TRANSPORTATION IMPACT ANALYSIS GUIDELINES

BICYCLING
MEMO APPENDICES

San Francisco Planning

APPENDIX A

Existing and Proposed Project Figure and Table Examples

Introduction

Appendix A represents typical figures necessary to illustrate bicycling conditions included in a transportation study. All figures should include basic elements (e.g., north arrow, title, legend, references, acronyms, etc.). Symbology should reflect that documents may be printed in black and white. All figures and tables should include all the information the reader would need to understand the information presented. The figures presented below were from previous transportation studies and are illustrative only and may not include all the basic elements

FIGURE 1

Site Plan/Ground Floor Plan

Figure 1 is an example of a site plan that includes a detailed description of existing and proposed on-street loading. When developing a map similar to the one shown, include the linear dimensions of the existing and proposed loading zones, match the color of the zones to those used in the SFMTA Color Curb Program, and make existing and proposed changes explicit.

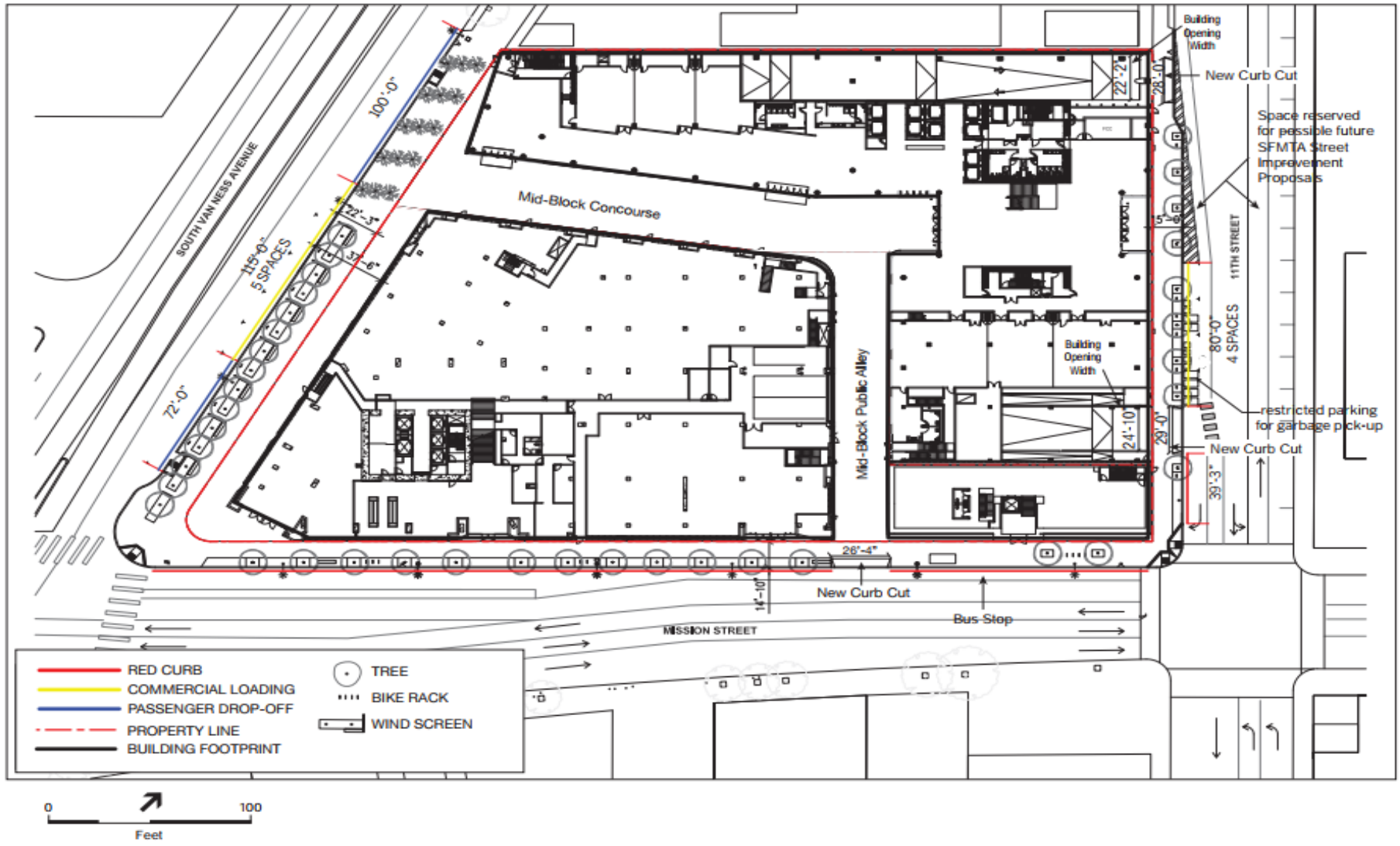


FIGURE 2

Bicycling Circulation

Figure 2 shows a bicycling circulation map, including circulation from surrounding streets and internal circulation.

TABLE 1

Existing Project Site Characteristics

Table 1 below presents typical project characteristics for existing conditions on the project site. The table should include all necessary information to describe the existing conditions (e.g., existing land use types, parking, and loading information). As shown in Table 1, 'x' represents numerical values that would need to be provided and be consistent with project plans.

Existing Project Site Characteristics		Address (Building 1)	Address (Building 2)	TOTAL
Gross Square Footage by Use	Land Use 1	xxx,xxx	xxx,xxx	xxx,xxx
	Land Use 2	xxx,xxx	xxx,xxx	xxx,xxx
	Land Use 3	xxx,xxx	xxx,xxx	xxx,xxx
Residential Unit Mix	Two-bedroom units+	x	x	x
	TOTAL	x	x	x
Affordable Housing Units (by age and/or income level)	Percentage by income level	x	x	x
	Percentage by age	x	x	x
Hotel Rooms	Number of rooms	x	x	x
Entertainment Venues	Number of seats	x	x	x
Schools	Number of students	x	x	x
