

RELEASE FOR CONSTRUCTION

AS NOTED FOR PLAN REVIEW

DEVELOPMENT SERVICES

LEE'S SUMMIT, MISSOURI

12/13/2022

Combustion Air Calculations

Area where furnace & HW heater are located is 28 sq ft

Input Capacities
Furnace = 200,000 BTU/hr
HW Heater = 50,000 BTU/hr
Total = 250,000 BTU/hr

50 cu ft volume required per 1,000 BTU/hr
Volume required = $250 \times 250 = 12,500$ cu ft
Available volume = $28 \times 8 = 224$ cu ft

Normal infiltration is not adequate

Therefore install 2 vents with minimum free area of 150 sq in each (Metal vents with minimum gross area of 200 sq in each) in wall between furnace area and recreation/living area. One opening shall be within 12" of the top and one with 12" of the bottom of the space.

1. 12" x 8" of concrete walls w/ 4 #4 bars horizontal and 4 #4 bars vertical @ 18" O.C. on 18" x 8" concrete footing w/ 4 #4 bars continuous.
2. WALK OUT: 2x8 STUDS @ 18" O.C. ON 4" x 8" CONCRETE WALL ON 18" x 8" CONCRETE FOOTING.
3. BRICK SHELF REQUIRED ON FRONT OF HOUSE. BRICK DIMENSIONS DO NOT ALLOW FOR BRICK ADJUSTMENT MUST BE MADE TO FRAMING OR FOUNDATION.
4. FOUNDATION DESIGNED FOR 2000 PSF BEARING.
5. COLUMN FOOTING 12" TYPICAL W/ 4 #4 BARS @ 18" O.C. EACH WAY.
6. BOTTOM OF FOOTING MIN. 30" BELOW FINISHED GRADE.

1. DWELLINGS / GARAGE OPENINGS BETWEEN GARAGE AND SLEEPING PURPOSES SHALL NOT BE PERMITTED. OTHER OPENINGS SHALL BE EQUIPPED WITH SOLID WOOD OR STEEL DOORS NOT LESS THAN 1-5/8" THICK OR 20 MINUTE RATED DOORS WITH SELF-CLOSING DEVICES REQUIRED FOR GARAGE / DWELLING SEPARATION DOORS. R302.5.1

2. WHOLE HOUSE MECHANICAL VENTILATION SYSTEM IS REQUIRED FOR ANY DWELLING WITH AIR INFILTRATION AT A RATE OF LESS THAN 3 AIR CHANGES PER HOUR (AT ACH50 STANDARD) R303.4

3. CARBON MONOXIDE DETECTORS REQUIRED R310.0

4. STEEL COLUMNS SHALL BE MINIMUM SCHEDULE 40 R407.3

5. DECK LEDGER ATTACHMENT TO HOUSE SHALL BE PER TABLES 507.2 AND 507.2.1

6. STUDS SHALL BE CONTINUOUS BETWEEN FLOOR, CEILING AND OR ROOF DIAPHRAGMS R602.3

7. ADDED REQUIREMENTS FOR WINDOW FALL PROTECTION R312.2

8. NEW PROVISIONS FOR ATTACHMENT OF RAFTERS, TRUSSES AND ROOF BEAMS R802.3.1, R802.1.1

9. INSULATION REQUIRED FOR ALL BASEMENT WALLS (INCLUDING UNFINISHED BASEMENTS) N1102.1

10. EXTERIOR WINDOWS/DOORS SHALL HAVE U FACTOR 0.35 AND GLAZING SHALL HAVE SOLAR HEAT GAIN FACTOR OF 0.40 N1102.1

11. HOUSE LEAKAGE AND DUCT LEAKAGE PERFORMANCE STANDARDS EFFECTIVE JANUARY 1, 2014 A SAMPLE TESTING PROGRAM WILL BE IMPLEMENTED OCTOBER 1, 2012. N1102.4.1.2 N1103.2.2

12. LIGHTING FIXTURES PENETRATING THE THERMAL ENVELOPE (E.G. CANN LIGHTS IN ATTIC) SHALL BE IC RATED, LEAKAGE RATED AND SEALED TO THE GYPHUM WALLBOARD N1102.4.4

13. PROGRAMMABLE THERMOSTAT REQUIRED N1103.1.1

14. AIR HANDLERS SHALL BE RATED FOR MAXIMUM 2% AIR LEAKAGE RATE N1103.2.2.1

15. BUILDING CAVITIES USED AS RETURN AIR PLenums SHALL BE SEALED TO PREVENT LEAKAGE ACROSS THE THERMAL ENVELOPE (E.G. R310.2.2)

