Appendix 3.14-2

LOS Memo

FEHR PEERS

Memorandum

Date: May 8, 2025

To: Harry Yip, City of San Bruno

From: Taylor McAdam & TJ Crosby, Fehr & Peers

Subject: Tanforan Planned Development Project – Vehicle Level of Service Analysis

SF23-1299

EXECUTIVE SUMMARY

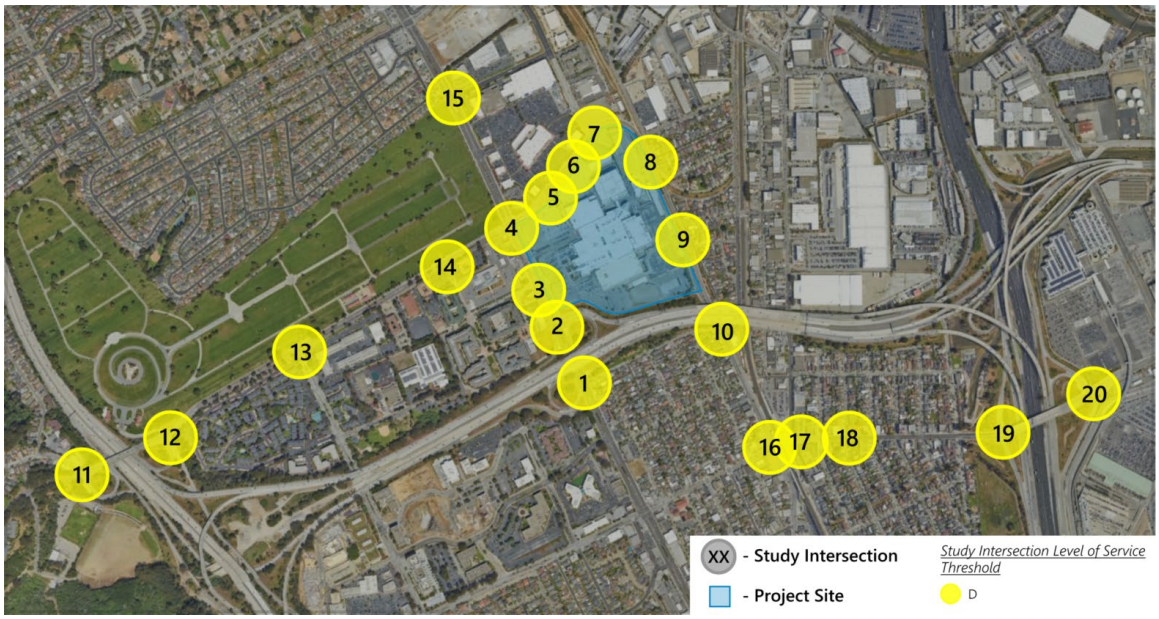
This technical memorandum presents the existing and forecasted future vehicle level of service surrounding the Tanforan Planned Development Project, herein referred to as the Project. The analysis is broken down into three scenarios: Existing, Baseline, and Baseline plus Project. The City of San Bruno provided the latest signal timing cards, which were used to assess traffic operations at 20 intersections surrounding the Project site and nearby vicinity. Additionally, Fehr & Peers conducted traffic count collection to ensure an accurate representation of existing conditions. Utilizing this data, Fehr & Peers developed a Synchro/SimTraffic network to evaluate the performance of all study intersections during the AM and PM peak hours.

As shown in **Figure 1**, the City of San Bruno's intersection Level of Service (LOS) threshold is specified as D in the General Plan, with this standard being applied to all 20 study intersections. An unadopted recommendation in the Transit Corridors Plan (TCP) for using LOS E in its study area, was considered but ultimately not used for this analysis. The LOS analysis results displayed in **Figure 2** and **Figure 3** are summarized in **Table 1**. The results show that one intersection operates at an unacceptable LOS in the existing conditions scenario, eight intersections would operate at an unacceptable LOS in the Baseline scenario, and twelve intersections would operate at an unacceptable LOS in the Baseline Plus Project scenario. While some intersections would experience increased delays due to project-generated traffic, the most significant congestion increases would occur between existing and baseline conditions, indicating that other planned developments are the primary contributors to overall LOS increase rather than the project itself. There are four intersections that reach an unacceptable LOS because of project volumes, intersections number 2, 3, 5, and 14.

