

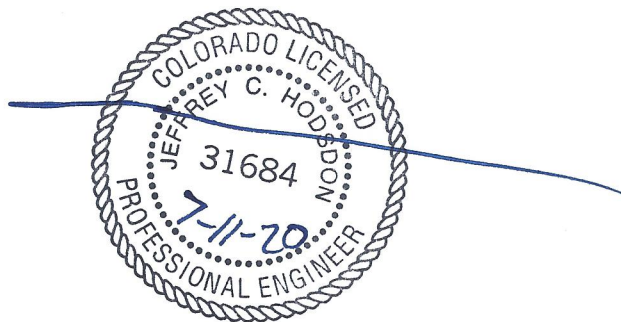


LSC TRANSPORTATION CONSULTANTS, INC.  
2504 East Pikes Peak Avenue, Suite 304  
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Dwire Storage Yard Filing No. 1  
Transportation Memorandum  
PCD File No. MS-20-002  
(LSC #194930)  
July 11, 2020

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.

A handwritten signature in black ink, consisting of a stylized 'J' and 'H' followed by a horizontal line.

2-1-21

Date



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July 11, 2020

DL Holdings, LLC  
Jeff Dwire  
6799 Bismark Road Suite A  
Colorado Springs, CO 80918

RE: Dwire Storage Yard Filing No. 1  
El Paso County, CO  
Transportation Memorandum  
LSC #194930

Dear Mr. Dwire,

LSC Transportation Consultants, Inc. has prepared this Transportation Memorandum for the proposed Dwire Storage Yard Filing No. 1 development in El Paso County, Colorado. Located generally north of the intersection of Industry Road/Capital Drive (El Paso County parcel ID 5300000552), the 19.36-acre parcel is currently undeveloped. One access point is proposed for the property as a proposed extension of Capital Drive, which is currently an El Paso County Roadway.

This report has been prepared for submittal to El Paso County. A copy of the previously-conducted traffic impact analysis report adjacent to the site (Sands Industrial, dated November 5, 2019) is attached for reference. This report has been referenced and attached as the impacts of this site were included as "background traffic" in the analysis completed for the Sands Industrial TIS.

## **REPORT CONTENTS**

The report contains the following:

- Description of the existing land uses adjacent to and in the vicinity of the site;
- Estimates of the proposed development's peak-hour and daily trip generation;
- Estimated assignment of peak-hour and daily site-generated traffic volumes on the streets providing access to/from the site. Trip generation estimates assume the proposed Capital Drive north/south connection will be completed; and
- A copy of the Sands Industrial TIS report.

## **LAND USE AND ACCESS**

### **Dwire Site Land Use**

The Dwire Storage Yard Filing No. 1 site is located generally north of the intersection of Industry Road/Capital Drive (El Paso County parcel ID 5300000552). The 19.36-acre parcel is undeveloped. Figure 2 shows the site plan. The site (at buildout) has the potential for approximately 96,000 square feet of gross floor area (GFA), not including outdoor storage and parking. Initial development on the site (current application) would consist of 21,520 square feet of new building floor area (business office and warehouse/shop). The remaining potential development up to about 96,000 square feet is not proposed at this time.

### **Site Access**

One access point is proposed for the property as a proposed extension of Capital Drive, which is currently an El Paso County Roadway, that is anticipated to be annexed by the City of Colorado Springs. This access would be shared with the existing Timberline Landscaping business located just east of this site. This report addresses the currently-planned initial development, as well as estimated future development on the balance of the property lots.

### **The Sands Industrial Development**

LSC completed a TIS Report for the Sands Industrial development application. This report is dated November 5, 2019 and addresses the traffic impacts of that nearby future development. That TIS report included this Dwire development site as part of the background traffic.

### **Timberline Landscaping**

The Timberline landscaping business is located just east of this Dwire site. Timberline and the Dwire site will share access to the north end of Capital Drive. Timberline has been in operation at this location for at least a year.

### **Capital Drive Completion**

As part of the Sands Industrial project, the missing section of Capital Drive is proposed to be constructed adjacent to the Sands site. This will connect the south section from its current terminus (approximately 400 feet north of Red Granite Loop) to the existing north section. The south end of this north section is about 500 feet south of the Capital Drive/Industry Drive intersection. This north segment of Capital Drive extends about 500 feet north of the Capital Drive/Industry Drive intersection to the entry points of Dwire and Timberline Landscaping.

The completion of the missing segment of Capital Drive adjacent to the Sands site will create a through connection and more direct site access for vehicles traveling to/from Constitution Avenue. Some motorists, depending on origin/destination, will likely change their travel patterns as a result of this new Capital Drive connection. Some motorists will opt to use the Constitution Avenue/Capital Drive intersection rather than Marksheffel Road/Capital Drive (and vice versa).

## **ROADWAYS AND TRAFFIC CONDITIONS**

### **Area Roadways**

The primary roads serving this business park and the nearby major arterial roadways are identified below, followed by a brief description of each:

**Capital Drive** (El Paso County Roadway) extends north-to-south from Colorado Tech Avenue to approximately 500 feet north of Red Granite Loop. There is also a north segment of Capital Drive which extends from about 500 feet south of the Capital Drive/Industry Drive intersection to about 500 feet north of the Capital Drive/Industry Drive intersection to the entry points of Dwire and Timberline Landscaping. As part of the Sands Industrial project, the missing section of Capital Drive is proposed to be constructed adjacent to the Sands site. This will connect the south section from its current terminus (approximately 400 feet north of Red Granite Loop) to the existing north section. The west side of Capital Drive was previously completed as part of the original commercial subdivision. This paved, 22-24-foot-wide half-section was completed within a 40-foot-wide half-ROW. The east half of the total 80-foot ROW has not been dedicated and remains private property. No auxiliary turn lanes are currently striped on the southbound approach at the stop sign-controlled intersection of Constitution Avenue/Capital Drive.

**Industry Road** is classified by El Paso County as an Urban Non-Residential Collector. Extending east-to-west between Marksheffel Road and Capital Drive, Industry Road has a posted speed limit of 30 mph. Exclusive left- and right-turn auxiliary turn lanes currently exist at the stop sign-controlled, channelized-T intersection of Marksheffel Road/Industry Road.

**Marksheffel Road** is designated as a Principal Arterial on the El Paso County Major Thoroughfare Plan. Currently a four-lane road, Marksheffel extends north-to-south for 17.4 miles between Link Road in the City of Fountain to the south (at the intersection of C&S Road/Link Road) and just north of Woodmen Road. Marksheffel Road is planned to be extended north to Vollmer Road in the short term. El Paso County's *2040 Major Transportation Corridor Plan (MTCP)* shows Marksheffel Road as a future six-lane Principal Arterial with a raised median. In the vicinity of the site, the posted speed limit on Marksheffel Road is 50 miles per hour (mph).

Currently, the following deceleration turn lanes exist at the stop sign-controlled, channelized-T intersection of Marksheffel Road/Industry Road: westbound left, westbound right, northbound right, and southbound left. The following acceleration turn lanes currently exist at the



channelized-T intersection of Marksheffel Road/Industry Road: northbound right and southbound left.

**Constitution Avenue** is classified as a four-lane Principal Arterial extending east-to-west from Paseo Road to US Highway 24 (US Hwy 24). In the vicinity of the site, Constitution Avenue has two through lanes. The posted speed limit on Constitution Avenue adjacent to the site is 50 mph. Constitution Avenue is shown as a future six-lane street on El Paso County's 2040 MTCP. Auxiliary left- and right-turn lanes currently exist on the eastbound and westbound approaches at the intersection of Constitution Avenue/Capital Drive.

### **Existing and Estimated Short-Term Baseline Traffic and Levels of Service**

Figure 3 presents the existing and Short-Term Baseline traffic, lane geometry, traffic control, and levels of service (LOS).

**The Short-Term Baseline traffic volumes:** The new Capital Drive connection will result in traffic pattern shifts by motorists traveling to/from the existing land uses served by Industry Drive & Capital Drive. This would involve altered origin/destination paths/travel routes. The change in traffic patterns will result in changes in turning movements at Constitution Avenue/Capital Drive, Marksheffel Road/Industry Road, and Industry Road/Capital Drive. Existing traffic volumes were altered to account for the proposed Capital Drive connection, as this extension will be constructed with The Sands Industrial development. Estimated existing daily traffic volumes (shown in Figure 3) were modified and the resulting Short-Term Baseline volumes are shown in Figure 4. These baseline adjustments are for trips currently generated by existing land uses only (including Timberline Landscaping), but they assume the proposed Capital Drive connection to be in place.

### **TRIP GENERATION**

Estimates of the vehicle-trips projected to be generated by the proposed development have been made using the nationally published trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). Land use code "110 – General Light Industrial" from the *Trip Generation Manual, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE) has been used to estimate the trip generation for the site.

Table 1 shows a summary of the results of the trip generation estimate. A detailed trip generation estimate for the development, including ITE rates for the proposed land use is presented in Table 3 (attached). The initial development (current application) is expected to generate about 140 vehicle-trips on the average weekday (one-half entering and one-half exiting in a 24-hour period). During the morning peak hour, 13 vehicles are projected to enter the site, while 2 vehicles are projected to exit. Approximately 2 vehicles would enter and 11 vehicles would exit the site during

the evening peak hour. The morning peak hour generally occurs for one hour between 6:30 and 8:30 a.m., and the afternoon peak hour occurs for one hour between 4:00 and 6:00 p.m.

**Table 1: Estimated Site Vehicle-Trip Generation (Initial Development Only)**

Analysis Period	In	Out	Total
Morning Peak Hour (vehicle-trips/hour)	13	2	15
Evening Peak Hour (vehicle-trips/hour)	2	11	13
Weekday – (vehicle-trips/day)	70	70	140
Note: Please refer to Table 3 (attached) for detailed trip generation table including the site buildout trip generation.			

### **Trip Distribution and Assignment**

An estimate of the directional distribution of site-generated vehicle-trips to the study area streets that will provide access to the site is a necessary component in determining the site's traffic impacts on these study area streets.

- Figure 2: Site Plan
- Figure 3: Existing and Short-Term Baseline Traffic
- Figure 4: Directional Distribution of Site-Generated Trips

Estimates were based on the following factors: the traffic count data, the proposed land use, the site access plan, existing and planned area street, and roadway system that will provide access to the site (including the proposed Capital Drive extension/connection), the site's geographic location, and adjacent existing land uses. Additionally, directional splits from the LSC traffic study for The Sands Industrial were used to estimate the directional splits.

### **Site-Generated Traffic**

Site-generated traffic volumes have been calculated at the following intersections by applying distribution percentages estimated by LSC (from Figure 2) to the trip generation estimates (from Table 1):

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road

Figure 5 shows the projected site-generated traffic volumes at these intersections for the weekday morning and evening peak hours. Daily traffic volumes are also shown. The figure shows estimates for the initial Dwire development and estimates of future trips projected to be associated with future additional development on the balance of the site.

## FUTURE BACKGROUND TRAFFIC VOLUMES

Figure 5 shows estimates of future trips associated with the Sands Industrial and other potential future development/expansion of existing businesses within the business park served by Capital Drive and Industry Drive. Note: Timberline Landscaping trips (current operation) are included in the existing and short-term baseline traffic volumes.

## LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from “A” to “F.” LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: 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) <sup>1</sup>
A	0.0 - 10.0 sec	0.0 - 10.0 sec
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
<sup>1</sup> 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 following intersections have been analyzed to determine the projected short- and long-term (following buildout of Sands Industrial) LOS for the key intersection turning movements:

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road

Please refer to the attached Sands Industrial TIS report (attached) for level of service analysis and results. This report has been referenced and attached, as the impacts of this site were included as “background traffic” in the analysis completed for the Sands Industrial TIS. The total traffic projections and analysis results included the trips and site-generated traffic projected for this site.

## FINDINGS AND CONCLUSIONS

- The initial development on the site (current application) is projected to generate about 140 vehicle trips on the average weekday (24-hour period).
- During the weekday morning peak hour of adjacent street traffic, 13 vehicles would enter the site, while 2 vehicles would exit.
- During the weekday evening peak hour of adjacent street traffic, 2 vehicles would enter the site, while 11 vehicles would exit.
- The above are total trips generated by the proposed Dwire Storage Yard site **for the initial 21,520 square feet of building only**. Estimates of the site-generated traffic projected to access the site via the Marksheffel Road/Industry Drive or Constitution Drive/Capital Drive intersections are presented in Figure 5. This report assumes the Capital Drive connection would be completed with this project. This figure also shows the Sands Industrial and other potential future background traffic.
- Capital Drive (north of Industry Drive) Recommendations:
  - Capital Drive is classified as an Urban Non-Residential Collector and that classification will not change with this project. Current roadway design standards for Urban Non-Residential Collectors are found in ECM Table 2-7. However, the west side of Capital Drive was previously completed as part of the original commercial subdivision. This half-section was completed within a 40-foot-wide half-ROW.
  - The 24-foot-wide (approximately) half-section of the street was constructed, presumably, to the applicable County standard at that time for an industrial/commercial traffic.
  - Curb and gutter (ramp-type curb) was constructed along the west side of Capital Drive.
  - The east half of the ROW has not been dedicated and remains private property. Therefore, the east half-section of street cannot be completed at this time and will be finished by the property on the east side of the street at the time of development.
  - The ramp-style curb and gutter that was constructed on the west side will be acceptable (from a traffic standpoint).
  - LSC recommends white, edge pavement markings along the edge of pavement on the east side.
  - The existing pavement section may need to be evaluated to determine if it meets current Non-Residential Collector standards.
- The applicant is proposing an asphalt, 50-foot radius, circular turn-around on-site. This is proposed to be adjacent to the planned office parking bays. A public access easement will be provided for use of this circular turn around by County maintenance vehicles, snowplows, emergency vehicles, and the general public. This turn around will likely need to be striped/marked to prohibit the area from being used for parking, equipment staging, or other obstructions.
- A copy of the previously-conducted traffic impact analysis report for the *Sands Industrial*, dated November 5, 2019 is attached. The total traffic projections and analysis results in

that report included the trips and site-generated traffic projected for this site. That report includes the LOS results for the area intersections.

\* \* \* \* \*

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

Respectfully submitted,

LSC TRANSPORTATION CONSULTANTS, INC.

By: Jeffrey C. Hodsdon, P.E.  
Principal

JCH:JAB:jas

Enclosures: Table 3  
Figure 1 - Figure 8  
Site Plan  
Traffic Counts  
Previously-conducted traffic impact analysis report:  
*Sands Industrial*, dated November 5, 2019

## Tables and Figures

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### Table 3: Trip Generation Estimate

ITE		Value	Units <sup>1</sup>	Trip Generation Rates <sup>2</sup>					Total Trips Generated				
				Average	A.M.		P.M.		Average	A.M.		P.M.	
Code	Description			Weekday	In	Out	In	Out	Weekday	In	Out	In	Out
<b><u>Current Application</u></b>													
110	General Light Industrial	21.520	KSF	6.48	0.59	0.08	0.08	0.52	140	13	2	2	11
<b><u>Potential Future Parcel Buildout (Not Proposed at This Time)</u></b>													
110	General Light Industrial	22.109	KSF	6.41	0.58	0.08	0.08	0.51	142	13	2	2	11
110	General Light Industrial	22.725	KSF	6.34	0.58	0.08	0.08	0.51	144	13	2	2	12
110	General Light Industrial	29.474	KSF	5.76	0.54	0.07	0.07	0.47	170	16	2	2	14
	<b>Total</b>	<b>95.828</b>	<b>KSF</b>					<b>Total</b>	<b>596</b>	<b>54</b>	<b>7</b>	<b>7</b>	<b>48</b>

<sup>1</sup> KSF = 1,000 square feet of gross floor area

<sup>2</sup> Source: *Trip Generation* , 10th Edition, 2017, by the Institute of Transportation Engineers (ITE)

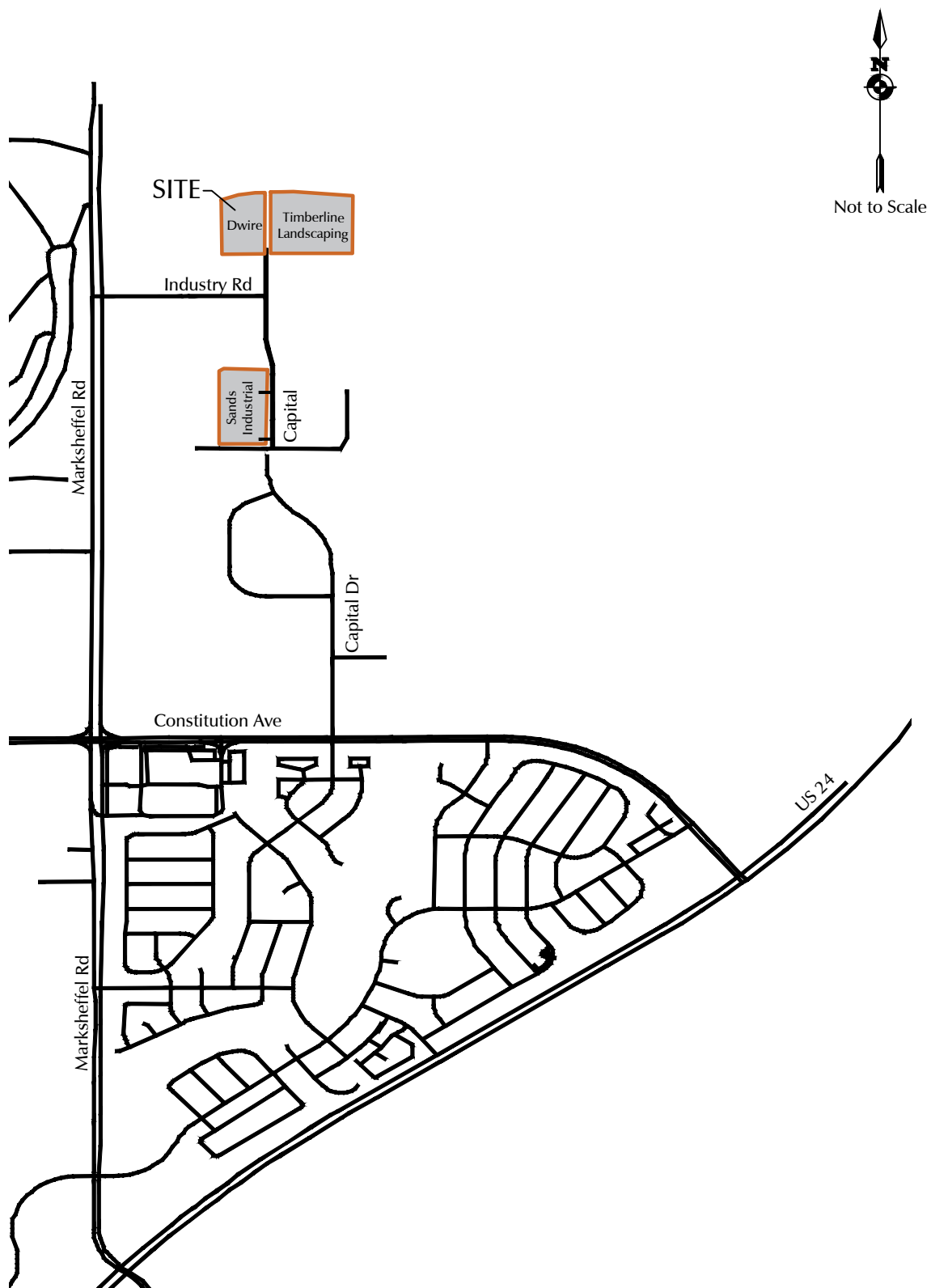






Figure 2  
**Site Plan**  
Yard (LSC #194930)

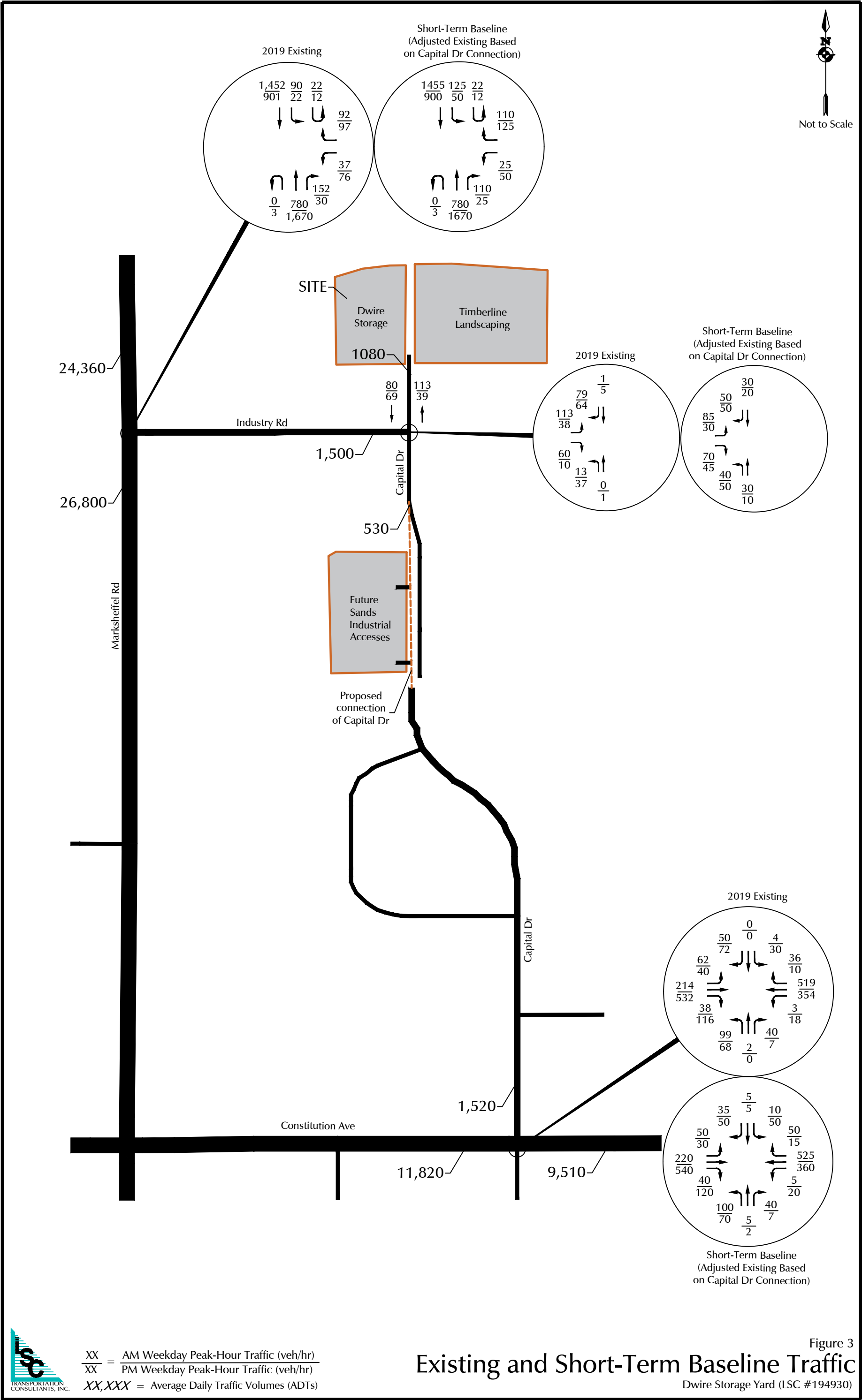
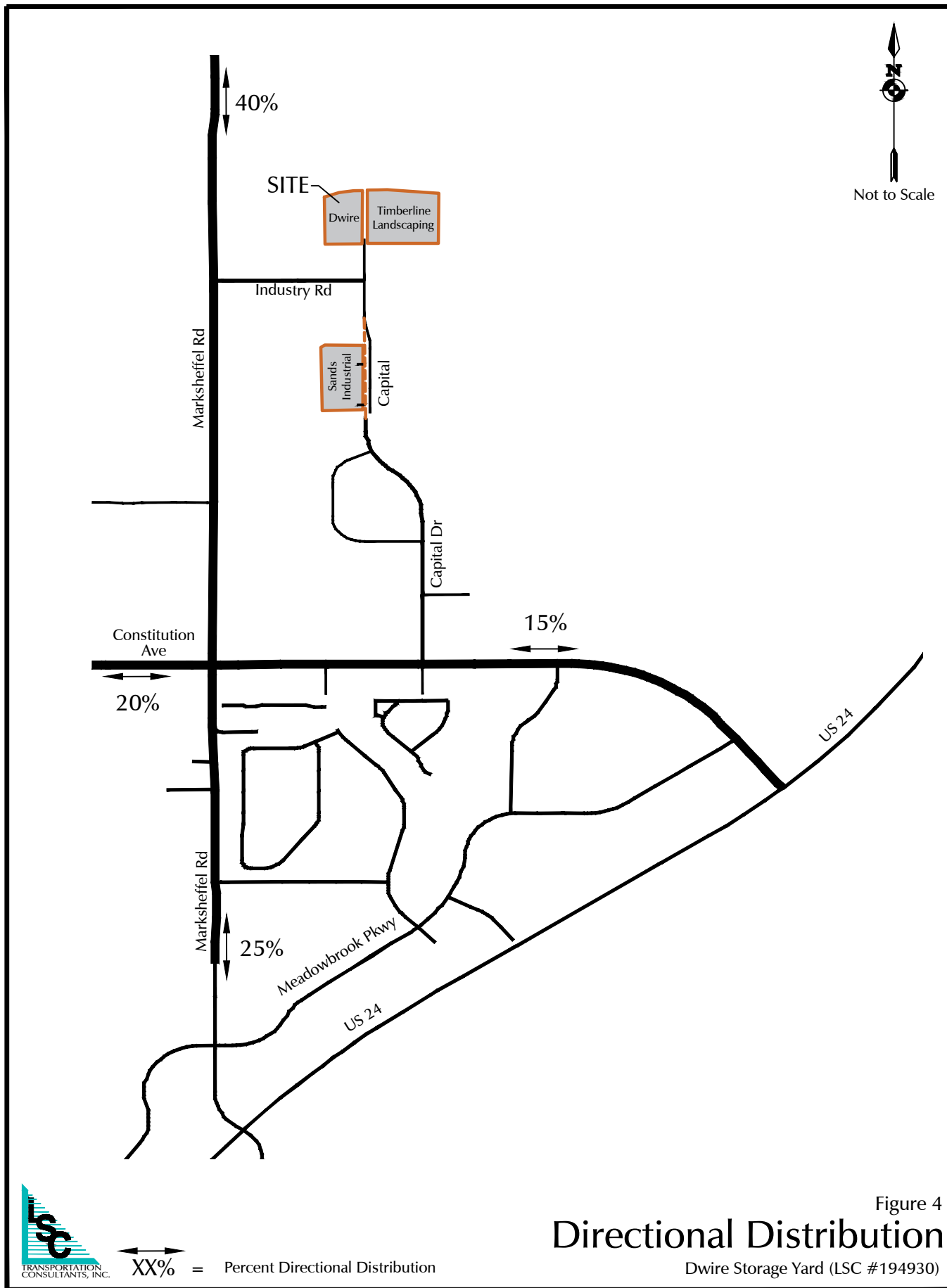
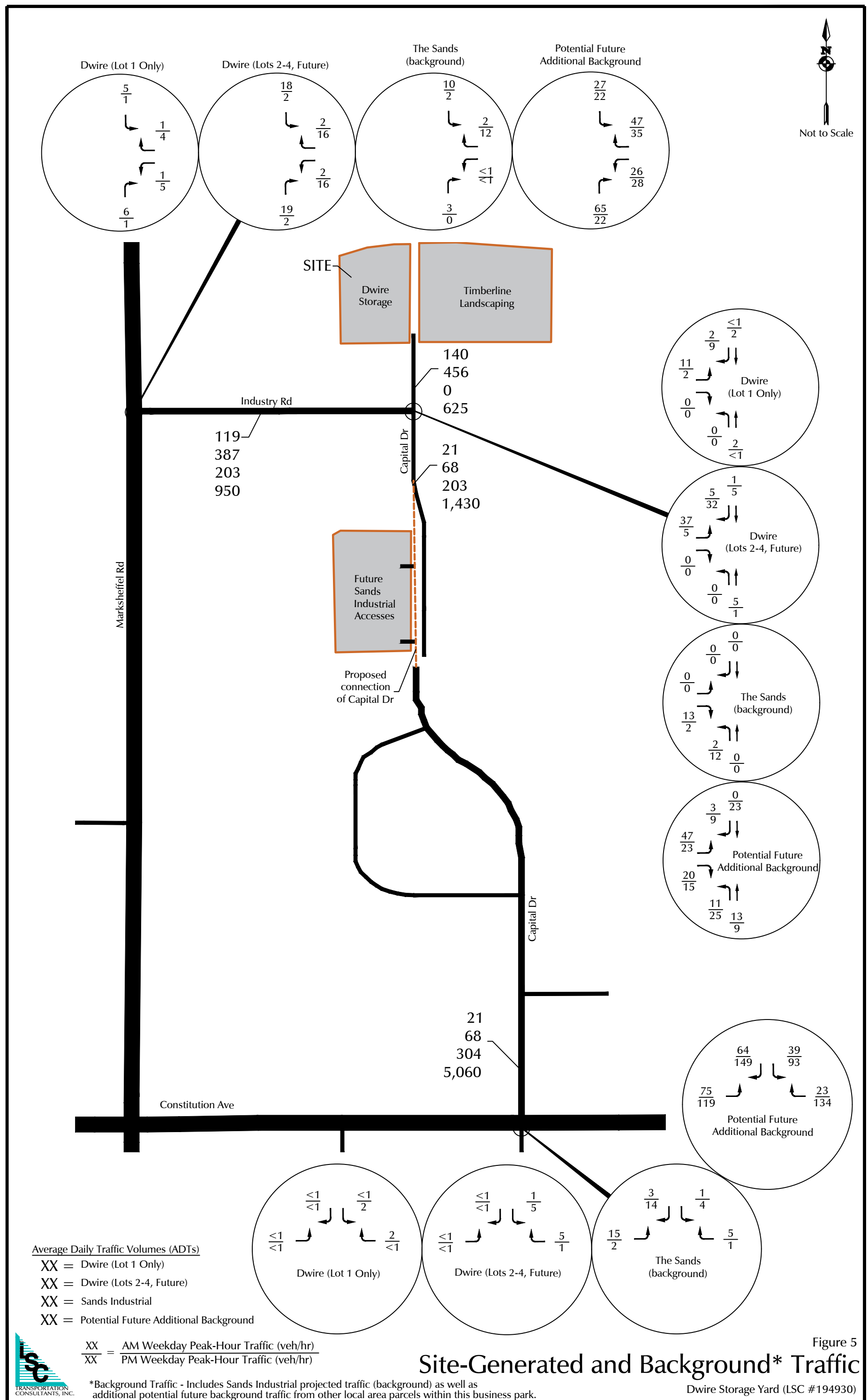
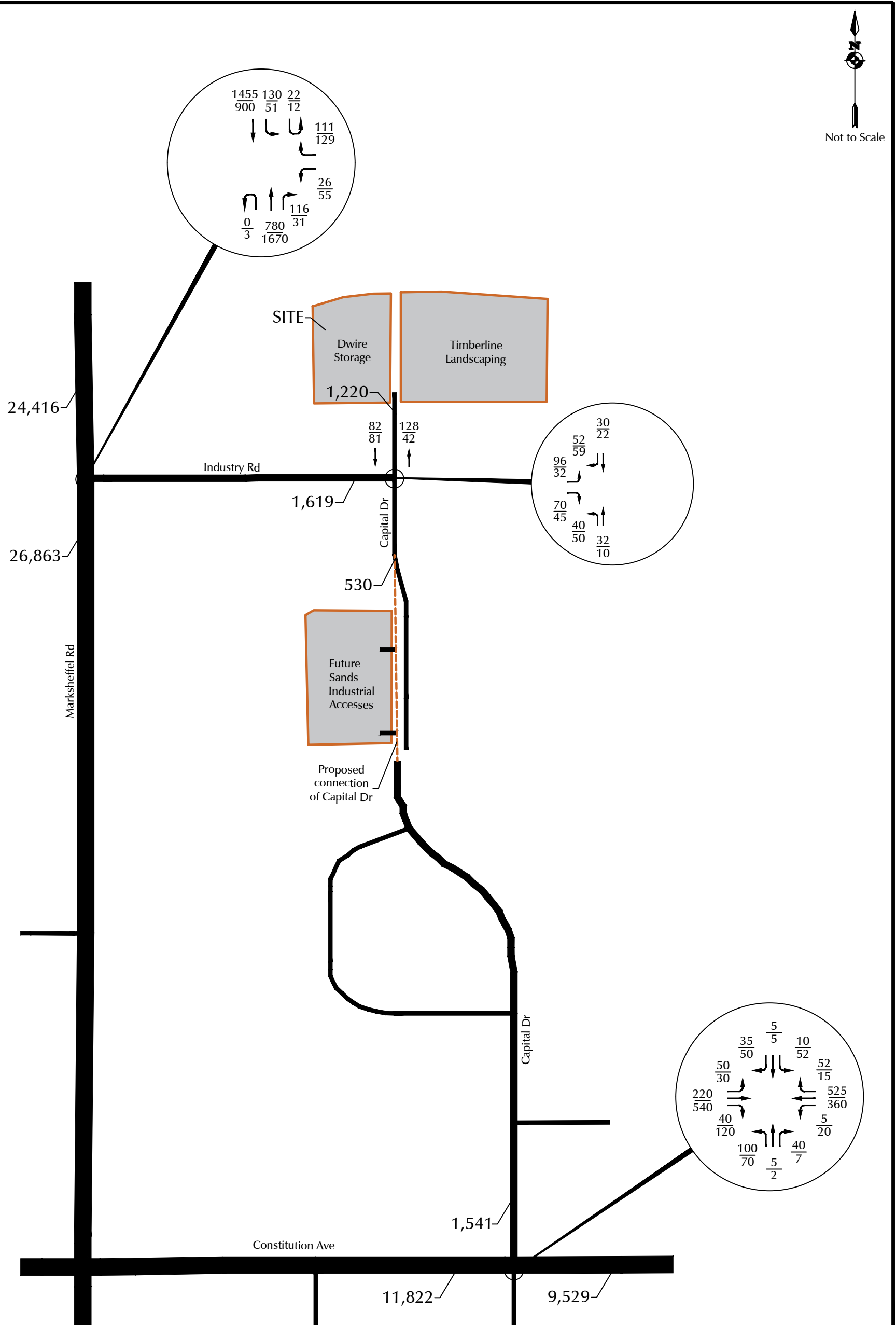
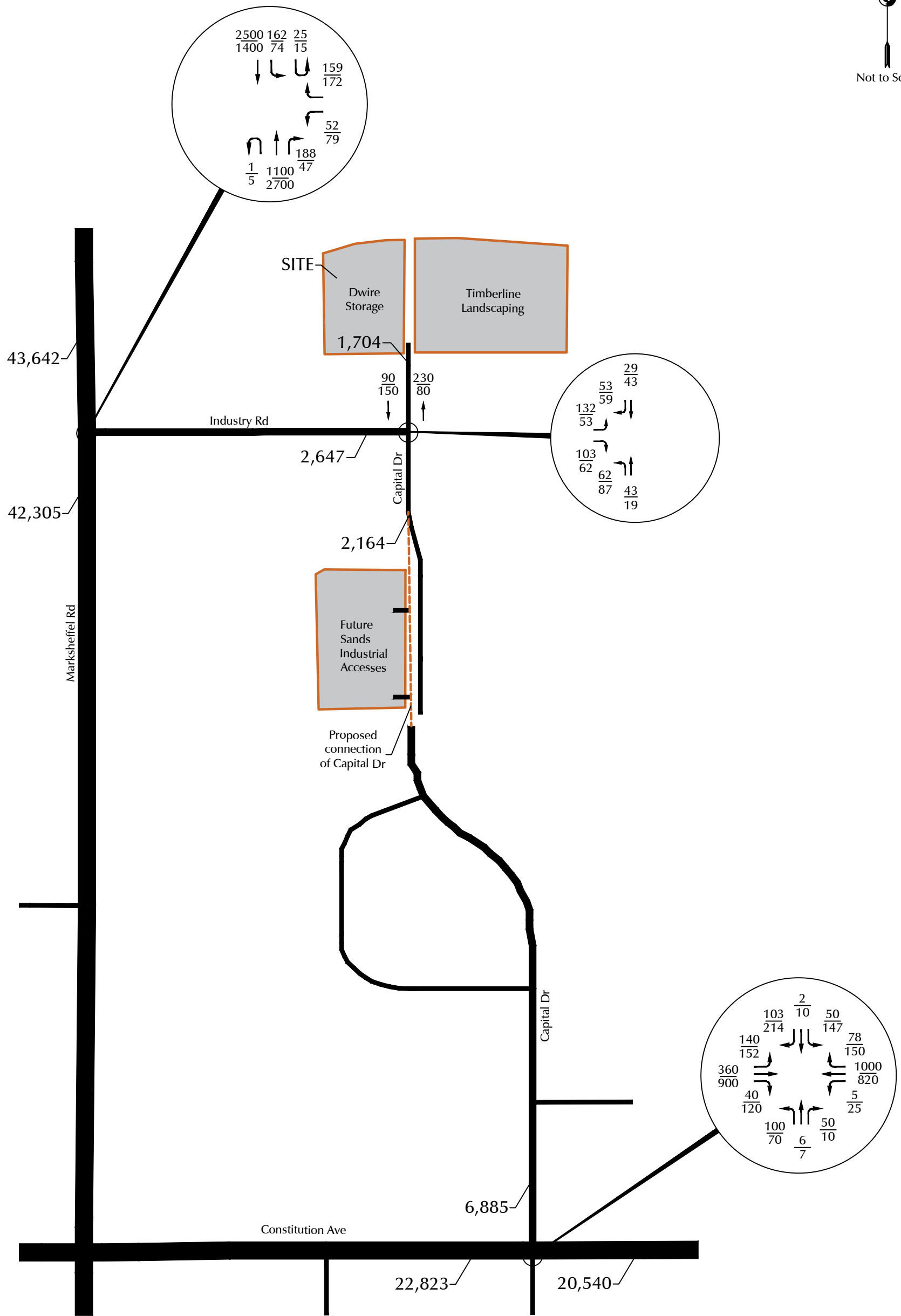
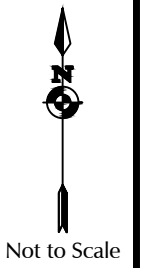


