

TECHNICAL BULLETIN



New York City Building Code Update

Technical Bulletin Update 9/22

On September 6, 2022, the New York City Department of Buildings issued a Technical Bulletin to address specific questions regarding the installation and testing of exterior walls containing combustible materials for projects in the City of New York. This bulletin can be found at [Buildings Bulletin 2022-013 - Technical \(nyc.gov\)](#) and further defines the required use of fireblocking for New York City projects.

Introduction

New York City is one of the largest, and most complex, construction cities in the United States. So complex, that the city has its very own building code addressing the unique construction challenges of a large city with multiple high-rise buildings in very tight proximity. The last time the New York City Building Code (NYCBC) was significantly updated was in 2014. Since that time the city has gone through many changes and the code required major updates across all of the segments including building, mechanical, energy, sustainability, and life safety. This particular revision has more than 600 major updates, and thousands of smaller changes, to address construction in the city. Metal cladding, while not the focus of these changes, will be impacted by the changes in the NYCBC.

Discussion

Development of the new NYCBC was not an overnight project. MCA was involved in discussions with the Department of Buildings (NYCDOB) for almost 3 years prior to the release of the new code. MCA was a member of a task group associated with the American Chemistry

Council (ACC) and the North American Modern Building Alliance (NAMBA) a relatively new organization modeled after an existing effort in Europe to advocate for the positive use of materials in today's modern construction.

While involved in a number of areas of the NYCBC, a primary focus for MCA was exterior cladding assemblies and continued efforts to maintain a high level of fire safety. The NFPA 285 test was a key focus for NYCBC, particularly due to the high-rise construction and the close proximity of buildings in New York City. Many meetings took place with the NYCDOB that included MCA, other members of NAMBA, and the NYC Fire Department. Even during the initial discussions, fire performance was a major consideration for the NYCDOB and the NYC Fire Department. The starting point for the NYCDOB was that no combustibles would be allowed on high-rise construction. This is contrary to the International Building Code® (IBC) adopted throughout the United States, however the DOB felt that the concentration of high-rise buildings warranted the additional requirement of noncombustible materials.

The results of endless debate and many hours of effort were culminated in the document presented to the New York City Council that was voted on and approved in October, 2021 with an effective date of November 7, 2022. The new code can be found at: <https://www1.nyc.gov/site/buildings/codes/2022-construction-codes.page#bldgs>

While many of the modifications are not particularly related to exterior cladding, the primary chapters with changes impacting MCA include:

- Chapter 7 – Fire and Smoke Protection Features,
- Chapter 14 – Exterior Walls,
- Chapter 17 – Special Inspections and Tests, and
- Chapter 26 – Plastics

Each of these chapters contains modification to the existing NYCBC that will impact the use of metal for exterior wall cladding.

In summary, the changes are as follows:

Chapter 7

Section 705 – Restricts the use of exterior wall cladding assemblies with combustible components and eliminates the use of these assemblies within 3’ of balconies or similar projections. Combustible cladding assemblies are also not allowed on cross laminated timber (CLT) construction.

Section 718 – Requires **noncombustible** fireblocking to the interior surface of the exterior cladding at each floor line. This fireblocking will close off the air cavity behind the cladding and potentially restrict the use of rainscreen systems. A list of acceptable fireblocking materials, including the option of materials allowed at the discretion of the Building Commissioner, is provided however the code does specifically require **noncombustible** fireblocking and this list does not include any type of metal flashing that allows the transfer of air through the cavity. This fireblocking requirements impacts not only combustible cladding materials such as MCM and IMP, but also impacts EIFS and the general use of foam plastic insulation in the exterior wall assembly.

During development of the NYCBC, there was discussion about compartmentalizing the wall with the use of fireblocking. While a number of questions remain, the Department of Buildings Technical Bulletin discusses fireblocking and how the NFPA 285 test should be representative of actual construction. The NFPA 285 is an

“intermediate scale” test with the distance between fixed floor slabs of 7’ 6”. While still leaving room for interpretation, this technical bulletin provides some guidance regarding testing and engineering evaluations.

Other items in Chapter 7 include:

- Wording that may create confusion over who is authorized to approve project variances from a tested NFPA 285 assembly. This would show up when an Engineering Analysis is provided because the exact wall assembly submitted for approval has not been tested.
- Removal of the minimum 20 PSF design wind load in the current code.
- Addition of Special Inspections for exterior cladding assemblies; the installation of weather resistive barrier (WRB) materials; and the use of combustible exterior wall assemblies on retrofit projects. The guidelines and procedures for the Special Inspections have yet to be defined.

Chapter 14

Section 1406 – Use of combustible wall assemblies on retrofit projects will be limited to 75’ above grade on non-sprinkler buildings unless there is 3’ of noncombustible cladding vertically between openings and, when a wall does not include openings, 3’ of noncombustible cladding vertically shall be installed every 15’ vertically (i.e., 3’ noncombustible banding).

Section 1407 – As already pointed out in Chapter 7, the use of MCM exterior wall assemblies shall not be allowed on cross laminated timber (CLT) construction or the area within 3’ of balconies, both vertically and horizontally. There are also additional requirements for fireblocking and special inspections. Finally, the exterior sheathing shall be increased from 1/2" gypsum board to 5/8" Type X gypsum board for the entire exterior envelope.

Chapter 17

Section 1705 – Special Inspections will have specific emphasis and requirements to verify conformance of constructed assemblies with NFPA 285 test documentation, approved construction documents, fireblocking installed in accordance with NYCBC Chapter 7, and other items related to exterior wall assemblies / exterior wall coverings.

Chapter 26

Section 2603 - The majority of changes impacting insulated metal panels (IMP) and exterior cladding assemblies containing foam plastics include fireblocking required to interrupt the foam plastic insulation, a special 20-minute thermal barrier requirement of 5/8” Type X gypsum board for exterior walls, and the use of Special Inspections.

An interesting addition to the code is the inclusion of sections specifically identifying the attachment over masonry, steel studs, and “direct attachment”.

Conclusion

The city of New York has proposed that the new code will be implemented throughout 2022. Quite a number of specific requirements and procedures have yet to be detailed and specific guidelines on enforcement of the code provisions has yet to be provided by the NYCDOB. Considering the significant number and scope of changes made, it will take time to educate the Building Department, inspectors, designers and contractors in the requirements of the new building code. Certain “non-controversial” sections will go into effect starting January 1, 2022. Other, more difficult, sections will be implemented as specific guidelines are developed at the DOB and communicated to the construction industry.

While this new code will be enforced after November 7, 2022, this will be a massive change in the New York City Building Code and it will take time to identify and confirm all of the specific issues. As enforcement decisions are made and educational materials provided, MCA will continue to communicate this information to our members.

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