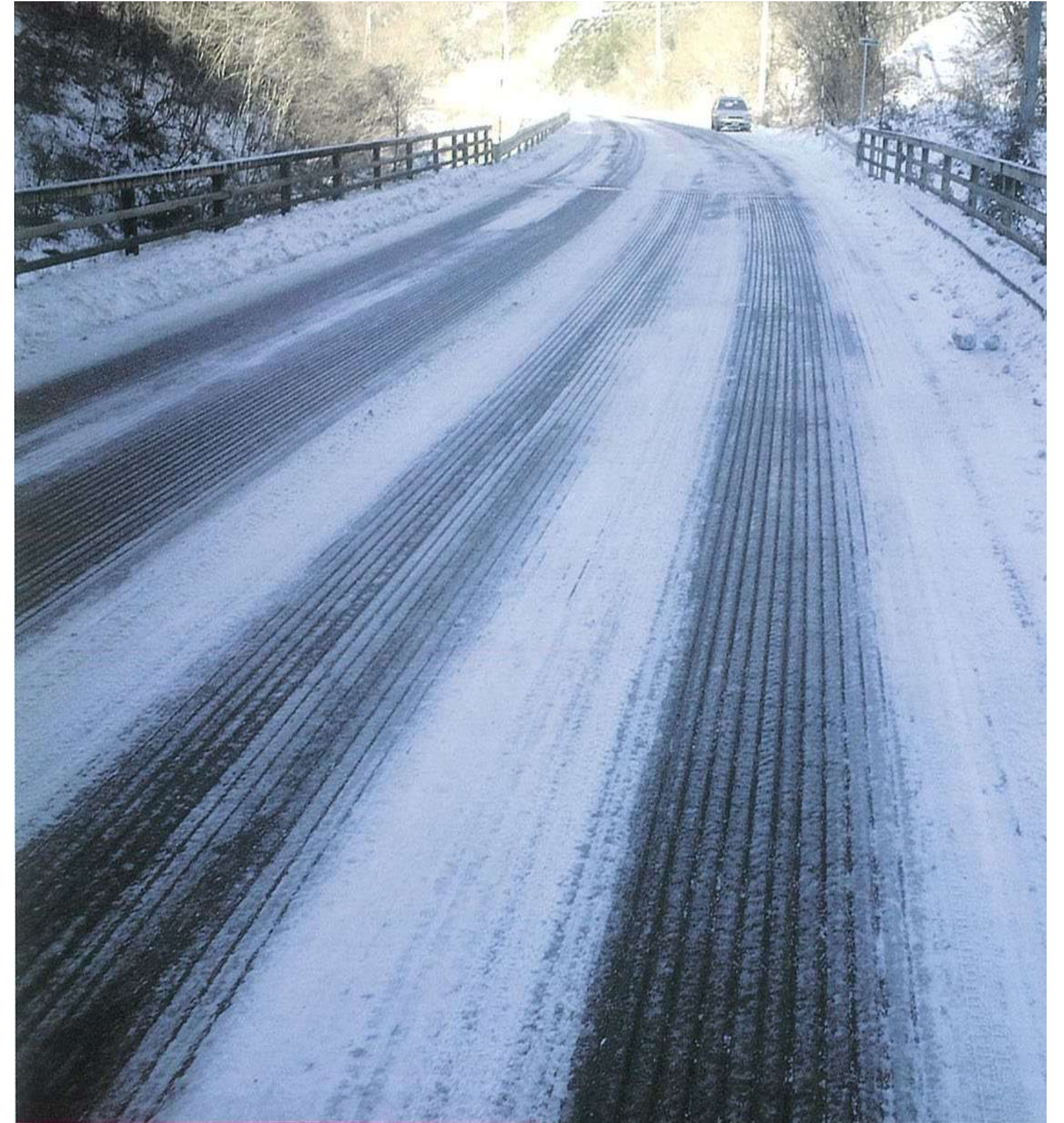


Freezing prevention paving: The-PEC Type G

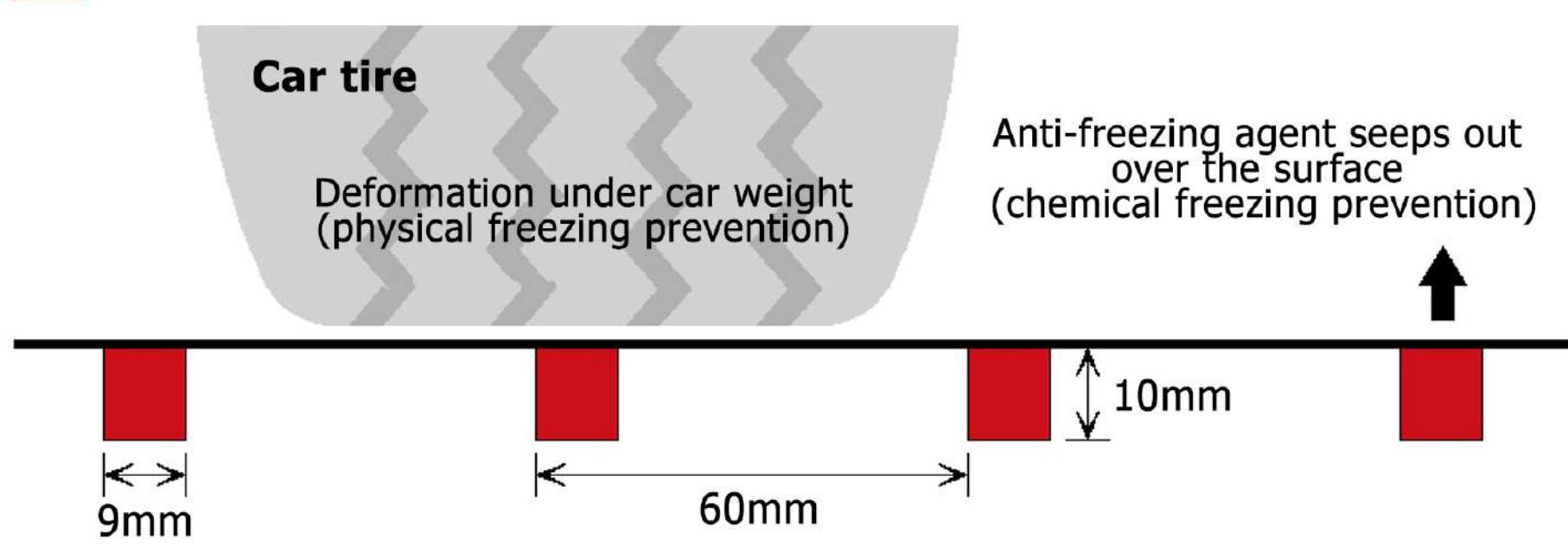
تعبيد الطرق المضادة للتجمد The-PEC من النوع G

Overview

Grooves made over the paving surface are filled with a freezing prevention mix containing rubber chips, anti-freezing agent and urethane resin. The excellent freezing prevention effect significantly contributes to wintertime traffic safety improvement in cold, snowbound areas.



Installation detail (Grooves made in the longitudinal direction)



Features

- ◆ Excellent freezing prevention effect
- ◆ Reduces lateral skidding of cars and slows down cars
- ◆ Alleviates the road maintenance workload during winter time
- ◆ Environment-friendly ingredients used
- ◆ Usable on a wide variety of road surfaces
- ◆ Paved road can be quickly opened to traffic

Applications

- ◆ Locations where cars are desired to slow down or stop (intersections, sharp curves, downhill, front of railway crossing etc.)
- ◆ Locations where the drivers experience a drastic change in the road condition (entrance or exit of a tunnel etc.)
- ◆ Shady locations in mountainous areas
- ◆ Roads over a bridge
- ◆ Locations where reduction in anti-freezing pellet application is desirable
- ◆ Locations where snow blowers cannot easily reach or where anti-freezing pellet supply/application is difficult

