REVIEWED PLAN

CITY OF ROCKVILLE
INSPECTION SERVICES DIVISION
RESIDENTIAL ADDITON

Case Number: Bld2012-17735

Address: 5 East Argyle Street
Rockville, Maryland 20850

Reviewer: John Hughes
240 314-8240 8/24/12

IMPORTANT!!!! READ COMMENTS LISTED BELOW.
THIS COPY OF THE APPROVED PLANS MUST BE ON-SITE AT ALL TIMES.
General Comments: These plans have been reviewed for general compliance with Chapter 5 of the City of Rockville Code. This approval shall not be construed as to violate, cancel or set aside any provisions of the Rockville City Code. All inspections must be requested at least 24 hours in advance through the City's IVR system by calling 240 314-5040. To request a fire inspection, please call 240-314-5041 at least 1 week in advance. **INSPECTIONS WILL NOT BE PREFORMED WITHOUT THE APPROVED PLANS.**

Comply with all radon abatement requirements that are appropriate for your type of foundation construction.

Exterior foundation walls enclosing habitable, useable or storage space below grade shall be waterproofed with membranes extending from the edge of the footing to the finished grade line. Foundation walls may be waterproofed using other methods of construction where approved by the building official. [R404.2, City of Rockville Code.]

Foundation and footing construction shall be capable of accommodating all loads according to R301, 2009 IRC and transmitting the resulting loads to the supporting soil. [R401.2, R403.1, 2009 IRC. Floor, wall and roof-ceiling construction shall be capable of accommodating all loads imposed according to R301, 2009 IRC and of transmitting the resulting loads to the supporting structure. Walls of wood-frame construction shall be designed and constructed in accordance with R602 and Figures R602.3.[1] and R602.3.[2]. [R602.3, 2009 IRC.]

The City of Rockville requires all cast in place concrete work to be inspected and approved, by a city inspector, prior to concrete placement. This shall include but not be limited to: footings, piers, columns, slab-on-grade and elevated slabs.

All wood in contact with the ground, embedded in concrete in direct contact with the ground or embedded in concrete exposed to the weather that supports permanent structures intended for human occupancy shall be approved pressure-preservative-treated wood suitable for ground contact use. [R317.1.2, 2009 IRC.]

Concrete slab-on-ground floors shall be a minimum of 3.5 inches thick. The area within the foundation walls shall have all vegetation, topsoil and foreign material removed. A 4-inch thick base course consisting of clean graded sand, gravel, or stone shall be placed on the prepared sub grade when the slab is below grade. An approved vapor barrier with joints lapped not less than 12-inches shall be placed between the concrete floor slab and the base course other the prepared sub grade where no base course exists. [R506.2.3, City of Rockville Code.]

Engineered roof and floor systems shall be designed in accordance with accepted engineering practices. All components shall be braced to prevent rotation and provide lateral stability in accordance with the requirements specified in the construction documents for the building and on the individual truss design drawings. In the absence of specific bracing requirements, components shall be braced in accordance with R502.1.1, R502.1.5, R502.11 and R802.10, 2009 IRC.

Wall bracing shall be in accordance with R602.10 and Table R602.10.1.2 [1] 90mph, 2009 IRC.
A load path for lateral forces shall be provided between the floor framing and braced wall panels located above or below a floor, as specified in R602.10.6, 2009 IRC.

Roof assemblies which are subject to wind uplift pressures of 20 pounds per square foot or greater, shall have roof rafters or trusses attached to their supporting wall assemblies by connections capable of providing the resistance required in Table R802.11, 2009 IRC. [R802.11, 2009IRC.]

Habitable rooms, hallways, corridors, bathrooms, toilet rooms, laundry rooms and basements shall have a ceiling height of not less than 7 feet. The required height shall be measured from the finished floor to the lowest projections from the ceiling. [R305.1, R305.1.1, 2009 IRC.]

Basements, habitable attics and every sleeping room shall have at least one operable emergency escape and rescue opening. Where basements contain one or more sleeping rooms, emergency egress and rescue openings shall be required in each sleeping room. Where openings are provided as a means of escape and rescue they shall have a sill height of not more than 44 inches above the floor. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with R310.2, 2009 IRC. [R310.1, 2009 IRC.]

All emergency escape and rescue openings shall have a minimum net clear opening of 5.7 square feet. [821 square inches.] The minimum net clear opening height shall be 24 inches. The minimum net clear opening width shall be 20 inches. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. [R310.1.1, R310.1.2, R310.1.3, R310.1.4, 2009 IRC.]

