Integrating Transportation and Land Use:
Land Development Plan Standards and Evaluation Tools

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April 26, 2006
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Outline

• Land Use-Transportation Connection

• North Carolina Context

• Research Questions

• Land Development-Related Data and Policy Information Required for Transportation Planning
Land Use-Transportation Connection

- Development, location decisions based on accessibility
- Accessibility based on transportation improvements
- Improvements based on existing and anticipated development
- Cycle

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+------------------+
| Transportation   |
+------------------+
| Accessibility    |
+------------------+  
| Land-Use         |
+------------------+  
| Behavior         |
+------------------+
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- Cycle
Source: Vande Walle, 2004
Planning Responsibility

• Land Development Planning
  – Local government authority
    • Municipalities and/or counties
  – Make land development (LD) plans based on current transportation system

• Transportation Planning
  – MPO/DOT authority
  – Make transportation plans based on current LU system
The Department of Transportation may participate in the development and adoption of a transportation plan or updated transportation plan when all local governments within the area covered by the transportation plan have adopted land development plans within the previous five years. ...

A qualifying land development plan may be a comprehensive plan, land use plan, master plan, strategic plan, or any type of plan or policy document that expresses a jurisdiction’s goals and objectives for the development of land within that jurisdiction.” [1]

[1] G.S. 136-66.2 (b1)
Basic Goals

• Transportation plans consistent with:
  – Land development plans
  – Utilities and public facilities plans

• Consistent with other localities’ plans (intra-MPO)
Basic Goals

“Environmentally friendly” plans:

– Place development where transportation can reasonably be provided
– Place transportation facilities for minimal human and natural environment impacts
– Are consistent with environmental regulations and polices
Research Questions

How can local Land Development Plans better feed transportation modeling and planning?

- Data components?
- Policy information?
- Specific transportation components?
- Public Involvement: How do we know that the plan has general community support?
- Plan Evaluation: How do we know that the plan has what we need?
More specifically:

What information should the LDP contain so that you can make better travel models and predictions of transportation infrastructure demands and capacity?
Land Dev. Planning Process

Macro-level policies and decisions

- Environmental analysis
- Public Involvement
- Baseline land use data and existing conditions
- Forecasted employment and population

- Local development management policies
- Future growth pattern scenario(s)
- Land use forecast
- Transportation planning process
Plan Components

- Introduction to Plan
- Discussion of Current Conditions
- Explanation of Public Involvement Process
- Land Use Vision and Principles
- Land Analysis
- Monitoring and Implementation
Travel Model Inputs

Most directly informed by:

- Land Use Vision and Principles
  - Goals
  - Objectives
  - Policies

- Land Analysis
  - Land Needs Assessment
  - Suitability Analysis
  - Supply and Capacity
  - Land Classification Districts
Questions for you:

• What is missing from this list?
• What does not need to be on this list?
• Are there ways you can better include land use data in your models now?