This memo summarizes LOS results without improvement measures. However, Synchro modeling indicates that three of these four intersections (numbers 2, 5, and 14) could achieve an LOS within the acceptable range without requiring geometric changes by optimizing signal timing splits and cycle lengths.

The remaining intersection, number 3 at El Camino Real and Tanforan Way, would require more significant changes to improve from unacceptable LOS E to an LOS within acceptable range. The Project proposes changes to the eastern leg of this intersection within the project area: converting the westbound lane configuration from one thru/right lane and one left-turn lane to one thru/right lane and two left turn lanes. Synchro has shown that the additional left-turn lane combined with optimized signal timing splits and cycle length would result in an acceptable intersection LOS. This analysis does not assume a double westbound left configuration with Project Description because the internal circulation network continues to be loosely defined. The double westbound left is a configuration that the applicant showed at one point, but final internal geometries are still being determined.

Figure 1. Study Intersections



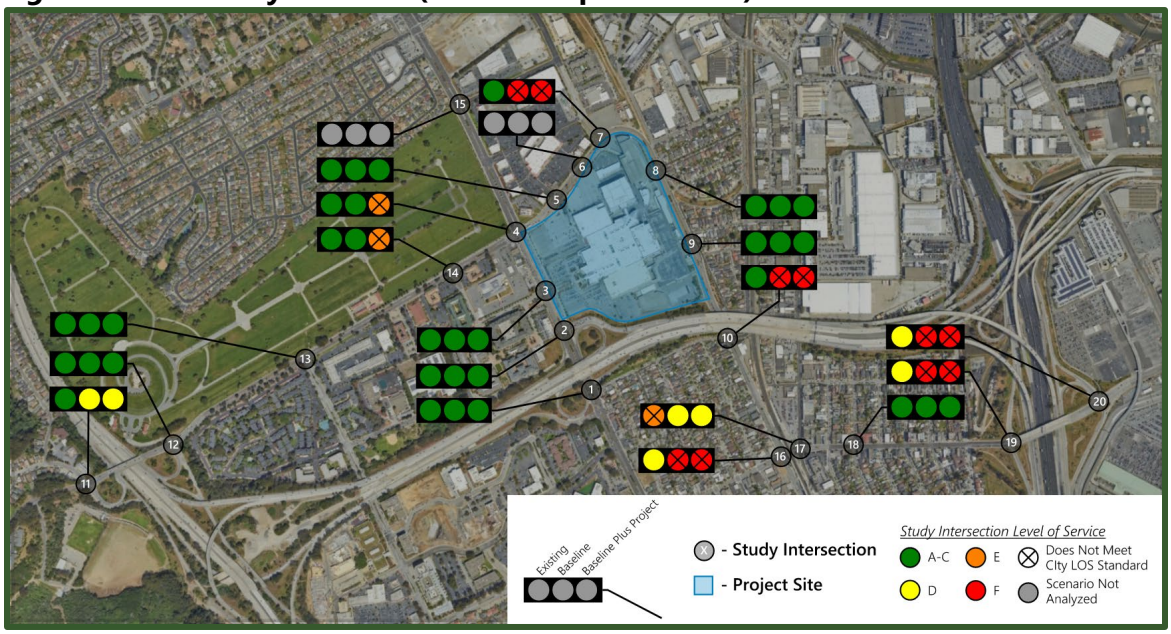
Source: Fehr & Peers 2025.

Table 1: Intersection LOS Results (without improvements)

