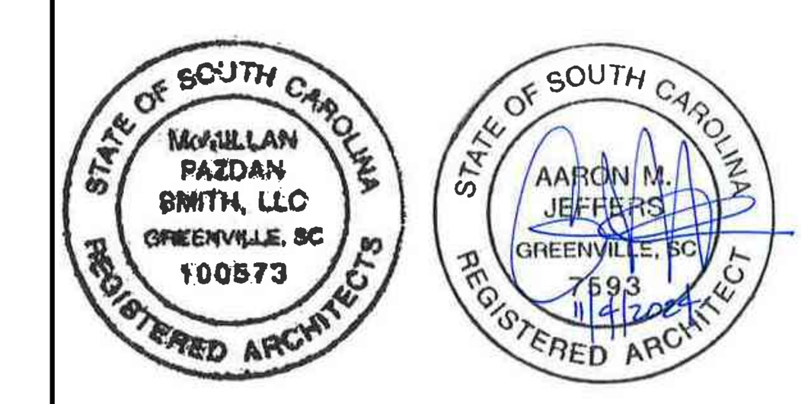
mcmillan pazdan smith
ARCHITECTURE

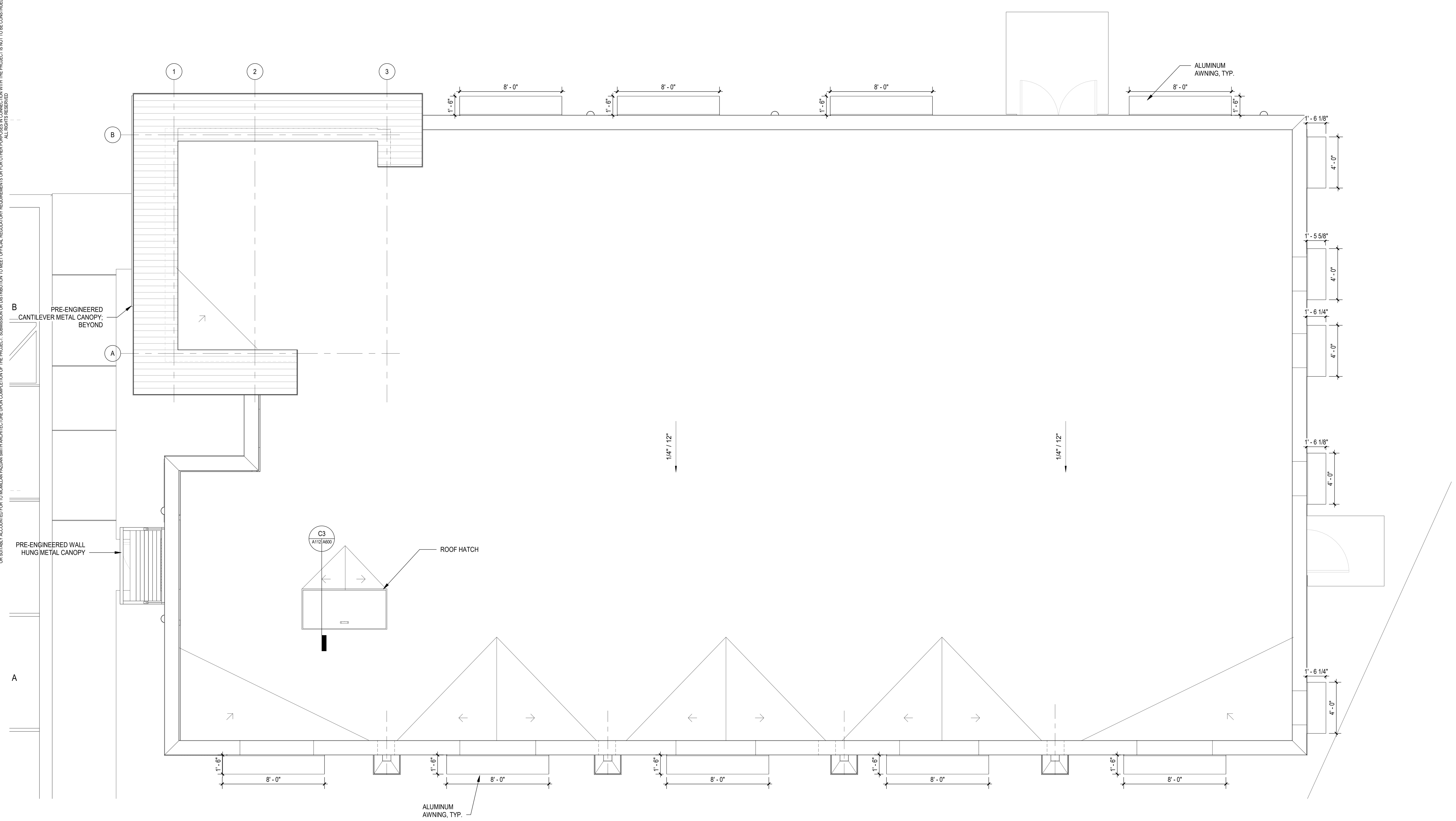
CONSULTANT LOGO

SEALS



BELLA VISTA DENTAL - POWDERSVILLE

Woodson Dr, Ste 112, Powdersville, SC



A1 ROOF PLAN
1/4" = 1'-0"

BELLA VISTA DENTAL
FAMILY- IMPLANT- SEDATION

SHEET ISSUE:

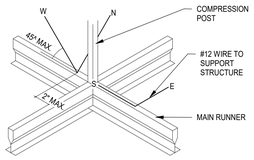
NO.	DATE	DESCRIPTION	BY
A	09/27/2024	DD ISSUE	MPS
B	10/23/2024	90% CD CHECK SET	MPS
C	11/01/2024	PERMIT / BID SET	MPS

PRINCIPAL IN CHARGE: BS
PROJECT ARCHITECT: AJ
DRAWN BY: Author

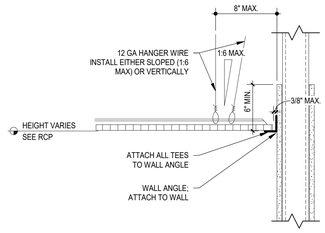
SHEET TITLE:
ROOF PLAN

SHEET NO.
PROJ. NO. 024401.00

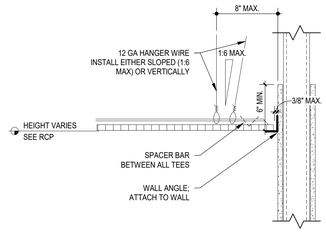
A131



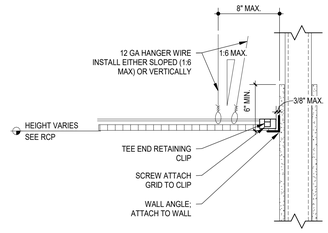
SPLAY BRACING DETAIL (REQ'D @ ROOMS OVER 1000SF)



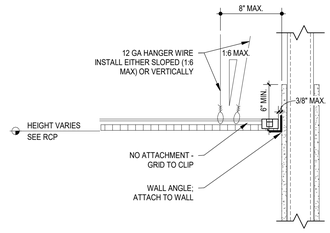
B.1 DETAIL @ TWO ADJACENT WALLS W/ GRID ATTACHED TO WALL ANGLE



B.2 DETAIL @ TWO ADJACENT WALLS W/ NO ATTACHMENT TO WALL ANGLE

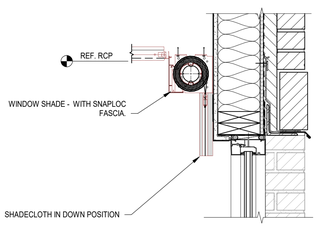


A.1 DETAIL @ TWO ADJACENT WALLS W/ GRID ATTACHED TO WALL ANGLE

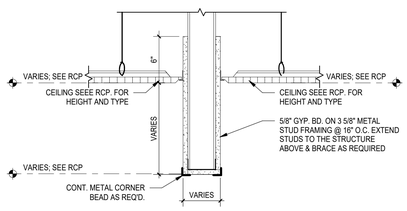


A.2 DETAIL @ TWO ADJACENT WALLS W/ NO ATTACHMENT TO WALL ANGLE

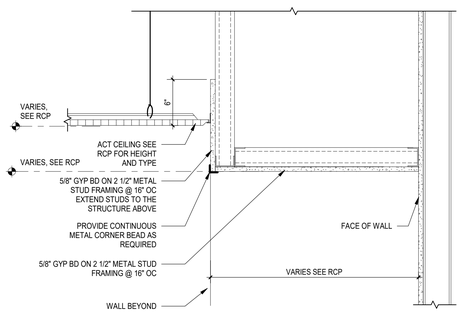
D1 CEILING DETAILS
A210 — 1 1/2" = 1'-0"



