Evaluating Transit-Oriented Development Potential

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Transit’s land use-shaping capability has been an important justification and goal for fixed-guideway transit investment in the United States

– Federal Transit Administration, 2010; Giuliano and Agarwal, 2010; Altshuler and Luberoff, 2003; Cervero, 1984
Studied projects and interviewed planners regarding TOD

Transit planners were consistently *disappointed* in the amount of real estate development occurring near transit projects.
“[TOD assessments] should include *site-specific evaluations* of the effect of these factors, and such evaluations should include knowledgeable real estate development perspectives.”

— Knight and Trygg, 1977, p. 6 [Emphasis added]
Numerous necessary conditions must exist for development to occur and for transit investments to influence real estate development outcomes

– e.g., Knight and Trygg, 1977; Loukaitou-Sideris and Banerjee, 2000; Cervero et al, 2004
"Sweet spot"
The potential for station area real estate development is best understood at a site-specific scale and in a holistic manner

- e.g., Knight and Trygg, 1977; Porter, 1997; Giuliano and Agarwal, 2010
Can TOD analyses be both broad and deep?
“It is anticipated that the [transit] project sponsor at its option would undertake an analysis of the economic conditions in the project corridor, the mechanisms by which the project would improve those conditions, the availability of land in station areas for development and redevelopment, and a pro forma assessment of the feasibility of specific development scenarios to calculate the VMT changes.”

This was part of the inspiration behind...

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## Four Building Types Evaluated in this MapCraft Feasibility Lab

<table>
<thead>
<tr>
<th>Building Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tower</td>
<td>Twenty-three-story poured-in-place concrete tower with “stick-built” townhomes surrounding the base</td>
</tr>
<tr>
<td>4 over 1 Podium</td>
<td>Four-story “stick-built” apartments in a double-loaded “doughnut” structure with a central courtyard over a concrete podium</td>
</tr>
<tr>
<td>Garden Walkups</td>
<td>Three-story, “stick-built” apartments with no elevators</td>
</tr>
<tr>
<td>Single Family Homes</td>
<td>Typical 3,500 square foot suburban “stick-built” homes with ample front, back, and side yards</td>
</tr>
</tbody>
</table>

- **Tower**: ~275 units per acre
- **4 over 1 Podium**: ~175 units per acre
- **Garden Walkups**: ~60 units per acre
- **Single Family Homes**: ~6 units per acre

- One parking stall per unit integrated into the tower structure and
- One parking stall per unit occupying the ground floor beneath the central courtyard
- One parking stall per unit provided in a surface parking lot
- Parking provided in two-car garage and driveway