Memphis Urban Area Metropolitan Planning Organization (MPO)
Planning and Land Use Advisory Committee (PLAC)
Thursday, September 4, 2014 1:30 PM
3175 Lenox Park Boulevard, Suite 201
Memphis, Tennessee 38115

SUMMARY OF MINUTES

The meeting started at 1:45 PM and the following Advisory Committee members were present at the meeting:

John Lancaster, Chair MATA
Stephen Edwards City of Memphis
Jim Vasquez Shelby County Housing
Aury Kangelos TDOT
Sean Isham Collierville
Heather Sparkes, Vice-Chair Arlington
Carlos McCloud TDOT
Esther Sykes Wood Fayette County
Ted Garrod DeSoto County
Rusty E Bloodworth Boyle

The following members of the public were present:
James Stokes Bass River Advisors

The following Consultants were present:
James Collins Kimley-Horn
Alex Shoemaker Kimley-Horn
Robert Rae Kimley-Horn
Kevin Tilbury Gresham Smith and Partners
Lindsay Puckett Gresham Smith and Partners

The following Memphis MPO staff members were present:
Pragati Srivastava Sajid Hossain Peter Jenkins
1. Welcome and Introduction

Mr. Alex Shoemaker welcomed the PLAC members to the second PLAC meeting and introduced the consultants leading the presentation. He outlined the presentation, which involved a recap of the first PLAC meeting as well as a presentation of the Study Design including a discussion of Place types, Suitability Factors and the Polygon Structure for the eight county Land Use Model boundary.

2. Summary of Previous Meeting

Mr. Alex Shoemaker outlined the history of the last MPO Land Use Model, under the Imagine 2035/2040 planning process, and its influence on the current long range plan Direction 2040. Improvements to the current land use model include a uniform grid structure, updated place types and new suitability factors. Mr. Shoemaker also explained the integration of the Land Use Model with the Transportation Demand Model via a flow chart which is part of the PDF presentation on the Memphis MPO’s website.  http://memphismpo.org/news-events/minutes-agendas

3. Study Design and TDM Integration

a. Mr. Alex Shoemaker explained that the Study Design elements that inform the Land Use Model include the carrying capacity, place types, suitability factors as well as the allocation of population and employment throughout the Land Use Model boundary.

b. Control totals, which are county level projections of population and employment growth to the year 2040, were mentioned when explaining how these totals will be used in the Land Use Model Update to forecast future development, redevelopment and regional growth.

c. Forecast methodology: Base year data (2010) and future year control totals will be provided from the travel demand model consultant and the aforementioned future year growth rates will be applied.

4. Place Types

Mr. Robert Rae explained that the two major discussion points for the day were the place types and the suitability factors. He explained that the place types describe, measure, and evaluate the built environment and are not solely zoning or land use information but, describe the character and purpose of an area rather than just a specific land use. Mr. Kevin Tilbury described that the Place types are the DNA of a place describing FAR, density, dwelling units/acre, land use, building heights, water use, etc. and range from rural to urban compact in nature.

a. The current Land Use Model uses 18 place types, which will be discussed and evaluated for changes to better capture the changing realities within region.
b. Mr. Kevin Tilbury gave an example of how place types are assigned to a grid. Place type DNA is assigned to a grid through its characteristics (ex. 80% residential, 10% ROW and infrastructure and 10% open space; these percentages correspond to associated acreage within the 40-acre grid). Place type DNA can be used to help evaluate differences in land use scenarios (i.e. impervious surfaces or water demand).

c. Indicators: Mr. Kevin Tilbury explained that each place type has a corresponding list of indicators.
   i. Mr. Rusty Bloodworth asked if there are any indicators that focus on Income. – This can be addressed as part of the suitability analysis
   ii. Mr. Ted Garrod asked if the model can develop the development costs of different place types in terms of build out and associated fiscal impact. – Interesting idea, but may be out of the scope of this land use model update

d. Redevelopment
   i. The Land Use Model can determine the amount of redevelopment that occurs within the region. Redevelopment occurs based on a redevelopment percentage within a given place types. More urban and compact places have higher redevelopment percentages.
   ii. The Redevelopment analysis includes the ratio of building value to land value (i.e. buildings with low value on high value parcels)
      1. Instead of using an automatic allocation process, Mr. Rusty Bloodworth suggested that strategic redevelopment areas could be identified by the PLAC. – This could be done with an expert panel but, Mr. John Lancaster acknowledged we would have to avoid bias. A combination of the model's automated allocation of redevelopment spot checked by an expert panel could work well.