C1 MANUAL ROLLER SHADE POCKET DETAIL - RS1
A210 — 1 1/2" = 1'-0"



C2 SOFFIT DETAIL - TYP.
A210 — 1 1/2" = 1'-0"



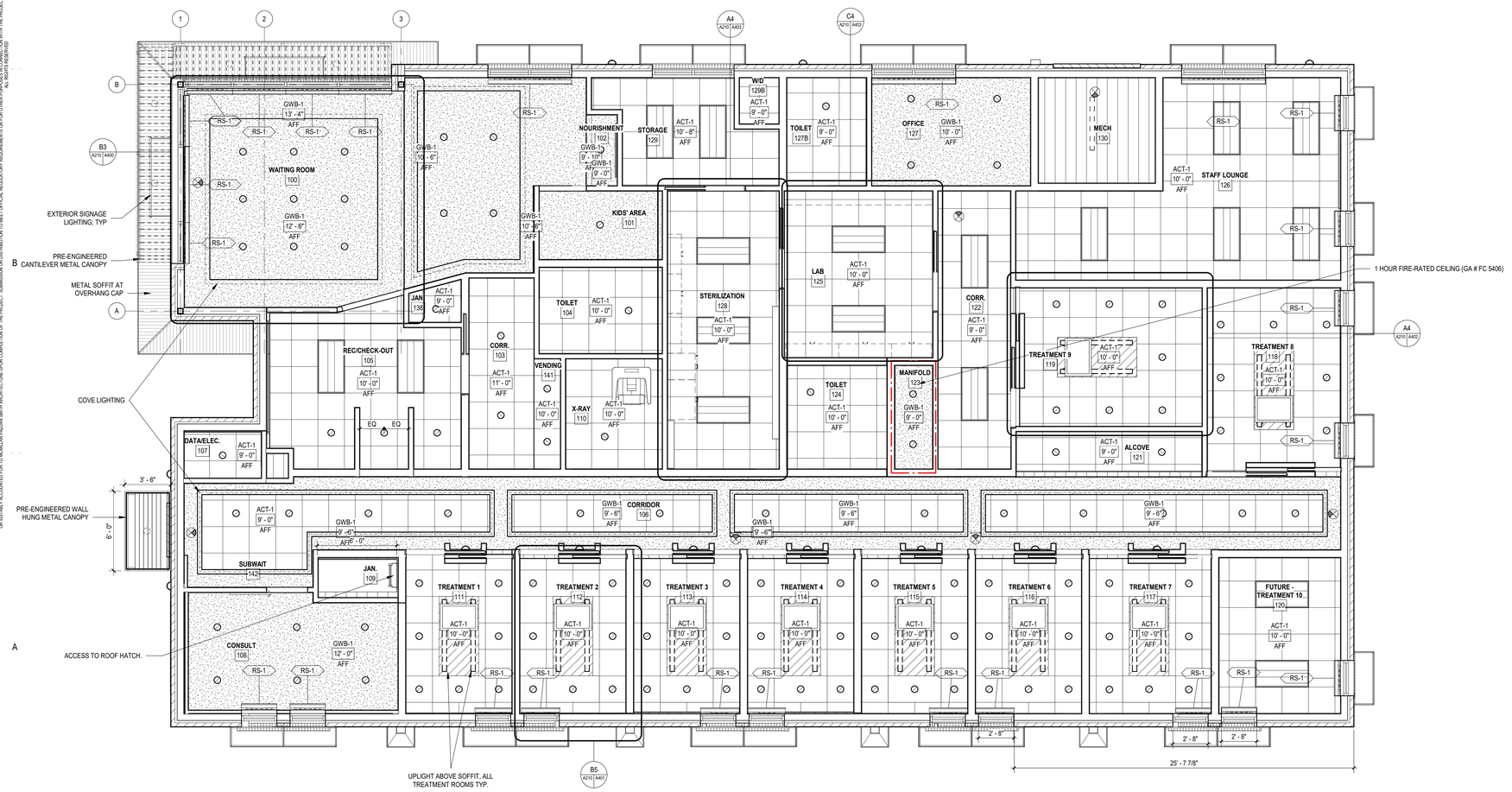
C3 BULKHEAD AT WALL - TYP.
A210 — 1 1/2" = 1'-0"

SEISMIC 'C' NOTES
3" = 1'-0"

CISCA - PROVISIONS APPLICABLE IN ZONE 2, IBC SEISMIC DESIGN CATEGORY C

THE INTENT OF THE FOLLOWING PROVISIONS IS TO PROVIDE AN UNRESTRAINED CEILING SYSTEM THAT WILL ACCOMMODATE THE MOVEMENT OF THE STRUCTURE DURING A SEISMIC EVENT. THE OBJECTIVE IS TO HAVE A FREE-FLOATING CEILING. DYNAMIC TESTING OF A CEILING FOR RESPONSE MOTIONS CONSISTENT WITH ZONE 2 LATERAL FORCE LEVELS HAS VALIDATED THE CONCEPT.

