

***TRAFFIC ENGINEERING
MANUAL
October, 2009***



***STATE OF MINNESOTA
DEPARTMENT OF TRANSPORTATION***

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**October
2009**





Minnesota Department of Transportation

Office of Traffic, Safety, and Technology

Mail Stop 725,
1500 West County Road B2
Roseville, MN 55113

October 30, 2009

TO: Holders of Traffic Engineering Manual

This is the third electronic update to the "Traffic Engineering Manual" (TEM).

The TEM now includes the 2007 versions of Chapters 1 thru 5 and 8 thru 13, the 2008 version of Chapter 6, Chapter 7, page 11-7 of Chapter 11, and an up to date Subject Index.

This update includes minor changes to several pages as stated in the Transmittal.

Printed versions of the TEM will no longer be available from the Map and Manual Sales Unit. The user may print as much or as little of the electronic version of the TEM as is needed.

Manual holders and users are reminded of the need to register on the OTSO Publication website in order for them to receive notification of future updates/revisions to the TEM. Those who wish to register must go to the following website location: <http://www.dot.state.mn.us/trafficeng/otepubl/updates.html>, fill out the required boxes, and select "Traffic Engineering Manual" from the drop-down menu. Lastly, click on the "Submit Your Answers" button.

An electronic notification will be sent out to all registrants. Electronic notifications that are returned to the sender, will result in the subscribers name being removed from the notification list. In the event that a subscriber changes email address or internet service provider, it is the responsibility of the subscriber to submit a new request for notification.

Contact Kenneth Schroepfer, Office of Traffic, Safety, and Technology, MS 725, Minnesota Department of Transportation, 1500 West County Road B2, Roseville, Minnesota 55113, phone (651) 234-7379, with general questions concerning the TEM.

Your comments/suggestions are always appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read "Susan M. Groth".

Susan M Groth, PE, PTOE
State Traffic Engineer

TRANSMITTAL RECORD SHEET

TRANSMITTAL		CHAPTER NUMBER	SUBJECT
NUMBER	DATE		
Metric (English) Conversion	7-1-00	Entire Manual	Complete conversion of the entire manual to Metric (English) units of measure. New covers are issued.
Revision 1	7-1-03	Chapter 5 Chapter 7 Chapter 8 Chapter 9	Replace the entire Chapter Replace the entire Chapter Replace the entire Chapter Replace the entire Chapter
		Selected pages	Replace Pages: 10-23 thru 10-27, 10.1-5, 11-9 thru 11-12, 12-5, 12-6, 13-7, 13-8, 13-13, 13-14, 13-17 thru 13-22.
Revision 2			
		Selected pages	Replace Pages: 6-1 thru 6-66h, 8-9, and 8-10.
Revision 3	8-1-07	Chapters 1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13	Replace the entire Chapter
Revision 4	3-3-08	Chapter 6 Subject Index	Replace the entire Chapter
		Selected pages	Replace Pages: 11-7
Revision 5	10-31-09	Selected pages	Replace Pages: 1-1, 1-3, 1-5, 1-6, 1-7, 1-9, 1-14 thru 1-17, 1-19, 1-20, 2-3, 2-12, 2-16, 4-9, 4-10, 4-11, 5-17, 6-5, 6-12, 6-15, 6-18 thru 6-21, 6-48, 6-50, 6-56, 6-57, 6-63, 6-64, 6-65, 6-77, 6-78, 6-85, 7-2, 7-3, 7-14, 7-13, 7-14, 7-20, 7-26, 7-29, 7-34, 7-39, 7-51, 7-62, 8-1, 8-10 thru 8-19, 10-7, 10-9, 10-16, 10-17, 10-19, 11-5 thru 11-9, 12-8, 12-9, 12-10, 13-4, 13-9, 13-14, 13-15, and 13-16.

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ABBREVIATIONS

AADT	Annual Average Daily Traffic	Mn/DTEd	Minnesota Department of Trade and Economic Development
AASHTO	American Association of State Highway and Transportation Officials	MPH	Miles Per Hour
ACL	Accident Cross Reference File	MS	Minnesota Statutes
ADT	Average Daily Traffic	MSA	Minnesota Statutes Annotated
AME	Area Maintenance Engineer	MSAS	Municipal State Aid Street
ANOVA	Analysis of Variance	MTC	Metropolitan Transit Commission
ASCE	American Society of Civil Engineers	MUTCD	Manual on Uniform Traffic Control Devices
ATR	Automatic Traffic Recorder	NCHRP	National Cooperative Highway Research Program
B/C	Benefit/Cost Ratio	NEMA	National Electrical Manufacturers' Association
CAES	Computer-Aided Engineering Services	NFPA	National Fire Prevention Association
CCTV	Closed Circuit Television	O-D	Origin/Destination
CMS	Changeable Message Sign	OTE	Office of Traffic Engineering
CR	County Road	OTSO	Office of Traffic, Safety, and Operations
CRT	Cathode Ray Tube	PC	Personal Computer
CS	Control Section	PD	Property Damage
CSAH	County State Aid Highway	PI	Personal Injury
DE	District Engineer	PPCB	Portable Precast Concrete Barrier
DMI	Distance Measuring Instrument	PSF	Pounds Per Square Foot
DNR	Department of Natural Resources	PW	Present Worth
DPS	Department of Public Safety	RP	Reference Point
DTE	District Traffic Engineer	RTMC	Regional Traffic Management Center
DTWO	District Traffic Work Order	RV	Recreational Vehicle
EIS	Environmental Impact Statement	SOP	Source of Power
ESU	Electrical Services Unit	SPAR	Systems Planning & Analysis Report
EUAC	Equivalent Uniform Annual Cost	SSS	Specific Service Signing
FHWA	Federal Highway Administration	STD-DEV	Standard Deviation
HAR	Highway Advisory Radio	STD-ERR	Standard Error
HI	High Intensity	TAM	Traffic Analysis - Metro
HOV	High Occupancy Vehicles	TCO	Traffic Control Order
HP&R	Highway Planning and Research	TCP	Traffic Control Plan
I/I	Intersection/Interchange	TH	Trunk Highway
IGDS	Interactive Graphics Design Software	TIS	Transportation Information System
INL	Intersection Leg Information File	TMP	Traffic Management Plan
INT	Intersection Detail File	TRB	Transportation Research Board
INX	Intersection Cross-Reference File	TRPM	Temporary Raised Pavement Markers
IPCEA	Insulated Power Cable Engineers' Association	TWP	Township
ITE	Institute of Transportation Engineers	UMTA	Urban Mass Transit Administration
K	Fatality	VAR	Variance
LOS	Level of Service	VPLM	Vehicles Per Lane Mile
MN MUTCD	Minnesota Manual of Uniform Traffic Control Devices		
Mn/DOT	Minnesota Department of Transportation		