Freight/Service Loading		Number, location, and dimensions of on-street and/or off-street freight/service loading associated with the uses at this building location	Number, location, and dimensions of on-street and/or off-street freight/service loading associated with the uses at this building location	x
Passenger Loading		Number, location, and dimensions of on-street and/or off-street passenger loading associated with the uses at this building location	Number, location, and dimensions of on-street and/or off-street passenger loading associated with the uses at this building location	x
Bicycle Parking	Number of spaces	x	x	x

Source: xxxxxx

TABLE 2

Proposed Project Characteristics/Project Summary

Table 2 below presents typical project characteristics for proposed project conditions on the site. The table should include all necessary information to describe the proposed project conditions (e.g., proposed land use types, parking (vehicle and bicycle), and loading information). Similar to Table 1, 'x' represents numerical values that would need to be provided and be consistent with project plans.

Project Characteristic		Address (Building 1)	Address (Building 2)	TOTAL
Gross Square Footage by Use	Land Use 1	**XXX,XXX**	**XXX,XXX**	**XXX,XXX**
	Land Use 2	**XXX,XXX**	**XXX,XXX**	**XXX,XXX**
	Land Use 3	**XXX,XXX**	**XXX,XXX**	**XXX,XXX**
Residential Unit Mix	Two-bedroom units+	**X**	**X**	**X**
	TOTAL	**X**	**X**	**X**
Affordable Housing Units (by age and/or income level)	Percentage by income level	**X**	**X**	**X**
	Percentage by age	**X**	**X**	**X**
Hotel Rooms	Number of rooms	**X**	**X**	**X**
Entertainment Venues	Number of seats	**X**	**X**	**X**
Schools	Number of students	**X**	**X**	**X**
Freight/Service Loading		**Number, location, and dimensions of on-street and/or off-street freight/service loading associated with the uses at this building location**	**Number, location, and dimensions of on-street and/or off-street freight/service loading associated with the uses at this building location**	**X**
Passenger Loading		**Number, location, and dimensions of on-street and/or off-street passenger loading associated with the uses at this building location**	**Number, location, and dimensions of on-street and/or off-street passenger loading associated with the uses at this building location**	**X**
Bicycle Parking	Number of spaces	**X**	**X**	**X**