1. EACH INDIVIDUAL FIXTURE AND ATTACHMENTS WITH A COMBINED WEIGHT OF 56 LBS. OR LESS SHALL HAVE TWO NO. 12 GAUGE WIRE HANGERS ATTACHED AT DIAGONAL CORNERS OF THE FIXTURE. THESE WIRES MUST BE SLACK. ANY FIXTURE AND ATTACHMENTS WITH A COMBINED WEIGHT GREATER THAN 56 LBS. MUST BE INDEPENDENTLY SUPPORTED FROM THE STRUCTURE.
2. THE MAIN RUNNER / CROSS RUNNER INTERSECTIONS AND ALL GRID SPLICES MUST HAVE AN AVERAGE ULTIMATE TEST STRENGTH OF 60 LBS. OR MORE IN BOTH TENSION AND COMPRESSION. THE TENSILE TEST MUST ALLOW FOR A 5° OFFSET OF THE CONNECTION IN ANY DIRECTION.
3. THE ACTUAL AVERAGE WEIGHT OF THE CEILING SYSTEM, INCLUDING GRID, PANELS OR TILE, LIGHT FIXTURES, AND AIR TERMINALS MUST BE 2.5 PSF OR LESS. OTHER SERVICES MUST BE SUPPORTED INDEPENDENTLY FROM THE CEILING SYSTEM. FOR CEILINGS THAT HAVE AN AVERAGE WEIGHT GREATER THAN 2.5 PSF, THE CEILING MAY BE INSTALLED AS SPECIFIED IN ZONE 3-4 PROVISIONS, TAKING INTO ACCOUNT THE DESIGN LATERAL FORCE FACTOR APPROPRIATE FOR ZONE
4. OTHER DEVIATIONS OR VARIATIONS MUST BE SUSTAINED BY VERIFIABLE ENGINEERING DATA.
5. THE CEILING SYSTEM CANNOT BE USED TO PROVIDE LATERAL SUPPORT FOR WALLS OR PARTITIONS. WALLS OR PARTITIONS MAY BE ATTACHED TO THE CEILING GRID PROVIDED THEY ALLOW THE CEILING MEMBRANE TO MOVE LATERALLY TO ACCOMMODATE THE REQUIRED CLEARANCE AS SPECIFIED BELOW.
6. PERIMETER CLOSURE ANGLES OR CHANNELS MUST PROVIDE A SUPPORT LEDGE OF APPROXIMATELY 7/8 IN. OR GREATER. A TERMINAL END OF A GRID MEMBER (OR TILE) MUST REST ON THE LEDGE OR MOLDING WITH AT LEAST 3/8 IN. CLEARANCE FROM AN EDGE OR WALL AS SHOWN IN FIGURE 1. FOR THE PERIMETER CLOSURE ANGLES THAT PROVIDE A SUPPORT LEDGE OF LESS THAN NOTED ABOVE. THE TERMINAL ENDS OF EACH CROSS RUNNER OR MAIN RUNNER SHALL BE INDEPENDENTLY SUPPORTED WITHIN 8 IN. FROM EACH WALL OR CEILING DISCONTINUITY AS SHOWN IN FIGURE 3. THIS SUPPORT MAY BE A NO. 12 GAUGE HANGER WIRE OR OTHER SUPPORT THAT PREVENTS THE GRID FROM FALLING. THIS WIRE DOES NOT NEED TO BE VERTICAL BUT SHOULD NOT HAVE A SLOPE OF GREATER THAN 1 IN 8 OUT-OF-PLUMB. A 3/8 IN. GRID END CLEARANCE FROM A WALL SHOULD BE MAINTAINED. ALL CEILING PENETRATIONS (COLUMNS, SPRINKLERS, ETC.) AND INDEPENDENTLY SUPPORTED FIXTURES OR SERVICES ARE TO BE CONSIDERED AS PERIMETER CLOSURES THAT ALSO MUST ALLOW THE NOTED CLEARANCES BY USING SUITABLE ESCUTCHEONS OR CLOSURE DETAILS.
7. AT WALL CLOSURE LEDGES, THE CROSS RUNNER AND MAIN RUNNER ENDS SHALL BE PREVENTED FROM SPREADING APART FROM EACH OTHER. PERMANENT ATTACHMENT (I.E. POP RIVETS) FOR GRID ALIGNMENT PURPOSES SHALL NOT BE PERMITTED.
8. FOR ESSENTIAL FACILITIES, AS DEFINED BY THE IBC, IN ADDITION TO THE REQUIREMENTS IN ITEM 5, A MINIMUM 7/8 IN. WALL ANGLE, AND MAIN RUNNER, IS REQUIRED. IN ADDITION, A 1/2 IN. GRID END CLEARANCE FROM A WALL SHOULD BE MAINTAINED.



A1 FIRST FLOOR RCP
A210 — 1/4" = 1'-0"

RCP LEGEND
NTS

- GYPSUM CEILING
- 2X2 ACOUSTICAL PANEL CEILING
- P.LAM. CEILING
- RECESSED DOWNLIGHT
- 2X4 LIGHT FIXTURE
- WALL SCONCE
- CEILING MOUNTED EXIT SIGN
- LINEAR SLOT SUPPLY DIFFUSER
- RETURN GRILLE
- EXHAUST GRILLE
- RS-1 - ROLLER SHADE

WALL RATING LEGEND

- 1 HOUR FIRE-RATED BARRIER

mcmillan pazdan smith ARCHITECTURE

CONSULTANT LOGO

SEALS

STATE OF SOUTH CAROLINA — McMILLAN PAZDAN SMITH, LLC — GREENVILLE, SC — 100573 — REGISTERED ARCHITECTS

STATE OF SOUTH CAROLINA — AARON M. JEFFERS — GREENVILLE, SC — 21693 — REGISTERED ARCHITECT

BELLA VISTA DENTAL - POWDERSVILLE

Woodson Dr. Ste 112, Powdersville, SC

BELLA VISTA DENTAL — FAMILY- IMPLANT- SEDATION

SHEET ISSUE:

NO.	DATE	DESCRIPTION	BY
A	09/27/2024	DD ISSUE	MPS
C	11/01/2024	PERMIT / BID SET	MPS

PRINCIPAL IN CHARGE: BS
PROJECT ARCHITECT: AJ
DRAWN BY: EM & SM

SHEET TITLE:

FIRST FLOOR RCP

SHEET NO. A210

PROJ. NO. 024401.00

MECHANICAL NOTES

ALL MATERIALS AND EQUIPMENT SHALL BE OF NEW AND OF FIRST QUALITY. WORKMANSHIP SHALL CONFORM TO THE BEST PRACTICE FOR SUCH WORK. ALL INSTALLERS OF THE SYSTEMS SHALL BE TRAINED IN THE INSTALLATION OF THE TYPES OF SYSTEMS BEING INSTALLED.