Installation steps



1. Grooving



2. Masking



3. Primer application



4. Injecting the freezing prevention mix



Music-sounding, freezing prevention pavement: Melody-Way

تعييد الطرق المضادة للتجمد باستخدام الصوت ميلودي واي

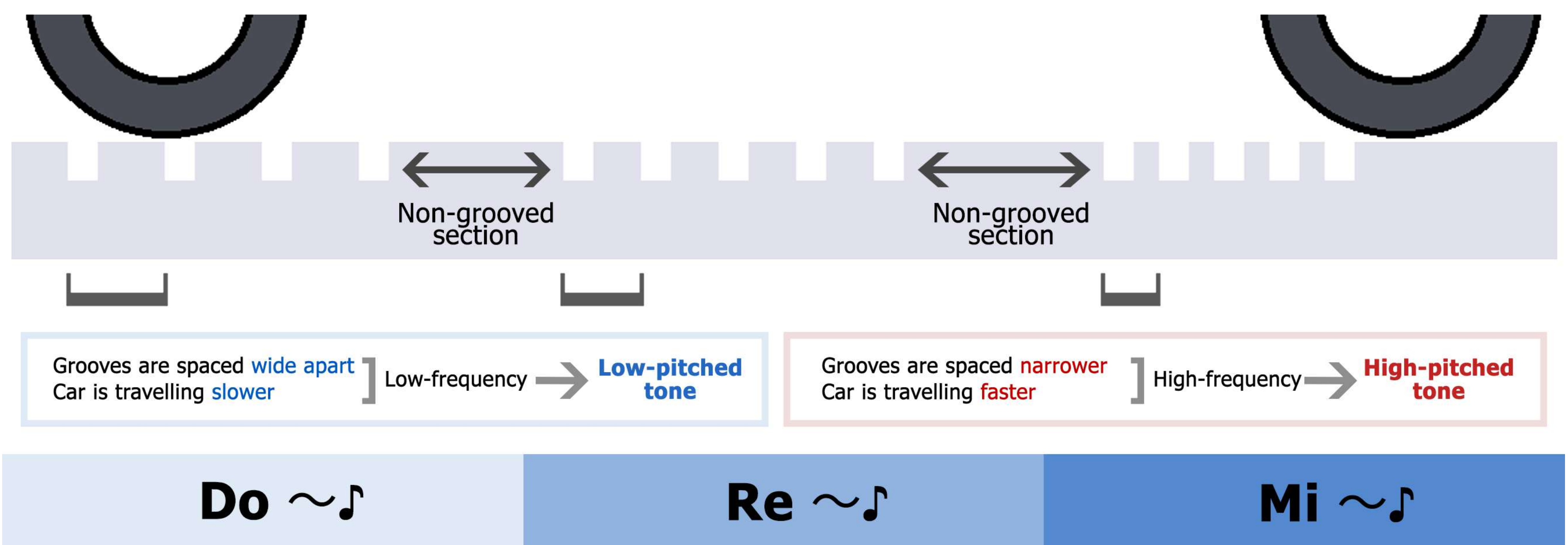
Overview

The PEC-type Melody-Way is a product that combines music road technology that sounds a specific melody when a car passes over the grooves made on the road surface and the-PEC Process, our original groove-based freezing prevention paving technology (lateral grooving type). Lateral grooves are made at controlled intervals in specific sections of the road and are laid out in alternating manner with non-grooved flat sections. When a car travels over this alternating pattern of grooved and non-grooved sections at a specific speed, the driver will hear a musical melody generating from the road surface.



Music-sounding system

A specific tone will sound from the road surface depending on the frequency that changes according to how many grooves the car has passed in one second.



Effect

Melody-Way (The-PEC type) gives the paved road a variety of added values:

- ◆ Safety benefits:
Alerting the driver, skid reduction, shorter braking distance, road freezing prevention
- ◆ Regional promotion benefits
Tourist attraction, media and public attention, visitor-friendliness, invigorating the community, fun driving



Natural gravel paving: "Jarimichi"

التعبيد بالحصى الطبيعية جاريميتشي

Overview

"Jarimichi" is a natural stone-based, aesthetically pleasing paving system that blends well with the surrounding environment and is ideal for use near traditional buildings or places of scenic beauty. Use of natural-looking round pebbles creates a soft, pleasingly crunchy feel when a person walks over the road, adding to the relaxing atmosphere not obtainable with any other types of paving.

