



Expanded Sustainable Development Area Undermines Climate Action

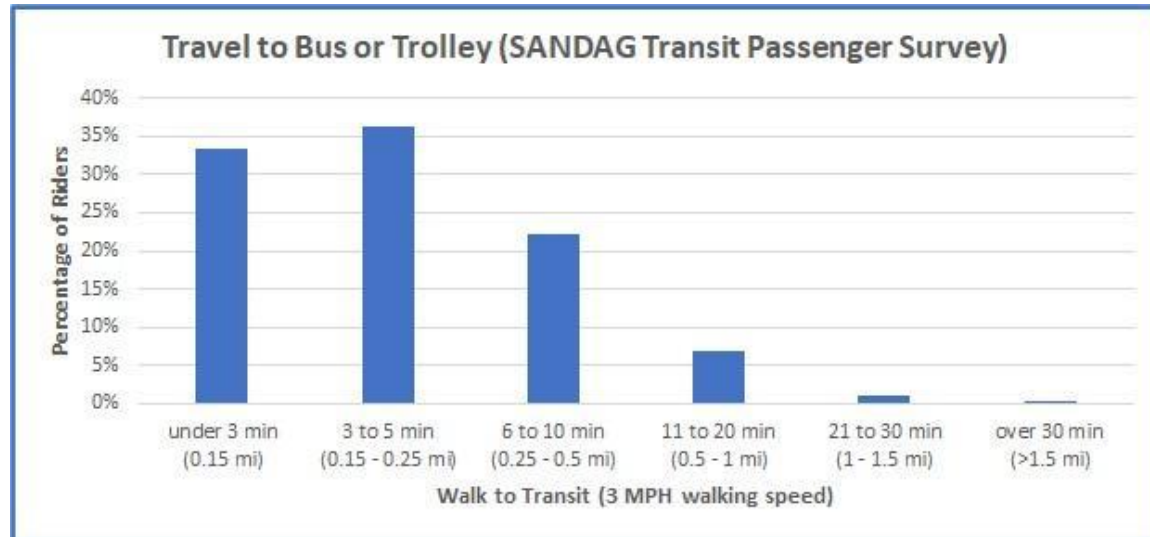
Executive Summary

The implicit assumption underlying the proposed one-mile walking distance in the Sustainable Development Area definition is that, even though transit usage drops off precipitously beyond ½ mile from transit, residents up to a mile from transit are nonetheless transit supportive and provide a marginal additive value to transit usage. The fallacy of this assumption is that it does not take into account the population growth limited environment that San Diego will be facing in the coming decades, which will mirror overall national and global trends towards declining population growth.

The Planning Department's Staff Report did not include an analysis of different options for distance to transit, nor did it examine the policy conflicts between adding housing capacity and addressing climate change. The omission of this analysis is one of the reasons that Neighbors For A Better San Diego is asking the City Council to remove the SDA proposal from the Land Development Code update.

Population Density and Transit Adoption

Most of the debate about the SDA has centered on access and propensity to transit. While the overwhelming evidence from both local (SANDAG and MTS) and national studies is that transit adoption drops precipitously beyond one mile to transit (see SANDAG survey results below), the argument from the Planning Department has been that people can still access transit through non-walking means (e.g., bikes, scooters, etc.), and therefore these are "transit supportive".



There is, however, an important alternative way to evaluate transit-oriented development, which is to look at the overall density effect on transit adoption. This not only takes into account the distance from the starting point of a trip (e.g., a residence), but also what is accessible at the destination of the trip. This consists of two components:

- How far will the person have to walk to their destination (e.g., a workplace)? Studies show that the distance that the person walks at the destination point is as important if not more important than the distance to transit from the starting residence. This is why mixed-use development along or in close proximity to transit corridors is important.
- Do the areas near transit stops support multiple activities? Here, distance is less important than the density itself, particularly the density of shopping, dining, recreation, and other daily activities. Again, mixed-use development at the proper ratio of residential to commercial is critical to making this work, and our urban cores, both in San Diego and other cities give us models for how to make effective, livable density.

To this latter point, the Staff Report references the possibility of making multiple stops between a transit stop and the destination (e.g., stopping to shop or dine between a bus stop and residence or workplace). This certainly captures the potential of effective transit-oriented density, but it should be equally clear that not all directions are the same from the transit stop. In particular, this argument suggests that we should consider a longer distance to transit along a transit corridor (esp. in commercial zones) versus maintaining a shorter distance standard into residential neighborhoods. Separating these zones by distance would resolve the current conflict inherent in the single-distance

standard, whereby over half of all single-family residential parcels are being included the SDA in order to achieve adequate coverage in commercial and other zones.

To quantify the density effect across different major U.S. cities, we looked at data from the Census Bureau's American Community Survey (ACS), specifically the number of commuters who take mass transit to work versus an automobile. We then correlated the ACS results with the population density of each of these cities, as plotted below.



Because different cities have different topographies and job concentrations, there is not a perfect correlation between these two factors, but nonetheless it is clear that the more densely populated a city is, the more likely its residents are to use transit.

Note that San Diego is among the least dense of major U.S. cities and compares to Phoenix, Dallas, and Houston in terms of both population density and transit adoption. This indicates that in planning new housing and commercial development to maximize transit adoption and minimize VMT, we will have the greatest success if we use added population to increase density in focused areas rather than distributing the density across half of San Diego's area as proposed by the current SDA definition.

