Traffic Impact Study

Paristown Pointe Planned Development District

Louisville, Jefferson County, KY

Prepared For:

CARMAN

Prepared By:

Adam Kirk Engineering
137 McClelland Springs Drive
Georgetown, KY 40324
859.421.2567
adam@adamkirkpe.com

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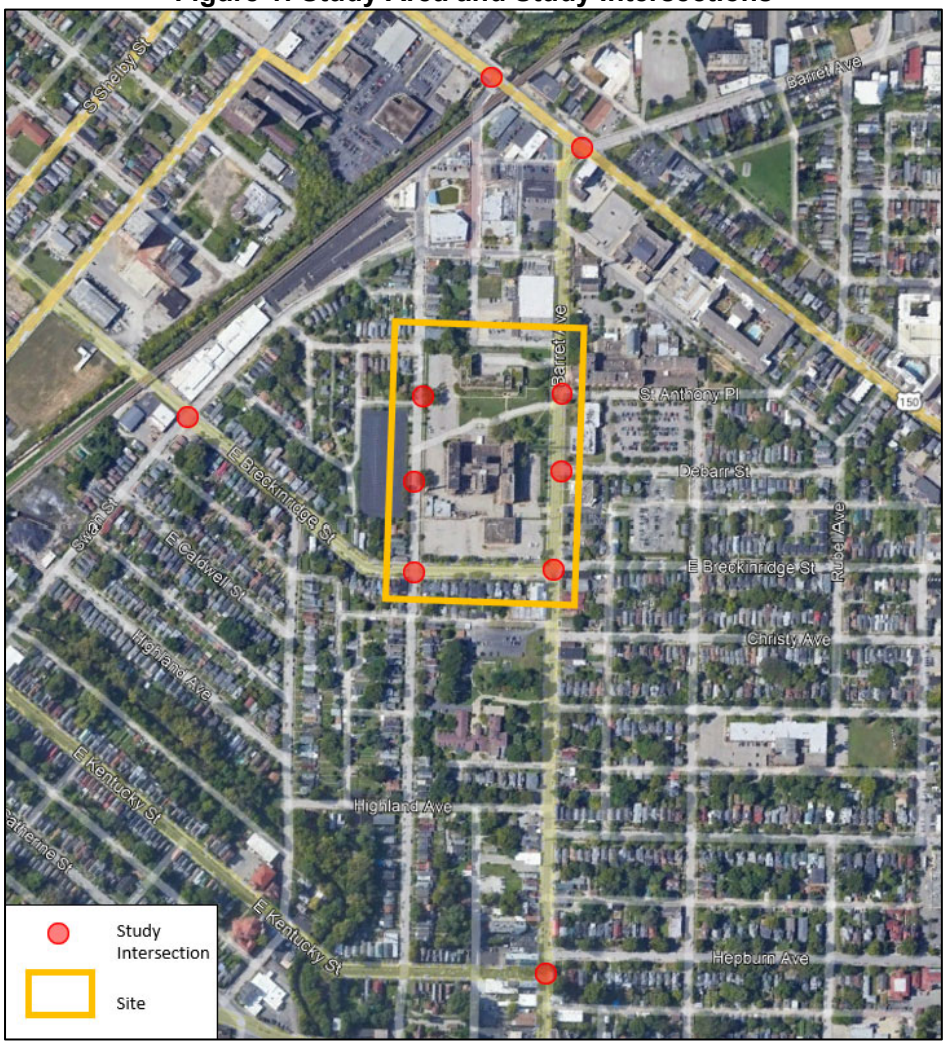
INTRODUCTION

This Traffic Impact Study summarizes the trip generation and capacity analysis conducted for the proposed redevelopment of the Louisville Government Center at the northwest quadrant of E. Breckenridge Street and Barret Avenue. The proposed Paristown Heights District Development Plan calls for removal of all existing uses and proposes a mix-use development that may consist of Apartments, Offices, and Hotel. While the nature of a Planned Development will allow for other land use combinations, a proposed combination of the above land uses was used to represent probable land uses and represents a conservative approach, providing higher traffic volumes, for the purpose of this study. Access will be provided through reconfigured connections at St. Anthony at Barrett Avenue and Vine Street and Debarr Street at Barrett Avenue and Vine Street. A conceptual development plan is provided in **Appendix A**. This study will evaluate the intersections listed below; **Figure 1** shows the proposed site and study intersections.

- Broadway (US 150) at Brent Street
- Barrett Avenue at Broadway (US 1250
- Barrett Avenue at St. Anthony Place
- Barrett Avenue at Debarr Street
- Barrett Avenue at E. Breckinridge Street
- Barrett Avenue at Kentucky Avenue
- Vine Street at St. Anthony Place (extended)
- Vine Street at Debarr Street (extended)
- Vine Street at E. Breckinridge Street
- Swan Street at E. Breckinridge Street

This Traffic Impact Study has been performed to demonstrate that the proposed land use change will have no impact on the traffic conditions, compared to the existing zoning. A previous assessment performed in April 2022 confirmed that traffic generated by the proposed development will not exceed traffic generation potential of the Urban Government Center. This assessment was accepted by Louisville Metro Public Works to the extent that this TIS is not required in connection with the proposed zone map.

Figure 1: Study Area and Study Intersections



DATA COLLECTION

AM and PM peak hour turning movement counts were collected for the study intersections on from 7:00 to 9:00 AM and 4:00 to 6:00 PM on November 30, 2022. Raw traffic data is provided in **Appendix B**. **Figures 2a and 2b** summarize the existing AM and PM peak hour turning movement counts at this intersection, respectively.

TRIP GENERATION

Trip generation was conducted using the 11th Edition ITE Trip Generation Manual, as applied by the ITE TripGen Web-based App. Trip generation was determined for the AM and PM peak hour of the generator (except for the office land use which only provided data based on the peak hour of adjacent street traffic). The following ITE land use codes were used:

- Existing Government Center: Land Use Code 730 (Government Office Building)
- Proposed Office: Land Use Code 710 (General Office Building)
- Proposed Apartments: Land Use Code 820 (Multi-Family Residential; Mid Rise)
- Proposed Retail: Land Use Code

- Proposed Hotel: Land Use Code 310: Hotel

Table 1 shows the results of the trip generation for the AM and PM peak hours. **Appendix C** contains output from the ITE Trip Generation Manual. As can be seen from the table, the existing land use and building is estimated to generate 583 trips during the AM peak hour and 504 trips during the PM peak hour. This trip generation is significantly higher than the proposed land uses which is anticipated to generate 331 trips during the AM peak and 398 trips during the PM peak. Based on this analysis the proposed site, does not generate over 200 peak hour trips per hour over the existing use as identified in the land use code for the requirements of a Traffic Impact Study.

Table 1: Trip Generation Estimates

ITE Land Use Code	Land Use Description	Ind. Var. (X)	Ind. Var. Units	Period	Trips Generated	Entering	Exiting
Existing Land Use							
730	Government Office Building	158.1	1000 sf GFA	AM	**583**	320	263
				PM	**504**	217	287
Proposed Development							
TOTAL				AM	**331**	180	151
				PM	**398**	178	220
710	General Office Building	172	1000 sf GFA	AM	144	125	19
				PM	150	24	126
822	Retail	9	1000 sf GFA	AM	21	13	8
				PM	72	36	36
221	Multifamily Residential (mid Rise) (Dense Urban)	470	units	AM	123	18	105
				PM	130	95	35
310	Hotel	100	Rooms	AM	43	24	19
				PM	46	23	23

Figure 2a: AM Peak Hour Turning Movement Counts

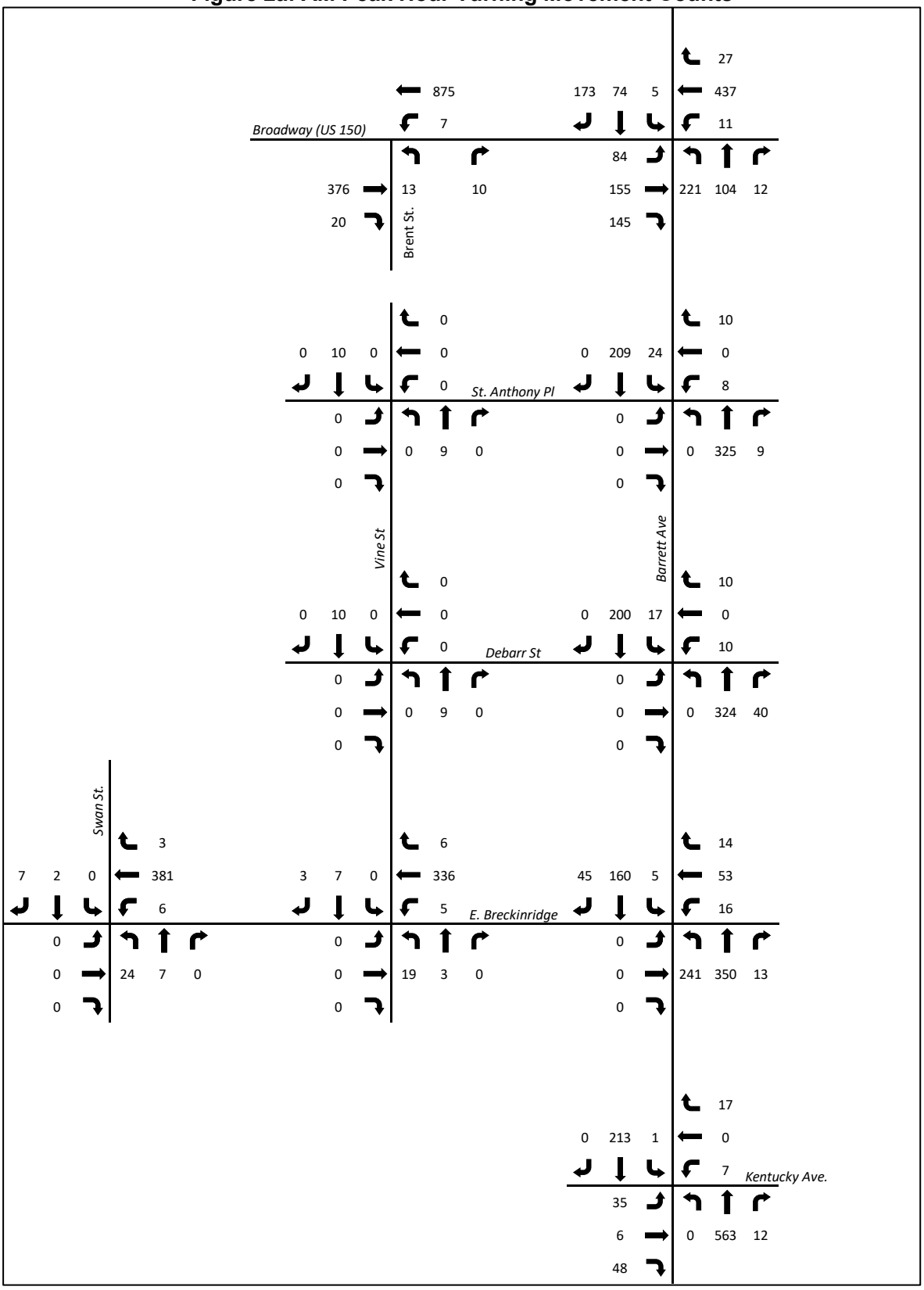
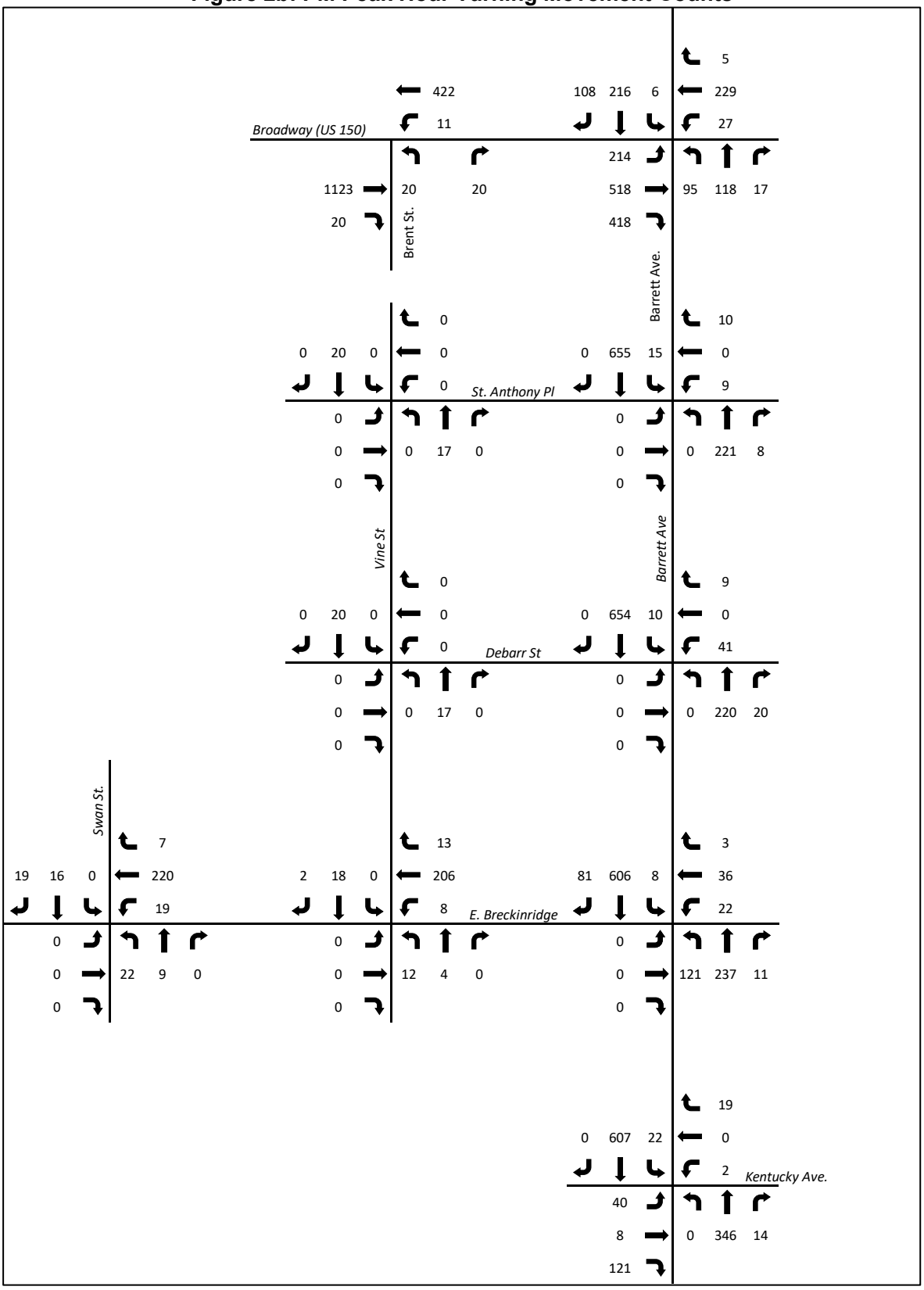


Figure 2b: PM Peak Hour Turning Movement Counts



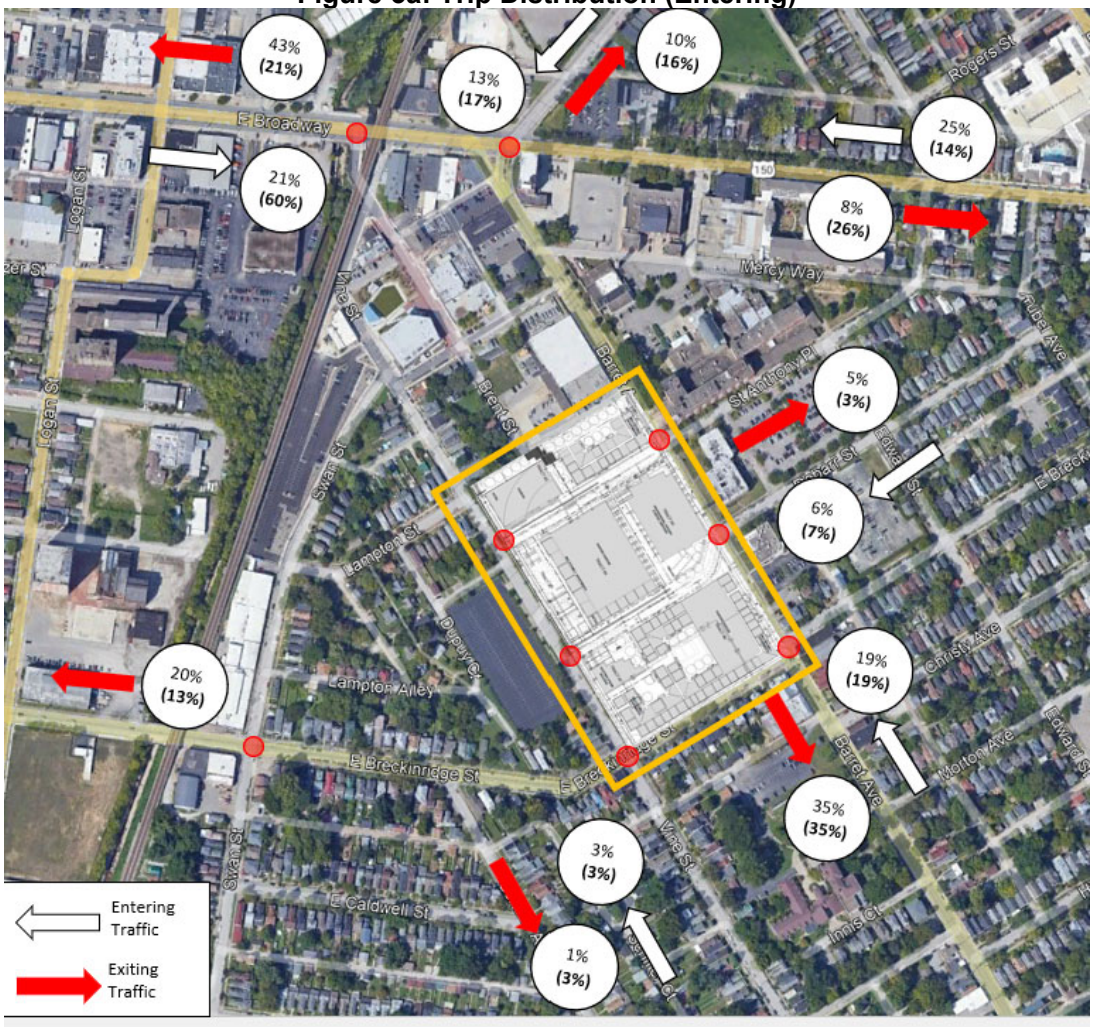
TRAFFIC FORECASTING

A background growth rate of negative 5.4 percent was calculated based on historic growth trends observed at KYTC Traffic Count Station 056M34 on Barrett Avenue and negative 2.98% on US 150 at count station 056917. KYTC count station data and the KYTC TIS Forecast Spreadsheet are contained in **Appendix D**. Based on the negative growth rates, no adjustment for future year conditions were made as year of opening appears to represent the worst case scenario for traffic.

TRIP DISTRIBUTION METHODOLOGY

Cordon Line analysis was conducted to determined existing trip distributions for vehicles entering and exiting the study area. Generated trips were distributed onto the roadway network based on recorded travel patterns. Traffic destined to the west on E. Breckinridge Avenue was assumed to exit via Vine Street to E. Breckinridge, while traffic exiting to the north on Broadway and/or south on Barrett Avenue were assumed to utilized Barrett Avenue. Five percent of traffic was assigned to Brent Street. Figure 3 shows the general trip distributions within the study area. **Appendix E** contains the full trip distribution used in the analysis and final build volumes for the development. Analysis was also conducted for the existing land use; Appendix E also contains final build volumes for this scenario.

Figure 3a: Trip Distribution (Entering)



CAPACITY ANALYSIS

Capacity analysis for the existing and build scenarios was completed for the study intersections during the AM and PM peak hours using HCM/HCS methodologies. Signal timing for signal controlled intersections was optimized using Highway Capacity Software procedures for all scenarios. **Tables 2 and 3** summarize the AM and PM peak hour Level of Service (LOS), and delay for the AM and PM peak periods for the existing conditions, existing land use, and proposed development plan. Full capacity analysis output is provided in **Appendix E**.

As can be seen from the table, the proposed development has minimal impact on the operations of the adjacent intersections, and in fact, does not impact the intersection level of service for any intersection and only degrades level of service for one intersection approach (eastbound at Kentucky Avenue/Barrett Avenue) while delay is only increased 3.4 seconds. Moreover, the proposed development plan provides lower delays at all intersections than with the existing government center operations.

RECOMMENDATIONS

Based on the potential land use scenario reviewed in the Pattern Book for Paristown Pointe Planned Development District, the following conclusions and recommendations are made. It is recommended that signal timing adjustments be conducted at the study intersections to accommodate changes in traffic distributions, should the Paristown District Development Plan be approved. No additional improvements have been identified or are recommended, as the existing street system appears capable of accommodating the estimate trip generation.

