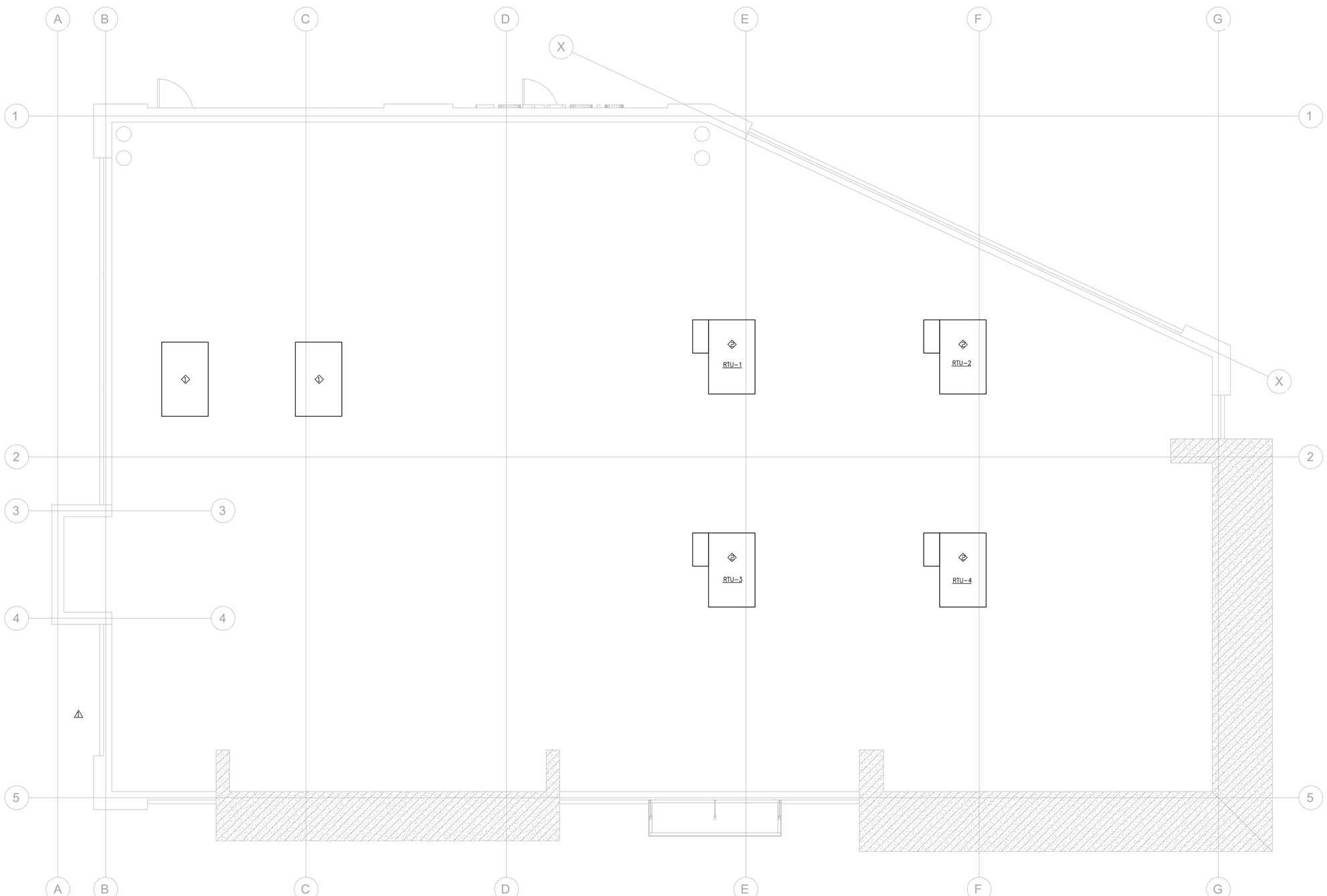


1 HVAC Floor Plan
1":1/4"

## MECHANICAL KEYED NOTES:

1. PROVIDE ONLY ROOF CURB FOR FUTURE HVAC UNIT.
2. COORDINATE THERMOSTAT LOCATIONS AND RELOCATE DURING INTERIOR PHASE.


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## PROJECT INFO

**CLIENT:**

COVENANT GROUP, LLC

**PROJECT:**

COVENANT GROUP - BUILDING SHELL - LEE'S SUMMIT, MO

**ADDRESS:**

400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

**PROJECT NO:** 267

## MAIN CONTACT


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## DEVELOPER


COVENANT REAL ESTATE GROUP
2410 PASEO VERDE PWY SUITE 145 | HENDERSON, NV 89074 | 714.845.8500


## SHEET INFO

**ISSUE DATE:** 04/08/22

**ISSUED FOR:** PERMIT

REVISION SCHEDULE

| NO | DESCRIPTION | DATE |
|---|---|---|
| | | |

**PROFESSIONAL'S SEAL:**

STATE OF MISSOURI
CHRISTOPHER A. CLARK
NUMBER
2001013937
PROFESSIONAL ENGINEER

04/08/22

HVAC
FLOOR PLAN

**M10.1**

## MECHANICAL GENERAL NOTES:

1. PRIOR TO SUBMITTING BID, CONTRACTOR SHALL VISIT PROJECT AND REVIEW EXISTING CONDITIONS. NO ADDITIONAL MONIES WILL BE AWARD FOR "UNFORESEEN PROJECT CONDITIONS" CONTRACTOR SHALL INCLUDE IN HIS BID ALL MONIES REQUIRED FOR THE EXISTING PROJECT CONDITIONS. CONTRACTOR SHALL INFORM ARCHITECT AT TIME OF BID PROJECT CONDITIONS IN WHICH HE HAS DIFFICULTY IN WORKING AROUND.

2. REFER TO ALL OTHER DRAWINGS IN THIS PROJECT, INCLUDING TO BUT NOT LIMITED TO THE ARCHITECTURAL, INTERIOR DESIGN, LIGHTING DESIGN, AND ELECTRICAL AND PERFORM ALL SCOPE ITEMS IDENTIFIED WITHIN THOSE DRAWINGS AS IF THEY ARE DIRECTLY INCORPORATED INTO THE MECHANICAL SET.

