

## **Transportation Engineering Suggested Text Listing**

### **07-Tra-A1, Introduction to Transportation Engineering**

Fundamentals of Transportation Engineering: A Multimodal Systems Approach/Jon D. Fricker, Robert K. Whitford  
 Publisher: Pearson Prentice Hall, Upper Saddle River, NJ 07458, 2004.  
 ISBN 0-13-035124-5

### **07-TRA-A2 Highway Design:**

(1) "Geometric Design Guide for Canadian Roads" by Transportation Association of Canada (1999, with 2007 Update) This does not have an ISBN. Product Code PTM-GEODES99. This Guide is offered at a special reduced price for students. Please contact Transportation Association of Canada office at 613-736-1350, Ext. 221.

(2) Any Engineering Surveying Textbook which includes Earthwork calculations - Cuts, Fills and Mass Diagrams

(3) The following free downloads from the Internet on earthwork calculations:

[http://www.u.arizona.edu/~mhickman/CE466/earthwork\\_notes.pdf](http://www.u.arizona.edu/~mhickman/CE466/earthwork_notes.pdf)

[http://en.wikibooks.org/wiki/Fundamentals\\_of\\_Transportation/Earthwork](http://en.wikibooks.org/wiki/Fundamentals_of_Transportation/Earthwork)

<http://www.globalsecurity.org/military/library/policy/army/fm/5-430-00-1/CH3.htm>

### **07-Tra-A3, Traffic Engineering**

The candidates must be very thorough with the Canadian Capacity Guide for Signalized Intersections as this is the only publication which is strictly applicable to Canadian traffic conditions.

(1) Principles of Highway Engineering and Traffic Analysis

by Fred L. Mannering and Scott S. Washburn

- Publisher: Wiley; 5 edition (March 27, 2012)
- ISBN-10: 1118120140
- ISBN-13: 978-1118120149

(2) Traffic Engineering (4th Edition)

by Roger P. Roess, Elena S. Prassas, and William R. McShane

- Publisher: Prentice Hall; 4 edition (July 4, 2010)
- ISBN-10: 0136135730
- ISBN-13: 978-0136135739

(3) Traffic and Highway Engineering - Fifth Edition

**Nicholas J. Garber and Lester A. Hoel**

- **Publisher: Cengage Learning; 5 edition (January 1, 2014)**
- **ISBN-10: 113360515X**
- **ISBN-13: 978-1133605157**

**(4) Canadian Capacity Guide for Signalized Intersections - 2008 edition**

This guide can be freely downloaded from the following web site. This is the only book written for Canadian traffic conditions and it is very important that the students are thorough with the entire book.

<http://www.cite7.org/resources/documents/CanadianCapacityGuide2008.pdf>

The following web sites contain a wealth of information on the various topics listed in the syllabus:

<http://www.cite7.org/resources/documents/CanadianCapacityGuide2008.pdf>

[http://www.telecom.otago.ac.nz/tele302/ref/Stallings\\_QT.pdf](http://www.telecom.otago.ac.nz/tele302/ref/Stallings_QT.pdf)

[http://www.cengage.com/resource\\_uploads/downloads/0324237049\\_48187.pdf](http://www.cengage.com/resource_uploads/downloads/0324237049_48187.pdf)

<http://users.crhc.illinois.edu/nicol/ece541/slides/queueing.pdf>

[http://www4.ncsu.edu/~hp/SSME\\_QueueingTheory.pdf](http://www4.ncsu.edu/~hp/SSME_QueueingTheory.pdf)

[http://home.iitk.ac.in/~skb/qbook/Slide\\_Set\\_1.PDF](http://home.iitk.ac.in/~skb/qbook/Slide_Set_1.PDF)

[http://www.itscanada.ca/about/standards\\_resources/index.html](http://www.itscanada.ca/about/standards_resources/index.html)