e. Place Types: Mr. Robert Rae mentioned that the current 18 place types in the land use model and asked for comments for reviewing the existing place types. The primary discussion points are as follows:
   i. Open Space
      1. Keeping in model
      2. Open Space is separate from agricultural with open space being an added value asset and part of the Mid-South Regional Greenprint and the agricultural place type lacking infrastructure for development.
   ii. Agriculture
      1. Ms. Esther Sykes-Wood asked if we could take soil quality into consideration for suitability. – Yes we can
   iii. Mobile Homes
      1. Keeping in model
   iv. Suburban Single Family
      1. Considering splitting into 2 separate place types with varying densities (low and medium)
2. **Different densities based on jurisdiction**
3. **Place types work as remainder net after ROW and other constraints are factored out.**

v. **Urban Neighborhood**
   1. *Is the density too low?*
   2. *Reviewing existing neighborhoods to calibrate.*
   3. Mr. Rusty Bloodworth was thinking the density would be closer to 15-22 Dwelling Units/Acre.

vi. **Urban Downtown**
   1. Mr. Rusty Bloodworth commented that the FAR looked way too high and may overestimate trips. – **Consultants will review**

vii. Other place types: Keep existing definitions. Look into refining/updating the attributes in each place type.
   1. Is it possible to have different attributes for each place type based on jurisdiction? -Yes
   2. **NOTE:** After the meeting, Kimley-Horn reviewed the model files and saw that this is currently how the model is set up. We will review the values and minor changes are expected to address comments from the PLAC

**Model Grid Structure**

Mr. Kevin Tilbury described the development of the recommended model structure including the shift from a parcel based structure to a grid based polygon structure. One of the goals is to have one regional model in which there are less than 50,000 polygons.

viii. Reviewed proposed travel demand model TAZ structure, environmental constraints, and urban areas. The TAZ structure will be used where the size of the TAZ is smaller than the ¼ by ¼ grid structure.

ix. The grid structure uses a combination of ¼ mile and 1-mile sized grids with ¼ mile consisting of the typical walk-shed. A 1-mile grid is used in more rural areas and areas with environmental constraints. Everything within the MPO boundary stays a ¼ grid. Certain town and cities outside of the MPO boundary will also be analyzed at the level of a ¼ grid structure.

x. Results in a grid structure with 34,380 cells – which is right around where we want to be in size to run the model quickly and efficiently.

1. Comments on the proposed structure:
   a. Mr. Aury Kangelos recommended including southern Tipton County as ¼ mile grids (US 51 and Hwy 14)
   b. Mr. Stephen Edwards, Mr. Ted Garrod and other members of the PLAC proposed considering aggregating the following areas into larger grids
      i. *Shelby Farms, Presidents Island, Pigeon Industrial Park, Memphis Airport, rivers, floodplains, conservation areas, farmland, etc.*
ii. Look at grid sizes along routes that connect urbanized areas for more a smaller scale analysis.

5. Suitability Factors

Mr. Robert Rae discussed the use of suitability factors for the model. Suitability factors provide a rating for how desirable an area is and how attractive an area is for future development, growth or redevelopment.

f. The MPO developed proposed suitability factors based on a hybrid of existing factors as well as best practices from other CommunityViz models from Tennessee and Arkansas.
   i. PLAC was asked to complete a survey to rate the 14 factors for residential, non-residential, and industrial suitability factors.
      1. PLAC members took an online poll to rank the top 5 out of 14 factors that influence residential development the most.
   ii. Comments on suitability factors
      1. Mr. Rusty Bloodworth asked if it is possible to weight parks based on their size/regional significance. –Yes it is
         a. Mr. Bloodworth recommended a 600 foot radius surrounding a park to measure the importance of the park to residential development. He mentioned this 600 foot threshold was based on an MIT study.
      2. Mr. Stephen Edwards asked if the model has the ability for a direct path analysis.
         a. It could, but requires a “network path” file
            i. Currently, the City of Memphis has a network path file, but overall model coverage is questionable
      3. Mr. Rusty Bloodworth recommended we account for crime as a suitability factor?
         a. Yes however, since this model represents future conditions for the area, it was felt that perception of crime is overemphasized in the current model and it may be damaging the effectiveness of the model to account for future growth. May be able to capture the impacts of crime though other factors, such as land value.
            i. Other suggestions were quality of schools, proximity to violent crime, proximity to police and fire stations, and homeownership insurance rates.

6. Next Steps

   a. Complete suitability factor survey
      i. Refine suitability factors and place types
      ii. Draft study design
      iii. Update model
      iv. Conduct allocation
b. Upcoming Meetings
   i. PLAC Meeting #3 – October 9th
   ii. Engineering Technical Committee Work session – October 9th
   iii. Engineering Technical Committee - November 6, 2014
   iv. Transportation Policy Board - November 20, 2014

c. Project Schedule
   i. Land Use Model Completion Date is in late October, 2014.

7. New Business
   d. PLAC – Complete Suitability Factor Survey
   e. KHA/GSP – Refine and review place type attribute data
   f. GSP – Prepare draft Study Design Document for review
   g. KHA – Update model and conduct future allocation

8. Adjourn

NOTE: The meeting minutes are a summary of the meeting. If you would like to review the tape recording of the entire meeting you may do so by scheduling an appointment with Peter Jenkins, Transportation Planner at (901) 576-7156.