ERIKA FOY
PROTECTING PASADENA

January 25, 2021

Honorable Mayor Victor Gordo
Members of the City Council
Department of Transportation
City of Pasadena
175 North Garfield Avenue
Pasadena, CA 91109

RE: Outside-CEQA Threshold Measurement

As you are all aware, members of the Madison Heights Neighborhood Association (MHNA) have been troubled for years by the amount of backed-up traffic surrounding our neighborhood. When we learned about the staggering number of unmitigated projects planned along South Los Robles, we knew we had to do something drastic to get the attention of city planners since our previous efforts to raise the alarm seem to have fallen on deaf ears.

It is unfortunate that Pasadena residents had to do the city's job and hire our own traffic engineering firm to substantiate the gridlock and failing intersections we live with every day, but nevertheless, we organized, raised the necessary funds, and hired PRISM Engineering to help us understand traffic reports including 253 South Los Robles. All of this was done so that we could give voice to our deep concerns regarding the need for mitigation. The firm put together an initial report for MHNA in regards to the 253 South Los Robles project, and then in March of last year, provided a very technical and investigative follow-up traffic study for Livable Pasadena.

In January of 2020, PRISM performed a complete field survey (videos included), where they observed in-person local traffic operations and driver behavior using detailed traffic data such as Saturation Flow Rate (SFR)* and Peak Hour Factor (PHF)**. This key analytical data must be reviewed when discussing outside-CEQA analysis because, as PRISM's in-depth field study has confirmed, SFR and PHF are not being evaluated correctly. In all cases, the city is using the default values of 1900 for SFR and .92 for PHF, paired with a significantly outdated version of Synchro's software programs. **These default values are appropriate for suburban areas, but not for our growing and increasingly urban Central District.** By employing the correct values for these two factors and using up-to-date software, the PRISM report illustrates how Level of Service (LOS) in these areas drops from a grade of C to a grade of F.

SFR and PHF specifically were measured in the field with over 90 samples. PRISM found that, on average, the values are 25% lower than what the city currently uses. These lower, field-verified values result in downgraded LOS scores for the intersections in question and most accurately reflect what was actually happening last year in Pasadena. Had the correct, lower values been used, the much-needed outside-CEQA mitigations MHNA was originally advocating for would have been triggered. These differences are shown side-by-side in Table ES.1 of the published March 2020 study (see below).

Further, with the addition of just one medical office at 650 South Raymond, the intersection of Arroyo Parkway and Glenarm will have three failing LOS grades for turns. Unfortunately, the traffic report provided by DOT shows an outside-CEQA threshold "pass" for this project because intersection turn movements are **averaged** to create one LOS grade. The wait time to make a left turn onto the freeway in the PM is a wholly unacceptable **nine minutes,** yet the city does not mitigate this because the grade for the entire intersection is averaged and therefore appears to pass. This makes no sense. By averaging an intersection's LOS grades and not mitigating the individual E's and F's, we are not allowing developments to deliver on their responsibilities regarding our Complete Streets measures, which help us achieve Goal 5 in our General Plan.

PRISM's investigative report, backed up by video footage and raw data, exposes the fact that DOT is ignoring the significant, negative impacts caused by the sole prioritization of Vehicle Miles Traveled (VMT) metrics. DOT must adjust outside-CEQA thresholds, update their software, and modernize their current engineering techniques as the city considers adding more density to our urban core. These are the straightforward steps that need to be taken if we truly wish to keep our streets safe and functioning properly now and in the future.

We can no longer allow DOT to keep the topic of traffic so complicated that the general population can't possibly understand it. This is why we, as residents, felt it necessary to spend a fortune hiring our own traffic engineer to help explain the technicalities of these issues in layman's terms (as if we can't see it with our own eyes). Everyone knows that all of this new development has caused local traffic to become unbearable, which makes the fact that residents have had to serve city officials privately-funded traffic reports completely incomprehensible.

Current outside-CEQA reports are deeply flawed, and I am completely mystified when they say our streets are functioning in any acceptable way. By getting it so wrong, the

city is compromising not only quality of life in Pasadena, but also safety. When accidents inevitably occur on our jammed streets, the city risks liability, especially considering this negligent process and after being warned on-record by a state-certified traffic engineer of the deficiencies in the currently accepted methodology. It is about time city leadership put residents' concerns forward and show those of us who care very deeply about Pasadena how you believe you are working to maintain a livable and well-functioning city.

Sincerely,

Erika Foy

*Saturation Flow Rate (SFR) is a measurement of how closely vehicles are spaced as they progress through a signal when it turns green. If the space between cars is tight, then the SFR is high. In Pasadena, the SFR is much lower than the default 1900 used by the city. This means DOT assumes more cars get through each signal, however PRISM has proved this incorrect. The result of using a correct SFR is that we achieve a more clarified and correct LOS.

**Peak Hour Factor (PHF) is how the software adjusts the LOS based on the worst 15 minutes of an hour. The city is using a default factor that does not take specific traffic operations into consideration, but rather simply flattens the curve of the car count. It is these peak times that need accounting because this is where we see the most frustration in our community. The software must adjust to account for the worst case scenario so these jams can be mitigated.

