REVISED TRAFFIC IMPACT ANALYSIS

Sooner Traditions Development

Lindsey Street and Berry Road

Norman, Oklahoma

Prepared for:

Shops at Berry, LLC.

October 2021

Prepared by:

Traffic Engineering Consultants, Inc.

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10 / 4 / 2021

Date

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1.0 INTRODUCTION

Traffic Engineering Consultants, Inc. (TEC) was retained by Shops at Berry, LLC. to conduct a traffic impact analysis (TIA) for a proposed commercial development to be constructed in Norman, Oklahoma. The study was requested to determine the effects the proposed development would have on the adjacent street system, to review the available access to the development, and to provide recommendations for improvements that may be necessary to accommodate the traffic expected to be generated by the development.

2.0 BACKGROUND

2.1 PROPOSED DEVELOPMENT

The site of the proposed development is located north of Lindsey Street and east of Berry Road as shown in **Figure 1**. The proposed development would be an approximate 10,700 square foot retail strip center. Access to the new development, as shown in **Figure 2**, is proposed via one full-access driveway on Berry Road and one right-in/right-out driveway on Lindsey Street. To properly design the proposed right-in/right-out driveway on Lindsey Street, the developer is willing to relocate the existing bus stop just to the west of its current location. The developer will coordinate with the City of Norman to determine the proper relocation of the bus stop.

2.2 EXISTING ROADWAY NETWORK

Lindsey Street is a four-lane divided east/west principal urban arterial west of Berry Road and a two-lane minor urban arterial east of Berry Road. It has a posted speed limit of 30 mph and carries an approximate average daily traffic (ADT) of 22,300 vehicles per day (vpd) west of Berry Road and a posted speed limit of 25 mph and carried an approximate ADT of 20,300 vpd east of Berry Road. Berry Road is a two-lane north/south minor urban arterial. It has a posted speed limit of 30 mph and carries an approximate ADT of 8,400 vpd north of Lindsey Street and 5,200 vpd south of Lindsey Street.

The intersection of Lindsey Street and Berry Road is a signalized intersection with protected/permissive “flashing yellow arrow” left turn movements on each approach and an eastbound right turn lane with a protected overlap.

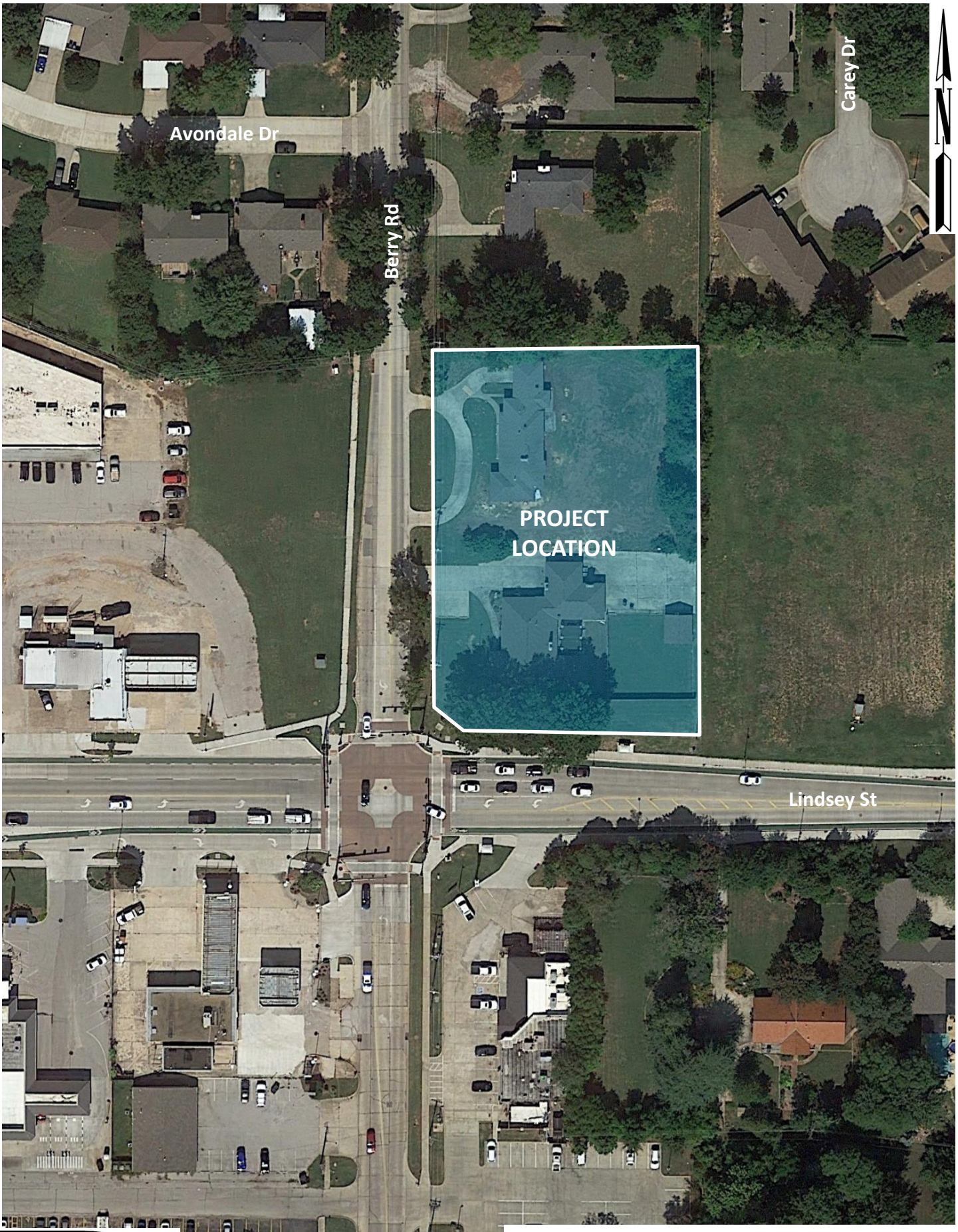


FIGURE 1. Project Location Map
Lindsey Street and Berry Road
Norman, Oklahoma

TEC
A CLEAR DIRECTION

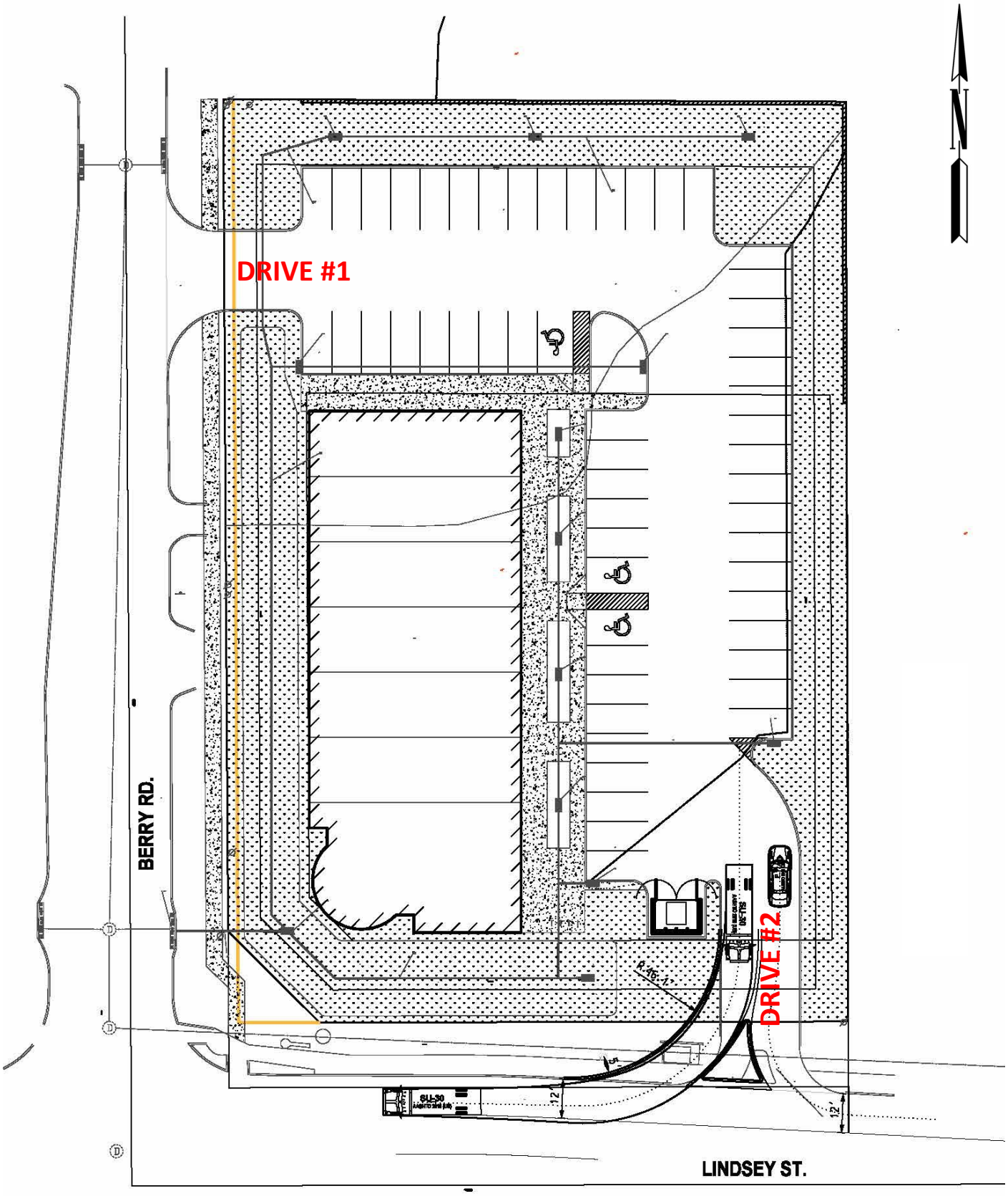


FIGURE 2. Proposed Site Plan

3.0 TRAFFIC DATA

3.1 EXISTING TRAFFIC

Existing traffic volume data was collected adjacent to the proposed development in September of 2021 when school was in session. Twenty-four hour turning movement volumes were collected at the intersection of Lindsey Street and Berry Road which was utilized to determine the peak hour turning movement volumes as well as daily bi-directional traffic volumes on each approach of the intersection. Given the traffic characteristics in the area and the anticipated trip generation for the proposed development, the weekday peak periods would represent a "worst-case scenario" with regards to traffic impact on the surrounding roadway network. If traffic operations are acceptable during these weekday peak hours, it can be reasoned that conditions would be acceptable throughout the remainder of the day and week. The 2021 existing traffic is summarized in **Figure 3** and detailed printouts of all the traffic count data are included in the appendix.

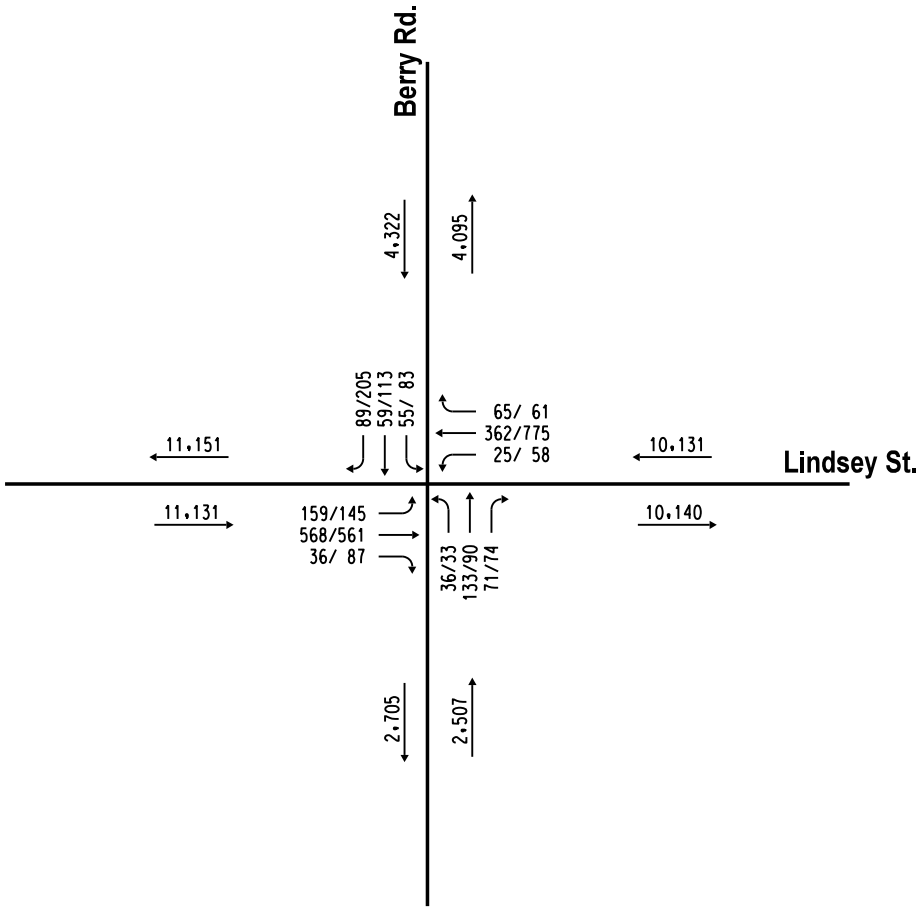
3.2 FUTURE BACKGROUND TRAFFIC

The 2021 existing traffic volumes were utilized to determine the background traffic for 2023. The 2023 year was selected as a future design year the development is estimated to be completed. The background traffic was determined for the 2023 future design year by applying an average annual growth rate of 2.5% to the 2021 existing traffic volumes. The annual growth rate was provided by the City of Norman staff and represents the assumed traffic growth in addition to the projected development traffic. The 2023 future background traffic is summarized in **Figure 4**.

