
**OVERTON ROAD
CORRIDOR
STUDY**

Mountain Brook and Vestavia Hills, Alabama

Advance Planning, Programming, and Logical
Engineering (APPLE) Program

Prepared for:



**THE CITY OF
MOUNTAIN
BROOK**



**THE CITY OF
VESTAVIA
HILLS**

VESTAVIA HILLS



RPCGB
REGIONAL PLANNING COMMISSION
OF GREATER BIRMINGHAM

**THE REGIONAL
PLANNING
COMMISSION OF
GREATER
BIRMINGHAM**

Prepared by:

SKIPPER
CONSULTING INC

June 23, 2020

**OVERTON ROAD CORRIDOR STUDY
MOUNTAIN BROOK AND VESTAVIA HILLS, ALABAMA**

Advance Planning, Programming, and Logical Engineering (APPLE) Program

Prepared for:

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Introduction

This report documents a corridor study performed for Overton Road from Liberty Parkway to U.S. Highway 280 in the cities of Mountain Brook and Vestavia Hills, Alabama. The purposes of the study are to:

- Examine the existing conditions of the transportation system in the corridor
- Determine the impacts of future growth on the transportation system, especially the impact of continued developments in Liberty Park
- Examine the effects of current planned and programmed roadway improvements to traffic operations
- Discuss potential future transportation improvements in the corridor.

Study Area and Study Roadways

The study area for this report is shown in Figure 1. The roadways included in the study effort are:

- Overton Road, from Liberty Parkway to U.S. Highway 280
- Liberty Parkway, from River Run Lane to Overton Access Road
- Crosshaven Drive, from Overton Road to Cahaba Heights Road
- Cahaba Heights Road/Pump House Road, from the I-459 underpass to U.S. Highway 280
- Green Valley Road, from Crosshaven Drive to U.S. Highway 280
- Dolly Ridge Road, from Green Valley Road to U.S. Highway 280
- Knollwood Drive, from Overton Road to Green Valley Road

Functional Classification

The existing functional classification of roadways within and adjacent to the study area (as designated by the Birmingham Metropolitan Planning Organization and Alabama Department of Transportation) is depicted in Figure 2.

The following is a description of existing functional classification of roadways within and adjacent to the study area:

- Interstate 459 – Interstate

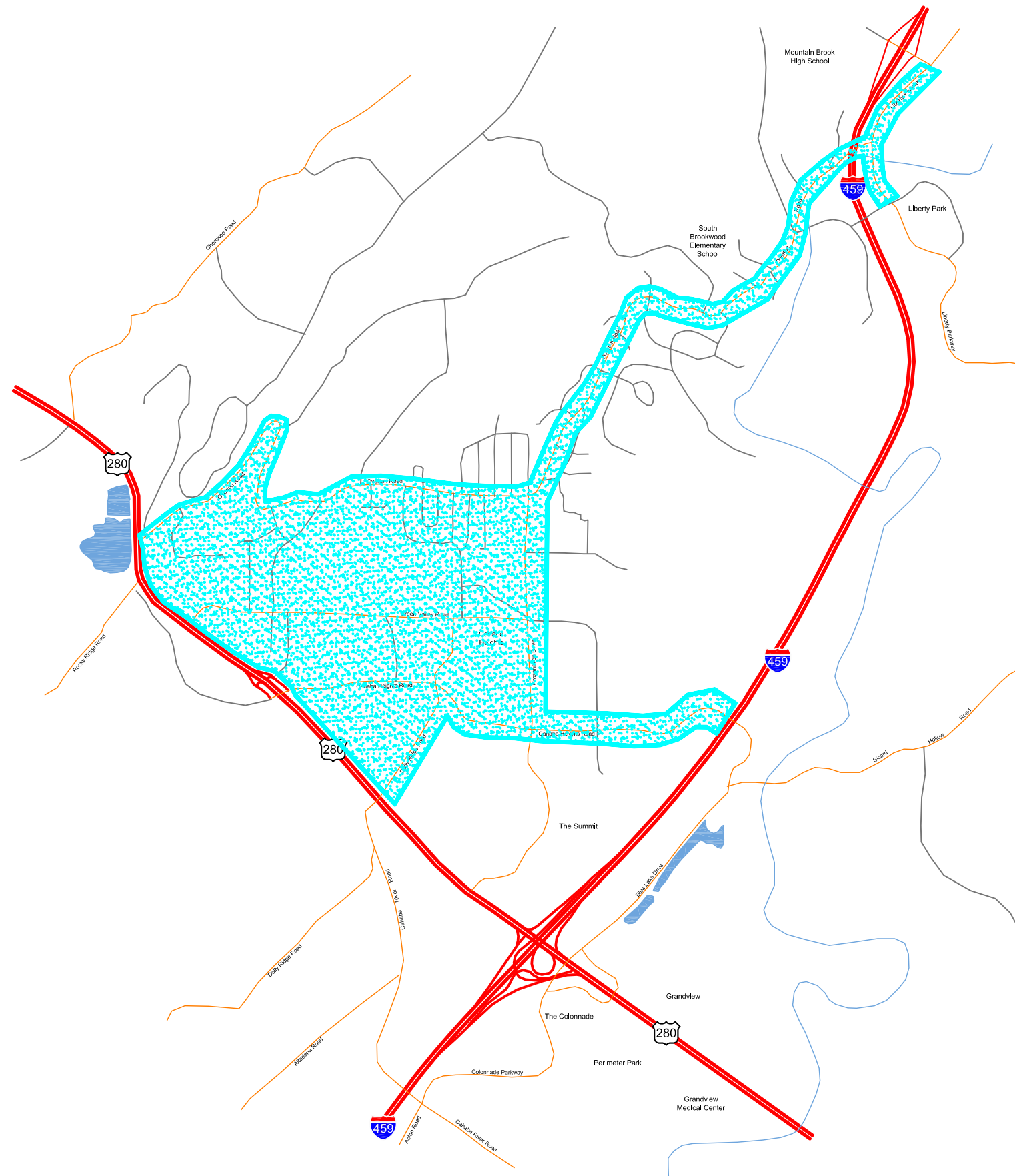
- U.S. Highway 280 – Principal Arterial
- Overton Road, from Liberty Parkway to Crosshaven Drive – Minor Arterial
- Crosshaven Drive, from Overton Road to Green Valley Road – Minor Arterial
- Green Valley Road, from Crosshaven Drive to U.S. Highway 280 – Minor Arterial
- Liberty Parkway – Collector
- Cahaba Heights Road/Pump House Road – Collector
- Crosshaven Drive, from Green Valley Road to Cahaba Heights Road – Collector
- Dolly Ridge Road, from U.S. Highway 280 to Cahaba Heights Road – Collector

Existing Daily Traffic Volumes

Existing machine traffic counts were performed on study area roadways in May, 2019. The daily traffic count volumes are depicted in Table 1 and Figure 3.

**Table 1
Existing Daily Traffic Volumes**

Roadway	Segment	Classification	Cross Section	Volume
Overton Road	Liberty Pkwy to Oakdale Dr	Minor Arterial	Two Lane	7,800
	Oakdale Dr to South Brookwood Rd	Minor Arterial	Two Lane	12,700
	South Brookwood Rd to Crosshaven Dr	Minor Arterial	Two Lane	14,800
	Crosshaven Dr to Locksley Dr	Local	Two Lane	10,400
	Locksley Dr to Knollwood Dr	Local	Two Lane	8,800
	Knollwood Dr to North Woodridge Rd	Local	Two Lane	8,100
	North Woodridge Rd to US-280	Local	Two Lane	8,800
Crosshaven Drive	Overton Rd to Green Valley Rd	Minor Arterial	Two Lane	11,200
	Green Valley Rd to Cahaba Heights Rd	Collector	Two Lane	10,500
Liberty Parkway	River Run Ln to Overton Rd	Collector	Four Lane Divided	12,000
	Overton Rd to Overton Access Rd	Collector	Four Lane Divided	17,600
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	Minor Arterial	Two Lane	7,100
	Dolly Ridge Rd to Knollwood Dr	Minor Arterial	Two Lane	7,200
Cahaba Heights Road/Pump House Road	Sicard Hollow Rd to Crosshaven Dr	Collector	Two Lane	10,000
	Crosshaven Dr to Dolly Ridge Rd	Collector	Two Lane	11,200
	Dolly Ridge Road to US-280	Collector	Two Lane	8,800
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	Local	Two Lane	5,000
	Cahaba Heights Rd to US-280	Local	Two Lane	7,600
Knollwood Drive	Green Valley Rd to Overton Rd	Local	Two Lane	2,400



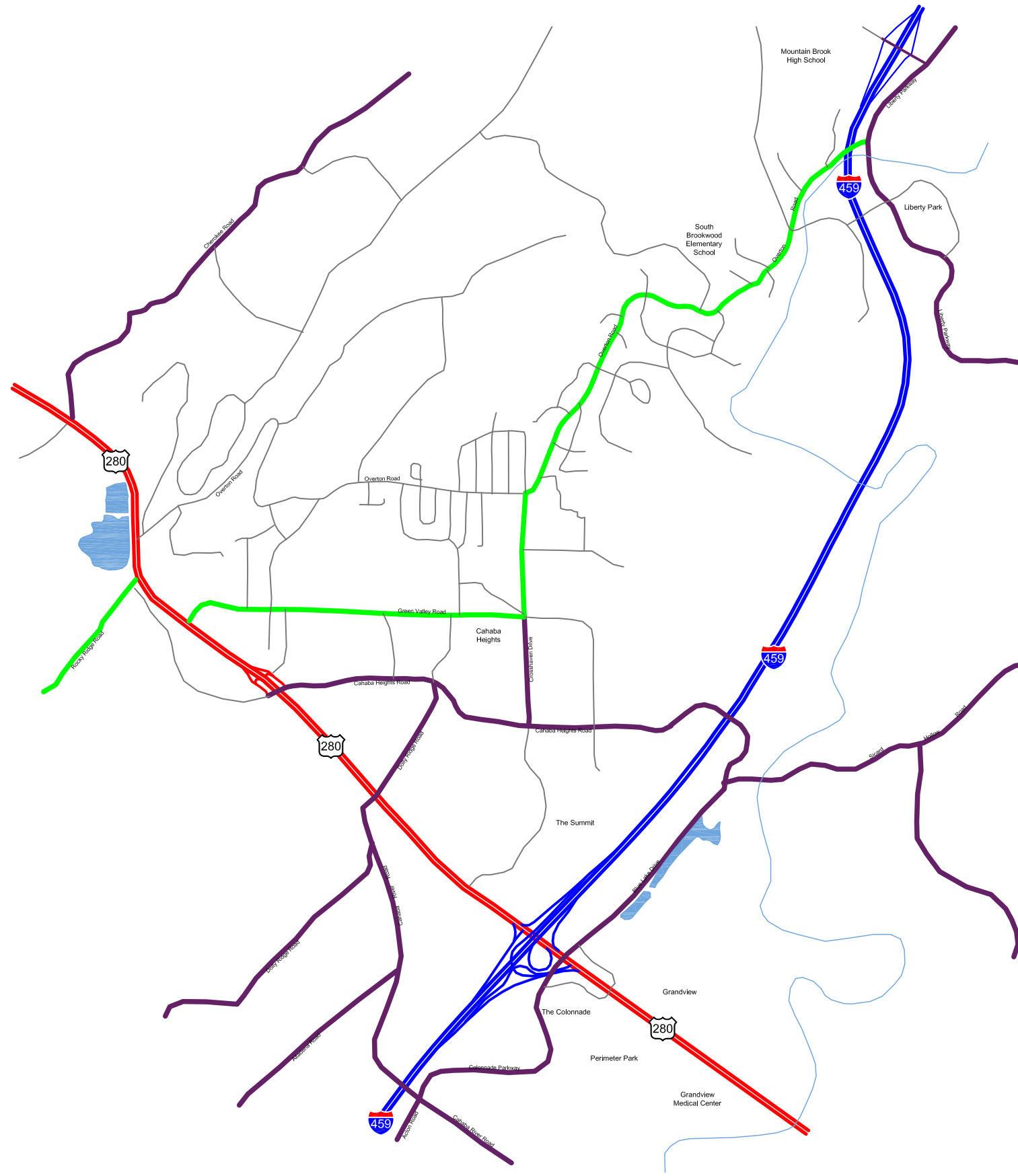
North
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Figure 1 - Study Area

Overton Road APPLE

January 2020



LEGEND

- Interstate
- Principal Arterial
- Minor Arterial
- Collector
- Local Road



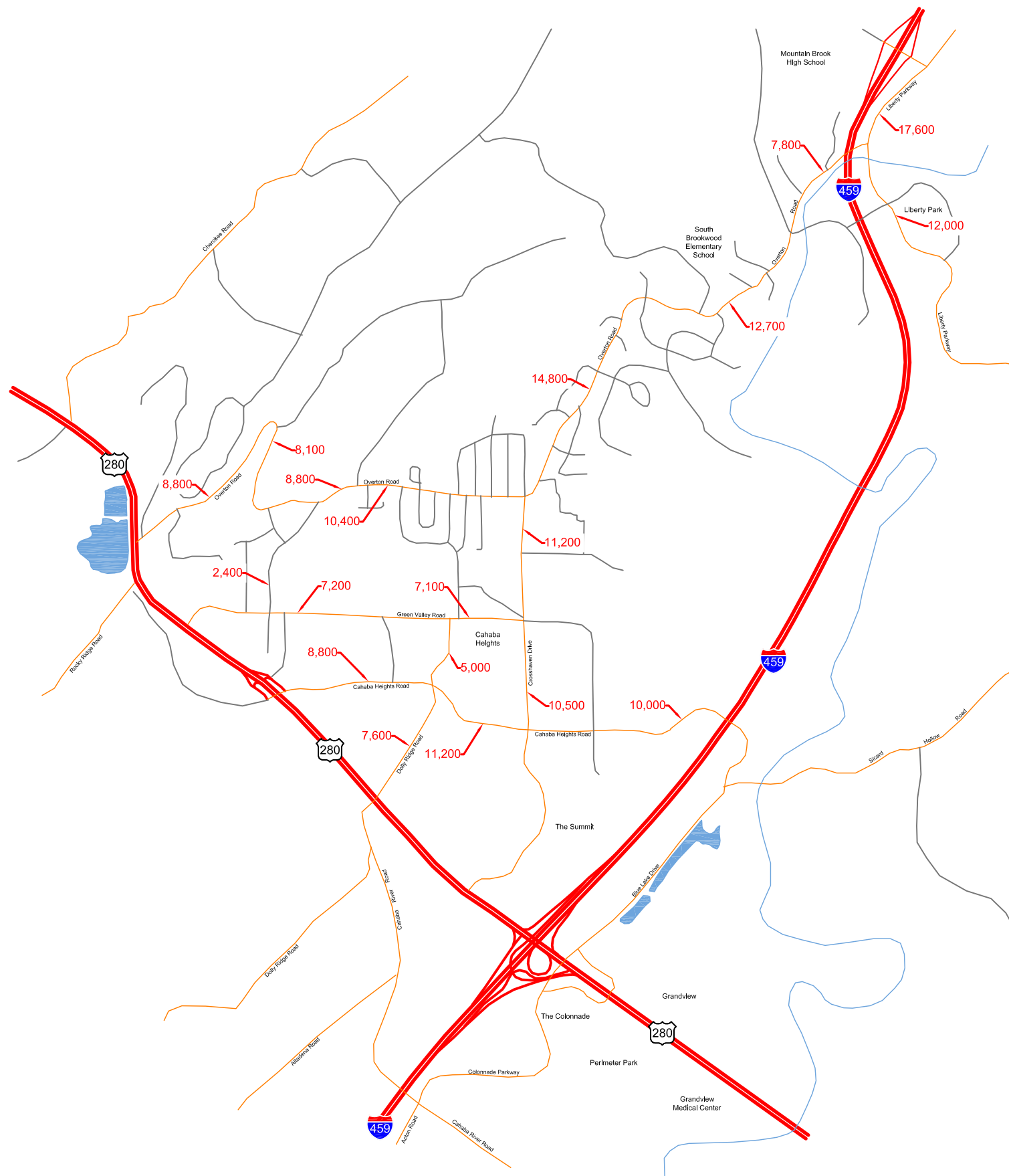
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Figure 2 - Functional Classification

Overton Road APPLE

January 2020



North
Scale: n.t.s



Figure 3 - Existing Daily Traffic Volumes

Overton Road APPLE

January 2020

Existing Daily Levels of Service

Existing daily levels of service for roadways in the study area were calculated based on information contained in the 2012 Florida Department of Transportation (FDOT) Quality/Level of Service Handbook. The service flow volumes for each level of service for each roadway cross section are shown in Table 2. This includes peak hour service flow volumes, which are used in a later section of this report. The existing daily roadway levels of service are shown in Table 3 and Figure 4.