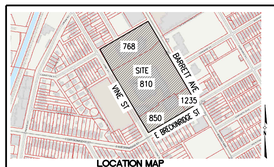
Table 2: AM Peak Hour Capacity Analysis Summary

Intersection	Movement	Existing Conditions		Exisitng Land Use (Government Center)		Proposed District Development Plan	
		LOS	Delay	LOS	Delay	LOS	Delay
Brent Street at Broadway	**Intersection**	-	-	-	-	-	-
	eastbound	A	0.0	A	0.0	A	0.0
	westbound	A	0.1	A	0.1	A	0.1
	northbound	B	13.2	C	15.7	B	14.7
Brent Street at Broadway	**Intersection**	**C**	**33.8**	**D**	**36.4**	**C**	**34.8**
	eastbound	B	13.3	B	19.4	B	18.5
	westbound	C	21.5	C	30.0	C	28.2
	northbound	E	57.4	D	47.1	D	45.0
	southbound	E	56.5	E	56.2	E	56.2
St. Anthony at Barrett Avenue	**Intersection**	**A**	**2.7**	**A**	**8.1**	**A**	**6.2**
	eastbound	-	-	D	39.8	D	45.4
	westbound	**D**	39.9	C	33.9	D	40.1
	northbound	A	1.5	A	3.0	A	1.6
	southbound	A	1.5	A	3.1	A	1.6
Debarr St. at Barrett Avenue	**Intersection**	-	-	-	-	-	-
	eastbound	-	-	C	15.9	B	13.6
	westbound	B	11.2	B	14.2	B	13.0
	northbound	-	-	A	1.1	A	0.6
	southbound	A	0.8	A	0.6	A	0.6
E. Breckinridge Street at Barrett Avenue	**Intersection**	**A**	**6.7**	**A**	**7.0**	**A**	**7.0**
	westbound	D	39.8	D	46.7	D	40.8
	northbound	A	3.6	A	3.4	A	3.9
	southbound	A	2.5	A	2.1	A	2.5
Kentucky Avenue at Barrett Avenue	**Intersection**	**B**	**12.1**	**B**	**15.1**	**B**	**13.9**
	eastbound	**E**	**61.6**	E	63.2	E	64.2
	westbound	D	52.7	E	62.7	E	56.1
	northbound	A	5.5	A	5.6	A	5.6
	southbound	A	4.7	A	4.8	A	4.7
Vine Street at E. Breckinridge Street	Intersection	-	-	-	-	-	-
	westbound	A	0.2	A	0.2	A	0.2
	northbound	B	11.7	B	12.5	B	12.1
	southbound	B	11.3	B	11.5	B	11.2
Swan Street at E. Breckinridge Street	Intersection	-	-	-	-	-	-
	westbound	A	0.1	A	0.2	A	0.2
	northbound	B	12.4	B	13.2	B	12.9
	southbound	B	11.1	B	11.6	B	11.3
St. Anthony at Vine Street	Intersection	-	-	-	-	-	-
	westbound	-	-	A	8.9	A	8.7
	southbound	-	-	A	2.8	A	1.9
Debarr Street at Vine Street	Intersection	-	-	-	-	-	-
	westbound	-	-	A	9.1	A	8.9
	southbound	-	-	A	1.1	A	1.0

Table 3: PM Peak Hour Capacity Analysis Summary

Intersection	Movement	Existing Conditions		Exisitng Land Use (Government Center)		Proposed District Development Plan	
		LOS	Delay	LOS	Delay	LOS	Delay
Brent Street at Broadway	**Intersection**	-	-	-	-	-	-
	eastbound	A	0.0	A	0.0	A	0.0
	westbound	A	0.3	A	0.3	A	0.3
	northbound	C	24.3	E	36.1	D	33.0
Broadway at Barrett Avenue	**Intersection**	**C**	**26.2**	**C**	**31.9**	**C**	**26.5**
	eastbound	B	13.3	C	20.2	B	19.7
	westbound	B	16.2	C	21.6	C	22.3
	northbound	E	62.8	E	63.5	D	41.2
	southbound	D	53.6	D	43.8	D	38.9
St. Anthony at Barrett Avenue	**Intersection**	**A**	**2.6**	**A**	**7.9**	**A**	**6.6**
	eastbound	-	-	D	47.2	D	46.0
	westbound	**D**	40.0	D	37.9	D	39.0
	northbound	A	1.4	A	1.9	A	1.7
	southbound	A	1.9	A	2.7	A	2.4
Debarr St. at Barrett Avenue	**Intersection**	-	-	-	-	-	-
	eastbound	-	-	C	23.0	C	20.1
	westbound	B	14.0	C	19.9	C	18.8
	northbound	-	-	A	0.9	A	0.7
	southbound	A	0.2	A	0.2	A	0.2
E. Breckinridge Street at Barrett Avenue	**Intersection**	**A**	**4.7**	**A**	**5.0**	**A**	**5.0**
	westbound	D	45.9	D	48.0	D	48.0
	northbound	A	2.4	A	2.8	A	2.7
	southbound	A	2.2	A	2.4	A	2.3
Kentucky Avenue at Barrett Avenue	**Intersection**	**B**	**19.8**	**B**	**19.4**	**B**	**19.4**
	eastbound	**D**	**51**	D	51.0	D	51.0
	westbound	D	45.0	D	44.5	D	44.4
	northbound	B	12.1	B	12.1	B	12.0
	southbound	B	13.8	B	14.2	B	14.1
Vine Street at E. Breckinridge Street	Intersection	-	-	-	-	-	-
	westbound	A	0.4	A	0.3	A	0.3
	northbound	B	10.6	B	10.8	B	10.8
	southbound	B	10.6	B	10.4	B	10.4
Swan Street at E. Breckinridge Street	Intersection	-	-	-	-	-	-
	westbound	A	0.6	A	0.6	A	0.6
	northbound	B	11.2	B	11.6	B	11.5
	southbound	B	10.4	B	10.7	B	10.7
St. Anthony at Vine Street	Intersection	-	-	-	-	-	-
	westbound	-	-	A	9.0	A	8.7
	southbound	-	-	A	3.6	A	1.9
Debarr Street at Vine Street	Intersection	-	-	-	-	-	-
	westbound	-	-	A	9.0	A	8.9
	southbound	-	-	A	1.7	A	1.6

APPENDIX A: CONCEPT PLAN



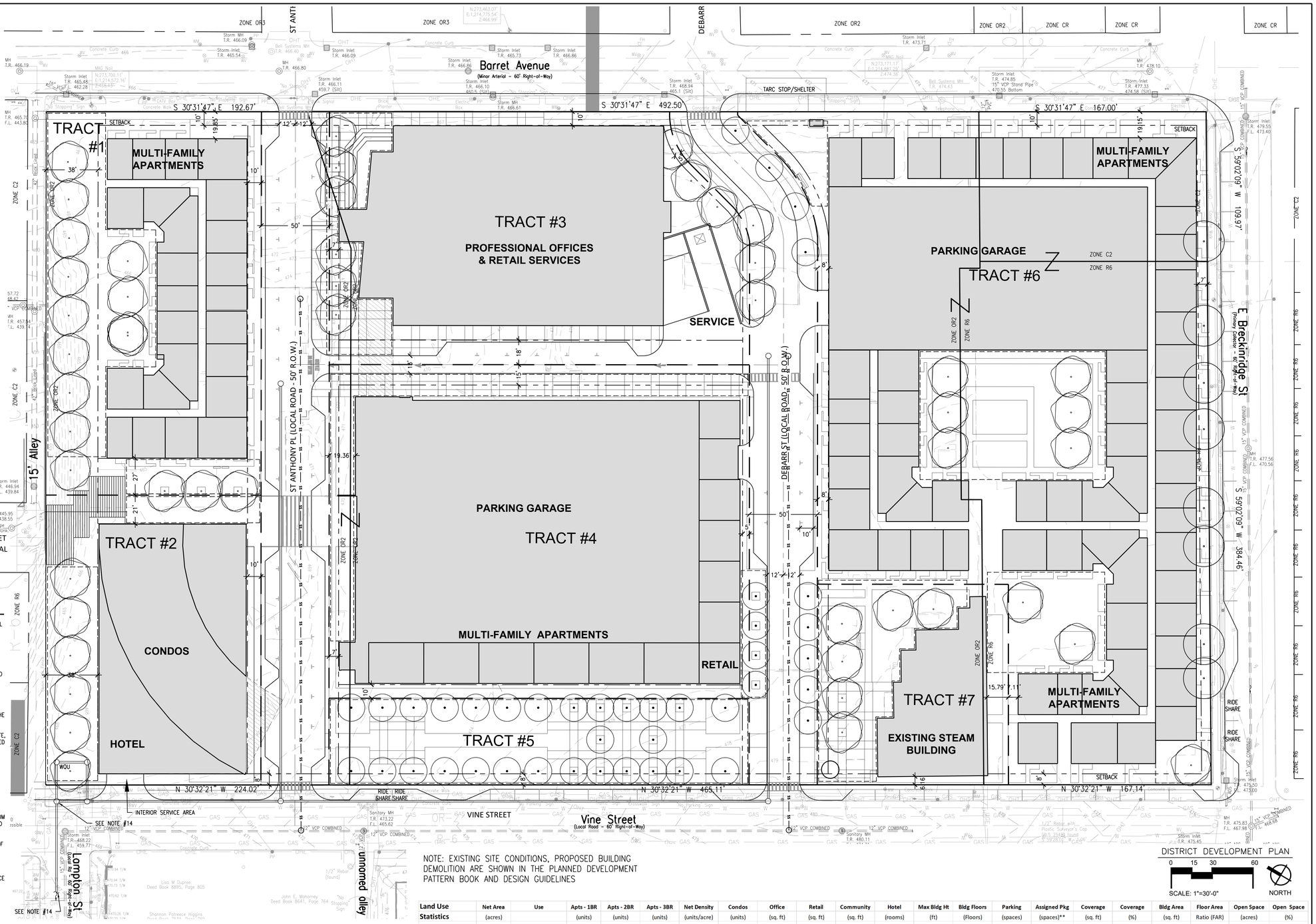
LOCATION MAP
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY
NOT TO SCALE

GENERAL NOTES

1. CONSTRUCTION PLANS AND DOCUMENTS SHALL COMPLY WITH LOUISVILLE AND JEFFERSON COUNTRY METROPOLITAN SEWER DISTRICT'S DESIGN MANUAL AND STANDARD SPECIFICATIONS AND OTHER LOCAL, STATE AND FEDERAL ORDINANCES.
2. SANITARY SEWER SERVICE PROVIDED BY LATERAL EXTENSION, SUBJECT TO FEES AND ANY APPLICABLE CHARGES.
3. THE FINAL DESIGN OF THIS PROJECT MUST MEET ALL MS4 WATER QUALITY REGULATIONS ESTABLISHED BY MSD. SITE LAYOUT MAY CHANGE AR THE DESIGN PHASE DUE TO PROPER SIZING OF GREEN BEST MANAGEMENT PRACTICES.
4. COMPATIBLE UTILITIES SHALL BE PLACED IN A COMMON TRENCH UNLESS OTHERWISE REQUIRED BY APPROPRIATE AGENCIES.
5. TOPOGRAPHIC AND BOUNDARY INFORMATION PROVIDED BY ENDRIS ENGINEERING ON 9/7/18.
6. THERE SHALL BE NO LANDSCAPING IN THE RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT.
7. VERGE AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PROVIDED PER LOUISVILLE METRO PUBLIC WORKS.
8. CONSTRUCTION PLANS WILL BE REQUIRED PRIOR TO CONSTRUCTION.
9. ALL PROPOSED SIDEWALKS ARE A MINIMUM OF 4' WIDE ALONG ALLEYS AND INTERNAL TO DEVELOPMENT, 6' WIDE ALONG VINE STREET.
10. DEVELOPER SHALL BE RESPONSIBLE FOR UTILITY RELOCATIONS, IF REQUIRED.
11. ALL CONSTRUCTION AND SALES TRAILERS MUST BE PERMITTED BY THE DEPARTMENT OF PUBLIC HEALTH AND WELLNESS IN ACCORDANCE WITH CHAPTER 115 OF LOUISVILLE JEFFERSON COUNTY ORDINANCES.
12. MOSQUITO CONTROL IN ACCORDANCE WITH CHAPTER 96 OF LOUISVILLE JEFFERSON COUNTY ORDINANCES.
13. EXISTING SIDEWALK RECONSTRUCTION AND REPAIRS SHALL BE REQUIRED, AS NECESSARY, TO MEET CURRENT MPW STANDARDS AND SHALL BE INSPECTED PRIOR TO FINAL BOND RELEASE.
14. DEVELOPER WILL EXTEND STORM SEWER TO THE INTERSECTION OF SWAN/LAMPTON STORM SEWER PER AGREEMENT WITH MSD THAT WILL MITIGATE NEED FOR ONSITE STORMWATER DETENTION.

EROSION PREVENTION AND SEDIMENT CONTROL NOTES

1. THE APPROVED EROSION PREVENTION AND SEDIMENT CONTROL (EPSC) PLAN SHALL BE IMPLEMENTED PRIOR TO ANY LAND DISTURBING ACTIVITY ON THE CONSTRUCTION SITE. ANY MODIFICATIONS TO THE APPROVED EPSC PLAN MUST BE REVIEWED AND APPROVED BY MSD'S PRIVATE DEVELOPMENT REVIEW OFFICE. EPSC BMP's SHALL BE INSTALLED PER THE PLAN AND MSD STANDARDS.
2. ACTIONS MUST BE TAKEN TO MINIMIZE THE TRACKING OF MUD AND SOIL FROM CONSTRUCTION AREAS ONTO PUBLIC ROADWAYS. SOIL TRACKED ONTO THE ROADWAY SHALL BE REMOVED DAILY.
3. SOIL STOCKPILES SHALL BE LOCATED AWAY FROM STREAMS, PONDS. SWALES AND CATCH BASINS. STOCKPILES SHALL BE SEEDED, MULCHED, AND ADEQUATELY CONTAINED THROUGH THE USE OF SILT FENCE.
4. WHERE CONSTRUCTION OR LAND DISTURBANCE ACTIVITY WILL OR HAS TEMPORARILY CEASED ON ANY PORTION OF THE SITE, TEMPORARY SITE STABILIZATION MEASURES SHALL BE REQUIRED AS SOON AS POSSIBLE, BUT NO LATER THAN 14 CALENDAR DAYS AFTER THE ACTIVITY HAS CEASED.
5. SEDIMENT LADEN GROUNDWATER ENCOUNTERED DURING TRENCHING, BORING OR OTHER EXCAVATION ACTIVITIES SHALL BE PUMPED TO A SEDIMENT TRAPPING DEVICE PRIOR TO DISCHARGE INTO A STREAM, POND, SWALE, CATCH BASIN OR PUBLIC RIGHT OF WAY.
6. CONCRETE WASH OUT PIT TO BE PLACED ON SITE AT CONTRACTORS DISCRETION.
7. THE EROSION PREVENTION AND SEDIMENT CONTROL DEVICES SHOWN ON THIS PLAN SET ARE INTENDED TO BE THE MINIMUM CONTROL MEASURES. ADDITIONAL EPSC DEVICES MAY NEED TO BE INSTALLED AS NECESSARY BY THE CONTRACTOR TO PREVENT EROSION AND SEDIMENTATION.
8. AT THE END OF EACH WORK DAY SITE SHALL BE CLEANED OF SEDIMENT AND DEBRIS. DISTURBED AREAS SHALL HAVE SILT CONTROL INSTALLED OR WILL BE STABILIZED SO THAT SEDIMENT WILL NOT GET OFF SITE OR INTO THE STORM SYSTEM DURING A RAIN EVENT.
9. MITIGATION MEASURES FOR DUST CONTROL SHALL BE IN PLACE DURING CONSTRUCTION AND DEMOLITION ACTIVITIES TO PREVENT FUGITIVE PARTICULATE EMISSIONS FROM REACHING EXISTING ROADS AND NEIGHBORHOODS.
14. NO INCREASE IN STORM WATER DISCHARGE VELOCITY AT THE POINT OF DISCHARGE AT THE PROPERTY LINE.



NOTE: EXISTING SITE CONDITIONS, PROPOSED BUILDING DEMOLITION ARE SHOWN IN THE PLANNED DEVELOPMENT PATTERN BOOK AND DESIGN GUIDELINES

DISTRICT DEVELOPMENT PLAN
0 15 30 60
SCALE: 1"=30'-0"
NORTH

LEGEND

- EXISTING PROPERTY BOUNDARY
- PROPOSED TRACT BOUNDARY
- SETBACK
- PROPOSED BUILDING
- PROPOSED CANOPY
- STORM SEWER
- SS SANITARY SEWER
- PROPOSED OPEN SPACE
- BIKE RACK

TREE CANOPY REQUIREMENTS

SITE AREA (GROSS PROPOSED ZONING)	421399.44 S.F. (9.674 Ac.)
EXISTING TREE CANOPY	49,775 S.F. (11.8%)
PRESERVED TREE CANOPY	10,032 S.F. (BRECKINRIDGE ST) 6,120 S.F. (BRENT ST) = 16,152 S.F. (3.8%)
PROVIDED NEW TREE CANOPY	49 TYPE A TREES @ 720 SF (35,280 SF) 41 TYPE B TREES @ 432 SF (17,712 SF) =52,992 S.F. (12.6%)
TOTAL TREE CANOPY	69,144 S.F. (16.4%)

Planned Unit Development Land Use Summary

Project Address	768 Barrett Avenue	810 Barrett Avenue	1235 E. Breckinridge St	850 Barrett Avenue
Property Owner	Louisville Metro Housing Authority	Jefferson County Kentucky Capital	Louisville Jefferson County Metro Government	Louisville Jefferson County Metro Government
Parcel ID #	021J00900000	021J01300000	021J011400000	021J01130000
Parcel Acreage	2.46 acres	5.287 acres	0.4163 acres	1.51 acres
Existing Zoning	OR2	OR2	C2	R6
Form District	Traditional Neighborhood	Traditional Neighborhood	Traditional Neighborhood	Traditional Neighborhood
Proposed Zoning	PUD	PUD	PUD	PUD

Land Use Statistics	**Net Area** (acres)	**Use**	**Apts - 1BR** (units)	**Apts - 2BR** (units)	**Apts - 3BR** (units)	**Net Density** (units/acre)	**Condos** (units)	**Office** (sq. ft)	**Retail** (sq. ft)	**Community** (sq. ft)	**Hotel** (rooms)	**Max Bldg Ht** (ft)	**Bldg Floors** (Floors)	**Parking** (spaces)	**Assigned Pkg** (spaces)**	**Coverage** (sq. ft)	**Coverage** (%)	**Bldg Area** (sq. ft)	**Floor Area** Ratio (FAR)	**Open Space** (acres)	**Open Space** (%)
TRACT 1	1.0218	**Multi Family**	92	45	3	137.01						50	4		211	25,600	57.52%	102,400	2.30	0.409	40.04%
TRACT 2	0.7717	**Hotel**									100	70	3	5	100	20,000	59.50%	60,000	1.78	0.218	28.25%
		Condos				25.92	20					70	3		34			36,000	1.07		
TRACT 3	1.2467	**Office**						172,000				60	5	15	229	32,800	60.40%	172,000	3.17	0.144	11.55%
		Retail							2,000						2	2,000	3.68%	2,000	0.04		
TRACT 4	1.738	**Parking Garage**										65	6	740		50,000	66.04%	300,000	3.96	0.125	7.16%
		Multi-Family	40	20	4	36.82						50	4		105	12,100	15.98%	51,100	0.67		
		Retail							900				1		1	900	1.19%	900	0.01		
TRACT 5	0.4499	**Civic Space**																		0.450	100.00%
TRACT 6	2.8357	**Multi Family**	160	81	5	86.75						50	4		416	58,000	46.95%	232,000	1.88	0.509	17.94%
		Parking Garage										50	4	295		35,000	28.33%	140,000	1.13		
TRACT 7	0.4747	**Retail - Community**							6,100	6,100				19	7	6,100	29.50%	12,200	0.59	0.233	49.10%
LAND USE TOTALS	**8.5385**		**292**	**146**	**12**	**55.04** **48.59** ***	**20**	**172,000**	**9,000**	**6,100**	**100**			**1,074**	**1,105**	**242,500**	**65.20%**	**1,108,600**	**2.98**	**2.09**	**24.45%**

