



DATE: June 6, 2016

CATEGORY: New Business

DEPT.: Community Development

TITLE: **North Bayshore Trip Cap Report**

RECOMMENDATION – Review and accept the North Bayshore Trip Cap Report.

BACKGROUND

North Bayshore Precise Plan

The City adopted the North Bayshore Precise Plan in 2014 based on the transportation policy foundations set by the 2030 General Plan and the North Shoreline Transportation Study.

The Precise Plan established an initial vehicle trip cap of 18,900 vehicles across the three North Bayshore gateways (Shoreline Boulevard, Rengstorff Avenue, and San Antonio Road). This trip cap number assumes a 45 percent single-occupancy vehicle (SOV) mode share. The Precise Plan also includes the following key standards to guide implementation of the trip cap:

1. **Vehicle trip cap monitoring.** The City shall monitor the number of vehicle trips during the morning peak period (7:00 a.m. to 10:00 a.m.) at each of the three major entry points to North Bayshore: San Antonio Road, Rengstorff Avenue, and Shoreline Boulevard. Monitoring shall occur at least twice a year during periods determined by the City.
2. **Vehicle trip cap.** If monitoring shows that the trip cap is reached at any of the three gateway locations after two consecutive data reporting periods, the City will not grant any new building permits for net new square footage in the North Bayshore Precise Plan area until the number of morning peak-period vehicle trips is reduced below the trip cap, except as described in the next paragraph.

An application for new development may propose strategies, including, but not limited to, physical improvements to the transportation network and additional

Transportation Demand Management (TDM) measures, along with traffic analysis demonstrating the proposed strategies and/or improvements will comply with the district vehicle trip cap prior to project occupancy. Proposed strategies and/or improvements shall be implemented prior to building occupancy, unless deemed otherwise by the City Council. The City Council will consider applications proposing improvements to the transportation network and/or additional TDM measures according to the review process established by Council policy.

3. **Vehicle trip cap report.** The City shall prepare an annual North Bayshore vehicle trip cap report. This report will include data from the vehicle trip cap monitoring program, including the number of vehicle trips at each gateway and each gateway's vehicle trip capacity. The report will also document any trends or data regarding progress toward achieving the Precise Plan's mode-share targets. The report may also include, but is not limited to, the following: single-vehicle occupancy percentage, implementation of employer TDM programs, and the timing and implementation of area transportation improvements.
4. **Vehicle trip cap evaluation.** The City Council shall review the annual vehicle trip cap report. The City Council will evaluate the report and may adjust the trip cap to reflect any new capacity at the gateways. If the report shows that the vehicle trip cap is not being achieved to the satisfaction of the City, the City Council may consider, but is not limited to, any of the following:
 - require new development to implement additional project and/or areawide TDM strategies;
 - increase the amount of City or developer contributions to fund area transportation improvements and implement a congestion pricing program for the area; and
 - implement a congestion pricing program for the area.

District Transportation Performance Monitoring

The City Council has supported draft North Bayshore Precise Plan language to include a new district transportation performance monitoring standard. This standard would result in reporting on key transportation issues beyond just trip cap monitoring, including vehicle delays and congestion, a summary of the office and residential TDM plans implemented in the area, analysis of planned or recent development projects, and the timing of the area's planned priority transportation improvements.

Based on this draft standard, the 2017 annual trip cap report executive summary (see Attachment 1) is an initial attempt to include this information in an expanded report.

June 2016 City Council Meeting

The last Annual Trip Cap Report was considered by the City Council in June 2016. At that time, Council suggested that future reports include more information beyond just traffic counts, and how we may or may not be reaching our target goals.