**Table 2
Maximum Two-Way Service Flow Volumes and Levels of Service**

Cross Section		Level of Service					
		A	B	C	D	E	F
Two Lane Undivided	Daily	2,184	3,822	5,110	10,360	10,920	>10,920
	Peak Hour	197	345	462	931	987	>987
Two Lane Divided	Daily	2,290	4,010	5,370	10,880	11,470	>11,470
	Peak Hour	207	362	485	978	1,036	>1,036
Four Lane Undivided	Daily	7,480	10,690	13,250	16,030	21,380	>21,380
	Peak Hour	328	636	884	1,971	2,052	>2,052
Four Lane Divided	Daily	9,975	14,250	17,670	21,375	28,500	>28,500
	Peak Hour	438	848	1,179	2,628	2,736	>2,736

Existing Peak Hour Traffic Volumes

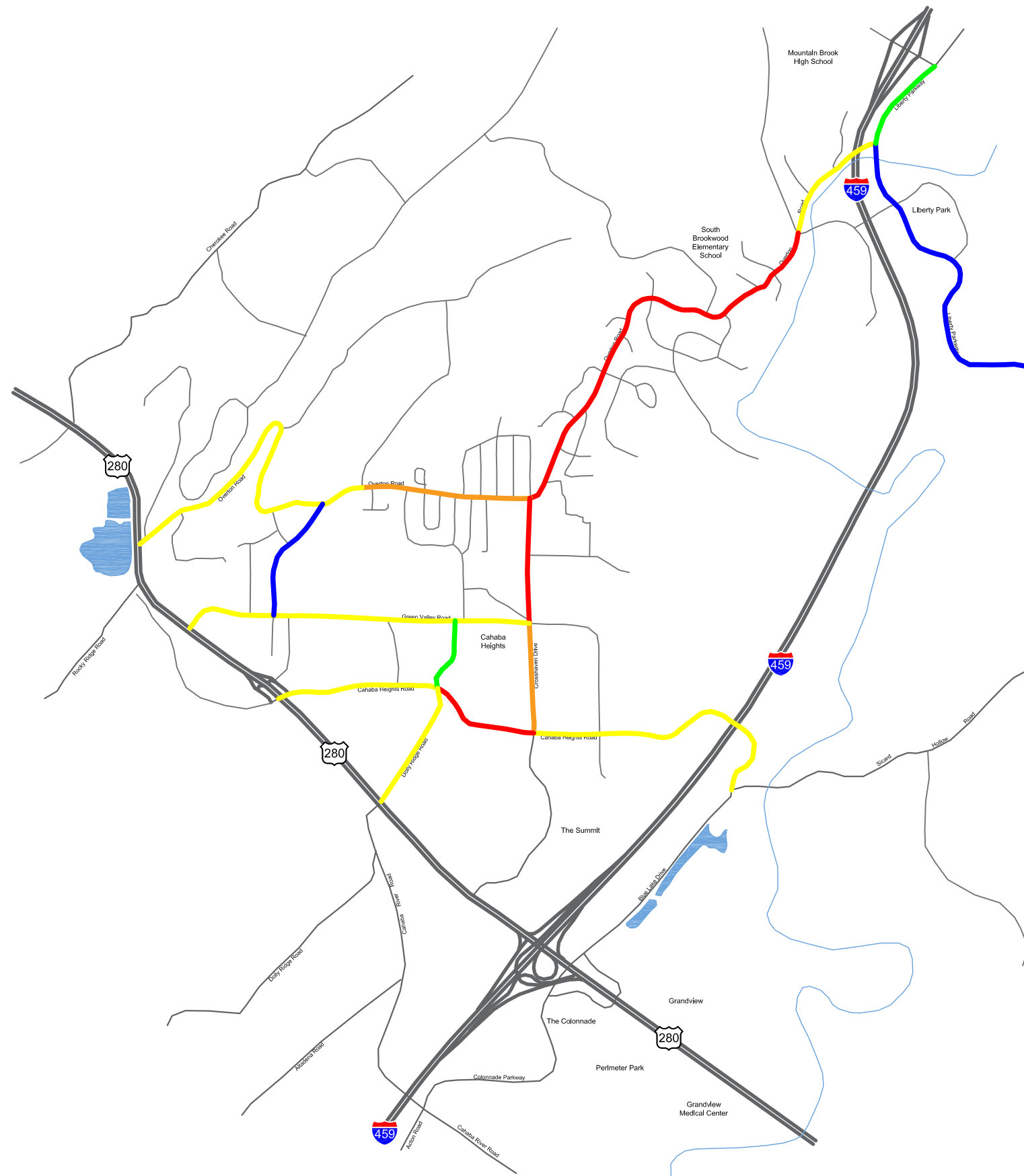
Existing machine traffic counts were performed on study area roadways in May, 2019. The a.m. and p.m. peak hour traffic count volumes are depicted in Table 4 and Figure 5. Table 4 also shows the K and D factors for each count, where K is the ratio of peak hour traffic to daily traffic and D is the percentage of peak hour traffic flowing in the peak direction.

Existing Peak Hour Levels of Service

Existing peak hour levels of service for roadways in the study area were calculated based on information contained in the 2012 FDOT Quality/Level of Service Handbook. The service flow volumes for each level of service for each roadway cross section are shown in Table 2. The existing peak hour roadway levels of service are shown in Table 4.

**Table 3
Existing Daily Levels of Service**

Roadway	Segment	Classification	Cross Section	Capacity	Volume	v/c	LOS
Overton Road	Liberty Pkwy to Oakdale Dr	Minor Arterial	Two Lane	10,920	7,800	0.71	D
	Oakdale Dr to South Brookwood Rd	Minor Arterial	Two Lane	10,920	12,700	1.16	F
	South Brookwood Rd to Crosshaven Dr	Minor Arterial	Two Lane	10,920	14,800	1.36	F
	Crosshaven Dr to Locksley Dr	Local	Two Lane	10,920	10,400	0.95	E
	Locksley Dr to Knollwood Dr	Local	Two Lane	10,920	8,800	0.81	D
	Knollwood Dr to North Woodridge Rd	Local	Two Lane	10,920	8,100	0.74	D
	North Woodridge Rd to US-280	Local	Two Lane	10,920	8,800	0.81	D
Crosshaven Drive	Overton Rd to Green Valley Rd	Minor Arterial	Two Lane	10,920	11,200	1.03	F
	Green Valley Rd to Cahaba Heights Rd	Collector	Two Lane	10,920	10,500	0.96	E
Liberty Parkway	River Run Ln to Overton Rd	Collector	Four Lane Divided	28,500	12,000	0.42	B
	Overton Rd to Overton Access Rd	Collector	Four Lane Divided	28,500	17,600	0.62	C
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	Minor Arterial	Two Lane	10,920	7,100	0.65	D
	Dolly Ridge Rd to Knollwood Dr	Minor Arterial	Two Lane	10,920	7,200	0.66	D
Cahaba Heights Road/Pump House Road	Sicard Hollow Rd to Crosshaven Dr	Collector	Two Lane	10,920	10,000	0.92	D
	Crosshaven Dr to Dolly Ridge Rd	Collector	Two Lane	10,920	11,200	1.03	F
	Dolly Ridge Road to US-280	Collector	Two Lane	10,920	8,800	0.81	D
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	Local	Two Lane	10,920	5,000	0.46	C
	Cahaba Heights Rd to US-280	Local	Two Lane	10,920	7,600	0.70	D
Knollwood Drive	Green Valley Rd to Overton Rd	Local	Two Lane	10,920	2,400	0.22	B



LEGEND

- LOS A —
- LOS B —
- LOS C —
- LOS D —
- LOS E —
- LOS F —



North
Scale: n.t.s



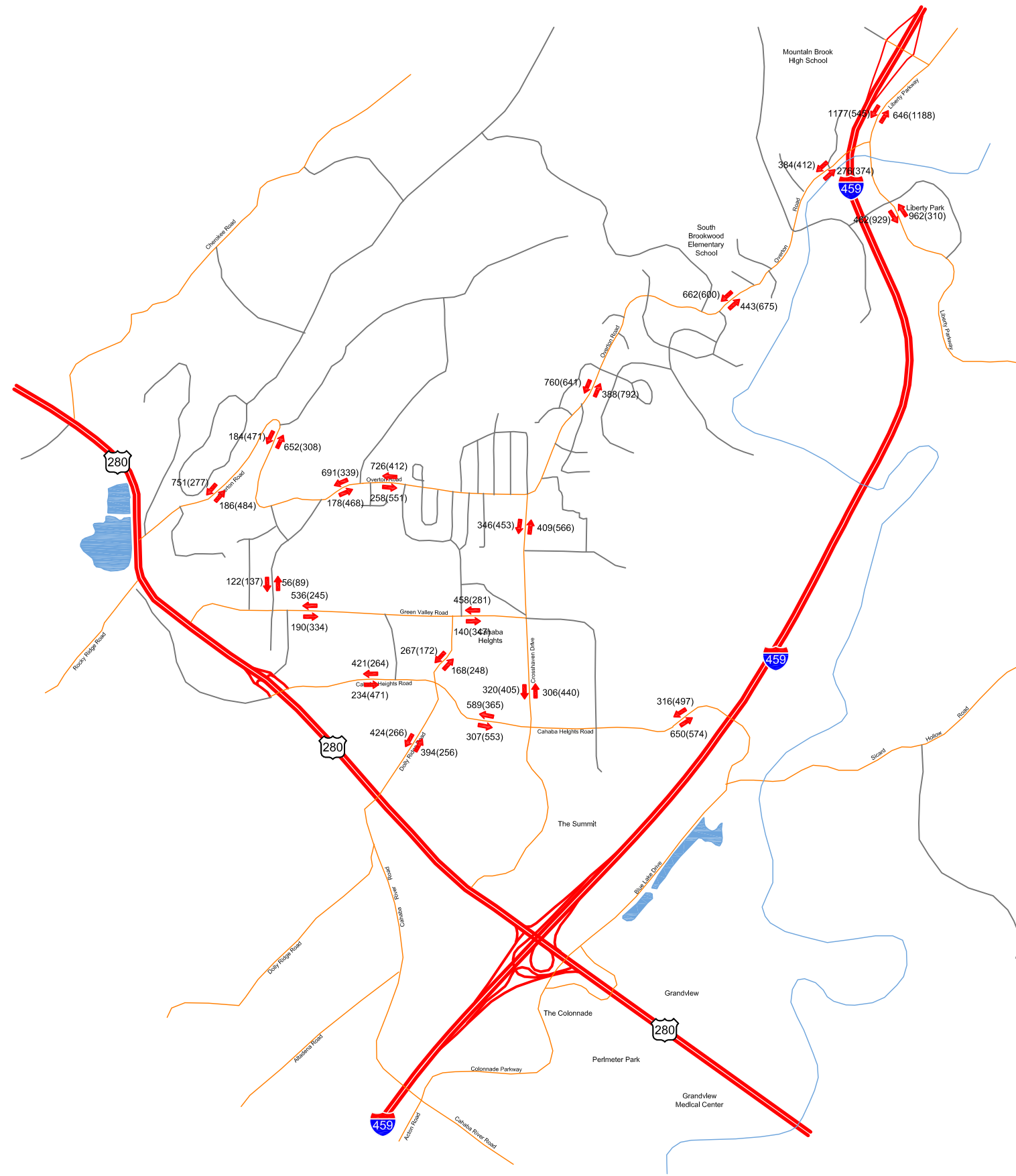
Figure 4 - Existing Daily Levels of Service

Overton Road APPLE

January 2020

Table 4
Existing Peak Hour Traffic Volumes and Levels of Service

Roadway	Segment	Daily Volume	AM Peak Hour					PM Peak Hour						
			EB/NB	WB/SB	Total	K	D	LOS	EB/NB	WB/SB	Total	K	D	LOS
Overton Road	Liberty Pkwy to Oakdale Dr	7,827	276	384	660	8.4	58%	D	374	412	786	10.0	52%	D
	Oakdale Dr to South Brookwood Rd	12,749	443	662	1,105	8.7	60%	F	675	600	1,275	10.0	53%	F
	South Brookwood Rd to Crosshaven Dr	14,765	388	760	1,148	7.8	66%	F	792	641	1,433	9.7	55%	F
	Crosshaven Dr to Locksley Dr	10,433	258	726	984	9.4	74%	E	551	412	963	9.2	57%	E
	Locksley Dr to Knollwood Dr	8,844	178	691	869	9.8	80%	D	468	339	807	9.1	58%	D
	Knollwood Dr to North Woodridge Rd	8,114	652	184	836	10.3	78%	D	308	471	779	9.6	60%	D
	North Woodridge Rd to US-280	8,775	186	751	937	10.7	80%	E	484	277	761	8.7	64%	D
Crosshaven Drive	Overton Rd to Green Valley Rd	11,246	409	346	755	6.7	54%	D	566	453	1,019	9.1	56%	F
	Green Valley Rd to Cahaba Heights Rd	10,500	306	320	626	6.0	51%	D	440	405	845	8.0	52%	D
Liberty Parkway	River Run Ln to Overton Rd	11,974	962	462	1,424	11.9	68%	D	310	929	1,239	10.3	75%	D
	Overton Rd to Overton Access Rd	17,636	646	1,177	1,823	10.3	65%	D	1,188	545	1,733	9.8	69%	D
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	7,082	140	458	598	8.4	77%	D	347	281	628	8.9	55%	D
	Dolly Ridge Rd to Knollwood Dr	7,176	190	536	726	10.1	74%	D	334	245	579	8.1	58%	D
Cahaba Heights Road/ Pump House Road	Sicard Hollow Rd to Crosshaven Dr	9,977	650	316	966	9.7	67%	E	574	497	1,071	10.7	54%	F
	Crosshaven Dr to Dolly Ridge Rd	11,248	307	589	896	8.0	66%	D	553	365	918	8.2	60%	D
	Dolly Ridge Road to US-280	8,822	234	421	655	7.4	64%	D	471	264	735	8.3	64%	D
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	4,996	168	267	435	8.7	61%	C	248	172	420	8.4	59%	C
	Cahaba Heights Rd to US-280	7,625	394	424	818	10.7	52%	D	256	266	522	6.8	51%	D
Knollwood Drive	Green Valley Rd to Overton Rd	2,394	56	122	178	7.4	69%	A	89	137	226	9.4	61%	B



