

Resilient Tunnel Plug



Transportation
Security
Administration



Homeland
Security

Science and Technology

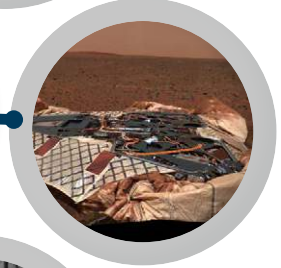


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Resilient Tunnel Plug TAXONOMY

STRATEGY

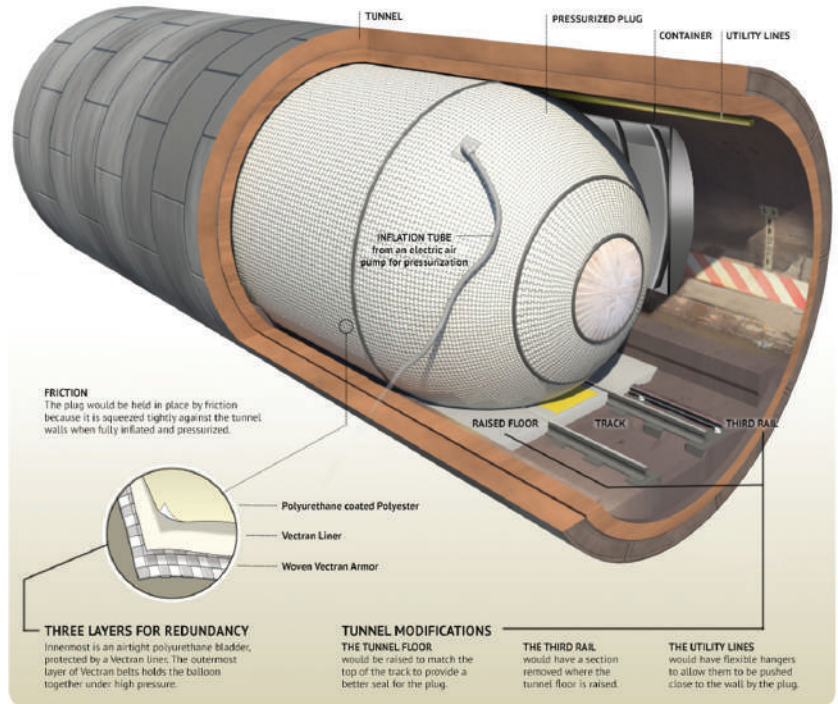
- Identify and assess critical transportation infrastructure needs
- Government agencies, municipalities, universities, and private industry working together

RISK MITIGATION

- Build off of proven, advanced engineering solutions for demanding applications
- Phased program approach of design, sub-scale evaluation, full scale testing

AFFORDABLE PROTECTION

- Protecting assets quickly saves replacement and repair costs due to water damage
- Minimized tunnel modifications reduces retrofit construction costs

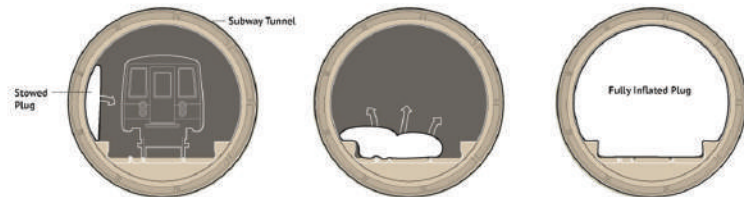


INFLATION

1. In the stowed position, the inflatable plug doesn't restrict train traffic. The plug can be deployed remotely.

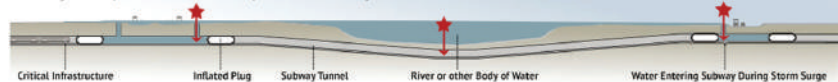
2. The deployed plug would unfold onto the tunnel floor and start to inflate as its air pump is activated.

3. When fully inflated and pressurized, the plug can hold back floodwaters entering the tunnel.



POSSIBLE LOCATIONS

Plugs could be placed near stations and other points at which water might enter the tunnel.



★ Storm water could enter from above, while tunnel damage could allow water enter from below.

Credit: Modified 2012 The New York Times Company Graphic Published: November 19, 2012



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www.ilcdover.com

One Moonwalker Road • Frederica, Delaware • USA 19946-2080

email customer_service@ilcdover.com

phone 302.335.3911 or 800.631.9567 (US) • fax 302.335.1320