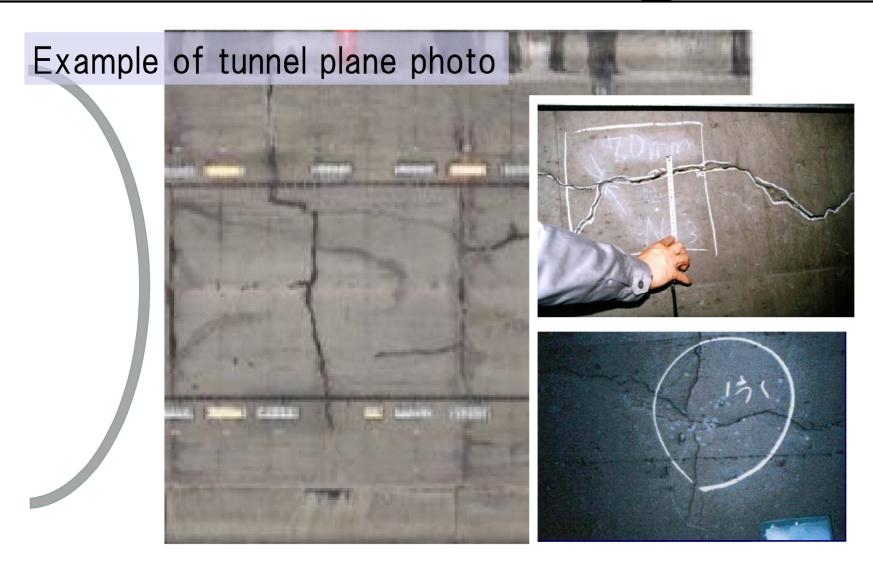


Renewal of lining concrete for mountain tunnels (New method!)

Issues on the aged tunnel



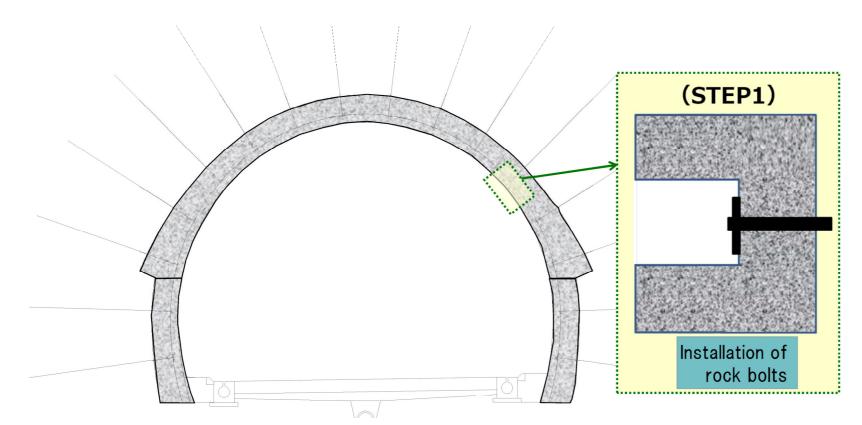
Cracks in lining concrete



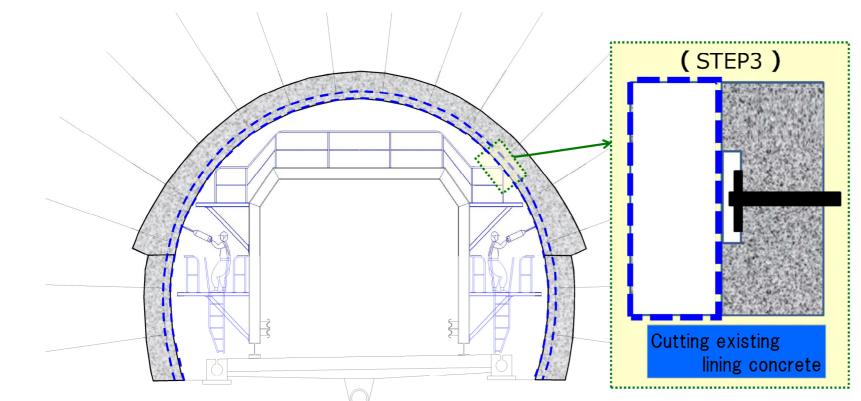
Leakage and Its freezing (icicles)