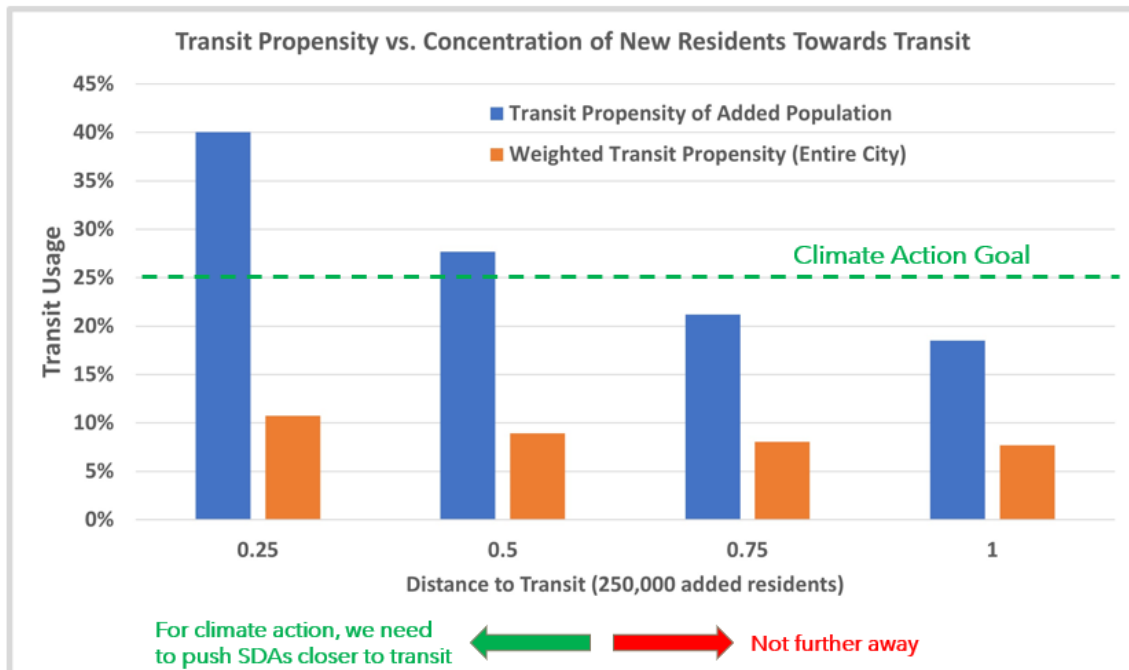
Based on the correlation between density and transit adoption, we can predict the level of transit usage that will result from distributing anticipated added population within different SDA walking distances. The details of this model are shown the table below. This model starts with San Diego's existing population (1,382,000) and commuter transit usage (3.9%). We then overlay the additional 250,000 residents projected by SANDAG's

2050 forecast within the footprint of the SDA. We modeled SDAs based on ¼, ½, ¾, and 1 mile walking distances. The results in the table show the resulting transit usages for each of these SDAs, as well as the combined transit usage for the city as a whole.

		SDA Distance to Transit (mi)			
		0.25	0.5	0.75	1.0
Inside SDA	Area (acres)	10,098	16,306	24,051	29,969
	Base Population	58,550	94,543	139,451	173,766
	Series 14 Forecast	250,000	250,000	250,000	250,000
	Future Population	308,550	344,543	389,451	423,766
	Future Population Density	31	21	16	14
	Transit Propensity of Added Population	40.0%	27.7%	21.2%	18.5%
Outside SDA	Population Outside SDA	1,323,450	1,287,457	1,242,549	1,208,234
	Transit Propensity Outside SDA	3.9%	3.9%	3.9%	3.9%
Combined	Weighted Transit Propensity (Entire City)	10.7%	8.9%	8.0%	7.7%

A key output of the model is that it demonstrates how much more transit usage *DECREASES* as the size of the SDA *INCREASES*, both inside the SDA and for the city overall. Further, the results emphasize how important it is that San Diego concentrate development in order to achieve its ambitious climate action goals. As shown in the graph below, San Diego will only reach its climate action target of 25% within SDAs for distances of one half mile or less. Increasing the SDA distance to a full mile will result in a reduction in transit usage inside SDAs of over 9% relative to one-half mile (18.5% vs. 27.7%). With this overly-expansive SDA and limited population growth, San Diego would likely fail to meet its climate action goal even in the SDA, let alone over the entire city.

As an aside, SANDAG's \$160 billion request for transit infrastructure is based on the assumption that significant changes in transit usage can be driven by a massive buildout of our transit networks. The density model presented here suggests otherwise – we cannot brute force our way to mass transit adoption, we must instead shape and concentrate development so that the density effect will drive transit adoption. Unfortunately, the proposed SDA distance of one mile fails to provide sufficient density to change mobility patterns.



Conclusion

Contrary to the assertion of the Planning Department that extending the SDA to one mile walking distance provides “transit supportive” housing, modeling of San Diego’s limited future population growth demonstrates that increasing the SDA distance actually decreases overall transit adoption citywide. Given San Diego’s ambitious transit adoption goals, it is paramount that we add new housing and residents as close as possible to transit corridors. The proposed one mile SDA distance, which covers an even larger footprint of San Diego than the existing TPA map, will reinforce our existing suburban, automobile-focused mobility patterns and permanently hobble San Diego’s mass transit plans.

Given this, the population and housing that we add can be viewed as an opportunity to create livable density on and near our transit corridors, or conversely to spread development more randomly across our existing automobile focused suburban footprint.