

June 24, 2019

Mr. John Harreld  
 P.O. Box 160  
 Madison, MS 39130  
 601-906-1150

Re: Church Road Bypass Road – Trip Generation/Signal Warrant Analysis

Dear Mr. Harreld:

Per your request, additional calculations were performed for the proposed roadway extension through your property to connect with Church Road. The additional analysis was based on proposed land uses provided by your group. The land use information proposed for the site included: 625,000 SF Retail/Commercial development, and 225,000 SF office space. The location of the proposed roadway is shown in **Figure 1** and existing (2018) traffic shown in **Figure 2**.

**Trip Generation/Assignment**

The trip generation characteristics of the proposed Retail/Commercial and Office development were calculated using the Institute of Transportation Engineers (ITE), Trip Generation, 9<sup>th</sup> Edition. Some internal capture was estimated (10%) between the retail and office land uses. Pass-by trip percentages for retail traffic were calculated from ITE trip generation studies. These calculations were used to estimate the site’s potential trip generation characteristics. The results of the trip generation calculations are shown in **Table 1**.

**Table 1 - Trip Generation**

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour			
			Total	In	Out	Total	In	Out	
General Office	225,000 S.F.	2,431	366	322	44	330	56	274	
Retail	559,000 S.F.	20,785	445	276	169	1898	911	987	
	Subtotal	23,216	811	598	213	2,228	967	1,261	
<u>Pass-by Trips</u>									
Retail	23.7%	4,926	105	65	40	450	216	234	
<u>Internal Capture</u>									
Office to Retail	10 %	486	73	64	9	66	11	55	
<u>Net-External Trips</u>									
General Office		2,188	329	290	39	297	50	247	
Retail	Internal Capture	20,542	408	244	164	1,865	905	960	
	Subtotal External Trips	22,730	737	534	203	2,162	955	1,207	
Pass by - Impacts	Subtotal External Trips	17,804	632	469	163	1,712	739	973	
Daily Traffic Generation									
	Retail	[ITE 820]	=	$\ln(T) = 0.65 \cdot \ln(X) + 5.83$					
	General Office	[ITE 710]	=	$\ln(T) = 0.76 \cdot \ln(X) + 3.68$					
AM Peak Hour Traffic Generation									
	Retail	[ITE 820]	=	$\ln(T) = 0.61 \cdot \ln(X) + 2.24 ; (62\% \text{ in}/38\% \text{ out})$					
	General Office	[ITE 710]	=	$\ln(T) = 0.8 \cdot \ln(X) + 1.57 ; (88\% \text{ in}/12\% \text{ out})$					
PM Peak Hour Traffic Generation									
	Retail	[ITE 820]	=	$\ln(T) = 0.67 \cdot \ln(X) + 3.31 ; (48\% \text{ in}/52\% \text{ out})$					
	General Office	[ITE 710]	=	$T = 1.12(X) + 78.45 ; (17\% \text{ in}/83\% \text{ out})$					

Source: ITE Trip Generation, 9th Edition, Neel-Schaffer, 2019. X = 1,000 SF of Gross Floor Area.

ITE's Trip Generation studies identify that the average pass-by trips are in excess of 23% for Retail/Commercial traffic (Land Use 820). While a pass-by trip reduction decreases the impacts to the adjacent street, it does not reduce driveway volumes, as these are not "new trips" on the adjacent street, but stop by the development on their way to another origin or destination. The calculated project site traffic is shown graphically in **Figure 3**. The site traffic was then added to the non-site traffic to evaluate the impacts to the roadway adjacent to the site for buildout (2023). The projected 2023 Total Traffic is shown in **Figure 4**.

The site traffic volumes were evaluated for each land use and a time-of-day trip volume was developed based on the ITE Trip Generation information for Land Use 820 - Retail. The time-of-day calculations were based on the percent of daily traffic by time-of-day. The time-of-day data was then compared to the signal warrant threshold volumes outlined in the *Manual on Uniform Traffic Control Devices* (MUTCD). The calculations revealed that with the proposed land uses, intensity of development, and access plan, a traffic signal is anticipated to be warranted at the proposed site driveway on Church Road. While a signal is anticipated to be warranted, a roundabout could be an acceptable alternative to a signalized intersection at this location.

If you have any questions or comments regarding this analysis, please call me at (601) 948-3071.

Sincerely,

NEEL-SCHAFFER, INC.



Jonathan A. Kiser, P.E., PTOE, PTP  
Professional Traffic Engineer &  
Transportation Planner

Attachments:	Figure 1 – Roadway Plan	
	Figure 2 – 2018 Existing Traffic	
	Figure 3 – Site Traffic at Buildout	
	Figure 4 – Year 2023 Total Traffic	
	Table 1 – Trip Generation	A1
	Table 2 – Time of Day – Land Use Enter/Exit Calculations	A2
	Table 3 – Signal Warrant Analysis Cut Thru Road	A3
	Volume Calculation Sheets	A4-A6
	2018 Traffic count – Calhoun Station Parkway/Church Road	A7-A12

