



# Update on 2010 HCM

ITE District 2 Annual Meeting  
May 1, 2009



# Introduction

- Why is the Highway Capacity Manual (HCM) being updated?
- Who is doing the update?
- How is it being updated?
- What are the major inputs?
- What are the anticipated changes?
- Where do you go to find more information?



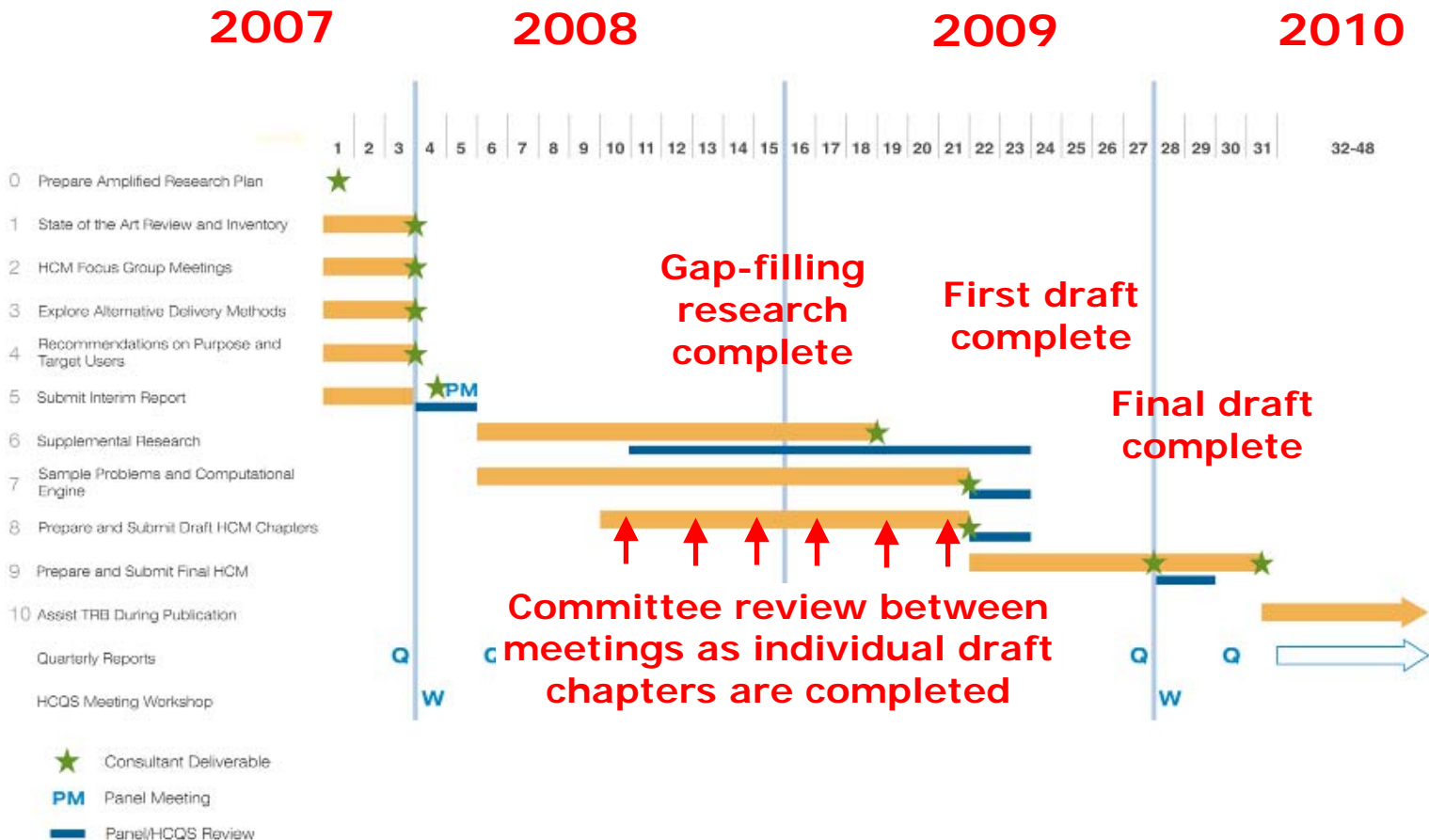
# Why now after only 10 years?

