

## SAMPLE GUIDE FOR FINISHED BASEMENT REQUIREMENTS IN ONE AND TWO FAMILY DWELLINGS

1. Complete the following forms and technical sections as applicable
  - (a) Construction permit application folder.
  - (b) Construction permit form.
  - (c) Building Subcode technical section. (include estimated cost of building work)
  - (d) Electrical Subcode technical section. (See note below.\*)
  - (e) Plumbing Subcode technical section. (See note below.\*)
  - (f) Fire Subcode technical section. (See section 9 also.)

\*NOTE: If anyone other than the homeowner performed Electrical or Plumbing work, the applicable technical section MUST BE SEALED by the contractor who is performing the work.

2. Submit two sets of scaled drawings. All drawings should indicate owner's name, address of job site, block and lot number. To draw your own plans, you must be the owner and occupant of said property. If not, you will need drawings by a New Jersey Registered Architect. **The homeowner's signature must be on the plans that they prepare.**
3. The drawings submitted shall include the following information;
  - (a) Show entire basement floor plan, indicating partitions, doors, windows, stairways, guardrails, handrails, closets, columns, electric layout, heating layout, furnace, hot water heater, chimney, floor covering, smoke detectors.
  - (b) Show wall cross section, indicating stud sizes, stud spacing, fire stopping, insulation, wall covering materials, ceiling material, ceiling height, height to girders, and height to heat ducts, if applicable. (See sample)
4. A room in the basement may not be used as a bedroom unless the room has two means of egress, an approved door, directly to the outside, or a means of egress window.
5. Guardrails on sides of stairways with three or more risers to be 34" or more in height measured vertically from leading edge of tread. The guardrail shall be constructed so that a sphere with a diameter of four inches can not pass through any opening. Guardrail shall be designed and constructed for a concentrated load of 200 pounds applied at any

point and in any direction along the top railing member. The in-fill area of a guardrail system shall be designed and constructed for a horizontal concentrated load of 200 pounds applied along one square foot area at any point in the system, including intermediate rails or other elements serving this purpose.

6. Stairways shall have a minimum width of 36 inches, maximum riser of 8 1/2 inches with no greater than 3/16" variation in height, minimum tread of 9 inches (a 1 inch nosing shall be provided on stairways with solid risers.) and headroom of 6 feet 8 inches measured vertically from tread nosing. Firestopping shall be provided in concealed spaces between stair stringers at the top and bottom of the run. Firestopping materials shall consist of two-inch nominal lumber or one thickness of 23/32-inch plywood.
7. A stairway with three or more risers requires a handrail. All stairway handrails shall have a circular cross section with an outside diameter of at least 1 1/4 inches and not greater than 2 inches. Handrails are to be smooth and free of any sharp edges or splinters. All handrail ends shall be returned to a wall or post.

(EXCEPTIONS)

- (a) Any other shape with a perimeter dimension of at least 4 inches but not greater than 6 1/4 inches with the largest cross-sectional dimension not exceeding 2 1/4 inches.
  - (b) Approved rails of equivalent graspability. A handrail and any wall or other surface adjacent to the handrail shall be free of any sharp or abrasive elements. The clear space between the handrail and adjacent wall or surface shall not be less than 1 1/2 inches. Edges shall have a minimum radius of 1/8 of an inch. Handrails shall not be less than 30 inches nor more than 38 inches, measured vertically, above leading edge of the treads. Only one handrail is required on stairways having a width of less than 44 inches.
8. Draft stopping is required in dropped ceilings that have an area of 500 square feet or larger. The space shall be divided into approximately equal areas. Draft stopping materials shall not be less than 1/2 inch gypsum board, 3/8 inch plywood or other approved materials adequately supported and shall be air tight.

Habitable rooms shall have a ceiling height of not less than 7'6". Hallways, bathroom, toilet rooms, laundry rooms and habitable basements that are only used as recreation rooms shall have a ceiling height of not less than 7 feet measured to the lowest projection from the ceiling.

(EXCEPTION)

(a) In buildings of use group R-3 (residential), the maximum projection below the required ceiling height of beams and girders spaced not less than 4 feet on center shall be 6 inches. If ceiling height and height to girder do not comply you must apply for a variation.

9. Combustion air is required to keep your furnace and hot water heater burning properly. Consult the manufacturer's instruction manual. The minimum combustion air which must be provided is 40 cubic feet per 1,000 BTU or 2 openings of the following minimum dimensions.(EXAMPLE: Fully louvered door or Metal vents 13" X 15", one near the ceiling and one near the floor.)

To assist you in planning and providing enough combustion air we are providing you with a **Combustion Air Calculation sheet**. Complete this form and submit it along with your plans. If you have any questions regarding these calculations contact Dennis Bettler Fire Subcode Official at 908-766-3850, ext.158.

Clearance to combustibles must be maintained for the equipment and the venting. Consult the manufacturer's instructions or provide a minimum of 2" clearance to all vents.

10. Every space intended for human occupancy shall be ventilated by natural or mechanical means.

Natural Ventilation: The minimum open area to the outdoors shall be 4 percent of the floor area being ventilated. If natural ventilation cannot be accomplished, mechanical ventilation shall be provided or a combination of both natural and mechanical ventilation can be used.

11. Interior finish to be not less than class III material which has a maximum flame spread between 76-200 and smoke-developed rating not greater than 450. Check packaging of material to be used for specifications. For paneling the label is on the back. Finished materials less than 1/4" must be installed directly against a non-combustible backing.

12. Required inspections; Call (908) 766-3850, ext.158 between the hours of 8:30 a.m.and 4:30 p.m. to schedule inspections. **CALL ONLY WHEN YOU ARE READY FOR INSPECTION.**

- (a) Rough electric
- (b) Rough Plumbing (if applicable)
- (c) Framing, rough mechanical i.e.: Exhaust fans

- (d) Insulation
- (e) Final Electric
- (f) Final Plumbing (if applicable)
- (g) Final fire protection
- (h) Final building

If you have any questions about these or any other requirements please call Joe Alicino, Construction Official @ 908-766-3850, ext.143.