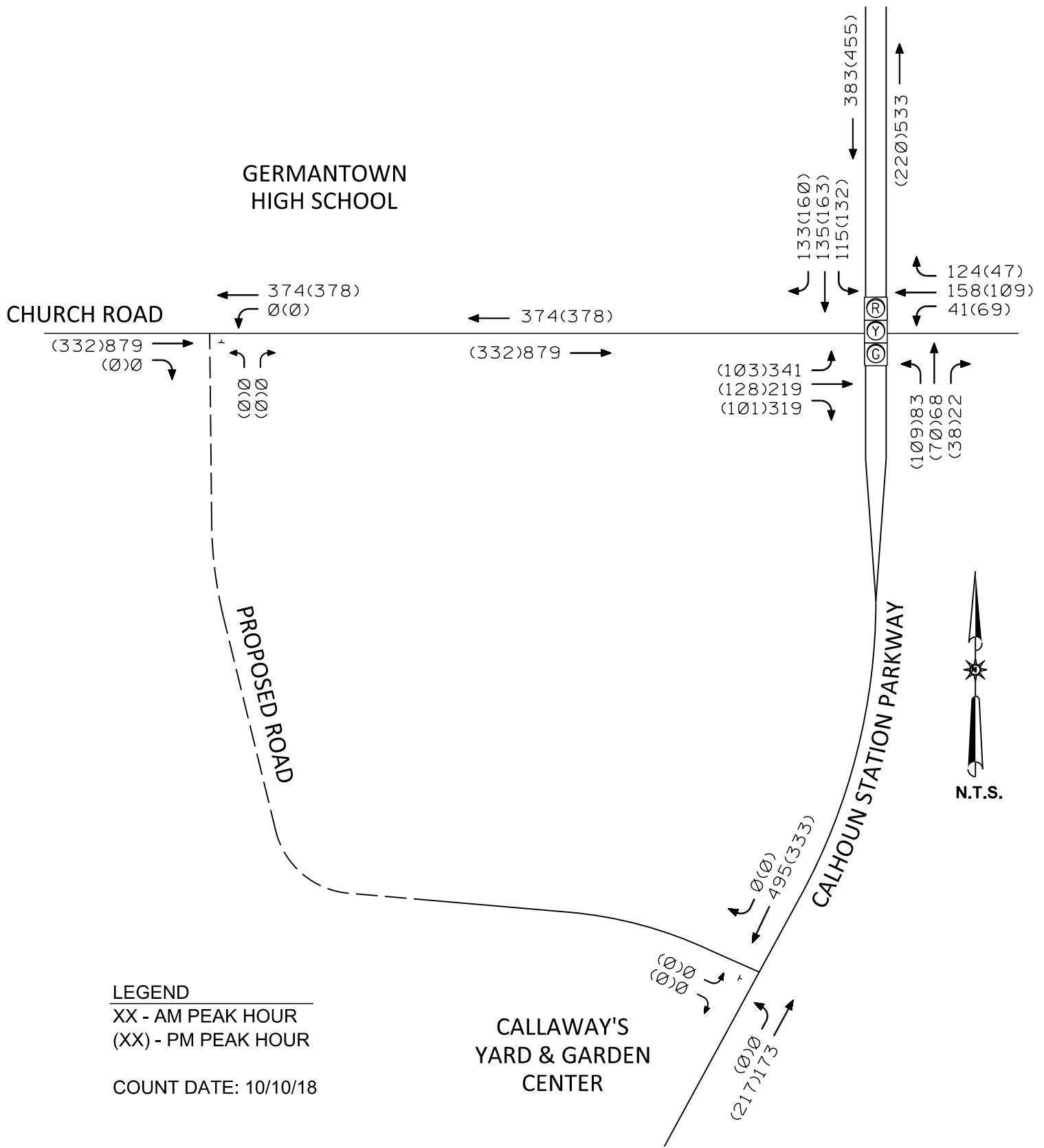




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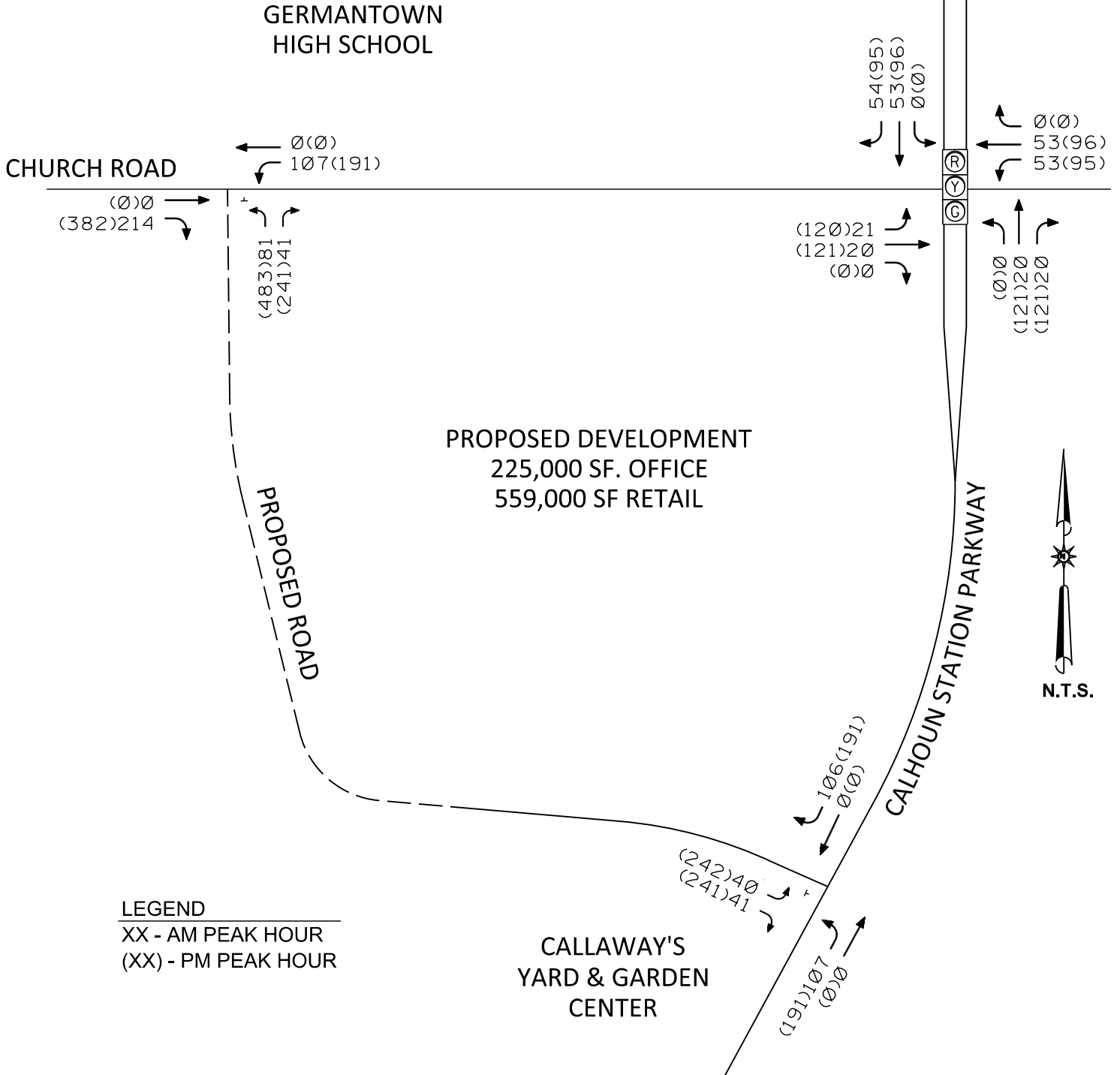
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TRIP GENERATION

TIME	IN	OUT	TOTAL
AM	534	203	737
PM	955	1207	2162

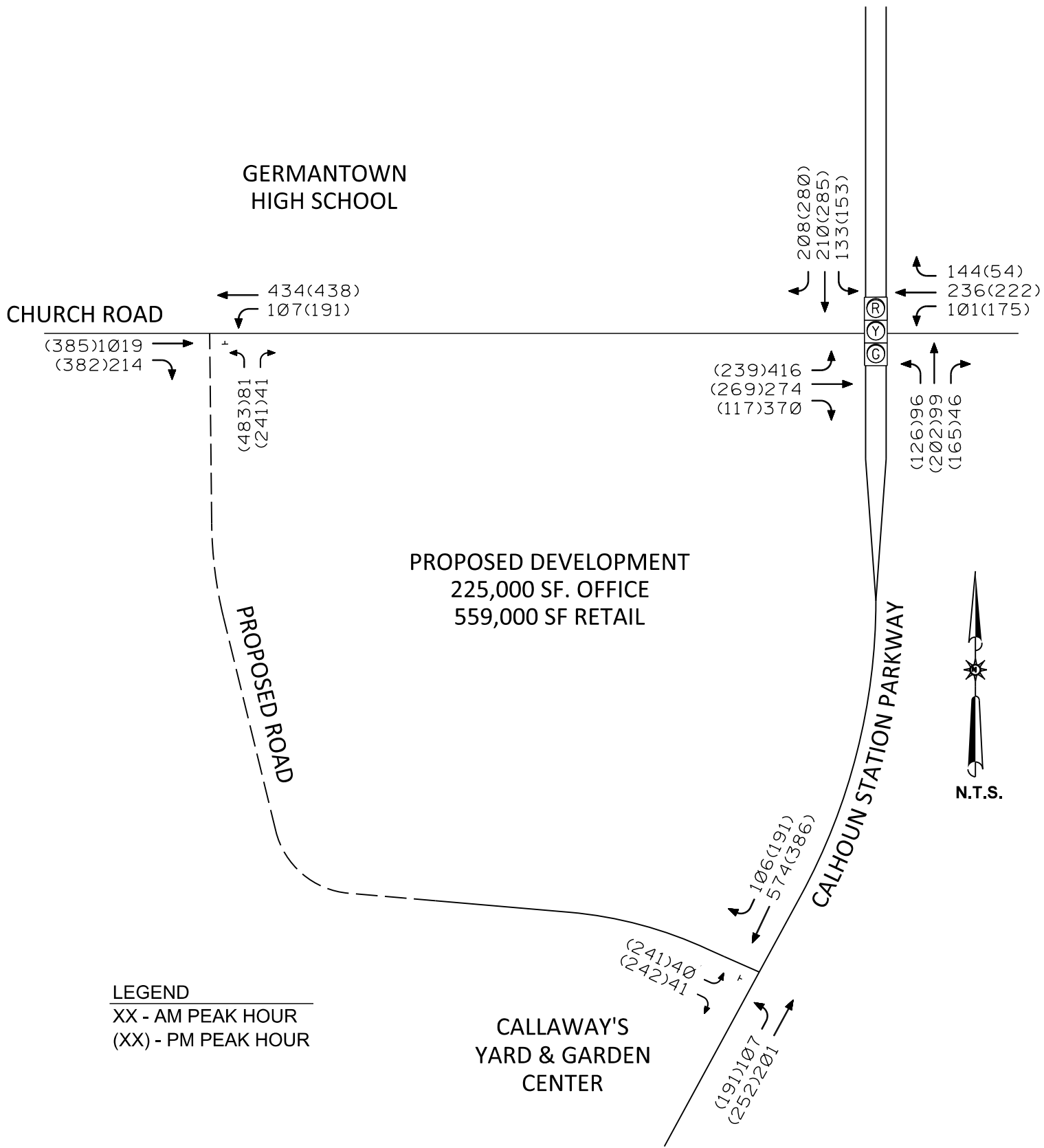
(IN VEHICLES PER HOUR)



LEGEND  
 XX - AM PEAK HOUR  
 (XX) - PM PEAK HOUR

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**Table 1**  
**Trip Generation**

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
General Office	225,000 S.F.	2431	366	322	44	330	56	274
Retail	559,000 S.F.	20,785	445	276	169	1898	911	987
	Subtotal	23,216	811	598	213	2,228	967	1,261
<u>Pass-by Trips</u>								
Retail	23.7%	4,926	105	65	40	450	216	234
<u>Internal Capture</u>								
Office to Retail	10%	486	73	64	9	66	11	55
	Subtotal Internal Cap	486	73	64	9	66	11	55
<u>Net-External Trips</u>								
General Office		2,188	329	290	39	297	50	247
Retail		20,542	408	244	164	1,865	905	960
	Subtotal External Trips	22,730	737	534	203	2,162	955	1,207
Pass by impacts	Subtotal External Trips	17,804	632	469	163	1,712	739	973
<b>Daily Traffic Generation</b>								
	Retail	[ITE 820]	=	$\text{Ln}(T) = 0.65 * \text{Ln}(X) + 5.83$				
	General Office	[ITE 710]	=	$\text{Ln}(T) = 0.76 * \text{Ln}(X) + 3.68$				
<b>AM Peak Hour Traffic Generation</b>								
	Retail	[ITE 820]	=	$\text{Ln}(T) = 0.61 * \text{Ln}(X) + 2.24$ ; (62% in/38% out)				
	General Office	[ITE 710]	=	$\text{Ln}(T) = 0.8 * \text{Ln}(X) + 1.57$ ; (88% in/12% out)				
<b>PM Peak Hour Traffic Generation-Generator</b>								
	Retail	[ITE 820]	=	$\text{Ln}(T) = 0.67 * \text{Ln}(X) + 3.31$ ; (48% in/52% out)				
	General Office	[ITE 710]	=	$T = 1.12(X) + 78.45$ ; (17% in/83% out)				

Source: ITE Trip Generation, 9th Edition, Neel-Schaffer 2019.

Table 2  
Time of Day - Land Use Enter/Exit Calculations

Retail (ITE 820) & Office (ITE 710)

Hour of Day	% entering	% exiting	Volume entering	Volume exiting
6:00	0.5%	0.5%	60	66
7:00	1.0%	1.0%	119	131
8:00	3.1%	1.2%	<b>534</b>	<b>203</b>
9:00	5.5%	2.0%	657	262
10:00	7.0%	4.3%	836	564
11:00	8.4%	6.2%	1003	813
12:00	9.4%	8.3%	1122	1089
13:00	8.2%	8.6%	979	1128
14:00	7.7%	8.9%	919	1168
15:00	7.8%	8.8%	931	1155
16:00	8.0%	8.9%	955	1168
17:00	8.4%	9.2%	<b>955</b>	<b>1,207</b>
18:00	8.0%	7.5%	955	984
19:00	7.9%	7.2%	943	945
20:00	4.3%	7.7%	513	1010
21:00	1.8%	7.2%	215	945
22:00	1.7%	2.8%	203	367