Table ES.1 Existing Year 2020 Intersection LOS Summary

Table ES.1. Existing Year 2020 Intersection Level of Service (LOS) Summary, Comparing with City of Pasadena DOT Recent Results			PRISM Engineering Existing Year 2020						City of Pasadena DOT Existing Year 2019		
			Analyzed w/ SFR & PHF values as measured at signal, and as CBD*			Analyzed w/ SFR & PHF values as measured at signal, *not* as CBD*			Analyzed w/ Synchro software defaults: SFR=1900, PHF=0.92		
	INTERSECTION	DESCRIPTION of SIGNAL CONTROL, PHASINGS, TIMINGS	PEAK HOUR	AVG. DELAY	LOS	PEAK HOUR	AVG. DELAY	LOS	PEAK HOUR	AVG. DELAY	LOS
1	Del Mar Boulevard at Marengo Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Lead/Lag Optimize allowed. Protected then Permissive Phase Left Turn for WBL, Permissive Phase for all other Left Turns. Cycle Lengths observed in field: 90-125 secs.	AM	26.5	C	AM	23.0	C	AM (2017**)	10.9	B
			PM	98.9	F	PM	71.8	E	PM (2017**)	11.8	B
2	California Boulevard at Marengo Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Lead/Lag Optimize allowed. Protected then Permissive Phase Left Turn for WBL, Permissive Phase for all other Left Turns. Cycle Lengths observed in field: 90-105 secs.	AM	122.1	F	AM	88.9	F	AM (2019 **)	16.3	B
			PM	92.4	F	PM	61.3	E	PM (2019 **)	15.6	B
3	California Boulevard at Lake Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Permissive Phase Left Turn for all Left Turns. Cycle Lengths observed in field: 85-105 secs.	AM	177.5	F	AM	149.4	F	AM	N/A	N/A
			PM	24.2	C	PM	21.0	C	PM (2017**)	N/A	N/A

Source: PRISM Engineering

Notes:

All Level of Service (LOS) calculations were conducted using Synchro ver.9, using HCM 2010 methodology, and using signal timings and phasings observed in field.

**CBD=Central Business District factor in Synchro. AM Peak average SFR = 1,664 vph, and PM Peak average SFR = 1,548 vph.*

PHF (Peak Hour Factor) ranges from PHF = 0.25 - 0.98, depending on traffic count time and intersection location, all intersection approaches measured independently

(see specific traffic counts in appendix for details on what PHF were used for each turning movement in Synchro HCM 2010 LOS calculations)

***** 170-180 South Euclid Avenue** Traffic Impact and Environmental Quality Analysis – Outside of CEQA, Oct. 12, 2017*

***** 650 South Raymond Ave** Transportation Impact Analysis Outside of CEQA Evaluation, Apr. 25, 2019*

(Specific calculation sheets from the Synchro software are contained in the Appendix)

650 South Raymond Ave
PM Existing

4/23/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3383		1805	3539		1805	4952		1805	5119	
Flt Permitted	0.54	1.00		0.25	1.00		0.11	1.00		0.11	1.00	
Satd. Flow (perm)	1017	3383		472	3539		217	4952		217	5119	
Volume (vph)	97	454	328	424	207	41	44	1132	507	83	1262	104
Peak-hour factor, PHF	0.79	0.94	0.94	0.92	0.70	0.92	0.61	0.93	0.96	0.80	0.91	0.92
Adj. Flow (vph)	123	483	349	461	296	45	72	1217	528	104	1387	113
RTOR Reduction (vph)	0	8	0	0	13	0	0	98	0	0	12	0
Lane Group Flow (vph)	123	824	0	461	328	0	72	1647	0	104	1488	0
Confl. Peds. (#/hr)												8
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.44	0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	470	1565		218	1637		95	2167		95	2240	
v/s Ratio Prot		0.24			0.09			0.33			0.29	
v/s Ratio Perm	0.12			c0.98			0.33			c0.48		
v/c Ratio	0.26	0.53		2.11	0.20		0.76	0.76		1.09	0.66	
Uniform Delay, d1	13.1	15.3		21.5	12.7		18.9	19.0		22.5	17.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.3		516.8	0.3		42.6	2.6		120.3	1.6	
Delay (s)	14.5	16.6		538.3	13.0		61.5	21.5		142.8	19.4	
Level of Service	B	B		F	B		E	C		F	B	
Approach Delay (s)		16.3			315.0			23.1			27.4	
Approach LOS		B			F			C			C	

Intersection Summary			
HCM Average Control Delay	68.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.7%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

650 South Raymond Ave
PM Existing+Project 4/23/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.94		1.00	0.98		1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3377		1805	3539		1805	4952		1805	5119	
Flt Permitted	0.53	1.00		0.24	1.00		0.11	1.00		0.11	1.00	
Satd. Flow (perm)	1016	3377		454	3539		217	4952		217	5119	
Volume (vph)	97	457	346	424	208	41	51	1132	507	83	1262	104
Peak-hour factor, PHF	0.79	0.94	0.94	0.92	0.70	0.92	0.61	0.93	0.96	0.80	0.91	0.92
Adj. Flow (vph)	123	486	368	461	297	45	84	1217	528	104	1387	113
RTOR Reduction (vph)	0	8	0	0	13	0	0	98	0	0	12	0
Lane Group Flow (vph)	123	846	0	461	329	0	84	1647	0	104	1488	0
Confl. Peds. (#/hr)												8
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.44	0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	470	1562		210	1637		95	2167		95	2240	
v/s Ratio Prot		0.25			0.09			0.33			0.29	
v/s Ratio Perm	0.12			c1.02			0.39			c0.48		
v/c Ratio	0.26	0.54		2.20	0.20		0.88	0.76		1.09	0.66	
Uniform Delay, d1	13.1	15.4		21.5	12.7		20.6	19.0		22.5	17.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.4	1.4		553.2	0.3		64.6	2.6		120.3	1.6	
Delay (s)	14.5	16.8		574.7	13.0		[illegible]	21.5		142.8	19.4	
Level of Service	B	B		F	B		F	C		F	B	
Approach Delay (s)		16.5			335.5			24.5			27.4	
Approach LOS		B			F			C			C	

