

Connecticut State Department of Education
Bureau of School Facilities

**PROCEDURE FOR REQUESTING
ROOF PITCH WAIVER**

Pursuant to C.G.S Section 10-291(b)(2), a minimum roof pitch of $\frac{1}{2}$ " per foot is required, except that for a total replacement of an existing roof, the Commissioner of Education may waive the $\frac{1}{2}$ " per foot requirement and permit the minimum roof pitch to be reduced to $\frac{1}{4}$ " per foot. If a waiver is deemed necessary, the following procedure may be applied where a school building project includes the total replacement of an existing roof and cannot provide the minimum $\frac{1}{2}$ " per foot roof pitch.

The Superintendent of Schools is required to submit a formal written request to the Commissioner of Education. To expedite the review, send a copy of the request to the Bureau of School Facilities. The request must be project specific and include the state project number, building name and address. The request letter should be brief, addressing the requirements of the law and the specific hardship(s) precipitating the need for the waiver.

The letter shall be accompanied by documentation that specifically addresses all of the following statutory requirements. Please do not repeat the law. Provide enough detail to demonstrate a comprehensive understanding of the differences relative to each requirement. References to subsequent or previous responses are acceptable and can assist in maintaining brevity. The supporting documentation should be on the design professional's letterhead and signed by the lead licensed professional for the project or principal of the firm.

- (i) such reduction of roof pitch will not impede drainage or cause pooling of water that may leak into the building to a greater degree than that of a roof of a minimum roof pitch of one-half inch per foot,**

Provide information addressing drainage performance and potential leakage issues. Address how a roof pitch of $\frac{1}{4}$ " will perform. Consider the following questions when preparing the response. What is the existing roof condition, pitch, drainage, etc? Was there a drainage problem before? Does the existing design provide for interior drains? Will secondary (emergency) drains be incorporated into the new design? Are there existing parapets? Are there existing overflow scuppers? Has there been an attempt to provide a $\frac{1}{2}$ " per foot pitch, changing drain locations or drainage system?

- (ii) the cost of replacing the roof with a minimum roof pitch of one-half inch per foot would substantially exceed the cost of replacing the roof with a minimum roof pitch of one-quarter inch per foot**

Provide a detailed cost comparison. A side-by-side cost analysis is required. Brief supplemental narratives may be offered. Be certain to include all pertinent costs, not just a verbal summary that "there would be a significant increase".

- (iii) the time needed to replace the roof with a minimum roof pitch of one-half inch per foot would be substantially longer than the time needed to replace the roof with a minimum roof pitch of one-quarter inch per foot**

Provide an estimated time comparison, and briefly explain the factors that cause the time differential, not just a verbal summary that "there would be a significant increase".

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(iv) the existing building would not support a roof with a roof pitch of one-half inch per foot without a substantial rebuilding of the existing building

Provide engineering analysis/report describing the existing structure(s). Briefly describe the structural systems and location, the existing design load capacity, as well as the additional loads imposed by the $\frac{1}{2}$ " pitch. It must be clearly demonstrated that the existing structure can, or cannot support/accommodate the additional loads required for the $\frac{1}{2}$ " design, without substantially rebuilding the structure. Note that minor rebuilding does not meet the statutory requirement.

Provide a Photo Survey covering the entire roof area. Include photographic evidence to identify the various specific conditions that warrant keeping a $\frac{1}{4}$ " pitch, or supports not requiring a $\frac{1}{2}$ " pitch. Photos should be clear enough to assist the explanations of any particular hardship identified in the narratives. Indicate the photo viewpoints on a separate key plan.

In summary, the district (and professionals) is required to identify the existing structure design, and load capacities, and demonstrate the inability to accommodate a $\frac{1}{2}$ " per foot roof pitch. Also provide evidence that there would be a significant increase of construction costs, and a significant increase of time to install a $\frac{1}{2}$ " per foot pitch. The acceptable minimum roof pitch permitted by waiver under the statute is $\frac{1}{4}$ " per foot.

In addition to the above requirements, the design professional shall identify where, and how, the following will be addressed within the construction documentation:

- **A minimum 20-year unlimited manufacturer's guarantee for water tightness covering material and workmanship on the entire roofing system;**
- **The inclusion of vapor retarders, insulation, bitumen, felts, membranes, flashings, metals, decks and any other feature required by the roof design; and**
- **That all manufacturers' materials to be used in the roofing system are specified to meet the latest standards for individual components of the roofing systems of the American Society for Testing and Materials.**

NOTE:

There are numerous applicable sections of the Building Code that must be addressed whether $\frac{1}{4}$ " or $\frac{1}{2}$ " per foot slope.