The background of the entire page is a close-up photograph of a green leaf. The leaf is covered in numerous small, clear water droplets. A large, stylized blue Chinese character '雨' (rain) is superimposed over the center of the leaf. The character is composed of several strokes, with a central vertical stroke and two large, curved strokes on either side. The overall color palette is dominated by various shades of green, with the blue of the character and the white of the text providing contrast.

ARSIT

ASSOCIATION
FOR
RAINWATER STORAGE
AND
INFILTRATION
TECHNOLOGY



Association for Rainwater Storage and Infiltration Technology

To Develop “a City With Aquatic Amenity”, We Need Rainwater Storage and Infiltration Technology.

Rapid urbanization has led to clearing of woodlands and paving of the earth. As a result, rainwater now flows directly to the receiving waters such as rivers, instead of seeping down to the earth.

This leads to serious problems such as floods in cities, decrease of river low flows, deteriorating water quality and depletion of ground water resources.

Rainwater storage and infiltration technology provides a highly effective means for solving such problems, not only for preventing flood damages but also for improving living environment.

In the past, Japanese government has implemented comprehensive flood mitigation measures mainly with conventional river improvements and additional improvements through retarding basins and regulating reservoirs. However, in recent times, a movement to emphasize on rainwater storage and infiltration as an alternative technology is gaining more and more support.

The technology draws considerable attention as measures to protect cities from floods and provide “the aquatic amenity” to urban inhabitants. We are doing our best to establish and promote the technology in order to contribute towards the improvement of national life.

The Articles of Association (Extract)

Purpose

Article3 The association executes investigation, research and development related to the technology to store and infiltrate rainwater (thereafter referred to as “Rainwater Storage and Infiltration Technology”) By means of disseminating its findings, the association contributes the construction of well-balanced hydrological system in terms of flood control, water utilization and aqua-environment accordingly serves for the integrity and the improvement of national life.

Enterprise

Article4 The association executes the following in order to accomplish the purpose stated in the previous article.

- 1 Investigation, research and development related to Rainwater Storage and Infiltration Technology
- 2 The Establishment of technical standards related to Rainwater Storage and Infiltration facilities
- 3 Evaluation of Rainwater Storage and Infiltration Technology
- 4 Education of engineers concerned in operation, maintenance and management of Rainwater Storage and Infiltration facilities
- 5 Activity for enlightenment and promotion, such as the publication of bulletins and the collection and distribution of technical information
- 6 Holding research meetings and technical courses on Rainwater Storage and Infiltration Technology
- 7 Cooperation and suggestions to institutions related to Rainwater Storage and Infiltration Technology
- 8 Enterprises necessary for the association to accomplish its purpose

History

Apr 3, 1991 “Association for Rainwater Storage and Infiltration Technology” was established in accordance with the official permission by the Ministry of Construction.

Aug 1, 2012 Transition to a public Interest incorporated association.

Technology for Rainwater Storage and Infiltration

Technology for rainwater storage and infiltration is used to store rainwater temporarily or to infiltrate it into the earth in order to control the outflow into receiving waters.

Storing rainwater could be accomplished either by on-site measures or off-site measures. On-site type measures store rainwater at each location where the rainfall occur, whereas the off-site storing takes place at a site certain distance away from the location of the rainfall. On-site facilities store a small amount of water and thus its effect increases greatly when the number of installations are increased and distributed. This type is implemented between apartment buildings, in parking lots, residential gardens and at public facilities such as parks, schools, etc. On the other hand off-site facilities are used to store a large amount of water in the form of storage located under streets, retarding basins, regulating reservoirs, etc.

In order, to infiltrate rainwater into the earth, permeable underground trenches, permeable connecting boxes, infiltrating artesian wells and infiltrating ponds are used in unpaved areas. Permeable pavements are used along roads and car parks. Rainwater infiltration facilities are also used to increase the ground water recharge.

Thus, rainwater storage and infiltration technology contribute not only towards the prevention of floods but also to the enhancement of amenity.

