III. Circulation

A. INTRODUCTION

The City is striving toward making it convenient for many residents to travel to work, obtain services, shop, recreate, and travel to school without always using single occupant vehicle trips. To support that end the Circulation Element focuses on human mobility such as public transit, bikeways, pedestrian routes, roadways, and parking facilities. The Circulation Element includes goals and policies from the City's adopted Climate Action Plan (CAP) which is an appendix to the General Plan. The CAP identifies the City's transportation objectives for reducing vehicle trips and expanding alternative transit. Strategies in the CAP also include transportation demand management and other programs that foster more sustainable forms of transportation.

The Circulation Element embraces a Complete Streets approach by considering all modes of transportation addressing pedestrian and bicycle master planning, bike parking facilities, and transit improvements. Other critical components of the Circulation Element address the Transportation Fee Ordinance, High Speed Rail, Transit Oriented Development, Transportation Demand Measures, and the establishment of a Transportation Management Association all to reduce vehicle trips, encourage transit use, and promote bicycle and pedestrian accessibility and funding.

The Circulation Element analyzes traffic, transit, bikeway and pedestrian conditions and needed improvements so that existing and projected circulation needs may be adequately met. It is integral to many other portions of the General Plan, particularly the Land Use Element. Traffic congestion and other circulation constraints have been major considerations in determining land use policies which will guide the future development of the community.

B. FUNCTION OF THE ROADWAY SYSTEM

BACKGROUND

San Mateo has a hierarchy of streets which serve different functions. These include freeways, arterials, collectors, local streets and alleyways, as shown on Figure C-1.

Freeways

Freeways route traffic through the community and are characterized by large traffic volumes and high speed travel. There are two freeways in San Mateo: US 101 (Bayshore Freeway) and SR 92 (J. Arthur Younger Freeway). State Route 280 also provides regional access to the community and is located just west of the City's sphere of influence.

The Land Use Element of the General Plan concentrates large-scale commercial development close to freeway ramps so that regional traffic is not routed through the community. The SR 92 corridor, for example, contains several high intensity commercial centers which are suitable for intensification, given their good freeway access and relative isolation from residential neighborhoods.

Arterials

Arterials link residential and commercial districts, and serve shorter through traffic needs. Due to the heavier traffic on arterials, adjacent land uses are intended to be a mix of commercial and multi-family residential, such as along El Camino Real and San Mateo Drive. In San Mateo, however, many arterials are located in single-family neighborhoods. Examples include portions of Hillsdale Boulevard, Norfolk Street, and Alameda de las Pulgas.

Because the primary function of arterials is to move relatively high volumes of traffic, interruptions to traffic flow caused by turning movements at driveways and intersections should ideally be minimized. In San Mateo, however, established patterns of development have created driveways along most arterials. While the Land Use Element retains established single-family neighborhoods along many arterials, it is expected that increased traffic on these roadways will occur.

Collectors

Collector streets link neighborhoods to arterials and are not intended for through traffic, but are nonetheless intended to move traffic in an efficient manner. Collectors should not form a continuous system, so that they are not used as convenient substitutes to arterials. In San Mateo, as drivers avoid congested thoroughfares, traffic diversion onto collectors has increasingly impacted neighborhoods close to such major arterials as El Camino Real and Hillsdale Boulevard.

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Local Streets

Local streets are designed to serve only adjacent land uses and are intended to protect residents from through traffic impacts. New multi-family residential and commercial development should not have primary access on local streets, except where there is no feasible alternative.

Typical traffic capacities for local streets and the other roadway types in San Mateo are listed in the following table:

TABLE C-1
TYPICAL SAN MATEO ROADWAY CHARACTERISTICS

Roadway Type	Number of Lanes	No. of Daily Vehicles
Freeway	6-10	120,000 – 250,000
Arterial	2-6	10,000 – 50,000
Collector	2-4	1,000 – 10,000
Local	2	500 - 1,000

GOALS AND POLICIES

GOAL 1: Design and regulate use of city streets according to their classification and intended function as shown in Figure C-1.

POLICIES

C 1.1: **Minimize Traffic Diversion.** Discourage non-local and commercial traffic from using local and collector residential streets through land use restrictions and traffic control devices, where appropriate. Design existing arterial roadways to minimize the diversion of traffic onto local residential streets.

It is intended that residential neighborhoods be protected from the impacts of traffic diversion onto local and collector streets from the more heavily traveled roadways. This can be accomplished by ensuring, where feasible, adequate capacity of arterials, regulating the direction of traffic flow, and/or through placement of cul-de-sacs, ovals or islands or some other delineation device to avoid convenient substitute routes.

C 1.2: **Minimize Curb Cuts On Arterial Streets**. Discourage creation of new curb cuts on arterial streets to access new development. Take advantage of opportunities to combine driveways and reduce the number of existing curb cuts on arterial streets.

C 1.3: **Protect Local Streets**. Minimize the impact of new development on local streets. When warranted, construct improvements on local streets consistent with the City's Neighborhood Traffic Management Program.

Arterial streets are intended to carry the highest level of traffic within the City. Proper functioning of the arterial street system minimizes potential impacts on local streets. Curb cuts cause friction to the traffic stream and can reduce the capacity of arterial streets. Reducing the number of curb cuts on arterial streets will result in better traffic performance of the arterial street and can help prevent diversion of traffic onto local streets. This may result in some increase in traffic on some local street segments. This impact should be reduced by thoughtful placement of project driveways and, when appropriate, implementation of local street improvements consistent with the City's Neighborhood Traffic Management Program.

The General Plan ensures that arterials and collectors provide access to the higher intensity commercial and residential districts. It is intended that local streets in single-family districts be protected from the adverse impacts associated with traffic generated by either higher intensity development or changing travel patterns. Individual project design should minimize traffic impacts by considering the direction of access in the placement of driveways. In neighborhoods where the existing or future impacts of motor vehicle traffic are severe, NTMP measures may be used. The process for determining the application of NTMP measures is described in the City's adopted Neighborhood Traffic Management Program.

C 1.4: **Neighborhood Traffic Management**. Manage traffic and speeds on arterials, collector and local streets using techniques specified in the City's Neighborhood Traffic Management Program (NTMP).

C 1.5: **Restrict Truck Traffic.** Restrict the use of city streets by trucks not serving businesses within San Mateo as designated by City ordinance and the adopted Truck Route Program.

Trucks adversely affect traffic flow and roadway capacity. The noise, vibrations and exhaust fumes generated by trucks also create nuisance problems for residential neighborhoods. To minimize these impacts, truck through traffic is restricted to the freeways and truck routes designated by City ordinance and the adopted Truck Route Study and Policy document. These routes provide efficient through circulation and truck access to the major commercial areas in the community.

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C. EXISTING TRAFFIC CONDITIONS

BACKGROUND

Levels of Service

Traffic volumes are measured in terms of Average Daily Traffic (ADT) and peak hour volumes. The AM peak hour generally occurs sometime between 7:00 and 9:00 AM, and the PM peak hour between 4:00 and 6:00 PM. It is during these periods that the most congested traffic conditions occur on an average day.

Street capacity is restricted primarily by intersections, which can provide limited flow to each intersection approach. The adopted methodology for determining levels of service is the average intersection delay, which is calculated by summing the average delay for vehicles in each lane for all intersection approaches. The average delay ratings are divided into six "Levels of Service" (LOS), A through F, representing conditions ranging from free-flow with little or no delay (LOS A) to extreme traffic congestion with excessive delay (LOS F), Table C-2. When the average delay reaches 80.0 seconds, the intersection is "at capacity" and theoretically can not accommodate additional traffic. This condition is described as Level of Service F.

Trends and Conditions

Because of its location in the Bay Area, San Mateo is a focal point for traffic. The City is at the crossroads of two major freeways, is centrally located between San Francisco and Santa Clara County's "Silicon Valley", and has direct access to the East Bay and coast via SR 92. As a result, heavy traffic conditions characterize most arterials and the two highways in San Mateo. Average Daily Traffic rates for US 101, SR 92 and El Camino Real are shown in Table C-3.

