113 US 113 North / South Study

Peninsula Model Development

Trying to predict the future is a risky proposition for anyone, but DelDOT's planners have to do just that to assess when and what type of improvements will be required to address the US 113 corridor's future transportation needs. Fortunately, with the aid of computer modeling, the job becomes a little easier and more scientific.

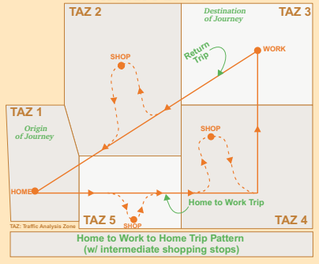
Right now, DelDOT's planners are working on a new model that will allow them to predict the travel patterns that occur throughout the year and during the peak summer travel season. It's called the Peninsula Model because it covers the entire state of Delaware and Maryland's eastern shore, two thirds of the Delmarva Peninsula. The model has several key components:

Transportation Network and Analysis Zones

Socioeconomic Information

Trip Type	Code	Description
Home-Based Work	*HBW*	Home and work
Home-Based Recreation	*HBR*	Home and recreational/social destination
Home-Based Shopping	*HBSH*	Home and store or restaurant
Home-Based Regional Shopping	*HBRSH*	Home and Regional Shopping Centers
Home-Based Other	*HBO*	Home and any location not listed above (includes school trips)
Non-Home-Based Non-Work	*NHBNW*	Neither end at home or work
Journey to Work	*JTW*	Work and non -home

Travel Patterns



Home to Work to Home Trip Pattern (w/ intermediate shopping stops)

Once all the information is properly entered, the model is then 'run' for present conditions and adjusted until it reasonably predicts current traffic patterns, including those from the Origin-Destination survey conducted in summer of 2003. An old modeling adage is that "you need to be able to accurately predict the present before you can reasonably predict the future." When the planners are convinced the model is ready, it will be run for a variety of conditions, predicting the amount of traffic that will use the transportation network (i.e. travel demand) as far as 25 years into the future.

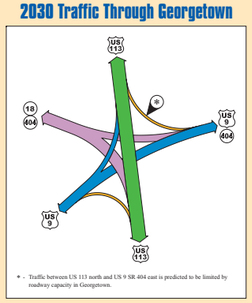
Assessing Future Traffic Patterns

Peninsula Model Application

Over the next several months, the Peninsula Model will be used to evaluate the alternatives, predicting how much traffic will use:

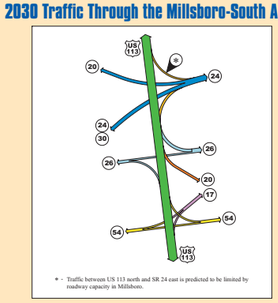
- **US 113 if no improvements are made**
- **Eastern bypasses vs. western bypasses**
- **Long vs. short bypasses**
- **Interchanges at various locations**
- **Partial bypasses if projects are built in stages**
- **Service roads and local roads**

2030 Traffic Through Georgetown



✦ - Traffic between US 113 north and US 9 SR 404 east is predicted to be limited by roadway capacity in Georgetown.

2030 Traffic Through the Millsboro-South Area



✦ - Traffic between US 113 north and SR 24 east is predicted to be limited by roadway capacity in Millsboro.

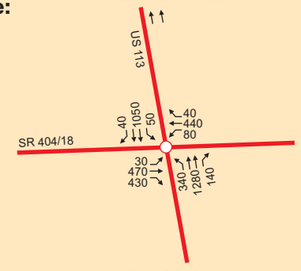
Traffic Analysis

Once future traffic volumes are estimated for each alternative, DelDOT can assess how each will perform using a traffic operations model, which will evaluate:

- **Level of service, a measure of delay and how much of the road's capacity is being used, ranging from "A" (best) to "F" (worst).**
- **Travel times via US 113 and the bypass alternatives.**
- **Emergency response times.**

For the on-alignment alternatives, additional travel distances and diversions that result from access controls along US 113 will also be estimated.

US 113 at SR 404/18 Current Lane Configuration and Traffic Volume



Source: Traffic Operations Management Plan

All of the assessments will be summarized in a way that allows the Project Team, the Working Groups, the Environmental Resource Agencies, and you, the public, to decide which alternatives will best serve the future transportation needs of the US 113 study area and should be retained for more detailed study.