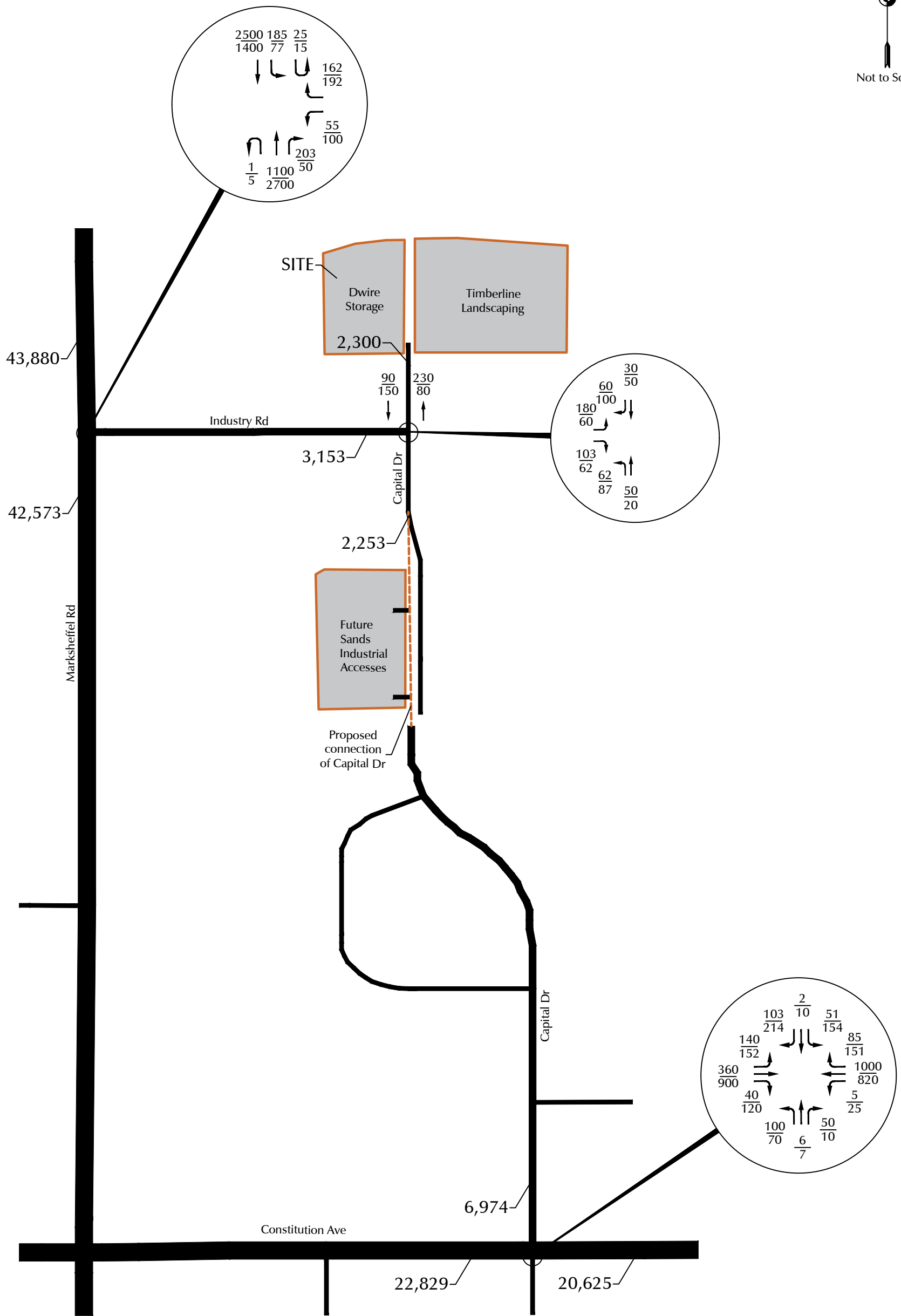
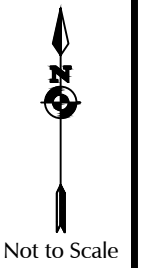
Figure 3  
Existing and Short-Term Baseline Traffic  
Dwire Storage Yard (LSC #194930)











# Site Plan

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A PARCEL OF LAND IN THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 28,  
TOWNSHIP 13 SOUTH, RANGE 65 WEST, OF THE SIXTH PRINCIPAL MERIDIAN,  
EL PASO COUNTY, STATE OF COLORADO

SF	SQUARE FEET
(xxxx)	ADDRESS
Ch	CHORD
ChL	CHORD LENGTH
●	SET ORANGE PLASTIC SURVEYORS CAP ON NO 5 REBAR, CAP IS STAMPED "M&S CIVIL PLS 25966"
○	FOUND MONUMENT AS NOTED

	BOUNDARY LINE
	PROPERTY LINE
	EASEMENT LINE
	ADJACENT PROPERTY LINE
	EXISTING RIGHT OF WAY LINE
	EXISTING EASEMENT
	FEMA FIRM FLOODPLAIN ELEVATION FEMA FIRM FLOODPLAIN ELEVATION

\*NOT A PART\* PARCELS INDICATED WITH ASTERISK "\*" ARE NOT A PART OF THIS SUBDIVISION

30' UTILITY EASEMENT  
REC. NO. 099053845

~~\*UNPLATTED\*~~  
SPECIAL WARRANTY DEED  
RECEPTION NO. 214104175

\*FORMER CHICAGO, ROCK ISLAND,  
AND PACIFIC RAILROAD\*  
CORRECTION TO  
SPECIAL WARRANTY DEED  
RECEPTION NO. 215057836

FOUND  
NO. 5 REBAR  
NO CAP

FINAL PLAT  
DWIRE STORAGE YARD FILING NO. 1  
JOB NO. 43-117  
DATE PREPARED: 02/05/2020  
DATE REVISED:



02 E. PIKES PEAK AVE., 5TH FLOOR  
COLORADO SPRINGS, CO 80903  
PHONE: 719.955.5485

SHEET 2 OF 2

EASEMENT LINE TABLE		
LINE #	DISTANCE	BEARING
L1	19.90	N00°02'53"
L2	19.90	S00°02'53"

\*UNPLATTED\*  
SPECIAL WARRANTY DEED  
RECEPTION NO.  
217149589

FILE NO. AR FP \_\_\_\_-\_\_\_\_

# Traffic Counts

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# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
06:30 AM	10	363	0	0	373	12	0	21	0	33	0	152	42	0	194	0	0	0	0	0	600
06:45 AM	44	361	0	2	407	5	0	16	0	21	0	202	61	0	263	0	0	0	0	0	691
Total	54	724	0	2	780	17	0	37	0	54	0	354	103	0	457	0	0	0	0	0	1291
07:00 AM	17	382	0	11	410	9	0	29	0	38	0	213	29	0	242	0	0	0	0	0	690
07:15 AM	19	346	0	9	374	11	0	26	0	37	0	213	20	0	233	0	0	0	0	0	644
07:30 AM	14	316	0	4	334	4	0	15	0	19	0	227	11	0	238	0	0	0	0	0	591
07:45 AM	15	325	0	0	340	12	0	20	0	32	0	207	15	0	222	0	0	0	0	0	594
Total	65	1369	0	24	1458	36	0	90	0	126	0	860	75	0	935	0	0	0	0	0	2519
08:00 AM	11	277	0	1	289	10	0	30	0	40	0	208	10	0	218	0	0	0	0	0	547
08:15 AM	11	250	0	0	261	8	0	21	0	29	0	159	8	0	167	0	0	0	0	0	457
Grand Total	141	2620	0	27	2788	71	0	178	0	249	0	1581	196	0	1777	0	0	0	0	0	4814
Apprch %	5.1	94	0	1		28.5	0	71.5	0		0	89	11	0		0	0	0	0		
Total %	2.9	54.4	0	0.6	57.9	1.5	0	3.7	0	5.2	0	32.8	4.1	0	36.9	0	0	0	0	0	



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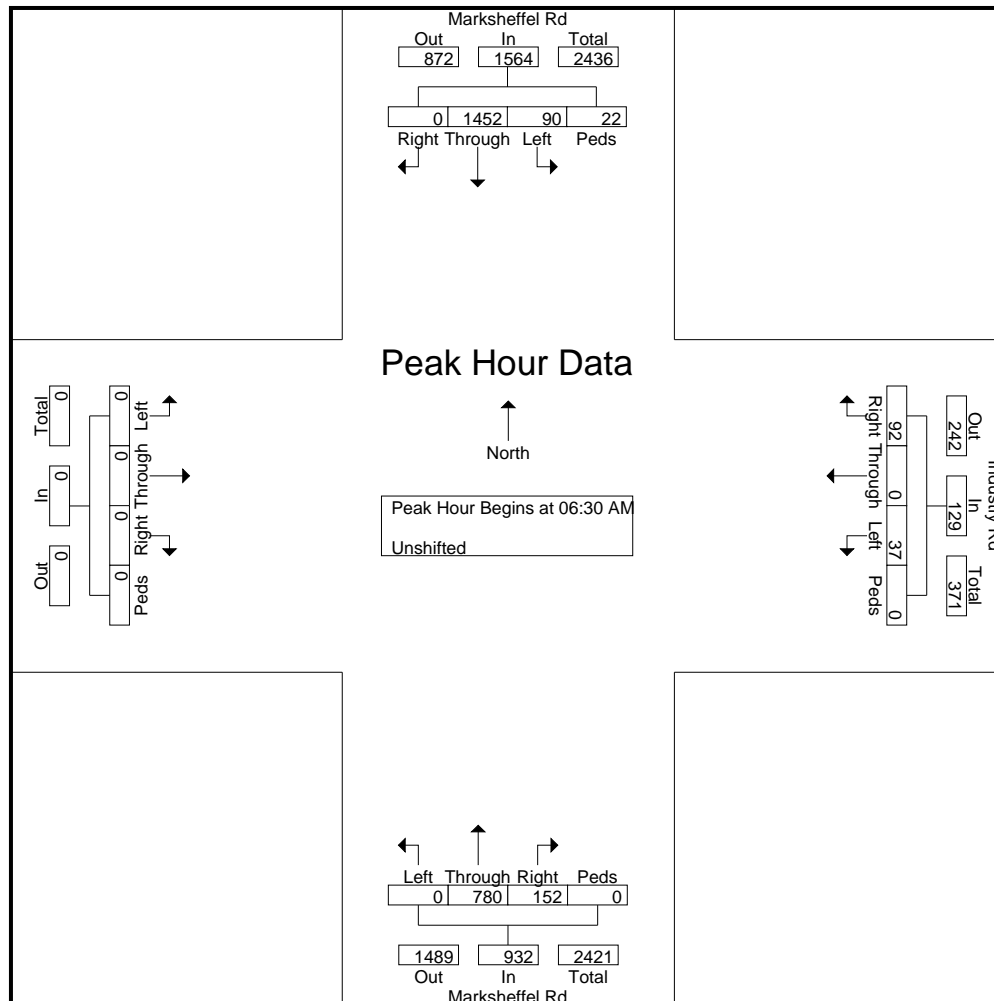
File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	10	363	0	0	373	12	0	21	0	33	0	152	42	0	194	0	0	0	0	0	600
06:45 AM	44	361	0	2	407	5	0	16	0	21	0	202	61	0	263	0	0	0	0	0	691
07:00 AM	17	382	0	11	410	9	0	29	0	38	0	213	29	0	242	0	0	0	0	0	690
07:15 AM	19	346	0	9	374	11	0	26	0	37	0	213	20	0	233	0	0	0	0	0	644
Total Volume	90	1452	0	22	1564	37	0	92	0	129	0	780	152	0	932	0	0	0	0	0	2625
% App. Total	5.8	92.8	0	1.4		28.7	0	71.3	0		0	83.7	16.3	0		0	0	0	0	0	
PHF	.511	.950	.000	.500	.954	.771	.000	.793	.000	.849	.000	.915	.623	.000	.886	.000	.000	.000	.000	.000	.950





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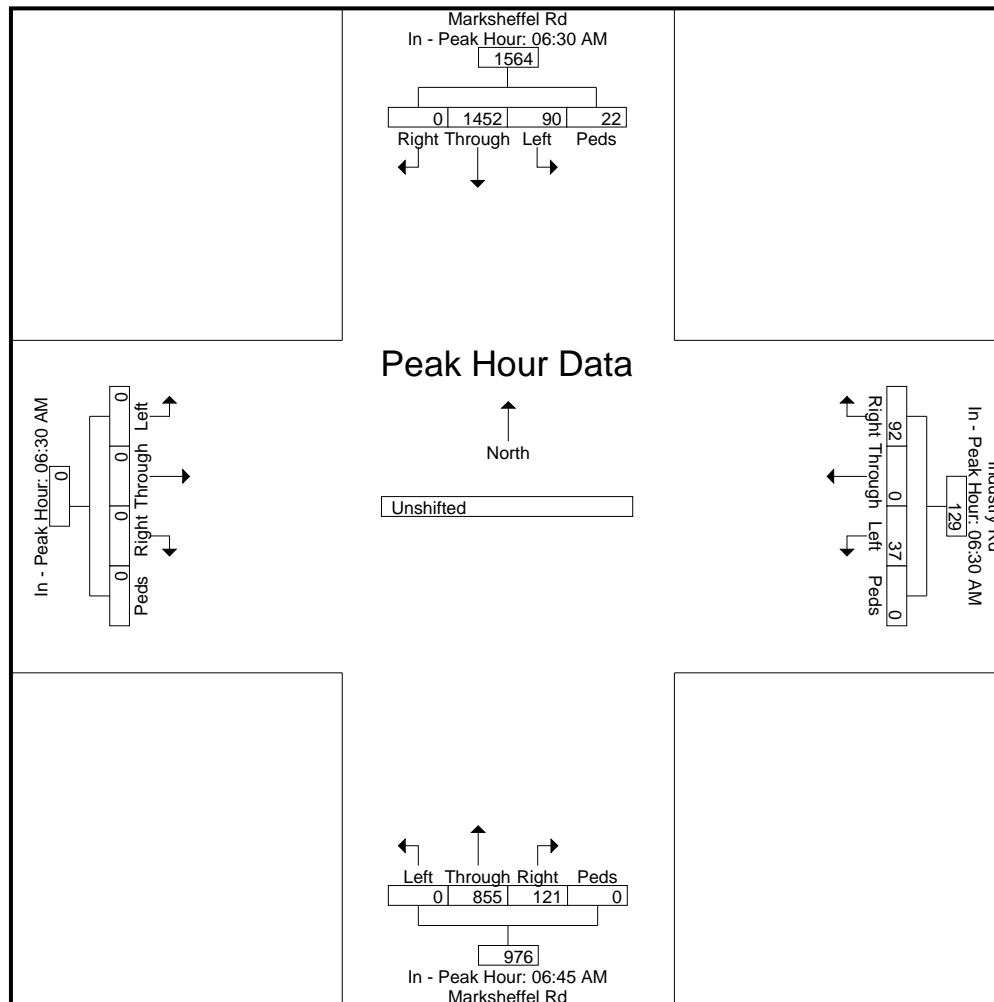
File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 3

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	06:30 AM					06:30 AM					06:45 AM					06:30 AM					
+0 mins.	10	363	0	0	373	12	0	21	0	33	0	202	61	0	263	0	0	0	0	0	
+15 mins.	44	361	0	2	407	5	0	16	0	21	0	213	29	0	242	0	0	0	0	0	
+30 mins.	17	382	0	11	410	9	0	29	0	38	0	213	20	0	233	0	0	0	0	0	
+45 mins.	19	346	0	9	374	11	0	26	0	37	0	227	11	0	238	0	0	0	0	0	
Total Volume	90	1452	0	22	1564	37	0	92	0	129	0	855	121	0	976	0	0	0	0	0	
% App. Total	5.8	92.8	0	1.4		28.7	0	71.3	0		0	87.6	12.4	0		0	0	0	0		
PHF	.511	.950	.000	.500	.954	.771	.000	.793	.000	.849	.000	.942	.496	.000	.928	.000	.000	.000	.000	.000	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	11	205	0	2	218	16	0	17	0	33	0	331	19	0	350	0	0	0	0	0	601
04:15 PM	10	198	0	0	208	19	0	15	0	34	0	413	8	0	421	0	0	0	0	0	663
04:30 PM	12	227	0	2	241	26	0	31	0	57	0	340	10	0	350	0	0	0	0	0	648
04:45 PM	6	221	0	7	234	19	0	14	0	33	0	423	8	0	431	0	0	0	0	0	698
Total	39	851	0	11	901	80	0	77	0	157	0	1507	45	0	1552	0	0	0	0	0	2610
05:00 PM	6	218	0	2	226	21	0	11	0	32	0	456	8	1	465	0	0	0	0	0	723
05:15 PM	5	204	0	1	210	15	0	11	0	26	0	401	9	1	411	0	0	0	0	0	647
05:30 PM	5	258	0	2	265	21	0	11	0	32	0	390	5	1	396	0	0	0	0	0	693
05:45 PM	10	216	0	1	227	9	0	7	0	16	0	340	2	0	342	0	0	0	0	0	585
Total	26	896	0	6	928	66	0	40	0	106	0	1587	24	3	1614	0	0	0	0	0	2648
Grand Total	65	1747	0	17	1829	146	0	117	0	263	0	3094	69	3	3166	0	0	0	0	0	5258
Apprch %	3.6	95.5	0	0.9		55.5	0	44.5	0		0	97.7	2.2	0.1		0	0	0	0	0	
Total %	1.2	33.2	0	0.3	34.8	2.8	0	2.2	0	5	0	58.8	1.3	0.1	60.2	0	0	0	0	0	



# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

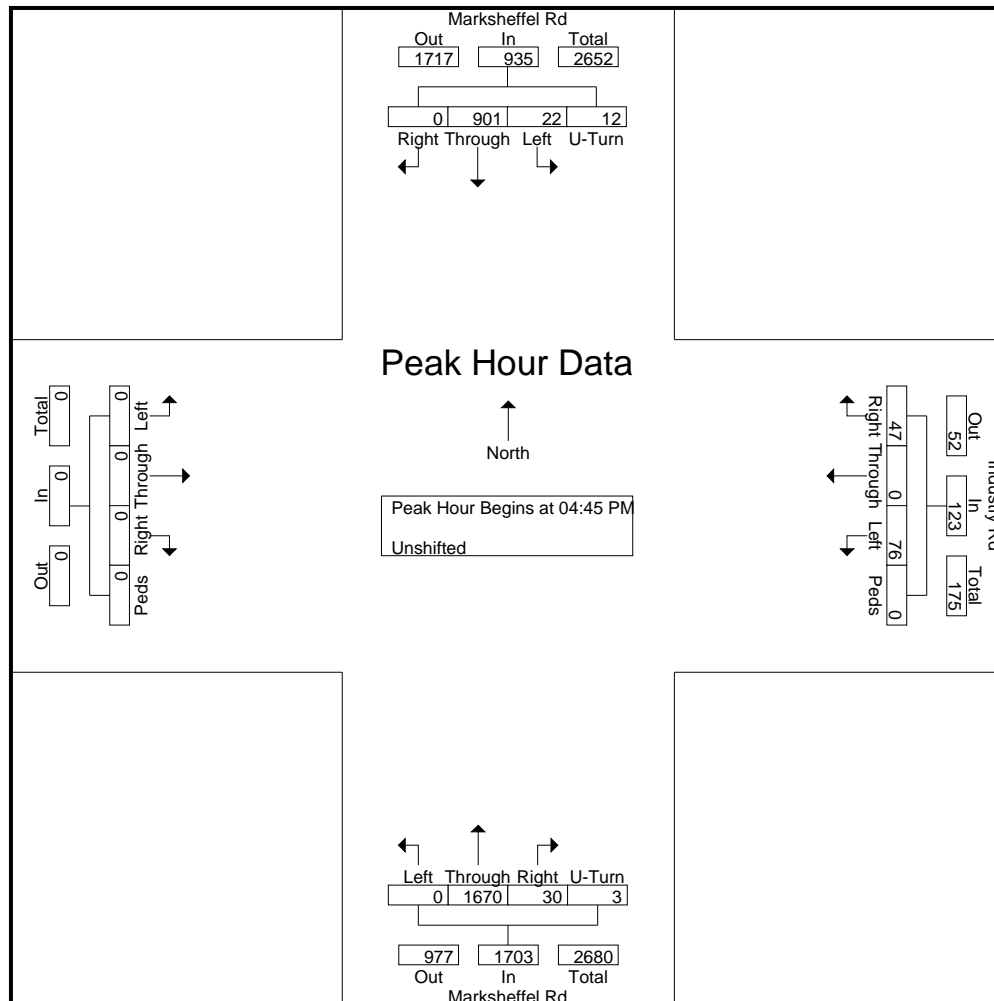
File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	6	221	0	7	234	19	0	14	0	33	0	423	8	0	431	0	0	0	0	0	698
05:00 PM	6	218	0	2	226	21	0	11	0	32	0	456	8	1	465	0	0	0	0	0	723
05:15 PM	5	204	0	1	210	15	0	11	0	26	0	401	9	1	411	0	0	0	0	0	647
05:30 PM	5	258	0	2	265	21	0	11	0	32	0	390	5	1	396	0	0	0	0	0	693
Total Volume	22	901	0	12	935	76	0	47	0	123	0	1670	30	3	1703	0	0	0	0	0	2761
% App. Total	2.4	96.4	0	1.3		61.8	0	38.2	0		0	98.1	1.8	0.2		0	0	0	0		
PHF	.917	.873	.000	.429	.882	.905	.000	.839	.000	.932	.000	.916	.833	.750	.916	.000	.000	.000	.000	.000	.955





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

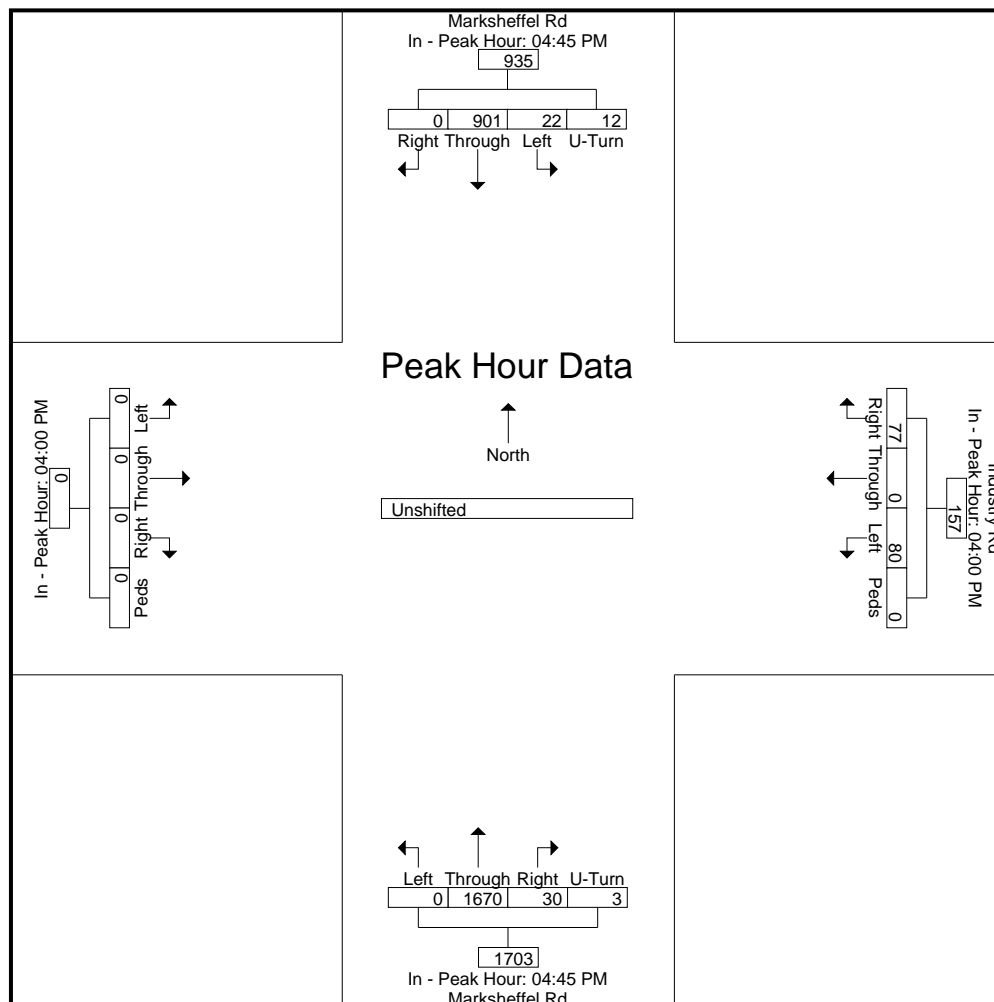
File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 3

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:00 PM					04:45 PM					04:00 PM					
+0 mins.	6	221	0	7	234	16	0	17	0	33	0	423	8	0	431	0	0	0	0	0	
+15 mins.	6	218	0	2	226	19	0	15	0	34	0	456	8	1	465	0	0	0	0	0	
+30 mins.	5	204	0	1	210	26	0	31	0	57	0	401	9	1	411	0	0	0	0	0	
+45 mins.	5	258	0	2	265	19	0	14	0	33	0	390	5	1	396	0	0	0	0	0	
Total Volume	22	901	0	12	935	80	0	77	0	157	0	1670	30	3	1703	0	0	0	0	0	
% App. Total	2.4	96.4	0	1.3		51	0	49	0		0	98.1	1.8	0.2		0	0	0	0		
PHF	.917	.873	.000	.429	.882	.769	.000	.621	.000	.689	.000	.916	.833	.750	.916	.000	.000	.000	.000	.000	







# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	1	0	10	0	11	1	100	9	0	110	16	0	9	0	25	14	30	5	0	49	195
06:45 AM	1	0	10	0	11	0	102	10	0	112	32	1	9	0	42	27	40	7	0	74	239
Total	2	0	20	0	22	1	202	19	0	222	48	1	18	0	67	41	70	12	0	123	434
07:00 AM	0	0	10	0	10	0	130	4	0	134	24	1	10	0	35	13	49	8	0	70	249
07:15 AM	2	0	10	0	12	0	122	11	0	133	31	0	10	1	42	13	58	10	0	81	268
07:30 AM	0	0	17	0	17	1	143	6	0	150	28	1	9	0	38	17	44	9	0	70	275
07:45 AM	2	0	13	0	15	2	124	15	0	141	16	0	11	0	27	19	63	11	0	93	276
Total	4	0	50	0	54	3	519	36	0	558	99	2	40	1	142	62	214	38	0	314	1068
08:00 AM	10	0	16	0	26	0	74	7	0	81	18	0	3	0	21	15	90	13	0	118	246
08:15 AM	8	0	12	0	20	1	63	13	0	77	18	0	2	1	21	11	60	17	0	88	206
Grand Total	24	0	98	0	122	5	858	75	0	938	183	3	63	2	251	129	434	80	0	643	1954
Apprch %	19.7	0	80.3	0		0.5	91.5	8	0		72.9	1.2	25.1	0.8		20.1	67.5	12.4	0		
Total %	1.2	0	5	0	6.2	0.3	43.9	3.8	0	48	9.4	0.2	3.2	0.1	12.8	6.6	22.2	4.1	0	32.9	



# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

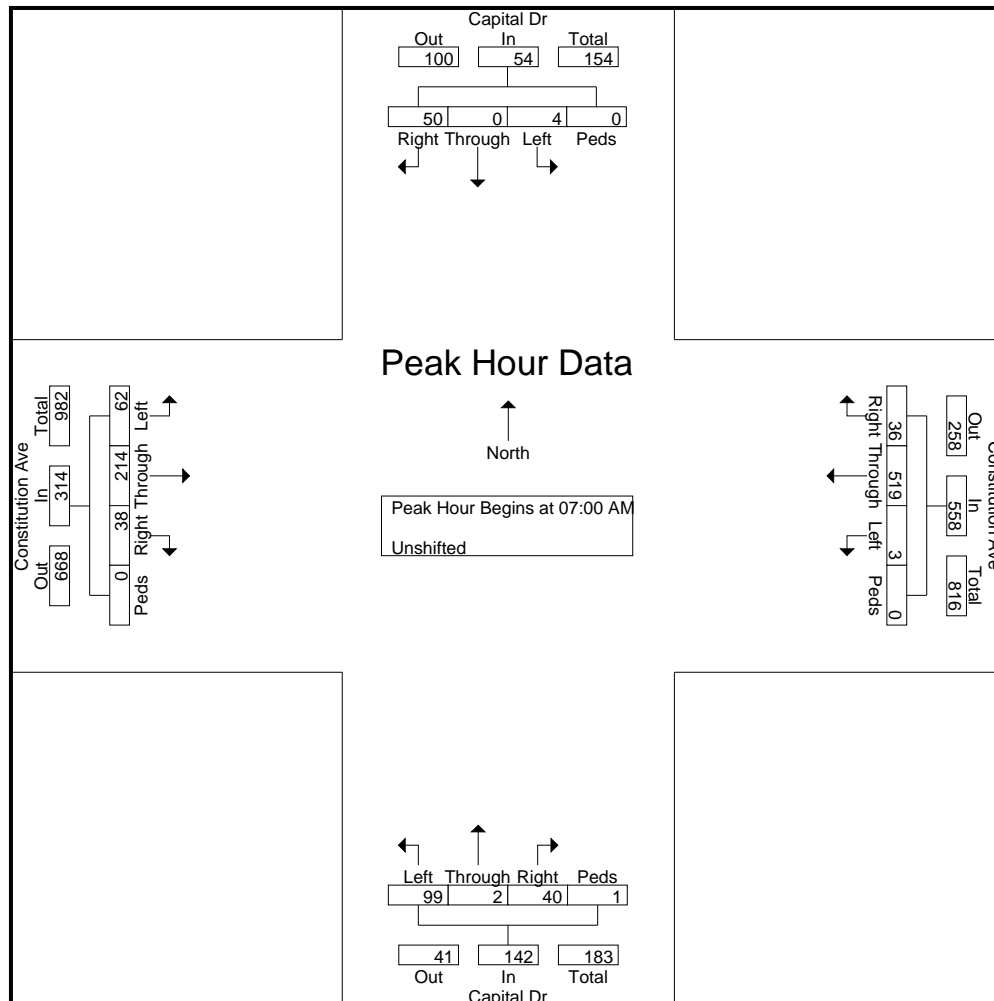
File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

Page No : 2

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	10	0	10	0	130	4	0	134	24	1	10	0	35	13	49	8	0	70	249
07:15 AM	2	0	10	0	12	0	122	11	0	133	31	0	10	1	42	13	58	10	0	81	268
07:30 AM	0	0	17	0	17	1	143	6	0	150	28	1	9	0	38	17	44	9	0	70	275
07:45 AM	2	0	13	0	15	2	124	15	0	141	16	0	11	0	27	19	63	11	0	93	276
Total Volume	4	0	50	0	54	3	519	36	0	558	99	2	40	1	142	62	214	38	0	314	1068
% App. Total	7.4	0	92.6	0		0.5	93	6.5	0		69.7	1.4	28.2	0.7		19.7	68.2	12.1	0		
PHF	.500	.000	.735	.000	.794	.375	.907	.600	.000	.930	.798	.500	.909	.250	.845	.816	.849	.864	.000	.844	.967





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

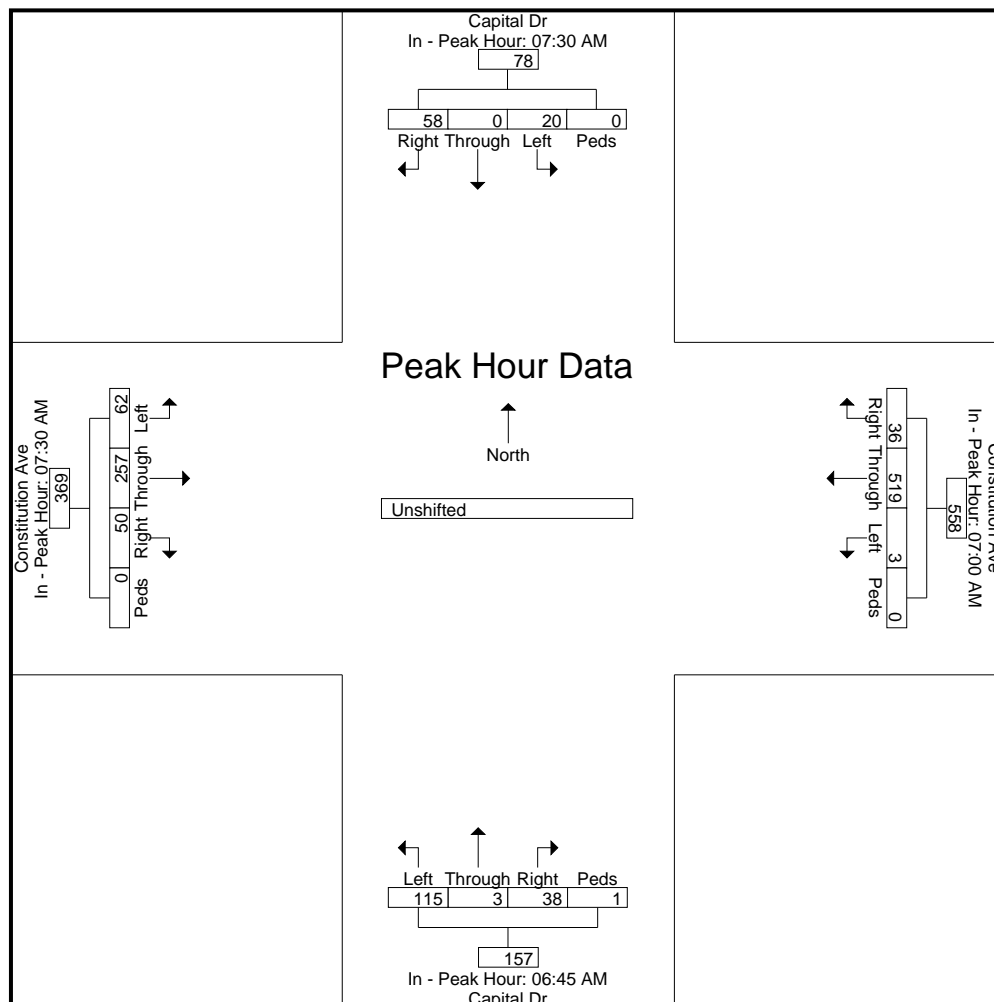
File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

Page No : 3

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:00 AM					06:45 AM					07:30 AM					
+0 mins.	0	0	17	0	17	0	130	4	0	134	32	1	9	0	42	17	44	9	0	70	
+15 mins.	2	0	13	0	15	0	122	11	0	133	24	1	10	0	35	19	63	11	0	93	
+30 mins.	10	0	16	0	26	1	143	6	0	150	31	0	10	1	42	15	90	13	0	118	
+45 mins.	8	0	12	0	20	2	124	15	0	141	28	1	9	0	38	11	60	17	0	88	
Total Volume	20	0	58	0	78	3	519	36	0	558	115	3	38	1	157	62	257	50	0	369	
% App. Total	25.6	0	74.4	0		0.5	93	6.5	0		73.2	1.9	24.2	0.6		16.8	69.6	13.6	0		
PHF	.500	.000	.853	.000	.750	.375	.907	.600	.000	.930	.898	.750	.950	.250	.935	.816	.714	.735	.000	.782	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	6	0	20	0	26	2	83	7	0	92	16	0	2	0	18	13	125	28	0	166	302
04:15 PM	4	1	15	1	21	3	70	5	0	78	10	0	3	0	13	13	115	34	0	162	274
04:30 PM	3	0	21	0	24	0	70	2	0	72	18	0	3	1	22	9	130	29	0	168	286
04:45 PM	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	317
Total	21	1	75	1	98	11	313	16	0	340	59	0	10	1	70	42	508	121	0	671	1179
05:00 PM	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	329
05:15 PM	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	301
05:30 PM	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	323
05:45 PM	2	0	9	0	11	7	78	1	0	86	14	0	3	0	17	5	114	33	0	152	266
Total	24	0	62	0	86	19	342	9	0	370	67	0	8	3	78	38	528	119	0	685	1219
Grand Total	45	1	137	1	184	30	655	25	0	710	126	0	18	4	148	80	1036	240	0	1356	2398
Apprch %	24.5	0.5	74.5	0.5		4.2	92.3	3.5	0		85.1	0	12.2	2.7		5.9	76.4	17.7	0		
Total %	1.9	0	5.7	0	7.7	1.3	27.3	1	0	29.6	5.3	0	0.8	0.2	6.2	3.3	43.2	10	0	56.5	



# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

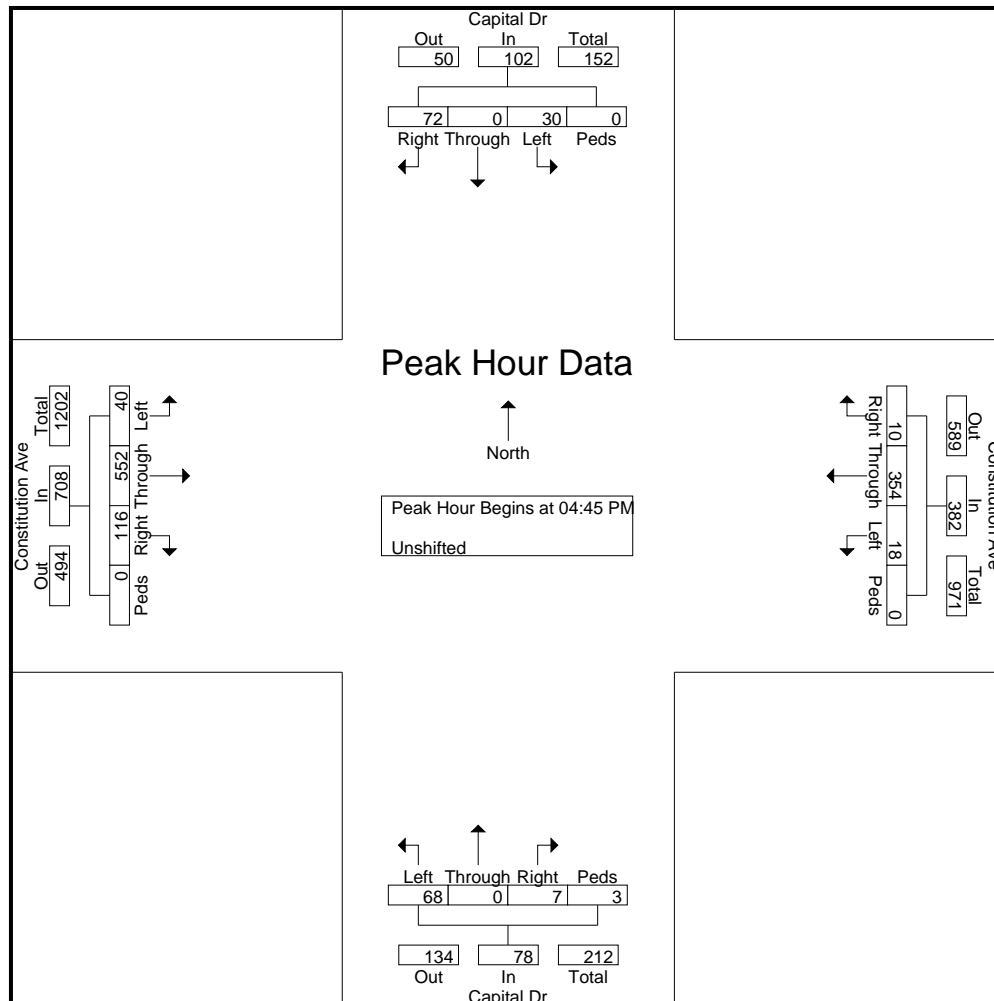
File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	317
05:00 PM	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	329
05:15 PM	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	301
05:30 PM	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	323
Total Volume	30	0	72	0	102	18	354	10	0	382	68	0	7	3	78	40	552	116	0	708	1270
% App. Total	29.4	0	70.6	0		4.7	92.7	2.6	0		87.2	0	9	3.8		5.6	78	16.4	0		
PHF	.938	.000	.947	.000	.944	.750	.932	.625	.000	.965	.810	.000	.875	.250	.750	.625	.939	.829	.000	.937	.965





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545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

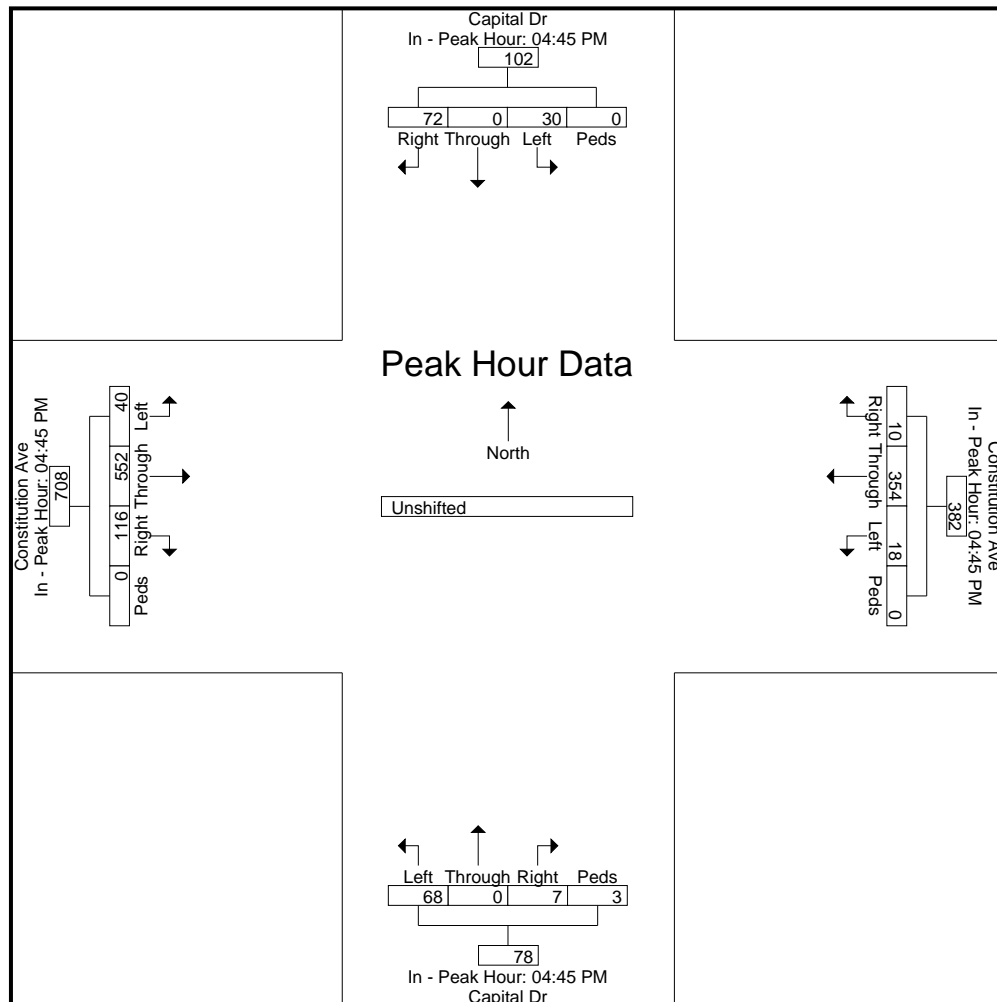
File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

Page No : 3

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	
+15 mins.	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	
+30 mins.	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	
+45 mins.	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	
Total Volume	30	0	72	0	102	18	354	10	0	382	68	0	7	3	78	40	552	116	0	708	
% App. Total	29.4	0	70.6	0		4.7	92.7	2.6	0		87.2	0	9	3.8		5.6	78	16.4	0		
PHF	.938	.000	.947	.000	.944	.750	.932	.625	.000	.965	.810	.000	.875	.250	.750	.625	.939	.829	.000	.937	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	0	0	10	0	10	0	0	0	0	0	1	0	0	0	1	32	0	14	0	46	57
06:45 AM	0	0	22	0	22	0	0	0	0	0	2	0	0	0	2	58	0	14	0	72	96
Total	0	0	32	0	32	0	0	0	0	0	3	0	0	0	3	90	0	28	0	118	153
07:00 AM	0	1	25	0	26	0	0	0	0	0	2	0	0	0	2	15	0	13	0	28	56
07:15 AM	0	0	22	0	22	0	0	0	0	0	8	0	0	0	8	8	0	19	0	27	57
07:30 AM	0	0	12	0	12	0	0	0	0	0	4	1	0	0	5	2	0	2	0	4	21
07:45 AM	0	1	10	0	11	0	0	0	0	0	9	0	0	0	9	5	0	5	0	10	30
Total	0	2	69	0	71	0	0	0	0	0	23	1	0	0	24	30	0	39	0	69	164
08:00 AM	0	0	3	0	3	0	0	0	0	0	4	0	0	0	4	4	0	2	0	6	13
08:15 AM	0	1	4	0	5	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	10
Grand Total	0	3	108	0	111	0	0	0	0	0	30	2	0	0	32	127	0	70	0	197	340
Apprch %	0	2.7	97.3	0		0	0	0	0		93.8	6.2	0	0		64.5	0	35.5	0		
Total %	0	0.9	31.8	0	32.6	0	0	0	0	0	8.8	0.6	0	0	9.4	37.4	0	20.6	0	57.9	



# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
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719-633-2868

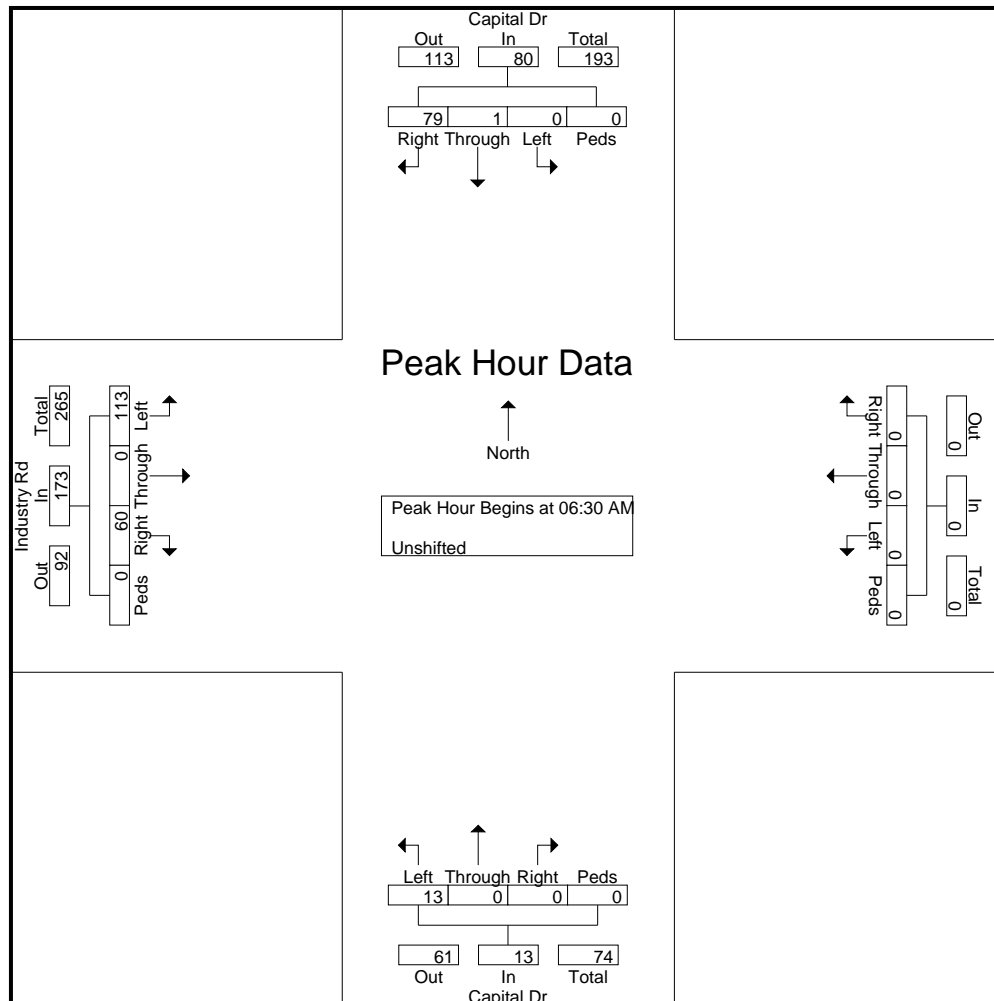
File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 2

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	0	0	10	0	10	0	0	0	0	0	1	0	0	0	1	32	0	14	0	46	57
06:45 AM	0	0	22	0	22	0	0	0	0	0	2	0	0	0	2	<b>58</b>	0	14	0	<b>72</b>	<b>96</b>
07:00 AM	0	<b>1</b>	<b>25</b>	0	<b>26</b>	0	0	0	0	0	2	0	0	0	2	15	0	13	0	28	56
07:15 AM	0	0	22	0	22	0	0	0	0	0	<b>8</b>	0	0	0	<b>8</b>	8	0	<b>19</b>	0	27	57
Total Volume	0	1	79	0	80	0	0	0	0	0	13	0	0	0	13	113	0	60	0	173	266
% App. Total	0	1.2	98.8	0		0	0	0	0		100	0	0	0		65.3	0	34.7	0		
PHF	.000	.250	.790	.000	.769	.000	.000	.000	.000	.000	.406	.000	.000	.000	.406	.487	.000	.789	.000	.601	.693







# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

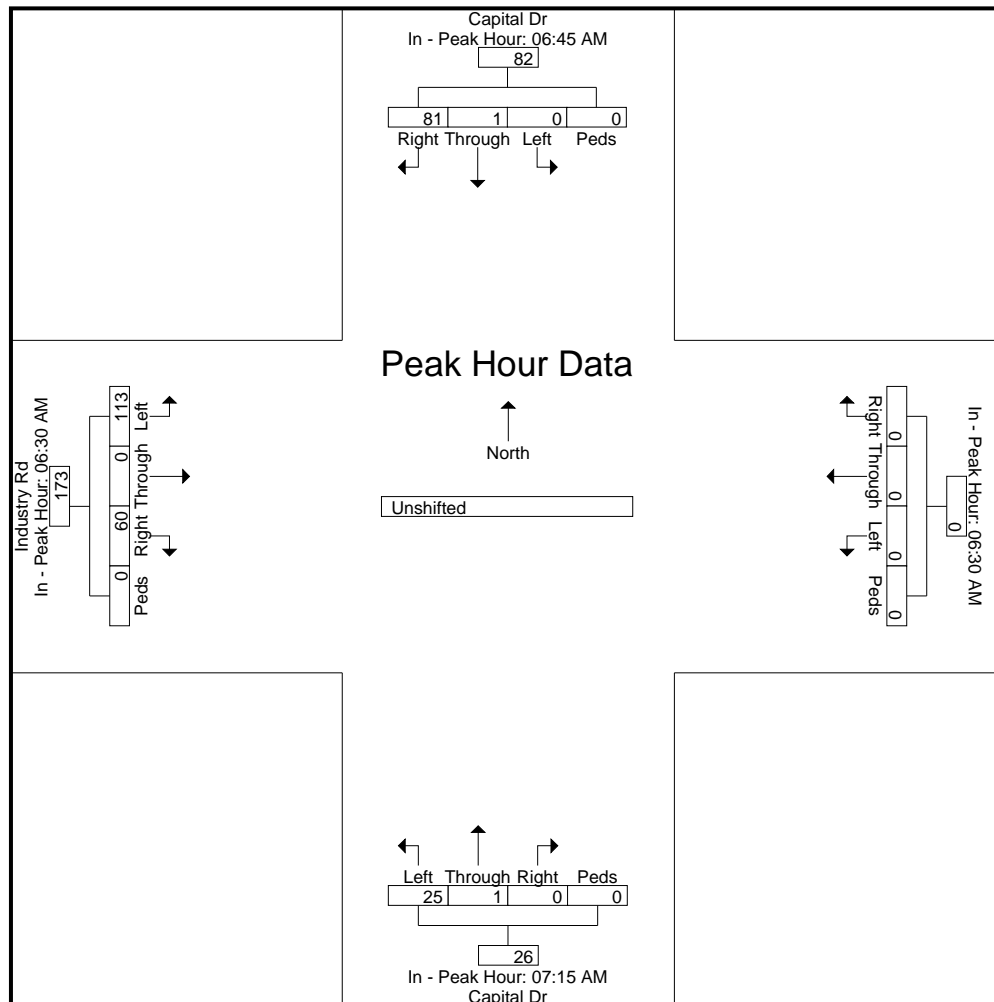
File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 3

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	06:45 AM					06:30 AM					07:15 AM					06:30 AM					
+0 mins.	0	0	22	0	22	0	0	0	0	0	8	0	0	0	8	32	0	14	0	46	
+15 mins.	0	1	25	0	26	0	0	0	0	0	4	1	0	0	5	58	0	14	0	72	
+30 mins.	0	0	22	0	22	0	0	0	0	0	9	0	0	0	9	15	0	13	0	28	
+45 mins.	0	0	12	0	12	0	0	0	0	0	4	0	0	0	4	8	0	19	0	27	
Total Volume	0	1	81	0	82	0	0	0	0	0	25	1	0	0	26	113	0	60	0	173	
% App. Total	0	1.2	98.8	0		0	0	0	0		96.2	3.8	0	0		65.3	0	34.7	0		
PHF	.000	.250	.810	.000	.788	.000	.000	.000	.000	.000	.694	.250	.000	.000	.722	.487	.000	.789	.000	.601	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
04:00 PM	0	0	16	0	16	0	0	0	0	0	8	0	0	0	8	6	0	8	0	14	38
04:15 PM	0	2	8	0	10	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	33
04:30 PM	0	0	20	0	20	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	57
04:45 PM	0	1	11	0	12	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	26
Total	0	3	55	0	58	0	0	0	0	0	41	1	0	0	42	37	0	17	0	54	154
05:00 PM	0	2	25	0	27	0	0	0	0	0	4	0	0	0	4	7	0	1	0	8	39
05:15 PM	0	0	10	0	10	0	0	0	0	0	5	1	0	0	6	7	0	1	0	8	24
05:30 PM	0	1	14	0	15	0	0	0	0	0	3	1	0	0	4	9	0	1	0	10	29
*** BREAK ***																					
Total	0	3	49	0	52	0	0	0	0	0	12	2	0	0	14	23	0	3	0	26	92
Grand Total	0	6	104	0	110	0	0	0	0	0	53	3	0	0	56	60	0	20	0	80	246
Apprch %	0	5.5	94.5	0		0	0	0	0	0	94.6	5.4	0	0		75	0	25	0		
Total %	0	2.4	42.3	0	44.7	0	0	0	0	0	21.5	1.2	0	0	22.8	24.4	0	8.1	0	32.5	



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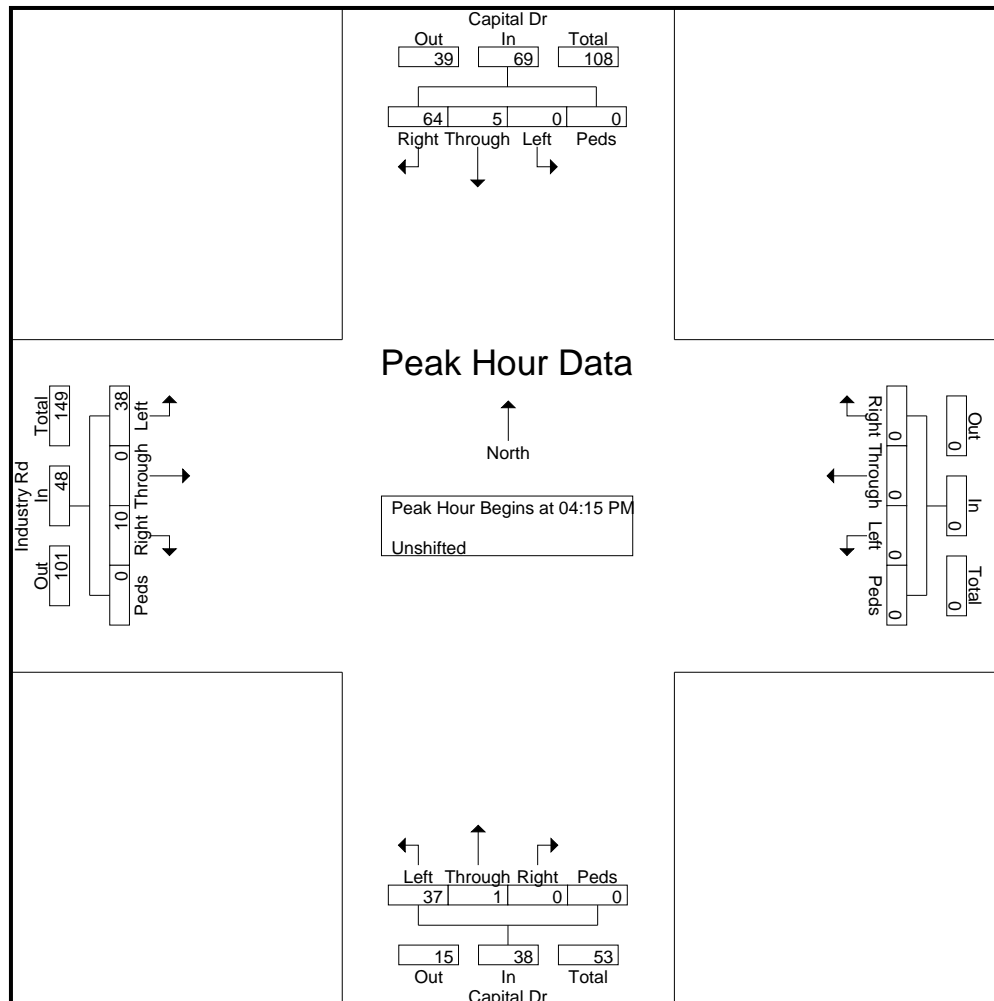
File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 2

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	2	8	0	10	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	33
04:30 PM	0	0	20	0	20	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	57
04:45 PM	0	1	11	0	12	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	26
05:00 PM	0	2	25	0	27	0	0	0	0	0	4	0	0	0	4	7	0	1	0	8	39
Total Volume	0	5	64	0	69	0	0	0	0	0	37	1	0	0	38	38	0	10	0	48	155
% App. Total	0	7.2	92.8	0		0	0	0	0		97.4	2.6	0	0		79.2	0	20.8	0		
PHF	.000	.625	.640	.000	.639	.000	.000	.000	.000	.000	.402	.250	.000	.000	.396	.792	.000	.625	.000	.750	.680





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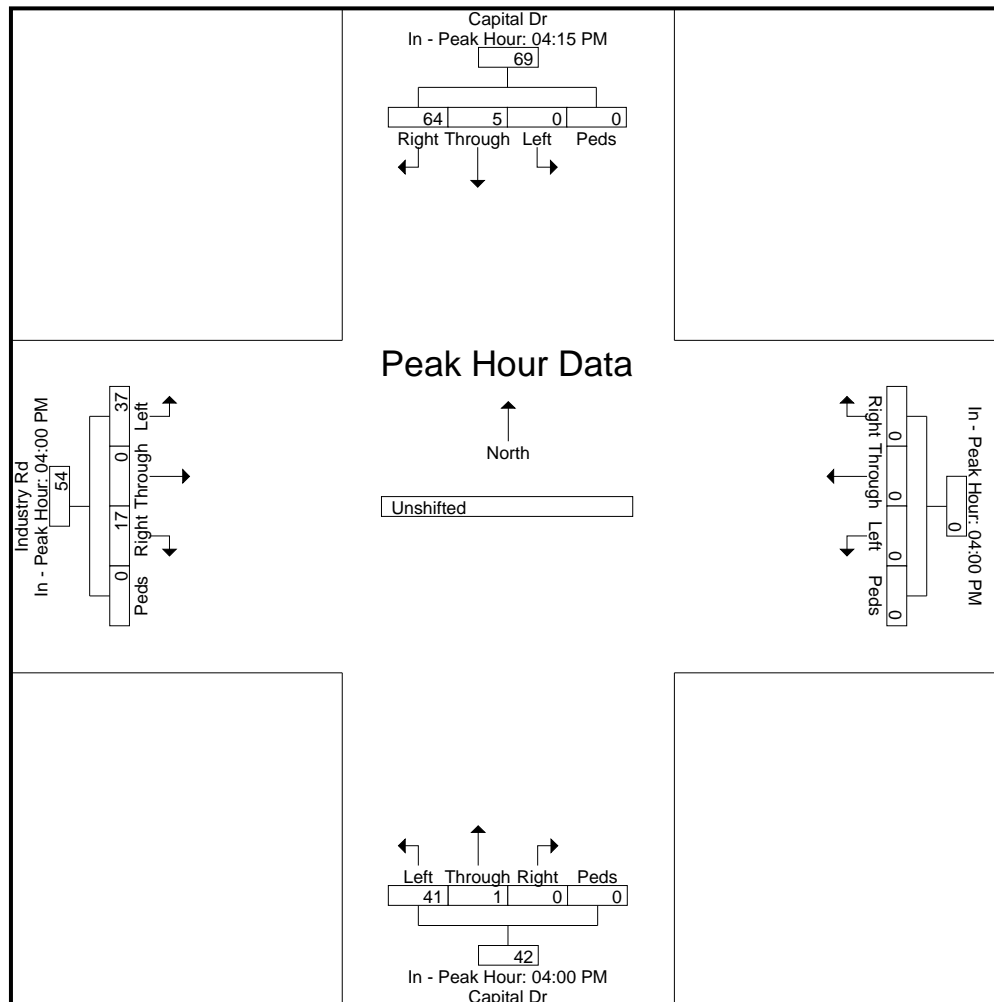
File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 3

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					04:00 PM					04:00 PM					04:00 PM					
+0 mins.	0	2	8	0	10	0	0	0	0	0	8	0	0	0	8	6	0	8	0	14	
+15 mins.	0	0	20	0	20	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	
+30 mins.	0	1	11	0	12	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	
+45 mins.	0	2	25	0	27	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	
Total Volume	0	5	64	0	69	0	0	0	0	0	41	1	0	0	42	37	0	17	0	54	
% App. Total	0	7.2	92.8	0		0	0	0	0		97.6	2.4	0	0		68.5	0	31.5	0		
PHF	.000	.625	.640	.000	.639	.000	.000	.000	.000	.000	.446	.250	.000	.000	.438	.771	.000	.531	.000	.844	



## Additional Attachments

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*Sands Industrial, Traffic Impact Analysis, November 5, 2019*





**LSC TRANSPORTATION CONSULTANTS, INC.**  
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November 5, 2019

Jeff Mark  
The Landhuis Company  
212 North Wahsatch Avenue, Suite 301  
Colorado Springs, CO 80903

RE: The Sands Industrial  
Colorado Springs, CO  
Traffic Impact Analysis  
LSC #194920

Dear Jeff,

LSC Transportation Consultants, Inc. has prepared this traffic impact study for the proposed The Sands Industrial development in the City of Colorado Springs, Colorado. Located generally southwest of the intersection of Industry Road/Capital Drive (El Paso County parcel ID 5300000637), the 13.148-acre parcel is currently vacant. Two access points are proposed for the property on a proposed extension of Capital Drive, both of which would be private drives. Capital Drive is an El Paso County Roadway. This report has been prepared for submittal to the City of Colorado Springs & El Paso County.