NOTES:
The Land Use Standards represented in this table are seporated by Tract for clarity and Land Use Totals are to be considered as the "comprehensive standard" for consideration
*Multi-family Apartments are allocated at 1.69 spaces per unit – less than the required maximum of 2 spaces per unit
**(Traditional Form District does not require a minimum number of parking spaces for Multi-Family Residential)
**Traditional Form District requirement of 1 parking space per Hotel room
**Traditional Form District requirement of 1 parking space per 750 gross square feet of Office space
**Traditional Form District requirement of 1 parking space per 1000 gross square feet of Retail space
**Required Parking does not account for any allowed parking reductions
**Parking totals include on-street parallel parking and parking within parking structures
***Dwelling Unit Density – Gross Acreage
The weighted gross density for existing OR2, C2 and R6 Zoning Districts on the site is 57.73 dwelling units per acre

NOT FOR CONSTRUCTION

DISTRICT DEVELOPMENT PLAN

PARISTOWN POINTE PLANNED DEVELOPMENT DISTRICT

768, 810, 850 Barret Avenue
1235 E Breckinridge Street
Louisville, Kentucky

Owner:
UPPT, LLC

Applicant:
Upper Paristown Preservation Trust
761 Brent Street
Louisville, Kentucky 40204

Landscape Architect/Civil **CARMAN**
400 E. Main Street, Ste. 106
Louisville, Kentucky 40202
502.742.6581

Architect:

DRAWN BY: MH
APPROVED BY: JLC
PROJECT NUMBER: 22-110
REVISIONS:

CASE NUMBER:
MSD WM#:

SEWER TREATMENT PLANT:
MORRIS FOREMAN

CARMAN
LANDSCAPE ARCHITECTURE
URBAN PLANNING
CIVIL ENGINEERING

SHEET TITLE:
DISTRICT DEVELOPMENT PLAN AND PRELIMINARY PLAT

SHEET NUMBER:
DP1
MSD WM# - 11836

APPENDIX B: TRAFFIC DATA

Cummins Consulting Services, LLC
swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

Partly Sunny
Schools in Session
Wednesday - 8HI and 45Q

File Name : 1_Barret_Avenue_at_US150-Broadway_11-30-2022
Site Code : Site 1
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Barret Avenue From North					US150 - Broadway From East					Barret Avenue From South					US150 - Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	18	22	0	40	4	68	0	0	72	34	9	2	0	45	15	31	38	0	84	241
07:15 AM	1	25	42	0	68	1	102	1	0	104	47	17	5	0	69	18	38	43	0	99	340
07:30 AM	1	16	46	0	63	4	80	7	0	91	69	26	2	0	97	27	38	39	0	104	355
07:45 AM	1	18	48	0	67	1	127	18	0	146	56	30	0	0	86	22	40	41	0	103	402
Total	3	77	158	0	238	10	377	26	0	413	206	82	9	0	297	82	147	161	0	390	1338
08:00 AM	1	24	38	0	63	3	105	1	0	109	56	25	5	0	86	20	40	36	0	96	354
08:15 AM	2	16	41	0	59	3	125	1	0	129	46	28	5	0	79	15	37	29	0	81	348
08:30 AM	0	20	54	0	74	1	106	0	0	107	46	20	2	0	68	26	32	30	0	88	337
08:45 AM	1	23	33	0	57	4	97	0	0	101	26	28	3	0	57	23	44	34	0	101	316
Total	4	83	166	0	253	11	433	2	0	446	174	101	15	0	290	84	153	129	0	366	1355
04:00 PM	2	34	33	0	69	3	60	1	0	64	26	34	5	0	65	41	112	95	0	248	446
04:15 PM	1	30	24	0	55	1	54	0	0	55	32	38	8	0	78	45	113	75	0	233	421
04:30 PM	1	48	16	0	65	5	55	2	0	62	32	32	4	0	68	50	129	75	0	254	449
04:45 PM	1	54	17	0	72	6	62	1	0	69	25	24	4	0	53	53	144	100	0	297	491
Total	5	166	90	0	261	15	231	4	0	250	115	128	21	0	264	189	498	345	0	1032	1807
05:00 PM	1	66	26	0	93	6	51	1	0	58	20	37	3	0	60	39	120	92	0	251	462
05:15 PM	2	50	29	0	81	8	53	2	0	63	35	28	5	0	68	61	142	123	0	326	538
05:30 PM	2	46	36	0	84	7	63	1	0	71	17	29	5	0	51	61	112	103	1	277	483
05:45 PM	5	48	28	0	81	3	44	2	0	49	27	29	2	0	58	36	87	86	0	209	397
Total	10	210	119	0	339	24	211	6	0	241	99	123	15	0	237	197	461	404	1	1063	1880
Grand Total	22	536	533	0	1091	60	1252	38	0	1350	594	434	60	0	1088	552	1259	1039	1	2851	6380
Apprch %	2	49.1	48.9	0		4.4	92.7	2.8	0		54.6	39.9	5.5	0		19.4	44.2	36.4	0		
Total %	0.3	8.4	8.4	0	17.1	0.9	19.6	0.6	0	21.2	9.3	6.8	0.9	0	17.1	8.7	19.7	16.3	0	44.7	
Cars	19	531	524	0	1074	58	1224	38	0	1320	576	427	60	0	1063	543	1233	1009	1	2786	6243
% Cars	86.4	99.1	98.3	0	98.4	96.7	97.8	100	0	97.8	97	98.4	100	0	97.7	98.4	97.9	97.1	100	97.7	97.9
Buses	0	2	3	0	5	2	24	0	0	26	11	2	0	0	13	6	19	21	0	46	90
% Buses	0	0.4	0.6	0	0.5	3.3	1.9	0	0	1.9	1.9	0.5	0	0	1.2	1.1	1.5	2	0	1.6	1.4
Trucks	3	3	6	0	12	0	4	0	0	4	7	5	0	0	12	3	7	9	0	19	47
% Trucks	13.6	0.6	1.1	0	1.1	0	0.3	0	0	0.3	1.2	1.2	0	0	1.1	0.5	0.6	0.9	0	0.7	0.7

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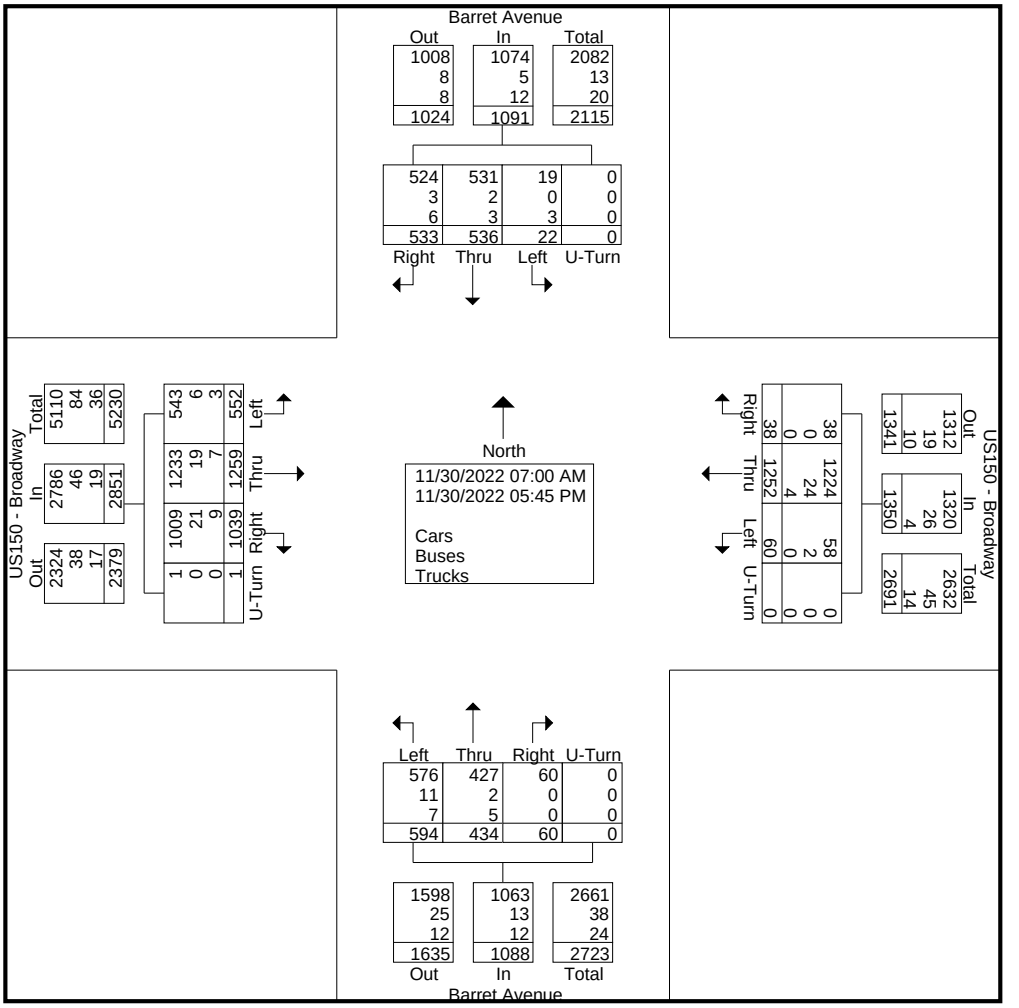
File Name : 1_Barret_Avenue_at_US150-Broadway_11-30-2022
Site Code : Site 1
Start Date : 11/30/2022
Page No : 2



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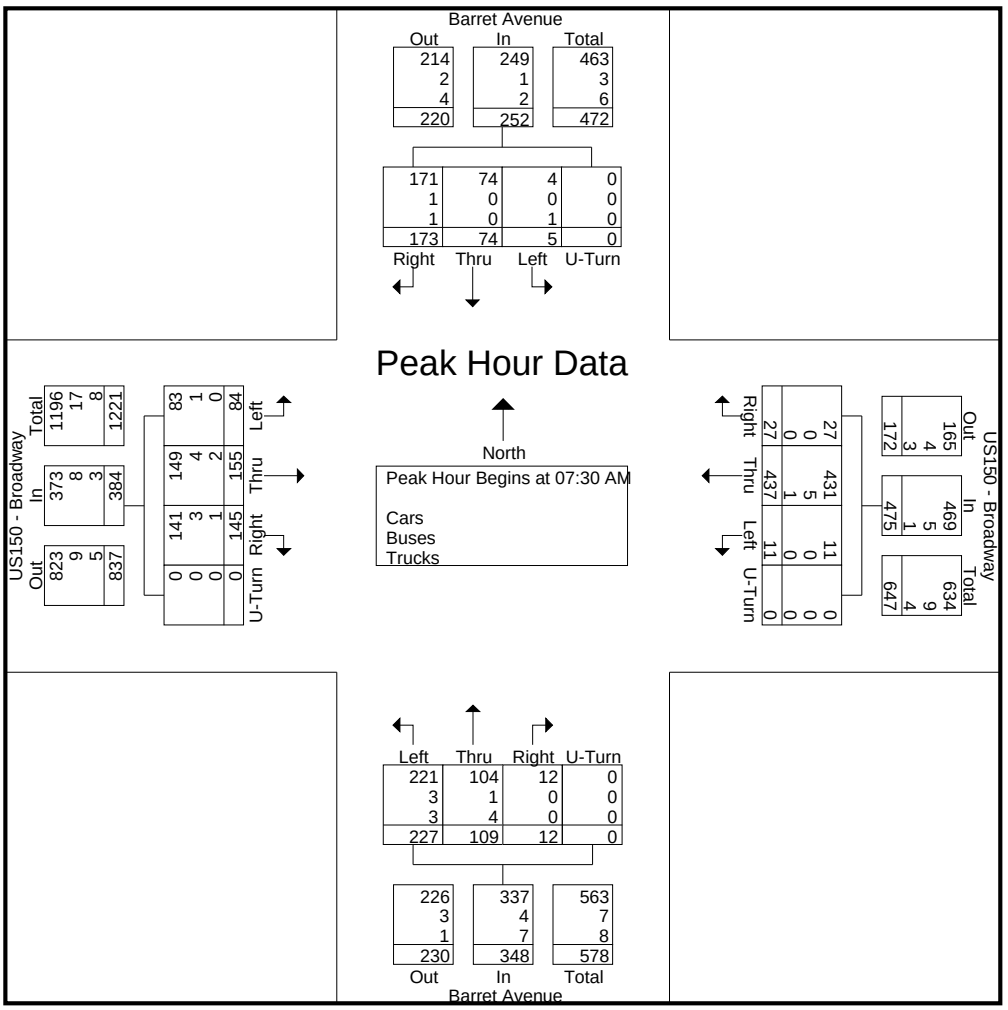
"2022 ... Data Collection simplified"

File Name : 1_Barret_Avenue_at_US150-Broadway_11-30-2022
Site Code : Site 1
Start Date : 11/30/2022
Page No : 3

	Barret Avenue From North					US150 - Broadway From East					Barret Avenue From South					US150 - Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	1	16	46	0	63	**4**	80	7	0	91	**69**	26	2	0	**97**	**27**	38	39	0	**104**	355
07:45 AM	1	18	**48**	0	**67**	1	**127**	**18**	0	**146**	56	**30**	0	0	86	22	**40**	**41**	0	103	**402**
08:00 AM	1	**24**	38	0	63	3	105	1	0	109	56	25	**5**	0	86	20	40	36	0	96	354
08:15 AM	**2**	16	41	0	59	3	125	1	0	129	46	28	5	0	79	15	37	29	0	81	348
Total Volume	5	74	173	0	252	11	437	27	0	475	227	109	12	0	348	84	155	145	0	384	1459
% App. Total	2	29.4	68.7	0		2.3	92	5.7	0		65.2	31.3	3.4	0		21.9	40.4	37.8	0		
PHF	.625	.771	.901	.000	.940	.688	.860	.375	.000	.813	.822	.908	.600	.000	.897	.778	.969	.884	.000	.923	.907
Cars	4	74	171	0	249	11	431	27	0	469	221	104	12	0	337	83	149	141	0	373	1428
% Cars	80.0	100	98.8	0	98.8	100	98.6	100	0	98.7	97.4	95.4	100	0	96.8	98.8	96.1	97.2	0	97.1	97.9
Buses	0	0	1	0	1	0	5	0	0	5	3	1	0	0	4	1	4	3	0	8	18
% Buses	0	0	0.6	0	0.4	0	1.1	0	0	1.1	1.3	0.9	0	0	1.1	1.2	2.6	2.1	0	2.1	1.2
Trucks	1	0	1	0	2	0	1	0	0	1	3	4	0	0	7	0	2	1	0	3	13
% Trucks	20.0	0	0.6	0	0.8	0	0.2	0	0	0.2	1.3	3.7	0	0	2.0	0	1.3	0.7	0	0.8	0.9



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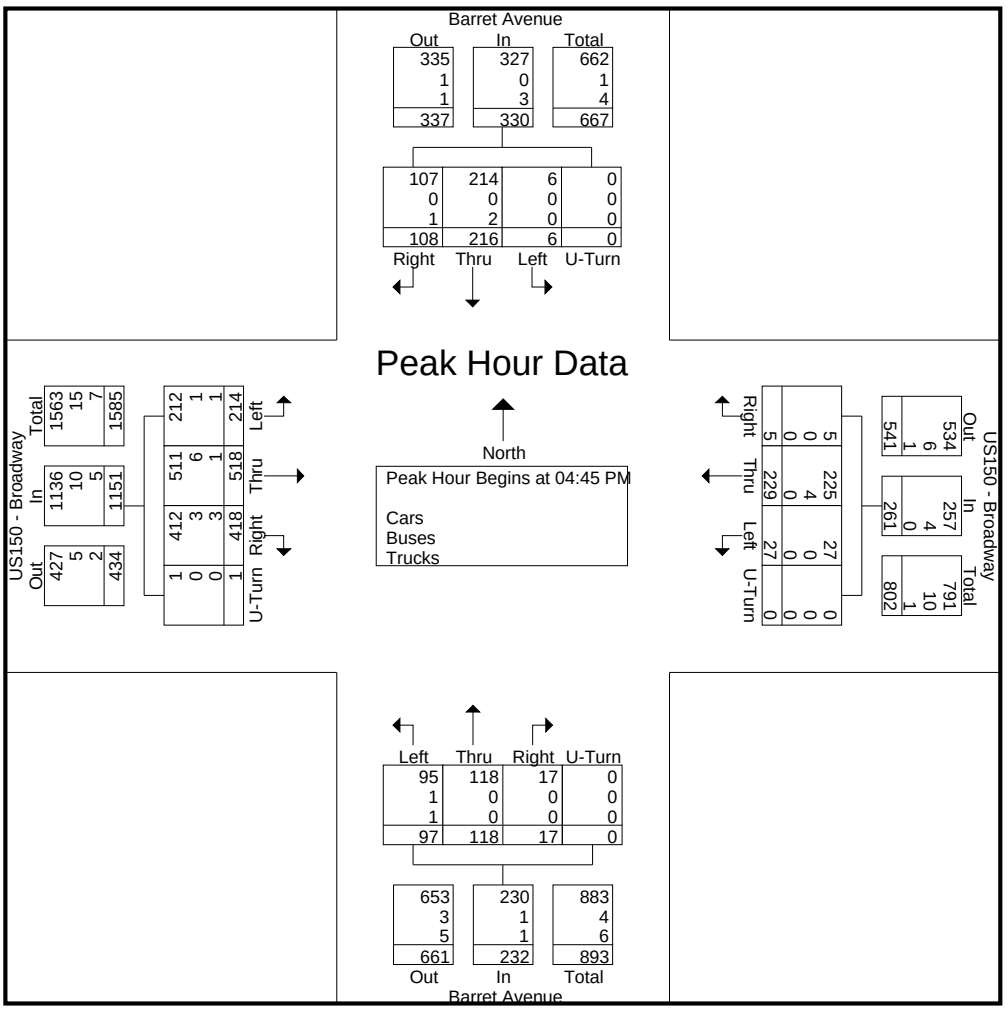
File Name : 1_Barret_Avenue_at_US150-Broadway_11-30-2022
Site Code : Site 1
Start Date : 11/30/2022
Page No : 4

	Barret Avenue From North					US150 - Broadway From East					Barret Avenue From South					US150 - Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	1	54	17	0	72	6	62	1	0	69	25	24	4	0	53	53	**144**	100	0	297	491
05:00 PM	1	**66**	26	0	**93**	6	51	1	0	58	20	**37**	3	0	60	39	120	92	0	251	462
05:15 PM	**2**	50	29	0	81	**8**	53	**2**	0	63	**35**	28	**5**	0	**68**	**61**	142	**123**	0	**326**	**538**
05:30 PM	2	46	**36**	0	84	7	**63**	1	0	**71**	17	29	5	0	51	61	112	103	**1**	277	483
Total Volume	6	216	108	0	330	27	229	5	0	261	97	118	17	0	232	214	518	418	1	1151	1974
% App. Total	1.8	65.5	32.7	0		10.3	87.7	1.9	0		41.8	50.9	7.3	0		18.6	45	36.3	0.1		
PHF	.750	.818	.750	.000	.887	.844	.909	.625	.000	.919	.693	.797	.850	.000	.853	.877	.899	.850	.250	.883	.917
Cars	6	214	107	0	327	27	225	5	0	257	95	118	17	0	230	212	511	412	1	1136	1950
% Cars	100	99.1	99.1	0	99.1	100	98.3	100	0	98.5	97.9	100	100	0	99.1	99.1	98.6	98.6	100	98.7	98.8
Buses	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	1	6	3	0	10	15
% Buses	0	0	0	0	0	0	1.7	0	0	1.5	1.0	0	0	0	0.4	0.5	1.2	0.7	0	0.9	0.8
Trucks	0	2	1	0	3	0	0	0	0	0	1	0	0	0	1	1	1	3	0	5	9
% Trucks	0	0.9	0.9	0	0.9	0	0	0	0	0	1.0	0	0	0	0.4	0.5	0.2	0.7	0	0.4	0.5



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swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

Partly Sunny
Schools in Session
Wednesday - 9X5

File Name : 2_Barret_Avenue_at_St_Anthony_Place_11-30-2022
Site Code : Site 2
Start Date : 11/30/2022