1. SUBMISSION OF PROPOSAL DIRECTLY OR INDIRECTLY IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH HE WILL BE OBLIGATED TO OPERATE SHOULD HE BE AWARDED THE WORK UNDER THIS CONTRACT. CONTRACTOR SHALL VERIFY EXISTING EQUIPMENTS LOCATIONS IN THE FIELD, AND SHALL ADVISE THE ARCHITECT/ENGINEER AND THE OWNER OF ANY DISCREPANCIES. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
2. CONTRACTOR SHALL VISIT THE SITE AND VERIFY ALL DIMENSIONS IN THE FIELD, AND SHALL ADVISE THE ARCHITECT/ENGINEER AND THE OWNER OF ANY DISCREPANCIES BEFORE PERFORMING THE WORK.
3. FIRE DAMPERS – FIRE DAMPERS SHALL BE USED WHERE DUCTWORK PENETRATES WALLS, FLOORS AND CEILINGS IN A FIRE RATED ASSEMBLY. FIRE STOPPING IS TO BE INSTALLED IN ALL SYSTEMS WHERE A FIRE WALL OR FIRE BARRIER IS PENETRATED. FIRE RATED CAULK SHALL BE USED TO SEAL ALL PENETRATIONS THROUGH FIRE RATED ROOMS FROM ALL MECHANICAL WORKMANSHIP INCLUDING, BUT NOT LIMITED TO CONTROL WIRING. CONDENSATE LINES, MECHANICAL PIPING/LINES SET GOING THROUGH FIRE RATED WALL SHALL BE UL CLASSIFIED FOR FIRE RATED WALL. PIPE INSULATION FOR PIPING SHALL MEET UL CLASSIFICATION FOR FIRE RATED WALL.
4. MECHANICAL CONTRACTOR SHALL INSTALL EQUIPMENT PER MANUFACTURERS' INSTRUCTIONS AND SHALL HAVE MANUFACTURERS' INSTALLATION INSTRUCTIONS ON SITE DURING FINAL INSPECTION.
5. THESE DRAWINGS ARE OF A SCHEMATIC NATURE AND THE CONTRACTOR MUST OBTAIN ANY ADDITIONAL INFORMATION REQUIRED FOR THE WORK AND INTERFACE WITH OTHER DISCIPLINES ON SITE.
6. PREPARED OF THESE DRAWINGS SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR OF THE SAFETY, PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR.
7. SUBSTITUTIONS – ALL PRODUCTS LISTED ARE TO ESTABLISH DESIGN AND QUALITY STANDARDS, NOT TO LIMIT SUBMITTALS. CONTACT ENGINEER IN WRITING PRIOR TO BID WITH ANY QUESTIONS. ALL SUBSTITUTIONS MUST BE SUBMITTED IN WRITING WITHIN 10 DAYS AFTER BID OR SUPPLY AS SPECIFIED. HIGHLIGHT SUBSTITUTION DEVIATIONS FROM MATERIALS SPECIFIED. COST INCURRED TO MODIFY PROJECT TO INSTALL SUBSTITUTED MATERIALS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR REQUESTING THE SUBSTITUTION.
8. RIGID DUCTWORK SHALL BE GALVANIZED SHEET METAL. DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA MANUAL. ALL DIMENSIONS ARE NET INSIDE CLEAR. PROVIDE FLEX CONNECTIONS AT ALL EQUIPMENT. PROVIDE TURNING VANES IN RECTANGULAR DUCT. FLEX DUCTWORK IS ALLOWED FOR THE FINAL 14 FEET OF DUCT LEADING UP TO GRILLES, DIFFUSERS AND AIR TERMINATION DEVICES UNLESS OTHERWISE SPECIFIED ON THE MECHANICAL PLANS.
9. COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND STANDARDS.
10. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL EQUIPMENT WITH CEILING AND LIGHTING LAYOUT ON SITE BEFORE CONSTRUCTION IS TO BE STARTED. ANY INTERFERENCES IS TO BE CORRECTED BY MECHANICAL CONTRACTOR OR REPORTED TO GENERAL CONTRACTOR.
11. AIR HANDLER DRAIN PANS SHALL BE FABRICATED FROM 1½"X1½"X3⁄16" ANGLE IRON MINIMUM AND SUPPORTED BY ⅜" THREADED ROD ATTACHED TO STRUCTURE. FORMED SHEET METAL DRAIN PANS OF EQUAL STRENGTH ARE ACCEPTABLE WHERE EQUIPMENT IS LOCATED ON SLAB FLOORS OR PLATFORMS.
12. ALL CONDENSATE DRAINS SHALL HAVE AUTOMATIC SENSORS IN SECONDARY DRAIN PAN CONNECTED TO THE AIR HANDLER TO SHUT DOWN SYSTEM ON FAILURE OF DRAINS OR HAVE A SECOND CONDENSATE DRAIN INSTALLED. IF USING SECOND CONDENSATE DRAIN METHOD, TERMINATION SHOULD BE IN CONSPICUOUS SPOT TO ALERT OWNER OF DRAIN ISSUES.
13. ALL SUPPLY BRANCHES AND OUTDOOR INTAKES SHALL HAVE MANUAL BALANCING DAMPERS UNLESS OTHERWISE NOTED.
14. DUCT TRANSITIONS FOR INTERFERENCE ISSUES CAN BE MADE USING EQUIVALENT AREA.
15. MAINTAIN DUCTWORK LEVEL AND AS HIGH AS POSSIBLE UNLESS OTHERWISE NOTED. TRANSITION RECTANGULAR DUCTWORK ON THE BOTTOM AND SIDES TO KEEP DUCTWORK AS HIGH AS POSSIBLE. TAPS, TAKE–OFFS AND SPIN IN FITTINGS ARE NOT ACCEPTABLE IN THE END OF CAPPED DUCTS AND SHOULD BE PLACED NOT LESS THAN 12" FROM THE END OF THE DUCT LINE FOR PRESSURIZATION. OPENINGS THROUGH WALLS, FLOORS AND ROOFS SHALL BE FLASHED AND SEALED WATER TIGHT AND SHALL BE PER CODE.
16. ALL INTAKE OPENINGS MECHANICAL AND GRAVITY OUTSIDE AIR INTAKE OPENINGS SHALL BE LOCATED A MINIMUM OF 10 FEET FROM ANY HAZARDOUS OR NOXIOUS CONTAMINANT SUCH AS VENTS, CHIMNEYS, PLUMBING VENTS, STREETS, ALLEYS, PARKING LOTS AND LOADING DOCKS UNLESS OTHERWISE SPECIFIED IN CODE. WHERE A SOURCE OF CONTAMINANT IS LOCATED WITHIN 10 FEET OF AN INTAKE OPENING, THE OPENING SHALL BE LOCATED MINIMUM OF 2 FEET BELOW CONTAMINANT SOURCE. THE INTAKE OPENINGS SHALL HAVE RAIN HOODS, BIRD SCREENS AND LOUVERS SUPPLIED BY CONTRACTOR.
17. CONDENSATE DISPOSAL SHALL COMPLY WITH SECTION 307.2.1 OF THE IMC CODE BY EITHER DISCHARGE TO THE OUTSIDE OR INTO A HUB DRAIN TO THE SEWER.
18. SMOKE DETECTORS SHALL BE INSTALLED IN ALL SYSTEMS GREATER THAN 2000 CFM IN THE RETURN AIR DUCT AND SHALL BE HARD WIRED TO THE FAN STARTER FOR SHUTDOWN ON ACTIVATION OF SENSOR. THE ALARM FOR ACTIVATION SHALL BE VISUAL AND AUDIBLE PER NFPA 90A AND 72E. IF A CENTRAL ALARM SYSTEM IS INSTALLED IN THE BUILDING THIS SHALL ALSO BE CONNECTED TO EACH UNIT.
19. PROVIDE ACCESS TO DEVICES ABOVE HARD CEILINGS. ALL AIR HANDLING EQUIPMENT LOCATED ABOVE CEILINGS SHALL HAVE A PLATFORM FOR MOUNTING FURNISHED ON THE STRUCTURAL DRAWING WHICH SUPPORT THE UNITS ACCORDING TO SEISMIC RATING FOR THE LOCATION. LIGHTING IS TO BE PROVIDED BY ELECTRICAL FOR MAINTENANCE.
20. ALL EQUIPMENT AND DUCTWORK VISIBLE THROUGH SLOTS, GRILLES AND/OR DIFFUSERS IN FINISHED AREAS SHALL BE PAINTED FLAT BLACK.
21. WALL MOUNTED TEMPERATURE SENSORS AND/OR THERMOSTATS TO BE MOUNTED PER DRAWINGS OR OWNER INSTRUCTIONS. THERMOSTATS TO BE 7 DAY PROGRAMMABLE WITH ABILITY TO CONTROL FAN OPERATION SEPARATE FROM TEMPERATURE SETPOINT FOR SEVEN DAYS WITH LOCKING COVERS. MOUNT AT 60" AFF OR AT OWNER OR ARCHITECT DIRECTION.
22. AIR AND WATER BALANCING REPORT PER IMC IS TO BE PROVIDED TO CODE OFFICIALS AT FINAL INSPECTION.
23. SUPPORTS FOR DUCTWORK TO COMPLY WITH IMC AND IBC CODES.
24. MINIMUM OUTSIDE AIR REQUIREMENTS WERE CALCULATED USING INTERNATIONAL MECHANICAL CODE 2021. ANY CHANGES TO THE SPECIFIED OUTSIDE AIR REQUIREMENTS MUST BE APPROVED BY DESIGN ENGINEER.
25. INSULATION SHALL BE 2" MINIMUM THICKNESS UNLESS OTHERWISE NOTED ON DRAWINGS. INSULATION SHALL BE INSTALLED WITH 2" OVERLAP AND STAPLED EVERY 6" WITH OUTWARD CLINCHING STAPLES. SEAMS AND JOINTS SHALL BE SEALED WITH PRESSURE SENSITIVE TAPE MATCHING INSULATION OR GLASS FABRIC AND MASTIC. FOR RECTANGULAR DUCT SECTIONS 24" OR WIDER, DUCT WRAP INSULATION SHALL BE ADDITIONALLY SECURED WITH MECHANICAL FASTENERS AT 12" ON CENTER TO PREVENT SAGGING INSULATION. OUTSIDE DUCT SHALL HAVE WEATHERPROOF WRAP. DUCT LOCATED IN CONDITIONED AREAS SHALL NOT HAVE INSULATION. OUTSIDE BUILDING INSULATE: INSULATE SUPPLY AND RETURN DUCT WITH 2" FIBERGLASS SEMI–RIGID BOARD INSULATION UNFACED; FLAME SPREAD RATING – 25; SMOKE DEVELOPED RATING – 50; DENSITY – 3 PCF; –20° F TO 450° F RATING; R VALUE – 8.7; OWENS–CORNING TYPE 703 OR EQUAL. FINISH EXTERIOR WITH WATERPROOF ALUMINUM JACKET.
26. INSULATE ALL CONDENSATE DRAINS WITH 1" THICK ARMAFLEX. CONDENSATE DRAINS THAT RUN DIRECTLY VERTICAL DO NOT NEED INSULATION.
27. UNLESS OTHERWISE NOTED, MECHANICAL CONTRACTOR REQUIRED TO SUPPLY STARTERS AND DISCONNECTS FOR EQUIPMENT SHOWN ON ALL MECHANICAL SCHEDULES. COORDINATE WITH ELECTRICAL CONTRACTOR TO INSTALL AND WIRE CONNECTIONS.
28. UNLESS OTHERWISE NOTED, MECHANICAL CONTRACTOR IS RESPONSIBLE FOR ALL CONDUIT AND WIRING FOR THERMOSTATS AND ANY OTHER CONTROLS REQUIRED BY THE HVAC SYSTEM.
29. TEST AND BALANCE ALL SYSTEMS BY A CERTIFIED CONTRACTOR.
30. HVAC DRAWINGS ARE THE SOURCE FOR ALL LOUVERS. IF STRUCTURAL AND OR ARCHITECTURAL DRAWINGS SHOW SIZES DIFFERENT FROM THE HVAC DRAWINGS, IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO MAKE CHANGES NEEDED TO ACCOMMODATE THE EQUIPMENT. THIS IS TO BE COORDINATED WITH THE STRUCTURAL AND ARCHITECTURAL ENGINEERS THROUGH A RFI.
31. CONTRACTOR SHALL SUBMIT (3) SETS OF SHOP DRAWINGS AND EQUIPMENT CUTS TO THE ENGINEER FOR APPROVAL PRIOR TO STARTING ANY WORK.
32. UPON COMPLETION OF CONSTRUCTION CONTRACTOR SHALL SUPPLY THE ENGINEER WITH (1) COMPLETE SET OF AS–BUILT DOCUMENTS AND (3) COMPLETE COPIES OF OPERATIONS AND MAINTENANCE MANUALS. AS–BUILT DRAWINGS SHALL BE OBTAINED AT CONTRACTOR'S EXPENSE.
33. REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE FITTED WITH LOCKING–TYPE TAMPER–RESISTANT CAPS OR SHALL OTHERWISE BE SECURED TO PREVENT UNAUTHORIZED ACCESS. THIS DOES NOT APPLY IN CONTROLLED AREA (I.E. ROOFS WITH LOCKED HATCHES OR DOORS)

