



Headquarters 405, 189, Seongam-ro, Mapo-gu, Seoul, Republic of Korea
Factory & R&D Center 216-41, Oejae-ro, Bungnae-myeon, Yeosu-si, Gyeonggi-do, Republic of Korea
Daegu office 3F, 54, Beoman-ro, Suseong-gu, Daegu, Republic of Korea
T. +82-2-414-0700 F. +82-2-414-4004 www.re-new.co.kr

Korea’s 10 Best New Technologies



SINGAPORE CASE STUDY

Diaphragm Wall Leakage Repair Work



Turbo-Seal : The Dynamic Waterproofing Material

Turbo Seal is the perfect and ideal comprehensive positive-waterproofing material. Turbo seal is a single component, synthetic rubber polymer gel-type comprehensive waterproofing solution. It is suitable for all types of concrete structures; new and repairing, above and below grade.

Turbo Seal is the world's first non-curing waterproofing material; flexible forever. Its viscosity is so remarkable that Turbo Seal can actively respond to the substrate movement; adhere to damp surfaces and self-heal as well. Turbo Seal doesn't require the primer. The project time and cost saved a lot! Turbo Seal is environmentally responsible, certified by UL Ecologo.



Adhesiveness after Construction



Viscosity (Cohesiveness)



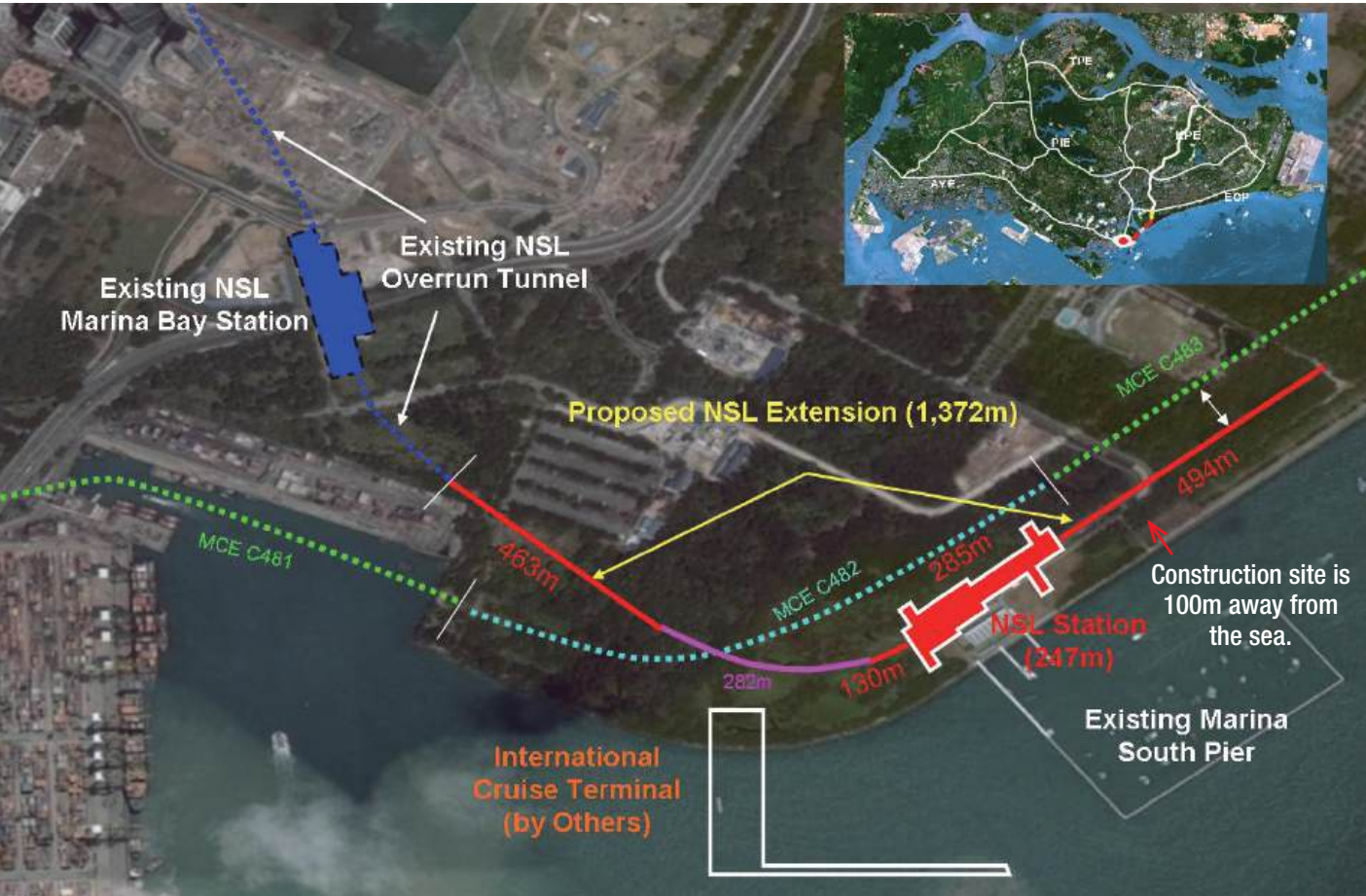
Flexibility

ADHESIVE / COHESIVE	- Applied to various substrates, even adheres in damp conditions - No primer necessary
FLEXIBLE & SELF HEALING	- Durable to continuous movement ; shocks and vibration - Responsive to substrate movement - Self-healing and self-sealing capabilities ; Crack-bridging ability - Easy repair and maintenance
EASY APPLICATION	- One component that doesn't require mixing and is easily applied - No mixing chemicals, safe to install - Easily stored and transported
NON- TOXIC	- Environmentally friendly, no VOC's, and safe for installers - Made from recycled content
DURABLE	- Impervious to freeze-thaw cycles - Effective and long-lasting waterproofing

