

既設構造物直下地盤の液状化対策技術の開発

Development of Technological Measures to Deal with Liquefaction of the Ground Directly under Existing Structures

既設構造物の液状化対策や耐震性の向上に際しては、橋脚部（地上部）だけではなく、基礎部（地下部）も含めた補強が不可欠である。しかし、特に都市部においては、桁下空間や近接構造物などによる制約を受け、十分な施工空間のない厳しい現場条件下での作業が求められることから、増し杭や地盤改良が困難な場合がある。このため、このような条件下でも適用できる適切な工法を開発することが必要となっている。

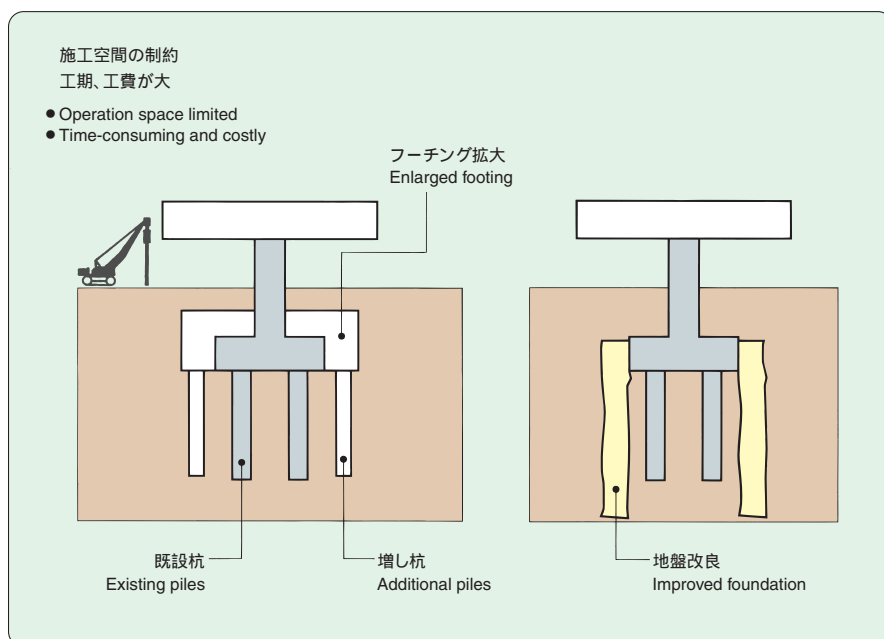
本研究では、既設構造物直下でも現場条件の制約を受けない、地盤補強効果の高い液状化対策技術、及び耐震補強技術について研究開発を実施する。

When designing countermeasures against liquefaction for existing structures or improving their resistance to earthquakes, not only the piers (above ground) but the foundation (under ground) must also be reinforced. However, particularly in urban areas, the installation of additional piles and improvements to the ground are often made difficult, because the required work has to take place under severe restrictions when sufficient space is not available under girders or between adjoining structures. It is therefore necessary to develop suitable methods of construction that can be used under such unfavorable conditions.

This research deals with 1) countermeasures against liquefaction, which are highly effective for reinforcing the ground and are unaffected by site conditions even when the site is directly under existing structures, and 2) technology to enhance earthquake resistance.

従来工法

Current method



新しい工法

New method