Intersection Summary			
HCM Average Control Delay	71.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.66		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

650 South Raymond Ave
AM Existing

4/23/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3453		1805	3564		1805	5040		1805	5065	
Flt Permitted	0.48	1.00		0.48	1.00		0.15	1.00		0.11	1.00	
Satd. Flow (perm)	906	3453		919	3564		292	5040		217	5065	
Volume (vph)	85	220	95	333	333	31	78	1295	282	31	997	126
Peak-hour factor, PHF	0.92	0.75	0.79	0.88	0.86	0.87	0.79	0.93	0.87	0.70	0.95	0.80
Adj. Flow (vph)	92	293	120	378	387	36	99	1392	324	44	1049	158
RTOR Reduction (vph)	0	22	0	0	8	0	0	48	0	0	25	0
Lane Group Flow (vph)	92	392	0	378	415	0	99	1668	0	44	1182	0
Confl. Peds. (#/hr)												12
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.44	0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	419	1597		425	1648		128	2205		95	2216	
v/s Ratio Prot		0.11			0.12			0.33			0.23	
v/s Ratio Perm	0.10			c0.41			c0.34			0.20		
v/c Ratio	0.22	0.25		0.89	0.25		0.77	0.76		0.46	0.53	
Uniform Delay, d1	12.9	13.0		19.6	13.1		19.1	18.9		15.9	16.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.4		23.2	0.4		35.6	2.5		15.4	0.9	
Delay (s)	14.1	13.4		42.9	13.4		54.7	21.4		31.2	17.4	
Level of Service	B	B		D	B		D	C		C	B	
Approach Delay (s)		13.5			27.3			23.2			17.9	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

650 South Raymond Ave
AM Existing+Project 4/23/2019

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.91		1.00	0.91	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.99		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1805	3449		1805	3564		1805	5040		1805	5065	
Flt Permitted	0.47	1.00		0.48	1.00		0.15	1.00		0.11	1.00	
Satd. Flow (perm)	901	3449		910	3564		292	5040		217	5065	
Volume (vph)	85	221	99	333	336	31	93	1295	282	31	997	126
Peak-hour factor, PHF	0.92	0.75	0.79	0.88	0.86	0.87	0.79	0.93	0.87	0.70	0.95	0.80
Adj. Flow (vph)	92	295	125	378	391	36	118	1392	324	44	1049	158
RTOR Reduction (vph)	0	22	0	0	8	0	0	48	0	0	25	0
Lane Group Flow (vph)	92	399	0	378	419	0	118	1668	0	44	1182	0
Confl. Peds. (#/hr)												12
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Effective Green, g (s)	37.0	37.0		37.0	37.0		35.0	35.0		35.0	35.0	
Actuated g/C Ratio	0.46	0.46		0.46	0.46		0.44	0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	417	1595		421	1648		128	2205		95	2216	
v/s Ratio Prot		0.12			0.12			0.33			0.23	
v/s Ratio Perm	0.10			c0.42			c0.40			0.20		
v/c Ratio	0.22	0.25		0.90	0.25		0.92	0.76		0.46	0.53	
Uniform Delay, d1	12.9	13.1		19.8	13.1		21.2	18.9		15.9	16.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.4		24.5	0.4		60.8	2.5		15.4	0.9	
Delay (s)	14.1	13.4		44.3	13.5		82.0	21.4		31.2	17.4	
Level of Service	B	B		D	B		F	C		C	B	
Approach Delay (s)		13.6			27.9			25.3			17.9	
Approach LOS		B			C			C			B	

Intersection Summary			
HCM Average Control Delay	22.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

KeepPasadenaMoving

February 1, 2021

Honorable Mayor Victor Gordo
Members of the City Council
175 North Garfield Avenue
Pasadena, CA 91109

RE: CITY COUNCIL STUDY SESSION ON CEQA AND OUTSIDE CEQA
Add to the public record.

The Honorable Mayor Gordo and City Council,
Pasadena DOT asked to meet with KPM on December 22, 2020, for a "*listening session for DOT staff to get feedback from KPM*" on CEQA metrics and Outside CEQA traffic analysis. KPM also attended the TAC special CEQA meeting held 1/28/21. KPM responded to both DOT and TAC meetings with a presentation attached here on background, analysis, and recommendation. This presentation was developed in unison with various Pasadena neighborhood associations. A thank you goes to Madison Heights association for the independent traffic engineer analysis.

Net outcome and ask of the City. Please review and take special attention that new development does increase traffic, and the VMT process was created to obfuscate what LOS proved – as defined by DOT's consulting firm, Fehr/Peers: LOS is an "operational analysis", whereas VMT is "behavioral analysis". Why is that important, LOS measures traffic flow by new development, VMT does not. VMT and CEQA mitigation elements by state legislation supports developers and housing lobbyists for more density while avoiding the responsibility to address the resulting increase in traffic which impacts traffic safety for all of us, driver, cyclist, pedestrian, young, old, visitors, and the list goes on.