The World's first 100% total waterproofing solution

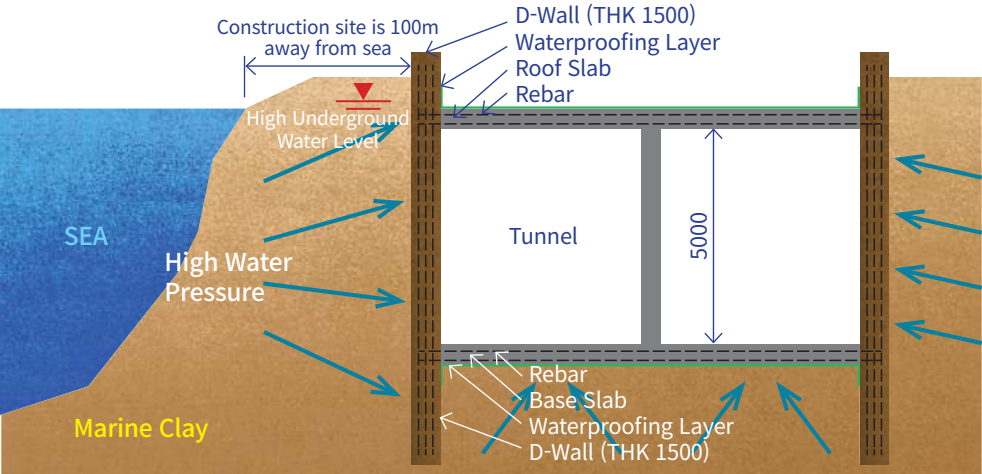


Overview



