CODE INTERPRETATION: FLAMEDXX Coated OSB in Type III Construction

1. **SCOPE / PURPOSE**

   1.1. The 2012 International Building Code prescriptively requires that buildings of Type III construction have exterior wall assemblies composed of noncombustible materials with a minimum fire resistance rating of 2-hours. However, the 2012 International Building Code approves the introduction of combustible framing members when Fire Retardant Treated Wood (FRTW) is utilized.

2. **ADOPTED CODE**

   2.1. 2012 International Building Code Section 602.3 Type III. Type III construction is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of any material permitted by this code. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies of a 2-hour rating or less.

   2.2. 2012 International Building Code Section 2303.2 Fire-retardant-treated wood. Fire-retardant-treated wood is any wood product which, when impregnated with chemicals by a pressure process or other means during manufacture, shall have, when tested in accordance with ASTM E 84 or UL 723, a listed flame spread index of 25 or less and show no evidence of significant progressive combustion when the test is continued for an additional 20-minute period. Additionally, the flame front shall not progress more than 101/2 feet (3200 mm) beyond the centerline of the burners at any time during the test.

3. **BACKGROUND**

   3.1. The adopted model codes and the City of Atlanta recognize that industry and the building sciences evolve at a rate greater then the code promulgation and adoption processes.

   3.2. New construction technics and materials meeting the prescriptively required testing and listed process must not be rejected offhand without first undergoing an evolution process by Office of Buildings staff to determine compliance with the intent of the current adopted codes.

   3.3. As an alternate material, FLAMEDXX (PO Box 330908, Nashville, TN 37203 - http://flamedxx.com/) has requested the use of FLAMEDXX Coated OSB panels as a part of a listed 2-hour rated exterior wall assembly in Type III construction.
3.4. FLAMEDXX has provided product information and independent third party evaluation service reports showing compliance with the 2012 International Building Code for the use of FLAMEDXX Coated OSB in Type III construction.

4. INTERPRETATION / CLARIFICATION

4.1. 2012 International Building Code Section 602.3 prescriptively allows the use of combustible materials within the assembly used to create the 2-hour rated exterior wall of Type III construction.

4.2. The wood components of the 2-hour rated exterior wall assembly of Type III construction must be Fire Retardant Treated Wood complying with 2012 International Building Code Section 2303.2.

4.3. 2012 International Building Code Section 2303.2 recognizes a method other than pressure impregnation of the fire retardant chemicals used in wood products to achieve the Fire Retardant Treated Wood. This prescriptive requirement is outlined below:

2012 International Building Code Section 2303.2.2 Other means during manufacture. For wood products produced by other means during manufacture, the treatment shall be an integral part of the manufacturing process of the wood product. The treatment shall provide permanent protection to all surfaces of the wood product.

4.4. The fire retardant coating process used by FLAMEDXX for the FLAMEDXX Coated OSB is proprietary and integral to the manufacturing of the product. As required by 2012 International Building Code Section 2303.2.2.

4.5. FLAMEDXX Coated OSB panels bear an International Association of Plumbing & Mechanical Officials (IAPMO) third party listing in compliance with Uniform Evaluation Report 0173 (UER - 0173).

4.6. IAPMO UER-0173 shows that the 2-hour exterior wall system assembly using FLAMEDXX Coated OSB panels was evaluated and complies with the process outlined in ASTM E84, as required by 2012 International Building Code Section 2303.2.

5. SUMMATION

5.1 FLAMEDXX Coated OSB panels, as a component comprising a 2-hour rated listed exterior wall assembly by IAPMO UER-0173 complies with the prescriptive requirements of 2012 International Building Code Section 602.3 for use in Type III construction.
5.2  As part of the approval process by the City of Atlanta Office of Buildings for the use of FLAMEDXX Coated OSB panels as a component within the 2-hour listed assembly identified by IAPMO UER-0173. The following must be met:

5.2.1  The 2-hour rated assembly listed within IAPMO UER-0173 must be shown on the construction documents (plans and specifications) submitted for review and approval by the City of Atlanta Office of Buildings.

5.2.2  The project registered design professional (architect and/or professional engineer) must provide notes below the detail required by Section 5.2.1 stating that the combustible structural framing members used within the assembly be Fire Retardant Treated Wood, as required by 2012 International Building Code Section 602.3.

5.2.3  The project engineer must design the exterior load bearing wall using the industry recognized values for the specified Fire Retardant Treated Wood dimensional framing members. Specifically if the wood species and grade is structurally devalued due to the factory pressure impregnation of the fire retardant applied to the framing members.

5.3  During the inspection process, the assigned Building Inspector shall verify that the installation complies with construction documents approved by the City of Atlanta Office of Buildings and IAPMO UER-0173.

5.4  Improperly installed or stored materials that fail to comply with the construction documents approved by the City of Atlanta Office of Buildings and/or IAPMO UER-0173 shall be rejected by the assigned Building Inspector following Standard Operating Procedures established for inspections.

5.5  The assigned Building Inspector may require field certification by FLAMEDXX of materials or installations that fail to complying with IAPMO UER-0173.