4.0 DEVELOPMENT TRAFFIC

4.1 PROPOSED DEVELOPMENT TRAFFIC

To determine the effects a new development will have on an existing street system, the new or additional traffic must be projected. The latest edition of the *Trip Generation Manual*, published by the Institute of Transportation Engineers, was used to determine the amount of traffic the development is expected to generate. The report is a nationally accepted reference which provides trip rates for determining the traffic expected to be generated by different land use types.



LEGEND

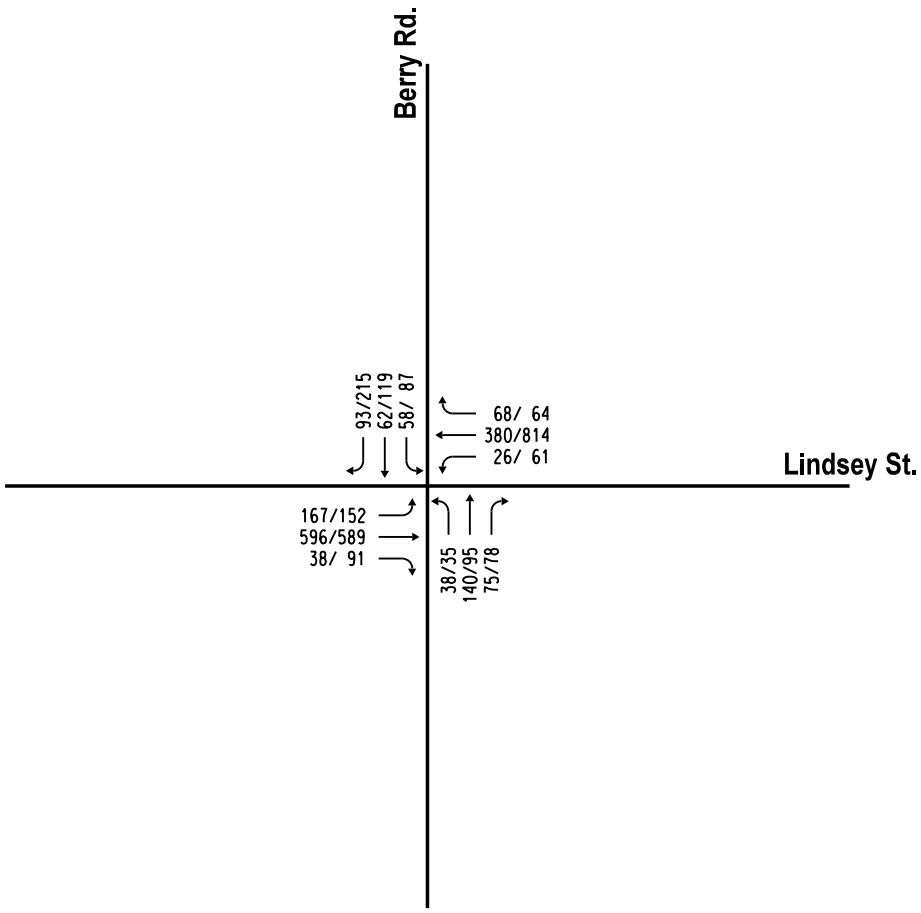
XXX/XXX
P.M. PEAK HOUR
A.M. PEAK HOUR

XXXX = 24 HOUR VOL

FIGURE 3. 2021 Existing Traffic

9/14/2021 G:\0IProjects\T-2794A - Study, Sooner Traditions, Lindsey and Berry - Norman, OK\CAD\FIG 3.dgn

TEC
A CLEAR DIRECTION



LEGEND
XXX/XXX P.M. PEAK HOUR A.M. PEAK HOUR

FIGURE 4. 2023 Future Background Traffic

Available information was utilized regarding the anticipated land use to determine the site generated traffic. The *Shopping Center* land use category was selected to determine the trip generation for the proposed development. The exact tenant(s) for the retail strip center is currently unknown. For the purpose of this analysis, the *Shopping Center* land use category was selected to represent the retail property and encompasses a wide variety of land uses including retail, restaurants, office, and more and will appropriately represent any possible retail businesses which may develop on that property. The resulting traffic volumes projected to be generated by the proposed development once fully constructed and occupied are indicated in **Table 1**.

TABLE 1

PROJECTED SITE GENERATED TRAFFIC VOLUMES

Building Type (Land Use)	ITE Land Use Code	Approximate Gross Floor Area or Other	Average Weekday Vehicle Trip Ends			Average AM Peak Hour Directional Distribution		Average AM Peak Hour Directional Volume (vph)		Average PM Peak Hour Directional Distribution		Average PM Peak Hour Directional Volume (vph)	
			Per Day	Per Peak Hour of Adjacent Street Traffic									
				One Hour Between 7am & 9am	One Hour Between 4pm & 6pm								
			(vpd)	(vph)	(vph)	IN	OUT	IN	OUT	IN	OUT	IN	OUT
Trip Rate*	820	(sf)	37.75	0.94	3.81	0.62	0.38	6	4	0.48	0.52	20	21
Shopping Center		10,700	404	10	41								

* Trip Rates from "TRIP GENERATION MANUAL", 10th Ed., Volume 2: Data, Institute of Transportation Engineers.

The proposed development would be expected to generate 404 vehicle trips per day with 6 entering and 4 exiting vehicles during the a.m. peak hour and 20 entering and 21 exiting vehicles during the p.m. peak hour.

4.2 DISTRIBUTION OF PROPOSED DEVELOPMENT TRAFFIC

The traffic expected to be generated by the proposed development was then distributed among the point of access and surrounding roadway network for the a.m. and p.m. peak hours. The distribution of the proposed development traffic was based on anticipated usage of the site and traffic patterns in the area which were obtained from the traffic data that was collected for this study. The directional distribution of the site generated traffic for the adjacent future development is expected to be:

- 39% to/from Lindsey Street west of the development
- 35% to/from Lindsey Street east of the development
- 16% to/from Berry Road north of the development
- 11% to/from Berry Road south of the development

The traffic expected to be generated from the proposed development is summarized in **Figure 5**.

4.3 PROJECTED COMBINED TRAFFIC

The proposed development traffic was then added to the future background traffic for the 2023 design year. The 2023 projected combined traffic (2023 future background traffic + proposed development traffic) for each access point to the proposed development as well as the surrounding roadway network are summarized in **Figure 6**.

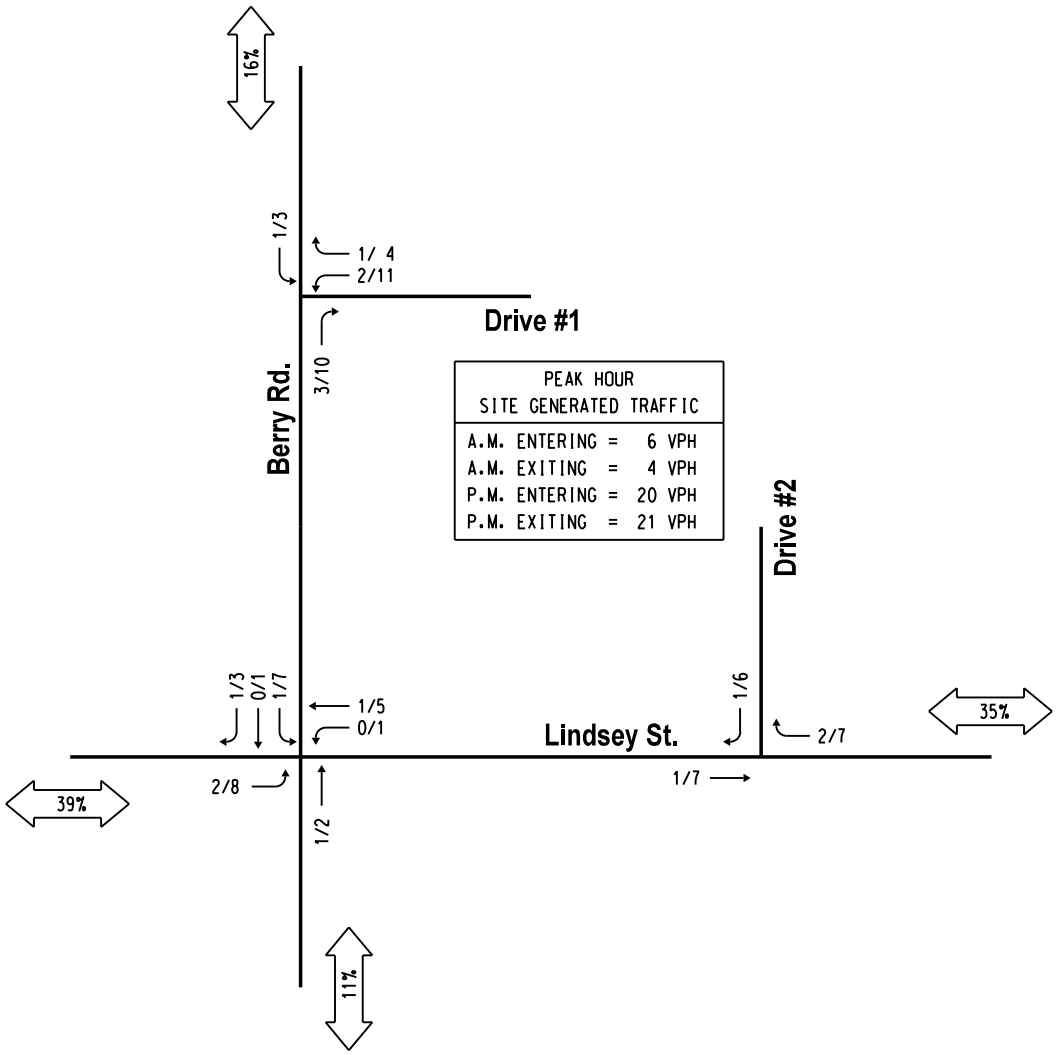
5.0 CAPACITY ANALYSIS

5.1 METHODOLOGY

The capacity analyses were conducted using *Synchro 11*, which is a software package for modeling and optimizing traffic signal timings at signalized intersections and analyzing unsignalized intersections in accordance with the methodology of the latest edition of the *Highway Capacity Manual.* The *Highway Capacity Manual* is published by the Transportation Research Board of the National Research Council, Washington, D.C. The information has been widely accepted throughout the U.S. as a guide for defining and solving transportation challenges. The information is approved and distributed by the U.S. Department of Transportation, Federal Highway Administration.

The capacity analysis provides a measure of the amount of traffic that a given facility can accommodate. Traffic facilities generally operate poorly at or near capacity. The analysis is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining prescribed operational qualities. The definition of operational criteria is accomplished using levels-of-service. The concept of levels-of-service is defined as a qualitative measure and describes operational conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Six levels-of-service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from “A” to “F”, with level-of-service “A” representing the best operating conditions and level-of-service “F” the worst.