We ask the City review the recommendations:

1. KPM recommends increasing the use of Level of Service traffic mitigations to improve traffic, not just Complete Street mitigation measures, which does not deal with traffic. CS mitigation are programs (bus vouchers, bike racks, reduce parking, parking fees, etc.), not physical traffic mitigation (signals, light timing, expansion of lanes, etc.).
2. We must realize that development has contributed to traffic congestion, and we should not continue to reduce or negate traffic analysis due to skewed public policy.
3. We need to reform the 'Outside of CEQA' mitigation process so that it helps reduce traffic congestion and provide safe streets.
    a. Street signals that are overcapacity and turns that are failing due to too much traffic need to be mitigated based on LOS methodology.
    b. Outside CEQA thresholds need more stringent triggers than currently adopted by the city.
4. Residents of Pasadena need a crystal-clear understanding of what increasing VMT mean. Does it allow for more traffic on already-crowded streets and intersections - or does it mitigate traffic flow?
5. Request the City DOT adopt transparent traffic calculators similar to Los Angeles and the San Gabriel Association of Governments
6. This process needs transparency and explanation; sample calculations that can be reviewed and studied, verify methodology and soundness of the decisions/changes, specifically as it relates to new development and how CEQA VMT and VT thresholds are triggered, and having LOS comparisons to show real-world traffic impact.
7. Pasadena must grow in a way that doesn't create traffic gridlock and a harmful environment and implement safer streets.

Web: [redacted] | email: [redacted]

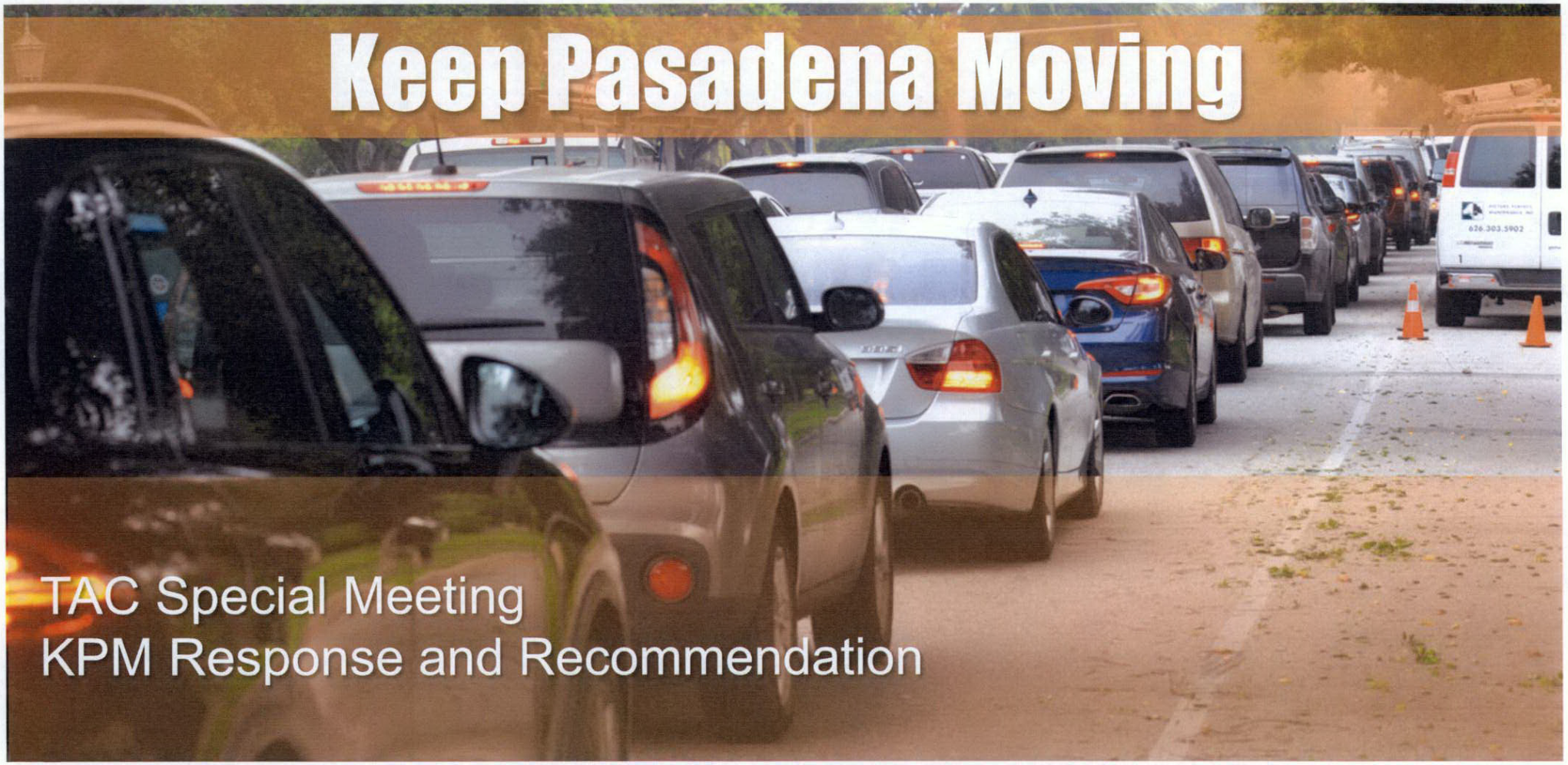
8. And lastly, while not completely CEQA related, KPM and the vast number of supporters via letters and surveys have asked for street safety measures. Pasadena needs and desires more common-sense safety solutions with broader support from the city. Here's a few examples: traffic signals at Sunny Slope/OG, Craig/OG intersection, scramble strips at Sierra Bonita/OG, improvement at Lake/OG, and, repair the roads. And yet no effort has been put in place. More effort is spent on consultants and making traffic worse. **If the real concerns are speed and safety, the city should prioritize and enact measures that improve safety.**

Thank you,
Keep Pasadena Moving

Attachment: 1.28.21_DOT-KPM-CEQAa3.1.pdf

Web [redacted] | email: [redacted]

Keep Pasadena Moving



TAC Special Meeting
KPM Response and Recommendation

January 28, 2021

Situation

- There is a disconnect on how the DOT is researching traffic.
- KPM and the residents of Pasadena need a crystal-clear understanding of what does an increase of VMT thresholds do:
  a. Increase traffic, or
  b. Decrease traffic?
- And a clear understanding of what "outside CEQA" really means?
- The City decision to use VMT is compromising the quality of life and safety of residents in Pasadena.
- The City has overdeveloped which has resulted in gridlock. Everyone knows traffic has intensified.
- There's a discrepancy between Pasadena DOT traffic analysis and independent traffic engineer's analysis of traffic.
- Ultimately impacting safety for all, drivers, cyclist, pedestrians.