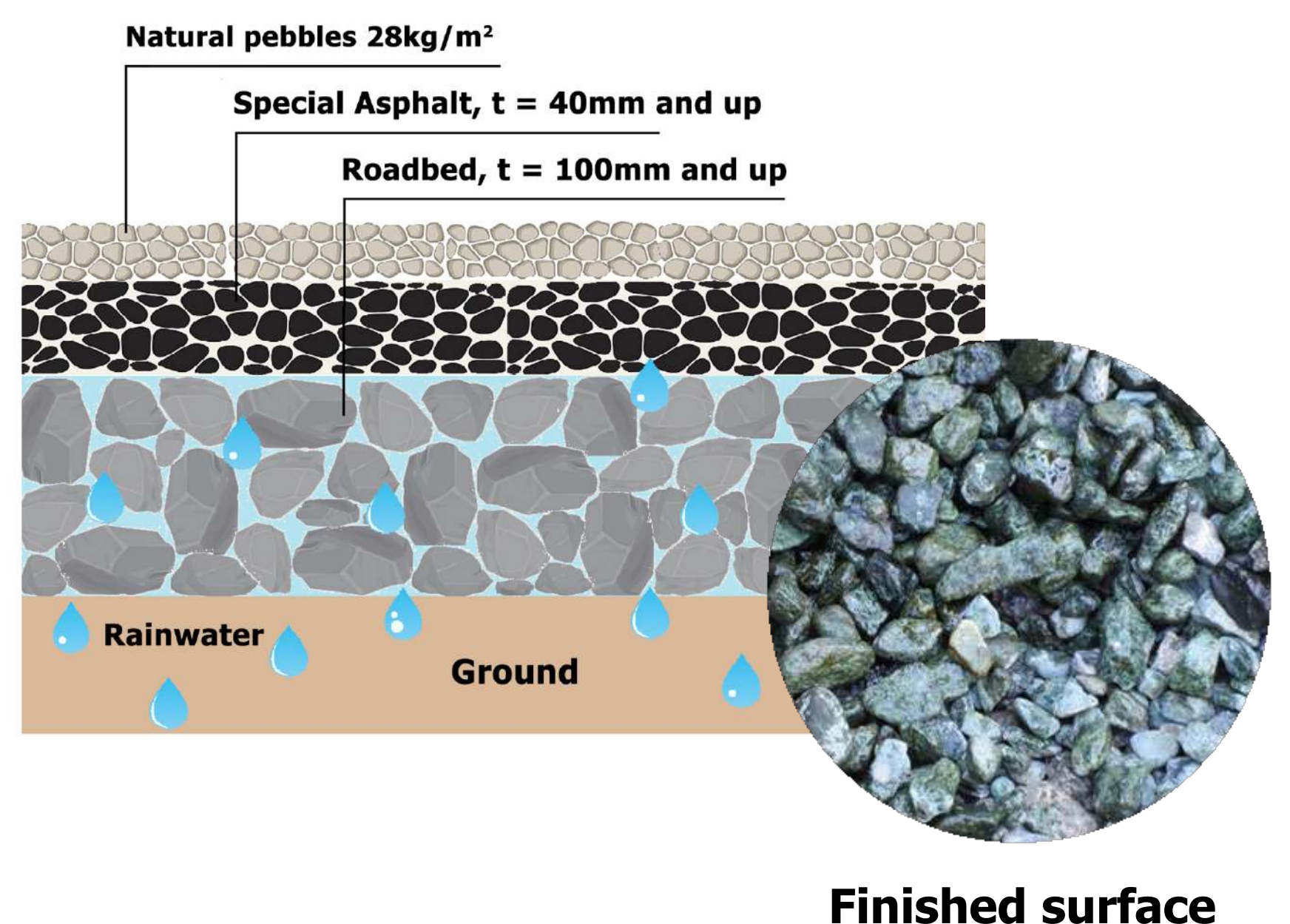


Features

- ◆ Gives a soft, pleasingly crunchy feel to walkers just like natural gravel
- ◆ Easily maintained
- ◆ Can be opened to bicycle users

Applications

- ◆ Public squares
- ◆ Gardens
- ◆ Promenades in parks
- ◆ Building exterior
- ◆ Corridors etc.



