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Prediction of the airblast wave effects near a tunnel advanced by drilling and blasting (pp.241~251)

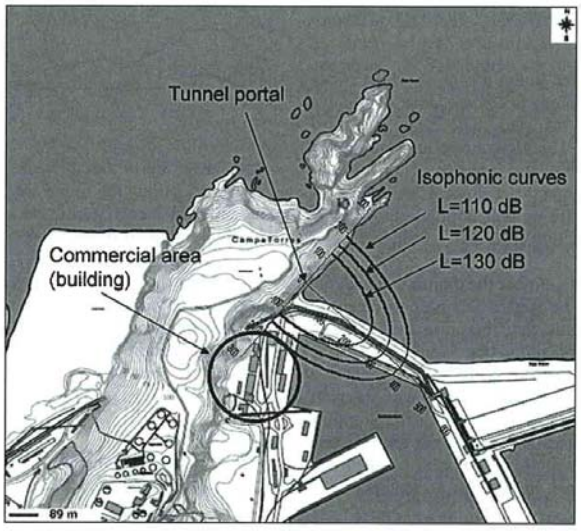

Fig. 7. Analysis of the air wave effect on a building area.

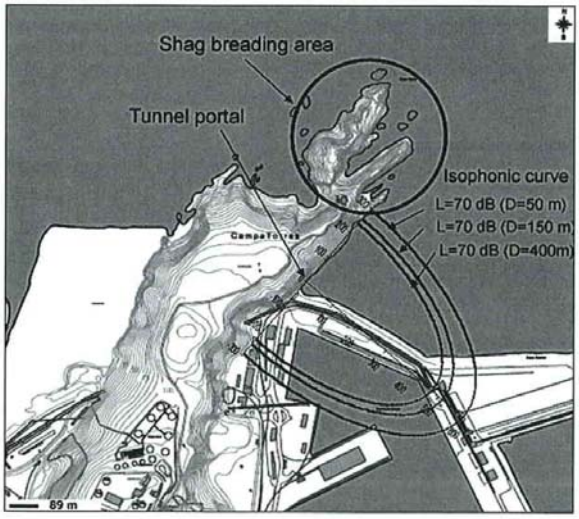

Fig. 8. Analysis of the air wave effect on Shag breeding habitat.

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Wireless networking i tunnelling projects <pp.252~261>

Marmaray

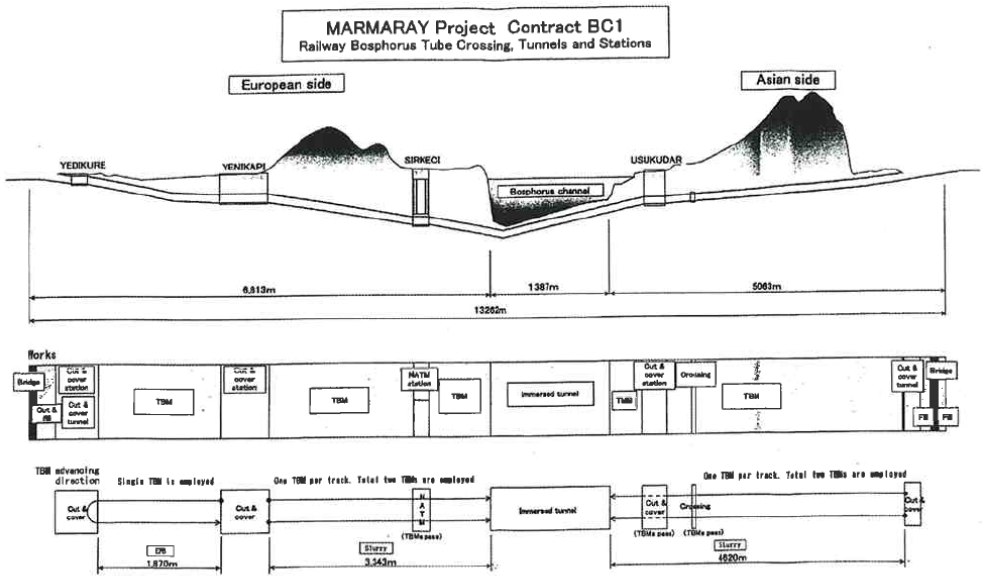

Fig. 5. Sectional views and tunnelling methods of Marmaray project (Marmaray Project Contract).

