

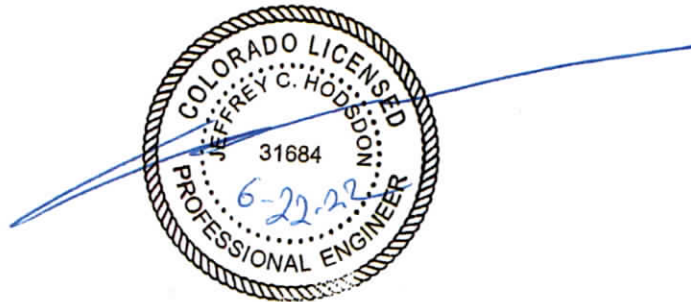


LSC TRANSPORTATION CONSULTANTS, INC.
2504 East Pikes Peak Avenue, Suite 304
Colorado Springs, CO 80909
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Colorado Concrete Crushing Transportation Memorandum (LSC #S2243300) June 22, 2022

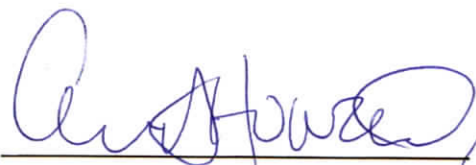
Traffic Engineer's Statement

This traffic report and supporting information were prepared under my responsible charge and they comport with the standard of care. So far as is consistent with the standard of care, said report was prepared in general conformance with the criteria established by the County for traffic reports.



Developer's Statement

I, the Developer, have read and will comply with all commitments made on my behalf within this report.


MANAGER

JUNE 23, 2022
Date

Colorado Concrete Crushing Transportation Memorandum

Prepared for:

Colorado Concrete Crushing, LLC
20 Boulder Crescent, Suite 200
Colorado Springs, CO 80903

Contact: Mr. Eric S. Howard, Manager

JUNE 22, 2022

LSC Transportation Consultants

Prepared by: Kirstin D. Ferrin, P.E.

Reviewed by: Jeffrey C. Hodsdon, P.E.

LSC #S224330



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June 22, 2022

Mr. Eric S. Howard, Manager
Colorado Concrete Crushing, LLC
20 Boulder Crescent, Suite 200
Colorado Springs, CO 80903

RE: Colorado Concrete Crushing
Transportation Memorandum
El Paso County, Colorado
LSC #S224330

Dear Mr. Howard:

LSC Transportation Consultants, Inc. has prepared this transportation memorandum for the proposed asphalt and concrete recycling operation to be located east of Vollmer Road and south of the future extension of Marksheffel Road in El Paso County, Colorado. The site location is shown in Figure 1.

REPORT CONTENTS

The preparation of this report included the following:

- A summary of the proposed land use and access plan;
- The existing roadway and traffic conditions in the site's vicinity, including the roadway widths, surface conditions, lane geometries, traffic controls, and posted speed limits;
- Existing (2022) traffic-volume data;
- Estimates of projected short-term traffic volumes; the projected average weekday and peak-hour vehicle trips to be generated by the proposed concrete crushing operation;
- The assignment of the projected site-generated traffic volumes to the area roadways;
- The projected short-term total traffic volumes on the area roadways;
- The projected levels of service at the site access intersection on Vollmer Road;

LAND USE AND ACCESS

The 32.62-acre parcel (EPC Parcel No. 5300000743) is planned to be used for an asphalt and concrete recycling operation. Operating hours are Monday through Friday from 7:00 a.m. to

5:30 p.m. and one Saturday per month from 7:00 a.m. to noon. The operation currently has four employees but that may increase up to six in the future.

Tandem trucks and semi-trucks that are owned by third parties transport materials on and off the site throughout the operating hours. No trucks are stored on-site overnight. LSC was provided with information on the truck operations at the current facility from March 1, 2022, to May 18, 2022. The maximum number of truck loads on a single day during that time period was 85 (17 tandem trucks and 68 semi-trucks). The average weekday (Monday through Friday) number of truck loads was 25 loads per day (18 tandem trucks and 7 semi-trucks).

The site is located just north of the Pioneer Landscape Center. The proposed recycling operation will share the existing Pioneer access to Vollmer Road located about 905 feet southwest of the future Marksheffel alignment.

EXISTING ROAD AND TRAFFIC CONDITIONS

The adjacent streets are shown in Figure 1 and are described below. Copies of the 2016 *El Paso County Major Transportation Corridors Plan (MTCP)*, 2040 *Roadway Plan*, and 2016 *MTCP 2060 Corridor Preservation Plan* with the site location identified on them have been attached to this report.

Vollmer Road is currently a five-lane urban street within the City of Colorado Springs limits between Black Forest Road and Cowpoke Road; and a two-lane, rural, paved roadway north of Cowpoke Road extending to north of Hodgen Road. In the southbound direction, Vollmer Road has a posted speed limit of 45 mph. South of Cowpoke Road, Vollmer Road has a 40-mph posted speed limit. The 2040 *El Paso County Major Transportation Corridors Plan (MTCP)* and the Sterling Ranch master traffic study show Vollmer Road as a four-lane Urban Minor Arterial in the vicinity of the site.

Existing Traffic Volumes

Figure 2 shows the existing peak-hour traffic volumes at the Pioneer access to Vollmer Road. The traffic volumes shown are based on traffic counts conducted by LSC in May 2022. The traffic-count sheets are attached.

