

Development of effective technologies for the use of currently

Urban Planning Department, Building

At the NILIM, in the General Technological Development Project* Development of Effective Technologies for the Use of Currently Available Buildings Through the Rationalization of Fire Safety and Evacuation Regulations (2016-2020), necessary technologies are being developed to rationalize and streamline the application of fire safety and evacuation regulations, as well as regulations on building uses under the Building Standards Act to respond to social needs. Some of the research outcomes were reflected on legislative revisions (the revision of the Building Standards Act in 2018).

Social background and challenges

- Local governments and private businesses are expecting to effectively use already available buildings, such as historical buildings that remain in their regions, for regional revitalization and tourism promotion.
- To enable smooth progress of such activities, necessary technologies need to be developed to rationalize and streamline fire safety and evacuation regulations and regulations on building usages.

Development of technologies to ensure fire safety in individual buildings and urban areas

Rationalization of fire safety and evacuation regulations for individual buildings

○To require fire resistant structures in buildings, prevent damage to the surroundings caused by the collapse of large wooden buildings, and secure the safety of people inside the building.

[General Technological Development Project] Implementation of investigations concerning search and rescue and fire extinguishing work and the development of technologies to evaluate the safety of buildings based on the outcomes of experiments

Realization of structures to prevent buildings from collapsing using the effect of fire extinguishing systems and the concept of structures that would keep buildings from collapsing until the completion of the evacuation and rescue of residents



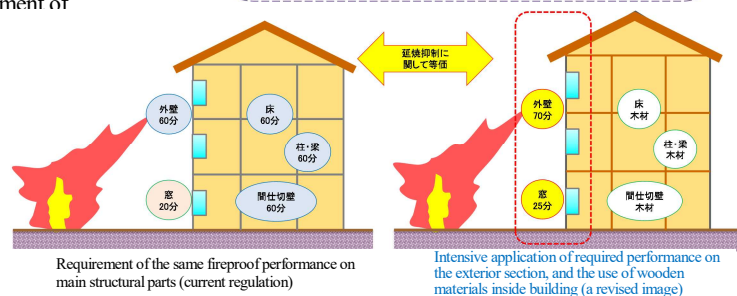
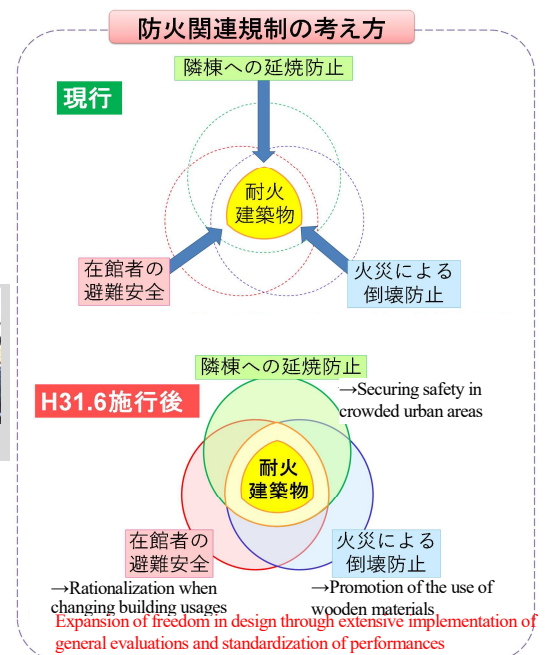
Status of investigation and experiments concerning rescue and fire extinguishing activities

Ensuring and rationalizing fire safety in urban areas

○Requirement of the same specifications based on sizes or other conditions for buildings in fire safety zones or semi-fire safety zones

[General Technological Development Project] Development of technologies to evaluate measures to enable effective of the spread of fire concerning performances require sections with the risk of the spread of fire as well as tl and outside of a building

Realization of the concept of structural methods equivalent of the current regulations on the prevention of the spread of fire



The image of equivalence in the prevention of the spread of fire in building

⇒Relevant articles

About the Law to Amend Part of the Building Standards Act (2018, Law #67)

http://www.mlit.go.jp/jutakukentiku/build/jutakukentiku_house_tk_000097.html

-Development of effective technologies for the use of currently available buildings through the rationalization of fire safety and evacuation regulations

-Various ideas to preserve and utilize historical streetscapes

*General Technological Development Project: A system to comprehensively and systematically implement research through the cooperation among the industry, academia, and government under the initiative of the administration section by selecting especially urgent themes that are also applicable to a wide range of fields among important research themes related to construction technologies