

Exhibit D

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PINNACLE TRAFFIC ENGINEERING

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March 2, 2020

c/o: Alvaro Gonzalez
Mr. Edmundo Duran
135 Allison Street
Watsonville, CA 95076

RE: Duran Cold Storage Expansion Project (PLN190077); Monterey County, CA
Project Traffic Assessment

Dear Mr. Duran,

Pinnacle Traffic Engineering (PTE) is pleased to submit the traffic assessment for the proposed cold storage expansion project in Monterey County. The project site is located on the southwest corner of the San Juan Road and Allison Road intersection in the unincorporated area east of Pajaro (135 Allison Road). The existing cold storage facility (7,410 SF) operates between 8:00 AM and 10:00 PM with 5 employees (7 employees during peak season). It's estimated the existing operations accommodate 10-12 trucks per day. The project includes the construction of additional cold storage and warehouse space (+/-7,000 SF) and a new office building (+/-1,000 SF). The project description indicates there are no proposed changes to the existing operations, with a possible increase of 2-3 employees and 2-4 daily trucks. The general location of the project site is shown on Figure 1.

The Monterey County Resource Management Agency (RMA) has requested a traffic assessment to evaluate the potential impacts associated with the proposed project (letters dated Nov. 25 & 27, 2019). The traffic assessment scope was developed in consultation with County staff (Raul Martinez). The traffic assessment focuses on peak hour traffic operations and access at the San Juan Road / Allison Road intersection.

Existing Conditions

San Juan Road is an east-west Major Road (G-11) with a single lane in each direction. San Juan Road extends east from Main Street - Porter Drive to US 101 north of Prunedale. San Juan Road has a two-way left turn lane west of Allison Road with a 45 miles per hour (mph) speed limit. San Juan Road east of Allison Road has a 55 mph speed limit. There is a shared left-through-right lane on each approach at the San Juan Road / Allison Road intersection and Allison Road is stop sign controlled on the northbound approach at San Juan Road. Allison Road is a rural collector roadway extending south of San Juan Road to Railroad Avenue.

New traffic count data was collected at the San Juan Road / Allison Road intersection to document existing conditions (7-9 AM & 4-6 PM). The data collection also included the appropriate truck traffic data. Annual Average Daily Traffic (AADT) data for San Juan Road and Allison Road was referenced from the County's 2018 traffic count book. The existing traffic volumes are illustrated on Figure 2. Copies of the traffic count data are attached.

Various "level of service" (LOS) methodologies are used to evaluate traffic operations. Operating conditions range from LOS "A" (free-flowing) to LOS "F" (forced-flow). A brief description of the LOS values is attached. Monterey County has adopted the LOS D standard as the lower limit for acceptable operations. The evaluation of "peak hour" intersection operations is based on vehicle "control" delay (Highway Capacity Manual, 6th Edition). Vehicle delays at un-signalized intersections are estimated for the overall peak hour operations (average delay) and each "critical" movement (e.g. stop sign controlled approaches & main line left turn). The intersection LOS analysis was conducted using the Synchro 10 software. The appropriate "peak hour factor" (PHF) parameters and percentage large trucks were applied to the analysis to accurately reflect existing conditions. The results of the existing intersection LOS analysis are presented in Table 1. Copies of the vehicle delay criterion for un-signalized intersections and the Synchro 10 LOS worksheets are attached.

Table 1 - Existing Intersection LOS Analysis

Study Intersection	Average Delay - LOS	
	AM Peak Hour	PM Peak Hour
<u>San Juan Rd. / Allison Rd.</u> NB Approach (a) -	0.9 - A (16.7 - C)	1.0 - A (14.7 - B)

(a) Highest stop controlled approach delay in parenthesis

Average vehicle delays and delays on the northbound approach of Allison Road are within acceptable limits, as defined by Monterey County (LOS C or better).

A sample of vehicle speeds on San Juan Road was recorded under "free-flowing" conditions. Average speeds in both the east and westbound directions was 50 mph, with an 85th percentile speed of 54 mph (both directions). A copy of the vehicle speed data is attached. The evaluation of access on San Juan Road included a review of sight distance at Allison Road. The Caltrans sight distance criterion are described in the Highway Design Manual (HDM). Stopping sight distance is the minimum distance required by a driver to bring a vehicle to a complete stop after an object on the road has become visible (Table 201.1). Corner sight distance is the minimum time required for a waiting vehicle (e.g. on a side street) to either cross all lanes of through traffic or cross the near lanes and turn left or right without requiring the through traffic to radically alter their speed (Table 405.1A).

San Juan Road has a relatively straight east-west horizontal alignment and level vertical alignment near Allison Road. Therefore, east and westbound vehicles on San Juan Road have sufficient stopping sight distance at Allison Road. There are no fixed objects that obstruct visibility looking east from the

northbound approach on Allison Road. Therefore, the corner sight distance looking east at westbound vehicles on San Juan Road is sufficient for vehicles on Allison Road.

The controlling line-of-sight from the northbound approach on Allison Road looking west at eastbound vehicles on San Juan Road is an existing wood fence (around the project site). As requested by County staff, the evaluation of access at the San Juan Road / Allison Road intersection considers the future improvements identified in the Active Transportation Plan for Monterey County (TAMC, June 2018). Class II bike lane improvements are proposed on San Juan Road. Therefore, the corner sight distance evaluation looking west was conducted using a 15' setback from the existing south curb line west of Allison Road (+/-30' south of the eastbound shoulder line east of Allison Road). The corner sight distance was measured at +/-200', which is adequate for only 20-25 mph. The corner sight distance required for 50 mph is 550' (Caltrans HDM, Table 405.1A). The corner of the existing fence should be relocated to the south (at least 5-10') to improve the line-of-sight looking west from the northbound approach on Allison Road. The existing sight distance conditions are shown on Figure 3.

The evaluation of access at the San Juan Road / Allison Road intersection includes a review of the County's left turn lane warrant (Guide for the Preparation of Traffic Impact Studies, 2014). The existing volumes on San Juan Road (Figure 2) were referenced for the left turn lane warrant analysis. The County's left turn lane warrant is a function of the peak hour left turn volume and total daily traffic on the main road (AADT). The existing westbound left turn volume is 21 vehicles per hour (vph) in the AM peak hour and 11 vph in the PM peak hour. The existing AADT was plotted on the County's left turn lane warrant graph (copy attached). The graph indicates the left turn lane warrant is satisfied on San Juan Road (both directions) under existing conditions (>5 vph).

Project Trip Generation Estimates and Traffic Volumes

The project trip generation estimates were derived using trip rate data in the Institute of Transportation Engineers (ITE) Trip Generation Manual (10th Edition). The applicable ITE trip generation rates and project trip generation estimates are provided in Table 2.

Table 2 - ITE Trip Generation Rates and Project Trip Generation Estimates

ITE Trip Rate / Project Land Use	Number of Vehicle Trips				
	AM Pk. Hr.		PM Pk. Hr.		Daily
	In	Out	In	Out	
ITE #150 - Warehouse (a)	0.131	0.039	0.051	0.139	1.74
ITE #710 - Office Building (a)	0.998	0.162	0.184	0.966	9.74
Cold Storage / Warehouse (+/-7,000 SF)	1	0	0	1	12
Office Building (+/-1,000 SF)	1	0	0	1	10
Total Project Trips:	2	0	0	2	22

(a) Number of vehicle trips per 1,000 SF

The project will generate approximately 22 daily trips (two-way trip ends) and 2 trips during the AM and PM peak hour periods. The project trips were assignment to San Juan Road and Allison Road based on a review of the existing count data. The project traffic volumes are illustrated on Figure 4. The westbound left turn volume associated with the project will comprise less than 5% of the total westbound left turn volume during the AM peak hour.