<http://www.tc.gc.ca/eng/innovation/its-menu.htm>

<http://www.tc.gc.ca/eng/innovation/its-ontario-quebec-1593.html>

**07-TRA-A4 Pavement Materials, Design and Management:**

**(1) Asphalt Institute Manual Series MS-1: Thickness Design - Highways and Streets (ninth edition)  
ISBN: 978-1-934-15401-4**

**(2) Asphalt Institute Manual: Mix Design Methods for Asphalt Concrete and other Hot Mix Types  
(Sixth edition) ISBN: 978-1-934-15402-1**

**(3) Concrete Pavement Design, Construction and Performance by Norbert Delatte, Taylor & Francis,  
2008 ISBN: 978-0-415-40970-4**

**(4) Pavement Design and Materials by A. T. Papagiannakis and E. A. Masad, John Wiley, 2008  
ISBN: 978-0-471-21461-8**

**(5) Highway Engineering by Paul H. Wright and Karen K. Dixon, Seventh Edition, John Wile, 2004  
ISBN: 978-0-471-26461-3**

**(6) The following free downloads from the Internet on introduction to pavement management:**

<http://www.fhwa.dot.gov/infrastructure/asstmgmt/pmprimer.pdf>

<http://ntl.bts.gov/DOCS/pave.html>

<http://www.westvalley.edu/att/Pavement%20Management/index.htm>

<http://www.burlington.org/engineering/Pavement%20Management/PavementManagement.pdf>

### **07-Tra-A5 Transportation Planning and Demand Analysis**

Juan de Dios Ortuzar, Luis G. Willumsen, *Modelling Transport, 4th Edition*, Publisher: Wiley, 2011, ISBN: 978-0-470-76039-0

### **07-Tra-B1 Transit Systems**

VUCHIC, V.R. (2005). *Urban Transit: Operations, Planning, and Economics*. John Wiley & Sons, Inc. 2005. ISBN 0-471-63265-1

VUCHIC, V.R. (2007). *Urban Transit: Systems and Technology*. John Wiley & Sons, Inc. 2007. ISBN 0—471-75823X

### **07-TRA-B2 Intelligent Transportation Systems**

**(1) Authors: Institute of Transportation Engineers, U.S. Federal Highway Administration**

Title: **Intelligent transportation primer**

Publisher: Institute of Transportation Engineers, Washington, D.C.

Year: 2000

ISBN: 0935403450

*[Note: The entire book]*

**(2) Author: Sussman, Joseph M.**

Title: **Perspectives on intelligent transportation systems (ITS)**

Publisher: Springer Science + Business Media, New York

Year: 2005

ISBN: 0387232575

*[Note: The entire book]*

### **07-TRA-B7 Transportation Economics**

**(1) Authors: Millan, Pablo Coto and Inglada (Editors)**

Title: **Essays on Transport Economics**

Publisher: Physica-Verlag (A Springer Company)

Year: 2007

ISBN: 13 978-3-7908-1764-5 Physica-Verlag Heidelberg New York

*[Note: Chapters 1, 4, 13, 17]*

**(2) Authors: Sinha, Kumeras C. and Labi, Samuel**

Title: **Transportation Decision Making , Principles of Project Evaluation and Programming**

Publisher: John Wiley & Sons, Inc.

Year: 2007

ISBN: 0471747327

*[Note: Chapters 1 to 11, 15, 16, 18, 20, relevant material in Appendixes]*

**(3) Authors: Meyer, Michael D. and Miller, Eric J.**  
 Title: **Urban Transportation Planning: A Decision Oriented Approach**  
 Publisher: McGraw-Hill.  
 Year: 2001  
 ISBN: 0-07-242332-3  
*[Note: Chapters 5, 7, 8, 9]*

**(4) Authors: Khisty, Jotin C. and Lall, Kent B.**  
 Title: **Transportation Engineering: An Introduction, Third Edition**  
 Publisher: Prentice Hall  
 Year: 2003  
 ISBN: 0-13-033560-6  
*[Note: Chapters 2, 15 and Appendix A]*

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07-Tra-B9 "Traffic Safety"

Listed below are several web sites, from which the material can be freely downloaded to assist you to prepare to write this exam that you can download.