Existing Levels of Service

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection. Level of service is indicated on a scale from "A" to "F." LOS A represents control delay of less than 10 seconds for unsignalized intersections. LOS F represents control delay of more than 50 seconds for unsignalized intersections. Table 1 shows the level of service delay ranges.

loads or trips?

in the jurisdiction of the City of Colorado Springs

Address the recently-approved CDs and proposed improvements. Address the current use of the shoulder for right turns.

Table 1: Intersection Levels of Service Delay Ranges

Level of Service	Signalized Intersections	Unsignalized Intersections
	Average Control Delay (seconds per vehicle)	Average Control Delay (seconds per vehicle) ⁽¹⁾
A	10.0 sec or less	10.0 sec or less
B	10.1-20.0 sec	10.1-15.0 sec
C	20.1-35.0 sec	15.1-25.0 sec
D	35.1-55.0 sec	25.1-35.0 sec
E	55.1-80.0 sec	35.1-50.0 sec
F	80.1 sec or more	50.1 sec or more

(1) For unsignalized intersections, if V/C ratio is greater than 1.0 the level of service is LOS F, regardless of the projected average control delay per vehicle.

The Pioneer access to Vollmer Road has been analyzed based on the unsignalized intersection analysis procedures from the *Highway Capacity Manual, 6th Edition* by the Transportation Research Board. All movements at this stop-sign-controlled intersection are currently operating at LOS B or better during the peak hours.

If 85 truck loads (not trips?) were observed, justify how traffic would be this low rather than increasing over time.

TRIP GENERATION

The site-generated vehicle trips have been estimated by LSC based on the existing operating data provided by Colorado Concrete Crushing discussed in the Land Use and Access section above. Table 2 shows the trip-generation estimates.

Table 2: Trip Generation Estimate

Vehicle Type	Average Weekday Traffic	Morning Peak Hour		Afternoon Peak Hour	
		IN	OUT	IN	OUT
Passenger Cars	19	6	1	1	6
Tandem Trucks	35	2	2	2	2
Semi-Trucks	15	1	1	1	1
Total	69	9	4	4	9

LSC Transportation Consultants, Inc (June 2022) 6-22-22

The proposed recycling operation is projected to generate about 69 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, which generally occurs for one hour between 6:30 and 8:30 a.m., about nine vehicles would enter and four vehicles would exit the site. During the afternoon peak

hour, which generally occurs for one hour between 4:15 and 6:15 p.m., about four vehicles would enter and nine vehicles would exit the site.

TRIP DISTRIBUTION AND ASSIGNMENT

The directional distribution of the site-generated traffic volumes on the street and roadway system serving the site is one of the most important factors in determining the site's traffic impacts. Based on information provided by Colorado Concrete Crushing, all trucks will arrive from and depart to the south on Vollmer Road. Figure 3 shows the proposed haul route, as well as the site-generated traffic volume estimate at the shared access point to Vollmer Road.

TOTAL TRAFFIC

Figure 4 shows the sum of the existing volumes from Figure 2 plus the site-generated traffic volumes from Figure 3.

LEVEL OF SERVICE ANALYSIS

The site access to Vollmer been analyzed to determine the projected intersection levels of service based on the unsignalized intersection analysis procedures from the *Highway Capacity Manual 6th Edition*. Figure 4 shows the level of service analysis results. The level of service reports are attached. All movements at this stop-sign-controlled access intersection are projected to operate at LOS C or better during the peak hours with the addition of the site-generated traffic.

CONCLUSIONS

Provide totals

- The proposed recycling operation is projected to generate about 69 new external vehicle trips on the average weekday, with about half entering and half exiting the site during a 24-hour period. During the morning peak hour, about nine vehicles would enter and four vehicles would exit the site. During the afternoon peak hour, about four vehicles would enter and nine vehicles would exit the site.
- Based on the projected existing plus site-generated traffic volumes and the criteria contained in the El Paso County Engineering Criteria Manual (ECM), a northbound right-turn deceleration lane is **not** projected to be warranted on Vollmer Road approaching the existing Pioneer Sand access.
- Based on the projected existing plus site-generated traffic volumes and the criteria contained in the El Paso County Engineering Criteria Manual (ECM), a southbound left-turn lane is **not** projected to be warranted on Vollmer Road approaching the existing Pioneer Sand access.

Address the current use of the shoulder for right turns. This lane should be paved per ECM 2.3.7.D, but this is up to Colorado Springs. Provide correspondence specifically addressing this and any other City requirements.

State the prohibition on left turns if this is the case, otherwise a left turn lane(s) (striping) may be required. Address intersection spacing and sight/stopping distances for design vehicles, etc.

Please contact me if you have any questions regarding this report.