North
Scale: n.t.s



Figure 5 - Existing Peak Hour Traffic Volumes

Overton Road APPLE

January 2020

Existing Roadway Capacity Deficiencies

Based on the results of the existing capacity analyses, the following roadway segments are currently operating at or over capacity:

- On a daily traffic volume basis:
 - Overton Road, from Oakdale Drive to Locksley Drive
 - Crosshaven Drive, from Overton Road to Cahaba Heights Road
 - Cahaba Heights Road, from Crosshaven Drive to Dolly Ridge Road

- On a peak hour traffic volume basis:
 - Overton Road, from Oakdale Drive to Locksley Drive
 - Overton Road, from North Woodridge Road to U.S. Highway 280
 - Crosshaven Drive, from Overton Road to Green Valley Road
 - Cahaba Heights Road, from Sicard Hollow Road to Crosshaven Drive

- approaching South Brookwood Road
- approaching U.S. Highway 280

As will be shown in the “Observations” section of this report, in these instances, travel speeds in these specific areas of Overton Road were less than 10 miles per hour, clearly level of service “F” in these locations.

Existing Drive Times

Existing drive times were conducted on Overton Road between Liberty Parkway and U.S. Highway 280 on January 7-9, 2020. The results of the drive times are shown in Table 5 and are depicted graphically in the maps on the following page. The levels of service based on the drive times are derived from information contained in the *Highway Capacity Manual*.

The levels of service calculated based on the drive times on Overton Road are overall better than the levels of service calculated based on daily and peak hour traffic volumes. The difference lies in the fact that the traffic volume-based levels of service are calculated on a segment-by-segment basis. The drive time levels of service are for travel speeds for the entire corridor. Currently, traffic is significantly lower than free-flow speed only during the a.m. peak period, and only in two locations:

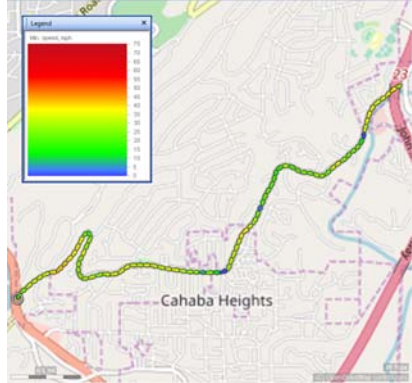
**Table 5
Drive Times
Overton Road between Liberty Parkway and U.S. Highway 280**

AM Peak Period									
Eastbound					Westbound				
Start Time	Length (miles)	Duration	Speed (mph)	LOS	Start Time	Length (miles)	Duration	Speed (mph)	LOS
7:16	4.34	9:48	27	B	7:21	4.47	10:17	26	B
7:40	4.44	12:32	21	C	7:40	4.28	10:22	25	B
8:05	4.37	8:23	31	A	7:53	4.43	18:45	14	D
PM Peak Period									
Eastbound					Westbound				
Start Time	Length (miles)	Duration	Speed (mph)	LOS	Start Time	Length (miles)	Duration	Speed (mph)	LOS
4:24	4:30	10:40	24	C	4:24	4.56	9:58	27	B
4:47	4.33	8:43	30	B	4:36	4.40	9:57	27	B
4:58	4.45	10:16	26	B	4:58	4.32	8:23	31	A

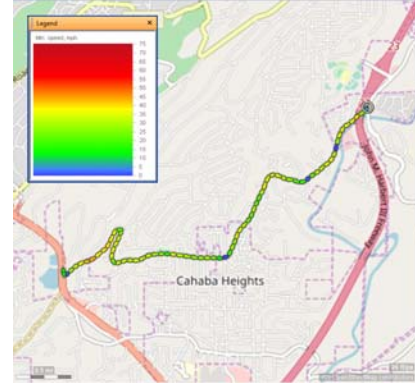
LOS	Speed
A	>30 mph
B	24-30 mph
C	18-24 mph
D	14-18 mph
E	10-14 mph
F	< 10 mph

Overton Road Drive Time Maps

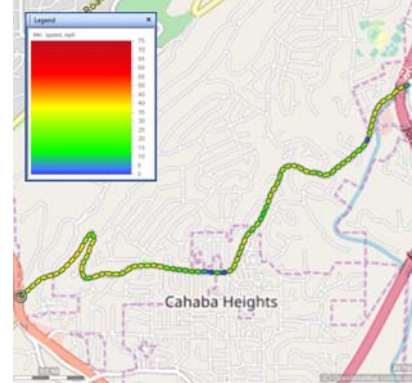
Eastbound 7:16 AM 9:48 21 mph



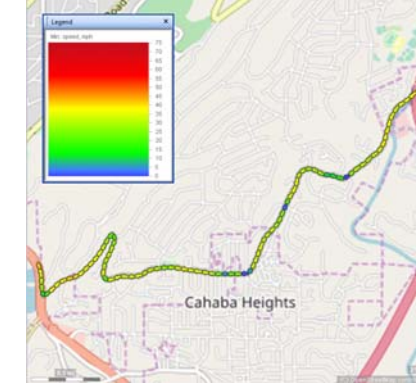
Westbound 7:21 AM 10:17 26 mph



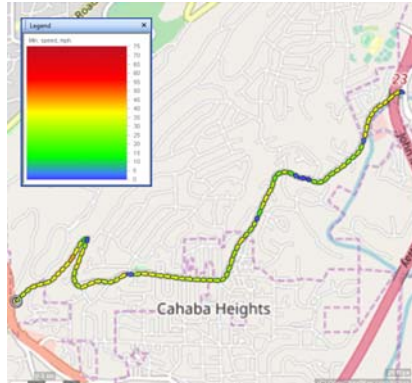
Eastbound 4:24 PM 10:40 24 mph



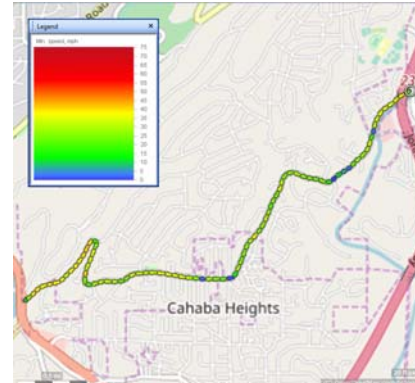
Westbound 4:24 PM 9:58 27 mph



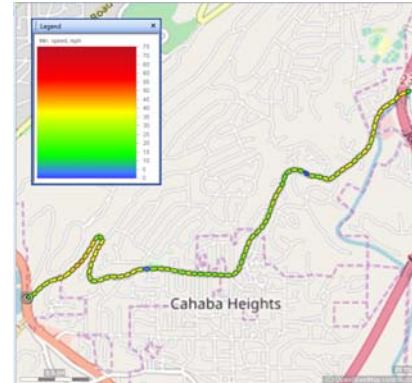
Eastbound 7:40 AM 12:32 27 mph



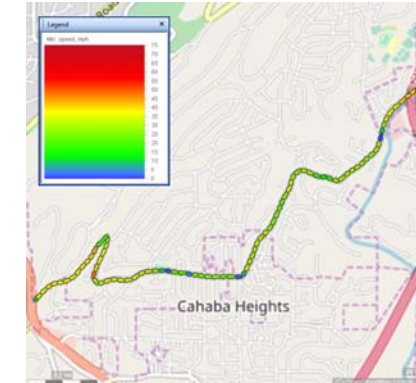
Westbound 7:40 AM 10:22 25 mph



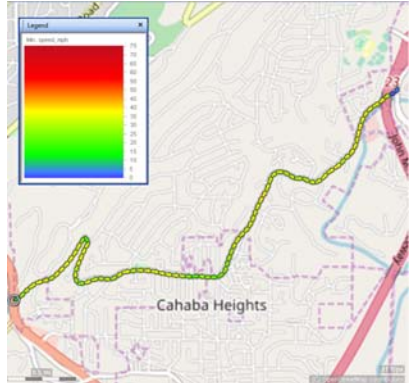
Eastbound 4:47 PM 8:43 30 mph



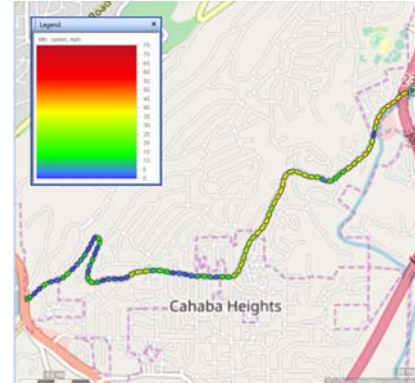
Westbound 4:36 PM 9:57 27 mph



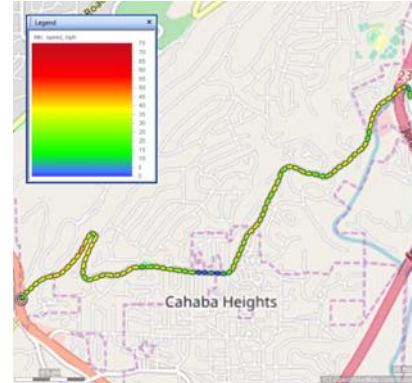
Eastbound 8:05 AM 8:23 31 mph



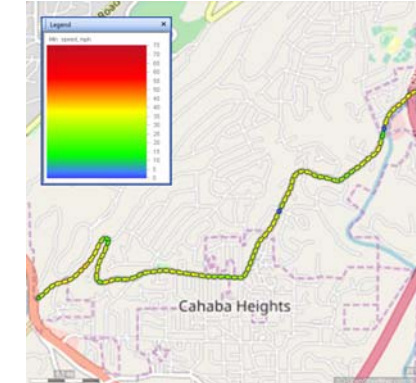
Westbound 7:53 AM 18:45 14 mph



Eastbound 4:58 PM 10:16 26 mph



Westbound 4:58 PM 8:23 31 mph



Available Right-of-Way

Existing right-of-way on Overton Road varies from 40 feet to 80 feet in width. In general, the narrower rights-of-way extend from U.S. Highway 280 to east of Crosshaven Drive, while the wider rights-of-way extend from east of Crosshaven Drive to Liberty Parkway. A summary map of existing available right-of-way on Overton Road is shown in Figure 6.

Existing Sidewalk Inventory

An inventory of existing sidewalks on Overton Road and connecting roadways was performed. This inventory is depicted in Figures 7, 8, and 9.

Observations

AM Peak Period

- Queue on Overton Road westbound from South Brookwood Road to River Bend Lane. Queue length of 1,220 feet. Total time in queue 2 minutes 3 seconds. Average speed was 7 miles per hour.



- Queue on Overton Road eastbound from South Brookwood Road to east of Briar Oak Drive. Queue length of 1,470 feet. Total time in queue 3 minutes 12 seconds. Average speed was 5 miles per hour.



- Queue in left turn from U.S. Highway 280 eastbound onto Overton Road. Queue length of 590 feet. Total time in queue 8 minutes 21 seconds.

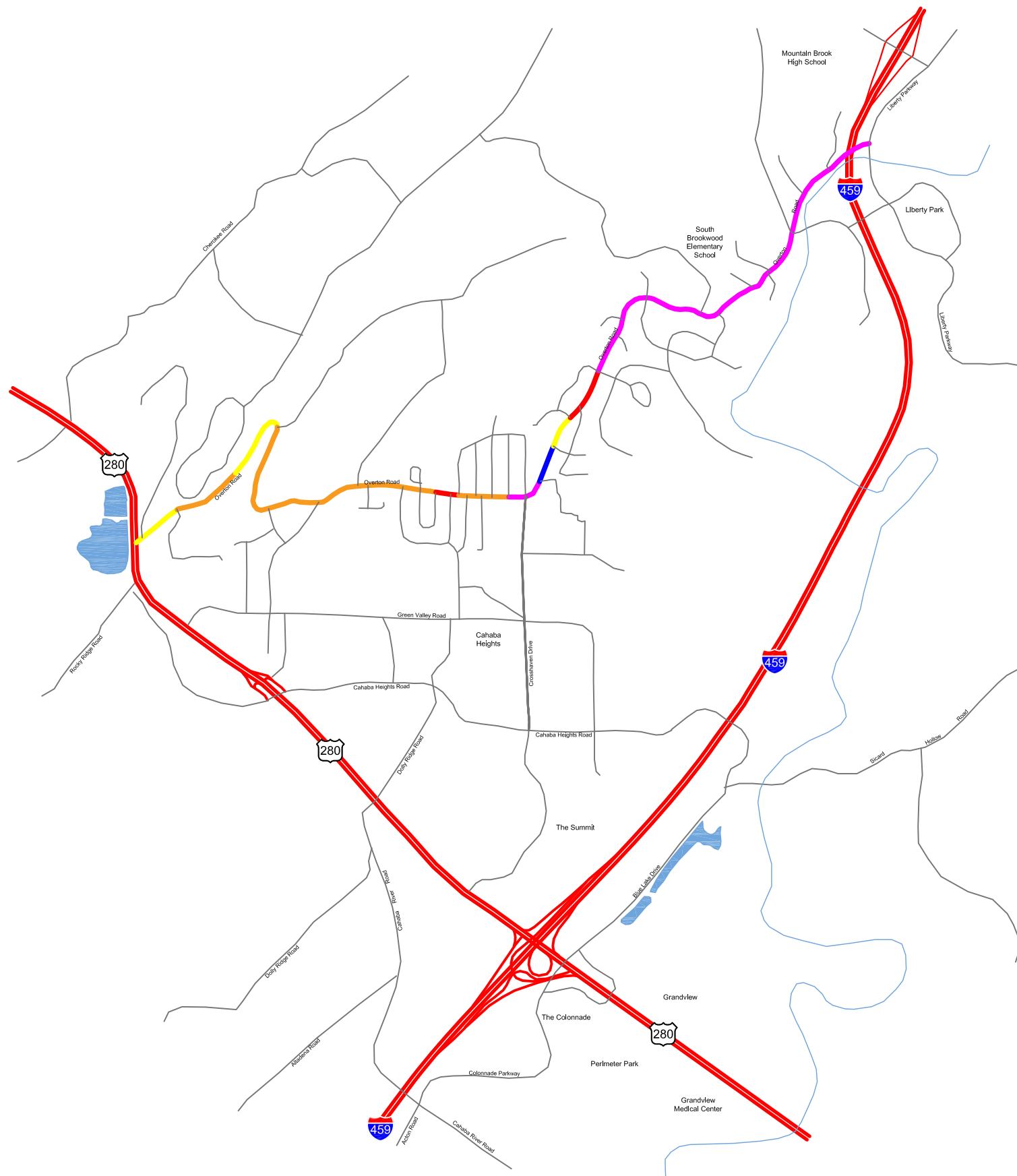


- Slow traffic/rolling queue on Overton Road westbound from just west of Crosshaven Drive to U.S. Highway 280. Length of section is 2.04 miles. Total time to traverse section was 13 minutes 21 seconds. Average speed was 9 miles per hour.



