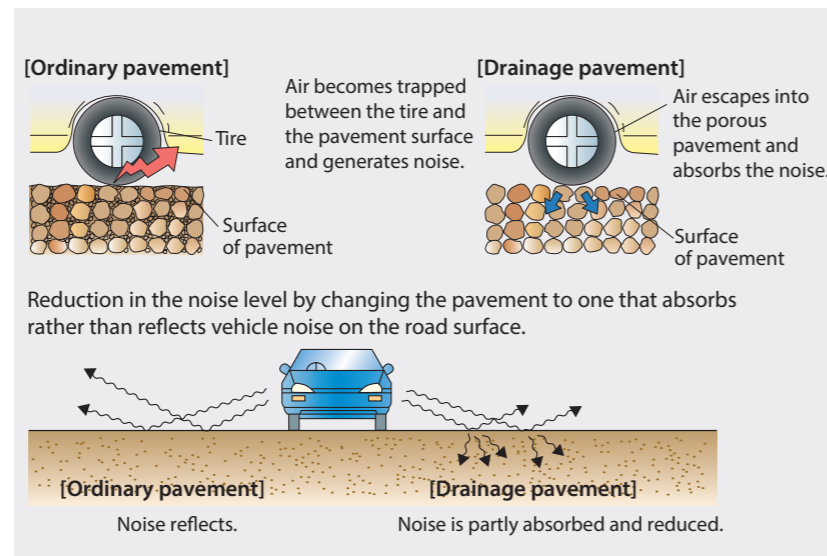


Pavement

In 1955, the percentage of paved national highways in Japan was less than 14% of the total road network. The percentage increased sharply thereafter as motorization rapidly progressed, reaching 57% in 1965, 79% in 1975, and over 90% today. Various paving technologies have been researched and developed since roads in Japan are subject to large seasonal temperature differences and heavy rainfall. New technologies are being developed to address an aging society and environmental issues.

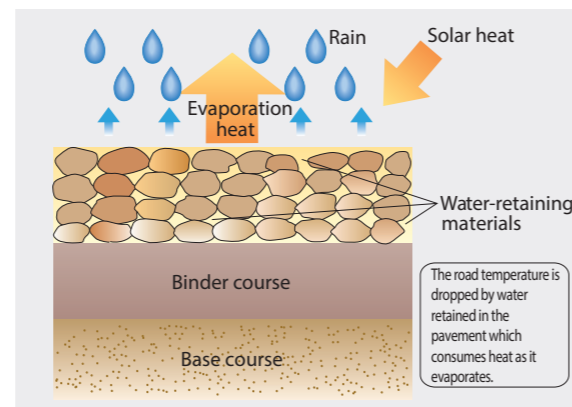
Drainage and low-noise pavement

The surface of a newly developed pavement is more porous than ordinary pavement and allows water to seep into and pass through the pavement. It flows along an inclined, impermeable course and is then discharged out the side gutters. The pavement drains the rain water and allows the road surface to remain non-slippery, controls spray and ensures good visibility. The porousness of the pavement also suppresses the noise generated by tires and traffic.



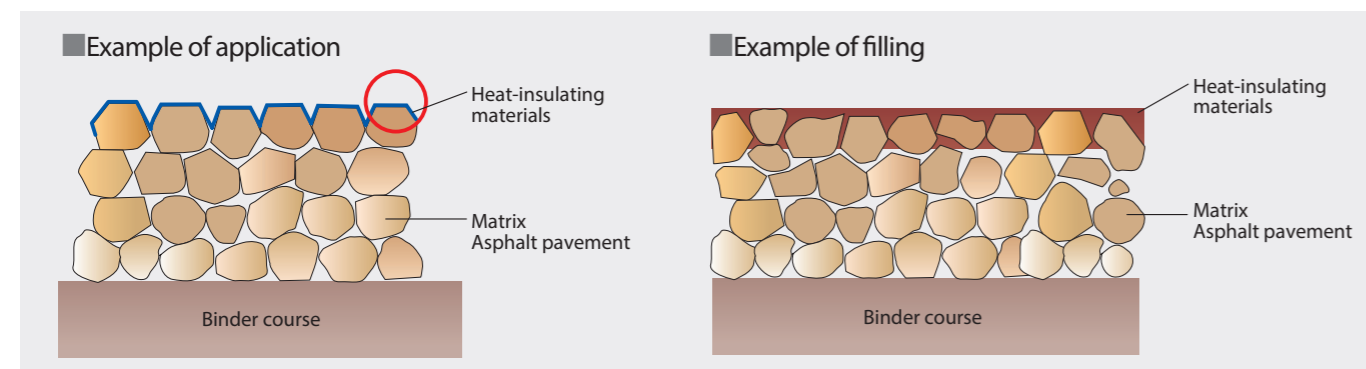
Water-retaining pavement

The pavement retains water and thus lowers the road temperature through water evaporation. Diverse techniques, from which rain water and underground water slowly evaporate, have been proposed. For example, injecting water-retaining materials like polymers into the voids of asphalt mixtures is one such option.



Heat-insulating pavement

Special paint is applied on the pavement surface to reflect infrared rays from the sun and thus reduce the amount of heat that is absorbed and accumulated in the pavement. The paint controls the rise in the surface temperature of the pavement and improves the thermal environment for pedestrians and road-side users, helping to mitigate the heat-island phenomenon.



Chapter 3

Summary of Principal Policies

Basic Policy of principal policies

In order to build a world-leading safe, smart, and sustainable road transportation system, we will implement road measures based on the following basic policies.

1 Disaster prevention and mitigation, national resilience

- Protecting people's lives and livelihoods from disasters -
With the goal of securing the passage of emergency vehicles within approximately one day, and general vehicles within approximately one week after a disaster strikes, we will work to build a disaster-resilient road network, and promote efforts to support evacuation, lifesaving emergency and recovery activities, and to strengthen crisis management measures.

2 Preventive maintenance measures to aging road

- Safe and secure roads for the next generation -
In order to make an early transition to preventive maintenance that reduces life-cycle costs and realizes efficient and sustainable maintenance management, we will accelerate measures for facilities that need repairs identified through periodic inspections and promote the active use of new technologies.

3 Development of networks and hubs to support flows of people and goods - Connecting people and regions -

In order to build a national arterial road network providing speed and accessibility, we will work on the development and functional enhancement of high-standard infrastructure, and the enhancement of modal connect through the development

of transportation hub, the promotion of traffic congestion countermeasures, and logistics support.

4 Creating safety, security and activity in road space - Creating regions and towns -

In order to realize a society in which all people can live in safety, security, and comfort, we will promote traffic safety measures, universal design, the elimination of utility poles, and the development of road space for bicycles, as well as initiatives to meet the diverse needs of road space, such as the creation of new forms of mobility and regional activities.

5 Road system DX - The realization of xROAD -

To realize the vision for a Digital Garden City Nation, we will accelerate "xROAD" efforts to reduce labor and improve the efficiency of road management and administrative procedures through the introduction of new and digital technologies.

6 Realization of a decarbonized society through promotion of GX - Contributing toward carbon neutrality in 2050 -

Toward carbon neutrality in 2050, we will promote the spread of next-generation vehicles, low-carbon road transportation, and energy-efficient and green road infrastructure.

※In addition to the above, we will promote road policies based on the "Comprehensive Strategy for the Vision for a Digital Garden City Nation" (cabinet resolution made on December 23, 2022), "Grand Design and Action Plan for a New Form of Capitalism" (cabinet resolution made on June 7, 2022) and, to be formulated this summer, the "National Spatial Strategy (National plan)" and the "Fundamental Plan for National Resilience."