Groups Printed- Cars - Buses - Trucks

	Barret Avenue From North					St Anthony Place From East					Barret Avenue From South					St Anthony Place From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	3	47	0	0	50	0	0	0	0	0	0	47	3	0	50	0	0	0	0	0	100
07:15 AM	8	53	0	0	61	4	0	5	0	9	0	72	3	0	75	0	0	0	0	0	145
07:30 AM	7	55	0	0	62	3	0	2	0	5	0	88	3	0	91	0	0	0	0	0	158
07:45 AM	4	55	0	0	59	0	0	1	0	1	0	76	3	0	79	0	0	0	0	0	139
Total	22	210	0	0	232	7	0	8	0	15	0	283	12	0	295	0	0	0	0	0	542
08:00 AM	5	46	0	0	51	1	0	2	0	3	0	89	0	0	89	0	0	0	0	0	143
08:15 AM	3	39	0	0	42	0	0	2	0	2	0	66	1	0	67	0	0	0	0	0	111
08:30 AM	9	36	0	0	45	1	0	3	0	4	0	72	2	0	74	0	0	0	0	0	123
08:45 AM	6	48	0	0	54	1	0	4	0	5	0	55	3	0	58	0	0	0	0	0	117
Total	23	169	0	0	192	3	0	11	0	14	0	282	6	0	288	0	0	0	0	0	494
04:00 PM	5	123	0	0	128	6	0	4	0	10	0	57	1	0	58	0	0	0	0	0	196
04:15 PM	1	106	0	0	107	0	0	7	0	7	0	68	1	0	69	0	0	0	0	0	183
04:30 PM	0	130	0	0	130	1	0	2	0	3	0	54	2	0	56	0	0	0	0	0	189
04:45 PM	3	160	0	0	163	2	0	3	0	5	0	53	1	0	54	0	0	0	0	0	222
Total	9	519	0	0	528	9	0	16	0	25	0	232	5	0	237	0	0	0	0	0	790
05:00 PM	3	163	0	0	166	2	0	4	0	6	0	60	0	0	60	0	0	0	0	0	232
05:15 PM	6	180	0	0	186	1	0	1	0	2	0	58	4	0	62	0	0	0	0	0	250
05:30 PM	3	152	0	0	155	4	0	2	0	6	0	50	3	0	53	0	0	0	0	0	214
05:45 PM	5	134	0	0	139	2	0	1	0	3	0	59	5	0	64	0	0	0	0	0	206
Total	17	629	0	0	646	9	0	8	0	17	0	227	12	0	239	0	0	0	0	0	902
Grand Total	71	1527	0	0	1598	28	0	43	0	71	0	1024	35	0	1059	0	0	0	0	0	2728
Apprch %	4.4	95.6	0	0		39.4	0	60.6	0		0	96.7	3.3	0		0	0	0	0		
Total %	2.6	56	0	0	58.6	1	0	1.6	0	2.6	0	37.5	1.3	0	38.8	0	0	0	0	0	
Cars	70	1488	0	0	1558	28	0	43	0	71	0	1002	34	0	1036	0	0	0	0	0	2665
% Cars	98.6	97.4	0	0	97.5	100	0	100	0	100	0	97.9	97.1	0	97.8	0	0	0	0	0	97.7
Buses	0	24	0	0	24	0	0	0	0	0	0	11	0	0	11	0	0	0	0	0	35
% Buses	0	1.6	0	0	1.5	0	0	0	0	0	0	1.1	0	0	1	0	0	0	0	0	1.3
Trucks	1	15	0	0	16	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	28
% Trucks	1.4	1	0	0	1	0	0	0	0	0	0	1.1	2.9	0	1.1	0	0	0	0	0	1

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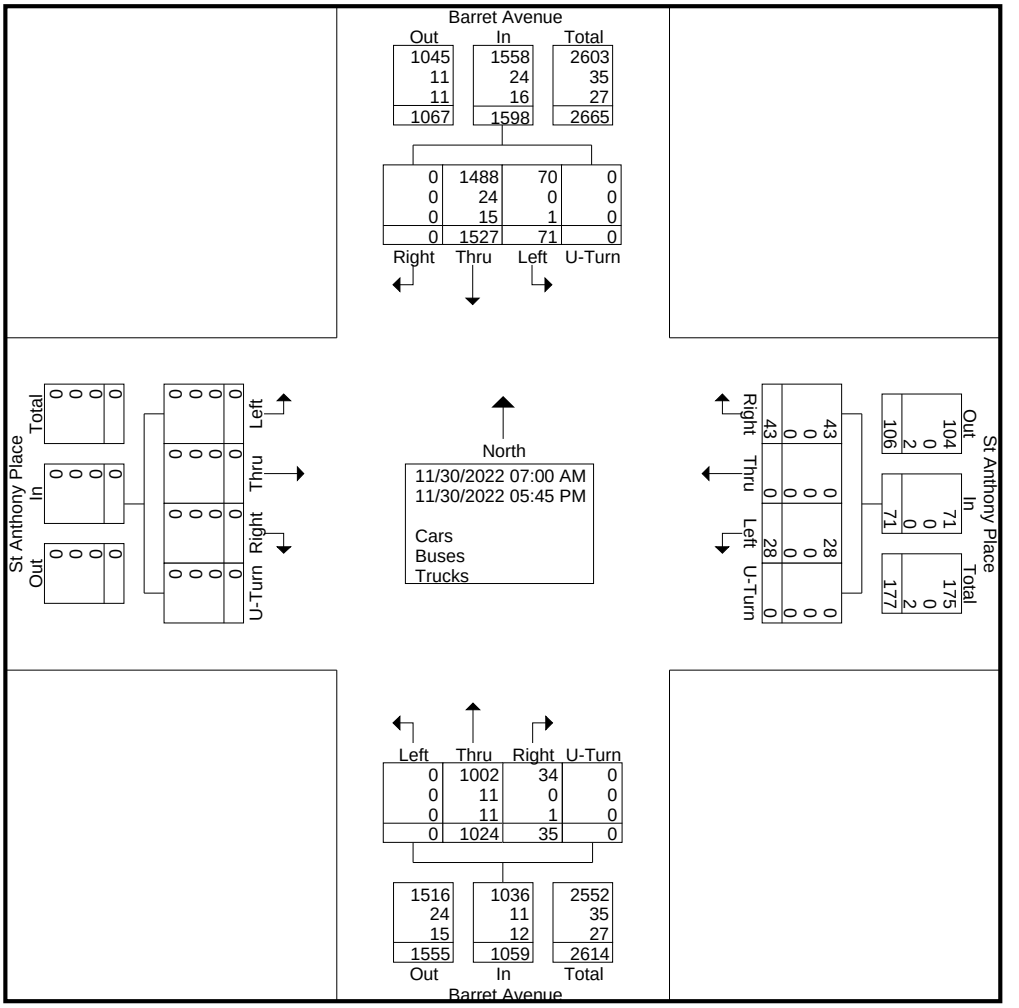
swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

File Name : 2_Barret_Avenue_at_St_Anthony_Place_11-30-2022
Site Code : Site 2
Start Date : 11/30/2022
Page No : 2



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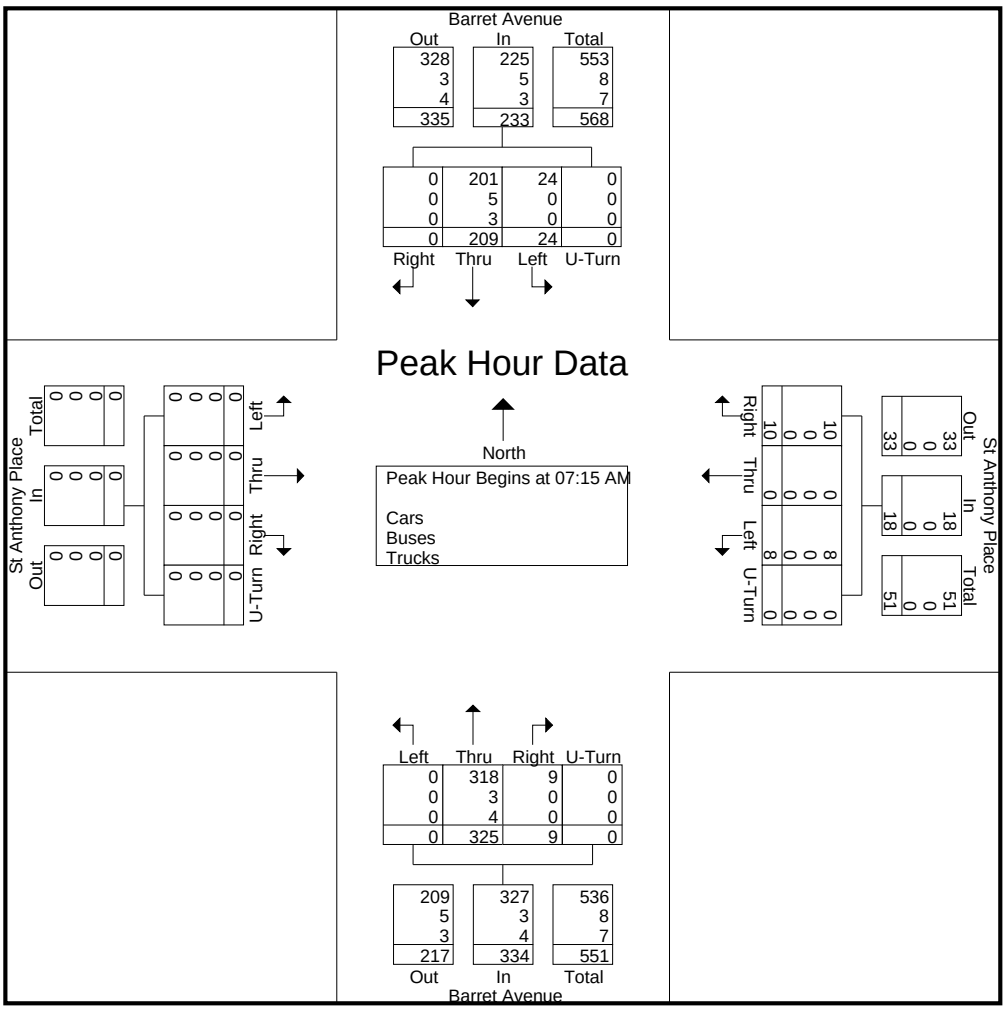
"2022 ... Data Collection simplified"

File Name : 2_Barret_Avenue_at_St_Anthony_Place_11-30-2022
Site Code : Site 2
Start Date : 11/30/2022
Page No : 3

	Barret Avenue From North					St Anthony Place From East					Barret Avenue From South					St Anthony Place From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**8**	53	0	0	61	**4**	0	**5**	0	**9**	0	72	**3**	0	75	0	0	0	0	0	145
07:30 AM	7	**55**	0	0	**62**	3	0	2	0	5	0	88	3	0	**91**	0	0	0	0	0	**158**
07:45 AM	4	55	0	0	59	0	0	1	0	1	0	76	3	0	79	0	0	0	0	0	139
08:00 AM	5	46	0	0	51	1	0	2	0	3	0	**89**	0	0	89	0	0	0	0	0	143
Total Volume	24	209	0	0	233	8	0	10	0	18	0	325	9	0	334	0	0	0	0	0	585
% App. Total	10.3	89.7	0	0		44.4	0	55.6	0		0	97.3	2.7	0		0	0	0	0		
PHF	.750	.950	.000	.000	.940	.500	.000	.500	.000	.500	.000	.913	.750	.000	.918	.000	.000	.000	.000	.000	.926
Cars	24	201	0	0	225	8	0	10	0	18	0	318	9	0	327	0	0	0	0	0	570
% Cars	100	96.2	0	0	96.6	100	0	100	0	100	0	97.8	100	0	97.9	0	0	0	0	0	97.4
Buses	0	5	0	0	5	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	8
% Buses	0	2.4	0	0	2.1	0	0	0	0	0	0	0.9	0	0	0.9	0	0	0	0	0	1.4
Trucks	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	7
% Trucks	0	1.4	0	0	1.3	0	0	0	0	0	0	1.2	0	0	1.2	0	0	0	0	0	1.2



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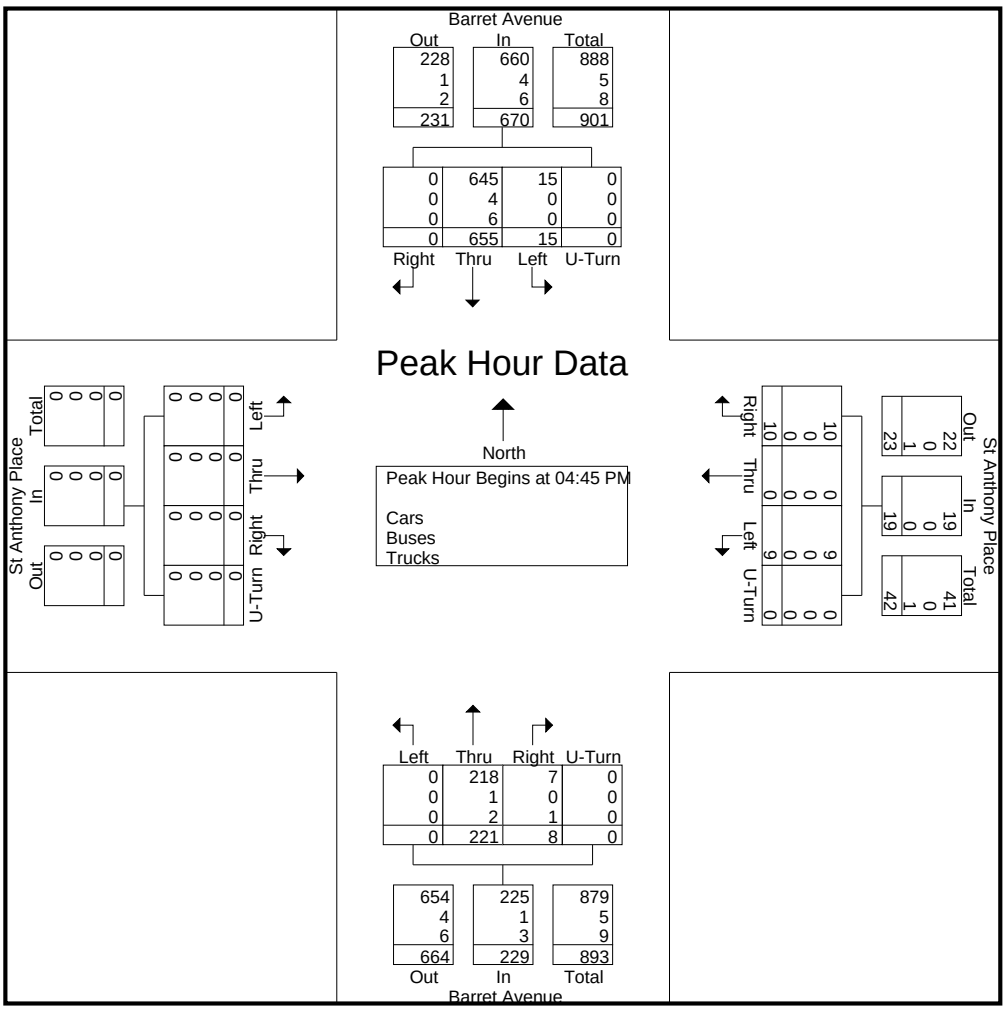
"2022 ... Data Collection simplified"

File Name : 2_Barret_Avenue_at_St_Anthony_Place_11-30-2022
Site Code : Site 2
Start Date : 11/30/2022
Page No : 4

	Barret Avenue From North					St Anthony Place From East					Barret Avenue From South					St Anthony Place From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	3	160	0	0	163	2	0	3	0	5	0	53	1	0	54	0	0	0	0	0	222
05:00 PM	3	163	0	0	166	2	0	**4**	0	**6**	0	**60**	0	0	60	0	0	0	0	0	232
05:15 PM	**6**	**180**	0	0	**186**	1	0	1	0	2	0	58	**4**	0	**62**	0	0	0	0	0	**250**
05:30 PM	3	152	0	0	155	**4**	0	2	0	6	0	50	3	0	53	0	0	0	0	0	214
Total Volume	15	655	0	0	670	9	0	10	0	19	0	221	8	0	229	0	0	0	0	0	918
% App. Total	2.2	97.8	0	0		47.4	0	52.6	0		0	96.5	3.5	0		0	0	0	0		
PHF	.625	.910	.000	.000	.901	.563	.000	.625	.000	.792	.000	.921	.500	.000	.923	.000	.000	.000	.000	.000	.918
Cars	15	645	0	0	660	9	0	10	0	19	0	218	7	0	225	0	0	0	0	0	904
% Cars	100	98.5	0	0	98.5	100	0	100	0	100	0	98.6	87.5	0	98.3	0	0	0	0	0	98.5
Buses	0	4	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
% Buses	0	0.6	0	0	0.6	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0.5
Trucks	0	6	0	0	6	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	9
% Trucks	0	0.9	0	0	0.9	0	0	0	0	0	0	0.9	12.5	0	1.3	0	0	0	0	0	1.0



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swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

Partly Sunny
Schools in Session
Wednesday - 5GG

File Name : 3_Barret_Avenue_at_E_Breckenridge_Street_11-30-2022
Site Code : Site 3
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Barret Avenue From North					E Breckenridge Street From East					Barret Avenue From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	40	52	1	0	93	0	0	0	0	0	4	36	5	0	45	1	8	3	0	12	150
07:15 AM	51	71	2	0	124	0	0	0	0	0	2	44	8	0	54	11	17	4	0	32	210
07:30 AM	59	96	2	0	157	0	0	0	0	0	1	40	16	0	57	3	16	2	0	21	235
07:45 AM	71	80	5	0	156	0	0	0	0	0	2	41	12	0	55	1	11	8	0	20	231
Total	221	299	10	0	530	0	0	0	0	0	9	161	41	0	211	16	52	17	0	85	826
08:00 AM	60	103	4	0	167	0	0	0	0	0	0	35	9	0	44	1	9	0	0	10	221
08:15 AM	69	69	2	0	140	0	0	0	0	0	1	31	10	0	42	0	5	2	0	7	189
08:30 AM	64	76	3	0	143	0	0	0	0	0	2	28	7	0	37	4	5	0	0	9	189
08:45 AM	70	63	11	0	144	0	0	0	0	0	2	30	18	0	50	1	6	2	0	9	203
Total	263	311	20	0	594	0	0	0	0	0	5	124	44	0	173	6	25	4	0	35	802
04:00 PM	38	59	8	0	105	0	0	0	0	0	5	119	15	0	139	4	7	5	0	16	260
04:15 PM	28	62	7	0	97	0	0	0	0	0	4	100	10	0	114	2	4	1	0	7	218
04:30 PM	38	55	1	0	94	0	0	0	0	0	3	113	27	0	143	5	8	2	0	15	252
04:45 PM	31	62	2	0	95	0	0	0	0	0	0	144	21	0	165	7	3	1	0	11	271
Total	135	238	18	0	391	0	0	0	0	0	12	476	73	0	561	18	22	9	0	49	1001
05:00 PM	33	60	2	0	95	0	0	0	0	0	2	151	21	0	174	6	16	0	0	22	291
05:15 PM	26	56	3	0	85	0	0	0	0	0	3	168	18	0	189	4	7	2	0	13	287
05:30 PM	31	59	4	0	94	0	0	0	0	0	3	143	21	0	167	5	10	0	0	15	276
05:45 PM	33	70	1	0	104	0	0	0	0	0	2	120	14	0	136	6	3	2	0	11	251
Total	123	245	10	0	378	0	0	0	0	0	10	582	74	0	666	21	36	4	0	61	1105
Grand Total	742	1093	58	0	1893	0	0	0	0	0	36	1343	232	0	1611	61	135	34	0	230	3734
Apprch %	39.2	57.7	3.1	0		0	0	0	0		2.2	83.4	14.4	0		26.5	58.7	14.8	0		
Total %	19.9	29.3	1.6	0	50.7	0	0	0	0	0	1	36	6.2	0	43.1	1.6	3.6	0.9	0	6.2	
Cars	727	1072	55	0	1854	0	0	0	0	0	35	1322	219	0	1576	61	130	32	0	223	3653
% Cars	98	98.1	94.8	0	97.9	0	0	0	0	0	97.2	98.4	94.4	0	97.8	100	96.3	94.1	0	97	97.8
Buses	10	12	0	0	22	0	0	0	0	0	0	14	9	0	23	0	5	0	0	5	50
% Buses	1.3	1.1	0	0	1.2	0	0	0	0	0	0	1	3.9	0	1.4	0	3.7	0	0	2.2	1.3
Trucks	5	9	3	0	17	0	0	0	0	0	1	7	4	0	12	0	0	2	0	2	31
% Trucks	0.7	0.8	5.2	0	0.9	0	0	0	0	0	2.8	0.5	1.7	0	0.7	0	0	5.9	0	0.9	0.8