Cut Thru Rd/Calhoun Stn Pkwy

EB Lt	EB Rt	1/2 EB Rt
13	13	7
26	26	13
41	41	21
52	52	26
113	113	57
163	163	82
218	218	109
226	226	113
234	234	117
231	231	116
234	234	117
241	241	121
197	197	99
189	189	95
202	202	101
189	189	95
73	73	37
20%	20%	

Cut Thru Rd/Church Rd

NB LT	NB Rt	1/2 NB Rt
26	13	7
52	26	13
<b>81</b>	<b>41</b>	21
105	52	26
226	113	57
325	163	82
436	218	109
451	226	113
467	234	117
462	231	116
467	234	117
<b>483</b>	<b>241</b>	121
394	197	99
378	189	95
404	202	101
378	189	95
147	73	37
40%	20%	



**Table 3 - Signal Warrant Analysis  
Cut Thru Road**

**Church Road/Proposed Road - Buildout 2023**

Start Time	Approach					Warrant 1A		Warrant 1B		Warrant #2 Four Hour	Warrant #3 Peak Hour
	EB	WB	EB+WB	NB*	SB	Major-350	Minor-105	Major-525	Minor-53		
06:00 AM	376	81	457	33	-	Yes	-	-	-	-	-
07:00 AM	944	230	1,174	65	-	Yes	-	Yes	Yes	Yes	-
08:00 AM	354	282	636	102	-	Yes	-	Yes	Yes	Yes	-
09:00 AM	162	97	259	131	-	-	Yes	-	Yes	-	-
10:00 AM	139	105	244	283	-	-	Yes	-	Yes	Yes	-
11:00 AM	166	167	333	407	-	-	Yes	-	Yes	Yes	Yes
12:00 PM	167	174	341	545	-	-	Yes	-	Yes	Yes	Yes
01:00 PM	141	134	275	564	-	-	Yes	-	Yes	Yes	Yes
02:00 PM	171	203	374	584	-	Yes	Yes	-	Yes	Yes	Yes
03:00 PM	324	312	636	578	-	Yes	Yes	Yes	Yes	Yes	Yes
04:00 PM	214	400	614	584	-	Yes	Yes	Yes	Yes	Yes	Yes
05:00 PM	322	527	849	604	-	Yes	Yes	Yes	Yes	Yes	Yes
06:00 PM	210	368	578	493	-	Yes	Yes	Yes	Yes	Yes	Yes
<b>Subtotal</b>	<b>3,690</b>	<b>3,080</b>	<b>6,770</b>	<b>4,973</b>		<b>8</b>	<b>10</b>	<b>6</b>	<b>12</b>	<b>11</b>	<b>8</b>
Count date: 10/10/18						Warrant Met?		Yes	No	Yes	Yes

Source: Neel-Schaffer, 2019.

Warrants shown are based on 70% warrant for 1 lane on the major roadway/1 on minor.

NB Right turns include 50% of calculated right turns.

**Meets Warrants 1A, 2, & 3.**

**Calhoun Station Parkway/Proposed Road - Buildout 2023**

Start Time	Approach					Warrant 1A		Warrant 1B		Warrant #2 Four Hour	Warrant #3 Peak Hour
	NB	SB	NB+SB	EB	WB	Major-350	Minor-105	Major-525	Minor-53		
06:00 AM	86	199	285	20	-	-	-	-	-	-	-
07:00 AM	130	499	629	39	-	Yes	-	Yes	-	-	-
08:00 AM	135	256	391	62	-	Yes	-	-	Yes	-	-
09:00 AM	68	99	167	78	-	-	-	-	Yes	-	-
10:00 AM	77	112	189	170	-	-	Yes	-	Yes	-	-
11:00 AM	129	155	284	245	-	-	Yes	-	Yes	-	-
12:00 PM	164	142	306	327	-	-	Yes	-	Yes	-	-
01:00 PM	125	99	224	339	-	-	Yes	-	Yes	-	-
02:00 PM	150	147	297	351	-	-	Yes	-	Yes	-	-
03:00 PM	200	319	519	347	-	Yes	Yes	-	Yes	Yes	-
04:00 PM	236	201	437	351	-	Yes	Yes	-	Yes	-	-
05:00 PM	362	223	585	362	-	Yes	Yes	Yes	Yes	Yes	-
06:00 PM	220	126	346	296	-	-	Yes	-	Yes	-	-
<b>Subtotal</b>	<b>2,082</b>	<b>2,577</b>	<b>4,659</b>	<b>2,987</b>		<b>5</b>	<b>9</b>	<b>2</b>	<b>11</b>	<b>2</b>	<b>0</b>
Count date: 10/10/18						Warrant Met?		No	No	No	No

Source: Neel-Schaffer, 2019.

Warrants shown are based on 70% warrant for 1 lane on the major roadway/1 on minor.

EB Right turns include 50% of calculated right turns.

**Meets no warrants.**

### Calhoun Station Parkway/Church Road

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2018  
 Horizon Year 1 2023

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour</b>													
2018 Existing Traffic	83	68	22	115	135	133	341	219	319	41	158	124	1,758
2023 Non-Site Traffic	96	79	26	133	157	154	395	254	370	48	183	144	2,039
Site Traffic	0	20	20	0	53	54	21	20	0	53	53	0	294
2023 Total Traffic	96	99	46	133	210	208	416	274	370	101	236	144	2,333
<b>PM Peak Hour</b>													
2018 Existing Traffic	109	70	38	132	163	160	103	128	101	69	109	47	1,229
2023 Non-Site Traffic	126	81	44	153	189	185	119	148	117	80	126	54	1,422
Site Traffic	0	121	121	0	96	95	120	121	0	95	96	0	865
2023 Total Traffic	126	202	165	153	285	280	239	269	117	175	222	54	2,287

Source: Neel-Schaffer, 2019.

**Calhoun Station Parkway/Cut Thru Road**

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2018  
 Horizon Year 1 2023

Start Time	Northbound			Southbound			Eastbound			Westbound			Total		
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right			
<b>AM Peak Hour</b>															
2018 Existing Traffic	0	173	0	0	495	0	0	0	0	0	0	0	0	0	668
2023 Non-Site Traffic	0	201	0	0	574	0	0	0	0	0	0	0	0	0	775
Site Traffic	107	0	0	0	0	106	40	0	41	0	0	0	0	0	294
2023 Total Traffic	107	201	0	0	574	106	40	0	41	0	0	0	0	0	1,069
<b>PM Peak Hour</b>															
2018 Existing Traffic	0	217	0	0	333	0	0	0	0	0	0	0	0	0	550
2023 Non-Site Traffic	0	252	0	0	386	0	0	0	0	0	0	0	0	0	638
Site Traffic	191	0	0	0	0	191	241	0	242	0	0	0	0	0	865
2023 Total Traffic	191	252	0	0	386	191	241	0	242	0	0	0	0	0	1,503

Source: Neel-Schaffer, 2019.



