

Basement remodels or finishes and additions are subject to the following requirements:

#### Building Items

1. Provide separate sheets for the architectural, electrical, and mechanical drawings. IRC R106.1
2. Provide wall section detail including plate and stud material, insulation and fire blocking. IRC R106.1
3. Fire stops required at floor and ceiling levels, around openings between floors, furred downs and similar areas.
4. Vertical fire stops required every 10' along the length of walls adjacent to foundation walls and at the top of those walls between the top plate and foundation wall. IRC R302.11#1(1.2)
5. Treated or redwood bottom plate required on all walls on concrete floors. All walls are required to have top plates and a maximum stud spacing of 24" O.C.
6. Habitable basements and every sleeping room shall have at least an exterior door or an egress window that meets the following: finished sill height of 44", clear openable area of 5.7 sq. ft., minimum width of 20" and minimum height of 24".
7. A deck or cantilever must be a minimum 3' above an emergency egress window. R310.5
8. Identify the ceiling heights in all habitable rooms, stair wells and bath rooms. IRC 305.1.1 & 311.7.2.
9. One eighth of the floor area is required to be in windows. Exception: bathrooms, closets and non-habitable rooms. Bedroom windows must meet egress requirements and will require egress window wells and will require a ladder if over 44".
10. Minimum insulation: walls R-13. Floors R-30 IECC T402.1.1
11. Windows above tubs or in showers and shower doors and enclosures to be tempered glass of safety glass.
12. Floor drain required by Water heater or piping required from pressure relief valve to approved location.
13. Three foot landing required at bottom of stairs.

#### Electrical Items

14. Carbon monoxide detectors are required on each level and must be interconnected. Alarms in existing areas may be battery operated. Please follow NFPA 720 and the manufacturer's guide for installation requirements. IRC R315.6.
15. All bedroom circuitry must be protected by AFCI. IRC E3902.11
16. The Laundry shall be provided with a 20 amp circuit. IRC E3703.3
17. All wiring, outlets, switches and sub panel must meet 2012 IRC requirements. Existing panel and service must have proper amperage to supply additional circuits and loads or new service will be required. A clearance of 36" is required in front to panel.
18. Receptacles shall be installed so that no point measured horizontally along the floor line in any wall space is more than 6' from a receptacle outlet. IRC E3901.2.1
19. All outlets serving counter top surfaces in kitchen area shall be GFCI protected, and an outlet in required to be within 24" each side of kitchen sink or stove.
20. Outlets in bathrooms must be on separate 20 amp circuit and GFCI protected. IRC E3703.4 & E3902.1
21. Every bedroom and hallway or area adjacent to bedrooms must have a 110 volt, hard wired, in series and battery backup type smoke detector installed. Every existing bedroom and each level of home must have a battery powered smoke detector installed. IRC 315.6

#### Plumbing Items

22. All plumbing fixtures must be properly installed and vented to meet 2012 IRC chpt 31

23. Minimum width for a water closet (toilet) alcove is 30" width and 21" clear in front of the bowl. IRC 2705.1 #5.
24. Provide anti-scald faucets on all shower and tub-shower combinations. P 2708.3 Bathtubs and whirlpool tub valves shall limit the temperature to a maximum of 120 degrees. F. P2713.3
25. Shower pan liners are required to be tested and inspected. (Add a note to the plans stating such.) P2503.6.
26. Fixtures that have flood level rims located below the elevation of the next upstream manhole cover of the public sewer shall be protected with an approved backwater valve installed in accordance with P3008.
27. Alcove tubs are to be provided with a tile flange. (Provide detail or add to plumbing notes)

#### Mechanical Items

28. Heating ducts must be properly installed in basement. New supply runs shall be installed. Return air shall be provided for all habitable rooms. IRC M1601.1
29. Show the path of least resistance for the bedroom return air. IRC M1401.3
30. Provide outside combustion air to furnace and water heater enclosure. 1 duct @ 1 sq inch per 3000 BTU input minimum may be used with proper clearances. IRC G2407.6.2
31. Furnace rooms with non-direct vent appliances shall not be accessed through a bath room or sleeping room unless outside combustion air is provided and a tight fitting (weather stripped) self-closing door is provided IRC G2406.2
32. Return air shall not be taken from within 10' of a source of combustion. G2442.4#5EX2.3
33. Furnace must have 30"x30" clear working space in front of burner assembly. IRC M1305.1
34. Exhaust fans must be installed in bathrooms, or similar rooms without operable windows. IRC M1507 & R 303.3 Exception.
35. Provide outside combustion air to furnace and water heaters. One duct within 12" of ceiling and sized 1 square inch per 3000 total Btu input of all appliances. G 2407.6.2
36. Provide 100 square inches of makeup air for clothes dryers located within closets or compartments. G 2439.4