3. FURNISH AND INSTALL ALL NECESSARY LABOR AND MATERIALS FOR A COMPLETE SYSTEM. ANY ITEMS AND MATERIALS OBVIOUSLY NECESSARY FOR A COMPLETE WORKING SYSTEM ALTHOUGH NOT SHOWN WITHIN THESE DOCUMENTS SHALL BE PROVIDED AS PART OF THE INITIAL BID.

4. WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.

5. OBTAINING PERMIT, INCLUDING LABOR AND FEES SHALL BE PROVIDED AS PART OF THE INITIAL BID.

6. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT NECESSARILY SHOW FITTINGS AND OTHER SMALL ITEMS REQUIRED FOR A COMPLETE INSTALLATION. INSTALL DUCTWORK, EQUIPMENT AND CONTROLS IN A MANNER TO MINIMIZE NOISE, PROVIDE APPROPRIATE MAINTENANCE CLEARANCE IN THE SPACE ALLOCATED.

7. MATERIALS AND LABOR SHALL BE WARRENTEED FOR ONE YEAR AFTER TAKEOVER.

8. ALL DUCTWORK SHALL BE GALVANIZED AND INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES, LATEST EDITIONS.

9. PRIOR TO ORDERING ANY EQUIPMENT, THIS CONTRACTOR SHALL PROVIDE COORDINATION TO THE ELECTRICAL SUBCONTRACTOR AND STRUCTURAL REQUIREMENTS TO THE GENERAL CONTRACTOR. ANY COSTS DIFFERENCES WILL BE WORKED THROUGH THE GENERAL CONTRACTOR AT THIS TIME. PROVIDE TO THE ELECTRICAL SUBCONTRACTOR THE PHASE, AMPERAGE AND VOLTAGE OR EACH PIECE OF EQUIPMENT PRIOR TO ORDERING.

10. CONTRACTOR SHALL REFER TO THE ELECTRICAL DRAWINGS, LIGHTING DESIGN DRAWINGS AND THE REFLECTED CEILING PLAN (RCP) WHEN INSTALLING THE CEILING DIFFUSERS AND RETURN GRILLS.

11. COORDINATE WITH THE ELECTRICAL SUBCONTRACTOR IN REGARDS TO DISCONNECTS, BREAKERS, POWER WIRING, MOTOR CONTROL DEVICES, MECHANICAL CONTRACTOR SHALL PROVIDE STARTERS, TRANSFORMERS, ETC AND COORDINATE THE INSTALLATION WITH THE ELECTRICAL SUBCONTRACTOR.

12. PROVIDE UL LISTED, HEAVY DUTY FIBERGLAS CONNECTOR AT FAN, AIRHANDLERS, FAN COIL UNITS, ROOFTOP UNITS AND OTHER MECHANICAL EQUIPMENT WHERE THEY CONNECT TO SHEET METAL DUCTWORK. THE FIBERGLAS CONNECTOR SHALL BE INSTALLED WITH APPROPRIATE LENGTH TO ALLOW FOR VIBRATION AND NOISE TRANSMISSION.

13. DUCTWORK SHALL BE GALVANIZED SHEET METAL INACCORDANCE WITH SMACNA GUILDELINES.

14. ROUND FLEXIBLE CONNECTORS SHALL BE PROVIDED BETWEEN MAIN DUCT AND DIFFUSERS. PROVIDE THERMAFLEX PRO SERIES. UTILIZE SPIN-IN CONNECTORS WITH SCOOP AND ADJUSTABLE DAMPER FOR AIR CONTROL.

15. FLEXIBLE DUCTWORK SHALL BE INSTALLED FREE OF KINKS AND SHALL BE LIMITED TO 5'-0" IN LENGTH. DIAMETER SHALL BE THE SAME AS THE DIFFUSER NECK.

16. ALL PORTIONS OF DUCTWORK VISIBLE THROUGH DIFFUSER AND RETURN GRILL OPENINGS SHALL BE PAINTED FLAT BLACK. ALL PORTIONS EXPOSED IN AREAS WITHOUT CEILING SHALL BE PAINTED PER THE ARCHITECTURAL DRAWINGS.

17. CONTRACTOR SHALL FIELD VERIFY SPACE REQUIREMENTS FOR DUCTWORK PRIOR TO MANUFACTURING. ADJUSTMENTS TO DUCT SIZES IS ACCEPTABLE AS LONG AS THE FOLLOWING FRICTION FACTORS ARE MAINTAINED:

    SUPPLY: 0.08"/100FT
    RETURN: 0.06"/100FT.

18. ALL THERMOSTATS UNLESS OTHERWISE NOTED SHALL BE INSTALLED AT 4'-0" AFF. REFER TO INTERIOR DESIGN DRAWINGS FOR ACTUAL LOCATIONS.

19. ALL DUCT DIMENSIONS SHOWN IN THIS SET REFERS TO CLEAR INSIDE DIMENSION. IF DUCTWORK IS LINED, INTERIOR SHEET METAL SIZE SHALL BE INCREASED TO ACCOUNT FOR THE LINEAR THICKNESS.

20. THE OWNER, OPERATOR, ARCHITECTURAL NOR ENGINEER ARE RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS, MEANS AND METHODS, WORK TECHNIQUES, CONSTRUCTION SEQUENCE OR PROCEDURES REQUIRED TO COMPLETE THE WORK.

21. ALL EXTERIOR WALL, AND ROOF PENETRATIONS SHALL BE SEALED WITH WATERPROOFING.

22. ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS OR BARRIERS SHALL BE SEALED WITH FIREPROOFING.

23. PROVIDE FIRE DAMPERS (FD) IN ALL FIRE RATED WALLS AS IDENTIFIED ON ARCHITECTURALS DRAWINGS. THE RATINGS OF THE FIRE DAMPERS SHALL MEET OR EXCEED THE RATING OF THE WALL IN WHICH IT IS INSTALLED. FIRE DAMPERS SHALL BE UL LISTED AND SHALL BE TYPE B (BLADES OUT OF THE AIR STREAM) OR TYPE C (100% FREE AREA). PROVIDE AND INSTALL DUCT MOUNTED ACCESS PANEL FOR ALL NON-ACCESSIBLE FIRE DAMPERS.