The average control delay for signalized intersections is estimated for each lane group and aggregated for each approach and for the intersection as a whole. The level-of-service for this type of traffic control is

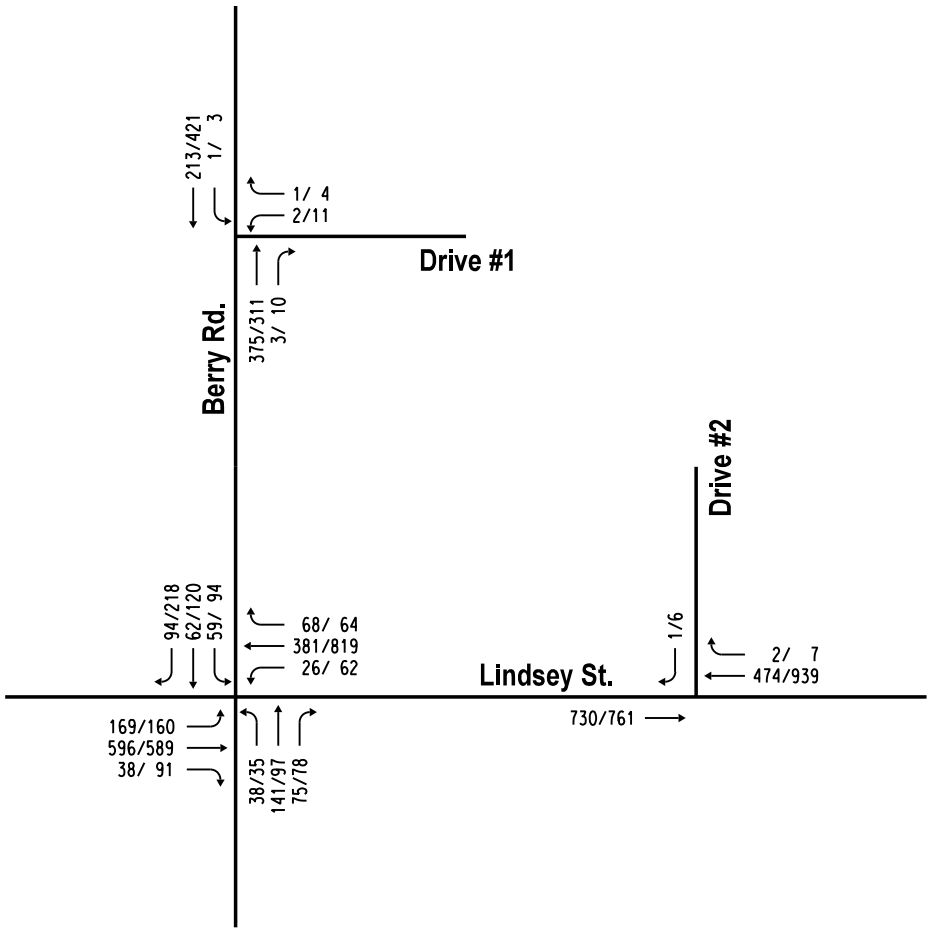


LEGEND

XXX/XXX
- P.M. PEAK HOUR
- A.M. PEAK HOUR

FIGURE 5. Proposed Development Traffic

9/14/2021 G:\OIProjects\T-2794A - Study, Sooner Traditions, Lindsey and Berry - Norman, OK\CAD\FIG 5.dgn



LEGEND

XXX/XXX
- P.M. PEAK HOUR
- A.M. PEAK HOUR

FIGURE 6. 2023 Projected Combined Traffic

9/14/2021 G:\0IProjects\T-2794A - Study, Sooner Traditions, Lindsey and Berry - Norman, OK\CAD\FIG 6.dgn

directly related to the control delay value. The criteria for stop controlled or unsignalized intersections have different threshold values than do those for signalized intersections. A higher level of control delay has been determined to be acceptable at a signalized intersection for the same level-of-service. The level-of-service criteria are summarized in **Table 2**. For purposes of this report an overall intersection level-of-service "D" or better and a critical approach (approach with the lowest level-of-service) level-of-service "E" or better was considered an acceptable level-of-service.

TABLE 2

Level-of-Service Criteria

Level of Service	Average Delay (seconds/vehicle)		Traffic Condition
	Unsignalized	Signalized	
A	≤10	≤10	Free Flow
B	> 10 - 15	> 10 - 20	Stable Flow (slight delays)
C	> 15 - 25	> 20 - 35	Stable Flow (acceptable delays)
D	> 25 - 35	> 35 - 55	Approaching Unstable Flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	> 35 - 50	> 55 - 80	Unstable Flow (intolerable delay)
F	> 50	> 80	Forced Flow (congested and queues fail to clear)

5.2 SCENARIOS

Capacity analyses were conducted for the a.m. and p.m. peak hours at each access point to the proposed development as well as the study intersection of Lindsey Street and Berry Road. The intersections were analyzed and reviewed under the 2021 existing traffic, 2023 future background traffic, and 2023 projected combined traffic. The existing traffic signal timing parameters were obtained from the City of Norman and utilized in the analyses to accurately model existing conditions. The results of the capacity analyses conducted are summarized in **Table 3** and the raw data sheets have been included in the appendix.

TABLE 3

Intersection Capacity Analysis Results

Intersection	Type of Traffic Control	AM Peak Hour					PM Peak Hour				
		Critical Approach			Intersection		Critical Approach			Intersection	
		Approach	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS	Approach	Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
2021 Existing Traffic											
Lindsey Street and Berry Road	Signalized	NB	54.4	D	43.8	D	SB	67.9	E	42.4	D
2023 Future Background Traffic											
Lindsey Street and Berry Road	Signalized	EB	60.8	E	47.7	D	SB	72.9	E	45.8	D
2023 Projected Combined Traffic											
Lindsey Street and Berry Road	Signalized	EB	60.8	E	47.7	D	SB	74.7	E	46.9	D
Berry Road and Drive #1	Unsignalized/WB Stop	WB	12.4	B	0.1	A	WB	14.3	B	0.3	A
Lindsey Street and Drive #2	Unsignalized/SB Stop	SB	11.5	B	0.0	A	SB	17.9	C	0.1	A

5.2.1 2021 EXISTING TRAFFIC

The analyses conducted under the 2021 existing traffic indicated that the critical approach at the intersection of Lindsey Street and Berry Road currently operates at level-of-service "D" during the a.m. peak hour and level-of-service "E" during the p.m. peak hour. The intersection currently operates at an overall level-of-service "D" during the peak hours.

5.2.2 2023 FUTURE BACKGROUND TRAFFIC

Under the 2023 future background traffic, the intersection would be expected to continue operating at acceptable levels-of-service during the peak hours.

5.2.3 2023 PROJECTED COMBINED TRAFFIC

Once the proposed development traffic was added to the 2023 future background traffic, the intersection and each development drive would be expected to operate at acceptable levels-of-service during the peak hours and throughout the remainder of the day and week.

6.0 DRIVEWAY SPACING

In accordance with *"City of Norman Engineering Criteria for Streets, Storm Drainage, Waterlines and Sanitary Sewers", July 11, 2006* the following types of driveway criteria were evaluated:

1) Minimum spacing requirements for driveways along arterial roadways.
2) Corner clearance for driveways next to public road intersections

6.1 MINIMUM SPACING

According to the above-mentioned publication, the minimum spacing requirements for a driveway along an arterial roadway is based on the amount of traffic the development is expected to generate and the posted speed limit on the adjacent roadway which the driveways intersect. The proposed development is considered a small generator (0 to 100 peak hour trips) and Lindsey Street and Berry Road both have

posted speed limits less than 40 mph. Based on these criteria, the minimum spacing between driveways is 220 feet centerline to centerline.

Drive #1 on Berry Road has three private residential driveways within 220 feet. One driveway is the secondary access to the rear of a single-family residence and the other two driveways form a circular drive for one single-family residence. Drive #2 on Lindsey Street has two driveways spaced within 220 feet. One of the driveways is an exit-only driveway for Penny Hill Deli and the other driveway accesses a single-family residence. Due to the specific types of the existing driveways, traffic operational issues would not be anticipated as a result of the close driveway spacing.

6.2 CORNER CLEARANCE

According to the above-mentioned publication, the corner clearance for a driveway next to a public road intersection is based on the posted speed limit of the adjacent street which the driveway intersects and the traffic control at the intersection. The intersection of Lindsey Street and Berry Road is signalized and the posted speed limit on Lindsey Street and Berry Road is less than 40 miles per hour. Based on these criteria, the minimum required corner clearance from the edge of pavement of the intersecting street to the centerline of driveway 175 feet on Lindsey Street and Berry Road.

The centerline of Drive #1 on Berry Road is proposed to be constructed approximately 255 feet north of the edge of road of Lindsey Street. The centerline of Drive #2 on Lindsey Street is proposed to be constructed approximately 180 feet east of the edge of road of Berry Road. Therefore, both development driveways satisfy the City's minimum corner clearance requirement.

7.0 QUEUING ANALYSIS

Development Drive #1 is proposed to be located approximately 240 feet north of the southbound stop bar and development Drive #2 is proposed to be located approximately 160 feet east of the westbound stop bar at the intersection of Lindsey Street and Berry Road. The southbound and westbound queue lengths at the intersection of Lindsey Street and Berry Road were evaluated to determine the 95th percentile queue length to determine if the through traffic on Lindsey Street and Berry Road would queue beyond the development driveways. The 95th percentile queue is defined as the queue length of vehicles

which has only a five percent probability of being exceeded during the analysis periods and is commonly used to determine the appropriate storage length for turn lanes. The queuing analyses were conducted in Synchro SimTraffic and the results were based on the average of five sixty-minute traffic models. The results of the queuing analyses have been included in the appendix.

The queuing analysis of the southbound approach indicated the 95th percentile queue length would be 223 feet during the a.m. peak hour and 274 feet during the p.m. peak hour under the 2023 projected combined traffic scenario. Based on the results of the analyses, the southbound movement on Berry Road would not be expected to queue to or beyond Drive #1 except for a brief period during the p.m. peak hour. Drive #1 would not impact traffic operations of the through traffic on Berry Road, but the southbound queuing may increase vehicular delay of left turning vehicles exiting Drive #1 during the p.m. peak hour. The additional vehicular queuing would be contained within the development. There would be no traffic operational issues during the a.m. peak hour or throughout the remainder of the day and week.

The queuing analysis of the westbound approach indicated the 95th percentile queue length would be 156 feet during the a.m. peak hour and 178 feet during the p.m. peak hour. Based on the results of the analyses, the westbound movement on Lindsey Street would not be expected to queue to or beyond Drive #2 except for a brief period during the p.m. peak hour. Drive #2 would not impact traffic operations of the through traffic on Lindsey Street, but the westbound queuing may increase vehicular delay of right turning vehicles exiting Drive #2 during the p.m. peak hour. The additional vehicular queuing would be contained within the development. There would be no traffic operational issues during the a.m. peak hour or throughout the remainder of the day and week.

8.0 CONCLUSIONS

8.1 SUMMARY

TEC was requested to conduct a traffic impact analysis on a proposed commercial development in Norman, Oklahoma. Existing traffic volume data was collected adjacent to the proposed development. The existing traffic was utilized to determine the background traffic for 2023 by applying an average annual growth rate of 2.5% to the 2021 existing traffic volumes. The 2023 design period was selected as

the year the development is projected to be completed. The proposed development traffic was then determined and added to the 2023 future background traffic for conducting the reviews and analyses.

The analyses conducted under the 2021 existing traffic and 2023 future background traffic indicated that the intersection of Lindsey Street and Berry Road currently operates and would be expected to continue operating at acceptable levels-of-service during the a.m. and p.m. peak hours. Once the proposed development traffic was added to the 2023 future background traffic, each study intersection and the development driveway would be expected to continue operating at an acceptable level-of-service during the peak hours and throughout the remainder of the day and week.

8.2 RECOMMENDATIONS

The small amount of traffic projected to be generated by the development would have minimal effects on the surrounding roadway network. The analyses indicate the additional development traffic would not increase vehicle delay during the a.m. peak hour, when retail shops are typically closed, and would only increase vehicle delay by less than two seconds during the p.m. peak hour. Based on the results of the analyses conducted, no traffic control or geometric roadway improvements are necessary as a result of the proposed development for traffic to operate at an acceptable level-of-service through 2023 when the proposed development is estimated to be completed.