Evaluation of Potential Project Impacts

Similar to the existing conditions analysis, the existing plus project volumes were evaluated using the Synchro 10 software. The existing plus project analysis was conducted using the existing intersection geometrics. The results of the existing plus project LOS analysis are presented in Table 3. The existing delay and LOS data are also provided in Table 3 for comparison purposes. Copies of the Synchro 10 LOS worksheets are attached.

Table 3 - Existing Plus Project Intersection LOS Analysis

Study Intersection	Peak Hour	Average Delay - LOS		Project Impact
		Existing	Existing Plus Project	
<u>San Juan Rd. / Allison Rd.</u> NB Approach (a) - NB Approach (a) -	AM	0.9 - A (16.7 - C)	0.9 - A (16.8 - C)	No
	PM	1.0 - A (14.7 - B)	1.0 - A (14.9 - B)	No

(a) Highest stop controlled approach delay in parenthesis

The data in Table 3 demonstrates that average vehicle delays and delays on the northbound approach of Allison Road will remain within acceptable limits (LOS C or better). Therefore, it's concluded the proposed project will not have a potentially significant impact on peak hour operations at the San Juan Road / Allison Road intersection.

County staff also requested a review of internal circulation on the project site. The project site plan and WB-67 truck (L=73.5') was used to evaluate on-site circulation. The truck turning templates were performed using the AutoTurn software. The turning template was executed to demonstrate a large trucks ability to enter and exit the site without conflicting with a truck parked on-site (adjacent to westerly property line), a truck parked at the loading dock area or the new building construction (marked in BLUE). The turning template was also performed to demonstrate a large trucks ability to exit the loading dock area without conflicting with a truck parked on-site (adjacent to westerly property line) or an existing building. The truck turning templates are illustrated on Figures 5A and 5B.

Project Development Fee Estimate

The proposed project is subject to the applicable development impact fees in Monterey County. The County's development fee is based on the schedule in the Monterey Countywide Traffic Impact Fee Cold Storage Exp_R01

Nexus Study (Aug. 1, 2014). The County's development fee for warehouse (\$368 per 1,000 SF) and office (\$4,099 per 1,000 SF) space is based on the amount of square footage (area). A regional development fee is also required by the Transportation Agency for Monterey County (TAMC). The applicable TAMC fee is based on the current 2018 rate schedule (Regional Development Impact Fee Program Nexus Study Update, Oct. 2018). In a similar manner, the TAMC fee schedule for warehouse (\$1,999 per 1,000 SF) and office (\$4,460 per 1,000 SF) space is also based on the amount of square footage. A summary of the development impact fee estimates is provided in Table 4.

Table 4 - Project Development Fee Estimate

Applicable Agency	Fee Estimate
<u>Monterey "Countywide" Fee:</u>	
7,000 SF Warehouse (a)	\$2,576
1,000 SF Office (b)	\$4,099
<u>TAMC "Regional" Fee:</u>	
7,000 SF Warehouse (c)	\$13,993
1,000 SF Office (d)	\$4,460
Total Development Fee:	\$25,128

(a) Countywide fee = \$368 per 1,000 SF

(b) Countywide fee = \$4,099 per 1,000 SF

(c) TAMC fee = \$1,999 per 1,000 SF

(d) TAMC fee = \$4,460 per 1,000 SF

The total Countywide and TAMC regional development impact fee estimate is \$25,128. Payment of the project's development impact fee provides a fair-share contribution towards future improvements identified by both agencies (e.g. installation of left turn lanes on San Juan Road at Allison Road). The project applicant has a right to appeal or negotiate the fee with the Monterey County and/or TAMC.

Traffic Assessment Summary

The traffic assessment provides an evaluation of the potential impacts associated with the proposed project. The existing cold storage facility operates between 8:00 AM & 10:00 PM with 5-7 employees. The project includes additional cold storage and warehouse space (+/-7,000 SF) and a new office building (+/-1,000 SF). The project description indicates there are no proposed changes to the existing operations, with a possible increase of 2-3 employees. It's estimated the project will generate 22 daily trips (two-way trip ends) and 2 trips during the AM and PM peak hour periods.

To document existing conditions at the San Juan Road / Allison Road intersection new peak hour traffic count data was collected. The evaluation of existing conditions demonstrates that average vehicle delays and delays on the northbound approach of Allison Road are within acceptable limits, as defined by Monterey County (LOS C or better).

Average speeds on San Juan Road (both directions) were recorded at 50 mph (85th percentile speed of 54 mph). An evaluation of access on San Juan Road was conducted using the Caltrans HDM criterion. Vehicles on San Juan Road have sufficient stopping sight distance at Allison Road. Corner sight distance looking east at westbound vehicles on San Juan Road is sufficient. However, the controlling line-of-sight from Allison Road looking west at eastbound vehicles on San Juan Road is an existing wood fence (corner sight distance is only adequate for 20-25 mph). The corner of the existing fence should be relocated south to improve the line-of-sight looking west from Allison Road. The existing east-west left turn volumes on San Juan Road currently satisfy the County's left turn lane warrant.

An evaluation of existing plus project conditions at the San Juan Road / Allison Road intersection indicates average delays and delays on the northbound approach of Allison Road will remain within acceptable limits. Therefore, it's concluded the proposed project will not have a potentially significant impact on peak hour operations. An evaluation of on-site circulation demonstrates a large trucks ability to maneuver without conflicting with trucks parked on-site, a truck parked at the loading dock area or the new building construction.

The proposed project is subject to the applicable development impact fees in Monterey County. The County's development fee is based on the schedule in the Monterey Countywide Traffic Impact Fee Nexus Study. A regional development fee is also required by the TAMC. The total Countywide and TAMC regional development impact fee estimate is \$25,128. Payment of the project's development impact fee provides a fair-share contribution towards future improvements identified by both agencies.

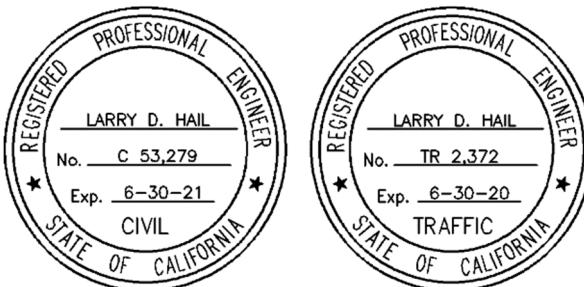
Please contact my office if there are any questions regarding the project traffic assessment.