24. ALL ACCESS PANELS REQUIRED FOR EQUIPMENT MAINTENAINCE SHALL BE FIELD COORDINATED WITH ARCHITECT. THESE DRAWINGS SHALL APPROXIMATE LOCATIONS, FINAL LOCATIONS SHALL BE COORDINATED IN THE FIELD.

25. AT EACH BRANCH TAKEOFF, PROVIDE MANUAL VOLUME DAMPERS FOR BALANCING. FOR EACH DIFFUSER TAKEOFF, PROVIDE ADJUSTABLE SPIN-IN CONNECTION.

26. PROVIDE DUCT LINER FOR THE FIRST TEN FEET OF SUPPLY AND THE LAST 10 FEET OF RETURN DUCTWORK FROM THE HVAC EQUIPMENT. THE REMAINING DUCTWORK SHALL BE WRAPPED WITH INSULATION. DUCT WRAP SHALL BE FOIL SCRIM KRAFT (FSK) VAPOR RETARDER FACING WITH AN R VALUE OF 6.0.

27. ALL THERMOSTATS SHALL BE 7-DAY PROGRAMMABLE AND HAVE A 4 DEGREE DEADBAND.

28. INSTALL SMOKE DETECTOR IN THE SUPPLY AIR SYSTEM FOR ALL UNITS WITH CAPACITY GREATER THAN 2000 CFM. THE SMOKE DETECTOR SHALL BE INSTALLED DOWNSTREAM OF ANY FILTERS, FAN MOTORS, OUTDOOR AIR CONNECTIONS AND UPSTREAM OF ANY BRANCH CONNECTIONS..

29. ALL MATERIAL INSTALLED WITHIN A RETURN AIR PLENUM SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE DEVELOPED INDEX OF NOT MORE THAN 50.

30. ALL WIRING INSTALLED WITHIN THE PLENUM SHALL BE PLENUM RATED OR INSTALLED WITHIN CONDUIT.

31. ALL EQUIPMENT INSTALLED ABOVE THE CEILING SHALL BE ACCESSIBLE. CONTRACTOR SHALL SUPPLY ACCES PANELS IN CEILING OR WALL AND SHALL COORDINATE WITH ARCHITECT FOR PROPER LOCATION. ACCESS PANELS IN CEILING SHALL BE A MINIMUM OF 24"x24" WITH HINGES. ACCESS PANELS SHALL HAVE SAME FIRE RATING AS CEILING IN WHICH THEY ARE INSTALLED.

32. EACH PIECE OF EQUIPMENT SHALL BE PERMANTLY LABELED IWTH A NAMEPLATE OF SUFFICIENT SIZE TO CLEARLY INDICATE THE EQUIPMENT DESIGNATION INACCORDANCE WITH THE DRAWINGS (IE PIU-1, RTU-1, ETC.). NAMEPLATES TO BE BAKED ENAMEL OR ALUMINUM WITH STAMPED LETTERS.

33. EACH DUCT OR PIPE WHICH PENETRATES ANY FIRE OR SMOKE PARTITION SHALL HAVE THE WALL OPENING SEALED WITH HILTI FIRE STOP TO PREVENT THE SPREAD OF SMOKE.

34. ANY EXISTING WALL, FLOOR, OR CEILING SURFACE DISTURBED DURING THE COURSE OF CONSTRUCTION, SHALL BE REPAIRED TO LIKE NEW OR PREVIOUS CONDITION TO THE SATISFACTION OF THE ARCHITECT.

35. RECORD DRAWINGS:

    THE CONTRACTOR SHALL MAINTAIN ON A DAILY BASIS AT THE PROJECT SITE A COMPLETE SET OF "RECORD DRAWINGS", REFLECTING AN ACCURATE DIMENSIONAL RECORD OF ALL BURIED OR CONCEALED WORK. THE "RECORD DRAWINGS" SHALL BE MARKED TO SHOW THE PRECISE LOCATION OF CONCEALED WORK, AND EQUIPMENT INCULDING CONCEALED OR EMBEDDED PIPING AND VAVLES AND ALL CHANGES AND DEVIATIONS FROM THE CONTRACT DOCUMENTS. THIS REQUIREMENT SHALL NOT BE CONSTRUED AS AUTHORIZATION FOR THE CONTRACTOR TO MAKE CHANGES WORK WITHOUT APPROVAL FROM THE ARCHITECT.

    THE "RECORD DRAWINGS" SHALL BE CLEARLY MARKED WITH "RECORD DRAWINGS" INDICATED IN THE LOWER RIGHT CORNER OF THE DRAWINGS.

36. UPON THE COMPLETION OF THE HVAC SYSTEM INSTALLATION, PROVIDE A COMPLETE TEST AND BALANCE. THE TEST AND BALANCE SHALL MEASURE AIR FLOWS FOR EACH PIECE OF EQUIPMENT, DIFFUSER AND RETURN GRILL. SUBMIT TO ARCHITECT TEST AND BALANCE PLAN THREE DAYS PRIOR TO INTENDED START DATE.

## RTU SCHEDULE

| MARK | CFM | MIN OA CFM | ESP IN WG | HP | COOLING CAP. TOTAL | COOLING CAP. SEN | MIXED AIR TEMPERATURES | HEATING CAP. INPUT | HEATING CAP. OUTPUT | BASIS OF DESIGN | EER (MIN) | WEIGHT (LB) | NOTES |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RTU-1 | 2400 | 300 | 0.8 | 1.7 | 75.2 | 58.1 | 80°db 67°wb | 72 | 59 | CARRIER 48TCDA07 | 11.00 | 852 | 1 |
| RTU-2 | 2400 | 300 | 0.8 | 1.7 | 75.2 | 58.1 | 80°db 67°wb | 72 | 59 | CARRIER 48TCDA07 | 11.00 | 852 | 1 |
| RTU-3 | 2400 | 300 | 0.8 | 1.7 | 75.2 | 58.1 | 80°db 67°wb | 72 | 59 | CARRIER 48TCDA07 | 11.00 | 852 | 1 |
| RTU-4 | 2400 | 300 | 0.8 | 1.7 | 75.2 | 58.1 | 80°db 67°wb | 72 | 59 | CARRIER 48TCDA07 | 11.00 | 852 | 1 |

COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

(1)
1. PROVIDE FACTORY SMOKE DETECTOR IN RETURN AIR PLENUM.
2. PROVIDE FACTORY ENTHALPY AIR ECONOMIZER WITH BAROMETRIC RELIEF.
3. PROVIDE FACTORY DISCONNECT AND GFI RECEPT.
4. PROVIDE FACTORY INSULATED ROOF CURB.