Intersection	Existing		Baseline		Baseline Plus Project	
	AM	PM	AM	PM	AM	PM
1). ECR & EB380	A-C	A-C	A-C	D	A-C	D
2). ECR & WB380	A-C	D	A-C	D	A-C	**E**
3). ECR & Commodore Drive/Tanforan Way	A-C	A-C	A-C	A-C	A-C	**E**
4). ECR & Sneath Lane	A-C	A-C	A-C	F	E	F
5). Sneath Lane & Sea Biscuit Avenue	A-C	D	A-C	D	A-C	**E**
6). Sneath Lane & Cinemark Driveway/Marshalls Driveway *(TWSC)*[1]	N/A	N/A	N/A	N/A	N/A	N/A
7). Sneath Lane & San Bruno Parking Garage/Huntington	A-C	D	F	A-C	F	D
8). Huntington Avenue & San Bruno BART Parking Garage	A-C	A-C	A-C	A-C	A-C	A-C
9). Huntington Avenue & Tanforan Parking Garage Driveway	A-C	A-C	A-C	A-C	A-C	A-C
10). Huntington Avenue & Forest Lane/Herman Street *(AWSC)*	A-C	A-C	F	F	F	F
11). Sneath Lane & Rollingwood Drive/280 SB Ramps	A-C	A-C	D	A-C	D	A-C
12). Sneath Lane & 280 NB Ramps/Cemetery Driveway	A-C	D	A-C	E	A-C	F
13). Sneath Lane & Cherry Avenue	A-C	A-C	A-C	A-C	A-C	A-C
14). Sneath Lane & National Avenue	A-C	A-C	A-C	A-C	**E**	D
15). ECR & Noor Avenue *(TWSC)*[1]	N/A	N/A	N/A	N/A	N/A	N/A
16). Huntington Avenue and San Bruno Avenue *(Clustered with #17)*	D	E	F	F	F	F
17). San Bruno Avenue & San Mateo Avenue *(Clustered with #16)*	E	F	D	F	D	F
18). San Bruno Avenue & Third Avenue	A-C	A-C	A-C	A-C	A-C	A-C
19). San Bruno Avenue & 101 SB Ramps	D	A-C	F	F	F	F
20). San Bruno Avenue & 101 NB Ramps	D	D	F	D	F	F

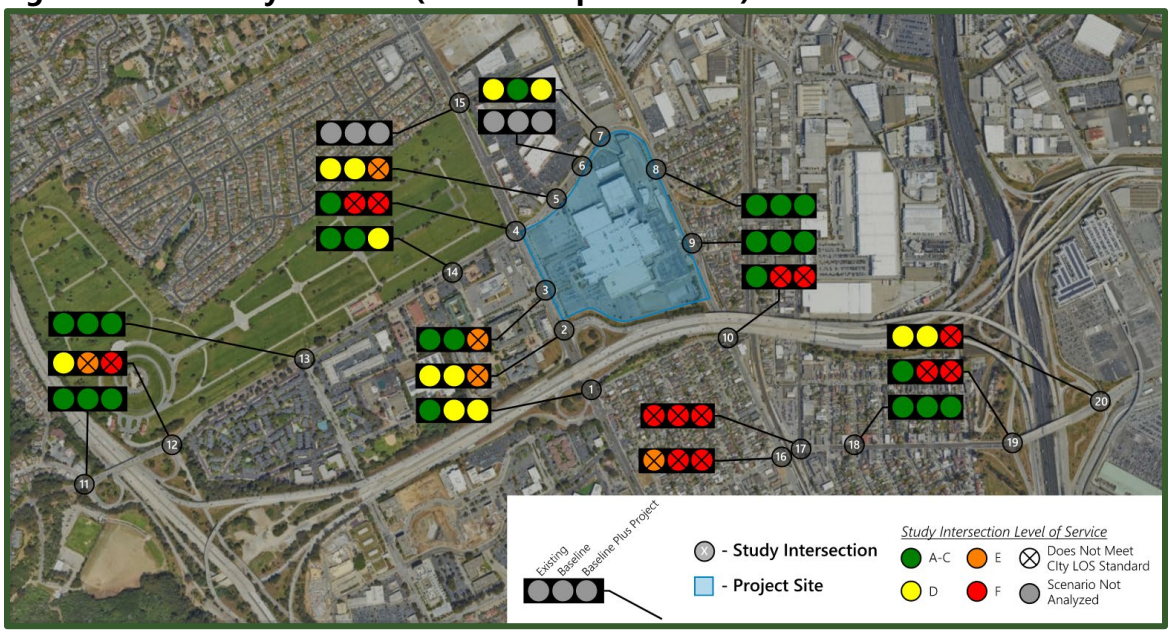
Based on the existing data review and study assumptions described above **Figure 2** and **Figure 3** summarize the AM and PM peak hour LOS on local roadways adjacent and leading to the Project site.

Figure 2. AM LOS by Scenario (without improvements)



Source: Fehr & Peers, 2025.

Figure 3. PM LOS by Scenario (without improvements)



Source: Fehr & Peers, 2025.