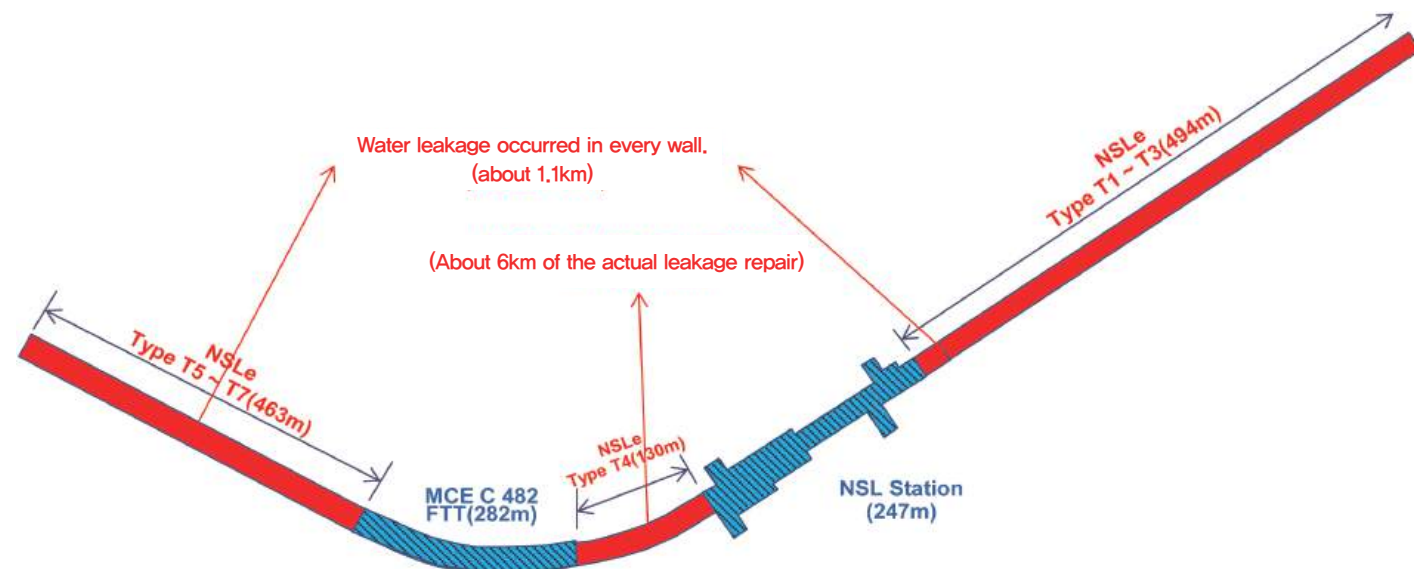
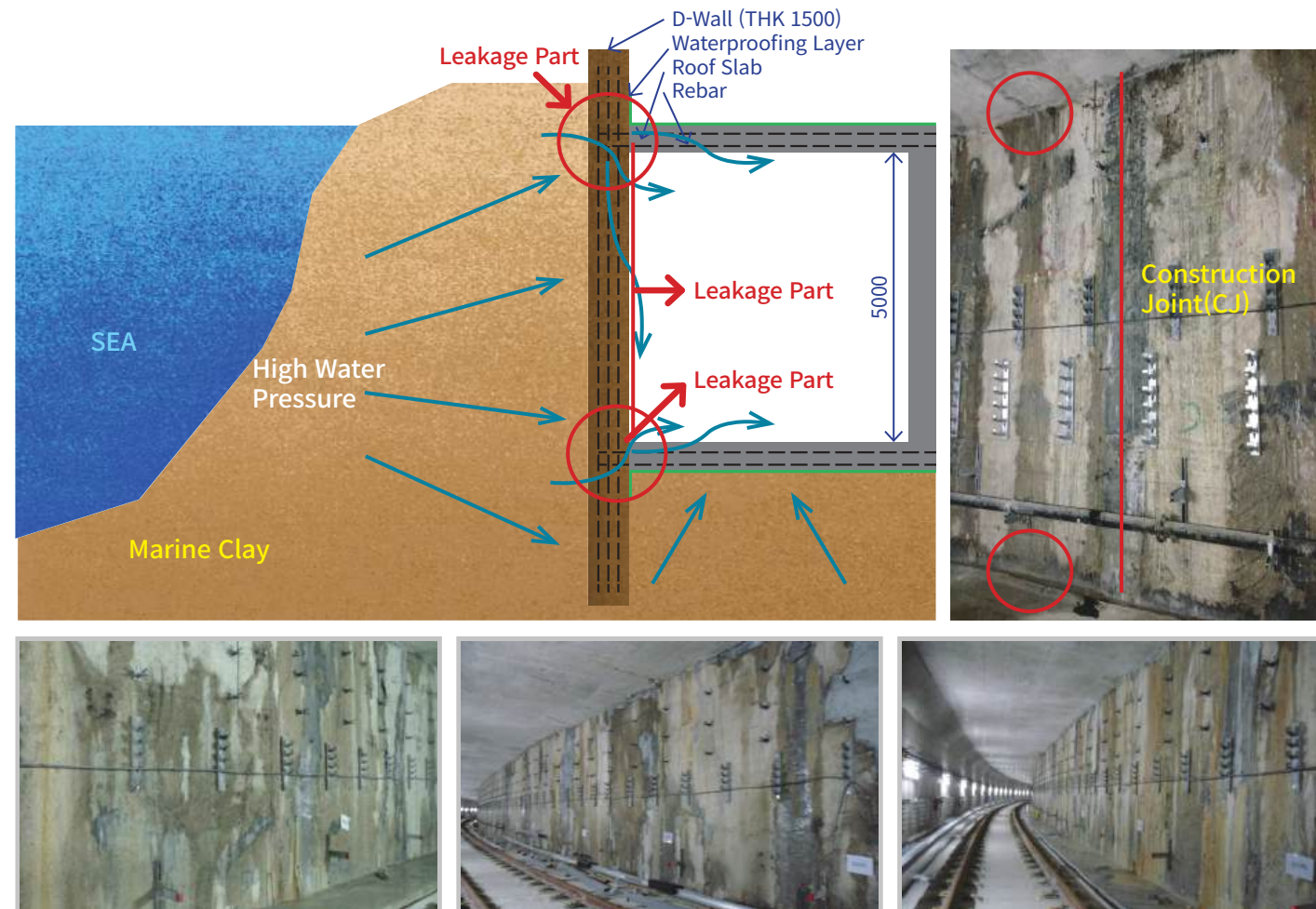
Site Condition