**COM*check* Software Version 4.1.5.2**

# Mechanical Compliance Certificate

## Section 1: Project Information

Energy Code: **2009 IECC**
Project Title:
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:

## Section 2: General Information

Building Location (for weather data): Lees Summit, Missouri
Climate Zone: 4a

## Section 3: Mechanical Systems List

**Quantity System Type & Description**

4 HVAC System 1 (Single Zone) :
Heating: 1 each - Central Furnace, Gas, Capacity = 72 kBtu/h
Proposed Efficiency = 82.00% Et, Required Efficiency: 80.00 % Et (or 78% AFUE)
Cooling: 1 each - Single Package DX Unit, Capacity = 75 kBtu/h, Air-Cooled Condenser, Air Economizer
Proposed Efficiency = 11.00 EER, Required Efficiency: 11.00 EER
Fan System: FAN SYSTEM 1 -- Compliance (Motor nameplate HP method) : Passes

Fans:
FAN 1 Supply, Constant Volume, 2400 CFM, 1.7 motor nameplate hp

## Section 4: Requirements Checklist

**Requirements Specific To: HVAC System 1 :**

- ☐ 1. Equipment minimum efficiency: Central Furnace (Gas): 80.00 % Et (or 78% AFUE)
- ☐ 2. Equipment minimum efficiency: Single Package Unit: 11.00 EER
- ☐ 3. Integrated economizer is required for this location and system.
- ☐ 4. Cooling system provides a means to relieve excess outdoor air during economizer operation.

**Generic Requirements: Must be met by all systems to which the requirement is applicable:**

- ☐ 1. Plant equipment and system capacity no greater than needed to meet loads
  *Exception(s):*
  - ☐ Standby equipment automatically off when primary system is operating
  - ☐ Multiple units controlled to sequence operation as a function of load
- ☐ 2. Minimum one temperature control device per system
- ☐ 3. Minimum one humidity control device per installed humidification/dehumidification system
- ☐ 4. Load calculations per ASHRAE/ACCA Standard 183.
- ☐ 5. Automatic Controls: Setback to 55°F (heat) and 85°F (cool); 7-day clock, 2-hour occupant override, 10-hour backup
  *Exception(s):*
  - ☐ Continuously operating zones
- ☐ 6. Outside-air source for ventilation; system capable of reducing OSA to required minimum
- ☐ 7. R-5 supply and return air duct insulation in unconditioned spaces
  R-8 supply and return air duct insulation outside the building
  R-8 insulation between ducts and the building exterior when ducts are part of a building assembly
  *Exception(s):*
  - ☐ Ducts located within equipment

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Data filename: C:\Users\Thomas Blomquist\SyncedFolder\Projects\~22 (collision 1)\22-202 Lees Summitt\HVAC COMCHECK.cck
Page 1 of 3

- ☐ Ducts with interior and exterior temperature difference not exceeding 15°F.
- ☐ 8. Mechanical fasteners and sealants used to connect ducts and air distribution equipment
- ☐ 9. Ducts sealed - longitudinal seams on rigid ducts; transverse seams on all ducts; UL 181A or 181B tapes and mastics
- ☐ 10. Hot water pipe insulation: 1.5 in. for pipes <=1.5 in. and 2 in. for pipes >1.5 in.
  Chilled water/refrigerant/brine pipe insulation: 1.5 in. for pipes <=1.5 in. and 1.5 in. for pipes >1.5 in.
  Steam pipe insulation: 1.5 in. for pipes <=1.5 in. and 3 in. for pipes >1.5 in.
  *Exception(s):*
  - ☐ Piping within HVAC equipment.
  - ☐ Fluid temperatures between 55 and 105°F.
  - ☐ Fluid not heated or cooled with renewable energy.
  - ☐ Piping within room fan-coil (with AHRI440 rating) and unit ventilators (with AHRI840 rating).
  - ☐ Runouts <4 ft in length.
- ☐ 11. Operation and maintenance manual provided to building owner
- ☐ 12. Thermostatic controls have 5°F deadband
  *Exception(s):*
  - ☐ Thermostats requiring manual changeover between heating and cooling
  - ☐ Special occupancy or special applications where wide temperature ranges are not acceptable and are approved by the authority having jurisdiction.
- ☐ 13. Balancing devices provided in accordance with IMC 603.17
- ☐ 14. Demand control ventilation (DCV) present for high design occupancy areas (>40 person/1000 ft2 in spaces >500 ft2) and served by systems with any one of 1) an air-side economizer, 2) automatic modulating control of the outdoor air damper, or 3) a design outdoor airflow greater than 3000 cfm.
  *Exception(s):*
  - ☐ Systems with heat recovery.
  - ☐ Multiple-zone systems without DDC of individual zones communicating with a central control panel.
  - ☐ Systems with a design outdoor airflow less than 1200 cfm.
  - ☐ Spaces where the supply airflow rate minus any makeup or outgoing transfer air requirement is less than 1200 cfm.
- ☐ 15. Motorized, automatic shutoff dampers required on exhaust and outdoor air supply openings
  *Exception(s):*
  - ☐ Gravity dampers acceptable in buildings <3 stories
- ☐ 16. Automatic controls for freeze protection systems present
- ☐ 17. Exhaust air heat recovery included for systems 5,000 cfm or greater with more than 70% outside air fraction or specifically exempted
  *Exception(s):*
  - ☐ Hazardous exhaust systems, commercial kitchen and clothes dryer exhaust systems that the International Mechanical Code prohibits the use of energy recovery systems.
  - ☐ Systems serving spaces that are heated and not cooled to less than 60°F.
  - ☐ Where more than 60 percent of the outdoor heating energy is provided from site-recovered or site solar energy.
  - ☐ Heating systems in climates with less than 3600 HDD.
  - ☐ Cooling systems in climates with a 1 percent cooling design wet-bulb temperature less than 64°F.
  - ☐ Systems requiring dehumidification that employ energy recovery in series with the cooling coil.
  - ☐ Laboratory fume hood exhaust systems that have either a variable air volume system capable of reducing exhaust and makeup air volume to 50 percent or less of design values or, a separate make up air supply meeting the following makeup air requirements: a) at least 75 percent of exhaust flow rate, b) heated to no more than 2°F below room setpoint temperature, c) cooled to no lower than 3°F above room setpoint temperature, d) no humidification added, e) no simultaneous heating and cooling.