PM Peak Period

No significant queues or delays were observed during the p.m. peak period of traffic.



LEGEND

- 40' ROW
- 50'-55' ROW
- 60' ROW
- 70' ROW
- 80' ROW



Figure 6 - Available Right-of-Way

Overton Road APPLE

January 2020



LEGEND

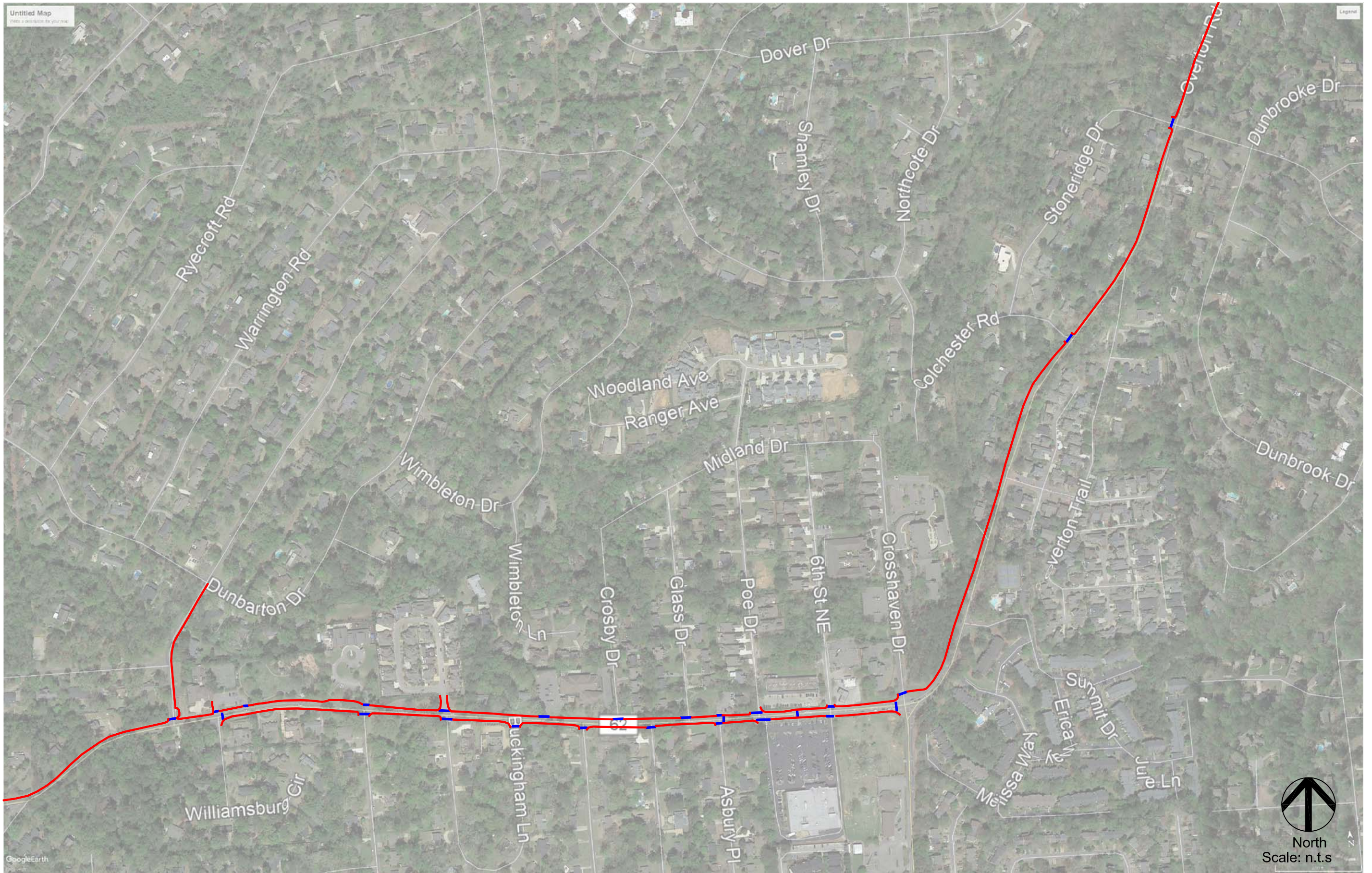
- SIDEWALK
- CROSSWALK



Figure 7 - Existing Sidewalks

Overton Road APPLE

January 2020



Untitled Map

Legend

- LEGEND**
- SIDEWALK
 - CROSSWALK



Figure 8 - Existing Sidewalks

Overton Road APPLE

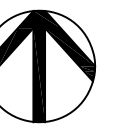


January 2020



LEGEND

- SIDEWALK
- CROSSWALK



North
Scale: n.t.s



Figure 9 - Existing Sidewalks

Overton Road APPLE

January 2020

Historical Traffic Growth

Historical traffic counts on area roadways were obtained from the Alabama Department of Transportation and were then subjected to an analysis to determine the yearly traffic growth rates. The data and analysis are shown in Table 6 and are graphically depicted in Figure 10.

**Table 6
Historical Traffic Growth**

Overton Road										
	w. of Liberty Pkwy		w. of S. Brookwood Rd		e. of Crosshaven Dr		e. of Locksley Dr		e. of US-280	
2018	7,035	1.7%	11,597	-6.2%	13,920	0.0%	10,000	0.0%	8,420	5.0%
2017	6,920	-2.3%	12,370	-2.3%	13,920	-2.3%	10,000	-5.4%	8,020	2.6%
2016	7,080	2.5%	12,660	2.4%	14,250	2.4%	10,570	2.4%	7,820	2.5%
2015	6,910	2.1%	12,360	2.0%	13,910	2.0%	10,320	2.0%	7,630	7.2%
2014	6,770	9.2%	12,120		13,640	0.4%	10,120	9.3%	7,120	0.8%
2013	6,200				13,590	0.8%	9,260		7,060	
2012					13,480	4.0%				
2011					12,960	-1.0%				
2010					13,090	0.0%				
2009					13,090					
overall		2.7%		-1.1%		0.7%		1.6%		3.9%
Liberty Parkway					Dolly Ridge Road					
	s. of River Run Dr		s. of Cahaba Heights Rd			s. of Cahaba Heights Rd				
2018	11,161	10.4%			2018	6,960	0.0%			
2017	10,110	-0.1%			2017	6,960	-0.6%			
2016	10,120	2.4%			2016	7,000	2.5%			
2015	9,880	2.0%			2015	6,830				
2014	9,690				overall		0.6%			
overall		3.8%								
Crosshaven Drive				Green Valley Road						
	n. of Green Valley Rd		s. of Green Valley Rd		w. of Crosshaven Dr		e. of Knollwood Dr			
2018			11,071		2018	7,550	0.0%			
2017	14,250	1.9%	11,420	2.6%	2017	7,550	-0.8%	8,580	-2.3%	
2016	13,980	2.4%	11,130	2.5%	2016	7,610	2.4%	8,780	2.5%	
2015	13,650	-6.8%	10,860	-6.9%	2015	7,430	0.0%	8,570	0.0%	
2014	14,650	17.2%	11,670	0.8%	2014	7,430	10.1%	8,570	9.5%	
2013	12,500		11,580		2013	6,750		7,830		
overall		3.5%		-0.9%	overall		2.4%		2.4%	
Cahaba Heights Road/Pump House Road										
	e. of Crosshaven Dr		w. of Crosshaven Dr		e. of US-280					
2018	9,080	-6.2%	11,560	-8.0%	8,230	1.2%				
2017	9,680	-0.6%	12,560	-0.1%	8,130	-0.6%				
2016	9,740	2.4%	12,570	2.4%	8,180	2.5%				
2015	9,510	2.0%	12,270	2.0%	7,980	2.0%				
2014	9,320		12,030		7,820	5.5%				
2013					7,410					
overall		-0.6%		-1.0%		2.2%				

Planned and Programmed Roadway Improvements

Current local and regional transportation plans were reviewed to determine any planned and/or programmed roadway improvements slated for roadways within the study area. The following sections address these projects. A map of the proposed projects is included in Figure 11.

Local Capital Improvements

The City of Vestavia Hills has a programmed project to widen Crosshaven Drive to a three lane cross section from Overton Road to Cahaba Heights Road. The project includes addition of a sidewalk on the east side of Crosshaven Drive for the length of the project. The project also includes a right turn lane from Overton Road eastbound onto Crosshaven Drive and a right turn lane from Cahaba Heights Road westbound onto Crosshaven Drive. The project is currently in right-of-way acquisition, and is scheduled for construction in 2020.

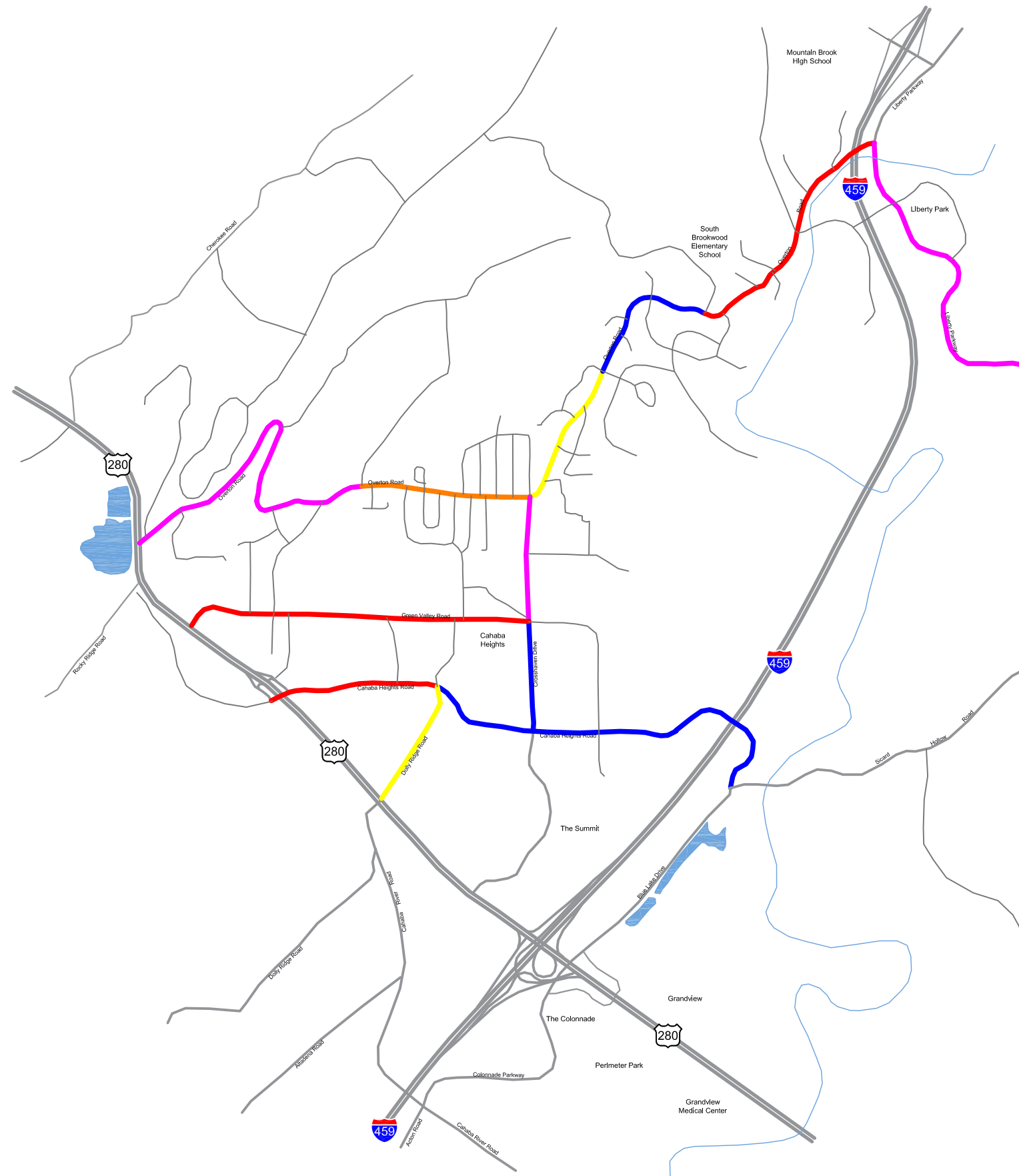
Transportation Improvement Program (TIP)

The FY 2020-2023 Transportation Improvement Program (TIP) has two projects within the study area. The first project is the Jefferson County TOPICS VIII project, which includes intersection improvements to the intersection of Crosshaven Drive at Green Valley Road. A conceptual improvement plan is shown as an inset on Figure 10 (provided by Neel-Schaffer, Inc.) Utility Relocation was scheduled for FY 2019, but has not yet been authorized. Construction is scheduled for FY 2020.

The second project in the FY 2020-2023 TIP is a Transportation Alternatives Program (TAP) grant for construction of a sidewalk on Dunbarton Drive from North Woodridge Drive to Locksley Drive. Construction was scheduled for FY 2019, but has not yet begun.

Regional Transportation Plan (RTP)

There are no projects in the study area in the current 2045 Regional Transportation Plan (RTP) of the Birmingham Metropolitan Organization (MPO).