Background

- Senate Bill 743 created VMT. Legislation states traffic congestion would no longer be considered a significant impact under CEQA and therefore need not be assessed at all if the "project" involves "land use" (i.e., zoning) or "transportation." *
- The rationale for VMT supposedly better aligns to the State's policy of "reducing" greenhouse gases in order to promote "multimodal transportation networks"(translation: get rid of cars) and "a diversity of land uses" (translation: high density development). *
- Developers campaigned against Level of Service (LOS) because it focused on real calculations that revealed traffic congestion with new development. *
- Law firm of Perkins Coie "Under the existing framework of congestion-based analysis using LOS, infill and transit-oriented development would have been discouraged" because LOS proves development creates more congestion. *

Assessment

- Pasadena chose VMT. VMT, however, does not tell the lay person that more congestion is being created by new development.
- There is a lack of understanding of the real impacts of enacting VMT and removing LOS. KPM requested Pasadena maintain LOS over VMT in 2020, twice.+
- By creating public policy which alters the traffic analysis calculations has been designed to misguide residents and green-light development and other.
- Pasadena residents want to know how much more traffic congestion is being created by new development and Pasadena's decision to use VMT is keeping people unaware, by design.
- Independent Traffic Engineer analysis - 3 intersections of Pasadena shows vast differences in how the City performs traffic analysis reaching LOS F. *
- City Planning Director, David Reyes, stated 2020 "...has resulted in a loss of local control", "...[we] need to do a better job of explaining that there's an impact..." *

Recommendation

Next slide

Recommendation

1. KPM recommends increasing the use of Level of Service traffic mitigations to improve traffic, not just Complete Street mitigation measures, which does not deal with traffic. CS mitigation are programs (bus vouchers, bike racks, reduce parking, parking fees, etc.), not physical traffic mitigation (signals, light timing, expansion of lanes, etc.).
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Appendix

KPM Charter: KEEP PASADENA MOVING (KPM) is a grassroots volunteer organization with the goal of promoting safe streets and common-sense traffic alternatives. It begins with and ends with the community - we live here, raise our families here, we work here, we shop here, we vote here. Protecting our neighborhoods and our quality of life is the highest priority.

SBAR: SBAR is an easy to use, structured form of communication that enables information to be transferred accurately between individuals. Situation: Clearly and *briefly* define the situation. Background: Provides clear, relevant background information that relates to the situation. Assessment: A statement of your professional conclusion. Recommendation: What do you need from this organization

Pasadena Star News: https://www.pasadenastarnews.com/2019/10/07/why-pasadena-is-finding-it-hard-to-say-no-to-bigger-and-bigger-developments/

The Marin Post: https://marinpost.org/blog/2020/5/15/new-ceqa-guidelines-for-traffic-impacts-make-assessment-meaningless

Prism engineering traffic recordings: http://www.prism.engineering/pasadenatrafficvids.html

§ *"The vast majority of Californians drive alone to work, two million more today than in 2010. Dealers continue to sell autos at a nearly two million unit annual rate. For most, getting to work by bus or rail vastly increases travel times and limits the number of jobs available to workers, especially for low-income workers. Ironically, transit's share of commuting has dropped 15 percent since 1990, before the extensive Metro and Metrolink rail networks were opened."* California's inept central planners. JOEL KOTKIN, WENDELL COX January 11, 2020. https://www.ocregister.com/2020/01/11/californias-inept-central-planners-joel-kotkin-and-wendell-cox/

Traffic Calculators:

- San Gabriel Valley Council of Governments https://apps.fehrandpeers.com/SGVCOGVMT/
- Los Angeles https://docs.google.com/forms/d/e/1FAIpQLScCUHg_Vy5VzMlfC1cD5cynrf-uVNcsMEWBaH5jDXWCutaF4A/viewform

+ Jan 12, 2020. Letter to City Council and Pasadena DoT, "Take Action: Tell Council To Not Use VMT As The Only Form Of Traffic Analysis. Maintain LOS." KeepPasadenaMoving.

Nov. 12, 2020. Letter to City Council and Pasadena DoT, "The VMT Proposal Encourages Runaway Development And Should Be Reworked." KeepPasadenaMoving.

