BASEMENT PLANS MINIMUM INFORMATION REQUIRED

- Show entire area finished/unfinished including any garage. **LABEL All Areas.**

- Plans to have dimensions for all areas with the location of all mechanical equipment.

- Furnace: no access allowed through bathroom or bedroom. Provide combustion air based on BTU’s of furnace. Exceptions direct vent appliance. Show location and clearance to combustibles. (See Attached Sheet)

- Electric panel not allowed in bathrooms or closets, working space 30” wide and 36” in front of panel from floor to 6’6” high. Nothing can be located in this space.

- Provide drawing of wall showing size and spacing of members. Indicate pressure treated sill; fire blocking, and wall finish. (See Attached Sheet)

- **Fireblocking-vertically @ceiling level, horizontally not exceeding 10’.**

- **Required ceiling height 6’-10” minimum.**

- **Beams and Girders not less than 6’-4” clear ceiling height.**

- Common wall garage to living req. 5/8’ fire code sheetrock. Doors to be 1 ¾ in. solid wood, 1 ¾ in. solid or honey comb core steel door or 20 minute fire-rated door and shall be fitted with self-closing device.

- **Under stair protection** requires one layer of ½” sheetrock.

- **Smoke detectors shall be provided on all levels and in all bedrooms** (provide note on your plan if they already exist in required locations). **Carbon monoxide detectors are required in the immediate vicinity of the bedrooms and on each level.**

- **Emergency Escape & Rescue Openings**-One each in each sleeping room and must meet ALL of the following:

  1. 20” min. clear opening width
  2. 24” min. clear opening height
  3. 5.7 sq.ft. or 820.8 sq.in.
  4. 44” max. window sill height above floor
  5. Indicate if window is tilt and takeout and style double hung, casement, or slider.

- In new construction, habitable basements without sleeping rooms are not required to have emergency escape & rescue openings when they are provided with two remote, code compliant stairways

Rev. July 2014 see underscored texts.
• Insulation shall comply with R-13 for walls

• Stair detail to include riser height; tread depth; handrail; width and headroom off nosing. State modification required when you can’t comply with the code. Switch at top and bottom of every stairway illuminating stairway. Form must be completed by Applicant and returned to this office for submission to State for approval.

• (New Construction) 2 code compliant remote stairways or emergency escape and rescue opening regardless of room designation.

• Window wells-9 sq ft min horizontal projection & width 36” min. If greater than 44” deep, must have permanently affixed ladder or steps.

Rev. July 2014 see underscored texts.
Provide continuous Fire stopping to create fire barrier between wall partition and flooring member. Approved materials include nominal 2 in. lumber, ½” inch sheetrock, ¾ plywood, mineral wool.
Combustion Air  

Direct vent appliances and appliances equipped with a combustion air kit, do not require additional combustion air.

*All air from inside of the building.*

All fuel burning appliances (Furnaces, Hot Water Heater, etc.) require air for combustion based on 50 cubic feet of air for each 1000 BTU’s of appliance(s).

Air obtained from outdoors—1sq inch per 5,000 BTU.

The air may be taken from the space the appliance(s) is located if sufficient or adjacent spaces (if volume is sufficient & connected by two openings of required size).

To see if you comply, please do the following calculation below for your space.

Length_______ x Width_______ = Area_______ x Height_______ = SPACE VOL. of air in cubic feet ________

BTU’s of your appliance(s)_______ x 50 cubic ft. = required VOL. in cubic ft. ______

Outdoor air ________ X 1 sq inch = square inches of permanent opening ________

1000.

SPACE VOL. of air _________________

APPLIANCE VOL. of air ________________

The volume of air required for the appliance(s) must be equal to or less than the SPACE VOL. of air. If the space volume of air is less (not enough combustion air) outside air is required.

Connected spaces require two openings.

One opening must be located 12” from the floor the other must be located 12” from the ceiling. Each opening shall have a clear opening equal to 1 sq. inch per 1000 BTU’s but not be less than 100 sq. inches.

Calculations for openings:

Appliance BTU’s _________ x 1 sq. inch= ______________ sq. inch of opening.

Rev. July 2014 see underscored texts.
Metal louvers are 75% efficient, Wood louvers are 25% efficient; use calculations below for the type of louvers used.

Metal ________ sq. inch of opening ÷ .75 = _________ required size of louver in sq. inches
Wood ________ sq. inch of opening ÷ .25 = _________ required size of louver in sq. inches

Prohibited Sources of Combustion Air: Sleeping rooms, bathrooms, garages, and toilet rooms.