Intersections 6 and 15 are currently two-way stop-controlled (TWSC) intersections, where only the side streets have stop signs while traffic on the main arterial remains uncontrolled. As a result, these intersections do not receive a traditional LOS rating. Instead, their performance is evaluated based on control delay, measured in seconds. Control delay, a key factor in LOS calculation, measures the time vehicles spend slowing, stopping, and queuing at an intersection before proceeding. Higher control delay values indicate longer wait times and potential operational challenges for side street traffic. Results for these intersections can be seen in **Table 2**, **Table 3**, and **Table 4**.

PROJECT DESCRIPTION

The City of San Bruno is redeveloping the site of the current Tanforan Shopping Center into a mixed-use, transit-oriented development featuring residential, office, lab, retail, and entertainment spaces. The project will redevelop the majority of the parcel bounded by El Camino Real, Huntington Avenue, Sneath Lane, and the I-380. The existing BART Station with associated parking lot, Cinemark movie theater, and San Bruno Police Department building will remain. The existing Target retail store will continue operations within the project site at its current location. The BART San Bruno Station lies on the eastern edge of the project site, and the Caltrain San Bruno Station is less than a mile away from the southern edge of the project site. Multiple bus lines run along the site and/or serve the San Bruno BART Station (SamTrans bus routes 40, 41, 42, 141, 142, EPX, ECR).

DATA REVIEW

As shown in **Figures 2** and **3**, the analysis includes 10 intersections adjacent to the project area and 10 along arterials leading up to the project area. For the existing condition, traffic counts were collected at all 20 study intersections on Tuesday, November 7th, 2023.

In addition to collecting traffic count data, Fehr & Peers reviewed recently published traffic studies for major nearby developments to incorporate into future scenario analyses. One of these is the Southline Development, a 31-acre science and technology campus located northwest of the Project area. Southline will feature 2.8 million square feet of Class-A office and life science space and will include the realignment of Huntington Avenue as well as the extension and realignment of Sneath Lane to the east. Another key development is the Bayhill Office Park and the surrounding areas Southwest of the Project area, guided by the Bayhill Specific Plan. This plan includes YouTube's proposed campus expansion, which will introduce over 400,000 square feet of office space, along with the realignment of Grundy Lane and the creation of a multi-modal transportation hub. The Baseline scenario for this LOS analysis includes the first phase of both of these projects, which are both under construction at the time of this writing.

The 'Baseline plus Project' scenario required estimating trip generation to develop travel forecasts. Projected traffic volumes were calculated using Institute of Transportation Engineers

(ITE) methodologies and trip distribution software PTV Vistro to model anticipated traffic flow and routing to and from the completed project.

EXISTING CONDITIONS

This scenario analyzes current operations of study intersections using up-to-date signal timing and traffic counts based on three performance measurements: Control delay, V/C, and LOS.

V/C measures how busy a roadway or intersection is compared to how much traffic it can handle; a lower number indicates that the roadway or intersection has plenty of capacity and traffic moves smoothly. LOS is a way of measuring how good or bad traffic conditions are on a road or at an intersection with scores ranging from A (best performing) to F (worst performing). Control delay measures specific delays at control points, V/C shows how close traffic is to capacity, and LOS grades the overall traffic experience.

Intersection Level of Service (LOS)

18 of the 20 intersections in both the AM and PM peak hour meet the required standards of LOS D. Only intersections 16 and 17 at Huntington Avenue and San Bruno Avenue and San Bruno Avenue and San Mateo Avenue operates below, at LOS E or F.

Intersection number 17 is located less than 200 feet away from number 16 with which it is clustered, operating as one unified signal. The San Bruno Caltrain Station sits directly next to this intersection, and as part of a Caltrain Station renovation project that completed in 2014, this intersection was rebuilt and reconfigured.