[http://www.tars.unsw.edu.au/downloads/Fleet\\_safety\\_final\\_for\\_web\\_with\\_cover.pdf](http://www.tars.unsw.edu.au/downloads/Fleet_safety_final_for_web_with_cover.pdf)

[http://www.everestre.com/Portals/0/Documents/Everest\\_Model\\_Fleet\\_Safety\\_Program.pdf](http://www.everestre.com/Portals/0/Documents/Everest_Model_Fleet_Safety_Program.pdf)

<http://www.drivingforbetterbusiness.com/pool/benchmarking-workshop-report-jan-08-final.pdf>

<http://www.monash.edu.au/miri/research/reports/muarc166.html>

<http://www.oshatrain.org/courses/studyguides/719studyguide.pdf>

<https://www.fleetsafety.govt.nz/>

<http://eprints.qut.edu.au/7952/1/7952.pdf?referer=www.clickfind.com.au>

[https://www.worksafe.vic.gov.au/\\_data/assets/pdf\\_file/0015/9510/safe\\_driving\\_web.pdf](https://www.worksafe.vic.gov.au/_data/assets/pdf_file/0015/9510/safe_driving_web.pdf)

<http://www.fleetsafetyinternational.com/sites/default/files/documents/Road%20Safety%20Challenge.pdf>

<http://www.jaspersnetwork.org/jaspersnetwork/download/attachments/5439709/Road+Safety+Audits+-+JASPERS.pdf?version=1&modificationDate=1387450051000>

[http://www.lags.corep.it/doc/ICorsoSpec/Supporti%20tecnici/au\\_roadsafetysaudit-2ndedition.pdf](http://www.lags.corep.it/doc/ICorsoSpec/Supporti%20tecnici/au_roadsafetysaudit-2ndedition.pdf)

[http://ec.europa.eu/transport/road\\_safety/topics/infrastructure/national-guidelines/pdf/malta-national-guidelines.pdf](http://ec.europa.eu/transport/road_safety/topics/infrastructure/national-guidelines/pdf/malta-national-guidelines.pdf)

<http://www.ite.org/technical/IntersectionSafety/RSA.pdf>

[http://www.rms.nsw.gov.au/roadsafety/downloads/guidelines\\_for\\_road\\_safety\\_audit\\_practices\\_full.pdf](http://www.rms.nsw.gov.au/roadsafety/downloads/guidelines_for_road_safety_audit_practices_full.pdf)

[http://safety.fhwa.dot.gov/tools/data\\_tools/fhwas1140/](http://safety.fhwa.dot.gov/tools/data_tools/fhwas1140/)

[http://safety.fhwa.dot.gov/tools/data\\_tools/fhwas1139/fhwas1139.pdf](http://safety.fhwa.dot.gov/tools/data_tools/fhwas1139/fhwas1139.pdf)

<http://www.fhwa.dot.gov/publications/publicroads/13mayjun/03.cfm>

<http://www.unb.ca/research/transportation-group/road-safety/guidelines.html>

<https://www.onlinepublications.austroroads.com.au/items/AP-R420-13>

<http://casr.adelaide.edu.au/staff/?pid=1165>

[http://www.fiafoundation.org/publications/Documents/road\\_safety\\_in\\_france.pdf](http://www.fiafoundation.org/publications/Documents/road_safety_in_france.pdf)

[https://cbrcc.curtin.edu.au/reports\\_journal\\_articles/aap%2031%20243-252.pdf](https://cbrcc.curtin.edu.au/reports_journal_articles/aap%2031%20243-252.pdf)

<http://www.ors.wa.gov.au/Documents/Strategies/ors-towards-zero-strategy.aspx>

<http://www.ors.wa.gov.au/Documents/Strategies/ors-towards-zero-strategy.aspx>

[http://c-marc.curtin.edu.au/local/docs/CMARC\\_Fact\\_Sheet1.pdf](http://c-marc.curtin.edu.au/local/docs/CMARC_Fact_Sheet1.pdf)

