

## **Smart Safety Management in Construction Sites with Our Digital Technology**

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*Core smart safety technologies developed through national R&D outcomes are now being tested and commercialized on road construction sites*

As for the national R&D in the field of crucial smart construction technologies, the Smart Engineering & Construction Technology Development Project led by the Korea Expressway Corporation between 2020 and 2025 with the total budget of KRW 195 billion has been pursued to transform the construction industry into a digital system by integrating cutting-edge technology with traditional construction methods, and to improve productivity and safety in construction through automation and intelligence, etc.

The Ministry of Land, Infrastructure and Transport (MOLIT, Minister PARK Sang-woo) carried out a large-scale demonstration at the construction site of the 2nd Ring Expressway\*\* in the Seoul Metropolitan Area on the 27th focusing on safety technology among the three-phase smart construction R&D initiative\* with the vision of “Leading the global construction market through fostering smart construction technology”.

\* Phase 1: Core unit technology development (2020 ~ 2021)

Phase 2: Technology linkage (2022 ~ 2023)

Phase 3: On-site demonstration and technology advancement (2024 ~ 2025)



**\*\* #2 Sector of the Metropolitan Area 2nd Ring Expressway:**

Construction period: Sep. 2019 ~ Dec. 2026

Construction cost: KRW 160.7 billion

During the on-site demonstration, several cutting-edge technologies were showcased, including AI-powered hazard detection, smart fences for managing risky zones, 3D scanning of hazardous facilities using drones and robots, and smartwatches for monitoring workers' safety and health.

Furthermore, MOLIT is also focusing on developing and demonstrating technologies for automation of earthworks and structural constructions through R&D for smart construction to improve productivity in the construction industry, alongside those technologies for construction safety.