## **REPORT CONTENTS**

The report contains the following:

- Existing street and traffic conditions adjacent to and in the vicinity of the site, including the intersection lane geometries, traffic controls, posted speed limits, functional classifications, intersection spacing and alignment, sight distances, etc.
- Existing peak-hour turning movement traffic counts at the intersections of Capital Drive/Industry Road and Capital Drive/Constitution Avenue
- Estimates of existing and projections of 20-year daily traffic volumes at the intersections of Capital Drive/Industry Road and Capital Drive/Constitution Avenue
- Description of the existing land uses adjacent to and in the vicinity of the site
- Estimates of the proposed development's peak-hour and daily trip generation
- Estimated assignment of peak-hour and daily site-generated traffic volumes on the streets providing access to/from the site. Scenarios analyzed assume the proposed Capital Drive north/south connection will be completed
- Resulting traffic impacts of the proposed development to determine the future functional classification of a connected Capital Drive based on the projected long-term "design ADT"
- Intersection levels of service analysis at the intersections of Capital Drive/Industry Road, Capital Drive/Constitution Avenue, and both proposed access points on Capital Drive

- Auxiliary right-/left-turn lane analysis at the intersections of Capital Drive/Industry Road, Capital Drive/Constitution Avenue, and both proposed access points on Capital Drive based on the projected volumes and criteria in El Paso County's *Engineering Criteria Manual (ECM)*
- Findings and recommendations

## LAND USE AND ACCESS

The Sands Industrial park site is located generally southwest of the intersection of Industry Road/Capital Drive (El Paso County parcel ID 5300000637), the 13.148-acre parcel is currently vacant. The development would consist of approximately 42,000 square feet of gross floor area (GFA), not including outdoor storage and parking within each of the six lots.

As part of this project, the missing section of Capital Drive is proposed to be constructed adjacent to the site to connect the south section from its current terminus (currently unconnected approximately 500 feet north of Red Granite Loop) to the north section which connects to Industry Drive. This would allow direct site access for vehicles traveling to/from Constitution Avenue via Capital Drive. Drivers from adjacent, existing land uses may change their travel patterns as a result of this new Capital Drive connection, opting to use the Constitution Avenue/Capital Drive intersection rather than Marksheffel Road/Capital Drive (and vice versa).

Two access points are proposed for the property on the newly constructed section of Capital Drive, all of which would be private drives. The north and south access would be located approximately 940 feet apart.

- North access – direct access to Lots 1-5
- South access – direct access to Lot 6 only

## ROADWAYS AND TRAFFIC CONDITIONS

### Area Roadways

Major roadways in the site vicinity are identified below, followed by a brief description of each:

**Marksheffel Road** is designated as a Principal Arterial on the El Paso County Major Thoroughfare Plan. Currently a four-lane road, Marksheffel extends north-to-south for 17.4 miles between Link Road in the City of Fountain to the south (at the intersection of C&S Road/Link Road) and just north of Woodmen Road. Marksheffel Road is planned to be extended north to Vollmer Road in the short term. El Paso County's *2040 Major Transportation Corridor Plan (MTCP)* shows Marksheffel Road as a future six-lane Principal Arterial with a raised median. In the vicinity of the site, the posted speed limit on Marksheffel Road is 50 miles per hour (mph).

Currently, the following deceleration turn lanes exist at the stop sign-controlled, channelized T-intersection of Marksheffel Road/Industry Road: westbound left, westbound right, northbound

right, and southbound left. The following acceleration turn lanes currently exist at the channelized T-intersection of Marksheffel Road/Industry Road: northbound right and southbound left.

**Constitution Avenue** is classified as a four-lane Principal Arterial extending east-to-west from Paseo Road to US Highway (US) 24. In the vicinity of the site, Constitution Avenue has two through lanes. The posted speed limit on Constitution Avenue adjacent to the site is 50 mph. Constitution Avenue is shown as a future six-lane street on El Paso County's *2040 MTCP*. Auxiliary left- and right-turn lanes currently exist on the eastbound and westbound approaches at the intersection of Constitution Avenue/Capital Drive.

**Capital Drive** (El Paso County Roadway) extends north-to-south between Colorado Tech Avenue and Industry Road. Capital Drive is proposed to connect via an extension of its current terminus (currently unconnected approximately 500 feet north of Red Granite Loop) as part of this project. This would allow direct site access for vehicles traveling to/from Constitution Avenue via Capital Drive. The posted speed limit on Capital Drive is 25 mph. No auxiliary turn lanes currently exist on the southbound approach at the stop sign-controlled intersection of Constitution Avenue/Capital Drive.

**Industry Road** is classified by El Paso County as an Urban Non-Residential Collector. Extending east-to-west between Marksheffel Road and Capital Drive, Industry Road has a posted speed limit of 30 mph. Exclusive left- and right-turn auxiliary turn lanes currently exist at the stop sign-controlled, channelized T-intersection of Marksheffel Road/Industry Road.

### Existing Traffic Volumes

Vehicular turning movement counts were conducted at the following intersections:

- Marksheffel Road/Industry Drive
  - Wednesday, October 9, 2019 from 6:30 to 8:30 a.m.
  - Wednesday, October 9, 2019 from 4:00 to 6:00 p.m.
- Constitution Avenue/Capital Drive
  - Wednesday, October 9, 2019 from 6:30 to 8:30 a.m.
  - Tuesday, October 8, 2019 from 4:00 to 6:00 p.m.
- Capital Drive/Industry Road
  - Tuesday, October 15, 2019 from 6:30 to 8:30 a.m.
  - Wednesday, October 16, 2019 from 4:00 to 6:00 p.m.
- 

Existing morning and evening weekday peak-hour traffic volumes at this intersection are shown in Figure 3. Raw count reports are attached. Figure 3 also shows estimates by LSC of average weekday traffic for some key street segments expected to provide access to the site.



## TRIP GENERATION

Estimates of the vehicle-trips projected to be generated by the proposed development have been made using the nationally published trip generation rates from *Trip Generation, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE). Land use code “110 – General Light Industrial” from the *Trip Generation Manual, 10<sup>th</sup> Edition, 2017* by the Institute of Transportation Engineers (ITE) has been used to estimate the trip generation for the site.

The proposed 42,000-square-foot light industrial development is expected to generate about 507 vehicle-trips on the average weekday (one-half entering and one-half exiting in a 24-hour period). During the morning peak hour, 33 vehicles are projected to enter the site, while 4 vehicles are projected to exit. Approximately 5 vehicles would enter and 31 vehicles would exit the site during the evening peak hour. The morning peak hour generally occurs for one hour between 6:30 and 8:30 a.m., and the afternoon peak hour occurs for one hour between 4:00 and 6:00 p.m. Table 1 shows a summary of the results of the trip generation estimate. A detailed trip generation estimate for the development, including ITE rates for the proposed land use is presented in Table 3 (attached).

**Table 1: Estimated Site Vehicle-Trip Generation**

Analysis Period	In	Out	Total
Morning Peak Hour (vehicle-trips/hour)	33	4	37
Evening Peak Hour (vehicle-trips/hour)	5	31	36
Weekday – (vehicle-trips/day)	254	254	507
Note: Please refer to Table 3 (attached) for detailed trip generation table.			

## Trip Distribution and Assignment

An estimate of the proportion of site-generated vehicle-trips to the study area streets that will provide access to the site is a necessary component in determining the site’s traffic impacts on these study area streets. Figure 5 shows the estimated distribution/proportion of total site-generated trips on the streets connecting to the primary and secondary access site.

Estimates were based on the following factors: the traffic count data, the proposed land use, the site access plan, existing and planned area street and roadway system that will provide access to the site (including the proposed Capital Drive extension/connection), the site’s geographic location, and adjacent existing land uses. Additionally, directional splits from a previous LSC traffic study (The Sands, dated March 29, 2016) were used to estimate additional background traffic splits.

As shown in Figure 5, the following directional distributions were assumed for site-generated trips via each connection:

- 40 percent via Marksheffel Road to/from north of Industry Road
- 20 percent via Constitution Avenue to/from west of Marksheffel Road

- 25 percent via Marksheffel Road to/from south of Constitution Avenue
- 15 percent via Constitution Avenue to/from east of Capital Drive

### **Additional Distribution Notes**

The distribution assumes that trips to/from the east on Constitution is a combination of trips to/from the northeast on US Highway 24 (to/from the Falcon/Peyton area) and a component of trips to/from US Highway 24 southwest of the Constitution Avenue intersection (as an alternate route to the segment of Marksheffel between US Highway 24 and Constitution). The distribution assumes all trips to/from the north on Marksheffel would travel to/from the north using Industry Drive.

### **Site-Generated Traffic**

Site-generated traffic volumes at the following intersections have been calculated by applying the distribution percentages estimated by LSC (from Figure 5) to the trip generation estimates (from Table 1):

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road
- Two access points on Capital Drive

Figure 6 shows the projected site-generated daily traffic volumes on these intersection for the weekday morning and evening peak hours.

### **Short-Term Baseline Traffic Volumes**

The new Capital Drive connection will result in traffic pattern shifts by motorists traveling to/from the existing land uses served by Industry Drive & Capital Drive. This would involve altered origin/destination paths/travel routes. The change in traffic patterns will result in changes in turning movements at Constitution Avenue/Capital Drive, Marksheffel Road/Industry Road, and Industry Road/Capital Drive. Existing traffic volumes were altered to account for the proposed Capital Drive connection, as this extension will be constructed with The Sands Industrial development.

Estimated existing daily traffic volumes (shown in Figure 3) were modified and the resulting Short-Term Baseline volumes are shown in Figure 4. Traffic to be generated by the other vacant area development parcels served by Industry Road and Capital Drive (other than the proposed Sands Industrial development) are **not** included in this figure. These baseline adjustments are for trips currently generated by **existing** land uses only, but they assume the proposed Capital Drive connection to be in place.

### Short-Term Baseline-Plus-Site-Generated Traffic Volumes

The sum of the adjusted existing traffic volumes (shown in Figure 4) and site-generated peak-hour traffic volumes (shown in Figure 6) represent the projected short-term total traffic volumes at the following intersections (assuming the proposed Capital Drive connection):

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road
- Two access points on Capital Drive

### LEVEL OF SERVICE ANALYSIS

Level of service (LOS) is a quantitative measure of the level of congestion or delay at an intersection and is indicated on a scale from "A" to "F." LOS A is indicative of little congestion or delay. LOS F indicates a high level of congestion or delay. Table 2 shows the level of service delay ranges for signalized and unsignalized intersections.

**Table 2: 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) <sup>(1)</sup>
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		

The following intersections have been analyzed to determine the projected short- and long-term (following buildout of Sands Industrial) LOS for the key intersection turning movements:

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road
- Two access points on Capital Drive

A summary of all existing and existing-plus-site traffic scenario levels of service during the weekday morning and evening peak hours (assuming the proposed Capital Drive extension is completed) is shown in the following figures:

- Figure 3: 2019 Existing Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 4: Short Term Baseline Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 7: Short Term Baseline + Site Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 8: 2040 Background Traffic, Lane Geometry, Traffic Control, and LOS
- Figure 9: 2040 Background + Site Traffic, Lane Geometry, Traffic Control, and LOS

Please refer to the Synchro reports (attached) for additional details (assuming the proposed Capital Drive connection is constructed following site buildout).

### **Marksheffel Road/Industry Road**

The westbound left-turning movement and southbound shared left-/U-turn lane is projected to operate at LOS E during the short-term p.m. peak hour, with or without site buildout, and LOS F during all 2040 p.m. peak-hour scenarios. LSC anticipates this channelized T-intersection to remain as it currently exists, as long as operations and safety remain acceptable. It is worth noting that this project's completion of Capital Drive will provide an alternative to the westbound left turn movement at the intersection of Marksheffel/Industry (a beneficial alternative for all businesses in this area). Currently, there is no option for vehicles to directly exit (or enter) the area to the south via Constitution Avenue, so they are required to use the intersection of Marksheffel/Industry instead. Once the Capital Drive connection is complete, however, traffic will be able to avoid that westbound left turn by traveling southbound to Constitution Avenue and turning right to travel west to Marksheffel Road. Additionally, this project will only add a minimal amount of traffic to the intersection of Marksheffel/Industry, with no trips added to the westbound left-turning movement.

### **Constitution Avenue/Capital Drive**

#### Short-Term

All individual turning movements and minor street single-lane approaches currently operate at and are projected to remain at LOS D or better upon site buildout if the intersection were to remain two-way stop sign-controlled.

#### Long-Term

A traffic signal would be required for all minor street approaches at the intersection of Constitution/Capital Drive to operate at LOS D or better through the 2040 horizon, with or without site buildout.

## **AUXILIARY TURN LANES & TRAFFIC CONTROL**

Existing auxiliary turn lanes were analyzed to determine if any improvements are required at the following intersections:

- Marksheffel Road/Industry Road
- Constitution Avenue/Capital Drive
- Capital Drive/Industry Road
- Two access points on Capital Drive

### **Marksheffel Road/Industry Road**

Northbound and southbound acceleration and deceleration lanes currently exist at this intersection. LSC anticipates this channelized T-intersection to remain as it currently exists, as long as operations and safety remain acceptable.

### **Constitution Avenue/Capital Drive**

Right and left turn deceleration lanes and a right turn acceleration lane currently exist at this intersection. A traffic signal would be required in order for this intersection to operate at LOS D or better in the long term. The northbound and southbound minor street approaches on Capital Drive are sufficiently wide for future restriping (as necessary) for exclusive left-turn and shared through/right-turn lanes.

### **Capital Drive/Industry Road**

Regarding the eastbound approach at this intersection, field observations showed that drivers utilize the width of the unstriped, eastbound approach on Industry Road at Capital Drive as separate left- and right-turn lanes (rather than a single lane) when queued at the Yield sign. The Synchro analysis showed that the intersection operates at LOS C or better as a two-lane approach during both peak hours in all scenarios. The traffic control will likely need to be converted to Stop sign control once the Capital Drive connection is made. El Paso County Public Works would need to approve this change.

### **Site Access Points on Capital Drive**

No auxiliary right- or left-turn lanes would be required at either of the two proposed site access points on Capital Drive based on projected site-generated traffic volumes and criteria in the ECM. However, the County standard Non-Residential Collector cross section incorporates a striped left turn center median.

## **ROADWAY FUNCTIONAL CLASSIFICATIONS**

Capital Drive is classified as an Urban Non-Residential Collector and that classification will not change with this project.

## **SITE ACCESS PLAN**

### **El Paso County ECM Criteria for Access Design**

The site has existing access points and access is only available from the adjacent Capital Drive (Urban Non-Residential Collector roadway). The following summarizes *Engineering Criteria Manual* Section 2.4.1 access criteria, which states the following five access design guidelines:

- Adequate spacing
- Proper alignments
- Clear sight distances
- Coordinated widths with its intended use
- Clearances from intersections

The following sections address each of these criteria for access point design throughout the site.

### Adequate Spacing

Capital Drive is an El Paso County Urban Non-Residential Collector roadway. The ECM indicates that accesses shall be separated by a distance equal to the entering sight distance values in Table 2-35. Based on a posted speed limit of 25 mph, the prescribed spacing would be 250 feet.

Three access points are proposed for the property on Capital Drive, all of which would be private drives. The north and south access would be located approximately 940 feet apart.

- North access – direct access to Lots 1-5
- South access – direct access to Lot 6 only

Both site access locations shown on the site plan shows access points meet the minimum 250-foot ECM requirement.

### Access Alignment

ECM criteria prescribe that all proposed site access points should be aligned at 90 degrees to the adjacent roadway centerline. The adjacent roadway grades are essentially level. The vertical alignment criteria in ECM Section 2.4.1.C.2 shall be met for the driveways. Both access points are shown to intersect Capital Drive at 90 degrees.

### Access Sight Distances

The access sight distance criteria in ECM section 2.4.1.D would apply:

*“Any potentially obstructing objects, such as but not limited to advertising signs, structures, trees, and bushes, shall be designed, placed, and maintained at a height not to interfere with the sight distance needed by any vehicle using the access.”*

Capital Drive has a straight horizontal alignment with no significant vertical curvature that would limit access sight distance. Site improvements, such as signs, on-street parking, and landscaping, should not impede the required sight distance lines of sight.

### Access Width

The ECM requires a minimum access point width of 25-40 feet for a two-way commercial or industrial access on a Non-Residential Collector roadway. Both access points appear to meet this criterion, and they are shown on the site plan to function as private drives.

### Clearances from Intersections

Regarding access clearance from intersection criteria outlined in Section 2.4.2.F of the ECM:

*Access to commercial or industrial properties fronting collector or local roads shall be located a minimum of 50 feet from the point of curvature or point of tangency of the curb line at the intersection. Access to commercial or industrial parcels fronting Nonresidential Collector roadways shall be located a minimum of 115 – 480 feet from the point of curvature or point of tangency of the curb line at the intersection depending on the sight distance and location with respect to the intersection, intersection control, and posted speed.*

*In all cases, a minimum corner clearance of 50 feet shall be provided. If the minimum corner clearance cannot be attained, the ECM Administrator may require investigation to determine if left turns should be prohibited into or out of the access point. For proposed access points near stop or signalized intersections, the ECM Administrator will require studies to determine if stopping queues will block the access point and if left turns should be prohibited into or out of the access point.*

Based on the proposed driveway locations shown in the site plan, these criteria would be satisfied. The nearest public street intersection to the north is Industry Drive/Capital Drive and the nearest public street intersection to the south is Capital Drive/Red Granite Loop.

## FINDINGS AND CONCLUSIONS

- The site is projected to generate about 507 vehicle-trips on the average weekday (24-hour period).
- During the weekday morning peak hour of adjacent street traffic, 33 vehicles would enter the site while 4 vehicles would exit.
- During the weekday evening peak hour of adjacent street traffic, 5 vehicles would enter the site while 31 vehicles would exit.
- The above are total trips generated by the 42,000-square-foot Sands Industrial site. Estimates of the site-generated traffic projected to access the site via the Marksheffel Road/Industry Drive or Constitution Drive/Capital Drive intersections are presented in Figure 6. This report assumes the Capital Drive connection would be completed with this project.
- This project will provide beneficial area connectivity and circulation. For example, some of the current businesses on Capital Drive may find the connectivity beneficial, as they will be able to use the new Capital Drive connection to access nearby major thoroughfares (such as US Highway 24, Marksheffel Road, or Constitution Avenue) in a more direct manner.
- Capital Drive is classified as an Urban Non-Residential Collector and that classification will not change with this project.
- Please refer to the Level of Service Analysis section above for detailed LOS results.
- Please refer to the Auxiliary Turn Lanes & Traffic Control section above for details regarding the site access points and off-site intersections which serve the overall Capital Drive/Industry Road area.
- Both proposed site accesses satisfy access design criteria from *ECM* Section 2.4.1 (adequate spacing, proper alignments, clear sight distances, coordinated widths with its intended use, and clearances from intersections).

\* \* \* \* \*

(This space left blank intentionally.)



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

Sincerely,

LSC TRANSPORTATION CONSULTANTS, INC.



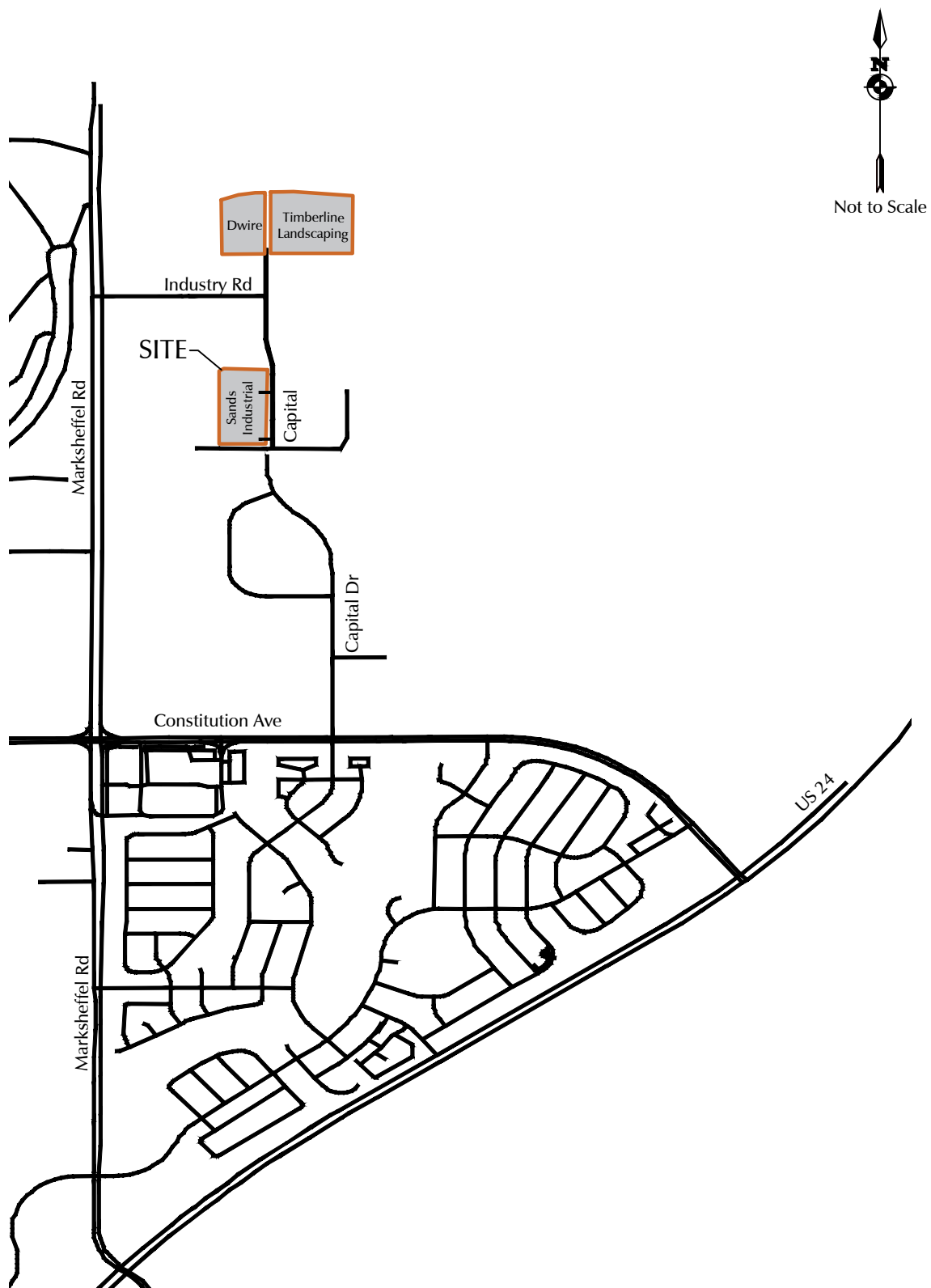
By: Jeffrey C. Hodsdon, P.E.  
Principal

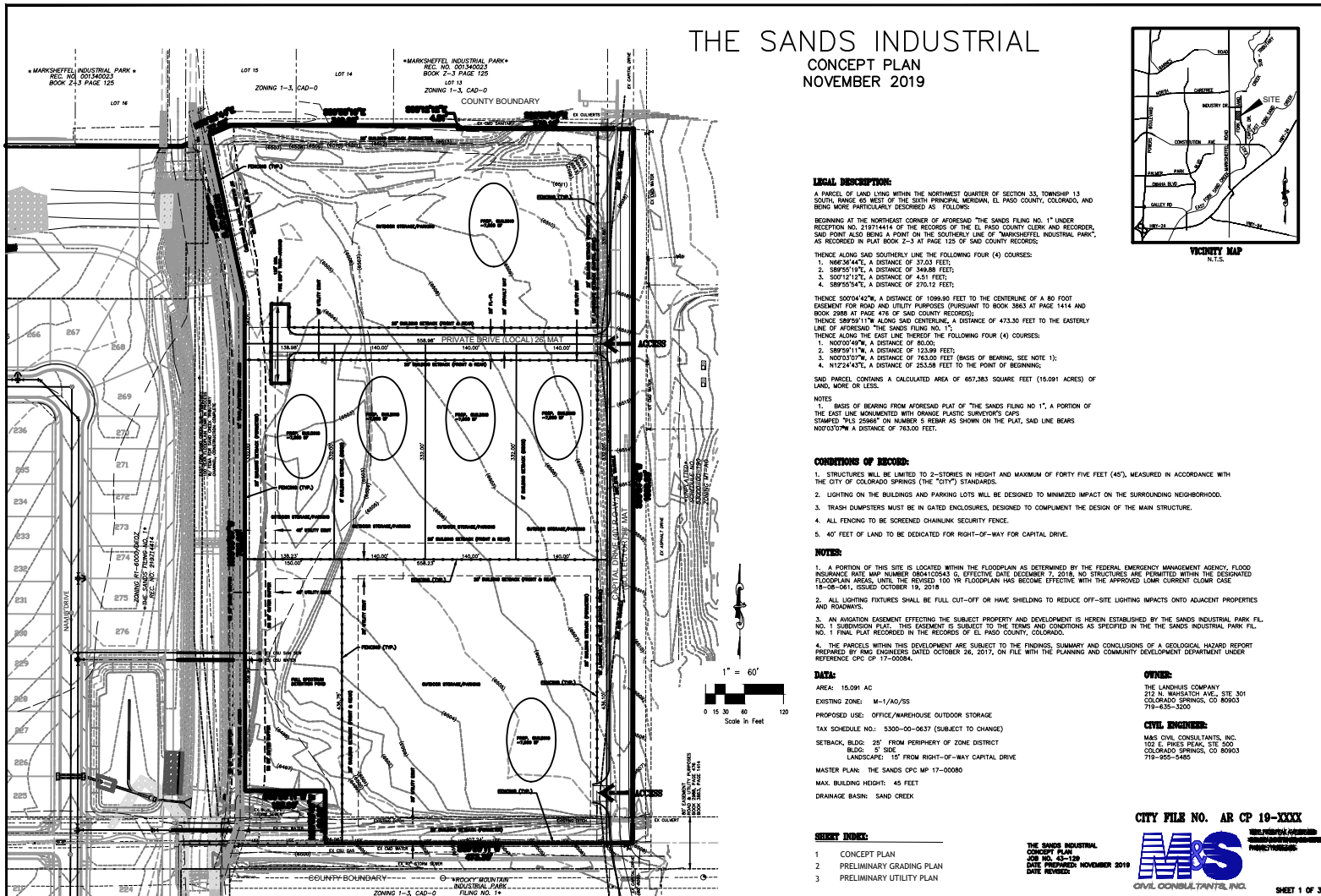
JAB:jas

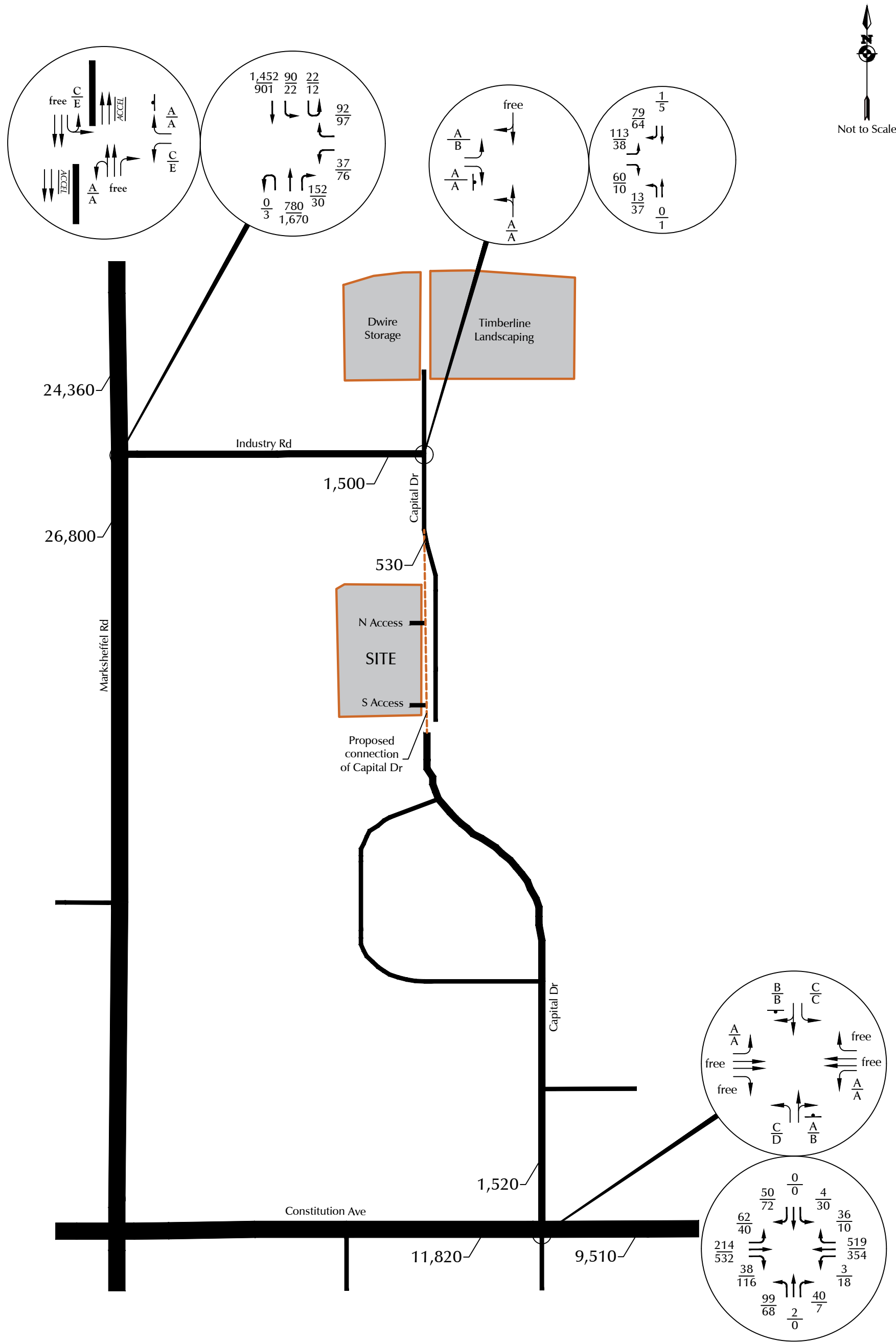
Enclosures: Table 3  
Figure 1 - Figure 9  
Traffic Count Reports  
LOS Synchro Reports  
LOS SimTraffic Reports  
Site Plan











LEGEND:

XX = AM Weekday Peak-Hour Traffic (veh/hr)

XX = PM Weekday Peak-Hour Traffic (veh/hr)