Excerpt. The Marin Post. May 15, 2020:
https://marinpost.org/blog/2020/5/15/new-ceqa-guidelines-for-traffic-impacts-make-assessment-meaningless

- One of the current methods of mitigating traffic as it relates to new real estate development, include assessing the impacts of the traffic that a zoning change or a new project will add to adjacent roads and how that will affect congestion at intersections.
- That method is called "Level of Service" (LOS) and it's analyzed by doing traffic counts and recording congestion times. It's a method that has served us well for decades. California's public policy makers, however, disagree and have made changes to CEQA Guidelines to take this issue in an entirely new direction.
- Senate Bill 743 legislation basically states that traffic congestion would no longer be considered a significant impact under CEQA and therefore need not be assessed at all if the "project" involves "land use" (i.e., zoning) or "transportation". The new way of considering traffic congestion impacts is called "vehicle miles traveled" (VMT).
- The rationale for this change to VMT was supposedly to better align to the State's public policy goals of "reducing" greenhouse gas in order to promote "multimodal transportation networks" (translation: get rid of cars) and "a diversity of land uses" (translation: high density development).
- VMT is very different from the way most agencies presently assess impacts, which, as shared with City leaders, is to rate the LOS of the various intersections impacted by a new project, based on monitoring existing congestion levels at those intersections and estimating the number of additional vehicles that the project will generate.
- LOS assessment is relatively accurate because it is a metric based on decades of data statistics on how much traffic different types of uses generate per unit or per square foot (residential, retail, commercial, industrial, etc.) and well documented.
- VMT turns the definition of "congestion" from being an objective measurement to a subjective opinion, grounded only in what is or is not politically correct at any given time. After all, who gets to decide what additional percentage of traffic is "too much?"
- High density developers, housing advocates, and the usual cast of characters in the State Legislature are gushing about this change to VMT. They know that under, VMT "traffic," as an impact, will be more easily manipulated to match their public policy goals.
- As the law firm of Perkins Coie notes: "Under the existing framework of congestion-based analysis using LOS, infill and transit-oriented development is often discouraged because such projects are in areas of existing traffic congestion."
- The fact that VMT lacks any commonsense relationship to real-world experience apparently doesn't matter, but I suppose that's the whole point.
- Ed Yates, a prominent SF Bay Area environmental attorney, explains the difference between LOS and VMT in this way: "Developers complained for years about the Level of Service criteria because it focused on intersections and they complained that any growth could exacerbate intersection congestion. Which, of course, is something the public would want to know about and could understand."
- "VMT, however, does not tell the lay person that [any intersection] will become more congested but instead provides a snapshot of the development's percentage contribution to overall traffic. So, instead of a finding that [their nearby intersection] will go from the already bad LOS C to a very bad D, or F which has been validated by an 3rd party Traffic Engineer, ... What people want to know is do they have to wait longer and how much. And now, they may never know."
- Or as traffic expert Robert Harrison commented, "It appears VMT offers a great opportunity for "fudging" the numbers on project impacts, reducing the possibility of adding transportation capacity and improving the potential for new development to be approved."
- But it turns out that "fudging" is the least of VMT's flaws. The truth is that the mathematics of VMT rewards more and more traffic congestion, while masking the real-world impacts.

Excerpt. Pasadena Star News, October 7, 2019:
https://www.pasadenastarnews.com/2019/10/07/why-pasadena-is-finding-it-hard-to-say-no-to-bigger-and-bigger-developments

- Pasadena Loss of Control
- According to David Reyes, these state laws has resulted in a loss of local control, "the city is terrified of violating the state's environmental laws" because "....will result in lawsuits that the city will lose."
- "The developer always wins, and that's the way the state law is set up,"
- Here's the where the rubber hits the road.
  City traffic analyses and shows there's more times than not on these development results in little to no traffic impact. DOT , Planning and the human eye knows this is false.
- Based on City doing Sacramento's bidding the City is not wrong, but neither are the residents.
- Reyes, "Staff is sensitive to that, and we probably need to do a better job of explaining that there's an impact..."

Traffic analysis LOS vs. VMT

Prism engineering

Independent Traffic Engineer analysis of 3 intersections of Pasadena, 2020

Discrepancy of traffic impact of LOS vs. VMT.

KPM requested Pasadena maintain LOS over VMT in 2019.

Table ES.1 Existing Year 2020 Intersection LOS Summary

Table ES.1. Existing Year 2020 Intersection Level of Service (LOS) Summary, Comparing with City of Pasadena DOT Recent Results

			PRISM Engineering Existing Year 2020						City of Pasadena DOT Existing Year 2019		
			Analyzed w/ SFR & PHF values as measured at signal, and as CBD*			Analyzed w/ SFR & PHF values as measured at signal, *not* as CBD*			Analyzed w/ Synchro software defaults: SFR=1900, PHF=0.92		
	INTERSECTION	DESCRIPTION of SIGNAL CONTROL, PHASINGS, TIMINGS	PEAK HOUR	AVG. DELAY	LOS	PEAK HOUR	AVG. DELAY	LOS	PEAK HOUR	AVG. DELAY	LOS
1	Del Mar Boulevard at Marengo Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Lead/Lag Optimize allowed. Protected then Permissive Phase Left Turn for WBL, Permissive Phase for all other Left Turns. Cycle Lengths observed in field: 90-125 secs.	AM	26.5	C	AM	23.0	C	AM (2017**)	10.9	B
			PM	98.9	F	PM	71.8	E	PM (2017**)	11.8	B
2	California Boulevard at Marengo Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Lead/Lag Optimize allowed. Protected then Permissive Phase Left Turn for WBL, Permissive Phase for all other Left Turns. Cycle Lengths observed in field: 90-105 secs.	AM	122.1	F	AM	88.9	F	AM (2019 **)	16.3	B
			PM	92.4	F	PM	61.3	E	PM (2019 **)	15.6	B
3	California Boulevard at Lake Avenue	SIGNALIZED. 4 Phase, Semi-Actuated. Permissive Phase Left Turn for all Left Turns. Cycle Lengths observed in field: 85-105 secs.	AM	177.5	F	AM	149.4	F	AM	N/A	N/A
			PM	24.2	C	PM	21.0	C	PM (2017**)	N/A	N/A

Source: PRISM Engineering

Notes:

All Level of Service (LOS) calculations were conducted using Synchro ver.9, using HCM 2010 methodology, and using signal timings and phasings observed in field.