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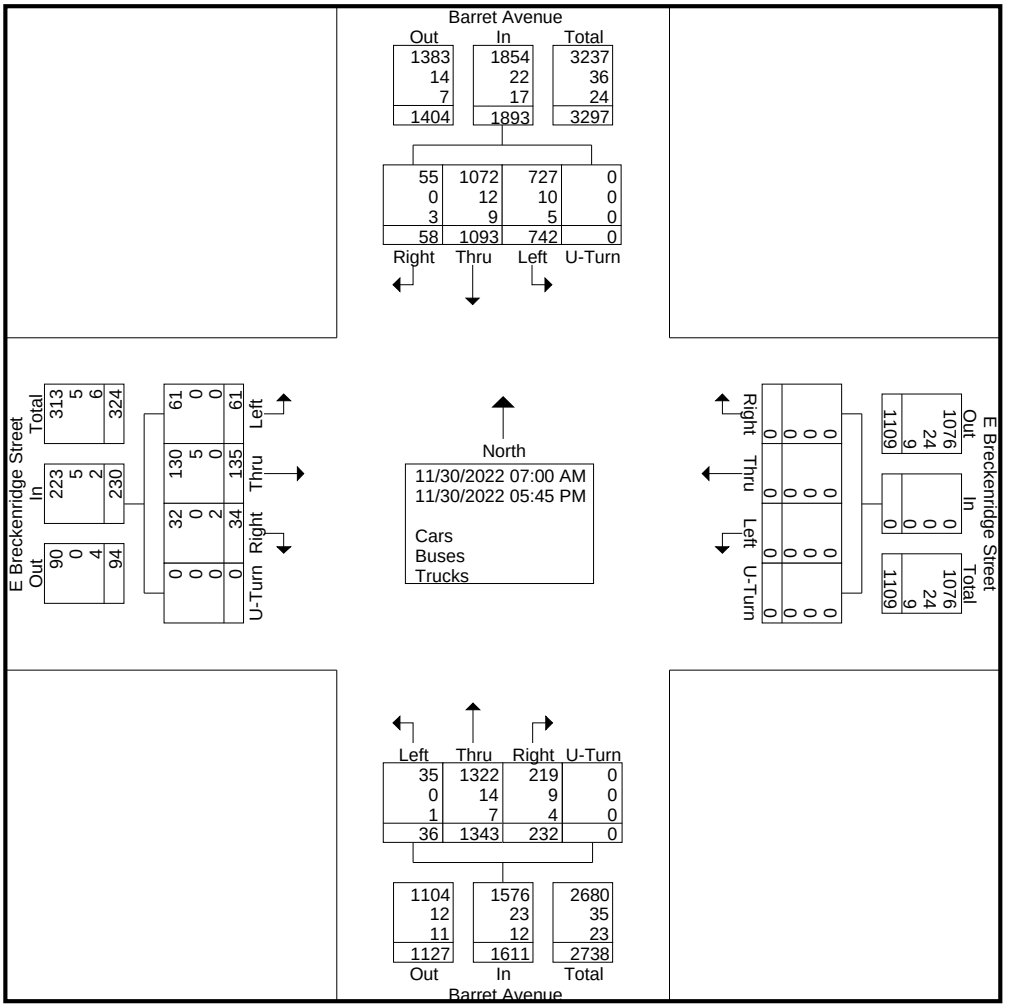
File Name : 3_Barret_Avenue_at_E_Breckenridge_Street_11-30-2022
Site Code : Site 3
Start Date : 11/30/2022
Page No : 2



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"2022 ... Data Collection simplified"

File Name : 3_Barret_Avenue_at_E_Breckenridge_Street_11-30-2022
Site Code : Site 3
Start Date : 11/30/2022
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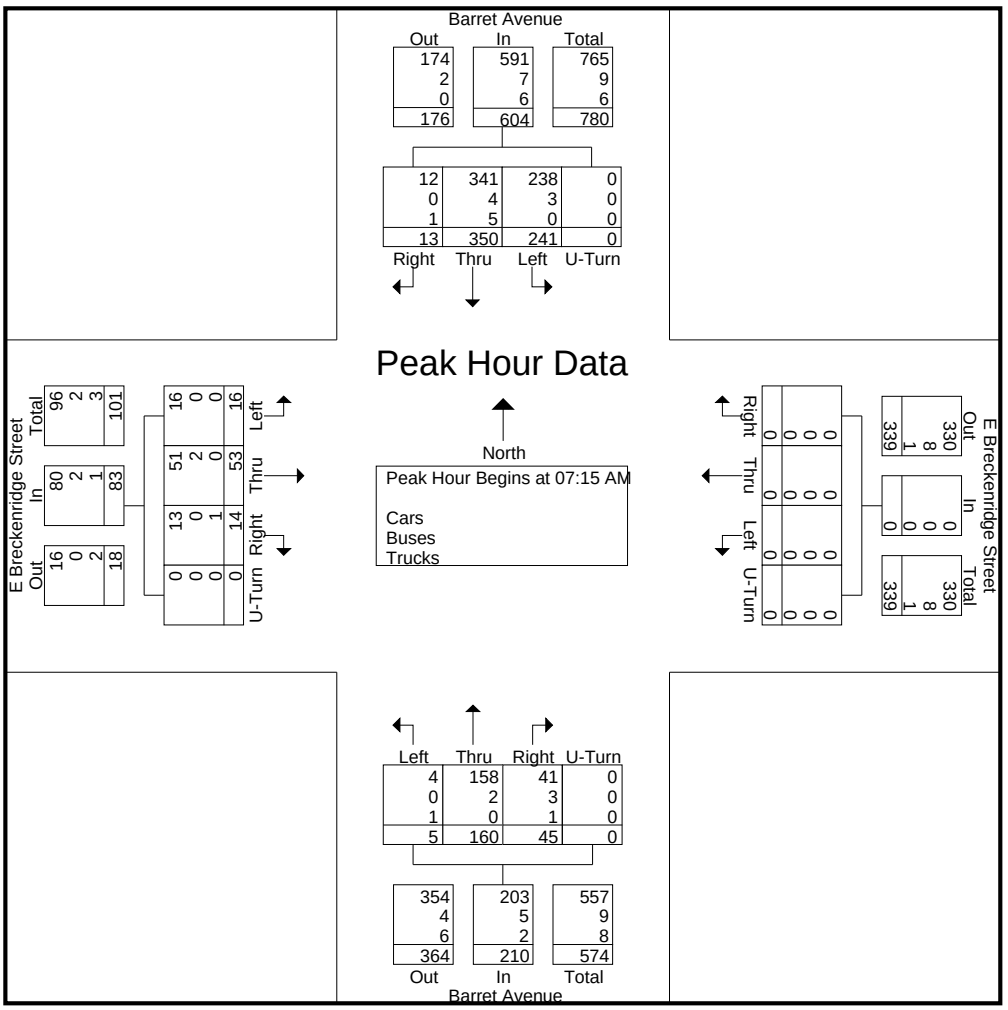
	Barret Avenue From North					E Breckenridge Street From East					Barret Avenue From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	51	71	2	0	124	0	0	0	0	0	**2**	**44**	8	0	54	**11**	**17**	4	0	**32**	210
07:30 AM	59	96	2	0	157	0	0	0	0	0	1	40	**16**	0	**57**	3	16	2	0	21	**235**
07:45 AM	**71**	80	**5**	0	156	0	0	0	0	0	2	41	12	0	55	1	11	**8**	0	20	231
08:00 AM	60	**103**	4	0	**167**	0	0	0	0	0	0	35	9	0	44	1	9	0	0	10	221
Total Volume	241	350	13	0	604	0	0	0	0	0	5	160	45	0	210	16	53	14	0	83	897
% App. Total	39.9	57.9	2.2	0		0	0	0	0		2.4	76.2	21.4	0		19.3	63.9	16.9	0		
PHF	.849	.850	.650	.000	.904	.000	.000	.000	.000	.000	.625	.909	.703	.000	.921	.364	.779	.438	.000	.648	.954
Cars	238	341	12	0	591	0	0	0	0	0	4	158	41	0	203	16	51	13	0	80	874
% Cars	98.8	97.4	92.3	0	97.8	0	0	0	0	0	80.0	98.8	91.1	0	96.7	100	96.2	92.9	0	96.4	97.4
Buses	3	4	0	0	7	0	0	0	0	0	0	2	3	0	5	0	2	0	0	2	14
% Buses	1.2	1.1	0	0	1.2	0	0	0	0	0	0	1.3	6.7	0	2.4	0	3.8	0	0	2.4	1.6
Trucks	0	5	1	0	6	0	0	0	0	0	1	0	1	0	2	0	0	1	0	1	9
% Trucks	0	1.4	7.7	0	1.0	0	0	0	0	0	20.0	0	2.2	0	1.0	0	0	7.1	0	1.2	1.0



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swcummins@ccsdata.com 859-361-2589
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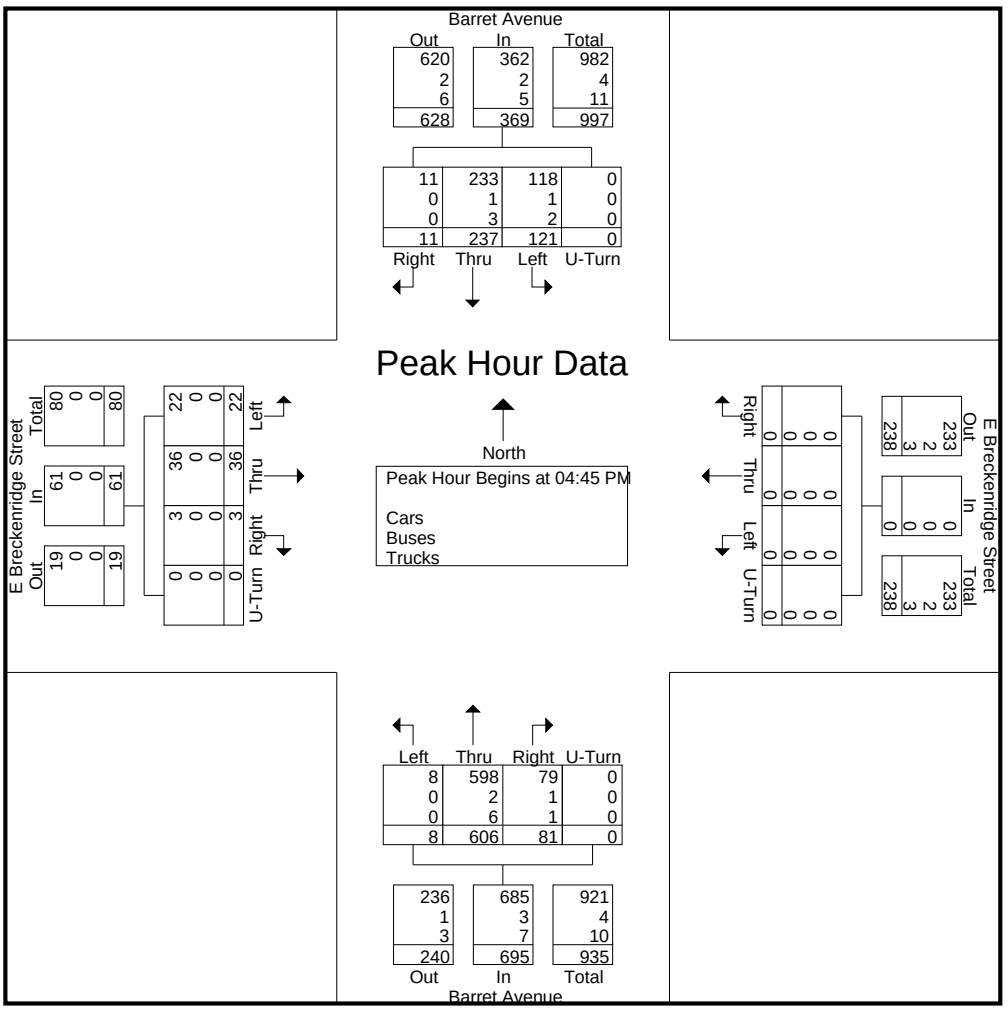
File Name : 3_Barret_Avenue_at_E_Breckenridge_Street_11-30-2022
Site Code : Site 3
Start Date : 11/30/2022
Page No : 4

	Barret Avenue From North					E Breckenridge Street From East					Barret Avenue From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	31	**62**	2	0	**95**	0	0	0	0	0	0	144	**21**	0	165	**7**	3	1	0	11	271
05:00 PM	**33**	60	2	0	95	0	0	0	0	0	2	151	21	0	174	6	**16**	0	0	**22**	**291**
05:15 PM	26	56	3	0	85	0	0	0	0	0	**3**	**168**	18	0	**189**	4	7	**2**	0	13	287
05:30 PM	31	59	**4**	0	94	0	0	0	0	0	3	143	21	0	167	5	10	0	0	15	276
Total Volume	121	237	11	0	369	0	0	0	0	0	8	606	81	0	695	22	36	3	0	61	1125
% App. Total	32.8	64.2	3	0		0	0	0	0		1.2	87.2	11.7	0		36.1	59	4.9	0		
PHF	.917	.956	.688	.000	.971	.000	.000	.000	.000	.000	.667	.902	.964	.000	.919	.786	.563	.375	.000	.693	.966
Cars	118	233	11	0	362	0	0	0	0	0	8	598	79	0	685	22	36	3	0	61	1108
% Cars	97.5	98.3	100	0	98.1	0	0	0	0	0	100	98.7	97.5	0	98.6	100	100	100	0	100	98.5
Buses	1	1	0	0	2	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	5
% Buses	0.8	0.4	0	0	0.5	0	0	0	0	0	0	0.3	1.2	0	0.4	0	0	0	0	0	0.4
Trucks	2	3	0	0	5	0	0	0	0	0	0	6	1	0	7	0	0	0	0	0	12
% Trucks	1.7	1.3	0	0	1.4	0	0	0	0	0	0	1.0	1.2	0	1.0	0	0	0	0	0	1.1



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Schools in Session
Wednesday - 9XO

File Name : 4_Barret_Avenue_at_E_Kentucky_Street_11-30-2022
Site Code : Site 4
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Barret Avenue From North					Hepburn Avenue From East					Barret Avenue From South					E Kentucky Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	1	40	0	0	41	0	0	0	0	0	0	96	2	0	98	5	1	7	0	13	152
07:15 AM	1	62	0	0	63	3	0	5	0	8	0	145	4	0	149	19	2	9	0	30	250
07:30 AM	0	65	0	0	65	1	0	1	0	2	0	135	3	0	138	7	2	13	0	22	227
07:45 AM	0	45	0	1	46	1	0	8	0	9	0	146	3	0	149	5	1	12	0	18	222
Total	2	212	0	1	215	5	0	14	0	19	0	522	12	0	534	36	6	41	0	83	851
08:00 AM	0	41	0	0	41	2	0	3	0	5	0	157	2	0	159	4	1	14	0	19	224
08:15 AM	0	37	0	0	37	0	0	1	0	1	0	135	3	0	138	11	1	14	0	26	202
08:30 AM	0	39	0	0	39	0	0	2	0	2	0	128	1	0	129	9	0	17	0	26	196
08:45 AM	2	33	0	0	35	1	0	2	0	3	0	135	1	0	136	8	0	21	0	29	203
Total	2	150	0	0	152	3	0	8	0	11	0	555	7	0	562	32	2	66	0	100	825
04:00 PM	5	129	0	0	134	4	0	7	0	11	0	100	6	0	106	11	2	45	0	58	309
04:15 PM	0	117	0	0	117	2	0	5	0	7	0	85	3	0	88	14	3	38	0	55	267
04:30 PM	3	129	0	0	132	0	0	12	0	12	0	83	1	0	84	11	2	43	0	56	284
04:45 PM	1	149	0	0	150	1	0	5	0	6	0	90	3	0	93	4	4	29	0	37	286
Total	9	524	0	0	533	7	0	29	0	36	0	358	13	0	371	40	11	155	0	206	1146
05:00 PM	4	154	0	0	158	0	0	6	0	6	0	77	5	0	82	15	3	37	0	55	301
05:15 PM	6	169	0	0	175	0	0	4	0	4	0	84	2	0	86	5	0	23	0	28	293
05:30 PM	7	143	0	0	150	1	0	2	0	3	0	79	2	0	81	12	2	40	0	54	288
05:45 PM	5	141	0	0	146	1	0	7	0	8	0	106	5	0	111	8	3	21	0	32	297
Total	22	607	0	0	629	2	0	19	0	21	0	346	14	0	360	40	8	121	0	169	1179
Grand Total	35	1493	0	1	1529	17	0	70	0	87	0	1781	46	0	1827	148	27	383	0	558	4001
Apprch %	2.3	97.6	0	0.1		19.5	0	80.5	0		0	97.5	2.5	0		26.5	4.8	68.6	0		
Total %	0.9	37.3	0	0	38.2	0.4	0	1.7	0	2.2	0	44.5	1.1	0	45.7	3.7	0.7	9.6	0	13.9	
Cars	34	1477	0	1	1512	16	0	70	0	86	0	1740	46	0	1786	145	27	374	0	546	3930
% Cars	97.1	98.9	0	100	98.9	94.1	0	100	0	98.9	0	97.7	100	0	97.8	98	100	97.7	0	97.8	98.2
Buses	0	12	0	0	12	0	0	0	0	0	0	26	0	0	26	0	0	3	0	3	41
% Buses	0	0.8	0	0	0.8	0	0	0	0	0	0	1.5	0	0	1.4	0	0	0.8	0	0.5	1
Trucks	1	4	0	0	5	1	0	0	0	1	0	15	0	0	15	3	0	6	0	9	30
% Trucks	2.9	0.3	0	0	0.3	5.9	0	0	0	1.1	0	0.8	0	0	0.8	2	0	1.6	0	1.6	0.7

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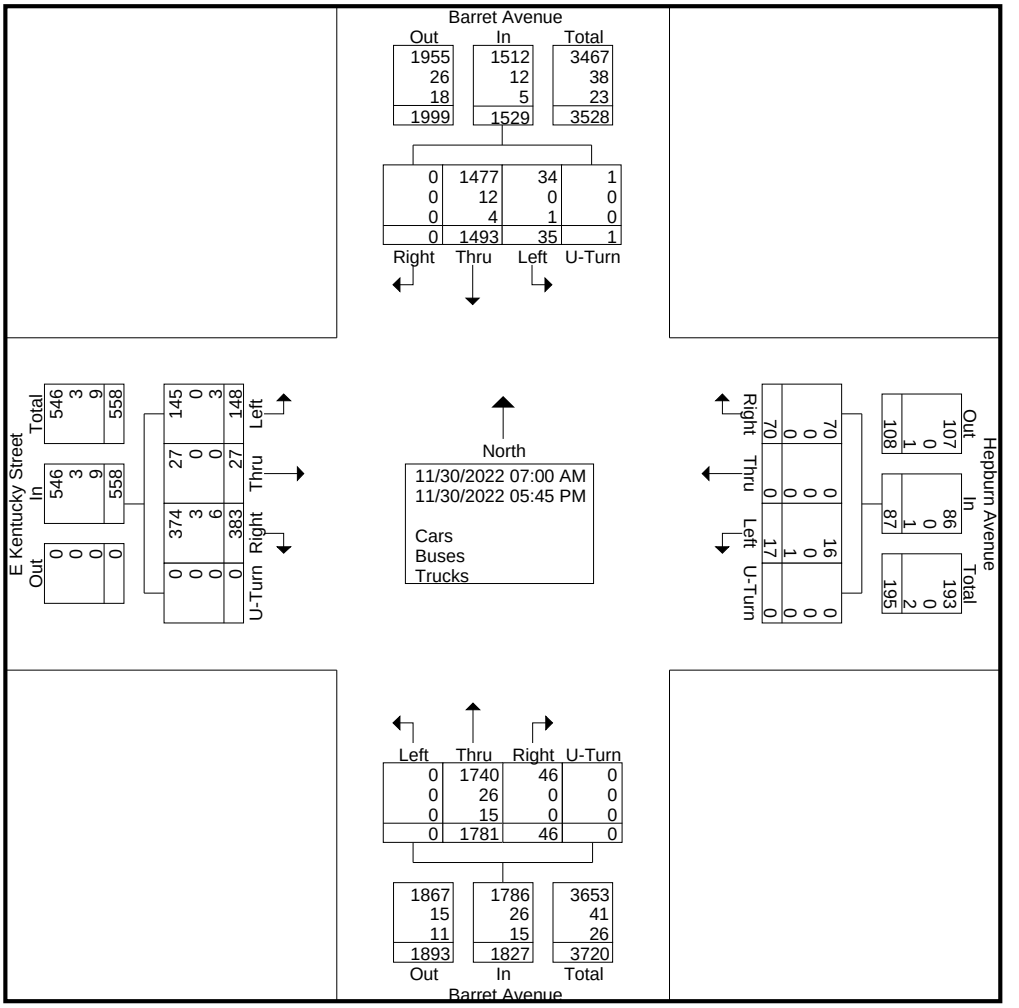
File Name : 4_Barret_Avenue_at_E_Kentucky_Street_11-30-2022
Site Code : Site 4
Start Date : 11/30/2022
Page No : 2