ANALYSIS

2017 Trip Cap Report Summary

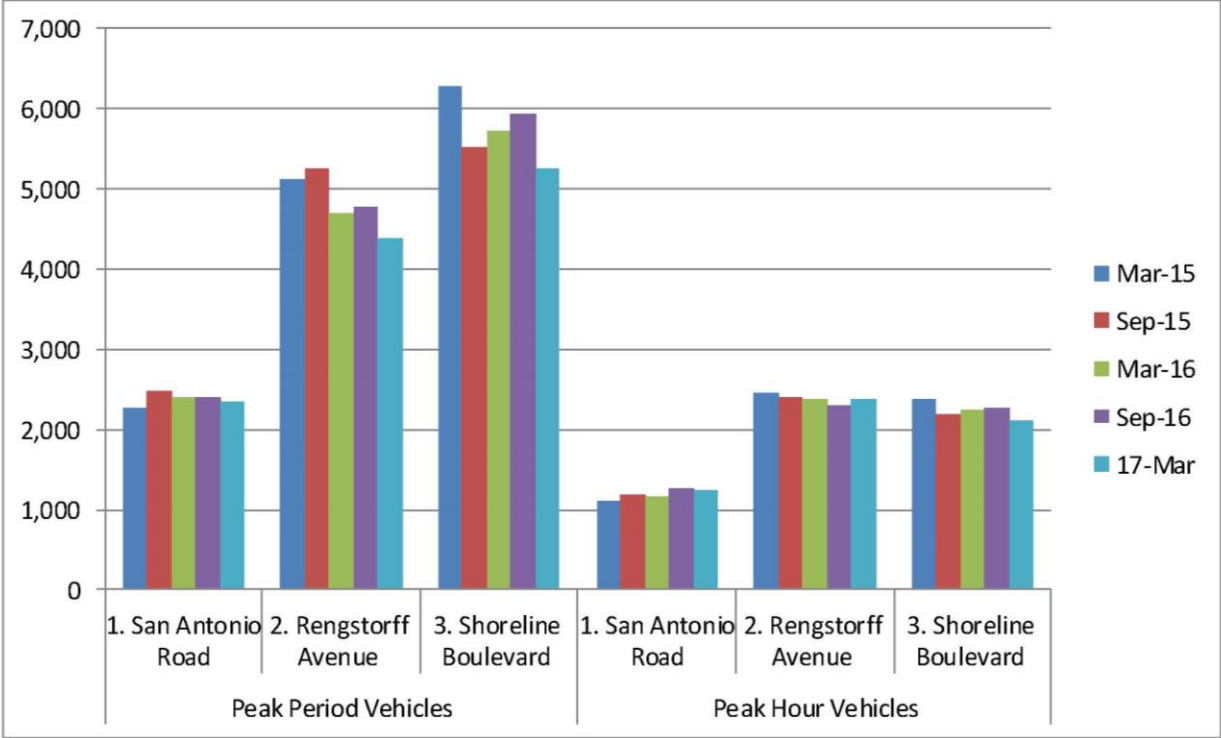
The map graphic below shows the three gateway locations (Shoreline Boulevard, Rengstorff Avenue, and San Antonio Road), recently approved and planned developments, and planned public improvements.



Below is a summary of the key observations from the report, including staff comments.

1. Gateway Traffic Volumes

The chart below compares the gateway traffic volumes at the three gateways from 2015 to 2017.



Staff comment: During the peak period (7:00 a.m. to 10:00 a.m.), there was a noticeable decrease in trips at the Shoreline Boulevard and Rengstorff Avenue gateways. Staff believes this decrease is due to both LinkedIn recently moving out of North Bayshore, and Google recently shifting some of its employees to areas outside of North Bayshore. This issue is discussed in greater detail below.

The table below shows the gateway capacity, vehicle volumes, and available capacity for the a.m. inbound weekday peak period for counts taken in 2016 and 2017.

Gateway / Roadway Segment		1. San Antonio Road	2. Rengstorff Avenue	3. Shoreline Boulevard	Total	
		San Antonio Road (total)	US 101 NB Ramps and Garcia Avenue-Charleston Road	US 101 NB Ramps-La Avenida Street and Pear Avenue		
Peak Period	Gateway Capacity	4,140	8,020	6,740	18,900	
	Previous	Vehicle Volume	2,390	4,790	5,930	13,110
	Sept '16	Available Capacity	1,760	3,230	810	5,790
	New Data	Vehicle Volume	2,350	4,380	5,250	11,980
	March '17	Available Capacity	1,790	3,640	1,490	6,920
	Vehicle Capacity Change from Fall to Spring		-40	-410	-680	-1,130
			-1.70%	-8.60%	-11.50%	-8.60%
Peak Hour	Gateway Capacity	1,530	2,960	2,490	6,980	
	Previous	Vehicle Volume	1,260	2,290	2,270	5,820
	Sept '16	Available Capacity	270	670	220	1,160
	New Data	Vehicle Volume	1,240	2,370	2,100	5,710
	March '17	Available Capacity	290	590	390	1,270
	Vehicle Capacity Change from Fall to Spring		-20	+80	-170	-110
			-1.60%	+3.50%	-7.50%	-1.90%

Staff comment: As shown above, the total vehicle capacity across all three gateways is 18,900 vehicle trips during the a.m. peak period. The March 2017 counts show the total volume of approximately 12,000 vehicles and available vehicle capacity of approximately 6,920 vehicles. Available vehicle capacity increased across each gateway during this time (San Antonio Road +40 trips; Rengstorff Avenue +410 trips; and Shoreline Boulevard +680 trips) when compared to 2016. As noted earlier, staff believes this is due to LinkedIn vacating North Bayshore and Google shifting employees out of the area.

2. Mode Share

The Precise Plan has a mode share target of 45 percent SOV during the a.m. peak period. The following table shows that the SOV rate was 45 percent in 2016, and increased to 47 percent in 2017.

Staff comment: This report shows the SOV rate increased slightly above the 45 percent target to 47 percent. However, the percentage increase is a minor fluctuation, and still

represents a significant number of trips using other modes besides SOVs to commute in to North Bayshore during the morning commute hours.

Staff notes that the 45 percent SOV target is a long-term Precise Plan goal, and if it is not met, it does not result in any additional restrictions or requirements. For reference, the SOV rates during previous monitoring periods for the a.m. peak period was 57 percent (February 2014), 55 percent (March 2015), 53 percent (September 2015), 60 percent (March 2016), and 54 percent (September 2016).