## Section 5: 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 2009 IECC requirements in COM*check* Version 4.1.5.2 and to comply with the mandatory requirements in the Requirements Checklist.

Bobby G. Beach - PE — Name - Title
Signature
03/23/2022 — Date

## Section 6: Post Construction Compliance Statement

- ☐ HVAC record drawings of the actual installation, system capacities, calibration information, and performance data for each equipment provided to the owner.

Project Title: Report date: 03/23/22
Data filename: C:\Users\Thomas Blomquist\SyncedFolder\Projects\~22 (collision 1)\22-202 Lees Summitt\HVAC COMCHECK.cck
Page 2 of 3

- ☐ HVAC O&M documents for all mechanical equipment and system provided to the owner by the mechanical contractor.
- ☐ Written HVAC balancing and operations report provided to the owner.

The above post construction requirements have been completed.

Principal Mechanical Designer-Name — Signature — Date


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## PROJECT INFO

**CLIENT:**
COVENANT GROUP, LLC

**PROJECT:**
COVENANT GROUP - BUILDING
SHELL - LEE'S SUMMIT, MO

**ADDRESS:**
400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

**PROJECT NO:** 267

## MAIN CONTACT


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## DEVELOPER

COVENANT REAL ESTATE GROUP
2460 PASEO VERDE PWY SUITE 145 | HENDERSON, NV 89074 | 714.845.8500

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|---|---|---|
| | | |

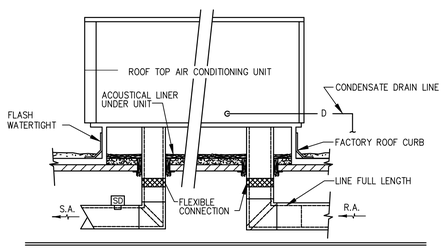
**PROFESSIONAL'S SEAL:**

STATE OF MISSOURI
BEACH
NUMBER
2001013937
PROFESSIONAL ENGINEER

04/08/22

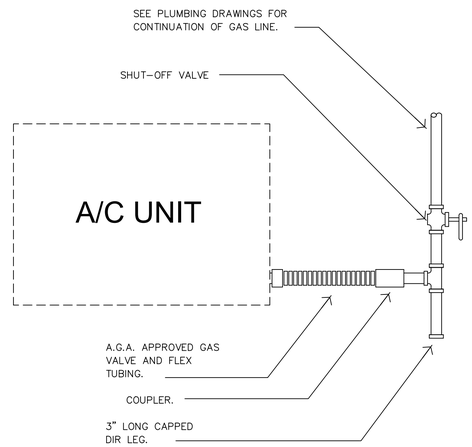
HVAC NOTES AND SCHEDULES

**M20.1**



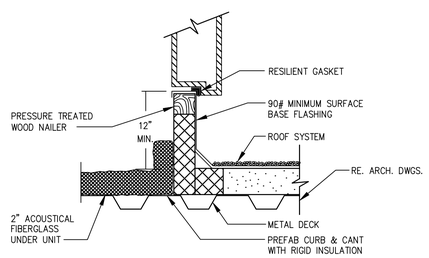

1 Rooftop Unit Detail

Scale: None



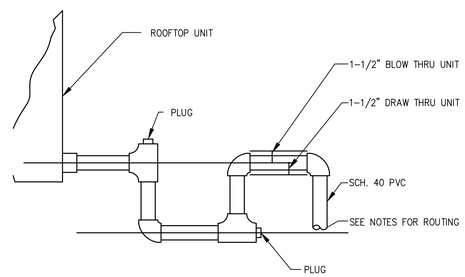

2 Gas Connection Detail

Scale: None




3 Rooftop Unit Curb Detail

Scale: None




4 Condensate Trap Detail

Scale: None

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|---|---|---|
| | | |

**PROFESSIONAL'S SEAL:**

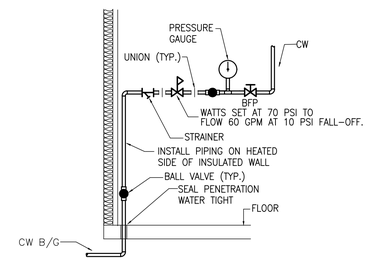
04/08/22

HVAC DETAILS

**M20.2**

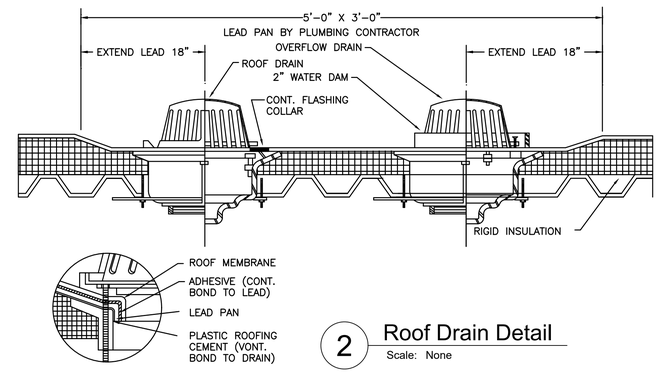
## PLUMBING GENERAL NOTES:

1. WORK COVERED BY THESE DOCUMENTS INCLUDES LABOR, MATERIAL, EQUIPMENT, FIXTURES AND SERVICES FOR AND INCIDENTAL TO, THE INSTALLATION OF THE PLUMBING SYSTEMS INDICATED WITHIN THESE CONSTRUCTION DOCUMENTS.
2. PRIOR TO SUBMITTING A BID, THIS CONTRACTOR SHALL VISIT THE PROJECT SITE TO VERIFY FIELD CONDITIONS. PRIOR TO BID, NOTIFY ARCHITECT OF ANY DISCREPANCIES WHICH MAY HINDER THE INSTALLATION OF THE SYSTEM AS INDICATED ON THESE DOCUMENTS.
3. ALL CUTTING AND CORING OF THE EXISTING FLOORS, WALLS, ETC SHALL BE PATCHED AND SEALED TO MATCH THE EXISTING CONDITIONS.
4. ALL WORK SHALL BE PREFORMED TO COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS. THIS CONTRACTOR IS RESPONSIBLE FOR THE LABOR AND COSTS ASSOCIATED WITH OBTAINING CONSTRUCTION PERMITS.
5. EXCEPT WHERE DIMENSIONS ARE SPECIFICALLY SHOWN, THESE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. THE EQUIPMENT'S ACTUAL SIZE WAS USED IN THE DEVELOPMENT OF THESE DOCUMENTS.
6. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DIMENSIONS AND PENETRATION LOCATIONS.
7. THE DOCUMENTS DO NOT SHOW ALL NECESSARY FITTINGS AND OFFSETS FOR A COMPLETE INSTALLATION. ALTHOUGH NOT SHOWN, IT IS THIS CONTRACTOR'S RESPONSIBILITY TO PROVIDED ALL NEEDED FOR A COMPLETE AND FUNCTIONING SYSTEM UPON THE COMPLETION OF THE PROJECT.
8. PRIOR TO ORDERING ANY EQUIPMENT, THIS CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL SUBCONTRACTOR AND GENERAL CONTRACTOR. THIS CONTRACTOR SHALL PROVIDE, PHASE, AMPERAGE, AND VOLTAGE OF ALL EQUIPMENT TO THE ELECTRICAL SUBCONTRACTOR AND WEIGHTS AND DIMENSIONS TO THE GENERAL CONTRACTOR. ANY COST ISSUES SHALL BE DETERMINED PRIOR TO ORDERING THE EQUIPMENT.
9. VALVES AND FITTINGS SHALL BE THE SAME SIZE AS THE PIPING IN WHICH THEY ARE INSTALLED.
10. FOR ALL PENTRATIONS THROUGH EXTERIORS WALLS OR ROOF, SEAL WITH WATER PROOFING AND MAKE LEAK TIGHT.
11. FOR ALL PENTRATIONS THROUGH FIRE RATED WALLS, FLOORS AND BARRIERS PROVIDE FIRE STOPPING TO MAINTAIN FIRE RATING.
12. PROVIDE PIPE SUPPORTS AS REQUIRED BY THE LOCAL CODES IN EFFECT AS AS NECESSARY TO PREVENT SWAY.
13. CHANGES IN DIRECTION OF SANITARY PIPING SHALL NOT BE MADE WITH FITTINGS WHICH WILL REDUCE THE FLOW VELOCITY OR CREATE ANY OTHER ADVERSE EFFECT ON THE GRAVITY FLOW OF THE SYSTEM.
14. ROUTE ALL PIPING CONCEALED ABOVE CEILINGS, WITHIN WALLS, OR CHASES AS SHOWN IN THESE DOCUMENTS. PIPING ROUTED IN EXPOSED AREAS SHALL BE HELD TIGHT TO STRUCTURE AND PAINTED TO MATCH THE SURROUNDING STRUCTURE. PIPING IN MECHANICAL SPACES DO NOT REQUIRE PAINTING.
15. PROVIDE ACCESS PANELS FOR ALL VALVES. FIELD COORDINATE ACCESS PANEL LOCATIONS.
16. CONTRACTOR SHALL FIELD VERIFY INVERT ELEVATIONS PRIOR TO INSTALLATION AND AT THE INITAL SITE VISIT.
17. CONTRACTOR SHALL INSTALL DIELETRIC UNIONS AT CONNECTIONS OF DISSIMILAR METALS.
18. CONTRACTOR SHALL ROUGH-IN ALL WASTES AND SUPPLIES TO EQUIPMENT USING MANUFACTURER'S CERTIFIED SHOP DRAWINGS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL BE VALVED IN AN ACCESSIBLE LOCATION. INSTALL VACUUM BREAKERS WHERE REQUIRED BY LOCAL AUTHORITIES.
19. INTERIOR PIPING SHALL BE ROUTED PARALLEL AND PERPENDICULAR TO WALLS IN A WORKMANLIKE MANNER. PROVIDE OFFSETS AS REQUIRED TO AVOID INTERFERRENCES WITH ARCHITECTURAL OR STRUCTURAL COMPONENTS.
20. THE OWNER, OPERATOR, ARCHITECTURAL NOR ENGINEER ARE RESPONSIBLE FOR THE CONTRACTOR'S SAFETY PRECAUTIONS, MEANS AND METHODS, WORK TECHNIQUES, CONSTRUCTION SEQUENCE OR PROCEDURES REQUIRED TO COMPLETE THE WORK.
21. SANITARY WASTE AND VENT PIPING LOCATED IN FIRE RATED WALL ASSSEMBLIES SHALL BE CAST IRON WITH NO-HUB OR BELL AND SPIGOT FITTINGS.
22. ALL FLOOR DRAINS TO HAVE TRAP PRIMER CONNECTIONS.
23. SANITARY: ABOVE AND BELOW GRADE SERVICE WEIGHT CAST IRON, NO-HUB PLAIN END MEETING ASTM A-888 AND CISPI STANDARD 301. ABOVE GRADE SERVICE WEIGHT CAST IRON HUB & SPIGOT ASTM A24-72 OR SCHEDULE 40 PVC DWV PIPE. PVC MAY BE USED IF APPROVEDBY LOCAL AUTHORITY HAVING JURISDICTION.
24. FITTINGS AND JOINTS: SERVICE WEIGHT CAST IRON, NO-HUB, PLAIN END MEETING ASTM A-888 AND CISPI STANDARD 301, COUPLINGS SHALL BE STAINLESS STEEL, HEAVY DUTY, NO-HUB. PVC SOCKET TYPE, SOLVENT WELDED PVC PLASTIC.
25. DOMESTIC WATER: ABOVE GRADE DOMESTIC WATER PIPE: TYPE L HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS, SOLDERED JOINTS, LEAD FREE SOLDER. PROVIDE 3/4" THICK FOR COLD WATER AND 1" THICK FOR HOT WATER PIPING, FIBERGLAS OR ARMAFLEX INSULATION. BELOW GRADE DOMESTIC WATER PIPING: TYPE K HARD DRAWN COPPER. NO JOINTS SHALL BE MADE BELOW GRADE.
26. ALL EQUIPMENT, FIXTURES, PIPING, VALVES AND FITTINGS SHALL BE CLEANED OF GREASE, OIL PINT, METAL SHAVINGS AND CONSTRUCTION DEBRIS BEFORE FINAL INSPECTION.
27. VALVES: DOMESTIC WATER: NIBCO, CRANE, OR MILWAUKEE.
28. INSTALLATION: ALL EQUIPMENT AND PRODUCTS SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN REQUIREMENTS. PROVIDE ACCESS AND CLEARANCE FOR ALL EQUIPMENT REQUIRING MAINTENANCE.
29. GAS PIPING SHALL BE ROUTED FROM THE GAS METER, THRU EXTERIOR WALL AND UP INTO ROOF STRUCTURE. PIPING SHALL BE ROUTED TO EQUIPMENT TIGHT TO ROOF STRUCTURE.
30. TESTING:
    TEST SANITARY AND VENT PIPING PRIOR TO THE INSTALLATION OF FIXTURES. HYDROSTATIC TEST SHALL BE PERFORMED WITH PIPE CAPPED AT FIXTURE CONNECTIONS. FILL PIPING WITH WATER AND ALLOW TO STAND FOR ONE HOUR.
31. TEST DOMESTIC WATER PIPING PRIOR TO THE INSTALLATION OF FIXTURES. HYDROSTATIC TEST SHALL BE PERFORMED WITH PIPE CAPPED AT FIXTURE CONNECTIONS. HYDROSTATIC TEST PRESSURE SHALL BE 125 PSI AND HELD FOR ONE HOUR.
32. DOMESTIC WATER PIPING SHALL BE DISINFECTED PRIOR TO BEING BACK INTO SERVICE. DISINFECTION SHALL MEET THE REQUIREMENTS OF AWWA AND THOSE OF THE LOCAL AUTHORITY.
33. ALL PLUMBING FIXTURES SHALL BE HIGH EFFICIENCY.