Increased traffic in San Mateo has been noticeable in recent years. This has been evident on the freeways where traffic volumes have increased on US 101 and SR 92 between 0.4% and 5.2% from 2000 and 2005 as shown on Table C-3. This increase in traffic is due to growth on the Peninsula in general and a regional imbalance of where people live and work. However, traffic on El Camino Real (south of SR 92) decreased 35.5% between 2000 and 2005 as shown in Table C-3. This is mostly attributable to improvements to the roadway network that redistributed traffic to other areas of the city. The most significant improvements have been near the 3rd & 4th avenues interchange with US 101 and at the Hillsdale/US 101 interchange which have most likely have led to an increase in usage of US 101 relative to El Camino Real.

San Mateo has a substantial employment base of its own, causing significant commute traffic into the City in the morning and away from the City in the evening. The College of San Mateo contributes to congestion on SR 92, particularly in the morning. Both westbound and eastbound congestion occurs on SR 92 during the evening as commuters travel to the coast, connect with I-280, or return to the East Bay. Congestion on US 101 occurs during both morning and evening peak periods.

TABLE C-2
DESCRIPTION OF LEVELS OF SERVICE FOR INTERSECTIONS

Level of Service	Description	Average Control Delay Per Vehicle (Sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	Less than 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C rations. Many vehicles stop and individual cycle failures are noticeable	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	Greater 80.0

Source: Transportation Research Board, Highway Capacity Manual 2000 (Washington, D.C. 2000) p. 10-16

TABLE C-3
AVERAGE DAILY TRAFFIC (ADT) VOLUMES (1995 – 2005)

Location	ADT Vehicles		
	1995	2000	2005
US 101 (north of East Third Avenue)	239,000	251,000	256,751
US 101 (north of Hillsdale Boulevard)	227,000	244,000	245,007
SR 92 (east of US 101)	124,000	143,000	150,429
SR 92 (west of US 101)	99,000	113,000	117,639
El Camino Real (SR 82) [north of Crystal Springs Road]	28,000	30,500	30,497
El Camino Real (SR 82) [south of SR 92]	49,500	45,000	29,026

Source: Caltrans Traffic Volume Reports for 1995 and 2000

Local streets in the downtown area have experienced moderate increases in traffic resulting in continued congestion at several intersections. Average daily traffic increases on major arterials such as El Camino Real (north of Crystal Springs) have remained the same between 2000 and 2005 as shown on Table C-3.

In 2030, the majority of the signalized intersections will continue to operate at acceptable levels of service (mid D LOS with an average delay of less than 45 seconds). However, the following three intersections will exceed the established level of service standard with anticipated levels of development:

- Delaware Street and 19th Avenue
- Grant Street and 19th Avenue
- El Camino Real and Crystal Springs Road

Improvements are recommended to maintain acceptable levels of service at these subject intersections. Improvements to the intersection at El Camino Real and Crystal Springs Road include widening the curb lane to allow a right turn movement onto Crystal Springs Road from El Camino Real (southbound). Restriping is called for at the intersections of Grant Street and 19th Avenue and Delaware and 19th Avenue. Diagrams of planned improvements at these three intersections are shown in the Traffic Mitigation Report.

Peak period Levels of Service for this and other intersections are shown in Table C-4. The year 2005 is used as a basis for evaluation. The City's traffic model is based on population and employment data derived from the Association of Bay Area Governments (ABAG). This is consistent with the traffic model used by the San Mateo City/County Association of Governments (C/CAG) as part of its Congestion Management Plan.

D. FUTURE TRAFFIC CONDITIONS

BACKGROUND

Traffic Model

Year 2030 traffic volumes were determined by the San Mateo travel demand model, which is the transportation planning tool used to estimate future travel demand. It is essentially a mathematical model developed to simulate observed travel patterns. A travel demand model requires many inputs, primarily the transportation network and the land use characteristics of an area. The model estimates how many trips people make, where the trips are coming from and going to, which mode of transportation (auto, transit) people use, and which roads or transit lines people use to get from their origin to their destination.

The transportation system is represented by a computerized network of lines, links, and nodes. The land use data, based on the Association of Bay Area Governments (ABAG) projections and Census data, describe the activities for a specific area, which attract and produce traffic. Traffic is assigned to the transportation network based on many factors including: auto availability, travel time, travel cost, and transit accessibility. Initially, the model estimates traffic for a 3-hour time period during commute hours. The 3-hour volumes are used for comparison and are then factored into one-hour turning movements. Turning movements at intersections are the least accurate of the model outputs. Nevertheless, many studies require the evaluation of future levels of service at key intersections. In order to increase the reliability of future turning movement estimates, adjustments are made based on the actual count data and the performance in the base year. This calibration/validation process ensures that the model replicates observed travel patterns.

Regional Growth and Related Traffic

The travel demand model has shown that the recent increases in regional traffic will continue in the future. In the mid-county region, most growth will be concentrated in Foster City, Redwood City, and San Mateo. An even balance of jobs and employed residents in the City is projected to continue until 2030. The County as a whole, however, is expected to have many more new jobs compared to new resident workers, which may mean that there will be more commuting into the area or that economic growth will slow below projections due to lack of employees to fill the projected jobs.

The San Mateo traffic model shows that regional growth will result in a 12% increase between the 2005 and the 2030 levels of daily traffic on freeways that pass through San Mateo, including US 101 and SR 92. The traffic increase is partially due to development along the Route 101 corridor, which will occur despite current levels of congestion. The result will be longer periods of congestion. Auxiliary lane projects on Route 101 and 92 are programmed by 2030 throughout San Mateo County, which translates into some added highway capacity in the future.

Local Traffic

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According to the model, increases in traffic on most San Mateo streets are expected to be up 15% by the year 2030. Generally, streets that will be congested in the future are currently congested, or are located close to planned development. Future congestion, especially on El Camino Real, will be attributable to a combination of new traffic and existing problems. Additionally, while increased traffic on El Camino Real is partly due to the projected increase in jobs and households within the City of San Mateo, it is also attributable to diverted traffic from Route 92 and Route 101 due to congestion on the freeways.

Table C-4 compares the 2030 levels of service to 2005 conditions and identifies intersections with unacceptable Levels of Service. The Traffic Mitigation Report prepared by Hexagon Transportation Consultants, Inc. includes discussion of the recommended improvements to improve the operating conditions of these intersections. These improvements include street extensions, freeway widening, and upgrade of several intersections, including added turning lanes, restriping and signalization.

TABLE C-4
YEAR 2005 AND GENERAL PLAN 2030

Signalized Intersection Peak-Hour Levels of Service

		Year 2005 Conditions				Year 2030 Conditions			
		AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr	
#	Signalized Intersections	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
1	B Street and 1st Avenue	9.3	A	9.0	A	9.2	A	8.8	A
2	El Camino Real and 2nd Avenue	12.1	B	15.6	B	1.3	A	11.2	B
3	B Street and 2nd Avenue	10.6	B	11.8	B	10.7	B	8.7	A
4	San Mateo Drive and 2nd Avenue	11.5	B	12.3	B	8.4	A	8.2	A
5	Ellsworth Avenue & 2nd Avenue	10.9	B	12.2	B	9.6	A	10.5	B
6	B Street and 3rd Avenue	9.6	A	12.7	B	11.5	B	17.4	B
7	Delaware and 3rd Avenue	22.0	C	25.4	C	31.0	C	31.6	C
8	El Camino Real and 3rd Avenue	24.5	C	22.5	C	27.0	C	27.3	C
9	Ellsworth Avenue & Third Avenue	11.3	B	14.9	B	15.9	B	22.9	C
10	Humboldt Street & Third Avenue	20.9	C	23.3	C	14.1	B	13.0	B
11	Norfolk Street and 3rd Avenue	36.1	D	34.9	C	36.3	D	34.1	C
12	San Mateo Drive and 3rd Avenue	12.2	B	14.3	B	16.1	B	20.7	C
13	Mariners Island and 3rd Avenue	11.2	B	13.4	B	12.1	B	10.5	B
14	B Street and 4th Avenue	11.7	B	14.2	B	14.0	B	16.4	B
15	Delaware Street and 4th Avenue	17.2	B	22.9	C	23.0	C	39.9	D
16	El Camino Real and 4th Avenue	17.1	B	19.3	B	16.0	B	37.0	D
17	Humboldt and 4th	19.0	B	19.1	B	30.8	C	28.6	C
18	San Mateo Drive and 4th Avenue	12.5	B	15.1	B	12.5	B	20.9	C
19	B Street & Fifth	12.1	B	13.9	B	14.7	B	16.0	B
20	Delaware & Fifth	10.2	B	13.2	B	12.8	B	28.8	C
21	San Mateo & Fifth	10.0	A	10.6	B	9.7	A	11.4	B
22	Delaware Street & Ninth Avenue	9.6	A	11.1	B	10.6	B	14.9	B
23	El Camino Real and 17th-Bovet	19.3	B	22.8	C	16.2	B	20.2	C
24	Delaware Street and 19th Avenue	23.5	C	27.3	C	29.1	C	50.3	D
25	Grant Street and 19th Avenue	23.8	C	21.8	C	47.7	D	35.5	D
26	Alameda De Las Pulgas and 20th Avenue	18.1	B	18.6	B	17.6	B	18.9	B
27	El Camino Real and 20th Avenue	25.5	C	29.5	C	26.2	C	30.1	C
28	Delaware Street and 25th Avenue	10.5	B	10.4	B	9.8	A	11.1	B
29	El Camino Real and 25th Avenue	23.1	C	24.8	C	21.8	C	22.2	C
30	El Camino Real and 28th Avenue	8.1	A	9.0	A	23.0	C	23.3	C
31	El Camino Real and 31st Avenue	23.3	C	20.2	C	24.7	C	21.9	C
32	El Camino Real and 41st Avenue	6.7	A	6.3	A	6.4	A	6.4	A
33	El Camino Real and 42nd Avenue	21.7	C	26.3	C	17.2	B	25.2	C
34	Pacific Blvd. and 42nd Avenue	20.6	C	24.0	C	18.3	B	28.4	C
35	El Camino Real and Barneson Avenue	7.5	A	6.9	A	8.8	A	7.0	A

