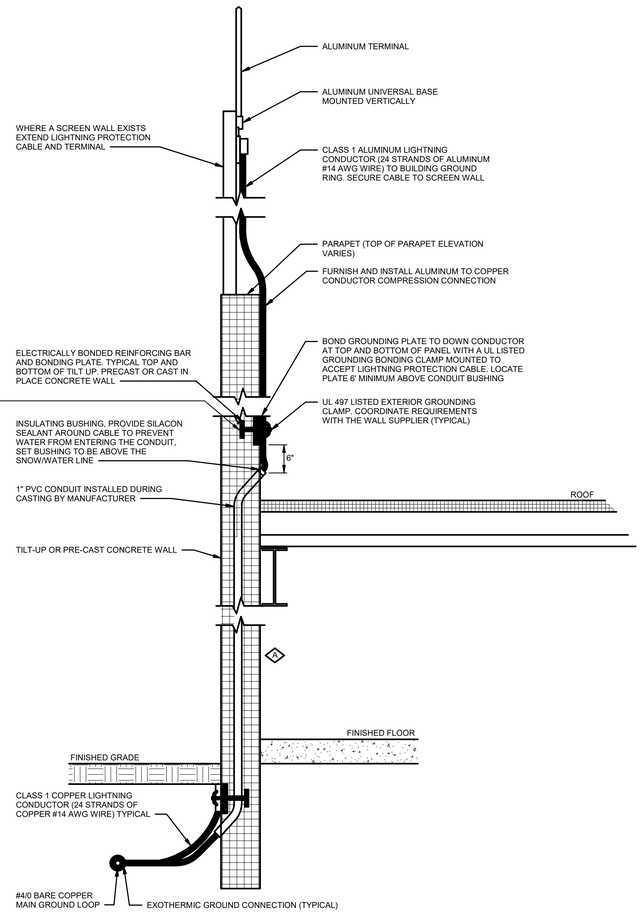
Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104



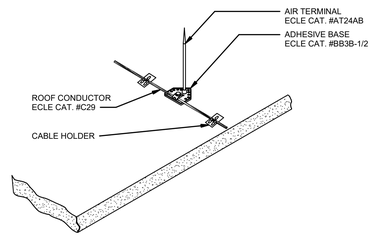
NOTES:

1. REFER TO ARCHITECTURAL AND STRUCTURAL DETAILS.
2. ALL UNDERGROUND EXOTHERMIC WELDED CONNECTIONS SHALL BE COMPLETELY COVERED WITH BITUMASTIC 50 OR APPROVED EQUAL.
3. ALL WORK SHALL MEET UL LASTER LABEL REQUIREMENTS FOR LIGHTNING PROTECTION INCLUDING BONDING TO REBAR AT THE TOP AND BOTTOM OF EACH PANEL WHERE DOWN CONDUCTORS ARE INSTALLED.

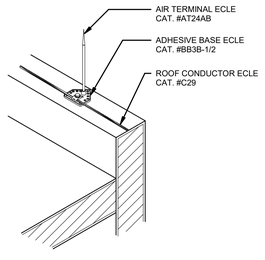
(A) ELECTRICAL CONTRACTOR SHALL PROVIDE AN ALTERNATE PRICE TO RUN PVC CONDUIT MOUNTED ON INTERIOR OF PRECAST WALL DOWN FROM ROOF TO UNDERGROUND IN THE EVEN THAT THE PRE-CAST VENDOR CANNOT INTEGRATE CONDUIT INTO WALL.



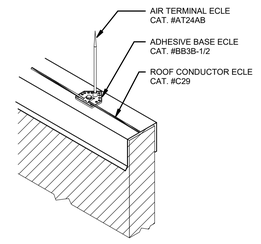
3 TYPICAL DOWNLEAD DETAIL



4 AIR TERMINAL DETAIL 'B'



DETAIL 'A'



DETAIL 'C'

NOTE:
PROVIDE AIR TERMINAL BASES AND CONDUCTOR IN ALUMINUM OR COPPER TO BE COMPATIBLE WITH BUILDING COPING MATERIAL.

5 PARAPET MOUNTED AIR TERMINAL DETAILS

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

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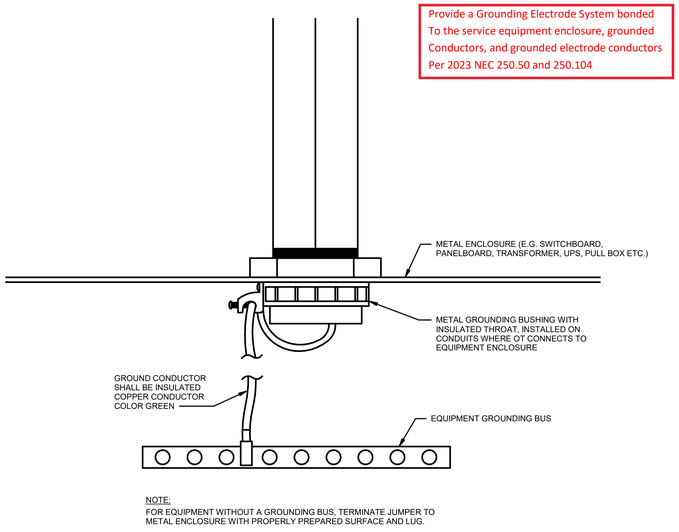
DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

E05-13

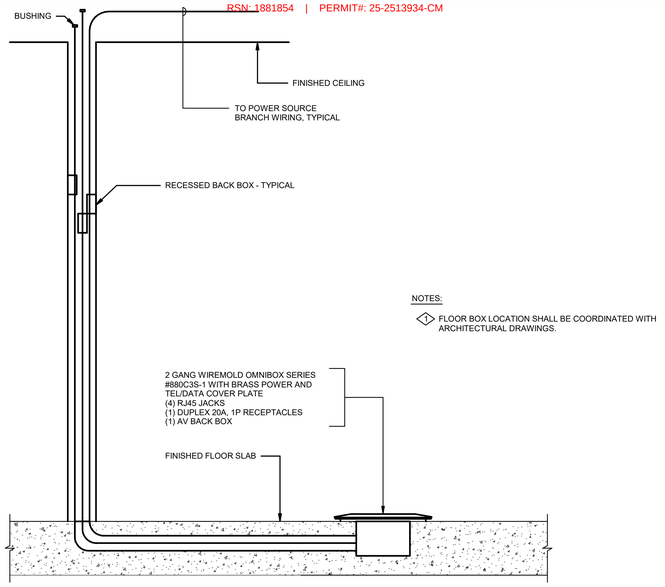
2/5/2025 9:48:49 AM E05-13 DETAILS

Provide a Grounding Electrode System bonded
To the service equipment enclosure, grounded
Conductors, and grounded electrode conductors
Per 2023 NEC 250.50 and 250.104



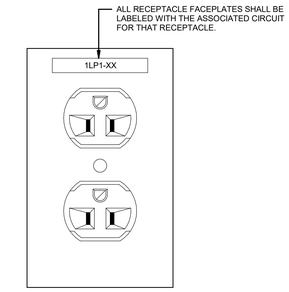
NOTE:
FOR EQUIPMENT WITHOUT A GROUNDING BUS, TERMINATE JUMPER TO METAL ENCLOSURE WITH PROPERLY PREPARED SURFACE AND LUG.

1 CONDUIT TERMINATION DETAIL



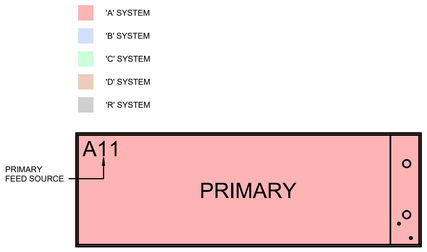
NOTES:
1. FLOOR BOX LOCATION SHALL BE COORDINATED WITH ARCHITECTURAL DRAWINGS.

2 CONFERENCE ROOM FLOOR BOX DETAIL



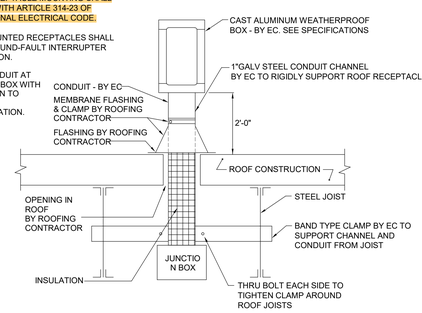
NOTE: REPEAT SIMILAR FOR LIGHTING CONTROL DEVICES

3 RECEPTACLE FACEPLATE DETAIL

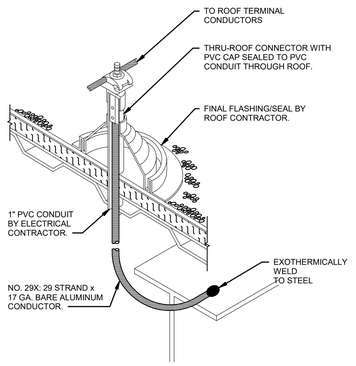


4 CRAC TAGGING METHOD DETAIL

NOTES:
1. ROOF RECEPTACLE MOUNTING SHALL COMPLY WITH ARTICLE 314-23 OF THE NATIONAL ELECTRICAL CODE.
2. ROOF MOUNTED RECEPTACLES SHALL HAVE GROUND-FAULT INTERRUPTER PROTECTION.
3. PACK CONDUIT AT JUNCTION BOX WITH INSULATION TO PREVENT CONDENSATION.

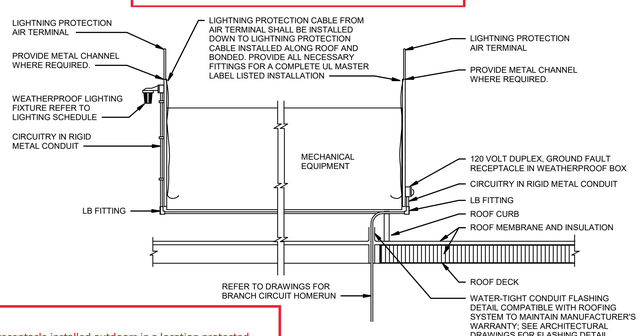


5 ROOF RECEPTACLE MOUNTING DETAIL



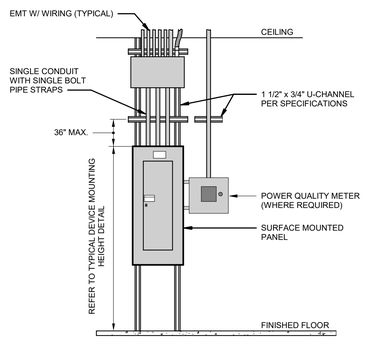
6 ROOF PENETRATION DETAIL

Metal or non-metallic poles supporting luminaires shall meet the conditions of 410.30(A) and (B) 2023 NEC.



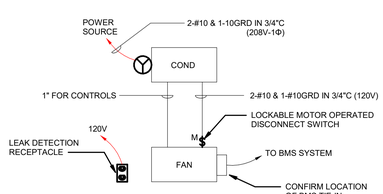
A receptacle installed outdoors in a location protected from the weather or in other damp locations shall comply with 406.9(A) 2023 NEC

7 ROOF TOP MECHANICAL EQUIPMENT LIGHTING & RECEPTACLE DETAIL



8 SURFACE MOUNTED PANEL INSTALLATION (TYPICAL)

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC



NOTE:
ENGINEER OF RECORD TO CONFIRM VOLTAGE REQUIREMENTS.

9 SPLIT-SYSTEM SCHEMATIC DIAGRAM

2/5/2025 9:48:52 AM E05-14 DETAILS

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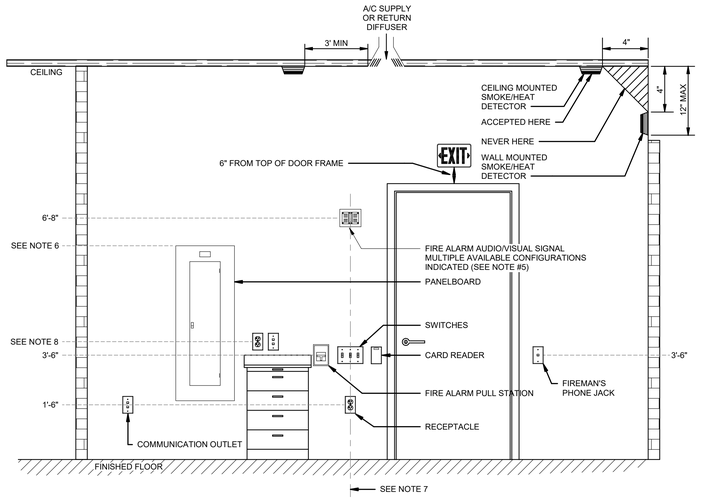
COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

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DETAILS

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DATE 01.31.25
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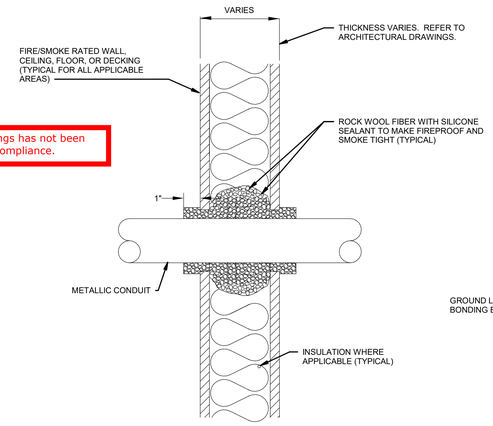


NOTES:

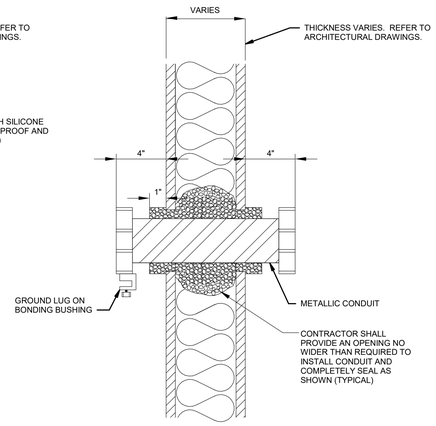
1. DEVICE LOCATIONS AND MOUNTING HEIGHTS SHALL BE CHECKED AGAINST THE ARCHITECTURAL PLANS AND ELEVATIONS PRIOR TO ROUGH-IN IN ORDER TO AVOID INTERFERENCE'S WITH CASEWORK, FURNITURE, WINDOWS, MIRRORS, EQUIPMENT, ETC.
2. LOCATIONS OF OUTLETS AND EQUIPMENT AS INDICATED ON THE DRAWINGS ARE APPROXIMATE. THE EXACT CENTER OF ALL OUTLETS SHALL BE PLACED IN COOPERATION WITH THE GENERAL CONTRACTOR AND ARCHITECT. CONTRACTOR SHALL EXAMINE ALL INTERIOR DETAILS OF THE CONSTRUCTION DRAWINGS FOR OUTLET LOCATIONS NOT CONFORMING TO THE DETAIL ABOVE. WHERE DETAILED TO SPECIFIC LOCATIONS, THE ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE. IF AN OUTLET IS INSTALLED IN SUCH A LOCATION AS TO BE OUT OF PROPER RELATION TO WALLS OR DETAILS OF THE BUILDING, IT'S LOCATION SHALL BE CORRECTED BY AND AT THE EXPENSE OF THE CONTRACTOR UNDER THE DIRECTION OF THE ARCHITECT OR ENGINEER.
3. DEVICES SHALL BE CENTERED IN A COMMON VERTICAL PLANE. HEIGHT SHALL BE MEASURED FROM FINISHED FLOOR TO CENTERLINE OF DEVICE EXCEPT EXIT SIGNS, AND FIRE ALARM SIGNALS. COORDINATE LOCATION WITH MATERIALS SUCH AS MASONRY UNITS.
4. REFER TO THE ARCHITECT'S ELEVATION DETAILS FOR EXACT MOUNTING HEIGHT AND LENGTH OF SURFACE RACEWAYS. RECEPTACLE MOUNTING HEIGHT ABOVE COUNTERS SHALL BE COORDINATED WITH CASEWORK HEIGHTS.
5. THE ENTIRE LENS OF A FIRE ALARM A/V SIGNAL OR VISUAL-ONLY SIGNAL SHALL BE LOCATED BETWEEN 6'-8" A.F.F. AND 8'-0" A.F.F. OR 6" BELOW CEILING (WHICHEVER IS LOWER). ELEVATION SHALL BE CONSISTENT THROUGHOUT PROJECT.
6. ALL PANELBOARDS SHALL BE MOUNTED TO TOP OF PANEL AT 84". PANELBOARDS OVER 84" SHALL BE MOUNTED TO TOP OF PANEL AT 90".
7. ON THE LATCH SIDE OF THE DOOR WHERE MULTIPLE DEVICES ARE TO BE INSTALLED, CONTRACTOR SHALL CENTER DEVICES VERTICALLY AS PER THE CENTERLINE. ADDITIONAL DEVICES SUCH AS FIRE ALARM PULL STATIONS OR TEMPERATURE SENSORS SHALL BE INSTALLED TO THE LEFT OF THE WALL SWITCH.
8. COORDINATE EXACT MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGH-IN.

1 TYPICAL DEVICE MOUNTING HEIGHT DETAIL

This sheet of drawings has not been reviewed for code compliance.

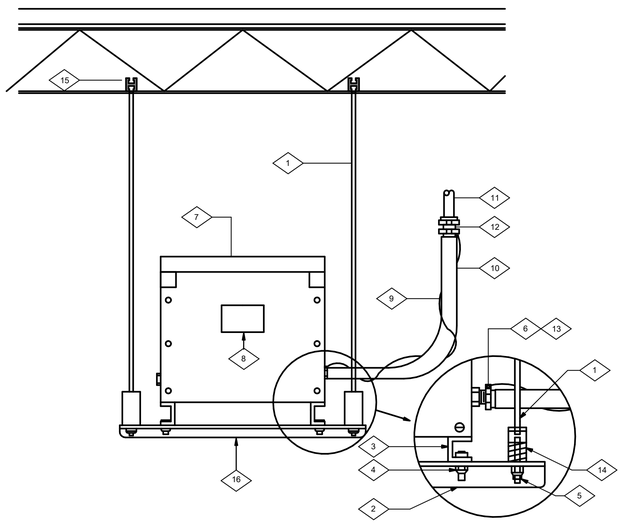


CONDUIT PENETRATION



SLEEVE PENETRATION

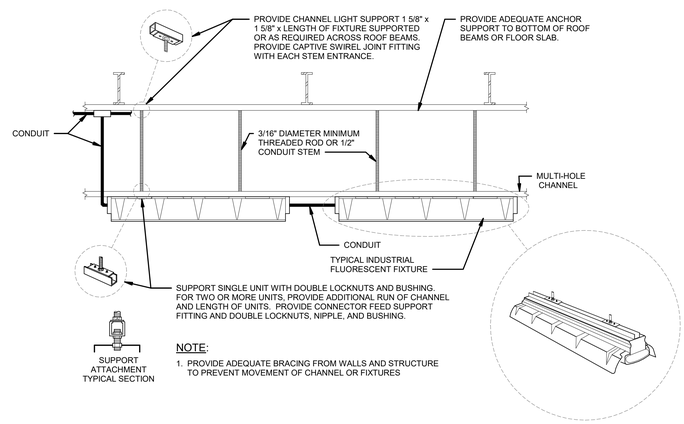
2 PENETRATIONS THROUGH FIRE RATED PARTITIONS



NOTES:

1. 1/2"D THREADED STEEL ROD SUPPORT FROM STRUCTURE ABV.
2. ANGLE IRON SUPPORT 3" X 3" 2 REQ'D., LENGTH TO SUIT
3. TRANSFORMER BASE CHANNEL
4. 1/2"D, NUT, BOLT AND LOCKWASHER 4 REQUIRED
5. 1/2"D, NUT, LOCKNUT AND LOCKWASHER 4 REQUIRED
6. SECONDARY CONNECTION DETAIL, PRIMARY - SIMILAR
7. TRANSFORMER
8. NAMEPLATE-CONNECTION DIAGRAM TO FACE CLOSET ENTRANCE
9. EXTERNAL COPPER BONDING WIRE
10. LIQUID TIGHT FLEXIBLE METAL CONDUIT 18" MIN
11. RIGID CONDUIT
12. COMBINATION COUPLING
13. GROUND CONNECTOR
14. VIBRATION ELIMINATOR 4 REQ'D
15. PROVIDE MISCELLANEOUS STEEL SPAN TO THE NEXT JOIST AS REQ'D TO CONN. TO STRUCTURE. SUBMIT DETAIL FOR STRUCTURAL ENGINEER APPROVAL
16. BOTTOM OF SUPPORT OR ANY DEVICE SHALL NOT BE LESS THAN 7'-0" A.F.F. OR AS DIRECTED BY C.M.
17. SEISMIC REQUIREMENTS/ZONING SHALL COMPLY WITH LATEST IBC AND APPLICABLE LOCAL CODES

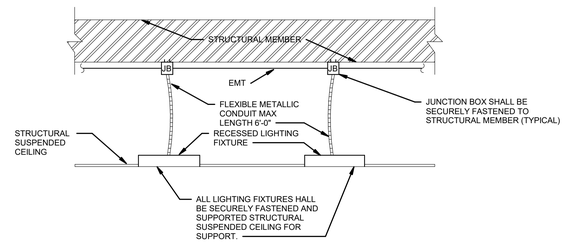
3 TRANSFORMER SUSPENSION DETAIL



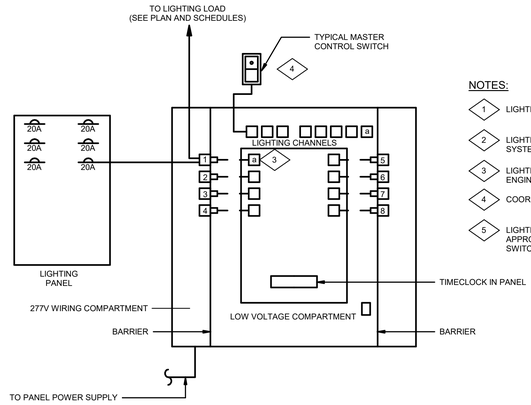
NOTE:

1. PROVIDE ADEQUATE BRACING FROM WALLS AND STRUCTURE TO PREVENT MOVEMENT OF CHANNEL OR FIXTURES

4 TYPICAL SUSPENDED INDUSTRIAL FIXTURE MOUNTING DETAIL



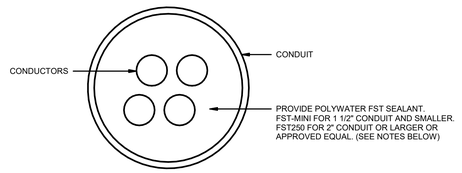
5 TYPICAL RECESS LIGHTING FIXTURE MOUNTING DETAIL



NOTES:

1. LIGHTING CONTROL PANEL SHALL HAVE 24 RELAYS WITH NEMA 1 ENCLOSURE.
2. LIGHTING CONTROL PANEL SHALL BE CAPABLE OF INTERFACING WITH BMS SYSTEM VIA MODBUS AND BE CONTROLLED BY THE BMS SYSTEM
3. LIGHTING CONTROL PANEL SHALL BE PROVIDED WITH DIGITAL TIME CLOCK. ENGINEER OF RECORD TO COORDINATE WITH APPLICABLE CODES.
4. COORDINATE LOCATIONS OF ALL SWITCHES WITH ARCHITECTURAL PLANS.
5. LIGHTING CONTROL PANEL SHALL BE MANUFACTURED BY WATTSTOPPER OR APPROVED EQUAL CONTROL PANEL VENDOR AND SENSOR/LOW VOLTAGE SWITCH VENDOR SHALL BE THE SAME.

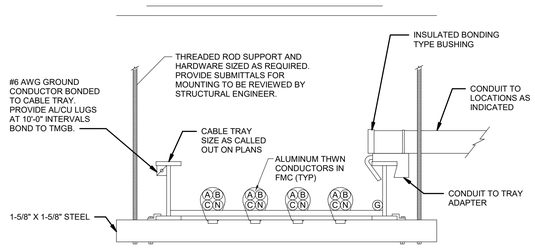
6 TYPICAL LIGHTING RELAY PANEL DETAIL



NOTES:

1. PROVIDE SEALING FOR ALL UNDERGROUND CONDUITS ENTERING THE BUILDING FROM THE EXTERIOR PER THE REQUIREMENTS OF THE ELECTRICAL CODE.
2. PROVIDE SEALING FOR ALL CONDUITS PENETRATING THE PERIMETER PARTITIONS OF THE COMPUTER ROOM AND CRAC GALLERIES TO MAINTAIN THE VAPOR BARRIOR, COORDINATE WITH THE FLOOR PLANS FOR PENETRATION LOCATIONS.

7 CONDUIT SEAL



NOTES:

1. SUITABLE FOR ALL FORMS OF CABLE TRAY
2. REFER TO SPECIFICATION SECTION 260548 FOR ADDITIONAL POTENTIAL REQUIREMENTS TO ADDRESS SEISMIC ISSUES
3. THE SPACES BETWEEN BUNDLES SHALL BE AS REQUIRED BY NEC 392.80(A)(2)(d).

8 OVERHEAD CABLE TRAY SUPPORT

2/5/2025 9:48:55 AM E05-15 DETAILS

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
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DETAILS

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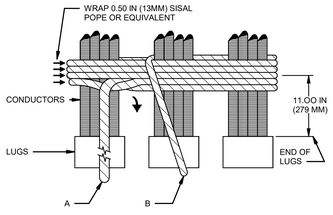


FIGURE 29: WRAPPING CONDUCTORS

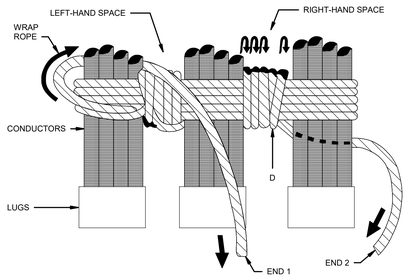


FIGURE 31: FINISH WRAPPING THE SPACE BETWEEN CONDUCTORS

TABLE 5: CONDUCTOR RESTRAINT REQUIREMENTS				
SUPPLY CABLES	85 KA	100 KA	130 KA	200 KA
2000 A	NO	NO	YES	YES
3200 A	NO	NO	YES	YES
4000 A	NO	NO	NO	NO
5000 A	NO	NO	NO	NO
CIRCUIT BREAKER LOAD CABLES	85 KA	100 KA	130 KA	200 KA
800 A	YES	YES	YES	YES
1600 A	YES	YES	YES	YES
2000 A	YES	YES	YES	YES
3200 A	NO	NO	YES	YES
4000 A	NO	NO	NO	NO

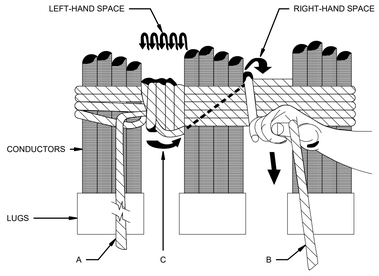


FIGURE 30: WRAPPING THE SPACE BETWEEN THE CONDUCTORS

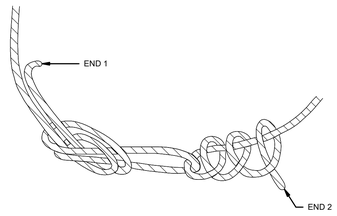


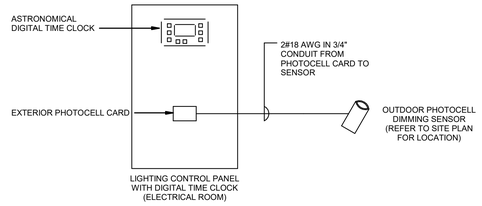
FIGURE 32: TYING ROPE ENDS TOGETHER

1. DETERMINE THE PHASE OF EACH CABLE BEFORE MAKING THE CONNECTION.
   NOTES: VIEWING THE SWITCHGEAR FROM THE FRONT, THE BUS SEQUENCE IN PHASED A-B-C TOP-TO-BOTTOM, FRONT-TO-REAR, OR LEFT-TO-RIGHT.
   a. NON-STANDARD ARRANGEMENTS AMY BE NECESSARY TO MEET SPECIFIC REQUIREMENTS. IF SO, THE BUS IS MARKED A, B, AND C IN THE ORDER SPECIFIED BY THE CUSTOMER.
   b. IF AN OPTIONAL NEUTRAL IS PROVIDED, ALL THE CONNECTIONS FOR THE NEUTRAL SHALL BE BRACED AND LABELED.
2. AVOID SHARP TURNS, CORNERS, AND EDGES WHEN FORMING CABLES FOR TERMINATION WITHIN THE SWITCHGEAR. THIS REDUCES THE RISK OF DAMAGE TO EQUIPMENT OR WEAKENING OF THE CABLE INSULATION. THE CABLE MANUFACTURER'S INSTRUCTIONS SHOULD BE FOLLOWED IN DETERMINING THE MINIMUM BENDING RADII OF THE CABLES. THIS WILL VARY WITH THE TYPE AND SIZE OF CABLE INVOLVED. REFER TO NEC REQUIREMENTS FOR MORE INFORMATION REGARDING MINIMUM BENDING RADII OF CABLES.
3. SECURELY LACE AND SUPPORT THE LINE AND LOAD CABLES AS DIRECTED IN "CONDUCTOR RESTRAINT FOR SHORT-CIRCUIT CURRENT RATING (SCCR)." *NOTE:* THIS HELPS AVOID STRAIN OR LOAD OF THE TERMINALS.
4. ONCE ALL APPROPRIATE CABLES ARE CONNECTED, REINSTALL THE REAR PANELS REMOVED IN STEP 1 UNDER "SPLICE THE GROUND BUS." REFER TO TABLE 5 TO DETERMINE IF CABLE RESTRAINTS ARE REQUIRED. IF RESTRAINTS ARE REQUIRED, PERFORM THE STEPS FOLLOWING THE TABLE.
5. BEGIN WRAPPING THE CONDUCTORS (FIGURE 29) A MAXIMUM DISTANCE OF 11 INCHES (279MM) FROM THE END OF THE LUGS. CONTINUE TO WRAP THE CONDUCTORS ON 11 INCH (279MM) CENTER(S) UP TO THE POINT WHERE THE CONDUCTORS LEAVE THE ENCLOSURE.
   a. WRAP THE CONDUCTORS FOUR (4) TIMES AS SHOWN LEAVING 3 FEET (1M)OF EXCESS ROPE AT THE FIRST END (A).
   b. PULL ROPE TAUT.
6. WRAP THE ROPE SEVERAL TIMES (FIGURE 30) UNTIL THE SPACE BETWEEN THE CONDUCTORS IS COMPLETELY FILLED.
   a. WEAVE THE FINAL ROPE LOOP UNDERNEATH THE PREVIOUS LOOP (C).
   b. BRING THE LOOP THROUGH THE RIGHT-HAND SPACE.
   c. PULL ROPE TAUT.
7. WRAP THE ROPE SEVERAL TIMES (FIGURE 31) UNTIL THE SPACE BETWEEN THE CONDUCTORS IS COMPLETELY FILLED.
   a. WEAVE THE FINAL ROPE LOOP UNDERNEATH THE PREVIOUS LOOP (D).
   b. BRING THE ROPE THROUGH THE RIGHT-HAND SPACE.
8. TIE THE ROPE ENDS (1) AND (2) TOGETHER (FIGURE 32) UNTIL THEY ARE TAUT. CUT OFF EXCESS ROPE, AND TAPE ENDS TO PREVENT FRAYING.
9. RECHECK TORQUES OF WIRE BINDING SCREWS AFTER SECURING THE CONDUCTORS. *NOTE:* REFER TO THE TORQUE LABEL SUPPLIED WITH THE SWITCHGEAR FOR TORQUE VALUES.

