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**Central Florida Regional Planning Model**

**Version X.X**

**Model Validation Report**

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**NAME**

****

**Prepared for the**

**Florida Department of Transportation**

**Updated By**

**Firm**

**Address**

**DATE**

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# Introduction

## Version Updates

This section would define what has changed in this version of the model and what has been validated with this edition of the model- outline form.

# Data Validation

## Household and Demographic Validation

* Compare to other census/proprietary data
* Plots of district/county comparisons
* Density comparisons
* Persons/HH
* Vehicles/HH
* Workers/HH

## Employment Validation

* Compare to other census/proprietary data
* Plots of district/county comparisons
* Density comparisons
* Persons/HH
* Vehicles/HH
* Validation of Special attractors data

## Network Validation

* Visual inspection of highway links and transit routes
* Speed/# of lanes
* Validation of highway paths-including graphics comparing model to other data like google, etc

# Trip Generation

## Trip Purpose Comparison

* Percent of Trips In Range to National Numbers/Florida

## Rate Comparisons

* Person trips per household and by purpose/market
* Work Trips Per Employee
* Attractions Per Employee

## Balance of P’s to A’s

* Ratio of P/A
* Plot of P’s and A’s estimated vs observed

# Trip Distribution

* Validation comparison of function parameters
* District to District Summaries
* CTPP comparison for work trips
* TLFD plots and comparisons by region, county or other level
* Document Coincidence Ratios
* Intrazonal Percentage Comparison

# Mode choice

* Comparisons of trips by mode, or mode shares, to observed data by market segment.
* Market segments should include trip purposes as well as demographic segments, such as income or vehicle availability levels, and geographically defined segments.
* Trip Lengths
* District to District Summaries
* Comparison of constants and coefficients including signs
* Access/Egress by market compared to other systems

# Highway Assignment

## Comparison of observed and estimated count volumes

* [Observed vs Estimated Total Volume (All Facilities)](file:///C:/currentlaptop/NC/Gen%202.0/documentation/!Documentation_Official/NCSTMGen2_092315V9.docx#_Toc430964645)
* [Observed vs Estimated Total Volume by Facility Type](file:///C:/currentlaptop/NC/Gen%202.0/documentation/!Documentation_Official/NCSTMGen2_092315V9.docx#_Toc430964646)
* [Observed vs Estimated Total Trucks and by Type](file:///C:/currentlaptop/NC/Gen%202.0/documentation/!Documentation_Official/NCSTMGen2_092315V9.docx#_Toc430964646)
* Screen line volumes
* Cutline volumes
* Corridor volume
* Percent deviation by volume for all and by type
* Maximum deviation plots for screenlines and by facility type
* Outlier analysis

## %RMSE

* Percent RMSE & RMSE statistics calculated by volume group
* Percent RMSE & RMSE statistics calculated for links grouped by facility type.
* Percent RMSE & RMSE statistics calculated for links grouped by area type
* Percent RMSE & RMSE statistics calculated for links grouped by time of day
* Percent RMSE & RMSE statistics calculated for transit assignments by mode

## Visual Validation[[1]](#footnote-1)

* Scatterplots by facility type, area type, region, county, district
  + [Total Volume](#_Toc430964647)
  + S[ingle Unit Trucks](#_Toc430964648)
  + [Multi-Unit Trucks](#_Toc430964649)
  + [Auto](#_Toc430964650)
* [Total Volume Percent Difference](#_Toc430964651)
* Key travel time contours
* Detailed plots of absolute or relative differences between modeled traffic volumes and

observed traffic counts

## Other Validation

* Speed verification
* VHT comparisons
* Average Vehicle occupancy by mode
* VMT by county and facility type using traffic counts
* Modeled VMT versus HPMS data
* VMT/person
* VMT/HH
* VDF comparison
* Correlation Coefficient or Coefficient of Determination

1. Plots should include key components of RMSE, % RMSE, Deviation as shown in 6.1 and 6.3 [↑](#footnote-ref-1)