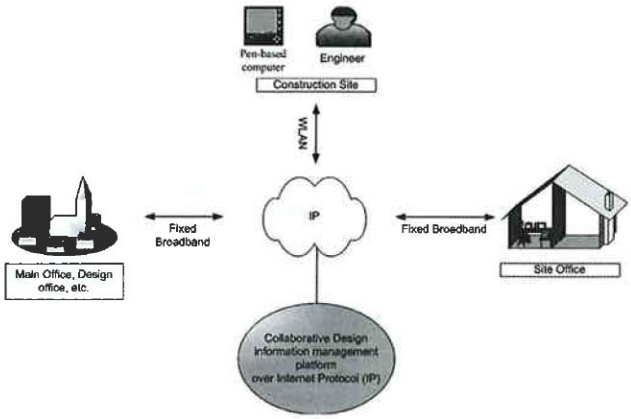

Fig. 7. Proposed system of data flow to/from site.

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Critical velocity and burning rate in pool fire during longitudinal ventilation pp.262~271

1/20 0.4m 10.0m)

4.5, 5.5, 6.5, 8.5cm)

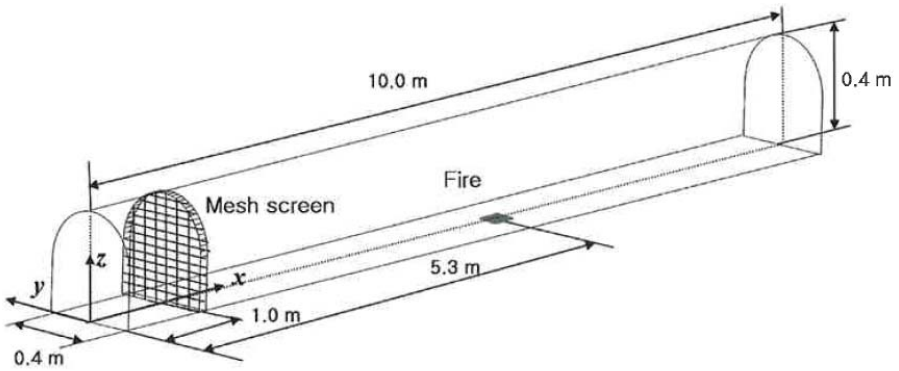

Fig. 1. The configuration and dimension of reduced model tunnel.

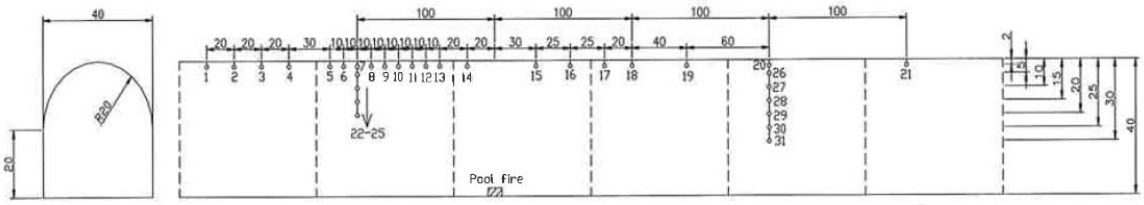

Fig. 2. Schematic view of the thermocouples arrangement.