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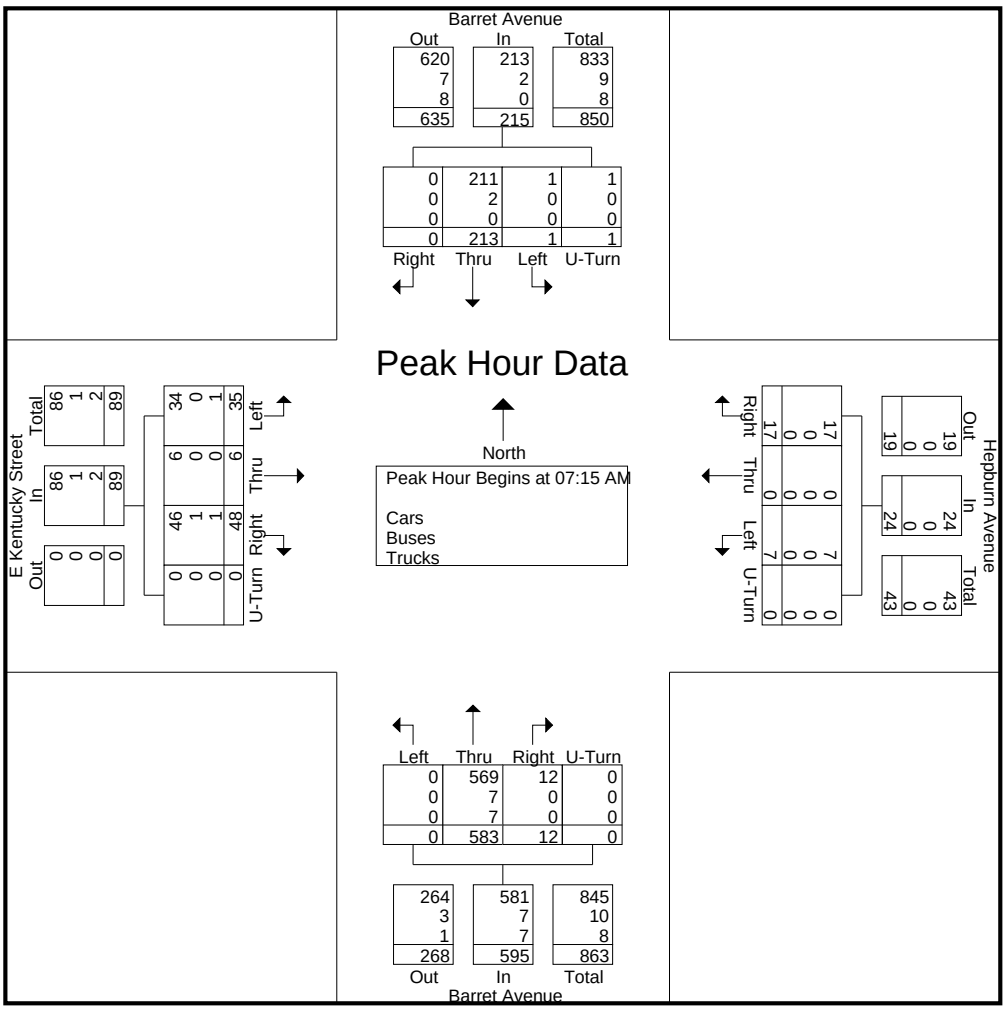
"2022 ... Data Collection simplified"

File Name : 4_Barret_Avenue_at_E_Kentucky_Street_11-30-2022
Site Code : Site 4
Start Date : 11/30/2022
Page No : 3

	Barret Avenue From North					Hepburn Avenue From East					Barret Avenue From South					E Kentucky Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
07:15 AM	**1**	62	0	0	63	**3**	0	5	0	8	0	145	**4**	0	149	**19**	**2**	9	0	**30**	**250**
07:30 AM	0	**65**	0	0	**65**	1	0	1	0	2	0	135	3	0	138	7	2	13	0	22	227
07:45 AM	0	45	0	**1**	46	1	0	**8**	0	**9**	0	146	3	0	149	5	1	12	0	18	222
08:00 AM	0	41	0	0	41	2	0	3	0	5	0	**157**	2	0	**159**	4	1	**14**	0	19	224
Total Volume	1	213	0	1	215	7	0	17	0	24	0	583	12	0	595	35	6	48	0	89	923
% App. Total	0.5	99.1	0	0.5		29.2	0	70.8	0		0	98	2	0		39.3	6.7	53.9	0		
PHF	.250	.819	.000	.250	.827	.583	.000	.531	.000	.667	.000	.928	.750	.000	.936	.461	.750	.857	.000	.742	.923
Cars	1	211	0	1	213	7	0	17	0	24	0	569	12	0	581	34	6	46	0	86	904
% Cars	100	99.1	0	100	99.1	100	0	100	0	100	0	97.6	100	0	97.6	97.1	100	95.8	0	96.6	97.9
Buses	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	1	0	1	10
% Buses	0	0.9	0	0	0.9	0	0	0	0	0	0	1.2	0	0	1.2	0	0	2.1	0	1.1	1.1
Trucks	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	1	0	1	0	2	9
% Trucks	0	0	0	0	0	0	0	0	0	0	0	1.2	0	0	1.2	2.9	0	2.1	0	2.2	1.0



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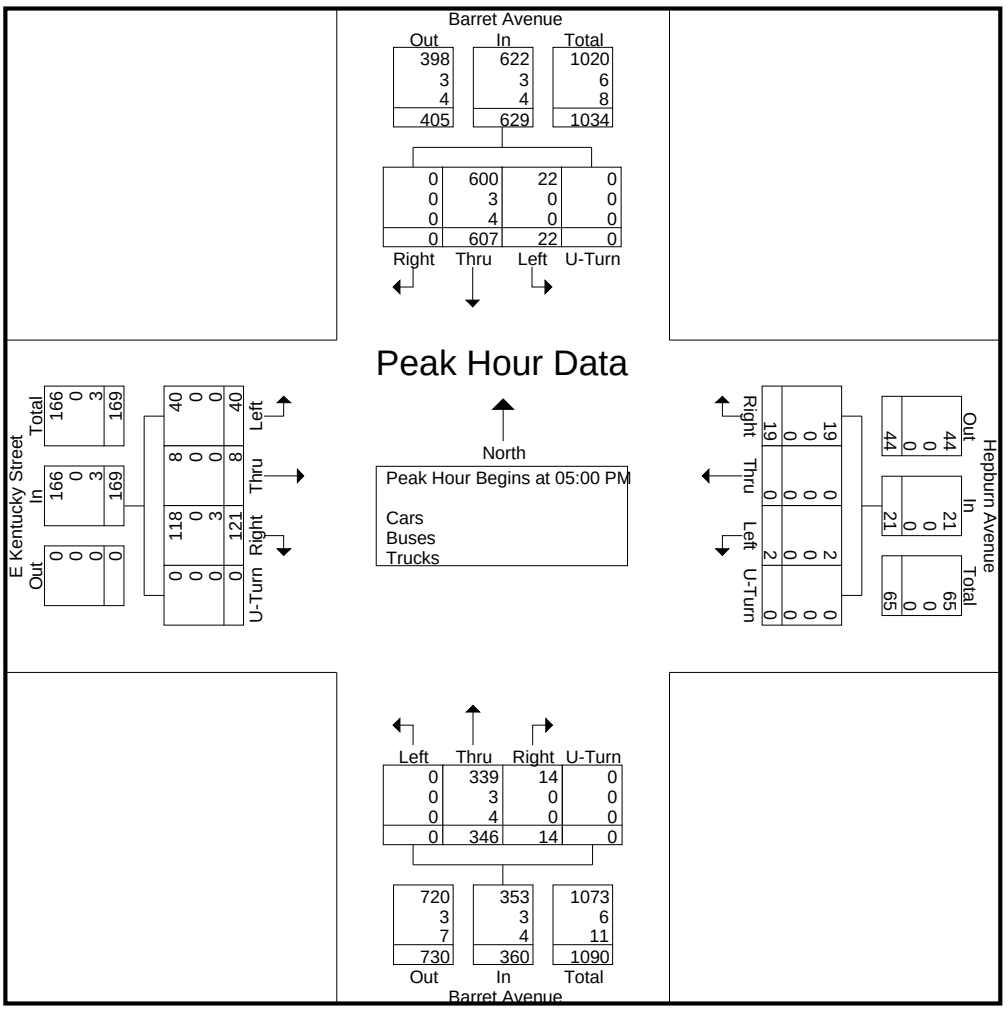
"2022 ... Data Collection simplified"

File Name : 4_Barret_Avenue_at_E_Kentucky_Street_11-30-2022
Site Code : Site 4
Start Date : 11/30/2022
Page No : 4

	Barret Avenue From North					Hepburn Avenue From East					Barret Avenue From South					E Kentucky Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	4	154	0	0	158	0	0	6	0	6	0	77	**5**	0	82	**15**	**3**	37	0	**55**	**301**
05:15 PM	6	**169**	0	0	**175**	0	0	4	0	4	0	84	2	0	86	5	0	23	0	28	293
05:30 PM	**7**	143	0	0	150	**1**	0	2	0	3	0	79	2	0	81	12	2	**40**	0	54	288
05:45 PM	5	141	0	0	146	1	0	**7**	0	**8**	0	**106**	5	0	**111**	8	3	21	0	32	297
Total Volume	22	607	0	0	629	2	0	19	0	21	0	346	14	0	360	40	8	121	0	169	1179
% App. Total	3.5	96.5	0	0		9.5	0	90.5	0		0	96.1	3.9	0		23.7	4.7	71.6	0		
PHF	.786	.898	.000	.000	.899	.500	.000	.679	.000	.656	.000	.816	.700	.000	.811	.667	.667	.756	.000	.768	.979
Cars	22	600	0	0	622	2	0	19	0	21	0	339	14	0	353	40	8	118	0	166	1162
% Cars	100	98.8	0	0	98.9	100	0	100	0	100	0	98.0	100	0	98.1	100	100	97.5	0	98.2	98.6
Buses	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	6
% Buses	0	0.5	0	0	0.5	0	0	0	0	0	0	0.9	0	0	0.8	0	0	0	0	0	0.5
Trucks	0	4	0	0	4	0	0	0	0	0	0	4	0	0	4	0	0	3	0	3	11
% Trucks	0	0.7	0	0	0.6	0	0	0	0	0	0	1.2	0	0	1.1	0	0	2.5	0	1.8	0.9



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swcummins@ccsdata.com 859-361-2589
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Partly Sunny
Schools in Session
Wednesday - 9TS

File Name : 5_E_Breckenridge_Street_at_Vine_Street_11-30-2022
Site Code : Site 5
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Vine Street From North					E Breckenridge Street From East					Vine Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	3	1	0	4	0	49	0	0	49	2	0	0	0	2	55
07:15 AM	0	0	0	0	0	0	3	0	0	3	1	71	1	0	73	1	0	0	0	1	77
07:30 AM	0	0	0	0	0	0	1	1	0	2	3	92	0	0	95	4	1	0	0	5	102
07:45 AM	0	0	0	0	0	0	1	0	0	1	1	90	3	0	94	4	1	0	0	5	100
Total	0	0	0	0	0	0	8	2	0	10	5	302	4	0	311	11	2	0	0	13	334
08:00 AM	0	0	0	0	0	0	3	1	0	4	0	74	0	0	74	6	0	0	0	6	84
08:15 AM	0	0	0	0	0	0	2	1	0	3	1	80	3	0	84	5	1	0	0	6	93
08:30 AM	0	0	0	0	0	0	2	0	0	2	0	72	2	0	74	2	0	0	0	2	78
08:45 AM	0	0	0	0	0	0	3	1	0	4	2	81	0	0	83	3	0	0	0	3	90
Total	0	0	0	0	0	0	10	3	0	13	3	307	5	0	315	16	1	0	0	17	345
04:00 PM	0	0	0	0	0	0	5	2	0	7	3	55	5	0	63	1	1	0	0	2	72
04:15 PM	0	0	0	0	0	0	3	0	1	4	2	43	2	0	47	2	1	0	0	3	54
04:30 PM	0	0	0	0	0	0	3	2	0	5	0	60	3	0	63	0	0	0	0	0	68
04:45 PM	0	0	0	0	0	0	2	0	0	2	4	50	0	0	54	0	0	0	0	0	56
Total	0	0	0	0	0	0	13	4	1	18	9	208	10	0	227	3	2	0	0	5	250
05:00 PM	0	0	0	0	0	0	3	1	0	4	3	60	2	0	65	3	0	0	0	3	72
05:15 PM	0	0	0	0	0	0	6	0	0	6	2	46	3	0	51	1	3	0	0	4	61
05:30 PM	0	0	0	0	0	0	5	0	0	5	1	52	5	0	58	3	0	0	0	3	66
05:45 PM	0	0	0	0	0	0	4	1	0	5	2	48	3	0	53	5	1	0	0	6	64
Total	0	0	0	0	0	0	18	2	0	20	8	206	13	0	227	12	4	0	0	16	263
Grand Total	0	0	0	0	0	0	49	11	1	61	25	1023	32	0	1080	42	9	0	0	51	1192
Apprch %	0	0	0	0		0	80.3	18	1.6		2.3	94.7	3	0		82.4	17.6	0	0		
Total %	0	0	0	0	0	0	4.1	0.9	0.1	5.1	2.1	85.8	2.7	0	90.6	3.5	0.8	0	0	4.3	
Cars	0	0	0	0	0	0	46	11	1	58	24	991	31	0	1046	41	9	0	0	50	1154
% Cars	0	0	0	0	0	0	93.9	100	100	95.1	96	96.9	96.9	0	96.9	97.6	100	0	0	98	96.8
Buses	0	0	0	0	0	0	0	0	0	0	1	27	0	0	28	0	0	0	0	0	28
% Buses	0	0	0	0	0	0	0	0	0	0	4	2.6	0	0	2.6	0	0	0	0	0	2.3
Trucks	0	0	0	0	0	0	3	0	0	3	0	5	1	0	6	1	0	0	0	1	10
% Trucks	0	0	0	0	0	0	6.1	0	0	4.9	0	0.5	3.1	0	0.6	2.4	0	0	0	2	0.8

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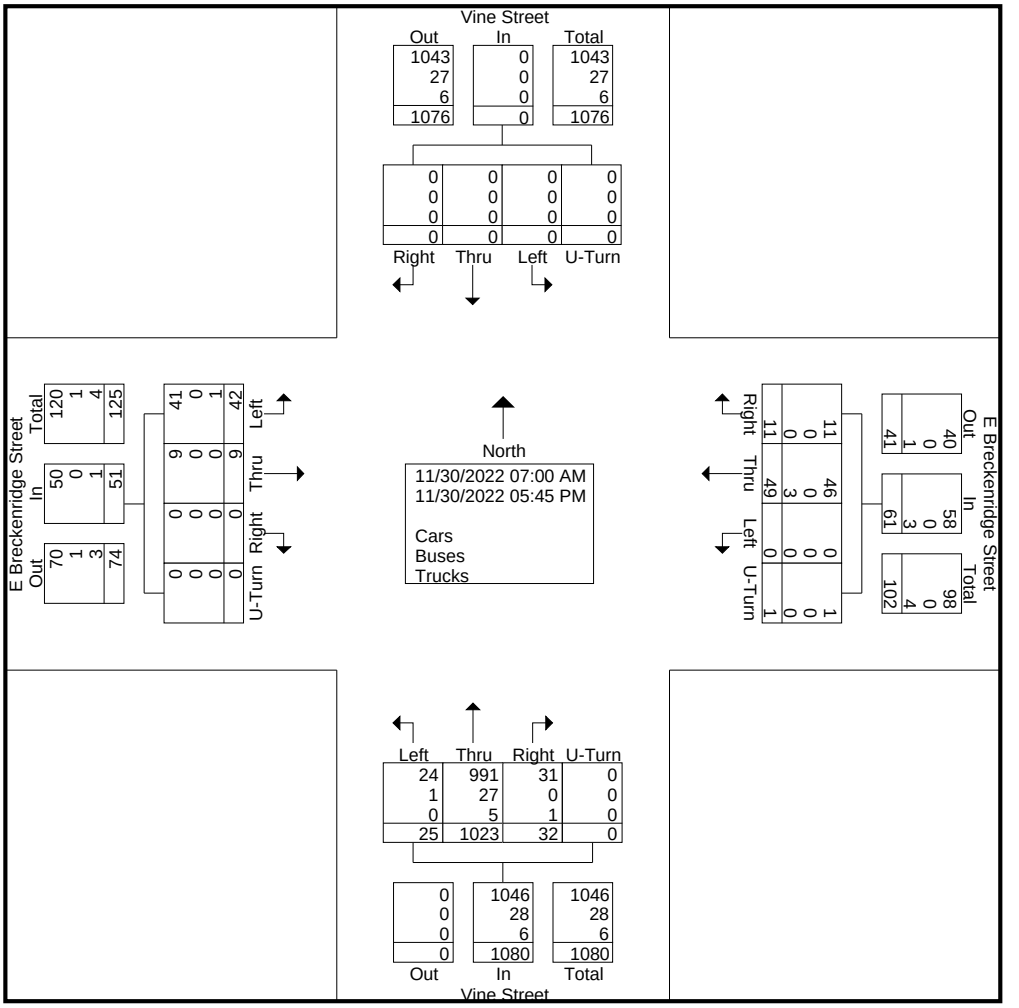
swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

File Name : 5_E_Breckenridge_Street_at_Vine_Street_11-30-2022
Site Code : Site 5
Start Date : 11/30/2022
Page No : 2



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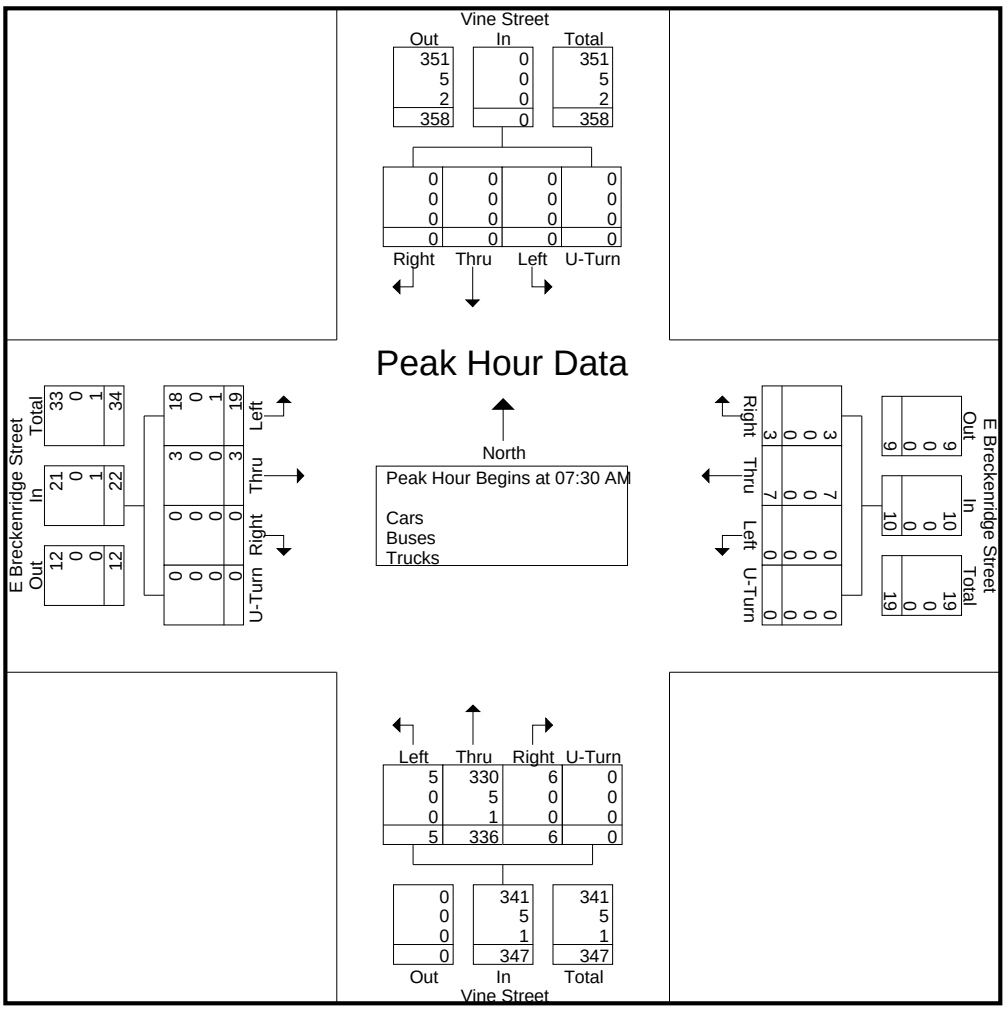
"2022 ... Data Collection simplified"

File Name : 5_E_Breckenridge_Street_at_Vine_Street_11-30-2022
Site Code : Site 5
Start Date : 11/30/2022
Page No : 3