NOTE: COORDINATE, U/G WATER PIPE WITH FOUNDATION PLAN.

1 Water Entrance Detail
Scale: None




2 Roof Drain Detail
Scale: None

CLARKITECTURE
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CLARKITECTURE.NET
(316) 302-4472

## PROJECT INFO

**CLIENT:**
COVENANT GROUP, LLC

**PROJECT:**
COVENANT GROUP - BUILDING SHELL - LEE'S SUMMIT, MO

**ADDRESS:**
400 NW CHIPMAN RD
LEE'S SUMMIT, MO 64806

**PROJECT NO:** 267

## MAIN CONTACT


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chris@clarkitecture.net


## DEVELOPER

COVENANT REAL ESTATE GROUP
2460 PASEO VERDE PWY SUITE 145 | HENDERSON, NV 89074 | 714.845.8500

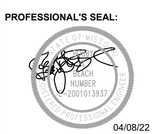
## SHEET INFO

**ISSUE DATE:** 04/08/22
**ISSUED FOR:** PERMIT

REVISION SCHEDULE

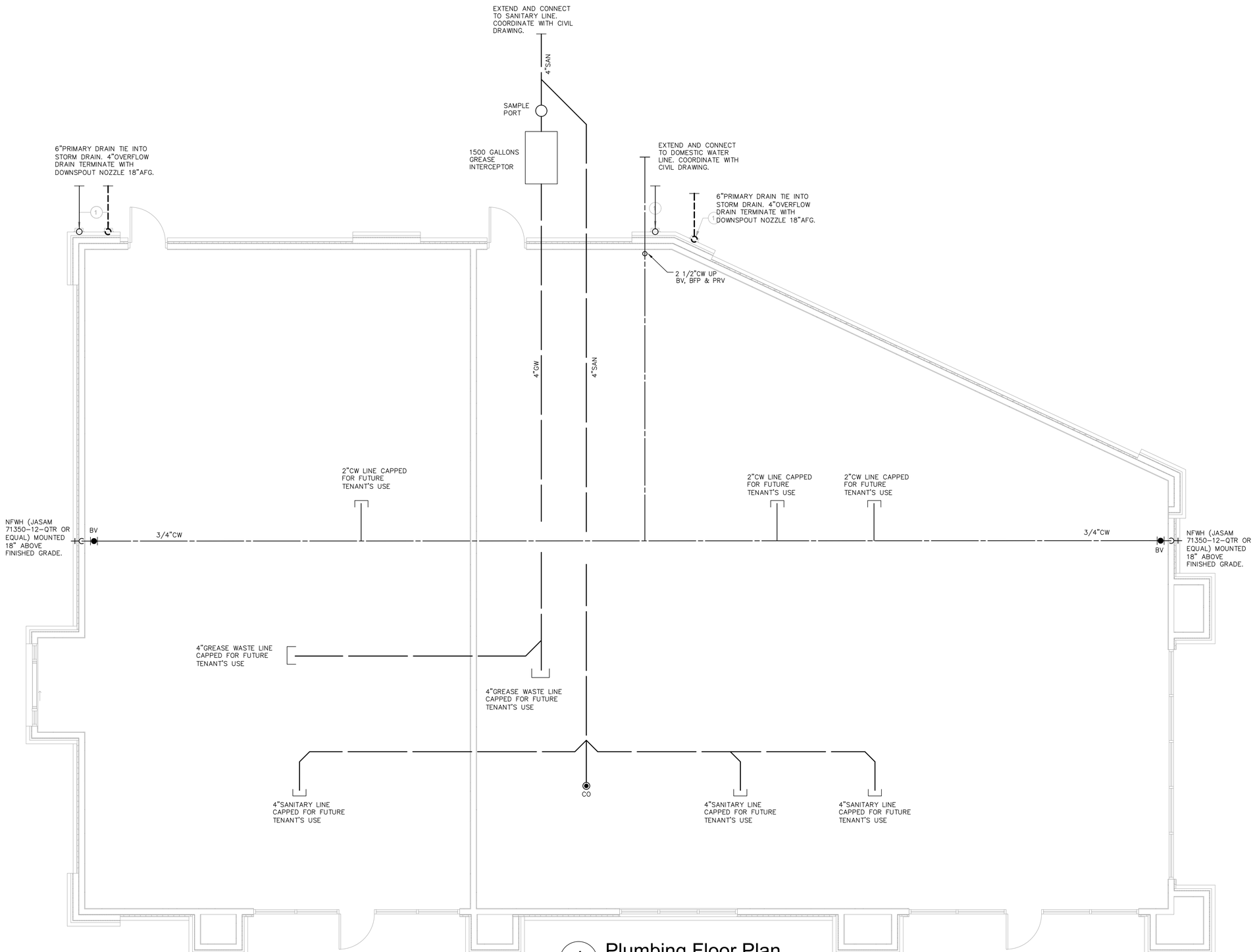
| NO | DESCRIPTION | DATE |
|---|---|---|
| | | |