<http://www.ors.wa.gov.au/Documents/Strategies/ors-towards-zero-strategy-development.aspx>

<http://www.ors.wa.gov.au/Documents/Strategies/ors-towards-zero-discussion-paper.aspx>

<http://conf.tac-atc.ca/english/annualconference/tac2013/session5/rempe.pdf>

<http://alk.tiehallinto.fi/julkaisut/pdf/4000423e-veffectsofroadside.pdf>

[http://www.worldbank.org/transport/roads/saf\\_docs/campaign.pdf](http://www.worldbank.org/transport/roads/saf_docs/campaign.pdf)

[http://www.carrsq.qut.edu.au/publications/corporate/road\\_safety\\_advertising\\_fs.pdf](http://www.carrsq.qut.edu.au/publications/corporate/road_safety_advertising_fs.pdf)

[http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CCkQFjAA&url=http%3A%2F%2Fwww.nhtsa.gov%2Fstaticfiles%2Fnti%2Fpdf%2F811727.pdf&ei=hDcKU-eeHI\\_ioATEXlKgAg&usq=AFQjCNHbqpoHXfbfgZvFYiOiPqgoYegnHw&sig2=reecU5u191Jd9e8OhGt2CA&bvm=bv.61725948,d.cGU](http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=1&ved=0CCkQFjAA&url=http%3A%2F%2Fwww.nhtsa.gov%2Fstaticfiles%2Fnti%2Fpdf%2F811727.pdf&ei=hDcKU-eeHI_ioATEXlKgAg&usq=AFQjCNHbqpoHXfbfgZvFYiOiPqgoYegnHw&sig2=reecU5u191Jd9e8OhGt2CA&bvm=bv.61725948,d.cGU)

<http://www.ieg-america.com/pdf/Automated%20Traffic%20Enforcement%20Technology%20Guidelines.pdf>

<http://www.assembly.ab.ca/lao/library/egovdocs/2006/alsg/153430.pdf>

[https://www.solgps.alberta.ca/programs\\_and\\_services/public\\_security/peace\\_officers/Publications/Automated%20Traffic%20Enforcement%20Guidelines%20-%202008.pdf](https://www.solgps.alberta.ca/programs_and_services/public_security/peace_officers/Publications/Automated%20Traffic%20Enforcement%20Guidelines%20-%202008.pdf)

<http://www.assembly.ab.ca/lao/library/egovdocs/2006/alsg/153430.pdf>

<http://www.iowadot.gov/traffic/pdfs/automatetrafficenforecementguidelines.pdf>

<https://www.ma.utexas.edu/users/blumberg/automated-enforcement.pdf>

[http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=34&ved=0CDgQFjADOB4&url=http%3A%2F%2Froad-network-operations.piarc.org%2Findex.php%3Foption%3Dcom\\_docman%26task%3Ddoc\\_download%26gid%3D547%26lang%3Den&ei=VzsKU5OOFNLEoASq1oCADA&usq=AFQjCNGLmi5J1M5tvdNiUclb1Dy6CLUotQ&sig2=ZFdxduZlrx1TG-jKDaJxg](http://www.google.ca/url?sa=t&rct=j&q=&esrc=s&frm=1&source=web&cd=34&ved=0CDgQFjADOB4&url=http%3A%2F%2Froad-network-operations.piarc.org%2Findex.php%3Foption%3Dcom_docman%26task%3Ddoc_download%26gid%3D547%26lang%3Den&ei=VzsKU5OOFNLEoASq1oCADA&usq=AFQjCNGLmi5J1M5tvdNiUclb1Dy6CLUotQ&sig2=ZFdxduZlrx1TG-jKDaJxg)

[http://www.balticroads.org/downloads/28BRC/104\\_T06.pdf](http://www.balticroads.org/downloads/28BRC/104_T06.pdf)

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_729.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_729.pdf)