Table 2: Existing Conditions LOS

Intersection	AM (8:00am-9:00am)			PM (4:45pm-5:45pm)		
	Control Delay	V/C	LOS	Control Delay	V/C	LOS
1). ECR & EB380	23.8	0.63	C	21.9	0.59	C
2). ECR & WB380	27.0	0.55	C	43.8	0.72	D
3). ECR & Commodore Drive/Tanforan Way	12.6	0.46	B	20.9	0.61	C
4). ECR & Sneath Lane	30.0	0.45	C	33.6	0.58	C
5). Sneath Lane & Sea Biscuit Avenue	12.4	0.37	B	38.1	0.86	D
6). Sneath Lane & Cinemark Driveway/Marshalls Driveway *(TWSC)*[1]	1.1	~	N/A	3.3	~	N/A

7). Sneath Lane & San Bruno Parking Garage/Huntington	17.1	0.25	B	35.5	0.58	D
8). Huntington Avenue & San Bruno BART Parking Garage	2.1	0.12	A	1.9	0.16	A
9). Huntington Avenue & Tanforan Parking Garage Driveway	6.0	0.14	A	7.2	0.21	A
10). Huntington Avenue & Forest Lane/Herman Street *(AWSC)*	11.5	~	B	16.3	~	C
11). Sneath Lane & Rollingwood Drive/280 SB Ramps	27.4	0.73	C	21.6	0.58	C
12). Sneath Lane & 280 NB Ramps/Cemetery Driveway	20.0	0.55	C	35.6	0.8	D
13). Sneath Lane & Cherry Avenue	12.8	0.47	B	10.4	0.38	B
14). Sneath Lane & National Avenue	26.8	0.41	C	25.4	0.44	C
15). ECR & Noor Avenue *(TWSC)*[1]	1.3	~	N/A	3.1	~	N/A
16). Huntington Avenue & San Bruno Avenue *(Clustered with #17)*	52.3	0.39	D	62	0.53	**E**
17). San Bruno Avenue & San Mateo Avenue *(Clustered with #16)*	78.0	0.45	**E**	238.2	1.33	**F**
18). San Bruno Avenue & Third Avenue	8.8	0.27	A	5.5	0.41	A
19). San Bruno Avenue & 101 SB Ramps	38.1	0.44	D	31.5	0.75	C
20). San Bruno Avenue & 101 NB Ramps	35.0	0.61	D	38	0.72	D

Notes:

1. Intersection is two-way stop-controlled and does not have LOS or V/C results due to uncontrolled approach on arterial.

Source: Fehr & Peers, 2025.

BASELINE CONDITIONS

This scenario analyzes the performance of study intersections when nearby planned and expected projects would be completed, prior to the proposed project being built. This analysis was done

using up-to-date signal timing and forecasted travel demand collected from major projects, the Southline Development and Bayhill Specific Plan.

The Southline Development is a 3-million-square-foot office and life science campus Northwest of the San Bruno BART station, expected to bring thousands of new commuters. This development will realign the curve where Sneath Lane merges into Huntington Avenue, creating a new intersection between intersections 7 and 8. The new intersection, while not altering existing study intersection geometries, allows for greater connectivity between San Bruno and South San Francisco and results in more vehicles entering the project vicinity from the Northeast. The Bayhill Specific Plan, anchored by YouTube's headquarters expansion, adds up to 2.4 million square feet of office space, retail, and hotel. This project is located southwest of the Tanforan redevelopment site on the south side of I-380.

Intersection Level of Service (LOS)

Most intersections operate within acceptable LOS standards during the AM peak hour, with the majority performing at LOS D or better. LOS is overall worse during the PM peak hour, notably intersections number 16 and 17 at Huntington Avenue and San Bruno Avenue, clustered with San Bruno Avenue and San Mateo Avenue, which together experiences poor LOS, reaching LOS F in both AM and PM peak hours.

Intersections 19 and 20 at San Bruno Avenue & 101 SB and San Bruno Avenue & 101 NB Ramps both operate at LOS F during the AM peak period. These intersections performed better in existing conditions, both going from D to F in the AM peak period.

Despite the congestion observed at some intersections, others continue to operate efficiently, maintaining LOS A or B conditions. Huntington Avenue & San Bruno BART Parking Garage (intersection 8) and San Bruno Avenue & Third Avenue (intersection 18) are examples that continue to operate well, where traffic volumes remain well below capacity, ensuring smooth flow throughout both peak periods.

The realignment of Huntington Avenue and Sneath Lane, along with a new intersection at the northwest corner of the Tanforan redevelopment site, improves traffic flow in the area. These changes help explain the improved LOS at Intersection 7 compared to existing conditions. Additionally, the Southline Development introduces a new roadway that enhances street grid connectivity, redistributing traffic and slightly reducing congestion at certain intersections.