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TABLE C-4 (continued)
YEAR 2005 AND GENERAL PLAN 2030

Signalized Intersection Peak-Hour Levels of Service

		Year 2005 Conditions				Year 2030 Conditions			
		AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr	
#	Signalized Intersections	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
36	Campus Drive and Hillsdale Blvd.	9.9	A	12.2	B	10.0	A	12.5	B
37	Delaware Street and Concar Avenue	29.5	C	35.6	D	27.6	C	42.3	D
38	Grant Street and Concar Avenue	19.9	B	22.0	C	16.9	B	20.7	C
39	SR 92 WB Ramps and Concar Avenue	10.5	B	10.8	B	18.9	B	16.4	B
40	El Camino Real at Crystal Springs	20.4	C	14.2	B	59.5	E	21.7	C
41	Delaware Street and Peninsula Avenue	9.1	A	9.7	A	9.6	A	9.7	A
42	Delaware Street and Poplar Avenue	27.3	C	27.1	C	30.0	C	28.0	C
43	El Camino Real and Hillsdale Interchange	37.3	D	40.1	D	41.5	D	38.5	D
44	El Camino Real and Peninsula Avenue/Park	13.7	B	16.7	B	10.0	B	17.8	B
45	El Camino Real and Poplar Avenue	15.8	B	15.0	B	23.4	C	14.9	B
46	El Camino Real and Tilton Avenue	11.6	B	10.4	B	11.2	B	9.9	A
47	Mariners Island and Fashion Island	18.3	B	20.7	C	18.8	B	20.1	C
48	Norfolk Street and Fashion Island	23.1	C	30.7	C	33.3	C	34.8	C
49	SB US 101 and Fashion Island	22.0	C	20.9	C	20.8	C	17.6	B
50	Norfolk Street and Hillsdale Blvd.	35.7	D	34.1	C	36.7	D	34.8	C
51	Saratoga Drive and Hillsdale Blvd.	31.7	C	33.1	C	33.0	C	33.9	C
52	Humboldt Street and Peninsula Avenue	10.5	B	10.3	B	7.6	A	9.3	A
53	Humboldt Street and Poplar Avenue	11.7	B	11.7	B	13.6	B	12.7	B
54	San Mateo Drive and Peninsula Avenue	14.1	B	13.9	B	14.1	B	16.1	B
55	San Mateo Drive and Poplar Avenue	12.2	B	12.3	B	12.4	B	11.7	B
56	Delaware Street and Saratoga Avenue	15.7	B	19.4	B	18.4	B	20.1	C
57	Saratoga Avenue and Franklin Pkwy.	10.4	B	4.6	A	19.0	B	12.8	B
58	NB 101 and Hillsdale Blvd.	21.2	C	23.7	C	25.9	C	25.9	C
59	SB 101 and Hillsdale Blvd.	4.1	A	15.4	B	6.1	A	17.0	B
60	Baker Way and Fashion Island	14.4	B	18.6	B	12.2	B	18.9	B

= denotes unacceptable LOS according to city of San Mateo LOS Policy
Note: Year 2030 Conditions include improvements currently under construction

E. ROADWAY IMPROVEMENTS

BACKGROUND

The planned roadway improvements needed to reduce existing traffic problems and to accommodate the development anticipated by the General Plan are discussed in detail in the City's Traffic Mitigation Report prepared by Hexagon Transportation Consultants, Inc.

Target Level of Service

The anticipated growth planned for by the General Plan would result in substantial degradation of traffic conditions at several intersections, if not mitigated. The intent of the Traffic Mitigation Report is threefold: to solve existing congestion problems, to maintain existing traffic conditions where they are good, particularly on residential streets, and to reduce the impacts of anticipated growth.

Only feasible traffic improvements are included in the Report. Determination of "feasibility" involved a number of factors: physical constraints (i.e., right-of-way need versus availability), cost (including construction and right-of-way), and net benefit (the additional roadway capacity gained versus cost, loss of on-street parking, and the impact on neighbors).

GOALS AND POLICIES

GOAL 2: Maintain a street and highway system which accommodates future growth while maintaining acceptable levels of service.

POLICIES

C 2.1: **Acceptable Levels of Service.** Maintain a Level of Service no worse than mid LOS D, average delay of 45.0 seconds, as the acceptable Level of Service for all intersections within the City.

C 2.2: **Traffic Improvement Master Plan.** Maintain a master plan for street system improvements necessary to accommodate future growth and maintain acceptable levels of service. Intended improvements within the time frame of the Plan are listed in Appendix D, and may be updated by Resolution of the City Council consistent with Policy C-2.1.

C 2.3: **Roadway Improvement Implementation.** Enact fiscal policies to provide that the roadway improvements listed in Appendix D are funded and accomplished throughout the timeframe of the General Plan to achieve the Level of Service standards set forth in Policy C-2.1

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A peak hour Level of Service mid-D, average delay of 45 seconds, is the desirable "worst case" Level of Service for intersections. This is generally considered acceptable for peak period operations under urban traffic conditions such as those in San Mateo. It represents "tolerable" delay in which a motorist would expect to typically wait through one and possibly a maximum of two signal cycles.

The Traffic Mitigation Report prepared by Hexagon Transportation Consultants, Inc. summarizes the anticipated street system improvements that would occur within the time horizon of the General Plan. There are only limited opportunities for new roadway facilities in the heavily built-up areas of San Mateo. In most cases, the assumed intersection improvement would result in an average delay of 45 seconds or better; however, in some cases a situation worse than the desirable target Level of Service is expected due to physical constraints making full mitigation infeasible. In these areas, a combination of techniques should be employed to minimize further traffic congestion, including constraining the permitted scale of development in the vicinity of the congestion problem and requiring the implementation of a Transportation Demand Management Program as a condition of development project approval.

It is intended by the General Plan that all the roadway improvements listed in Appendix D be implemented within the timeframe of the Plan, with the possible exception of improvements indicated as needing further study.

C 2.4: **Transportation Fee Ordinance.** Require new developments to pay for on-site improvements to meet the needs of development and their proportionate share of the costs for mitigating cumulative traffic impacts within the City of San Mateo. Utilize a Transportation Fee Ordinance to finance necessary off-site improvements equitably. The off-site improvements will include intersection and street improvements to maintain intersection levels of service, traffic safety improvements and improvements to reduce single occupant vehicle trips such as bicycle system enhancements, pedestrian improvements, and trip reduction measures.

It is clear that future development in San Mateo will cause added burden on the transportation system. The revenue generated by a traffic impact fee will offset the cost of roadway improvements which are needed as a result of this development. San Mateo has adopted an Impact Fee Ordinance which establishes a per unit fee amount on new commercial and residential development. This fee structure and amount is derived from the Land Use Plan and the related road improvements needed to achieve an "acceptable" Level of Service established by the Plan. The fee reflects only the incremental increase in demand placed on the circulation system by new development projects and is not imposed retroactively on existing land uses.