**CBD=Central Business District factor in Synchro. AM Peak average SFR = 1,664 vph, and PM Peak average SFR = 1,548 vph. PHF (Peak Hour Factor) ranges from PHF = 0.25 - 0.98, depending on traffic count time and intersection location, all intersection approaches measured independently*

(see specific traffic counts in appendix for details on what PHF were used for each turning movement in Synchro HCM 2010 LOS calculations)

*** **170-180 South Euclid Avenue** Traffic Impact and Environmental Quality Analysis – Outside of CEQA, Oct. 12, 2017*

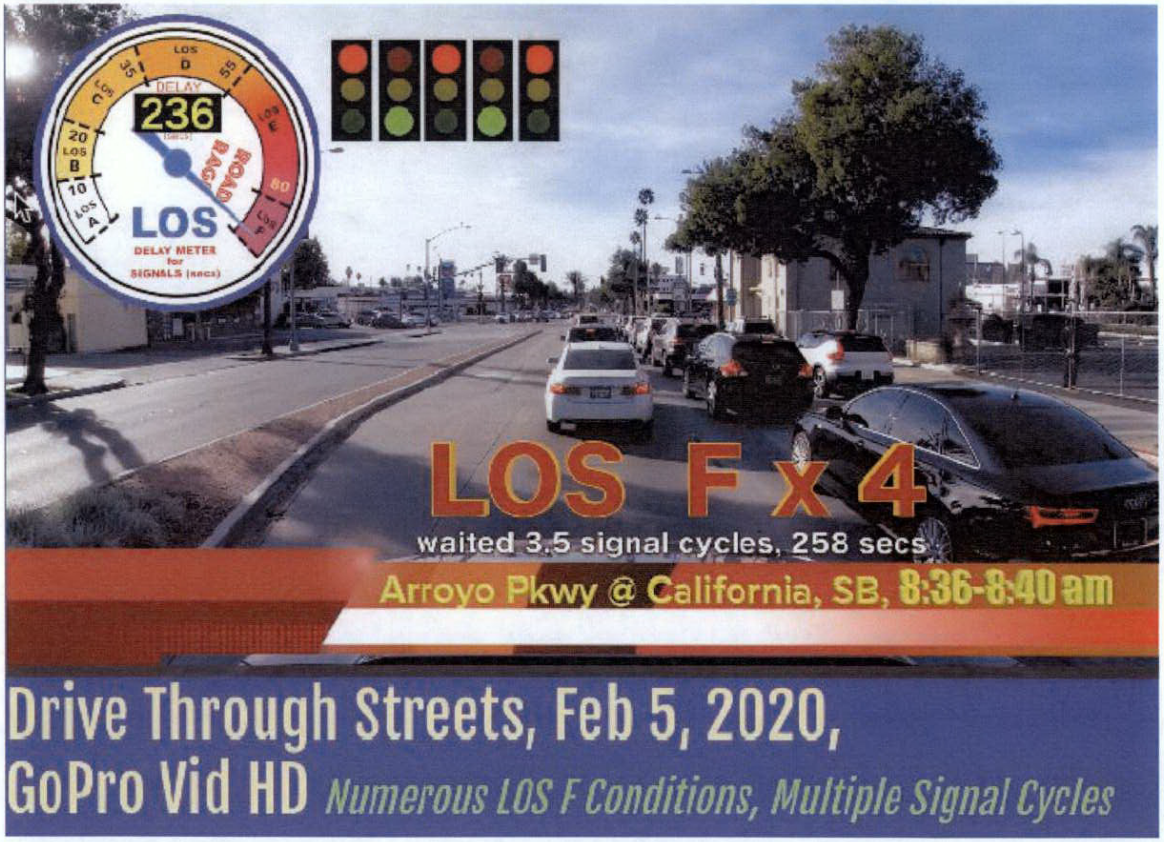
*** **650 South Raymond Ave** Transportation Impact Analysis Outside of CEQA Evaluation, Apr. 25, 2019*

(Specific calculation sheets from the Synchro software are contained in the Appendix)

Examples of traffic impact LOS F

Prism engineering

LOS Condition F. >4 traffic cycles
Arroyo Pkwy/California
Feb. 5, 2020. Morning traffic