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Underground Landscape: The urbanism and infrastructure of Toronto's downtown pedestrian network pp.273~292

10

30km

1970

3

1)

2)

3)

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Design of emergency ventilation system for an underground storage facility pp.293~302

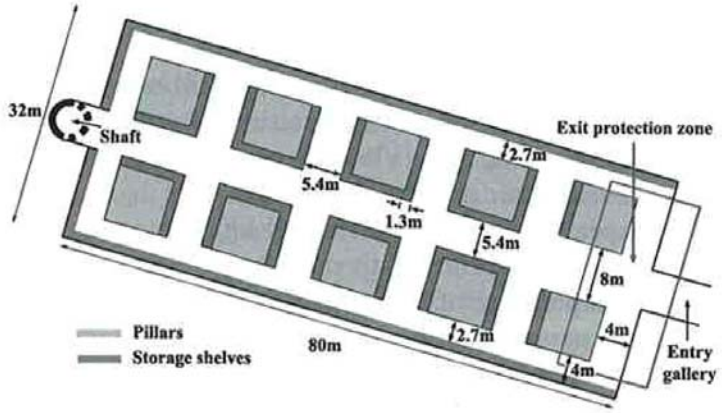

Fig. 1. Plan view of the storage facility.

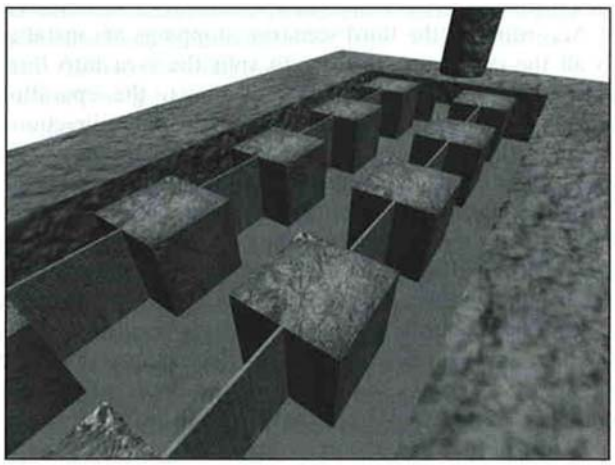

Fig. 12. Three-dimensional view of the layout of the underground area after the installation of stoppings.

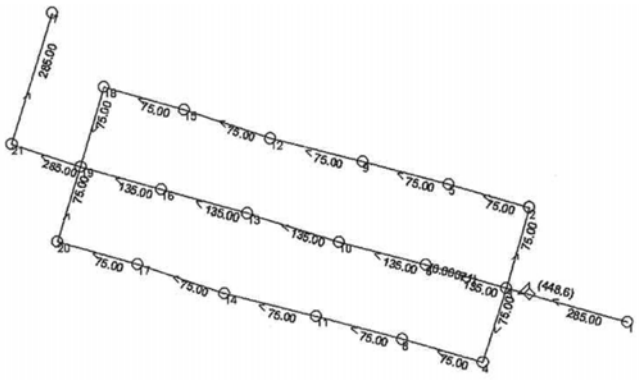

Fig. 13. Result of calculation procedure for the third scenario.

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In situ TBM penetration tests and rock mass boreability analysis in hard rock tunnels (pp.303~316)

TBM

Boreability TBM

TBM (Shield friction test)

TBM

TBM

50kN

0.5 1.0mm/rev

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Influence of rock brittleness on TBM penetration rate in Singapore granite (pp.317~324)

TBM

TBM

(Bukit Timah granite)

100

UDEC

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Influence zones for 2D pile-soil tunnelling interaction based on model test and numerical analysis (pp.325~342)

2 – –

– –

Fig.5(a)