	Vine Street From North					E Breckenridge Street From East					Vine Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	0	1	**1**	0	2	**3**	**92**	0	0	**95**	4	**1**	0	0	5	**102**
07:45 AM	0	0	0	0	0	0	1	0	0	1	1	90	**3**	0	94	4	1	0	0	5	100
08:00 AM	0	0	0	0	0	0	**3**	1	0	**4**	0	74	0	0	74	**6**	0	0	0	**6**	84
08:15 AM	0	0	0	0	0	0	2	1	0	3	1	80	3	0	84	5	1	0	0	6	93
Total Volume	0	0	0	0	0	0	7	3	0	10	5	336	6	0	347	19	3	0	0	22	379
% App. Total	0	0	0	0		0	70	30	0		1.4	96.8	1.7	0		86.4	13.6	0	0		
PHF	.000	.000	.000	.000	.000	.000	.583	.750	.000	.625	.417	.913	.500	.000	.913	.792	.750	.000	.000	.917	.929
Cars	0	0	0	0	0	0	7	3	0	10	5	330	6	0	341	18	3	0	0	21	372
% Cars	0	0	0	0	0	0	100	100	0	100	100	98.2	100	0	98.3	94.7	100	0	0	95.5	98.2
Buses	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	5
% Buses	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	1.4	0	0	0	0	0	1.3
Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0.3	0	0	0.3	5.3	0	0	0	4.5	0.5



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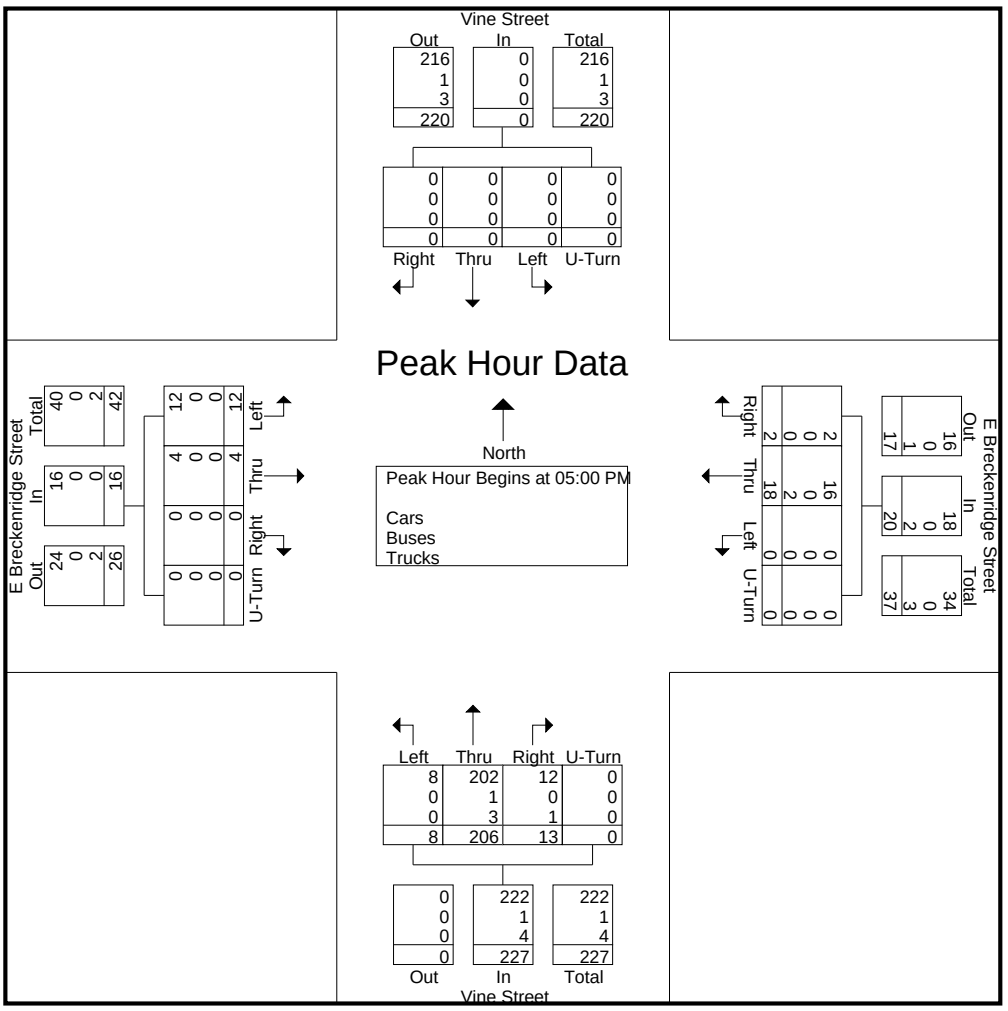
swcummins@ccsdata.com 859-361-2589

"2022 ... Data Collection simplified"

File Name : 5_E_Breckenridge_Street_at_Vine_Street_11-30-2022
Site Code : Site 5
Start Date : 11/30/2022
Page No : 4

	Vine Street From North					E Breckenridge Street From East					Vine Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	3	**1**	0	4	**3**	**60**	2	0	**65**	3	0	0	0	3	**72**
05:15 PM	0	0	0	0	0	0	**6**	0	0	**6**	2	46	3	0	51	1	**3**	0	0	4	61
05:30 PM	0	0	0	0	0	0	5	0	0	5	1	52	**5**	0	58	3	0	0	0	3	66
05:45 PM	0	0	0	0	0	0	4	1	0	5	2	48	3	0	53	**5**	1	0	0	**6**	64
Total Volume	0	0	0	0	0	0	18	2	0	20	8	206	13	0	227	12	4	0	0	16	263
% App. Total	0	0	0	0		0	90	10	0		3.5	90.7	5.7	0		75	25	0	0		
PHF	.000	.000	.000	.000	.000	.000	.750	.500	.000	.833	.667	.858	.650	.000	.873	.600	.333	.000	.000	.667	.913
Cars	0	0	0	0	0	0	16	2	0	18	8	202	12	0	222	12	4	0	0	16	256
% Cars	0	0	0	0	0	0	88.9	100	0	90.0	100	98.1	92.3	0	97.8	100	100	0	0	100	97.3
Buses	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Buses	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0.4
Trucks	0	0	0	0	0	0	2	0	0	2	0	3	1	0	4	0	0	0	0	0	6
% Trucks	0	0	0	0	0	0	11.1	0	0	10.0	0	1.5	7.7	0	1.8	0	0	0	0	0	2.3



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swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

Partly Sunny
Schools in Session
Wednesday - 4GA

File Name : 6_E_Breckenridge_Street_at_Swan_Street_11-30-2022
Site Code : Site 6
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Swan Street From North					E Breckenridge Street From East					Swan Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	1	1	0	2	1	60	1	0	62	8	2	0	0	10	0	0	0	0	0	74
07:15 AM	0	0	2	0	2	1	87	0	0	88	7	2	0	0	9	0	0	0	0	0	99
07:30 AM	0	2	0	0	2	0	102	2	0	104	4	1	0	0	5	0	0	0	0	0	111
07:45 AM	0	0	2	0	2	0	100	0	0	100	8	0	0	0	8	0	0	0	0	0	110
Total	0	3	5	0	8	2	349	3	0	354	27	5	0	0	32	0	0	0	0	0	394
08:00 AM	0	0	2	0	2	3	87	1	0	91	7	4	0	0	11	0	0	0	0	0	104
08:15 AM	0	0	3	0	3	3	92	0	0	95	5	2	0	0	7	0	0	0	0	0	105
08:30 AM	0	1	4	0	5	2	82	0	0	84	8	1	0	0	9	0	0	0	0	0	98
08:45 AM	0	1	1	0	2	0	99	0	0	99	4	3	0	0	7	0	0	0	0	0	108
Total	0	2	10	0	12	8	360	1	0	369	24	10	0	0	34	0	0	0	0	0	415
04:00 PM	0	3	7	0	10	7	54	1	0	62	5	3	0	0	8	0	0	0	0	0	80
04:15 PM	0	2	3	0	5	2	47	4	0	53	10	0	1	0	11	0	0	0	0	0	69
04:30 PM	0	5	3	0	8	6	59	2	0	67	5	0	0	0	5	0	0	0	0	0	80
04:45 PM	0	1	8	0	9	2	47	1	0	50	3	2	0	0	5	0	0	0	0	0	64
Total	0	11	21	0	32	17	207	8	0	232	23	5	1	0	29	0	0	0	0	0	293
05:00 PM	0	6	4	0	10	7	65	3	0	75	5	3	0	0	8	0	0	0	0	0	93
05:15 PM	0	4	4	0	8	4	49	1	0	54	9	4	2	0	15	0	0	0	0	0	77
05:30 PM	0	2	4	0	6	3	51	1	0	55	9	5	0	0	14	0	0	0	0	0	75
05:45 PM	0	2	3	0	5	1	51	0	0	52	0	1	2	0	3	0	0	0	0	0	60
Total	0	14	15	0	29	15	216	5	0	236	23	13	4	0	40	0	0	0	0	0	305
Grand Total	0	30	51	0	81	42	1132	17	0	1191	97	33	5	0	135	0	0	0	0	0	1407
Apprch %	0	37	63	0		3.5	95	1.4	0		71.9	24.4	3.7	0		0	0	0	0		
Total %	0	2.1	3.6	0	5.8	3	80.5	1.2	0	84.6	6.9	2.3	0.4	0	9.6	0	0	0	0	0	
Cars	0	30	51	0	81	42	1094	17	0	1153	94	33	5	0	132	0	0	0	0	0	1366
% Cars	0	100	100	0	100	100	96.6	100	0	96.8	96.9	100	100	0	97.8	0	0	0	0	0	97.1
Buses	0	0	0	0	0	0	29	0	0	29	0	0	0	0	0	0	0	0	0	0	29
% Buses	0	0	0	0	0	0	2.6	0	0	2.4	0	0	0	0	0	0	0	0	0	0	2.1
Trucks	0	0	0	0	0	0	9	0	0	9	3	0	0	0	3	0	0	0	0	0	12
% Trucks	0	0	0	0	0	0	0.8	0	0	0.8	3.1	0	0	0	2.2	0	0	0	0	0	0.9

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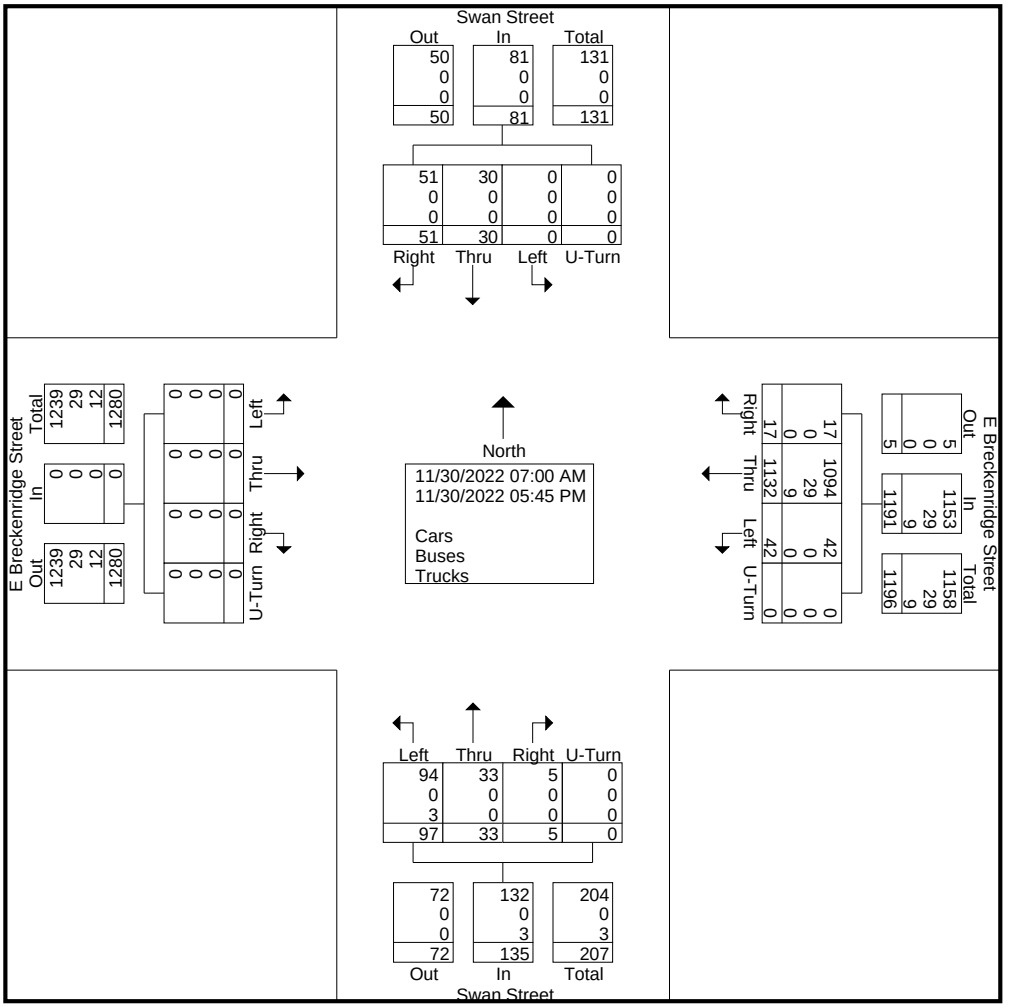
swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

File Name : 6_E_Breckenridge_Street_at_Swan_Street_11-30-2022
Site Code : Site 6
Start Date : 11/30/2022
Page No : 2



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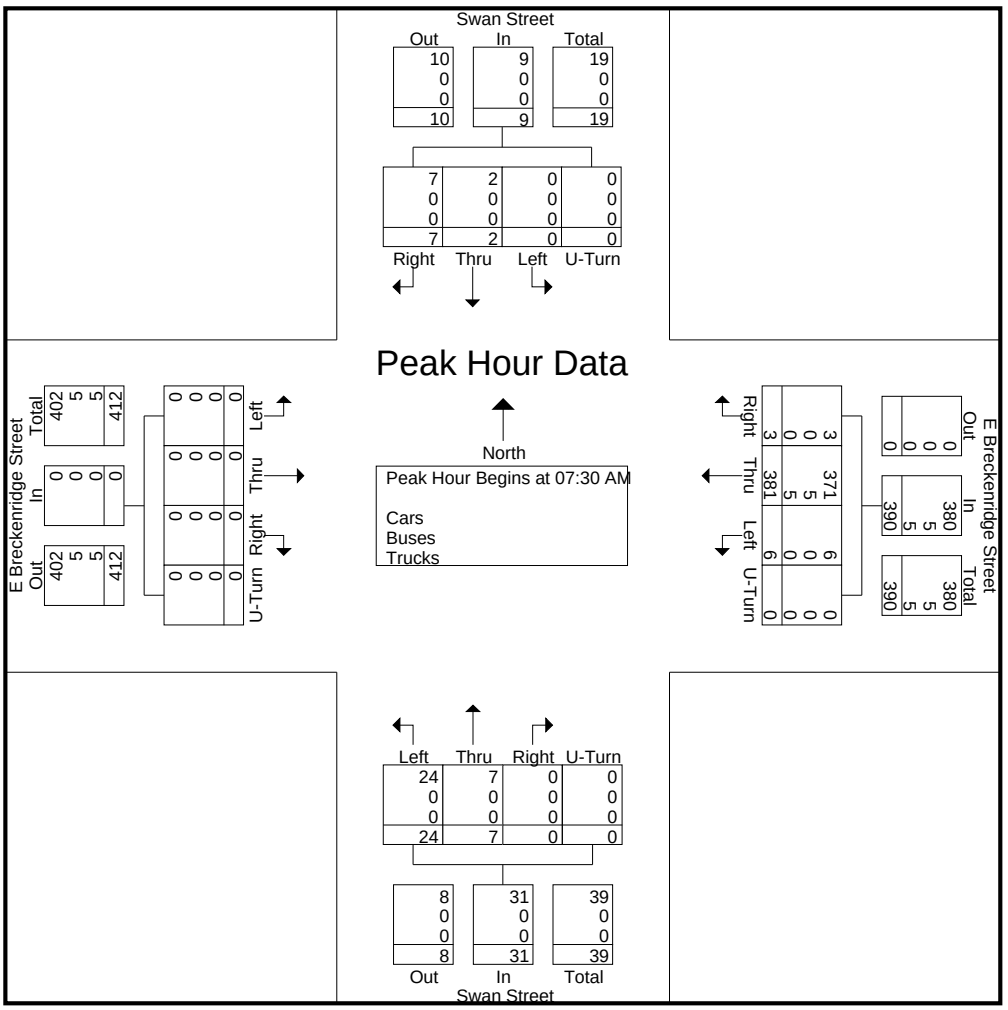
"2022 ... Data Collection simplified"

File Name : 6_E_Breckenridge_Street_at_Swan_Street_11-30-2022
Site Code : Site 6
Start Date : 11/30/2022
Page No : 3

	Swan Street From North					E Breckenridge Street From East					Swan Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	**2**	0	0	2	0	**102**	**2**	0	**104**	4	1	0	0	5	0	0	0	0	0	**111**
07:45 AM	0	0	2	0	2	0	100	0	0	100	**8**	0	0	0	8	0	0	0	0	0	110
08:00 AM	0	0	2	0	2	**3**	87	1	0	91	7	**4**	0	0	**11**	0	0	0	0	0	104
08:15 AM	0	0	**3**	0	**3**	3	92	0	0	95	5	2	0	0	7	0	0	0	0	0	105
Total Volume	0	2	7	0	9	6	381	3	0	390	24	7	0	0	31	0	0	0	0	0	430
% App. Total	0	22.2	77.8	0		1.5	97.7	0.8	0		77.4	22.6	0	0		0	0	0	0		
PHF	.000	.250	.583	.000	.750	.500	.934	.375	.000	.938	.750	.438	.000	.000	.705	.000	.000	.000	.000	.000	.968
Cars	0	2	7	0	9	6	371	3	0	380	24	7	0	0	31	0	0	0	0	0	420
% Cars	0	100	100	0	100	100	97.4	100	0	97.4	100	100	0	0	100	0	0	0	0	0	97.7
Buses	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
% Buses	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	0	0	0	0	0	1.2
Trucks	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
% Trucks	0	0	0	0	0	0	1.3	0	0	1.3	0	0	0	0	0	0	0	0	0	0	1.2



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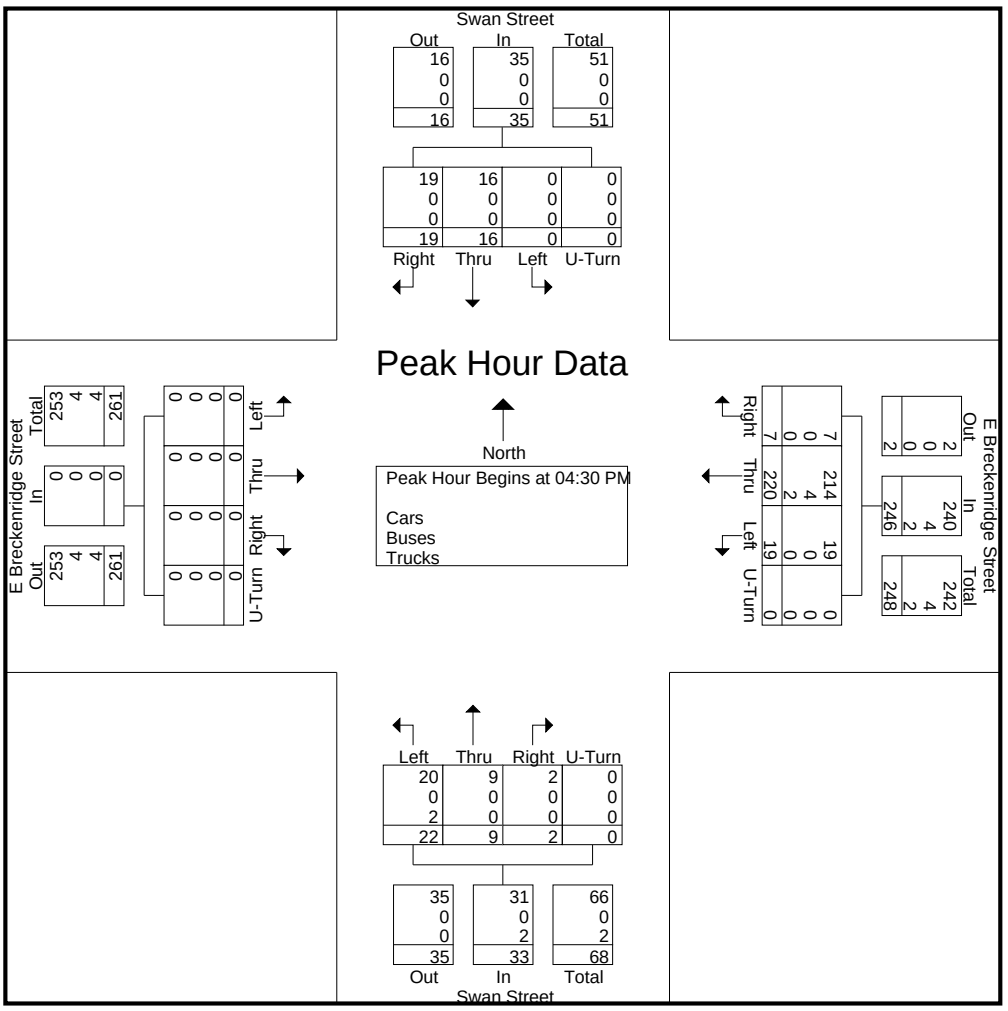
swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