HVAC LEGEND

- DUCT SMOKE DETECTOR
- A.F.F. — ABOVE FINISHED FLOOR
- MANUAL VOLUME DAMPER
- (T) — THERMOSTAT
- (A / 100) — DIFFUSER SYMBOL / AIR FLOW CFM
- (S) — INTERLOCK TO LIGHT SWITCH
- FLEX DUCT
- SUPPLY DUCT UP
- SUPPLY DUCT DOWN
- RETURN DUCT UP
- RETURN DUCT DOWN
- CEILING SUPPLY DIFFUSER
- CEILING RETURN GRILLE
- FIRE DAMPER

SPLIT SYSTEM HEAT PUMP SCHEDULE

EQUIPMENT NUMBER	MANUF.	AIR HANDLER MODEL	REFRIG. TYPE	AIR HANDLER – COOLING – COIL CAPACITY @ 95°F – TOTAL (MBH)	SENS. (MBH)	HEATING – SUPPLEMENTAL HEAT (KW)	ELECTRICAL SUPPLY – AIR FLOW (CFM)	EXT. SP (IWG)	FAN TYPE	FAN SPEED (RPM)	MIN. OUTSIDE AIR (CFM)	FAN MOTOR (HP)	ELECT. CHAR. (V/PH/HZ)	MCA	MOCP	OPER. WT. (LBS)
AHU-1	TRANE	TEM4A0B60	R-410A	59.5	46.0	7.2	2000	0.5	CENT.	1050	400	3/4	208/3/60	32	35	145
AHU-2	TRANE	TEM4A0B48	R-410A	48.0	36.8	7.2	1600	0.5	CENT.	1050	320	3/4	208/3/60	32	35	145
AHU-3	TRANE	TEM4A0B60	R-410A	59.5	46.0	7.2	2000	0.5	CENT.	1050	400	3/4	208/3/60	32	35	145

EQUIPMENT NUMBER (AIR HANDLER)	HEAT PUMP - COMPRESSOR – EQUIPMENT NUMBER	MODEL NUMBER	MANUF.	COMPRESSOR CIRCUIT – NOMINAL CAPACITY (TONS)	SEER (BTU/WATT - HR)	NUMBER OF COMP.	POWER SUPPLY – ELECT. CHAR. (V/PH/HZ)	MIN CIR. AMPACITY	MOCP	OPER. WT. (LBS)	ACCESSORIES REQUIRED
AHU-1	HP-1	4TWA4060A3000A	TRANE	5.0	14.0	1	208/3/60	21	35	325	1-8
AHU-2	HP-2	4TWA4048A3000A	TRANE	4.0	14.0	1	208/3/60	18	30	252	1-8
AHU-3	HP-3	4TWA4060A3000A	TRANE	5.0	14.0	1	208/3/60	21	35	325	1-8

* THE BRAND OF EQUIPMENT SHOWN ON SCHEDULE IS ONLY A TYPICAL. ALTERNATES ARE ACCEPTABLE BY APPROVAL OF OWNER OR PROJECT MANAGER.

* CONTRACTOR MUST VERIFY UNIT CONFIGURATION TO FIT THE LAYOUT DESIGN.

* OWNER WOULD LIKE THE MOST EFFICIENT UNITS THAT WILL FIT IN BUDGET. PLEASE INCREASE SEER VALUE ON AHU-1 THRU 6 AS THE BUDGET ALLOWS. PLEASE NOTIFY THE ENGINEERING TEAM IF ELECTRICAL LOADS CHANGE

ACCESSORIES:

1. REFIGERANT PIPING AND SPECIALTIES SHAL BE SIZED BY MANUFACTURER.
2. MC TO PROVIDE FILTERS IN ACCORDANCE WITH SECTION 15861.
3. UNIT TO BE SELECTED WITH 0.5" FILTER PRESSUER DROP THAT IS NOT PART OF THE ESP SCHEDULED.
4. WI-FI ENABLED THERMOSTAT T-STAT WITH WINTER AND SUMMER SETPOINTS AND HEAT/COOL/AUTO SWITH WITH ABILITY TO CONTROL FAN OPERATION SEPARATE FROM TEMPERATURE SETPOINT FOR SEVEN DAYS WITH LOCKING COVERS
5. MC TO PROVIDE CONDENSATE PUMPS
6. CONDENSER COIL GRILLES
7. FILTER RACK
8. EMERGENCY AUXILIARY DRAIN PAN UNDER AIR HANDLER.

EXHAUST FAN SCHEDULE

EQUIPMENT TAG	MANUFACTURER	MODEL	AIRFLOW	E.S.P. (IN. WC)	FAN RPM	DRIVE	WATTS OR HP	ELECTRICAL (V/PH/HZ)	ACCESSORIES
EF-1	GREENHECK	SP-A90	75	0.25	885	DIRECT	14 W	115/1/60	1-4
EF-2	GREENHECK	SP-A200	140	0.25	715	DIRECT	25 W	115/1/60	1-4
EF-3	GREENHECK	SP-A90	75	0.25	885	DIRECT	14 W	115/1/60	1-4
EF-4	GREENHECK	SP-A200	150	0.25	715	DIRECT	25 W	115/1/60	1-3,6
EF-5	GREENHECK	SP-A90	50	0.25	783	DIRECT	9 W	115/1/60	1-3,5
EF-6	GREENHECK	SP-A90	75	0.25	885	DIRECT	14 W	115/1/60	1-3,5
EF-7	GREENHECK	SP-A200	150	0.25	715	DIRECT	25 W	115/1/60	1-3,6
EF-8	GREENHECK	SP-A250	250	0.25	930	DIRECT	85 W	115/1/60	1-3,7

* THE BRAND OF EQUIPMENT SHOWN ON SCHEDULE IS BASIS OF DESIGN. EQUAL PRODUCTS BY GREENHECK, TWIN CITY, CARNES, PENN-BARRY.