APPENDIX

TRAFFIC DATA

Lindsey St. & Berry Rd. - TMC

Wed Sep 1, 2021
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US

Leg	North					East					South					West					
Direction	Southbound					Westbound					Northbound					Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2021-09-01 12:00AM	2	5	3	0	**10**	0	13	2	0	**15**	1	4	3	0	**8**	5	24	0	0	**29**	**62**
12:15AM	2	1	0	0	**3**	3	21	3	0	**27**	3	0	2	0	**5**	2	27	2	0	**31**	**66**
12:30AM	2	3	0	0	**5**	0	17	0	0	**17**	1	2	0	0	**3**	2	28	0	0	**30**	**55**
12:45AM	0	1	3	0	**4**	0	12	2	0	**14**	0	0	1	0	**1**	5	20	1	0	**26**	**45**
Hourly Total	6	10	6	0	**22**	3	63	7	0	**73**	5	6	6	0	**17**	14	99	3	0	**116**	**228**
1:00AM	1	2	1	0	**4**	0	8	0	0	**8**	0	1	1	0	**2**	2	10	0	0	**12**	**26**
1:15AM	1	0	2	0	**3**	0	13	1	0	**14**	0	0	0	0	**0**	1	13	0	0	**14**	**31**
1:30AM	0	0	1	0	**1**	1	8	0	0	**9**	0	0	2	0	**2**	1	12	0	0	**13**	**25**
1:45AM	1	3	0	0	**4**	0	10	0	0	**10**	1	0	0	0	**1**	0	5	1	0	**6**	**21**
Hourly Total	3	5	4	0	**12**	1	39	1	0	**41**	1	1	3	0	**5**	4	40	1	0	**45**	**103**
2:00AM	0	2	3	0	**5**	0	4	0	0	**4**	0	1	0	0	**1**	4	9	0	0	**13**	**23**
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2:45AM	0	0	2	0	**2**	0	3	2	0	**5**	0	0	0	0	**0**	0	4	2	0	**6**	**13**
Hourly Total	0	3	10	0	**13**	0	17	5	0	**22**	0	1	0	0	**1**	6	29	3	0	**38**	**74**
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3:30AM	0	1	1	0	**2**	0	4	0	0	**4**	1	1	0	0	**2**	0	3	0	0	**3**	**11**
3:45AM	0	0	2	0	**2**	0	3	1	0	**4**	0	0	0	0	**0**	1	6	0	0	**7**	**13**
Hourly Total	1	2	4	0	**7**	0	23	1	0	**24**	1	1	1	0	**3**	2	16	0	0	**18**	**52**
4:00AM	1	0	0	0	**1**	0	7	0	0	**7**	0	0	1	0	**1**	0	5	0	0	**5**	**14**
4:15AM	1	0	2	0	**3**	1	12	0	0	**13**	0	1	1	0	**2**	0	10	0	0	**10**	**28**
4:30AM	4	0	1	0	**5**	0	10	0	0	**10**	0	0	5	0	**5**	0	9	0	0	**9**	**29**
4:45AM	1	1	3	0	**5**	0	16	2	0	**18**	0	0	2	0	**2**	0	7	0	0	**7**	**32**
Hourly Total	7	1	6	0	**14**	1	45	2	0	**48**	0	1	9	0	**10**	0	31	0	0	**31**	**103**
5:00AM	1	0	1	0	**2**	0	15	0	0	**15**	0	0	2	0	**2**	2	11	1	0	**14**	**33**
5:15AM	4	1	0	0	**5**	0	13	2	0	**15**	0	2	2	0	**4**	2	25	0	0	**27**	**51**
5:30AM	3	0	3	0	**6**	0	24	2	0	**26**	3	3	1	0	**7**	4	25	0	0	**29**	**68**
5:45AM	5	2	5	0	**12**	0	38	4	0	**42**	3	2	0	0	**5**	4	26	1	0	**31**	**90**
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6:15AM	3	2	3	0	**8**	0	44	1	0	**45**	1	6	5	0	**12**	2	36	2	0	**40**	**105**
6:30AM	5	3	4	0	**12**	3	67	3	0	**73**	3	10	0	0	**13**	5	31	5	0	**41**	**139**
6:45AM	9	4	14	0	**27**	2	75	5	0	**82**	5	16	2	0	**23**	16	67	3	0	**86**	**218**
Hourly Total	20	11	26	0	**57**	5	218	12	0	**235**	11	37	11	0	**59**	29	164	12	0	**205**	**556**
7:00AM	9	3	11	0	**23**	2	85	13	0	**100**	11	20	6	0	**37**	18	65	6	0	**89**	**249**
7:15AM	5	14	13	0	**32**	1	86	10	0	**97**	6	24	8	0	**38**	31	73	3	1	**108**	**275**
7:30AM	22	11	35	1	**69**	5	118	18	0	**141**	12	23	5	0	**40**	40	115	9	0	**164**	**414**

Leg	North					East					South					West					
Direction	Southbound					Westbound					Northbound					Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
7:45AM	21	14	24	2	**61**	6	87	16	0	**109**	9	26	17	0	**52**	52	152	6	0	**210**	**432**
Hourly Total	57	42	83	3	**185**	14	376	57	0	**447**	38	93	36	0	**167**	141	405	24	1	**571**	**1370**
8:00AM	10	11	19	1	**41**	5	119	18	0	**142**	9	29	21	0	**59**	32	124	11	0	**167**	**409**
8:15AM	11	13	22	1	**47**	6	74	12	0	**92**	9	34	11	0	**54**	33	145	10	0	**188**	**381**
8:30AM	13	21	24	0	**58**	8	82	19	0	**109**	9	44	22	0	**75**	42	147	9	0	**198**	**440**
8:45AM	29	30	33	0	**92**	5	91	12	0	**108**	4	41	13	0	**58**	32	117	11	0	**160**	**418**
Hourly Total	63	75	98	2	**238**	24	366	61	0	**451**	31	148	67	0	**246**	139	533	41	0	**713**	**1648**
9:00AM	16	10	30	0	**56**	3	69	10	0	**82**	9	25	17	0	**51**	31	148	7	0	**186**	**375**
9:15AM	11	10	26	0	**47**	3	105	19	0	**127**	7	19	16	0	**42**	28	94	4	0	**126**	**342**
9:30AM	7	9	27	0	**43**	6	128	14	0	**148**	4	12	9	0	**25**	30	105	7	0	**142**	**358**
9:45AM	13	21	30	0	**64**	6	93	11	0	**110**	4	18	8	0	**30**	31	114	10	0	**155**	**359**
Hourly Total	47	50	113	0	**210**	18	395	54	0	**467**	24	74	50	0	**148**	120	461	28	0	**609**	**1434**
10:00AM	11	9	20	0	**40**	7	93	18	0	**118**	5	13	12	0	**30**	44	116	4	0	**164**	**352**
10:15AM	13	9	30	0	**52**	12	91	14	0	**117**	8	21	10	0	**39**	28	106	11	0	**145**	**353**
10:30AM	16	23	24	0	**63**	10	133	19	0	**162**	5	16	6	0	**27**	29	97	12	0	**138**	**390**
10:45AM	12	17	23	1	**53**	4	115	14	1	**134**	6	19	12	0	**37**	29	96	7	0	**132**	**356**
Hourly Total	52	58	97	1	**208**	33	432	65	1	**531**	24	69	40	0	**133**	130	415	34	0	**579**	**1451**
11:00AM	22	19	24	1	**66**	3	101	11	0	**115**	5	17	10	0	**32**	24	114	10	0	**148**	**361**
11:15AM	10	11	30	0	**51**	8	106	12	0	**126**	7	22	12	0	**41**	39	102	15	0	**156**	**374**
11:30AM	19	32	27	0	**78**	9	148	13	0	**170**	20	25	7	0	**52**	35	105	16	0	**156**	**456**
11:45AM	19	19	41	1	**80**	8	145	21	0	**174**	11	25	10	0	**46**	41	102	17	0	**160**	**460**
Hourly Total	70	81	122	2	**275**	28	500	57	0	**585**	43	89	39	0	**171**	139	423	58	0	**620**	**1651**
12:00PM	15	26	54	0	**95**	10	142	16	0	**168**	10	21	18	0	**49**	39	134	19	0	**192**	**504**
12:15PM	16	18	37	0	**71**	9	125	9	0	**143**	11	18	16	0	**45**	43	145	21	0	**209**	**468**
12:30PM	17	25	40	0	**82**	14	178	16	0	**208**	9	21	19	0	**49**	53	124	24	0	**201**	**540**
12:45PM	23	22	40	0	**85**	11	123	17	0	**151**	8	20	19	0	**47**	45	140	18	0	**203**	**486**
Hourly Total	71	91	171	0	**333**	44	568	58	0	**670**	38	80	72	0	**190**	180	543	82	0	**805**	**1998**
1:00PM	29	22	44	0	**95**	0	101	13	1	**115**	7	17	7	0	**31**	44	140	7	0	**191**	**432**
1:15PM	21	17	45	0	**83**	11	121	23	0	**155**	8	15	17	0	**40**	31	109	13	0	**153**	**431**
1:30PM	6	27	38	0	**71**	12	177	19	1	**209**	13	11	12	0	**36**	26	110	13	0	**149**	**465**
1:45PM	17	17	32	0	**66**	7	175	19	0	**201**	7	14	10	0	**31**	38	128	12	0	**178**	**476**
Hourly Total	73	83	159	0	**315**	30	574	74	2	**680**	35	57	46	0	**138**	139	487	45	0	**671**	**1804**
2:00PM	14	18	31	1	**64**	7	113	12	1	**133**	10	12	8	0	**30**	26	115	14	0	**155**	**382**
2:15PM	18	27	29	0	**74**	7	126	16	1	**150**	8	15	11	0	**34**	44	125	16	0	**185**	**443**
2:30PM	18	24	44	0	**86**	11	150	14	1	**176**	9	17	13	0	**39**	43	129	13	0	**185**	**486**
2:45PM	19	25	46	0	**90**	8	179	16	0	**203**	10	22	16	0	**48**	30	118	16	0	**164**	**505**
Hourly Total	69	94	150	1	**314**	33	568	58	3	**662**	37	66	48	0	**151**	143	487	59	0	**689**	**1816**
3:00PM	26	30	49	0	**105**	15	202	17	1	**235**	4	13	8	0	**25**	30	108	9	0	**147**	**512**
3:15PM	15	27	36	0	**78**	13	164	15	0	**192**	11	19	4	0	**34**	27	138	12	0	**177**	**481**
3:30PM	12	21	44	1	**78**	14	165	17	0	**196**	16	26	15	0	**57**	35	124	16	0	**175**	**506**
3:45PM	31	18	30	1	**80**	11	157	22	0	**190**	13	30	14	0	**57**	40	139	16	0	**195**	**522**
Hourly Total	84	96	159	2	**341**	53	688	71	1	**813**	44	88	41	0	**173**	132	509	53	0	**694**	**2021**
4:00PM	31	37	31	0	**99**	7	148	18	0	**173**	5	24	18	0	**47**	32	132	20	0	**184**	**503**
4:15PM	23	37	57	1	**118**	18	142	8	1	**169**	4	15	16	0	**35**	34	130	14	0	**178**	**500**
4:30PM	22	26	53	0	**101**	12	196	18	0	**226**	11	23	12	0	**46**	33	140	26	0	**199**	**572**