LEGEND

- No Data/Not Analyzed
- Less than 0% (Negative Growth)
- 0% to 1% per year
- 1% to 2% per year
- 2% to 3% per year
- Greater than 3% per year



North
Scale: n.t.s



Figure 10 - Historical Traffic Growth Rates

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Conceptual Layout - Jefferson County TOPICS VIII

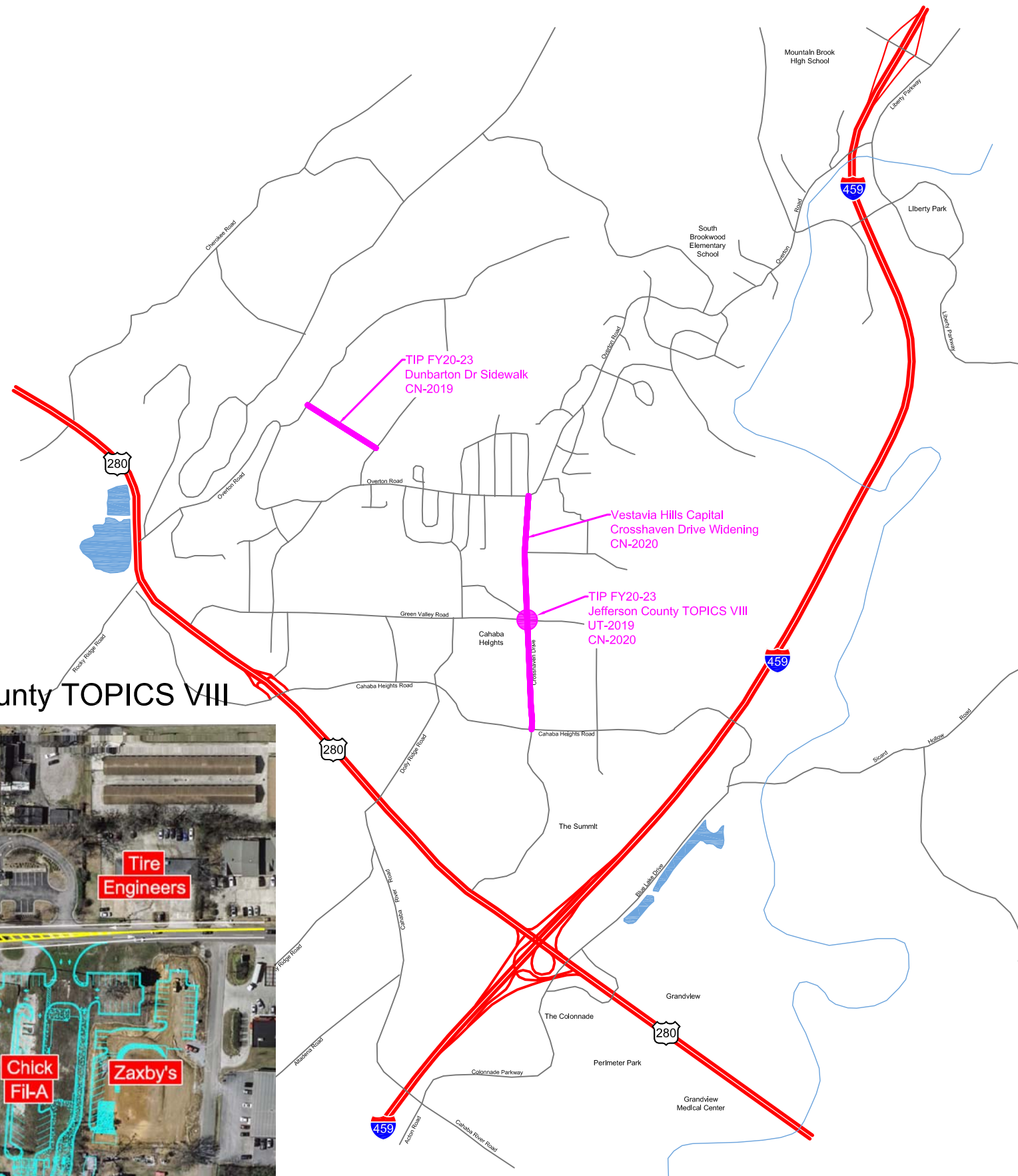
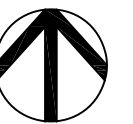


Figure 11 - Programmed Roadway Improvements

Overton Road APPLE



North
Scale: n.t.s

January 2020

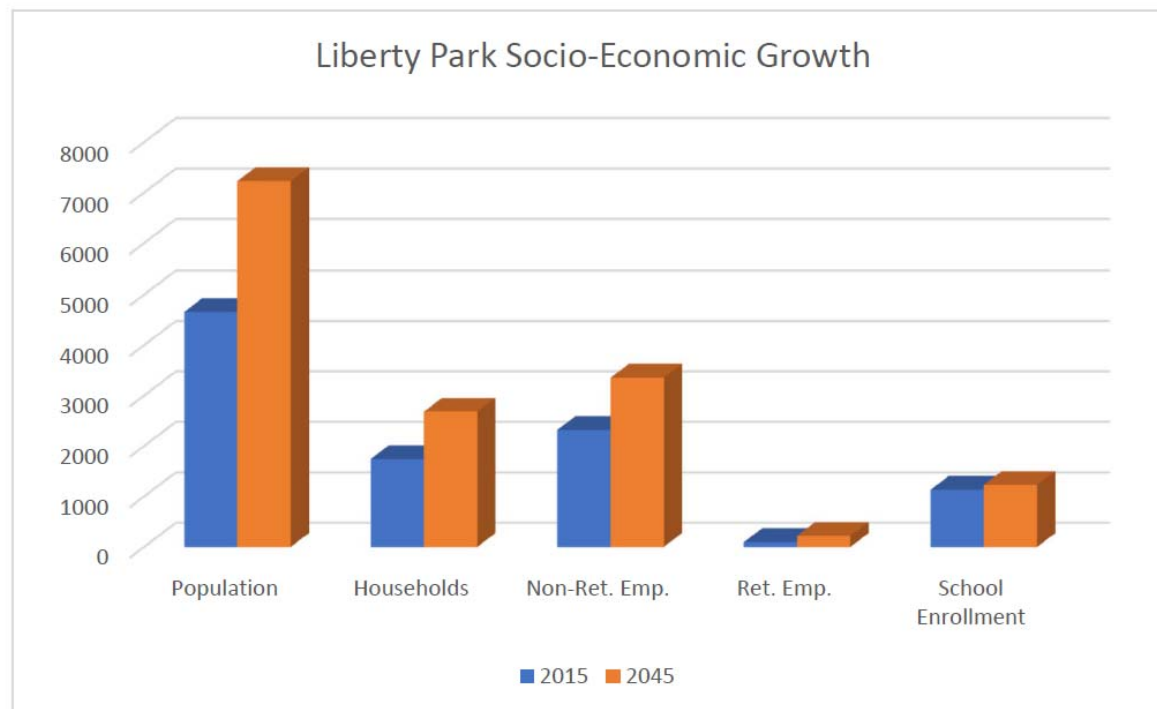
Liberty Park Socio-Economic Data

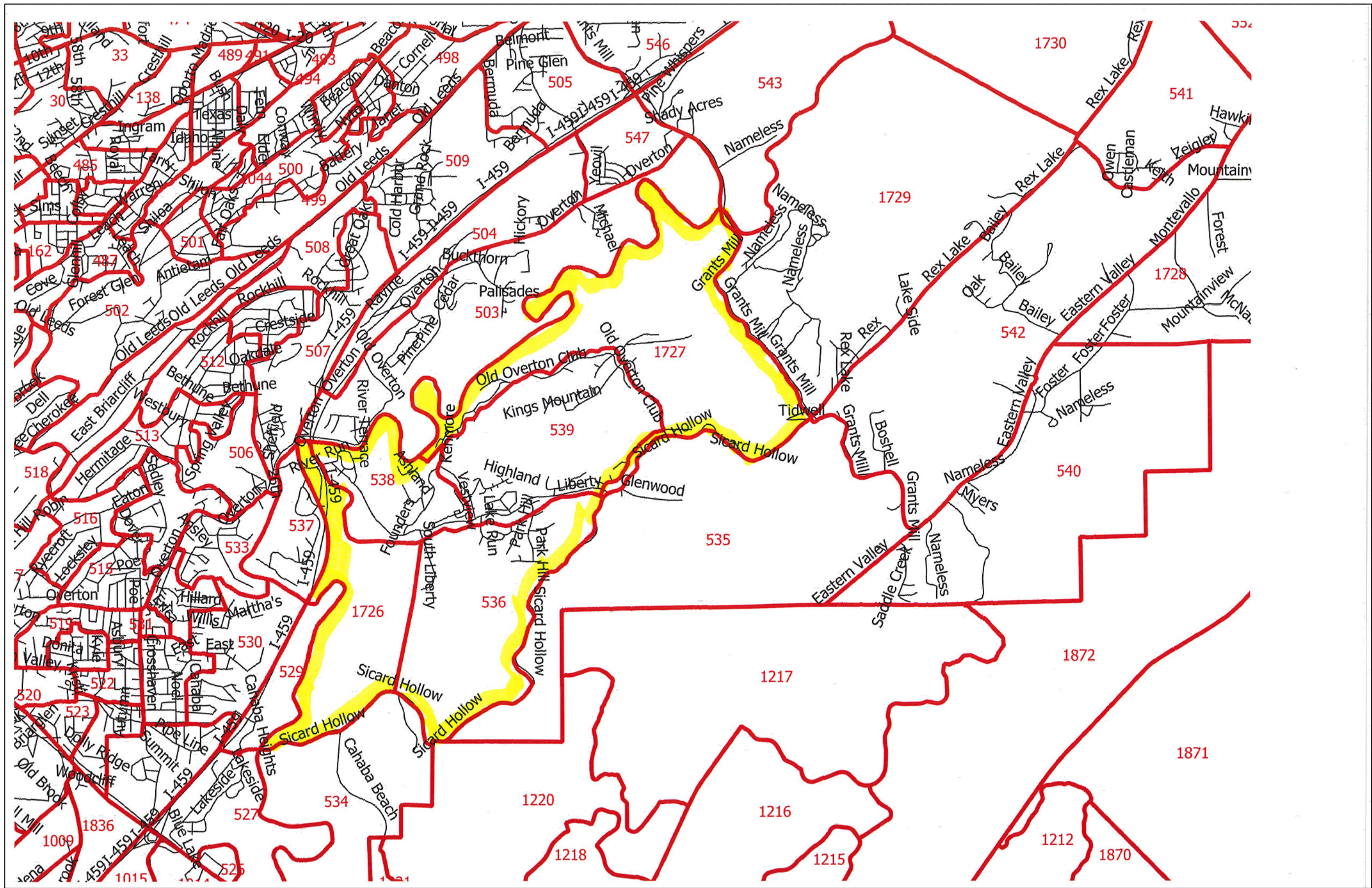
A major source of new traffic projected to use Overton Road and other roadways within the study area is continued development at Liberty Park. The regional transportation demand model maintained by the Regional Planning Commission of Greater Birmingham (RPCGB) includes significant growth for Liberty Park, but does not match current proposed developments in Liberty Park. This, and the following section of this report, compares projected socio-economic growth within Liberty Park to current development plans.

Liberty Park occupies the majority of land contained within the following traffic analysis zones (TAZs) used in the regional transportation demand model: TAZ 536, 538, 539, 1726, and 1727. The location of these TAZs is shown in Figure 12. The base year (2015) and future year 2045 socio-economic data and projections for these TAZs are shown in Table 7, along with a calculation of the projected growth within each TAZ.

**Table 7
Liberty Park Socio-Economic Data**

TAZ	Population	Households	Vacant Households	Occupied Households	Non-Retail Employment	Retail Employment	School Enrollment	Median Income
Base Year 2015								
536	1,318	564	29	535	124	1	1,130	\$51,406
538	259	124	5	119	1,888	54	0	\$47,336
539	1,958	642	36	606	301	35	0	\$47,336
1726	2	2	0	2	4	4	0	\$51,406
1727	1,119	410	37	373	0	0	0	\$47,336
Totals	4,656	1,742	107	1,635	2,317	94	1,130	
Future Year 2045								
536	1653	714	43	671	324	1	1,230	
538	259	124	5	119	1913	79	0	
539	1975	657	20	637	301	35	0	
1726	2	2	0	2	718	104	0	
1727	3341	1185	71	1114	96	0	0	
Totals	7230	2682	139	2543	3352	219	1230	
Growth 2015-2045								
536	335	150	14	136	200	0	100	
538	0	0	0	0	25	25	0	
539	17	15	-16	31	0	0	0	
1726	0	0	0	0	714	100	0	
1727	2,222	775	34	741	96	0	0	
Totals	2,574	940	32	908	1,035	125	100	





North
Scale: n.t.s



Figure 12 - Traffic Analysis Zone Map

Overton Road APPLE

January 2020

Liberty Park Development Information

Information on planned and under construction developments within Liberty Park was obtained from the City of Vestavia Hills and an earlier traffic study performed for Liberty Park by Atkins. Table 8 is a listing of the planned/under construction developments, including land use, size, and estimated socio-economic data. Information on the employment per square foot of various land uses was derived from information contained in the U.S. Energy Information Administration publication *Commercial Buildings Energy Consumption Survey (2012)*.

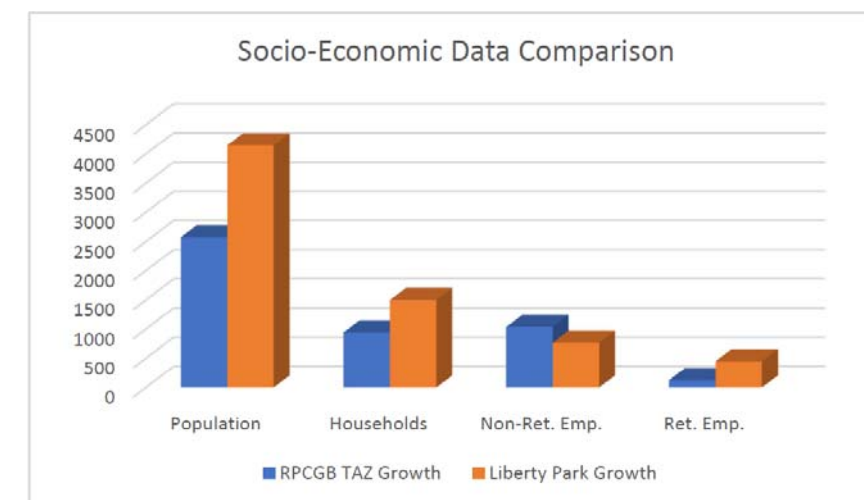
**Table 8
Liberty Park Development Data**

Land Use	Size	Population	Households	Non-Retail Employment	Retail Employment
Assisted Living Facility	100 beds	100	100		
Retail	20,000 sq.ft.				44
The Bray					
Convenience Store/Gas Station*	8 pumps				15
Office (East)	15,000 sq.ft.			27	
Grocery Store	48,400 sq.ft.				116
Office (West)	35,000 sq.ft.			62	
Retail	100,000 sq.ft.				220
Townhouses	100 d.u.'s	270	100		
Single Family Residential	1,000 d.u.'s	2700	1,000		
Single Family Residential	400 d.u.'s	1,080	400		
Cahaba Station					
Retail	14,179 sq.ft.				31
Office	9983 sq.ft.			18	
Restaurant	4600 sq.ft.				24
Encompass Health					
2018	200,000 sq.ft.			527	
2040	200,000 sq.ft.			+133	
Totals		4,150	1,500	767	450

The socio-economic data shown in Table 8 was compared to RPCGB predicted growth in socio-economic data for the TAZ's encompassing Liberty Park. This review is summarized in Table 9.