**PROFESSIONAL'S SEAL:**




04/08/22

PLUMBING SCHEDULE, NOTES & DETAILS
**P0.01**




1 Plumbing Floor Plan

Scale: 1/4"=1'/0"

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## SHEET INFO

**ISSUE DATE:** 04/08/22

**ISSUED FOR:** PERMIT

REVISION SCHEDULE

| NO | DESCRIPTION | DATE |
|---|---|---|
| | | |

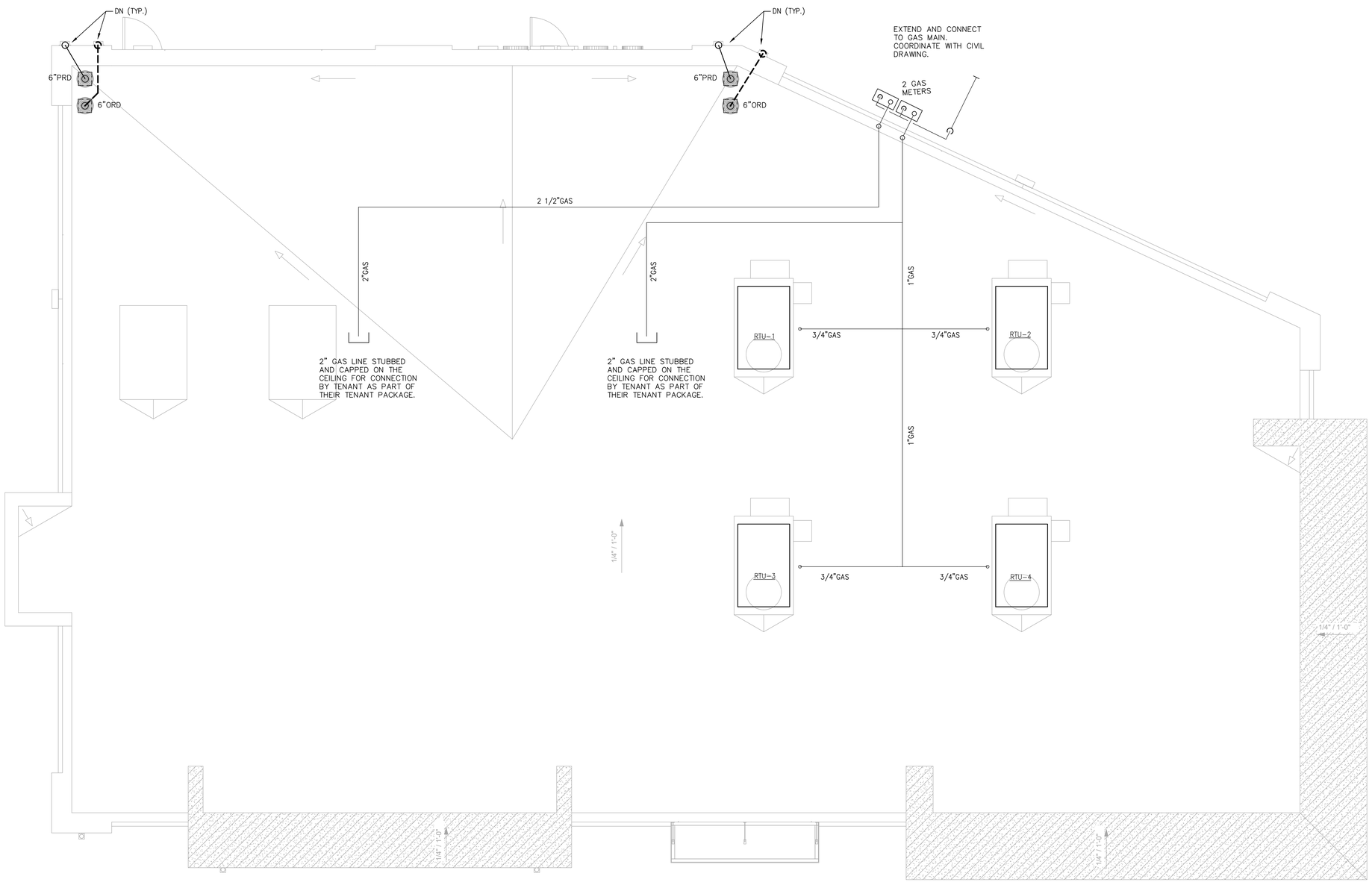
**PROFESSIONAL'S SEAL:**

STATE OF MISSOURI
CHRIS CLARK
NUMBER
2001013937
REGISTERED PROFESSIONAL ARCHITECT

04/08/22

PLUMBING FLOOR PLAN

**P1.01**




1 Plumbing Roof Plan

Scale: 1/4"=1'0"

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|---|---|---|
| | | |

**PROFESSIONAL'S SEAL:**

04/08/22

PLUMBING
ROOF PLAN

**P2.01**