The baseline analysis indicates that congestion is most severe along San Bruno Avenue, Sneath Lane, and Huntington Avenue, at freeway access points and high-volume intersections near transit hubs. Multiple failing intersections suggest that improvement strategies such as signal timing adjustments, intersection capacity improvements, or alternative routing solutions may be necessary to alleviate congestion in the study area.

Table 3: Baseline Conditions LOS

Intersection	AM			PM		
	Control Delay	V/C	LOS	Control Delay	V/C	LOS
1). ECR & EB380	27.3	0.67	C	42.7	0.72	D
2). ECR & WB380	32.7	0.62	C	51.1	0.80	D
3). ECR & Commodore Drive/Tanforan Way	13.7	0.49	B	25.8	0.69	C
4). ECR & Sneath Lane	33.7	0.54	C	112.0	0.69	**F**
5). Sneath Lane & Sea Biscuit Avenue	19.1	0.57	B	54.3	1.08	D
6). Sneath Lane & Cinemark Driveway/Marshalls Driveway *(TWSC)*[1]	1.0	~	*N/A*	7.3	~	*N/A*
7). Sneath Lane & San Bruno Parking Garage/Huntington	>300	2.24	**F**	32.7	0.60	C
8). Huntington Avenue & San Bruno BART Parking Garage	2.2	0.35	A	2.0	0.37	A
9). Huntington Avenue & Tanforan Parking Garage Driveway	7.0	0.37	A	7.8	0.42	A
10). Huntington Avenue & Forest Lane/Herman Street *(AWSC)*	66.3	~	**F**	120.7	~	**F**
11). Sneath Lane & Rollingwood Drive/280 SB Ramps	36.8	0.79	D	22.7	0.60	C
12). Sneath Lane & 280 NB Ramps/Cemetery Driveway	22.5	0.59	C	63.6	1.07	**E**
13). Sneath Lane & Cherry Avenue	14.9	0.54	B	14.2	0.50	B
14). Sneath Lane & National Avenue	29.0	0.46	C	26.8	0.46	C
15). ECR & Noor Avenue *(TWSC)*[1]	1.3	~	*N/A*	3.1	~	*N/A*
16). Huntington Avenue and San Bruno Avenue *(Clustered with #17)*	>300	1.07	**F**	>300	1.05	**F**

17). San Bruno Avenue & San Mateo Avenue *(Clustered with #16)*	45.7	0.58	D	216.5	1.50	**F**
18). San Bruno Avenue & Third Avenue	10.5	0.54	B	7.4	0.67	A
19). San Bruno Avenue & 101 SB Ramps	109.6	1.14	**F**	86.0	1.25	**F**
20). San Bruno Avenue & 101 NB Ramps	125.7	0.94	**F**	50.5	0.81	D

Notes:

1. Intersection is two-way stop-controlled and does not have LOS or V/C results due to uncontrolled approach on arterial.

Source: Fehr & Peers, 2025.

BASELINE PLUS PROJECT CONDITIONS

This scenario evaluates the future performance of study intersections after the completion of the baseline developments and the added traffic impact of the proposed Project. The analysis incorporates updated signal timing, existing traffic counts, and forecasted travel demand generated by the Southline Project, Bayhill Specific Plan, and Tanforan Project.

Intersection Level of Service (LOS)

The introduction of the proposed project volumes leads to worse LOS overall. Intersections 16 and 17 at Huntington Avenue & San Bruno Avenue, clustered with San Bruno Avenue & San Mateo Avenue, remain the most congested section of the study area. These intersections both experience LOS F in the AM and PM peak period.

Some intersections that previously operated at acceptable levels now experience degraded conditions. Intersection 12 (Sneath Lane & 280 NB Ramps/Cemetery Driveway) worsens significantly in the PM peak, shifting from LOS C to LOS F. Similarly, Intersection 14 (Sneath Lane & National Avenue) experiences a decline from LOS D to LOS E in the PM period.

Despite the overall increase in LOS, some intersections maintain efficient operations. Intersection 8 (Huntington Avenue & San Bruno BART Parking Garage) remains at LOS A in both AM and PM peak periods. Similarly, Intersection 18 (San Bruno Avenue & Third Avenue) continues to operate at LOS B or better.

The new intersection introduced by the Southline Development, between Intersections 7 and 8, slightly redistributes traffic flows, contributing to localized improvements. Intersection 7 (Sneath Lane & San Bruno Parking Garage/Huntington) shows better LOS in the AM peak, benefiting from the enhanced street grid connectivity. However, these benefits do not substantially offset the increased demand observed at major intersections that immediately surround the project site.