**Table 9
Socio-Economic Growth Data Comparison**

	Population	Households	Non-Retail Employment	Retail Employment
RPCGB Predicted TAZ Growth	2,574	940	1,035	125
Liberty Park Predicted Growth	4,150	1,500	767	450



Liberty Park Trip Generation

The number of daily trips estimated to be generated by the planned developments at Liberty Park was calculated using information from the Institute of Transportation Engineers publications *Trip Generation* and *Trip Generation Handbook*. For certain land uses, particularly retail and customer-oriented uses, a portion of the trips will remain internal to Liberty Park (i.e., a person who lives in Liberty Park going to a restaurant in Liberty Park). This is expressed as the “Internal Capture Rate”. “External Trips” are those trips which will impact regional roadways outside Liberty Park, such as I-459, Sicard Hollow Road, Overton Road, and other roadways within the study area. Of all external trips, it is estimated that approximately 20% will use Overton Road and other roadways in the study area. The daily trip generation estimate for planned developments in Liberty Park is shown in Table 10. As shown, the planned development in Liberty Park is anticipated to add approximately 4,000 vehicles per day to Overton Road and other roadways in the study area

**Table 10
Liberty Park Trip Generation**

Land Use	Size		Daily Trips	Internal Capture Rate	External Trips	% Assigned to Study Area	Trips Assigned to Study Area
Assisted Living Facility	100	beds	284	0%	284	20%	58
Retail	20,000	sq.ft.	894	62%	340	20%	68
The Bray							
Convenience Store/Gas	8	pumps	1,348	93%	94	20%	20
Office (East)	15,000	sq.ft.	304	0%	304	20%	62
Grocery Store	48,400	sq.ft.	4,472	49%	2,280	20%	456
Office (West)	35,000	sq.ft.	580	0%	580	20%	116
Retail	100,000	sq.ft.	4,316	62%	1,640	20%	328
Townhouses	100	d.u.'s	644	0%	644	20%	130
Single Family Residential	1,000	d.u.'s	8,736	0%	8,736	20%	1,748
Single Family Residential	400	d.u.'s	3,760	0%	3,760	20%	752
Cahaba Station							
Retail	14,179	sq.ft.	644	62%	246	20%	50
Office	9983	sq.ft.	224	0%	224	20%	46
Restaurant	4600	sq.ft.	414	62%	158	20%	32
Encompass Health							
2040	+133	emp.	440	0%	440	20%	88
Totals			27,060		19,730		3,954

Liberty Park Trip Assignment

As shown in the previous section of this report, planned development at Liberty Park is anticipated to add approximately 4,000 vehicles per day to Overton Road and other roadways in the study area. This traffic will be concentrated at the entry points from Liberty Park, specifically: 1) the intersection of Liberty Parkway at Overton Road, and 2) the intersection of River Run Drive at Overton Road. Traffic will disperse as it travels along Overton Road at major divergence points, specifically: 1) South Brookwood Road, 2) Crosshaven Drive, and 3) Knollwood Drive. The estimated assignment of trips generated by planned developments in Liberty Park is depicted in Figure 13.

Regional Transportation Demand Model Assignment

The regional transportation demand model for the Birmingham area was used to determine future 2040 traffic volume projections for the study area roadways. This information is presented in Figure 14.

Future Daily Traffic Volume Projections

Future 2040 daily traffic volume projections for study area roadways was projected by using a compilation of three different methods to project traffic growth:

- Applying the percent per year growth rates as determined based on historical traffic counts to the existing traffic counts
- Adding the projected traffic volumes generated by planned developments at Liberty Park to the existing traffic volumes
- The regional transportation demand model output

Generally, the results of the three methods were averaged, but in some cases anomalous values were rejected. The resultant projected 2040 traffic volumes in the study area are shown in Figure 15 and Table 11. Table 11 also compares the projected 2040 traffic volumes to existing 2019 traffic volumes.

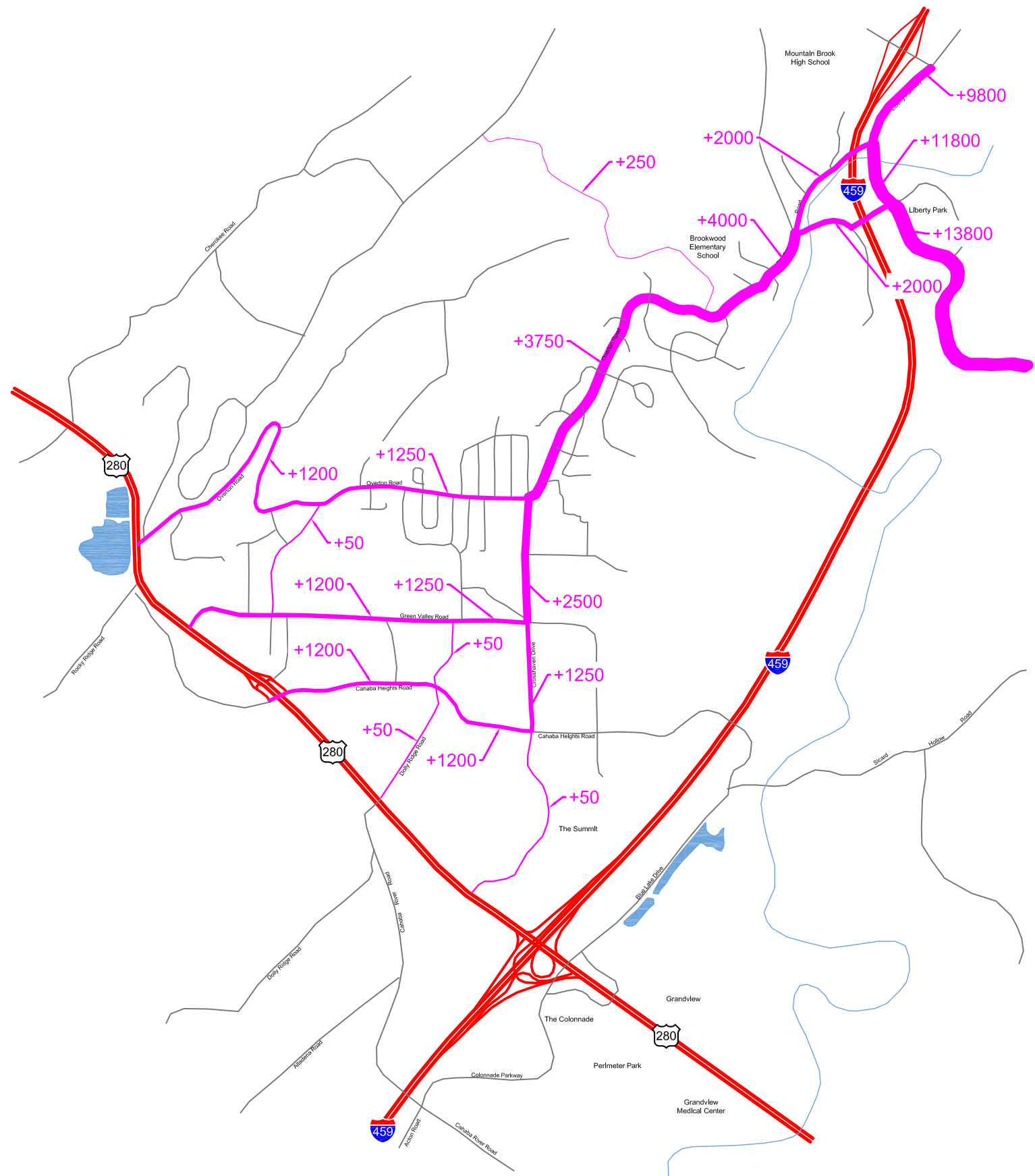


Figure 13 - Liberty Park Trip Assignment

Overton Road APPLE



January 2020

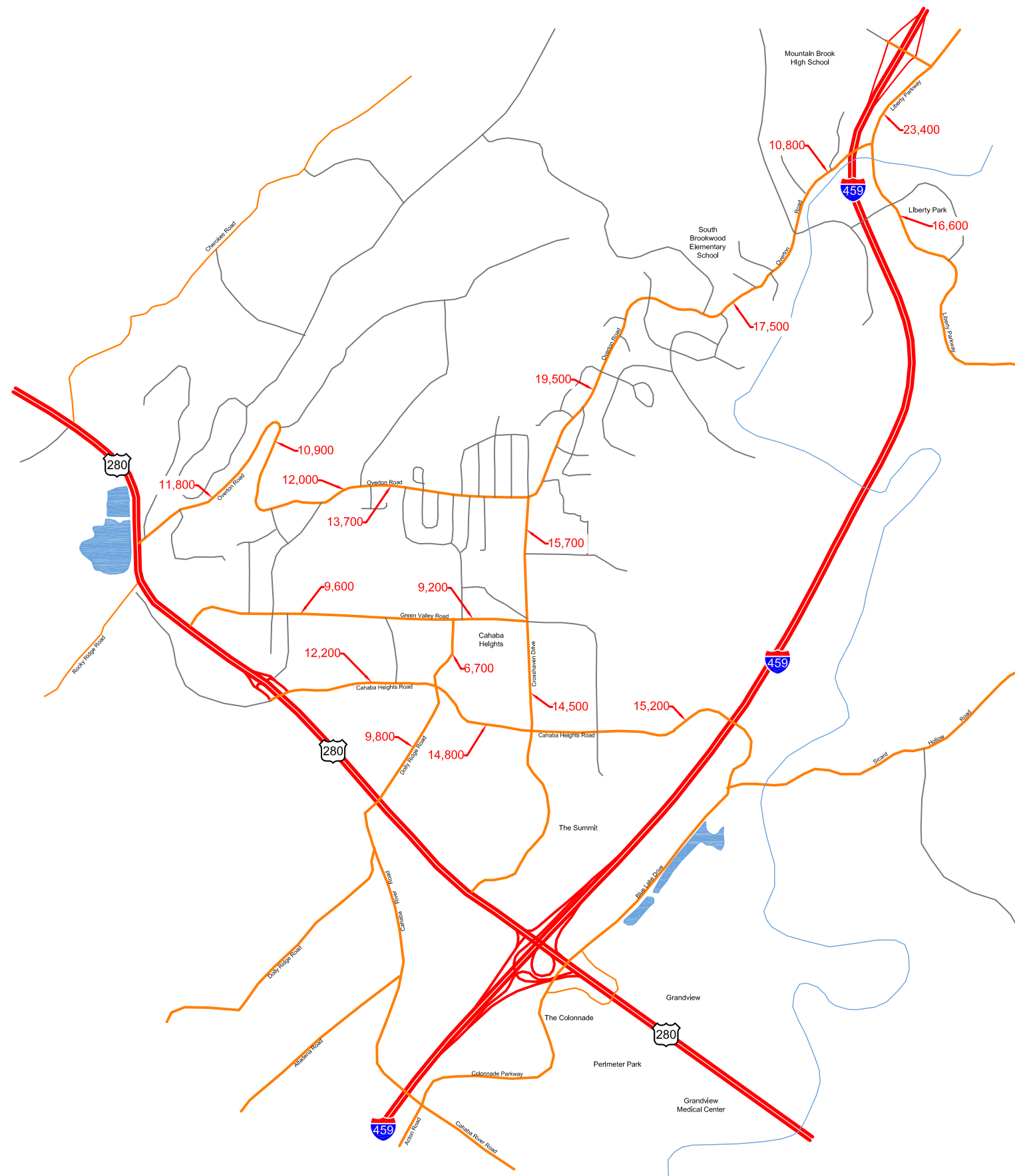
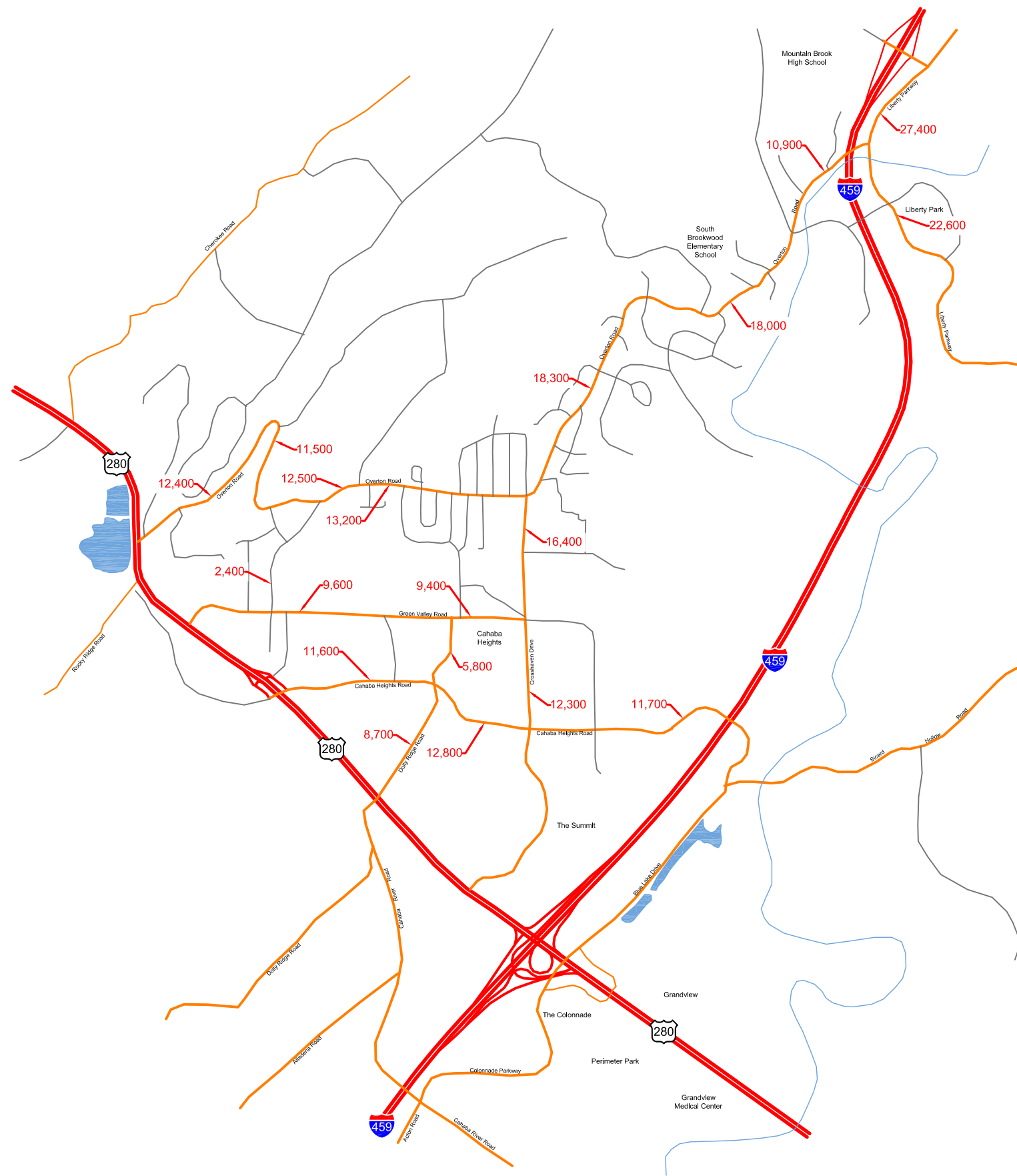


