Transit & Land Use Scenario Visioning: A Values & Placemaking Approach

Clarence Eng, AICP
Design/Planning Principal
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Planning for Transit in Tampa Bay

- Failed to proceed after a FEIS & 2003 FTA Record of Decision
- Top 30+ US metro areas without commuter or light rail systems
  - Tampa & Detroit
- Tampa Bay represents average US demographics
  - Avg HH size: 2.6 (2.5 in US)
  - Median Age: 36.3 (36.2 in US)
  - Senior Pop: 11.5 (12.4 US)
  - 13th largest television market
  - 19th largest population
How do we get from here ...
... to there?
... from passing through ...
... to defining spaces...
... and creating transit supportive places!
...within the existing context !?!
Using an Integrated Land Use & Transportation Approach

1. Define Community Values
2. Visualize the Future
3. Use Innovative Tools

…and think outside the box!
Engage in community scenario planning

- Explore the ‘what ifs’ of a region’s future
  - long term horizon allows for it
- Consider tradeoffs associated different development policy decisions
- Helps to reframe the questions

“We cannot solve our problems with the same thinking we used when we created them.”
Relate their values to the vision

- Values
- Vision
- Strategy
- Plan
- Fund
- Build

What do people want?

How will we provide for it?

How do we implement?
Integrate visualization techniques

- Describe planning issues and illustrate potential solutions
- Better define anticipated outcomes or scenario trade-offs
- Gain understanding of “willingness to pay”
- Support storytelling to define a community vision
Scenario Planning Steps

- **STEP 1: Values Framework**
  - What matters most to the people in your community?
    - Economic development
    - The environment
    - Time with family
    - Others??
  - Translate values into guiding principles and performance measures

“I don’t want my kids to have to leave the area to find good jobs”

“I don’t want to see our countryside eaten up by sprawling development”

“I want to preserve our neighborhood and my existing quality of life”
Scenario Planning Steps

- **STEP 2: Develop Alternatives**
- Create the base or trend future scenario
- **How shall we grow?**
  - Community design exercise
    - What kind of places do we want to see more of?
    - What kind of places do we want to discourage?
- **Where shall we grow?**

Population Density 2025
- < 3
- 4 - 7
- 8 - 10
- 11 - 15
- 16 - 30
- > 30
Hillsborough County was divided into 4 sub-regional corridors (travel sheds) for community transit game.
Community provided information on the relationship between design, development patterns and transit options
Playing the Game

- Locate Existing Landmarks and Activity Centers
  - Place an orange dot where you work, live, shop, and play

- Connect the dots
  - Identify transit corridors
Placed Activity Center Chips
Mobility Elements

- Pedestrian: Optimal Travel Shed: 1/4 mile to 1 mile
- Bicycle: Optimal Travel Shed: 1/4 mile to 15 miles
- Automobile: Optimal Travel Shed: 1/2 mile to 60 miles
Mobility Elements

Light Rail

- Service Area: 1/4 mile to 5 miles
- Station Spacing: 1 mile to 2 miles
- Optimal Transit Shed: 5 miles to 50 miles

Commuter Rail

- Service Area: 1/2 mile to 5 miles
- Station Spacing: 5 miles to 15 miles
- Optimal Transit Shed: 5 miles to 100 miles

Renaissance Planning Group
Transit Scenario Workshop
Exercise Boards Results

Westshore
Downtown
USF
Brandon
Transit Scenario Workshop
Consolidated Results

Westshore
Downtown
USF
Brandon
Plant City

Transit
Neighborhood Center
Town Center
Urban Center

Renaissance Planning Group
Transit Needs & Opportunities
Scenario Planning Steps

- **STEP 3: Evaluate Alternatives**
- Compare tradeoffs
- Highlight relationship between development decisions and transportation choices
- Tie it back to community values
  - Which best supports economic development?
  - Which preserve existing neighborhoods?

