Memphis MPO Freight Peer to Peer Exchange

Martha Lott, Administrator
Memphis MPO
August 21, 2008
Memphis MPO Background

- Memphis MPO Staff
  - MPO Coordinator – Yep, lucky me!
  - (3) Planners
    - Paul (25 yrs),
    - Tim (2 yrs),
    - Pragati (2 yrs)
  - (2) Admin Staff
Memphis MPO Background
Memphis MPO Background

- One Board & Six Committees
- Federal Partners
  - TDOT
  - TN-FHWA
  - FTA-Region 4
  - EPA-Region 4
  - MDOT
  - MS-FHWA
  - AR Highway Dept
  - AR-FHWA
  - EPA-Region 6
Transportation Modes-Air

- World’s largest air cargo airport since 1991 and handled over 4 million metric tons in 2006
- The new 11,500 ft “World Runway” just completed, will be long enough to handle nonstop overseas flights to cities in Pacific Rim
- FedEx Worldwide headquarters & World hub in Memphis
- Memphis International Airport is home to one of the hubs of Northwest Airlines with daily flights to over 90 cities
- 15 Cargo Airlines in addition to FedEx
- RPS and UPS have hub/sort facilities in Memphis
Transportation Modes - Water

- The Nation’s 4th largest busiest inland river port
- The Nation’s only fully enclosed Lash barge operation, LITCO
- 15 Mile Jurisdiction
- Harbor to 44 private terminals
- Harbor to 5 public terminals
- Handles more than 16 million tons of cargo per year
- Channel depth maintained at 9 feet minimum – width of 300 feet
Transportation Modes - Rail

- Memphis is 1 of 3 U.S cities served by **five Class-I rail systems**
- Two rail bridges crossing MS River
  - Harahan Bridge built in 1917
  - Frisco Bridge built in 1892
  - The two bridges combined handle over 1.4 million rail cars annually
- 220 trains travel through Memphis daily
Transportation Modes - Rail
Transportation Modes - Roadways

- I-40, major east/west transportation route across U.S., intersects in Memphis with I-55, the major north/south route for U.S.
- I-69, designated as High Priority Corridor, will serve Port Huron, MI at the Canadian border and then south through Memphis and Houston to the Texas/Mexico border.
- 7 Major U.S. highways converge in Memphis
- I-40 and I-55 span the Mississippi River in Memphis
Transportation Modes-Roadways

- Truck Services
  - 163 Truck Terminals
  - Over 300 Motor Freight Companies offering services to 48 contiguous states as well as Canada and Mexico
  - 152 Metropolitan markets are reachable by truck overnight
  - 35 States can be reached within 2 days
International Transportation

- Two Foreign Trade Zones with multiple sites
- 30 International freight forwarders operate in Memphis
- More than $10 Billion of goods clears U.S. Customs annually at Memphis
- FedEx provides daily non-stop service to London, Paris, Toronto, Mexico City, Rio DeJaneiro and direct service to Hong Kong
- 15 Steamship lines and agencies have offices in Memphis
- 5 Railroads have in-bound container services
- Nation’s only enclosed Lash barge facility
Land Use and Freight Planning - Past Practices

- Viewed freight as production and attractions
  - Didn’t really do it
  - Where did the trucks start and end
  - Was there enough capacity on adjacent roads to handle the freight traffic?
Land Use and Freight Planning-Current Practices

- Attempting to Approach Freight planning in two perspectives
  - Economic Development and Business Logistics
  - Infrastructure and Telecommunications
Land Use and Freight Planning - Current Practices

How are we doing this?
- Implemented a MPO Freight Committee
- Next we began to participate in already organized groups:
  - In Memphis Chamber Regional Logistics Council
  - Major Roads Sub-Committee
Incorporated freight component in Travel Demand Model, that includes:

- 3 trip types
  - Internal Trips
  - External/Internal/Internal-External Trips
  - External-External Trips