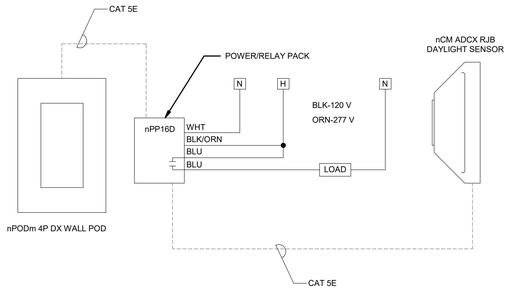
DETAIL NOTE:

1. ENGINEER-OF-RECORD SHALL COORDINATE CABLE LASHING AND BRACING REQUIREMENTS WITH OFCI VENDOR.

1 CABLE LASHING AND BRACING DETAIL



2 EXTERIOR LIGHTING CONTROL DETAIL



NOTES:
1. CAT-5E CABLES SHALL BE NON-BOOTED.
2. CAT-5E CABLES SHALL BE INSTALLED VIA T568B WIRING CONVENTION.
3. DAYLIGHT SENSOR SHALL NOT AUTOMATICALLY DIM DISPLAY AND ACCENT LIGHTING IN ACCORDANCE WITH IECC.

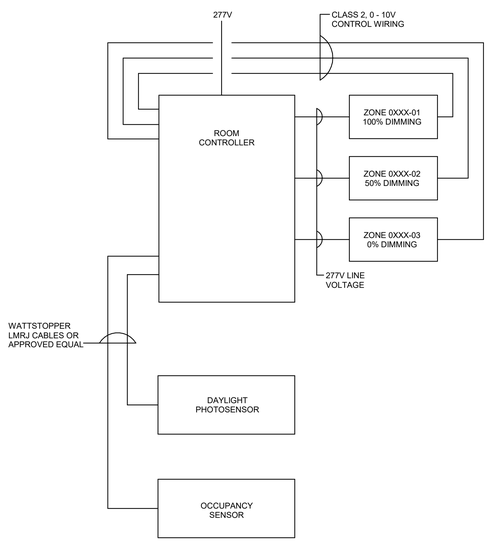
3 LOBBY LIGHTING CONTROL DIAGRAM

NOTES:
1. CAT-5E CABLES SHALL BE NON-BOOTED.
2. CAT-5E CABLES SHALL BE INSTALLED VIA T568B WIRING CONVENTION.

4 CONFERENCE ROOM LIGHTING CONTROL DIAGRAM

NOTE:
TYPE EX1 FIXTURE SHALL BE INSTALLED 0'-6" FROM TOP OF DOOR FRAME TO BOTTOM OF EXIT SIGN. TYPE EM1 FIXTURE SHALL BE MOUNTED ON EXTERIOR OF EGRESS DOOR AND LOCATED IN THE CENTER OF THE DOOR. TYPE EM1 FIXTURE SHALL BE MOUNTED AT THE SAME ELEVATION AS THE CONDUIT THROUGH THE PRECAST PANEL IN ORDER TO ALIGN WITH THE EXIT SIGN BACK BOX.

5 PRECAST SLEEVE FOR EGRESS AND EXIT FIXTURES



6 DAYLIGHTING CONTROL DIAGRAM

7 NOT USED

8 NOT USED

9 NOT USED

This sheet of drawings has not been reviewed for code compliance.

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ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

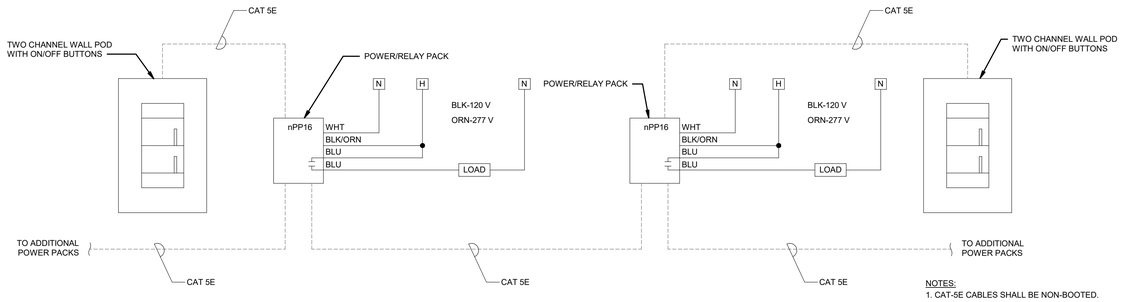
DETAILS

JOB 24464.0000
DATE 01.31.25
SHEET

E05-16

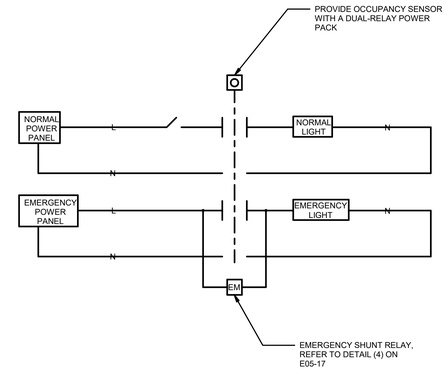
2/5/2025 9:48:58 AM E05-16 DETAILS

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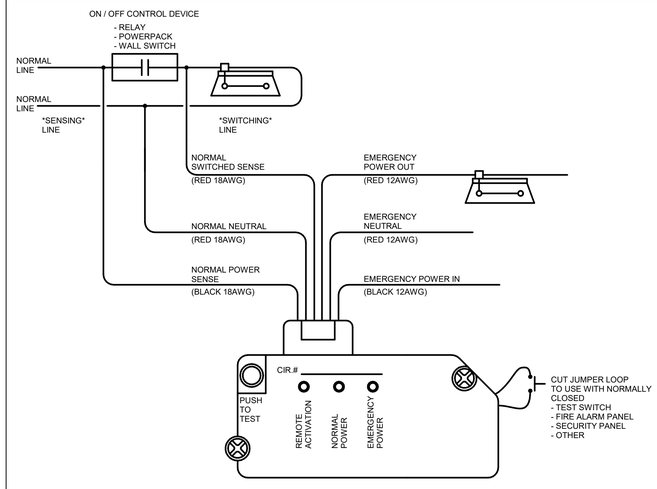


NOTES:
1. CAT-5E CABLES SHALL BE NON-BOOTED.
2. CAT-5E CABLES SHALL BE INSTALLED VIA T568B WIRING CONVENTION.

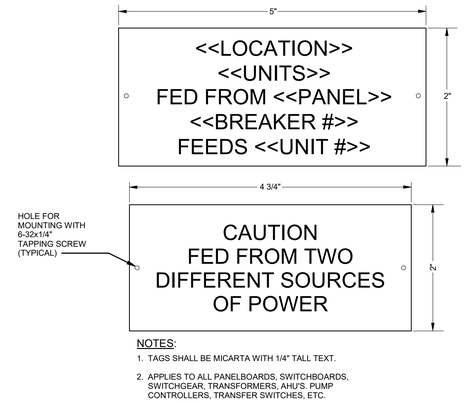
1 DATA HALL LIGHTING CONTROL DIAGRAM



2 COMMON OCC. SENSOR CONTROL OF NORMAL/EMERGENCY LIGHTING

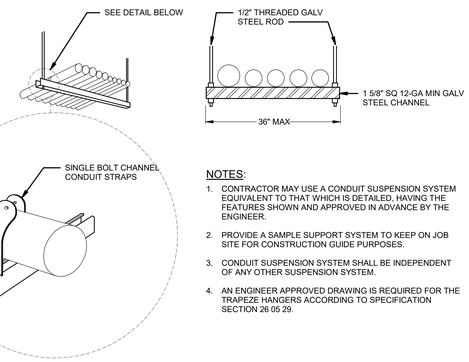


3 EMERGENCY LIGHTING RELAY - CONTROLLED WITH NORMAL LIGHTING



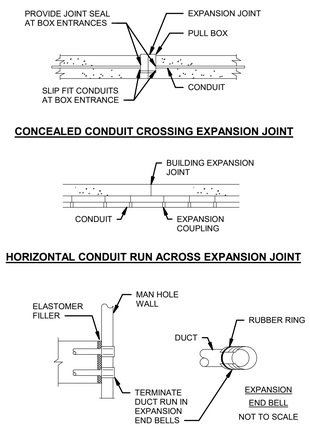
NOTES:
1. TAGS SHALL BE MICARTA WITH 1/4" TALL TEXT.
2. APPLIES TO ALL PANELBOARDS, SWITCHBOARDS, SWITCHGEAR, TRANSFORMERS, AHU'S, PUMP CONTROLLERS, TRANSFER SWITCHES, ETC.

4 EQUIPMENT IDENTIFICATION TAGS



NOTES:
1. CONTRACTOR MAY USE A CONDUIT SUSPENSION SYSTEM EQUIVALENT TO THAT WHICH IS DETAILED, HAVING THE FEATURES SHOWN AND APPROVED IN ADVANCE BY THE ENGINEER.
2. PROVIDE A SAMPLE SUPPORT SYSTEM TO KEEP ON JOB SITE FOR CONSTRUCTION GUIDE PURPOSES.
3. CONDUIT SUSPENSION SYSTEM SHALL BE INDEPENDENT OF ANY OTHER SUSPENSION SYSTEM.
4. AN ENGINEER APPROVED DRAWING IS REQUIRED FOR THE TRAPEZE HANGERS ACCORDING TO SPECIFICATION SECTION 26 05 29.

5 CONDUIT HANGER DETAIL



CONCEALED CONDUIT CROSSING EXPANSION JOINT

HORIZONTAL CONDUIT RUN ACROSS EXPANSION JOINT

DUCT RUN WITH EXPANSION JOINT

6 EXPANSION JOINT DETAILS

2/5/2025 9:49:00 AM E05-17 DETAILS

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1	09.30.2022	P2M STANDARDS 2.1 ADD

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

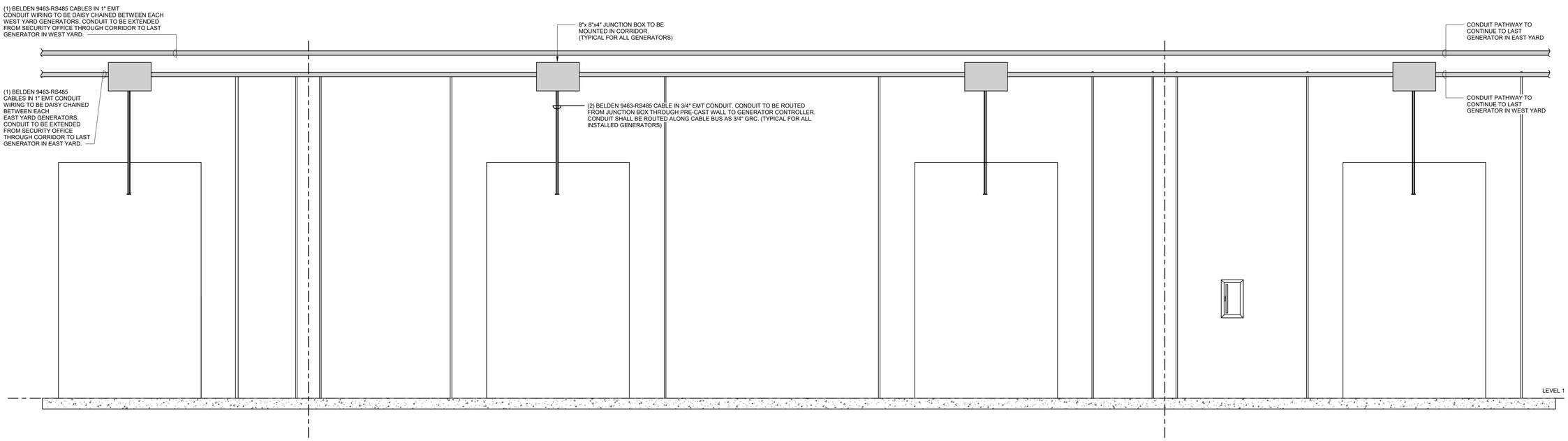
QTS DEN1 DC2

1140 N. GUN CLUB ROAD AURORA, CO

DETAILS

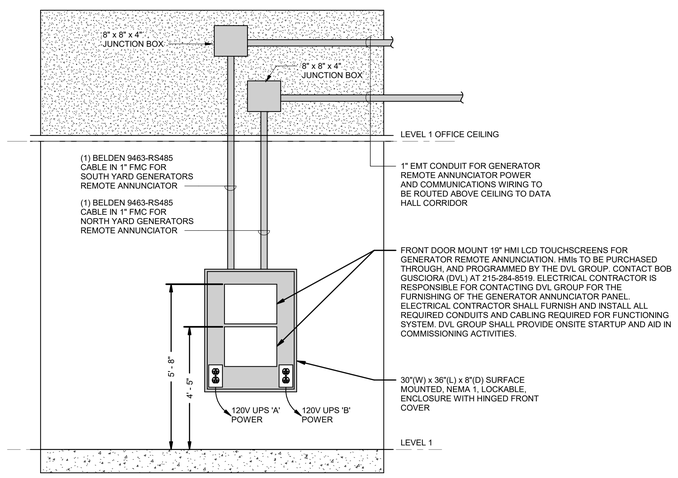
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1 DATA HALL CORRIDOR ELEVATION

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2 SECURITY OFFICE - GENERATOR REMOTE ANNUNCIATOR NORTH WALL ELEVATION

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COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue:
01.31.25

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1140 N. GUN CLUB ROAD
AURORA, CO

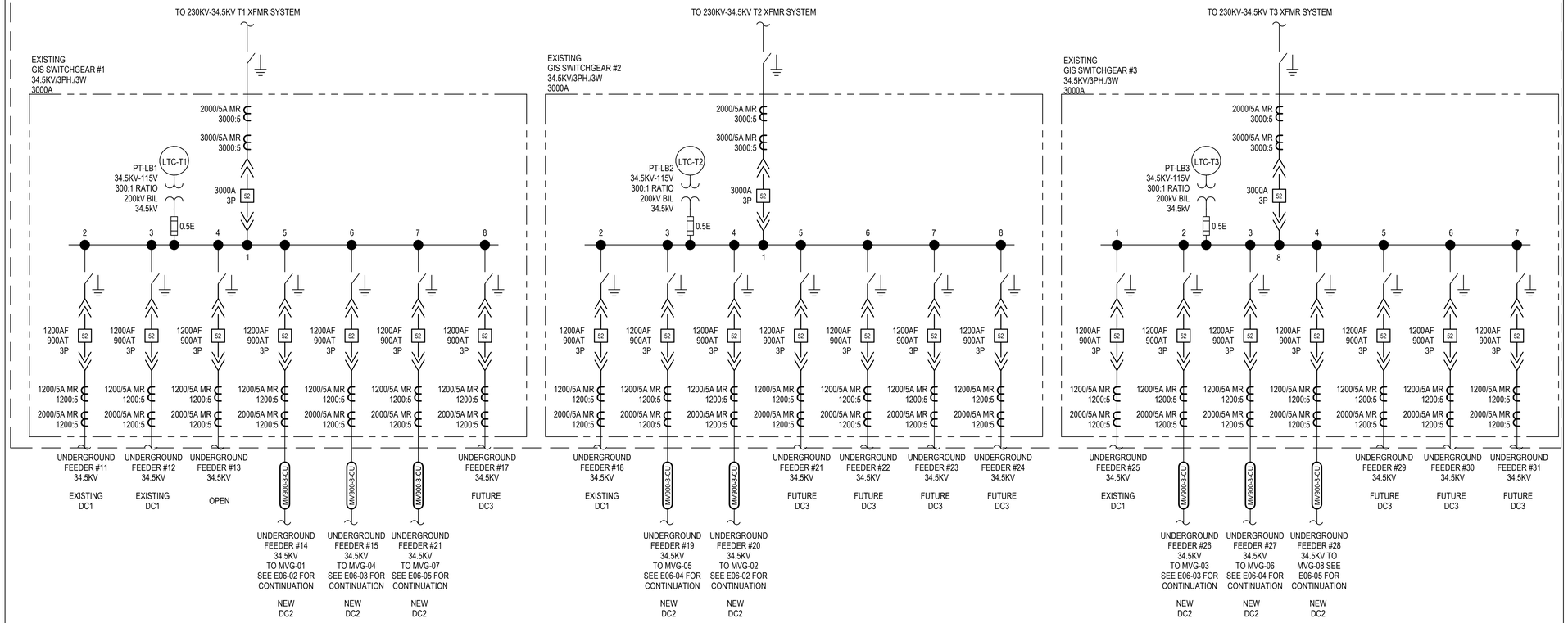
DETAILS

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DATE 01.31.25
SHEET

E05-18

2/5/2025 9:49:02 AM E05-18 DETAILS

N.I.C.



FINAL PLANNED CAMPUS LOAD - NORMAL OPERATION

Failed Block		(T1, T2, T3)					
Peak PUE	1.5						
Campus Power Factor	0.95						
					3N/2 DR FAILOVER		
	Load (MW)	Source 1	Source 2		T1	T2	T3
DEN1-DC1.1/DEN1-DC1.2	36	T1	T2		18	18	
DEN1-DC1.3/DEN1-DC1.4	36	T1	T3		18		18
DEN1-DC2.1/DEN1-DC2.2	27	T1	T2		13.5	13.5	
DEN1-DC2.3/DEN1-DC2.4	27	T3	T1		13.5		13.5
DEN1-DC2.5/DEN1-DC2.6	18	T2	T3			9	9
DEN1-DC2.7/DEN1-DC2.8	18	T1	T3		9		9
DEN1-DC3.1/DEN1-DC3.2	27	T1	T2		13.5	13.5	
DEN1-DC3.3/DEN1-DC3.4	27	T2	T3			13.5	13.5
DEN1-DC3.5/DEN1-DC3.6	18	T2	T3			9	9
DEN1-DC3.7/DEN1-DC3.8	18	T2	T3			9	9
Total Campus Load (MW)					85.5	85.5	81
Total Campus Load (MVA)					90	90	85.263...
Total Campus Load (Amps @ 34.5kV)					1506.1...	1506.1...	1426.9...

FINAL PLANNED CAMPUS LOAD - FAILOVER OPERATION

Failed Block	T1	(T1, T2, T3)					
Peak PUE	1.5						
Campus Power Factor	0.95						
					3N/2 DR FAILOVER		
	Load (MW)	Source 1	Source 2		T1	T2	T3
DEN1-DC1.1/DEN1-DC1.2	36	T1	T2		0	36	
DEN1-DC1.3/DEN1-DC1.4	36	T1	T3		0		36
DEN1-DC2.1/DEN1-DC2.2	27	T1	T2		0	27	
DEN1-DC2.3/DEN1-DC2.4	27	T3	T1		0		27
DEN1-DC2.5/DEN1-DC2.6	18	T2	T3			9	9
DEN1-DC2.7/DEN1-DC2.8	18	T1	T3		0		18
DEN1-DC3.1/DEN1-DC3.2	27	T1	T2		0	27	
DEN1-DC3.3/DEN1-DC3.4	27	T2	T3			13.5	13.5
DEN1-DC3.5/DEN1-DC3.6	18	T2	T3			9	9
DEN1-DC3.7/DEN1-DC3.8	18	T2	T3			9	9
Total Campus Load (MW)					0	130.5	121.5
Total Campus Load (MVA)					0	137.36...	127.89...
Total Campus Load (Amps @ 34.5kV)					0	2298.8...	2140.3...

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

B. REFER TO E03 SERIES DRAWINGS FOR ELECTRICAL EQUIPMENT LOCATIONS.

C. PROTECTIVE RELAYS SHALL BE PROVIDED BY SEL, AND SHALL BE CAPABLE OF PROVIDING ANSI FUNCTIONS: 27, 32, 50, 51, 59, 67, 81O/U, 86LO.

D. SERVICE EQUIPMENT IS TO BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT AS PROVIDED BY THE SERVING UTILITY. THE CONTRACTOR SHALL COORDINATE WITH THE SERVING UTILITY TO OBTAIN THE MAXIMUM AVAILABLE FAULT CURRENT. CONTRACTOR SHALL PROVIDE LABELING NOTING AVAILABLE FAULT CURRENT AND DATE OF CALCULATION IN ACCORDANCE WITH COLORADO ELECTRICAL CODE, LATEST EDITION.

SHEET KEYNOTES

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

LINETYPE LEGEND

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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

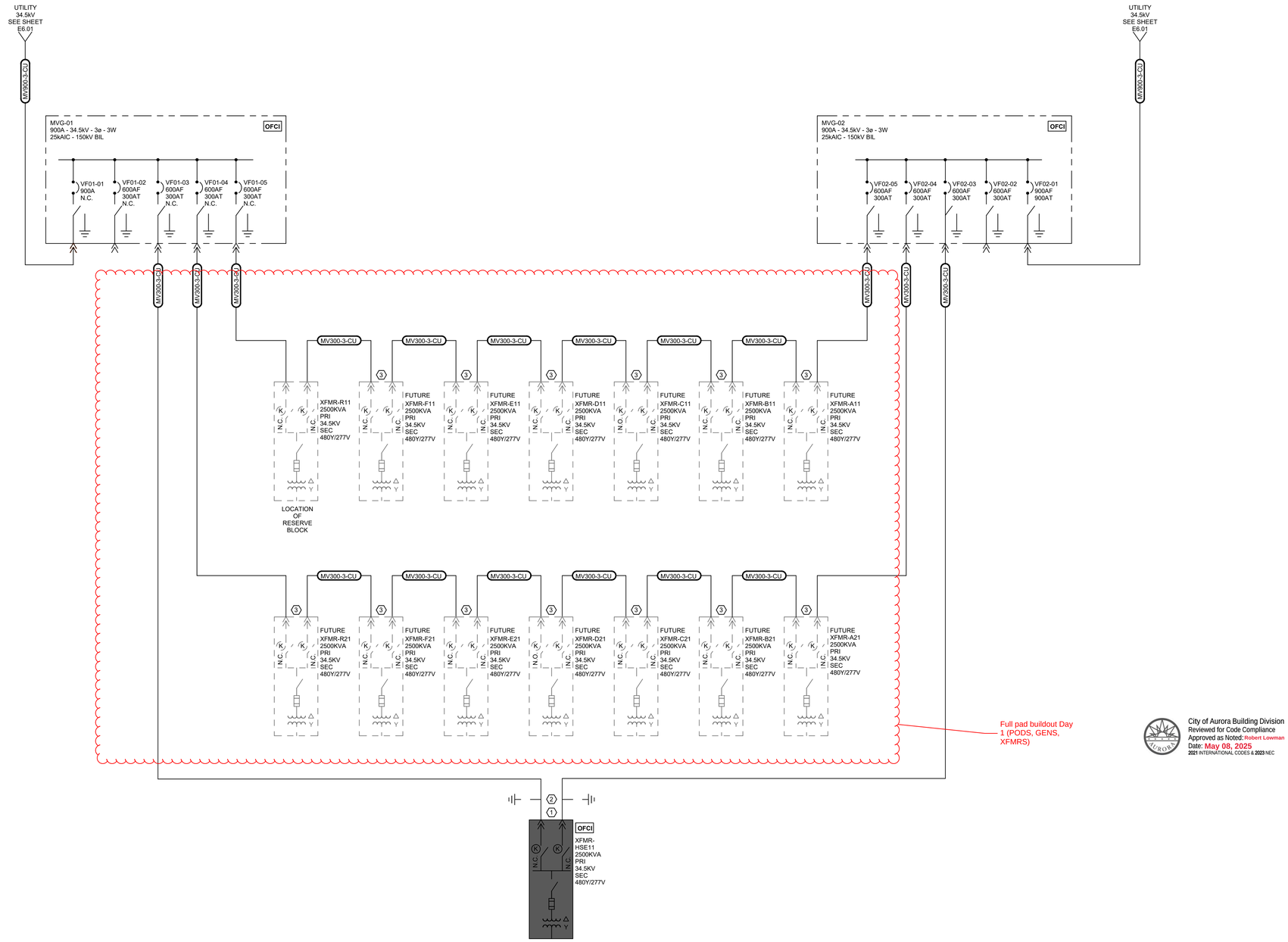
Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (SUBSTATION)

JOB 24464.0000
DATE 01.31.25
SHEET E06-01

2/5/2025 10:56:47 AM E06-01 SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (SUBSTATION)



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

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SHEET KEYNOTES

1. MEDIUM VOLTAGE TRANSFORMER LOOP SHALL BE MECHANICALLY INTERLOCKED TO PREVENT ALL SWITCHES IN THE LOOPS FROM BEING CLOSED AT THE SAME TIME. PROVIDE A LOCK CFCI KEY SYSTEM SUCH THAT UNDER NORMAL OPERATING CONDITIONS ONE SWITCH SHALL REMAIN LOCKED IN THE OPEN POSITION. TO CLOSE THE LOCKED OPEN SWITCH, THE OPERATOR MUST OPEN ANY OTHER SWITCH WITHIN THE SAME LOOP, RELEASING ITS KEY AND RENDERING THAT SWITCH LOCKED IN THE OPEN POSITION. THAT KEY CAN THEN BE USED TO CLOSE THE PREVIOUSLY LOCKED OPEN SWITCH.