The revenues derived from the fee offset only a small portion of the total costs of roadway improvements, and will be used primarily to pay for the less substantial mitigations. The percentage varies depending on the improvement, please see Table 2-1 in the Traffic Mitigation Report (Appendix D), which shows actual percentages. To make up the deficit, a development project may be required to pay the full cost of off-site traffic improvements through the

environmental assessment process, in addition to paying the impact fee, with a possible provision for reimbursement by the City.

C 2.5: **Traffic Studies.** Require site-specific traffic studies for development projects where there may be a substantial impact on the local street system. Traffic impacts caused by a development project are considered to be unacceptable and warrant mitigation if the addition of project traffic results in a cumulative intersection level of service exceeding the acceptable level established in Policy C-2.1; where there may be safety hazards created; or where there may be other substantial impacts on the circulation system.

The traffic model does not identify all site specific impacts. To ensure that adequate traffic capacity is maintained and project related impacts are identified a traffic impact study is required of all public and private development projects for which an environmental assessment is prepared and where there is the potential for traffic impact. This study should include a traffic flow analysis to determine trip generation and the distribution and assignment of traffic resulting from the proposed project. A development project may be denied or the project may be required to be revised based on the degree of traffic impacts created relative to the acceptable Level of Service established by Policy C-2.1, resultant circulation hazards, or other substantial impacts on the circulation system.

C 2.6: **Prioritization and Timing of Roadway Improvements.** Roadway improvements shall be periodically prioritized to be correlated with the distribution and pace of development, and to reflect the degree of need for mitigation.

C 2.7: **Exceeding the Acceptable Level of Service.** In addition to paying the transportation impact fee, a development project may be required to fund off-site circulation improvements which are needed as a result of project generated traffic, if:

a. The level of service at the intersection drops below mid-level LOS D (average delay of more than 45 seconds) when the project traffic is added, and

b. An intersection that operates below its level of service standard under the base year conditions experiences an increase in delay of four or more seconds, and

c. The needed improvement of the intersection(s) is not funded in the applicable five-year City Capital Improvement Program from the date of application approval.

The cost of the off-site improvements may be reimbursed by the City if a reimbursement program is established throughout the timeframe of the Traffic Mitigation Report or at the time when the improvement was initially scheduled.

Roadway improvements will be prioritized by the City Public Works Department and phased over the timeframe of the General Plan based on the degree of need and availability of funds. It is intended that the Traffic Mitigation Report be periodically reviewed and updated to reflect changes in growth projections and traffic conditions.

Situations may arise where the traffic of a proposed development project would result in an intersection Level of Service in excess of what is determined to be acceptable, and the improvement of the intersection is not scheduled for years to come. If the impact is significant, the City may require the development project to wait until the roadway improvements are made or require the developer to pay the cost of needed off-site improvements with a provision for City reimbursement throughout the timeframe of the Plan or at the time when the improvement was initially scheduled.

C 2.8: **Traffic Signal Installation.** A development project may be required to fund signalization of off-site unsignalized intersections if warranted as a result of project generated traffic. In addition, existing conditions may warrant signalization of unsignalized intersections. A warrant analysis to determine the need for signalization shall include consideration of both existing and projected traffic and pedestrian volumes, traffic delays and interruptions, accident history, and proximity of sensitive land uses, such as schools.

The installation of properly located traffic signals will provide for the orderly movement of traffic, increase the capacity of the intersection, reduce frequency of accidents, can allow for continuous movement along a given route, and permit minor street traffic to enter and cross major streets in a safe and continuous manner. Improper or unwarranted signal installation may cause excessive delay, increased accident frequency, circuitous travel along alternate routes and disobedience of signal indications.

The need for traffic signals will be measured by acceptable traffic engineering standards, such as the Federal Highway Administration Manual on Uniform Traffic Control Devices for traffic signal standards. Where appropriate traffic signal warrants are met, the City may require installation of a traffic signal after consideration of impacts on surrounding land uses and the need for coordination with other existing and planned intersection improvements.

C 2.9: **Dedication of Needed Right-of-Way for Roadway Improvements.** Require dedication of needed rights-of-way for roadway improvements shown in Appendix D, which are deficient in land area. Dedication shall be required where the development project contributes to the need for the roadway improvement and where the cost of dedication is not so disproportionate to the size of the project or traffic generated to make it unreasonable.

In some cases, adequate public right-of-way is not available to accomplish necessary roadway improvements. The City will need to purchase right-of-way or require its dedication as a condition of development project approval. Dedication is required where a development project creates the need for the roadway improvement and where the required mitigation is reasonable (i.e., where the

severance impact on the property is not excessive to the degree that it is greater than the benefit to the street system).

C 2.10: **Transportation Demand Management (TDM).** Participate in the TDM Program as outlined by the San Mateo City/County Association of Governments (C/CAG). Encourage TDM measures as a condition of approval for development projects, which are anticipated to cause substantial traffic impacts. C/CAG requires the preparation of a TDM program for all new development that would add 100 peak hour trips or more to the regional road network.

To minimize traffic congestion, a comprehensive program is needed that provides mitigation to solve traffic problems. The City of San Mateo, which is almost built-out, offers limited opportunities for physical improvements on the roadway network. In cases where it is impractical or prohibitively expensive to increase the physical capacity of the street, the demand on the roadway system must be reduced.

The Transportation Demand Management (TDM) program involves measures designed to change travel behavior so that the number of vehicles on the roadway system during peak traffic periods is reduced. The program provides a basis for crediting project trips based on specific trip reduction measures for a variety of land uses such as retail, office, and residential. TDM programs can involve a number of measures, including: Ridesharing, Work Pattern Changes, Transit and Bicycle Use, Shuttles, Telecommuting, and Preferential Parking Controls. TDM measures for residential development also may include development of schools and/or community facilities in new subdivisions, creation of housing within one-quarter mile of rail stations, and transportation kiosks.

C 2.11: **Transportation Demand Management (TDM) in Rail Corridor Transit-Oriented Development Plan (Corridor Plan).** Establish and implement a TDM program consistent with the Corridor Plan policy and program requirements for development within Transit-Oriented Development (TOD) areas designated by the Corridor Plan, as well as for all properties within the Hillsdale Station Area Plan.

C 2.12: **Transportation Demand Management (TDM) in Downtown.** Establish and implement a TDM program, a Transportation Management Association (TMA), and other measures to reduce vehicle trips and encourage transit use and promote bicycle and pedestrian accessibility for development within one-half mile of the Downtown transit center.

F. TRANSIT

BACKGROUND

Transit service is provided by the Peninsula Corridor Joint Powers Board (Caltrain) and the San Mateo County Transit District (SamTrans). Both extend service throughout San Mateo County and into adjoining San Francisco and Santa Clara Counties. ParaTransit services are provided Redi-Wheels Program of SamTrans and private taxi companies.

Future congestion of San Mateo roadways will necessitate a fundamental shift away from automobile travel to transit services. This will especially be true for peak period commute travel as the region's highways become increasingly clogged by motorists. In 2000, transit played a modest role in the circulation system. However, in comparison to many other cities throughout California, San Mateo has a higher percentage of transit riders. According to the 2000 Census, approximately 6.2% of the San Mateo workforce used public transit to commute to work, which is slightly higher than the 5.1% of Californians on average. Generally, cities in the San Francisco Bay Area have higher percentages of commuters using public transit. Even though a significant percentage of workers in San Mateo use public transit, the public transit system is somewhat limited in its service.

Bus & Shuttle Service

Shuttle services are a key way to provide feeder service as well as local circulation. SamTrans and Caltrain shuttle services are complementary and integrated, not duplicative. Several SamTrans routes operate in San Mateo with major transfer points located at the downtown San Mateo Caltrain Station in the northern portion of the City and El Camino Real and Hillsdale Boulevard in the southern portion (See Figure C-4). Express lines operate daily into San Francisco during the morning and return in the evening. Most of the local routes are located in the midsection of town, extending in a north/south direction on arterials such as El Camino Real, Alameda de las Pulgas, Delaware Street, and Norfolk Street. Service is also provided on Hillsdale Boulevard, Highway 92, Parrott Drive and Polhemus Road to the outlying east/west regions. The Climate Action Plan includes policies to increase bus ridership within San Mateo and to neighboring communities.