Source: **xxxxxx**

TABLE 3

Peak Hour Counts for People Bicycling at Study Intersections

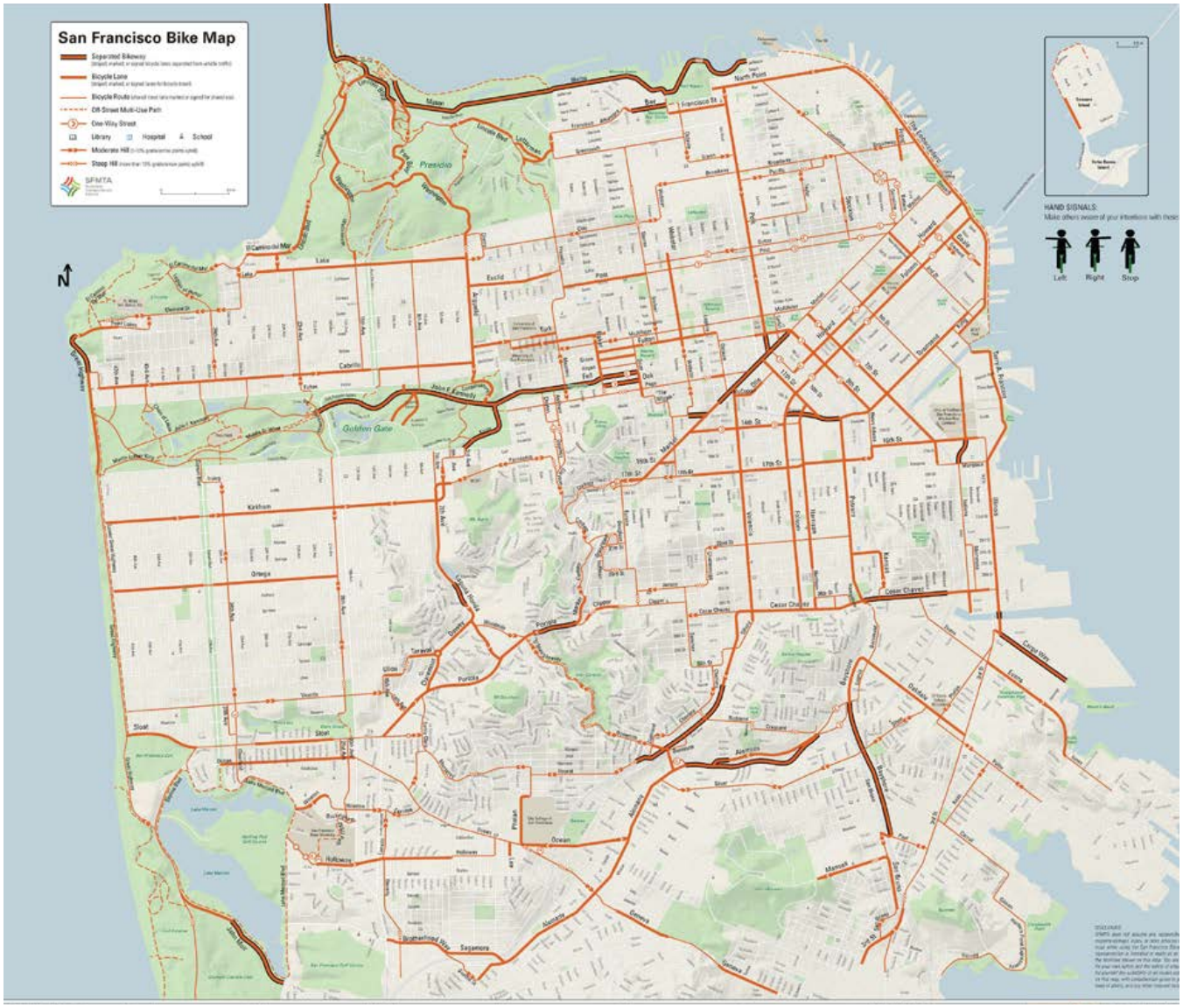
Table 3 below shows the typical format to present counts of people bicycling at all identified project intersections/street segments. 'X' represents the volume of people bicycling that were observed during counts.