2. TYPICAL SURGE ARRESTER. PROVIDE ELBOW TYPE SURGE ARRESTER AS PART OF MEDIUM VOLTAGE FEEDER TERMINATION.

3. STUB UP AND CAP CONDUIT AT TRANSFORMER PAD FOR FUTURE USE.

LINETYPE LEGEND

NEW
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75202
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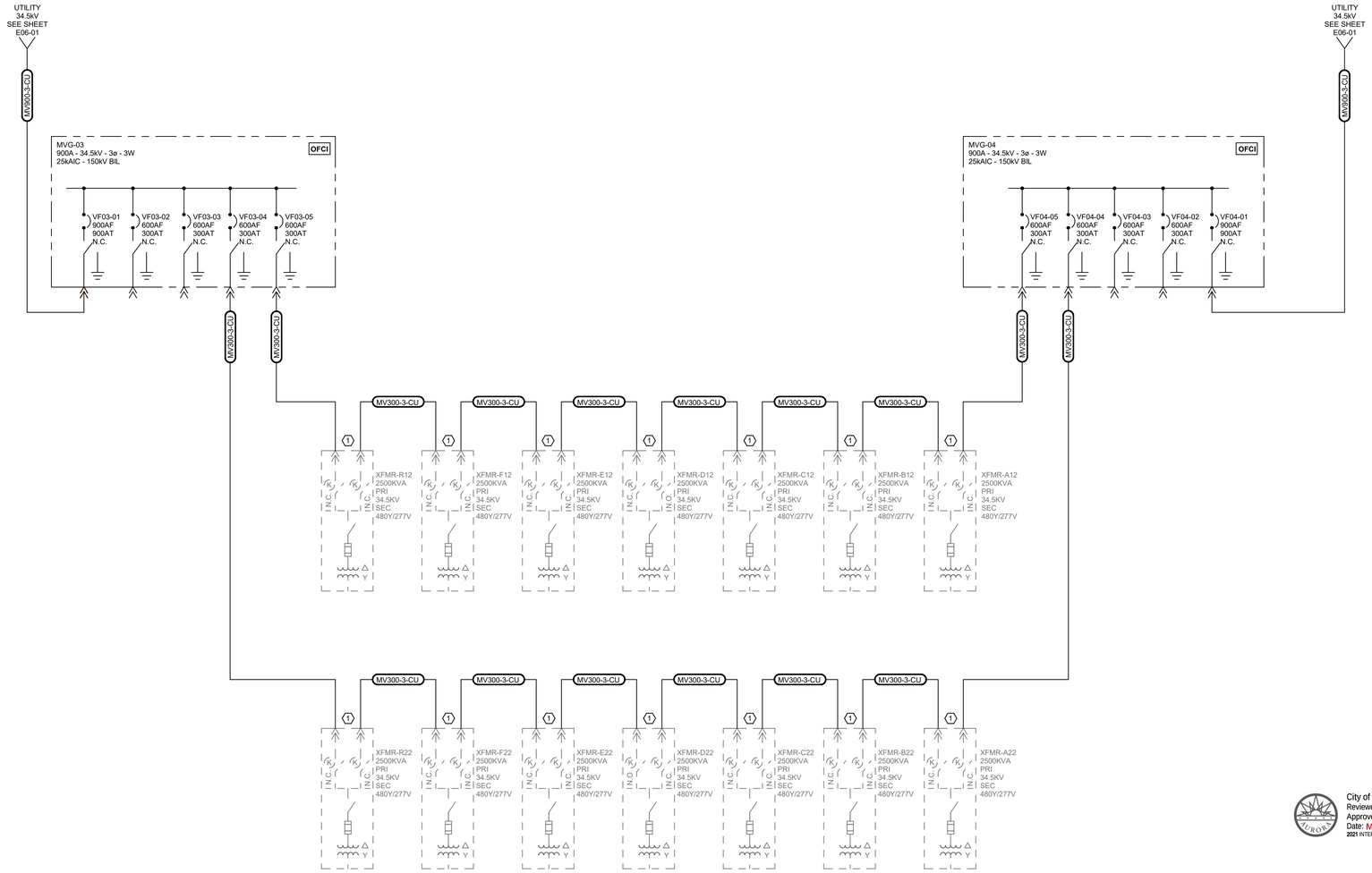
1140 N. GUN CLUB ROAD
AURORA, CO

SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1100/2100)

JOB 24464.0000
DATE 01.31.25
SHEET

E06-02

2/5/2025 9:49:08 AM E06-02 SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1100/2100)



City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

B. REFER TO E03 SERIES DRAWINGS FOR ELECTRICAL EQUIPMENT LOCATIONS.

C. PROTECTIVE RELAYS SHALL BE PROVIDED BY SEL, AND SHALL BE CAPABLE OF PROVIDING ANSI FUNCTIONS: 27, 32, 50, 51, 59, 67, 81O/U, 86LO.

D. SERVICE EQUIPMENT IS TO BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT AS PROVIDED BY THE SERVING UTILITY. THE CONTRACTOR SHALL COORDINATE WITH THE SERVING UTILITY TO OBTAIN THE MAXIMUM AVAILABLE FAULT CURRENT. CONTRACTOR SHALL PROVIDE LABELING NOTING AVAILABLE FAULT CURRENT AND DATE OF CALCULATION IN ACCORDANCE WITH COLORADO ELECTRICAL CODE, LATEST EDITION.

SHEET KEYNOTES

1. STUB UP AND CAP CONDUIT AT TRANSFORMER PAD FOR FUTURE USE.

LINETYPE LEGEND

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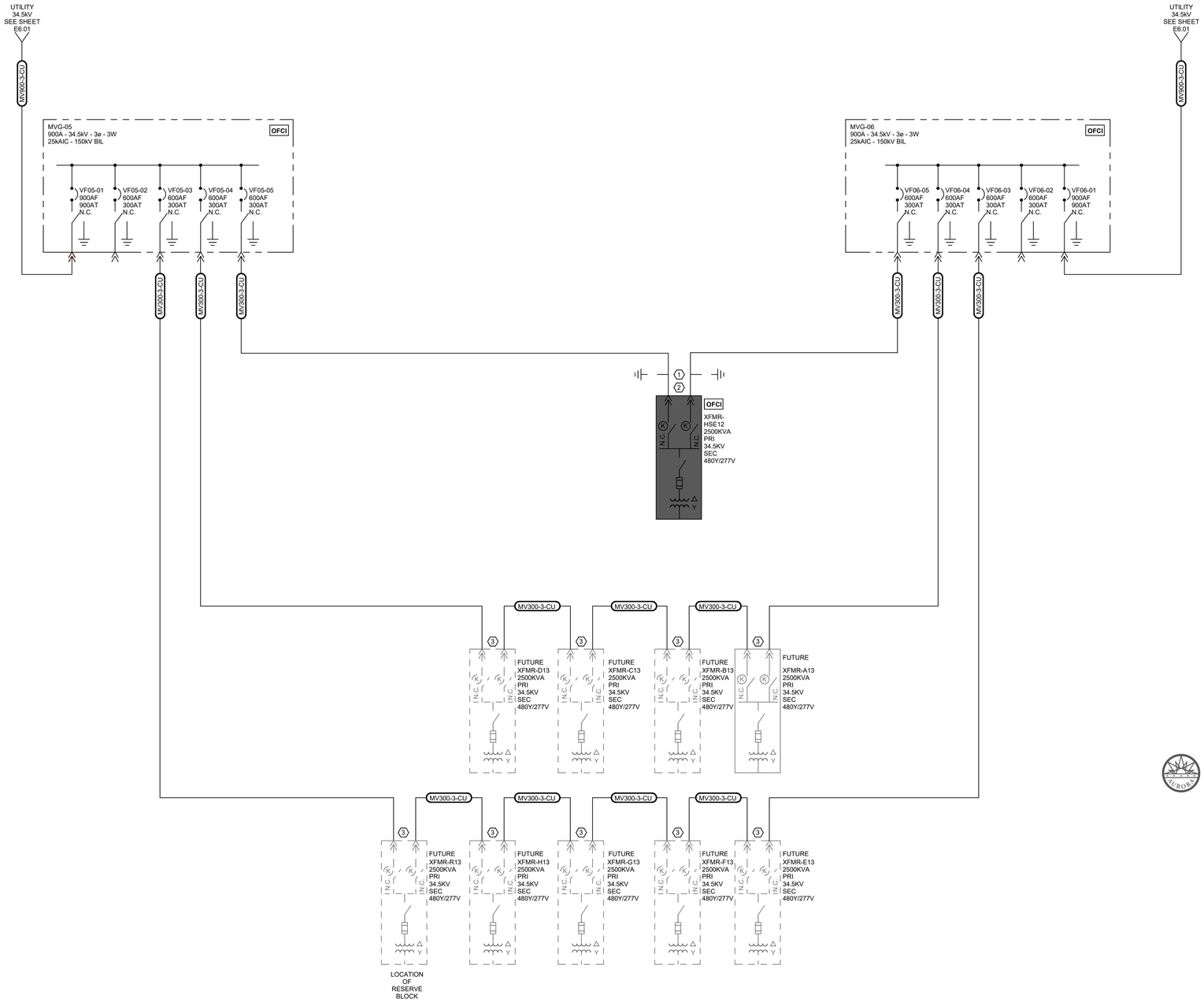
QTS DEN1 DC2
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AURORA, CO

SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH 1200/2200)

JOB 24464.0000
DATE 01.31.25
SHEET

E06-03

2/5/2025 9:49:10 AM E06-03 SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH 1200/2200)



SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

B. REFER TO E03 SERIES DRAWINGS FOR ELECTRICAL EQUIPMENT LOCATIONS.

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SHEET KEYNOTES

1. MEDIUM VOLTAGE TRANSFORMER LOOP SHALL BE MECHANICALLY INTERLOCKED TO PREVENT ALL SWITCHES IN THE LOOPS FROM BEING CLOSED AT THE SAME TIME. PROVIDE A LOCK CFCI KEY SYSTEM SUCH THAT UNDER NORMAL OPERATING CONDITIONS ONE SWITCH SHALL REMAIN LOCKED IN THE OPEN POSITION. TO CLOSE THE LOCKED OPEN SWITCH, THE OPERATOR MUST OPEN ANY OTHER SWITCH WITHIN THE SAME LOOP, RELEASING ITS KEY AND RENDERING THAT SWITCH LOCKED IN THE OPEN POSITION. THAT KEY CAN THEN BE USED TO CLOSE THE PREVIOUSLY LOCKED OPEN SWITCH.
2. TYPICAL SURGE ARRESTER. PROVIDE ELBOW TYPE SURGE ARRESTER AS PART OF MEDIUM VOLTAGE FEEDER TERMINATION.
3. STUB UP AND CAP CONDUIT AT TRANSFORMER PAD FOR FUTURE USE.

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
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LINETYPE LEGEND

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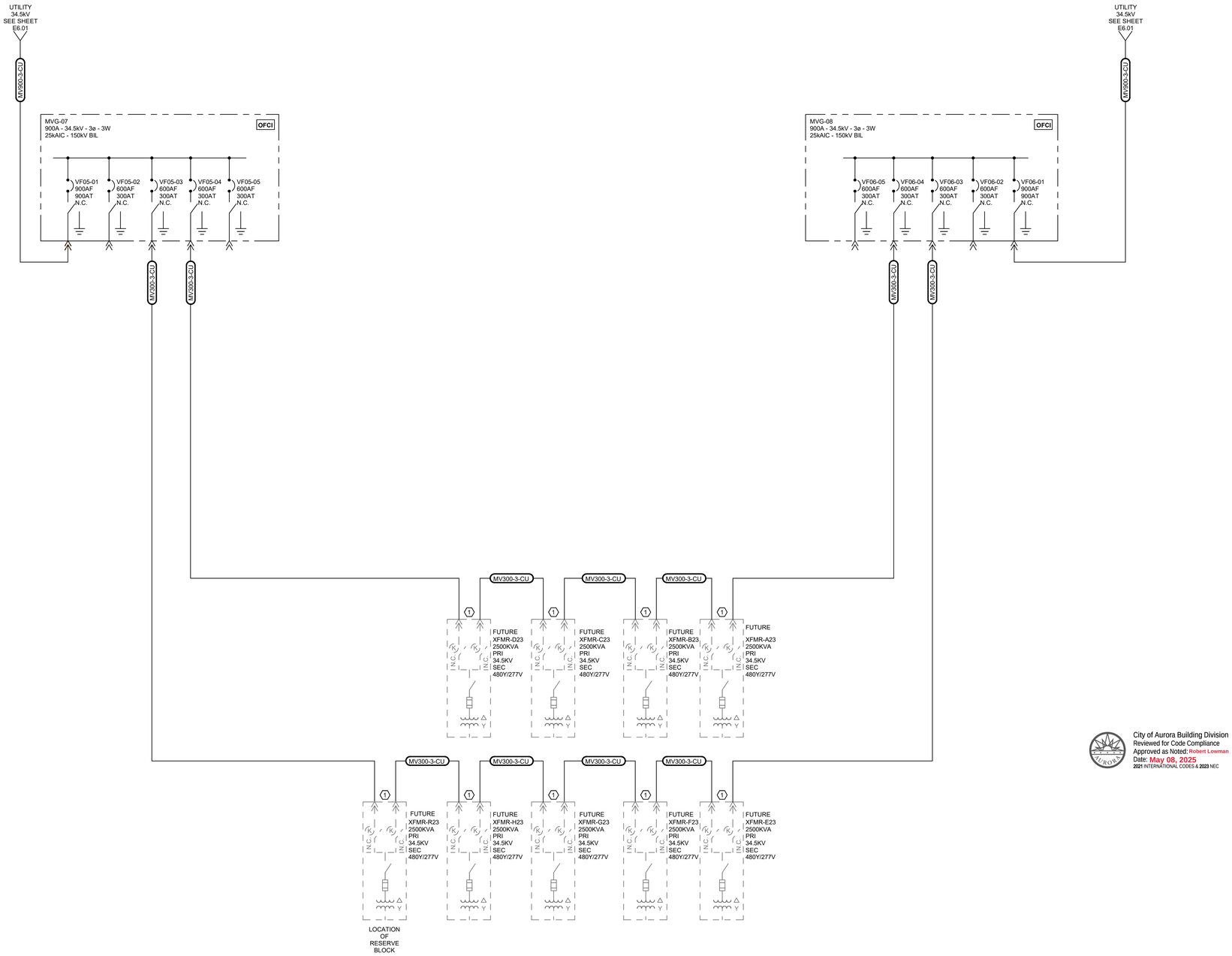
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AURORA, CO

SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1300)

JOB 24464.0000
DATE 01.31.25
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E06-04

2/5/2025 9:49:12 AM E06-04 SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH1300)



City of Aurora Building Division
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Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

B. REFER TO E03 SERIES DRAWINGS FOR ELECTRICAL EQUIPMENT LOCATIONS.

C. PROTECTIVE RELAYS SHALL BE PROVIDED BY SEL, AND SHALL BE CAPABLE OF PROVIDING ANSI FUNCTIONS: 27, 32, 50, 51, 59, 67, 81O/U, 86LO.

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SHEET KEYNOTES

1. STUB UP AND CAP CONDUIT AT TRANSFORMER PAD FOR FUTURE USE.

LINETYPE LEGEND

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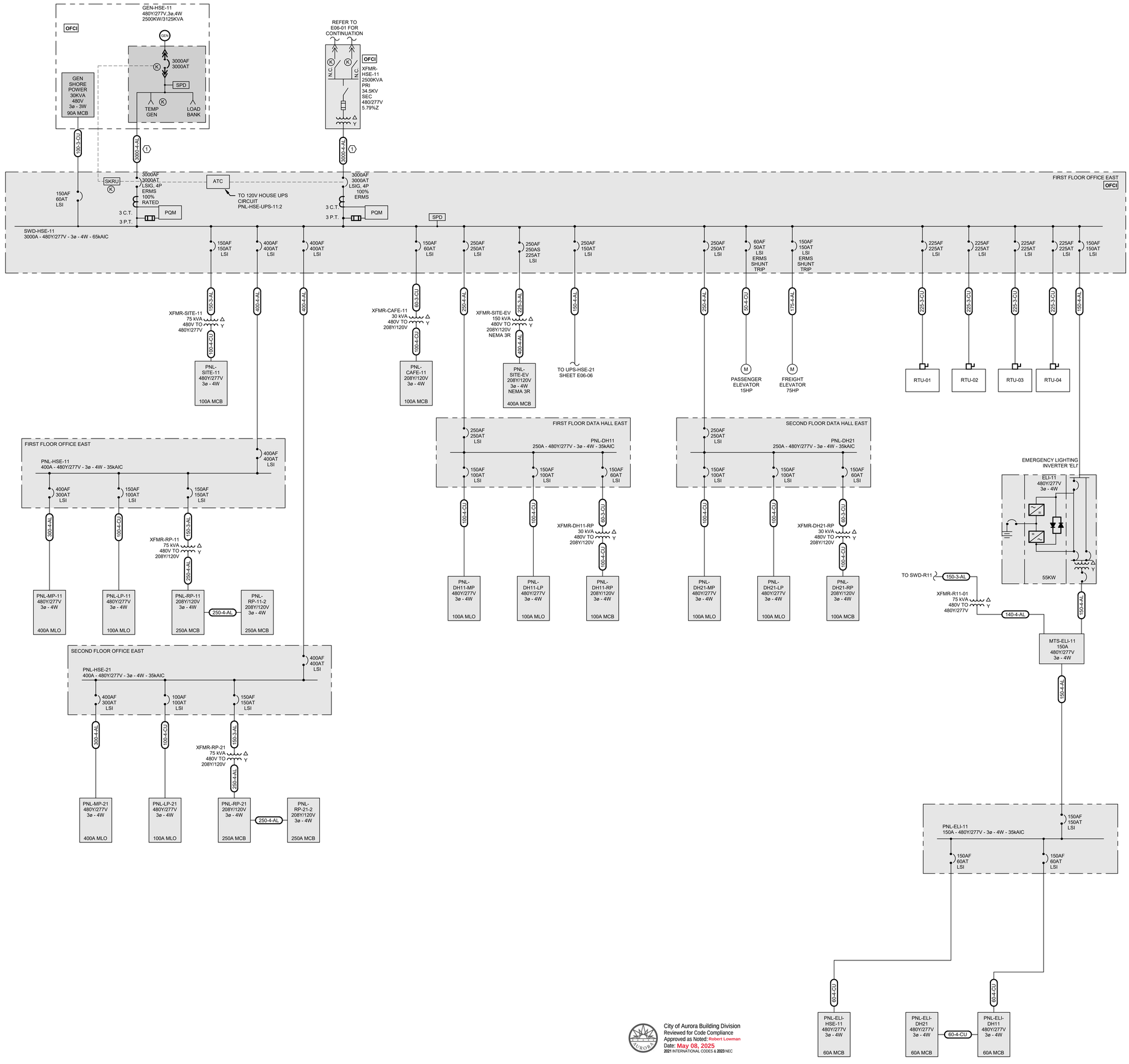
KEYPLAN

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T	R	P	M	K	H	F	D	B

SINGLE LINE DIAGRAM - MEDIUM VOLTAGE (DH2300)

JOB 24464.0000
DATE 01.31.25
SHEET

E06-05



SHEET NOTES

SHEET KEYNOTES

1. UNDERGROUND FEEDER. REFER TO NEHER-MCGRATH REPORT FOR ADDITIONAL DETAILS.
2. ROUTE FEEDER FOR FUTURE TERMINATION UNDER FUTURE SCOPE. COIL/SAFE OFF AND TAG CONDUIT/CONDUCTORS IN PULLBOX IN ACCESSIBLE LOCATION WITH ELECTRICAL GALLERY TO ALLOW FOR FUTURE TERMINATION TO RESERVE BUSWAY.

LINETYPE LEGEND

- NEW
- EXISTING
- FUTURE

City of Aurora Building Division
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REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

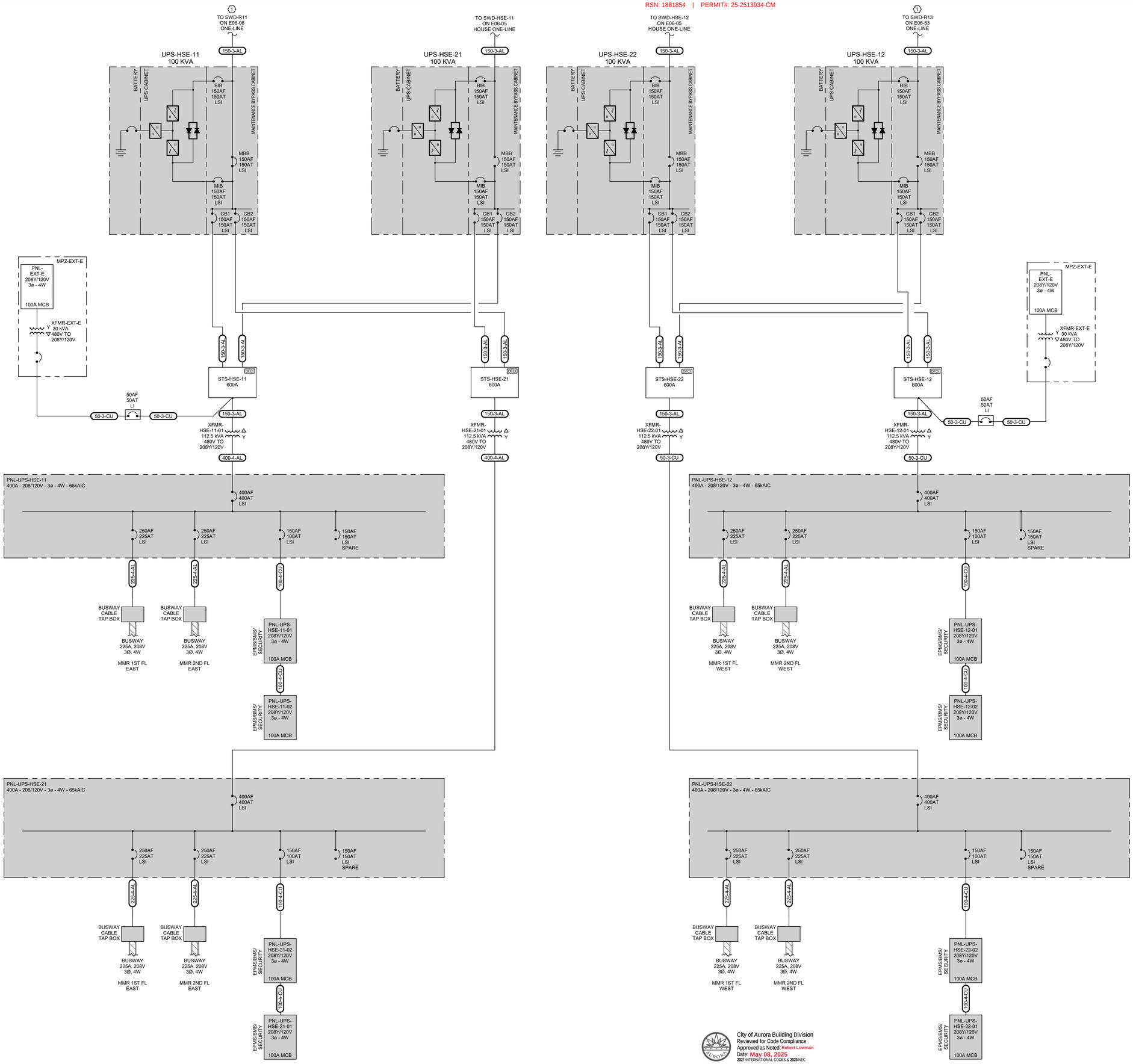
QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

SINGLE LINE DIAGRAM - HOUSE BLOCK (FRONT OF HOUSE)

JOB 24464.0000
DATE 01.31.25
SHEET

E06-06



SHEET NOTES

A. SEE DRAWING E00-01 FOR LEGENDS, NOTES, ABBREVIATIONS AND FEEDER SCHEDULES.

B. REFER TO E03 SERIES DRAWINGS FOR ELECTRICAL EQUIPMENT LOCATIONS.

C. PROTECTIVE RELAYS SHALL BE PROVIDED BY SEL, AND SHALL BE CAPABLE OF PROVIDING ANSI FUNCTIONS: 27, 32, 50, 51, 59, 67, 81O/U, 86LO.

D. SERVICE EQUIPMENT IS TO BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT AS PROVIDED BY THE SERVING UTILITY. THE CONTRACTOR SHALL COORDINATE WITH THE SERVING UTILITY TO OBTAIN THE MAXIMUM AVAILABLE FAULT CURRENT. CONTRACTOR SHALL PROVIDE LABELING NOTING AVAILABLE FAULT CURRENT AND DATE OF CALCULATION IN ACCORDANCE WITH COLORADO ELECTRICAL CODE, LATEST EDITION.

SHEET KEYNOTES

1. ROUTE FEEDER FOR FUTURE TERMINATION UNDER FUTURE SCOPE. COIL/SAFE OFF AND TAG CONDUIT/CONDUCTORS IN PULLBOX IN ACCESSIBLE LOCATION WITH ELECTRICAL GALLERY TO ALLOW FOR FUTURE TERMINATION TO RESERVE BUSWAY.

LINETYPE LEGEND

NEW
EXISTING
FUTURE

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 08, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES		
1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
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REVISIONS		

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

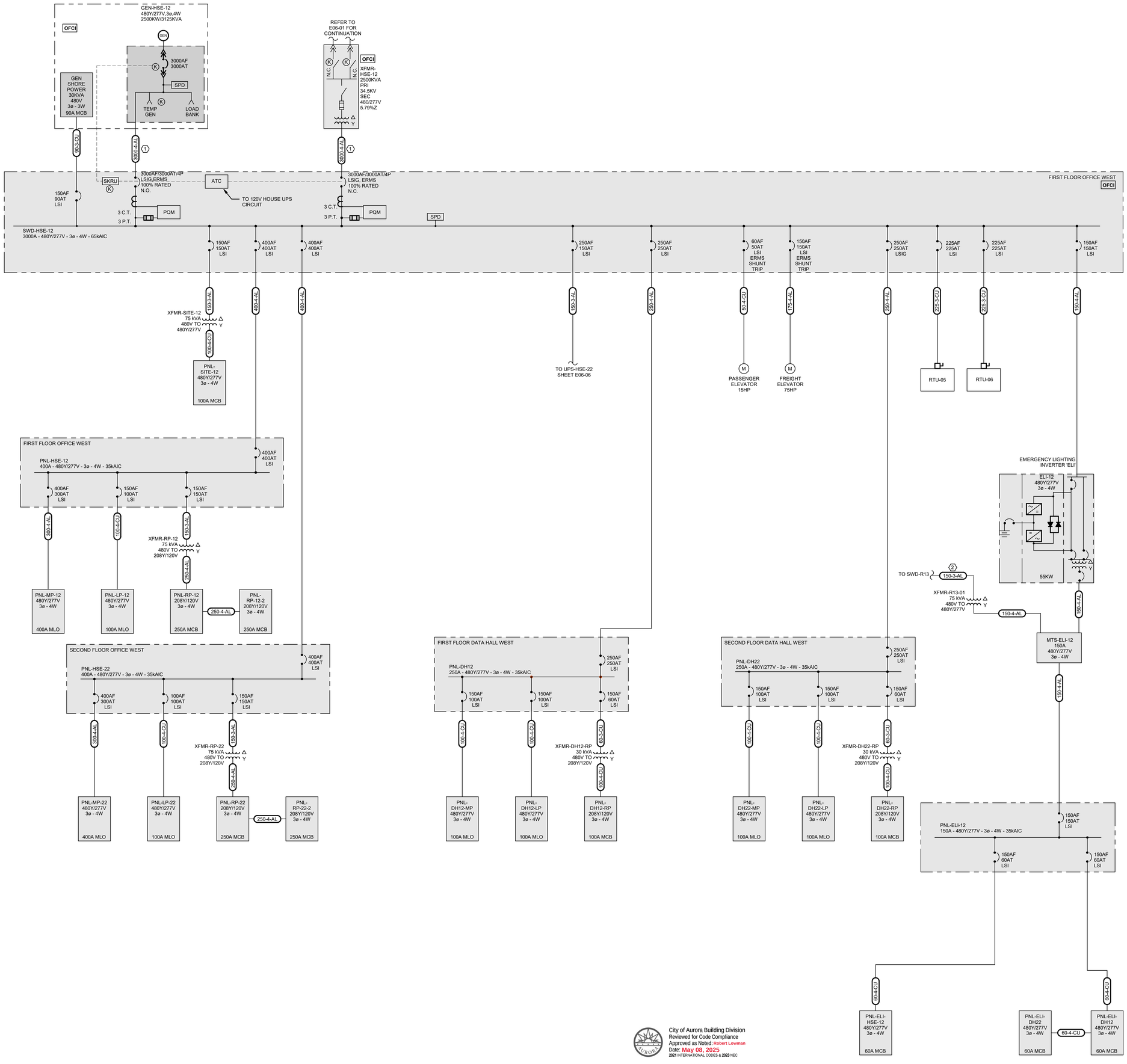
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD AURORA, CO

SINGLE LINE DIAGRAM - HOUSE UPS BLOCK

JOB 24464.0000
DATE 01.31.25
SHEET E06-07

2/5/2025 9:49:19 AM E06-07 SINGLE LINE DIAGRAM - HOUSE UPS BLOCK



SHEET NOTES

SHEET KEYNOTES

1. UNDERGROUND FEEDER. REFER TO NEHER-MCGRATH REPORT FOR ADDITIONAL DETAILS.
2. ROUTE FEEDER FOR FUTURE TERMINATION UNDER FUTURE SCOPE. COIL/SAFE OFF AND TAG CONDUIT/CONDUCTORS IN PULLBOX IN ACCESSIBLE LOCATION WITH ELECTRICAL GALLERY TO ALLOW FOR FUTURE TERMINATION TO RESERVE BUSWAY.