Figure 14 - Regional 2040 Model Assignment

Overton Road APPLE



January 2020



North
Scale: n.t.s



Figure 15 - Future 2040 Daily Traffic Volumes

Overton Road APPL

January 2020

Table 11
Existing and Future 2040 Daily Traffic Volumes

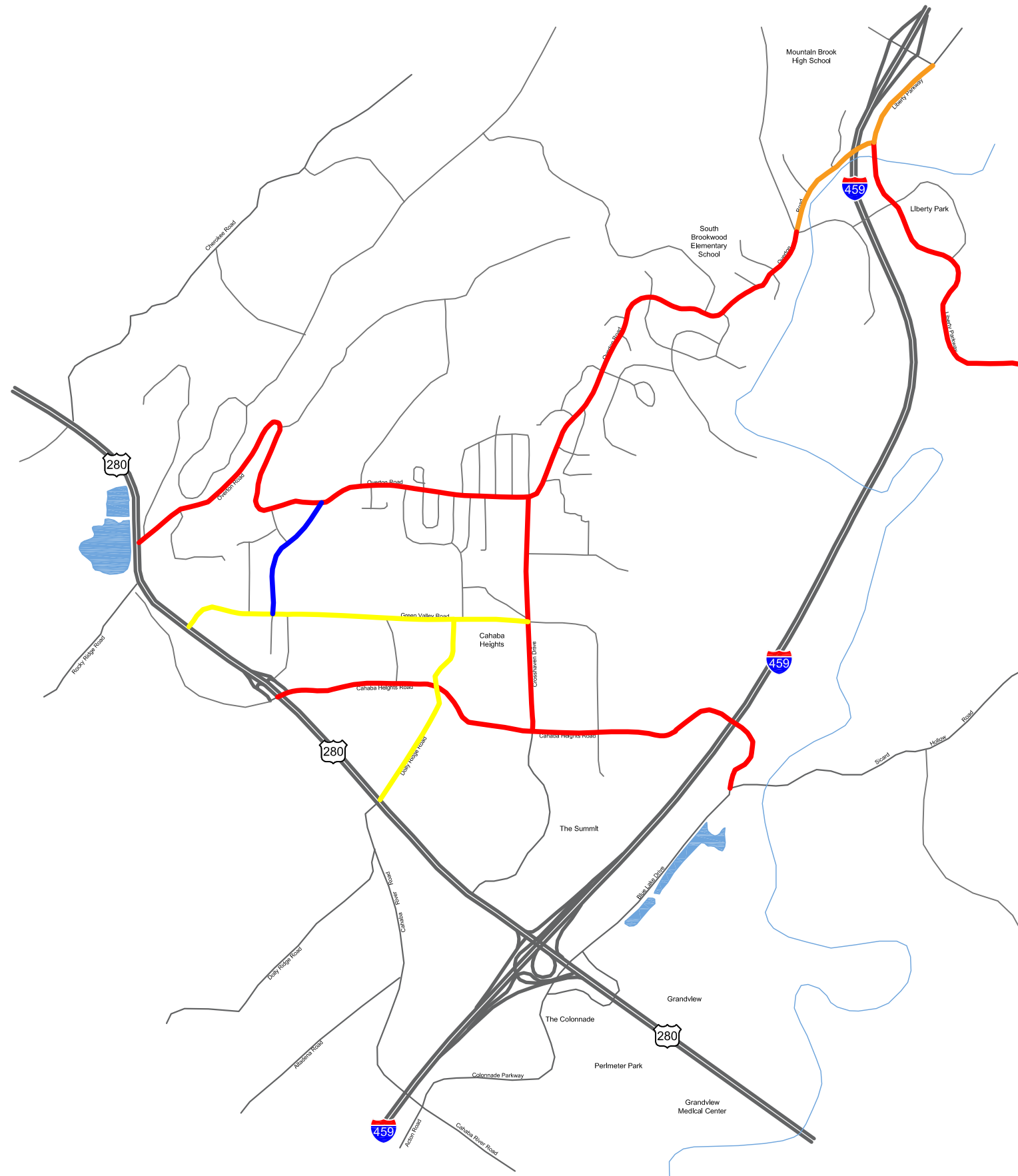
Roadway	Segment	Classification	Cross Section	Existing Volume	Projected 2040 Volume
Overton Road	Liberty Pkwy to Oakdale Dr	Minor Arterial	Two Lane	7,800	10,900
	Oakdale Dr to South Brookwood Rd	Minor Arterial	Two Lane	12,700	18,000
	S. Brookwood Rd to Crosshaven Dr	Minor Arterial	Two Lane	14,800	18,300
	Crosshaven Dr to Locksley Dr	Local	Two Lane	10,400	13,200
	Locksley Dr to Knollwood Dr	Local	Two Lane	8,800	12,500
	Knollwood Dr to North Woodridge Rd	Local	Two Lane	8,100	11,500
	North Woodridge Rd to US-280	Local	Two Lane	8,800	12,400
Crosshaven Drive	Overton Rd to Green Valley Rd	Minor Arterial	Two Lane	11,200	16,400
	Green Valley Rd to Cahaba Heights Rd	Collector	Two Lane	10,500	12,300
Liberty Parkway	River Run Ln to Overton Rd	Collector	Four Lane Divided	12,000	22,600
	Overton Rd to Overton Access Rd	Collector	Four Lane Divided	17,600	27,400
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	Minor Arterial	Two Lane	7,100	9,400
	Dolly Ridge Rd to Knollwood Dr	Minor Arterial	Two Lane	7,200	9,600
Cahaba Heights Road/Pump House Road	Sicard Hollow Rd to Crosshaven Dr	Collector	Two Lane	10,000	11,700
	Crosshaven Dr to Dolly Ridge Rd	Collector	Two Lane	11,200	12,800
	Dolly Ridge Road to US-280	Collector	Two Lane	8,800	11,600
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	Local	Two Lane	5,000	5,800
	Cahaba Heights Rd to US-280	Local	Two Lane	7,600	8,700
Knollwood Drive	Green Valley Rd to Overton Rd	Local	Two Lane	2,400	2,400

Table 12
Future 2040 Daily Levels of Service

Roadway	Segment	Classification	Cross Section	Capacity	Volume	v/c	LOS	
Overton Road	Liberty Pkwy to Oakdale Dr	Minor Arterial	Two Lane	10,920	10,900	1.00	E	
	Oakdale Dr to South Brookwood Rd	Minor Arterial	Two Lane	10,920	18,000	1.65	F	
	South Brookwood Rd to Crosshaven Dr	Minor Arterial	Two Lane	10,920	18,300	1.68	F	
	Crosshaven Dr to Locksley Dr	Local	Two Lane	10,920	13,200	1.21	F	
	Locksley Dr to Knollwood Dr	Local	Two Lane	10,920	12,500	1.14	F	
	Knollwood Dr to North Woodridge Rd	Local	Two Lane	10,920	11,500	1.05	F	
	North Woodridge Rd to US-280	Local	Two Lane	10,920	12,400	1.14	F	
	Crosshaven Drive	Overton Rd to Green Valley Rd	Minor Arterial	Two Lane	11,470	16,400	1.50	F
		Green Valley Rd to Cahaba Heights Rd	Collector	Two Lane	11,470	12,300	1.13	F
Liberty Parkway	River Run Ln to Overton Rd	Collector	Four Lane Divided	28,500	22,600	0.79	E	
	Overton Rd to Overton Access Rd	Collector	Four Lane Divided	28,500	27,400	0.96	E	
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	Minor Arterial	Two Lane	10,920	9,400	0.86	D	
	Dolly Ridge Rd to Knollwood Dr	Minor Arterial	Two Lane	10,920	9,600	0.88	D	
Cahaba Heights Road/Pump House Road	Sicard Hollow Rd to Crosshaven Dr	Collector	Two Lane	10,920	11,700	1.07	F	
	Crosshaven Dr to Dolly Ridge Rd	Collector	Two Lane	10,920	12,800	1.17	F	
	Dolly Ridge Road to US-280	Collector	Two Lane	10,920	11,600	1.06	F	
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	Local	Two Lane	10,920	5,800	0.53	D	
	Cahaba Heights Rd to US-280	Local	Two Lane	10,920	8,700	0.80	D	
Knollwood Drive	Green Valley Rd to Overton Rd	Local	Two Lane	10,920	2,400	0.22	B	

Future Daily Levels of Service

Future 2040 daily levels of service for roadways in the study area were calculated based on information contained in the 2012 FDOT Quality/Level of Service Handbook. The service flow volumes for each level of service for each roadway cross section are shown in Table 2. The future daily roadway levels of service are shown in Table 12 and Figure 16.



LEGEND

- LOS A —
- LOS B —
- LOS C —
- LOS D —
- LOS E —
- LOS F —



North
Scale: n.t.s



Figure 16 - Future Daily Levels of Service

Overton Road APPLE

January 2020

Future Peak Hour Traffic Volume Projections

Future 2040 peak hour traffic volumes were calculated for study area roadways using the projected future 2040 daily traffic volumes and the K and D factors developed earlier in this report. The future 2040 a.m. and p.m. peak hour traffic volumes are depicted in Table 13 and Figure 17.

Future Peak Hour Levels of Service

Future 2040 peak hour levels of service for roadways in the study area were calculated based on information contained in the 2012 FDOT Quality/Level of Service Handbook. The service flow volumes for each level of service for each roadway cross section are shown in Table 2. The future 2040 peak hour roadway levels of service are shown in Table 13.

Future Roadway Capacity Deficiencies

Based on the results of the future 2040 capacity analyses, the following roadway segments are currently operating at or over capacity:

- On a daily traffic volume basis:
 - Overton Road, from Oakdale Drive to U.S. Highway 280
 - Crosshaven Drive, from Overton Road to Cahaba Heights Road
 - Cahaba Heights Road/Pump House Road, from Sicard Hollow Road to U.S. Highway 280

- On a peak hour traffic volume basis:
 - Overton Road, from Liberty Parkway to U.S. Highway 280
 - Crosshaven Drive, from Overton Road to Cahaba Heights Road
 - Liberty Parkway, from Overton Road to Overton Access Road
 - Cahaba Heights Road, from Sicard Hollow Road to Dolly Ridge Road

Overton Road Cross Section to Alleviate Deficiencies

In order to bring all projected 2040 daily and peak hour levels of service on Overton Road, the cross sections would be required to be widened to four lane undivided cross section from Liberty Parkway to U.S. Highway 280.

The typical right-of-way to accommodate a four lane undivided cross section, including sidewalks on both sides, would be a minimum of 90 feet. The existing right-of-way varies from 40 feet to 80 feet. Widening of Overton Road to a four lane undivided cross section would require the acquisition of approximately 495,000 square feet of right-of-way. Using a typical cost of right-of-way acquisition of \$15 per square foot, purchase of right-of-way alone to widen Overton Road to a four lane undivided cross section would be approximately \$7.4 million dollars.

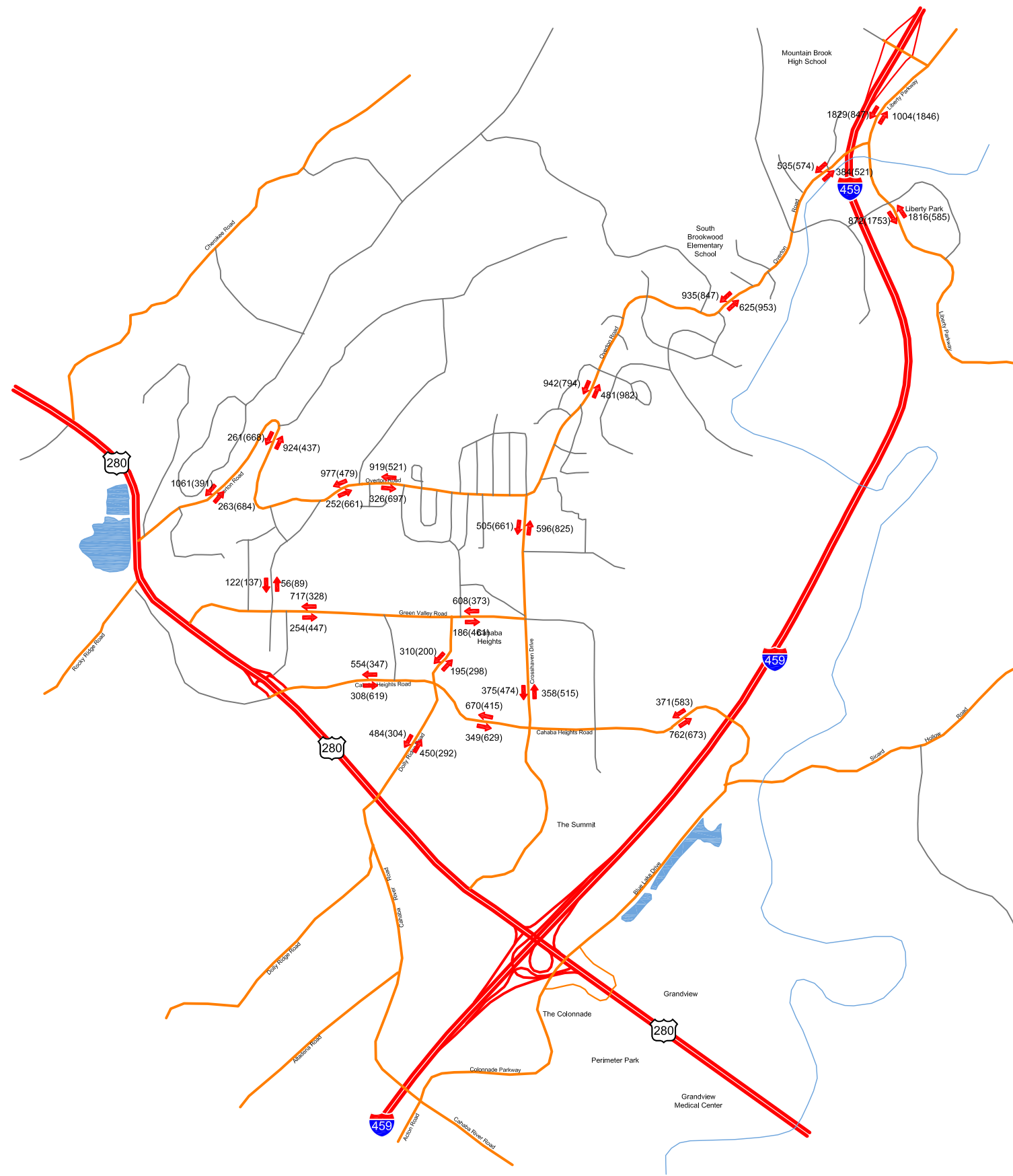
The total preliminary estimated project cost to widen Overton Road to a four lane undivided cross section from Liberty Parkway to U.S. Highway 280 is \$53.7 million dollars, generally subdivided as follows:

Preliminary Engineering	\$ 3.8 million
Right-of-Way	\$ 7.4 million
Utilities	\$13.5 million
Construction	\$25.2 million
CE&I	<u>\$ 3.8 million</u>
Total	\$53.7 million

Note: This information is provided for information only and is not to be considered a recommended action.

