

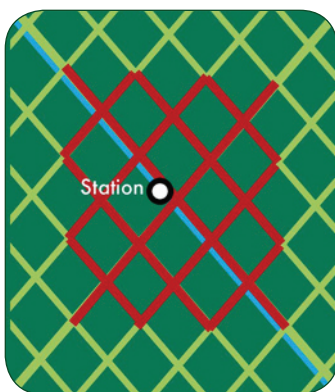
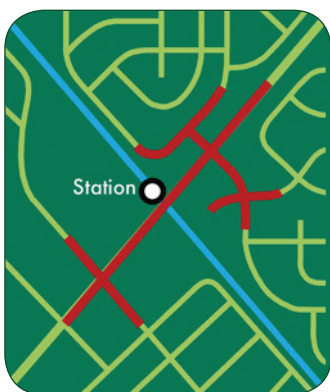


## Direct Transit Ridership Forecasting

*Transit feasibility assessment, TOD planning,  
and station access strategies*

Fehr & Peers has developed techniques to evaluate the transportation effects on investing in different forms of Transit Oriented Development (TOD) and transit station access improvements. Based on experience from BART and other western US rail systems, the analysis tools provide rapid assessments of development plans with combinations of residential, retail and office space, parking, feeder bus service, and bike and pedestrian improvements within a half mile radius of each station. Effects are reported in terms of:

- transit ridership and transit productivity
- proportions of transit access occurring by park-ride, kiss-ride, bus, walk and bike
- station parking demand
- mode shares for TOD households



*Direct Ridership Modeling quantifies relationship between rail ridership and amounts of TOD land use and access accommodations provided. TOD adjacency/ orientation analysis also quantifies effects of parking, feeder transit, walkability, bike accommodations on rider choice of access modes.*



---

# Direct Transit Ridership Forecasting

- **Who needs this?**

**Land Use Planners**

to assess the benefits of different densities and mixes of residential, retail space and office space in TOD planning as well as the effects of different residential products (BMR versus market rate, family-oriented versus smaller units).

**Economists**

for trade-off analysis of the effects of using station land for parking and/or different combinations of land use; also allows assessment of the benefits and impacts of investing in different station access improvements.

**Developers**

to optimize ability to respond to transit agency and jurisdiction policies on transit ridership development and transit access modes; to evaluate cost/benefit of parking and access investments.

**Transit Agencies**

trade-off and cost/benefit analysis of different station-area investment priorities ranging from changing feeder bus service, adding or removing parking, adding pedestrian connections and bike parking to making land available for different forms and mixes of TOD.

**Local Jurisdictions**

to assess ability to support transit service and to assess traffic impacts resulting from station-area development proposals

- **How is it better than what I already have?**

No other evaluation tool provides the ability to evaluate TOD trade-offs accurately and efficiently. Direct Ridership Models offer validated, quick-response analysis of the effects of TOD land use and access options on transit effectiveness and alternate mode use that are superior to conventional methods such as regional travel models, traffic impact analysis as conducted under ITE guidelines, or more advanced methods such as "4D" or Urbemis.

- **Who else is using it?**

BART has used the analysis techniques for developing systemwide station-area investment strategies for existing stations and proposed extensions. Models have also been calibrated for Bay Area commuter rail Caltrain, and light rail systems in Sacramento and Salt Lake City. Similar techniques have been used for screening transit corridor options in the Charlotte, NC and St Louis regions.