**Concept A**
- Miles of transit way: 23 miles
- Number of stations: 26
- % of 2050 population growth projection: 17%
- % of 2050 employment growth projection: 23%

**Concept B**
- Miles of transit way: 54 miles
- Number of stations: 57
- % of 2050 population growth projection: 40%
- % of 2050 employment growth projection: 39%
Scenario Planning Steps

- **STEP 4: Implement preferences**
- If different than ‘trend’ – what needs to change?
  - Define the policy framework
  - Who needs to help implement?
  - Who are the ‘vision keepers’?
Using an Integrated Land Use & Transportation Approach

1. Define Community Values
2. Visualize the Future
3. Use Innovative Models
Scenario Planning using CorPlan Model

- Estimates land development potential
- Place types defined as building blocks
- Used at the site, corridor & regional scales
- Create socio-economic data sets for travel demand modeling

Polygrid

ArcView or ArcMap

Community Element Database (Excel)

Socio / Land Use Summaries

Trip Generation (Excel)

CADD / Sketch-up Files
## Community Elements

### Place Making Elements

<table>
<thead>
<tr>
<th>REGIONAL</th>
<th>COMMUNITY</th>
<th>NEIGHBORHOOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.jpg" alt="Image" /></td>
<td><img src="image2.jpg" alt="Image" /></td>
<td><img src="image3.jpg" alt="Image" /></td>
</tr>
</tbody>
</table>

**Urban Center**
- **Description:** Central hub of the city, featuring retail, residential, and civic facilities.
- **Location:** Midtown, Florida
- **Access:** [Google Maps](https://www.google.com/maps)

**Town Center**
- **Description:** Neighborhood center, providing community services and services.
- **Location:** Central Florida, Florida
- **Access:** [Google Maps](https://www.google.com/maps)

**Neighborhood Center**
- **Description:** Neighborhood hub, offering local services and community activities.
- **Location:** Uptown, Florida
- **Access:** [Google Maps](https://www.google.com/maps)

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**Renaissance Planning Group**
Community Element Sub-Layers

- **Footprints**
  - Buildings, parking lots, parks
  - Around ¼ to 20 acres (2 to 200 grids)

- **Blocks**
  - Street, open space framework
  - Around 4 to 40 acres (40 to 400 grids)

- **Development types**
  - Combination of footprints and blocks
  - 4 to 40 acres (40 to 400 grids)
Transit Scenario

Conservation (Protected acres)

Development Density

Low

High

Trend

Low

High

Transit (System miles)

Legend
- Light Rail
- Commuter Rail
- Complementary Bus
- Streetcar
- Stations
- 2050 Transit Concept Household Total
- Dwelling Units per Acre
  - < 2
  - 2 - 4
  - 4 - 8
  - 8 - 16
  - > 16

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2050 Trend Scenario

Legend:
- Roads
- Rail

2050 Trend Household Total
Dwelling Units per Acre
- < 2
- 2 - 4
- 4 - 8
- 8 - 16
- > 16

Conservation (Protected acres)

Development Density

Transit (System miles)

High

Low

Trend
% of Total Households & Jobs Within Station Areas for 2050

2050 Total
- 34% of Households
- 49% of Jobs can be accommodated within 1 mile of stations

This figure illustrates the percentage of households and jobs projected for 2050 that are served by the Transit Concept for 2050 investment.
## Station Area Density: System Average

<table>
<thead>
<tr>
<th></th>
<th>Within 1/4 Mile of Stations</th>
<th>Within 1/2 Mile of Stations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DUs/ Acre</td>
<td>Jobs/ Acre</td>
</tr>
<tr>
<td>Existing Density</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Projected Trend 2050 Density</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Projected Transit Concept for 2050</td>
<td>11</td>
<td>38</td>
</tr>
<tr>
<td>Future Land Use Capacity</td>
<td>11</td>
<td>54</td>
</tr>
</tbody>
</table>