Overall, the proposed project, combined with background developments, increases LOS at several intersections, particularly along San Bruno Avenue, Sneath Lane, and freeway access points. The anticipated conditions around the project site highlight the need for future improvement measures to accommodate growing demand.

Table 4: Baseline Plus Project Conditions LOS

Intersection	AM			PM		
	Control Delay	V/C	LOS	Control Delay	V/C	LOS
1). ECR & EB380	31.2	0.82	C	41.9	0.87	D
2). ECR & WB380	27.1	0.82	C	63.7	1.00	**E**
3). ECR & Commodore Drive/Tanforan Way	33.2	0.91	C	62.2	1.12	**E**
4). ECR & Sneath Lane	65.7	0.89	**E**	177.0	0.94	**F**
5). Sneath Lane & Sea Biscuit Avenue	33.6	0.80	C	68.7	1.23	**E**
6). Sneath Lane & Cinemark Driveway/Marshalls Driveway *(TWSC)*[1]	196.7	~	*N/A*	>300	~	*N/A*
7). Sneath Lane & San Bruno Parking Garage/Huntington	>300	2.37	**F**	43.5	0.78	D
8). Huntington Avenue & San Bruno BART Parking Garage	2.3	0.47	A	2.0	0.50	A
9). Huntington Avenue & Tanforan Parking Garage Driveway	12.9	0.62	B	15.4	0.67	B
10). Huntington Avenue & Forest Lane/Herman Street *(AWSC)*	161.3	~	**F**	219.3	~	**F**
11). Sneath Lane & Rollingwood Drive/280 SB Ramps	48.9	0.86	D	25.3	0.68	C
12). Sneath Lane & 280 NB Ramps/Cemetery Driveway	33.9	0.77	C	117.2	1.35	**F**
13). Sneath Lane & Cherry Avenue	18.2	0.71	B	13.9	0.60	B
14). Sneath Lane & National Avenue	58.0	0.58	**E**	50.8	0.64	D

15). ECR & Noor Avenue *(TWSC)*[1]	1.6	~	*N/A*	4.4	~	*N/A*
16). Huntington Avenue and San Bruno Avenue *(Clustered with #17)*	>300	1.35	**F**	>300	1.32	**F**
17). San Bruno Avenue & San Mateo Avenue *(Clustered with #16)*	50.6	0.67	D	198.0	1.58	**F**
18). San Bruno Avenue & Third Avenue	12.0	0.65	B	9.4	0.76	A
19). San Bruno Avenue & 101 SB Ramps	173.5	1.41	**F**	174.1	1.58	**F**
20). San Bruno Avenue & 101 NB Ramps	199.9	1.06	**F**	91.0	0.93	**F**

Notes:
1. Intersection is two-way stop-controlled and does not have LOS or V/C results due to uncontrolled approach on arterial.

Source: Fehr & Peers, 2025.

SUMMARY AND OPPORTUNITIES FOR IMPROVEMENT

Under existing conditions, seven intersections operate at LOS D or E, with one at LOS F. Under baseline conditions, five intersections operate at LOS D or E, with seven at LOS F. When project-generated traffic is incorporated in the baseline plus project scenario, six intersections operate at LOS D or E, with eight at LOS F. As shown in **Table 1**, four intersections would reach an unacceptable LOS solely because of project-generated volumes. Synchro modeling indicates that three of these intersections (numbers 2, 5, and 14) could achieve an acceptable LOS through optimized signal timing splits and cycle lengths alone, with intersection 3 being able to reach an acceptable LOS through both optimization of signal timing splits and cycle lengths combined with an additional westbound left turn lane as proposed by the project.

Many study intersections experience significant congestion, but the most substantial decline in LOS occurs between existing and baseline conditions. This suggests that the project itself is not the primary driver of intersection-level degradation, but rather that other planned developments account for the majority of the LOS decline.