Finished surface

Installation steps



1. Laying and leveling special asphalt



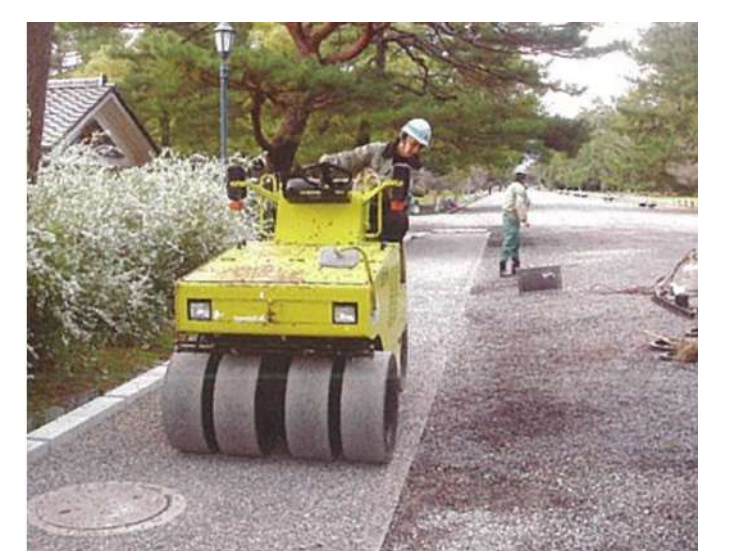
2. Initial pebble placement



3. Compacting and rolling the pebbles



4. Secondary pebble placement



5. Finish rolling

Installation examples



Road Maintenance Management System assisted by smartphones

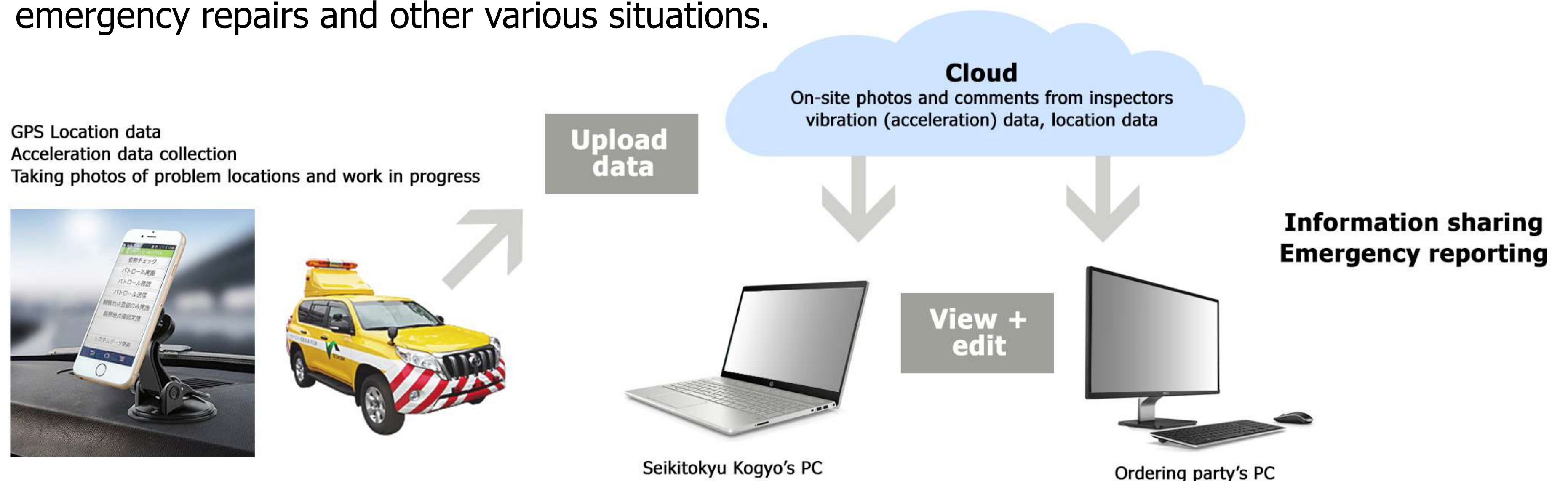
نظام إدارة صيانة الطرق باستخدام الهواتف الذكية

Background

Tasks involving road maintenance management are numerous and wide-ranging, including road inspection, recovery of dropped or abandoned objects, and identifying and repairing road damage spots. Each of these tasks require its own work report to be created, which can be time-consuming. A smartphone-assisted road patrol assistance system can improve the efficiency of road maintenance management operations.