Dryer exhaust systems shall be independent of all other systems and shall convey the moisture to the outdoors and shall terminate on the outside of the building. Air shall not be exhausted into an attic, soffit, ridge vent or crawl space. Exhaust ducts shall be constructed of minimum 0.016-inch thick rigid metal ducts, having smooth interior surfaces with joints running in the direction of airflow. The maximum length of a clothes dryer exhaust shall not exceed twenty-five feet from the dryer location to the wall or roof termination [reductions for 45 and 90 degree bends] or per manufacturer's installation instructions. [M1501.1, M1502.3, M1502.4.4, M1502.4.4.2, 2009 IRC.]

Safety glazing required per R308, 2009 IRC.

Stairways shall not be less than 36 inches in clear width. All required handrails shall be continuous the full length of the stairs with four or more risers from a point directly above the top riser of a flight to a point directly above the lowest riser of the flight. Handrails shall not be less than 34-inches and not more than 38-inches.
Maximum stair riser height shall be
7- 3/4 inches and the minimum stair tread depth shall be 10 inches. [R311.7.7, R311.7.1, R311.7.7.2, R311.7.4.1, R311.7.4.2, 2009 IRC.]
All stairs shall be provided with illumination in accordance with R303.6, 2009 IRC.]

There shall be a floor or landing at the top and bottom of each stairway.
Exception: At the top of an interior flight of stairs, including stairs in an enclosed garage provided a door does not swing over the stairs. [R311.7.5, 2009 IRC.]

Fireblocking shall be provided to cut off all concealed draft openings [both vertical and horizontal] and to form an effective fire barrier between stories, and between a top story and the roof space. [R302.11, 2009 IRC.]

Freestanding or built-in ranges shall have a vertical clearance above the cooking top of not less than 30 inches to unprotected combustible material. Reduced clearances are permitted in accordance with the listing and labeling of the range hoods or appliances. [M1901.1, 2009 IRC.]

The electrical requirements shall conform to the 2008 edition of the NFIPA National Electrical Code as provided for in Chapter 5 of the Rockville City Code.

A minimum of 50 percent of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps. [404.1, 2009 IECC]
The building thermal envelope shall meet the requirements of Table N1102.1, 2009 IRC, based on the climate zone specified in Table N1101.2, 2009 IRC and chapters 1, 2 and 4 of the 2009 IECC.

Maximum flow rates and consumption for plumbing fixtures and fixture fitting shall comply with TABLE 604.4, City of Rockville Code. Maximum flow rate for a water closet [tank type] is 1.28 gallons per flushing cycle. The water service and distribution systems shall be designed and pipe sizes shall be selected such that under conditions of peak demand, the capacities at the point of outlet discharge shall not be less than shown in Table P2903.1. [P2903.1, 2009 IRC].

All 125-volt, single-phase, 15 and 20-amphere receptacles installed in bathrooms, garages, crawl spaces and unfinished basements shall have ground-fault circuit-interrupter protection for personnel. All 125-volt, single-phase, 15 and 20-amphere receptacles that serve countertop surfaces shall have ground-fault circuit-interrupter protection for personnel. [E3902.1, E3902.2, E3902.3, E3902.4, E3902.5, 2009 IRC.]

Arc-Fault Circuit Interrupters shall be installed in accordance with E3902.11, 2009 IRC and NEC 70 Section 210.12.

Exhaust air from bathrooms and toilet rooms shall not be recirculated within a residence or to another dwelling unit and shall be exhausted directly to the outdoors. Exhaust air from bathroom and toilet rooms shall not discharge into an attic, crawl space or other areas inside the building. Ventilation systems shall be designed to have the capacity to exhaust the minimum airflow rate determined in accordance with Table M1507.3, 2009 IRC. [M1507.2, M1507.3, 2009 IRC.] Bathroom/toilet room minimum ventilation rates shall be 50cfm for intermittent ventilation or 20cfm for continuous ventilation.

Valves or stops shall be installed in an accessible location for each plumbing fixture to interrupt the water supply to that fixture. Shower and tub/shower combinations shall be equipped with control valves of the pressure balance/thermostatic mixing valve types with high limit stops in accordance with ASSE 1016 or CSA B125. [P2708.3, 2009 IRC.]