3. Monitoring Future Development and Transportation Improvements

Monitoring future development and the timing of transportation improvements to support this new development is critical to ensure North Bayshore gateways have adequate vehicle capacity. The following tables provide information on development projects, their estimated vehicle trips, and how they can be accommodated under existing vehicle capacity and planned improvements.

**Table 1 – Development and Estimated Vehicle Trips
 (Shoreline Boulevard – a.m. Peak Period)**

Development	Status	Estimated Trips	Estimated Occupancy
Charleston East	Entitled	918	2019
Sobrato (1255 Pear)	Under Review	400	2020
Microsoft	Entitled	308	2019
Broadreach	Entitled	338	2018
Shashi	Entitled	189	2019
Intuit	Entitled	84	TBD
Total		2,237	

Staff comment:

- *Charleston East (Google) – This project includes the greatest number of new project-related trips in the area. The timing of their project is discussed later in this report.*
- *Sobrato (1255 Pear Avenue) – The City Council previously provided Gatekeeper authorization for this mixed-use office and residential project in June 2015. The Council report and Council direction at that time noted that the project should be “self-mitigating” – that the vehicle trips associated with the residential portion of the project should offset any new office-related vehicle trips. This direction was given because no additional vehicle capacity was available at the North Bayshore gateways, as the Bonus*

FAR process in April 2015 allocated office FAR for 2.2 million square feet of development. In other words, the 1255 Pear Avenue development and its estimated 400 vehicle trips have not been accounted for in the North Bayshore gateway "trip cap" established with the adopted Precise Plan.

This project is tentatively planned for a City Council Study Session in the fall.

Planned Public Improvements

The City is currently working on the North Bayshore Precise Plan key priority transportation improvements to improve vehicle congestion in the area and increase vehicle capacity along the Shoreline Boulevard corridor. These improvements, noted below, would result in an additional vehicle capacity of approximately 1,650 trips to the Shoreline Boulevard corridor.

- **Highway 101 Off-Ramp Realignment.** This realignment will allow northbound 101 traffic to exit 101 and avoid the Shoreline Boulevard/La Avenida intersection. The estimated completion date for this project is 2021.
- **Plymouth Street/Space Park Way Realignment.** This project would eliminate one intersection on Shoreline Boulevard and will allow additional queueing space for vehicles turning left to Plymouth Street. The estimated completion date for this project is also 2021.

Summary Data

The following table summarizes the gateway traffic volumes, gateway capacity, and the additional vehicle trips from planned public improvements along the Shoreline Boulevard corridor, which is the most congested gateway.

**Table 2 – Gateway Capacity Summary Table
 (Shoreline Boulevard – a.m. Peak Period)**

	Estimated Vehicle Trips
Vehicle Volumes	
Existing Gateway Traffic Volume	5,250
North Bayshore Development (from Table 1)	2,237
<i>Subtotal</i>	7,487
Vehicle Capacity	
Existing Gateway Capacity	6,740
Existing Vehicle Volumes – Existing Vehicle Capacity = Vehicle Trip Deficit	-747
Additional Vehicle Capacity¹	1,650
<i>Additional Vehicle Capacity Plus Vehicle Trip Deficit</i>	903

¹ Includes Highway 101 off-ramp and Plymouth-Space Park Way realignment projects.

Staff comment:

- *As noted above, most of the North Bayshore projects in the pipeline will be occupied by approximately 2019/2020. However, the two key Shoreline Boulevard gateway transportation improvement projects will not be completed until approximately 2021. To account for this delay, Google’s Charleston East project includes a condition that Google establish a “baseline” number of employees as of June 27, 2016, monitor this baseline number until the transportation improvement projects are completed, and ensure that the number of Google employees not exceed the baseline number prior to completion of the transportation improvement projects. In other words, the occupancy of Charleston East cannot lead to more Google employees in North Bayshore than existed on June 27, 2016 until the two key transportation projects are completed.*

FISCAL IMPACT

None. Funding for this work is already in the City’s annual budget as a CIP.

CONCLUSION

In conclusion, the North Bayshore gateway vehicle volumes comply with the adopted North Bayshore Precise Plan trip cap policies, and the 47 percent SOV mode-share target is close to the Plan’s 45 percent mode-share goal. Continual monitoring of the gateways, including tracking of pending area development projects and planned transportation projects, will ensure the City continues to comply with the adopted Precise Plan’s trip cap policies.

Additionally, the Draft Precise Plan proposes new residential uses. These new uses will add new (mostly) outbound vehicle trips during the a.m. peak period. This will have an effect on gateway capacity, and could trigger more improvements such as a new Stevens Creek transit bridge or Charleston Road underpass, in addition to planned transportation improvements from the already-adopted Precise Plan.

NEXT STEPS

The next trip counts will take place in fall 2017. This data will be shared with Council in a memo, and will be available on the City's website. The next formal report will be in June 2018.

ALTERNATIVES

1. Do not accept the trip cap report.
2. Provide other direction.

PUBLIC NOTICING – Agenda posting.

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Attachment: 1. Trip Cap Report