ACCESSORIES:

1. BACKDRAFT DAMPER
2. SPEED CONTROLLER
3. FACTORY DISCONNECT
4. OPERATED BY LIGHTSWITCH
5. SET TO RUN CONTINUOUSLY
6. OPERATED BY THERMOSTAT
7. TO BE OPERATED ON SWITCH

AIR BALANCE SCHEDULE

MARK	OA (CFM)	EXAUST (CFM)	TOTAL (CFM)
AHU–1	+400	–	+300
AHU–2	+320	–	+220
AHU–3	+400	–	+300
EF–1	–	–75	–75
EF–2	–	–140	–120
EF–3	–	–75	–75
EF–4	–	–150	–150
EF–5	–	–50	–50
EF–6	–	–75	–75
EF–7	–	–150	–150
EF–7	–	–250	–150
TOTAL	1120	–965	155

OA SCHEDULE

FUNCTION OF SPACE	TOTAL FLOOR AREA (SQFT)	PEOPLE	PEOPLE OUTDOOR AIR RATE (CFM/PERSON)	AREA OUTDOOR AIR RATE (CFM/SQFT)	OUTSIDE AIR REQUIRED (CFM)
RECEPTION AREA	201	6	5	0.06	45
MAIN ENTRY LOBBY	463	5	5	0.06	55
CORRIDOR	753	–	–	0.06	50
OFFICE	2056	17	5	0.06	210
STORAGE	165	–	–	0.12	20
				TOTAL	380

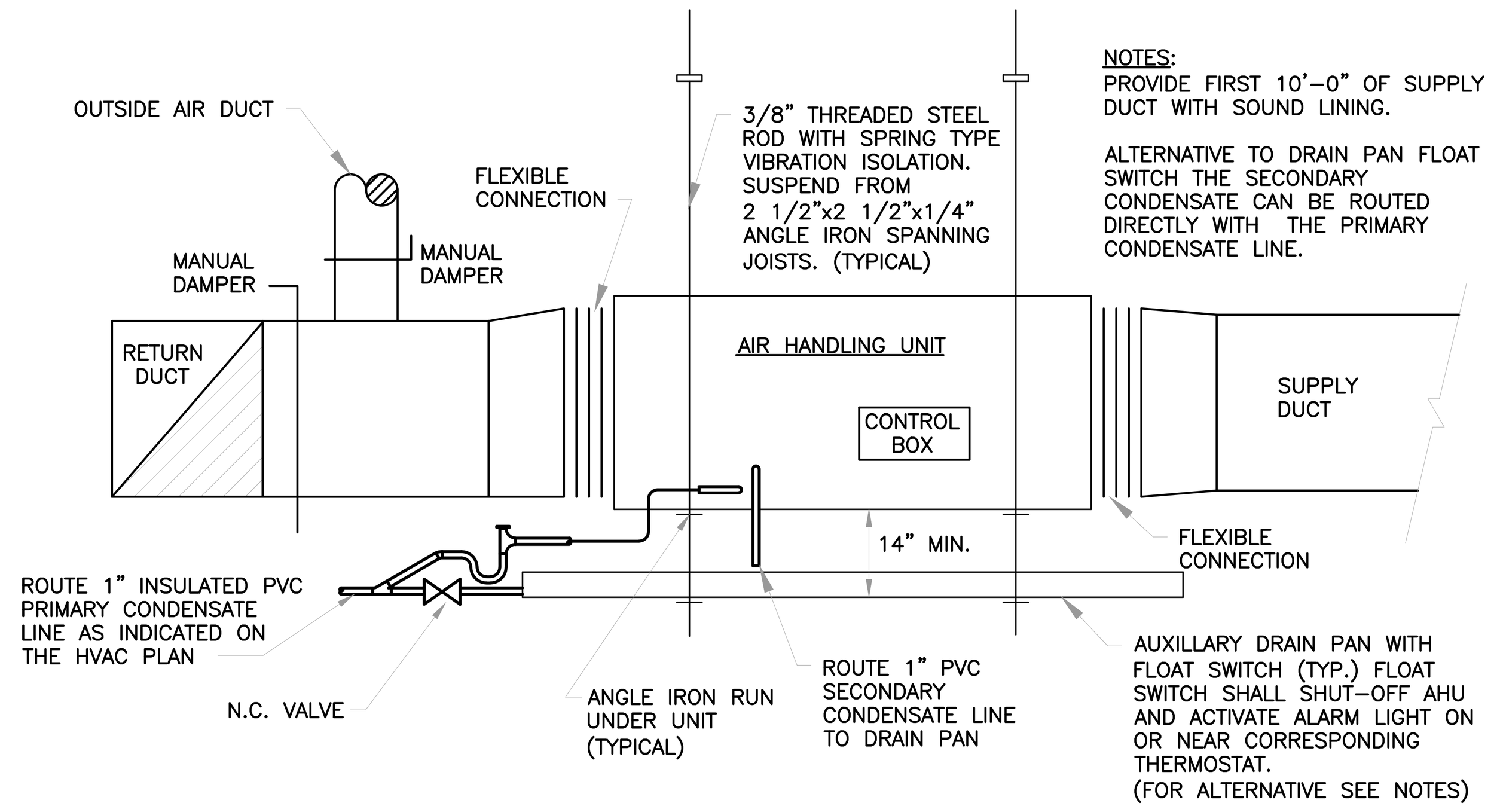
AIR DISTRIBUTION SCHEDULE

MARK	TYPE OUTLET	SIZE	MAX CFM	NC	MANUF.	MODEL NUMBER	NOTES
A	SUPPLY	24"x24"	118	–	PRICE	6"ø/24"x24"/ASPD/B12	1–4
B	SUPPLY	24"x24"	244	–	PRICE	8"ø/24"x24"/ASPD/B12	1–4
C	SUPPLY	1 SLOT 8" OUT	130	–	PRICE	36"/SDS50/1/2/A	1–3,6
D	SUPPLY	1 SLOT 8" OUT	200	–	PRICE	60"/SDS50/1/2/A	1–3,6
E	SUPPLY	6"x5"	120	19	PRICE	6"x5"/510/SM/SR/B12	2,3,6
RA	RETURN	24"x24"	2527	21	PRICE	24"x24"/80/TB/B12	1–4
RB	RETURN	12"x10"	207	–	PRICE	12"x10"/530	1–3,6
RC	RETURN	24"x18"	834	–	PRICE	24"x18"/530	1–3,6

* MC TO REVIEW FINAL RCP PLAN TO CONFIRM CEILING TYPE BE FOR SUBMITTAL IS ISSUED TO DESIGN TEAM

NOTES:

1. WITH ROUND NECK OPTION, CONNECTION SIZE IS TO BE SAME AS ATTACHED DUCTWORK UNLESS NOTED OTHERWISE.
2. FURNISH IN MANUFACTURER'S STANDARD WHITE FINISH.
3. KRUEGER, TUTTLE & BAILEY, OR TITUS EQUIVALENT MODELS ARE ALSO ACCEPTABLE.
4. T–BAR, LAY–IN CEILING
5. EXPOSED DUCT
6. SURFACE MOUNT



NOTES:
PROVIDE FIRST 10'–0" OF SUPPLY DUCT WITH SOUND LINING.