LINETYPE LEGEND

- NEW
- EXISTING
- FUTURE

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COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
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QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

SINGLE LINE DIAGRAM - HOUSE BLOCK (BACK OF HOUSE)

JOB 24464.0000
DATE 01.31.25
SHEET E06-08

LIGHTING FIXTURE SCHEDULE

TYPE	DESCRIPTION	VOLTAGE	Apparent Load	LAMP TYPE	MOUNTING	MANUFACTURER OR APPROVED EQUAL	MODEL	COMMENTS
	<varies>		<varies>	LED				
A	2'X4' RECESSED LINEAR	277 V	35 VA	LED	RECESSED	LITHONIA	2BLT4 40L ADP EZ1 LP835	
A2	2'X2' RECESSED LINEAR	277 V	35 VA	LED	RECESSED	LITHONIA	2BLT2 40L ADP EZ1 LP835	
B1	6" INTERIOR DOWNLIGHT	277 V	19 VA	LED	RECESSED	GOTHAM	EVO-35/15-6AR-MD-LD-277-EZ10-TRW	RECESSED IN GYPSUM OR GRID CEILING.
C	4' LINEAR LED STRIP LIGHT	277 V	46 VA	LED	SUSPENDED	LITHONIA	ZL1N L48 3000LM FST MVOLT 40K 80CRI	
D	4' LINEAR LED STRIP LIGHT	<varies>	28 VA	LED	WALL MOUNTED	LITHONIA	WL4-30L-EZ1-LP835-MSD7	WALL MOUNTED BOTTOM OF FIXTURE 10'-6" AFF.
N1	ELEVATOR PIT LIGHT	277 V	28 VA	LED	SURFACE MOUNTED	LITHONIA	FEM L48 4000LM IMAFL MD MVOLT GZ10 35K 80CRI	
O	4" INTERIOR DOWNLIGHT	277 V	14 VA	LED	RECESSED	GOTHAM	EVO4-35/15-AR-MD-LD-277-EZ10-TRW	RECESSED IN GYPSUM OR GRID CEILING.
P	STAIR PENDANT	277 V	25 VA	LED	WALL MOUNTED	LAMAR	VOL-48-A-FA-35-AS(30%)-RRU27	
Q	DECORATIVE PENDANT	277 V	63 VA	LED	PENDANT	EUREKA	7470D-3 SWITCH	COORDINATE MOUNTING HEIGHT AND FINISH WITH ARCHITECT.
S1	POLE MOUNTED SITE LIGHT	480 V	138 VA	LED	POLE MOUNTED	LITHONIA	DSX1-LED-P5-40K-T2M-MVOLT-SPA-DDBXD-USPOM	1 LAMP MOUNTED AT 25' AFF.
S3	POLE MOUNTED SITE LIGHT	480 V	276 VA	LED	POLE MOUNTED	LITHONIA	DSX1-LED-P5-40K-T5W-MVOLT-SPA-DDBXD-USPOM	2 LAMP 180 DEGREES SEPARATED MOUNTED AT 25' AFF.
S4	LED WALL LUMINAIRE	277 V	71 VA	LED	WALL MOUNTED	LITHONIA	DSX0-LED-P3-40K-TFTM-MVOLT-WBA-DDBXD-USPOM	1 LAMP MOUNTED AT 30' AFF.
S8	EXTERIOR BOLLARD LIGHT	120 V	15 VA	LED	BOLLARD	ARTEMIDE	T417200W08	
T1	4' LINEAR	277 V	20 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-6	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T2	8' LINEAR	277 V	33 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-10	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T4-2	RECESSED LINEAR W/SHIELDING	277 V	7 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-0.5M-2	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T4-4	RECESSED LINEAR W/SHIELDING	277 V	13 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-4	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T4-6	RECESSED LINEAR W/SHIELDING	277 V	20 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-6	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T4-8	RECESSED LINEAR W/SHIELDING	277 V	26 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-8	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
T4-10	RECESSED LINEAR W/SHIELDING	277 V	33 VA	LED	RECESSED	AXIS	SCR-B4-300-80-35-F-10	COORDINATE INSTALLATION AND MOUNTING WITH ARCHITECT.
V	6" RECESSED DOWNLIGHT	277 V	58 VA	LED	RECESSED	LITHONIA	LDN6-35/50/LO6AR-LD-GZ10	
X	EXIT SIGN	277 V	5 VA	LED	SEE PLANS	PHILIPS	RGLO/SGLO	PENDANT OR WALL MOUNTED BOTTOM OF FIXTURE 10' AFF.

This sheet of drawings has not been reviewed for code compliance.

OWNER FURNISHED ELECTRICAL EQUIPMENT SCHEDULE

EQUIPMENT	EQUIPMENT DESCRIPTION	FURNISHED BY	INSTALLED BY	PHASE QUANTITY	FINAL BUILD QUANTITY
MANUAL DISTRIBUTION SWITCHGEAR (MVG)	900A, 34.5kVA, 25kAIC, 3-PH 3W, 5-WAY, PAD-MOUNTED MANUAL DISTRIBUTION SWITCHGEAR WITH METERING	OWNER	CONTRACTOR	8	8
TRANSFORMER - HOUSE (XFMR)	2500 KVA, 34.5 KV - 480Y/277V XFMR	OWNER	CONTRACTOR	2	2
TRANSFORMER - DUTY BLOCK (XFMR)	2500 KVA, 34.5 KV - 480Y/277V XFMR	OWNER	CONTRACTOR	0	44
TRANSFORMER - RESERVE BLOCK (XFMR)	2500 KVA, 34.5 KV - 480Y/277V XFMR	OWNER	CONTRACTOR	0	6
GENERATOR - HOUSE (GEN)	2500W / 3125 KVA, 480Y/277V, 3-PH, 4-W GENERATOR WITH FUEL TANK AND ENCLOSURE	OWNER	CONTRACTOR	2	2
GENERATOR - DUTY BLOCK (GEN)	2500KW/3125KVA, 480Y/277V, 3-PH, 4-W GENERATOR WITH FUEL TANK AND ENCLOSURE	OWNER	CONTRACTOR	0	44
GENERATOR - RESERVE BLOCK (GEN)	2500KW/3125KVA, 480Y/277V, 3-PH, 4-W GENERATOR WITH FUEL TANK AND ENCLOSURE	OWNER	CONTRACTOR	0	6
UNINTERRUPTIBLE POWER SUPPLY POD - DUTY BLOCK (UPS POD)	3000A SWITCHBOARD WITH AUTOMATIC TRANSFER CONTROLLER / 1.5MW UPS / 2000A MBB / 5kVA MINI POWER ZONE	OWNER	CONTRACTOR	0	44
UNINTERRUPTIBLE POWER SUPPLY POD - RESERVE BLOCK (UPS POD)	3000A SWITCHBOARD WITH AUTOMATIC TRANSFER CONTROLLER / 1.5MW UPS / 2000A MBB / 5kVA MINI POWER ZONE	OWNER	CONTRACTOR	0	6
MAIN SWITCHBOARD - HOUSE (SWD)	3000A SWITCHBOARD WITH AUTOMATIC TRANSFER CONTROLLER, 480Y/277V, 65KAIC, 3-PH, 4-W	OWNER	CONTRACTOR	2	2
UNINTERRUPTIBLE POWER SUPPLY - HOUSE (UPS)	100KVA, 90KW, 480V, 3-PH, 3-W UPS WITH MAINTENANCE BYPASS CABINET AND DUAL OUTPUT BREAKERS	OWNER	CONTRACTOR	4	4
STATIC TRANSFER SWITCH - HOUSE (STS)	600A 480Y, 65KAIC, 3-PH, 3-W STATIC TRANSFER SWITCH	OWNER	CONTRACTOR	4	4
CRITICAL OUTPUT DISTRIBUTION - DUTY BLOCK (COD)	2000A, 480Y, 3-PH, 3-W, 65 KAIC CRITICAL OUTPUT DISTRIBUTION PANELBOARD	OWNER	CONTRACTOR	0	40
STATIC TRANSFER SWITCH - DUTY BLOCK (STS)	600A 480Y, 3-PH, 3-W STATIC TRANSFER SWITCH	OWNER	CONTRACTOR	0	160
POWER DISTRIBUTION UNIT - DUTY BLOCK (PDU)	500KVA, 480Y, 3-PH, 3-W POWER DISTRIBUTION UNIT	OWNER	CONTRACTOR	0	160
MECHANICAL OUTPUT DISTRIBUTION PANELBOARDS - DUTY BLOCK (MOD) - CRAH	600A, 480V, 3-PH, 3-W, 65 KAIC PANELBOARD	OWNER	CONTRACTOR	0	40
MECHANICAL OUTPUT DISTRIBUTION PANELBOARDS - DUTY BLOCK (MOD) - CHILLER	1200A, 480V, 3-PH, 3-W, 65 KAIC PANELBOARD	OWNER	CONTRACTOR	0	40
MECHANICAL OUTPUT DISTRIBUTION PANELBOARDS - RESERVE BLOCK (MOD) - CRAH	600A, 480V, 3-PH, 3-W, 65 KAIC PANELBOARD	OWNER	CONTRACTOR	0	6
RESERVE TIE SWITCHBOARD - RESERVE BLOCK (SWD-TIE)	2000A, 480Y, 3-PH, 3-W, 65 KAIC SWITCHBOARD	OWNER	CONTRACTOR	0	8

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QTS DEN1 DC2

1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

SCHEDULES

JOB 24464.0000
DATE 01.31.25
SHEET

E07-01

2/5/2025 9:49:29 AM E07-01 SCHEDULES

FEEDER SCHEDULE - CONDUIT AND MC CABLE

NAME	# OF SETS	FEEDER AMPACITY	CONDUCTOR TYPE	PHASE CONDUCTORS		NEUTRAL CONDUCTORS		GROUND SIZE	CONDUIT SIZE
		GROSS		SIZE	QTY PER...	SIZE	QTY PER CONDUIT		
20-3-CU	1	20 A	CU-THWN-2	#12 AWG	3	NA	NA	#12 AWG	3/4"
25-3-CU	1	30 A	CU-THWN-2	#10 AWG	3	NA	NA	#10 AWG	3/4"
30-3-CU	1	30 A	CU-THWN-2	#10 AWG	3	NA	NA	#10 AWG	3/4"
50-3-CU	1	55 A	CU-THWN-2	#6 AWG	3	NA	NA	#10 AWG	3/4"
50-4-CU	1	55 A	CU-THWN-2	#6 AWG	3	#6 AWG	1	#10 AWG	3/4"
60-3-CU	1	70 A	CU-THWN-2	#4 AWG	3	NA	NA	#10 AWG	1"
60-4-CU	1	70 A	CU-THWN-2	#4 AWG	3	#4 AWG	1	#10 AWG	1"
70-4-CU	1	70 A	CU-THWN-2	#4 AWG	3	#4 AWG	1	#8 AWG	1"
100-3-CU	1	110 A	CU-THWN-2	#1 AWG	3	NA	NA	#8 AWG	1 1/2"
100-4-CU	1	110 A	CU-THWN-2	#1 AWG	3	#1 AWG	1	#8 AWG	1 1/2"
125-3-AL	1	135 A	AL-THWN-2	#2/0 AWG	3	NA	NA	#4 AWG	2"
150-3-AL	1	155 A	AL-THWN-2	#3/0 AWG	3	NA	NA	#4 AWG	2"
150-4-AL	1	155 A	AL-THWN-2	#3/0 AWG	3	#3/0 AWG	1	#4 AWG	2"
225-3-AL	1	230 A	AL-THWN-2	300 KCMIL	3	NA	NA	#2 AWG	2 1/2"
250-3-AL	1	250 A	AL-THWN-2	350 KCMIL	3	NA	NA	#2 AWG	2 1/2"
250-4-AL	1	250 A	AL-THWN-2	350 KCMIL	3	350 KCMIL	1	#2 AWG	3"
300-4-AL	1	310 A	AL-THWN-2	500 KCMIL	3	500 KCMIL	1	#2 AWG	3"
400-3-AL	2	410 A	AL-THWN-2	250 KCMIL	3	NA	NA	#1 AWG	2 1/2"
400-4-AL	2	410 A	AL-THWN-2	250 KCMIL	3	250 KCMIL	1	#1 AWG	2 1/2"
600-3-AL	2	620 A	AL-THWN-2	500 KCMIL	3	NA	NA	#2/0 AWG	3"
800-3-AL	3	810 A	AL-THWN-2	400 KCMIL	3	NA	NA	#3/0 AWG	3"
1000-3-AL	3	1020 A	AL-THWN-2	600 KCMIL	3	NA	NA	#4/0 AWG	3"
1200-3-AL	4	1240 A	AL-THWN-2	500 KCMIL	3	NA	NA	250 KCMIL	3"
1200-3-CU	3	1260 A	CU-THWN-2	600 KCMIL	3	NA	NA	#3/0 AWG	3"
2000-3-AL	6	2040 A	AL-THWN-2	600 KCMIL	3	NA	NA	400 KCMIL	3"
2000-4-AL	6	2040 A	AL-THWN-2	600 KCMIL	3	600 KCMIL	1	400 KCMIL	3 1/2"
3000-3-AL	8	3080 A	AL-THWN-2	750 KCMIL	3	NA	NA	600 KCMIL	3 1/2"
3000-4-AL	11*	3080 A	AL-THWN-2	750 KCMIL	3	750 KCMIL	1	750 KCMIL	4"

DESIGNER NOTES:
1. CONDUIT SIZES ARE BASED ON ELECTRIC METALLIC TUBING, FOR OTHER RACEWAY TYPES REFER TO APPROPRIATE CONDUIT AND TUBING FILL TABLES IN ANNEX C OF NEC.
2. TABLE DOES NOT TAKE INTO ACCOUNT VOLTAGE DROP. DESIGNERS ARE RESPONSIBLE FOR PERFORMING VOLTAGE DROP CALCULATIONS AND UPSIZING FEEDERS AND GROUND CONDUCTORS TO COMPENSATE FOR VOLTAGE DROP.
3. DO NOT USE THIS TABLE FOR SERVICE ENTRANCE CONDUCTORS, REFER TO NEC 230.42.
4. CONTRACTOR SHALL VALIDATE SIZING BASED ON INSTALLED CONDITIONS TO VERIFY COMPLIANCE WITH NEHER-MCGRATH AND VOLTAGE DROP CALCULATIONS. FEEDERS SHALL BE DE-RATED UNDER THE FOLLOWING CONDITIONS, AND OTHER APPLICABLE NEC REQUIREMENTS:
a. VOLTAGE DROP
b. NEHER-MCGRATH CALCULATIONS
c. SYSTEMS WITH MORE THAN 3 CURRENT CARRYING CONDUCTORS (NEUTRAL CONDUCTOR SHALL BE CONSIDERED ACCORDING TO NEC REQUIREMENTS)
5. GROUND CONDUCTOR SIZES INDICATED ARE BASED ON COPPER GROUND.
6. CONTRACTOR SHALL PROVIDE FINAL CALCULATIONS BASED ON INSTALLED CONDITIONS AND SHALL SUBMIT ALL SUCH CALCULATIONS FOR VERIFICATION BY THE ENGINEER OF RECORD.

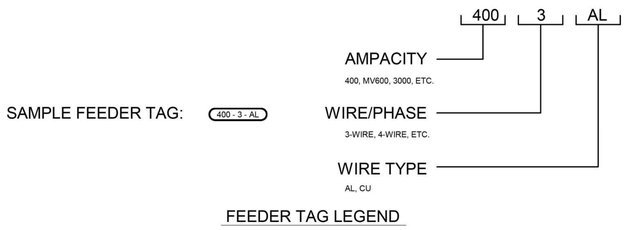
MV FEEDER SCHEDULE - CONDUIT (C)

NAME	# OF SETS	FEEDER AMPACITY	CONDUCTOR TYPE	PHASE CONDUCTORS		NEUTRAL CONDUCTORS		GROUND SIZE	CONDUIT SIZE
		GROSS		SIZE	QTY PER CONDUIT	SIZE	QTY PER CONDUIT		
MV200 - 3 - CU	1	215 A	CU-MV-105	#1/0 AWG	3	NA	NA	#4 AWG	6"
MV300 - 3 - CU	1	315 A	CU-MV-105	#4/0 AWG	3	NA	NA	#2 AWG	6"
MV400 - 3 - CU	1	415 A	CU-MV-105	350 KCMIL	3	NA	NA	#1 AWG	6"
MV600 - 3 - CU	1	610 A	CU-MV-105	750 KCMIL	3	NA	NA	#2/0 AWG	6"
MV900 - 3 - CU	2	1000 A	CU-MV-105	500 KCMIL	3	NA	NA	#4/0 AWG	6"
MV1200 - 3 - CU	2	1220 A	CU-MV-105	750 KCMIL	3	NA	NA	250 KCMIL	6"

FEEDER SCHEDULE - CABLE BUS (CB)

NAME	# OF SETS	FEEDER AMPACITY	CONDUCTOR TYPE	PHASE CONDUCTORS	NEUTRAL CONDUCTORS		GROUND SIZE	TRAY SIZE
		GROSS		SIZE	SIZE	QTY PER CONDUIT		
3000 - 3 - AL	9	3000 A	AL-XHHW-2	750 KCMIL	NA	NA	SEE NOTE	10" X 23.5"
3000 - 4 - AL	9	3000 A	AL-XHHW-2	750 KCMIL	750KCMIL	1	SEE NOTE	10" X 23.5"

NOTE:
1. GROUND CONDUCTOR WILL DIFFER FOR GENERATOR CABLE BUS FEEDERS AND TRANSFORMER CABLE BUS FEEDERS. THE GROUND CONDUCTOR FOR GENERATORS SHALL BE A 600KCMIL COPPER GROUND. THE TRANSFORMER GROUND CONDUCTOR SHALL BE 2-500KCMIL COPPER GROUNDS.
2. CONTRACTOR SHALL PROVIDE ENGINEER OF RECORD WITH SUBMITTAL FOR REVIEW TO CONFIRM SUFFICIENT AMPACITY OF CABLE BUS.



FEEDER TAG LEGEND

This sheet of drawings has not been reviewed for code compliance.

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TYPICAL FEEDER SCHEDULE

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2/5/2025 9:49:34 AM E07-10 TYPICAL FEEDER SCHEDULE

MAIN SERVICE IS RATED AT 65K

Code violations that are found during inspection are required to be corrected. Permit issuance does not grant approval of a code violation.

Locate the required overcurrent Protection per 2023 NEC 240.21

110.14. Identify disconnects per 2023 NEC 110.22 and provide working space and egress to and around electrical equipment per 2023 NEC 110.26

Service Equipment shall be permanently And legibly marked to show the available Fault current and date. 2023 NEC 110.24(A)(B)

Provide a Grounding Electrode System bonded To the service equipment enclosure, grounded Conductors, and grounded electrode conductors Per 2023 NEC 250.50 and 250.104

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

Project: DC2_IF

ANSI Complete Fault Report

A_FAULT Settings

Fault Type	3 Phase+Unbalanced	**LV Duty**	Yes	**Int Duty**	Yes
Faulted Bus	All Buses	**LV Report**	Complete	**Int Report**	Complete
Include Tap	No	**Mom Duty**	Yes	**Solution Method**	E/Z
Pre-fault Voltage	1.0000	**Mom Report**	Complete	**NACD Option**	Interpolated