For each 3 trips future truck volumes are forecasted by 3 vehicles:

- Four-tire commercial vehicles
- Single unit trucks with six or more tires
- Combination trucks
Now, we are studying and updating plans: Updating

- Memphis and Shelby County Governments Unified Development Code – Update
  - Breakthrough in our community’s traditional approaches to codes
  - MPO is promoting efficient land use and development patterns to ensure safety, economic vitality to meet existing and future transportation needs
Regional Infrastructure Assessment

- Study area – 16 counties, 3 states (TN, AR, MS)
- Identifying capabilities and capacities of the region’s current infrastructure, (roads, bridges, ports, airports, telecommunications)
- Plan will be used to:
  - Coordinate activities of infrastructure operators to avoid duplication
  - Guide future infrastructure investments and funding requests
  - Generate data for marketing and economic development
Memphis Aerotropolis Plan

- Plan to capitalize on Memphis International Airport by offering businesses unique package locations, logistics, and community support
- Target boundary encompasses footprint including 3 parts of 3 states that are within a 15 minute drive from the airport
- Access corridors are essential to leverage this kind of connectivity to Memphis’ quadramodal assets of air, highway, rail and port.
- Four sub-committees – Transportation/Access, Corridor development, Gateways/Beautification, Marketing/Branding
Land Use and Freight Planning-Studies

- Mississippi River Crossing – 3rd Bridge – Tolling Feasibility Study
  - 2 Rail Bridges Frisco (1892) and Harahan (1917)
  - 2 Interstate Bridges I-55 (1949) and I-40 (1973)
  - 2007 TN Tollway Act passed – authorized exploration of tolling – two pilot projects 1 bridge and 1 highway
  - Aging transportation infrastructure means increasing share of transportation funds needed to maintain existing network = fewer funds for new facilities
  - If the I-55 and I-40 Bridges were closed, destroyed, etc., it is estimated that the financial impact would be well over $1 billion annually to the economy

- TDOT has Cambridge Systematics as on-call consultant for MPO Freight Planning Assistance
Region’s Needs, Challenges

- Needs
  - Well defined land use plan for MPO Area
  - Expansion of multimodal facilities
  - Multimodal crossing for the MS River
  - Infrastructure improvements to accommodate the growth

- Challenges
  - Reduction in funding allocations from Highway Trust Fund
  - Keeping skilled employed workforce
4 Trigger Questions

1. What land use and infrastructure strategies can support the liability of established freight districts’ in metropolitan areas?
   - Local jurisdictions adopt and enforce land use plan
   - MPO role is to help coordinate the plans across the jurisdictional boundaries within the MPO area.
2. **What MPO planning strategies are available to plan for and assess transportation impacts as new suburban and rural freight areas emerge?**
   - Promote land use and development patterns to ensure safety, economic vitality, and to meet existing and future transportation needs.
   - Encourage the development of land use plans in the rural and suburban areas, which are supported by the local major transportation plans.
   - Plans should identify industrial/freight districts where adequate facilities are planned for when developed.
   - Promote the concentration of future employment and other activity centers along the existing and planned major travel corridors.
   - Continue to improve coordination and cooperation between engineering, planning and enforcement agencies involved with transportation activities.
4 Trigger Questions

3. How can MPO Encourage consideration of freight-oriented developments as a regional transportation and land use planning strategy to address the expected rapid growth in demand or large freight sites?
   - Active participation in Regional Chambers
   - MPO Freight Committee
   - Recommendations to Policy Board members who are the elected officials of the various jurisdictions.
4 Trigger Questions

4. What transportation-related benefits, including congestion and vehicle emissions reductions, do freight oriented developments provide in contrast to traditional intermodal terminals and warehousing and distribution districts?

- Opportunity for different multimodal options
- Safety (may remove trucks from local streets)
- Reduce congestion
- Reduce vehicle emissions
- Opportunity to improve security
Questions