- Soft ground formed by the reclamation project
- Near the sea, underground water levels and water pressure are greatly affected.
- D-Wall application without the waterproofing layer



Leakage Cause and Situation

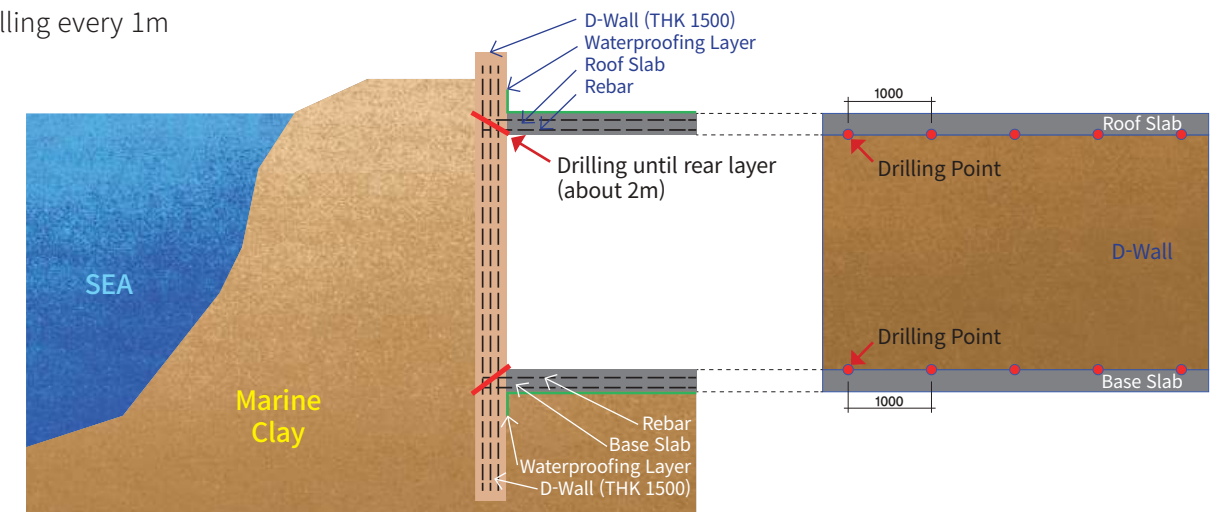
- Water leakage appear vertical and horizontal Joint
- Water penetrated into D-wall and spread through rebar
- Water comes out from D-Wall Construction Joint(C/J)