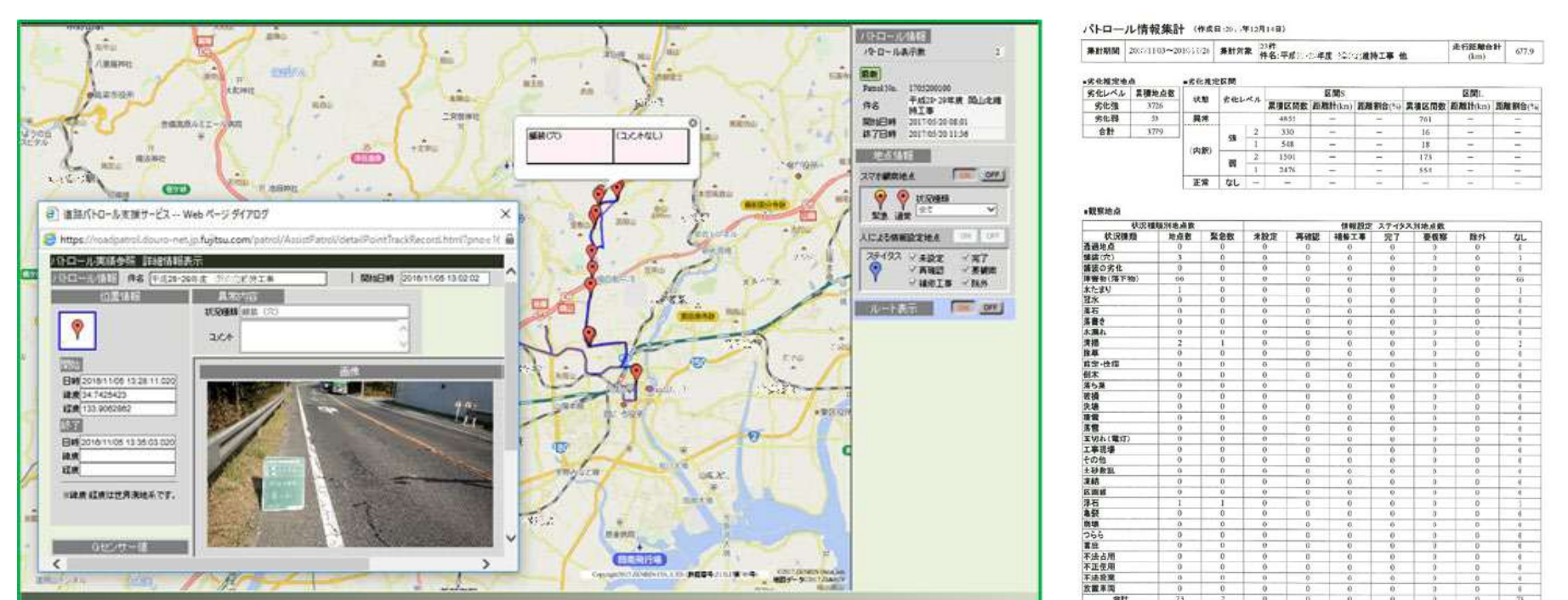
Overview of the system

Easy portability and convenience of smartphones help collect on-site information and upload it to the cloud for real-time information sharing, enabling speedy and organized response for emergency repairs and other various situations.



Automatic report creation

Photos can be linked to the location map that show the patrol result. Damage spots can be automatically summarized according to the type and severity of the damage.



Repair-required location identification

Records of bumps and level differences collected from daily patrol runs are automatically summarized to identify repair-required locations, which are presented on the location map together with photos and damage description, this greatly facilitates road repair planning.