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
GEN-HSE-11 LOAD CTR	480	3 Phase:	15.36	12.8	0.80	15.37	15.37	Z1:	7.83	0.01	0.01
		SLG:	12.82	6.2	0.83	12.83	---	Z2:	7.83	---	---
		LL:	13.31	6.4	---	---	---	Z0:	12.49	---	---
LLG Gnd Return kA:	11.003	LLG:	14.53	7.0	---	---	---				
GIS #1	34,500	3 Phase:	13.65	815.7	27.61	21.98	18.09	Z1:	0.12	0.05	1.46
		SLG:	14.00	483.1	29.53	22.65	---	Z2:	0.12	---	---
		LL:	19.04	656.7	---	---	---	Z0:	0.11	---	---
LLG Gnd Return kA:	23.209	LLG:	22.39	772.3	---	---	---				
GIS #2	34,500	3 Phase:	13.65	815.7	27.61	21.98	18.09	Z1:	0.12	0.05	1.46
		SLG:	14.00	483.1	29.53	22.65	---	Z2:	0.12	---	---
		LL:	19.04	656.7	---	---	---	Z0:	0.11	---	---
LLG Gnd Return kA:	23.209	LLG:	22.39	772.3	---	---	---				
GIS #3	34,500	3 Phase:	13.63	814.5	27.65	21.95	18.06	Z1:	0.12	0.05	1.46
		SLG:	13.99	482.6	29.55	22.63	---	Z2:	0.12	---	---
		LL:	19.01	655.9	---	---	---	Z0:	0.11	---	---
LLG Gnd Return kA:	23.199	LLG:	22.36	771.4	---	---	---				
KESTREL	230,000	3 Phase:	26.50	10,555.2	8.00	36.64	31.79	Z1:	0.01	0.62	4.97
		SLG:	21.10	4,853.6	8.00	29.18	---	Z2:	0.01	---	---
		LL:	31.73	7,297.3	---	---	---	Z0:	0.02	---	---
LLG Gnd Return kA:	24.243	LLG:	33.96	7,811.8	---	---	---				
MVG-01	34,500	3 Phase:	13.26	792.2	18.48	20.64	17.17	Z1:	0.13	0.08	1.50
		SLG:	13.37	461.4	18.11	20.78	---	Z2:	0.13	---	---
		LL:	17.87	616.7	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.980	LLG:	20.73	715.1	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
MVG-02	34,500	3 Phase:	13.26	792.2	18.48	20.64	17.17	Z1:	0.13	0.08	1.50
		SLG:	13.37	461.3	18.11	20.78	---	Z2:	0.13	---	---
		LL:	17.87	616.6	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.979	LLG:	20.73	715.1	---	---	---				
MVG-03	34,500	3 Phase:	13.24	791.1	18.50	20.61	17.15	Z1:	0.13	0.08	1.50
		SLG:	13.36	460.9	18.13	20.76	---	Z2:	0.13	---	---
		LL:	17.85	615.8	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.971	LLG:	20.71	714.4	---	---	---				
MVG-04	34,500	3 Phase:	13.26	792.2	18.48	20.64	17.17	Z1:	0.13	0.08	1.50
		SLG:	13.37	461.3	18.11	20.78	---	Z2:	0.13	---	---
		LL:	17.87	616.6	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.979	LLG:	20.73	715.1	---	---	---				
MVG-05	34,500	3 Phase:	13.26	792.2	18.48	20.64	17.17	Z1:	0.13	0.08	1.50
		SLG:	13.37	461.4	18.11	20.78	---	Z2:	0.13	---	---
		LL:	17.87	616.7	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.980	LLG:	20.73	715.1	---	---	---				
MVG-06	34,500	3 Phase:	13.24	791.1	18.50	20.61	17.15	Z1:	0.13	0.08	1.50
		SLG:	13.36	460.9	18.13	20.76	---	Z2:	0.13	---	---
		LL:	17.85	615.8	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.971	LLG:	20.71	714.4	---	---	---				
MVG-07	34,500	3 Phase:	13.26	792.2	18.48	20.64	17.17	Z1:	0.13	0.08	1.50
		SLG:	13.37	461.3	18.11	20.78	---	Z2:	0.13	---	---
		LL:	17.87	616.6	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.979	LLG:	20.73	715.1	---	---	---				
MVG-08	34,500	3 Phase:	13.24	791.1	18.50	20.61	17.15	Z1:	0.13	0.08	1.50
		SLG:	13.36	460.9	18.13	20.76	---	Z2:	0.13	---	---
		LL:	17.85	615.8	---	---	---	Z0:	0.12	---	---
LLG Gnd Return kA:	20.971	LLG:	20.71	714.4	---	---	---				
PNL-CAFE-11	208	3 Phase:	1.98	0.7	0.67	1.98	1.98	Z1:	140.43	0.05	0.03
		SLG:	1.98	0.4	0.68	1.98	---	Z2:	140.43	---	---
		LL:	1.71	0.4	---	---	---	Z0:	140.67	---	---
LLG Gnd Return kA:	1.975	LLG:	1.98	0.4	---	---	---				
PNL-DH-11	480	3 Phase:	26.16	21.7	2.00	27.27	26.72	Z1:	4.60	0.00	0.01
		SLG:	22.49	10.8	2.01	23.45	---	Z2:	4.60	---	---
		LL:	23.61	11.3	---	---	---	Z0:	6.85	---	---
LLG Gnd Return kA:	20.557	LLG:	25.80	12.4	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-DH11-LP	480	3 Phase:	19.84	16.5	1.25	19.97	19.90	Z1:	6.06	0.01	0.01
		SLG:	16.57	8.0	1.28	16.70	---	Z2:	6.06	---	---
		LL:	17.29	8.3	---	---	---	Z0:	9.65	---	---
LLG Gnd Return kA:	14.326	LLG:	18.88	9.1	---	---	---				
PNL-DH11-MP	480	3 Phase:	20.91	17.4	1.34	21.10	21.00	Z1:	5.75	0.01	0.01
		SLG:	17.54	8.4	1.37	17.72	---	Z2:	5.75	---	---
		LL:	18.27	8.8	---	---	---	Z0:	9.07	---	---
LLG Gnd Return kA:	15.246	LLG:	19.94	9.6	---	---	---				
PNL-DH11-RP	208	3 Phase:	1.98	0.7	0.67	1.98	1.98	Z1:	140.43	0.05	0.03
		SLG:	2.01	0.4	0.67	2.01	---	Z2:	140.43	---	---
		LL:	1.71	0.4	---	---	---	Z0:	133.92	---	---
LLG Gnd Return kA:	2.040	LLG:	2.00	0.4	---	---	---				
PNL-DH-12	480	3 Phase:	26.26	21.8	2.00	27.38	26.82	Z1:	4.58	0.00	0.01
		SLG:	22.60	10.8	2.01	23.57	---	Z2:	4.58	---	---
		LL:	23.71	11.4	---	---	---	Z0:	6.81	---	---
LLG Gnd Return kA:	20.680	LLG:	25.90	12.4	---	---	---				
PNL-DH12-LP	480	3 Phase:	19.89	16.5	1.25	20.02	19.96	Z1:	6.05	0.01	0.01
		SLG:	16.63	8.0	1.28	16.76	---	Z2:	6.05	---	---
		LL:	17.34	8.3	---	---	---	Z0:	9.61	---	---
LLG Gnd Return kA:	14.385	LLG:	18.94	9.1	---	---	---				
PNL-DH12-MP	480	3 Phase:	20.97	17.4	1.34	21.16	21.07	Z1:	5.74	0.01	0.01
		SLG:	17.61	8.5	1.37	17.78	---	Z2:	5.74	---	---
		LL:	18.33	8.8	---	---	---	Z0:	9.03	---	---
LLG Gnd Return kA:	15.313	LLG:	20.00	9.6	---	---	---				
PNL-DH12-RP	208	3 Phase:	1.98	0.7	0.67	1.98	1.98	Z1:	140.42	0.05	0.03
		SLG:	2.01	0.4	0.67	2.01	---	Z2:	140.42	---	---
		LL:	1.71	0.4	---	---	---	Z0:	133.92	---	---
LLG Gnd Return kA:	2.040	LLG:	2.00	0.4	---	---	---				
PNL-DH-21	480	3 Phase:	22.27	18.5	1.70	22.81	22.54	Z1:	5.40	0.01	0.01
		SLG:	18.62	8.9	1.75	19.13	---	Z2:	5.40	---	---
		LL:	19.76	9.5	---	---	---	Z0:	8.58	---	---
LLG Gnd Return kA:	16.405	LLG:	21.59	10.4	---	---	---				
PNL-DH21-LP	480	3 Phase:	17.39	14.5	1.18	17.47	17.43	Z1:	6.92	0.01	0.01
		SLG:	14.30	6.9	1.24	14.39	---	Z2:	6.92	---	---
		LL:	15.13	7.3	---	---	---	Z0:	11.41	---	---
LLG Gnd Return kA:	12.205	LLG:	16.57	8.0	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-DH21-MP	480	3 Phase:	18.22	15.1	1.25	18.34	18.28	Z1:	6.60	0.01	0.01
		SLG:	15.02	7.2	1.31	15.15	---	Z2:	6.60	---	---
		LL:	15.88	7.6	---	---	---	Z0:	10.82	---	---
LLG Gnd Return kA:	12.866	LLG:	17.38	8.3	---	---	---				
PNL-DH21-RP	208	3 Phase:	1.96	0.7	0.67	1.96	1.96	Z1:	141.30	0.05	0.03
		SLG:	2.00	0.4	0.68	2.00	---	Z2:	141.30	---	---
		LL:	1.70	0.4	---	---	---	Z0:	133.92	---	---
LLG Gnd Return kA:	2.035	LLG:	1.99	0.4	---	---	---				
PNL-DH-22	480	3 Phase:	22.34	18.6	1.70	22.89	22.61	Z1:	5.38	0.01	0.01
		SLG:	18.70	9.0	1.75	19.21	---	Z2:	5.38	---	---
		LL:	19.82	9.5	---	---	---	Z0:	8.53	---	---
LLG Gnd Return kA:	16.483	LLG:	21.66	10.4	---	---	---				
PNL-DH22-LP	480	3 Phase:	17.43	14.5	1.18	17.52	17.47	Z1:	6.90	0.01	0.01
		SLG:	14.35	6.9	1.24	14.44	---	Z2:	6.90	---	---
		LL:	15.17	7.3	---	---	---	Z0:	11.36	---	---
LLG Gnd Return kA:	12.248	LLG:	16.61	8.0	---	---	---				
PNL-DH22-MP	480	3 Phase:	18.27	15.2	1.25	18.39	18.33	Z1:	6.58	0.01	0.01
		SLG:	15.07	7.2	1.31	15.20	---	Z2:	6.58	---	---
		LL:	15.93	7.6	---	---	---	Z0:	10.78	---	---
LLG Gnd Return kA:	12.913	LLG:	17.42	8.4	---	---	---				
PNL-DH22-RP	208	3 Phase:	1.96	0.7	0.67	1.96	1.96	Z1:	141.29	0.05	0.03
		SLG:	2.00	0.4	0.68	2.00	---	Z2:	141.29	---	---
		LL:	1.70	0.4	---	---	---	Z0:	133.92	---	---
LLG Gnd Return kA:	2.036	LLG:	1.99	0.4	---	---	---				
PNL-ELI-11	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,456.08	41.57	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,456.08	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-12	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,456.08	41.57	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,456.08	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-DH11	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,457.14	41.58	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,457.14	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-ELI-DH12	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,457.14	41.58	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,457.14	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-DH21	480	3 Phase:	0.00	0.0	7.99	1.96	1.96	Z1:	145,459.69	41.60	332.55
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,459.69	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-DH22	480	3 Phase:	0.00	0.0	7.99	1.96	1.96	Z1:	145,459.69	41.60	332.55
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,459.69	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-HSE-11	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,457.14	41.58	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,457.14	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-ELI-HSE-12	480	3 Phase:	0.00	0.0	8.00	1.96	1.96	Z1:	145,457.14	41.58	332.54
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	145,457.14	---	---
		LL:	0.00	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.00	0.0	---	---	---				
PNL-EXT-E	208	3 Phase:	0.03	0.0	7.25	1.96	1.96	Z1:	10,093.47	0.60	4.33
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,093.47	---	---
		LL:	0.03	0.0	---	---	---	Z0:	123.81	---	---
LLG Gnd Return kA:	0.109	LLG:	0.06	0.0	---	---	---				
PNL-HSE-11	480	3 Phase:	32.52	27.0	2.46	34.96	33.75	Z1:	3.70	0.00	0.01
		SLG:	29.53	14.2	2.36	31.54	---	Z2:	3.70	---	---
		LL:	30.28	14.5	---	---	---	Z0:	4.82	---	---
LLG Gnd Return kA:	28.999	LLG:	33.83	16.2	---	---	---				
PNL-HSE-12	480	3 Phase:	32.67	27.2	2.47	35.14	33.92	Z1:	3.68	0.00	0.01
		SLG:	29.72	14.3	2.37	31.75	---	Z2:	3.68	---	---
		LL:	30.44	14.6	---	---	---	Z0:	4.78	---	---
LLG Gnd Return kA:	29.246	LLG:	34.04	16.3	---	---	---				
PNL-HSE-21	480	3 Phase:	27.75	23.1	1.87	28.69	28.22	Z1:	4.33	0.00	0.01
		SLG:	24.29	11.7	1.84	25.07	---	Z2:	4.33	---	---
		LL:	24.85	11.9	---	---	---	Z0:	6.19	---	---
LLG Gnd Return kA:	22.316	LLG:	27.35	13.1	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-HSE-22	480	3 Phase:	27.86	23.2	1.87	28.81	28.34	Z1:	4.32	0.00	0.01
		SLG:	24.42	11.7	1.84	25.21	---	Z2:	4.32	---	---
		LL:	24.95	12.0	---	---	---	Z0:	6.14	---	---
LLG Gnd Return kA:	22.460	LLG:	27.48	13.2	---	---	---				
PNL-LP-11	480	3 Phase:	23.52	19.6	1.29	23.70	23.61	Z1:	5.11	0.01	0.01
		SLG:	20.22	9.7	1.28	20.36	---	Z2:	5.11	---	---
		LL:	20.53	9.9	---	---	---	Z0:	7.62	---	---
LLG Gnd Return kA:	17.859	LLG:	22.46	10.8	---	---	---				
PNL-LP-12	480	3 Phase:	23.60	19.6	1.29	23.78	23.69	Z1:	5.10	0.01	0.01
		SLG:	20.30	9.7	1.28	20.45	---	Z2:	5.10	---	---
		LL:	20.60	9.9	---	---	---	Z0:	7.58	---	---
LLG Gnd Return kA:	17.951	LLG:	22.55	10.8	---	---	---				
PNL-LP-21	480	3 Phase:	20.62	17.1	1.17	20.72	20.67	Z1:	5.83	0.01	0.01
		SLG:	17.41	8.4	1.19	17.50	---	Z2:	5.83	---	---
		LL:	17.94	8.6	---	---	---	Z0:	9.06	---	---
LLG Gnd Return kA:	15.142	LLG:	19.55	9.4	---	---	---				
PNL-LP-22	480	3 Phase:	20.68	17.2	1.17	20.78	20.73	Z1:	5.81	0.01	0.01
		SLG:	17.48	8.4	1.19	17.57	---	Z2:	5.81	---	---
		LL:	18.00	8.6	---	---	---	Z0:	9.01	---	---
LLG Gnd Return kA:	15.208	LLG:	19.61	9.4	---	---	---				
PNL-MP-11	480	3 Phase:	28.39	23.6	2.16	29.89	29.14	Z1:	4.24	0.00	0.01
		SLG:	24.85	11.9	2.13	26.13	---	Z2:	4.24	---	---
		LL:	25.89	12.4	---	---	---	Z0:	6.04	---	---
LLG Gnd Return kA:	23.257	LLG:	28.44	13.6	---	---	---				
PNL-MP-12	480	3 Phase:	28.50	23.7	2.16	30.02	29.27	Z1:	4.22	0.00	0.01
		SLG:	24.99	12.0	2.14	26.28	---	Z2:	4.22	---	---
		LL:	26.00	12.5	---	---	---	Z0:	6.00	---	---
LLG Gnd Return kA:	23.415	LLG:	28.58	13.7	---	---	---				
PNL-MP-21	480	3 Phase:	24.60	20.5	1.74	25.26	24.93	Z1:	4.89	0.01	0.01
		SLG:	20.99	10.1	1.76	21.57	---	Z2:	4.89	---	---
		LL:	21.88	10.5	---	---	---	Z0:	7.42	---	---
LLG Gnd Return kA:	18.792	LLG:	23.88	11.5	---	---	---				
PNL-MP-22	480	3 Phase:	24.69	20.5	1.74	25.35	25.02	Z1:	4.87	0.01	0.01
		SLG:	21.08	10.1	1.76	21.67	---	Z2:	4.87	---	---
		LL:	21.96	10.5	---	---	---	Z0:	7.37	---	---
LLG Gnd Return kA:	18.895	LLG:	23.97	11.5	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-RP-11	208	3 Phase:	4.90	1.8	1.04	4.92	4.91	Z1:	56.60	0.02	0.02
		SLG:	4.98	1.0	1.05	4.99	---	Z2:	56.60	---	---
		LL:	4.26	0.9	---	---	---	Z0:	54.05	---	---
LLG Gnd Return kA:	5.068	LLG:	4.97	1.0	---	---	---				
PNL-RP-11-2	208	3 Phase:	4.68	1.7	1.03	4.69	4.68	Z1:	59.36	0.02	0.02
		SLG:	4.67	1.0	1.05	4.68	---	Z2:	59.36	---	---
		LL:	4.06	0.8	---	---	---	Z0:	59.65	---	---
LLG Gnd Return kA:	4.672	LLG:	4.71	1.0	---	---	---				
PNL-RP-12	208	3 Phase:	4.91	1.8	1.04	4.92	4.91	Z1:	56.58	0.02	0.02
		SLG:	4.98	1.0	1.05	4.99	---	Z2:	56.58	---	---
		LL:	4.26	0.9	---	---	---	Z0:	54.05	---	---
LLG Gnd Return kA:	5.069	LLG:	4.97	1.0	---	---	---				
PNL-RP-12-2	208	3 Phase:	4.68	1.7	1.03	4.69	4.68	Z1:	59.35	0.02	0.02
		SLG:	4.67	1.0	1.05	4.68	---	Z2:	59.35	---	---
		LL:	4.06	0.8	---	---	---	Z0:	59.65	---	---
LLG Gnd Return kA:	4.673	LLG:	4.72	1.0	---	---	---				
PNL-RP-21	208	3 Phase:	4.84	1.7	1.04	4.85	4.85	Z1:	57.34	0.02	0.02
		SLG:	4.94	1.0	1.04	4.95	---	Z2:	57.34	---	---
		LL:	4.20	0.9	---	---	---	Z0:	54.05	---	---
LLG Gnd Return kA:	5.045	LLG:	4.92	1.0	---	---	---				
PNL-RP-21-2	208	3 Phase:	4.62	1.7	1.02	4.63	4.62	Z1:	60.10	0.02	0.02
		SLG:	4.63	1.0	1.04	4.64	---	Z2:	60.10	---	---
		LL:	4.01	0.8	---	---	---	Z0:	59.65	---	---
LLG Gnd Return kA:	4.653	LLG:	4.67	1.0	---	---	---				
PNL-RP-22	208	3 Phase:	4.84	1.7	1.04	4.85	4.85	Z1:	57.32	0.02	0.02
		SLG:	4.94	1.0	1.04	4.95	---	Z2:	57.32	---	---
		LL:	4.20	0.9	---	---	---	Z0:	54.05	---	---
LLG Gnd Return kA:	5.046	LLG:	4.92	1.0	---	---	---				
PNL-RP-22-2	208	3 Phase:	4.62	1.7	1.02	4.63	4.62	Z1:	60.08	0.02	0.02
		SLG:	4.63	1.0	1.04	4.64	---	Z2:	60.08	---	---
		LL:	4.01	0.8	---	---	---	Z0:	59.65	---	---
LLG Gnd Return kA:	4.653	LLG:	4.67	1.0	---	---	---				
PNL-SITE-11	208	3 Phase:	5.24	1.9	1.06	5.25	5.25	Z1:	52.99	0.02	0.02
		SLG:	5.28	1.1	1.04	5.29	---	Z2:	52.99	---	---
		LL:	4.55	0.9	---	---	---	Z0:	51.72	---	---
LLG Gnd Return kA:	5.338	LLG:	5.32	1.1	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	-----Asym kA----- Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
PNL-SITE-12	208	3 Phase:	5.24	1.9	1.06	5.25	5.25	Z1:	52.97	0.02	0.02
		SLG:	5.28	1.1	1.04	5.30	---	Z2:	52.97	---	---
		LL:	4.55	0.9	---	---	---	Z0:	51.72	---	---
LLG Gnd Return kA:	5.338	LLG:	5.32	1.1	---	---	---				
PNL-SITE-EV	208	3 Phase:	7.83	2.8	1.68	8.01	7.92	Z1:	35.47	0.01	0.01
		SLG:	8.40	1.7	1.75	8.63	---	Z2:	35.47	---	---
		LL:	6.94	1.4	---	---	---	Z0:	28.25	---	---
LLG Gnd Return kA:	9.292	LLG:	8.50	1.8	---	---	---				
PNL-UPS-HSE-11	208	3 Phase:	0.03	0.0	7.88	8.01	7.92	Z1:	10,033.78	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,033.78	---	---
		LL:	0.03	0.0	---	---	---	Z0:	40.61	---	---
LLG Gnd Return kA:	0.113	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-11-01	208	3 Phase:	0.03	0.0	7.79	8.01	7.92	Z1:	10,040.88	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,040.88	---	---
		LL:	0.03	0.0	---	---	---	Z0:	66.06	---	---
LLG Gnd Return kA:	0.112	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-11-02	208	3 Phase:	0.03	0.0	7.67	8.01	7.92	Z1:	10,051.57	0.56	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,051.57	---	---
		LL:	0.03	0.0	---	---	---	Z0:	105.76	---	---
LLG Gnd Return kA:	0.111	LLG:	0.06	0.0	---	---	---				
PNL-UPS-HSE-12	208	3 Phase:	0.03	0.0	7.88	8.01	7.92	Z1:	10,033.78	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,033.78	---	---
		LL:	0.03	0.0	---	---	---	Z0:	40.61	---	---
LLG Gnd Return kA:	0.113	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-12-01	208	3 Phase:	0.03	0.0	7.79	8.01	7.92	Z1:	10,040.88	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,040.88	---	---
		LL:	0.03	0.0	---	---	---	Z0:	66.06	---	---
LLG Gnd Return kA:	0.112	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-12-02	208	3 Phase:	0.03	0.0	7.67	8.01	7.92	Z1:	10,051.57	0.56	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,051.57	---	---
		LL:	0.03	0.0	---	---	---	Z0:	105.76	---	---
LLG Gnd Return kA:	0.111	LLG:	0.06	0.0	---	---	---				
PNL-UPS-HSE-21	208	3 Phase:	0.03	0.0	7.88	8.01	7.92	Z1:	10,033.78	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,033.78	---	---
		LL:	0.03	0.0	---	---	---	Z0:	40.61	---	---
LLG Gnd Return kA:	0.113	LLG:	0.07	0.0	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	 MVA	X/R	-----Asym kA----- Max RMS	 Avg RMS	Sequence Impedance pu		Equivalent R	 +jX
PNL-UPS-HSE-21-01	208	3 Phase:	0.03	0.0	7.79	8.01	7.92	Z1:	10,040.88	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,040.88	---	---
		LL:	0.03	0.0	---	---	---	Z0:	66.06	---	---
LLG Gnd Return kA:	0.112	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-21-02	208	3 Phase:	0.03	0.0	7.67	8.01	7.92	Z1:	10,051.57	0.56	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,051.57	---	---
		LL:	0.03	0.0	---	---	---	Z0:	105.76	---	---
LLG Gnd Return kA:	0.111	LLG:	0.06	0.0	---	---	---				
PNL-UPS-HSE-22	208	3 Phase:	0.03	0.0	7.88	8.01	7.92	Z1:	10,033.78	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,033.78	---	---
		LL:	0.03	0.0	---	---	---	Z0:	40.61	---	---
LLG Gnd Return kA:	0.113	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-22-01	208	3 Phase:	0.03	0.0	7.79	8.01	7.92	Z1:	10,040.88	0.55	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,040.88	---	---
		LL:	0.03	0.0	---	---	---	Z0:	66.06	---	---
LLG Gnd Return kA:	0.112	LLG:	0.07	0.0	---	---	---				
PNL-UPS-HSE-22-02	208	3 Phase:	0.03	0.0	7.67	8.01	7.92	Z1:	10,051.57	0.56	4.31
		SLG:	0.04	0.0	0.00	0.04	---	Z2:	10,051.57	---	---
		LL:	0.03	0.0	---	---	---	Z0:	105.76	---	---
LLG Gnd Return kA:	0.111	LLG:	0.06	0.0	---	---	---				
STS-HSE-11 SECONDARY	480	3 Phase:	0.01	0.0	7.99	8.01	7.92	Z1:	10,000.74	2.86	22.86
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	10,000.74	---	---
		LL:	0.01	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.01	0.0	---	---	---				
SWD-HSE-11	480	3 Phase:	40.49	33.7	5.28	51.36	46.10	Z1:	2.97	0.00	0.01
		SLG:	39.60	19.0	5.13	49.88	---	Z2:	2.97	---	---
		LL:	44.48	21.4	---	---	---	Z0:	3.17	---	---
LLG Gnd Return kA:	48.982	LLG:	50.89	24.4	---	---	---				
SWD-HSE-12	480	3 Phase:	40.70	33.8	5.37	51.81	46.43	Z1:	2.96	0.00	0.01
		SLG:	39.91	19.2	5.22	50.49	---	Z2:	2.96	---	---
		LL:	44.87	21.5	---	---	---	Z0:	3.13	---	---
LLG Gnd Return kA:	49.696	LLG:	51.39	24.7	---	---	---				
UPS-HSE-21 SECONDARY	480	3 Phase:	0.01	0.0	8.00	51.81	46.43	Z1:	10,000.00	2.86	22.86
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	10,000.00	---	---
		LL:	0.01	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.01	0.0	---	---	---				

Low Voltage 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		Fault Duty kA	Fault Duty MVA	X/R	-----Asym kA----- Max RMS	Avg RMS	Sequence Impedance pu		Equivalent R	Equivalent +jX
UPS-HSE-22 SECONDARY	480	3 Phase:	0.01	0.0	8.00	51.81	46.43	Z1:	10,000.00	2.86	22.86
		SLG:	0.00	0.0	0.00	0.00	---	Z2:	10,000.00	---	---
		LL:	0.01	0.0	---	---	---	Z0:	),000,000.00	---	---
LLG Gnd Return kA:	0.000	LLG:	0.01	0.0	---	---	---				
XFMR-HSE-11-SW ITCH BUS	34,500	3 Phase:	13.17	787.0	16.06	20.20	16.89	Z1:	0.13	0.09	1.51
		SLG:	13.24	456.8	15.41	20.21	---	Z2:	0.13	---	---
		LL:	17.49	603.5	---	---	---	Z0:	0.13	---	---
LLG Gnd Return kA:	20.369	LLG:	20.25	698.8	---	---	---				
XFMR-HSE-12 SWITCH BUS	34,500	3 Phase:	13.08	781.8	14.23	19.78	16.62	Z1:	0.13	0.11	1.52
		SLG:	13.11	452.2	13.45	19.68	---	Z2:	0.13	---	---
		LL:	17.13	591.0	---	---	---	Z0:	0.13	---	---
LLG Gnd Return kA:	19.791	LLG:	19.80	683.2	---	---	---				

Momentary 3 Phase

Fault Location Bus Name	Bus Voltage	-----Sym Fault Duty----- kA	MVA	X/R	---------Mom kA--------- Sym*1.6	Based on X/R	--------Crest kA-------- Sym*2.7	Based on X/R	Equivalent R	+jX
GIS #1	34,500	13.647	815.51	27.62	21.836	21.980	36.848	36.530	0.05	1.46
GIS #2	34,500	13.647	815.51	27.62	21.836	21.980	36.848	36.530	0.05	1.46
GIS #3	34,500	13.631	814.54	27.65	21.810	21.950	36.804	36.480	0.05	1.46
KESTREL	230,000	26.495	10,554.82	8.00	42.392	36.630	71.536	62.770	0.62	4.97
MVG-01	34,500	13.255	792.05	18.48	21.208	20.630	35.788	34.560	0.08	1.50
MVG-02	34,500	13.254	791.99	18.48	21.206	20.630	35.785	34.560	0.08	1.50
MVG-03	34,500	13.239	791.08	18.50	21.182	20.610	35.744	34.520	0.08	1.50
MVG-04	34,500	13.254	791.99	18.48	21.206	20.630	35.785	34.560	0.08	1.50
MVG-05	34,500	13.255	792.05	18.48	21.208	20.630	35.788	34.560	0.08	1.50
MVG-06	34,500	13.239	791.08	18.50	21.182	20.610	35.744	34.520	0.08	1.50
MVG-07	34,500	13.254	791.99	18.48	21.206	20.630	35.785	34.560	0.08	1.50
MVG-08	34,500	13.239	791.08	18.50	21.182	20.610	35.744	34.520	0.08	1.50
XFMR-HSE-11-SWITCH BUS	34,500	13.167	786.80	16.07	21.067	20.200	35.551	33.930	0.09	1.51
XFMR-HSE-12 SWITCH BUS	34,500	13.079	781.57	14.23	20.927	19.780	35.315	33.330	0.11	1.52

Momentary Unbalanced

Fault Location Bus Name	Bus Voltage		---Sym Fault Duty--- kA	 MVA	X/R	--Mom. Fault Duty-- kA*1.6	 Based on X/R	Sequence Impedance pu	
GIS #1	34,500	3 Phase:	13.647	815.51	27.62	21.836	21.980	Z1:	0.12
		SLG:	14.001	483.03	29.53	22.402	22.650	Z2:	0.12
		LL:	19.032	656.61	---	---	---	Z0:	0.11
LLG Gnd Return kA:	23.21	LLG:	22.382	772.19	---	---	---		
GIS #2	34,500	3 Phase:	13.647	815.51	27.62	21.836	21.980	Z1:	0.12
		SLG:	14.001	483.03	29.53	22.402	22.650	Z2:	0.12
		LL:	19.032	656.61	---	---	---	Z0:	0.11
LLG Gnd Return kA:	23.21	LLG:	22.382	772.19	---	---	---		
GIS #3	34,500	3 Phase:	13.631	814.54	27.65	21.810	21.950	Z1:	0.12
		SLG:	13.990	482.64	29.55	22.383	22.630	Z2:	0.12
		LL:	19.011	655.87	---	---	---	Z0:	0.11
LLG Gnd Return kA:	23.20	LLG:	22.361	771.45	---	---	---		
KESTREL	230,000	3 Phase:	26.495	10,554.82	8.00	42.392	36.630	Z1:	0.01
		SLG:	21.102	4,853.48	8.00	33.763	29.180	Z2:	0.01
		LL:	31.726	',297.06	---	---	---	Z0:	0.02
LLG Gnd Return kA:	24.24	LLG:	33.963	',811.54	---	---	---		
MVG-01	34,500	3 Phase:	13.255	792.05	18.48	21.208	20.630	Z1:	0.13
		SLG:	13.371	461.30	18.12	21.393	20.770	Z2:	0.13
		LL:	17.870	616.53	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.98	LLG:	20.725	715.02	---	---	---		
MVG-02	34,500	3 Phase:	13.254	791.99	18.48	21.206	20.630	Z1:	0.13
		SLG:	13.370	461.27	18.11	21.392	20.770	Z2:	0.13
		LL:	17.869	616.47	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.98	LLG:	20.724	714.96	---	---	---		
MVG-03	34,500	3 Phase:	13.239	791.08	18.50	21.182	20.610	Z1:	0.13
		SLG:	13.360	460.92	18.13	21.376	20.760	Z2:	0.13
		LL:	17.850	615.83	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.97	LLG:	20.707	714.38	---	---	---		
MVG-04	34,500	3 Phase:	13.254	791.99	18.48	21.206	20.630	Z1:	0.13
		SLG:	13.370	461.27	18.11	21.392	20.770	Z2:	0.13
		LL:	17.869	616.47	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.98	LLG:	20.724	714.96	---	---	---		
MVG-05	34,500	3 Phase:	13.255	792.05	18.48	21.208	20.630	Z1:	0.13
		SLG:	13.371	461.30	18.12	21.393	20.770	Z2:	0.13
		LL:	17.870	616.53	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.98	LLG:	20.725	715.02	---	---	---		
MVG-06	34,500	3 Phase:	13.239	791.08	18.50	21.182	20.610	Z1:	0.13
		SLG:	13.360	460.92	18.13	21.376	20.760	Z2:	0.13
		LL:	17.850	615.83	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.97	LLG:	20.707	714.38	---	---	---		
MVG-07	34,500	3 Phase:	13.254	791.99	18.48	21.206	20.630	Z1:	0.13
		SLG:	13.370	461.27	18.11	21.392	20.770	Z2:	0.13
		LL:	17.869	616.47	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.98	LLG:	20.724	714.96	---	---	---		

Momentary Unbalanced

Fault Location Bus Name	Bus Voltage		---Sym Fault Duty--- kA	 MVA	X/R	--Mom. Fault Duty-- kA*1.6	 Based on X/R	Sequence Impedance pu	
MVG-08	34,500	3 Phase:	13.239	791.08	18.50	21.182	20.610	Z1:	0.13
		SLG:	13.360	460.92	18.13	21.376	20.760	Z2:	0.13
		LL:	17.850	615.83	---	---	---	Z0:	0.12
LLG Gnd Return kA:	20.97	LLG:	20.707	714.38	---	---	---		
XFMR-HSE-11-SWITCH BUS	34,500	3 Phase:	13.167	786.80	16.07	21.067	20.200	Z1:	0.13
		SLG:	13.238	456.70	15.41	21.180	20.210	Z2:	0.13
		LL:	17.490	603.41	---	---	---	Z0:	0.13
LLG Gnd Return kA:	20.37	LLG:	20.251	698.65	---	---	---		
XFMR-HSE-12 SWITCH BUS	34,500	3 Phase:	13.079	781.57	14.23	20.927	19.780	Z1:	0.13
		SLG:	13.106	452.16	13.45	20.970	19.670	Z2:	0.13
		LL:	17.126	590.86	---	---	---	Z0:	0.13
LLG Gnd Return kA:	19.79	LLG:	19.799	683.07	---	---	---		

Interrupting 3 Phase and Unbalanced

Fault Location / Bus Name	Bus Voltage		-----Init Sym Fault----- kA	X/R	Equivalent R	+jX	Seq. Imp. pu		-------Interrupting Fault kA----- 2 cyc.	3 cyc.	5 cyc.	8 cyc.
GIS #1	34,500	3 Phase:	13.64	27.64	0.05	1.46	Z1: 0.12	3Ph. Sym:	14.69	15.41	15.21	15.87
		SLG:	13.99	29.54	---	---	Z2: 0.12	Tot:	20.43	18.16	16.53	15.58
NACD:	1.00	LL:	19.02	---	---	---	Z0: 0.11	SLG Sym:	15.30	16.04	15.83	16.52
LLG Gnd Return kA:	23.202	LLG:	22.37	---	---	---		Tot:	21.18	18.92	17.24	16.23
GIS #2	34,500	3 Phase:	13.64	27.64	0.05	1.46	Z1: 0.12	3Ph. Sym:	14.69	15.41	15.21	15.87
		SLG:	13.99	29.54	---	---	Z2: 0.12	Tot:	20.43	18.16	16.53	15.58
NACD:	1.00	LL:	19.02	---	---	---	Z0: 0.11	SLG Sym:	15.30	16.04	15.83	16.52
LLG Gnd Return kA:	23.202	LLG:	22.37	---	---	---		Tot:	21.18	18.92	17.24	16.23
GIS #3	34,500	3 Phase:	13.63	27.65	0.05	1.46	Z1: 0.12	3Ph. Sym:	14.68	15.41	15.20	15.86
		SLG:	13.99	29.55	---	---	Z2: 0.12	Tot:	20.42	18.15	16.52	15.58
NACD:	1.00	LL:	19.01	---	---	---	Z0: 0.11	SLG Sym:	15.29	16.03	15.82	16.52
LLG Gnd Return kA:	23.199	LLG:	22.36	---	---	---		Tot:	21.17	18.92	17.24	16.23
KESTREL	230,000	3 Phase:	26.49	8.00	0.62	4.97	Z1: 0.01	3Ph. Sym:	26.49	26.49	26.49	26.51
		SLG:	21.10	8.00	---	---	Z2: 0.01	Tot:	30.39	27.10	26.49	26.49
NACD:	1.00	LL:	31.72	---	---	---	Z0: 0.02	SLG Sym:	21.10	21.10	21.10	21.12
LLG Gnd Return kA:	24.243	LLG:	33.96	---	---	---		Tot:	24.21	21.58	21.10	21.10
MVG-01	34,500	3 Phase:	13.25	18.49	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.25	13.73	13.69	14.29
		SLG:	13.36	18.12	---	---	Z2: 0.13	Tot:	18.46	16.10	14.71	13.96
NACD:	1.00	LL:	17.86	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.974	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.78	14.04
MVG-02	34,500	3 Phase:	13.24	18.49	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.69	14.29
		SLG:	13.36	18.12	---	---	Z2: 0.13	Tot:	18.46	16.10	14.70	13.96
NACD:	1.00	LL:	17.86	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.974	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.78	14.04
MVG-03	34,500	3 Phase:	13.24	18.50	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.68	14.28
		SLG:	13.36	18.13	---	---	Z2: 0.13	Tot:	18.45	16.09	14.70	13.96
NACD:	1.00	LL:	17.85	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.971	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.77	14.04
MVG-04	34,500	3 Phase:	13.24	18.49	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.69	14.29
		SLG:	13.36	18.12	---	---	Z2: 0.13	Tot:	18.46	16.10	14.70	13.96
NACD:	1.00	LL:	17.86	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.974	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.78	14.04
MVG-05	34,500	3 Phase:	13.25	18.49	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.25	13.73	13.69	14.29
		SLG:	13.36	18.12	---	---	Z2: 0.13	Tot:	18.46	16.10	14.71	13.96
NACD:	1.00	LL:	17.86	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.974	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.78	14.04
MVG-06	34,500	3 Phase:	13.24	18.50	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.68	14.28
		SLG:	13.36	18.13	---	---	Z2: 0.13	Tot:	18.45	16.09	14.70	13.96
NACD:	1.00	LL:	17.85	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.971	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.77	14.04

Interrupting 3 Phase and Unbalanced

Fault Location Bus Name	Bus Voltage		-----Init Sym Fault----- kA	 X/R	Equivalent R	 +jX	Seq. Imp. pu		-------Interrupting Fault kA----- 2 cyc.	 3 cyc.	 5 cyc.	 8 cyc.
MVG-07	34,500	3 Phase:	13.24	18.49	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.69	14.29
		SLG:	13.36	18.12	---	---	Z2: 0.13	Tot:	18.46	16.10	14.70	13.96
NACD:	1.00	LL:	17.86	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.974	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.78	14.04
MVG-08	34,500	3 Phase:	13.24	18.50	0.08	1.50	Z1: 0.13	3Ph. Sym:	13.24	13.73	13.68	14.28
		SLG:	13.36	18.13	---	---	Z2: 0.13	Tot:	18.45	16.09	14.70	13.96
NACD:	1.00	LL:	17.85	---	---	---	Z0: 0.12	SLG Sym:	13.36	13.79	13.76	14.36
LLG Gnd Return kA:	20.971	LLG:	20.71	---	---	---		Tot:	18.54	16.16	14.77	14.04
XFMR-HSE-11-SW ITCH BUS	34,500	3 Phase:	13.16	16.07	0.09	1.51	Z1: 0.13	3Ph. Sym:	13.16	13.22	13.29	13.87
		SLG:	13.23	15.42	---	---	Z2: 0.13	Tot:	17.80	15.46	14.21	13.56
NACD:	1.00	LL:	17.48	---	---	---	Z0: 0.13	SLG Sym:	13.23	13.23	13.28	13.86
LLG Gnd Return kA:	20.364	LLG:	20.24	---	---	---		Tot:	17.76	15.40	14.19	13.55
XFMR-HSE-12 SWITCH BUS	34,500	3 Phase:	13.07	14.24	0.11	1.52	Z1: 0.13	3Ph. Sym:	13.07	13.07	13.07	13.55
		SLG:	13.10	13.45	---	---	Z2: 0.13	Tot:	17.20	14.92	13.83	13.25
NACD:	1.00	LL:	17.11	---	---	---	Z0: 0.13	SLG Sym:	13.10	13.10	13.10	13.50
LLG Gnd Return kA:	19.786	LLG:	19.79	---	---	---		Tot:	16.98	14.74	13.73	13.19