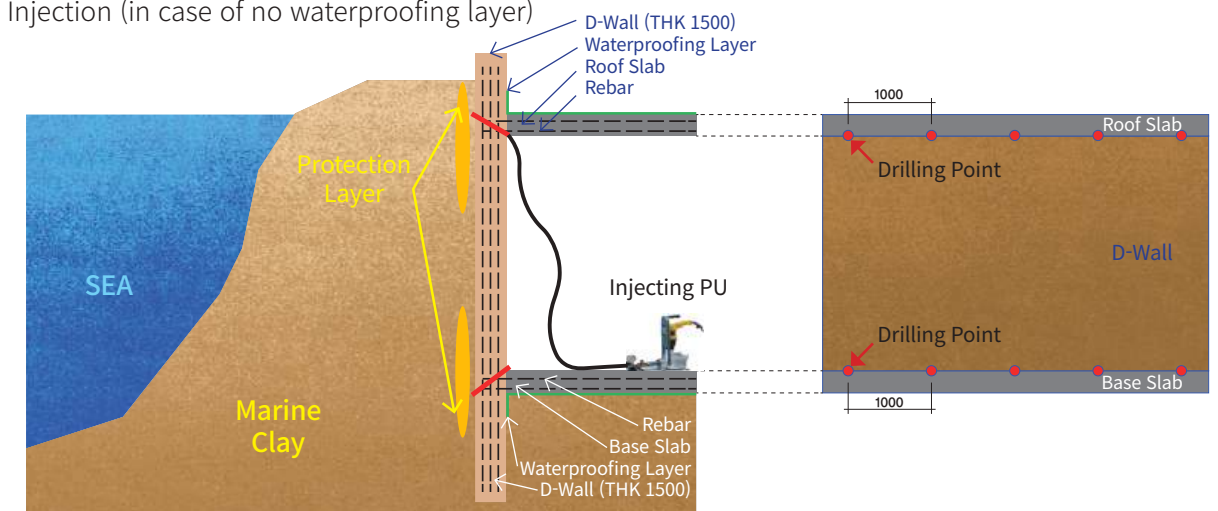
Plan

[Repair plan for horizontal Joint]

