



CITY OF CHICAGO

# DEPARTMENT OF BUILDINGS

## CODE MEMORANDUM

To: Department of Buildings Plan Examiners and Inspectors

From: Judith Frydland  
Commissioner 

Date: July 8, 2016

Re: **Glass as a Structural Material in Guardrails and Handrails**

---

The use of glass as structural material in guardrails and supporting handrails is allowed subject to the following requirements:

1. The glass shall meet the requirements of Chapter 24 and Section 2407 of the 2015 International Building Code (IBC 2015) and the structural requirements for guardrails contained in the Chicago Building Code.
2. All glass used in guardrail and handrail assemblies shall be laminated.  
Exception – Single Fully tempered glass is permitted in handrails or guardrails where there is no walking surface beneath them or the walking surface is permanently protected from the risk of falling glass.
3. A top rail or side mounted handrail that is structurally continuous across a minimum of 3 adjacent balusters of glass is required. The top rail or handrail shall remain in place should one glass panel fail.
4. A structural finite element analysis of the glass is required to be submitted as part of the permit documents to demonstrate that the glass is capable of supporting design loads with the proper safety factor.