### Church Road/Cut Thru Road

Seasonal Adjustment Factor 1  
 Annual Growth Factor 3.0%  
 Base Year 2018  
 Horizon Year 1 2023

Start Time	Northbound			Southbound			Eastbound			Westbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
<b>AM Peak Hour</b>													
2018 Existing Traffic	0	0	0	0	0	0	0	879	0	0	374	0	1,253
2023 Non-Site Traffic	0	0	0	0	0	0	0	1019	0	0	434	0	1,453
Site Traffic	81	0	41	0	0	0	0	0	214	107	0	0	443
2023 Total Traffic	81	0	41	0	0	0	0	1,019	214	107	434	0	1,896
<b>PM Peak Hour</b>													
2018 Existing Traffic	0	0	0	0	0	0	0	332	0	0	378	0	710
2023 Non-Site Traffic	0	0	0	0	0	0	0	385	0	0	438	0	823
Site Traffic	483	0	241	0	0	0	0	0	382	191	0	0	1,297
2023 Total Traffic	483	0	241	0	0	0	0	385	382	191	438	0	2,120

Source: Neel-Schaffer, 2019.

Neel-Schaffer  
P.O. Box 22625  
Jackson, MS 39225

A7

Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 1

Groups Printed- Autos - SU Trucks Buses - Semi Trucks

Start Time	CALHOON STN PKWY Southbound					CHURCH RD Westbound					CALHOON STN PKWY Northbound					CHURCH RD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
06:00 AM	3	0	4	0	7	8	7	2	0	17	4	1	10	0	15	4	21	23	0	48	87
06:15 AM	3	2	1	0	6	9	6	1	0	16	7	1	14	0	22	14	36	33	0	83	127
06:30 AM	12	1	5	0	18	11	7	3	0	21	7	2	19	0	28	25	36	45	0	106	173
06:45 AM	13	6	11	0	30	8	20	6	0	34	8	2	12	0	22	27	59	56	0	142	228
Total	31	9	21	0	61	36	40	12	0	88	26	6	55	0	87	70	152	157	0	379	615
07:00 AM	1	5	4	0	10	9	18	8	0	35	11	7	9	0	27	64	66	91	0	221	293
07:15 AM	5	13	9	0	27	8	11	27	0	46	11	12	5	0	28	78	65	122	0	265	366
07:30 AM	12	20	11	0	43	13	22	33	0	68	13	15	3	0	31	105	60	89	0	254	396
07:45 AM	52	49	46	0	147	11	52	21	0	84	23	18	4	0	45	87	61	75	0	223	499
Total	70	87	70	0	227	41	103	89	0	233	58	52	21	0	131	334	252	377	0	963	1554
08:00 AM	46	53	67	0	166	9	73	43	0	125	36	23	10	0	69	71	33	33	0	137	497
08:15 AM	27	29	15	0	71	8	26	7	0	41	11	6	5	0	22	35	29	46	0	110	244
08:30 AM	10	4	9	0	23	4	7	6	0	17	12	10	1	0	23	9	21	29	0	59	122
08:45 AM	4	7	7	0	18	7	11	7	0	25	13	10	5	0	28	12	12	33	0	57	128
Total	87	93	98	0	278	28	117	63	0	208	72	49	21	0	142	127	95	141	0	363	991
09:00 AM	8	4	2	0	14	6	14	3	0	23	12	2	3	0	17	7	19	16	0	42	96
09:15 AM	2	10	9	0	21	8	12	7	0	27	10	5	6	0	21	4	12	8	0	24	93
09:30 AM	7	4	7	0	18	4	6	16	0	26	11	5	5	0	21	7	13	24	0	44	109
09:45 AM	3	2	9	0	14	2	9	6	0	17	8	5	4	1	18	32	10	15	0	57	106
Total	20	20	27	0	67	20	41	32	0	93	41	17	18	1	77	50	54	63	0	167	404
10:00 AM	4	3	5	0	12	4	8	4	0	16	13	4	3	0	20	10	12	17	0	39	87
10:15 AM	2	4	9	0	15	4	12	0	0	16	12	5	3	0	20	6	8	14	0	28	79
10:30 AM	3	3	10	0	16	12	9	2	0	23	2	6	4	0	12	11	9	16	0	36	87
10:45 AM	6	3	9	0	18	8	11	0	0	19	15	9	10	0	34	5	14	28	0	47	118
Total	15	13	33	0	61	28	40	6	0	74	42	24	20	0	86	32	43	75	0	150	371
11:00 AM	1	6	4	0	11	9	19	4	0	32	17	1	8	0	26	9	12	21	0	42	111
11:15 AM	8	7	10	0	25	6	23	6	0	35	14	4	16	0	34	7	21	15	0	43	137
11:30 AM	8	9	10	0	27	19	21	6	1	47	15	10	7	0	32	12	16	18	0	46	152
11:45 AM	5	11	15	0	31	17	13	5	0	35	16	13	13	0	42	7	18	19	0	44	152
Total	22	33	39	0	94	51	76	21	1	149	62	28	44	0	134	35	67	73	0	175	552
12:00 PM	7	8	6	0	21	24	15	5	0	44	20	4	11	0	35	9	22	16	0	47	147
12:15 PM	2	6	7	0	15	5	20	1	0	26	26	10	22	0	58	7	10	23	0	40	139
12:30 PM	4	6	6	0	16	8	16	3	0	27	22	9	9	0	40	6	16	15	0	37	120
12:45 PM	9	4	13	0	26	4	14	2	0	20	14	13	5	0	32	10	16	27	0	53	131
Total	22	24	32	0	78	41	65	11	0	117	82	36	47	0	165	32	64	81	0	177	537
01:00 PM	8	10	10	0	28	5	12	4	0	21	20	12	6	0	38	6	16	17	0	39	126
01:15 PM	4	3	3	0	10	6	14	0	0	20	19	8	8	0	35	2	16	17	0	35	100
01:30 PM	4	3	7	0	14	9	18	7	0	34	15	7	8	0	30	5	11	10	0	26	104
01:45 PM	4	4	9	0	17	4	25	3	0	32	12	7	8	0	27	12	19	14	0	45	121
Total	20	20	29	0	69	24	69	14	0	107	66	34	30	0	130	25	62	58	0	145	451
02:00 PM	38	30	39	0	107	9	14	4	0	27	22	16	5	0	43	16	18	13	0	47	224
02:15 PM	5	7	9	0	21	10	20	6	0	36	23	5	9	0	37	7	10	10	2	29	123
02:30 PM	3	3	13	0	19	23	8	14	0	45	13	13	3	0	29	17	16	12	0	45	138
02:45 PM	3	4	7	0	14	14	20	10	0	44	20	18	9	0	47	35	14	14	0	63	168
Total	49	44	68	0	161	56	62	34	0	152	78	52	26	0	156	75	58	49	2	184	653
03:00 PM	7	10	7	0	24	15	16	13	0	44	14	15	6	0	35	26	10	19	0	55	158
03:15 PM	8	20	16	0	44	13	26	19	0	58	28	27	7	0	62	24	25	22	0	71	235
03:30 PM	47	62	68	0	177	18	35	12	0	65	18	22	10	0	50	37	33	27	0	97	389
03:45 PM	60	68	56	0	184	14	26	10	0	50	28	14	13	0	55	33	50	35	0	118	407
Total	122	160	147	0	429	60	103	54	0	217	88	78	36	0	202	120	118	103	0	341	1189