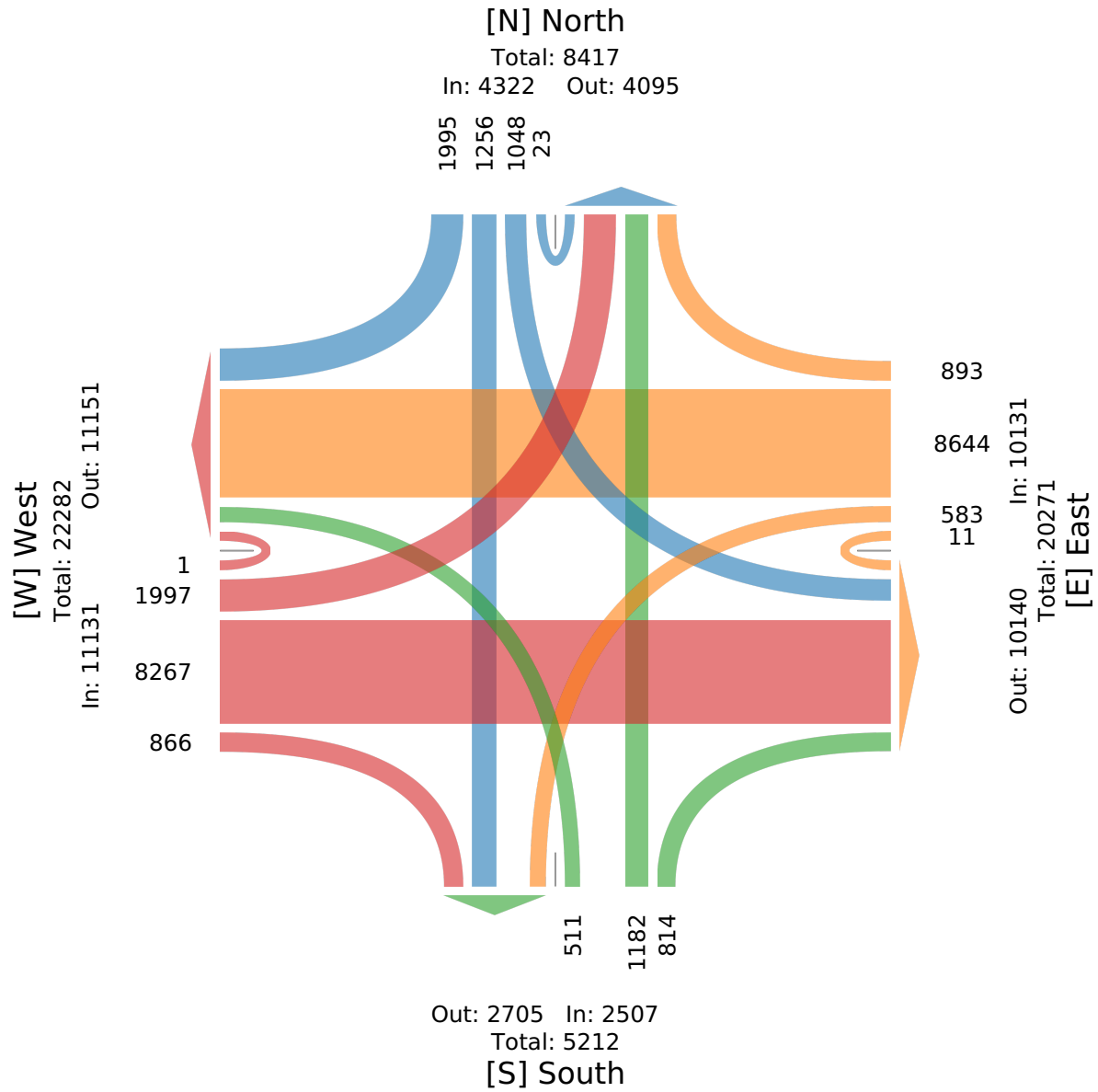
Leg	North					East					South					West					
Direction	Southbound					Westbound					Northbound					Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
4:45PM	20	28	60	0	**108**	23	188	13	1	**225**	9	28	22	0	**59**	37	136	23	0	**196**	**588**
Hourly Total	96	128	201	1	**426**	60	674	57	2	**793**	29	90	68	0	**187**	136	538	83	0	**757**	**2163**
5:00PM	23	33	40	3	**99**	11	200	20	0	**231**	6	19	24	0	**49**	43	134	17	0	**194**	**573**
5:15PM	18	26	52	0	**96**	12	191	10	0	**213**	7	20	16	0	**43**	32	151	21	0	**204**	**556**
5:30PM	27	31	32	1	**91**	16	191	7	0	**214**	10	16	15	0	**41**	31	147	27	0	**205**	**551**
5:45PM	9	36	40	0	**85**	13	166	11	1	**191**	4	24	20	0	**48**	38	147	21	0	**206**	**530**
Hourly Total	77	126	164	4	**371**	52	748	48	1	**849**	27	79	75	0	**181**	144	579	86	0	**809**	**2210**
6:00PM	11	17	40	2	**70**	23	185	20	0	**228**	10	16	21	0	**47**	35	133	27	0	**195**	**540**
6:15PM	15	32	34	1	**82**	10	143	12	0	**165**	14	17	19	0	**50**	21	152	23	0	**196**	**493**
6:30PM	10	27	25	1	**63**	10	137	18	0	**165**	5	9	8	0	**22**	34	137	20	0	**191**	**441**
6:45PM	14	15	34	0	**63**	7	131	9	0	**147**	10	20	13	0	**43**	35	150	18	0	**203**	**456**
Hourly Total	50	91	133	4	**278**	50	596	59	0	**705**	39	62	61	0	**162**	125	572	88	0	**785**	**1930**
7:00PM	10	21	19	0	**50**	11	153	8	0	**172**	6	12	12	0	**30**	21	136	17	0	**174**	**426**
7:15PM	8	14	21	0	**43**	7	129	4	0	**140**	7	11	18	0	**36**	20	149	9	0	**178**	**397**
7:30PM	15	21	26	1	**63**	11	112	5	0	**128**	7	11	13	0	**31**	21	118	21	0	**160**	**382**
7:45PM	14	20	29	1	**64**	10	112	8	0	**130**	10	18	10	0	**38**	24	105	13	0	**142**	**374**
Hourly Total	47	76	95	2	**220**	39	506	25	0	**570**	30	52	53	0	**135**	86	508	60	0	**654**	**1579**
8:00PM	13	18	25	0	**56**	12	116	14	0	**142**	6	6	13	0	**25**	30	122	8	0	**160**	**383**
8:15PM	12	12	20	0	**44**	9	122	15	0	**146**	9	20	13	0	**42**	16	136	15	0	**167**	**399**
8:30PM	13	18	18	0	**49**	8	105	10	1	**124**	4	10	4	0	**18**	24	113	15	0	**152**	**343**
8:45PM	8	19	14	0	**41**	12	107	15	0	**134**	7	10	7	0	**24**	19	138	13	0	**170**	**369**
Hourly Total	46	67	77	0	**190**	41	450	54	1	**546**	26	46	37	0	**109**	89	509	51	0	**649**	**1494**
9:00PM	15	10	16	0	**41**	10	105	12	0	**127**	6	10	7	0	**23**	14	105	10	0	**129**	**320**
9:15PM	15	14	19	1	**49**	11	98	7	0	**116**	6	4	8	0	**18**	11	103	7	0	**121**	**304**
9:30PM	9	10	12	0	**31**	5	96	8	0	**109**	2	4	3	0	**9**	10	97	10	0	**117**	**266**
9:45PM	10	7	15	0	**32**	2	66	4	0	**72**	0	3	8	0	**11**	8	85	6	0	**99**	**214**
Hourly Total	49	41	62	1	**153**	28	365	31	0	**424**	14	21	26	0	**61**	43	390	33	0	**466**	**1104**
10:00PM	7	7	9	0	**23**	6	68	5	0	**79**	0	3	2	0	**5**	6	72	5	0	**83**	**190**
10:15PM	9	3	9	0	**21**	3	35	3	0	**41**	2	3	2	0	**7**	9	81	4	0	**94**	**163**
10:30PM	3	1	4	0	**8**	4	49	5	0	**58**	2	2	3	0	**7**	5	70	3	0	**78**	**151**
10:45PM	6	1	11	0	**18**	3	56	7	0	**66**	0	3	5	0	**8**	9	55	0	0	**64**	**156**
Hourly Total	25	12	33	0	**70**	16	208	20	0	**244**	4	11	12	0	**27**	29	278	12	0	**319**	**660**
11:00PM	6	3	2	0	**11**	5	51	2	0	**58**	0	1	2	0	**3**	4	43	0	0	**47**	**119**
11:15PM	8	3	4	0	**15**	1	26	2	0	**29**	2	1	2	0	**5**	6	55	0	0	**61**	**110**
11:30PM	5	3	3	0	**11**	3	39	2	0	**44**	2	0	2	0	**4**	3	38	5	0	**46**	**105**
11:45PM	3	1	4	0	**8**	1	19	2	0	**22**	0	1	2	0	**3**	2	28	3	0	**33**	**66**
Hourly Total	22	10	13	0	**45**	10	135	8	0	**153**	4	3	8	0	**15**	15	164	8	0	**187**	**400**
Total	1048	1256	1995	23	**4322**	583	8644	893	11	**10131**	511	1182	814	0	**2507**	1997	8267	866	1	**11131**	**28091**
% Approach	24.2%	29.1%	46.2%	0.5%	**-**	5.8%	85.3%	8.8%	0.1%	**-**	20.4%	47.1%	32.5%	0%	**-**	17.9%	74.3%	7.8%	0%	**-**	**-**
% Total	3.7%	4.5%	7.1%	0.1%	**15.4%**	2.1%	30.8%	3.2%	0%	**36.1%**	1.8%	4.2%	2.9%	0%	**8.9%**	7.1%	29.4%	3.1%	0%	**39.6%**	**-**
Lights	1041	1248	1971	23	**4283**	577	8534	889	11	**10011**	503	1165	803	0	**2471**	1969	8152	857	1	**10979**	27744
% Lights	99.3%	99.4%	98.8%	100%	**99.1%**	99.0%	98.7%	99.6%	100%	**98.8%**	98.4%	98.6%	98.6%	0%	**98.6%**	98.6%	98.6%	99.0%	100%	**98.6%**	98.8%
Articulated Trucks	0	0	0	0	**0**	2	18	1	0	**21**	0	0	2	0	**2**	2	25	0	0	**27**	50
% Articulated Trucks	0%	0%	0%	0%	**0%**	0.3%	0.2%	0.1%	0%	**0.2%**	0%	0%	0.2%	0%	**0.1%**	0.1%	0.3%	0%	0%	**0.2%**	0.2%
Buses and Single-Unit Trucks	7	8	24	0	**39**	4	92	3	0	**99**	8	17	9	0	**34**	26	90	9	0	**125**	297

Leg	North					East					South					West					
Direction	Southbound					Westbound					Northbound					Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
% Buses and Single-Unit Trucks	0.7%	0.6%	1.2%	0%	**0.9%**	0.7%	1.1%	0.3%	0%	**1.0%**	1.6%	1.4%	1.1%	0%	**1.4%**	1.3%	1.1%	1.0%	0%	**1.1%**	1.1%

*L: Left, R: Right, T: Thru, U: U-Turn

Lindsey St. & Berry Rd. - TMC
Wed Sep 1, 2021
Full Length (12 AM-12 AM (+1))
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US



Lindsey St. & Berry Rd. - TMC

Wed Sep 1, 2021
AM Peak (7:45 AM - 8:45 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

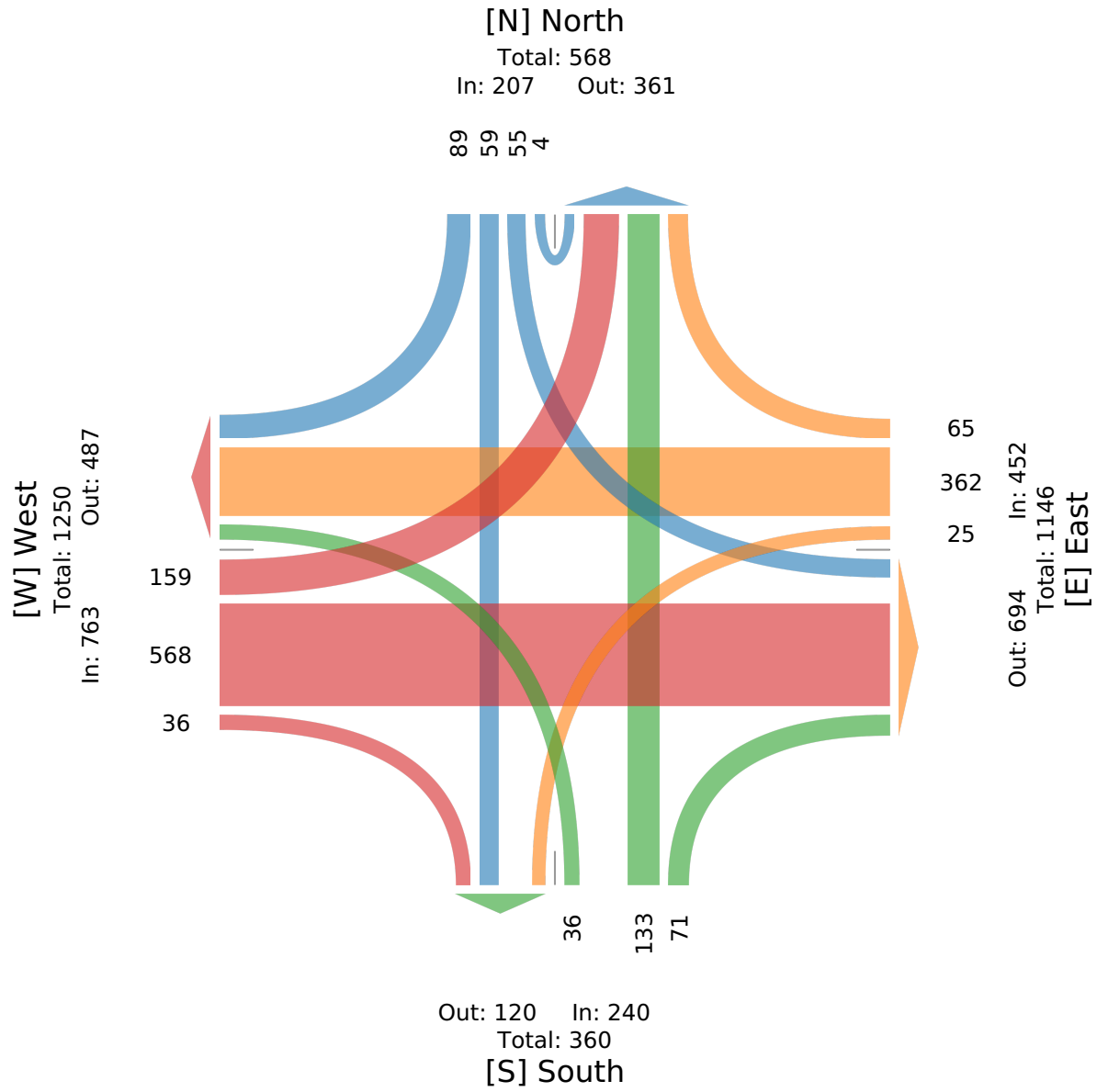
Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US