The capacity of Future Land Use Plans are supportive of Transit Oriented Development.
<table>
<thead>
<tr>
<th>Station Areas</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CENTRAL BUSINESS DISTRICT</strong></td>
<td></td>
</tr>
<tr>
<td>Regional Employment</td>
<td>DENSITY - 60 to 80 DUs/Acre, 420 to 460 Jobs/Acre</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>INTENSITY - 10.0 Floor Area Ratio</td>
</tr>
<tr>
<td>High Intensity Retail</td>
<td>MIX - Residential: 40%, Retail: 20%, Office: 40%</td>
</tr>
<tr>
<td><strong>URBAN REGIONAL</strong></td>
<td></td>
</tr>
<tr>
<td>Office Center</td>
<td>DENSITY - 60 to 80 DUs/Acre, 320 to 360 Jobs/Acre</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>INTENSITY - 8.0 Floor Area Ratio</td>
</tr>
<tr>
<td>High Density Retail</td>
<td>MIX - Residential: 40%, Retail: 10%, Office: 40%</td>
</tr>
<tr>
<td><strong>URBAN COMMUNITY</strong></td>
<td></td>
</tr>
<tr>
<td>Employment Centers</td>
<td>DENSITY - 40 to 60 DUs/Acre, 40 to 80 Jobs/Acre</td>
</tr>
<tr>
<td>Retail</td>
<td>INTENSITY - 4.0 Floor Area Ratio</td>
</tr>
<tr>
<td>High Density Residential</td>
<td>MIX - Residential: 70%, Retail: 10%, Office: 20%</td>
</tr>
<tr>
<td><strong>URBAN NEIGHBORHOOD</strong></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>DENSITY - 30 to 50 DUs/Acre, 5 to 15 Jobs/Acre</td>
</tr>
<tr>
<td>Neighborhood Retail</td>
<td>INTENSITY - 2.0 Floor Area Ratio</td>
</tr>
<tr>
<td>Light Office/Service</td>
<td>MIX - Residential: 95%, Retail: 3%, Office: 2%</td>
</tr>
<tr>
<td>Area</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td><strong>Suburban Regional</strong></td>
<td>Sub-regional Employment</td>
</tr>
<tr>
<td></td>
<td>Multi-family Housing</td>
</tr>
<tr>
<td></td>
<td>Retail</td>
</tr>
<tr>
<td><strong>Suburban Community</strong></td>
<td>Mix of Residential</td>
</tr>
<tr>
<td></td>
<td>Sub-regional Employment</td>
</tr>
<tr>
<td></td>
<td>Retail Commercial</td>
</tr>
<tr>
<td><strong>Suburban Neighborhood</strong></td>
<td>Mixed Residential</td>
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<tr>
<td></td>
<td>Neighborhood Retail</td>
</tr>
<tr>
<td></td>
<td>Light Office/Service</td>
</tr>
<tr>
<td><strong>Special A</strong></td>
<td>Light Industrial</td>
</tr>
<tr>
<td></td>
<td>Office/Service</td>
</tr>
</tbody>
</table>
### Determining Potential Ridership

**“Not enough riders to justify….” (True or False?!?)**

<table>
<thead>
<tr>
<th>Transit Corridor</th>
<th>Potential Ridership (Average Daily Trips)</th>
<th>Potential Ridership/Mile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LIGHT RAIL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Tampa - Westshore/Pinellas County</td>
<td>21,000*</td>
<td>650*</td>
</tr>
<tr>
<td>Brandon - Westchase</td>
<td>24,000</td>
<td>850</td>
</tr>
<tr>
<td>South Tampa - Downtown</td>
<td>8,000</td>
<td>1,100</td>
</tr>
<tr>
<td><strong>COMMUTER RAIL</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lutz - Downtown</td>
<td>8,000</td>
<td>450</td>
</tr>
<tr>
<td>SouthShore - Downtown</td>
<td>8,000</td>
<td>270</td>
</tr>
<tr>
<td>Plant City - Downtown</td>
<td>8,000</td>
<td>300</td>
</tr>
<tr>
<td>Plant City/I-4 - Downtown</td>
<td>3,000</td>
<td>90</td>
</tr>
</tbody>
</table>

*These ridership figures are not inclusive of ridership from Pinellas County.*

**Ridership for light rail and commuter rail are based upon ¼ mile and ½ mile radius potentials respectively.**

***The ridership estimates as noted above were derived by utilizing both quantitative and qualitative methodologies as detailed in the technical appendices. This included a combination of analysis from travel demand estimates in the WCFRPM as well as empirical evidence of ridership levels for transit in other U.S. Cities. The ridership numbers cited represent the highest potential based on optimum land use and urban design considerations in support of transit oriented development patterns.*
Lessons for a Next New Start?

- Build upon momentum of the process and the values identified
- Define the community’s direct benefit from creating places (...and TOD )
- Continue the hard work on the road ahead:
  - Improve travel demand models sensitivity to transit and land use
  - Use data to inform land development policies on desirable urban form
Clarence Eng, AICP
Principal
(813) 254-7741
ceng@citiesthatwork.com