Fig.5(b) Fig.8

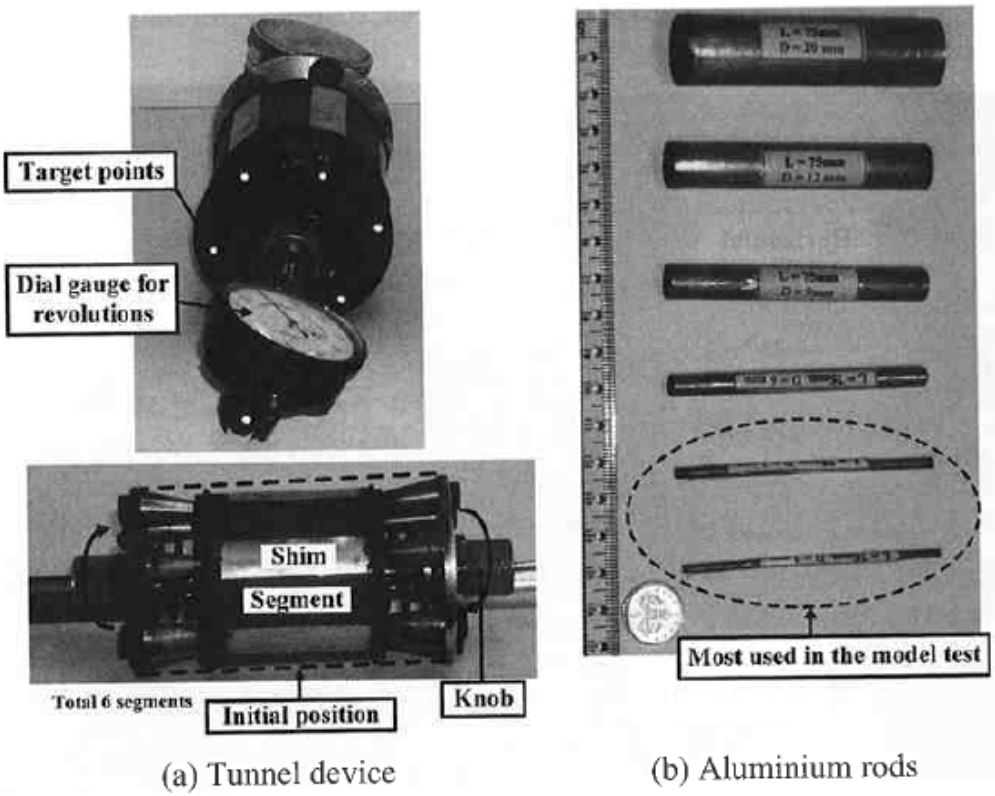

Fig. 5. 2D model tunnel device and aluminium rod materials.