Several key intersections exhibit poor LOS due to identifiable factors related to their control type, function, or other constraints. Intersection 10, Huntington Avenue and Forest Lane is an all-way stop-controlled (AWSC) intersection that increases from LOS C in existing conditions, to LOS F in baseline and baseline plus project. Unlike signalized intersections, stop controlled intersections will reach unsatisfactory LOS at lower traffic volumes due to the need for each approach to stop and yield. If this intersection were signalized, its performance would likely improve significantly,

similar to upstream Intersections 8 and 9 on Huntington Avenue, which maintain an acceptable LOS ranging from A to C under all scenarios.

Intersections 6 and 15 are two-way stop-controlled locations at Sneath Lane/Marshalls-Cinemark Driveway and El Camino Real/Noor Avenue, respectively. Both face similar operational challenges to all-way stop-controlled intersections, as side street traffic must yield to major roadway flows. While LOS and V/C ratios cannot be directly calculated for these intersections, control delay measurements indicate worsening conditions across scenarios. Whereas intersection 15 sees small increases in control delay with each successive scenario, Intersection 6 sees a significant spike in worsening control delay in the baseline plus project scenario compared to existing and baseline conditions. Restricting intersection 6 to right-in/right-out movements while redirecting left turns to alternative access points, such as the currently signalized intersection 5, could alleviate control delay. These changes would work to reduce the number of vehicles trying to turn left across multiple lanes with high volumes of uncontrolled traffic. Alternatively, installing a traffic signal at this location could reduce wait times for side street vehicles entering Sneath Lane, but may have adverse effects on through traffic.

Intersections 12, 19, and 20 are all freeway ramp intersections that experience unacceptable LOS F during the PM peak under baseline plus project conditions. Intersections 12 only degrades to LOS F only after project volumes are introduced, while Intersections 19 and 20 already operate at LOS F under baseline conditions. Synchro modeling has shown that adjustments of the cycle length and signal timing split optimization accompanied with reorganization of phasing at intersection 12 could improve the operations of the intersection to an acceptable LOS.

Intersections 16 and 17 are a pair of clustered intersections that operate under a coordinated signal that already experience unacceptable LOS performance in existing conditions, LOS F and LOS E respectively. Their performance further deteriorates under both baseline and baseline plus project conditions, with both intersections reaching LOS F in the baseline scenario and remaining at LOS F when project volumes are added. These intersections are located beneath the San Bruno Caltrain station platform, where existing high volumes and complex geometry contributes to poor traffic flow. A significant volume of vehicles traveling West from US 101 passes through these intersections to access key destinations in San Bruno. While signal timing optimization may offer some improvements, the constrained right of way and geometric limitations significantly restrict the potential for meaningful LOS improvements. Addressing congestion at this location would likely require broader traffic routing strategies or a shift toward alternative transportation modes rather than traditional capacity enhancements.

Intersections 4 and 7, respectively located along Sneath Lane at El Camino Real and Huntington Avenue, deteriorate to LOS F in the baseline condition and remain at LOS F under baseline plus project conditions, indicating that the decline in performance is primarily due to growth from developments analyzed in the baseline scenario rather than project-related traffic. These

intersections initially operate between LOS A to C under existing conditions but drop to LOS F in the baseline scenario. Intersection 7, situated at the northeastern corner of the project site, is at the crossroads of the Project site and another major development, the Southline Development Project, which when fully built out will substantially contribute to increased traffic in the area.

Overall, while the project contributes to worsening LOS at intersections adjacent to the Project site, the broader decline in intersection performance is mostly driven by the nearby Southline and Bayhill development projects analyzed in the Baseline scenario. Project-related volumes would cause intersections 2, 3, 5, and 14 to reach unacceptable LOS, however, targeted signal timing adjustments consisting of cycle length and signal timing split optimization would restore an acceptable LOS at intersections 2, 5, and 14.

Intersection 3 at El Camino Real and Tanforan Way would require more significant changes to reach an acceptable LOS. The project proposes an additional westbound left turn lane at intersection 3 as a part of planned internal circulation improvements within the project site. Synchro demonstrates that when this additional westbound left-turn lane is combined with optimized signal timing splits and cycle length, the intersection operates at an acceptable LOS. Therefore, the westbound left turn lane at intersection 3 should remain as part of the development plan to allow for intersection 3 to operate at an acceptable LOS without making geometric changes outside of the project area. With the inclusion of this westbound left-turn lane, all intersections that reach an unacceptable LOS because of project volumes would be able to reach an acceptable LOS through signal timing changes without the need for geometric changes outside of the project development site.

Attachments:

- Synchro Results