

Active Transportation Study – Task 3 Corridor Segmentation and TAZ Allocation Memo

BACKGROUND

The purpose of corridor segmentation and TAZ allocation is to assess the suitability of the corridor segments, which are the Active Transportation Study (ATS) corridors split up by the ATS zones. Corridors are made up of TAZs, and variables of interest will be analyzed at the TAZ level. After an initial attempt to group parts of the corridors into segments, the project team found that some of the *de facto* corridor segments were problematic, being too small or leaving out essential TAZs.

This methodology provides a detailed record of the steps the ATS team took to assess and modify these corridor segments for suitable analysis of a citywide active transportation network. These segments of corridors within the ATS zones will be analyzed using the evaluation framework developed in Task 4.

METHODOLOGY

Below are four scenarios in which the ATS team deemed modification of segment corridors necessary, and the modifications made as a result. The determinations and modifications were made uniformly across corridor segments. They are split into two types: consolidation of segments and inclusion of TAZs.

Consolidation of Segments

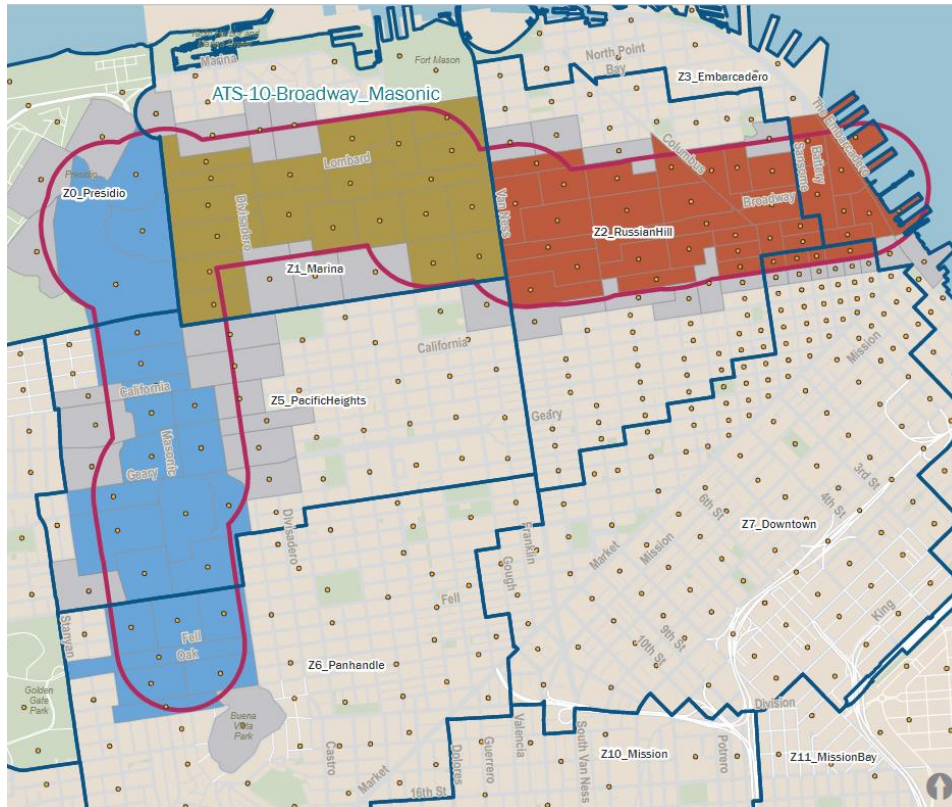
In these situations, the project team reviewed corridor segments which would stand alone based on the original methodology of splitting corridors by zone boundaries and consolidated them with other segments.

Short endings

Some corridors have endings which cross briefly into a new zone, resulting in very short corridor segments which would not provide useful analysis because they would consist of a handful of TAZs. In these cases, the ATS team combined the outlying TAZs into the corridor segment of the immediately adjacent segment. When the endings were on the borderline of being long enough to be their own segment for analysis, they were consolidated with the adjacent segment if that area is already meaningfully captured by another corridor segment.

In Figure 1, the portion of the corridor in Z3_Embarcadero is too short and is already covered by the Embarcadero corridor (ATS 16), so it was consolidated with the segment in Z2_RussianHill. The segment in Z6_Panhandle, while potentially large enough to be analyzed on its own, is sufficiently covered by a different ATS corridor and so was consolidated with the segment in Z5_PacificHeights.