PANEL: PNL-HSE-21
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 400 A MCB
FED FROM: SWD-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 65,000A | **BUS RATING:** 400 A
BRANCH: HOUSE | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** 50,429 A | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					91.00 / 3.05						L; Spar e;...	2
3	P	300 A	3	PNL-MP-21		71.00 / 3.48		PNL-LP-21	3	100 A		4
5							104.00 / 1.61					6
7	Spar				14.08 / 0.00			SPACE	1	--	--	8
9	e; R	150 A	3	XFMR-RP-21		14.00 / 0.00		SPACE	1	--	--	10
11	P						11.12 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					107.87 kVA	88.24 kVA	116.65 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	4,004 VA	5 A	125.00%	5,006 VA	6 A
Lighting - Dwelling Unit	185 VA	0 A	100.00%	185 VA	0 A
P	289,800 VA	349 A	100.00%	289,800 VA	349 A
R	15,400 VA	19 A	82.47%	12,700 VA	15 A
Lighting - Interior	3,960 VA	5 A	125.00%	4,950 VA	6 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	312,759 VA	376 A	311,909 VA	375 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-HSE-11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 400 A MCB
FED FROM: SWD-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 65,000A | **BUS RATING:** 400 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** 50,429 A | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					102.05 / 7.61							
3	M; P	300 A	3	PNL-MP-11		114.05 / 10.79		PNL-LP-11	3	100 A	L; Other	2
5							89.05 / 10.31					4
7	Light				32.62 / 0.00			SPACE	1	--	--	6
9	ng -	150 A	3	XFMR-RP-11		31.80 / 0.00		SPACE	1	--	--	8
11	Ext...						27.63 / 0.00	SPACE	1	--	--	10
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	12
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	14
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	16
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	18
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	20
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	22
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	24
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	26
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	28
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	30
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	32
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	34
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	36
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	38
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	40
					141.90 kVA	156.27 kVA	126.30 kVA					42

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
K	1,200 VA	1 A	100.00%	1,200 VA	1 A
L	4,751 VA	6 A	125.00%	5,939 VA	7 A
Lighting	1,550 VA	2 A	100.00%	1,550 VA	2 A
Lighting - Dwelling Unit	1,835 VA	2 A	100.00%	1,835 VA	2 A
Lighting - Exterior	2,670 VA	3 A	125.00%	3,338 VA	4 A
M	9,145 VA	11 A	125.00%	11,431 VA	14 A
Other	97 VA	0 A	100.00%	97 VA	0 A
P	348,420 VA	419 A	100.00%	348,420 VA	419 A
R	37,920 VA	46 A	63.19%	23,960 VA	29 A
Lighting - Interior	15,120 VA	18 A	125.00%	18,900 VA	23 A
LITES	3,588 VA	4 A	125.00%	4,485 VA	5 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	424,460 VA	511 A	418,912 VA	504 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

SWITCHBOARD: SWD-HSE-11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 1 A
FED FROM: | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** | **BUS RATING:**
BRANCH: | **NEMA:** | **AVAILABLE FAULT CURRENT:** | **MOUNTING:**

CKT NO	CIRCUIT DESCRIPTION	POLE	FRAME	TRIP	LOAD (kVA)	REMARKS
1	XRMR-SITE-11	3	400 A	20 A	13.50	
2	PNL-HSE-11	3	400 A	20 A	424.46	
3	PNL-HSE-21	3	400 A	20 A	312.76	
4	XFMR-CAFE-11	3	400 A	60 A	13.18	
5	PNL-DH11	3	400 A	20 A	19.88	
6	XFMR-SITE-EV	3	400 A	20 A	26.62	
7	PNL-DH21	3	400 A	20 A	18.88	
8	PNL-ELI-11	3	400 A	20 A	12.11	
9	SPACE	1	--	--	--	
10	SPACE	1	--	--	--	
11	SPACE	1	--	--	--	
12	SPACE	1	--	--	--	
13	SPACE	1	--	--	--	
14	SPACE	1	--	--	--	
15	SPACE	1	--	--	--	
16	SPACE	1	--	--	--	
17	SPACE	1	--	--	--	
18	SPACE	1	--	--	--	
19	SPACE	1	--	--	--	
20	SPACE	1	--	--	--	
21	SPACE	1	--	--	--	
22	SPACE	1	--	--	--	
23	SPACE	1	--	--	--	
24	SPACE	1	--	--	--	
25	SPACE	1	--	--	--	
26	SPACE	1	--	--	--	
27	SPACE	1	--	--	--	
28	SPACE	1	--	--	--	
29	SPACE	1	--	--	--	
30	SPACE	1	--	--	--	
31	SPACE	1	--	--	--	
32	SPACE	1	--	--	--	
33	SPACE	1	--	--	--	
34	SPACE	1	--	--	--	
35	SPACE	1	--	--	--	
36	SPACE	1	--	--	--	
37	SPACE	1	--	--	--	
38	SPACE	1	--	--	--	
39	SPACE	1	--	--	--	
40	SPACE	1	--	--	--	
41	SPACE	1	--	--	--	
42	SPACE	1	--	--	--	
				TOTAL (kVA)	840.66	

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
Lighting	1,550 VA	2 A	100.00%	1,550 VA	2 A
Other	97 VA	0 A	100.00%	97 VA	0 A
Power	26,624 VA	32 A	100.00%	26,624 VA	32 A
P	653,220 VA	786 A	100.00%	653,220 VA	786 A
L	14,481 VA	17 A	125.00%	18,101 VA	22 A
R	85,860 VA	103 A	55.82%	47,930 VA	58 A
K	5,600 VA	7 A	89.29%	5,000 VA	6 A
M	22,645 VA	27 A	110.10%	24,931 VA	30 A
Lighting - Interior	25,440 VA	31 A	125.00%	31,800 VA	38 A
LITES	3,588 VA	4 A	125.00%	4,485 VA	5 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	840,657 VA	1,011 A	815,236 VA	981 A

NOTES:

PANEL: PNL-ELI-11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 150 A MCB
FED FROM: SWD-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 35,000A | **BUS RATING:** 250 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	L;				2.29 / 0.00			SPACE	1	--	--	2
3	Spar	20 A	3	PNL-ELI-HSE-11		1.86 / 0.00		SPACE	1	--	--	4
5	e;...						3.66 / 0.00	SPACE	1	--	--	6
7	L;				1.28 / 0.00			SPACE	1	--	--	8
9	Spar	20 A	3	PNL-ELI-DH11		1.61 / 0.00		SPACE	1	--	--	10
11	e;...						1.44 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					3.56 kVA	3.46 kVA	5.10 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	5,729 VA	7 A	125.00%	7,161 VA	9 A
Lighting - Dwelling Unit	74 VA	0 A	100.00%	74 VA	0 A
Lighting - Interior	6,360 VA	8 A	125.00%	7,950 VA	10 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	12,110 VA	15 A	15,119 VA	18 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-DH11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 60 A MCB
FED FROM: PNL-ELI-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	Lig...	20 A	1	LIGHTING - INTERIOR	0.64 / 0.00			SPARE	1	20 A	--	2
3	Lig...	20 A	1	LIGHTING - INTERIOR		0.64 / 0.00		SPARE	1	20 A	--	4
5	Lig...	20 A	1	LIGHTING - INTERIOR			0.64 / 0.00	SPARE	1	20 A	--	6
7	Lig...	20 A	1	LIGHTING - INTERIOR	0.64 / 0.00			SPARE	1	20 A	--	8
9	Light					0.80 / 0.00		SPARE	1	20 A	--	10
11	ng -	20 A	3	PNL-ELI-DH-12			0.80 / 0.00	SPARE	1	20 A	--	12
13	Inte...				0.00 / 0.00			SPARE	1	20 A	--	14
15	L	20 A	1	2ND FLR LTG - SOUTHEAST STAIRWAY		0.18 / 0.00		SPARE	1	20 A	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					1.28 kVA	1.61 kVA	1.44 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	183 VA	0 A	125.00%	229 VA	0 A
Lighting - Interior	4,160 VA	5 A	125.00%	5,200 VA	6 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	4,325 VA	5 A	5,407 VA	7 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 60 A MCB
FED FROM: SWD-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					0.00 / 0.00			SPACE	1	--	--	2
3	Powe	20 A	3	PNL-DH-MP11		0.00 / 0.00		SPACE	1	--	--	4
5	r						0.00 / 0.00	SPACE	1	--	--	6
7					0.00 / 0.00			SPACE	1	--	--	8
9	Powe	20 A	3	PNL-DH11-LP		0.00 / 0.00		SPACE	1	--	--	10
11	r						0.00 / 0.00	SPACE	1	--	--	12
13					4.00 / 0.00			SPACE	1	--	--	14
15	Spar	20 A	3	PNL-DH11-MP		2.00 / 0.00		SPACE	1	--	--	16
17	e; P						2.00 / 0.00	SPACE	1	--	--	18
19					4.50 / 0.00			SPACE	1	--	--	20
21	Spar	20 A	3	30 KVA, 277 V/480 V, THREE PHASE, 4 WIRES, WYE		4.14 / 0.00		SPACE	1	--	--	22
23	e; R						3.24 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					8.50 kVA	6.14 kVA	5.24 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	8,000 VA	10 A	100.00%	8,000 VA	10 A
R	11,880 VA	14 A	92.09%	10,940 VA	13 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	19,880 VA	24 A	18,940 VA	23 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-HSE-11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 60 A MCB
FED FROM: PNL-ELI-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	L;...	20 A	1	LT LTG - NORTHEAST	0.37 / 0.10			1ST FLR LTG - SOUTHEAST STAIRWAY	1	20 A	L	2
3	L	20 A	1	EM LTG - DH 2000 SOUTH GALLERY		0.23 / 0.11		1ST FLR LTG - NORTHEAST FREIGHT ELEV	1	20 A	L	4
5	L	20 A	1	EM LTG - DH 1000 NORTH GALLERY			0.23 / 1.06	EM LTG - FLEX	1	20 A	L;...	6
7	L	20 A	1	EM LTG - DH 1000 SOUTH GALLERY	0.23 / 0.06			1ST FLR LTG - SOUTHEAST PASS. ELEV	1	20 A	L	8
9	L	20 A	1	EM LTG - SECTION F CORRIDOR		0.36 / 0.11		1ST FLR LTG - SOUTHEAST STAIRWAY	1	20 A	L	10
11	L	20 A	1	EM LTG - CORRIDOR			0.34 / 0.30	EM LTG - CORRIDOR 0110	1	20 A	L;...	12
13	L	20 A	1	EM LTG - DH 1100 SOUTH GALLERY	0.23 / 0.00			SPARE	1	20 A	--	14
15	L	20 A	1	L		0.23 / 0.00		SPARE	1	20 A	--	16
17	L	20 A	1	EM LTG - SECTION M CORRIDOR			0.34 / 0.00	SPARE	1	20 A	--	18
19	L	20 A	1	EM LTG - SECTION K CORRIDOR	0.39 / 0.00			SPACE	1	--	--	20
21	L	20 A	1	EM LTG - DH 2000 NORTH GALLERY		0.23 / 0.00		SPACE	1	--	--	22
23	L	20 A	1	EM LTG - SECTION F CORRIDOR			0.39 / 0.00	SPACE	1	--	--	24
25	L	20 A	1	L	0.33 / 0.00			SPACE	1	--	--	26
27	L	20 A	1	EM LTG - DH 2100 SOUTH GALLERY		0.23 / 0.00		SPACE	1	--	--	28
29	L	20 A	1	EM LTG - DH 2100 NORTH GALLERY			0.23 / 0.00	SPACE	1	--	--	30
31	L	20 A	1	EM LTG - SECTION M CORRIDOR	0.32 / 0.00			SPACE	1	--	--	32
33	L	20 A	1	EM LTG - SECTION M CORRIDOR		0.39 / 0.00		SPACE	1	--	--	34
35	L;...	20 A	1	LIGHTING - INTERIOR			0.78 / 0.00	SPACE	1	--	--	36
37	L	20 A	1	EM LTG - CORRIDOR 2100	0.28 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					2.29 kVA	1.86 kVA	3.66 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	5,553 VA	7 A	125.00%	6,941 VA	8 A
Lighting - Dwelling Unit	74 VA	0 A	100.00%	74 VA	0 A
Lighting - Interior	2,200 VA	3 A	125.00%	2,750 VA	3 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	7,801 VA	9 A	9,733 VA	12 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-LP11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 100 A MCB
FED FROM: PNL-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 65,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	L	20 A	1	1ST FLR LTG - NORTHEAST STAIRWAY	0.01 / 0.48			1ST FLR LTG - NORTHEAST	1	20 A	Lg...	2
3						0.00 / 0.20		1ST FLR LTG - NORTHEAST CORRIDOR	1	20 A	Lg...	4
5							0.00 / 1.02	1ST FLR LTG - NORTHEAST	1	20 A	Lg...	6
7					0.00 / 2.11			1ST FLR LTG - LOBBY 0101	1	20 A	Lg...	8
9						0.00 / 1.30		1ST FLR LTG - SOUTHEAST	1	20 A	Lg...	10
11	L	20 A	1	2ND FLR LTG - NORTHEAST STAIRWAY			0.10 / 0.79	1ST FLR LTG - SOUTHEAST	1	20 A	Oth...	12
13	L	20 A	1	2ND FLR LTG - NORTHEAST FREIGHT...	0.11 / 0.48			1ST FLR LTG - SOUTHEAST CORRIDOR	1	20 A	Lg...	14
15	L	20 A	1	2ND FLR LTG - SOUTHEAST PASS. ELEV		0.06 / 1.20		1ST FLR LTG - NORTHEAST	1	20 A	Lg...	16
17	--	20 A	1	SPARE			0.00 / 1.36	1ST FLR LTG - SOUTHEAST	1	20 A	Lg...	18
19	L	20 A	1	2ND FLR LTG - SOUTHEAST STAIRWAY	0.10 / 0.44			1ST FLR LTG - MMR, MDF, VAULT	1	20 A	Lg...	20
21	L	20 A	1	1ST FLR LTG - DH 1000 NORTH GALLERY		0.37 / 1.40		1ST FLR LTG - SOUTHEAST	1	20 A	Lg...	22
23	L	20 A	1	1ST FLR LTG - DH 1000 SOUTH GALLERY			0.37 / 0.00	SPARE	1	20 A	--	24
25	L	20 A	1	1ST FLR LTG - SECTION F CORRIDOR	0.68 / 0.00			SPARE	1	20 A	--	26
27	L	20 A	1	1ST FLR LTG - SECTION H CORRIDOR		0.59 / 0.00		SPARE	1	20 A	--	28
29	Lig...	20 A	1	EM LTG - NORTHEAST CORRIDOR			0.07 / 1.84	2ND FLR LTG - SOUTHEAST	1	20 A	Lg...	30
31	L	20 A	1	1ST FLR LTG - SECTION K CORRIDOR	0.62 /

PANEL: PNL-MP21
LOCATION: | **FED FROM:** PNL-HSE-21 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 65,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 300 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	50 A	1	VAV-0266-01	10.00 / 6.00			VAV-0291-02	1	30 A	P	2
3	P	25 A	1	VAV-0261-01		5.00 / 3.00		VAV-0293-01	1	15 A	P	4
5	P	20 A	1	VAV-0210-01			5.00 / 15.00	VAV-0290-01	1	70 A	P	6
7	P	50 A	1	VAV-0267-01	11.00 / 15.00			VAV-0290-02	1	70 A	P	8
9	P	50 A	1	FPT-0267-02		18.00 / 5.00		VAV-0291-03	1	25 A	P	10
11	P	70 A	1	FPT-0267-01			14.00 / 10.00	FPT-0290-01	1	50 A	P	12
13	P	50 A	1	FPT-0100-01	11.00 / 0.00			SPACE	1	--	--	14
15	P	50 A	1	FPT-0100-02		11.00 / 0.00		SPACE	1	--	--	16
17	P	50 A	1	FPT-0100-03			11.00 / 0.00	SPACE	1	--	--	18
19	P	15 A	1	VAV-0207-01	2.00 / 0.00			SPACE	1	--	--	20
21	P	15 A	1	VAV-0296-01		3.00 / 0.00		SPACE	1	--	--	22
23	P	20 A	1	VAV-0214-01			4.00 / 0.00	SPACE	1	--	--	24
25	P	35 A	1	VAV-0217-01	7.00 / 0.00			SPACE	1	--	--	26
27	P	20 A	1	VAV-0210-02		5.00 / 0.00		SPACE	1	--	--	28
29	P	80 A	1	VAV-0209-01			16.00 / 0.00	SPACE	1	--	--	30
31	P	60 A	1	FPT-0209-01	12.00 / 0.00			SPACE	1	--	--	32
33	P	50 A	1	FPT-0209-02		18.00 / 0.00		SPACE	1	--	--	34
35	P	60 A	1	FPT-0280-01			13.00 / 0.00	SPACE	1	--	--	36
37	P	80 A	1	FPT-0280-02	17.00 / 0.00			SPACE	1	--	--	38
39	P	15 A	1	VAV-0291-01		3.00 / 0.00		SPACE	1	--	--	40
41	P	80 A	1	VAV-0280-01			16.00 / 0.00	SPACE	1	--	--	42
					91.00 kVA	71.00 kVA	104.00 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	266,000 VA	320 A	100.00%	266,000 VA	320 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	266,000 VA	320 A	266,000 VA	320 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-MP11
LOCATION: | **FED FROM:** PNL-HSE-11 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 65,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 300 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					3.05 / 8.00							2
3	M	20 A	3	BSP-01 BOOSTER PUMP RISER 0164		3.05 / 8.00		DWH-1 WATER HEATER JAN 120	3	40 A	P	4
5							3.05 / 8.00					6
7	P	70 A	1	IWH-1 WATER HEATER RR 0151	15.00 / 3.00			VAV-0195-01	1	15 A	P	8
9	P	80 A	1	FPT-0180-02		17.00 / 5.00		VAV-0115-01	1	25 A	P	10
11	P	15 A	1	VAV-0191-03			3.00 / 4.00	VAV-0117-01	1	20 A	P	12
13	P	80 A	1	VAV-0180-01	16.00 / 6.00			VAV-0110-01	1	30 A	P	14
15	P	70 A	1	IWH-3 WATER HEATER GUARD BOOTH		15.00 / 11.00		VAV-0109-01	1	50 A	P	16
17	P	25 A	1	VAV-0165-01			5.00 / 12.00	FPT-0109-01	1	60 A	P	18
19	P	20 A	1	VAV-0166-01	4.00 / 14.00			FPT-0109-02	1	70 A	P	20
21	P	20 A	1	VAV-0191-03		4.00 / 13.00		FPT-0180-01	1	60 A	P	22
23	P	70 A	1	VAV-0150-01			15.00 / 7.00	VAV-0191-02	1	35 A	P	24
25	P	40 A	1	VAV-0161-01	9.00 / 3.00			VAV-0193-01	1	15 A	P	26
27	P	35 A	1	FPT-0132-01		7.00 / 16.00		VAV-0190-01	1	80 A	P	28
29	P	30 A	1	VAV-0134-01			6.00 / 5.00	VAV-0191-04	1	30 A	P	30
31	P	15 A	1	VAV-0108-01	2.00 / 16.00			VAV-0190-02	1	80 A	P	32
33	P	15 A	1	VAV-0104-01		3.00 / 10.00		FPT-0190-01	1	45 A	P	34
35	P	80 A	1	FPT-0102-01			17.00 / 0.00	SPACE	1	--	--	36
37	P	15 A	1	VAV-0102-01	3.00 / 0.00			SPACE	1	--	--	38
39	P	15 A	1	VAV-0106-01		2.00 / 0.00		SPACE	1	--	--	40
41	P	20 A	1	VAV-0114-01			4.00 / 0.00	SPACE	1	--	--	42
					102.05 kVA	114.05 kVA	89.05 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
M	9,145 VA	11 A	125.00%	11,431 VA	14 A
P	296,000 VA	356 A	100.00%	296,000 VA	356 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	305,145 VA	367 A	307,431 VA	370 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-LP21
LOCATION: | **FED FROM:** PNL-HSE-21 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 65,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 100 A MCB | **BUS RATING:** 150 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	L	20 A	1	2ND FLR LTG - DH 2000 SOUTH GALLERY	0.37 / 0.00			SPARE	1	20 A	--	2
3	L	20 A	1	2ND FLR LTG - DH 2000 NORTH GALLERY		0.37 / 0.00		SPARE	1	20 A	--	4
5	L	20 A	1	2ND FLR LTG - SECTION H CORRIDOR			0.59 / 0.00	SPARE	1	20 A	--	6
7	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	8
9	L	20 A	1	2ND FLR LTG - SECTION F CORRIDOR		0.68 / 0.00		SPARE	1	20 A	--	10
11	L	20 A	1	2ND FLR LTG - DH 2100 SOUTH GALLERY			0.37 / 0.00	SPARE	1	20 A	--	12
13	L	20 A	1	2ND FLR LTG - DH 2100 NORTH GALLERY	0.37 / 0.00			SPARE	1	20 A	--	14
15	L	20 A	1	2ND FLR LTG - SECTION M CORRIDOR		0.62 / 0.00		SPARE	1	20 A	--	16
17	L	20 A	1	2ND FLR LTG - SECTION M CORRIDOR			0.65 / 0.00	SPARE	1	20 A	--	18
19	Lig...	20 A	1	2ND FLR LTG - NORTHEAST	2.32 / 0.00			SPARE	1	20 A	--	20
21	Lig...	20 A	1	2ND FLR LTG - SOUTHEAST		1.82 / 0.00		SPARE	1	20 A	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					3.05 kVA	3.48 kVA	1.61 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	4,004 VA	5 A	125.00%	5,006 VA	6 A
Lighting - Dwelling Unit	185 VA	0 A	100.00%	185 VA	0 A
Lighting - Interior	3,960 VA	5 A	125.00%	4,950 VA	6 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	8,131 VA	10 A	10,118 VA	12 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP21
LOCATION: | **FED FROM:** XFMR-RP-21 | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 250 A MLO | **BUS RATING:** 250 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	R	20 A	1	RECEPT FLEX 0280	0.90 / 0.00			SPARE	1	20 A	--	2
3	R	20 A	1	RECEPT FLEX 0280		0.90 / 0.00		SPARE	1	20 A	--	4
5	R	20 A	1	RECEPT CORRIDOR 0291			0.54 / 0.00	SPARE	1	20 A	--	6
7	R	20 A	1	RECEPT CORRIDOR 0291	1.08 / 0.00			SPARE	1	20 A	--	8
9	R	20 A	1	RECEPT FLEX 0290		1.08 / 0.00		SPARE	1	20 A	--	10
11	R	20 A	1	RECEPT RM 0292, 0293, 0294			0.72 / 0.00	SPARE	1	20 A	--	12
13	R	20 A	1	RECEPT ELEC RM 0266	1.08 / 0.00			SPARE	1	20 A	--	14
15	R	20 A	1	RECEPT FLEX 0267		0.72 / 0.00		SPARE	1	20 A	--	16
17	R	20 A	1	RECEPT RM 0210,0262,0265,0269			1.26 / 0.00	SPARE	1	20 A	--	18
19	R	20 A	1	RECEPT STORAGE 0261	0.54 / 0.00			SPARE	1	20 A	--	20
21	R	20 A	1	RECEPT RM 0207,0208,0211,0291		0.90 / 0.00		SPARE	1	20 A	--	22
23	R	20 A	1	RECEPT STORAGE 0217, 0296			0.90 / 0.00	SPARE	1	20 A	--	24
25	R	20 A	1	RECEPT CORRIDOR 0210	1.08 / 0.00			SPARE	1	20 A	--	26
27	R	20 A	1	RECEPT TENANT FLEX 0209		0.90 / 0.00		SPARE	1	20 A	--	28
29	R	20 A	1	GFCI RECEPT WRR 0213			0.90 / 0.00	SPARE	1	20 A	--	30
31	R	20 A	1	GFCI RECEPT MRR 0214	0.90 / 0.00			SPARE	1	20 A	--	32
33	R	20 A	1	DRINKING FOUNTAIN CORRIDOR 0210		1.00 / 0.00		SPARE	1	20 A	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
43	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	44
45	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	46
47	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	48
49	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	50
51	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	52
53	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	54
55	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	56
57	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	58
59	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	60
61	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	62
63	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	64
65	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	66
67	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	68
69	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	70
71	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	72
73	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	74
75	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	76
77	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	78
79	--	--	1	SPACE	0.00 / 8.50							80
81	--	--	1	SPACE		0.00 / 8.50		PNL-RP-21-2	3	20 A	P	82
83	--	--	1	SPACE			0.00 / 6.80					84
					14.08 kVA	14.00 kVA	11.12 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	23,800 VA	66 A	100.00%	23,800 VA	66 A
R	15,400 VA	43 A	82.47%	12,700 VA	35 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	39,200 VA	109 A	36,500 VA	101 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP11-2
LOCATION: | **FED FROM:** PNL-RP11 | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 250 A MLO | **BUS RATING:** 250 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	20 A	2	CU/FCU-0166-01	1.70 / 1.70			CU/FCU-0193-01	2	20 A	P	4
3						1.70 / 1.70						6
5	P	20 A	2	CU/FCU-0166-02			1.70 / 1.70	CU/FCU-0193-02	2	20 A	P	8
7					1.70 / 1.70							10
9	P	20 A	2	CU/FCU-0166-03		1.70 / 1.70		CU/FCU-0193-03	2	20 A	P	12
11							1.70 / 1.70					14
13	P	20 A	2	CU/FCU-0133-01	1.70 / 1.70			CU/FCU-0193-04	2	20 A	P	16
15						1.70 / 1.70						18
17	P	20 A	2	CU/FCU-0133-02			1.70 / 0.00	SPACE	1	--	--	20
19					1.70 / 0.00			SPACE	1	--	--	22
21	P	20 A	2	CU/FCU-0111-01		1.70 / 0.00		SPACE	1	--	--	24
23							1.70 / 0.00	SPACE	1	--	--	26
25	P	20 A	2	CU/FCU-0192-01	1.70 / 0.00			SPACE	1	--	--	28
27						1.70 / 0.00		SPACE	1	--	--	30
29	P	20 A	2	CU/FCU-0192-02			1.70 / 0.00	SPACE	1	--	--	32
31					1.70 / 0.00			SPACE	1	--	--	34
33	P	20 A	2	CU/FCU-0192-03		1.70 / 0.00		SPACE	1	--	--	36
35							1.70 / 0.00	SPACE	1	--	--	38
37	P	20 A	2	CU/FCU-0192-04	1.70 / 0.00			SPACE	1	--	--	40
39						1.70 / 0.00		SPACE	1	--	--	42
41	Lig...	20 A	1	LIGHTING - EXTERIOR BOLLARDS			0.54 / 0.00	SPACE	1	--	--	42
					17.00 kVA	17.00 kVA	14.11 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
Lighting - Exterior	540 VA	1 A	125.00%	675 VA	2 A
P	47,600 VA	132 A	100.00%	47,600 VA	132 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	48,113 VA	134 A	48,242 VA	134 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP11
LOCATION: | **FED FROM:** XFMR-RP-11 | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 250 A MLO | **BUS RATING:** 250 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	R	20 A	1	RECEPT DOCK 0150	1.08 / 0.72			RECEPT FLEX 0180	1	20 A	R	2
3	R	20 A	1	GFI RECEPT 0151, 0164, EXTERIOR		0.90 / 0.72		RECEPT FLEX 0180	1	20 A	R	4
5	R	20 A	1	RECEPT 0152, 0153, 0162			0.54 / 0.54	RECEPT CORRIDOR 0191	1	20 A	R	6
7	R	20 A	1	RECEPT 0161, 0165, 0191	1.08 / 0.54			RECEPT CORRIDOR 0191	1	20 A	R	8
9	R	20 A	1	RECEPT ELEC ROOM 0166		1.08 / 0.72		RECEPT FLEX 0190	1	20 A	R	10
11	R	20 A	1	RECEPT ELEV ROOM 0164			0.54 / 0.72	RECEPT FLEX 0190	1	20 A	R	12
13	R	20 A	1	RECEPT MONITOR SEC OFFICE 0134	0.54 / 0.90			RECEPT FLEX 0190	1	20 A	R	14
15	R	20 A	1	COPIER SEC OFFICE 0134		1.00 / 0.54		RECEPT MONITOR SEC OFFICE 0134	1	20 A	R	16
17	R	20 A	1	UC FRIDGE SEC OFFICE 0134			0.80 / 1.18	RECEPT FRIEGHT ELEV 0160	1	20 A	R	18
19	R	20 A	1	MICROWAVE SEC OFFICE 0134	1.20 / 0.80			UC FRIDGE BREAK RM 0105	1	20 A	R	20
21	R	20 A	1	RECEPT SEC RECEPTION 0131		0.54 / 1.20		COFFEE MAKER BREAK RM 0105	1	20 A	K	22
23	R	20 A	1	RECEPT SEC OFFICE 0134			0.72 / 0.80	ICE MAKER BREAK RM 0105	1	20 A	R	24
25	R	20 A	1	RECEPT LOBBY 0101	1.08 / 0.80			DISH WASHER BREAK RM 0105	1	20 A	R	26
27	P	20 A	1	HI SCAN LOBBY 0101		0.80 / 1.00		RECEPT COUNTER BREAK RM 0105	1	20 A	R	28
29	R	20 A	1	RECEPT LARGE CONF 0104			0.90 / 1.00	RECEPT COUNTER BREAK RM 0105	1	20 A	R	30
31	R	20 A	1	RECEPT LARGE CONF 0104	0.90 / 0.90			RECEPT RM 0105, 0106	1	20 A	R	32
33	R	20 A	1	RECEPT RM 0192, 0193, 0194		0.90 / 0.80		UC FRIDGE WELLNESS 0106	1	20 A	R	34
35	R	20 A	1	RECEPT MDF 0192			0.72 / 0.72	RECEPT MMR1A 0193	1	20 A	R	36
37	R	20 A	1	RECEPT TENANT OFFICE 0109	0.90 / 0.30			RECEPT CHECK-IN KIOSK	1	20 A	P	38
39	R	20 A	1	RECEPT TENANT OFFICE 0109		0.90 / 0.00		SPACE	1	--	--	40
41	R	20 A	1	RECEPT RM 0110, 0117, 0118, 0119			0.90 / 0.00	SPACE	1	--	--	42
43	P	20 A	1	FITNESS MACHINE 0116	1.00 / 0.00			SPACE	1	--	--	44
45	P	20 A	1	FITNESS MACHINE 0116		1.00 / 0.00		SPACE	1	--	--	46
47	P	20 A	1	FITNESS MACHINE 0116			1.00 / 0.00	SPACE	1	--	--	48
49	R	20 A	1	RECEPT FITNESS CENTER 0116	0.90 / 0.00			SPACE	1	--	--	50
51	P	20 A	1	DRINKING FOUNTAIN FITNESS CENTER...		0.72 / 0.00		SPACE	1	--	--	52
53	R	20 A	1	GFI RECEPT RM 0115, 0120			0.54 / 0.00	SPACE	1	--	--	54
55	R	20 A	1	RECEPT MRR 0114	1.26 / 0.00			SPACE	1	--	--	56
57	R	20 A	1	RECEPT WRR 0113		1.26 / 0.00		SPACE	1	--	--	58
59	R	20 A	1	DRINKING FOUNTAIN CORRIDOR 0110			0.72 / 0.00	SPACE	1	--	--	60
61	R	20 A	1	RECEPT RM 0107, 0108, 0110	0.72 / 0.00			SPACE	1	--	--	62
63	R	20 A	1	RECEPT RM 0191, 0196		0.72 / 0.00		SPACE	1	--	--	64
65	R	20 A	1	GFI RECEPT SUMP PUMP PASS ELEV 0112			1.18 / 0.00	SPACE	1	--	--	66
67	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	68
69	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	70
71	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	72
73	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	74
75	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	76
77	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	78
79	--	--	1	SPACE	0.00 / 17.00							Lighting 80
81	--	--	1	SPACE		0.00 / 17.00		PNL-RP-11-2	3	250 A		82
83	--	--	1	SPACE			0.00 / 14.11					Ext... 84
					32.62 kVA	31.80 kVA	27.63 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
K	1,200 VA	3 A	100.00%	1,200 VA	3 A
Lighting - Exterior	540 VA	1 A	125.00%	675 VA	2 A
P	52,420 VA	146 A	100.00%	52,420 VA	146 A
R	37,920 VA	105 A	63.19%	23,960 VA	67 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	92,053 VA	256 A	78,222 VA	217 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP21-2
LOCATION: | **FED FROM:** PNL-RP21 | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 250 A MLO | **BUS RATING:** 250 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	20 A	2	CU/FCU-0211-01	1.70 / 0.00			SPACE	1	--	--	2
3						1.70 / 0.00		SPACE	1	--	--	4
5	P	20 A	2	CU/FCU-0292-01			1.70 / 0.00	SPACE	1	--	--	6
7					1.70 / 0.00			SPACE	1	--	--	8
9	P	20 A	2	CU/FCU-0292-02		1.70 / 0.00		SPACE	1	--	--	10
11							1.70 / 0.00	SPACE	1	--	--	12
13	P	20 A	2	CU/FCU-0293-01	1.70 / 0.00			SPACE	1	--	--	14
15