Pinnacle Traffic Engineering



Larry D. Hail, CE, TE, PTOE
President

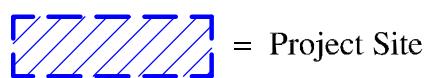
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Attachments: Figure 1 - Project Location Map
Figure 2 - Existing Traffic Volumes
Figure 3 - Sight Distance
Figure 4 - Project Traffic Volumes
Figures 5A and 5B - Truck Turning Templates
Traffic Count Data (Feb. 4, 2020) - NDS
Level of Service (LOS) Descriptions and Vehicle Delay Criterion
San Juan Road Vehicle Speed Data and County Left Turn Lane Warrant Graph



LEGEND



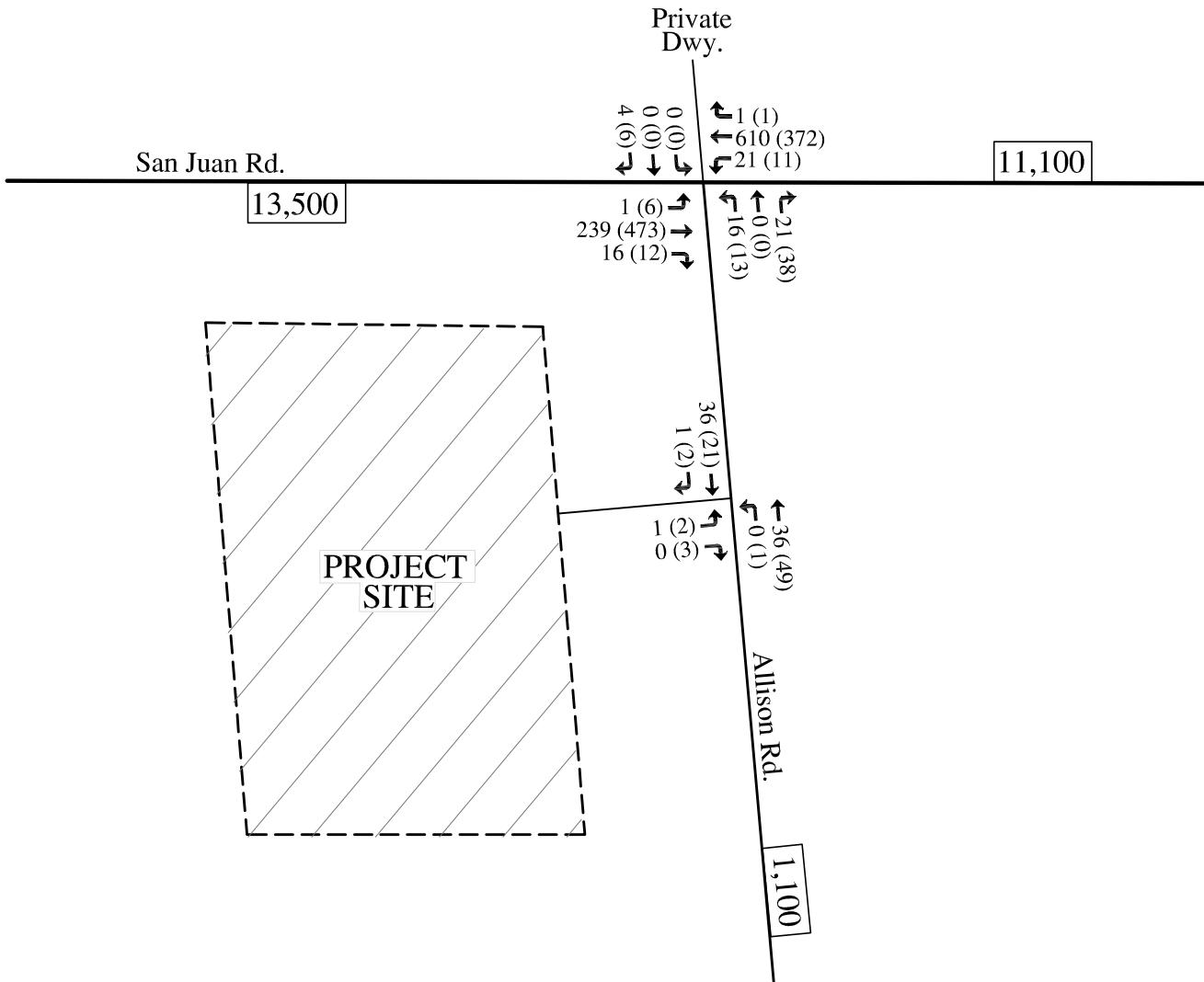
= Project Site



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**Duran Cold Storage Project
- Traffic Assessment -**