- HCM 2000 contained research through early 1998
- \$4.5 million in HCM related research since 1999
- Alternative tools, especially micro-simulation, are more prevalent in practice

# The Process

- **NCHRP is research arm of AASHTO**
  - Contractors – Kittelson and Associates, Polytechnic Institute of NYU, Texas Transportation Institute, University of Florida
- **Highway Capacity Committee has technical oversight for content**
  - Chair, Richard Dowling, Dowling and Associates
- **Panel oversees contractor execution**
  - Chair -Barbara Ostrom, MACTEC E and C, Inc

# The Timeline



# New Material for the 2010 HCM

- Available already
  - NCHRP 3-64 (HCM Applications Guide)  
[WWW.HCMGUIDE.COM](http://WWW.HCMGUIDE.COM)
  - NCHRP 3-65 (Applying Modern Roundabouts in the United States)  
NCHRP Report 572 – Roundabouts in the United States
  - NCHRP 3-70 (Multi-Modal Arterial Level of Service) –  
NCHRP Report 616 – Multimodal Level of Service Analysis for Urban Streets
  - NCHRP 3-82 (Default Values for HCM)  
NCHRP Report 599 – Default Values for Highway Capacity and Level of Service Analysis
  - NCHRP 20-7 (Two-lane Highways)
  - TCRP A-15A (Transit Capacity and Quality of Service – 2<sup>nd</sup> Edition)

# New Material for the 2010 HCM

- Recently or nearly completed
  - NCHRP 3-60 (Interchange Ramp Terminals)
  - NCHRP 3-75 (Analysis of Freeway Weaving)
  - NCHRP 3-79 (Predicting Travel Speeds for Urban Streets)
  - NCHRP 3-85 (Guidelines for the Use of Alternative Traffic Analysis Tools)

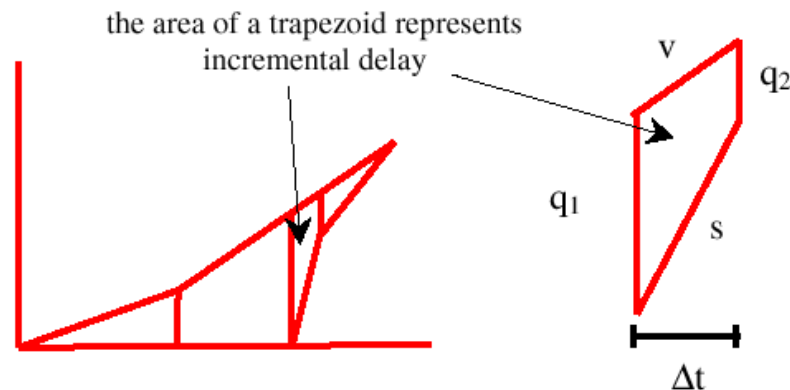


# New Material for the 2010 HCM

- Research as part of the Update Project
  - Signalized Intersection Methodology (New Delay Method and Structure Changes reflecting Modern Actuated Control)
  - Gap Acceptance for Six Lane Two-Way Stop Controlled Intersections
  - 75 Mph Speed Flow Curve for Freeways

# New Material for the 2010 HCM

- Signalized Intersections Incorporate IQA Method
  - Arrival-departure polygon used to convey concept



- Polygon shape varies with...
  - left-turn mode (permitted, protected, protected/permitted),
  - phase sequence (lead, lag, split), and
  - approach geometry (shared, exclusive)



# The Anticipated Product

- Four Volumes (3 hard copy, 1 web-based)
  - Volume 1 – Concepts
  - Volume 2 – Uninterrupted Flow
  - Volume 3 – Interrupted Flow
  - Volume 4 – Applications Guide
- No Transit Chapter



# The Anticipated Product

- Volume 4 – Applications Guide
  - Additional Methodological Details
  - Reference Library
  - Case Studies – The Current Highway Capacity Manual Applications Guide ([www.hcmguide.com](http://www.hcmguide.com) )



# Information for the Coming Year

Get involved with the review process – Contact Paul Ryus ([pryus@kittelson.com](mailto:pryus@kittelson.com))

Mid-year Committee Meeting Topics –  
Chapter approvals, Research results

TRB 2010 Major Committee Topics – Interrupted Flow, Chapter approvals



# Information for the Coming Year

Presentations/Presenters Available –  
Detailed or Overview

Contact User Liaison Subcommittee Chair  
Bill Sampson [bsampson@ce.ufl.edu](mailto:bsampson@ce.ufl.edu)