Introduction to FHWA Road Tunnel Manual

TRB Workshop – Washington DC
January 11, 2009

FHWA Road Tunnel Manual

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- FHWA - National Highway Institute
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- AASHTO T-20 Technical Committee

FHWA Road Tunnel Manual

- Provides Guidelines and Recommendations
- Planning, Design, Construction and Rehabilitation.
- Various Types of Road Tunnels
- Focus on Civil Elements
- Potential Volume II – System Elements
- LRFD for Tunnel Lining Design

FHWA Road Tunnel Manual

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- Civil Elements

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B. Rock Core Descriptions
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D. Tunnel Boring Machines
E. Closed Form Solution
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H. Standard Coding for Cataloging Structural Defects

Tunnel Types

Planning/Route Selection

Water
- Immersed Tunnels
- Mined/Bored Tunnels
- Cut & Cover Tunnels

Land
- Rock Tunneling
- Soft Ground Tunneling
- Difficult Ground Tunneling
- SEM Tunneling

General

1 - Planning
2 - Geometrical Configuration
3 - Geotechnical Investigations
4 - Geotechnical Reports

N. Munfah
C. Ingerslev
J. Hung
R. Castelli

Mined & Bored Tunnels

6 - Rock Tunneling
7 - Soft Ground Tunneling
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9 - SEM Tunneling
10 - Tunneling Lining

J. Monsees
J. Monsees
J. Monsees
V. Gall
J. Wisniewski

Design Chapters

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11 - Immersed Tunnels

N. Munfah
J. Wisniewski
C. Ingerslev
Special Topics

12. Jacked Box Tunneling
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Design Examples

- Cut and Cover Tunnel – Appendix C
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Questions?

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