A = AM Individual Movement LOS

A = PM Individual Movement LOS

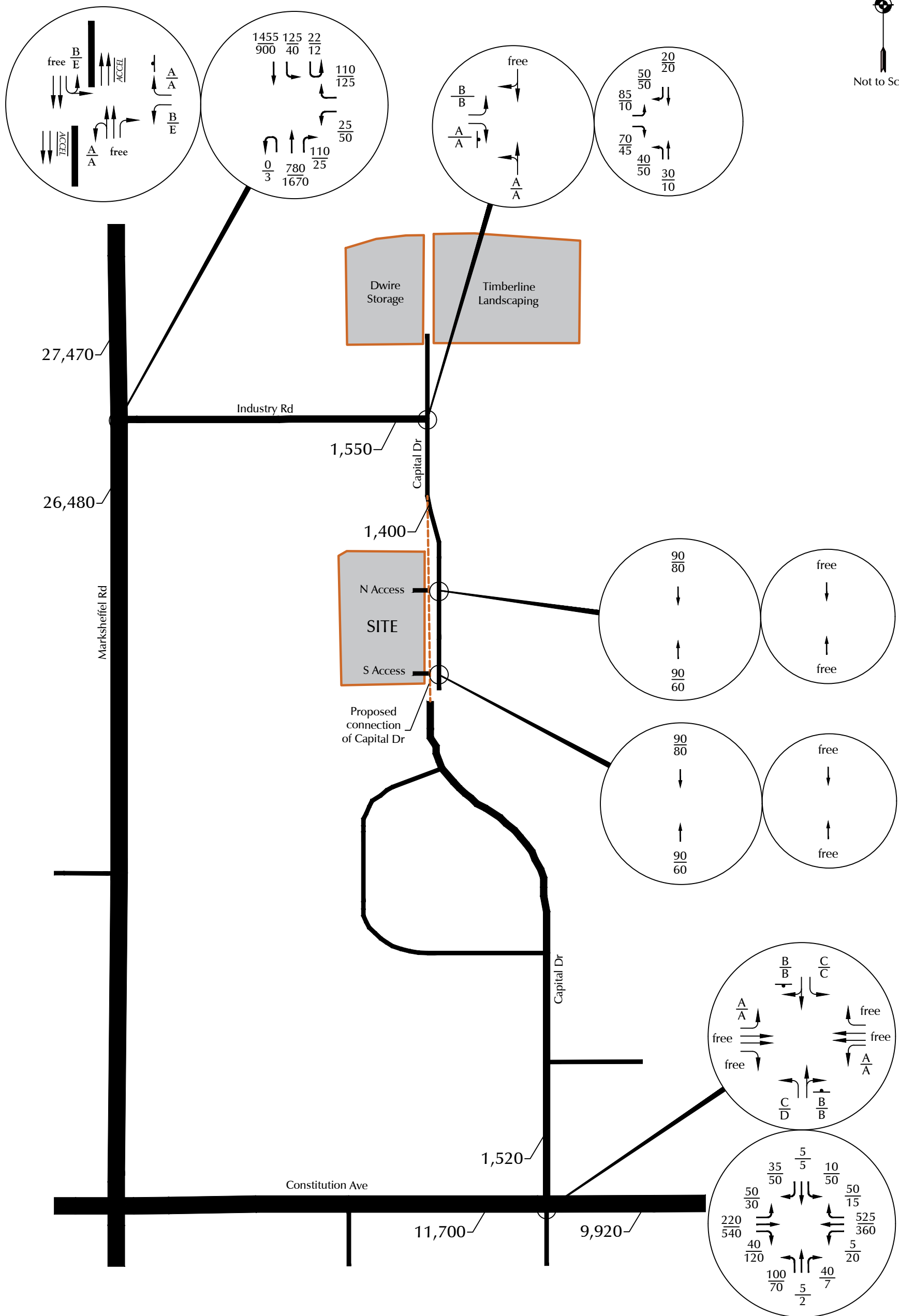
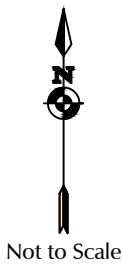
XX,XXX = Average Daily Traffic Volumes (ADTs)

⊥ = Stop Sign

Figure 3

## 2019 Existing Traffic, Lane Geometry, Traffic Control, and LOS

The Sands Industrial (LSC #194920)

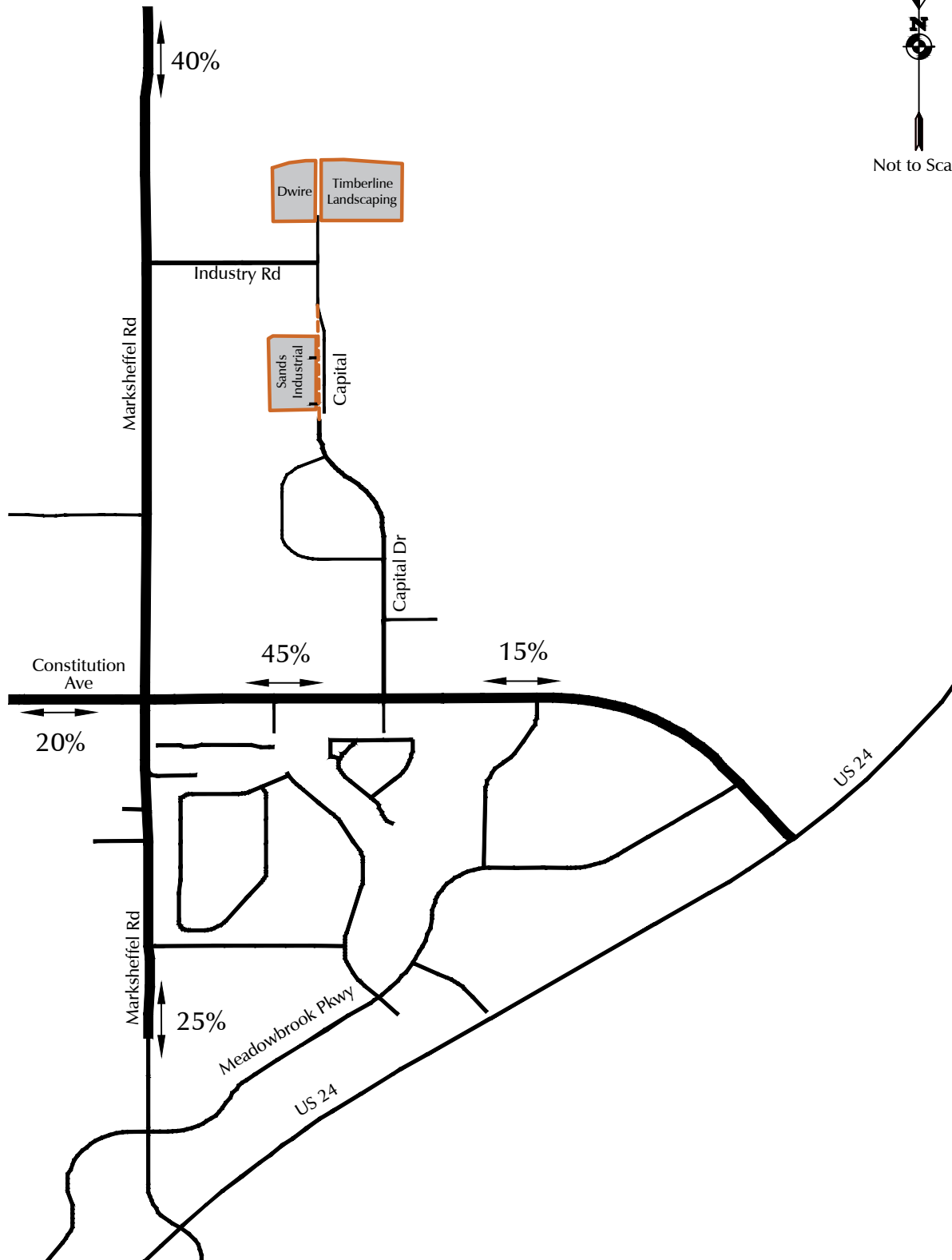
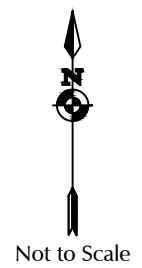


LEGEND:  
XX = AM Weekday Peak-Hour Traffic (veh/hr)  
XX = PM Weekday Peak-Hour Traffic (veh/hr)  
A = AM Individual Movement LOS  
A = PM Individual Movement LOS  
XX,XXX = Average Daily Traffic Volumes (ADTs)  
T = Stop Sign

Figure 4  
Short-Term Baseline (Adjusted Existing) Traffic,  
Lane Geometry, Traffic Control, and LOS

The Sands Industrial (LSC #194920)

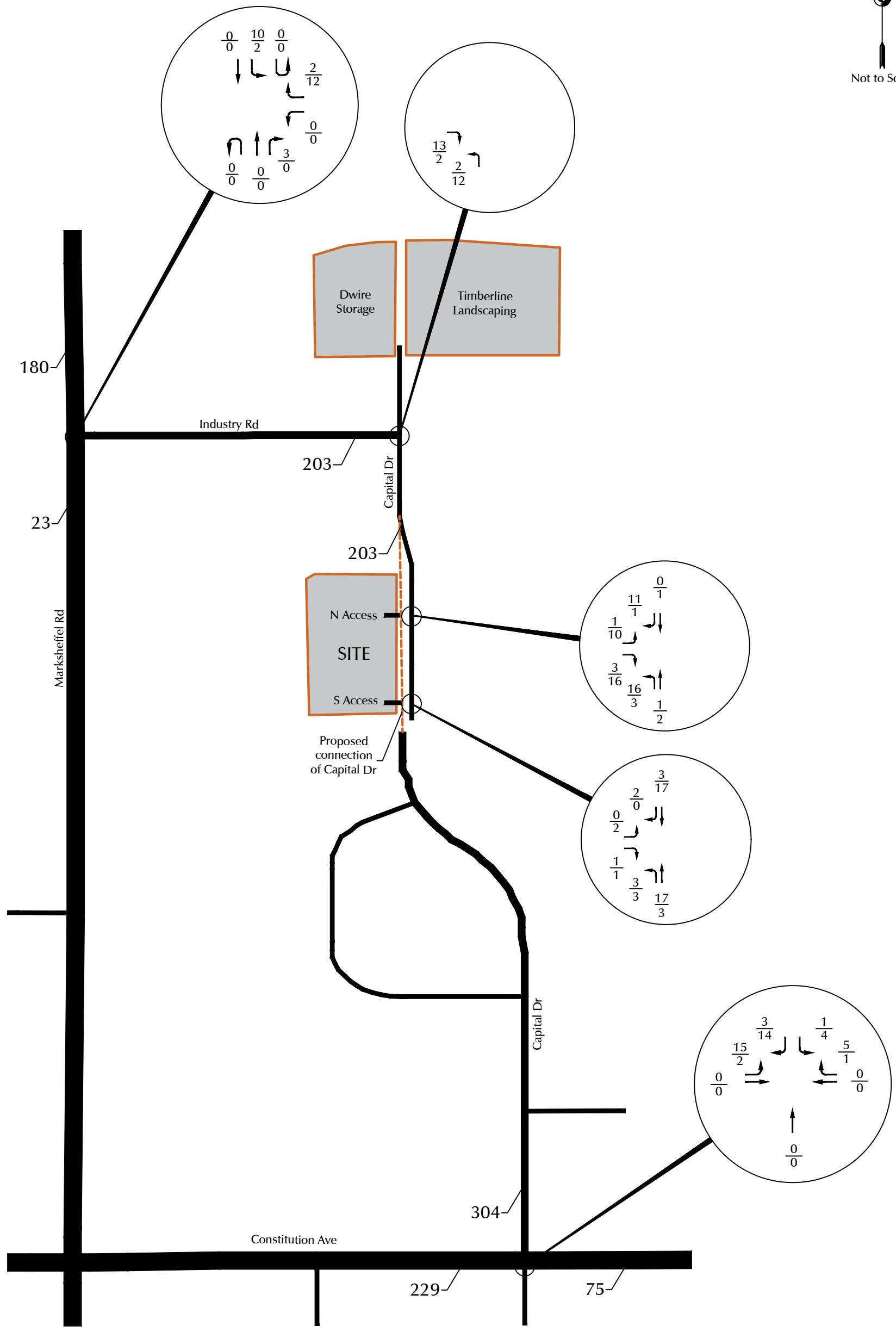
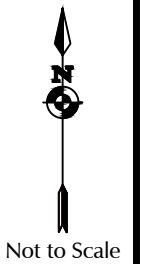




XX% = Percent Directional Distribution

Figure 5  
**Directional Distribution**  
The Sands Industrial (LSC #194920)

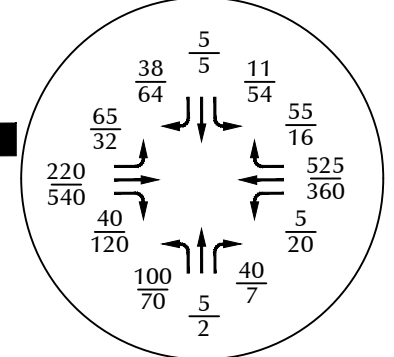
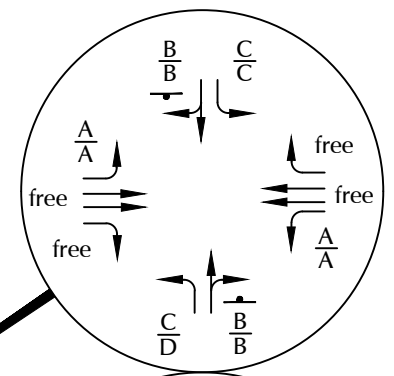
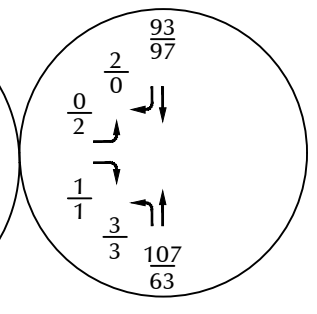
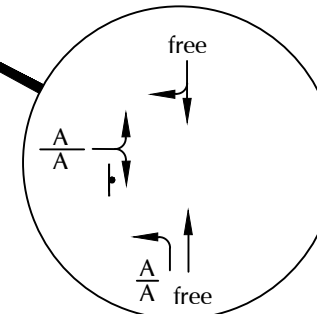
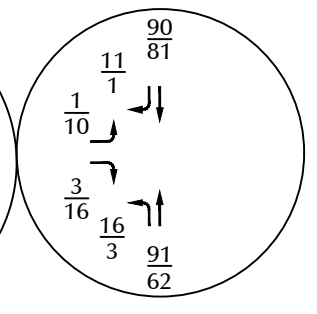
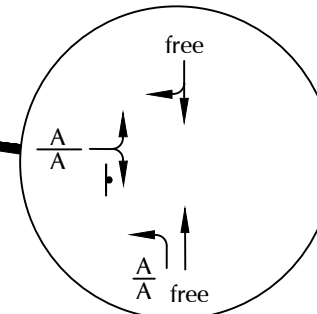
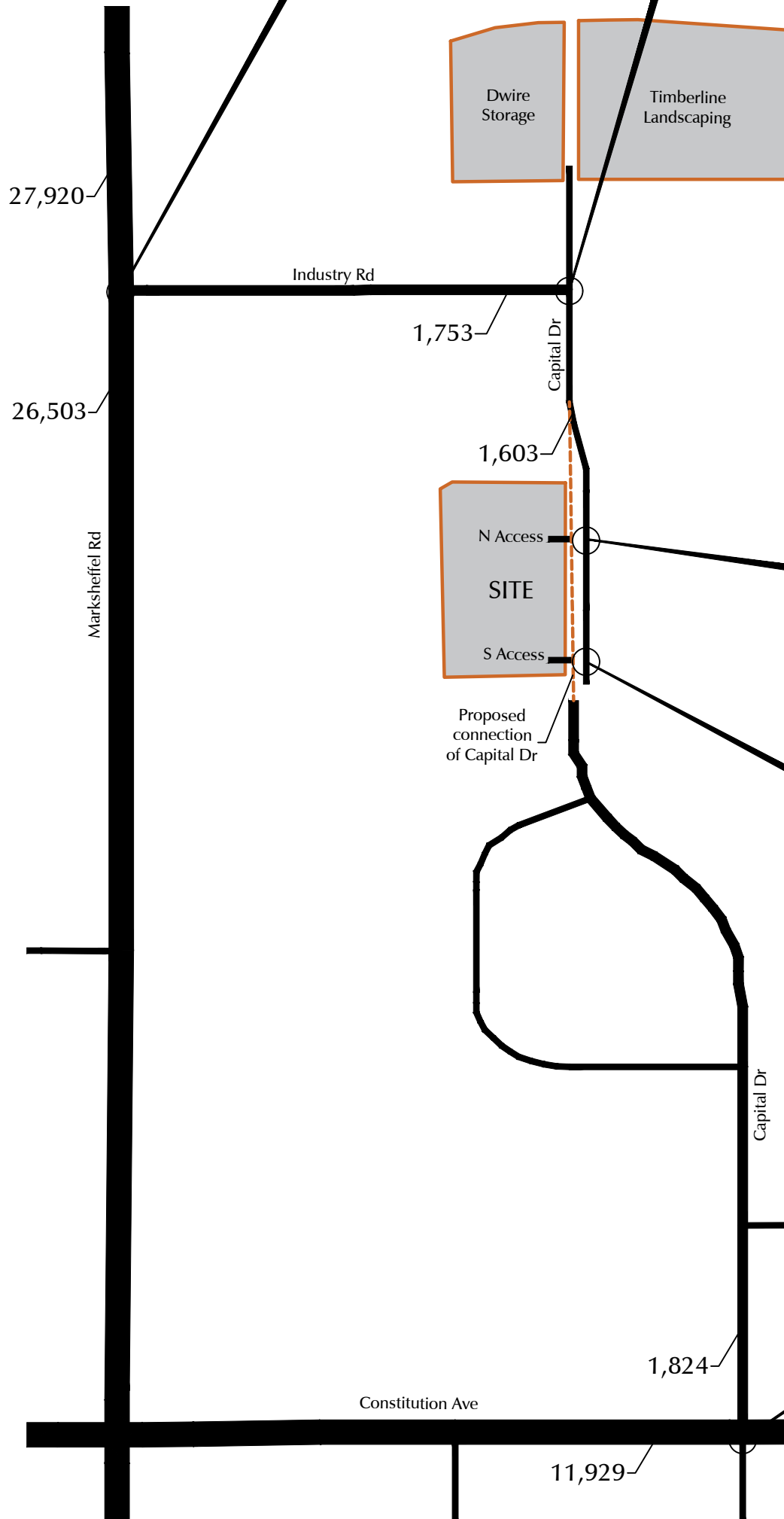
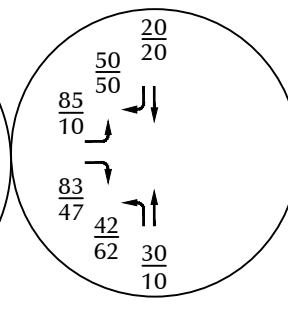
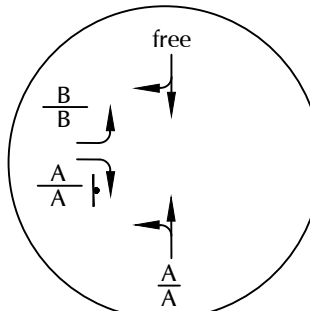
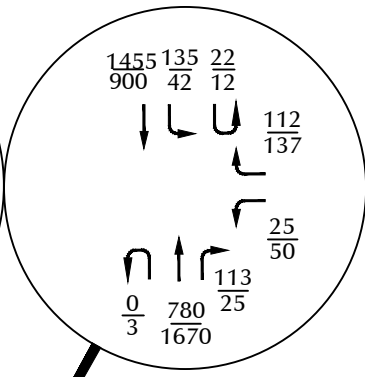
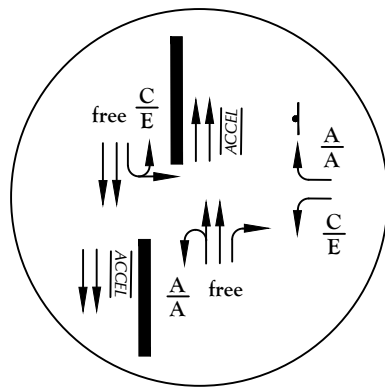
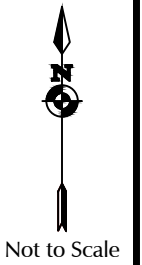




LEGEND:  
XX = AM Weekday Peak-Hour Traffic (veh/hr)  
XX = PM Weekday Peak-Hour Traffic (veh/hr)  
XX,XXX = Average Daily Traffic Volumes (ADTs)  
T = Stop Sign

Figure 6  
**Site-Generated Traffic**  
The Sands Industrial (LSC #194920)



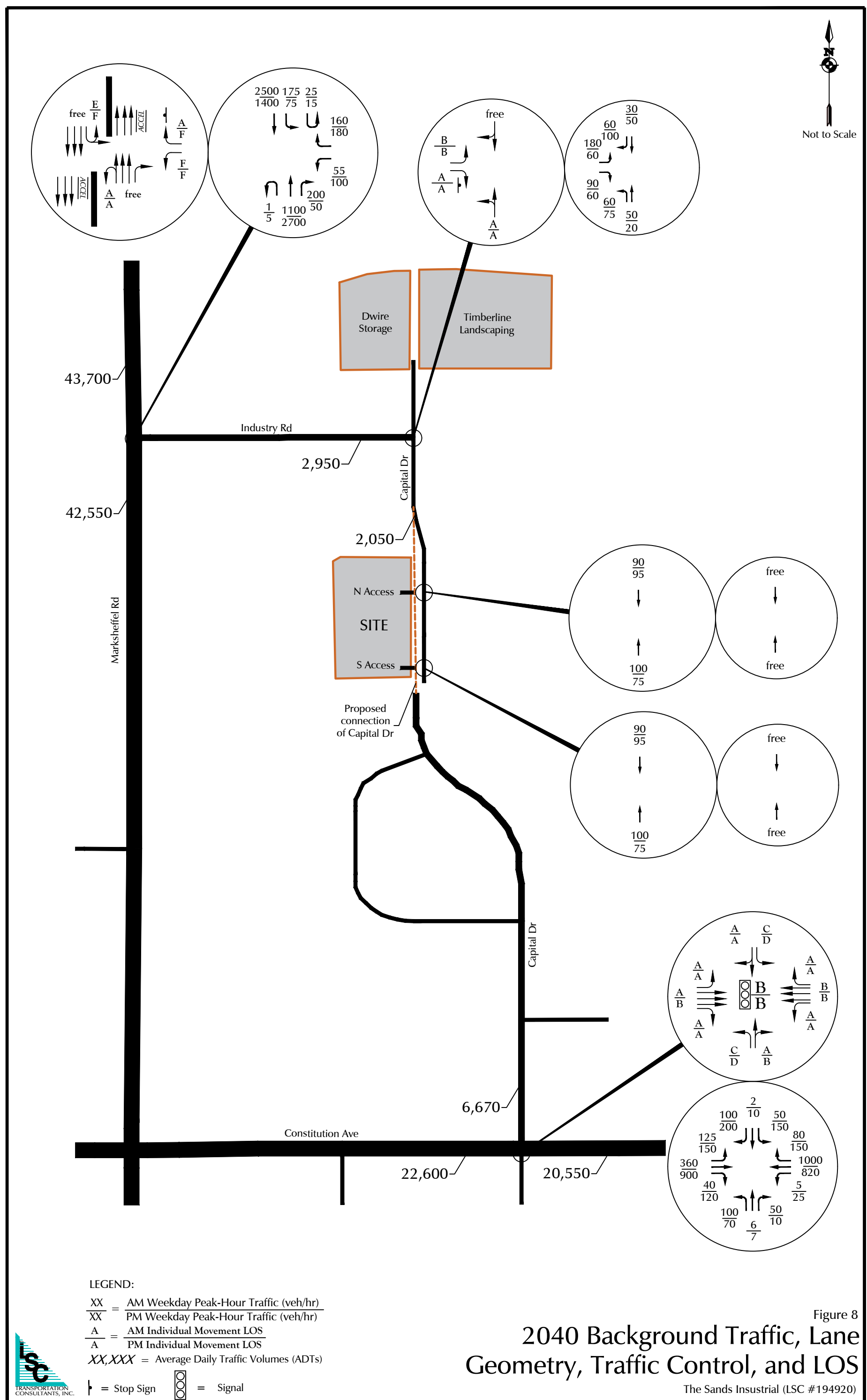


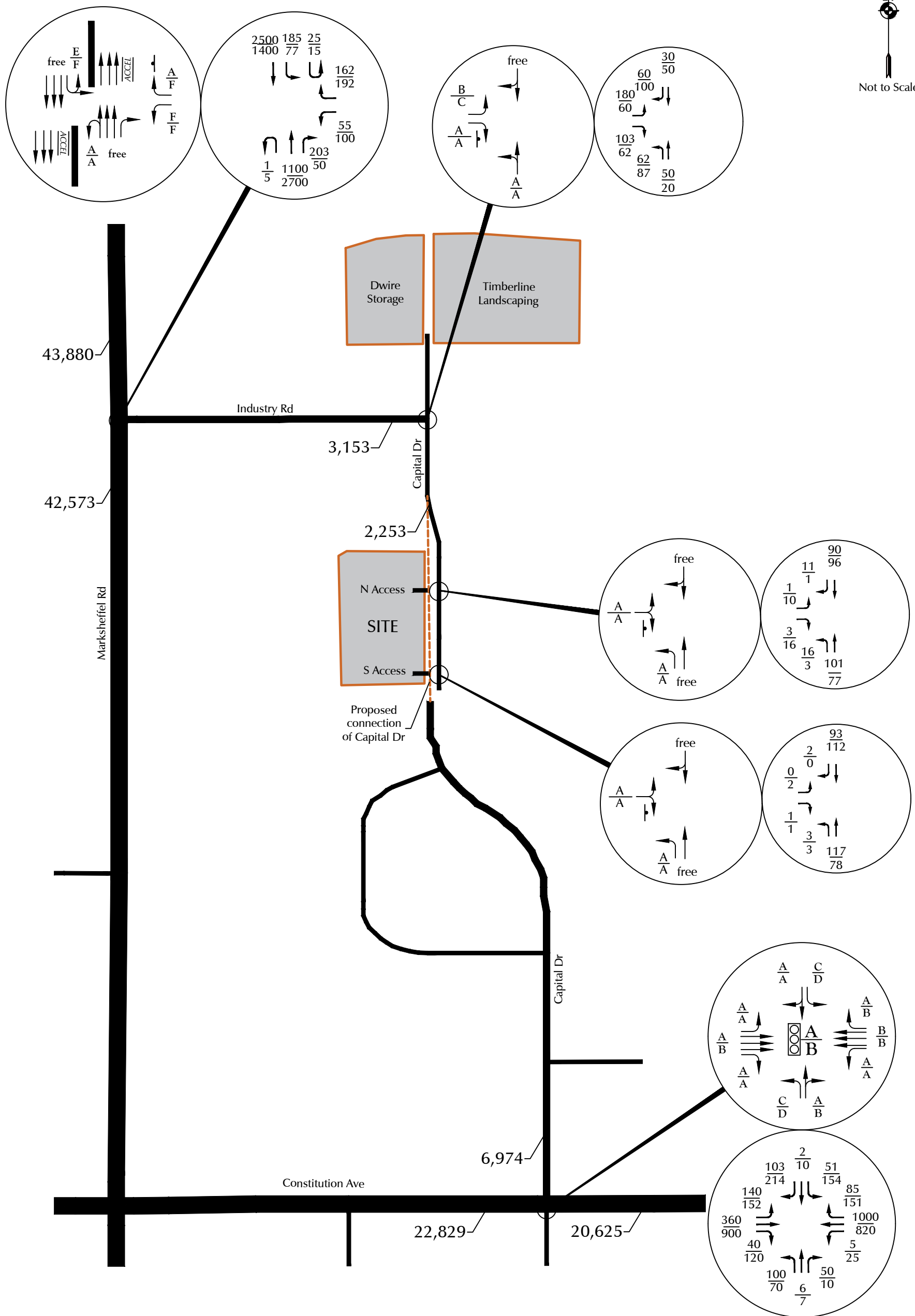
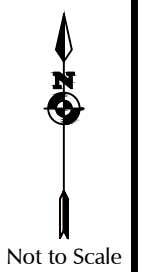
LEGEND:  
XX = AM Weekday Peak-Hour Traffic (veh/hr)  
XX = PM Weekday Peak-Hour Traffic (veh/hr)  
A = AM Individual Movement LOS  
A = PM Individual Movement LOS  
XX,XXX = Average Daily Traffic Volumes (ADTs)  
T = Stop Sign

Figure 7  
Short-Term Baseline +  
Site-Generated Traffic, Lane  
Geometry, Traffic Control, and LOS

The Sands Industrial (LSC #194920)







LEGEND:

XX = AM Weekday Peak-Hour Traffic (veh/hr)  
XX = PM Weekday Peak-Hour Traffic (veh/hr)  
A = AM Individual Movement LOS  
A = PM Individual Movement LOS  
XX,XXX = Average Daily Traffic Volumes (ADTs)

⊥ = Stop Sign    ⊞ = Signal

Figure 9  
2040 Background +  
Site-Generated Traffic, Lane  
Geometry, Traffic Control, and LOS  
The Sands Industrial (LSC #194920)

## Traffic Counts

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# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
06:30 AM	10	363	0	0	373	12	0	21	0	33	0	152	42	0	194	0	0	0	0	0	600
06:45 AM	44	361	0	2	407	5	0	16	0	21	0	202	61	0	263	0	0	0	0	0	691
Total	54	724	0	2	780	17	0	37	0	54	0	354	103	0	457	0	0	0	0	0	1291
07:00 AM	17	382	0	11	410	9	0	29	0	38	0	213	29	0	242	0	0	0	0	0	690
07:15 AM	19	346	0	9	374	11	0	26	0	37	0	213	20	0	233	0	0	0	0	0	644
07:30 AM	14	316	0	4	334	4	0	15	0	19	0	227	11	0	238	0	0	0	0	0	591
07:45 AM	15	325	0	0	340	12	0	20	0	32	0	207	15	0	222	0	0	0	0	0	594
Total	65	1369	0	24	1458	36	0	90	0	126	0	860	75	0	935	0	0	0	0	0	2519
08:00 AM	11	277	0	1	289	10	0	30	0	40	0	208	10	0	218	0	0	0	0	0	547
08:15 AM	11	250	0	0	261	8	0	21	0	29	0	159	8	0	167	0	0	0	0	0	457
Grand Total	141	2620	0	27	2788	71	0	178	0	249	0	1581	196	0	1777	0	0	0	0	0	4814
Apprch %	5.1	94	0	1		28.5	0	71.5	0		0	89	11	0		0	0	0	0		
Total %	2.9	54.4	0	0.6	57.9	1.5	0	3.7	0	5.2	0	32.8	4.1	0	36.9	0	0	0	0	0	



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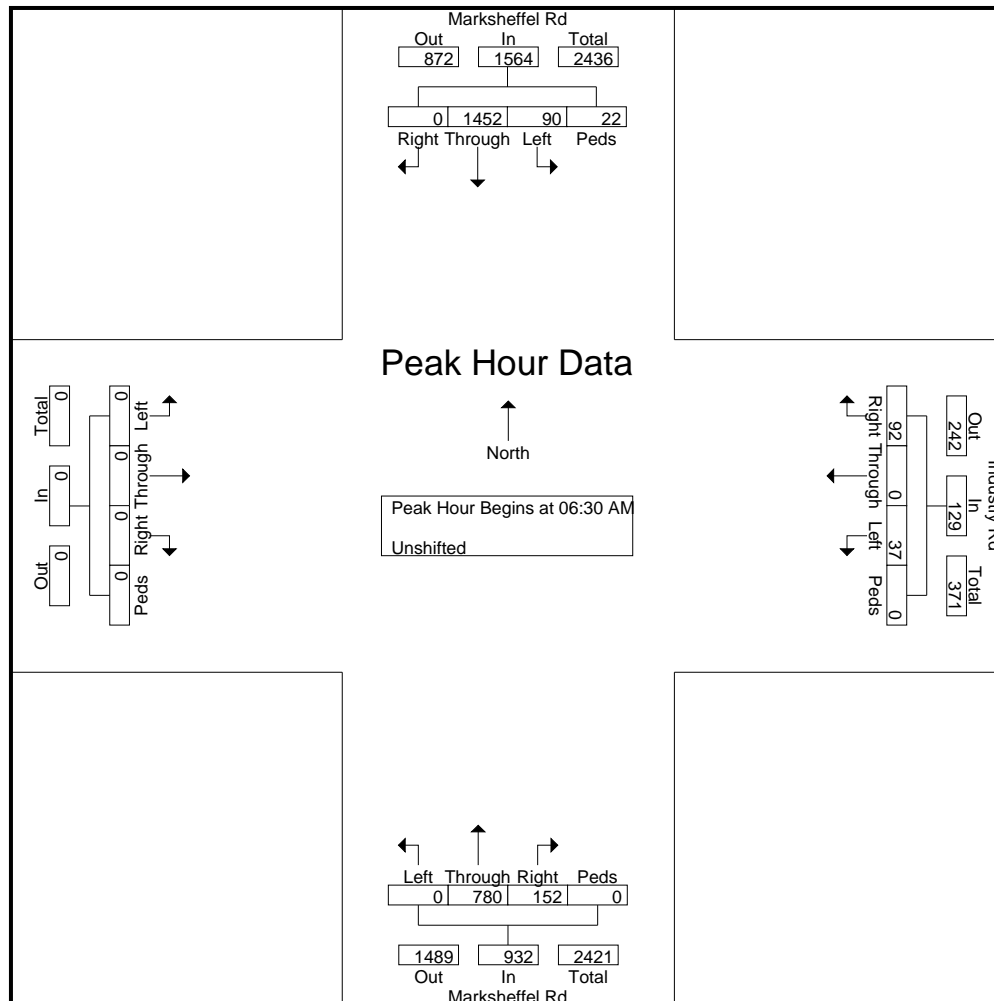
File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	10	363	0	0	373	12	0	21	0	33	0	152	42	0	194	0	0	0	0	0	600
06:45 AM	44	361	0	2	407	5	0	16	0	21	0	202	61	0	263	0	0	0	0	0	691
07:00 AM	17	382	0	11	410	9	0	29	0	38	0	213	29	0	242	0	0	0	0	0	690
07:15 AM	19	346	0	9	374	11	0	26	0	37	0	213	20	0	233	0	0	0	0	0	644
Total Volume	90	1452	0	22	1564	37	0	92	0	129	0	780	152	0	932	0	0	0	0	0	2625
% App. Total	5.8	92.8	0	1.4		28.7	0	71.3	0		0	83.7	16.3	0		0	0	0	0	0	
PHF	.511	.950	.000	.500	.954	.771	.000	.793	.000	.849	.000	.915	.623	.000	.886	.000	.000	.000	.000	.000	.950