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Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 2

Groups Printed- Autos - SU Trucks Buses - Semi Trucks

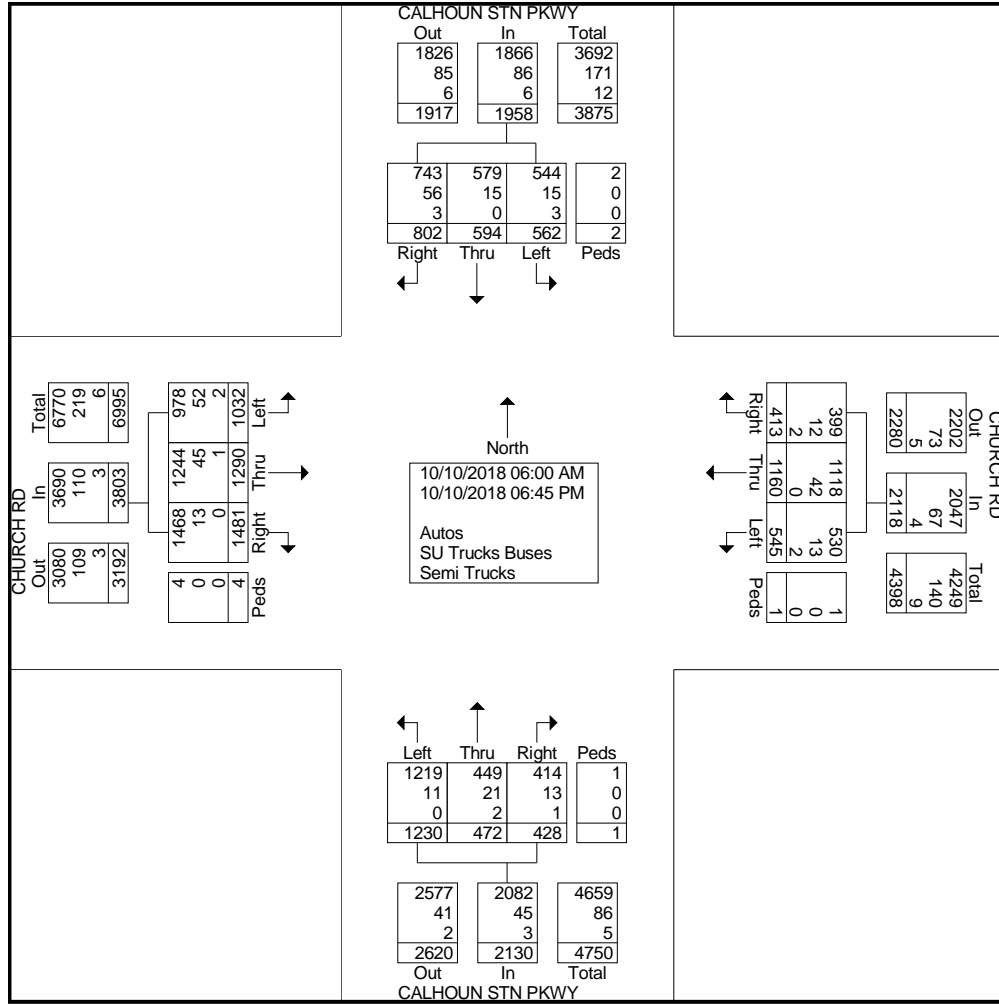
Start Time	CALHOUN STN PKWY Southbound					CHURCH RD Westbound					CALHOUN STN PKWY Northbound					CHURCH RD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
04:00 PM	17	13	20	1	51	24	22	6	0	52	35	7	8	0	50	9	20	17	0	46	199
04:15 PM	10	13	20	0	43	14	37	5	0	56	42	12	3	0	57	10	23	23	1	57	213
04:30 PM	11	9	22	0	42	20	40	9	0	69	45	6	6	0	57	13	25	19	0	57	225
04:45 PM	6	7	23	0	36	15	41	6	0	62	55	14	6	0	75	11	27	29	0	67	240
Total	44	42	85	1	172	73	140	26	0	239	177	39	23	0	239	43	95	88	1	227	877
05:00 PM	14	8	27	0	49	15	48	14	0	77	63	16	14	0	93	15	37	31	1	84	303
05:15 PM	14	7	22	0	43	15	42	13	0	70	66	11	11	0	88	19	33	39	0	91	292
05:30 PM	19	16	24	0	59	7	47	2	0	56	80	13	15	0	108	9	30	26	0	65	288
05:45 PM	6	7	18	0	31	18	35	5	0	58	55	3	15	0	73	10	40	35	0	85	247
Total	53	38	91	0	182	55	172	34	0	261	264	43	55	0	362	53	140	131	1	325	1130
06:00 PM	0	0	20	1	21	8	41	7	0	56	64	4	14	0	82	14	19	26	0	59	218
06:15 PM	1	4	20	0	25	10	33	5	0	48	51	5	7	0	63	8	27	24	0	59	195
06:30 PM	5	5	11	0	21	8	31	3	0	42	27	4	8	0	39	9	28	16	0	53	155
06:45 PM	1	2	11	0	14	6	27	2	0	35	32	1	3	0	36	5	16	19	0	40	125
Total	7	11	62	1	81	32	132	17	0	181	174	14	32	0	220	36	90	85	0	211	693
Grand Total	562	594	802	2	1960	545	1160	413	1	2119	1230	472	428	1	2131	1032	1290	1481	4	3807	10017
Apprch %	28.7	30.3	40.9	0.1		25.7	54.7	19.5	0		57.7	22.1	20.1	0		27.1	33.9	38.9	0.1		
Total %	5.6	5.9	8	0	19.6	5.4	11.6	4.1	0	21.2	12.3	4.7	4.3	0	21.3	10.3	12.9	14.8	0	38	
Autos	544	579	743	2	1868	530	1118	399	1	2048	1219	449	414	1	2083	978	1244	1468	4	3694	9693
% Autos	96.8	97.5	92.6	100	95.3	97.2	96.4	96.6	100	96.6	99.1	95.1	96.7	100	97.7	94.8	96.4	99.1	100	97	96.8
SU Trucks Buses	15	15	56	0	86	13	42	12	0	67	11	21	13	0	45	52	45	13	0	110	308
% SU Trucks Buses	2.7	2.5	7	0	4.4	2.4	3.6	2.9	0	3.2	0.9	4.4	3	0	2.1	5	3.5	0.9	0	2.9	3.1
Semi Trucks	3	0	3	0	6	2	0	2	0	4	0	2	1	0	3	2	1	0	0	3	16
% Semi Trucks	0.5	0	0.4	0	0.3	0.4	0	0.5	0	0.2	0	0.4	0.2	0	0.1	0.2	0.1	0	0	0.1	0.2