Leg / Direction	North Southbound					East Westbound					South Northbound					West Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2021-09-01 7:45AM	21	14	24	2	**61**	6	87	16	0	**109**	9	26	17	0	**52**	52	152	6	0	**210**	**432**
8:00AM	10	11	19	1	**41**	5	119	18	0	**142**	9	29	21	0	**59**	32	124	11	0	**167**	**409**
8:15AM	11	13	22	1	**47**	6	74	12	0	**92**	9	34	11	0	**54**	33	145	10	0	**188**	**381**
8:30AM	13	21	24	0	**58**	8	82	19	0	**109**	9	44	22	0	**75**	42	147	9	0	**198**	**440**
Total	55	59	89	4	**207**	25	362	65	0	**452**	36	133	71	0	**240**	159	568	36	0	**763**	**1662**
% Approach	26.6%	28.5%	43.0%	1.9%	**-**	5.5%	80.1%	14.4%	0%	**-**	15.0%	55.4%	29.6%	0%	**-**	20.8%	74.4%	4.7%	0%	**-**	-
% Total	3.3%	3.5%	5.4%	0.2%	**12.5%**	1.5%	21.8%	3.9%	0%	**27.2%**	2.2%	8.0%	4.3%	0%	**14.4%**	9.6%	34.2%	2.2%	0%	**45.9%**	-
PHF	0.655	0.702	0.927	0.500	**0.848**	0.781	0.761	0.855	-	**0.796**	1.000	0.756	0.807	-	**0.800**	0.764	0.934	0.818	-	**0.908**	0.944
Lights	55	59	89	4	**207**	24	355	64	0	**443**	36	133	71	0	**240**	157	553	36	0	**746**	1636
% Lights	100%	100%	100%	100%	**100%**	96.0%	98.1%	98.5%	0%	**98.0%**	100%	100%	100%	0%	**100%**	98.7%	97.4%	100%	0%	**97.8%**	98.4%
Articulated Trucks	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	3	0	0	**3**	4
% Articulated Trucks	0%	0%	0%	0%	**0%**	0%	0.3%	0%	0%	**0.2%**	0%	0%	0%	0%	**0%**	0%	0.5%	0%	0%	**0.4%**	0.2%
Buses and Single-Unit Trucks	0	0	0	0	**0**	1	6	1	0	**8**	0	0	0	0	**0**	2	12	0	0	**14**	22
% Buses and Single-Unit Trucks	0%	0%	0%	0%	**0%**	4.0%	1.7%	1.5%	0%	**1.8%**	0%	0%	0%	0%	**0%**	1.3%	2.1%	0%	0%	**1.8%**	1.3%

*L: Left, R: Right, T: Thru, U: U-Turn

Lindsey St. & Berry Rd. - TMC
Wed Sep 1, 2021
AM Peak (7:45 AM - 8:45 AM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US



Lindsey St. & Berry Rd. - TMC

Wed Sep 1, 2021
Midday Peak (12 PM - 1 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

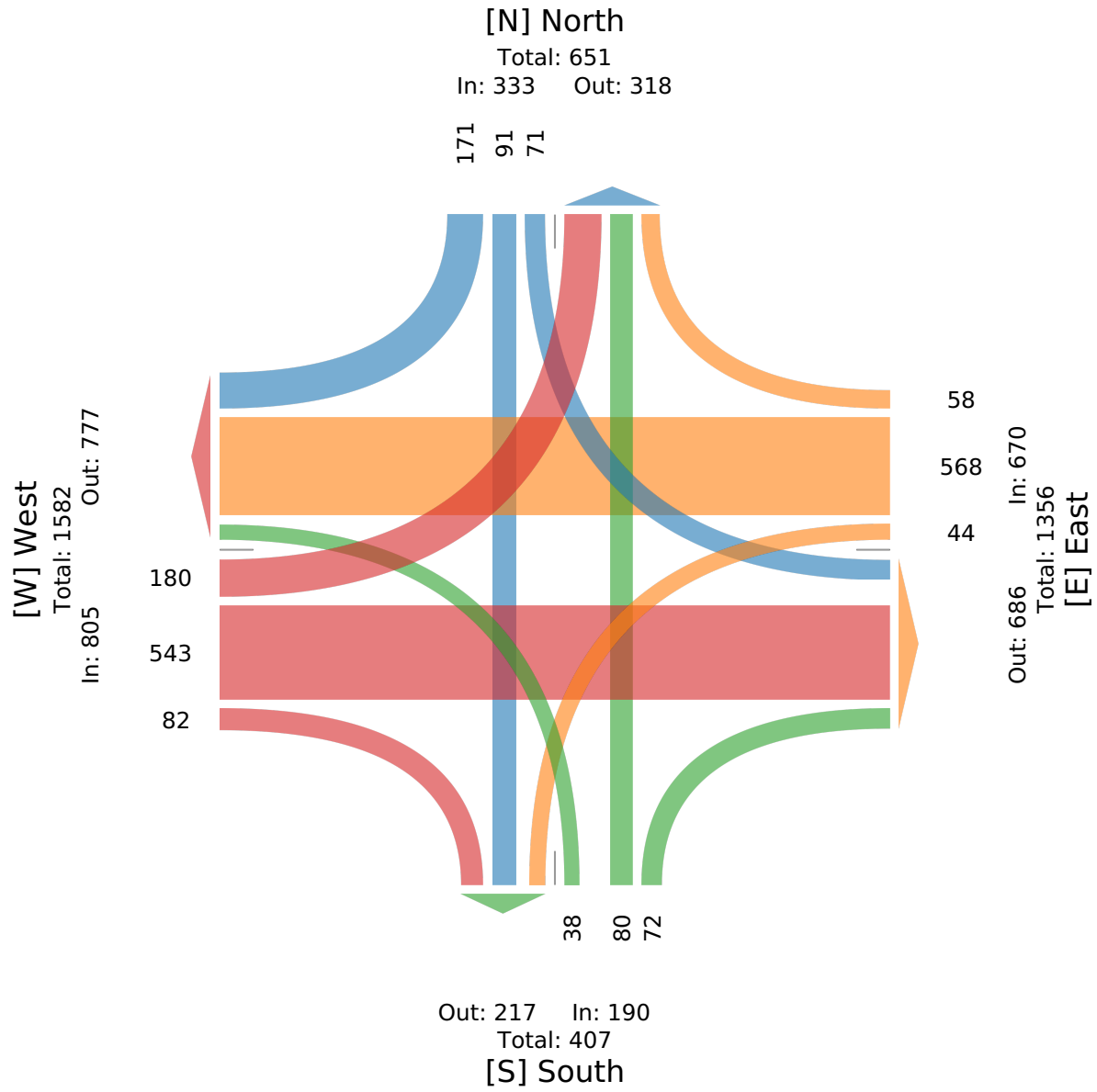
Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US

Leg / Direction	North Southbound					East Westbound					South Northbound					West Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2021-09-01 12:00PM	15	26	54	0	**95**	10	142	16	0	**168**	10	21	18	0	**49**	39	134	19	0	**192**	**504**
12:15PM	16	18	37	0	**71**	9	125	9	0	**143**	11	18	16	0	**45**	43	145	21	0	**209**	**468**
12:30PM	17	25	40	0	**82**	14	178	16	0	**208**	9	21	19	0	**49**	53	124	24	0	**201**	**540**
12:45PM	23	22	40	0	**85**	11	123	17	0	**151**	8	20	19	0	**47**	45	140	18	0	**203**	**486**
Total	71	91	171	0	**333**	44	568	58	0	**670**	38	80	72	0	**190**	180	543	82	0	**805**	**1998**
% Approach	21.3%	27.3%	51.4%	0%	**-**	6.6%	84.8%	8.7%	0%	**-**	20.0%	42.1%	37.9%	0%	**-**	22.4%	67.5%	10.2%	0%	**-**	-
% Total	3.6%	4.6%	8.6%	0%	**16.7%**	2.2%	28.4%	2.9%	0%	**33.5%**	1.9%	4.0%	3.6%	0%	**9.5%**	9.0%	27.2%	4.1%	0%	**40.3%**	-
PHF	0.772	0.875	0.792	-	**0.876**	0.786	0.798	0.853	-	**0.805**	0.864	0.952	0.947	-	**0.969**	0.849	0.936	0.854	-	**0.963**	0.925
Lights	71	90	168	0	**329**	43	559	58	0	**660**	37	79	70	0	**186**	178	536	80	0	**794**	1969
% Lights	100%	98.9%	98.2%	0%	**98.8%**	97.7%	98.4%	100%	0%	**98.5%**	97.4%	98.8%	97.2%	0%	**97.9%**	98.9%	98.7%	97.6%	0%	**98.6%**	98.5%
Articulated Trucks	0	0	0	0	**0**	0	1	0	0	**1**	0	0	0	0	**0**	0	1	0	0	**1**	2
% Articulated Trucks	0%	0%	0%	0%	**0%**	0%	0.2%	0%	0%	**0.1%**	0%	0%	0%	0%	**0%**	0%	0.2%	0%	0%	**0.1%**	0.1%
Buses and Single-Unit Trucks	0	1	3	0	**4**	1	8	0	0	**9**	1	1	2	0	**4**	2	6	2	0	**10**	27
% Buses and Single-Unit Trucks	0%	1.1%	1.8%	0%	**1.2%**	2.3%	1.4%	0%	0%	**1.3%**	2.6%	1.3%	2.8%	0%	**2.1%**	1.1%	1.1%	2.4%	0%	**1.2%**	1.4%

*L: Left, R: Right, T: Thru, U: U-Turn

Lindsey St. & Berry Rd. - TMC
Wed Sep 1, 2021
Midday Peak (12 PM - 1 PM)
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US



Lindsey St. & Berry Rd. - TMC

Wed Sep 1, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

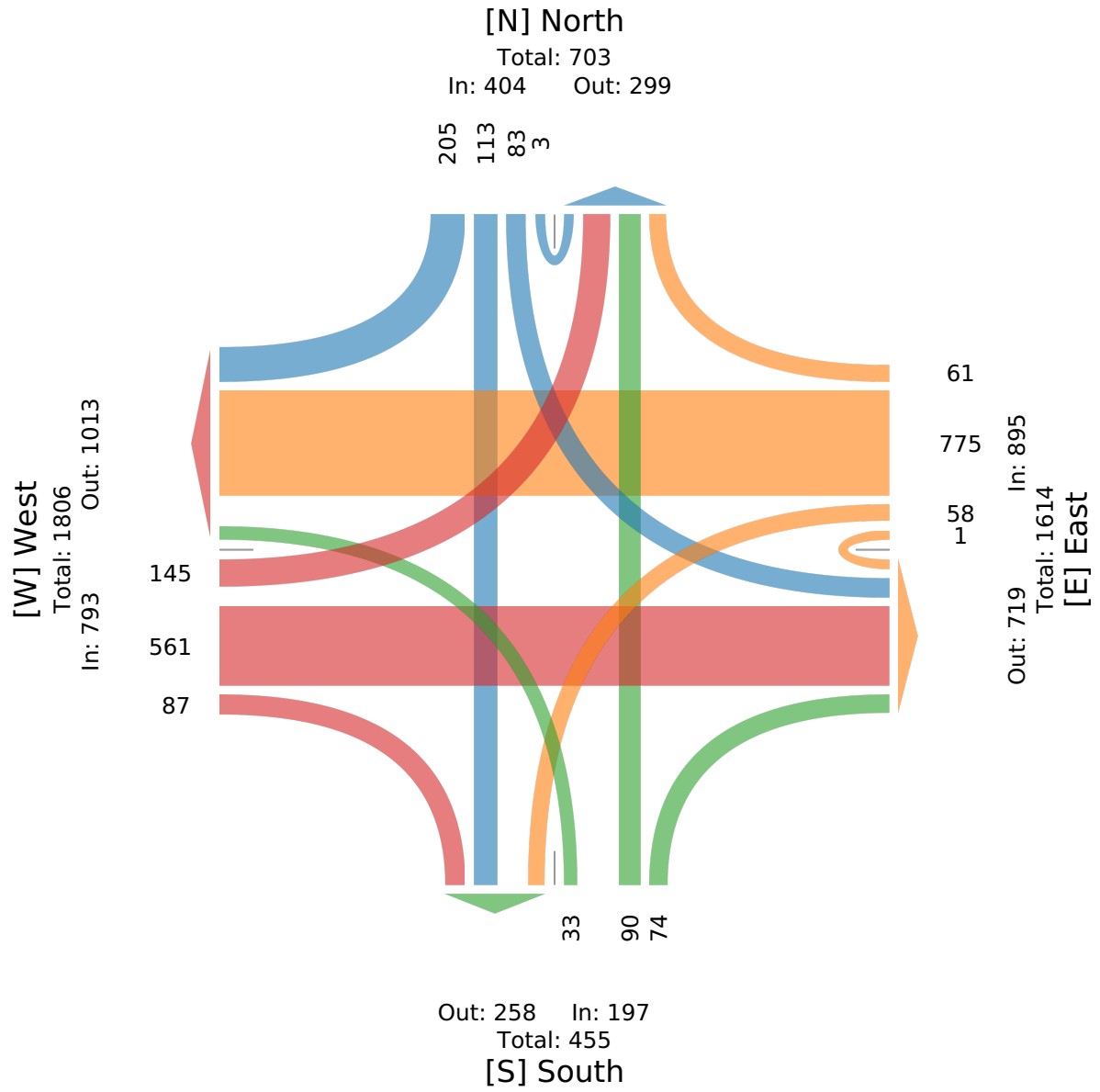
Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US