PANEL: PNL-UPS-HSE-11
LOCATION: | **VOLTAGE:** 120/208 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 400 A MCB
FED FROM: XFMR-HSE-11-01 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 65,000A | **BUS RATING:** 400 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					21.67 / 0.00			SPACE	1	--	--	2
3	P	225 A	3	MMR 1ST FLR NORTH		21.67 / 0.00		SPACE	1	--	--	4
5							21.67 / 0.00	SPACE	1	--	--	6
7	Spare; R				7.27 / 0.00			SPACE	1	--	--	8
9		100 A	3	PNL-UPS-HSE-11-01		7.51 / 0.00		SPACE	1	--	--	10
11	P						7.98 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					28.94 kVA	29.18 kVA	29.65 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	81,100 VA	225 A	100.00%	81,100 VA	225 A
R	6,660 VA	18 A	100.00%	6,660 VA	18 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	87,760 VA	244 A	87,760 VA	244 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: MPC-GATE
LOCATION: | **VOLTAGE:** 120/208 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 100 A MCB
FED FROM: | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 100 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	20 A	1	GATE CARD READER	0.96 / 0.00			SPARE	1	20 A	--	2
3	P	20 A	1	GATE CARD READER		0.96 / 0.00		SPARE	1	20 A	--	4
5	P	20 A	1	GATE CARD READER			0.96 / 0.00	SPARE	1	20 A	--	6
7	R	20 A	1	EXTERIOR GUARD SHACK RECEPT	0.72 / 0.00			SPARE	1	20 A	--	8
9	R	20 A	1	GUARD SHACK RECEPT		1.08 / 0.00		SPARE	1	20 A	--	10
11	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
					1.68 kVA	2.04 kVA	0.96 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	2,880 VA	8 A	100.00%	2,880 VA	8 A
R	1,800 VA	5 A	100.00%	1,800 VA	5 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	4,680 VA	13 A	4,680 VA	13 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-DH21
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 60 A MCB
FED FROM: | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	Lig...	20 A	1	LIGHTING - INTERIOR	0.64 / 0.00			SPARE	1	20 A	--	2
3	Lig...	20 A	1	LIGHTING - INTERIOR		0.64 / 0.00		SPARE	1	20 A	--	4
5	Lig...	20 A	1	LIGHTING - INTERIOR			0.64 / 0.00	SPARE	1	20 A	--	6
7	Lig...	20 A	1	LIGHTING - INTERIOR	0.64 / 0.00			SPARE	1	20 A	--	8
9	L...	20 A	1	2ND FLR LTG - NORTHEAST CORRIDOR		0.45 / 0.00		SPARE	1	20 A	--	10
11	L...	20 A	1	2ND FLR LTG - SOUTHEAST CORRIDOR			0.86 / 0.00	SPARE	1	20 A	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					1.28 kVA	1.09 kVA	1.50 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	80 VA	0 A	125.00%	100 VA	0 A
Lighting	175 VA	0 A	100.00%	175 VA	0 A
Lighting - Dwelling Unit	74 VA	0 A	100.00%	74 VA	0 A
Lighting - Interior	3,560 VA	4 A	125.00%	4,450 VA	5 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	3,865 VA	5 A	4,773 VA	6 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

SWITCHBOARD: PNL-SITE-EV

LOCATION: | **VOLTAGE:** 120/208 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 400 A MCB
FED FROM: XFMR-SITE-EV | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 65,000A | **BUS RATING:** 400 A
BRANCH: | **NEMA:** | **AVAILABLE FAULT CURRENT:** | **MOUNTING:**

CKT NO	CIRCUIT DESCRIPTION	POLE	FRAME	TRIP	LOAD (kVA)	REMARKS
1	EV CHGR #1	2	400 A	40 A	6.66	
2	EV CHGR #2	2	400 A	40 A	6.66	
3	EV CHGR #3	2	400 A	40 A	6.66	
4	EV CHGR #4	2	400 A	40 A	6.66	
5	SPACE	1	--	--	--	
6	SPACE	1	--	--	--	
7	SPACE	1	--	--	--	
8	SPACE	1	--	--	--	
9	SPACE	1	--	--	--	
10	SPACE	1	--	--	--	
11	SPACE	1	--	--	--	
12	SPACE	1	--	--	--	
13	SPACE	1	--	--	--	
14	SPACE	1	--	--	--	
15	SPACE	1	--	--	--	
16	SPACE	1	--	--	--	
17	SPACE	1	--	--	--	
18	SPACE	1	--	--	--	
19	SPACE	1	--	--	--	
20	SPACE	1	--	--	--	
21	SPACE	1	--	--	--	
22	SPACE	1	--	--	--	
23	SPACE	1	--	--	--	
24	SPACE	1	--	--	--	
25	SPACE	1	--	--	--	
26	SPACE	1	--	--	--	
27	SPACE	1	--	--	--	
28	SPACE	1	--	--	--	
29	SPACE	1	--	--	--	
30	SPACE	1	--	--	--	
31	SPACE	1	--	--	--	
32	SPACE	1	--	--	--	
33	SPACE	1	--	--	--	
34	SPACE	1	--	--	--	
35	SPACE	1	--	--	--	
36	SPACE	1	--	--	--	
37	SPACE	1	--	--	--	
38	SPACE	1	--	--	--	
39	SPACE	1	--	--	--	
40	SPACE	1	--	--	--	
41	SPACE	1	--	--	--	
42	SPACE	1	--	--	--	
				TOTAL (kVA)	26.62	

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
Power	26,624 VA	74 A	100.00%	26,624 VA	74 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	26,624 VA	74 A	26,624 VA	74 A

NOTES:

PANEL: PNL-UPS-HSE-11-01
LOCATION: | **VOLTAGE:** 120/208 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 100 A MCB
FED FROM: PNL-UPS-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 100 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	R	20 A	1	RECEPT SEC OFFICE 0134	0.54 / 0.25			CP-1 CIRC PUMP JAN 120	2	20 A	P	2
3	R	20 A	1	RECEPT SEC OFFICE 0134		0.54 / 0.25						4
5	R	20 A	1	RECEPT SEC OFFICE 0134			1.08 / 0.60	TRAP PRIMER RISER 0164	1	20 A	P	6
7	R	20 A	1	RECEPT SEC OFFICE 0134	1.08 / 0.00			SPARE	1	20 A	--	8
9	R	20 A	1	RECEPT SDP 0133		0.54 / 0.00		SPARE	1	20 A	--	10
11	R	20 A	1	RECEPT SEC MANAGER 0132			1.08 / 0.00	SPARE	1	20 A	--	12
13	R	20 A	1	RECEPT KEYWATCHER SEC OFFICE 0134	0.18 / 0.00			SPARE	1	20 A	--	14
15	R	20 A	1	RECEPT KEYWATCHER CORRIDOR 0191		0.18 / 0.00		SPARE	1	20 A	--	16
17	R	20 A	1	RECEPT SEC RECEPTION 0131			0.72 / 0.00	SPARE	1	20 A	--	18
19	R	20 A	1	RECEPT SEC RECEPTION 0131	0.72 / 0.00			SPARE	1	20 A	--	20
21	P	30 A	2	RACK RCPT MDF 0192		1.50 / 0.00		SPARE	1	20 A	--	22
23							1.50 / 0.00	SPACE	1	--	--	24
25	P	30 A	2	RACK RCPT MDF 0192	1.50 / 0.00			SPACE	1	--	--	26
27						1.50 / 0.00		SPACE	1	--	--	28
29	P	30 A	2	RACK RCPT MDF 0192			1.50 / 0.00	SPACE	1	--	--	30
31					1.50 / 0.00			SPACE	1	--	--	32
33	P	30 A	2	RACK RCPT MDF 0192		1.50 / 0.00		SPACE	1	--	--	34
35							1.50 / 0.00	SPACE	1	--	--	36
37	P	30 A	2	RACK RCPT MDF 0192	1.50 / 0.00			SPACE	1	--	--	38
39						1.50 / 0.00		SPACE	1	--	--	40
41							0.00 / 0.00	SPACE	1	--	--	42
					7.27 kVA	7.51 kVA	7.98 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	16,100 VA	45 A	100.00%	16,100 VA	45 A
R	6,660 VA	18 A	100.00%	6,660 VA	18 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	22,760 VA	63 A	22,760 VA	63 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

PANEL: PNL-SITE-11
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 100 A MCB
FED FROM: XRMR-SITE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 150 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					1.50 / 1.50							2
3	M	20 A	3	GUARD BOOTH GATE		1.50 / 1.50		GUARD BOOTH GATE	3	20 A	M	4
5							1.50 / 1.50					6
7					1.50 / 0.00			SPACE	1	--	--	8
9	M	20 A	3	GUARD BOOTH GATE		1.50 / 0.00		SPACE	1	--	--	10
11							1.50 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					4.50 kVA	4.50 kVA	4.50 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
M	13,500 VA	16 A	108.33%	14,625 VA	18 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	13,500 VA	16 A	14,625 VA	18 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-CAFE-11
LOCATION: | **VOLTAGE:** 120/208 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 100 A MCB
FED FROM: XFMR-CAFE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 100 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** 10kA | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	R	20 A	1	MERCHANDISER FREEDOM CAFE 0102	1.00 / 0.00			SPARE	1	20 A	--	2
3	K	20 A	1	MICROWAVE FREEDOM CAFE 0102		1.20 / 0.00		SPARE	1	20 A	--	4
5	K	20 A	1	MICROWAVE FREEDOM CAFE 0102			1.20 / 0.00	SPARE	1	20 A	--	6
7	R	20 A	1	REFRIGERATOR FREEDOM CAFE 0102	1.00 / 0.00			SPARE	1	20 A	--	8
9	R	20 A	1	REFRIGERATOR FREEDOM CAFE 0102		1.00 / 0.00		SPARE	1	20 A	--	10
11	R	20 A	1	ICE MAKER FREEDOM CAFE 0102			0.80 / 0.00	SPARE	1	20 A	--	12
13	K	20 A	1	COFFEE MAKER FREEDOM CAFE 0102	1.20 / 0.00			SPARE	1	20 A	--	14
15	R	20 A	1	RECEPT COUNTER FREE. CAFE 0102		1.00 / 0.00		SPARE	1	20 A	--	16
17	R	20 A	1	RECEPT COUNTER FREE. CAFE 0102			1.00 / 0.00	SPARE	1	20 A	--	18
19	K	20 A	1	DISH WASHER FREEDOM CAFE 0102	0.80 / 0.00			SPARE	1	20 A	--	20
21	R	20 A	1	RECEPT COUNTER FREE. CAFE 0102		1.00 / 0.00		SPARE	1	20 A	--	22
23	R	20 A	1	RECEPT FREEDOM CAFE 0102			1.08 / 0.00	SPARE	1	20 A	--	24
25	R	20 A	1	RECEPT FREEDOM CAFE 0102	0.90 / 0.00			SPARE	1	20 A	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					4.90 kVA	4.20 kVA	4.08 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
K	4,400 VA	12 A	93.64%	4,120 VA	11 A
R	8,780 VA	24 A	100.00%	8,780 VA	24 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	13,180 VA	37 A	12,900 VA	36 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH21
LOCATION: | **VOLTAGE:** 480/277 Wye | **NEW/EXISTING:** Core & Shell | **MAIN:** 250 A MCB
FED FROM: SWD-HSE-11 | **PHASE / WIRE:** 3PH / 4W | **BRACING (AMPS):** 10,000A | **BUS RATING:** 400 A
BRANCH: | **NEMA:** Type 1 | **AVAILABLE FAULT CURRENT:** | **MOUNTING:** SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					4.68 / 0.00			SPACE	1	--	--	2
3	Spare; R	20 A	3	XFMR-DH21		4.32 / 0.00		SPACE	1	--	--	4
5							2.88 / 0.00	SPACE	1	--	--	6
7	Spare; P	20 A	3	PNL-DH21-MP	2.00 / 0.00			SPACE	1	--	--	8
9						2.00 / 0.00		SPACE	1	--	--	10
11							3.00 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					6.68 kVA	6.32 kVA	5.88 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	7,000 VA	8 A	100.00%	7,000 VA	8 A
R	11,880 VA	14 A	92.09%	10,940 VA	13 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	18,880 VA	23 A	17,940 VA	22 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO REGISTERED 34544 JAMES SCOTT COX PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

PANEL SCHEDULES - FRONT OF HOUSE

JOB 24464.0000
DATE 01.31.25
SHEET E07-13

2/5/2025 9:49:42 AM E07-13 PANEL SCHEDULES - FRONT OF HOUSE

PANEL: PNL-DH22
LOCATION:
FED FROM: PNL-HSE-22
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 250 A MCB
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE		CKT NO / CODE
1					2.34 / 0.00			SPACE	1	--	2
3	Spare; R	20 A	3	XFMR-DH22-RP		2.88 / 0.00		SPACE	1	--	4
5							2.16 / 0.00	SPACE	1	--	6
7					4.00 / 0.00			SPACE	1	--	8
9	Spare; P	20 A	3	PNL-DH22-MP		2.00 / 0.00		SPACE	1	--	10
11							2.00 / 0.00	SPACE	1	--	12
13					0.00 / 0.00			SPACE	1	--	14
15	Spare	20 A	3	PNL-DH22-LP		0.00 / 0.00		SPACE	1	--	16
17							0.00 / 0.00	SPACE	1	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	42
					6.34 kVA	4.88 kVA	4.16 kVA				

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	8,000 VA	10 A	100.00%	8,000 VA	10 A
R	7,380 VA	9 A	100.00%	7,380 VA	9 A
TOTAL	15,380 VA	18 A		15,380 VA	18 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-11
LOCATION:
FED FROM: SWD-HSE-11
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 35,000A
AVAILABLE FAULT CURRENT:
MAIN: 150 A MCB
BUS RATING: 250 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE		CKT NO / CODE
1	L;				2.29 / 0.00			SPACE	1	--	2
3	Spare; e;...	20 A	3	PNL-ELI-HSE-11		1.86 / 0.00		SPACE	1	--	4
5							3.66 / 0.00	SPACE	1	--	6
7	L;				1.28 / 0.00			SPACE	1	--	8
9	Spare; e;...	20 A	3	PNL-ELI-DH11		1.61 / 0.00		SPACE	1	--	10
11							1.44 / 0.00	SPACE	1	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	42
					3.56 kVA	3.46 kVA	5.10 kVA				

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	5,729 VA	7 A	125.00%	7,161 VA	9 A
Lighting - Dwelling Unit	74 VA	0 A	100.00%	74 VA	0 A
Lighting - Interior	6,360 VA	8 A	125.00%	7,950 VA	10 A
TOTAL	12,110 VA	15 A		15,119 VA	18 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

SWITCHBOARD: SWD-HSE-12
LOCATION:
FED FROM:
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA:
NEW/EXISTING: Core & Shell
BRACING (AMPS):
AVAILABLE FAULT CURRENT:
MAIN: 1 A
BUS RATING:
MOUNTING:

CKT NO	CIRCUIT DESCRIPTION	POLE	FRAME	TRIP	LOAD (kVA)	REMARKS
1	PNL-HSE-12	3	400 A	20 A	83.32	
2	PNL-DH-12	3	400 A	20 A	17.84	
3	PNL-HSE-22	3	400 A	20 A	103.47	
4	SPACE	1	--	--	--	
5	SPACE	1	--	--	--	
6	SPACE	1	--	--	--	
7	SPACE	1	--	--	--	
8	SPACE	1	--	--	--	
9	SPACE	1	--	--	--	
10	SPACE	1	--	--	--	
11	SPACE	1	--	--	--	
12	SPACE	1	--	--	--	
13	SPACE	1	--	--	--	
14	SPACE	1	--	--	--	
15	SPACE	1	--	--	--	
16	SPACE	1	--	--	--	
17	SPACE	1	--	--	--	
18	SPACE	1	--	--	--	
19	SPACE	1	--	--	--	
20	SPACE	1	--	--	--	
21	SPACE	1	--	--	--	
22	SPACE	1	--	--	--	
23	SPACE	1	--	--	--	
24	SPACE	1	--	--	--	
25	SPACE	1	--	--	--	
26	SPACE	1	--	--	--	
27	SPACE	1	--	--	--	
28	SPACE	1	--	--	--	
29	SPACE	1	--	--	--	
30	SPACE	1	--	--	--	
31	SPACE	1	--	--	--	
32	SPACE	1	--	--	--	
33	SPACE	1	--	--	--	
34	SPACE	1	--	--	--	
35	SPACE	1	--	--	--	
36	SPACE	1	--	--	--	
37	SPACE	1	--	--	--	
38	SPACE	1	--	--	--	
39	SPACE	1	--	--	--	
40	SPACE	1	--	--	--	
41	SPACE	1	--	--	--	
42	SPACE	1	--	--	--	
				TOTAL (kVA)	204.59	

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	137,300 VA	165 A	100.00%	137,300 VA	165 A
L	5,301 VA	6 A	125.00%	6,627 VA	8 A
R	37,000 VA	45 A	63.51%	23,500 VA	28 A
K	3,700 VA	4 A	97.30%	3,600 VA	4 A
M	11,800 VA	14 A	115.89%	13,675 VA	16 A
Lighting - Interior	5,640 VA	7 A	125.00%	7,050 VA	8 A
LITES	2,346 VA	3 A	125.00%	2,933 VA	4 A
TOTAL	204,591 VA	246 A		196,523 VA	236 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	

NOTES:

PANEL: PNL-DH-12
LOCATION:
FED FROM: SWD-HSE-12
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 400 A MCB
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE		CKT NO / CODE
1					2.34 / 0.00			SPACE	1	--	2
3	Spare; R	20 A	3	XFMR-DH12-RP		2.34 / 0.00		SPACE	1	--	4
5							2.16 / 0.00	SPACE	1	--	6
7					2.00 / 0.00			SPACE	1	--	8
9	Spare; P	20 A	3	PNL-DH12-MP		6.00 / 0.00		SPACE	1	--	10
11							3.00 / 0.00	SPACE	1	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	42
					4.34 kVA	8.34 kVA	5.16 kVA				

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	11,000 VA	13 A	100.00%	11,000 VA	13 A
R	6,840 VA	8 A	100.00%	6,840 VA	8 A
TOTAL	17,840 VA	21 A		17,840 VA	21 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-HSE-12
LOCATION:
FED FROM:
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 400 A MCB
BUS RATING: 60 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE		CKT NO / CODE
1	L;...	20 A	1	1ST FLR LTG - SOUTHWEST STAIRWAY	0.45 / 0.00			SPARE	1	20 A	-- 2
3	L	20 A	1	EM LTG - CORRIDOR		0.41 / 0.00		SPARE	1	20 A	-- 4
5	L	20 A	1	EM LTG - CORRIDOR			0.44 / 0.00	SPARE	1	20 A	-- 6
7	L	20 A	1	EM LTG - DH 1200 NORTH GALLERY	0.25 / 0.00			SPARE	1	20 A	-- 8
9	L	20 A	1	EM LTG - DH 1200 SOUTH GALLERY		0.25 / 0.00		SPARE	1	20 A	-- 10
11	L;...	20 A	1	L			1.18 / 0.00	SPARE	1	20 A	-- 12
13	L	20 A	1	EM LTG - DH 2200 SOUTH GALLERY	0.28 / 0.00			SPARE	1	20 A	-- 14
15	L	20 A	1	EM LTG - DH 2200 NORTH GALLERY		0.28 / 0.00		SPARE	1	20 A	-- 16
17	L	20 A	1	EM LTG - SECTION R CORRIDOR			0.44 / 0.00	SPARE	1	20 A	-- 18
19	L	20 A	1	L	0.43 / 0.00			SPARE	1	20 A	-- 20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 42
					1.42 kVA	0.95 kVA	2.06 kVA				

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	3,284 VA	4 A	125.00%	4,105 VA	5 A
Lighting - Interior	1,160 VA	1 A	125.00%	1,450 VA	2 A
TOTAL	4,431 VA	5 A		5,538 VA	7 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-HSE-12
LOCATION:
FED FROM: SWD-HSE-12
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 400 A MCB
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE		CKT NO / CODE
1	L;				4.81 / 0.00			SPARE	1	20 A	-- 2
3	Spare; e;...	20 A	3	PNL-LP-12		4.29 / 0.00		SPARE	1	20 A	-- 4
5							3.92 / 0.00	SPARE	1	20 A	-- 6
7	Spare				23.60 / 0.00			SPARE	1	20 A	-- 8
9	e; M;	20 A	3	PNL-MP-12		8.60 / 0.00		SPARE	1	20 A	-- 10
11	P						14.60 / 0.00	SPARE	1	20 A	-- 12
13	Spare				8.96 / 0.00			SPARE	1	20 A	-- 14
15	e; R;	20 A	3	XFMR-RP-12		7.68 / 0.00		SPARE	1	20 A	-- 16
17	K; ...						7.46 / 0.00	SPARE	1	20 A	-- 18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	-- 38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	-- 40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	-- 42
					37.09 kVA	20.32 kVA	25.93 kVA				

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
K	3,700 VA	4 A	97.30%	3,600 VA	4 A
L	2,763 VA	3 A	125.00%	3,454 VA	4 A
Lighting - Dwelling Unit	259 VA	0 A	100.00%	259 VA	0 A
Lighting - Exterior	2,130 VA	3 A	125.00%	2,663 VA	3 A
M	11,800 VA	14 A	115.89%	13,675 VA	16 A
P	40,000 VA	48 A	100.00%	40,000 VA	48 A
R	15,400 VA	19 A	82.47%	12,700 VA	15 A
Lighting - Interior	5,640 VA	7 A	125.00%	7,050 VA	8 A
LITES	2,346 VA	3 A	125.00%	2,933 VA	4 A
TOTAL	83,321 VA	100 A		85,466 VA	103 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-UPS-HSE-12
LOCATION:
FED FROM: XFMR-HSE-12-01
BRANCH:
VOLTAGE: 120/208 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 400 A MCB
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					6.00 / 0.00			SPARE	1	20 A	--	2
3	P	20 A	3	PNL-UPS-HSE-12-01		4.50 / 0.00		SPARE	1	20 A	--	4
5							4.50 / 0.00	SPARE	1	20 A	--	6
7	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	8
9	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	10
11	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	12
13	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	14
15	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	16
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18
19	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					6.00 kVA	4.50 kVA	4.50 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	15,000 VA	42 A	100.00%	15,000 VA	42 A
TOTAL	15,000 VA	42 A		15,000 VA	42 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP-12
LOCATION:
FED FROM: XFMR-RP-12
BRANCH:
VOLTAGE: 120/208 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT: 10kA
MAIN: 250 A MCB
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	R	20 A	1	RECEPT LOADING DOCK 1408	0.72 / 0.72			RECEPT RR 1202	1	20 A	R	2
3	R	20 A	1	RECEPT LOADING DOCK 1408		0.72 / 0.72		RECEPT RR 1200,1202	1	20 A	R	4
5	R	20 A	1	RECEPT RM 1407,1408,1410			0.54 / 0.50	ICE MAKER BREAK RM 1203	1	20 A	P	6
7	R	20 A	1	RECEPT RM 1300,1405,1406	0.90 / 1.00			DISWASHER BREAK RM 1203	1	20 A	K	8
9	R	20 A	1	SUMP PUMP RECEPT FREIGHT ELEV 1404		1.18 / 1.00		GARBAGE DISPOSAL BREAK RM 1203	1	20 A	M	10
11	R	20 A	1	RECEPT RM 1402, 1403			1.08 / 1.50	COFFEE MAKER BREAK RM 1203	1	20 A	K	12
13	R	20 A	1	RECEPT RM 1400, 1401	0.90 / 1.20			MICROWAVE BREAK RM 1203	1	20 A	K	14
15	R	20 A	1	RECEPT OFFICE 1207		0.72 / 1.00		REFRIGERATOR BREAK RM 1203	1	20 A	P	16
17	R	20 A	1	RECEPT OFFICE 1206			0.90 / 0.72	RECEPT BREAK RM 1203	1	20 A	R	18
19	R	20 A	1	RECEPT OFFICE 1205	0.72 / 0.90			RECEPT BREAK RM 1203	1	20 A	R	20
21	R	20 A	1	RECEPT OFFICE 1204		0.90 / 0.36		RECEPT RR 1409	1	20 A	R	22
23	R	20 A	1	RECEPT FACILITIES OFFICE 1201			0.72 / 0.00	SPACE	1	--	--	24
25	R	20 A	1	RECEPT FACILITIES OFFICE 1201	0.90 / 0.00			SPACE	1	--	--	26
27	R	20 A	1	RECEPT FACILITIES OFFICE 1201		0.54 / 0.00		SPACE	1	--	--	28
29	P	20 A	1	1201 DESK POWER ROW 1,2,3			1.50 / 0.00	SPACE	1	--	--	30
31	P	20 A	1	1201 DESK POWER ROW 4,5	1.00 / 0.00			SPACE	1	--	--	32
33	R	20 A	1	RECEPT FACILITIES OFFICE 1201		0.54 / 0.00		SPACE	1	--	--	34
35	--	20 A	1	SPARE			0.00 / 0.00	SPACE	1	--	--	36
37	--	20 A	1	SPARE	0.00 / 0.00			SPACE	1	--	--	38
39	--	20 A	1	SPARE		0.00 / 0.00		SPACE	1	--	--	40
41	--	20 A	1	SPARE			0.00 / 0.00	SPACE	1	--	--	42
					8.96 kVA	7.68 kVA	7.46 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
K	3,700 VA	10 A	97.30%	3,600 VA	10 A
M	1,000 VA	3 A	125.00%	1,250 VA	3 A
P	4,000 VA	11 A	100.00%	4,000 VA	11 A
R	15,400 VA	43 A	82.47%	12,700 VA	35 A
TOTAL	24,100 VA	67 A		21,550 VA	60 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TLD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34514 PROFESSIONAL ENGINEER
1/21/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