Intersection	Intersection Leg Counts at Peak Period (INSERT TIME)				TOTAL
	North	South	East	West	
Intersection 1	x	x	x	x	x
Intersection 2	x	x	x	x	x
Intersection 3	x	x	x	x	x
Intersection 4	x	x	x	x	x

FIGURE 3

Bicycling Network

Figure 3 is an example of mapping the existing network as it relates to people bicycling within a project study area. Inclusion of the bicycle facilities identified in this map near a specific project site would be appropriate in the Existing Baseline section.



APPENDIX B

Mitigation and Improvement Measures

MITIGATION MEASURES FOR LAND USE DEVELOPMENT PROJECTS LOCATED WITHIN AN AREA PLAN

Eastern Neighborhoods Rezoning and Area Plan

Mitigation Measure E-3: Enhanced Funding
As a mitigation measure to adequately address the growth in automobile traffic generated by the Eastern Neighborhoods rezoning, ensure that sufficient operating and capital funding is secured for congestion management programs to make more efficient uses of ramps, streets, and parking, as well as funding to sustain alternative transportation (transit, bicycle, pedestrian) network and programs that provide incentives for drivers to use these modes.

Rincon Hill Plan

No applicable mitigation and improvement measures were identified.

Market and Octavia Neighborhood Plan

No applicable mitigation and improvement measures were identified.

Visitacion Valley Redevelopment Plan

No applicable mitigation and improvement measures were identified.

Balboa Park Station Area Plan

No applicable mitigation and improvement measures were identified.

Treasure Island and Yerba Buena Island Redevelopment Plan

No applicable mitigation and improvement measures were identified.

Glen Park Community Plan

No applicable mitigation and improvement measures were identified.

Transit Center District Plan and Transit Tower

No applicable mitigation and improvement measures were identified.

Western SoMa Community Plan

No applicable mitigation and improvement measures were identified.

Central SoMa Plan

No applicable mitigation and improvement measures were identified.

MITIGATION AND IMPROVEMENT MEASURE EXAMPLES

The following lists the typical types of measures that can mitigate or lessen impacts to people bicycling for each significance criterion:

EXAMPLE 1 Potentially Hazardous Conditions

- Facilitate safe crossings (e.g., stop-controlled intersections, installation of signal heads with countdown timers; installation of audible warning devices, pedestrian safety islands, bicycle-only traffic control devices);
- Establish safe sight distances (e.g., daylighting);
- Widen existing bicycle facilities (or install bicycle facilities where none exist);
- Roadway design changes intended to slow vehicle speeds such as traffic calming measures (e.g., bulb-outs, chicanes, speed humps, tighter turning radii);
- Relocate bicycle facilities away from off-street garage/loading docks;
- Install visible and/or audible warning devices at garage entrances/exits to alert people bicycling and people driving of activity at the garage driveway;
- Provide on-site signage promoting safety for people bicycling (e.g., signage at the garage exit reminding motorists to slow down and yield to people bicycling);
- Coordinate freight and service deliveries to reduce conflicts with people bicycling adjacent to on-site and off-site loading zones; and
- Prevent, monitor, and abate project-generated vehicle queues (see sample language below).
- Signal changes such as reducing signal cycle lengths to less than 90 seconds or leading pedestrian/bicycle intervals.