Leg / Direction	North Southbound					East Westbound					South Northbound					West Eastbound					
Time	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	L	T	R	U	**App**	**Int**
2021-09-01 4:30PM	22	26	53	0	**101**	12	196	18	0	**226**	11	23	12	0	**46**	33	140	26	0	**199**	**572**
4:45PM	20	28	60	0	**108**	23	188	13	1	**225**	9	28	22	0	**59**	37	136	23	0	**196**	**588**
5:00PM	23	33	40	3	**99**	11	200	20	0	**231**	6	19	24	0	**49**	43	134	17	0	**194**	**573**
5:15PM	18	26	52	0	**96**	12	191	10	0	**213**	7	20	16	0	**43**	32	151	21	0	**204**	**556**
Total	83	113	205	3	**404**	58	775	61	1	**895**	33	90	74	0	**197**	145	561	87	0	**793**	**2289**
% Approach	20.5%	28.0%	50.7%	0.7%	**-**	6.5%	86.6%	6.8%	0.1%	**-**	16.8%	45.7%	37.6%	0%	**-**	18.3%	70.7%	11.0%	0%	**-**	-
% Total	3.6%	4.9%	9.0%	0.1%	**17.6%**	2.5%	33.9%	2.7%	0%	**39.1%**	1.4%	3.9%	3.2%	0%	**8.6%**	6.3%	24.5%	3.8%	0%	**34.6%**	-
PHF	0.902	0.856	0.854	0.250	**0.935**	0.630	0.969	0.763	0.250	**0.969**	0.750	0.804	0.771	-	**0.835**	0.843	0.929	0.837	-	**0.972**	0.973
Lights	82	113	204	3	**402**	58	769	61	1	**889**	33	89	73	0	**195**	143	555	87	0	**785**	2271
% Lights	98.8%	100%	99.5%	100%	**99.5%**	100%	99.2%	100%	100%	**99.3%**	100%	98.9%	98.6%	0%	**99.0%**	98.6%	98.9%	100%	0%	**99.0%**	99.2%
Articulated Trucks	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0	0	0	0	**0**	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	0%	0%	0%	0%	**0%**	0%	0%	0%	0%	**0%**	0%	0%	0%	0%	**0%**	0%
Buses and Single-Unit Trucks	1	0	1	0	**2**	0	6	0	0	**6**	0	1	1	0	**2**	2	6	0	0	**8**	18
% Buses and Single-Unit Trucks	1.2%	0%	0.5%	0%	**0.5%**	0%	0.8%	0%	0%	**0.7%**	0%	1.1%	1.4%	0%	**1.0%**	1.4%	1.1%	0%	0%	**1.0%**	0.8%

*L: Left, R: Right, T: Thru, U: U-Turn

Lindsey St. & Berry Rd. - TMC
Wed Sep 1, 2021
PM Peak (4:30 PM - 5:30 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks)
All Movements
ID: 868249, Location: 35.203926, -97.459005

Provided by: Traffic Engineering Consultants, Inc.
6000 S. Western Ave, Suite 300, Oklahoma City, OK, 73139, US

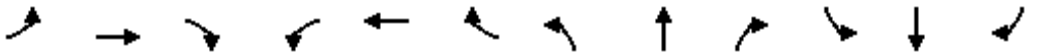


CAPACITY ANALYSIS

2021 Existing Traffic
A.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	159	568	36	25	362	65	36	133	71	55	59	89
Future Volume (veh/h)	159	568	36	25	362	65	36	133	71	55	59	89
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	173	617	39	27	393	71	39	145	77	60	64	97
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	334	655	603	452	1425	255	195	169	90	157	104	158
Arrive On Green	0.09	0.35	0.35	0.21	0.47	0.47	0.03	0.15	0.15	0.04	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	3011	539	1781	1150	611	1781	671	1017
Grp Volume(v), veh/h	173	617	39	27	231	233	39	0	222	60	0	161
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1773	1781	0	1760	1781	0	1687
Q Serve(g_s), s	8.9	38.4	0.7	0.0	9.4	9.6	2.2	0.0	14.8	3.4	0.0	10.7
Cycle Q Clear(g_c), s	8.9	38.4	0.7	0.0	9.4	9.6	2.2	0.0	14.8	3.4	0.0	10.7
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.35	1.00		0.60
Lane Grp Cap(c), veh/h	334	655	603	452	841	840	195	0	258	157	0	262
V/C Ratio(X)	0.52	0.94	0.06	0.06	0.27	0.28	0.20	0.00	0.86	0.38	0.00	0.61
Avail Cap(c_a), veh/h	336	655	603	452	841	840	245	0	440	191	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.5	37.8	7.6	36.7	19.1	19.2	41.9	0.0	50.0	42.1	0.0	47.3
Incr Delay (d2), s/veh	1.1	23.6	0.2	0.0	0.8	0.8	0.4	0.0	6.5	1.1	0.0	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	21.6	0.4	0.6	4.1	4.2	1.0	0.0	7.0	1.6	0.0	4.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.5	61.4	7.8	36.8	19.9	20.0	42.3	0.0	56.5	43.3	0.0	49.0
LnGrp LOS	C	E	A	D	B	B	D	A	E	D	A	D
Approach Vol, veh/h		829			491			261			221	
Approach Delay, s/veh		53.1			20.9			54.4			47.5	
Approach LOS		D			C			D			D	

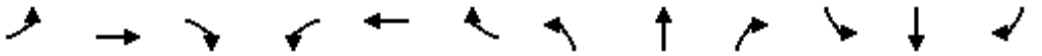
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.9	63.8	12.7	25.6	32.7	49.0	11.6	26.7
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	11.0	42.0	7.0	30.0	11.0	42.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	10.9	11.6	5.4	16.8	2.0	40.4	4.2	12.7
Green Ext Time (p_c), s	0.0	2.6	0.0	0.8	0.0	0.6	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	43.8
HCM 6th LOS	D

2021 Existing Traffic
P.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	145	561	87	58	775	61	33	90	74	83	113	205
Future Volume (veh/h)	145	561	87	58	775	61	33	90	74	83	113	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	158	610	95	63	842	66	36	98	80	90	123	223
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	215	701	641	325	1448	113	130	187	152	281	131	238
Arrive On Green	0.07	0.38	0.38	0.13	0.43	0.43	0.03	0.20	0.20	0.05	0.22	0.22
Sat Flow, veh/h	1781	1870	1585	1781	3338	262	1781	953	778	1781	596	1080
Grp Volume(v), veh/h	158	610	95	63	448	460	36	0	178	90	0	346
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1823	1781	0	1730	1781	0	1676
Q Serve(g_s), s	7.8	36.3	2.2	0.0	22.9	22.9	1.9	0.0	11.1	4.8	0.0	24.3
Cycle Q Clear(g_c), s	7.8	36.3	2.2	0.0	22.9	22.9	1.9	0.0	11.1	4.8	0.0	24.3
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.45	1.00		0.64
Lane Grp Cap(c), veh/h	215	701	641	325	771	791	130	0	339	281	0	370
V/C Ratio(X)	0.73	0.87	0.15	0.19	0.58	0.58	0.28	0.00	0.53	0.32	0.00	0.94
Avail Cap(c_a), veh/h	215	701	641	325	771	791	182	0	389	289	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.7	34.8	7.4	43.7	25.7	25.7	38.8	0.0	43.2	36.1	0.0	45.9
Incr Delay (d2), s/veh	11.7	13.9	0.5	0.2	3.2	3.1	0.8	0.0	0.9	0.5	0.0	30.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	18.9	1.2	1.7	10.4	10.6	0.9	0.0	4.8	2.1	0.0	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	44.4	48.6	7.9	43.9	28.9	28.8	39.6	0.0	44.2	36.6	0.0	76.0
LnGrp LOS	D	D	A	D	C	C	D	A	D	D	A	E
Approach Vol, veh/h		863			971			214			436	
Approach Delay, s/veh		43.4			29.9			43.4			67.9	
Approach LOS		D			C			D			E	

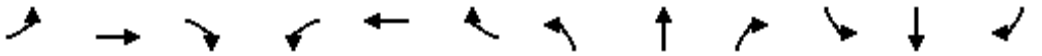
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	59.0	14.5	31.5	22.0	52.0	11.5	34.5
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	8.0	48.0	7.0	27.0	11.0	45.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	9.8	24.9	6.8	13.1	2.0	38.3	3.9	26.3
Green Ext Time (p_c), s	0.0	5.4	0.0	0.7	0.1	2.1	0.0	0.1

Intersection Summary	
HCM 6th Ctrl Delay	42.4
HCM 6th LOS	D

2023 Future Background Traffic
A.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	167	596	38	26	380	68	38	140	75	58	62	93
Future Volume (veh/h)	167	596	38	26	380	68	38	140	75	58	62	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	182	648	41	28	413	74	41	152	82	63	67	101
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	655	604	426	1399	249	201	176	95	160	110	166
Arrive On Green	0.09	0.35	0.35	0.21	0.46	0.46	0.03	0.15	0.15	0.04	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	3015	536	1781	1143	617	1781	673	1015
Grp Volume(v), veh/h	182	648	41	28	242	245	41	0	234	63	0	168
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1774	1781	0	1759	1781	0	1688
Q Serve(g_s), s	9.4	41.3	0.7	0.0	10.1	10.3	2.3	0.0	15.6	3.5	0.0	11.1
Cycle Q Clear(g_c), s	9.4	41.3	0.7	0.0	10.1	10.3	2.3	0.0	15.6	3.5	0.0	11.1
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.35	1.00		0.60
Lane Grp Cap(c), veh/h	327	655	604	426	825	823	201	0	270	160	0	275
V/C Ratio(X)	0.56	0.99	0.07	0.07	0.29	0.30	0.20	0.00	0.87	0.39	0.00	0.61
Avail Cap(c_a), veh/h	327	655	604	426	825	823	250	0	440	191	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.8	38.8	7.6	37.9	20.0	20.0	41.2	0.0	49.6	41.4	0.0	46.7
Incr Delay (d2), s/veh	1.7	32.8	0.2	0.0	0.9	0.9	0.4	0.0	8.1	1.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.2	24.6	0.4	0.7	4.5	4.5	1.0	0.0	7.4	1.6	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.5	71.6	7.8	37.9	20.9	20.9	41.6	0.0	57.7	42.6	0.0	48.3
LnGrp LOS	C	E	A	D	C	C	D	A	E	D	A	D
Approach Vol, veh/h		871			515			275			231	
Approach Delay, s/veh		60.8			21.8			55.3			46.7	
Approach LOS		E			C			E			D	

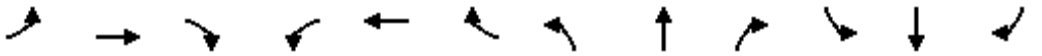
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	62.7	12.9	26.4	31.7	49.0	11.7	27.6
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	11.0	42.0	7.0	30.0	11.0	42.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	11.4	12.3	5.5	17.6	2.0	43.3	4.3	13.1
Green Ext Time (p_c), s	0.0	2.7	0.0	0.9	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