**FIGURE 1
PROJECT
LOCATION MAP**

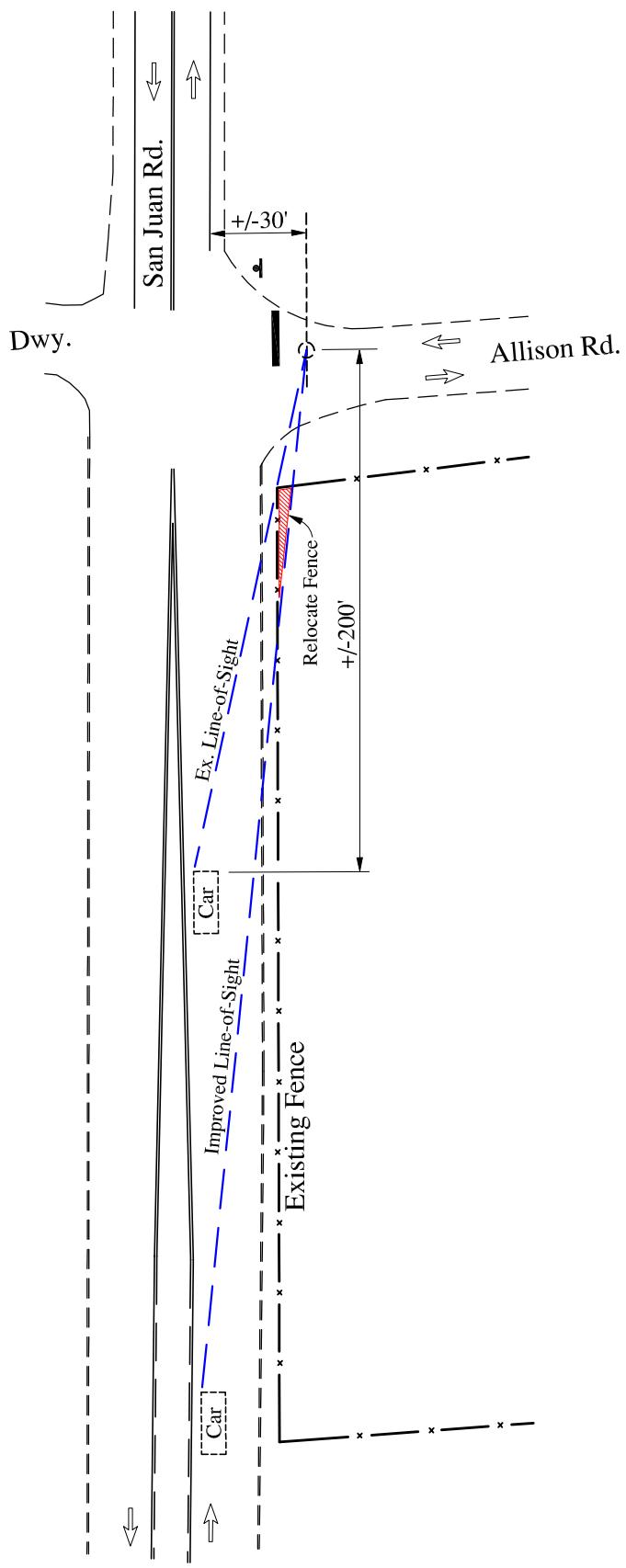


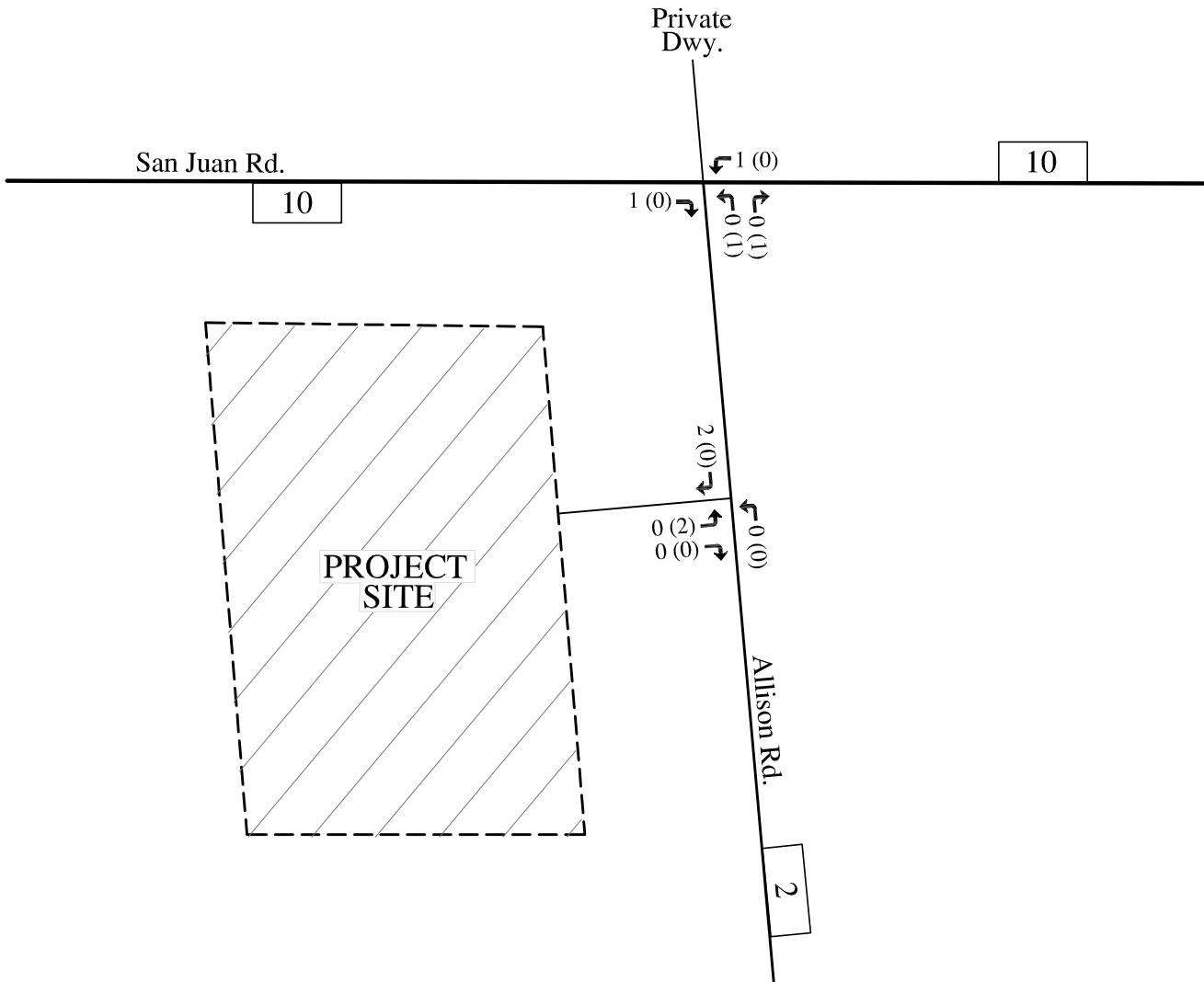
NORTH

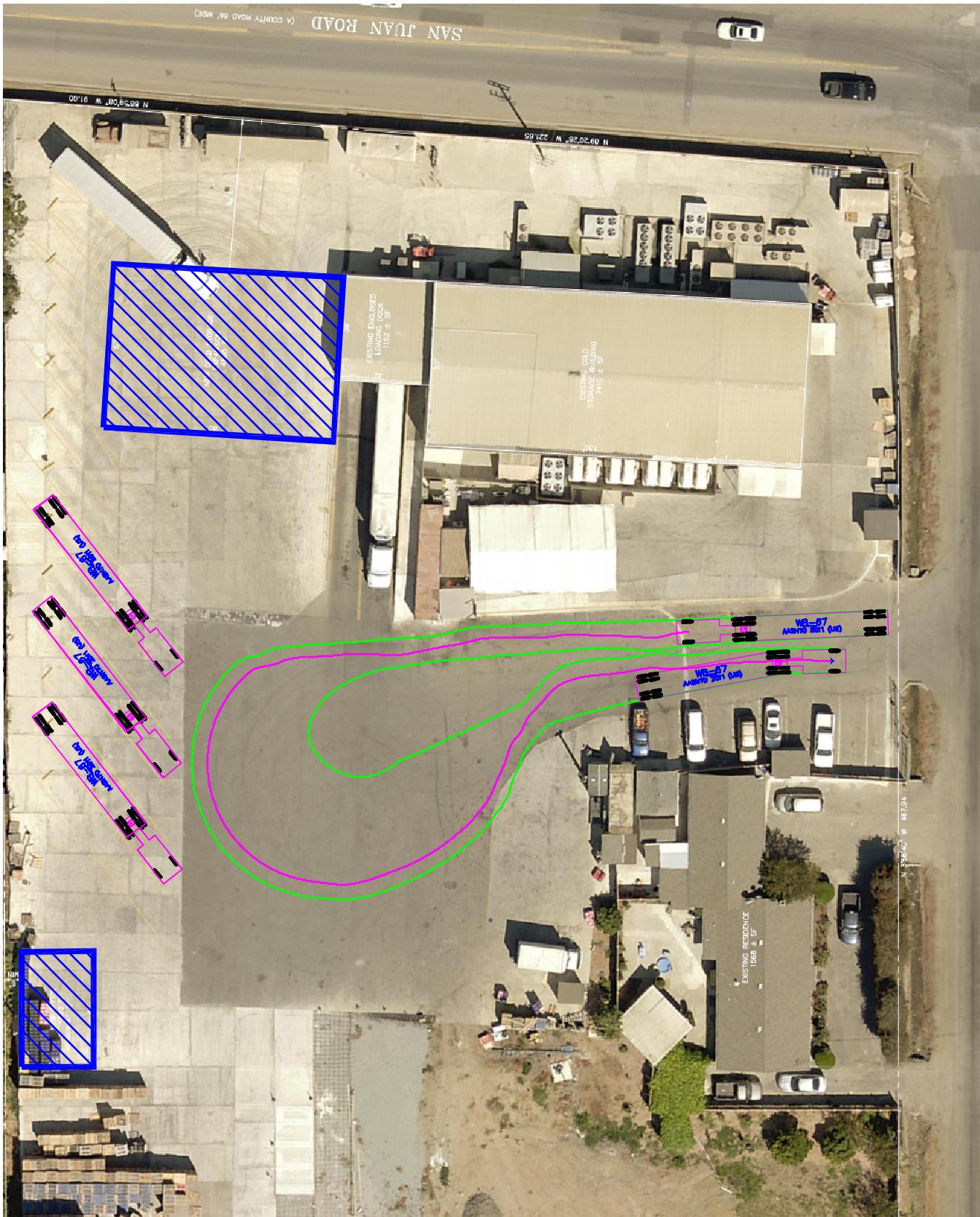
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- Traffic Assessment -

FIGURE 2
EXISTING
TRAFFIC VOLUMES



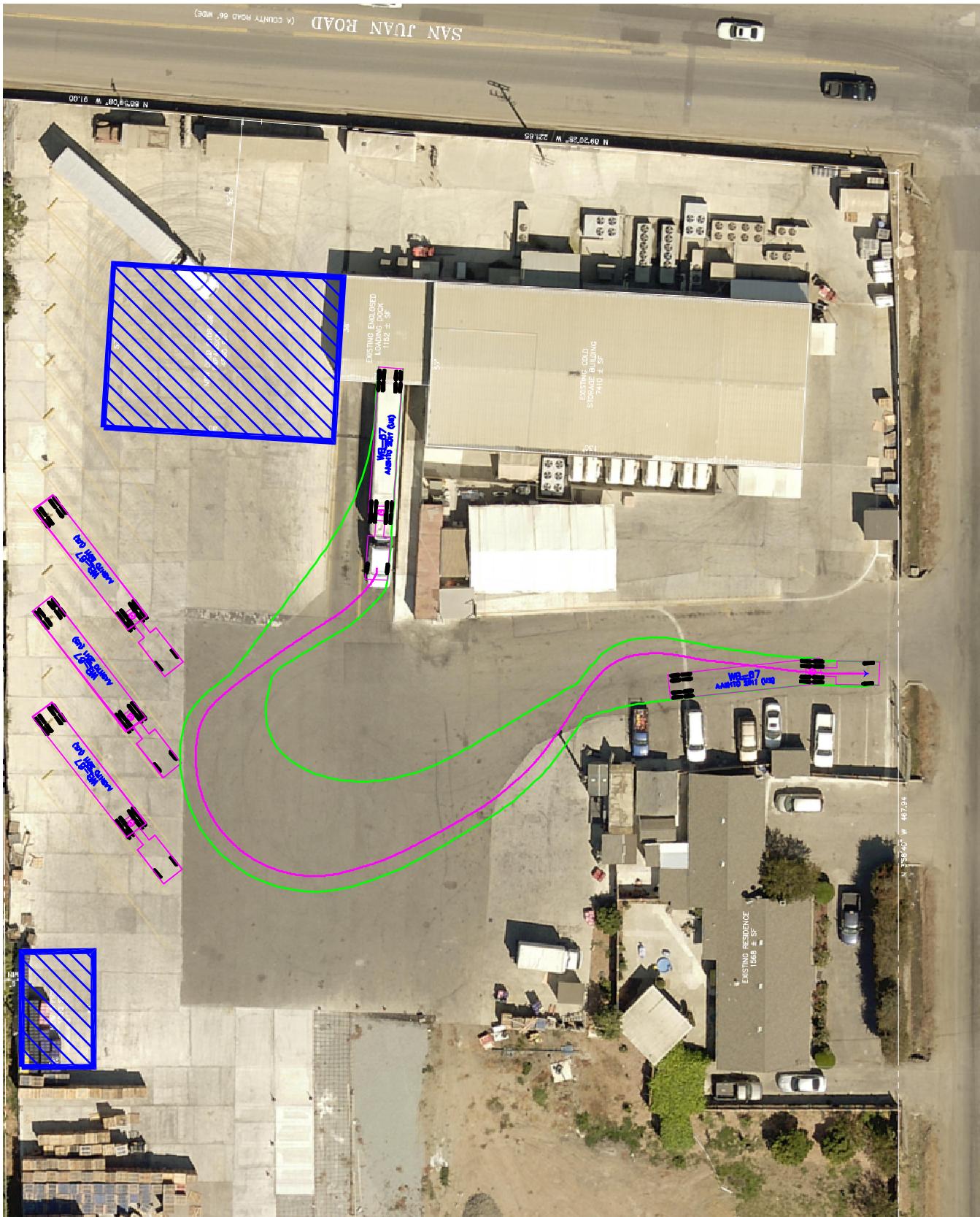




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**FIGURE 5A
TRUCK TURNING
TEMPLATES**



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**FIGURE 5B
TRUCK TURNING
TEMPLATE**

National Data & Surveying Services
Intersection Turning Movement Count

Location: Allison St & San Juan Rd

City: Pajaro

Control: 1-Way Stop(NB)

Project ID: 20-08048-001

Date: 2/4/2020

NS/EW Streets:		Total																
		Allison St				San Juan Rd												
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL	
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU		
7:00 AM	2	0	5	0	0	0	0	0	1	68	4	0	4	122	0	0	206	
7:15 AM	2	0	5	0	0	0	0	0	0	68	1	0	5	143	0	0	224	
7:30 AM	9	0	4	0	0	0	4	0	0	50	5	0	6	159	0	0	237	
7:45 AM	3	0	7	1	0	0	0	0	0	53	6	0	6	186	1	0	263	
8:00 AM	6	0	4	0	0	0	0	0	0	47	3	0	4	130	0	0	194	
8:15 AM	3	0	2	0	0	0	0	0	1	54	4	0	1	103	0	0	168	
8:30 AM	0	0	2	0	0	0	1	0	0	51	2	0	3	102	0	0	161	
8:45 AM	1	0	1	0	0	1	0	0	0	39	0	0	3	87	0	0	132	
TOTAL VOLUMES :	NL 26	NT 0	NR 30	NU 1	SL 0	ST 1	SR 5	SU 0	EL 2	ET 430	ER 25	EU 0	WL 32	WT 1032	WR 1	WU 0	TOTAL 1585	
APPROACH %'s :	45.61%	0.00%	52.63%	1.75%	0.00%	16.67%	83.33%	0.00%	0.44%	94.09%	5.47%	0.00%	3.00%	96.90%	0.09%	0.00%		
PEAK HR :	07:00 AM - 08:00 AM																TOTAL	
PEAK HR VOL :	16	0	21	1	0	0	4	0	1	239	16	0	21	610	1	0	TOTAL 930	
PEAK HR FACTOR :	0.444	0.000	0.750	0.250	0.000	0.000	0.250	0.000	0.250	0.879	0.667	0.000	0.875	0.820	0.250	0.000	0.884	
	0.731				0.250				0.877				0.819					
PM		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
		0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	1 WT	0 WR	0 WU	TOTAL
4:00 PM	3	0	10	0	0	0	0	1	0	0	86	1	0	5	107	0	0	213
4:15 PM	4	0	9	0	0	0	0	0	1	95	4	0	8	108	0	0	229	
4:30 PM	6	0	8	0	0	0	0	2	0	98	3	0	2	108	0	0	229	
4:45 PM	2	0	12	0	0	0	0	3	0	119	4	0	5	98	0	0	244	
5:00 PM	2	0	10	0	0	0	0	0	1	126	3	0	3	79	1	0	225	
5:15 PM	3	0	8	0	0	0	0	1	0	130	2	0	1	87	0	0	235	
5:30 PM	6	0	10	1	1	0	1	0	3	125	7	0	4	69	0	0	227	
5:45 PM	2	0	1	1	0	0	0	1	2	110	7	0	2	64	1	0	191	
TOTAL VOLUMES :	NL 28	NT 0	NR 68	NU 2	SL 1	ST 0	SR 9	SU 1	EL 12	ET 889	ER 31	EU 0	WL 30	WT 720	WR 2	WU 0	TOTAL 1793	
APPROACH %'s :	28.57%	0.00%	69.39%	2.04%	9.09%	0.00%	81.82%	9.09%	1.29%	95.39%	3.33%	0.00%	3.99%	95.74%	0.27%	0.00%		
PEAK HR :	04:30 PM - 05:30 PM																TOTAL	
PEAK HR VOL :	13	0	38	0	0	0	6	1	6	473	12	0	11	372	1	0	TOTAL 933	
PEAK HR FACTOR :	0.542	0.000	0.792	0.000	0.911	0.000	0.500	0.250	0.500	0.910	0.750	0.000	0.550	0.861	0.250	0.000	0.956	
					0.438				0.909				0.873					

National Data & Surveying Services
Intersection Turning Movement Count

Location: Allison St & San Juan Rd
City: Pajaro
Control: 1-Way Stop(NB)

Project ID: 20-08048-001
Date: 2/4/2020

NS/EW Streets:	HT								TOTAL				
	Allison St				San Juan Rd								
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	
7:00 AM	0	0	1	0	0	0	0	0	0	3	0	0	9
7:15 AM	0	0	1	0	0	0	0	0	0	6	0	0	10
7:30 AM	0	0	1	0	0	0	0	0	0	3	0	0	9
7:45 AM	0	0	0	0	0	0	0	0	0	6	0	0	10
8:00 AM	0	0	2	0	0	0	0	0	0	1	0	0	7
8:15 AM	1	0	0	0	0	0	0	0	0	2	0	0	10
8:30 AM	0	0	0	0	0	0	0	0	0	5	0	0	9
8:45 AM	0	0	0	0	0	0	0	0	0	2	0	0	5
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	TOTAL
APPROACH %'s :	1	0	5	0	0	0	0	0	0	28	0	0	69
PEAK HR :	07:00 AM - 08:00 AM												TOTAL
PEAK HR VOL :	0	0	3	0	0	0	0	0	0	18	0	0	38
PEAK HR FACTOR :	0.000	0.000	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.950
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				TOTAL
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	2	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
4:45 PM	0	0	1	0	0	0	0	0	0	1	1	0	3
5:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	4
5:15 PM	0	0	1	0	0	0	0	0	0	2	0	0	4
5:30 PM	0	0	1	0	0	0	0	0	0	0	0	0	4
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	4
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	TOTAL
APPROACH %'s :	0	0	5	0	0	0	0	0	0	8	3	0	24
PEAK HR :	04:30 PM - 05:30 PM												TOTAL
PEAK HR VOL :	0	0	2	0	0	0	0	0	0	8	1	0	12
PEAK HR FACTOR :	0.00	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.000	0.750

National Data & Surveying Services

Intersection Turning Movement Count

Location: Allison St & Duran Sales Dwy (135 Allison St)

City: Pajaro

Control: No Control

Project ID: 20-08048-002

Date: 2/4/2020

NS/EW Streets:	Allison St				Allison St				Duran Sales Dwy (135 Allison St)				Duran Sales Dwy (135 Allison St)				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
7:00 AM	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	16
7:15 AM	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	12
7:30 AM	0	13	0	0	0	10	1	0	0	0	0	0	0	0	0	0	24
7:45 AM	0	10	0	0	0	13	0	0	1	0	0	0	0	0	0	0	24
8:00 AM	0	10	0	0	0	7	0	0	0	0	0	0	0	0	0	0	17
8:15 AM	0	5	0	0	0	4	1	0	0	0	0	0	0	0	0	0	10
8:30 AM	0	1	0	1	0	3	2	0	1	0	0	0	0	0	0	0	8
8:45 AM	0	1	0	0	0	4	0	0	1	0	0	0	0	0	0	0	6
TOTAL VOLUMES :	NL 0	NT 54	NR 0	NU 1	SL 0	ST 55	SR 4	SU 0	EL 3	ET 0	ER 0	EU 0	WL 0	WT 0	WR 0	WU 0	TOTAL 117
APPROACH %'s :	0.00%	98.18%	0.00%	1.82%	0.00%	93.22%	6.78%	0.00%	100.00%	0.00%	0.00%	0.00%	0.000	0.000	0.000	0.000	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	39	0	0	0	36	1	0	1	0	0	0	0	0	0	0	77
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.692	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.802
						0.750		0.712				0.250					

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				TOTAL
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	
4:00 PM	0 NL	11 NT	0 NR	0 NU	0 SL	5 ST	1 SR	0 SU	1 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	18
4:15 PM	0 NL	14 NT	0 NR	0 NU	0 SL	9 ST	3 SR	1 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	27
4:30 PM	0 NL	12 NT	0 NR	0 NU	0 SL	5 ST	0 SR	0 SU	2 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	19
4:45 PM	0 NL	14 NT	0 NR	0 NU	0 SL	8 ST	1 SR	0 SU	0 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	24
5:00 PM	1 NL	12 NT	0 NR	0 NU	0 SL	6 ST	0 SR	0 SU	0 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	20
5:15 PM	0 NL	12 NT	0 NR	0 NU	0 SL	3 ST	1 SR	0 SU	0 EL	0 ET	1 ER	0 EU	0 WL	0 WT	0 WR	0 WU	17
5:30 PM	0 NL	16 NT	0 NR	0 NU	0 SL	10 ST	1 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	27
5:45 PM	0 NL	3 NT	0 NR	0 NU	0 SL	8 ST	1 SR	0 SU	1 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	13
TOTAL VOLUMES :	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
APPROACH %'s :	1 1.05%	94 98.95%	0 0.00%	0 0.00%	0 0.00%	54 85.71%	8 12.70%	1 1.59%	4 57.14%	0 0.00%	3 42.86%	0 0.00%	0 0.000	0 0.000	0 0.000	0 0.000	165
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1 0.250	52 0.929	0 0.000	0 0.000	0 0.000	28 0.778	4 0.333	1 0.250	2 0.250	0 0.000	2 0.500	0 0.000	0 0.000	0 0.000	0 0.000	0 0.000	90
PEAK HR FACTOR :	0.946				0.635				0.500								0.833

National Data & Surveying Services
Intersection Turning Movement Count

Location: Allison St & Duran Sales Dwy (135 Allison St)

City: Pajaro

Control: No Control

Project ID: 20-08048-002

Date: 2/4/2020

HT

NS/EW Streets:	Allison St				Allison St				Duran Sales Dwy (135 Allison St)				Duran Sales Dwy (135 Allison St)				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
TOTAL VOLUMES : APPROACH %'s :	NL 0 0.00%	NT 6 100.00%	NR 0 0.00%	NU 0 0.00%	SL 0 0.00%	ST 3 100.00%	SR 0 0.00%	SU 0 0.00%	EL 0 0	ET 0 0	ER 0 0	EU 0 0	WL 0 0	WT 0 0	WR 0 0	WU 0 0	TOTAL 9
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.000	0.375	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.500
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	1 NT	0 NR	0 NU	0 SL	1 ST	0 SR	0 SU	0 EL	1 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
5:45 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
TOTAL VOLUMES : APPROACH %'s :	NL 0 0.00%	NT 5 100.00%	NR 0 0.00%	NU 0 0.00%	SL 0 0.00%	ST 1 25.00%	SR 3 75.00%	SU 0 0.00%	EL 0 0	ET 0 0	ER 0 0	EU 0 0	WL 0 0	WT 0 0	WR 0 0	WU 0 0	TOTAL 9
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	4	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.500

The ability of a highway system to carry traffic is expressed in terms of its "Service Level" at critical locations, usually intersections. Service levels are defined as follows:

- "LOS A" Conditions primarily describe free-flowing operations. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the boundary intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
- "LOS B" Conditions describe reasonably unimpeded operations. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.
- "LOS C" Conditions describe stable operations. The ability to maneuver and change lanes at mid-segment locations may be more restricted than at LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
- "LOS D" Conditions describe less stable operations in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed.
- "LOS E" Conditions describe unstable operations and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed.
- "LOS F" Conditions describe flow at extreme low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30% or less of the base free-flow speed. Also, LOS F is assigned to the subject direction of travel if the through movement at one or more boundary intersections has a volume-to-capacity (V/C) ratio greater than 1.0.

TWO-WAY STOP SIGN CONTROLLED INTERSECTIONS

LEVEL-OF-SERVICE CRITERIA FOR TWSC INTERSECTIONS

Level of Service	Average Control Delay (s/veh)
A	0-10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

ALL-WAY STOP SIGN CONTROLLED INTERSECTIONS

The level-of-service criteria are given in Exhibit . The criteria for AWSC intersections have different threshold values than do those for signalized intersections primarily because drivers expect different levels of performance from distinct types of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an AWSC intersection. Thus a higher level of control delay is acceptable at a signalized intersection for the same LOS.

LEVEL-OF-SERVICE CRITERIA FOR AWSC INTERSECTIONS

Level of Service	Control Delay (s/veh)
A	0-10
B	> 10-15
C	> 15-25
D	> 25-35
E	> 35-50
F	> 50

SIGNALIZED INTERSECTIONS

The average control delay per vehicle is estimated for each lane group and aggregated for each approach and for the intersection as a whole. LOS is directly related to the control delay value.

LOS CRITERIA FOR SIGNALIZED INTERSECTIONS

LOS	Control Delay per Vehicle (s/veh)
A	≤ 10
B	> 10-20
C	> 20-35
D	> 35-55
E	> 55-80
F	> 80

Intersection																			
Int Delay, s/veh	0.9																		
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR							
Lane Configurations																			
Traffic Vol, veh/h	1	239	16	21	610	1	16	0	21	0	0	4							
Future Vol, veh/h	1	239	16	21	610	1	16	0	21	0	0	4							
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0							
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop							
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None							
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-							
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-							
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-							
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88							
Heavy Vehicles, %	0	8	0	10	3	0	0	0	14	0	0	0							
Mvmt Flow	1	272	18	24	693	1	18	0	24	0	0	5							
Major/Minor																			
Major1		Major2			Minor1			Minor2											
Conflicting Flow All	694	0	0	290	0	0	1027	1025	281	1037	1034	694							
Stage 1	-	-	-	-	-	-	283	283	-	742	742	-							
Stage 2	-	-	-	-	-	-	744	742	-	295	292	-							
Critical Hdwy	4.1	-	-	4.2	-	-	7.1	6.5	6.34	7.1	6.5	6.2							
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-							
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-							
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4	3.426	3.5	4	3.3							
Pot Cap-1 Maneuver	911	-	-	1227	-	-	215	237	730	211	234	446							
Stage 1	-	-	-	-	-	-	728	681	-	411	425	-							
Stage 2	-	-	-	-	-	-	410	425	-	718	675	-							
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-							
Mov Cap-1 Maneuver	911	-	-	1227	-	-	207	229	730	199	226	446							
Mov Cap-2 Maneuver	-	-	-	-	-	-	207	229	-	199	226	-							
Stage 1	-	-	-	-	-	-	727	680	-	411	411	-							
Stage 2	-	-	-	-	-	-	393	411	-	694	674	-							
Approach																			
EB			WB			NB			SB										
HCM Control Delay, s	0		0.3			16.7			13.2										
HCM LOS	C						B												
Minor Lane/Major Mvmt																			
Capacity (veh/h)	349	911	-	-	1227	-	-	-	446										
HCM Lane V/C Ratio	0.12	0.001	-	-	0.019	-	-	-	0.01										
HCM Control Delay (s)	16.7	9	0	-	8	0	-	-	13.2										
HCM Lane LOS	C	A	A	-	A	A	-	-	B										
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	-	0										

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	473	12	11	372	1	13	0	38	0	0	6
Future Vol, veh/h	6	473	12	11	372	1	13	0	38	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	8	0	1	0	0	0	5	0	0	0
Mvmt Flow	6	493	13	11	388	1	14	0	40	0	0	6
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	389	0	0	506	0	0	926	923	500	943	929	389
Stage 1	-	-	-	-	-	-	512	512	-	411	411	-
Stage 2	-	-	-	-	-	-	414	411	-	532	518	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	1181	-	-	1069	-	-	251	272	565	245	270	664
Stage 1	-	-	-	-	-	-	548	540	-	622	598	-
Stage 2	-	-	-	-	-	-	620	598	-	535	536	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1181	-	-	1069	-	-	245	267	565	224	265	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	245	267	-	224	265	-
Stage 1	-	-	-	-	-	-	544	536	-	618	590	-
Stage 2	-	-	-	-	-	-	606	590	-	494	532	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.1		0.2		14.7		10.5					
HCM LOS	B						B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	424	1181	-	-	1069	-	-	664				
HCM Lane V/C Ratio	0.125	0.005	-	-	0.011	-	-	0.009				
HCM Control Delay (s)	14.7	8.1	0	-	8.4	0	-	10.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.4	0	-	-	0	-	-	0				

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	239	17	22	610	1	16	0	21	0	0	4
Future Vol, veh/h	1	239	17	22	610	1	16	0	21	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	8	0	10	3	0	0	0	14	0	0	0
Mvmt Flow	1	272	19	25	693	1	18	0	24	0	0	5
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	694	0	0	291	0	0	1030	1028	282	1040	1037	694
Stage 1	-	-	-	-	-	-	284	284	-	744	744	-
Stage 2	-	-	-	-	-	-	746	744	-	296	293	-
Critical Hdwy	4.1	-	-	4.2	-	-	7.1	6.5	6.34	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.29	-	-	3.5	4	3.426	3.5	4	3.3
Pot Cap-1 Maneuver	911	-	-	1226	-	-	214	236	729	210	233	446
Stage 1	-	-	-	-	-	-	727	680	-	410	424	-
Stage 2	-	-	-	-	-	-	409	424	-	717	674	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	911	-	-	1226	-	-	206	228	729	198	225	446
Mov Cap-2 Maneuver	-	-	-	-	-	-	206	228	-	198	225	-
Stage 1	-	-	-	-	-	-	726	679	-	410	410	-
Stage 2	-	-	-	-	-	-	391	410	-	693	673	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0		0.3		16.8		13.2					
HCM LOS					C		B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	347	911	-	-	1226	-	-	446				
HCM Lane V/C Ratio	0.121	0.001	-	-	0.02	-	-	0.01				
HCM Control Delay (s)	16.8	9	0	-	8	0	-	13.2				
HCM Lane LOS	C	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0				