Free commuter shuttles are available at the Hillsdale Caltrain Stations, and within the Bridgepointe business area. These commuter shuttles are funded through grants and City and employer participation. The shuttle service operates during commute hours between transit stations and major employment areas. The Norfolk Area Shuttle serves the areas in the vicinity of SR-92 between Delaware Street and Norfolk Street. The Campus Drive Area Shuttle operates between the Hillsdale Station and the Campus Drive office development. The Mariners' Island Area Shuttle operates from the Hillsdale Station, serving a business park off Saratoga Drive before continuing to serve participating businesses in Foster City near SR-92. This shuttle stops along Mariners Island Boulevard, adjacent to the Bridgepointe Shopping Center in San Mateo. The North Foster City Shuttle also serves employers in the area of the Bridgepointe Shopping Center in addition to

other Foster City area employers. It transports riders to the Millbrae Station for BART and Caltrain rail access.

Rail Service

The 2008 progress report for Caltrain indicates for the third year in a row, the commuter railroad posted record-breaking ridership and recorded the highest annual ridership in the railroad's 145-year history.

In Fiscal Year 2008, Caltrain carried nearly 12 million riders, up 8.6 percent from the previous year. Revenue was $40.1 million, up 15.1 percent from FY07. Some new riders were seeking relief from high gas prices, but some were attracted to Caltrain's Baby Bullet express service. Since the service was introduced in 2004, ridership has increased 48 percent. The 100-year old railroad bridges that cross Tilton Avenue, Monte Diablo and Santa Inez streets and Poplar Avenue in San Mateo will be replaced to meet current seismic standards. In addition, the bridge that crosses Poplar Avenue will be raised to improve access to the neighborhood for emergency vehicles, such as fire trucks. New retaining walls will be built along the right of way to support the track embankments. The abutments, which hold up the bridges, will be retrofitted and finally, the bridges themselves will be replaced. The project will begin in summer 2009 and take approximately one year to complete.

Caltrain plans to electrify the railroad by 2021. Not only will electrification reduce emissions, it also will allow Caltrain to offer more frequent service; however, the overhead contact system of poles and wires would result in changes that would increase visual clutter in some locations and be perceived as negative by some residents and business occupants. In which case, the City encourages the use of headspans to lighten overhead elements in sensitive areas. Additionally, the City will coordinate with Caltrain to ensure aesthetic treatments of overhead poles and wires throughout San Mateo.

Other transit projects that serve or will serve the City of San Mateo include High Speed Rail, Dunbarton Rail and AC Transit regional express service.

GOALS AND POLICIES

GOAL 3: Support the provision of public transit services adequate to provide a viable alternative to automobile travel for all citizens and to provide a convenient means of transportation to the "transit dependent" population.

POLICIES

C 3.1: **Increase Bus Ridership.** Strongly promote increased bus ridership and improved accessibility to bus transit by encouraging SamTrans to implement the following bus service improvements:

a. Evaluate the need to provide service in areas exceeding a quarter mile from local routes and designated bus stops, as shown on Figure C-4.

b. Evaluate the need for improved bus service in high concentration employment centers, including: Downtown, Mariner's Island, Peninsula Office Park, Crossroads, and the Corridor Plan area among others as shown in the Land Use Element, Figure LU-2 (Employment Locations). Evaluate the need to improve bus service to the College of San Mateo, between schools and recreation facilities, and to special events.

c. Promote increased usage of the Park-N-Ride lot at the US 101 and SR 92 Interchange.

d. Promote increased bus ridership through an expanded Public Information Program such as at train stations, public institutions, and through TDM.

e. Recognize the importance of complementary land uses, such as higher-density, compact development with pedestrian-friendly environments, to especially justify increasing levels of transit service.

Most of the City's area is within a quarter mile of bus routes; however, there is substantially less accessibility to designated bus stops. It is SamTrans' policy to restrict passenger boarding and alighting to designated bus stops.

Bus service limitations are also in scheduling. Local and express service is generally provided up until 7 p.m., resulting in a lack of nighttime bus service for several areas of the City. Late night service occurs on El Camino Real and Delaware Street. Local bus service to the train stations is limited to standard commuter times, allowing little schedule flexibility in bus/train transfer.

SamTrans operates express bus service at the US 101/SR 92 Park-n-Ride lot, which was developed in 1987. The lot, which is substantially underutilized, contains approximately 150 parking stalls, with an expansion potential of 150 more stalls.

SamTrans' marketing and promotional effort has included: a school outreach program, market studies for employee complexes, expansion of signage, targeted promotions for special events such as the County Fair, 49er football games, media usage, and efforts to increase employer purchase centers for passes, among other activities. It is intended that the City work closely with SamTrans to achieve an optimal level of bus service in San Mateo and to ensure that adequate transit information is made available to the community.

C 3.2: **Caltrain.** Continue the City's strong support of Caltrain as an essential element of the overall circulation system on the Peninsula and in the City. Support the following rail service improvements:

a. Continue to work with the Joint Powers Board which locally manages and oversees improvement plans for Caltrain.

b. Increased service during non-commute periods and increase system capacity.

c. Development of a Downtown San Francisco terminal within the vicinity of the Transbay Terminal or Financial District to improve commute service and linkage to other regional transit systems.

d. Expenditure of Measure A (1/2-cent sales tax) funds and other available funds for grade crossing improvements at existing at grade crossings and where existing grade separations have inadequate vertical clearance above the crossing street.

e. Caltrain Public Shuttle Programs.

f. Caltrain's Project 2025 future vision includes three major phases of development: state of good repair, electrification enhancements and post-electrification enhancements. All three phases of the program will provide increased frequency of service to San Mateo and Peninsula residents and commuters.

The importance of Caltrain is evident in light of the projected traffic increases and limited expansion potential of US 101, the major north/south transportation corridor that parallels the rail line on the Peninsula.

Increased Caltrain ridership is limited by a number of factors: the lack of a convenient downtown terminal in San Francisco, insufficient parking at train stations, limited bus/train transfer, and schedule limitations, including the number of daily trains and the times of operation and lack of connecting bicycle pathways.

A Joint Powers Board (JPB) between the local transit operators and San Francisco, San Mateo and Santa Clara Counties has been formed to facilitate coordinated transit management, public acquisition of the railroad right-of-way which was owned by Southern Pacific Transportation Company, and transition of Caltrain to a transit system capable of providing frequent service, comparable to BART. Public acquisition of the railroad right-of-way operations corridor was completed on December 27, 1991. Transfer of individual train station site ownership is presently being pursued by the JPB.

There are three Caltrain stations in San Mateo: Downtown, Hayward Park, and Hillsdale. The San Mateo Travel Model shows that the majority of passengers drive alone to the stations and park

their cars. The Climate Action Plan identifies the City's strategies to expand shuttle ridership and reduce single-occupant commute trips to Caltrain, along with policies to support overall increase in Caltrain ridership. Three public shuttles operated by the regional Commute Alliance operate in San Mateo, transporting riders from the Hillsdale Caltrain station to employment centers in the community. In 2013, these shuttles served approximately 72,000 riders annually during morning and afternoon commute times.

Improvement of San Mateo train stations is considered a key element in increasing local transit usage. This should include parking lot expansion and improved bus and shuttle access.
The Downtown Station is sited at 2 North B Street, north of First Avenue. Parking for the station is provided on the State-owned commuter lot located to the north of First Avenue and containing approximately 175 stalls.

C 3.3: **Hayward Park Station.** Improve pedestrian and vehicular access to the station. Redevelop the surrounding area with mixed-use and transit-oriented development.

The Hayward Park Station is sited on the east side of the railroad tracks just north of Concar Drive. Parking for commuters is provided by a 130-stall parking lot accessible from Concar Drive, west of Delaware Street. Access to the Station from the west of the tracks is limited due to the lack of a grade separated crossing. Presently, the station is located behind a commercial building, which does not offer pedestrian friendly access from Delaware Street. Redevelopment of the surrounding area into a transit-oriented community will provide improved pedestrian access to the station. Ideally, pedestrian and bicycle access should also be provided to Trinta Park located to the southwest of the Hayward Park Station.

C 3.4: **Hillsdale Station.** In conjunction with Caltrain, relocate the Hillsdale Station northward to a new location in the vicinity of between 28th Avenue and 31st Avenue, allow parking lot expansion and new parking garages, improve vehicular circulation and pedestrian access, and facilitate direct on-site bus/train transfer. Establish a circulation system for Hillsdale Station that will safely meet the needs of the station as a major transit hub and heart of a transit village, and will efficiently accommodate the many modes of transit it will serve. Also, incorporate the concepts of transit-oriented development into the designs of the areas surrounding the station such as mixed-use development, pedestrian friendly design, and a variety of housing within walking distance, consistent with the guidance of the City's Climate Action Plan. Use the Transit Center Program in the Hillsdale Station Area Plan as a starting point for station design. If necessary, consider the 31st Avenue Alternative Program, which makes use of a more limited number of parcels for the first stage of development and is found in Appendix B to the Hillsdale Station Area Plan.

The Hillsdale Station is the most heavily used station in San Mateo and provides transit access to several major destination points: Hillsdale Shopping Mall, Bay Meadows Phase II Specific Plan transit-oriented development, and the San Mateo County Events Center. It is located on the west

side of the tracks at El Camino Real, north of Hillsdale Boulevard. Four commuter parking lots are available, totaling approximately 497 parking stalls.

The planned relocation of the Hillsdale Station consists of installing a raised platform on an aerial viaduct, which will provide safer access and easier transfers to buses and shuttles. Improved vehicular access will also be an important component of the relocated station. The transit center will include a new parking garage along El Camino Real near 31st Avenue, with approximately 636 parking spaces. In Phase II of the Transit Center Program, a second parking garage on South Delaware Street in the Bay Meadows Phase II project area will be developed, with approximately 500 parking spaces. Future development near the station should be designed to take maximum advantage of the proximity to transit.

Because Caltrain is predominantly at-grade, local circulation is impeded where crossings do not exist and during times when crossing gates are closed. The majority of track crossings exist in the northern section of the City and in the Downtown. Only four crossings, SR 92, Hillsdale Boulevard, 25th Avenue and Laurie Meadows Drive/42nd Avenue are located south of Ninth Avenue to the Belmont border -- a length of approximately three miles.

C 3.5: **Grade Separation of Rail Line.** Promote the elimination of existing at grade crossings to improve local circulation and safety.

C 3.6: **Below Grade Rail Line.** Depress the rail line through the downtown with street crossings remaining at grade as Caltrain service is increased and high speed rail through the corridor is implemented. Depressing the rail line in downtown should include examination of a tunnel alternative and potential use of air rights.

C 3.7: **San Mateo Rail Corridor Transit-Oriented Development Plan (Corridor Plan).** Improve east-west access via new grade-separated rail crossings at 28th and 31st Avenues.

Only seven of the total 18 rail crossings in San Mateo are grade-separated, four of which are scheduled to be replaced to meet current seismic standards due to disrepair and inadequate vertical clearance. These improvements are scheduled for the summer of 2009 and include the Poplar, Tilton, Monte Diablo and Santa Inez bridges. Problems have resulted from the at-grade system. During peak hours, the train causes a backup on nearby streets. Grade separation of the rail line would allow unobstructed street circulation and improved traffic and pedestrian safety.

The key purpose of grade separations is to improve local traffic circulation and safety. The San Mateo County Transportation Authority's 2004 Measure A Expenditure Plan provides a list of candidate projects for new or upgraded grade separations. Implementation of this policy also supports transportation demand management strategies in the City's Climate Action Plan.

The Peninsula Corridor Joint Powers Board is preparing Footprint Studies for the Hillsdale and Downtown rail corridors. Slight raising of the alignment in the vicinity of the proposed 31st Avenue grade separation will facilitate relocation of the existing station north to between 28th and 31st Avenues and will avoid requiring realignment of El Camino Real. While a range of

alternatives are being considered for the rail alignment through downtown San Mateo, the City has established its preference for a depressed alignment that would avoid impacts to the existing street system and would reduce access to adjacent properties.

C 3.8: **Child Care Facilities Adjacent to Public Transit Stations.** Consider including child care space in, or adjacent to, public transit stations/hubs.

C 3.9: **Child Care Traffic Mitigation Credit**. Promote traffic mitigation credit for child care space in large developments.

For most working parents who use child care outside their homes, the commute to work is impacted by the location of child care. Locating child care along major transit routes and in or adjacent to transit stations, such as in the redevelopment and/or relocation of the city's three Caltrain stations, can reduce the miles driven and even enable parents to use public transit.

G. BICYCLE AND PEDESTRIAN

BACKGROUND

San Mateo Bikeways System

Bicycling has steadily been gaining in popularity in recent years as a recreational activity and a sustainable means of transportation. San Mateo is well suited for bicycling due to its pleasant climate, relatively flat terrain, close spatial distribution of services, and varied scenic amenities.

The City and County are responsible for planning, constructing, and maintaining the bikeways system.

The Bikeways System is shown on Figure C-5. The system generally provides good access to the more important bicycle destination areas. This includes access within a few blocks of all schools, parks, and train stations, and direct access to the three high schools and the College of San Mateo.

The proposed bikeway improvements shown on Figure C-5 constitute recommendations for improvements to the existing system. The actual design and type of these type of facilities may be altered due to physical constraints identified in the field. Priorities for improvements are indicated in policy C4.1: Bicycle Master Plan, which also calls for coordination with the Countywide bikeways system.

A major inadequacy with the system is the high reliance on bicycle routes on major streets to provide critical linkages. Bike routes consist merely of signs which guide the cyclist and caution the motorist that there is a higher likelihood of bicycles being present. Bicycle lanes and paths provide semi-exclusive and fully exclusive "right-of-way" to the cyclist. Lanes and paths are safer and more enjoyable to cyclists, but their development is more costly and difficult due to the extra space needed.

San Mateo Pedestrian System

Ideally, services such as jobs, schools, shopping and recreation facilities are within walking distance of where people in the community live. Generally, San Mateo has a good distribution of these services relative to residential neighborhoods. The distribution of retail centers includes ten neighborhood shopping areas, two regional centers, the Central Business District and the El Camino Real commercial strip. Sixty-five percent of all San Mateo households are within walking distance of at least one of these retail centers.

Households east of the Bayshore Freeway have the best pedestrian access to recreation facilities. Households in the northwest and southwest portions of the City have the poorest pedestrian access to these facilities. It is the intent of the City to improve pedestrian accessibility to recreation facilities in neighborhoods where it is most limited. (See the Open Space, Conservation, and Recreation Element for discussion of the parks distribution).

Adopted by City Council on October 18, 2010, Resolution No. 134-2010
Amended by the City Council on April 18, 2011, Resolution No. 42 (2011)
Amended by the City Council on April 16, 2012, Resolution No. 56 (2012)
Amended by the City Council on April 6, 2015, Resolution No. 36 (2015)
Amended by the City Council on April 6, 2020, Resolution No. 31 (2020)

GOALS AND POLICIES

GOAL 4: Maintain a comprehensive bicycle and pedestrian circulation network which provides safe recreation opportunities and an alternative to automobile travel.

POLICIES

C 4.1: **Bicycle Master Plan.** Implement the Bicycle Master Plan's recommended programs and projects to create and maintain a fully-connected safe and logical bikeways system; support the City's Sustainable Transportation Actions; and coordinate with the countywide system.

It is the City's intent to have a bicycling system that makes it convenient and safe for residents to travel to work, obtain services, shop, recreate, and get to school on their bicycles.
Physical barriers such as US 101 and the rail corridor impede circulation on the bikeways system in some areas. General linkage improvements are needed to some schools, major office parks, and recreational areas, such as Sugarloaf Mountain, Crystal Springs Reservoir, and Shoreline Park.

East/west access over US 101 is limited and considered potentially dangerous in areas due to high speeds and volumes of traffic, necessary ramp crossings, and minimal area for exclusive bicycle/pedestrian travel. Critical links include the Peninsula Avenue, Monte Diablo Avenue, Third Avenue and Hillsdale Boulevard crossings.

North/south bikeways access in the Hillsdale area, east of El Camino Real, is lacking. The future roadway system within the Bay Meadows II redevelopment site will become critical links of the Bikeways System.

C 4.2: **Bicycle Facilities on Transit.** Encourage additional bicycle capacity on Caltrain and SamTrans (especially to the College of San Mateo). Provide an adequate supply of secure covered bicycle parking at the Caltrain stations.

SamTrans and Caltrain provide limited facilities for the transport of bicycles. Bicycle racks on buses would encourage more bicycle use between the hilly and lowlands areas. The Caltrain Bike Parking and Access Plan includes improvements and innovative ideas to address the demand for bikes on board the trains.

C 4.3: **Dedication of Needed Right-of-Way for Bikeways.** Require dedication of necessary rights-of-way for bike lanes and paths shown on Figure C-5, which are deficient in land area. Dedication shall be required where the development project contributes to the need for the bikeways improvement and where the cost of dedication is not so disproportionate to the size of the project to make it unreasonable.

In some cases, adequate right-of-way is not available to accomplish intended bikeways improvements. The City will need to purchase right-of-way or require its dedication as a condition

of development project approval. Dedication is required where a development project creates the need for the bikeways improvement and where the mitigation is reasonable (i.e., where the severance impact on the property is not excessive to the degree that it is greater than the benefit to the bikeways system).

C 4.4: **Pedestrian Master Plan.** Implement the Pedestrian Master Plan's recommended programs and projects to create and maintain a walkable environment in San Mateo and support the City's Sustainable Transportation Actions.

C 4.5: **Pedestrian Enhancements with New Development.** Continue to require as a condition of development project approval the provision of sidewalks and wheelchair ramps where lacking and the repair or replacement of damaged sidewalks. Require that utility poles, signs, street lights, and street landscaping on sidewalks be placed and maintained to permit wheelchair access and pedestrian use. Increase awareness of existing trails and routes by promoting these amenities to residents.

C 4.6: **Wheelchair Access and Pedestrian Accessibility.** Continue to assess and improve wheelchair access throughout the City. Install wheelchair ramps or take other corrective measures where most needed in accordance with the established Citywide Wheelchair Program.

C 4.7: **Pedestrian Safety.** Pedestrian safety shall be made a priority in the design of intersection and other roadway improvements.

It is the City's policy to require the installation of curb, gutter, sidewalk and wheelchair curb ramps as a condition of project approval for all applicable development proposals. With the exception of areas within the San Mateo Park neighborhood and isolated cases throughout the community, sidewalks are provided citywide. Wheelchair access, however, is restricted in many areas due to the past placement of utility poles, street lights, signs, and street landscaping within the sidewalk area. All public projects are designed to be wheelchair accessible, and requests from the public to install wheelchair ramps at specific locations are responded to by the City, where feasible. These ramps are also beneficial for use by adults with strollers and the elderly.

As development occurs in San Mateo, traffic increases cumulatively. When an intersection exceeds the adopted level of service standard, intersection improvements are recommended. To provide an increase in capacity at an intersection, additional lanes may be added at the intersection's approach. This may have a negative impact on bicycle and pedestrian mobility through the intersection. The City should value and consider both pedestrian and bicycle accessibility and mobility needs when designing roadway improvements in conformance with the City's Climate Action Plan.

C 4.8: Pedestrian and Bicycle Mobility Needs. Balance pedestrian mobility and bicycle accessibility and safety with vehicular congestion when considering intersection improvements to address level of service degradation.

C 4.9: **Pedestrian and Bicycle Connections**. Implement an area-wide pedestrian and bicycle circulation plan which will result in convenient and direct connections throughout San Mateo. Implementing connections in the Rail Corridor Transit-Oriented Development Plan (Corridor Plan) area and into adjacent neighborhoods and districts is a priority.

Both the adopted Pedestrian Master Plan and Bicycle Master Plan foster area-wide connections throughout the community. The Climate Action Plan presents bicycle and pedestrian strategies as complementary actions to reduce vehicular trips. Promoting alternative transportation also supports the City's transportation demand management efforts.

C 4.10: **Bikeway Systems.** Review the City's planned bikeways systems for adequacy, consistency and connectivity throughout the City to facilitate ease of use and safety for the users including adequate parking for bicycles.

The City will seek to implement infrastructure improvements citywide that support bicycle activity. The Bicycle Master Plan identifies prioritized improvements for bicycle lanes, bicycle parking at Caltrain stations and downtown, and other improvements such as pavement markers. These strategies also implement the City's Climate Action Plan.

C 4.11: **Hillsdale Bicycle and Pedestrian Over Crossing**. Construct a bicycle and pedestrian over crossing in the vicinity of Hillsdale Boulevard over US 101.

A bicycle and pedestrian over crossing in the vicinity of Hillsdale Boulevard over US 101 has been identified as an essential connection between the neighborhoods of San Mateo and destinations such as the Bay Trail which is currently separated by US 101.

Through strategic capital improvements, programming, and better internal coordination of bicycling projects, bicycling will become safer, more convenient, and more accessible in all reaches of the City.

H. MOTOR VEHICLE PARKING

BACKGROUND

Parking is a community-wide concern ranking equal to circulation. The need to provide adequate parking is essential for the City's continued economic growth and stability, and to avoid adverse effects of development.

GOALS AND POLICIES

GOAL 5: Provide an adequate parking supply for new development.

POLICIES

C 5.1: Parking Standards.

a. Review parking requirements periodically to ensure adequate parking supply as a condition of development approval.

b. Review parking requirements periodically to ensure adequate parking supply for change and/or expansion of land use resulting in increased parking demand.

It is important that each new development project provides adequate parking. San Mateo is heavily dependent on automobiles and on-street spaces are at a premium in many neighborhoods. Parking is generally judged to be adequate if it meets or exceeds the City's requirements and does not generate demand for the limited supply of on-street spaces. Near transit hubs balance the level of parking with TOD to maximize ridership and minimize vehicle miles traveled.

City parking requirements need to be periodically reviewed and new standards developed due to changes in the size and number of automobiles and development or enhancement of alternative travel modes. Parking spaces, especially structured spaces, are expensive to construct and can be the most critical determinant in a development's feasibility. This is especially true for the upgrade or changed use of older projects where adequate parking according to current standards is not available. It is the intent of these policies that a balance be achieved between parking need and the affect on the feasibility of new development.

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Amended by the City Council on April 16, 2012, Resolution No. 56 (2012)
Amended by the City Council on April 6, 2015, Resolution No. 36 (2015)
Amended by the City Council on April 6, 2020, Resolution No. 31 (2020)

I. SUSTAINABLE TRANSPORTATION ACTIONS

BACKGROUND

City staff, in partnership with the Sustainability Commission and a consultant, prepared a Climate Action Plan (CAP). The CAP addresses eight environmental topics to reduce greenhouse gas (GHG) emissions. Topics include renewable energy, energy efficiency, and alternative transportation. Strategies in the CAP for alternative transportation foster all modes of transportation and identify strategies to expand on the City's current transportation demand management efforts.

The following transportation related goals and policies reflect the variable nature of mode selection based on trip length, traveler age, and trip purpose. They will require significant shifts in personal travel behavior, transit availability and convenience, transportation pricing and vehicle variety. As it is not practical to eliminate all single occupant vehicle trips, the goals and policies also address ways in which to reduce the emission impacts of all trips.

GOALS AND POLICIES

GOAL 6: Implement the transportation objectives of the Climate Action Plan.

POLICIES

C 6.1: **Modal Share.** Increase mode share for pedestrian and bicycle travel, for trips of one mile or less, by regularly updating and implementing plans for sustainable transportation infrastructure including the Bicycle Master Plan and the Pedestrian Master Plan. Additional potential supportive actions to increase mode share are detailed in the Climate Action Plan.

C 6.2: **Single Occupancy Vehicles.** Reduce single occupant automobile usage for local trips by implementing flexible alternative transportation programs within San Mateo such as bike share programs, car share programs, additional local shuttles for Caltrain connections and other programs that support reduced single-occupant vehicle trips. Partners and program opportunities are identified and in the Climate Action Plan.

C 6.3: **Travel to Schools.** Reduce private automobile school trips by collaborating with private and public partners to increase the number of students walking or bicycling to school, expanding pedestrian and bicycle infrastructure for school routes, implementing "walking pools" to schools, increasing carpooling for students, and making flexible local transit available for student travel.