ALTERNATIVE TO DRAIN PAN FLOAT SWITCH THE SECONDARY CONDENSATE CAN BE ROUTED DIRECTLY WITH THE PRIMARY CONDENSATE LINE.

1 HORIZONTAL MOUNT AIR HANDLING UNIT DETAIL
NTS

NOTES:

1. FOLLOW EQUIPMENT MANUFACTURERS INSTALLATION RECOMMENDATIONS.
2. ALLOW 30" CLEARANCE TO SEVICE END OF UNIT AND 48" ABOVE UNIT.
3. 6" CLEARANCE ON ONE SIDE OF UNIT AND 12" ON ALL REMAINING SIDES MUST BE MAINTAINED FOR PROPER AIR FLOW.
4. MAINTAIN 24" OF CLEARANCE BETWEEN UNITS.

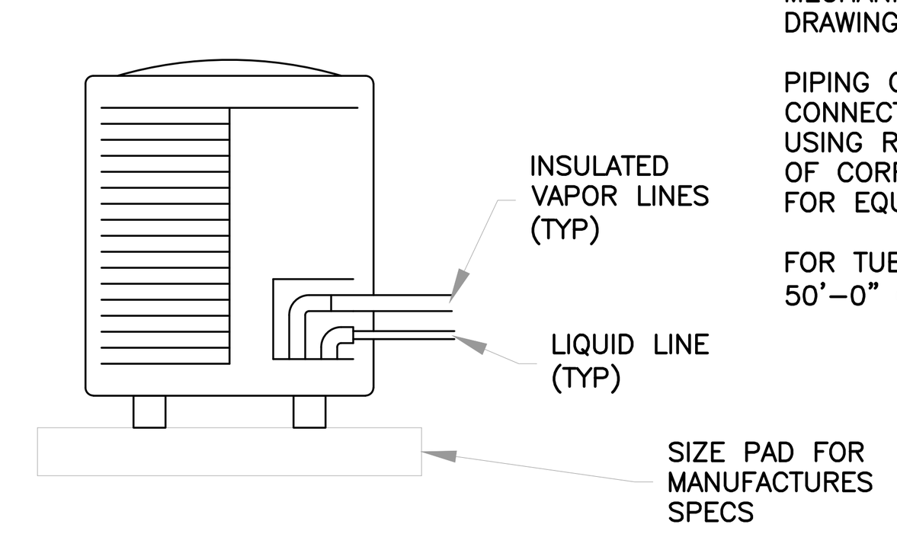
NOTES:
ALL WIRING AND FUSES MUST COMPLY WITH CURENT LOCAL AND NATIONAL ELECTRICAL REQUIREMENTS.

VERIFY BRANCH CIRCUIT DISCONNECT MOUNTED WITHIN SIGHT OF AND READILY ACCESSIBLE TO UNIT, PER THE NEC. SEE ELECTRICAL DRAWINGS.

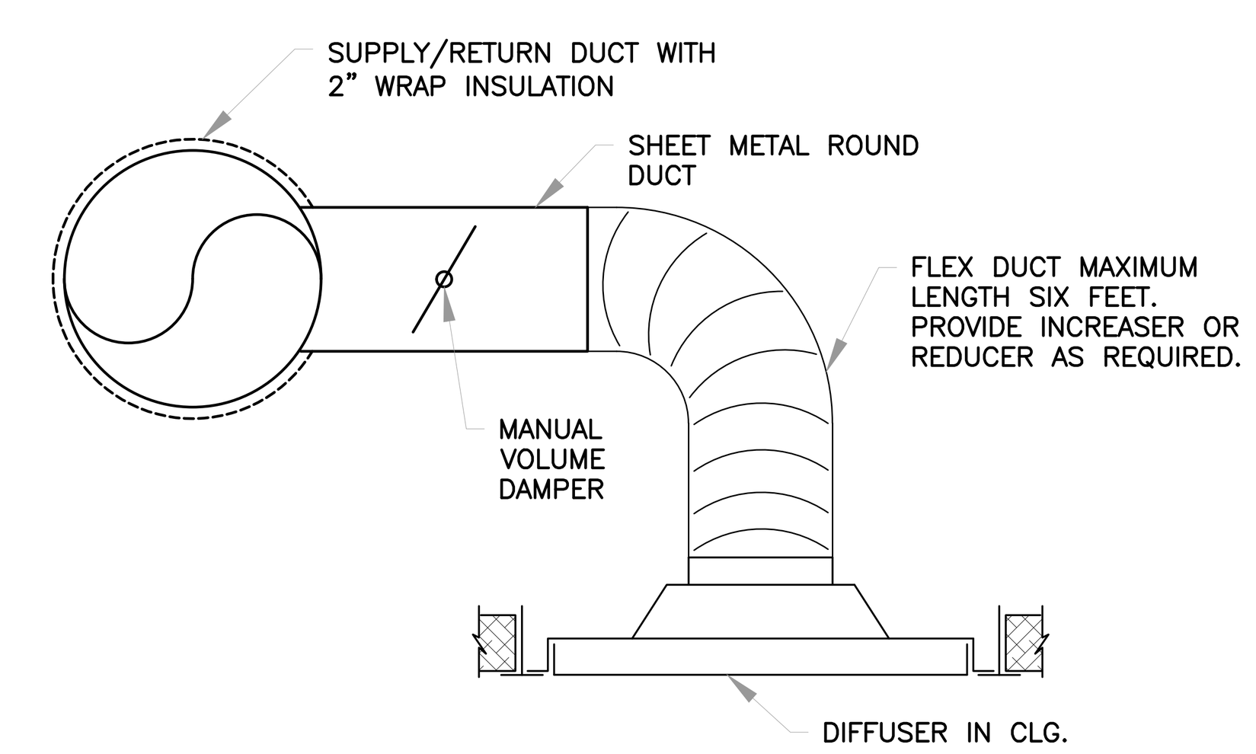
VERIFY THAT THE ELECTRICAL CONTRACTOR PROVIDES A MAINTENANCE RECEPTICLE MOUNTED WITHIN 25'–0" OF OUTDOOR MECHANICAL UNITS. SEE ELECTRICAL DRAWINGS.

PIPING ON OUTDOOR UNITS MAY BE CONNECTED TO INDOOR SECTIONS USING REFRIGERANT GRADE TUBING OF CORRECT SIZE AND CONDITION FOR EQUIPMENT BEING SERVED.

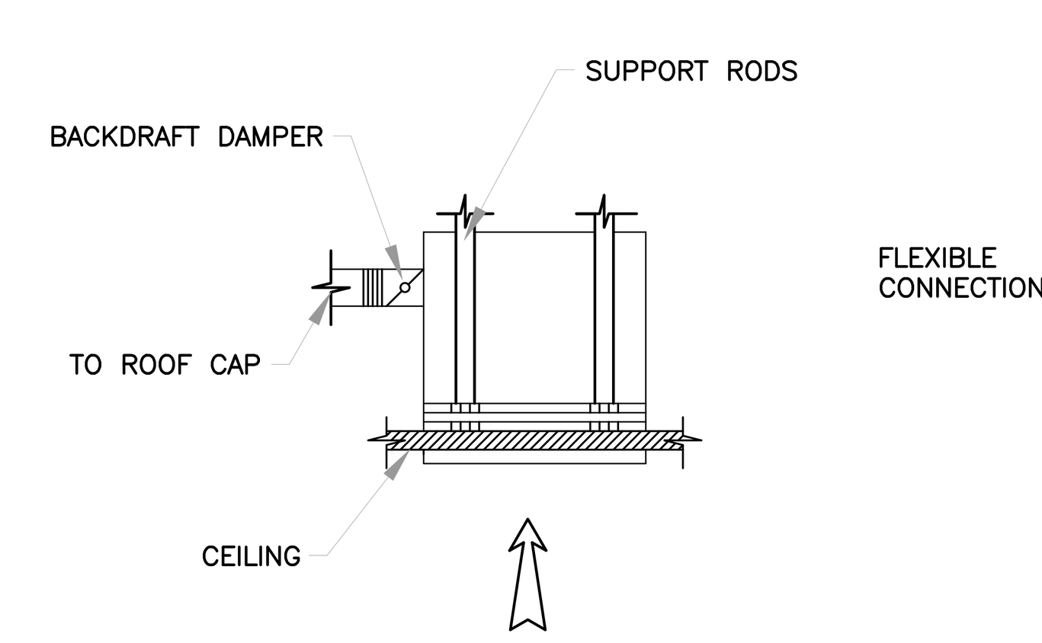
FOR TUBING REQUIREMENTS BEYOND 50'–0" CONSULT MANUFACTURER.