16. CERTAIN HOT WATER PIPES SHALL BE INSULATED N1103.4

17. ALL EXHAUST FANS SHALL TERMINATE TO THE BUILDING EXTERIOR N1107.2

18. MAKEUP AIR SYSTEM REQUIRED FOR KITCHEN EXHAUST HOODS THAT EXCEED 400 CFM N1103.4

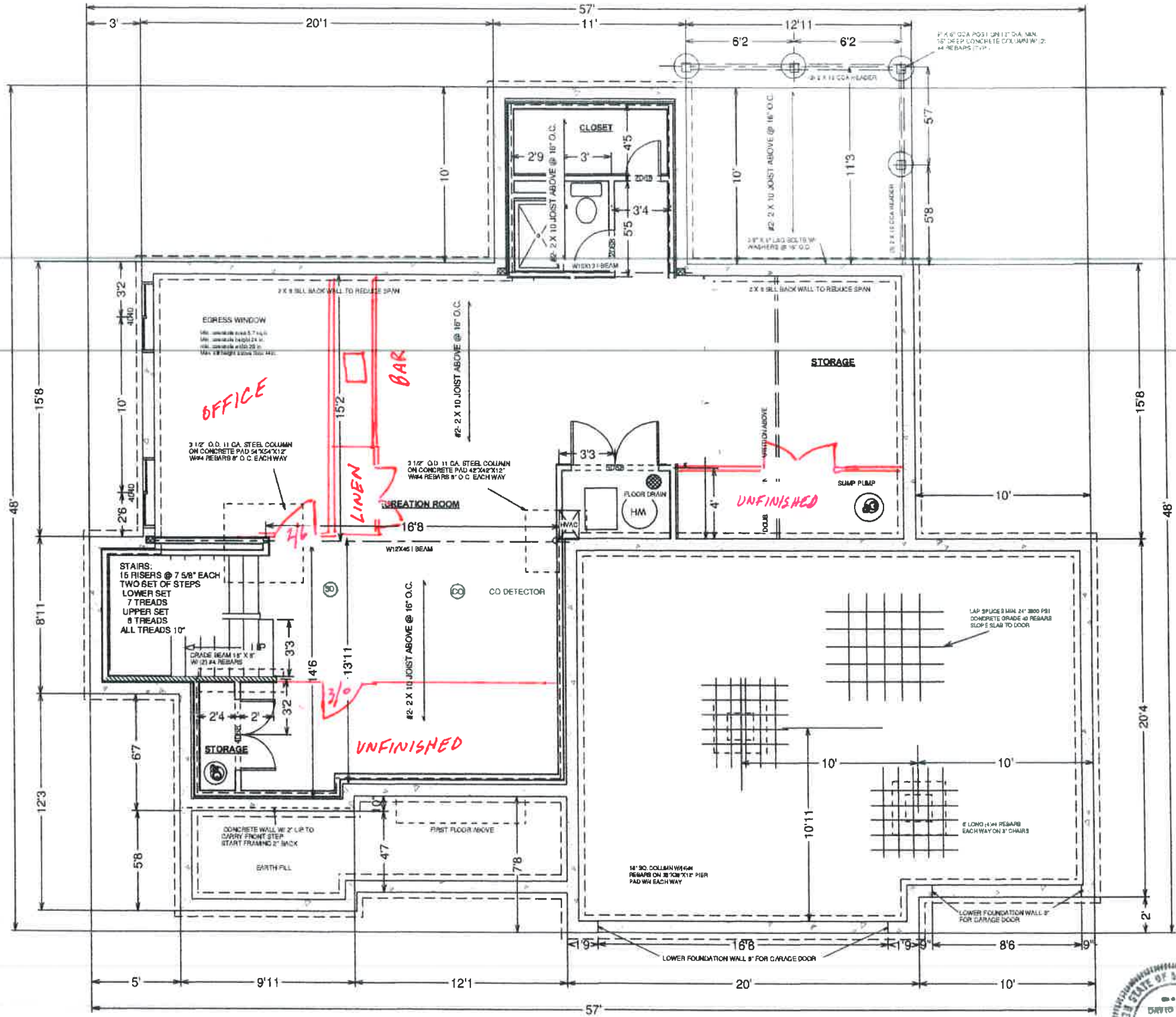
19. BUILDING CAVITIES IN A THERMAL ENVELOPE WALL (INCLUDING THE WALL BETWEEN THE HOUSE AND GARAGE) SHALL NOT BE USED AS RETURN AIR PLenums (UNLESS THE REQUIRED INSULATION AND AIR BARRIER ARE MAINTAINED) (E.G. N1102.1.1, N77.5)

20. AN AIR HANDLING SYSTEM SHALL NOT SERVE BOTH THE LIVING SPACE AND THE GARAGE N1102.1

21. A CONCRETE-ENCASED GROUNDING ELECTRODE (UFER GROUND) CONNECTION SHALL BE PROVIDED TO THE ELECTRICAL SERVICE (E3608.1)

22. COMPLIANCE WITH THE REQUIREMENT AND SHOW CONNECTION AS NEEDED FOR ROOF BEAM, TRUS, RAFTER AND GROUND CONNECTION FOR LIFT FOR (E3602.1)

1329 NE Brandywine Rd - LSMP 64064



To the best of my knowledge these plans are drawn to comply with the applicable building codes and regulations. I am not responsible for the construction of the building or the safety of the building. The contractor shall verify all dimensions and locations of the building and make any necessary corrections. I am not responsible for the construction of the building or the safety of the building. The contractor shall verify all dimensions and locations of the building and make any necessary corrections.

BUILDING CONTRACTOR/OWNER TO REVIEW AND VERIFY ALL DIMENSIONS, SPECIFICATIONS, AND CONNECTIONS BEFORE CONSTRUCTION BEGINS. ELECTRICAL SYSTEM CODE: SEC.2701 MECHANICAL SYSTEM CODE: SEC.2801 PLUMBING SYSTEM CODE: SEC.2901

PAGE 3 PLAN: AR-1 & 3

BASEMENT SCALE: 1/4" = 1'-0"

THE WALKER

DRAFT Dave Richards Homebuilding, Inc.