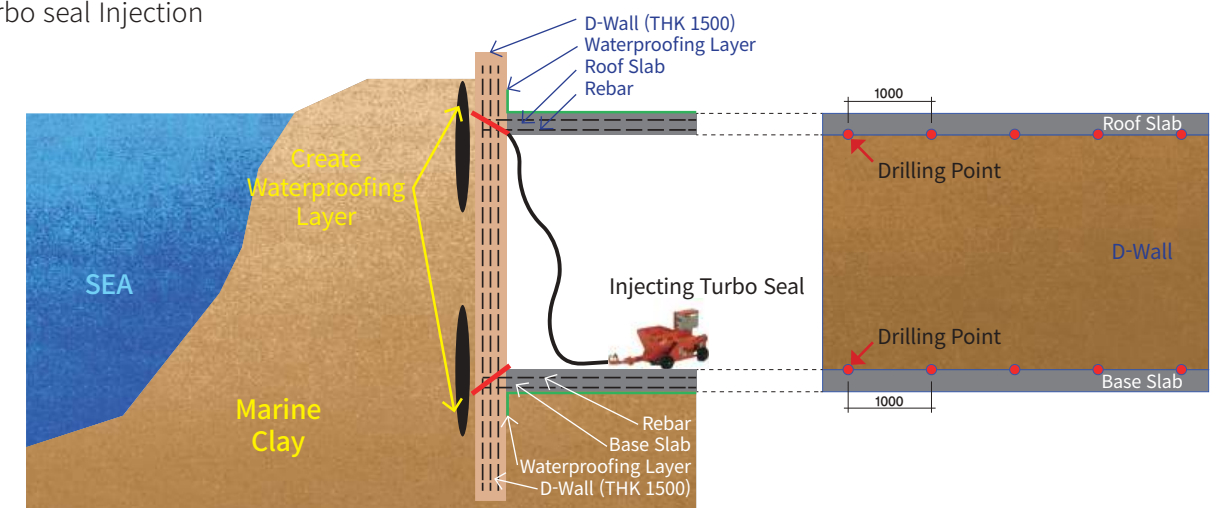
- Drilling every 1m



- PU Injection (in case of no waterproofing layer)