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By Jeffrey C. Hodsdon, P.E.
Principal

KDF/JCH:jas

Enclosures: Figures 1-4
Traffic Count Reports
Level of Service Reports

Figures

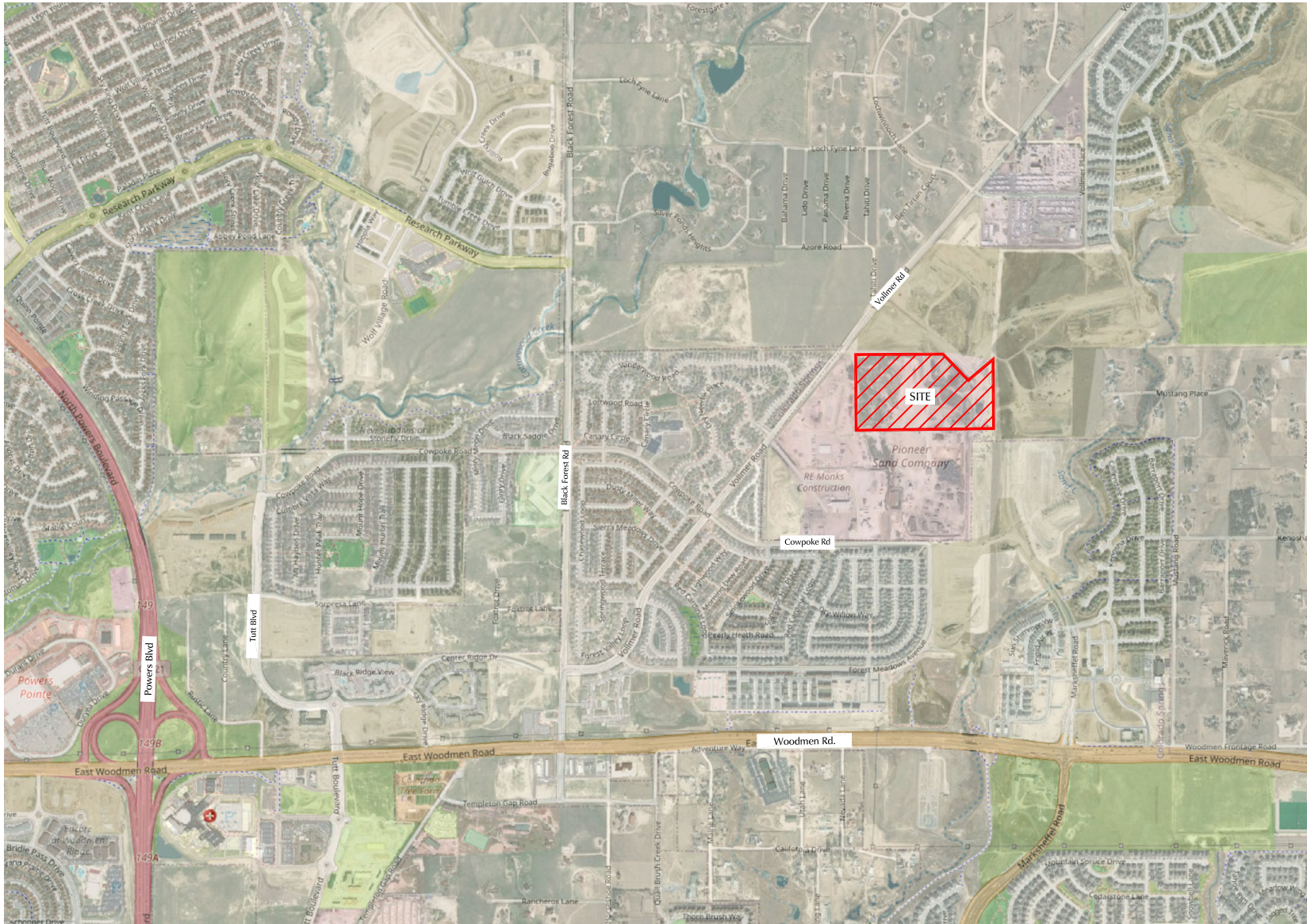
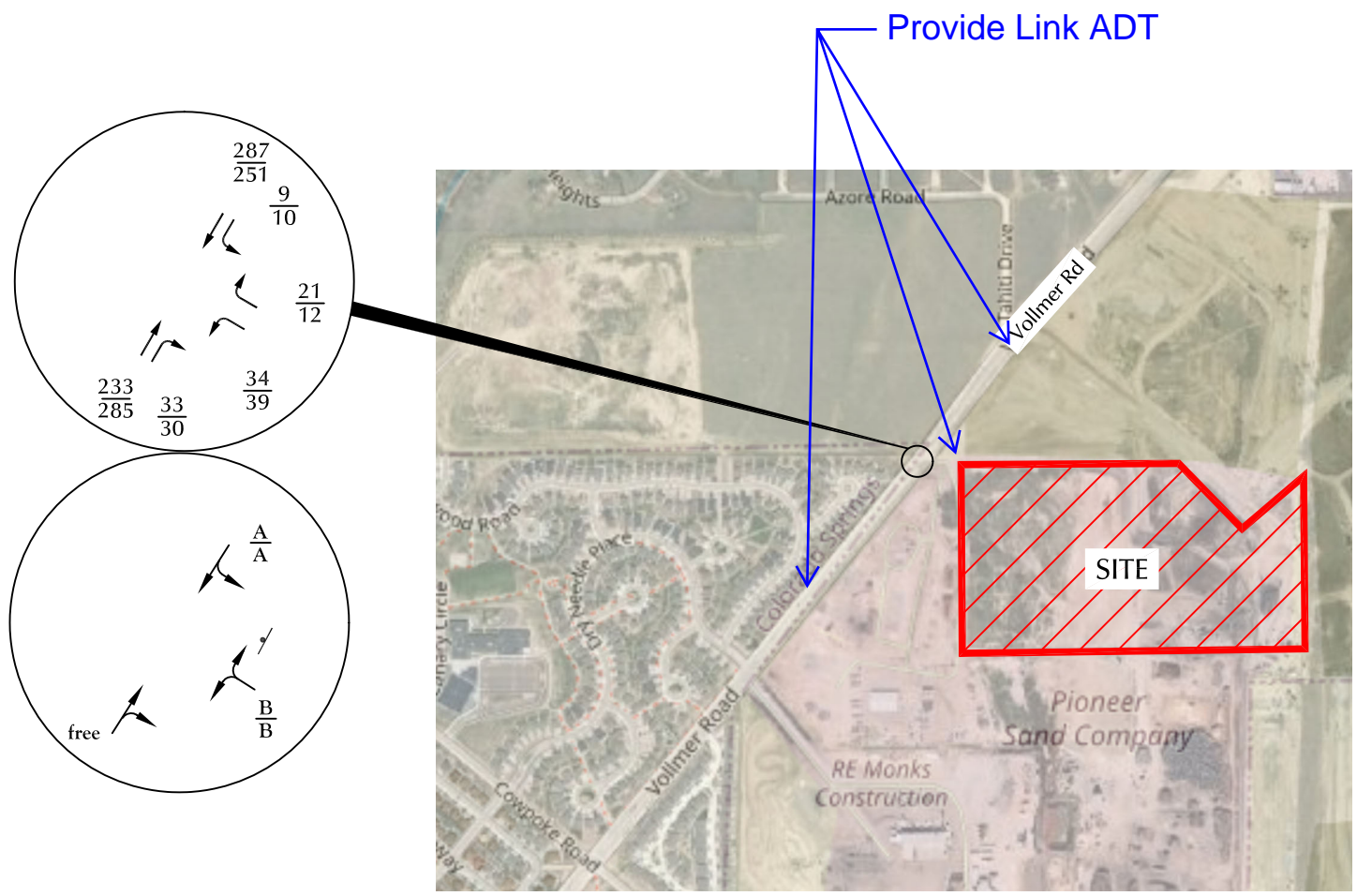