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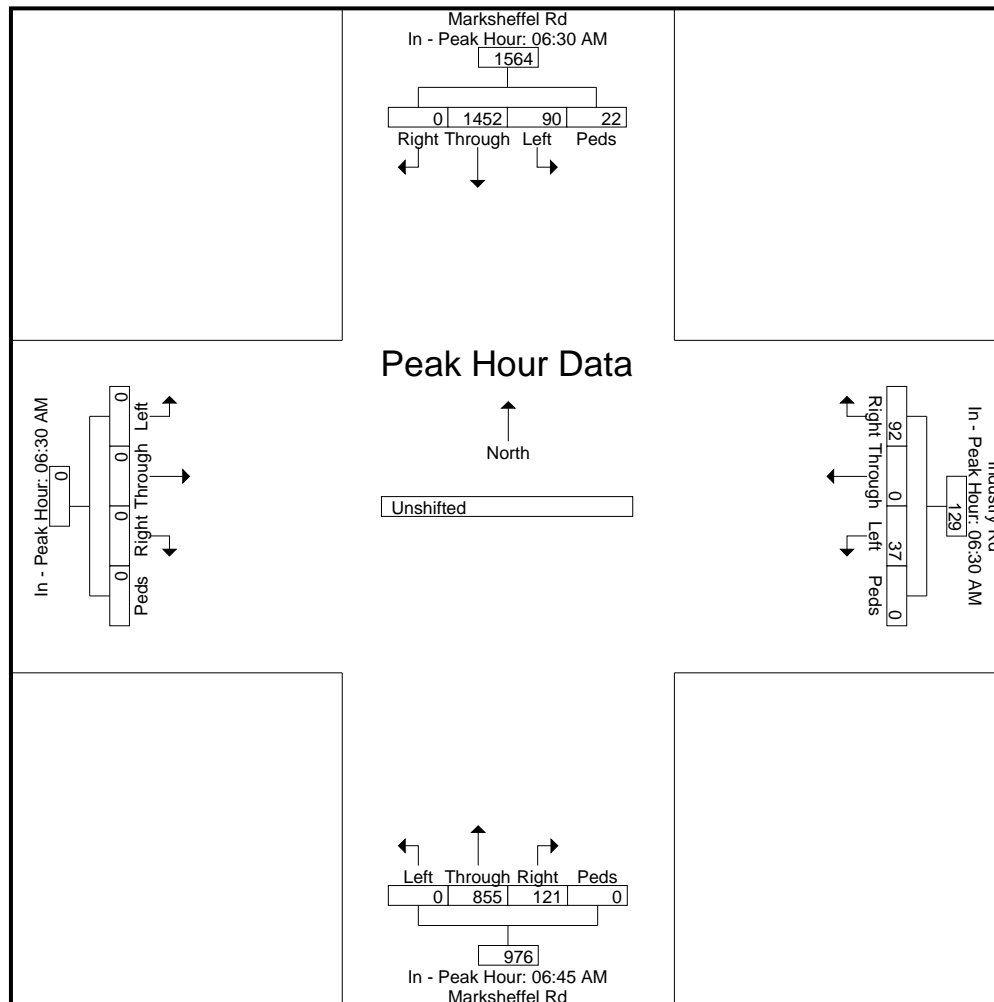
File Name : Marksheffel Rd - Industry Rd AM

Site Code : 194930

Start Date : 10/9/2019

Page No : 3

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	06:30 AM					06:30 AM					06:45 AM					06:30 AM					
+0 mins.	10	363	0	0	373	12	0	21	0	33	0	202	61	0	263	0	0	0	0	0	
+15 mins.	44	361	0	2	407	5	0	16	0	21	0	213	29	0	242	0	0	0	0	0	
+30 mins.	17	382	0	11	410	9	0	29	0	38	0	213	20	0	233	0	0	0	0	0	
+45 mins.	19	346	0	9	374	11	0	26	0	37	0	227	11	0	238	0	0	0	0	0	
Total Volume	90	1452	0	22	1564	37	0	92	0	129	0	855	121	0	976	0	0	0	0	0	
% App. Total	5.8	92.8	0	1.4		28.7	0	71.3	0		0	87.6	12.4	0		0	0	0	0		
PHF	.511	.950	.000	.500	.954	.771	.000	.793	.000	.849	.000	.942	.496	.000	.928	.000	.000	.000	.000	.000	







# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
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719-633-2868

File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
04:00 PM	11	205	0	2	218	16	0	17	0	33	0	331	19	0	350	0	0	0	0	0	601
04:15 PM	10	198	0	0	208	19	0	15	0	34	0	413	8	0	421	0	0	0	0	0	663
04:30 PM	12	227	0	2	241	26	0	31	0	57	0	340	10	0	350	0	0	0	0	0	648
04:45 PM	6	221	0	7	234	19	0	14	0	33	0	423	8	0	431	0	0	0	0	0	698
Total	39	851	0	11	901	80	0	77	0	157	0	1507	45	0	1552	0	0	0	0	0	2610
05:00 PM	6	218	0	2	226	21	0	11	0	32	0	456	8	1	465	0	0	0	0	0	723
05:15 PM	5	204	0	1	210	15	0	11	0	26	0	401	9	1	411	0	0	0	0	0	647
05:30 PM	5	258	0	2	265	21	0	11	0	32	0	390	5	1	396	0	0	0	0	0	693
05:45 PM	10	216	0	1	227	9	0	7	0	16	0	340	2	0	342	0	0	0	0	0	585
Total	26	896	0	6	928	66	0	40	0	106	0	1587	24	3	1614	0	0	0	0	0	2648
Grand Total	65	1747	0	17	1829	146	0	117	0	263	0	3094	69	3	3166	0	0	0	0	0	5258
Apprch %	3.6	95.5	0	0.9		55.5	0	44.5	0		0	97.7	2.2	0.1		0	0	0	0	0	
Total %	1.2	33.2	0	0.3	34.8	2.8	0	2.2	0	5	0	58.8	1.3	0.1	60.2	0	0	0	0	0	



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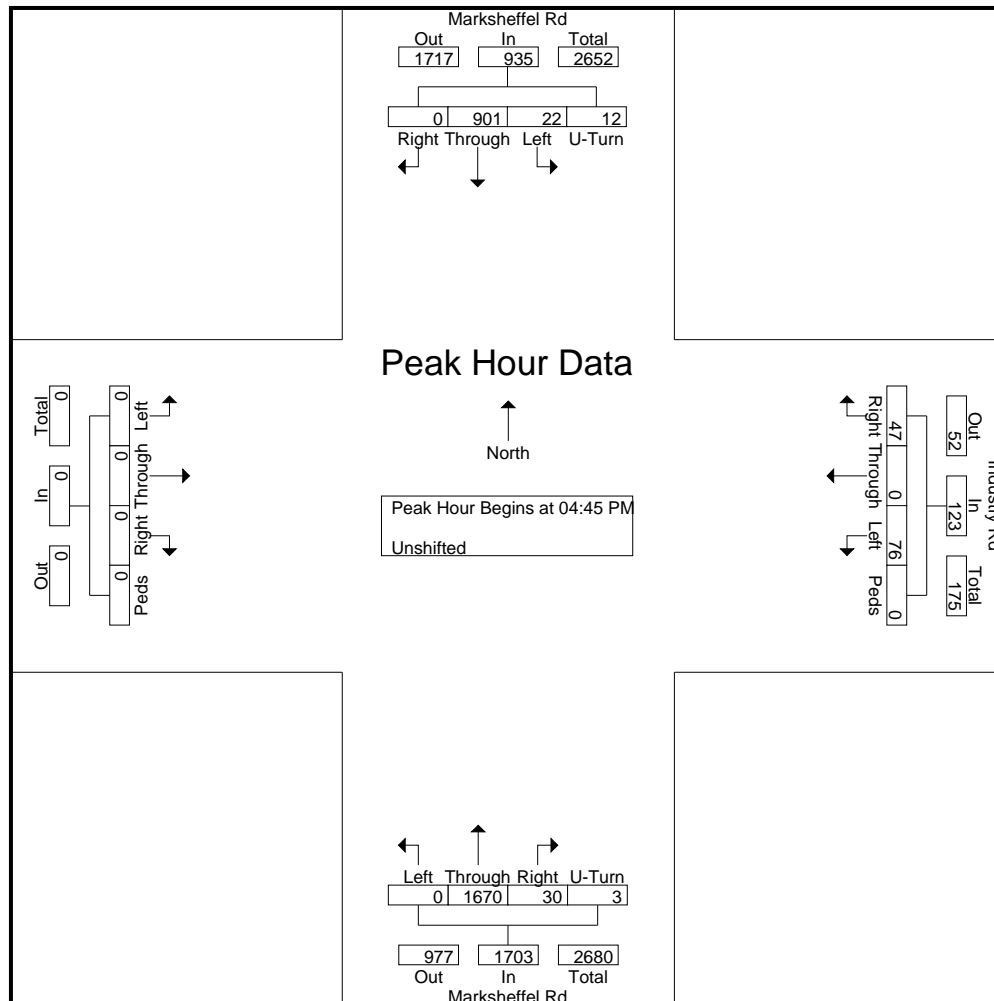
File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	6	221	0	7	234	19	0	14	0	33	0	423	8	0	431	0	0	0	0	0	698
05:00 PM	6	218	0	2	226	21	0	11	0	32	0	456	8	1	465	0	0	0	0	0	723
05:15 PM	5	204	0	1	210	15	0	11	0	26	0	401	9	1	411	0	0	0	0	0	647
05:30 PM	5	258	0	2	265	21	0	11	0	32	0	390	5	1	396	0	0	0	0	0	693
Total Volume	22	901	0	12	935	76	0	47	0	123	0	1670	30	3	1703	0	0	0	0	0	2761
% App. Total	2.4	96.4	0	1.3		61.8	0	38.2	0		0	98.1	1.8	0.2		0	0	0	0		
PHF	.917	.873	.000	.429	.882	.905	.000	.839	.000	.932	.000	.916	.833	.750	.916	.000	.000	.000	.000	.000	.955





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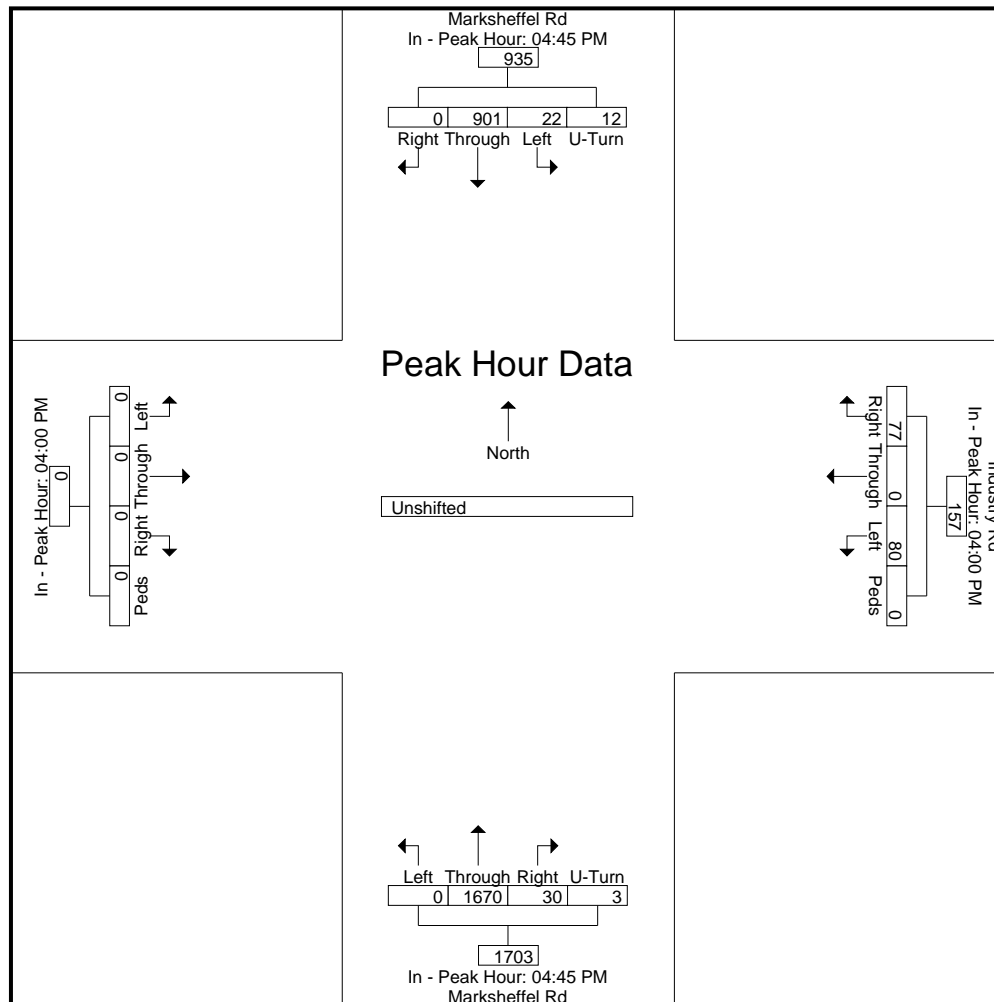
File Name : Marksheffel Rd - Industry Rd PM

Site Code : 194930

Start Date : 10/9/2019

Page No : 3

	Marksheffel Rd Southbound					Industry Rd Westbound					Marksheffel Rd Northbound					Eastbound					
Start Time	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	U-Turn	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:00 PM					04:45 PM					04:00 PM					
+0 mins.	6	221	0	7	234	16	0	17	0	33	0	423	8	0	431	0	0	0	0	0	
+15 mins.	6	218	0	2	226	19	0	15	0	34	0	456	8	1	465	0	0	0	0	0	
+30 mins.	5	204	0	1	210	26	0	31	0	57	0	401	9	1	411	0	0	0	0	0	
+45 mins.	5	258	0	2	265	19	0	14	0	33	0	390	5	1	396	0	0	0	0	0	
Total Volume	22	901	0	12	935	80	0	77	0	157	0	1670	30	3	1703	0	0	0	0	0	
% App. Total	2.4	96.4	0	1.3		51	0	49	0		0	98.1	1.8	0.2		0	0	0	0		
PHF	.917	.873	.000	.429	.882	.769	.000	.621	.000	.689	.000	.916	.833	.750	.916	.000	.000	.000	.000	.000	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
Colorado Springs, CO 80905  
719-633-2868

File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	1	0	10	0	11	1	100	9	0	110	16	0	9	0	25	14	30	5	0	49	195
06:45 AM	1	0	10	0	11	0	102	10	0	112	32	1	9	0	42	27	40	7	0	74	239
Total	2	0	20	0	22	1	202	19	0	222	48	1	18	0	67	41	70	12	0	123	434
07:00 AM	0	0	10	0	10	0	130	4	0	134	24	1	10	0	35	13	49	8	0	70	249
07:15 AM	2	0	10	0	12	0	122	11	0	133	31	0	10	1	42	13	58	10	0	81	268
07:30 AM	0	0	17	0	17	1	143	6	0	150	28	1	9	0	38	17	44	9	0	70	275
07:45 AM	2	0	13	0	15	2	124	15	0	141	16	0	11	0	27	19	63	11	0	93	276
Total	4	0	50	0	54	3	519	36	0	558	99	2	40	1	142	62	214	38	0	314	1068
08:00 AM	10	0	16	0	26	0	74	7	0	81	18	0	3	0	21	15	90	13	0	118	246
08:15 AM	8	0	12	0	20	1	63	13	0	77	18	0	2	1	21	11	60	17	0	88	206
Grand Total	24	0	98	0	122	5	858	75	0	938	183	3	63	2	251	129	434	80	0	643	1954
Apprch %	19.7	0	80.3	0		0.5	91.5	8	0		72.9	1.2	25.1	0.8		20.1	67.5	12.4	0		
Total %	1.2	0	5	0	6.2	0.3	43.9	3.8	0	48	9.4	0.2	3.2	0.1	12.8	6.6	22.2	4.1	0	32.9	



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545 E Pikes Peak Ave, Suite 210

Colorado Springs, CO 80905

719-633-2868

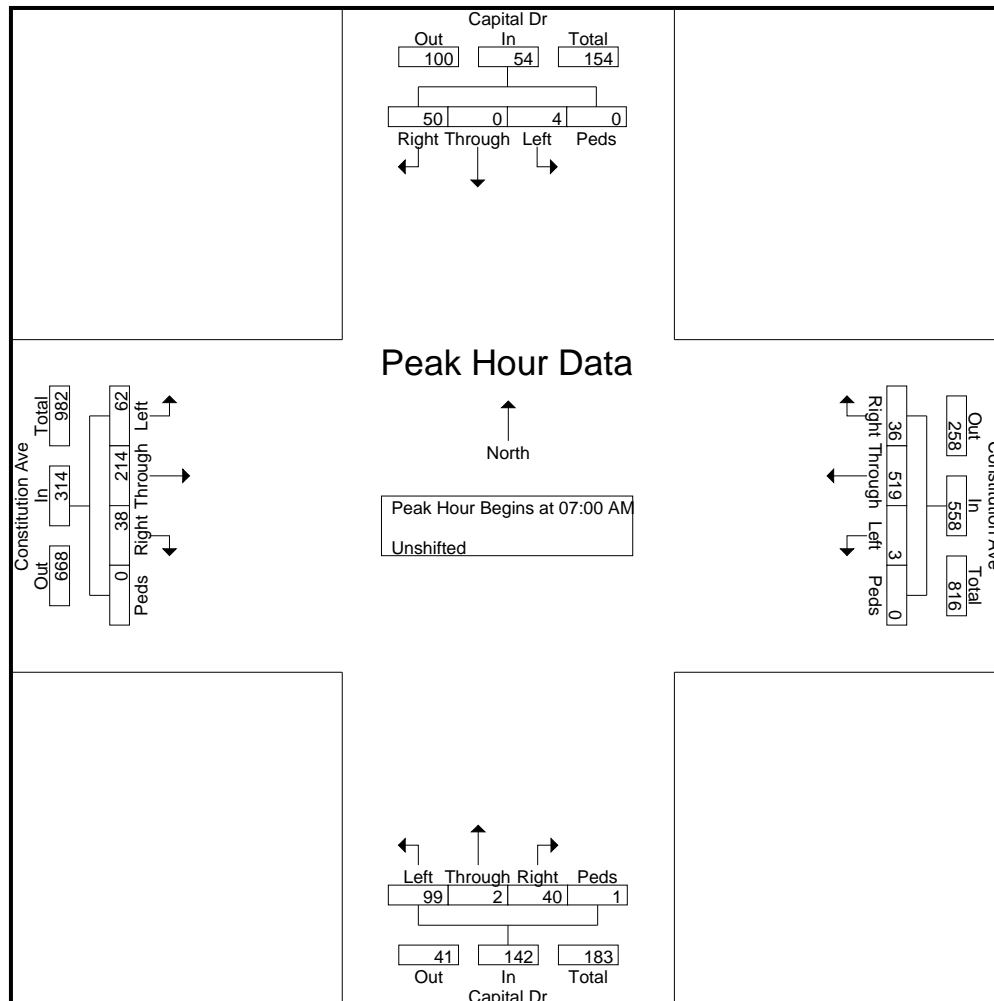
File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

Page No : 2

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	0	10	0	10	0	130	4	0	134	24	1	10	0	35	13	49	8	0	70	249
07:15 AM	2	0	10	0	12	0	122	11	0	133	31	0	10	1	42	13	58	10	0	81	268
07:30 AM	0	0	17	0	17	1	143	6	0	150	28	1	9	0	38	17	44	9	0	70	275
07:45 AM	2	0	13	0	15	2	124	15	0	141	16	0	11	0	27	19	63	11	0	93	276
Total Volume	4	0	50	0	54	3	519	36	0	558	99	2	40	1	142	62	214	38	0	314	1068
% App. Total	7.4	0	92.6	0		0.5	93	6.5	0		69.7	1.4	28.2	0.7		19.7	68.2	12.1	0		
PHF	.500	.000	.735	.000	.794	.375	.907	.600	.000	.930	.798	.500	.909	.250	.845	.816	.849	.864	.000	.844	.967





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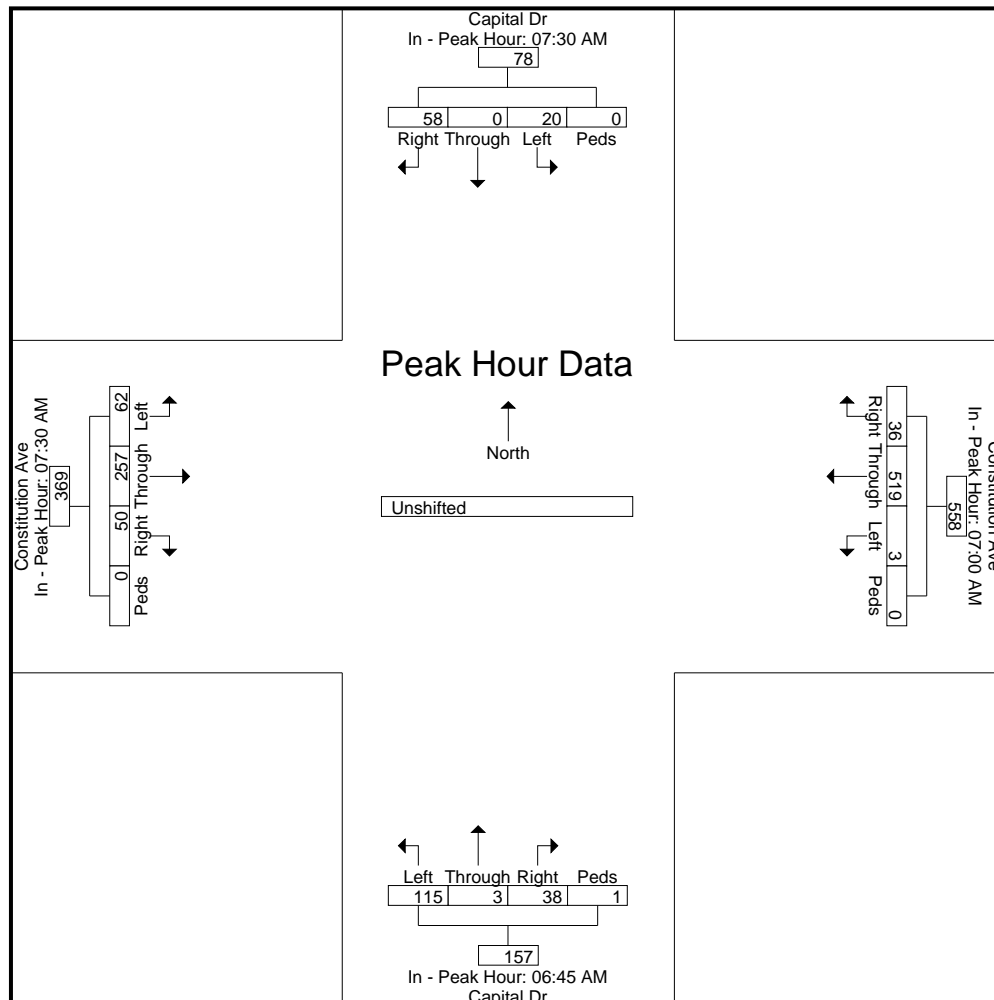
File Name : Capital Dr - Constitution Ave AM 10-19

Site Code : 194930

Start Date : 10/8/2019

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	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	07:30 AM					07:00 AM					06:45 AM					07:30 AM					
+0 mins.	0	0	17	0	17	0	130	4	0	134	32	1	9	0	42	17	44	9	0	70	
+15 mins.	2	0	13	0	15	0	122	11	0	133	24	1	10	0	35	19	63	11	0	93	
+30 mins.	10	0	16	0	26	1	143	6	0	150	31	0	10	1	42	15	90	13	0	118	
+45 mins.	8	0	12	0	20	2	124	15	0	141	28	1	9	0	38	11	60	17	0	88	
Total Volume	20	0	58	0	78	3	519	36	0	558	115	3	38	1	157	62	257	50	0	369	
% App. Total	25.6	0	74.4	0		0.5	93	6.5	0		73.2	1.9	24.2	0.6		16.8	69.6	13.6	0		
PHF	.500	.000	.853	.000	.750	.375	.907	.600	.000	.930	.898	.750	.950	.250	.935	.816	.714	.735	.000	.782	





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File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
04:00 PM	6	0	20	0	26	2	83	7	0	92	16	0	2	0	18	13	125	28	0	166	302
04:15 PM	4	1	15	1	21	3	70	5	0	78	10	0	3	0	13	13	115	34	0	162	274
04:30 PM	3	0	21	0	24	0	70	2	0	72	18	0	3	1	22	9	130	29	0	168	286
04:45 PM	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	317
Total	21	1	75	1	98	11	313	16	0	340	59	0	10	1	70	42	508	121	0	671	1179
05:00 PM	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	329
05:15 PM	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	301
05:30 PM	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	323
05:45 PM	2	0	9	0	11	7	78	1	0	86	14	0	3	0	17	5	114	33	0	152	266
Total	24	0	62	0	86	19	342	9	0	370	67	0	8	3	78	38	528	119	0	685	1219
Grand Total	45	1	137	1	184	30	655	25	0	710	126	0	18	4	148	80	1036	240	0	1356	2398
Apprch %	24.5	0.5	74.5	0.5		4.2	92.3	3.5	0		85.1	0	12.2	2.7		5.9	76.4	17.7	0		
Total %	1.9	0	5.7	0	7.7	1.3	27.3	1	0	29.6	5.3	0	0.8	0.2	6.2	3.3	43.2	10	0	56.5	



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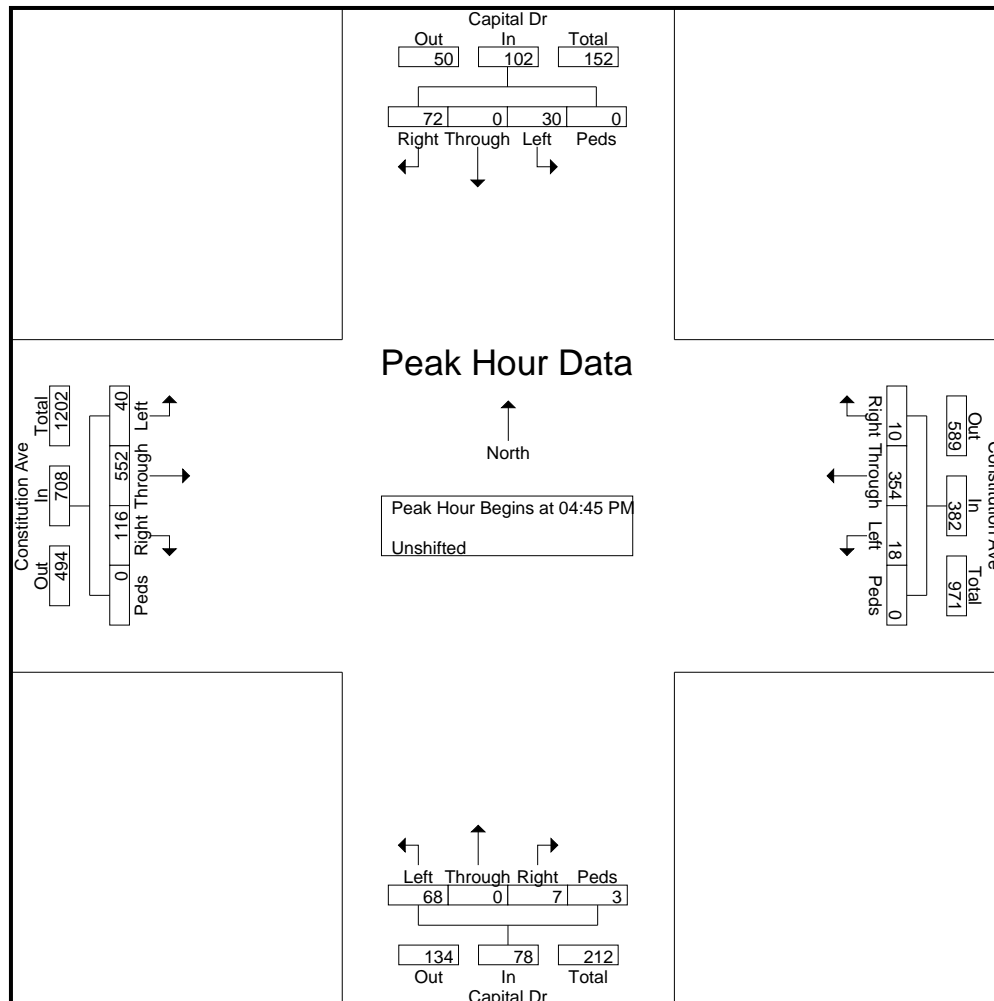
File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

Page No : 2

	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	317
05:00 PM	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	329
05:15 PM	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	301
05:30 PM	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	323
Total Volume	30	0	72	0	102	18	354	10	0	382	68	0	7	3	78	40	552	116	0	708	1270
% App. Total	29.4	0	70.6	0		4.7	92.7	2.6	0		87.2	0	9	3.8		5.6	78	16.4	0		
PHF	.938	.000	.947	.000	.944	.750	.932	.625	.000	.965	.810	.000	.875	.250	.750	.625	.939	.829	.000	.937	.965







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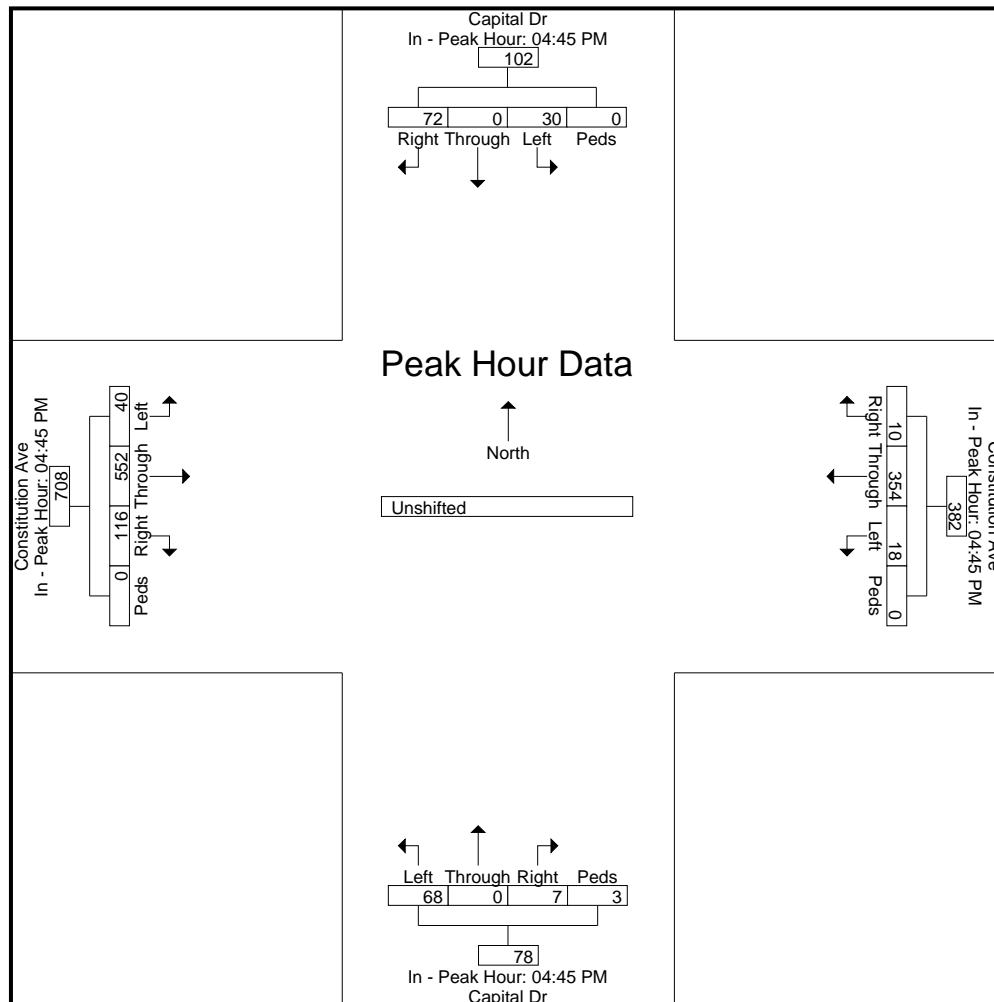
File Name : Capital Dr - Constitution Ave PM 10-19

Site Code : 194930

Start Date : 10/9/2019

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	Capital Dr Southbound					Constitution Ave Westbound					Capital Dr Northbound					Constitution Ave Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:45 PM					04:45 PM					04:45 PM					04:45 PM					
+0 mins.	8	0	19	0	27	6	90	2	0	98	15	0	2	0	17	7	138	30	0	175	
+15 mins.	8	0	19	0	27	3	95	1	0	99	13	0	1	0	14	16	147	26	0	189	
+30 mins.	8	0	15	0	23	4	79	3	0	86	19	0	2	0	21	7	129	35	0	171	
+45 mins.	6	0	19	0	25	5	90	4	0	99	21	0	2	3	26	10	138	25	0	173	
Total Volume	30	0	72	0	102	18	354	10	0	382	68	0	7	3	78	40	552	116	0	708	
% App. Total	29.4	0	70.6	0		4.7	92.7	2.6	0		87.2	0	9	3.8		5.6	78	16.4	0		
PHF	.938	.000	.947	.000	.944	.750	.932	.625	.000	.965	.810	.000	.875	.250	.750	.625	.939	.829	.000	.937	