The Activities of the Association

The establishment and practical use of technical standards

1. Guide to rainwater storage and infiltration technology.
2. Guide for planning rainwater storage and infiltration facilities.
3. Rainwater storage and infiltration facility design guide • Construction guide • Structural standards • Cost estimation standards.
4. Guide to maintenance and management of rainwater storage and infiltration.
5. Guide to multipurpose usage of rainwater storage and infiltration facilities.

Investigation,
Research,
Development

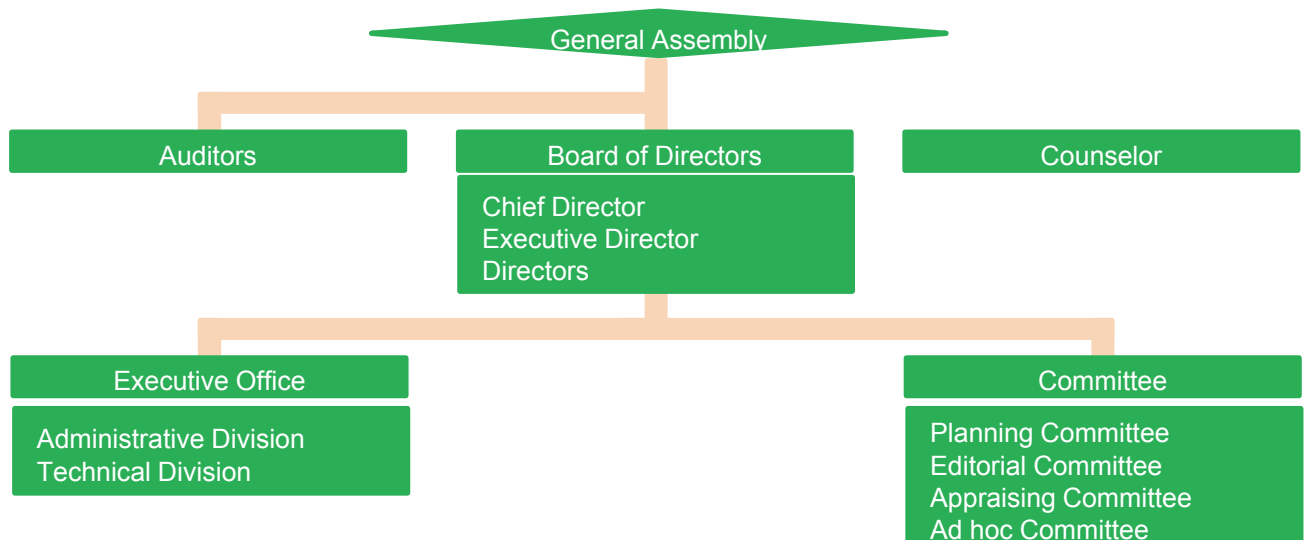
Activities to enlighten the public and promote wider usage

1. Promotion of rainwater storage and infiltration facility use offices and houses.
2. Publication of bulletins and technical reports.
3. Holding short courses on rainwater storage and infiltration technology.
4. Promotion of financial aid system and funding system supported by the government.

Evaluation and official approval

1. Evaluation of the design procedure.
2. Evaluation and official approval of the construction method and technology.
3. Evaluation and official approval of the products.

Organization Diagram



Rainwater storage and infiltration facilities are now in active use in the river basin and contribute the sound water cycle in the urban areas.