Figure 1

Vicinity Map

Colorado Concrete Crushing (LSC# S224330)



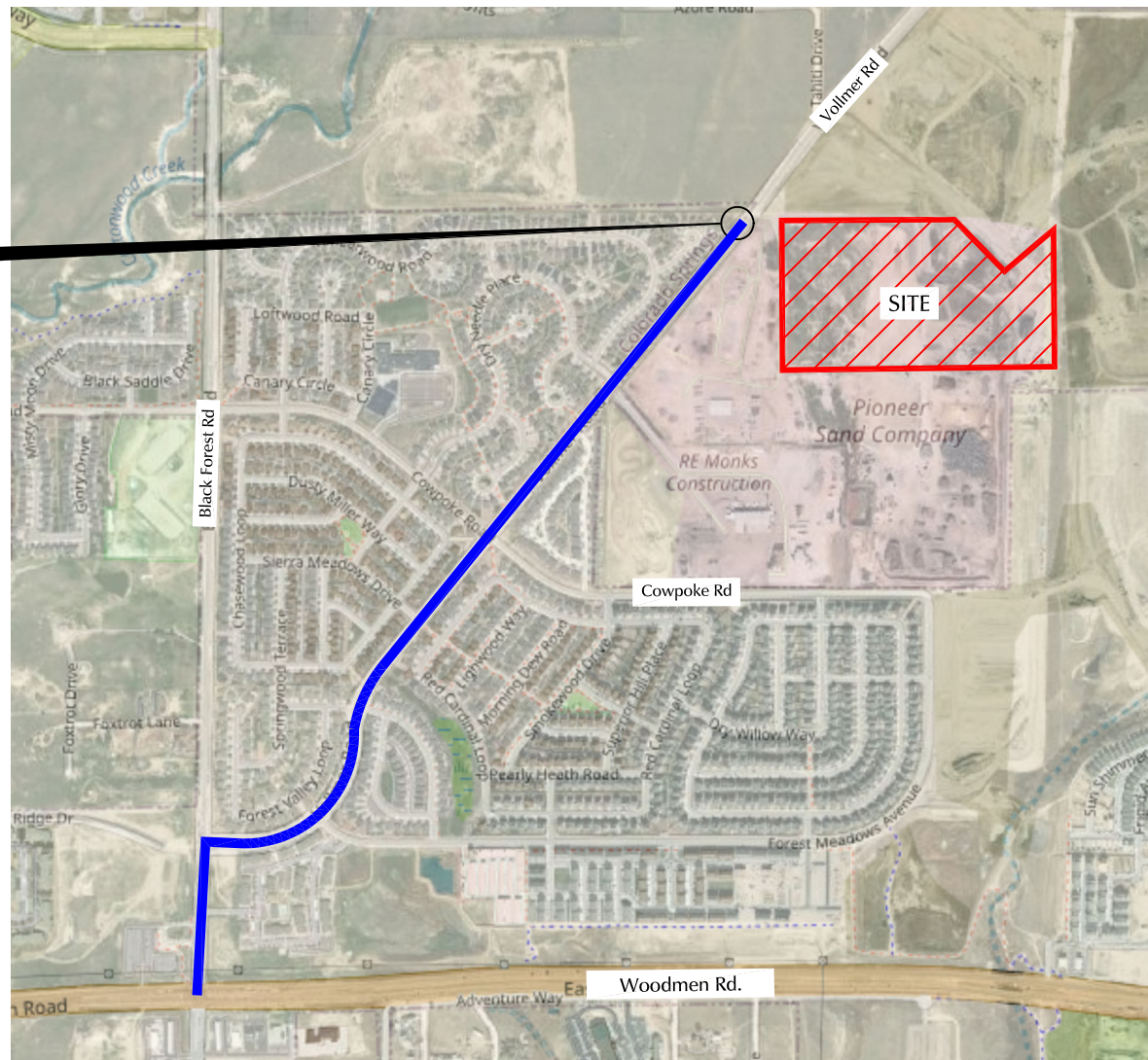
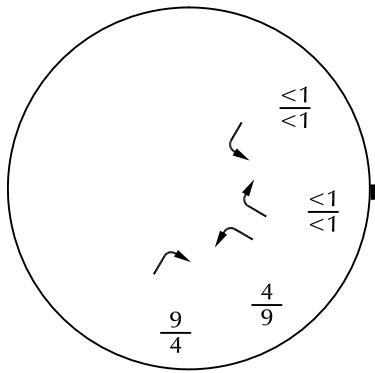
LEGEND: $\frac{XX}{XX} = \frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$

$\frac{A}{B} = \frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$

⊥ = Stop Sign



Figure 2
Existing Traffic
Colorado Concrete Crushing (LSC# S224330)



LEGEND: $\frac{XX}{XX}$ = AM Peak-Hour Traffic (veh/hr)
 $\frac{XX}{XX}$ = PM Peak-Hour Traffic (veh/hr)


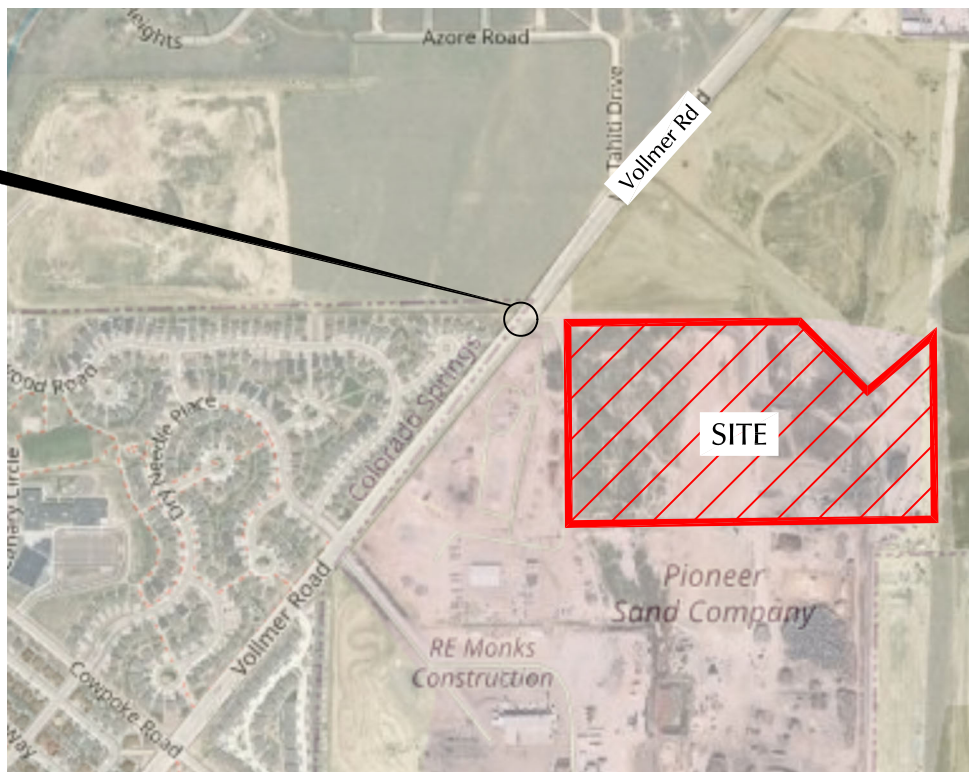
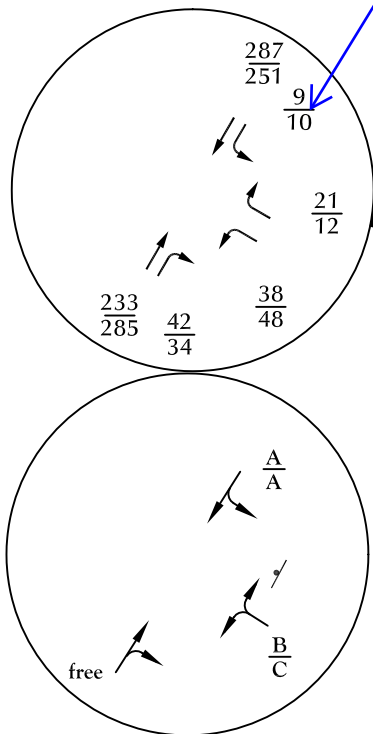
 = Haul Route

Figure 3
Site-Generated Traffic
Colorado Concrete Crushing (LSC# S224330)

A left turn lane may be required based on the combination of existing and proposed traffic. If it only requires striping would it not be recommended?



LEGEND:

$$\frac{XX}{XX} = \frac{\text{AM Peak-Hour Traffic (veh/hr)}}{\text{PM Peak-Hour Traffic (veh/hr)}}$$

$$\frac{A}{B} = \frac{\text{AM Individual Movement Peak-Hour Level of Service}}{\text{PM Individual Movement Peak-Hour Level of Service}}$$

┆ = Stop Sign

Existing plus Site-Generated Traffic

Figure 4

Colorado Concrete Crushing (LSC# S224330)

Traffic Counts



LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304

Colorado Springs, CO 80909

719-633-2868

File Name : Vollmer Rd - Pioneer Sand Trucks AM

Site Code : S22433

Start Date : 5/25/2022

Page No : 1

**Passenger Cars/
Pickup-Trucks**

Groups Printed- Unshifted

Start Time	Vollmer Rd Southbound					Pioneer Sand Acces Westbound					Vollmer Rd Northbound					Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	0	49	0	0	49	3	0	2	0	5	13	15	0	0	28	0	0	0	0	0	82
06:45	0	49	3	0	52	1	0	0	0	1	14	26	0	0	40	0	0	0	0	0	93
Total	0	98	3	0	101	4	0	2	0	6	27	41	0	0	68	0	0	0	0	0	175
07:00	0	63	1	0	64	2	0	6	0	8	5	38	0	0	43	0	0	0	0	0	115
07:15	0	68	1	0	69	8	0	8	0	16	7	44	0	0	51	0	0	0	0	0	136
07:30	0	82	2	0	84	3	0	8	0	11	9	57	0	0	66	0	0	0	0	0	161
07:45	0	79	1	0	80	2	0	2	0	4	5	68	0	0	73	0	0	0	0	0	157
Total	0	292	5	0	297	15	0	24	0	39	26	207	0	0	233	0	0	0	0	0	569
08:00	0	58	4	0	62	1	0	8	0	9	7	64	0	0	71	0	0	0	0	0	142
08:15	0	57	1	1	59	1	0	7	0	8	3	52	0	0	55	0	0	0	0	0	122
Grand Total	0	505	13	1	519	21	0	41	0	62	63	364	0	0	427	0	0	0	0	0	1008
Apprch %	0	97.3	2.5	0.2		33.9	0	66.1	0		14.8	85.2	0	0		0	0	0	0		
Total %	0	50.1	1.3	0.1	51.5	2.1	0	4.1	0	6.2	6.2	36.1	0	0	42.4	0	0	0	0	0	

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
 Colorado Springs, CO 80909
 719-633-2868

Trucks

File Name : Vollmer Rd - Pioneer Sand Trucks AM

Site Code : S224330

Start Date : 5/25/2022

Page No : 1

Groups Printed- Bank 1

Start Time	Vollmer Rd Southbound					Pioneer Sand Acces Westbound					Vollmer Rd Northbound					Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:30	0	0	0	0	0	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	5
06:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	1	0	1	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	6
07:00	0	0	0	0	0	2	0	4	0	6	0	0	0	0	0	0	0	0	0	0	6
07:15	0	0	0	0	0	6	0	7	0	13	1	0	0	0	1	0	0	0	0	0	14
07:30	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
07:45	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	9	0	12	0	21	3	0	0	0	3	0	0	0	0	0	24
08:00	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
08:15	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	3
Grand Total	0	0	3	0	3	12	0	16	0	28	5	0	0	0	5	0	0	0	0	0	36
Apprch %	0	0	100	0		42.9	0	57.1	0		100	0	0	0		0	0	0	0		
Total %	0	0	8.3	0	8.3	33.3	0	44.4	0	77.8	13.9	0	0	0	13.9	0	0	0	0	0	

LSC Transportation Consultants, Inc.

2504 E. Pikes Peak Ave, Suite 304
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File Name : Vollmer Rd - Pioneer Sand Trucks PM

Site Code : S224330

Start Date : 5/24/2022

Page No : 1

**Passenger Cars/
 Pickup-Trucks**

Groups Printed- Unshifted

Start Time	Vollmer Rd Southbound					Pioneer Sand Acces Westbound					Vollmer Rd Northbound					Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
16:00	0	72	1	0	73	2	0	8	0	10	6	69	0	0	75	0	0	0	0	0	158
16:15	0	61	2	0	63	1	0	7	0	8	11	69	0	0	80	0	0	0	0	0	151
16:30	0	64	1	0	65	2	0	8	0	10	6	75	0	0	81	0	0	0	0	0	156
16:45	0	54	2	0	56	6	0	8	0	14	2	72	0	0	74	0	0	0	0	0	144
Total	0	251	6	0	257	11	0	31	0	42	25	285	0	0	310	0	0	0	0	0	609
17:00	0	60	1	0	61	1	0	9	0	10	3	58	0	0	61	0	0	0	0	0	132
17:15	0	65	2	0	67	0	0	5	0	5	1	58	0	0	59	0	0	0	0	0	131
17:30	0	50	0	0	50	2	0	21	0	23	2	68	0	0	70	0	0	0	0	0	143
17:45	0	48	1	0	49	0	0	2	0	2	0	77	0	0	77	0	0	0	0	0	128
Total	0	223	4	0	227	3	0	37	0	40	6	261	0	0	267	0	0	0	0	0	534
Grand Total	0	474	10	0	484	14	0	68	0	82	31	546	0	0	577	0	0	0	0	0	1143
Apprch %	0	97.9	2.1	0		17.1	0	82.9	0		5.4	94.6	0	0		0	0	0	0	0	
Total %	0	41.5	0.9	0	42.3	1.2	0	5.9	0	7.2	2.7	47.8	0	0	50.5	0	0	0	0	0	

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 719-633-2868

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Trucks

Groups Printed- Bank 1

Start Time	Vollmer Rd Southbound					Pioneer Sand Acces Westbound					Vollmer Rd Northbound					Eastbound					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
16:00	0	0	1	0	1	1	0	2	0	3	3	0	0	0	3	0	0	0	0	0	7
16:15	0	0	1	0	1	0	0	2	0	2	5	0	0	0	5	0	0	0	0	0	8
16:30	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	4
16:45	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	3
Total	0	0	4	0	4	1	0	4	0	5	13	0	0	0	13	0	0	0	0	0	22
17:00	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
17:15	0	0	2	0	2	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	5
17:30	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
17:45	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	4	0	4	0	0	3	0	3	4	0	0	0	4	0	0	0	0	0	11
Grand Total	0	0	8	0	8	1	0	7	0	8	17	0	0	0	17	0	0	0	0	0	33
Apprch %	0	0	100	0		12.5	0	87.5	0		100	0	0	0		0	0	0	0		
Total %	0	0	24.2	0	24.2	3	0	21.2	0	24.2	51.5	0	0	0	51.5	0	0	0	0	0	

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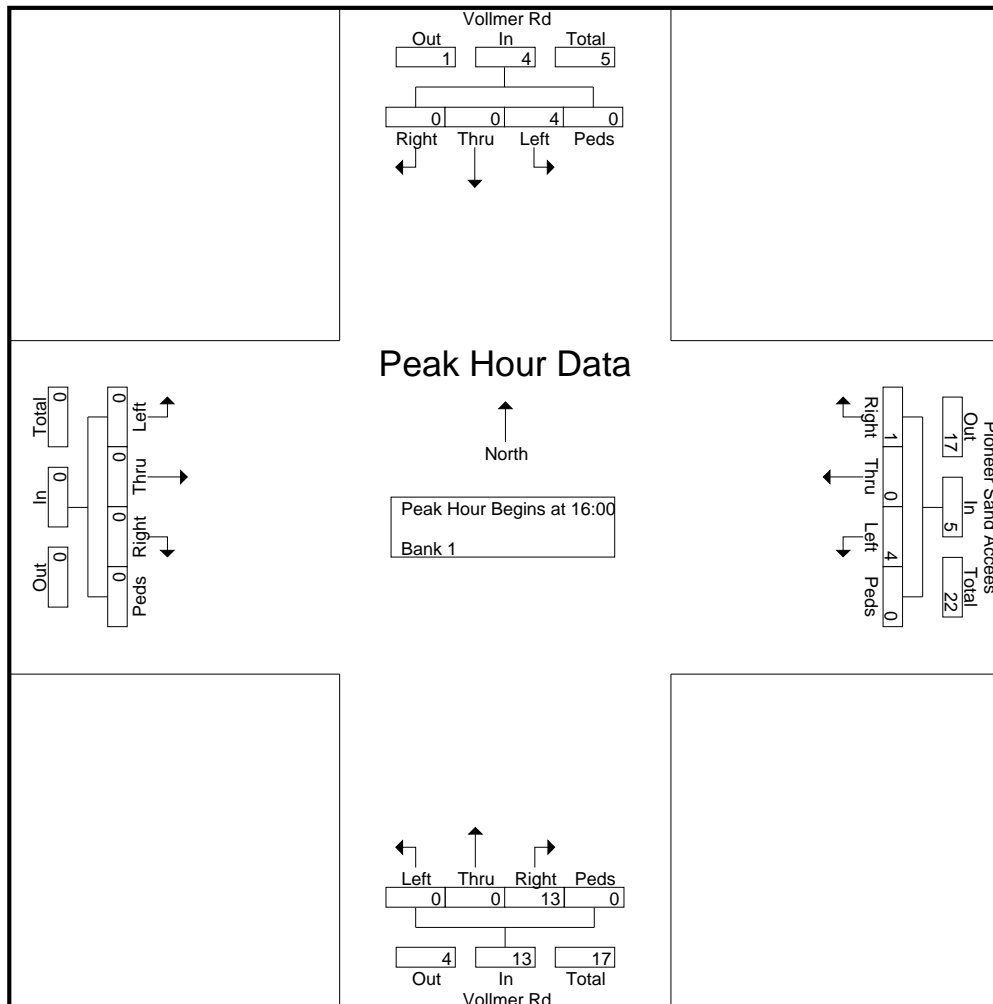
Site Code : S224330

