

Table 1. Transit-Supportive Residential Density Thresholds 1.

Type of Transit Service	Residential Density Threshold (Dwelling Unit / Acre)
Local bus (1 bus per hour)	4 - 5
Intermediate bus (1 bus every 30 minutes)	7
Frequent level bus (1 bus every 10 minutes)	15
Light rail (5-min headways or better during peak hour)	9
Rapid Transit (5-min headways or better during peak hour)	12
Commuter Rail (20 trains a day)	1 - 2

Source: Institute of Transportation Engineers 1989

In a report published by the Transportation Research Board (TRB) in 2004 that focuses on transit-oriented developments in the United States, the authors cite the rules of thumb on residential densities concluded by Reid Ewing in his review of 11 TOD design guidelines across the United States. The rules of thumb on residential densities that are found to be transit-supportive are as followed:

Table 2. Transit-Supportive Residential Density Thresholds 2.

Type of Transit Service	Residential Density Threshold (Dwelling Units / Acre)
Basic Bus Services	7
Premium Bus Service	15
Rail Services	20 - 30

Source: Ewing 1996

The density thresholds for bus services in Table 2 are similar to those in Table 1. However, the threshold for rail services in Table 2 is much higher (20-30 dwelling units per acre) than the thresholds for rail services (9 dwelling units per acre for light rail and 12 dwelling units per acre for rapid transit) in Table 1.

Employment Density Thresholds

A workbook on transit-oriented development published by Puget Sound Regional Council (1999) in Seattle presents a research finding that employment densities of 25 jobs per gross acre will support frequent high-capacity transit service if employment is clustered close to the facility and that density of 50 jobs per acre is a preferred target for higher frequency and high-volume service provided by light rail (23-24).

Table 3. Transit-Supportive Employment Density Thresholds 1.

Type of Transit	Minimum Employment Density (Jobs / Acre)
Frequent, High Capacity Transit Service	25 (clustered near transit station)
Light Rail	50 (preferred target)

Source: Puget Sound Regional Council 1999

In “A Guide to Land Use and Public Transportation,” the local bus service threshold for business is approximately 50 to 60 employees per acre in most areas (Snohomish Transportation Authority 1989). Assuming that rapid transit service requires more employment density, I create a rough table of employment density thresholds: