Hexagon Transportation Consultants, Inc.

Memorandum

Date: March 26, 2020

To: Ms. Pooja Nagrath, David J. Powers & Associates, Inc.

From: Ollie Zhou
Gary Black

Subject: Concar Passage Mixed-Use Development CEQA Transportation Analysis

Hexagon Transportation Consultants, Inc. has completed a CEQA transportation analysis for the proposed mixed-use development located at 640 Concar Drive in San Mateo, California. The project proposes to replace the existing buildings on site and construct 961 residential units with 3,100 square feet of retail space, 7,400 square feet of restaurant space, 7,650 square feet of performance/ballet space, and 4,600 square feet of daycare space. In addition, the existing Trader Joe's and 7-Eleven would be rebuilt with the project. Trader Joe's would increase in size by 2,260 square feet to a total of 13,700 square feet and 7-Eleven would increase by 240 square feet to a total of 3,100 square feet. The project also proposes a 3,800 square-foot leasing center and approximately 11,900 square feet of residential amenities. However, the leasing center and amenities were not included in the project trip generation because they are accessible to residents only. Vehicular access to the project site would be provided by driveways on Delaware Street, Concar Drive, and Grant Street.

Project Trip Estimates

Vehicle trips generated by the proposed project were estimated using the trip rates published in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 10th Edition* (2017) for "Multifamily Housing Mid-Rise" (Land Use 221), "Shopping Center" (Land Use 820), "Fast Casual Restaurant" (Land Use 930), "Recreational Community Center, General Urban/Suburban" (Land Use 495), and "Day Care Center, General Urban/Suburban" (Land Use 565). Vehicle trips generated by the proposed Trader Joe's and 7-Eleven were estimated using trip rates based on counts conducted on Thursday, April 26, 2018. Using these rates, the proposed project would generate 592 trips (226 inbound and 366 outbound) during the AM peak hour and 1,092 trips (600 inbound and 492 outbound) during the PM peak hour.

Project Trip Reductions

Since this project is mixed-use in nature, provides safe pedestrian facilities, and is located near other developments, Hexagon used US EPA's MXD model to determine the applicable trip reduction for the project. The MXD model (Mixed Use Trip Generation Model v 4.0, 2010) was developed by Fehr & Peers for the US EPA to account for internal trip capture and external walking, biking and transit trip reductions due to the nature of mixed-use developments and local area characteristics. It does not account for specific trip reduction strategies that the project might incorporate, such as shuttles, bus passes, or bike-share. Based on the MXD model, a 15% trip reduction during the AM peak hour, a 16.3% trip reduction during the PM peak hour, and a 17.8% daily trip reduction were applied. After crediting these reductions, the proposed project would generate 528 vehicle trips (206 inbound and 322 outbound trips) during the AM peak hour and 993 vehicle trips (543 inbound and 450 outbound trips) during the PM peak hour.

In addition, trip generation for retail uses is typically adjusted to account for pass-by-trips. Pass-by-trips are trips that are already on the adjacent roadways (and are therefore already counted in the existing traffic) but would turn into the site while passing by. Pass-by-trips are therefore excluded from the traffic projections (although pass-by traffic is accounted for at the site entrances). Pass-by trip reductions are based on the average pass-by trip reduction rates published in the ITE *Trip Generation Handbook, 3rd Edition.* A pass-by trip reduction of 34% was applied to the retail component of the project, 43% was applied to the restaurant component, 36% was applied to Trader Joe's, and 51% was applied to 7-Eleven. Hexagon assumes no pass-by trip reduction during the AM peak hour. After applying the appropriate pass-by trip reductions, it is estimated that the proposed project would generate 528 vehicle trips (206 inbound and 322 outbound trips) during the AM peak hour and 765 vehicle trips (425 inbound and 340 outbound trips) during the PM peak hour.

Existing Trip Credits

Because the project would replace the existing uses on the site, trips associated with the existing buildings were subtracted from the project-generated traffic to derive the net trips. The trips generated by the existing uses on the site were estimated based on driveway counts conducted on April 26th, 2018. Inbound trips generated by Trader Joe's and 7-Eleven were captured by counters stationed at the door who counted each group that arrived together as one inbound trip. People exiting Trader Joe's and 7-Eleven often did not exit in groups and thus outbound trips for the Trader Joe's and 7-Eleven were estimated based on inbound counts and the directional distribution data from ITE *Trip Generation, 10th Edition* for Shopping Center (ITE Code 820). Pass-by trip reductions were also applied to the existing retail trips. Using these rates and the applied trip reductions, the existing uses are estimated to generate 405 trips (216 inbound and 189 outbound) during the AM peak hour and 599 trips (270 inbound and 329 outbound) during the PM peak hour.

Net Trip Generation

After applying the appropriate trip generation rates, trip reductions, and the existing trip credits, Table 1 shows that the project would generate 2,471 net new daily trips, with 123 net new trips (-10 inbound and 133 outbound) occurring during the AM peak hour and 166 net new trips (155 inbound and 11 outbound) occurring during the PM peak hour.

Table 1
Project Trip Generation

Land Use	Size	Unit	Daily Rate	Daily Trips	AM Peak Hour Rate	AM Peak Hour % In	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour Rate	PM Peak Hour % In	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Proposed Uses														
Residential [1]	961	d.u.	5.44	5,228	0.36	26%	90	256	346	0.44	61%	258	165	423
Mixed-Use Reduction [3]				(931)			(14)	(38)	(52)			(42)	(27)	(69)
Residential Trips (Resi)				4,297			76	218	294			216	138	354
General Commercial [2]	3.1	ksf	37.75	117	0.94	62%	2	1	3	3.81	48%	6	6	12
Mixed-Use Reduction [3]				(21)			0	0	0			(1)	(1)	(2)
PM Pass-By Reduction (34%) [4]				(16)			0	0	0			(2)	(2)	(4)
Retail Trips (Com)				80			2	1	3			3	3	6
Restaurant [7]	7.4	ksf	315.17	2,332	2.07	67%	10	5	15	14.13	55%	58	47	105
Mixed-Use Reduction [3]				(415)			(1)	(1)	(2)			(9)	(8)	(17)
PM Pass-By Reduction (43%) [8]				(412)			0	0	0			(21)	(17)	(38)
Restaurant Trips (Rest)				1,505			9	4	13			28	22	50
Ballet / Performance Space [9]	7.65	ksf	28.82	220	1.76	66%	9	4	13	2.31	47%	8	10	18
Mixed-Use Reduction [3]				(39)			(1)	(1)	(2)			(1)	(2)	(3)
Ballet / Performance Trips (BPS)				181			8	3	11			7	8	15
Day Care [10]	4.6	ksf	47.62	219	11.00	53%	27	24	51	11.12	47%	24	27	51
Mixed-Use Reduction [3]				(39)			(4)	(4)	(8)			(4)	(4)	(8)
Day Care Trips (DC)				180			23	20	43			20	23	43
Trader Joe's [13]	13.7	ksf	287.59	3,940	4.55	60%	37	25	62	28.76	51%	201	193	394
PM Pass-By Reduction (36%) [5]				(709)			0	0	0			(72)	(69)	(141)
Trader Joe's Trips (TJ)				3,231			37	25	62			129	124	253
7-Eleven [13]	3.1	ksf	287.10	890	32.87	50%	51	51	102	28.67	51%	45	44	89
PM Pass-By Reduction (51%) [6]				(227)			0	0	0			(23)	(22)	(45)
7-Eleven Trips (7E)				663			51	51	102			22	22	44
Project Trips (P = Resi + Com + Rest + BPS + DC + TJ + 7E)				**10,137**			**206**	**322**	**528**			**425**	**340**	**765**
Existing Use														
Shopping Center [11]				5,250			138	121	259			213	312	525
PM Pass-By Reduction (34%) [4]				(893)			0	0	0			(72)	(106)	(178)
Existing Shopping Center Trips				4,357			138	121	259			141	206	347
Trader Joe's [12]				3,290			31	21	52			168	161	329
PM Pass-By Reduction (36%) [5]				(592)			0	0	0			(60)	(58)	(118)
Existing Trader Joe's Trips				2,698			31	21	52			108	103	211
7-Eleven [12]				820			47	47	94			42	40	82
PM Pass-By Reduction (51%) [6]				(209)			0	0	0			(21)	(20)	(41)
Existing 7-Eleven Trips				611			47	47	94			21	20	41
Existing Trips (E)				**7,666**			**216**	**189**	**405**			**270**	**329**	**599**
Net Project Trip Generation (Net = P - E)				**2,471**			**(10)**	**133**	**123**			**155**	**11**	**166**

Notes:
All rates are from: Institute of Transportation Engineers, *Trip Generation, 10th Edition*

1. Land Use Code 221: Multifamily Housing (Mid-Rise), General Urban/Suburban (average rates, expressed in trips per dwelling unit)
2. Land Use Code 820: Shopping Center, General Urban/Suburban (average rates, expressed in trips per 1,000 s.f.).
3. Trip reduction of 15% in the AM and 16.3% in the PM, daily reduction calculated at 17.8%. Based on MXD model developed by Fehr & Peers for the US EPA to account for internal capture and external walking, biking, and transit trips due to mixed-use development and local area characteristics. (Mixed Use Trip Generation Model v 4.0, 2010)
4. Pass-by trip reduction for Land Use Code 820: Shopping Center is based on the average pass-by trip reduction rate published in the ITE *Trip Generation Handbook, 3rd Edition.* Hexagon assumes no pass-by trip reduction during the AM peak hour and half of the PM peak pass-by reduction for daily trip generation.
5. Pass-by trip reduction for Land Use Code 850: Supermarket is based on the average pass-by trip reduction rate published in the ITE *Trip Generation Handbook, 3rd Edition.* Hexagon assumes no pass-by trip reduction during the AM peak hour and half of the PM peak pass-by reduction for daily trip generation.
6. Pass-by trip reduction for Land Use Code 851: Convenience Market (Open 24 Hours) is based on the average pass-by trip reduction rate published in the ITE *Trip Generation Handbook, 3rd Edition.* Hexagon assumes no pass-by trip reduction during the AM peak hour and half of the PM peak pass-by reduction for daily trip generation.
7. Land Use Code 930: Fast Casual Restaurant, General Urban/Suburban (average rates, expressed in trips per 1,000 s.f.)
8. Pass-by trip reduction for Fast Casual Restaurant is based on the average pass-by trip rate for High-Turnover Restaurant (ITE 932) as published in the ITE *Trip Generation Handbook, 3rd Edition.* Hexagon assumes no pass-by trip reduction during the AM peak hour and half of the PM peak pass-by reduction for daily trip generation.
9. Land Use Code 495: Recreational Community Center, General Urban/Suburban (average rates, expressed in trips per 1,000 s.f.)
10. Land Use Code 565: Day Care Center, General Urban/Suburban (average rates, expresed in trips per 1,000 s.f.)
11. Peak-hour trips from driveway counts conducted on Thursday, April 26th, 2018. Daily trips were estimated by assuming PM peak hour trips to be 10% of daily trips.
12. Peak-hour inbound trips from trip generation counts conducted on Thursday, April 26th, 2018. Outbound trips were estimated using directional distribution percentages provided by ITE's Trip Generation, 10th Edition. Daily trips were estimated by assuming PM peak hour trips to be 10% of daily trips.
13. Peak-hour trip rates based on counts conducted on Thursday, April 26th, 2018. Mixed-Use Reduction was not applied. Daily trips were estimated by assuming PM peak hour trips to be 10% of daily trips.

CEQA Analysis

This section describes the California Environmental Quality Act (CEQA) transportation analysis for the proposed project. The CEQA 2019 Update included four CEQA issues related to transportation:

a) Would the project conflict with a plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian paths?

b) For a land use project, would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?

d) Would the project result in inadequate emergency access?

Potential Conflict With A Plan, Ordinance or Policy Addressing the Circulation System

There are four regional/local plans addressing the multimodal circulation system that is relevant to this project:

- C/CAG Congestion Management Program (CMP)
- City of San Mateo General Plan
- City of San Mateo Bicycle Master Plan
- City of San Mateo Pedestrian Master Plan

Potential project impacts resulting from project conflicts with these three plans are discussed separately below.

Potential Conflict with the C/CAG CMP

The C/CAG CMP establishes level of service standards for freeway segments within the county. This project studies two freeway segments on US 101 and two segments on SR 92 within the project proximity. Per C/CAG's Traffic Impact Analysis (TIA) Policy, adopted in August 2006, a project is considered to have a freeway segment conflict if it causes one of the following:

1) Freeway segments currently in compliance with the adopted LOS standard:

   a) A project is considered to have a CMP conflict if the project will cause the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP).

   b) A project will be considered to have a CMP conflict if the cumulative analysis indicates that the combination of the proposed project and future cumulative traffic demand will result in the freeway segment to operate at a level of service that violates the standard adopted in the current Congestion Management Program (CMP) and the proposed project increases traffic demand on the freeway segment by an amount equal to one (1) percent or more of the segment capacity, or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one (1) percent.

2) Freeway segments currently not in compliance with the adopted LOS standard:

   a) A project is considered to have a CMP conflict if the project will add traffic demand equal to one (1) percent or more of the segment capacity or causes the freeway segment volume-to-capacity (v/c) ratio to increase by one (1) percent.

The project's effects on freeway levels of service are discussed in a separate traffic operations analysis report.

Potential Conflict with the General Plan

The City of San Mateo General Plan includes policies addressing potential project effects on intersection operations. The City maintains a level-of-service (LOS) standard of mid-level LOS D for all intersections. According to General Plan Policy C-2.7, 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 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 project's effects on intersection levels of service are discussed in a separate traffic operations analysis report.

Potential Conflict with the Pedestrian Master Plan

To increase accessibility to the site from the 19th Avenue Park neighborhood, the project will install a new signalized intersection at the intersection of Depot Way and Concar Drive replacing the existing uncontrolled mid-block crosswalk. The project proposes detached sidewalks along the streets fronting the project site. Detached sidewalks provide barriers between pedestrians and roadway traffic and would improve pedestrian safety and comfort levels. Therefore, the project would be in conformance with the Pedestrian Master Plan.

Potential Conflict with the Bicycle Master Plan

The adopted Bicycle Master Plan identifies a list of proposed bicycle network improvements. The identified improvements along the project frontage have been implemented since plan adoption. The project footprint would not intrude onto the public right-of-way and would not be in conflict with the adopted Bicycle Master Plan or the current plan update efforts.

Potential Conflict With CEQA Guidelines Section 15064.3, Subdivision (b)

Pursuant of SB 743, The CEQA 2019 Update Guidelines Section 15064.3, subdivision (b) states that vehicle miles travelled (VMT) will be the metric in analyzing transportation impacts for land use projects for CEQA purposes. The *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by Governor's Office of Planning and Research (OPR) in December 2018 provided recommendations regarding VMT evaluation methodology, significance thresholds and screening thresholds for land use projects. The following OPR recommendations are relevant to the Concar Passage project:

- OPR recommends that local-serving retail developments may be presumed to have a less-than-significant impact on VMT because local-serving retail tends to shorten trips and reduce VMT.
- OPR recommends that residential projects exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact.

It should be noted that agencies are not required to adopt VMT analysis guidelines until July 2020. The City is in the process of updating its significance thresholds to be consistent with SB 743. For the purpose of this study, OPR guidelines were utilized in analyzing VMT. While the project could be screened out per OPR guidelines, the City decided to perform the VMT analysis to ensure OPR screening guidelines were consistent with findings of no significant increases in VMT for the project.

Residential VMT

For information purposes only, Hexagon estimated the VMT per capita for the residential component of the proposed project and compared it to the County-level VMT per capita. According to the Year 2020 Plan Bay Area model forecasts, the Transportation Analysis Zone (TAZ) containing the project site (TAZ 279) is estimated to generate 15.07 average daily VMT per resident. As discussed in the Project Trip Generation section above, the MXD model estimated a 17.8% trip reduction based on the mixed-use nature of this project and its local area characteristics. While the Plan Bay Area model captures some trip reduction in generating the VMT results, the TAZ containing the project site includes a fairly large area (bounded by the rail tracks, US 101, SR 92 and 10th Avenue). Because the residential land use in this TAZ comprises mostly of single-family neighborhoods outside of walking distance to the Caltrain station and within a relatively homogeneous land use context, it is assumed that the 17.8% trip reduction estimated at the project site is not reflected in the Plan Bay Area model. Therefore, Hexagon estimates that the project residential component would generate 12.39 average daily VMT per resident (15.07 – 15.07 * 17.8%). In comparison, the San Mateo County average daily VMT per resident is 16.02. The estimated project VMT per resident would be 23% below the county-wide average, which is below the OPR recommended residential VMT threshold.

Retail VMT

OPR recommends that local-serving retail may be presumed to have a less-than-significant impact on VMT. However, OPR deferred the definition of "local-serving" retail to the lead agencies, recognizing each agency's unique community characteristics. The City of San Mateo has not formally adopted this screening criteria or established a definition for "local-serving" retail. For information purposes only, Hexagon qualitatively evaluated whether the proposed retail components of the project can be characterized as "local-serving", based on the general concept that "local-serving" retail tends to shorten trips and reduce VMT.

Aside from the residential land use, the project proposes 3,100 s.f. of general commercial land use, 7,400 s.f. of restaurant land use, 13,700 s.f. for a Trader Joe's (net increase of 2,260 s.f. over the existing Trader Joe's), 3,100 for a 7-Eleven (net increase of 240 s.f. over the existing 7-Eleven), a 7,650 s.f. ballet/performance center and a 4,600 s.f. daycare. The OPR guidelines state that generally, "retail development including stores larger than 50,000 square feet might be considered regional-serving". The combination of all proposed retail land uses is 39,550 s.f., which is less than the 50,000 s.f. suggestion for regional-serving retail consideration. Therefore, it is possible for the entire retail component of the project to be considered "local-serving" and presumed to have a less-than-significant VMT impact based on OPR guidelines.

For the general commercial, restaurant, Trader Joe's and 7-Eleven land uses, these land uses can be considered as "local-serving" retail because they are mostly providing convenience to the immediate surroundings. It is assumed that people will not bypass similar businesses that are closer to them to visit these businesses.

The ballet/performance center would mostly replace the existing Peninsula Ballet Theater on site and is not assumed to generate additional VMT. For the day-care center, it is assumed that parents will most likely select a day-care center close to their home or close to their work. The day-care center is located next to a large residential neighborhood as well as the proposed residential complexes on the project site. It is also located adjacent to two office parks (one east of Grant Street and one west of Delaware Street) within walking distance. Therefore, it is not anticipated that the proposed daycare center would increase the overall VMT.

Proposed Transportation Demand Management (TDM) Measures

The project proposes to implement a TDM program (see Appendix) that can achieve 20% trip reduction. Some of the key TDM measures are summarized below:

- The Depot Mobility Hub: The Depot Mobility Hub is proposed to be centrally located and operate as a one-stop-shop for access to all mobility options and information. By concentrating mobility options, this will increase the opportunity to make connections between modes.
- High-Quality Pedestrian Connections: The project would provide high-quality pedestrian connections within Passage, and between Passage and key destinations including the Hayward Park and Hillsdale Caltrain stations, and Downtown San Mateo.
- Secure Bicycle Storage: A high-quality access-controlled storage room for personal bicycles would be provided at each residential building.
- Subsidized Transit Passes: Free or subsidized unlimited Caltrain and SamTrans rides will be provided for residents through participation in Caltrain's Go Pass and SamTrans Way2Go programs, which allows residential complexes to purchase annual unlimited-ride passes for all residents. This program must be offered to all eligible residents for a period of three (3) years. After which, an alternate TDM measure(s) may be proposed by the project for the City's consideration which achieves a similar or better trip reduction.
- Ride-Hailing Credits/Discounts: Residents will be given monthly credits for using ride-hailing vendors (e.g. Uber, Lyft, etc.), with a suggested limit of $100 per month. Rates will be negotiated with ride-hailing vendors for a residential rate for trips that begin or end on-site at The Depot. This would encourage residents who do not own cars to live at the project site and enhance the effectiveness of other TDM measures in promoting alternative modes of transportation.
- Bicycle Repair Facilities: Free bicycle maintenance facilities for bikes owned by residents will be provided at the Depot or within the long-term bike rooms.
- Transportation Coordinator: The project will designate an on-site coordinator available to residents and employees. The coordinator will provide free commute planning assistance, information about programs and credits available, run incentive programs, and market the project site to residents who want to live a TOD lifestyle.

The combination of all TDM measures would promote the use of alternative modes of transportation by reducing the need and reliance on private cars, reducing the cost and enhancing the experience when using alternative modes, and minimizing the potential mobility issues when special circumstances arise. By providing TDM measures to reduce the need to drive alone to access the project site, the project could further reduce the project-generated VMT.

Would the Project Substantially Increase Hazards Due to A Geometric Design Feature or Incompatible Land Uses?

The project proposes to construct a new "L"-shaped roadway on-site that runs in an east-west direction from Delaware Street to the center of the project site and runs in a north-south direction to Concar Drive. This roadway would provide access to the parking garage entrances. All parking aisle and parking stall dimensions within the proposed below-grade and ground-level garage parking lots are shown to comply with the minimum requirements of the City "Standard Drawings and Specifications". All parking spaces appear to have sufficient space near the end of dead-end aisles for vehicles to turn around. For vehicles exiting the parking garage, adequate sight distance must be provided in accordance with Caltrans standards. The minimum acceptable sight distance is often considered the Caltrans stopping sight distance, which varies according to the speed limit of the roadway that vehicles would turn onto. The required stopping sight distances are based on the Caltrans Highway Design Manual, Table 201.1. For driveways on Delaware Street, Concar Drive, and Grant Street, which have a posted speed limit of 25 mph, the Caltrans stopping sight distance requirement is 200 feet (based on a design speed of 30 mph). Since there is no on-street parking or severe roadway curves, the project driveways along Delaware Street, Concar Drive, and Grant Street would all have adequate sight distance. The garage entrances along the proposed on-site roadway, Depot Way, would also have adequate sight distance, provided that landscaping does not obscure a driver's view. All five residential driveways (two on Depot Way, two on Passage Way, and one on Grant Street) are proposed to be between 24 and 26 feet wide, which are consistent with the width requirements established in the City of San Mateo Municipal Code.

The proposed project would not substantially increase hazards on-site due to a design feature, nor would the project inhibit emergency access to the site or surrounding uses. The project would be subject to the City of San Mateo's SPAR process for additional review of the adequacy of circulation patterns. In this manner, the proposed project would not create or increase on-site hazards.

Would the Project Result in Inadequate Emergency Access?

All driveway and drive aisles on-site would be at least 20 feet wide and would comply with the City requirement for emergency vehicle access. Additionally, an emergency vehicle access road would connect the corner of Depot Way, at the center of the project site, directly east to Grant Street. The emergency vehicle access road would be 28 feet wide. A 28-foot wide walkway, also functioning as an emergency vehicle access road, would connect Depot Way at the center of the project site to Grant Street. Emergency access would not be inhibited by the proposed project.

Concar Passage Mixed-Use Development
CEQA Transportation Analysis
Technical Appendix

PASSAGE TDM PLAN

Final

March 2020

NELSON
NYGAARD

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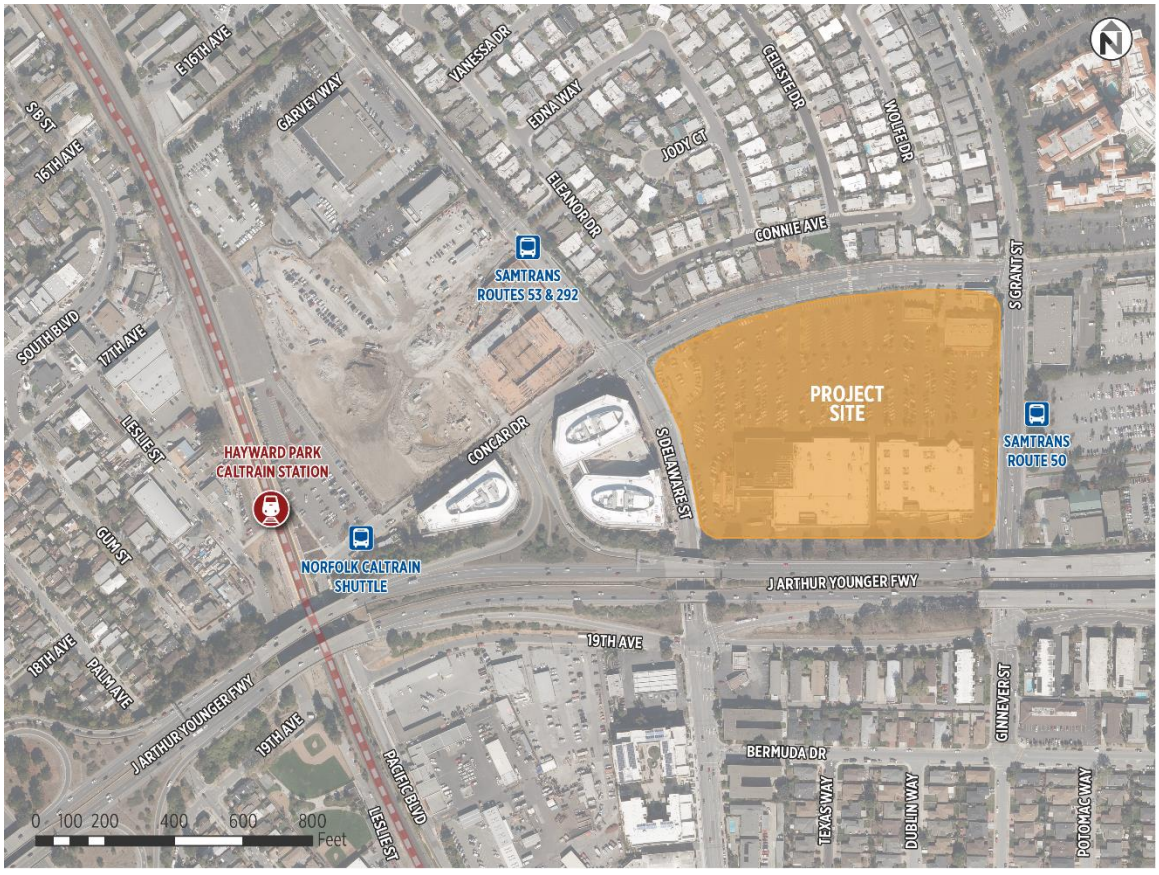
1 INTRODUCTION

The San Mateo Concar Shopping Center site is slated for a transit oriented mixed-use redevelopment. The project site proposes a wide variety of uses, including multi-family residential, a day care center, retail, performing arts space, grocery store, food hall, and publicly accessible open space. The project site will encompass the 14.5-acre (631,854 square feet) Concar Shopping Center site and surface parking lot. It is bounded by Concar Drive to the north, S. Grant Street to the east, Passage Way (currently proposed by the project) and State Route 92 to the south, and S. Delaware Street to the west. The site is surrounded by residential uses to the north along Concar Drive, hotel uses to the northeast, retail and office uses and a YMCA to the east along S. Grant Street, State Route 92 to the south, more office uses to the west along Delaware Street, and multi-family residential developments to the northwest.

Figure 1 Project Site



The proposed project includes 961 residential units (including 954 apartments and 7 live-work units), and 31,080 sf of residential amenities, including lounge areas, fitness and yoga centers,

and bike depots. The project also includes approximately 40,000 sf of retail uses, including the "SEED" food hall, restaurant, retail, Peninsula Ballet Theatre administrative space, performance space, and a day care center. The Trader Joe's, 7-Eleven, and Peninsula Ballet Theatre will remain as tenants within reconstructed spaces. The day care center will be located in Building 5 along Grant Street (adjacent to the YMCA) and will include a 4,600 sf day care facility for 60-70 children.

In total, the Project will provide a net increase of 961 units and a net decrease of 125,600 sf commercial. The existing large surface parking area will be replaced with subterranean and ground-level parking that will be located below the new residential and retail uses, except the 17 surface parking spaces associated with the 7-Eleven.

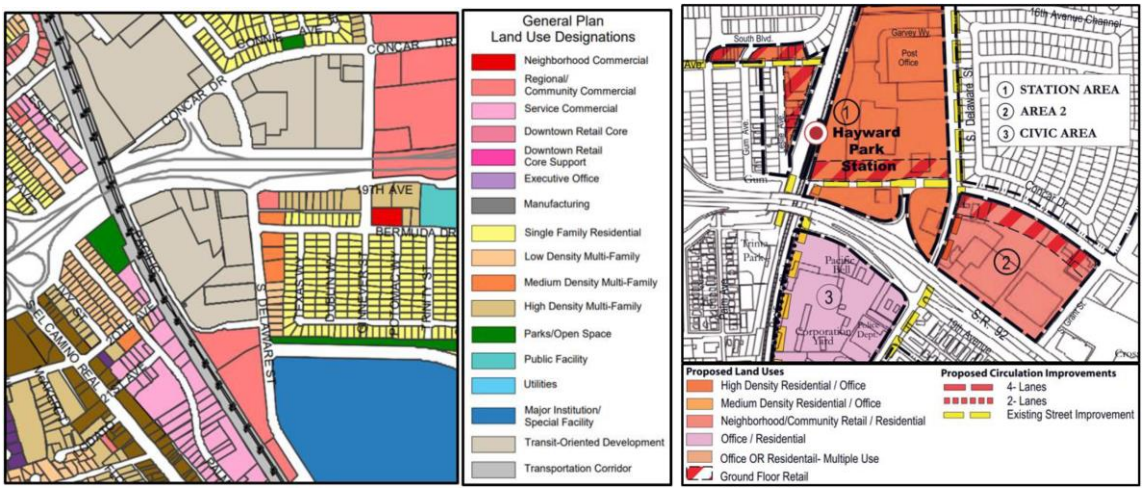
Figure 2 Proposed Development

2 LAND USE AND MOBILITY CONDITIONS

LAND USE

The site is designated as Transit-Oriented Development (TOD) by the San Mateo General Plan and has a zoning designation of TOD. The site is also located in Area 2 of the Hayward Park Station TOD Overlay Zone of the San Mateo Rail Corridor TOD Plan, with proposed uses of Neighborhood/Commercial Retail/Residential with Ground Floor Retail along Concar Drive and S. Delaware Street.

Figure 3 Left: General Plan Land Use Area; Right: Rail Corridor TOD Plan Land Use Area



MOBILITY

The project will include a public/private mobility hub called The Depot. The goal of The Depot is to facilitate a non-auto dependent style of living for the residents of the site and its surrounding neighborhoods by providing access to several transportation options.

Pedestrian and Bicycle Access

Existing pedestrian facilities in the area are well provided and maintained. To increase accessibility to the site from surrounding neighborhoods, a new signalized intersection and crosswalk at the intersection of Depot Way and Concar Drive is planned into the project. The project also includes an enhanced connection to the 19th Avenue neighborhood to the north, the Snowflake, Medallia, and WeWork office to the west, and the YMCA/office buildings to the east.

Existing bicycle facilities connecting to the site consist mostly of on-road bike lanes that are typically suitable for the most confident types of bicycle riders. The facilities are well maintained.

Additional proposed facilities to improve pedestrian and bicycle access include protected bike intersections at Concar/Delaware and Concar/Grant, Class IV separated bike lanes on Concar Drive, Delaware St. and Grant St., and a mid-block pedestrian crossing on Grant Street.

Vehicle Access

The proposed site plan includes vehicle access to the site from S. Delaware Street, Concar Drive and S. Grant Street with a private road (Depot Way) connecting Delaware and Concar. Delivery vehicle access is from Delaware Street and Grant Street with a private road connecting both streets through the site (Passage Way).

Transit

Caltrain

The Hayward Park Caltrain Station is less than 5-minutes walking distance (approximately 1250 feet) from the northwest corner of the site.

Figure 4 Caltrain Service Characteristics (Hayward Park Station)

Service	Service Days	Service Span	Typical Frequencies
100 Local	Mon-Fri	▪ Morning: 5:25 AM – 6:00 AM ▪ Midday: 9:36 AM – 4:13 PM ▪ Evening: 8:03 PM – 12:04 AM	1 hour
200 Limited Stop	Mon-Fri	▪ Morning: 6:51 AM – 9:14 AM ▪ Evening: 4:54 PM – 7:12 PM	1 hour
400 Local	Sat-Sun	▪ Saturday: 8:09 AM – 12:44 PM ▪ Sunday: 8:48 AM – 11:09 AM	90 Minutes

The site is also within a 5-10-minute bicycling distance of both San Mateo and Hillsdale stations, which offer baby bullet train service in addition to local and limited options.[1]

Figure 5 Caltrain Service Characteristics (San Mateo and Hillsdale Stations)

Service	Station	Service Days	Service Span	Peak Frequencies
300 Baby Bullet (NB)	San Mateo	Mon-Fri	▪ Morning: 6:19AM, 7:24AM, 8:25AM ▪ Evening: *no evening bullet service**	Hourly
	Hillsdale	Mon-Fri	▪ Morning: 6:44AM,7:45AM, 8:45AM ▪ Evening: 5:20 PM, 6:20 PM	Hourly
300 Baby Bullet (SB)	San Mateo	Mon-Fri	▪ Morning: *no morning bullet service** ▪ Evening: 5:01PM, 6:01PM, 7:01PM	Hourly
	Hillsdale	Mon-Fri	▪ Morning: 7:24AM, 8:24AM ▪ Evening:4:36PM, 5:43PM, 6:44PM	Hourly
200 Limited	San Mateo	Mon-Fri	▪ Morning:7:18AM-8:39AM ▪ Evening:5:15PM-7:26PM	20-25-minute frequency at peak hour
	Hillsdale	Mon-Fri	▪ Morning:6:34AM-8:54AM ▪ Evening:5:15PM-7:55PM	20-25-minute frequency at peak hour
800 Baby Bullet	San Mateo	Sat/Sun	▪ NB 10:32AM, 5:50PM ▪ SB 12:26PM, 7:56PM	NA

[1] http://www.caltrain.com/Assets/Assets/Schedules/CT_Pocket_Timetable_04-01-2019.pdf

	Hillsdale	Sat/Sun	▪ NB 10:27AM, 5:57PM ▪ SB 12:30PM, 8:00PM	NA

*Note: All day local and limited service offered at these stations

San Mateo-Norfolk Caltrain Shuttle

The San Mateo-Norfolk Caltrain Shuttle, operated by Commute.org, connects the Hillsdale Caltrain Station with various area office buildings, and residential areas of Lakeshore and Fiesta Gardens. The shuttle operates Monday through Friday during commute hours and is free to ride and open to the public. The nearest existing stop is at 800/900 Concar, about 1 block from the northeast corner of the site. The 400/450 Concar stop is 0.2 miles away from site and adjacent to the Hayward Park Station.

Figure 6 San Mateo-Norfolk Caltrain Shuttle Route

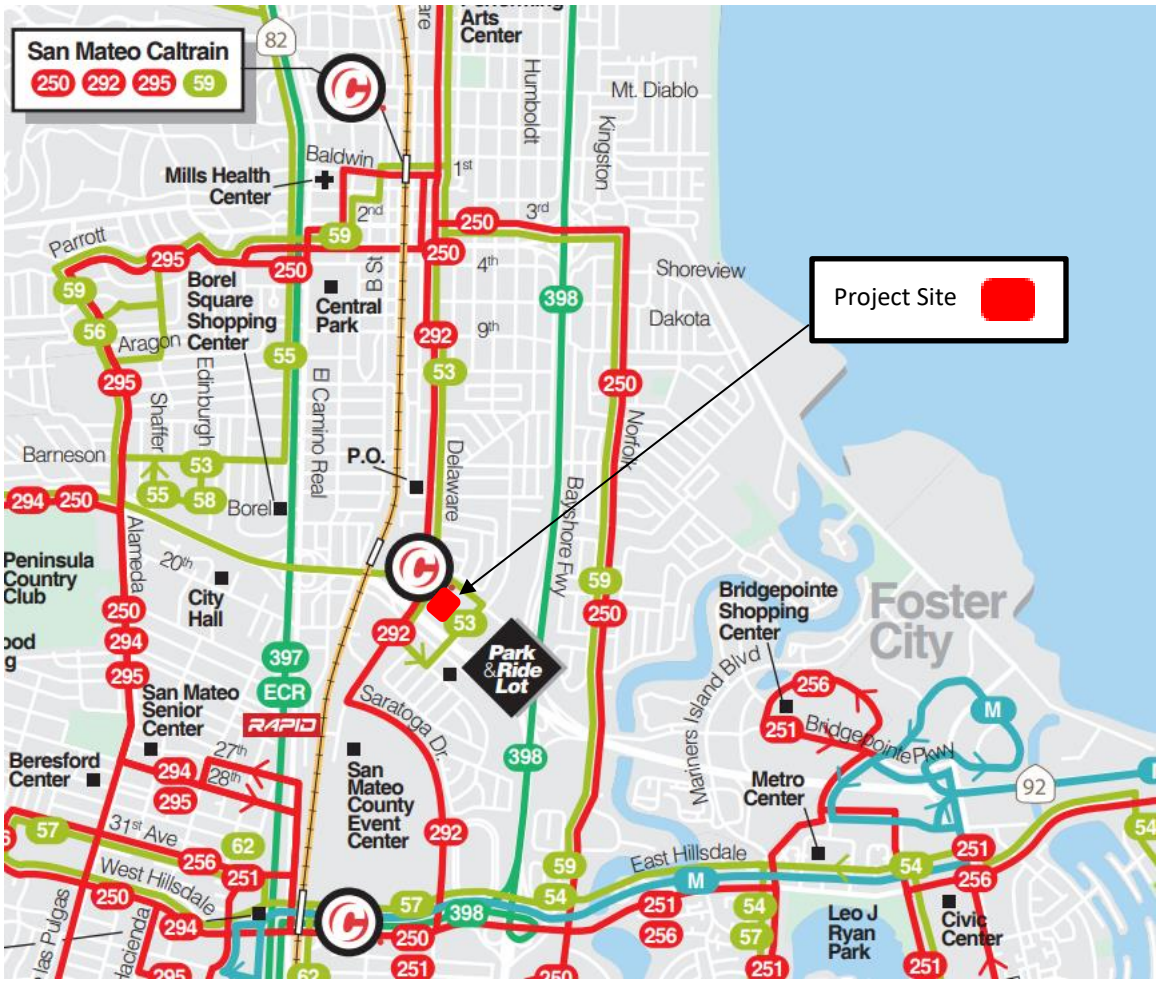
SamTrans Bus

The site has direct connections to SamTrans Route 292 and Route 53. Both of the routes provide connections to downtown San Mateo. The service characteristics of Route 292, Route 53 and ECR are found in Figure 7 and the SamTrans bus route map is shown in Figure 8 on the following page.

Figure 7 Route 292, 53 and ECR Service Characteristics

Route	Service Days	Service Span	Typical Frequencies
292	7-days	▪ Mon-Fri:3:55 AM – 2:33 AM ▪ Sat-Sun: 4:00 AM – 2:23 AM	▪ Peak: 30 mins ▪ Off-Peak: 60 mins
53	Mon-Fri (school days only)	▪ AM (Mon-Fri): 7:19 AM – 7:48 AM ▪ PM (M,T,Th,F): 2:50 PM – 3:31 PM ▪ PM (Wed): 12:54 PM – 1:20 PM	▪ AM: 2 trips ▪ PM: 3 trips
ECR	7-days	▪ 24 hours	▪ Weekdays: 20 mins ▪ Weekends: 30 mins

Figure 8 SamTrans Peninsula Service Map



Proposed Parking

In total, the project is planned to include 1598 parking spaces. This is expected to include 1,343 spaces for residential uses (including visitor parking), and 255 spaces for retail uses. The parking spaces planned by type are detailed in Figures 9 and 10 on the following page.

Figure 9 Planned Residential Parking Spaces

Building	Standard	Compact	Tandem	Accessible	Van Charging	EV Charging	Total
1	150	20	24	2	1	6	203
2	360	1	61	8	2	13	445
3	198	36	16	5	0	9	264
4	260	65	17	4	1	10	357
5	56	16	0	0	0	2	74
Total	**1024**	**138**	**118**	**19**	**4**	**40**	**1343**

Figure 10 Planned Commercial Parking Spaces

Building	Standard	Compact	Tandem	Accessible	Van Charging	EV Charging	Total
1	45	30	0	2	2	2	81
2	108	18	0	3	3	4	136
5	17	1	0	1	0	2	21
7-Eleven	15	0	0	0	1	1	17
Total	**185**	**49**	**0**	**6**	**6**	**9**	**255**

Planned Circulation Improvements

- The project will provide two new private streets: Depot Way (900 feet in length and 28 feet wide) and Passage Way (850 feet in length and 26 feet wide).
- Sidewalk improvements are planned on S. Delaware Street, Concar Drive and S. Grant Street.

Planned TDM Measures

The project proposes implementing the following transportation demand management TDM strategies, among others, in order to reduce trips and traffic impacts.

- High-quality pedestrian spaces
- Bike share hub
- Secure bicycle storage
- Ride-hailing credits
- Guaranteed Ride Home
- Public/Private shuttle program
- Transportation Information Center
- Transit passes

3 TRIP GENERATION THRESHOLD

Typical development projects use industry standard trip generation rates, such as from the Institute of Transportation Engineers, to estimate the new trips the project is expected to generate. This ignores site specific characteristics such as the reduction in vehicle trips associated with proximity to transit and the mix of land uses. Hexagon Transportation Consultants assessed the trip reductions associated with the mix of land uses and pass-by trips as of May 3, 2019 - this analysis has been approved by the City and will be used as the trip generation threshold for the project site.

The following tables summarize the existing trip counts carried out by Hexagon.

Figure 11 Existing Use Trip Generation and Pass-By Reductions

Land Use	Daily	AM	PM
General Commercial (Shopping Center)	5,250 (893)	259 (0)	525 (178)
Supermarket (Trader Joe's)	3,290 (592)	52 (0)	329 (118)
Convenience Store (7-Eleven)	820 (209)	94 (0)	82 (41)
Total	4,357	405	599

The following assumptions (Figure 12), based on the mixed-use nature of the proposed project, along with its location within the San Mateo transit-oriented development district, and walking distance (1,250 feet) to the Hayward Park Caltrain station, are used to determine the appropriate level of trip reduction for the Passage project through the use of the EPA's MXD model.

Figure 12 Input for Mixed-Use Trip Generation Model

Factor	Input Value	Source
Dwelling Units	961	Project description
General Retail	6.1 ksf	Project description
Supermarket	13.7 ksf	Project description
Convenience Store	3.1 ksf	Project description
Health Club	7.65 ksf	Project description
Restaurant	7.4 ksf	Project description
Developed Area	14.5 acres	Project plan
Number of Intersections (within or on the perimeter of the MXD)	4	Project plan
Is Transit (bus or rail) present within the site or across the street?	Yes	Project plan
Is the site in a Central Business District or TOD?	Yes	
Employment within one mile of the MXD	21,036	OnTheMap – Census.gov
Employment within a 30 minute Transit Trip	112,428	OnTheMap – Census.gov

Based on the MXD model, a 15.0% trip reduction during the AM peak hour, a 16.3% trip reduction during the PM peak hour and an 17.8% daily trip reduction were applied to calculated trips generated by the proposed development. The following table summarizes the approved trip generation for the project.

Figure 13 Proposed Use Trip Generation

Land Use	Daily	AM Peak	PM Peak
Residential	5,228	346	423
Mixed-Use Reduction	(931)	(52)	(69)
General Commercial	117	3	12
Mixed-Use Reduction	(21)	(0)	(2)
Pass-By Reduction	(16)	(0)	(4)
Restaurant	2,332	15	105
Mixed-Use Reduction	(415)	(2)	(17)
Pass-By Reduction	(412)	(0)	(38)
Ballet/Performance	220	13	18
Mixed-Use Reduction	(39)	(2)	(3)
Day Care	219	51	51
Mixed-Use Reduction	(39)	(8)	(8)
Supermarket	3,940	62	394
Pass-By Reduction	(709)	(0)	(141)
Convenience Store	890	102	89
Pass-By Reduction	(227)	(0)	(45)
Unmitigated baseline (Gross New Trips)	12,946		
Total Mixed-Use and Pass-By Reductions	(2,809)		
Total Proposed Use Trips	**10,137**	**528**	**765**

4 PARKING DEMAND ANALYSIS

INTRODUCTION & METHODOLOGY

The parking demand analysis for this study uses a parking model to estimate the parking needed for the Passage development which assumes that supply can be shared between land uses that have different parking demand profiles.[2] To model a "park-once" environment, Nelson\Nygaard used an adapted shared parking model using inputs from the Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005) and ITE's Parking Generation (5th Edition, 2019).

Nelson\Nygaard tailored the shared parking model for Passage to include a parking demand reduction for internal trip capture. Restaurants and retail services in particular are common generators of internally captured trips in mixed-use developments, as they serve both employees and residents within the same area. Finally, the shared parking model included the following land uses:

- Supermarket
- Convenience Market
- Generic retail
- Sit-down Restaurant
- Museum/Gallery
- Daycare center
- Low to Midrise apartments

PARKING NEED

Figure 14 below summarizes the planned parking supply for the project as well as an estimate of parking demand with the application of shared parking principles given the multimodal nature of the project and the proposed mixed use development planned for the site.

Figure 14 Parking Demand Analysis

Category	Parking Supply	Peak Demand Forecast	Model Capacity (Buffer)	Design Capacity (Buffer)
Proposed Parking Supply (Passage)	1598	*NA*	*NA*	*NA*
NN Unshared Parking Demand Estimate	1441	1310	131	288
Unshared ITE Estimate	1420	1291	129	307
NN Parking Demand Estimate (with reductions*)[4]	1326	1205	121	393

Notes: Reductions include captive market effect and transit proximity. Reduction based on proposed TDM measures NOT included.

The parking demand analysis shows that ***the proposed parking supply (1598) exceeds the demand forecasted*** for the site due to reduction in parking demand expected from shared

[2] Model is based on Institute of Transportation Engineers (ITE) Parking Generation Manual (5th Edition, 2019) and Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005)

[3] Residential parking is included in the analysis to estimate overall parking demand forecast for the entire development but is not shared with the other land uses.

[4] Shared parking applied to all uses except residential.

parking, in addition to benefits expected due to the proximity to multimodal transportation options (owed to the site's location in a transit-oriented planning zone).

The model capacity (buffer) column shows the parking supply buffer the model recommends for the site in excess of the forecasted parking demand for the project. The design capacity buffer shows that Passage is planning to exceed that buffer and will thus provide more parking supply than estimated to serve the expected parking demand for the proposed development. Figures 15, 16 and 17 illustrate the parking model demand for the Passage site under shared and unshared scenarios.

Figure 15 Weekday Modeled Parking Demand

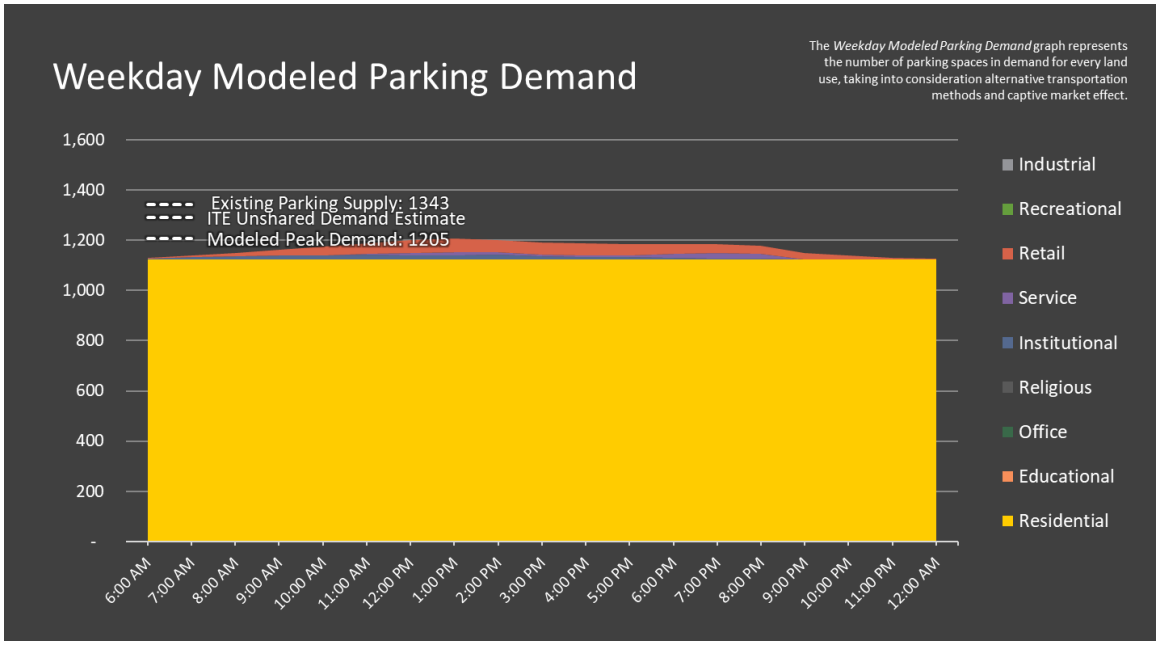


Figure 16 Weekday Shared Demand

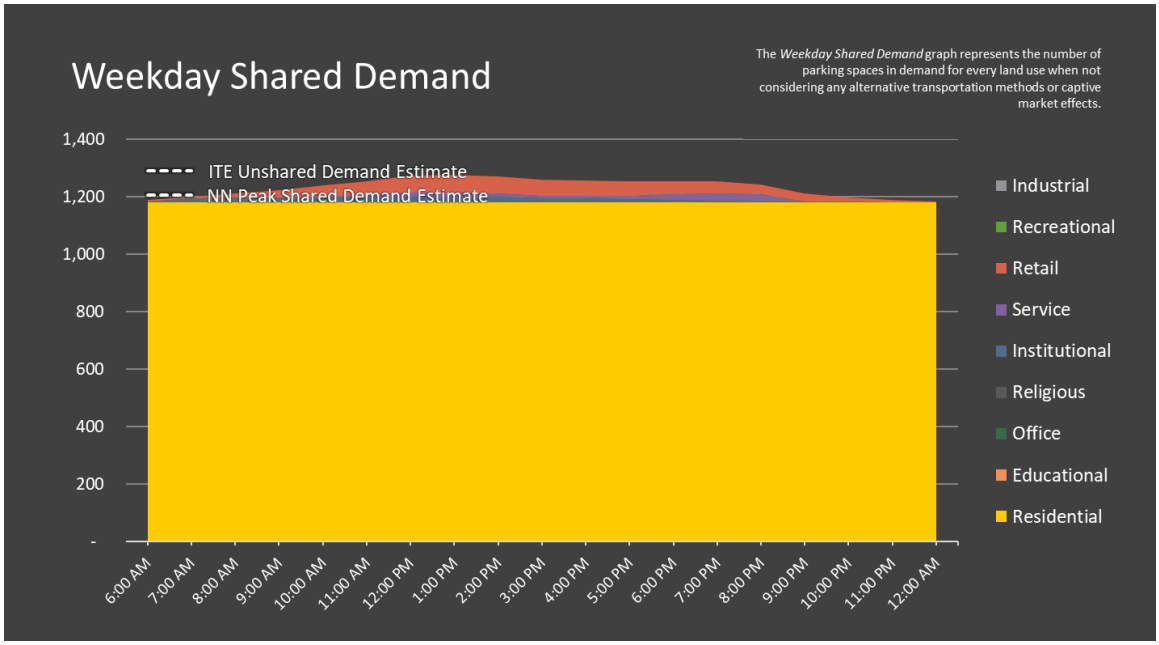
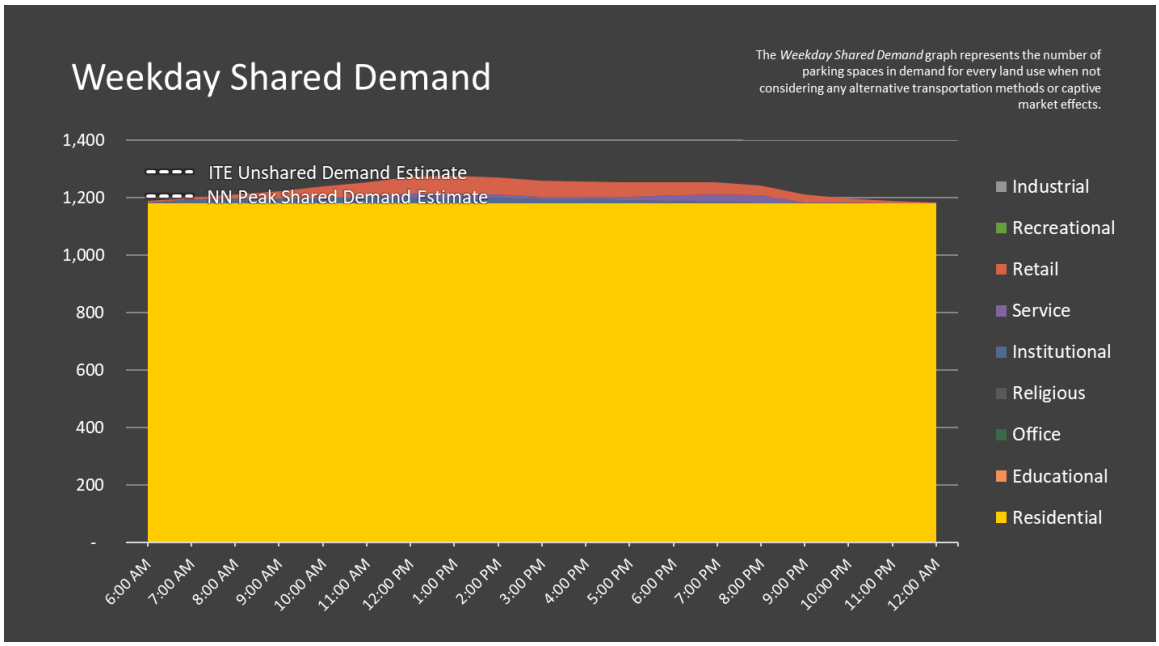


Figure 17 Weekday Unshared Demand



5 PASSAGE TDM TOOLKIT

The following section provides a list of applicable TDM measures for the project site, including brief descriptions of each TDM measure, and high-level California Air Pollution Control Officers Association (CAPCOA) mode-shift and VMT reduction estimates for each individual measure as well as their corresponding transportation strategy category.[5] The estimated impacts for each of the TDM measures assumes an individual application. However, cumulatively the strategies have a maximum impact depending on the strategy category. For more information about the impacts of TDM measures, see the Greenhouse Gas Mitigation Measures Quantification Report[6], published by CAPCOA.

At the end of the chapter, Figure 18 describes at a high level how the TDM measures could be implemented, coordinated and offered at the site. It also clearly describes roles and responsibilities, associated costs and cost schedules, and identifies whether each the specific TDM measure is included in the proposed plans and/or if the TDM measure is required at the site.

Project TDM Measures

This section describes in greater detail some of the key TDM measures referenced in this Plan.

Transportation Information Center

Transportation Information Centers provide tailored transportation information serving residents, tenants and visitors visiting the property. They are provided in physical and web-based formats, including bulletin boards, kiosks, websites and smart phone applications. Transportation Information Centers typically offer information about specific transit services, such as route maps and schedules and details about available TDM programs and services. More recently, real-time transportation information screens have played a role as an information center, displaying information about transit services, travel time by mode, and other alerts.

Mode Shift Potential = Medium

CAPCOA Category = Commute Trip Reduction

CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

Transportation Coordinator

Transportation coordinators are professionals who work for individual employers, property managers, or Transportation Management Associations, and are responsible for implementing, monitoring and coordinating TDM programs. Transportation coordinators are considered a key resource to provide residents, tenants and visitors with the information and tools to use TDM programs and services.

[5] Please note this report was published in 2010, and does not include specific analysis for newer TDM measures. Also, TDM measures noted as "grouped" are separately documented in individual fact sheets in the CAPCOA report but are not individually assessed for their effectiveness is considered to be conditional upon their combination with other strategies.

[6] California Air Pollution Control Officers Association. http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf

Mode Shift Potential = Medium
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

Guaranteed Ride Home

A free ride home in the event of an emergency for commuters who do not drive to work. The free rides are commonly subsidized by a Transportation Management Association (TMA), but may also be provided by individual employers.

Mode Shift Potential = Low-Medium
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

Incentive Program for Sustainable Transportation

Project will partner with Commute.org for on-going promotion of sustainable transportation options and participation in the STAR platform. Project will sponsor monthly prize drawings for all participants to encourage use of non-SOV modes on an ongoing basis.

Mode Shift Potential = Low-Medium
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

Subsidized Transit Passes

Typically organized as a partnership between a transit agency and local employers, property managers, and/or organizations, subsidized transit pass programs provide a free or discounted transit pass to tenants and/or employees.

Mode Shift Potential = Low-High
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = 0.3-20.0%

Secure Bicycle Storage

Secure bicycle storage provides bicyclists with security and convenience to park their bicycles. Bicycle storage options include both short-term and long-term options. Short-term options are intended for a duration less than 2 hours, and typically include bicycle racks, which are installed near building entrances or other key points of interest. Long-term options are best suited for parking durations of more than 2 hours, and may include lockers and racks in a secured, sheltered or enclosed area.

Mode Shift Potential = Low-Medium
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

Bicycle Repair Facilities

A fixed bicycle repair station allows bicyclists to fix or maintain their bicycles with communal access to bicycle repair equipment. Bicycle repair stations are commonly located in proximity to other bicycle facilities, such as bicycle racks, lockers, and bike share stations.

Mode Shift Potential = Low-Medium
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = Grouped Strategy (1.0-6.2%)

On-Site Car Sharing Vehicles

In working with car sharing companies, developers and property managers can secure dedicated car share vehicles, providing direct access for their residents and tenants, reducing the need for personal vehicles. Car share vehicles are typically located in convenient and accessible locations.

Mode Shift Potential = Low
CAPCOA Category = Commute Trip Reduction
CAPCOA VMT Reduction Estimate = 0.4-0.7%

Daycare Service

On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.

Mode Shift Potential = Low-Medium
CAPCOA Category = N/A
CAPCOA VMT Reduction Estimate = Reduction not quantified

High-Quality Pedestrian Connections

To provide a safe and comfortable pedestrian experience, high-quality pedestrian connections are provided through a continuous, unobstructed, direct route between two points intended for pedestrian use, which usually include well-lit wide sidewalks, safe street crossings, with supportive wayfinding for pedestrians and protection from elements, such as shade trees along sidewalks. Pedestrian connections include but are not limited to sidewalks, walkways, and stairways.

Mode Shift Potential = Low-Medium
CAPCOA Category = Neighborhood/Site Enhancement
CAPCOA VMT Reduction Estimate = 0.0-2.0%

Bus/Shuttle Stop

Bus and/or shuttle stops provide a dedicated place for passengers to board or alight from a bus or shuttle. Stops are typically marked with the name or information about the service serving the stop, and provides information about the route, schedule and other service details. The design of a stop may include a stop and a sign, a shelter, or may be grouped within a mobility hub. Individual bus stops are commonly located on a sidewalk next to the roadway or may be strategically grouped together in a hub.

Mode Shift Potential = Medium
CAPCOA Category = Land Use/Location
CAPCOA VMT Reduction Estimate = Grouped Strategy (0.5 – 24.6%)

The Depot Mobility Hub

A Mobility Hub provides a concentration of several mobility services, options and amenities, and offers connectivity among different travel modes, including walking, biking, transit, designated drop-off area for ride-hail services, and shared mobility. Mobility Hubs are typically located in a concentration of uses, including transit, employment, housing, recreation and retail.

Mode Shift Potential = Medium-High
CAPCOA Category = Land Use/Location
CAPCOA VMT Reduction Estimate = Grouped Strategy (0.5-24.6%)

Protected/ Separated Bicycling Facilities to Key Destinations

Physically protected and separated bicycle lanes are exclusive bicycle facilities that provide a separation from motor traffic, parking lanes, and sidewalks, providing bicyclists a higher level of security. There are several variations to designing protected and separated bicycles lanes, at different levels (street, sidewalk, or intermediate), and can be separated by raised medians, on-street parking, or bollards.

Mode Shift Potential = Medium
CAPCOA Category = Land Use/Location
CAPCOA VMT Reduction Estimate = Grouped Strategy (6.7-20.0%)

Figure 18 Project TDM Measures Implementation Parameters

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
Commute Trip Reduction							
Transportation Information Center	A transportation information center in the form of a real-time display, such as TransitScreen, should be a component in each building lobby and at The Depot. Displays should be provided at the entryways of each residential building.	X	X	TRT-1	Construction/Installation	One-Time	▪ Property Management
					Maintenance	As Needed	▪ Property Management
Guaranteed Ride Home	Coordinate the promotion of the Commute.org Guaranteed Ride Home program. Encourage all residents to sign up, and work with Commute.org to promote the program on-site.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Incentive Program for Sustainable Transportation	Project will partner with Commute.org for on-going promotion of sustainable transportation options and participation in the STAR platform. Project will sponsor monthly prize drawings for all participants to encourage use of non-SOV modes on an ongoing basis.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Transportation Coordinator	On-site coordinator available to residents and employees. Provide free commute planning assistance, information about programs and credits available, run incentive programs, and market project site to residents who want to live a TOD lifestyle.		X	TRT-1	Operations/Management	Ongoing	▪ Property Management
Subsidized Transit Passes	Free or subsidized unlimited Caltrain and SamTrans rides can be provided for residents through participation in Caltrain's Go Pass and SamTrans Way2Go programs, which allows residential complexes to purchase annual unlimited-ride passes for all residents. This program is required to be offered to all eligible residents for a period of no less than three (3) years from date of initial occupancy. After the initial three years, an alternate TDM measure(s) may be proposed by the project for the City's consideration which achieves a similar or increased trip reduction. Project must track issuance of transit passes, promotion of program, and usage data during this time.		X	TRT-3	Benefit Cost	Monthly	▪ Property Management
					Operations/Management	Ongoing	▪ Property Management

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
Secure Bicycle Storage	A high-quality access-controlled storage room for personal bicycles provided at each residential building.	X	X	SDT-7, LUT-9	Construction/Installation	One-Time	▪ Developer
					Maintenance	As Needed	▪ Property Management
					Operations/Management	Ongoing	▪ Property Management
Bicycle Repair Facilities	Free bicycle maintenance facilities for bikes owned by residents, provided at the Depot or within the long-term bike rooms.	X	X	SDT-7	Construction/Installation	One-Time	▪ Developer ▪ Property Management
					Maintenance	As Needed	▪ Property Management
On-Site Car Sharing Vehicles	There are no current rideshare vehicles within walking distance of the project site. Negotiate with a provider to add vehicles on site (at The Depot, if possible) to provide residents access to cars for short and long trips. Number of vehicles will be variable based on usage.	X	X	TRT-9	Operations/Management	Ongoing	▪ Vendor
Daycare Service	On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.		X	N/A	Operations/Management	Ongoing	▪ Property Management
Neighborhood/Site Enhancement							
High-Quality Pedestrian Connections	Provide high-quality pedestrian connections within Passage, and between Passage and key destinations including Hayward Park Station and Hillsdale Caltrain stations, and Downtown San Mateo.	X	X	SDT-1	Construction/Installation	One-Time	▪ Developer ▪ Public Entity
					Maintenance	As Needed	▪ Developer ▪ Public Entity
Land Use/Location							
Bus/Shuttle Stop	Provide a high-quality transit stop on site (at The Depot, if possible) in compliance with ADA+ existing transit system stop guidelines, to serve as a future mobility hub and designated area for pick-up/dropoffs. Provide funding for additional Commute.org shuttle service stop at the site, or		X	LUT-5	Construction/Installation	One-Time	▪ Property Management ▪ Transit Agency

TDM Measure	Comment	Proposed in Project Plans	Required TDM Measure	CAPCOA Measure Title	Implementation Considerations		
					Associated Costs	Frequency	Responsible Party
	for a private shuttle service to Hillsdale and/or Downtown Caltrain stations, and Millbrae BART. Shuttle schedules should be coordinated with train schedules, and should match arrival times, operating with approved 15 minute headways, and/or based on resident survey.				Maintenance	As Needed	▪ Transit Agency
The Depot Mobility Hub	The Depot Mobility Hub is proposed to be centrally located and operate as a one-stop-shop for access to all mobility options and information. By concentrating mobility options, this will increase the opportunity to make connections between modes.	X	X	TRT-5	Construction/Installation	One-Time	▪ Developer
					Operations/Management	Ongoing	▪ Property Management
					Maintenance	As Needed	▪ Property Management
Protected/ Separated Bicycling Facilities to Key Destinations	Construct bicycle infrastructure as defined in the 2020 Bicycle Master Plan. Specific projects will be discussed with the City.	X	X	SDT-5	Construction/Installation	One-Time	▪ Developer ▪ Public Entity
					Maintenance	As Needed	▪ Public Entity

6 ESTIMATED MITIGATION IMPACT

The Quantifying Greenhouse Gas Mitigation Measures report was prepared by the California Air Pollution Control Officers Association (CAPCOA) to further support the efforts of local governments to address the impacts of Greenhouse Gas emissions in their environmental review of projects and in their planning efforts. The mitigation measure emissions reduction benefits are estimated using commute trip and vehicle miles traveled reductions associated with the measures, which directly correlate to generated trips for large mixed-use development sites. Nelson\Nygaard examined the potential benefit associated with each TDM strategy included in the development proposal and assigned a likely trip reduction factor, as shown in Figures 19 and 20.

The reduction factors for each strategy overlap and are not additive, and CAPCOA has placed a maximum on the potential impact of a TDM program based the site's location and type of development. A maximum is applied to individual strategy categories, as well as a global maximum for combinations among several categories. Based on this site's location, the site is designated as Suburban Center, which means that the maximum impact of a TDM program will be 20%.

Figure 19 Trip Reduction Benefit – Proposed TDM Strategies

TDM Measure	Comment	CAPCOA Range of Effectiveness	CAPCOA Reference	Effectiveness Estimate for Passage
Commute Trip Reduction (Max Reduction 15%)				
Transportation Information Center	If provided, a transportation information center in the form of a real-time display, such as TransitScreen, should be a component of The Depot. Displays should be provided at the entryways of each residential building.	Medium	TRT-1	5.40%
Guaranteed Ride Home	Coordinate the promotion of the Commute.org Guaranteed Ride Home program. Encourage all residents to sign up, and work with Commute.org to promote the program on-site.	Low-Medium		
Subsidized Transit Passes	Free or subsidized unlimited Caltrain and SamTrans rides can be provided for residents through participation in Caltrain's Go Pass and SamTrans Way2Go programs, which allows residential complexes to purchase annual unlimited-ride passes for all residents for the life of the project.	Low-High	TRT-4	3.40%
Secure Bicycle Storage	A high-quality storage room for personal bicycles provided at each residential building.	Low-Medium	TRT-5	1.25%
Bicycle Repair Facilities	Free bicycle maintenance facilities for bikes owned by residents, provided at the Depot or within the long-term bike rooms.			
On-Site Car Sharing Vehicles	There are no current rideshare vehicles within walking distance of the project site. Negotiate with a provider to add vehicles on site (at The Depot, if possible) to provide residents access to cars for short and long trips. Number of vehicles will be variable based on usage.	Low	TRT-9	0.55%
Daycare Service	On-site daycare services reduce trips between households, places of employment, and childcare. Priority will be given to families living at the project site to enable this to truly reduce trips/vehicle reliance.	Low-Medium	N/A	N/A
Neighborhood/Site Enhancement (Max Reduction 5%)				
High-Quality Pedestrian Spaces	Provide high-quality pedestrian connections within Passage, and between Passage and key destinations including Hayward Park Station and Hillsdale Caltrain stations, and Downtown San Mateo. Provide funding for additional Commute.org shuttle service stop at the site, or for a private shuttle service to Hillsdale and/or Downtown Caltrain stations, and Millbrae BART. Shuttle schedules should be coordinated with train schedules, and should match arrival times, operating with approved 15 minute headways, and/or based on resident survey.	Medium	SDT-1	2.00%
Land Use/Location (Max Reduction 10%)				
Bus/Shuttle Stop	Provide a high-quality transit stop on site (at The Depot, if possible) in compliance with ADA+ existing transit system stop guidelines, to serve as a future mobility hub and designated area for pick-up/drop-offs.	Medium	LUT-5	7.84%
The Depot Mobility Hub	The Depot Mobility Hub should be centrally located and operated as a one-stop-shop for access to all mobility options and information. By concentrating mobility options, this will increase the opportunity to make connections between modes.	Medium-High		
Protected/Separated Bicycling Facilities to Key Destinations	Construct bicycle infrastructure as defined in the 2020 Bicycle Master Plan. Specific projects will be discussed with the City.	Medium	LUT-8	0.63%
Total Reduction				**20%**