[http://ftp.dot.state.tx.us/pub/txdot-info/trf/red\\_light/auto\\_traffic.pdf](http://ftp.dot.state.tx.us/pub/txdot-info/trf/red_light/auto_traffic.pdf)

<http://itd.idaho.gov/ohs/HSP/FFY2014HSP.pdf>

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_746.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_746.pdf)

<https://www.thunderbaypolice.ca/sites/default/files/pdfs/Traffic%20Enforcement%20and%20Safety%20Plan%202013.pdf>

[http://www.piarc.org/ressources/documents/actes-seminaires06/c31-togo06/8712,togo\\_2006\\_Hollo.pdf](http://www.piarc.org/ressources/documents/actes-seminaires06/c31-togo06/8712,togo_2006_Hollo.pdf)

[http://www.crash-network.com/Download/Crash\\_Analysis\\_Criteria\\_1.6.2.pdf](http://www.crash-network.com/Download/Crash_Analysis_Criteria_1.6.2.pdf)

<http://www.ctre.iastate.edu/pubs/traffichandbook/5CrashAnalysis.pdf>

<http://ntl.bts.gov/lib/25000/25000/25079/AZ537.pdf>

<http://web.pdx.edu/~bertini/papers/crash.pdf>

[https://www.google.ca/?gfe\\_rd=cr&ei=X0QKU\\_oNuiBmAKyv4C4Cg#q=University+of+Maryland+-+Vehicle+Accident+Analysis-+BUDT+733](https://www.google.ca/?gfe_rd=cr&ei=X0QKU_oNuiBmAKyv4C4Cg#q=University+of+Maryland+-+Vehicle+Accident+Analysis-+BUDT+733)

<http://www.ktc.uky.edu/projects/analysis-of-traffic-crash-data-in-kentucky/>

<https://connect.ncdot.gov/resources/safety/Documents/TEAAS/Chapter%2015%20Analysis%20Techniques.pdf>

<http://library.oregonmetro.gov/files/safetyplan/2006CodeManualVersion1.0.pdf>

<http://www-nrd.nhtsa.dot.gov/Pubs/811754AR.pdf>

<https://osha.europa.eu/en/publications/e-facts/efact02/view>

[http://www.etsc.eu/documents/PRAISE\\_ROAD\\_SAFETY\\_MANAGEMENT.pdf](http://www.etsc.eu/documents/PRAISE_ROAD_SAFETY_MANAGEMENT.pdf)

[http://www.dot.ca.gov/dist4/nilescanyon/docs/sr84\\_va\\_study\\_final.pdf](http://www.dot.ca.gov/dist4/nilescanyon/docs/sr84_va_study_final.pdf)

[http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp\\_rpt\\_492.pdf](http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_492.pdf)

[http://www.isprs.org/proceedings/XXXVIII/4-W13/ID\\_54.pdf](http://www.isprs.org/proceedings/XXXVIII/4-W13/ID_54.pdf)

[http://www.intrans.iastate.edu/reports/souleyrette\\_low\\_vol\\_report\\_w\\_cvr.pdf](http://www.intrans.iastate.edu/reports/souleyrette_low_vol_report_w_cvr.pdf)

[http://safety.fhwa.dot.gov/local\\_rural/training/fhwasaxx1210/lrro\\_data.pdf](http://safety.fhwa.dot.gov/local_rural/training/fhwasaxx1210/lrro_data.pdf)

<http://casr.adelaide.edu.au/rsr/RSR2009/RS094023.pdf>

<http://www.cph.org.uk/wp-content/uploads/2012/08/road-traffic-accidents-a-review-of-evidence-for-prevention.pdf>

[http://www.ghdcanada.com/pdf/Enhancing\\_Road\\_Safety\\_Management\\_with\\_GIS\\_Mapping\\_and\\_Geospatial\\_Database.pdf](http://www.ghdcanada.com/pdf/Enhancing_Road_Safety_Management_with_GIS_Mapping_and_Geospatial_Database.pdf)