PANEL SCHEDULES - BACK OF HOUSE

JOB 24464.0000
DATE 01.31.25
SHEET

E07-14

2/5/2025 9:49:45 AM E07-14 PANEL SCHEDULES - BACK OF HOUSE

260 of

PANEL: PNL-LP-12
LOCATION: | **FED FROM:** PNL-HSE-12 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 35,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 100 A MCB | **BUS RATING:** 150 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	Lig...	20 A	1	1ST FLR LTG - SOUTHWEST	1.64 / 0.11			1ST FLR LTG - SOUTHWEST FREIGHT...	1	20 A	L	2
3	Lig...	20 A	1	1ST FLR LTG - SOUTHWEST		1.30 / 0.79		LIGHTING - DWELLING UNIT	1	20 A	L	4
5	Lig...	20 A	1	1ST FLR LTG - NORTHWEST			0.90 / 2.35	EXTERIOR SITE POLE LIGHTING	1	20 A	LIT...	6
7	L...	20 A	1	2ND FLR LTG - NORTHWEST	0.44 / 2.13			EXTERIOR WALL MOUNTED LIGHTING	1	20 A	Lig...	8
9	Lig...	20 A	1	2ND FLR LTG - SOUTHWEST		0.96 / 0.73		LIGHTING - DWELLING UNIT	1	20 A	L	10
11	Lig...	20 A	1	2ND FLR LTG - SOUTHWEST			0.78 / 0.00	SPARE	1	20 A	--	12
13	L	20 A	1	1ST FLR LTG - DH 1200 SOUTH GALLERY	0.51 / 0.00			SPARE	1	20 A	--	14
15	L	20 A	1	1ST FLR LTG - DH 1200 NORTH GALLERY		0.51 / 0.00		SPARE	1	20 A	--	16
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18
19	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	20
21	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	22
23	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	24
25	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	26
27	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	28
29	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					4.81 kVA	4.29 kVA	3.92 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	2,763 VA	3 A	125.00%	3,454 VA	4 A
Lighting - Dwelling Unit	259 VA	0 A	100.00%	259 VA	0 A
Lighting - Exterior	2,130 VA	3 A	125.00%	2,663 VA	3 A
Lighting - Interior	5,640 VA	7 A	125.00%	7,050 VA	8 A
LITES	2,346 VA	3 A	125.00%	2,933 VA	4 A
TOTAL	12,971 VA	16 A		16,149 VA	19 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP-12-2
LOCATION: | **FED FROM:** | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 400 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	P	20 A	2	FCU-1410-01	1.70 / 0.00			SPARE	1	20 A	--	2	
3						1.70 / 0.00		SPARE	1	20 A	--	4	
5	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	6	
7	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	8	
9	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	10	
11	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	12	
13	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	14	
15	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	16	
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18	
19	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	20	
21	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	22	
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					1.70 kVA	1.70 kVA	0.00 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	3,400 VA	9 A	100.00%	3,400 VA	9 A
TOTAL	3,400 VA	9 A		3,400 VA	9 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-MP-12
LOCATION: | **FED FROM:** PNL-HSE-12 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 65,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 300 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	P	70 A	1	IWH-2 WATER HEATER RR 1409	15.00 / 0.00			SPARE	1	20 A	--	2	
3						0.50 / 0.00		SPARE	1	20 A	--	4	
5	M	20 A	3	OHD DOCK 1408 01,02,03			0.50 / 0.00	SPARE	1	20 A	--	6	
7					0.50 / 0.00			SPARE	1	20 A	--	8	
9						2.50 / 0.00		SPARE	1	20 A	--	10	
11	M	20 A	3	DOCK LIFT 1408			2.50 / 0.00	SPARE	1	20 A	--	12	
13					2.50 / 0.00			SPARE	1	20 A	--	14	
15						0.43 / 0.00		SPARE	1	20 A	--	16	
17	M	20 A	3	DOCK LEVELER 1408			0.43 / 0.00	SPARE	1	20 A	--	18	
19					0.43 / 0.00			SPARE	1	20 A	--	20	
21						0.17 / 0.00		SPARE	1	20 A	--	22	
23	M	20 A	3	OHD CORRIDOR 1300			0.17 / 0.00	SPARE	1	20 A	--	24	
25					0.17 / 0.00			SPARE	1	20 A	--	26	
27	P	25 A	1	VAV-1408-01		5.00 / 0.00		SPARE	1	20 A	--	28	
29	P	50 A	1	FPT-1408-01			11.00 / 0.00	SPARE	1	20 A	--	30	
31	P	25 A	1	VAV-1300-07	5.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					23.60 kVA	8.60 kVA	14.60 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
M	10,800 VA	13 A	117.36%	12,675 VA	15 A
P	36,000 VA	43 A	100.00%	36,000 VA	43 A
TOTAL	46,800 VA	56 A		48,675 VA	59 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH22-MP
LOCATION: | **FED FROM:** PNL-DH22 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 250 A MLO | **BUS RATING:** 100 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	P	20 A	1	VAV-2300-02	2.00 / 0.00			SPARE	1	20 A	--	2	
3	P	20 A	1	VAV-2300-03		2.00 / 0.00		SPARE	1	20 A	--	4	
5	P	15 A	1	VAV-2300-05			2.00 / 0.00	SPARE	1	20 A	--	6	
7	P	15 A	1	VAV-2300-06	2.00 / 0.00			SPARE	1	20 A	--	8	
9	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	10	
11	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	12	
13	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	14	
15	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	16	
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18	
19	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	20	
21	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	22	
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					4.00 kVA	2.00 kVA	2.00 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	8,000 VA	10 A	100.00%	8,000 VA	10 A
TOTAL	8,000 VA	10 A		8,000 VA	10 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH22-LP
LOCATION: | **FED FROM:** PNL-DH22 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 250 A MLO | **BUS RATING:** 100 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	2	
3	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	4	
5	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	6	
7	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	8	
9	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	10	
11	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	12	
13	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	14	
15	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	16	
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18	
19	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	20	
21	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	22	
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					0.00 kVA	0.00 kVA	0.00 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
TOTAL	0 VA	0 A		0 VA	0 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH12-RP
LOCATION: | **FED FROM:** XFMR-DH12-RP | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 400 A MCB | **BUS RATING:** 100 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	R	20 A	1	RECEPT DATA HALL 1200	0.90 / 0.00			SPARE	1	20 A	--	2	
3	R	20 A	1	RECEPT DATA HALL 1200		0.72 / 0.00		SPARE	1	20 A	--	4	
5	R	20 A	1	RECEPT DATA HALL 1200			0.72 / 0.00	SPARE	1	20 A	--	6	
7	R	20 A	1	RECEPT DATA HALL 1200	0.72 / 0.00			SPARE	1	20 A	--	8	
9	R	20 A	1	RECEPT DATA HALL 1200		0.72 / 0.00		SPARE	1	20 A	--	10	
11	R	20 A	1	RECEPT DATA HALL 1200			0.72 / 0.00	SPARE	1	20 A	--	12	
13	R	20 A	1	RECEPT CORRIDOR 1300	0.72 / 0.00			SPARE	1	20 A	--	14	
15	R	20 A	1	RECEPT CORRIDOR 1300		0.90 / 0.00		SPARE	1	20 A	--	16	
17	R	20 A	1	RECEPT CORRIDOR 1300			0.72 / 0.00	SPARE	1	20 A	--	18	
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20	
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22	
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					2.34 kVA	2.34 kVA	2.16 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
R	6,840 VA	19 A	100.00%	6,840 VA	19 A
TOTAL	6,840 VA	19 A		6,840 VA	19 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-LP-22
LOCATION: | **FED FROM:** PNL-HSE-22 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 250 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	L	20 A	1	2ND FLR LTG - DH 2200 SOUTH GALLERY	0.48 / 0.00			SPARE	1	20 A	--	2	
3	L	20 A	1	2ND FLR LTG - DH 2200 NORTH GALLERY		0.48 / 0.00		SPARE	1	20 A	--	4	
5	L	20 A	1	2ND FLR LTG - SECTION R CORRIDOR			0.76 / 0.00	SPARE	1	20 A	--	6	
7	L	20 A	1	LIGHTING - DWELLING UNIT	0.82 / 0.00			SPARE	1	20 A	--	8	
9	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	10	
11	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	12	
13	--	20 A	1	SPARE	0.00 / 0.00			SPARE	1	20 A	--	14	
15	--	20 A	1	SPARE		0.00 / 0.00		SPARE	1	20 A	--	16	
17	--	20 A	1	SPARE			0.00 / 0.00	SPARE	1	20 A	--	18	
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20	
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22	
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					1.30 kVA	0.48 kVA	0.76 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	2,538 VA	3 A	125.00%	3,173 VA	4 A
TOTAL	2,538 VA	3 A		3,173 VA	4 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-HSE-22
LOCATION: | **FED FROM:** SWD-HSE-12 | **BRANCH:**
VOLTAGE: 480/277 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:**
MAIN: 250 A MCB | **BUS RATING:** 400 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	L; Spare	20 A	3	PNL-LP-22	1.30 / 0.00			SPACE	1	--	--	2	
3						0.48 / 0.00		SPACE	1	--	--	4	
5							0.76 / 0.00	SPACE	1	--	--	6	
7					19.00 / 0.00			SPACE	1	--	--	8	
9	Spare; P	20 A	3	PNL-MP22		19.00 / 0.00		SPACE	1	--	--	10	
11							12.00 / 0.00	SPACE	1	--	--	12	
13	Spare; R	20 A	3	XFMR-RP-22	13.38 / 0.00			SPACE	1	--	--	14	
15						11.32 / 0.00		SPACE	1	--	--	16	
17	P						10.98 / 0.00	SPACE	1	--	--	18	
19	Spare				6.34 / 0.00			SPACE	1	--	--	20	
21	e; R; P	20 A	3	PNL-DH22		4.88 / 0.00		SPACE	1	--	--	22	
23							4.16 / 0.00	SPACE	1	--	--	24	
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26	
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28	
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30	
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32	
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34	
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36	
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38	
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40	
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42	
					39.95 kVA	35.66 kVA	27.86 kVA						

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
L	2,538 VA	3 A	125.00%	3,173 VA	4 A
P	86,300 VA	104 A	100.00%	86,300 VA	104 A
R	14,760 VA	18 A	83.88%	12,380 VA	15 A
TOTAL	103,474 VA	124 A		101,699 VA	122 A

LOAD CLASSIFICATIONS - CODE LEGEND
L = LIGHTING | R = RECEPTACLE
H = HEATING | M = MOTOR
C = CONTINUOUS | N = NON-CONTINUOUS
E = ELEVATOR | K = KITCHEN

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-DH22-RP
LOCATION: | **FED FROM:** XFMR-DH22-RP | **BRANCH:**
VOLTAGE: 120/208 Wye | **PHASE / WIRE:** 3PH / 4W | **NEMA:** Type 1
NEW/EXISTING: Core & Shell | **BRACING (AMPS):** 10,000A | **AVAILABLE FAULT CURRENT:** 10kA
MAIN: 250 A MCB | **BUS RATING:** 100 A | **MOUNTING:** SURFACE

CKT NO / CODE		CB TRIP-POLE		LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE		CB TRIP-POLE		CKT NO / CODE	
1	R	20 A	1	RECEPT DATA HALL 2200	0.72 / 0.00			SPARE	1	20 A	--	2	
3	R	20 A	1	RECEPT DATA HALL 2200		1.08 / 0.00		SPARE	1	20 A	--	4	
5	R	20 A	1	RECEPT DATA HALL 2200			1.08 / 0.00	SPARE	1	20 A	--	6	
7	R	20 A	1	RECEPT CORRIDOR 2200	0.72 / 0.00			SPARE	1	20 A	--	8	

PANEL: PNL-RP22-2
LOCATION:
FED FROM: PNL-RP22
BRANCH:
VOLTAGE: 120/208 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT: 10kA
MAIN: 250 A MCB
BUS RATING: 250 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	20 A	2	CU/FCU-2404-02	1.70 / 0.00			SPACE	1	--	--	2
3						1.70 / 0.00		SPACE	1	--	--	4
5							1.70 / 0.00	SPACE	1	--	--	6
7	P	20 A	2	CU/FCU-2400-01	1.70 / 0.00			SPACE	1	--	--	8
9						1.70 / 0.00		SPACE	1	--	--	10
11							1.70 / 0.00	SPACE	1	--	--	12
13	P	20 A	2	CU/FCU-2400-03	1.70 / 0.00			SPACE	1	--	--	14
15						1.70 / 0.00		SPACE	1	--	--	16
17	P	20 A	2	CU/FCU-2400-04			1.70 / 0.00	SPACE	1	--	--	18
19					1.70 / 0.00			SPACE	1	--	--	20
21	P	20 A	2	CU/FCU-2402-01		1.70 / 0.00		SPACE	1	--	--	22
23							1.70 / 0.00	SPACE	1	--	--	24
25	P	20 A	2	CU/FCU-2402-02	1.70 / 0.00			SPACE	1	--	--	26
27						1.70 / 0.00		SPACE	1	--	--	28
29	P	20 A	2	CU/FCU-2402-03			1.70 / 0.00	SPACE	1	--	--	30
31					1.70 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					10.20 kVA	8.50 kVA	8.50 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	27,200 VA	75 A	100.00%	27,200 VA	75 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	27,200 VA	75 A	27,200 VA	75 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-RP22
LOCATION:
FED FROM: XFMR-RP-22
BRANCH:
VOLTAGE: 120/208 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT: 10kA
MAIN: 250 A MCB
BUS RATING: 250 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					10.20 / 0.00			SPARE	1	20 A	--	2
3	P	20 A	3	PNL-RP22-2		8.50 / 0.00		SPARE	1	20 A	--	4
5							8.50 / 0.00	SPARE	1	20 A	--	6
7	R	20 A	1	RECEPT SHELL 2406	0.72 / 0.00			SPARE	1	20 A	--	8
9	R	20 A	1	RECEPT SHELL 2406		0.72 / 0.00		SPARE	1	20 A	--	10
11	R	20 A	1	RECEPT RM 2301,2404,2405			0.90 / 0.00	SPARE	1	20 A	--	12
13	R	20 A	1	RECEPT HOUSE ELEC 2402	1.08 / 0.00			SPARE	1	20 A	--	14
15	R	20 A	1	RECEPT MMR 2400		0.72 / 0.00		SPARE	1	20 A	--	16
17	R	20 A	1	RECEPT FACILITIES SHOP 2204			0.36 / 0.00	SPARE	1	20 A	--	18
19	R	20 A	1	RECEPT FACILITIES SHOP 2204	0.36 / 0.00			SPARE	1	20 A	--	20
21	R	20 A	1	RECEPT RM 2203,2303,2304		0.54 / 0.00		SPARE	1	20 A	--	22
23	R	20 A	1	RECEPT SHELL 2201			0.72 / 0.00	SPARE	1	--	--	24
25	R	20 A	1	RECEPT SHELL 2201	0.72 / 0.00			SPACE	1	--	--	26
27	R	20 A	1	GFI RECEPT RM 2200,2202		0.54 / 0.00		SPACE	1	--	--	28
29	P	20 A	1	CP-2 CIRC PUMP JAN 2203			0.50 / 0.00	SPACE	1	--	--	30
31	P	15 A	2	EF-0153-01	0.30 / 0.00			SPACE	1	--	--	32
33						0.30 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					13.38 kVA	11.32 kVA	10.98 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	28,300 VA	79 A	100.00%	28,300 VA	79 A
R	7,380 VA	20 A	100.00%	7,380 VA	20 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	35,680 VA	99 A	35,680 VA	99 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-MP22
LOCATION:
FED FROM: PNL-HSE-22
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 250 A MLO
BUS RATING: 400 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1					8.00 / 0.00			SPARE	1	20 A	--	2
3	P	40 A	3	EWH-2 WATER HEATER JAN 2203		8.00 / 0.00		SPARE	1	20 A	--	4
5							8.00 / 0.00	SPARE	1	20 A	--	6
7	P	15 A	1	VAV-2301-07	3.00 / 0.00			SPARE	1	20 A	--	8
9	P	15 A	1	VAV-2404-01		2.00 / 0.00		SPARE	1	20 A	--	10
11	P	20 A	1	VAV-2205-01			4.00 / 0.00	SPARE	1	20 A	--	12
13	P	40 A	1	FPT-2202-01	8.00 / 0.00			SPARE	1	20 A	--	14
15	P	45 A	1	VAV-2202-01		9.00 / 0.00		SPARE	1	20 A	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					19.00 kVA	19.00 kVA	12.00 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	50,000 VA	60 A	100.00%	50,000 VA	60 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	50,000 VA	60 A	50,000 VA	60 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-DH22
LOCATION:
FED FROM:
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 250 A MCB
BUS RATING: 60 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	Lig...	20 A	1	LIGHTING - INTERIOR	0.80 / 0.00			SPACE	1	--	--	2
3	Lig...	20 A	1	LIGHTING - INTERIOR		0.80 / 0.00		SPACE	1	--	--	4
5	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	6
7	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	8
9	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	10
11	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					0.80 kVA	0.80 kVA	0.00 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
Lighting - Interior	1,600 VA	2 A	125.00%	2,000 VA	2 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	1,600 VA	2 A	2,000 VA	2 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-ELI-DH-12
LOCATION:
FED FROM: PNL-ELI-DH11
BRANCH:
VOLTAGE: 480/277 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT: <10kA
MAIN: 60 A MCB
BUS RATING: 150 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	Lig...	20 A	1	LIGHTING - INTERIOR	0.80 / 0.00			SPACE	1	--	--	2
3	Lig...	20 A	1	LIGHTING - INTERIOR		0.80 / 0.00		SPACE	1	--	--	4
5	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	6
7	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	8
9	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	10
11	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	12
13	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	14
15	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	16
17	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	18
19	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					0.80 kVA	0.80 kVA	0.00 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
Lighting - Interior	1,600 VA	2 A	125.00%	2,000 VA	2 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	1,600 VA	2 A	2,000 VA	2 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

PANEL: PNL-UPS-HSE-12-01
LOCATION:
FED FROM: PNL-UPS-HSE-12
BRANCH:
VOLTAGE: 120/208 Wye
PHASE / WIRE: 3PH / 4W
NEMA: Type 1
NEW/EXISTING: Core & Shell
BRACING (AMPS): 10,000A
AVAILABLE FAULT CURRENT:
MAIN: 100 A MCB
BUS RATING: 225 A
MOUNTING: SURFACE

CKT NO / CODE	CB TRIP-POLE			LOAD TYPE	A (kVA)	B (kVA)	C (kVA)	LOAD TYPE	CB TRIP-POLE			CKT NO / CODE
1	P	30 A	2	RACK RCPT MDF 0192	1.50 / 0.00			SPACE	1	--	--	2
3						1.50 / 0.00		SPACE	1	--	--	4
5	P	20 A	2	RACK RCPT MDF 0192			1.50 / 0.00	SPACE	1	--	--	6
7					1.50 / 0.00			SPACE	1	--	--	8
9	P	20 A	2	RACK RCPT MDF 0192		1.50 / 0.00		SPACE	1	--	--	10
11							1.50 / 0.00	SPACE	1	--	--	12
13	P	20 A	2	RACK RCPT MDF 0192	1.50 / 0.00			SPACE	1	--	--	14
15						1.50 / 0.00		SPACE	1	--	--	16
17	P	20 A	2	RACK RCPT MDF 0192			1.50 / 0.00	SPACE	1	--	--	18
19					1.50 / 0.00			SPACE	1	--	--	20
21	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	22
23	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	24
25	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	26
27	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	28
29	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	30
31	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	32
33	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	34
35	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	36
37	--	--	1	SPACE	0.00 / 0.00			SPACE	1	--	--	38
39	--	--	1	SPACE		0.00 / 0.00		SPACE	1	--	--	40
41	--	--	1	SPACE			0.00 / 0.00	SPACE	1	--	--	42
					6.00 kVA	4.50 kVA	4.50 kVA					

LOAD CLASSIFICATION	CONNECTED VA / AMPS		DEMAND %	DEMAND VA / AMPS	
P	15,000 VA	42 A	100.00%	15,000 VA	42 A

LOAD CLASSIFICATIONS - CODE LEGEND

L = LIGHTING	R = RECEPTACLE
H = HEATING	M = MOTOR
C = CONTINUOUS	N = NON-CONTINUOUS
E = ELEVATOR	K = KITCHEN

	CONNECTED VA / AMPS		DEMAND VA / AMPS	
TOTAL	15,000 VA	42 A	15,000 VA	42 A

NOTES: 1. ALL SPARE BREAKERS SHALL BE 20A, UNLESS OTHERWISE NOTED.

Every circuit and circuit modification shall be provided with a legible and permanent description that complies with all of the following conditions as applicable (see 1-6). 2023 NEC 408.4

City of Aurora Building Division
Reviewed for Code Compliance
Approved as Noted: Robert Lowman
Date: May 06, 2025
2021 INTERNATIONAL CODES & 2023 NEC

2/5/2025 11:15:17 AM E07-16 PANEL SCHEDULES - BACK OF HOUSE

CORGAN
401 N. Houston Street Dallas, TX 75202
T: 214.748.2000

AG/E

SYSKA HENNESSY GROUP

TCD DESIGN CONSULTING LLC

ISSUES

1	12.20.24	DESIGN DEVELOPMENT
2	01.31.25	ISSUE FOR PERMIT
3		
4		
5		
6		
7		
8		
9		
10		

REVISIONS

COLORADO REGISTERED JAMES SCOTT COX 34544 PROFESSIONAL ENGINEER
1/31/2025

Date of issue: 01.31.25

QTS DEN1 DC2
1140 N. GUN CLUB ROAD
AURORA, CO

KEYPLAN

S	Q	N	L	J	G	E	C	A
T	R	P	M	K	H	F	D	B

PANEL SCHEDULES - BACK OF HOUSE

JOB 24464.0000
DATE 01.31.25
SHEET

E07-16

COM*check* Software Version COMcheckWeb

Interior Lighting Compliance Certificate

Project Information

Energy Code:	2021 IECC
Project Title:	QTS DC2
Project Type:	New Construction

Construction Site:
1140 N. GUN CLUB Rd.
Aurora, CO 80018

Owner/Agent:
QTS

Designer/Contractor:
Syska Hennesy

Additional Efficiency Package(s)

Credits: 10.0 Required 56.7 Proposed
Reduced lighting power, 18.1 credit
Reduced lighting power, 38.5 credit

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft2)	C Allowed Watts / ft2	D Allowed Watts
1-Data halls, galleries (Warehouse)	339110	0.45	152600
2-front and back of house (Office)	118400	0.64	75776
		Total Allowed Watts =	228376

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
1-Data halls, galleries (Warehouse)				
LED: C: 4' Linear Strip Light: Other:	1	780	40	31200
LED: D: 4' Linear Strip Light: Other:	1	769	28	21532
2-front and back of house (Office)				
LED: A2: 2x2 LED Troffer: Other:	1	54	35	1890
LED: B1: 6" Downlight: Other:	1	40	19	760
LED: N1: Elevator Pit Light: Other:	1	52	28	1456
LED: O: 4" Interior Downlight: Other:	1	23	14	322
LED: Q: Decorative Pendant: Other:	1	2	63	126
LED: T2: 8' Linear: Other:	1	8	33	264
LED: T1: 4' Linear: Other:	1	14	20	280
LED: T4-2: Recessed Linear w/ Shielding: Other:	1	11	7	77
LED: T4-4: Recessed Linear w/ Shielding: Other:	1	10	13	130
LED: T4-6: Recessed Linear w/ Shielding: Other:	1	7	20	140
LED: T4-8: Recessed Linear w/ Shielding: Other:	1	13	26	338
LED: T4-10: Recessed Linear w/ Shielding: Other:	1	7	33	231
LED: V: 6" Recessed Downlight: Other:	1	19	58	1102
LED: A: 2x4 LED Troffer: Other:	1	6	35	210
LED: B2: 6" Downlight: Other:	1	54	30	1620
LED: G: Mirror Light: Other:	1	24	12	288
LED: Z: Column Light: Other:	1	2	90	180

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
LED: M: Pendant Light: Other:	1	2	3	6
			Total Proposed Watts =	62152

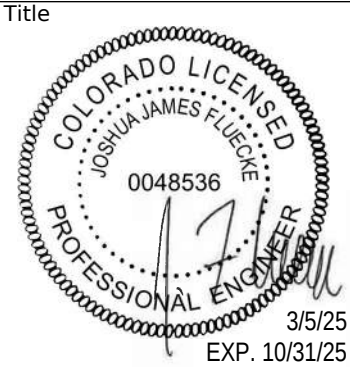
Interior Lighting PASSES: Design 73% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Josh Fluecke - Associate Partner | **3/5/2025**

Name - Title | Signature | Date



COM*check* Software Version COMcheckWeb

Exterior Lighting Compliance Certificate

Project Information

Energy Code:	2021 IECC
Project Title:	QTS DC2
Project Type:	New Construction
Exterior Lighting Zone	2 (Light industrial area with limited nighttime use (LZ2))

Construction Site:
1160 N. Gun Club Rd.
Aurora, Colorado 80018

Owner/Agent:
QTS

Designer/Contractor:
Syska Hennesy

Allowed Exterior Lighting Power

A Area/Surface Category	B Quantity	C Allowed Watts /	D Tradable Wattage	E Allowed Watts (B X C)
Driveway (Driveway)	250000 ft2	0.04	Yes	10000
Guard Post (Guarded facility, entrance/inspection area)	18753 ft2	0.5	No	9376
Entrance (Entry canopy)	13000 ft2	0.25	Yes	3250
Parking (Parking area)	60000 ft2	0.04	Yes	2400
		Total Tradable Watts (a) =		15650
		Total Allowed Watts =		25026
		Total Allowed Supplemental Watts (b) =		400

(a) Wattage tradeoffs are only allowed between tradable areas/surfaces.
(b) A supplemental allowance equal to 400 watts may be applied toward compliance of both non-tradable and tradable areas/surfaces.

Proposed Exterior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixture	D Fixture Watt.	E (C X D)
Driveway (Driveway, 250000 ft2): Tradable Wattage				
LED: S1: Pole Mounted Site Light: Other:	1	8	138	1104
LED: S3: Pole Mounted Site Lighting: Other:	1	11	276	3036
Guard Post (Guarded facility, entrance/inspection area, 18753 ft2): Non-tradable Wattage				
LED: S3: Pole Mounted Site Lighting: Other:	1	2	276	552
Entrance (Entry canopy, 13000 ft2): Tradable Wattage				
LED: S8: Exterior Bollard Light: Other:	1	36	15	540
Parking (Parking area, 60000 ft2): Tradable Wattage				
LED: S1: Pole Mounted Site Lighting: Other:	1	8	138	1104
LED: S3: Pole Mounted Site Lighting: Other:	1	2	276	552
			Total Tradable Proposed Watts =	6336

Exterior Lighting PASSES: Design 61% better than code

Exterior Lighting Compliance Statement

Compliance Statement: The proposed exterior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed exterior lighting systems have been designed to meet the 2021 IECC requirements in COM*check* Version COMcheckWeb and to comply with any applicable

mandatory requirements listed in the Inspection Checklist.

Josh Fluecke - Associate Partner | Signature | **3/5/2025**

Name - Title | Date



COM*check* Software Version COMcheckWeb

Inspection Checklist

Energy Code: 2021 IECC

Requirements: 77.0% were addressed directly in the COM*check* software

Text in the "Comments/Assumptions" column is provided by the user in the COMcheck Requirements screen. For each requirement, the user certifies that a code requirement will be met and how that is documented, or that an exception is being claimed. Where compliance is itemized in a separate table, a reference to that table is provided.

Section # & Req.ID	Plan Review	Complies?	Comments/Assumptions
C103.2 [PR4][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the interior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include interior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 series drawings
C103.2 [PR8][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the exterior lighting and electrical systems and equipment and document where exceptions to the standard are claimed. Information provided should include exterior lighting power calculations, wattage of bulbs and ballasts, transformers and control devices.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C406 [PR9][1]	Plans, specifications, and/or calculations provide all information with which compliance can be determined for the additional energy efficiency package options.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3.1 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 drawing series.
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, corridors, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 drawing series.
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more within 20 minutes of when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor. Lights not turned off by occupant sensors is done so by time-switch.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) general lighting in each zone permitted to turn on upon occupancy in control zone, 3) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 4) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 drawing series.
C405.2.2, C405.2.2.1 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1.1) have time-switch controls and functions detailed in sections C405.2.2.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 drawing series.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.4, C405.2.4.1, C405.2.4.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.2.5 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met. **Location on plans/spec:** E02-01 drawing series.
C405.2.7 [EL28][1]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL26][2]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.8 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.9.1, C405.9.2 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.10 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C405.1.1 [EL30][2]	At least 90% of dwelling unit permanently installed lighting shall have lamp efficacy >= 65 lm/W or luminaires with efficacy >= 45 lm/W or comply with C405.2.4 or C405.3.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.11, C405.11.1 [EL31][2]	50% of 15/20 amp receptacles installed in enclosed offices, conference rooms, copy rooms, break rooms, classrooms and workstations and > 25% of branch circuit feeders for modular furniture will have automatic receptacle control in accordance with C405.11.1.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	**Exception:** Requirement does not apply.
C405.12 [EL32][2]	Buildings with gross conditioned floor area > 25,000 ft2 will be equipped with a energy monitoring system in compliance with C405.12.1 through C405.12.5.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][3]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.5.1 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C406.3 [FI67][1]	Reduced lighting power - this credit specifies that the connected lighting power is >= 10% more efficient than 2021 IECC requirements.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	Requirement will be met.
C408.2.5 [FI16][3]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI33][1]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Additional Comments/Assumptions:

1	High Impact (Tier 1)	2	Medium Impact (Tier 2)	3	Low Impact (Tier 3)