EXAMPLE 2 Accessibility

- Employ Queue Abatement Measures or pursue design modifications to proposed garage entrances/exits to accommodate queuing vehicles (see next page for Queue Abatement Sample Language)
- Provide adequate (e.g., effective widths, paths of travel) bicycle facilities adjacent to the project site, and/or network improvements such as crosswalks, shorter blocks, mid-block crossings, mid-block alleys, or a pedestrian/bicycle bridge or underpass, between the project site and intersections, adjacent transit stations/stops, and other major destinations.

QUEUE ABATEMENT SAMPLE LANGUAGE

Update the sample language, particularly in the second and third paragraphs, to reflect the conditions at the project site and the characteristics of the project. The language should provide specific proactive measures to prevent queues from taking place, as opposed to mitigating the queue after it occurs.

It will be the responsibility of the owner/operator of any off-street parking facility with more than 20 parking spaces (excluding loading and car-share spaces) to ensure that vehicle queues do not occur regularly on the public right-of-way. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any portion of any public street, alley, or sidewalk for a consecutive period of 3 minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the parking facility will employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the parking facility, the street(s) to which the facility connects, and the associated land uses (if applicable).

Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or on-site queue capacity; employment of parking attendants; installation of LOT FULL signs with active management by parking attendants; use of valet parking or other space-efficient parking techniques; use of off-site parking facilities or shared parking with nearby uses; use of parking occupancy sensors and signage directing drivers to available spaces; TDM strategies such as additional bicycle parking, customer shuttles, delivery services; and/or parking demand management strategies such as parking time limits, paid parking, time-of-day parking surcharge, or validated parking.

If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Planning Department will notify the property owner in writing. Upon request, the owner/operator will hire a qualified transportation consultant to evaluate the conditions at the site for no less than 7 days. The consultant will prepare a monitoring report to be submitted to the Planning Department for review. If the Planning Department determines that a recurring queue does exist, the facility owner/operator will have 90 days from the date of the written determination to abate the recurring queue or conflict.

APPENDIX C

Planning Code Compliance Checklist

Below is a planning code compliance checklist template. Please fill out and include as an appendix to the transportation study.

Project Description: [Briefly describe the proposed project]

Use District: [Include the use district(s)]

Topic	Planning Code Reference	Planning Code Requirement	Proposed Project	Existing Conditions
Vehicle Parking (Off-Street)	§ 151 Residential	One per dwelling unit = 100 spaces	[Add applicable information]	[Add applicable information]
	§ 151 Retail	If occupied floor area < 5,000 sf = 0 spaces	[Add applicable information]	
Car-Share Parking (Off-Street)	§ 166 Residential	50 – 200 dwelling units = 1 space	[Add applicable information]	[Add applicable information]
	§ 166 Retail	0 to 24 parking spaces = 0 Car-Share spaces	[Add applicable information]	
Bicycle Parking (Off-Street)	§ 155.2 Residential (Table 155.2)	One Class 1 per dwelling unit = 100 Class 1 spaces	[Add applicable information]	[Add applicable information]
		One Class 2 per 20 dwelling units = 5 Class 2 spaces	[Add applicable information]	
	§ 155.2 Retail (Table 155.2)	One Class 1 per 7,500 sf of occupied floor area = 0 Class 1 spaces	[Add applicable information]	
		One Class 2 per 750 sf of occupied floor area = 4 Class 2 spaces	[Add applicable information]	
Freight Loading (Off-Street)	§ 152 Residential (Tables 152)	100,001 to 200,000 gsf = 1 space required	[Add applicable information]	[Add applicable information]
	§ 152 Retail (Table 152)	0 – 10,000 gsf = 0 spaces required	[Add applicable information]	
Pedestrian Improvments	§ 138.1 Streetscape and Pedestrian Improvements	[Add applicable information]	[Add applicable information]	[Add applicable information]