Table 13
Future 2040 Peak Hour Traffic Volumes and Levels of Service

Roadway	Segment	Daily Volume	AM Peak Hour					PM Peak Hour						
			EB/NB	WB/SB	Total	K	D	LOS	EB/NB	WB/SB	Total	K	D	LOS
Overton Road	Liberty Pkwy to Oakdale Dr	10,900	384	535	919	8.4	58%	D	521	574	1,095	10.0	52%	F
	Oakdale Dr to South Brookwood Rd	18,000	625	935	1,560	8.7	60%	F	953	847	1,800	10.0	53%	F
	South Brookwood Rd to Crosshaven Dr	18,300	481	942	1,423	7.8	66%	F	982	794	1,776	9.7	55%	F
	Crosshaven Dr to Locksley Dr	13,200	326	919	1,245	9.4	74%	F	697	521	1,218	9.2	57%	F
	Locksley Dr to Knollwood Dr	12,500	252	977	1,228	9.8	80%	F	661	479	1,141	9.1	58%	F
	Knollwood Dr to North Woodridge Rd	11,500	924	261	1,185	10.3	78%	F	437	668	1,104	9.6	60%	F
	North Woodridge Rd to US-280	12,400	263	1,061	1,324	10.7	80%	F	684	391	1,075	8.7	64%	F
Crosshaven Drive	Overton Rd to Green Valley Rd	16,400	596	505	1,101	6.7	54%	F	825	661	1,486	9.1	56%	F
	Green Valley Rd to Cahaba Heights Rd	12,300	358	375	733	6.0	51%	D	515	474	990	8.0	52%	F
Liberty Parkway	River Run Ln to Overton Rd	22,600	1,816	872	2,688	11.9	68%	E	585	1,753	2,339	10.3	75%	D
	Overton Rd to Overton Access Rd	27,400	1,004	1,829	2,832	10.3	65%	F	1,846	847	2,692	9.8	69%	E
Green Valley Road	Crosshaven Dr to Dolly Ridge Rd	9,400	186	608	794	8.4	77%	D	461	373	834	8.9	55%	D
	Dolly Ridge Rd to Knollwood Dr	9,600	254	717	971	10.1	74%	E	447	328	775	8.1	58%	D
Cahaba Heights Road/ Pump House Road	Sicard Hollow Rd to Crosshaven Dr	11,700	762	371	1,133	9.7	67%	F	673	583	1,256	10.7	54%	F
	Crosshaven Dr to Dolly Ridge Rd	12,800	349	670	1,020	8.0	66%	F	629	415	1,045	8.2	60%	F
	Dolly Ridge Road to US-280	11,600	308	554	861	7.4	64%	D	619	347	966	8.3	64%	E
Dolly Ridge Road	Green Valley Rd to Cahaba Heights Rd	5,800	195	310	505	8.7	61%	D	288	200	488	8.4	59%	D
	Cahaba Heights Rd to US-280	8,700	450	484	933	10.7	52%	E	292	304	596	6.8	51%	D
Knollwood Drive	Green Valley Rd to Overton Rd	2,400	56	122	178	7.4	69%	A	89	137	227	9.4	61%	B



North
Scale: n.t.s



Figure 17 - Future 2040 Peak Hour Traffic Volumes

Overton Road APPLE

January 2020

Potential Transportation Improvements

Overton Road at South Brookwood Road

Solution to the traffic congestion during the a.m. peak period at the intersection of Overton Road at South Brookwood Road would require construction of a left turn lane on Overton Road eastbound turning onto South Brookwood Road. The turn lane would need to have 180 feet of storage to prevent the left turn queue from blocking the through lane.

This solution has been proposed and rejected by the City in the past due to the disruption to property along Overton Road which would be caused by the widening. However, there appears to be no other viable solution to reduce both the traffic congestion on Overton Road and mitigate the primary crash pattern at the intersection.

The proposed left turn lane could be built within the existing right-of-way, including relocation of the sidewalk on the north side of Overton Road. The existing pavement width is 30 feet from back of curb to back of curb. The proposed maximum pavement width is 38 feet back of curb, which would therefore require equal widening of approximately 4 feet on both sides of the roadway. The existing curb line (and sidewalk, where present) would be disturbed in front of twelve (12) homes on Overton Road.

The proposed left turn lane layout, developed in 2002 and updated to include existing and proposed sidewalks and crosswalks, is shown in Figure 18.

A construction cost estimate was prepared for construction of the proposed left turn lane on Overton Road at South Brookwood Road. The cost estimate is shown in Table 14. The estimated cost for construction, including all overhead activities, is approximately \$550,000, including utility relocation. Preliminary engineering and surveying is expected to cost approximately \$82,000. The total project cost is approximately \$632,000.

Table 14
Cost Estimate – Overton Road at South Brookwood Road

	Quantity	Unit	Unit Cost	Extended Cost
REMOVALS				
Removal of existing traffic control markings	346	sq.ft.	\$ 2.60	\$ 899.60
Removal of existing traffic stripe	431	sq.ft.	\$ 2.60	\$ 1,120.60
Remove existing traffic signal	1	l.s.	\$ 5,000.00	\$ 5,000.00
Removal of 30" valley gutter	338	sq.yd.	\$ 12.00	\$ 4,056.00
Removal of existing sidewalk	432	sq.yd.	\$ 12.00	\$ 5,184.00
Removal of existing driveway apron	120	sq.yd.	\$ 12.00	\$ 1,440.00
removal of existing sidewalk/stairs	20	sq.yd.	\$ 12.00	\$ 240.00
remove existing drainage structures	2	each	\$ 2,000.00	\$ 4,000.00
			<i>subtotal - removals</i>	\$ 21,940.20
INSTALLATIONS				
Unclassified excavation	390	cu.yd.	\$ 25.00	\$ 9,750.00
Sawcut existing paving	1314	lf	\$ 3.00	\$ 3,942.00
Base and pave	584	sq.yd.	\$ 30.00	\$ 17,520.00
Overlay	1818	sq.yd.	\$ 13.00	\$ 23,634.00
Sidewalk, 6'	383	sq.yd.	\$ 35.00	\$ 13,405.00
ADA ramp	4	each	\$ 2,000.00	\$ 8,000.00
Valley gutter	370	sq.yd.	\$ 35.00	\$ 12,950.00
Driveway apron	120	sq.yd.	\$ 60.00	\$ 7,200.00
6" solid white edge line	1331	lf	\$ 3.00	\$ 3,993.00
6" solid white channelizing line	187	lf	\$ 3.00	\$ 561.00
6: solid white crosswalk line	124	lf	\$ 3.00	\$ 372.00
6" doitted white line	241	lf	\$ 2.00	\$ 482.00
6" double yellow line	935	lf	\$ 6.00	\$ 5,610.00
2' solid yellow diagonal line	676	sq.ft.	\$ 4.00	\$ 2,704.00
2' solid white stop line	88	sq.ft.	\$ 4.00	\$ 352.00
2' solid white crosswalk line	180	sq.ft.	\$ 4.00	\$ 720.00
traffic control markings	32.92	sq.ft.	\$ 4.00	\$ 131.68
traffric control legends	44.82	sq.ft.	\$ 4.00	\$ 179.28
traffic signal, mast arm	1	l.s.	\$120,000.00	\$ 120,000.00
mailbox reset	9	each	\$ 250.00	\$ 2,250.00
sign reset	5	each	\$ 100.00	\$ 500.00
drainage structures	2	each	\$ 3,500.00	\$ 7,000.00
retaining wall	600	sq.ft.	\$ 75.00	\$ 45,000.00
utility pole relocation	2	each	\$ 16,000.00	\$ 32,000.00
Water meter reset	12	each	\$ 660.00	\$ 7,920.00
			<i>subtotal - installations</i>	\$ 326,175.96
			<i>total construction cost without overhead</i>	\$ 348,116.16
OVERHEAD				
Mobilization (9%)				\$ 31,330.45
Geometric controls (1%)				\$ 3,481.16
Eroison control (2%)				\$ 6,962.32
Traffic handling (5%)				\$ 17,405.81
Clearing and grubbing (2%)				\$ 6,962.32
Landscaping (2%)				\$ 6,962.32
Construciton fuel (1%)				\$ 3,481.16
Construction engineering and inspection (15%)				\$ 52,217.42
			<i>total construction cost estimate without contingencies</i>	\$ 476,919.14
Contingencies (15%)				\$ 71,537.87
			<i>total construction cost estimate with contingencies</i>	\$ 548,457.01
PRELIMINARY ENGINEERING				
Survey (5%)				\$ 27,422.85
Preliminary engineering (10%)				\$ 54,845.70
			<i>total - preliminary engineering</i>	\$ 82,268.55
TOTAL PROJECT COST				\$ 630,725.56



SITE LEGEND	
	EXISTING PROPERTY LINE
	NEW ASPHALT PAVEMENT
	EXISTING ROAD
	PROPOSED ROAD
	EXISTING SIDEWALK
	PROPOSED SIDEWALK

NOTE: SEPTIC SYSTEM FIELD LINES IN RIGHT-OF-WAY PER OWNER.



North
Scale: n.t.s

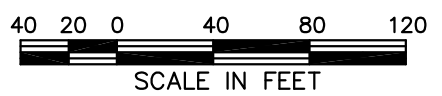


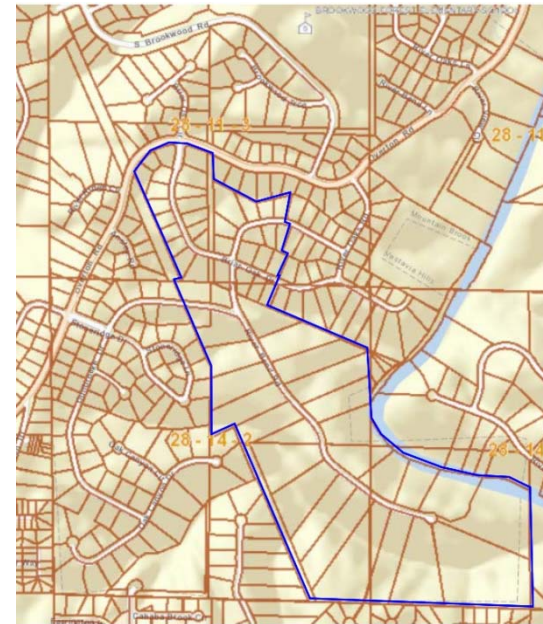
Figure 18 - Overton Road at South Brookwood Road

Overton Road APPLE

January 2020

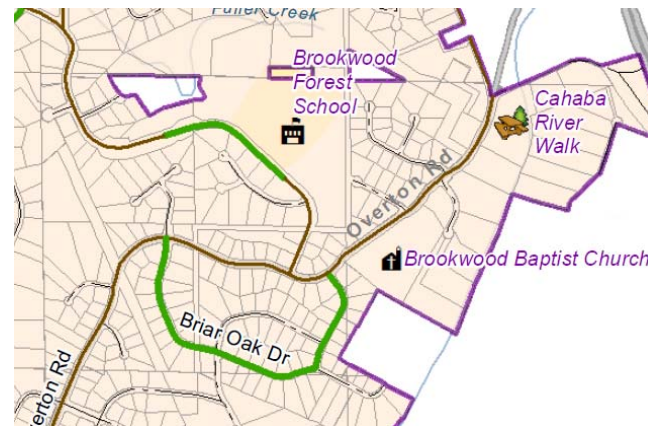
Sidewalk - Overton Road from Briar Oak Drive to South Brookwood Road

The Briar Oak Drive/River Bend Road neighborhood generates pedestrian traffic bound for Brookwood Forest Elementary School. Access to the existing sidewalks on Overton Road would require an unsignalized crosswalk crossing Overton Road at the intersection of Overton Road at Briar Oak Drive/Briar Oak Circle. The area which would potentially use a crosswalk at this location contains approximately 62 homes, as shown in the adjacent diagram.



A previous study conducted by the City of Mountain Brook in April, 2012 found that traffic signal or a multi-way stop is not warranted at the intersection of Overton Road at Briar Oak Drive/Briar Oak Circle, and recommended no change in intersection traffic control. All existing crosswalks crossing Overton Road between Liberty Parkway and Crosshaven Drive are located at signalized intersections. Another previous study conducted in 2018 recommended against striping a crosswalk crossing Overton Road at Briar Oak Drive/Briar Oak Circle due to sight distance limitations.

The City of Mountain Brook sidewalk master plan includes construction of a sidewalk on Briar Oak Drive and River Oaks Road (excerpt is shown in Figure in the adjacent diagram). The sidewalk is part of Phase 4 construction, which does not have an anticipated date of construction at this time. This sidewalk would provide access for pedestrians to the sidewalk on the south side of Overton Road between South Brookwood Road and River Oaks Road, and also to the crosswalk crossing Overton Road at the intersection of South Brookwood Road. However, where the proposed sidewalk ties to Overton Road at the intersection of Overton Road at Briar Oak Drive, it will be a dead-end sidewalk.



A significant portion (if not all) of the pedestrian traffic crossing Overton Road at the intersection of Briar Oak Drive/Briar Oak Circle is bound for Brookwood Forest Elementary School. These pedestrians could use the existing crosswalk crossing Overton Road at the intersection of Overton Road at South Brookwood Road. Constructing a sidewalk between Briar Oak Drive and South Brookwood Drive would encourage this pedestrian flow.

The estimated cost to construct this sidewalk is \$145,000, including surveying and engineering. A map showing the location of the proposed sidewalk is shown in Figure 19.

Crosswalk - Overton Road at Stoneridge Drive

Observations indicate a demand for pedestrians to cross Overton Road from Stoneridge Drive to the existing sidewalks on the west side of Overton Road. It is recommended that a marked crosswalk be added to accommodate this crossing. In order to make the crossing ADA-compliant, ADA ramps will need to be constructed on both sides of Overton Road. It is also recommended that the existing traffic signal be modified to provide Walk-Don't Walk indications and pushbuttons to actuate the crosswalk signals. The proposed project is depicted in Figure 20.

The cost estimate to install the signalized pedestrian crossing of Overton Road at Stoneridge Drive is approximately \$35,000, including engineering and construction.

Traffic Signal – Liberty Parkway at Overton Road

As traffic continues to grow due to development in Liberty Park, it should be anticipated that the existing three-way stop at the intersection of Liberty Parkway at Overton Road will fail and will need to be replaced with a traffic signal. An example layout of a traffic signal at this intersection is shown in Figure 21. The estimated cost for engineering and construction of the traffic signal is \$200,000.