C 6.4: **Commuting.** Reduce single occupant commuting 20% before 2020 by expanding the Transportation Management Association beyond Corridor Plan Area, establishing parking maximums, requiring trip reduction for all development and facilitating the provision of transit passes or other direct transit subsidies for residents and employees within San Mateo. Additional actions to reduce single occupant commuting is detailed in the Climate Action Plan, Appendix of the General Plan.

C 6.5: **Transit Oriented Development Areas (TOD).** Concentrate future development near rail transit stations in the City's designated TOD areas by collaborating with partners to provide incentives for development and transportation demand management within TOD areas, and encouraging developments within Transit Oriented Development Areas (TOD) to maximize population and employment within allowable zoning limits, consistent with direction from the City's Climate Action Plan.

C 6.6: **Fuel Consumption and Emissions.** Expand the use of alternative- and clean-fuel vehicles to reduce fuel consumption and vehicle emissions for trips originating in or destined for the City of San Mateo by expanding infrastructure for electric vehicle charging stations at public and private locations; promoting the use of alternative fuel vehicles; and providing requirements and incentives for the provision of alternative fuel infrastructure such as electric vehicle charging stations. Community-wide targets for share of electric or alternative-fuel vehicles are established in the City's Climate Action Plan.

C 6.7: **Evaluate Progress.** Monitor the City's progress reducing vehicular trips as part of the annual Climate Action Plan monitoring and reporting process, as described in Policy LU 8.3 of the Land Use Element.

Most person trips generated in San Mateo are nine miles in length or less. About 99% of all origins and destinations for trips made within San Mateo are within five miles of each other.[1] Without any significant change in the modes selected for this travel, it is predicted that as much as half of these trips will be made by single occupant private automobile. Alternatively, many of these trips can be made by bicycle or, for shorter distances, walking. For trips approaching five miles in length, bus transit may be an option if a transit stop is conveniently located and service is frequent enough to make it a viable option for all or some of the trip.

The age of the traveler can also impact the range of feasible travel modes. Over 30% of the City of San Mateo population is between the age of 20 and 39.[2] Another 27% of the San Mateo population is between 40 to 59 years of age. When combined, these two age groups represent about 58% of the City's population. These same groups also are among the most mobile and generally

[1] City of San Mateo Travel Forecasting Model. General Plan 2020 forecasts without Bay Meadows, Hexagon Transportation Consultants

[2] City of San Mateo, *Census 2000 Profile*, Community Development Department, Planning Division, August 2003

include a significant share of the population that could elect to walk or bicycle to nearby destinations.

Other factors impacting the choice of mode include weather, trip purpose, special needs of the traveler and travel time limits. For example, more flexibility in mode selection exists for recreational travel than for commute trips. In part, this may be a result of greater limitations on allowable travel time for commute trips.

Work trips are slightly more than 21% of all daily trips. Commute trips average about 25 minutes in length.[3] This is a factor that has remained relatively stable over time and suggests that commute length is one important consideration when selecting both where to live and where to work. Other factors include affordability, schools, etc. For the Bay Area and San Mateo, in particular, cost of housing is a significant obstacle for people wanting to locate closer to their workplace. Only about 11% of all commute trips have both origin and destination within San Mateo.[4] The Metropolitan Transportation Commission has identified reducing the cost of housing as a potential major transportation objective in their development of the next Regional Transportation Plan. However, the committee has chosen to not set a goal in regards to housing because the City is currently pursuing this question through other processes. Sustainability should be addressed in future discussions on housing and land use as they relate to transportation.

Modal choice for commute trips is distinctly different compared with the shorter local trips. The modal choice for commute trips originating or destined for San Mateo compared with all trip types is:

	Commute Trips[5]	**All Trips[6]**
Single Occupant Auto	78.1%	52.6%
2 or more Auto	11.4%	30.8%
All Transit	5.9%	5.1%
Rail Transit	3.2%	
Bus Transit	2.7%	
Bike & Walk	2.7%	11.5%

The City of San Mateo Travel Forecasting Model can potentially provide some interesting metrics for evaluation of land use and transportation issues. Two commonly used metrics are vehicle miles traveled (VMT) and vehicle hours traveled (VHT). It is predicted that in 2020, trips with either origin or destination within San Mateo will produce almost 3.5 million VMT and almost 85,000 VHT. Fuel consumption and vehicle emissions can also be used as program objectives or to estimate the impact of trip reduction programs.

[3] Metropolitan Transportation Commission, Journey to Work Survey and City of San Mateo, *Census 2000 Profile*, Community Development Department, Planning Division, August 2003
[4] City of San Mateo Travel Forecasting Model. General Plan 2020 forecasts without Bay Meadows, Hexagon Transportation Consultants
[5] City of San Mateo, *Census 2000 Profile*, Community Development Department, Planning Division, August 2003
[6] City of San Mateo Travel Forecasting Model. General Plan 2020 forecasts without Bay Meadows, Hexagon Transportation Consultants

Producing a significant travel behavior for our daily trips or modal shift in commute trips will require an array of changes to existing land use patterns, transportation alternatives and transportation pricing on a regional basis. Many things have been tried over recent years. Transportation Demand Management has been an integral part of transportation planning for almost two decades but commute and travel patterns in the region have not changed substantially in that time.

Reaching aggressive transportation goals is difficult to envision without some intervening and unanticipated events. For example, significant progress in reducing vehicle miles traveled could be anticipated with a severe shortage of gasoline and the accompanying increased costs. There may be other unanticipated events that will move San Mateo and other communities toward a more carbon neutral travel behavior including advances in communication, introduction of new vehicles or availability of alternative fuels.

Addressing the transportation goals and policies will require reallocation of some staff activities as well as investment in transportation services and infrastructure. The Public Works Department annual work programs will include specific tasks and programs to be implemented to advance the transportation objectives of the CAP. Annual CAP monitoring and reporting will also allow the City to review overall community-wide progress reducing VMT and expanding infrastructure for alternative transportation.

It is anticipated that the trip reduction tasks will be assigned to the Peninsula Congestion Relief Alliance (Alliance). Some supplemental funding would be required since some of the requested services will exceed what are typically provided by the Alliance. Introducing a Transportation Management Association (TMA) to serve the downtown or other areas of the City would be expected. Management of the TMA would also be assigned to the Alliance. Funding of a TMA would be provided primarily by the participating businesses and residents that benefit from the programs provided by the TMA.

Implementing a Community Transit Service requires a significant annual investment. While some grant funding may be available, some grant funds are provided as "seed money" to initiate new services and must be replaced with some on-going revenue source. On-going grants from the Bay Area Air Quality Management District require that 25% of all costs be paid by the local agency or participating businesses. Total annual operating costs for the current San Mateo shuttles are almost $300,000 of which about $225,000 is funded through grants. The costs for implementing a Community Transit Service would depend on the type and richness of service to be provided as well as the availability of grant funding. It would also depend on the level of funding provided by Sam Trans as part of their overall transit services provided within the County.

The most costly and potentially time-consuming response to the CAP recommendations will be implementation of bicycle and pedestrian enhancements, consistent with the City's Bicycle Master Plan and Pedestrian Master Plan. Seemingly simple improvements such as corner "bulb-outs" to shorten pedestrian crossing distances can be costly. Often drainage or other design issues result in significant costs for this type of project. For example, the bulb out that was constructed in the northeast quadrant of the intersection of Baldwin and San Mateo Drive cost over $70,000.

Similarly, other pedestrian enhancements that include sidewalk widening, streetscape improvements and other amenities can also be very costly depending on the work to be done, impacts to the street cross section, drainage modifications required and specific streetscape improvements planned. It will take a variety of different funding sources to effect these changes, including Measure A, Transportation Development Act, Transportation for Livable Communities and improvements included in new development projects.

Some bicycle improvements may be relatively simple to implement. This would include improved signage and designation of appropriate routes. However, some improvements required to implement bicycle lanes may require street widening and can become expensive to construct. Public Works is currently designing bike lanes on Delaware Street between Bermuda and 25th Avenue. This 1/2-mile project, which requires some street widening, is currently estimated at about $250,000.

Achieving aggressive transportation goals cannot be achieved through San Mateo actions alone and cannot be achieved using the same techniques that have been used in the past or even those being used today. Instead, much more difficult policy choices will need to be considered and many will need to be selected if aggressive goals are to be achieved. These difficult and politically challenging strategies will include concepts like congestion pricing, paid parking, higher tolls, increased land use densities and heights and aggressive strategies to make housing more affordable in San Mateo County.