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Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 3



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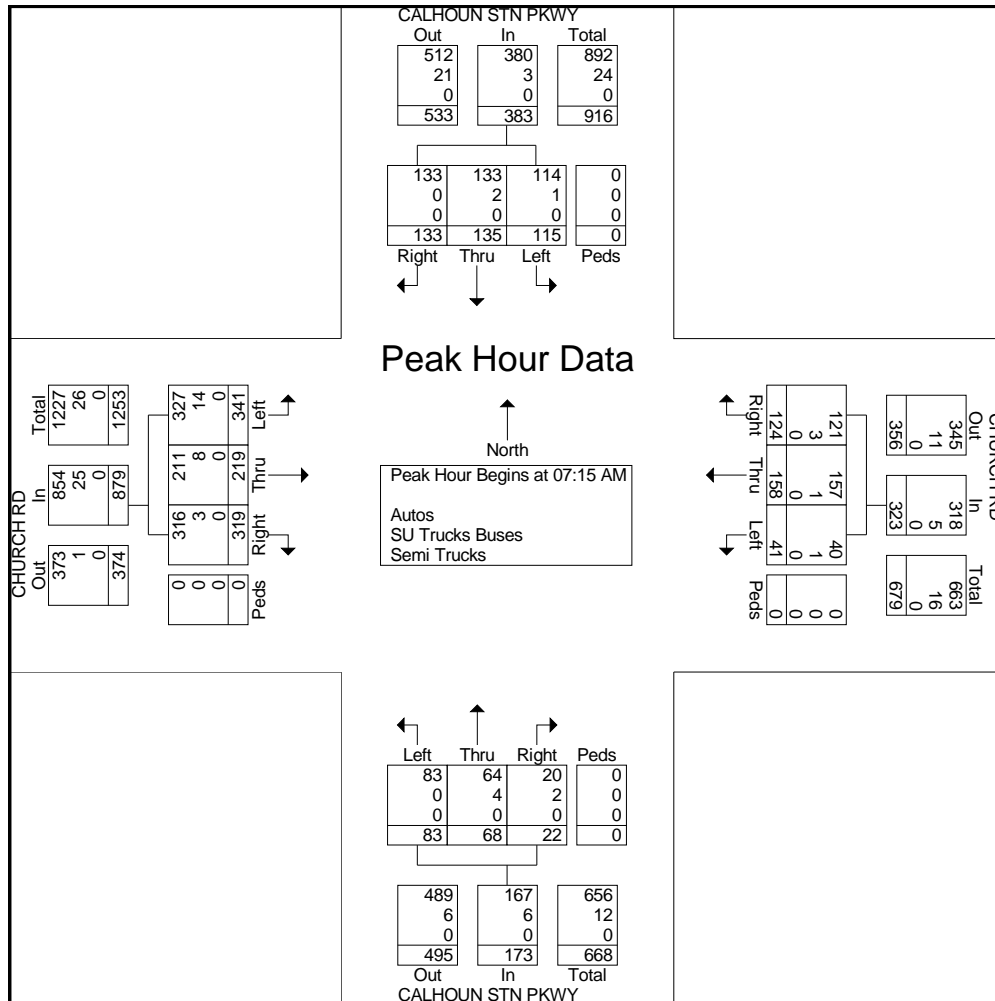
P.O. Box 22625  
Jackson, MS 39225