Gypsum board used as the base or backer for adhesive application of ceramic tile or other required nonabsorbent finish material shall conform to ASTM C 1396, C 1178 or C1278. Use of water-resistant gypsum backing board shall be permitted on ceilings where framing spacing does not exceed 12 inches on center for ½-inch thick or 16 inches for 5/8-inche thick gypsum board. Water-resistant gypsum board shall not be installed over a Class I or II vapor retarder in a shower or tub compartment. LIMITATIONS: Water-resistant gypsum backing board shall not be used where there will be direct exposure to water or in areas subject to continuous high humidity. [R702.3.8, 2009 IRC].

Fiber-cement, fiber-mat reinforce cement, glass mat gypsum backers or fiber-reinforced gypsum backers in compliance with ASTM C1288, C1325, C1178 or C1278, respectively, and installed in accordance with manufacturers'' recommendations shall be used as backers for wall tile in tub and shower areas and wall panels in shower area. [R720.4.2, 2009 IRC].

Fixtures shall be spaced in accordance with Figure R307.1, and in accordance with the requirements of P2705.1, 2009 IRC. [R307.1, 2009 IRC.]

In buildings with combustible ceiling or roof construction, an attic access not less than 22 inches by 30 inches, shall be provided to attic areas that exceed 30 square feet and have a vertical height of 30 inches or greater. [R807.1, 2009 IRC.] See M1305.1.4, 2009 IRC for access requirements where mechanical equipment is located in an attic.

Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters shall have cross ventilation for each separate space by ventilating openings protected against the entrance of rain or snow. [R802.11, 2009 IRC.]

Enclosed accessible space under stairs shall have walls, under stair surface and any soffits protected on the enclosed side with ½-inch gypsum board. [R302.7, 2009 IRC.]

Guardrails are required where the change of levels is greater than 30". Required guards at open-sided walking surfaces, including stairs, porches, balconies or landings, shall be 36-inches high measured vertically above the adjacent walking surface. Required guardrails shall have intermediate rails, balusters or other construction such that a sphere with a diameter of four (4) inches cannot pass through any opening. Wood/plastic composite guards shall comply with the provisions of R317.4, 2009 IRC. [R312.1, R312.2, R312.3, R312.4, 2009 IRC.]

All carbon monoxide (CO) detectors shall be listed in accordance with UL 2034 and installed in accordance with the provisions of NFPA 72and the City of Rockville Code. Carbon monoxide detectors are required for new single-family homes, which rely on combustion of fossil fuel for heat, ventilation, water heating or clothes drying operation. Carbon monoxide detectors shall be hard wired [120 voltage] and contain battery back up. The carbon monoxide alarm shall be installed outside of bedroom units. The carbon monoxide detector is not required for gas cook top or a decorative gas appliance installation. [R315.1, R315.1.1, City of Rockville Code.]

Fuel gas appliances shall not be located in sleeping rooms, bathrooms, toilet rooms, storage rooms, surgical rooms, or in a space that opens only into such rooms or spaces and shall comply with G2406.2, 2009 IRC.

Air for combustion, ventilation and dilution of flue gases for appliances installed in buildings shall be provided by application of one of the methods prescribed in Sections G2407.5 through G2407.9, 2009 IRC.

Single and multiple-station smoke alarms shall be installed in the following locations:
1. In each sleeping room.
2. Outside of each separate sleeping area in the immediate vicinity of the bedrooms.
3. On each additional story of the dwelling, including basements and cellars but not including crawl spaces and uninhabitable attics.
4. In each townhouse loft.
When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm devices shall be interconnected is such a manner that the actuation of one alarm will activate all of the alarms in the individual unit. [R314.3, City of Rockville Code.]

Any deviation from the approved plans shall be submitted to City of Rockville ISD and approved prior to the change being made in the field.

Field inspections shall determine compliance with all applicable codes.

CITY OF ROCKVIL…
INSPECTION SERVIC…

* 1" WATER LINE UPGRADE
REQUIRED.
INSPECTION + APPROVAL OF 1" K COPPER LINE
FROM METER TO HOUSE, PRIOR TO
CLOSE-IN INSPECTION

Water service pipe installed underground between the main and the property line and from the property line to the structure to be supplied shall be type "K" copper tubing with sillflox/brazed joints only for sizes up to and including two-inches. Water service pipe installed underground and outside of the structure shall have a minimum working pressure rating of 160psi at 73 degrees. [P2905.4, City of Rockville Code.]