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	473	12	11	372	1	14	0	39	0	0	6
Future Vol, veh/h	6	473	12	11	372	1	14	0	39	0	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	2	8	0	1	0	0	0	5	0	0	0
Mvmt Flow	6	493	13	11	388	1	15	0	41	0	0	6
Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	389	0	0	506	0	0	926	923	500	943	929	389
Stage 1	-	-	-	-	-	-	512	512	-	411	411	-
Stage 2	-	-	-	-	-	-	414	411	-	532	518	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	1181	-	-	1069	-	-	251	272	565	245	270	664
Stage 1	-	-	-	-	-	-	548	540	-	622	598	-
Stage 2	-	-	-	-	-	-	620	598	-	535	536	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1181	-	-	1069	-	-	245	267	565	224	265	664
Mov Cap-2 Maneuver	-	-	-	-	-	-	245	267	-	224	265	-
Stage 1	-	-	-	-	-	-	544	536	-	618	590	-
Stage 2	-	-	-	-	-	-	606	590	-	493	532	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	0.1		0.2		14.9		10.5					
HCM LOS	B						B					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	420	1181	-	-	1069	-	-	664				
HCM Lane V/C Ratio	0.131	0.005	-	-	0.011	-	-	0.009				
HCM Control Delay (s)	14.9	8.1	0	-	8.4	0	-	10.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.5	0	-	-	0	-	-	0				

PINNACLE TRAFFIC ENGINEERING

831 C Street • Hollister, CA 95023 • (831) 638-9260

Duran Cold Storage Expansion Project (PLN190077); Monterey Co., CA Project Traffic Assessment - PTE #349-A

Speed Data - San Juan Rd. @ Allison Rd. - LDH; 7:50 AM (2/5/20) & 5:00 PM (2/4/20)

Data #	Eastbound (EB) - MPH			Data #	Westbound (WB) - MPH		
1.	50	51		1.	45	38	
2.	45	46		2.	52	47	
3.	52	45		3.	53	53	
4.	49	47		4.	52	50	
5.	58	44		5.	48	52	
6.	55	57		6.	52	40	
7.	53	52		7.	51	52	
8.	58	47		8.	49	49	
9.	46	50		9.	48	48	
10.	42	47		10.	46	50	
11.	56	54		11.	54	49	
12.	46	47		12.	55	45	
13.	47	48		13.	48	58	
14.	45	46		14.	47	47	
15.	53	43		15.	48	52	
16.	55	54		16.	46	48	
17.	46	40		17.	48	54	
18.	50			18.	46	63	
19.	53			19.	52	43	
20.	50			20.	54	50	
21.	52			21.	53	65	
22.	52			22.	50	52	
23.	52			23.	50	42	
24.	46			24.	46	52	
25.	49			25.	46	53	
26.	53			26.	50	56	
27.				27.			
28.				28.			
Totals:	1,313	818		Totals:	1,289	1,308	
Total:	2,131		2131	Total:	2,597		2597

Dry & Clear

EB Average Travel Speed :
Eastbound (EB) : 2,131 / 43 =

Dry & Clear

49.6 MPH

85th Percentile Speed (EB):

54 MPH

WB Average Travel Speed :

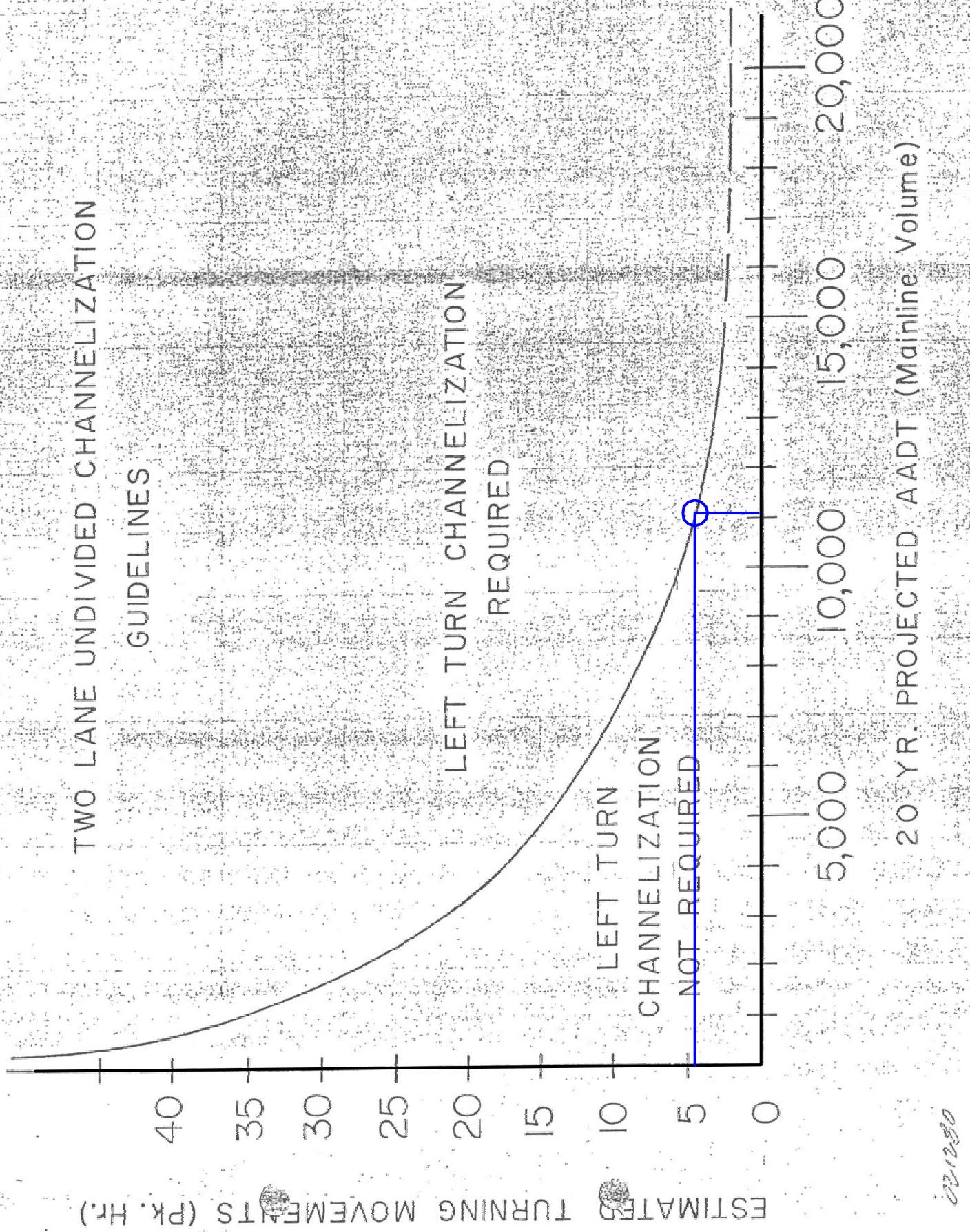
Westbound (WB) : 2,597 / 52 =

49.9 MPH

85th Percentile Speed (WB):

54 MPH

TWO LANE UNDIVIDED CHANNELIZATION GUIDELINES



12/28/00