

BOD 19-02: Calculated fire protection of wood columns, beams, and solid wood decking

2014 OSSC 703.3, 722.1 and 2018 NDS Technical Report No. 10

QUESTION: What options are available for determining the fire protection rating of wood columns, beams, and solid wood decking without requiring an approved appeal?

RESPONSE: These options are applicable to fully exposed, partially exposed, and concealed wood structural members in structures governed by the OSSC and ORSC.

1. Provide char calculation to confirm fire protection of wood beams, columns, and decking per 2018 NDS Technical Report No. 10 and shall include mass loss and structural calculations. Wood decking may require an additional smoke seal to be included as part of the evaluation.
2. Add layers of 5/8" Type X gyp board directly to the solid, laminated (e.g. glulam), or composite (e.g. 3 2x12's) beams and posts for 30 minutes of fire protection per layer up to 1-hour.
3. Provide an analysis of fire protection for up to 2 hours achieved by adding layers of gypsum combined with char calculation times following the methods in 2018 NDS Technical Report No. 10 signed by a licensed structural engineer, fire protection engineer, or architect.

Effective Date	Significant Changes	Employee Name
3/29/2019	Implementation	T. Whitehill