Figure 1. Short Endings

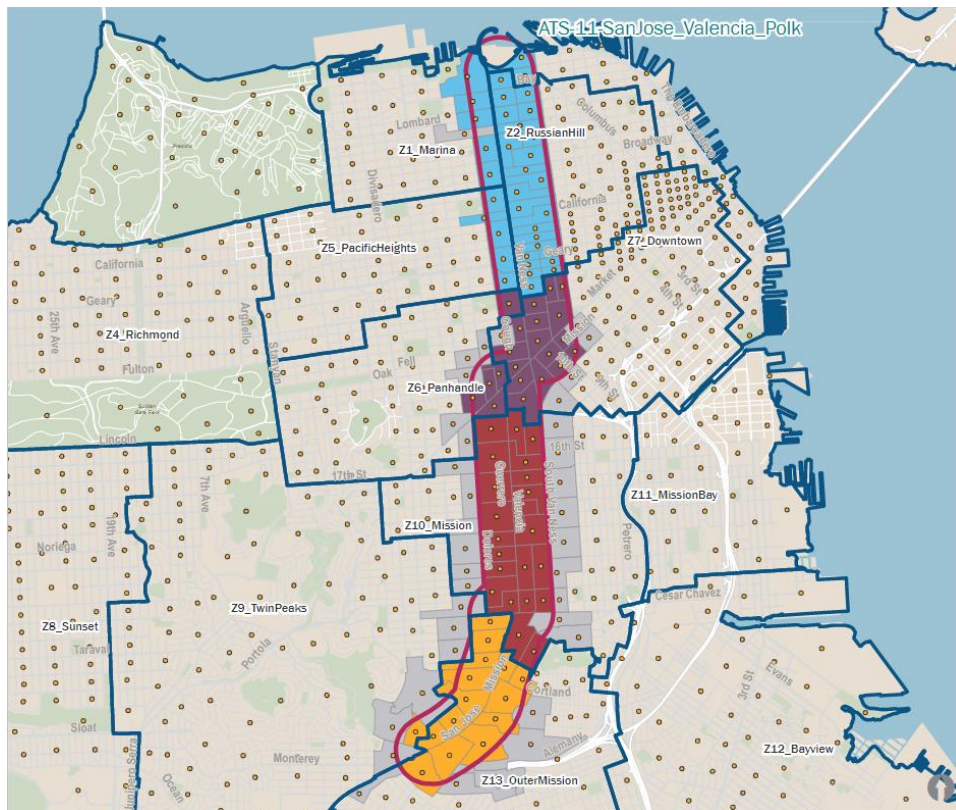


Zone Crossover

Some corridors overlap with a small number of TAZs midway through their length, creating corridor segments which are too small to provide meaningful analysis. In these cases, those TAZs were consolidated with TAZs in an adjacent corridor segment, which results in the most continuous segment. As with above, it is especially considered for consolidation if it is also covered by a different corridor.

In Figure 2 the portion overlapping Z6_Panhandle is too small for independent analysis and is covered by a different ATS corridor. It was consolidated with Z7_Downtown.

Figure 2. Minor Zone Crossover



Inclusion of TAZs

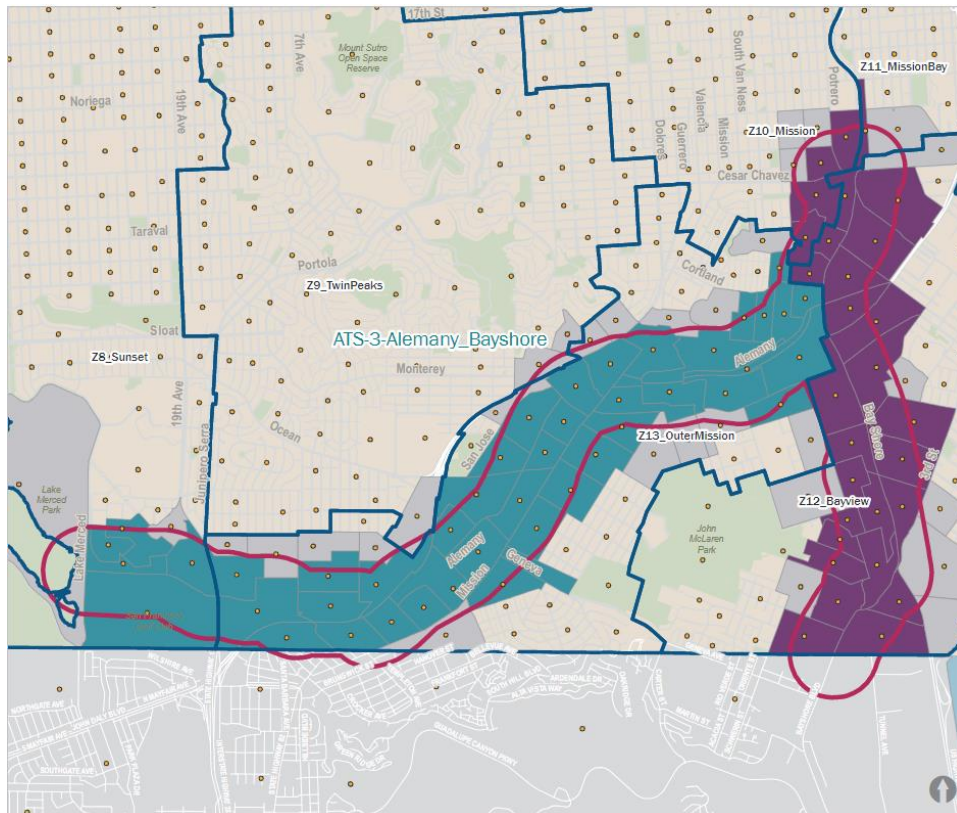
The project team found that there were certain TAZs within the segments that were not captured due to the TAZ inclusion criteria of the TAZ centroid falling within the corridor boundary. Upon closer inspection of the corridor segments, the project team reclassified certain TAZs for inclusion.

Non-Contiguous Segments

Due to the irregular shapes of some TAZs, some corridor boundaries did not capture TAZs which constitute an important portion of the segment. In these cases, we included the TAZ in the corridor segment.

In Figure 3, the top of the corridor segment in Z12_Bayview has a TAZ that extends across the segment, blocking it from the border of Z11_MissionBay. This TAZ was included to capture this border and zone-zone movement.

Figure 3. Non-Contiguous Segments



Inclusion of Significant TAZs

Some TAZs containing important origins and destinations close to corridors were not captured by the TAZ inclusion criteria, but nonetheless remain significant to understanding travel patterns and active transportation movements throughout the city. We included these TAZs to capture their impacts.

In Figure 4, the TAZ containing San Francisco State University is not captured by the buffer. We included it as it is a major origin and destination along this corridor.

Figure 4. Significant TAZs