2 HEAT PUMP DETAIL
NTS



3 DIFFUSER INSTALLATION DETAIL
NTS



4 CEILING EXHAUST FAN DETAIL
NTS

mcmillan pazdan smith ARCHITECTURE

CONSULTANT LOGO

CES CAROLINA ENGINEERING SOLUTIONS, LLC
8 WEST MCBEE AVE, SUITE 203
GREENVILLE, SOUTH CAROLINA 29601
PH: (864) 370-9355 FAX: (864) 370-9505
WWW.CAROLINAENGR.COM
CES PROJECT #24150

SEALS

SOUTH CAROLINA CAROLINA ENGINEERING SOLUTIONS LLC C02825 CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 39013 HUNTER WHITE WEST 11/1/24

BELLA VISTA DENTAL - POWDERSVILLE
Woodson Dr. Site 112, Powdersville, SC

BELLA VISTA DENTAL FAMILY- IMPLANT- SEDATION

SHEET ISSUE:

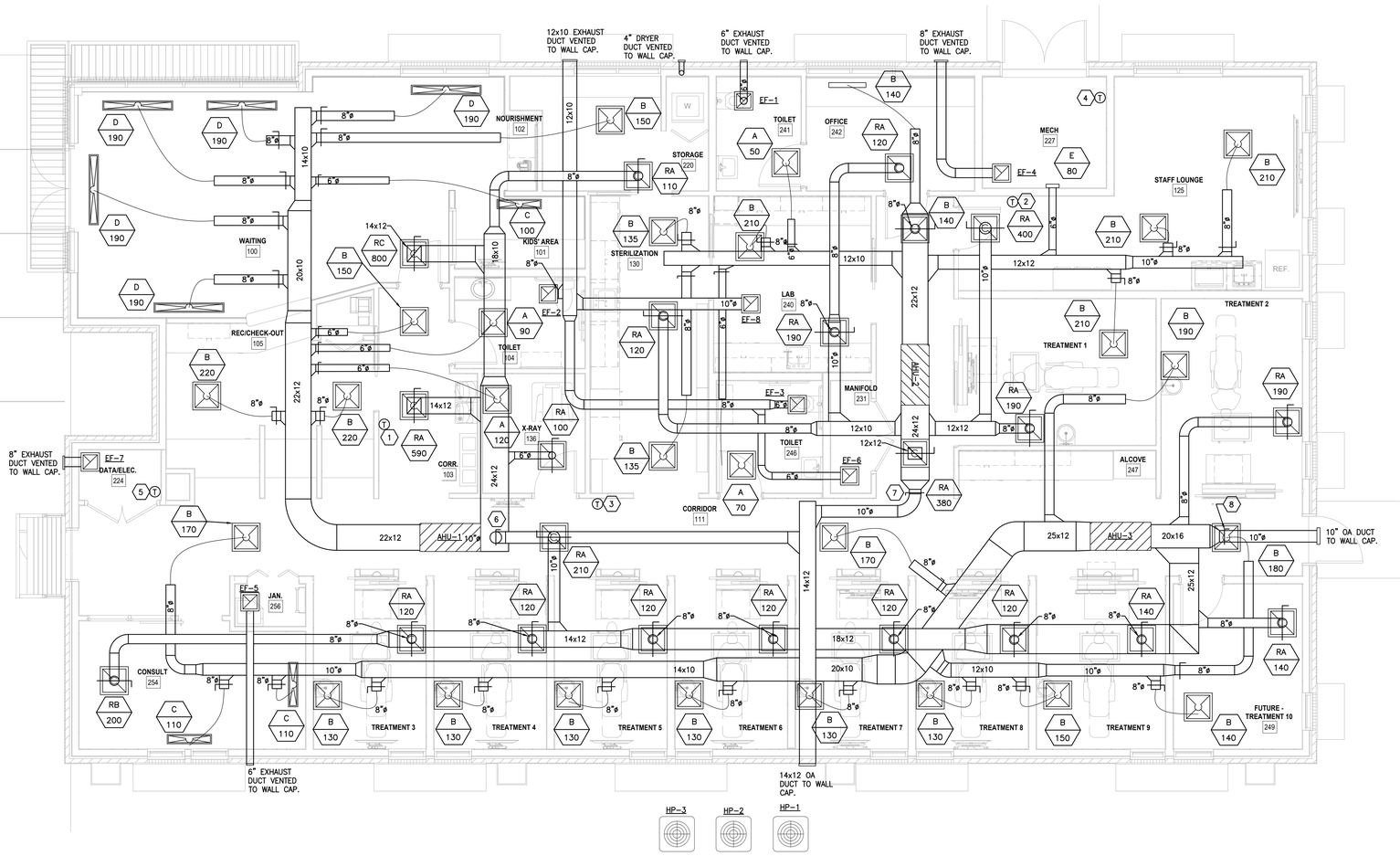
NO.	DATE	DESCRIPTION	BY
A	09/27/2024	DD ISSUE	HWW
B	10/23/2024	90% CD CHECK SET	HWW
C	11/01/2024	PERMIT/BID SET	HWW

PRINCIPAL IN CHARGE: HWW
PROJECT ARCHITECT: EM
DRAWN BY: GAE

SHEET TITLE:
MECHANICAL NOTES, DETAILS AND SCHEDULES

SHEET NO. M101

PROJ. NO. 024401.00



1 MECHANICAL HVAC PLAN
1/4" = 1'-0"

MECHANICAL KEYED NOTES:

1. TIE THERMOSTAT BACK TO AHU-1.
2. TIE THERMOSTAT BACK TO AHU-2.
3. TIE THERMOSTAT BACK TO AHU-3.
4. TIE THERMOSTAT BACK TO EF-4.
5. TIE THERMOSTAT BACK TO EF-7.
6. BALANCE OA DAMPER TO 400 CFM.
7. BALANCE OA DAMPER TO 320 CFM.
8. BALANCE OA DAMPER TO 400 CFM.

mcmillan pazdan smith ARCHITECTURE

CONSULTANT LOGO

CES
CAROLINA ENGINEERING SOLUTIONS, LLC
8 WEST MCBEE AVE, SUITE 203
GREENVILLE, SOUTH CAROLINA 29601
PH: (864) 370-9355 FAX: (864) 370-9505
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SEALS

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION — CAROLINA ENGINEERING SOLUTIONS LLC — C02825

HUNTER WHITE WEST — No. 39013 — REGISTERED PROFESSIONAL ENGINEER — 11/1/24

BELLA VISTA DENTAL - POWDERSVILLE

Woodson Dr, Site 112, Powdersville, SC

BELLA VISTA DENTAL — FAMILY- IMPLANT- SEDATION

SHEET ISSUE:

NO.	DATE	DESCRIPTION	BY
A	09/27/2024	DD ISSUE	HWW
B	10/23/2024	90% CD CHECK SET	HWW
C	11/01/2024	PERMIT/BID SET	HWW

PRINCIPAL IN CHARGE: HWW
PROJECT ARCHITECT: EM
DRAWN BY: GAE

SHEET TITLE:
MECHANICAL PLAN

SHEET NO.
M201

PROJ. NO.
024401.00