

# Travel Demand Model Forecasting Checklist\*

The goal of this checklist is to help promote quality control and consistency for travel demand model forecasting throughout {AREA}. If you have suggestions for additional criteria, please contact the {AGENCY}.

## Travel Model Application Checklist

### 1. Scope of Study

Is the study area identified by the consultant wide enough to cover the area significantly impacted by the project? (If not, recommend that the study area be expanded.)

Are there any other TIP (Five-Year Transportation Improvement Program) projects in the area that need modeling/forecasting information in the near future? (Research the TIPList).

Have you coordinated with other TIP projects in the study area to combine your study efforts? (If not, please coordinate).

Have you checked to see what modeling efforts have been done in the study area in the past? (Please check for traffic studies, or Environmental Impact Statements done for any project in the study area within the last few years).

### 2. {NAME OF MODEL} model assumptions

Has the consultant reviewed the study area land use and network assumptions in the {NAME OF MODEL} model?

\_\_Base year

\_\_Future year

Does the consultant have better information or has the consultant chosen different assumptions than the {AGENCY} model?

If yes:

\_\_Has the consultant reviewed the new information with {AGENCY} staff?

\_\_Has the consultant documented the differences?

\_\_Has the consultant reviewed area TIP assumptions and reached agreement with {AGENCY} staff on the projects and configurations to be included in future scenarios?

### 3. Study area enhancements to {NAME OF MODEL} model

Has the consultant provided better land use/network information or chosen different assumptions than the {NAME OF MODEL} model within the study area? (The consultant needs to expand network detail, review and modify land use as needed, and modify the zone system within study area as needed).

If yes:

\_\_Has the consultant reviewed the new information with {AGENCY} staff?

\_\_Has the consultant documented the differences?

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\_\_Has the consultant reviewed the study area zone system in the {NAME OF MODEL} model, and provided additional zone detail where necessary? (The consultant needs to split zones, distribute land use within new zones, and document their work).

\_\_Has the consultant provided land use comparisons of {NAME OF MODEL} and new study area zones (if any) for validation?

\_\_Has the consultant reviewed the following model network components, but not limited, within area impacting the study area?

\_\_Speeds

\_\_Centroid locations

\_\_Centroid connectors

\_\_Capacities

\_\_Local streets

\_\_Turn penalties

Has the consultant provided a list and a map identifying locations of all changes?

Has the {AGENCY} staff reviewed and agreed with the proposed changes?

Has the consultant reviewed the following assumptions?

\_\_Trip rates

\_\_Special generators

\_\_Has the consultant made any new recommendations?

\_\_Has the consultant reviewed these new recommendations with {AGENCY} staff?

\_\_Has the consultant documented these new recommendations?

Has the consultant made changes to any network attributes which affect modeled travel times?

\_\_Speed

\_\_Capacity

\_\_Volume/Delay functions

\_\_Others (specify)

Has the consultant provided a list and a map identifying locations of all changes?

\_\_If yes, did the consultant rerun the trip distributions? (This includes base year Validation as well as all future year alternatives).

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\_\_ Did the consultant rerun the traffic assignment? (This includes base year Validation as well as all future year alternatives).

\_\_ Has the consultant review resulted in any land use changes and if so, has the trip generation model been rerun?

## 4. Screenline/Cutline Validation

Has the consultant discussed the location of screenlines and cutlines with {AGENCY} Staff before preparing Validation documentation?

Has the consultant discussed with {AGENCY} staff which screenline and cutline results will be acceptable in their final evaluations?

\_\_ Has the {AGENCY} staff agreed with the consultants' recommendations?

\_\_ Has the consultant documented these agreements?

Do the final screenline and cutline results match original expectations?

\_\_ If not, has the consultant documented its evaluation?

Has the consultant provided link-by-link screenline and cutline results and totals?

## 5. Post-processing

Will turn movements be adjusted by link or individual turn movement counts?

Are intersections balanced to match link forecasts?

Will the post-processing ensure consistent forecasts along intersections in the same corridor?

## 6. HOV, Express Lanes or Toll Facilities

Will base assumptions come from {NAME OF MODEL} model or another source?

\_\_ Has the consultant provided any documentation?

How will mode shift impacts be determined for different alternatives?

\_\_ Has the consultant provided any documentation?

## 7. Forecasts beyond the model year

Will the growth factor be calculated by area or by link?

\_\_ Has the consultant discussed this with {AGENCY} staff?

If link based, how will factors be calculated for links that are not in the {NAME OF MODEL} model?

\_\_ Has the consultant provided any documentation?

## 8. Additional comments

Has the consultant provided an overall evaluation of the model and Validation results for reasonableness?

Has the consultant checked to see if results from the new study are consistent with the work done in

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the past in the same study area?

\_\_If the results are different, has the consultant documented the reasons why?

How will the model be used to analyze the impacts of non-capacity related projects?

DRAFT

\*Adapted from the Virginia Department of Transportation Model Checklist from 10.11.2006