

**TECHNICAL MEMORANDUM
CHATS MODEL UPDATES**

The Charleston Area Transportation Study (CHATS) model was modified and updated for the Daniel Island EIS. The main modifications to the model were made in order to better account for the impact of freight traffic in the study area roadways.

The main model revisions include the following:

The CHATS roadway network was updated to reflect existing plus committed (E+C) roadways. Several existing ramps and interchanges on I-26 and I-526 not included in the model were added to the network. Using the existing approach and departure patterns (collected in the Origin and Destination study), trip distribution and trip generation were calibrated for those traffic analysis zones (TAZ) representing existing SPA facilities, i.e., Wando Welch, North Charleston, Columbus Street terminals. The traffic assignment for TAZ 504 (Daniel Island Terminal) was revised based on trip distribution patterns observed at the other SPA facilities.

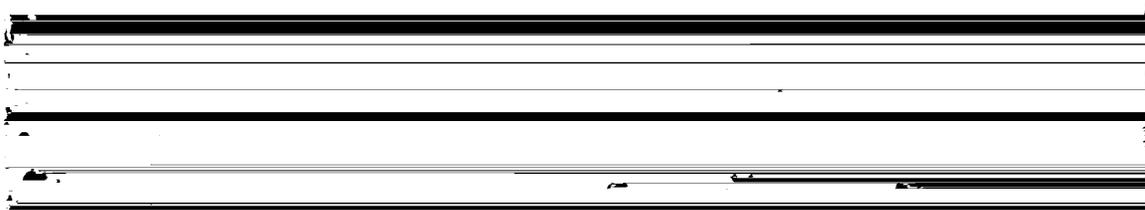
Specific network revisions.

See next sheet

Specific trip generation revisions:

EE and IE trips have been added into the file eeie.txt which must be sorted to eeie.srt (sort <eeie.txt> eeie.srt) and then edited to remove blanks (at the top) and headers (at the bottom) before running the program.

P's and A's have been added to Columbus Street Naval Base, N Charleston, Wando Welch



and Daniels Island terminals to the estimated trip productions/attractions for 2015.

The terminal's trips are traced as trip purposes, as follows, using a selected link procedure added to the tranplan file eq.in.

Node	Terminal	Trip Purposes
504	Daniels Island	2-3

2015 MODEL ADJUSTMENTS

US 17

1. **Links from Spring St. to President, President to Ashley, and Ashley to Rutledge**
Removed all ramps and dual parallel links; changed remaining links from 1-way to 2-way with 3 lanes in each direction.
2. **Ramps at King Street onto US 17**
Redesigned ramps to replicate actual geometry.
3. **US 17 at President Street**
No right turn penalty since there's an existing on-ramp on President Street.
4. **Hanover Ramp onto US 17**
Changed link to 1-way link from 2-way.
5. **Links between Rutledge and Comings**
Broke link to accommodate split in roadway geometry.

I-526

1. **Link before Virginia to Parkside**
Removed dual links, changed 1-way to 2-way and adjusted laneage
2. **Ramps at Virginia Street**
Added on and off ramps to the west of Virginia
3. **Ramps at N. Rhett between Rhett and Parkside**
Revised ramps to depict actual geometry