Construction method to renew a part of the lining concrete

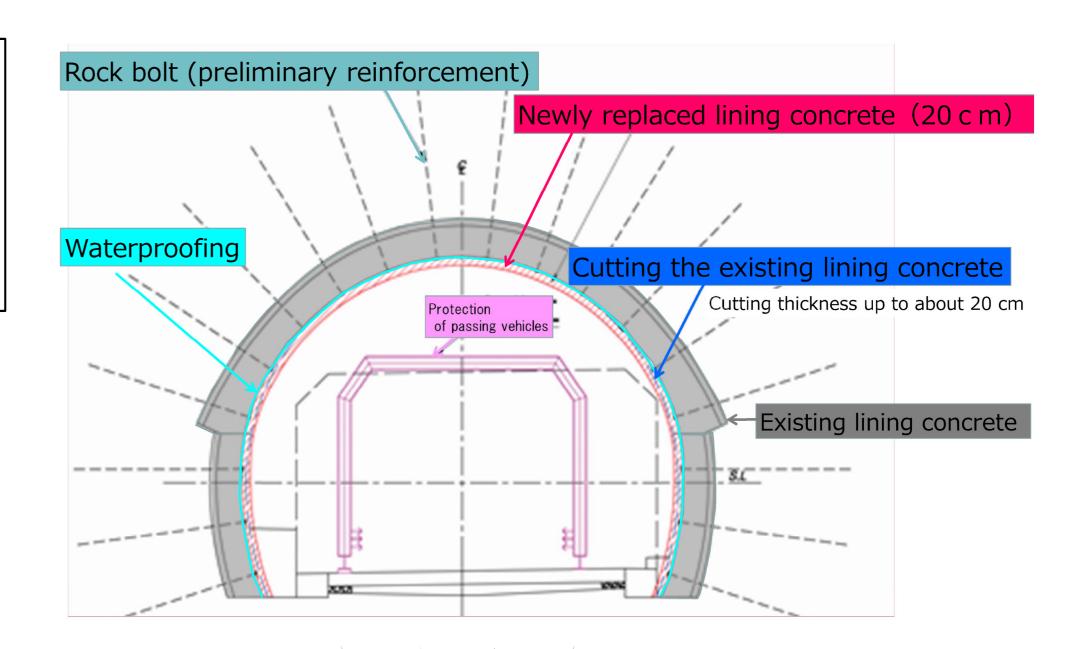
We solve with a new construction method that renews part of the lining concrete.

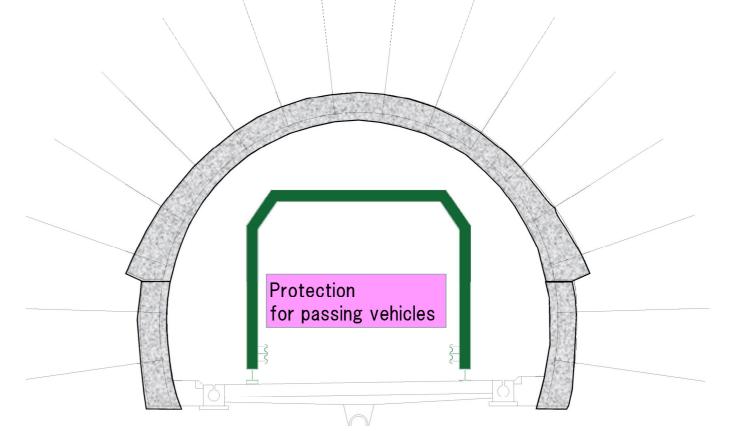


STEP1 Reinforce the tunnel with rock bolts before cutting the existing lining concrete.

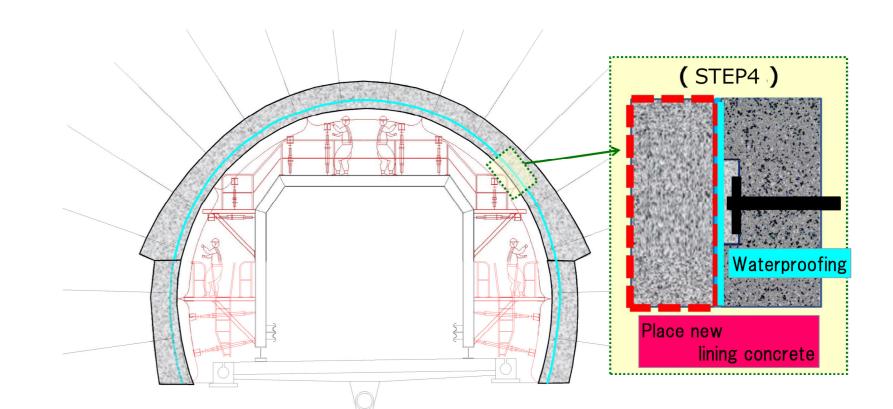


STEP3 Cutting lining concrete





STEP2 Installation of Protection



STEP4 Lining concrete placement