# LSC Transportation Consultants, Inc.

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File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
06:30 AM	0	0	10	0	10	0	0	0	0	0	1	0	0	0	1	32	0	14	0	46	57
06:45 AM	0	0	22	0	22	0	0	0	0	0	2	0	0	0	2	58	0	14	0	72	96
Total	0	0	32	0	32	0	0	0	0	0	3	0	0	0	3	90	0	28	0	118	153
07:00 AM	0	1	25	0	26	0	0	0	0	0	2	0	0	0	2	15	0	13	0	28	56
07:15 AM	0	0	22	0	22	0	0	0	0	0	8	0	0	0	8	8	0	19	0	27	57
07:30 AM	0	0	12	0	12	0	0	0	0	0	4	1	0	0	5	2	0	2	0	4	21
07:45 AM	0	1	10	0	11	0	0	0	0	0	9	0	0	0	9	5	0	5	0	10	30
Total	0	2	69	0	71	0	0	0	0	0	23	1	0	0	24	30	0	39	0	69	164
08:00 AM	0	0	3	0	3	0	0	0	0	0	4	0	0	0	4	4	0	2	0	6	13
08:15 AM	0	1	4	0	5	0	0	0	0	0	0	1	0	0	1	3	0	1	0	4	10
Grand Total	0	3	108	0	111	0	0	0	0	0	30	2	0	0	32	127	0	70	0	197	340
Apprch %	0	2.7	97.3	0		0	0	0	0		93.8	6.2	0	0		64.5	0	35.5	0		
Total %	0	0.9	31.8	0	32.6	0	0	0	0	0	8.8	0.6	0	0	9.4	37.4	0	20.6	0	57.9	



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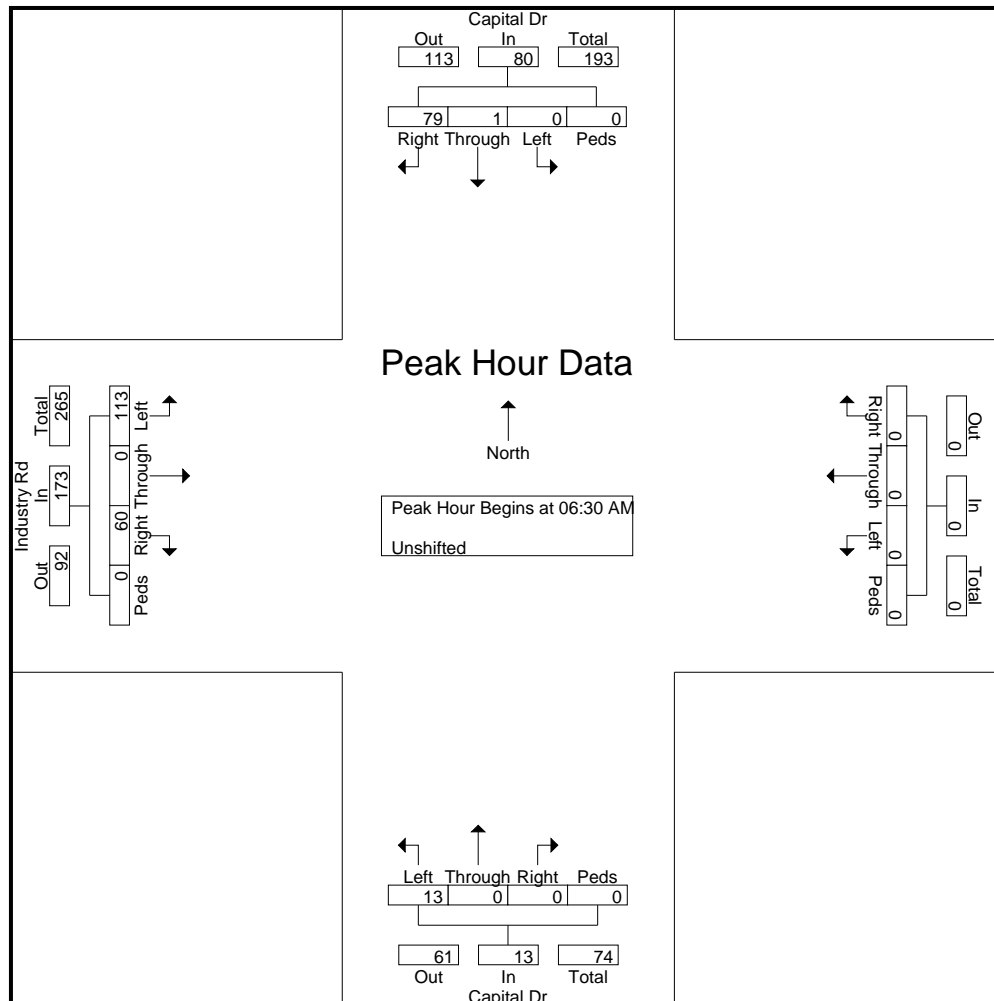
File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 2

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 06:30 AM																					
06:30 AM	0	0	10	0	10	0	0	0	0	0	1	0	0	0	1	32	0	14	0	46	57
06:45 AM	0	0	22	0	22	0	0	0	0	0	2	0	0	0	2	<b>58</b>	0	14	0	<b>72</b>	<b>96</b>
07:00 AM	0	<b>1</b>	<b>25</b>	0	<b>26</b>	0	0	0	0	0	2	0	0	0	2	15	0	13	0	28	56
07:15 AM	0	0	22	0	22	0	0	0	0	0	<b>8</b>	0	0	0	<b>8</b>	8	0	<b>19</b>	0	27	57
Total Volume	0	1	79	0	80	0	0	0	0	0	13	0	0	0	13	113	0	60	0	173	266
% App. Total	0	1.2	98.8	0		0	0	0	0		100	0	0	0		65.3	0	34.7	0		
PHF	.000	.250	.790	.000	.769	.000	.000	.000	.000	.000	.406	.000	.000	.000	.406	.487	.000	.789	.000	.601	.693





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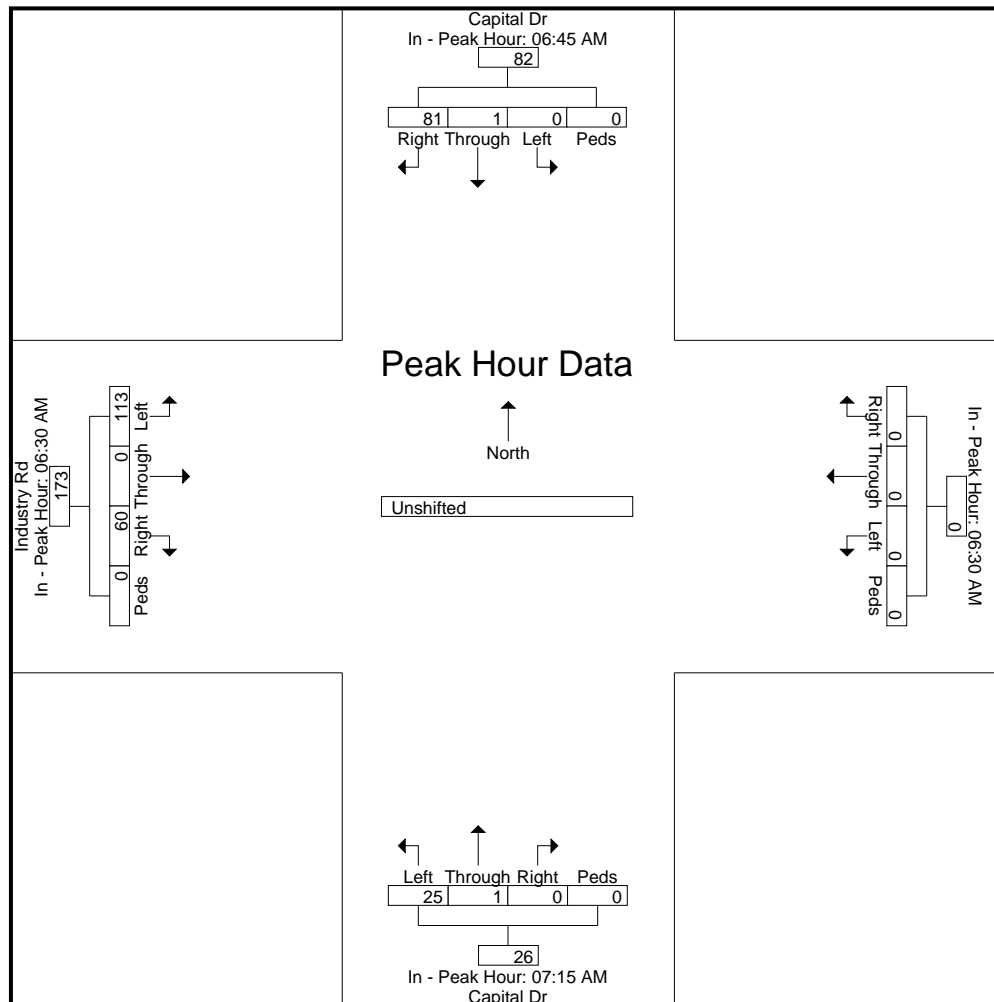
File Name : Capital Dr - Industry Rd AM 10-19

Site Code : 194930

Start Date : 10/15/2019

Page No : 3

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 06:30 AM to 08:15 AM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	06:45 AM					06:30 AM					07:15 AM					06:30 AM					
+0 mins.	0	0	22	0	22	0	0	0	0	0	8	0	0	0	8	32	0	14	0	46	
+15 mins.	0	1	25	0	26	0	0	0	0	0	4	1	0	0	5	58	0	14	0	72	
+30 mins.	0	0	22	0	22	0	0	0	0	0	9	0	0	0	9	15	0	13	0	28	
+45 mins.	0	0	12	0	12	0	0	0	0	0	4	0	0	0	4	8	0	19	0	27	
Total Volume	0	1	81	0	82	0	0	0	0	0	25	1	0	0	26	113	0	60	0	173	
% App. Total	0	1.2	98.8	0		0	0	0	0		96.2	3.8	0	0		65.3	0	34.7	0		
PHF	.000	.250	.810	.000	.788	.000	.000	.000	.000	.000	.694	.250	.000	.000	.722	.487	.000	.789	.000	.601	





# LSC Transportation Consultants, Inc.

545 E Pikes Peak Ave, Suite 210  
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File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 1

## Groups Printed- Unshifted

Start Time	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					Int. Total
	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	
04:00 PM	0	0	16	0	16	0	0	0	0	0	8	0	0	0	8	6	0	8	0	14	38
04:15 PM	0	2	8	0	10	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	33
04:30 PM	0	0	20	0	20	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	57
04:45 PM	0	1	11	0	12	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	26
Total	0	3	55	0	58	0	0	0	0	0	41	1	0	0	42	37	0	17	0	54	154
05:00 PM	0	2	25	0	27	0	0	0	0	0	4	0	0	0	4	7	0	1	0	8	39
05:15 PM	0	0	10	0	10	0	0	0	0	0	5	1	0	0	6	7	0	1	0	8	24
05:30 PM	0	1	14	0	15	0	0	0	0	0	3	1	0	0	4	9	0	1	0	10	29
*** BREAK ***																					
Total	0	3	49	0	52	0	0	0	0	0	12	2	0	0	14	23	0	3	0	26	92
Grand Total	0	6	104	0	110	0	0	0	0	0	53	3	0	0	56	60	0	20	0	80	246
Apprch %	0	5.5	94.5	0		0	0	0	0	0	94.6	5.4	0	0		75	0	25	0		
Total %	0	2.4	42.3	0	44.7	0	0	0	0	0	21.5	1.2	0	0	22.8	24.4	0	8.1	0	32.5	



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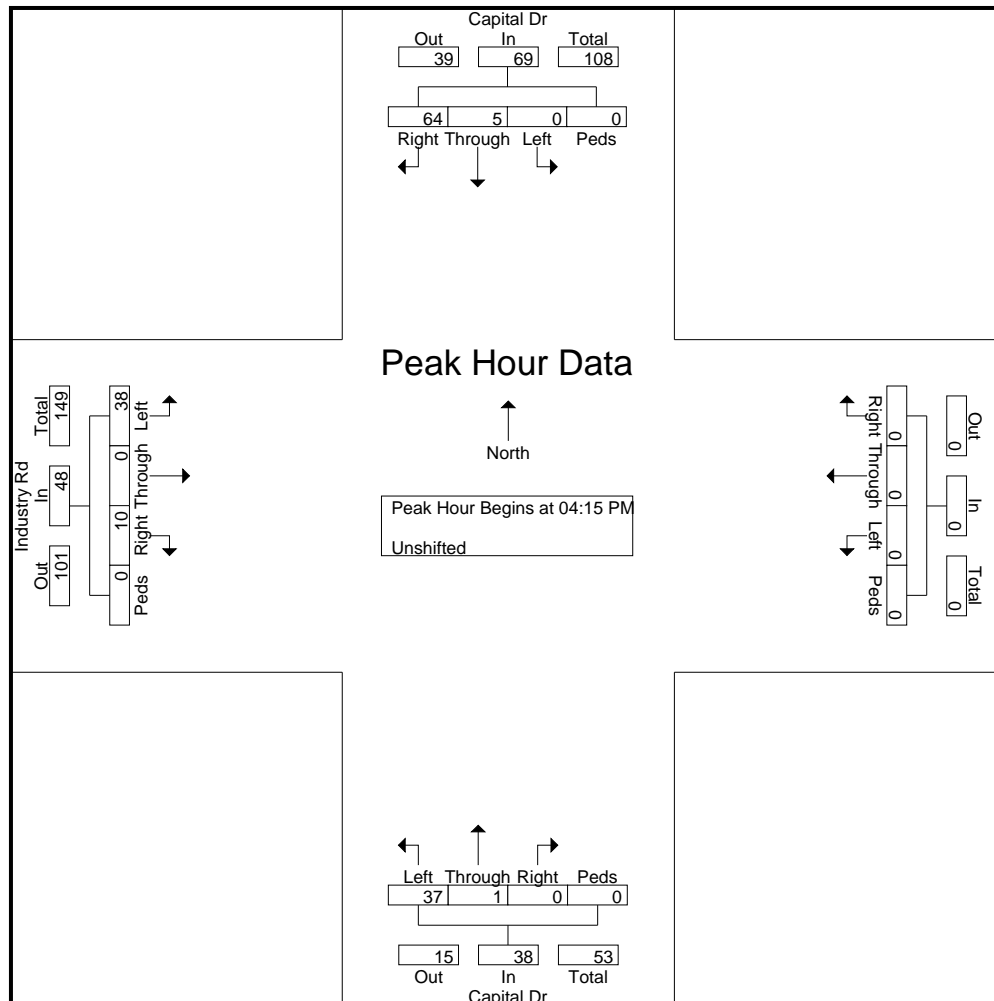
File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 2

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	2	8	0	10	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	33
04:30 PM	0	0	20	0	20	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	57
04:45 PM	0	1	11	0	12	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	26
05:00 PM	0	2	25	0	27	0	0	0	0	0	4	0	0	0	4	7	0	1	0	8	39
Total Volume	0	5	64	0	69	0	0	0	0	0	37	1	0	0	38	38	0	10	0	48	155
% App. Total	0	7.2	92.8	0		0	0	0	0		97.4	2.6	0	0		79.2	0	20.8	0		
PHF	.000	.625	.640	.000	.639	.000	.000	.000	.000	.000	.402	.250	.000	.000	.396	.792	.000	.625	.000	.750	.680





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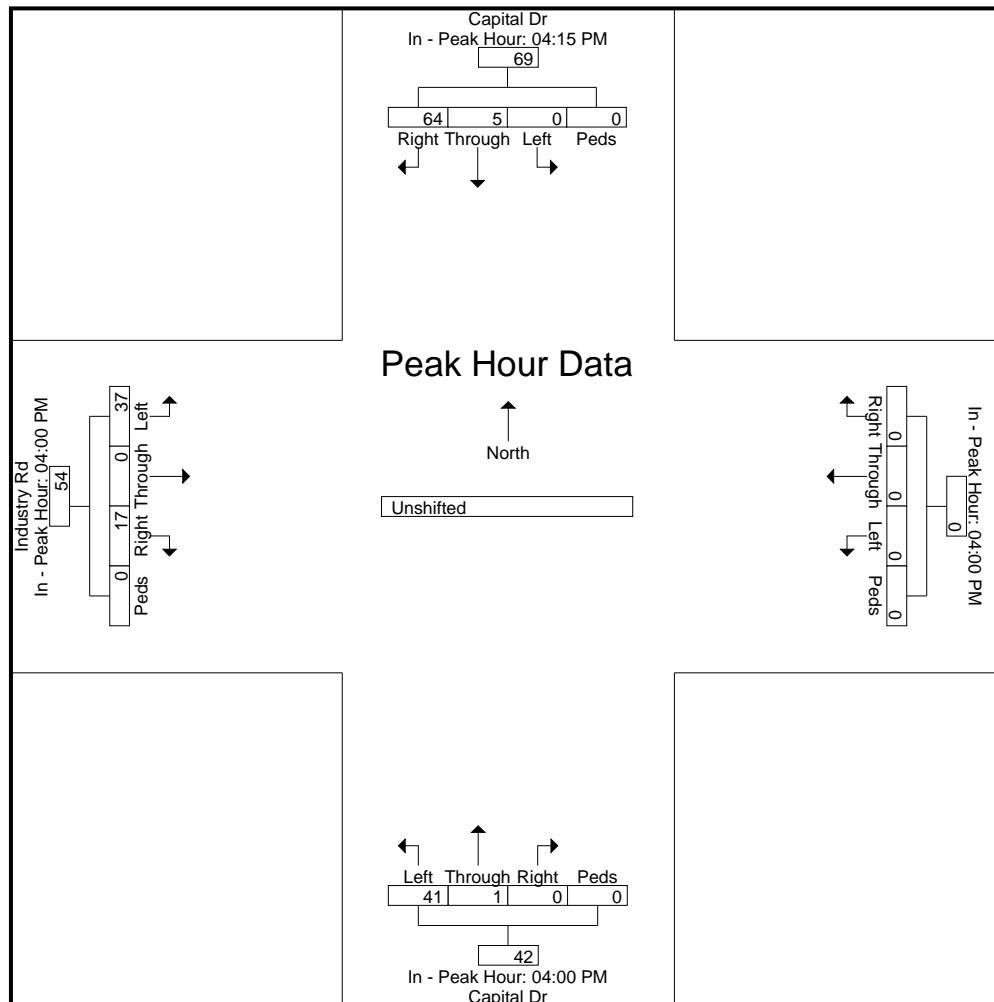
File Name : Capital Dr - Industry Rd PM 10-19

Site Code : 00194930

Start Date : 10/16/2019

Page No : 3

	Capital Dr Southbound					Westbound					Capital Dr Northbound					Industry Rd Eastbound					
Start Time	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Left	Through	Right	Peds	App. Total	Int. Total
<b>Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1</b>																					
Peak Hour for Each Approach Begins at:																					
	04:15 PM					04:00 PM					04:00 PM					04:00 PM					
+0 mins.	0	2	8	0	10	0	0	0	0	0	8	0	0	0	8	6	0	8	0	14	
+15 mins.	0	0	20	0	20	0	0	0	0	0	7	0	0	0	7	12	0	4	0	16	
+30 mins.	0	1	11	0	12	0	0	0	0	0	23	1	0	0	24	9	0	4	0	13	
+45 mins.	0	2	25	0	27	0	0	0	0	0	3	0	0	0	3	10	0	1	0	11	
Total Volume	0	5	64	0	69	0	0	0	0	0	41	1	0	0	42	37	0	17	0	54	
% App. Total	0	7.2	92.8	0		0	0	0	0		97.6	2.4	0	0		68.5	0	31.5	0		
PHF	.000	.625	.640	.000	.639	.000	.000	.000	.000	.000	.446	.250	.000	.000	.438	.771	.000	.531	.000	.844	



















## Levels of Service

Synchro Reports





Intersection						
Int Delay, s/veh	7.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	113	60	13	0	1	79
Future Vol, veh/h	113	60	13	0	1	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	188	100	13	0	1	87
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	71	45	88	0	-	0
Stage 1	45	-	-	-	-	-
Stage 2	26	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	933	1025	1508	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	925	1025	1508	-	-	-
Mov Cap-2 Maneuver	925	-	-	-	-	-
Stage 1	968	-	-	-	-	-
Stage 2	997	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.6	7.4		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1508	-	925	1025	-	-
HCM Lane V/C Ratio	0.009	-	0.204	0.098	-	-
HCM Control Delay (s)	7.4	0	9.9	8.9	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.8	0.3	-	-

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	214	38	3	519	36	99	2	40	4	0	50
Future Vol, veh/h	62	214	38	3	519	36	99	2	40	4	0	50
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	345	-	330	310	-	290	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	99	99	99	100	100	100	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	255	45	3	524	36	99	2	40	4	0	56





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	560	0	0	300	0	0	671	969	128	807	978	262
Stage 1	-	-	-	-	-	-	403	403	-	530	530	-
Stage 2	-	-	-	-	-	-	268	566	-	277	448	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1007	-	-	1258	-	-	342	252	898	273	249	737
Stage 1	-	-	-	-	-	-	595	598	-	500	525	-
Stage 2	-	-	-	-	-	-	714	506	-	706	571	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1007	-	-	1258	-	-	298	233	898	244	230	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	233	-	244	230	-
Stage 1	-	-	-	-	-	-	552	554	-	464	524	-
Stage 2	-	-	-	-	-	-	659	505	-	623	529	-











  





Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.7	-	-	0	-	-	19.1	-	-	11	-	-
HCM LOS	-	-	-	-	-	-	C	-	-	B	-	-













  

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	298	791	1007	-	-	1258	-	-	244	737
HCM Lane V/C Ratio	0.332	0.053	0.073	-	-	0.002	-	-	0.018	0.075
HCM Control Delay (s)	23	9.8	8.9	-	-	7.9	-	-	20	10.3
HCM Lane LOS	C	A	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	1.4	0.2	0.2	-	-	0	-	-	0.1	0.2

Intersection						
Int Delay, s/veh	5.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	38	10	37	1	5	64
Future Vol, veh/h	38	10	37	1	5	64
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	41	11	93	3	6	74
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	232	43	80	0	-	0
Stage 1	43	-	-	-	-	-
Stage 2	189	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	756	1027	1518	-	-	-
Stage 1	979	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	710	1027	1518	-	-	-
Mov Cap-2 Maneuver	710	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	843	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10	7.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1518	-	710	1027	-	-
HCM Lane V/C Ratio	0.061	-	0.058	0.011	-	-
HCM Control Delay (s)	7.5	0	10.4	8.5	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	0	-	-

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	40	532	116	18	354	10	68	0	7	30	0	72
Future Vol, veh/h	40	532	116	18	354	10	68	0	7	30	0	72
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	345	-	330	310	-	290	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	100	100	100	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	43	566	123	19	369	10	68	0	7	32	0	77
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	379	0	0	689	0	0	875	1069	283	776	1182	185
Stage 1	-	-	-	-	-	-	652	652	-	407	407	-
Stage 2	-	-	-	-	-	-	223	417	-	369	775	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1176	-	-	901	-	-	243	220	714	287	188	826
Stage 1	-	-	-	-	-	-	423	462	-	592	596	-
Stage 2	-	-	-	-	-	-	759	590	-	623	406	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	901	-	-	211	207	714	272	177	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	207	-	272	177	-
Stage 1	-	-	-	-	-	-	407	445	-	570	583	-
Stage 2	-	-	-	-	-	-	674	578	-	594	391	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.4			28.1			12.8		
HCM LOS							D			B		
Minor Lane/Major Mvmt	NBLn1		NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	
Capacity (veh/h)	211		714	1176	-	-	901	-	-	272	826	
HCM Lane V/C Ratio	0.322		0.01	0.036	-	-	0.021	-	-	0.117	0.093	
HCM Control Delay (s)	30		10.1	8.2	-	-	9.1	-	-	20	9.8	
HCM Lane LOS	D		B	A	-	-	A	-	-	C	A	
HCM 95th %tile Q(veh)	1.3		0	0.1	-	-	0.1	-	-	0.4	0.3	

Intersection						
Int Delay, s/veh	7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	70	40	30	20	50
Future Vol, veh/h	85	70	40	30	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	117	40	30	22	55
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	160	50	77	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	110	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	831	1018	1522	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	809	1018	1522	-	-	-
Mov Cap-2 Maneuver	809	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.8	4.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1522	-	809	1018	-	-
HCM Lane V/C Ratio	0.026	-	0.175	0.115	-	-
HCM Control Delay (s)	7.4	0	10.4	9	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	0.4	-	-

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	50	220	40	5	525	50	100	5	40	10	5	35
Future Vol, veh/h	50	220	40	5	525	50	100	5	40	10	5	35
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	345	-	330	310	-	290	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	99	99	99	100	100	100	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	60	262	48	5	530	51	100	5	40	11	6	39





Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	581	0	0	310	0	0	660	973	131	794	970	265
Stage 1	-	-	-	-	-	-	382	382	-	540	540	-
Stage 2	-	-	-	-	-	-	278	591	-	254	430	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	989	-	-	1247	-	-	348	251	894	279	252	733
Stage 1	-	-	-	-	-	-	612	611	-	494	519	-
Stage 2	-	-	-	-	-	-	705	493	-	728	582	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	989	-	-	1247	-	-	308	235	894	249	236	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	308	235	-	249	236	-
Stage 1	-	-	-	-	-	-	575	574	-	464	517	-
Stage 2	-	-	-	-	-	-	658	491	-	648	546	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.4	-	-	0.1	-	-	18.6	-	-	13.4	-	-
HCM LOS	C			C			C			B		











  

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	308	682	989	-	-	1247	-	-	249	580
HCM Lane V/C Ratio	0.325	0.066	0.06	-	-	0.004	-	-	0.045	0.077
HCM Control Delay (s)	22.2	10.7	8.9	-	-	7.9	-	-	20.1	11.7
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B
HCM 95th %tile Q(veh)	1.4	0.2	0.2	-	-	0	-	-	0.1	0.2





Intersection						
Int Delay, s/veh	5.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	45	50	10	20	50
Future Vol, veh/h	10	45	50	10	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	49	125	25	23	58
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	327	52	81	0	-	0
Stage 1	52	-	-	-	-	-
Stage 2	275	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	667	1016	1517	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	611	1016	1517	-	-	-
Mov Cap-2 Maneuver	611	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	6.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1517	-	611	1016	-	-
HCM Lane V/C Ratio	0.082	-	0.018	0.048	-	-
HCM Control Delay (s)	7.6	0	11	8.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.2	-	-

HCM 6th TWSC  
8: Capital Dr & Constitution Ave

ST Baseline (Adjusted Existing)  
PM











Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	540	120	20	360	15	70	2	7	50	5	50
Future Vol, veh/h	30	540	120	20	360	15	70	2	7	50	5	50
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	345	-	330	310	-	290	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	100	100	100	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	574	128	21	375	16	70	2	7	53	5	53
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	391	0	0	702	0	0	870	1071	287	769	1183	188
Stage 1	-	-	-	-	-	-	638	638	-	417	417	-
Stage 2	-	-	-	-	-	-	232	433	-	352	766	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1164	-	-	891	-	-	246	219	710	291	188	822
Stage 1	-	-	-	-	-	-	431	469	-	584	590	-
Stage 2	-	-	-	-	-	-	750	580	-	638	410	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1164	-	-	891	-	-	216	208	710	275	179	822
Mov Cap-2 Maneuver	-	-	-	-	-	-	216	208	-	275	179	-
Stage 1	-	-	-	-	-	-	419	456	-	568	576	-
Stage 2	-	-	-	-	-	-	679	566	-	612	399	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.5			27.6			16.1		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1 NBLn2		EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	216 462		1164	-	-	891	-	-	275	620		
HCM Lane V/C Ratio	0.324 0.019		0.027	-	-	0.023	-	-	0.193	0.094		
HCM Control Delay (s)	29.5 12.9		8.2	-	-	9.1	-	-	21.2	11.4		
HCM Lane LOS	D B		A	-	-	A	-	-	C B			
HCM 95th %tile Q(veh)	1.3 0.1		0.1	-	-	0.1	-	-	0.7	0.3		













Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	85	83	42	30	20	50
Future Vol, veh/h	85	83	42	30	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	138	42	30	22	55
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	164	50	77	0	-	0
Stage 1	50	-	-	-	-	-
Stage 2	114	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	827	1018	1522	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	804	1018	1522	-	-	-
Mov Cap-2 Maneuver	804	-	-	-	-	-
Stage 1	945	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.8	4.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1522	-	804	1018	-	-
HCM Lane V/C Ratio	0.028	-	0.176	0.136	-	-
HCM Control Delay (s)	7.4	0	10.4	9.1	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	0.5	-	-





HCM 6th TWSC  
8: Capital Dr & Constitution Ave













ST Baseline + Site  
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Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	220	40	5	525	55	100	5	40	11	5	38
Future Vol, veh/h	65	220	40	5	525	55	100	5	40	11	5	38
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	345	-	330	310	-	290	140	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	99	99	99	100	100	100	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	77	262	48	5	530	56	100	5	40	12	6	42
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	586	0	0	310	0	0	694	1012	131	828	1004	265
Stage 1	-	-	-	-	-	-	416	416	-	540	540	-
Stage 2	-	-	-	-	-	-	278	596	-	288	464	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	985	-	-	1247	-	-	329	238	894	263	240	733
Stage 1	-	-	-	-	-	-	585	590	-	494	519	-
Stage 2	-	-	-	-	-	-	705	490	-	695	562	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	985	-	-	1247	-	-	285	218	894	231	220	733
Mov Cap-2 Maneuver	-	-	-	-	-	-	285	218	-	231	220	-
Stage 1	-	-	-	-	-	-	539	544	-	455	517	-
Stage 2	-	-	-	-	-	-	655	488	-	606	518	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.8			0.1			20.1			13.8		
HCM LOS							C			B		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	285	665	985	-	-	1247	-	-	231	577		
HCM Lane V/C Ratio	0.351	0.068	0.079	-	-	0.004	-	-	0.053	0.083		
HCM Control Delay (s)	24.3	10.8	9	-	-	7.9	-	-	21.5	11.8		
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B		
HCM 95th %tile Q(veh)	1.5	0.2	0.3	-	-	0	-	-	0.2	0.3		






Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	16	91	90	11
Future Vol, veh/h	1	3	16	91	90	11
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	16	91	99	12
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	228	105	111	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	760	949	1479	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	752	949	1479	-	-	-
Mov Cap-2 Maneuver	756	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.1	1.1		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1479	-	892	-	-	
HCM Lane V/C Ratio	0.011	-	0.005	-	-	
HCM Control Delay (s)	7.5	-	9.1	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	3	107	93	2
Future Vol, veh/h	0	1	3	107	93	2
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	3	107	102	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	216	103	104	0	-	0
Stage 1	103	-	-	-	-	-
Stage 2	113	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	772	952	1488	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	770	952	1488	-	-	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	912	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1488	-	952	-	-	
HCM Lane V/C Ratio	0.002	-	0.001	-	-	
HCM Control Delay (s)	7.4	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	5.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	47	62	10	20	50
Future Vol, veh/h	10	47	62	10	20	50
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	51	155	25	23	58
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	387	52	81	0	-	0
Stage 1	52	-	-	-	-	-
Stage 2	335	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	616	1016	1517	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	552	1016	1517	-	-	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.2	6.6		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1517	-	552	1016	-	-
HCM Lane V/C Ratio	0.102	-	0.02	0.05	-	-
HCM Control Delay (s)	7.6	0	11.7	8.7	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	0.1	0.2	-	-

Intersection												
Int Delay, s/veh	3.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	32	540	120	20	360	16	70	2	7	54	5	64
Future Vol, veh/h	32	540	120	20	360	16	70	2	7	54	5	64
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	345	-	330	310	-	290	140	-	-	140	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	96	96	96	100	100	100	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	34	574	128	21	375	17	70	2	7	57	5	68
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	392	0	0	702	0	0	874	1076	287	773	1187	188
Stage 1	-	-	-	-	-	-	642	642	-	417	417	-
Stage 2	-	-	-	-	-	-	232	434	-	356	770	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.54	6.54	6.94	7.54	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.54	5.54	-
Follow-up Hdwy	2.22	-	-	2.22	-	-	3.52	4.02	3.32	3.52	4.02	3.32
Pot Cap-1 Maneuver	1163	-	-	891	-	-	244	218	710	289	187	822
Stage 1	-	-	-	-	-	-	429	467	-	584	590	-
Stage 2	-	-	-	-	-	-	750	579	-	634	408	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1163	-	-	891	-	-	210	207	710	273	177	822
Mov Cap-2 Maneuver	-	-	-	-	-	-	210	207	-	273	177	-
Stage 1	-	-	-	-	-	-	417	453	-	567	576	-
Stage 2	-	-	-	-	-	-	665	565	-	607	396	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.5			28.5			15.8		
HCM LOS							D			C		
Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2		
Capacity (veh/h)	210	461	1163	-	-	891	-	-	273	650		
HCM Lane V/C Ratio	0.333	0.02	0.029	-	-	0.023	-	-	0.21	0.113		
HCM Control Delay (s)	30.5	13	8.2	-	-	9.1	-	-	21.7	11.2		
HCM Lane LOS	D	B	A	-	-	A	-	-	C	B		
HCM 95th %tile Q(veh)	1.4	0.1	0.1	-	-	0.1	-	-	0.8	0.4		























Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	16	3	62	81	1
Future Vol, veh/h	10	16	3	62	81	1
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	17	8	155	94	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	266	95	95	0	-	0
Stage 1	95	-	-	-	-	-
Stage 2	171	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	723	962	1499	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	719	962	1499	-	-	-
Mov Cap-2 Maneuver	732	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	859	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.3	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1499	-	858	-	-	
HCM Lane V/C Ratio	0.005	-	0.033	-	-	
HCM Control Delay (s)	7.4	-	9.3	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	3	63	97	0
Future Vol, veh/h	2	1	3	63	97	0
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1	8	158	113	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	287	113	113	0	-	0
Stage 1	113	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	703	940	1476	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	699	940	1476	-	-	-
Mov Cap-2 Maneuver	720	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.6	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1476	-	781	-	-	
HCM Lane V/C Ratio	0.005	-	0.004	-	-	
HCM Control Delay (s)	7.5	-	9.6	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	















Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	360	40	5	1000	80	100	6	50	50	2	100
Future Volume (vph)	125	360	40	5	1000	80	100	6	50	50	2	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	345		330	310		290	0		0	140		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	140			195			25			85		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.866			0.853	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1613	0	1770	1589	0
Flt Permitted	0.204			0.493			0.684			0.720		
Satd. Flow (perm)	380	5085	1583	918	5085	1583	1274	1613	0	1341	1589	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			143			50			111
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		957			1255			706			1943	
Travel Time (s)		13.1			17.1			16.0			44.2	
Peak Hour Factor	0.84	0.84	0.84	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90
Adj. Flow (vph)	149	429	48	5	1010	81	100	6	50	56	2	111
Shared Lane Traffic (%)												
Lane Group Flow (vph)	149	429	48	5	1010	81	100	56	0	56	113	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	17.0	43.0	43.0	11.0	37.0	37.0	26.0	26.0		26.0	26.0	
Total Split (%)	21.3%	53.8%	53.8%	13.8%	46.3%	46.3%	32.5%	32.5%		32.5%	32.5%	
Maximum Green (s)	12.5	38.5	38.5	6.5	32.5	32.5	21.5	21.5		21.5	21.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	33.7	33.8	33.8	27.0	24.4	24.4	9.8	9.8		9.6	9.6	
Actuated g/C Ratio	0.68	0.68	0.68	0.54	0.49	0.49	0.20	0.20		0.19	0.19	
v/c Ratio	0.28	0.12	0.04	0.01	0.41	0.10	0.40	0.16		0.22	0.28	
Control Delay	5.5	5.3	1.1	5.0	13.1	0.9	25.8	9.4		22.1	7.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	5.5	5.3	1.1	5.0	13.1	0.9	25.8	9.4		22.1	7.5	
LOS	A	A	A	A	B	A	C	A		C	A	
Approach Delay		5.0			12.1			19.9			12.4	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 49.7

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.41

Intersection Signal Delay: 10.6

Intersection LOS: B





Intersection Capacity Utilization 49.7%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 8: Capital Dr & Constitution Ave





























Intersection						
Int Delay, s/veh	8.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	180	90	60	50	30	60
Future Vol, veh/h	180	90	60	50	30	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	300	150	60	50	33	66
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	236	66	99	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	752	998	1494	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	721	998	1494	-	-	-
Mov Cap-2 Maneuver	721	-	-	-	-	-
Stage 1	918	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.1	4.1		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1494	-	721	998	-	-
HCM Lane V/C Ratio	0.04	-	0.416	0.15	-	-
HCM Control Delay (s)	7.5	0	13.5	9.2	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	0.5	-	-

Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave













2040 Background

PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  							
Traffic Volume (vph)	150	900	120	25	820	150	70	7	10	150	10	200
Future Volume (vph)	150	900	120	25	820	150	70	7	10	150	10	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	345		330	310		290	140		0	140		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	140			195			85			85		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.912			0.857	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1699	0	1770	1596	0
Flt Permitted	0.306			0.244			0.432			0.746		
Satd. Flow (perm)	570	5085	1583	455	5085	1583	805	1699	0	1390	1596	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128			156		10			213	
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		957			1255			706			913	
Travel Time (s)		13.1			17.1			16.0			20.8	
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	1.00	1.00	1.00	0.94	0.94	0.94
Adj. Flow (vph)	160	957	128	26	854	156	70	7	10	160	11	213
Shared Lane Traffic (%)												
Lane Group Flow (vph)	160	957	128	26	854	156	70	17	0	160	224	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	14.0	46.0	46.0	14.0	46.0	46.0	20.0	20.0		20.0	20.0	
Total Split (%)	17.5%	57.5%	57.5%	17.5%	57.5%	57.5%	25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	9.5	41.5	41.5	9.5	41.5	41.5	15.5	15.5		15.5	15.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	Max	C-Max	C-Max	Max	Max		Max	Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effect Green (s)	49.4	41.5	41.5	52.6	43.1	43.1	15.5	15.5		15.5	15.5	
Actuated g/C Ratio	0.62	0.52	0.52	0.66	0.54	0.54	0.19	0.19		0.19	0.19	
v/c Ratio	0.34	0.36	0.15	0.06	0.31	0.17	0.45	0.05		0.59	0.47	
Control Delay	6.5	11.9	2.4	4.2	10.8	2.3	39.1	18.5		39.6	8.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.5	11.9	2.4	4.2	10.8	2.3	39.1	18.5		39.6	8.7	
LOS	A	B	A	A	B	A	D	B		D	A	
Approach Delay		10.2			9.3			35.1			21.6	
Approach LOS		B			A			D			C	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.59

Intersection Signal Delay: 12.3

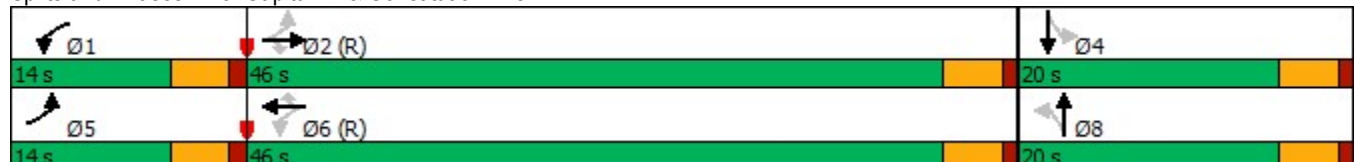
Intersection LOS: B





Intersection Capacity Utilization 56.2%

ICU Level of Service B

Analysis Period (min) 15






























Splits and Phases: 8: Capital Dr & Constitution Ave



Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	60	60	75	20	50	100
Future Vol, veh/h	60	60	75	20	50	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	65	188	50	58	116
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	542	116	174	0	-	0
Stage 1	116	-	-	-	-	-
Stage 2	426	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	501	936	1403	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	432	936	1403	-	-	-
Mov Cap-2 Maneuver	432	-	-	-	-	-
Stage 1	784	-	-	-	-	-
Stage 2	659	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12	6.3		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1403	-	432	936	-	-
HCM Lane V/C Ratio	0.134	-	0.151	0.07	-	-
HCM Control Delay (s)	8	0	14.8	9.1	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0.5	0.2	-	-













Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background + Site  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		  			  						 	
Traffic Volume (vph)	140	360	40	5	1000	85	100	6	50	51	2	103
Future Volume (vph)	140	360	40	5	1000	85	100	6	50	51	2	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	345		330	310		290	0		0	140		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	140			195			25			85		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.866			0.853	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1613	0	1770	1589	0
Flt Permitted	0.208			0.493			0.682			0.720		
Satd. Flow (perm)	387	5085	1583	918	5085	1583	1270	1613	0	1341	1589	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82			86		50			114	
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		957			1255			706			1943	
Travel Time (s)		13.1			17.1			16.0			44.2	
Peak Hour Factor	0.84	0.84	0.84	0.99	0.99	0.99	1.00	1.00	1.00	0.90	0.90	0.90
Adj. Flow (vph)	167	429	48	5	1010	86	100	6	50	57	2	114
Shared Lane Traffic (%)												
Lane Group Flow (vph)	167	429	48	5	1010	86	100	56	0	57	116	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background + Site  
AM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	12.0	45.0	45.0	12.0	45.0	45.0	23.0	23.0		23.0	23.0	
Total Split (%)	15.0%	56.3%	56.3%	15.0%	56.3%	56.3%	28.8%	28.8%		28.8%	28.8%	
Maximum Green (s)	7.5	40.5	40.5	7.5	40.5	40.5	18.5	18.5		18.5	18.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	Min	Min	None	Min	Min	None	None		None	None	
Walk Time (s)		7.0	7.0		7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0		11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0		0	0	0	0		0	0	
Act Effect Green (s)	30.9	31.2	31.2	26.6	23.9	23.9	9.5	9.5		9.3	9.3	
Actuated g/C Ratio	0.66	0.66	0.66	0.57	0.51	0.51	0.20	0.20		0.20	0.20	
v/c Ratio	0.35	0.13	0.04	0.01	0.39	0.10	0.39	0.15		0.21	0.29	
Control Delay	6.4	5.6	1.3	4.4	11.3	3.4	23.6	8.6		20.2	7.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.4	5.6	1.3	4.4	11.3	3.4	23.6	8.6		20.2	7.0	
LOS	A	A	A	A	B	A	C	A		C	A	
Approach Delay		5.5			10.6			18.2			11.3	
Approach LOS		A			B			B			B	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 47

Natural Cycle: 55

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.39

Intersection Signal Delay: 9.7

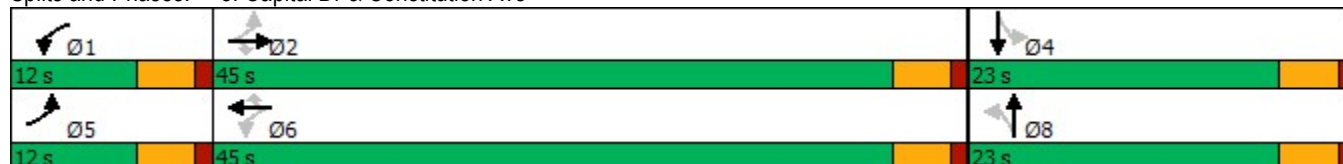
Intersection LOS: A

Intersection Capacity Utilization 50.5%





ICU Level of Service A






Analysis Period (min) 15

Splits and Phases: 8: Capital Dr & Constitution Ave










Intersection						
Int Delay, s/veh	9.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	180	103	62	50	30	60
Future Vol, veh/h	180	103	62	50	30	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	60	60	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	300	172	62	50	33	66
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	240	66	99	0	-	0
Stage 1	66	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	748	998	1494	-	-	-
Stage 1	957	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	716	998	1494	-	-	-
Mov Cap-2 Maneuver	716	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.1	4.2		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1494	-	716	998	-	-
HCM Lane V/C Ratio	0.041	-	0.419	0.172	-	-
HCM Control Delay (s)	7.5	0	13.6	9.4	-	-
HCM Lane LOS	A	A	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	2.1	0.6	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	3	16	101	90	11
Future Vol, veh/h	1	3	16	101	90	11
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	3	16	101	99	12

Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	238	105	111	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	133	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	750	949	1479	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	742	949	1479	-	-	-
Mov Cap-2 Maneuver	750	-	-	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	893	-	-	-	-	-























Approach	EB	NB	SB
HCM Control Delay, s	9.1	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1479	-	890	-	-
HCM Lane V/C Ratio	0.011	-	0.005	-	-
HCM Control Delay (s)	7.5	-	9.1	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	1	3	117	93	2
Future Vol, veh/h	0	1	3	117	93	2
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	100	100	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1	3	117	102	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	226	103	104	0	-	0
Stage 1	103	-	-	-	-	-
Stage 2	123	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	762	952	1488	-	-	-
Stage 1	921	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	760	952	1488	-	-	-
Mov Cap-2 Maneuver	762	-	-	-	-	-
Stage 1	919	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.8	0.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1488	-	952	-	-	
HCM Lane V/C Ratio	0.002	-	0.001	-	-	
HCM Control Delay (s)	7.4	-	8.8	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	













Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	900	120	25	820	151	70	7	10	154	10	214
Future Volume (vph)	152	900	120	25	820	151	70	7	10	154	10	214
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	345		330	310		290	140		0	140		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	140			195			85			85		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.912			0.857	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1699	0	1770	1596	0
Flt Permitted	0.306			0.244			0.399			0.746		
Satd. Flow (perm)	570	5085	1583	455	5085	1583	743	1699	0	1390	1596	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			128			157		10			228	
Link Speed (mph)		50			50			30			30	
Link Distance (ft)		957			1255			706			913	
Travel Time (s)		13.1			17.1			16.0			20.8	
Peak Hour Factor	0.94	0.94	0.94	0.96	0.96	0.96	1.00	1.00	1.00	0.94	0.94	0.94
Adj. Flow (vph)	162	957	128	26	854	157	70	7	10	164	11	228
Shared Lane Traffic (%)												
Lane Group Flow (vph)	162	957	128	26	854	157	70	17	0	164	239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		20			20			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		

Lanes, Volumes, Timings  
8: Capital Dr & Constitution Ave

2040 Background + Site  
PM

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5	22.5	22.5	22.5	22.5	22.5	22.5		22.5	22.5	
Total Split (s)	14.0	46.0	46.0	14.0	46.0	46.0	20.0	20.0		20.0	20.0	
Total Split (%)	17.5%	57.5%	57.5%	17.5%	57.5%	57.5%	25.0%	25.0%		25.0%	25.0%	
Maximum Green (s)	9.5	41.5	41.5	9.5	41.5	41.5	15.5	15.5		15.5	15.5	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Recall Mode	None	C-Max	C-Max	Max	C-Max	C-Max	Max	Max		Max	Max	
Walk Time (s)		7.0	7.0	7.0	7.0	7.0	7.0	7.0		7.0	7.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	
Act Effect Green (s)	49.4	41.5	41.5	52.6	43.1	43.1	15.5	15.5		15.5	15.5	
Actuated g/C Ratio	0.62	0.52	0.52	0.66	0.54	0.54	0.19	0.19		0.19	0.19	
v/c Ratio	0.34	0.36	0.15	0.06	0.31	0.17	0.49	0.05		0.61	0.48	
Control Delay	6.5	11.9	2.4	4.2	10.8	2.3	41.8	18.5		40.4	8.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.5	11.9	2.4	4.2	10.8	2.3	41.8	18.5		40.4	8.6	
LOS	A	B	A	A	B	A	D	B		D	A	
Approach Delay		10.2			9.3			37.3			21.6	
Approach LOS		B			A			D			C	

Intersection Summary

Area Type: Other

Cycle Length: 80

Actuated Cycle Length: 80

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 12.4

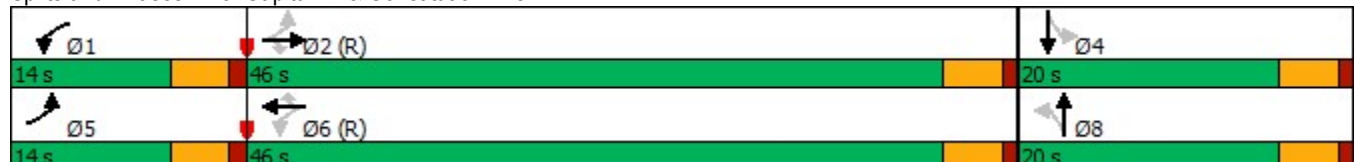
Intersection LOS: B





Intersection Capacity Utilization 57.2%






ICU Level of Service B






Analysis Period (min) 15

Splits and Phases: 8: Capital Dr & Constitution Ave



Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	60	62	87	20	50	100
Future Vol, veh/h	60	62	87	20	50	100
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	110	0	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	65	67	218	50	58	116
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	602	116	174	0	-	0
Stage 1	116	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	463	936	1403	-	-	-
Stage 1	909	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	389	936	1403	-	-	-
Mov Cap-2 Maneuver	389	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.5	6.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1403	-	389	936	-	-
HCM Lane V/C Ratio	0.155	-	0.168	0.072	-	-
HCM Control Delay (s)	8	0	16.1	9.1	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	0.2	-	-

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	16	3	77	96	1
Future Vol, veh/h	10	16	3	77	96	1
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	17	8	193	112	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	322	113	113	0	-	0
Stage 1	113	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	672	940	1476	-	-	-
Stage 1	912	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	669	940	1476	-	-	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9.5	0.3		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1476	-	829	-	-	
HCM Lane V/C Ratio	0.005	-	0.034	-	-	
HCM Control Delay (s)	7.5	-	9.5	-	-	
HCM Lane LOS	A	-	A	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	1	3	78	112	0
Future Vol, veh/h	2	1	3	78	112	0
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	-	25	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	40	40	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1	8	195	130	0

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	341	130	130
Stage 1	130	-	-
Stage 2	211	-	-
Critical Hdwy	6.42	6.22	4.12
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.218
Pot Cap-1 Maneuver	655	920	1455
Stage 1	896	-	-
Stage 2	824	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	652	920	1455
Mov Cap-2 Maneuver	687	-	-
Stage 1	892	-	-
Stage 2	824	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1455	-	750	-	-
HCM Lane V/C Ratio	0.005	-	0.004	-	-
HCM Control Delay (s)	7.5	-	9.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



# Levels of Service

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SimTraffic Reports



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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.4	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	13.5	0.9	0.6	0.4	12.0	12.7	2.3

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.4	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	10.2	0.8	0.6	0.4	11.6	8.8	1.7

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	0.8	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	17.5	0.8	0.7	0.5	23.4	20.9	3.0

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.2	1.0	0.7	0.4	17.3	17.9	2.8

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.8	0.9	0.7	0.4	17.6	15.5	2.5

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	30.6	0.9	0.3	1.6	1.0	21.0	31.4	3.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	2.1	0.2	0.0	0.0	0.0	0.0	0.0		0.1
Total Del/Veh (s)	34.9	0.9	0.1	1.5	0.6	41.9	22.6		3.1

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	0.4	0.0		0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	43.1	0.9		1.6	0.8	49.1	35.6	3.9

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	53.8	0.9	0.1	1.7	0.9	24.0	32.0	4.2

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	1.6	0.1	0.0	0.0	0.0	0.0	0.0		0.1
Total Del/Veh (s)	43.0	0.9	0.2	1.6	0.9	30.2	31.7		3.7

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #1 6:30

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	0.9	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Total Del/Veh (s)	8.2	0.9	0.6	0.5	11.3	9.1	0.8	2.1

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #2 6:45

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	2.4	0.1	0.0	0.1	0.0	0.0		0.1
Total Del/Veh (s)	12.9	0.9	0.5	0.5	8.8	7.3		1.8

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #3 7:00

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	9.4	0.9	0.6	0.5	7.6	10.4	2.3

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #4 7:15

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.8	0.1	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	14.7	1.0	0.6	0.6	11.0	11.2	2.6

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT	All
Denied Del/Veh (s)	1.6	0.1	0.0	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.4	0.9	0.6	0.5	9.0	9.7	0.9	2.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.6	0.1		0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	51.5	1.1		1.6	0.7	73.4	37.9	4.0

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.4	0.2	0.0	0.0	0.0	0.1	0.1	0.1
Total Del/Veh (s)	50.7	1.0	0.1	1.5	0.8	48.1	41.0	4.1

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	0.0		0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Del/Veh (s)	40.0		1.0	0.2	1.7	0.8	39.7	37.7	3.6

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	41.0	1.0	0.1	1.6	0.6	42.2	33.8	3.5

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.7		0.1	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	46.9		1.0	0.3	1.7	0.7	53.2	39.6	3.8

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #1 6:30

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.3	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	14.8	1.2	0.9	0.8	11.7	16.1	3.2

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #2 6:45

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.4	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	15.5	1.2	0.9	0.6	8.1	12.0	2.8

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #3 7:00

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.3	0.1	0.0	0.0	0.1	0.0	0.0
Total Del/Veh (s)	19.6	0.9	0.8	0.7	19.6	19.1	3.5

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Interval #4 7:15

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.2	0.1	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	13.2	1.1	0.8	0.8	9.8	13.8	2.9

## 6: Marksheffel Rd &amp; Industry Dr Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.6	0.1	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	16.1	1.1	0.9	0.7	13.2	15.7	3.1

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	34.5	7.4	0.1	1.6	1.1	25.0	29.4	3.3

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.5	0.2		0.0	0.1	0.1	0.0	0.1
Total Del/Veh (s)	52.8	7.1		1.6	0.7	42.9	34.8	4.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	0.0	0.0	0.0		0.0	0.1	0.2	0.1	0.0
Total Del/Veh (s)	53.9	0.2	8.3		1.7	1.1	77.2	43.4	4.7

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.2		0.1		0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	54.3		7.3		1.6	1.0	75.2	42.8	5.1

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.6	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0
Total Del/Veh (s)	52.3	0.2	7.6	0.7	1.6	0.9	62.8	37.7	4.4

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.0	0.1		0.0	0.3	0.1	0.1	0.1
Total Del/Veh (s)	19.7	1.2		1.1	1.6	37.3	29.6	5.0

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	2.0	0.1		0.0	0.3	0.0	0.1	0.1
Total Del/Veh (s)	28.9	1.0		1.1	1.6	27.4	31.6	5.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.6	0.1		0.0	0.3	0.2	0.6	0.2
Total Del/Veh (s)	31.8	1.2		1.2	1.7	51.6	46.6	7.3

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.9	0.1		0.0	0.3	0.0	0.1	0.1
Total Del/Veh (s)	98.8	1.3		1.3	1.4	30.5	28.0	7.6

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.8	0.1	0.0	0.0	0.3	0.1	0.2	0.1
Total Del/Veh (s)	46.6	1.2	44.2	1.2	1.6	35.6	35.4	6.3



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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	164.3	175.5	0.0	0.0	0.0	233.5	175.4	20.0
Total Del/Veh (s)	530.5	152.2	1.0	1.5	0.8	425.0	502.3	40.4

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	471.3	470.1	0.0	0.0	0.0	416.5	480.2	66.2
Total Del/Veh (s)	689.0	395.1	0.2	1.3	0.7	681.1	618.9	55.5

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	719.0	761.5	0.0	0.0	0.1	675.8	581.2	92.4
Total Del/Veh (s)	689.9	557.8	0.6	1.7	1.0	654.3	704.9	58.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	650.5	0.0	590.3	0.0	0.0	0.1	606.6	665.9	121.9
Total Del/Veh (s)	691.2	412.9	399.3	0.1	1.5	1.0	568.6	719.1	62.7

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	950.8	0.0	899.9	0.0	0.0	0.0	921.7	914.1	82.7
Total Del/Veh (s)	1517.9	412.9	524.2	0.5	1.5	0.9	1254.1	1378.6	57.7

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.7	0.1		0.0	0.3	0.1	0.1	0.1
Total Del/Veh (s)	36.0	1.2		1.2	1.5	40.5	33.5	6.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.8	0.1	0.0	0.2	0.0	0.1	0.1
Total Del/Veh (s)	27.4	1.2	1.0	1.7	36.2	37.8	6.2

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.4	0.1		0.0	0.3	0.0	0.1	0.1
Total Del/Veh (s)	32.8	1.2		1.2	1.5	45.9	40.6	6.8

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBR	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.8	0.2	0.0	0.3	0.1	0.7	0.2
Total Del/Veh (s)	91.5	1.4	1.2	1.8	34.8	47.6	8.8

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	1.6	0.1		0.0	0.3	0.1	0.2	0.1
Total Del/Veh (s)	44.6	1.3		1.2	1.6	38.6	41.5	7.1

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #1 6:30

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	147.4	124.9	0.0	0.0	0.1	145.7	150.3	17.6
Total Del/Veh (s)	572.3	53.3	0.5	1.5	0.8	530.2	532.9	41.5

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #2 6:45

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Movement	WBL	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	453.3	412.7	0.0	0.0	0.0	437.1	397.9	67.9
Total Del/Veh (s)	683.1	151.6	0.6	1.5	0.9	564.5	612.7	55.3

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #3 7:00

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	653.0	0.0	607.0	0.0	0.0	0.0	525.7	562.3	96.1
Total Del/Veh (s)	738.9	152.1	99.7	0.4	1.6	0.9	788.0	689.6	61.6

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6: Marksheffel Rd & Industry Dr Performance by movement Interval #4 7:15

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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	600.4	0.0	611.7	0.0	0.0	0.0	685.8	654.4	124.1
Total Del/Veh (s)	730.8	231.5	52.7	0.4	1.6	0.9	669.2	694.1	64.7

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6: Marksheffel Rd & Industry Dr Performance by movement Entire Run

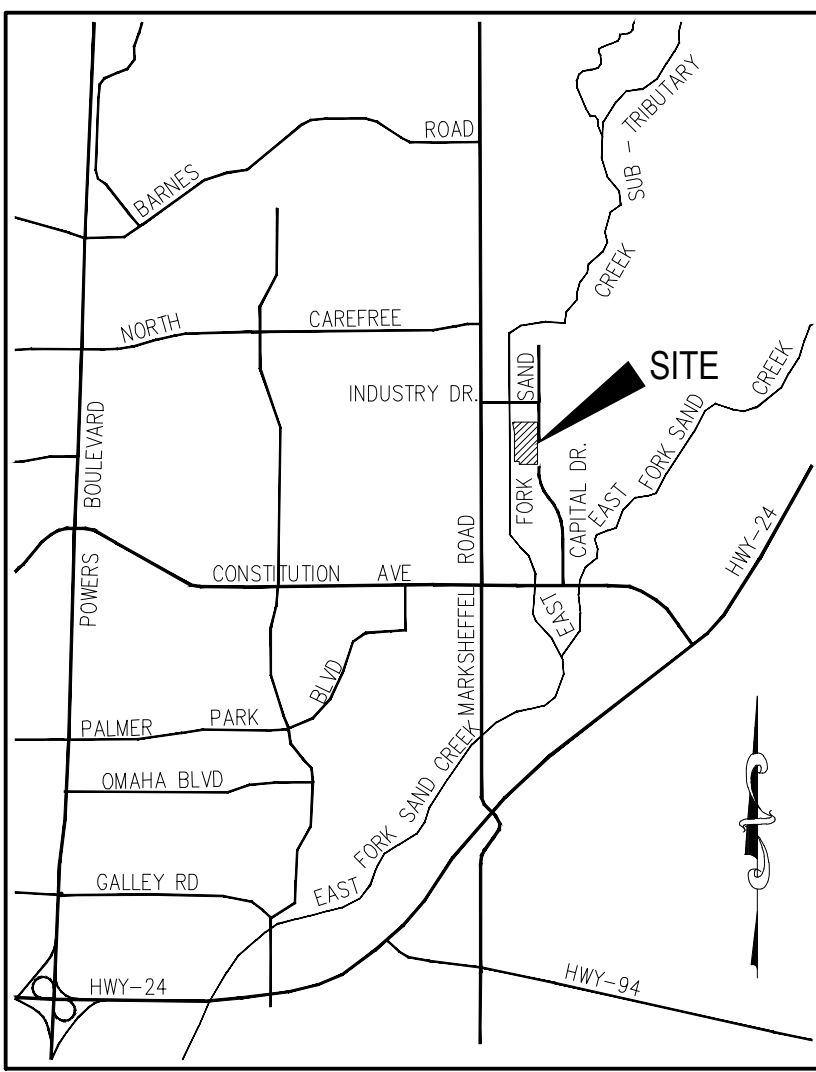
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Movement	WBL	WBT	WBR	NBU	NBT	NBR	SBU	SBL	All
Denied Del/Veh (s)	805.7	0.0	782.4	0.0	0.0	0.0	891.0	842.2	83.9
Total Del/Veh (s)	1669.8	191.8	104.7	0.5	1.6	0.9	1478.1	1367.4	59.4





THE SANDS INDUSTRIAL  
CONCEPT PLAN  
NOVEMBER 2019



VICINITY MAP  
N.T.S.

LEGAL DESCRIPTION:

A PARCEL OF LAND LYING WITHIN THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF AFORESAID "THE SANDS FILING NO. 1" UNDER RECEPTION NO. 219714414 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDER, SAID POINT ALSO BEING A POINT ON THE SOUTHERLY LINE OF "MARKSHEFFEL INDUSTRIAL PARK", AS RECORDED IN PLAT BOOK Z-3 AT PAGE 125 OF SAID COUNTY RECORDS;

THENCE ALONG SAID SOUTHERLY LINE THE FOLLOWING FOUR (4) COURSES:

1. N66°36'44"E, A DISTANCE OF 37.03 FEET;
2. S89°55'19"E, A DISTANCE OF 349.88 FEET;
3. S00°12'12"E, A DISTANCE OF 4.51 FEET;
4. S89°55'54"E, A DISTANCE OF 270.12 FEET;

THENCE S00°04'42"W, A DISTANCE OF 1099.90 FEET TO THE CENTERLINE OF A 80 FOOT EASEMENT FOR ROAD AND UTILITY PURPOSES (PURSUANT TO BOOK 3863 AT PAGE 1414 AND BOOK 2988 AT PAGE 476 OF SAID COUNTY RECORDS);

THENCE S89°59'11"W ALONG SAID CENTERLINE, A DISTANCE OF 473.30 FEET TO THE EASTERLY LINE OF AFORESAID "THE SANDS FILING NO. 1";

THENCE ALONG THE EAST LINE THEREOF THE FOLLOWING FOUR (4) COURSES:

1. N00°00'49"W, A DISTANCE OF 80.00;
2. S89°59'11"W, A DISTANCE OF 123.99 FEET;
3. N00°03'07"W, A DISTANCE OF 763.00 FEET (BASIS OF BEARING, SEE NOTE 1);
4. N12°24'43"E, A DISTANCE OF 253.58 FEET TO THE POINT OF BEGINNING;

SAID PARCEL CONTAINS A CALCULATED AREA OF 657,383 SQUARE FEET (15.091 ACRES) OF LAND, MORE OR LESS.

NOTES

1. BASIS OF BEARING FROM AFORESAID PLAT OF "THE SANDS FILING NO 1", A PORTION OF THE EAST LINE MONUMENTED WITH ORANGE PLASTIC SURVEYOR'S CAPS STAMPED "PLS 25966" ON NUMBER 5 REBAR AS SHOWN ON THE PLAT, SAID LINE BEARS N00°03'07"W A DISTANCE OF 763.00 FEET.

CONDITIONS OF RECORD:

1. STRUCTURES WILL BE LIMITED TO 2-STORIES IN HEIGHT AND MAXIMUM OF FORTY FIVE FEET (45'), MEASURED IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS (THE "CITY") STANDARDS.
2. LIGHTING ON THE BUILDINGS AND PARKING LOTS WILL BE DESIGNED TO MINIMIZED IMPACT ON THE SURROUNDING NEIGHBORHOOD.
3. TRASH DUMPSTERS MUST BE IN GATED ENCLOSURES, DESIGNED TO COMPLIMENT THE DESIGN OF THE MAIN STRUCTURE.
4. ALL FENCING TO BE SCREENED CHAINLINK SECURITY FENCE.
5. 40' FEET OF LAND TO BE DEDICATED FOR RIGHT-OF-WAY FOR CAPITAL DRIVE.

NOTES:

1. A PORTION OF THIS SITE IS LOCATED WITHIN THE FLOODPLAIN AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP NUMBER 08041C0543 G, EFFECTIVE DATE DECEMBER 7, 2018, NO STRUCTURES ARE PERMITTED WITHIN THE DESIGNATED FLOODPLAIN AREAS, UNTIL THE REVISED 100 YR FLOODPLAIN HAS BECOME EFFECTIVE WITH THE APPROVED LOMR CURRENT CLOMR CASE 18-08-061, ISSUED OCTOBER 19, 2018
2. ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF OR HAVE SHIELDING TO REDUCE OFF-SITE LIGHTING IMPACTS ONTO ADJACENT PROPERTIES AND ROADWAYS.
3. AN AVIGATION EASEMENT EFFECTING THE SUBJECT PROPERTY AND DEVELOPMENT IS HEREIN ESTABLISHED BY THE SANDS INDUSTRIAL PARK FIL. NO. 1 SUBDIVISION PLAT. THIS EASEMENT IS SUBJECT TO THE TERMS AND CONDITIONS AS SPECIFIED IN THE THE SANDS INDUSTRIAL PARK FIL. NO. 1 FINAL PLAT RECORDED IN THE RECORDS OF EL PASO COUNTY, COLORADO.
4. THE PARCELS WITHIN THIS DEVELOPMENT ARE SUBJECT TO THE FINDINGS, SUMMARY AND CONCLUSIONS OF A GEOLOGICAL HAZARD REPORT PREPARED BY RMG ENGINEERS DATED OCTOBER 26, 2017, ON FILE WITH THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT UNDER REFERENCE CPC CP 17-00084.

DATA:

AREA: 15.091 AC  
EXISTING ZONE: M-1/A0/SS  
PROPOSED USE: OFFICE/WAREHOUSE OUTDOOR STORAGE  
TAX SCHEDULE NO.: 5300-00-0637 (SUBJECT TO CHANGE)  
SETBACK, BLDG: 25' FROM PERIPHERY OF ZONE DISTRICT  
BLDG: 5' SIDE  
LANDSCAPE: 15' FROM RIGHT-OF-WAY CAPITAL DRIVE  
MASTER PLAN: THE SANDS CPC MP 17-00080  
MAX. BUILDING HEIGHT: 45 FEET  
DRAINAGE BASIN: SAND CREEK

SHEET INDEX:

- 1 CONCEPT PLAN
- 2 PRELIMINARY GRADING PLAN
- 3 PRELIMINARY UTILITY PLAN

THE SANDS INDUSTRIAL  
CONCEPT PLAN  
JOB NO. 43-129  
DATE PREPARED: NOVEMBER 2019  
DATE REVISED:

CITY FILE NO. AR CP 19-XXXX



102 E. PIKES PEAK AVE. STE 500  
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