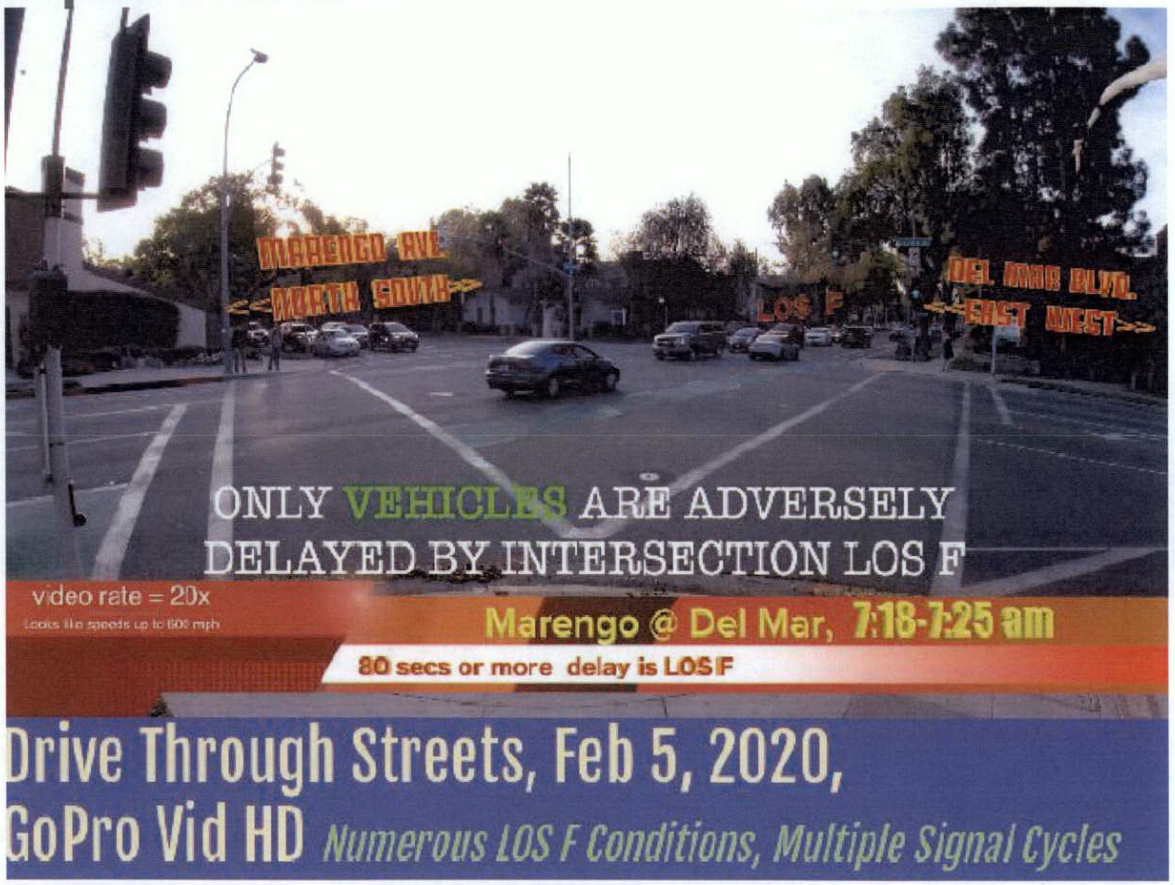


Examples of traffic impact LOS F

Prism engineering

LOS Condition F
Marengo/Del Mar
Feb. 5, 2020. Morning traffic

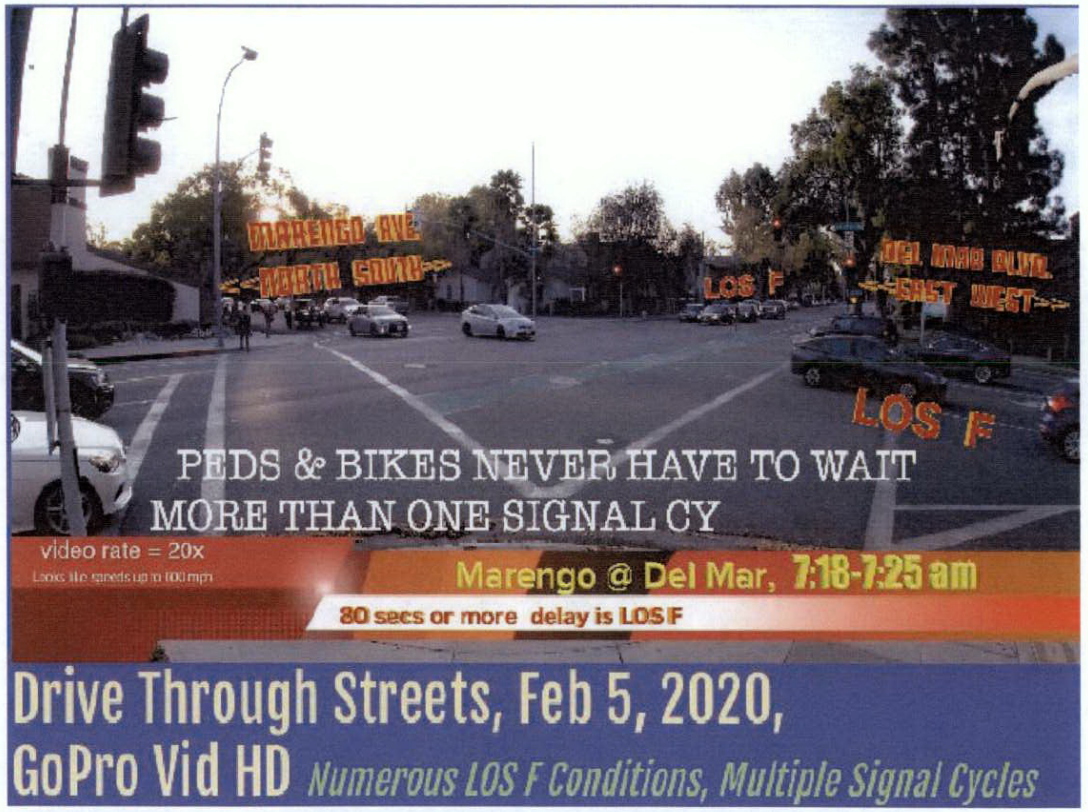
This example shows vehicle adverse delays made by VMT design decisions.



Examples of traffic impact LOS F

Prism engineering

LOS Condition F
Marengo/Del Mar
Feb. 5, 2020. Morning traffic



Version history

- 1/31/21. Recommendation slide. Added 3b. Outside CEQA thresholds need more stringent triggers than currently adopted; Editorial corrections.