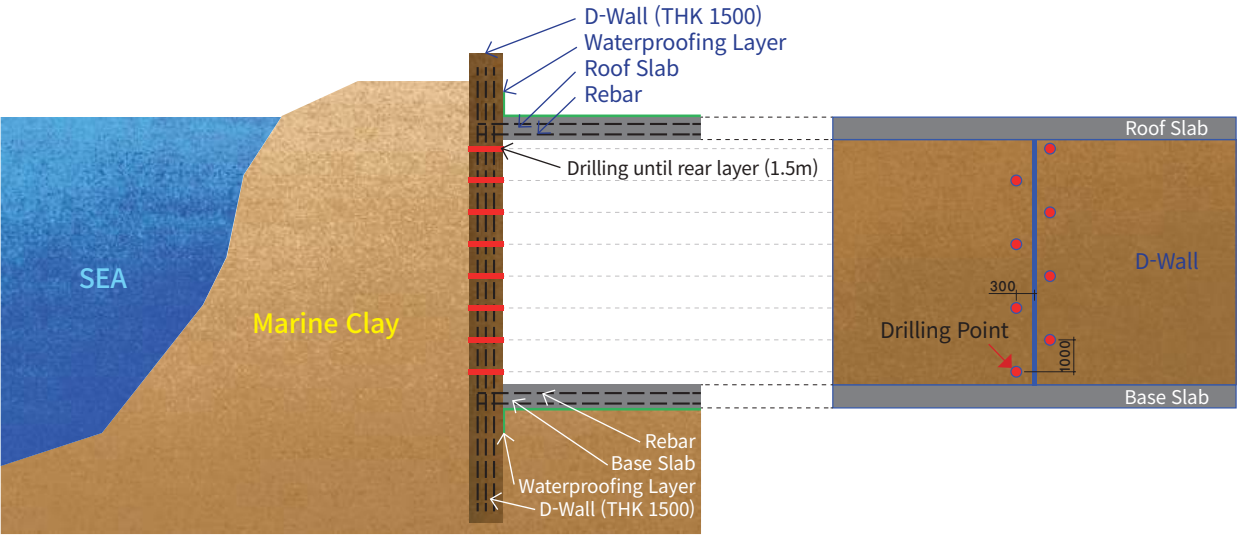


- Turbo seal Injection

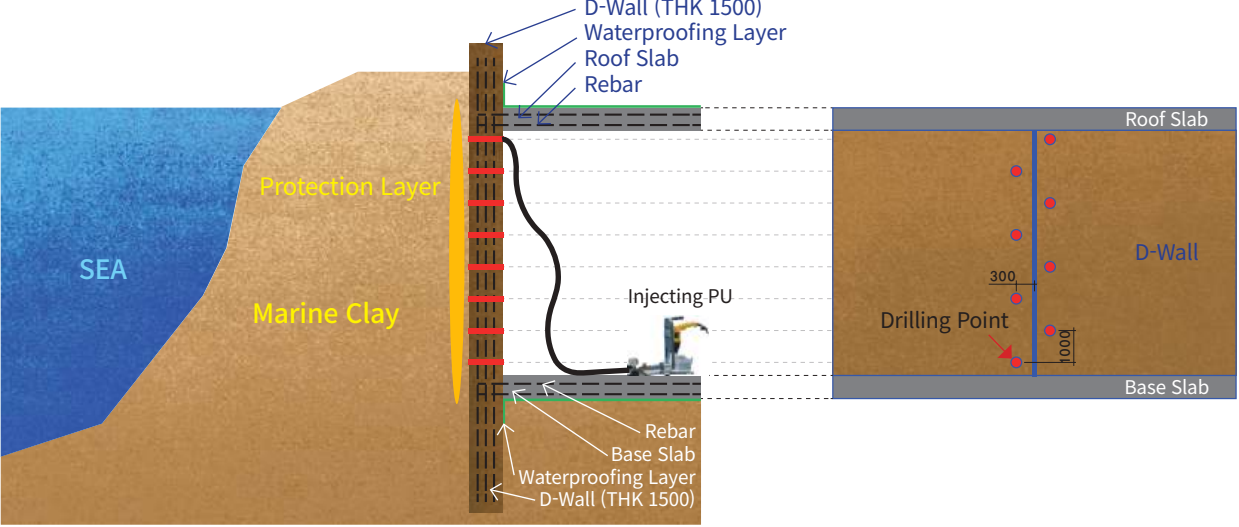


[Repair plan for vertical Joint]

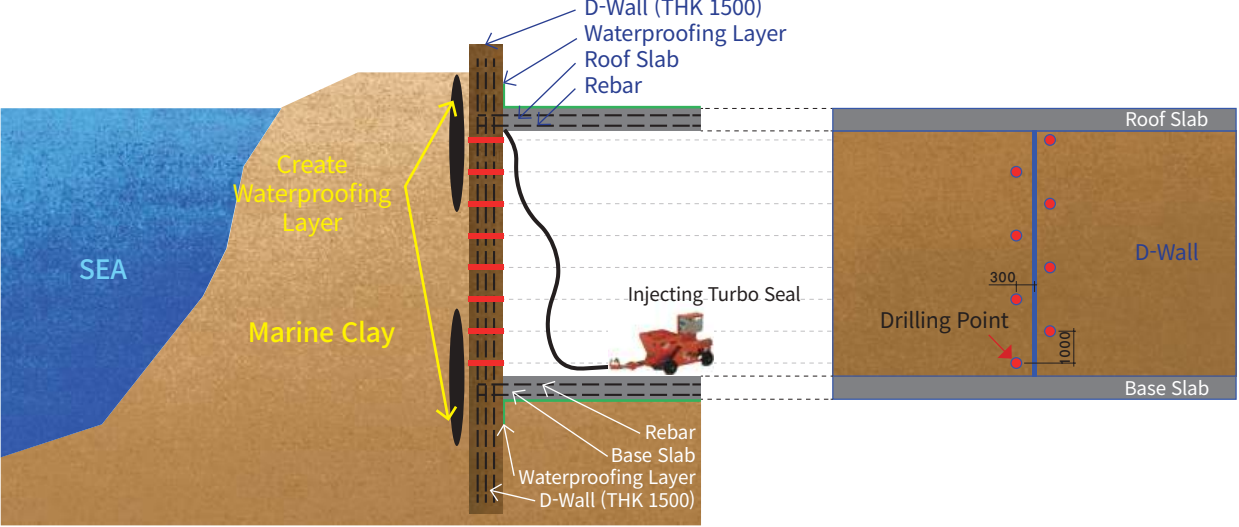
- Drilling 30cm away from C/J with an interval of 1m between holes



- PU Injection (in case of no waterproofing layer)



- Turbo seal Injection



Construction Result