Image of practical measures for sound water cycle

Example of Rainwater Storage Facilities for Flood Control Measures



Ecological Pond



Community Pond



Retarding Basin Utilizing a Shared Space of Apartment



Regulating pond that was friendly to business district of landscaping



School Ground Surface Storage

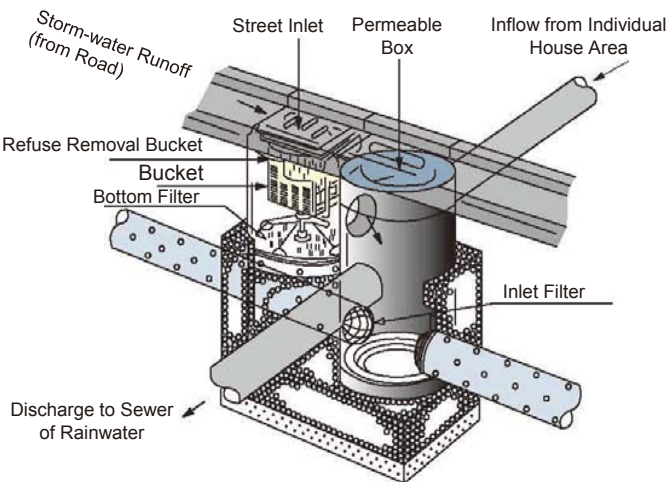
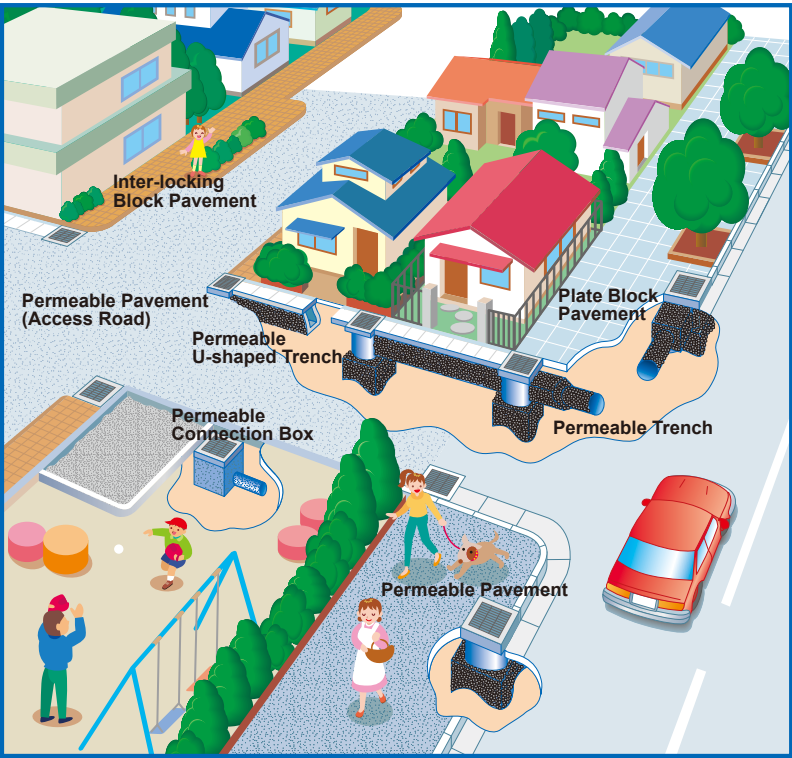


Multi-purpose Reservoir(Tennis Court)

