

# Challenges to fire management regulations when preserving and using historical townscapes

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## 1. Introduction

There is demand for promoting the development of tourism-oriented town development using historical buildings and townscapes. Old and traditional houses remaining in many regions are now being renovated as the core of tourism-oriented town development (photo 1). Major renovations sometimes face difficulty in complying with the current Building Standards Act, however, and renovations or uses of old and traditional buildings are often abandoned. Thus, systems need to be streamlined for the preservation and use of historical buildings.

Therefore, the National Institute for Land and Infrastructure Management is examining how fire management and evacuation regulations and other relevant regulations can be streamlined. Among them, this report introduces the current status of the examination of challenges that fire management regulations are facing in regard to the preservation and uses of historical buildings and townscapes.



Photo 1. An example that a townhouse is renovated as a tourist information building

## 2. Challenges to the preservation of historical townscapes

The authors examined the restrictions under the Building Standards Act applied to 20 municipalities with historic townscapes, such as traditional building preservation zones. The examination found the following challenges.

- Difficulty in renovating buildings while maintaining historical and traditional styles (photo 2) and the difficulty in finding engineers and procuring materials
- Necessity of increasing budget for renovation and maintenance costs and the



Photo 2. An example that a house is renovated using metal fittings

- increased construction cost when buildings are designed to suit landscape restrictions of a given area
- Difficulty in renovating wooden buildings as fireproof buildings when an area is specified as a semi-fire control zone
- Difficulty in renovating a building while preserving the original atmosphere when building confirmation cannot be acquired for a major renovation, which results in the necessity of renovating the building within a range that would not require a building confirmation

## 3. Example of streamlining the application of fire control regulations

Some municipalities are streamlining the application of fire control regulations to solve problems.

Examples include the cancellation of fire control zones or semi-fire control zones or the requirement of alternative measures to ensure safety while exempting some of the application of the Building Standards Act in traditional building preservation zones.

For example, the city of Hakodate applied Article 85-3 of the Building Standards Act to relax some of the fire control regulations for historical buildings within semi fire control zone. Meanwhile, the city required alternative measures, such as using wood materials with a thickness of 12 mm or more as the finishing material of outer walls and the back of the eaves, using aluminum or steel fittings on the inside of an opening, and using wire glasses on the inside of an opening (photo 3). Similar alternative measures are also being implemented in other cities.

## 4. Future plans to use outcomes

The authors are going to further examine the procedures to ensure a minimum level of safety and evaluation methods when fire control regulations are relaxed and release the outcomes as guidelines.



Photo 3. An example in which wire glass is used on the inside of an opening