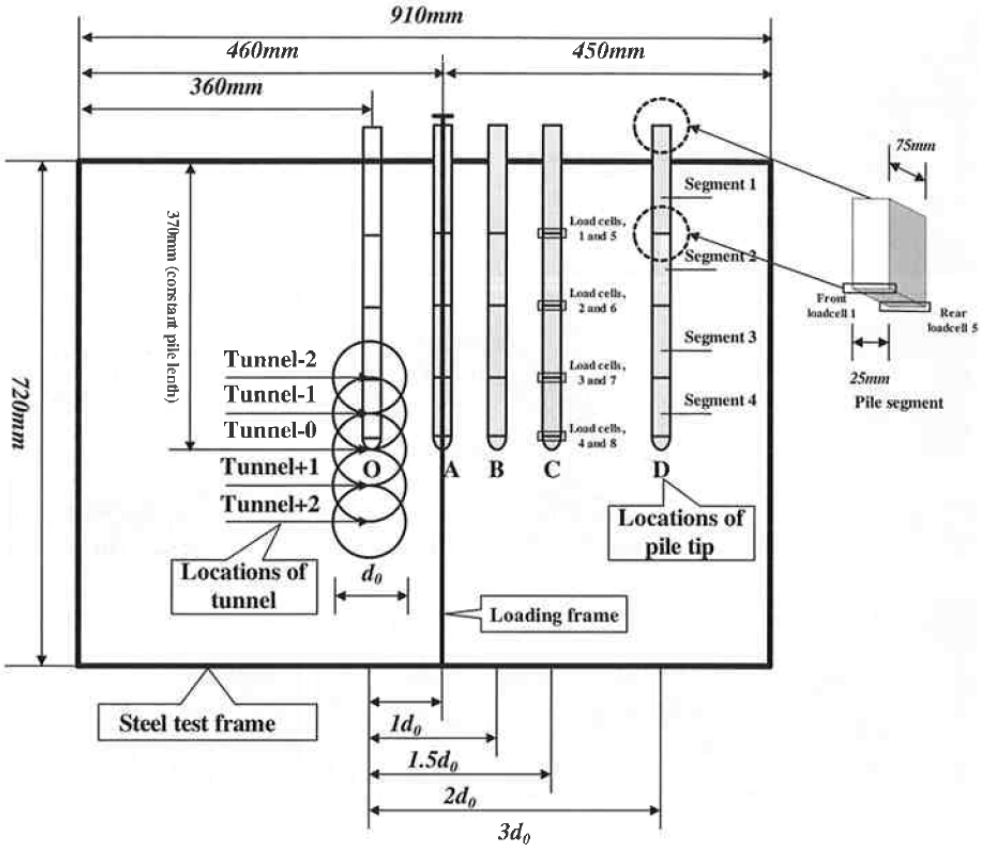

Fig. 8. Schematic diagram for the pile–soil-tunnelling interaction model test.

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Critical strain and squeezing of rock mass in tunnels (pp.343~350)

1%

Q

30

Table 3

Table 3
Proposed classification for squeezing potential in tunnels

Class number	Squeezing Level	SI
1	No squeezing (NS)	$SI < 1.0$
2	Light squeezing (LS)	$1.0 < SI \leqslant 2.0$
3	Fair squeezing (FS)	$2.0 < SI \leqslant 3.0$
4	Heavy squeezing (HS)	$3.0 < SI \leqslant 5.0$
5	Very heavy squeezing (VHS)	$5.0 < SI$

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Mechanical behavior of a twin-tunnel in multi-layered formations (pp.351~362)

2 3

(Fictitious stress method) 2

Fig.4 Fig.7

&

2 4%

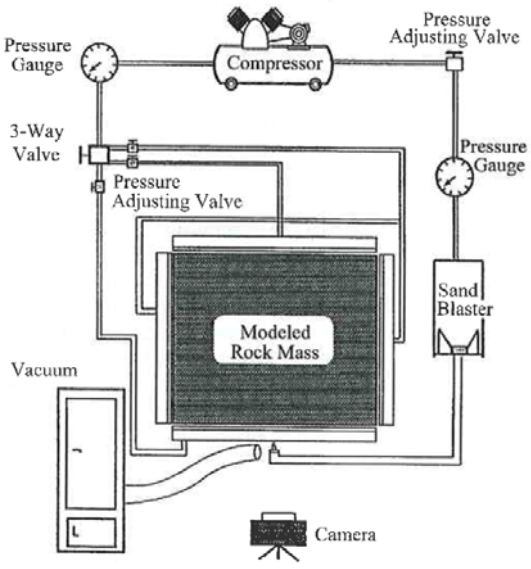

Fig. 4. The equipments and setup of the tunnel model test.

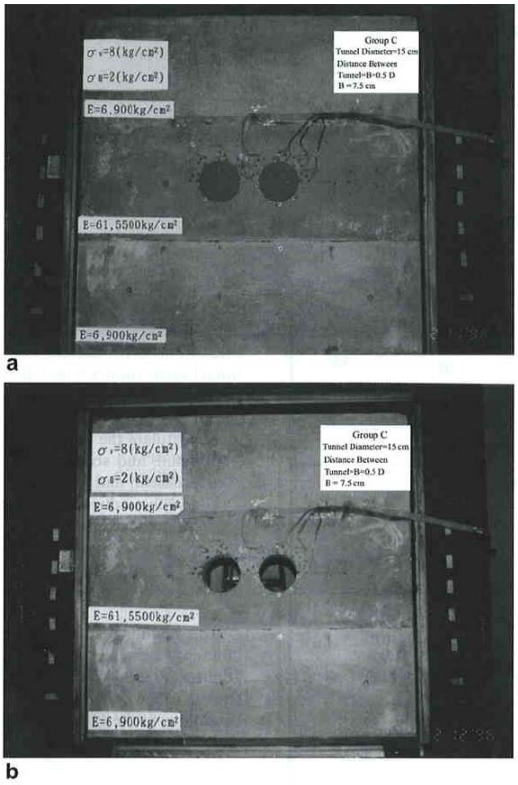

Fig. 7. Model test of twin tunnels with instrumentations before (a) and after (b) excavation.