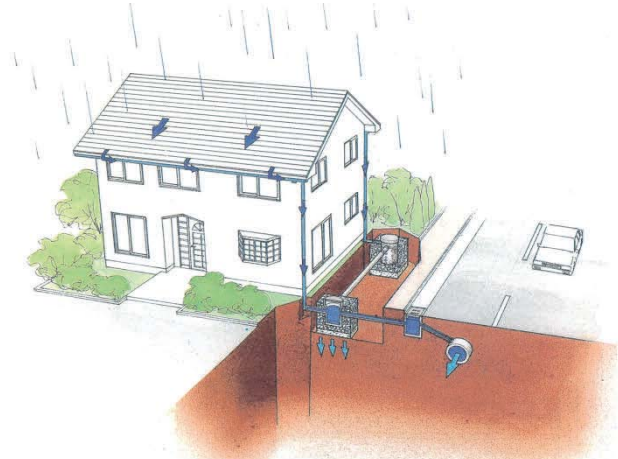


Regulating pond that combines with park

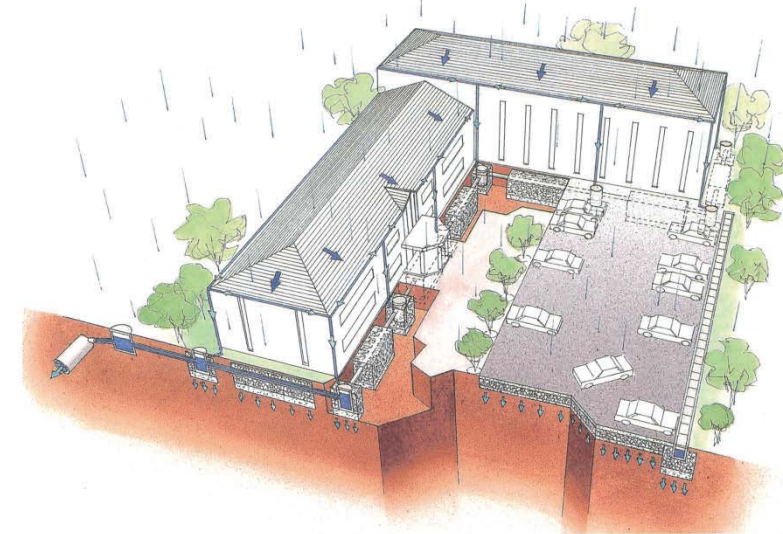
Example of Rainwater Infiltration Facilities for Flood Control Measures



Example of Street Permeable Box Structure



Example of Arranging Rainwater Infiltration Box at Individual House



Example of Arranging Rainwater Infiltration Box and Infiltration Trench at Public Buildings



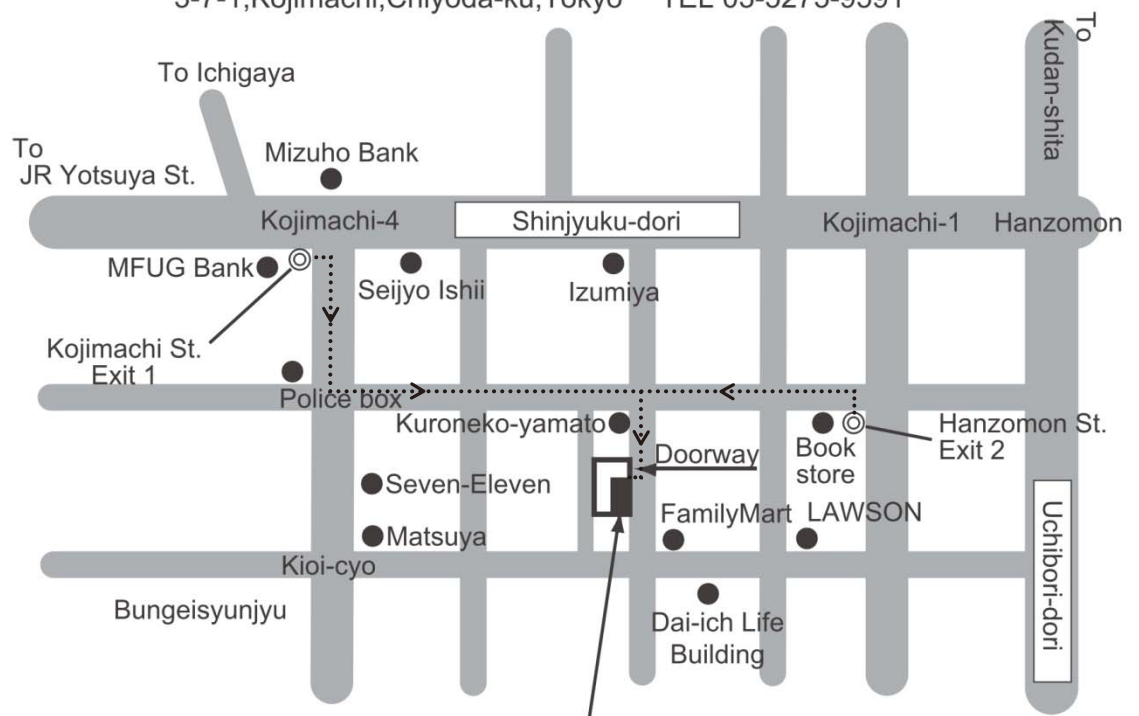
Example of Construction Situation of Infiltration Trench



Example of Construction Situation of Infiltration Box

■ Information map for ARSIT

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ARSIT : Association for Rainwater Storage and Infiltration Technology
(Hanzomon Murayama Building 1F)

Subway

- Subway Yurakucho Line : Kojimachi Station Exit 1 (5 minutes walk)
- Subway Hanzomon Line : Hanzomon Station Exit 2 (3-minute walk)



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