Finished Basements

1. This handout is based on the New Jersey Rehabilitation Subcode (NJAC 5:23-6). This is only a guide and may not cover each and every situation that may be encountered.
2. Permits are required for all finished basements as they are considered alteration work.
3. Drawings are required for finished basements. They must be to scale and include the owner’s name, signature, address of job site, and the block and lot number. The plans must be drawn by the owner and occupant of said property or by a New Jersey registered architect. Contractors may not prepare the drawing unless they are a licensed architect also.
4. Required Permits:
   - **Building** for the general alteration of the space.
   - **Electric** for all new wiring, outlets, switches, panels etc. Note: The application must be sealed if anyone other than the homeowner is doing the work.
   - **Plumbing** for any additional equipment or fixtures. Note: The application must be sealed if anyone other than the homeowner is doing the work.
   - **Fire** of any gas fired appliances or detectors
5. Required Inspections:
   - **Building** – Framing, rough mechanical, insulation and final.
   - **Electric** – Rough and final.
   - **Plumbing** – Rough and final.
   - **Fire** – Final.
6. The drawings submitted shall include the following information:
   - Show the entire basement floor plan, indicating partitions, doors, windows, stairways, guardrails, handrails, closets, columns, electric layout, furnace, hot water heater, chimney, floor covering and smoke detectors.
   - 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.

Technical Requirements

1. All lumber in contact with concrete must be treated or naturally durable. Please review the ACQ notice for fastener requirements.
2. 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 along with the interior egress stairway is acceptable.

3. Replacement stairway handrails shall be between 34 and 38 inches measured vertically above the stair tread nosing and must meet the graspability requirements of IBC 1012.3. The replacement of less than 50 percent shall be permitted to match the existing.

4. Replacement stairway guard rails shall not be less than 36 inches measured vertically from the stair tread nosing and shall not have openings which allow the passage of a sphere 4 inches in diameter. The replacement of less than 50 percent shall be permitted to match the existing.

5. 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 ½” gypsum board, 3/8” plywood or other approved material.

6. Fire blocking must be installed when the project creates or exposes the framing of any wall, floor, ceiling, or roof framing spaces in accordance with the building subcode. Approved materials for fire blocking include mineral fiber, ½” gypsum, and 2 X lumber, ¾” plywood and fire caulk.

7. The Rehabilitation Code requires insulation to be installed when the work creates or exposes the entire framing of any wall, floor, ceiling or roof that is part of the building thermal envelope. Insulation meeting a minimum R-value shall be installed that fills the cavities of the framed assembly. The insulation requirements may be waived if high efficiency equipment is installed.

8. The Rehabilitation Code requires battery powered smoke detectors to be installed on each level of the structure whenever any alteration is done. Battery backup, hard wired smokes are required in any newly created bedrooms that are part of the alteration. Also all buildings with an attached garage or containing fuel burning appliances must have carbon monoxide detectors in the vicinity of the sleeping areas.

9. Combustion air is required to keep your furnace and hot water heater burning properly, so care must be taken when enclosing the equipment within a confined space. Consult the manufacturer’s instruction manual and have it onsite for all inspections. All required clearances to combustibles must also be maintained as per manufacturer or 2 inches minimum.

10. The load on the furnace/boiler must not be increased beyond that specified by the manufacturer. Heat must be provided in every space intended for human occupancy so a new system may be required if the existing is undersized. A minimum of 24 inches of clear space is required in front of the furnace for service. A door directly in front of the service side will be acceptable. Again have the manufacturer’s instruction manual available for all inspections.
11. A plumbing riser diagram is required if any plumbing alterations include the installation of additional equipment or fixtures. Provide the specifications for the sewage ejector pump if you are installing one also.

12. Interior finishes shall be class I, II or III material with a flame spread between 76-2—and have a smoke development rating not greater than 450.

13. An electrical wiring diagram is required showing all receptacles, switches, fixture and panel locations. The spacing between outlets is required to be maximum of twelve feet with the first outlet being no further than six feet from any doorway or opening. Bathroom receptacles must be GFI protected and be on a dedicated 20 Amp circuit. A minimum of 36 inches must be maintained in front of all panels.