2023 Future Background Traffic
P.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	152	589	91	61	814	64	35	95	78	87	119	215
Future Volume (veh/h)	152	589	91	61	814	64	35	95	78	87	119	215
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	165	640	99	66	885	70	38	103	85	95	129	234
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	204	701	642	298	1429	113	124	188	155	281	134	243
Arrive On Green	0.07	0.38	0.38	0.12	0.43	0.43	0.03	0.20	0.20	0.06	0.22	0.22
Sat Flow, veh/h	1781	1870	1585	1781	3336	264	1781	948	782	1781	596	1080
Grp Volume(v), veh/h	165	640	99	66	471	484	38	0	188	95	0	363
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1823	1781	0	1730	1781	0	1676
Q Serve(g_s), s	8.0	39.0	2.3	0.0	24.8	24.8	2.0	0.0	11.7	5.0	0.0	25.7
Cycle Q Clear(g_c), s	8.0	39.0	2.3	0.0	24.8	24.8	2.0	0.0	11.7	5.0	0.0	25.7
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.45	1.00		0.64
Lane Grp Cap(c), veh/h	204	701	642	298	761	781	124	0	344	281	0	377
V/C Ratio(X)	0.81	0.91	0.15	0.22	0.62	0.62	0.31	0.00	0.55	0.34	0.00	0.96
Avail Cap(c_a), veh/h	204	701	642	298	761	781	175	0	389	285	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	33.7	35.6	7.5	45.7	26.7	26.7	38.7	0.0	43.2	35.8	0.0	46.0
Incr Delay (d2), s/veh	20.2	18.3	0.5	0.3	3.8	3.7	1.0	0.0	1.0	0.5	0.0	36.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.7	21.0	1.2	1.8	11.3	11.6	0.9	0.0	5.1	2.2	0.0	14.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	53.9	53.9	8.0	46.0	30.4	30.4	39.7	0.0	44.2	36.3	0.0	82.4
LnGrp LOS	D	D	A	D	C	C	D	A	D	D	A	F
Approach Vol, veh/h		904			1021			226			458	
Approach Delay, s/veh		48.9			31.4			43.5			72.9	
Approach LOS		D			C			D			E	

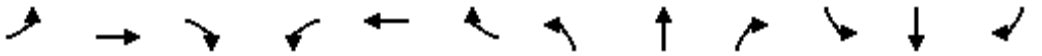
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	58.4	14.7	31.9	21.4	52.0	11.6	35.0
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	8.0	48.0	7.0	27.0	11.0	45.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	10.0	26.8	7.0	13.7	2.0	41.0	4.0	27.7
Green Ext Time (p_c), s	0.0	5.6	0.0	0.7	0.1	1.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.8
HCM 6th LOS	D

2023 Projected Combined Traffic
A.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	596	38	26	381	68	38	141	75	59	62	94
Future Volume (veh/h)	169	596	38	26	381	68	38	141	75	59	62	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	648	41	28	414	74	41	153	82	64	67	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	327	655	604	424	1396	248	202	177	95	161	110	167
Arrive On Green	0.09	0.35	0.35	0.20	0.46	0.46	0.03	0.15	0.15	0.04	0.16	0.16
Sat Flow, veh/h	1781	1870	1585	1781	3016	535	1781	1146	614	1781	669	1018
Grp Volume(v), veh/h	184	648	41	28	243	245	41	0	235	64	0	169
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1774	1781	0	1760	1781	0	1687
Q Serve(g_s), s	9.6	41.3	0.7	0.0	10.2	10.3	2.3	0.0	15.6	3.6	0.0	11.2
Cycle Q Clear(g_c), s	9.6	41.3	0.7	0.0	10.2	10.3	2.3	0.0	15.6	3.6	0.0	11.2
Prop In Lane	1.00		1.00	1.00		0.30	1.00		0.35	1.00		0.60
Lane Grp Cap(c), veh/h	327	655	604	424	823	821	202	0	271	161	0	277
V/C Ratio(X)	0.56	0.99	0.07	0.07	0.29	0.30	0.20	0.00	0.87	0.40	0.00	0.61
Avail Cap(c_a), veh/h	327	655	604	424	823	821	251	0	440	191	0	422
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	32.8	38.8	7.5	38.0	20.0	20.1	41.2	0.0	49.5	41.4	0.0	46.6
Incr Delay (d2), s/veh	1.9	32.8	0.2	0.0	0.9	0.9	0.4	0.0	8.2	1.2	0.0	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	24.6	0.4	0.7	4.5	4.6	1.0	0.0	7.5	1.6	0.0	4.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.7	71.6	7.8	38.0	21.0	21.0	41.6	0.0	57.8	42.6	0.0	48.2
LnGrp LOS	C	E	A	D	C	C	D	A	E	D	A	D
Approach Vol, veh/h		873			516			276			233	
Approach Delay, s/veh		60.8			21.9			55.3			46.6	
Approach LOS		E			C			E			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.0	62.6	12.9	26.5	31.6	49.0	11.7	27.7
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	11.0	42.0	7.0	30.0	11.0	42.0	7.0	30.0
Max Q Clear Time (g_c+I1), s	11.6	12.3	5.6	17.6	2.0	43.3	4.3	13.2
Green Ext Time (p_c), s	0.0	2.7	0.0	0.9	0.0	0.0	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	47.7
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	730	474	2	0	1
Future Vol, veh/h	0	730	474	2	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	793	515	2	0	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	516
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	559
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	559
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	559
HCM Lane V/C Ratio	-	-	-	0.002
HCM Control Delay (s)	-	-	-	11.5
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	2	1	375	3	1	213
Future Vol, veh/h	2	1	375	3	1	213
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	1	408	3	1	232

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	644	410	0	0	411	0
Stage 1	410	-	-	-	-	-
Stage 2	234	-	-	-	-	-
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	437	642	-	-	1148	-
Stage 1	670	-	-	-	-	-
Stage 2	805	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	437	642	-	-	1148	-
Mov Cap-2 Maneuver	437	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	804	-	-	-	-	-

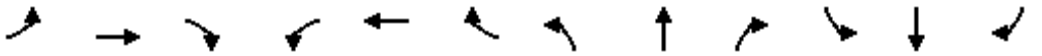
Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	489	1148	-
HCM Lane V/C Ratio	-	-	0.007	0.001	-
HCM Control Delay (s)	-	-	12.4	8.1	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

2023 Future Background Traffic
P.M. Peak Hour

HCM 6th Signalized Intersection Summary
3: Berry Rd & Lindsey St

09/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	160	589	91	62	819	64	35	97	78	94	120	218
Future Volume (veh/h)	160	589	91	62	819	64	35	97	78	94	120	218
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	174	640	99	67	890	70	38	105	85	102	130	237
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	203	701	642	298	1430	112	121	188	152	280	134	243
Arrive On Green	0.07	0.38	0.38	0.12	0.43	0.43	0.03	0.20	0.20	0.06	0.22	0.22
Sat Flow, veh/h	1781	1870	1585	1781	3337	262	1781	957	774	1781	594	1082
Grp Volume(v), veh/h	174	640	99	67	474	486	38	0	190	102	0	367
Grp Sat Flow(s),veh/h/ln	1781	1870	1585	1781	1777	1823	1781	0	1731	1781	0	1676
Q Serve(g_s), s	8.0	39.0	2.3	0.0	24.9	24.9	2.0	0.0	11.9	5.4	0.0	26.1
Cycle Q Clear(g_c), s	8.0	39.0	2.3	0.0	24.9	24.9	2.0	0.0	11.9	5.4	0.0	26.1
Prop In Lane	1.00		1.00	1.00		0.14	1.00		0.45	1.00		0.65
Lane Grp Cap(c), veh/h	203	701	642	298	761	781	121	0	340	280	0	377
V/C Ratio(X)	0.86	0.91	0.15	0.22	0.62	0.62	0.31	0.00	0.56	0.36	0.00	0.97
Avail Cap(c_a), veh/h	203	701	642	298	761	781	172	0	389	280	0	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	35.6	7.5	45.7	26.7	26.7	38.9	0.0	43.5	36.0	0.0	46.1
Incr Delay (d2), s/veh	27.8	18.3	0.5	0.3	3.8	3.7	1.1	0.0	1.1	0.6	0.0	39.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	21.0	1.2	1.8	11.4	11.7	0.9	0.0	5.2	2.4	0.0	14.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	62.9	53.9	8.0	46.0	30.5	30.5	40.0	0.0	44.6	36.6	0.0	85.3
LnGrp LOS	E	D	A	D	C	C	D	A	D	D	A	F
Approach Vol, veh/h		913			1027			228			469	
Approach Delay, s/veh		50.6			31.5			43.8			74.7	
Approach LOS		D			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.0	58.4	15.0	31.6	21.4	52.0	11.6	35.0
Change Period (Y+Rc), s	7.0	7.0	8.0	8.0	7.0	7.0	8.0	8.0
Max Green Setting (Gmax), s	8.0	48.0	7.0	27.0	11.0	45.0	7.0	27.0
Max Q Clear Time (g_c+I1), s	10.0	26.9	7.4	13.9	2.0	41.0	4.0	28.1
Green Ext Time (p_c), s	0.0	5.6	0.0	0.7	0.1	1.5	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	46.9
HCM 6th LOS	D

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↱			↗
Traffic Vol, veh/h	0	761	939	7	0	6
Future Vol, veh/h	0	761	939	7	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	827	1021	8	0	7

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	-	0	-	0	-	1025
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.318
Pot Cap-1 Maneuver	0	-	-	-	0	285
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	-	-	-	-	-	285
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	285
HCM Lane V/C Ratio	-	-	-	0.023
HCM Control Delay (s)	-	-	-	17.9
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	4	311	10	3	421
Future Vol, veh/h	11	4	311	10	3	421
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	4	338	11	3	458

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	808	344	0	0	349	0
Stage 1	344	-	-	-	-	-
Stage 2	464	-	-	-	-	-
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	350	699	-	-	1210	-
Stage 1	718	-	-	-	-	-
Stage 2	633	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	349	699	-	-	1210	-
Mov Cap-2 Maneuver	349	-	-	-	-	-
Stage 1	718	-	-	-	-	-
Stage 2	631	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	403	1210	-
HCM Lane V/C Ratio	-	-	0.04	0.003	-
HCM Control Delay (s)	-	-	14.3	8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

QUEUING ANALYSIS

Intersection: 3: Berry Rd & Lindsey St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	274	409	108	89	163	153	124	300	124	200
Average Queue (ft)	84	234	13	28	99	98	38	135	49	88
95th Queue (ft)	201	396	70	72	156	151	108	238	105	167
Link Distance (ft)		402	402		147	147		336		223
Upstream Blk Time (%)		1	0		2	1		0		0
Queuing Penalty (veh)		0	0		4	3		0		0
Storage Bay Dist (ft)	250			65			100		100	
Storage Blk Time (%)		5		0	18		0	23	1	13
Queuing Penalty (veh)		9		1	5		0	9	2	7

Intersection: 6: Lindsey St & Drive #2

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	69	22
Average Queue (ft)	7	1
95th Queue (ft)	45	11
Link Distance (ft)	150	57
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Berry Rd & Drive #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	30	12
Average Queue (ft)	2	1
95th Queue (ft)	16	7
Link Distance (ft)	123	140
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 40

Intersection: 3: Berry Rd & Lindsey St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	SB	SB
Directions Served	L	T	R	L	T	TR	L	TR	L	TR
Maximum Queue (ft)	275	428	412	89	185	179	124	224	125	233
Average Queue (ft)	137	288	59	47	159	156	30	93	81	182
95th Queue (ft)	279	454	234	92	175	178	82	179	149	274
Link Distance (ft)		402	402		147	147		336		223
Upstream Blk Time (%)		8	1		30	24				12
Queuing Penalty (veh)		0	0		140	116				51
Storage Bay Dist (ft)	250			65			100		100	
Storage Blk Time (%)		13		4	46			11	5	41
Queuing Penalty (veh)		22		15	28			4	16	38

Intersection: 6: Lindsey St & Drive #2

Movement	WB	SB
Directions Served	TR	R
Maximum Queue (ft)	184	31
Average Queue (ft)	151	7
95th Queue (ft)	220	25
Link Distance (ft)	150	57
Upstream Blk Time (%)	26	0
Queuing Penalty (veh)	0	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Berry Rd & Drive #1

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	43	159
Average Queue (ft)	11	44
95th Queue (ft)	35	142
Link Distance (ft)	123	140
Upstream Blk Time (%)		5
Queuing Penalty (veh)		0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 429