Overview of Transportation Choices

"You can’t get there from here."

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Overviews...

• Saturday – Overview of Transportation Technologies
• Sunday – Overview of Transportation Choices
• Sunday Panels
  » Creating a Sustainable Transportation Vision for New England
  » Winning the Oil Endgame: Innovations for Transportation
  » Urban Development: Creating a More Sustainable Landscapes
  » Greenways, Bikeways and Rails-to-Trails for “Traditional Landscapes”
Traffic - Texas Style

2005 Urban Mobility Report (May05)

Texas Transportation Institute (mobility.tamu.edu)

- Congestion affects more of the roads, trips and time of day. The worst congestion levels increased from 12% to 40% of peak period travel. And free-flowing travel is less than half of the amount in 1982.
- Congestion has grown in areas of every size. Measures in all of the population size categories show more severe congestion that lasts a longer period of time and affects more of the transportation network in 2003 than in 1982. The average annual delay for every person using motorized travel in the peak periods in the 85 urban areas studied climbed from 16 hours in 1982 to 47 hours in 2003.
- Major projects, programs and funding efforts take 10 to 15 years to develop. In that time, congestion endured by travelers and businesses grow to those of the next largest population group. So in ten years, medium-sized regions will have the traffic problems that large areas have now, if trends do not change.

TTI—Stuck in Traffic
Percent of Travel in Each Congestion Level / Total Delay

1982–0.7 Billion Hrs  
2003–3.7 Billion Hrs
**Solutions—Texas Style?**

• “A Balanced Approach” (TTI)
  » Begin to plan and design major capacity increasing projects, plans or policy changes
  » Immediately relieving critical bottlenecks or chokepoints
  » Aggressively pursuing operations improvements and demand management options that are available

• Which means... (TTI)
  • More capacity, including public transportation
  • Greater efficiency, including information to travelers
  • Manage the demand, including telecommuting
  • Development patterns, including re-urbanization
  • Realistic expectations, by the traveling public.

• A Good Start (Need to look at additional dimensions)

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**Newton Rules!!!**

• **Transportation is Different!**
  » Energy = Work
  » Work = Force x a Distance
  » Force = Mass x Acceleration

• **Can’t Get Around It**
  » Mass = Vehicle Size/Weight
  » Distance = Trip Length(s)
  » Acceleration = Driving Style, Congestion

• **There’s No Getting Around It**
The Demand for Transport

The Three “Ats”
• At Home
• At Work
• At Play

And in Between

The Most Environmentally Responsible?

Having Fun Working at Home!

A Life-Cycle Perspective

But, Flows of People and Materials are Different

Those Material Flows are Significantly Different
Magical Mobility Equation...

- Which Is the Most Important?
- Can Any Be Ignored?

![Diagram of Magical Mobility Equation]

Olmstead Creates!!!

- Land Use is Crucial !!!
  - Mixed Use
  - Foot & Bikeways
  - Conservation & Recreation
  - Transportation Carrots & Sticks

- Ignore Them to Everyone’s Detriment
  - Finding the Vision(s)
  - Devoting the Resources to Implement Them

Frederick Law Olmsted (1822-1903)

Long-Term Urban Form (Utilization) Trumps Efficiency Improvement
So, How Do We..

• Get You Out of Your Cars and On To
  » Public Transportation
  » Sidewalks and Bike Paths
  » Around the Neighborhood
• “Design” Challenges
  » Providing ‘Easier’ Alternatives
    › Respecting people’s hectic lifestyles
    › Acknowledging that this already an expensive place to live
  » Building upon Boston/New England’s reputation as a compact, livable city/region
• Couch Potato/Mouse Potato/Traffic Spud

Today’s Panels

10:30  Creating a Sustainable Transportation Vision for New England
  • Stephen CONNORS, MIT (moderator)
  • Andrew BRENNAN, Director of Environmental Affairs, MBTA
  • Scott GRIFFITH, CEO & President, ZIPCAR
  • Sonia HAMEL, Special Assistant, MASSACHUSETTS OFFICE FOR COMMONWEALTH DEVELOPMENT
  • Steve RUSSELL, Fleet Superintendent, CITY OF KEENE NH

12:00  Winning the Oil Endgame: Innovations for Transportation
  • Nathan Glasgow, ROCKY MOUNTAIN INSTITUTE

  • Peter SMITH, Principal, GLOBAL URBAN SOLUTIONS, Co-chair BSA Urban Design Committee (moderator)
  • Phil GOFF, Urban Designer, ELKUS/MANFREDI ARCHITECTS
  • Kathryn LEAHY, Director of MASS AUDUBON SOCIETY’s North Shore Advocacy Office

2:35  Greenways, Bikeways and Rails-to-Trails: Simple, Sensible Improvements for Traditional Landscapes
  • Wayne MACEYKA, SEVEN CYCLES (moderator)
  • Craig Della PENNA, Executive Director, NORTHEAST GREENWAY SOLUTIONS
  • Lauren HEFFERON, Founder and President, CICLISMO CLASSICO
  • Dave LOUTZENHEISER, Board Member, MASSBIKE
  • Jeff Rosenblum, Coordinator, BOSTON BICYCLE PLANNING INITIATIVE