A10

Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 4

Start Time	CALHOUN STN PKWY Southbound					CHURCH RD Westbound					CALHOUN STN PKWY Northbound					CHURCH RD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 06:00 AM to 09:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	5	13	9	0	27	8	11	27	0	46	11	12	5	0	28	78	65	122	0	265	366
07:30 AM	12	20	11	0	43	13	22	33	0	68	13	15	3	0	31	105	60	89	0	254	396
07:45 AM	52	49	46	0	147	11	52	21	0	84	23	18	4	0	45	87	61	75	0	223	499
08:00 AM	46	53	67	0	166	9	73	43	0	125	36	23	10	0	69	71	33	33	0	137	497
Total Volume	115	135	133	0	383	41	158	124	0	323	83	68	22	0	173	341	219	319	0	879	1758
% App. Total	30	35.2	34.7	0		12.7	48.9	38.4	0		48	39.3	12.7	0		38.8	24.9	36.3	0		
PHF	.553	.637	.496	.000	.577	.788	.541	.721	.000	.646	.576	.739	.550	.000	.627	.812	.842	.654	.000	.829	.881
Autos	114	133	133	0	380	40	157	121	0	318	83	64	20	0	167	327	211	316	0	854	1719
% Autos	99.1	98.5	100	0	99.2	97.6	99.4	97.6	0	98.5	100	94.1	90.9	0	96.5	95.9	96.3	99.1	0	97.2	97.8
SU Trucks Buses																					
% SU Trucks Buses	0.9	1.5	0	0	0.8	2.4	0.6	2.4	0	1.5	0	5.9	9.1	0	3.5	4.1	3.7	0.9	0	2.8	2.2
Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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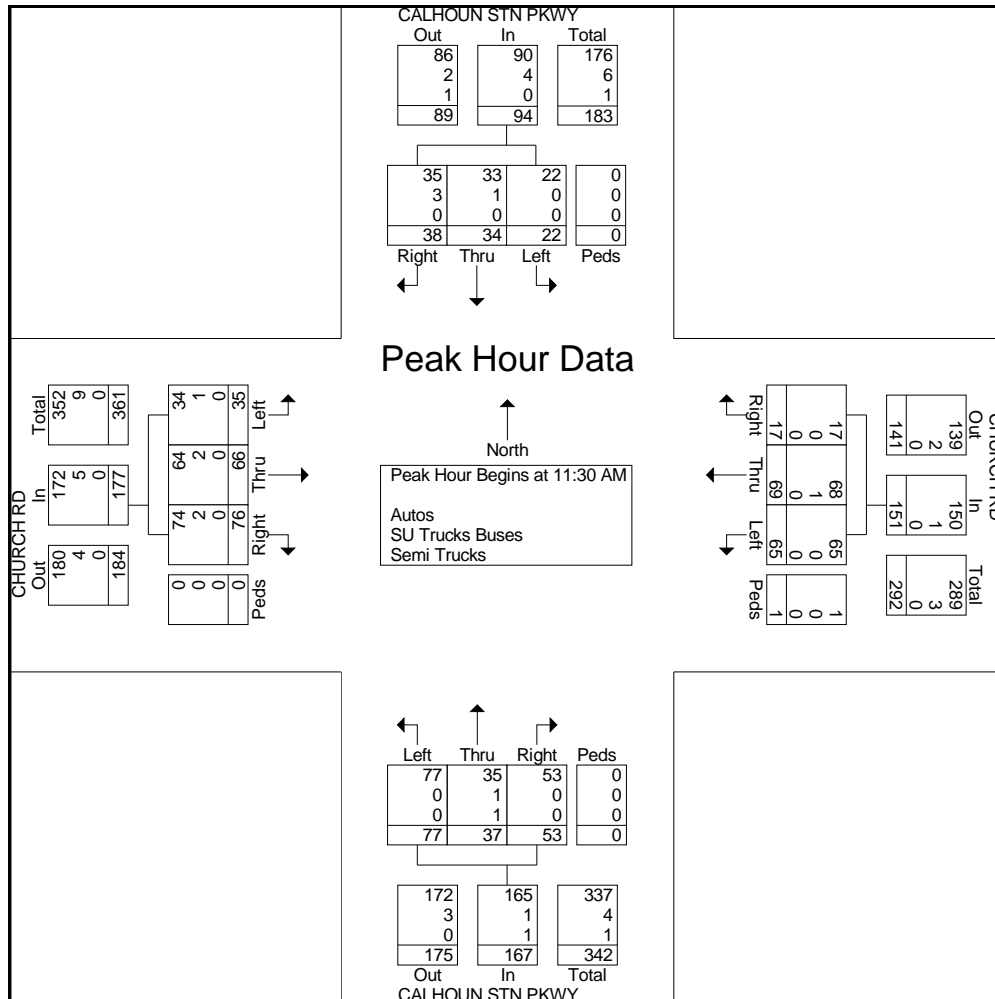
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Jackson, MS 39225

A11

Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 5

Start Time	CALHOUN STN PKWY Southbound					CHURCH RD Westbound					CALHOUN STN PKWY Northbound					CHURCH RD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 10:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	8	9	10	0	27	19	21	6	1	47	15	10	7	0	32	12	16	18	0	46	152
11:45 AM	5	11	15	0	31	17	13	5	0	35	16	13	13	0	42	7	18	19	0	44	152
12:00 PM	7	8	6	0	21	24	15	5	0	44	20	4	11	0	35	9	22	16	0	47	147
12:15 PM	2	6	7	0	15	5	20	1	0	26	26	10	22	0	58	7	10	23	0	40	139
Total Volume	22	34	38	0	94	65	69	17	1	152	77	37	53	0	167	35	66	76	0	177	590
% App. Total	23.4	36.2	40.4	0		42.8	45.4	11.2	0.7		46.1	22.2	31.7	0		19.8	37.3	42.9	0		
PHF	.688	.773	.633	.000	.758	.677	.821	.708	.250	.809	.740	.712	.602	.000	.720	.729	.750	.826	.000	.941	.970
Autos	22	33	35	0	90	65	68	17	1	151	77	35	53	0	165	34	64	74	0	172	578
% Autos	100	97.1	92.1	0	95.7	100	98.6	100	100	99.3	100	94.6	100	0	98.8	97.1	97.0	97.4	0	97.2	98.0
SU Trucks Buses																					
% SU Trucks Buses	0	2.9	7.9	0	4.3	0	1.4	0	0	0.7	0	2.7	0	0	0.6	2.9	3.0	2.6	0	2.8	1.9
Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	2.7	0	0	0.6	0	0	0	0	0	0.2





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Intersection: Church Rd/Calhoun Stn Pkwy  
Counter: T. Kiser (Video)  
County/State: Madison/MS  
Weather: Cloudy/Dry

File Name : Church-CSP  
Site Code : 00000000  
Start Date : 10/10/2018  
Page No : 6

Start Time	CALHOUN STN PKWY Southbound					CHURCH RD Westbound					CALHOUN STN PKWY Northbound					CHURCH RD Eastbound					Int. Total
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 02:00 PM to 06:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	8	20	16	0	44	13	26	19	0	58	28	27	7	0	62	24	25	22	0	71	235
03:30 PM	47	62	68	0	177	18	35	12	0	65	18	22	10	0	50	37	33	27	0	97	389
03:45 PM	60	68	56	0	184	14	26	10	0	50	28	14	13	0	55	33	50	35	0	118	407
04:00 PM	17	13	20	1	51	24	22	6	0	52	35	7	8	0	50	9	20	17	0	46	199
Total Volume	132	163	160	1	456	69	109	47	0	225	109	70	38	0	217	103	128	101	0	332	1230
% App. Total	28.9	35.7	35.1	0.2		30.7	48.4	20.9	0		50.2	32.3	17.5	0		31	38.6	30.4	0		
PHF	.550	.599	.588	.250	.620	.719	.779	.618	.000	.865	.779	.648	.731	.000	.875	.696	.640	.721	.000	.703	.756
Autos	127	160	145	1	433	69	100	44	0	213	108	70	37	0	215	95	123	101	0	319	1180
% Autos	96.2	98.2	90.6	100	95.0	100	91.7	93.6	0	94.7	99.1	100	97.4	0	99.1	92.2	96.1	100	0	96.1	95.9
SU Trucks Buses																					
% SU Trucks Buses	3.8	1.8	9.4	0	5.0	0	8.3	6.4	0	5.3	0.9	0	2.6	0	0.9	6.8	3.9	0	0	3.6	4.0
Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% Semi Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0	0	0	0	0.3	0.1