Start Date : 5/24/2022

Page No : 2

Trucks

Start Time	Vollmer Rd Southbound					Pioneer Sand Access Westbound					Vollmer Rd Northbound					Eastbound					Int. Total	
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total		
Peak Hour Analysis From 4:00:00 PM to 5:45:00 PM - Peak 1 of 1																						
Peak Hour for Entire Intersection Begins at 4:00:00 PM																						
4:00:00 PM	0	0	1	0	1	1	0	2	0	3	3	0	0	0	3	0	0	0	0	0	0	7
4:15:00 PM	0	0	1	0	1	0	0	2	0	2	5	0	0	0	5	0	0	0	0	0	0	8
4:30:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	4
4:45:00 PM	0	0	2	0	2	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
Total Volume	0	0	4	0	4	1	0	4	0	5	13	0	0	0	13	0	0	0	0	0	0	22
% App. Total	0	0	100	0		20	0	80	0		100	0	0	0		0	0	0	0	0		
PHF	.000	.000	.500	.000	.500	.250	.000	.500	.000	.417	.650	.000	.000	.000	.650	.000	.000	.000	.000	.000	.000	.688



Levels of Service



HCM 6th TWSC
1: Vollmer Rd & Pioneer Sand Access

Existing Traffic
AM Peak Hour

Intersection						
Int Delay, s/veh	1.5					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	34	21	233	33	9	287
Future Vol, veh/h	34	21	233	33	9	287
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	87	87	88	88
Heavy Vehicles, %	24	33	2	15	11	2
Mvmt Flow	44	27	268	38	10	326

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	633	287	0	0	306
Stage 1	287	-	-	-	-
Stage 2	346	-	-	-	-
Critical Hdwy	6.64	6.53	-	-	4.21
Critical Hdwy Stg 1	5.64	-	-	-	-
Critical Hdwy Stg 2	5.64	-	-	-	-
Follow-up Hdwy	3.716	3.597	-	-	2.299
Pot Cap-1 Maneuver	411	684	-	-	1205
Stage 1	714	-	-	-	-
Stage 2	670	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	407	684	-	-	1205
Mov Cap-2 Maneuver	407	-	-	-	-
Stage 1	714	-	-	-	-
Stage 2	663	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	13.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWL	SWT
Capacity (veh/h)	-	-	481	1205
HCM Lane V/C Ratio	-	-	0.147	0.008
HCM Control Delay (s)	-	-	13.8	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.5	0

HCM 6th TWSC
1: Vollmer Rd & Pioneer Sand Access

Existing Traffic
PM Peak Hour

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	39	12	285	30	10	251
Future Vol, veh/h	39	12	285	30	10	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	87	87	88	88
Heavy Vehicles, %	21	8	2	17	40	2
Mvmt Flow	55	17	328	34	11	285

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	652	345	0	0	362	0
Stage 1	345	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.61	6.28	-	-	4.5	-
Critical Hdwy Stg 1	5.61	-	-	-	-	-
Critical Hdwy Stg 2	5.61	-	-	-	-	-
Follow-up Hdwy	3.689	3.372	-	-	2.56	-
Pot Cap-1 Maneuver	404	684	-	-	1014	-
Stage 1	677	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	399	684	-	-	1014	-
Mov Cap-2 Maneuver	399	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	696	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWL	SWT
Capacity (veh/h)	-	-	442	1014
HCM Lane V/C Ratio	-	-	0.163	0.011
HCM Control Delay (s)	-	-	14.7	8.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	38	21	233	42	9	287
Future Vol, veh/h	38	21	233	42	9	287
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	87	87	88	88
Heavy Vehicles, %	29	33	2	19	11	2
Mvmt Flow	49	27	268	48	10	326

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	638	292	0	0	316
Stage 1	292	-	-	-	-
Stage 2	346	-	-	-	-
Critical Hdwy	6.69	6.53	-	-	4.21
Critical Hdwy Stg 1	5.69	-	-	-	-
Critical Hdwy Stg 2	5.69	-	-	-	-
Follow-up Hdwy	3.761	3.597	-	-	2.299
Pot Cap-1 Maneuver	401	679	-	-	1195
Stage 1	700	-	-	-	-
Stage 2	660	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	397	679	-	-	1195
Mov Cap-2 Maneuver	397	-	-	-	-
Stage 1	700	-	-	-	-
Stage 2	653	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	14.2	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWL	SWT
Capacity (veh/h)	-	-	466	1195
HCM Lane V/C Ratio	-	-	0.162	0.009
HCM Control Delay (s)	-	-	14.2	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.6	0

Intersection						
Int Delay, s/veh	1.9					
Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Vol, veh/h	48	12	285	34	10	251
Future Vol, veh/h	48	12	285	34	10	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	71	71	87	87	88	88
Heavy Vehicles, %	23	8	2	24	40	2
Mvmt Flow	68	17	328	39	11	285

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	655	348	0	0	367	0
Stage 1	348	-	-	-	-	-
Stage 2	307	-	-	-	-	-
Critical Hdwy	6.63	6.28	-	-	4.5	-
Critical Hdwy Stg 1	5.63	-	-	-	-	-
Critical Hdwy Stg 2	5.63	-	-	-	-	-
Follow-up Hdwy	3.707	3.372	-	-	2.56	-
Pot Cap-1 Maneuver	400	682	-	-	1010	-
Stage 1	671	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	395	682	-	-	1010	-
Mov Cap-2 Maneuver	395	-	-	-	-	-
Stage 1	671	-	-	-	-	-
Stage 2	692	-	-	-	-	-

Approach	WB	NE	SW
HCM Control Delay, s	15.4	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NERWBLn1	SWL	SWT
Capacity (veh/h)	-	-	431	1010
HCM Lane V/C Ratio	-	-	0.196	0.011
HCM Control Delay (s)	-	-	15.4	8.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.7	0