File Name : 6_E_Breckenridge_Street_at_Swan_Street_11-30-2022
Site Code : Site 6
Start Date : 11/30/2022
Page No : 4

	Swan Street From North					E Breckenridge Street From East					Swan Street From South					E Breckenridge Street From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	0	5	3	0	8	6	59	2	0	67	5	0	0	0	5	0	0	0	0	0	80
04:45 PM	0	1	**8**	0	9	2	47	1	0	50	3	2	0	0	5	0	0	0	0	0	64
05:00 PM	0	**6**	4	0	**10**	**7**	**65**	**3**	0	**75**	5	3	0	0	8	0	0	0	0	0	**93**
05:15 PM	0	4	4	0	8	4	49	1	0	54	**9**	**4**	**2**	0	**15**	0	0	0	0	0	77
Total Volume	0	16	19	0	35	19	220	7	0	246	22	9	2	0	33	0	0	0	0	0	314
% App. Total	0	45.7	54.3	0		7.7	89.4	2.8	0		66.7	27.3	6.1	0		0	0	0	0		
PHF	.000	.667	.594	.000	.875	.679	.846	.583	.000	.820	.611	.563	.250	.000	.550	.000	.000	.000	.000	.000	.844
Cars	0	16	19	0	35	19	214	7	0	240	20	9	2	0	31	0	0	0	0	0	306
% Cars	0	100	100	0	100	100	97.3	100	0	97.6	90.9	100	100	0	93.9	0	0	0	0	0	97.5
Buses	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0	4
% Buses	0	0	0	0	0	0	1.8	0	0	1.6	0	0	0	0	0	0	0	0	0	0	1.3
Trucks	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	0	0	0	0	4
% Trucks	0	0	0	0	0	0	0.9	0	0	0.8	9.1	0	0	0	6.1	0	0	0	0	0	1.3



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swcummins@ccsdata.com 859-361-2589
"2022 ... Data Collection simplified"

Partly Sunny
Schools in Session
Wednesday - 8FK

File Name : 7_E_Broadway_at_Brent_Street_11-30-2022
Site Code : Site 7
Start Date : 11/30/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	From North					E Broadway From East					Brent Street From South					E Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	118	0	0	118	1	0	1	0	2	0	86	0	0	86	206
07:15 AM	0	0	0	0	0	1	188	0	0	189	3	0	3	0	6	0	86	0	0	86	281
07:30 AM	0	0	0	0	0	1	215	0	0	216	7	0	5	0	12	0	105	3	0	108	336
07:45 AM	0	0	0	0	0	2	237	0	0	239	3	0	0	0	3	0	105	5	0	110	352
Total	0	0	0	0	0	4	758	0	0	762	14	0	9	0	23	0	382	8	0	390	1175
08:00 AM	0	0	0	0	0	3	201	0	0	204	1	0	2	0	3	0	88	5	0	93	300
08:15 AM	0	0	0	0	0	1	222	0	0	223	2	0	3	0	5	0	78	7	0	85	313
08:30 AM	0	0	0	0	0	5	193	0	0	198	3	0	0	0	3	0	81	4	0	85	286
08:45 AM	0	0	0	0	0	4	154	0	0	158	2	0	2	0	4	0	101	5	0	106	268
Total	0	0	0	0	0	13	770	0	0	783	8	0	7	0	15	0	348	21	0	369	1167
04:00 PM	0	0	0	0	0	1	114	0	0	115	4	0	4	0	8	0	238	15	0	253	376
04:15 PM	0	0	0	0	0	0	106	0	0	106	4	0	2	0	6	0	225	10	0	235	347
04:30 PM	0	0	0	0	0	1	103	0	0	104	3	0	1	0	4	0	258	7	0	265	373
04:45 PM	0	0	0	0	0	3	100	0	0	103	7	0	7	0	14	0	286	0	0	286	403
Total	0	0	0	0	0	5	423	0	0	428	18	0	14	0	32	0	1007	32	0	1039	1499
05:00 PM	0	0	0	0	0	1	95	0	0	96	6	0	1	0	7	0	243	8	0	251	354
05:15 PM	0	0	0	0	0	4	118	0	0	122	1	0	3	0	4	0	333	7	0	340	466
05:30 PM	0	0	0	0	0	3	109	0	0	112	6	0	9	0	15	0	261	5	0	266	393
05:45 PM	0	0	0	0	0	2	102	0	0	104	1	0	1	0	2	0	216	4	0	220	326
Total	0	0	0	0	0	10	424	0	0	434	14	0	14	0	28	0	1053	24	0	1077	1539
Grand Total	0	0	0	0	0	32	2375	0	0	2407	54	0	44	0	98	0	2790	85	0	2875	5380
Apprch %	0	0	0	0		1.3	98.7	0	0		55.1	0	44.9	0		0	97	3	0		
Total %	0	0	0	0	0	0.6	44.1	0	0	44.7	1	0	0.8	0	1.8	0	51.9	1.6	0	53.4	
Cars	0	0	0	0	0	32	2319	0	0	2351	54	0	43	0	97	0	2726	84	0	2810	5258
% Cars	0	0	0	0	0	100	97.6	0	0	97.7	100	0	97.7	0	99	0	97.7	98.8	0	97.7	97.7
Buses	0	0	0	0	0	0	39	0	0	39	0	0	0	0	0	0	45	0	0	45	84
% Buses	0	0	0	0	0	0	1.6	0	0	1.6	0	0	0	0	0	0	1.6	0	0	1.6	1.6
Trucks	0	0	0	0	0	0	17	0	0	17	0	0	1	0	1	0	19	1	0	20	38
% Trucks	0	0	0	0	0	0	0.7	0	0	0.7	0	0	2.3	0	1	0	0.7	1.2	0	0.7	0.7

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"2022 ... Data Collection simplified"

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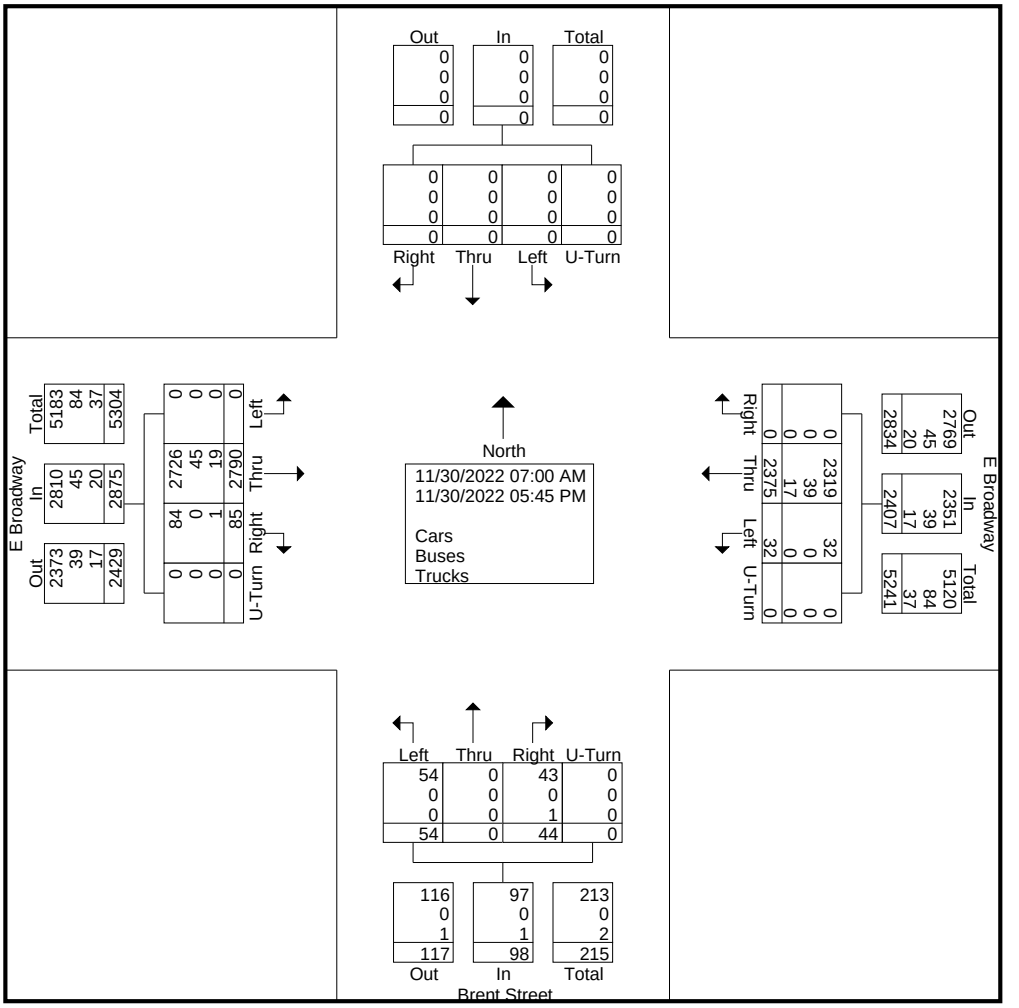
Site Code : Site 7
Start Date : 11/30/2022
Page No : 2



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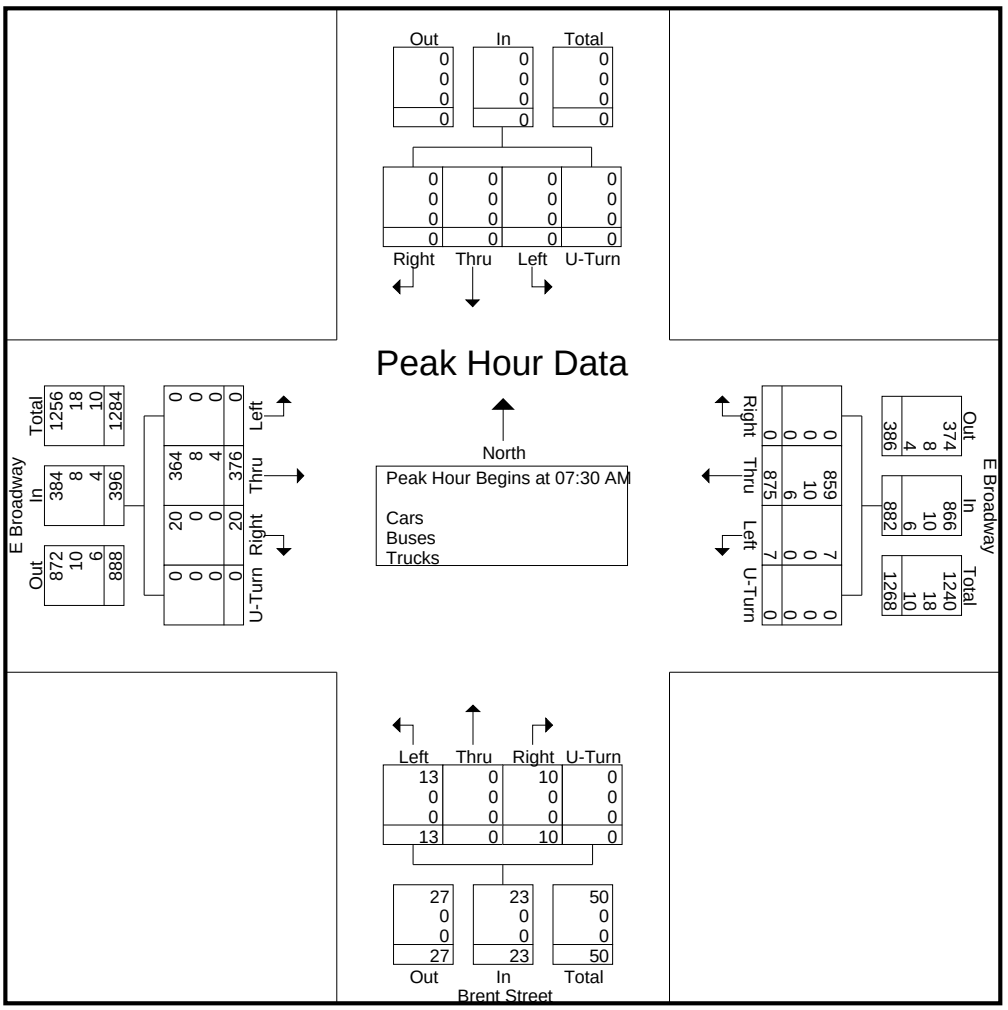
"2022 ... Data Collection simplified"

File Name : 7_E_Broadway_at_Brent_Street_11-30-2022
Site Code : Site 7
Start Date : 11/30/2022
Page No : 3

	From North					E Broadway From East					Brent Street From South					E Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	0	0	0	0	0	1	215	0	0	216	**7**	0	**5**	0	**12**	0	**105**	3	0	108	336
07:45 AM	0	0	0	0	0	2	**237**	0	0	**239**	3	0	0	0	3	0	105	5	0	**110**	**352**
08:00 AM	0	0	0	0	0	**3**	201	0	0	204	1	0	2	0	3	0	88	5	0	93	300
08:15 AM	0	0	0	0	0	1	222	0	0	223	2	0	3	0	5	0	78	**7**	0	85	313
Total Volume	0	0	0	0	0	7	875	0	0	882	13	0	10	0	23	0	376	20	0	396	1301
% App. Total	0	0	0	0		0.8	99.2	0	0		56.5	0	43.5	0		0	94.9	5.1	0		
PHF	.000	.000	.000	.000	.000	.583	.923	.000	.000	.923	.464	.000	.500	.000	.479	.000	.895	.714	.000	.900	.924
Cars	0	0	0	0	0	7	859	0	0	866	13	0	10	0	23	0	364	20	0	384	1273
% Cars	0	0	0	0	0	100	98.2	0	0	98.2	100	0	100	0	100	0	96.8	100	0	97.0	97.8
Buses	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	8	0	0	8	18
% Buses	0	0	0	0	0	0	1.1	0	0	1.1	0	0	0	0	0	0	2.1	0	0	2.0	1.4
Trucks	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	4	0	0	4	10
% Trucks	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0	1.1	0	0	1.0	0.8



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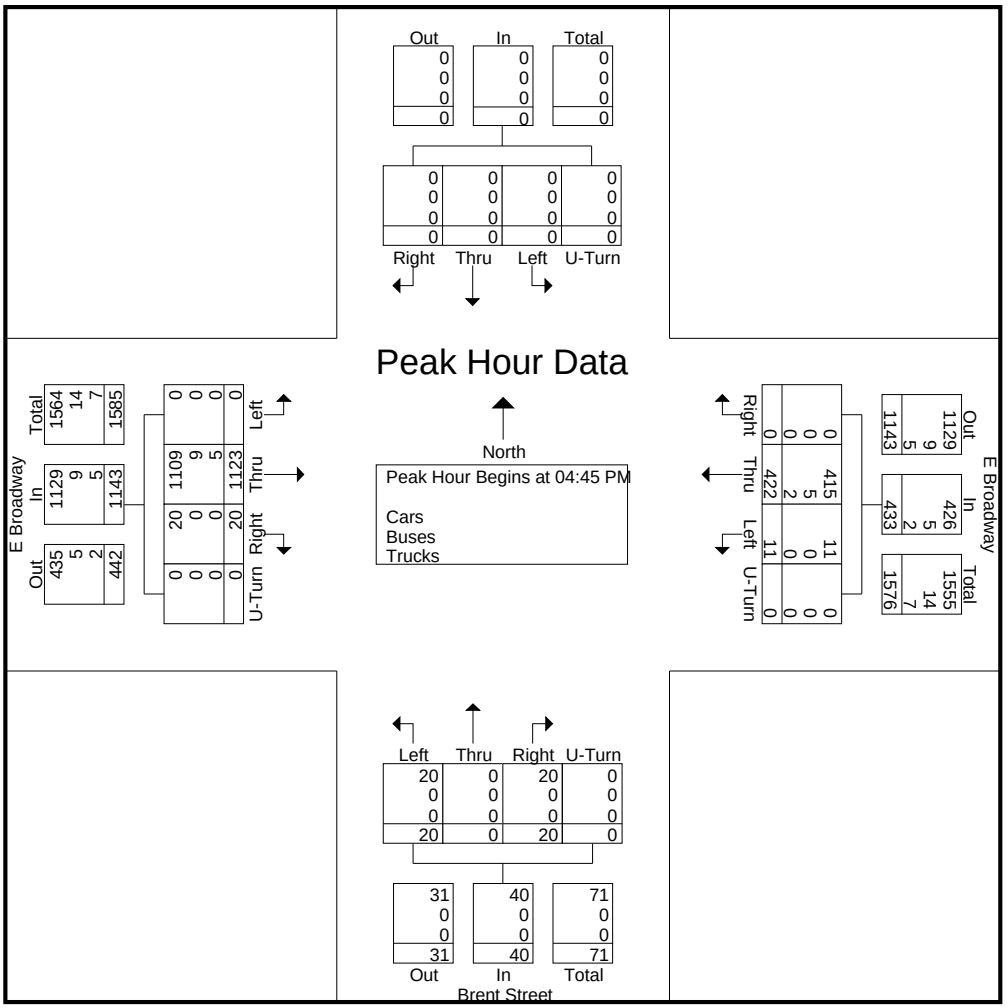
"2022 ... Data Collection simplified"

File Name : 7_E_Broadway_at_Brent_Street_11-30-2022
Site Code : Site 7
Start Date : 11/30/2022
Page No : 4

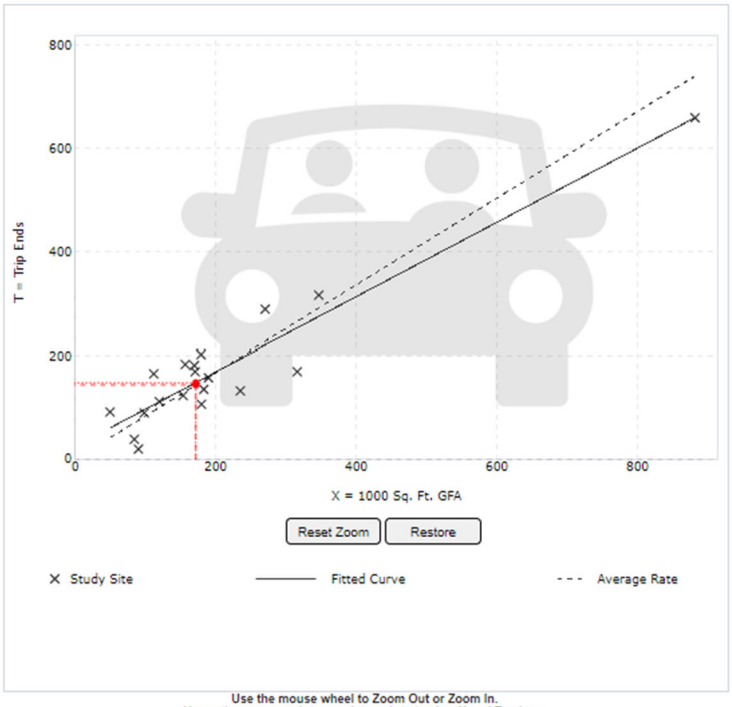
	From North					E Broadway From East					Brent Street From South					E Broadway From West					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	0	0	0	0	0	3	100	0	0	103	**7**	0	7	0	14	0	286	0	0	286	403
05:00 PM	0	0	0	0	0	1	95	0	0	96	6	0	1	0	7	0	243	**8**	0	251	354
05:15 PM	0	0	0	0	0	**4**	**118**	0	0	**122**	1	0	3	0	4	0	**333**	7	0	**340**	**466**
05:30 PM	0	0	0	0	0	3	109	0	0	112	6	0	**9**	0	**15**	0	261	5	0	266	393
Total Volume	0	0	0	0	0	11	422	0	0	433	20	0	20	0	40	0	1123	20	0	1143	1616
% App. Total	0	0	0	0		2.5	97.5	0	0		50	0	50	0		0	98.3	1.7	0		
PHF	.000	.000	.000	.000	.000	.688	.894	.000	.000	.887	.714	.000	.556	.000	.667	.000	.843	.625	.000	.840	.867
Cars	0	0	0	0	0	11	415	0	0	426	20	0	20	0	40	0	1109				
% Cars	0	0	0	0	0	100	98.3	0	0	98.4	100	0	100	0	100	0	98.8	100	0	98.8	98.7
Buses	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	9	0	0	9	14
% Buses	0	0	0	0	0	0	1.2	0	0	1.2	0	0	0	0	0	0	0.8	0	0	0.8	0.9
Trucks	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	5	0	0	5	7
% Trucks	0	0	0	0	0	0	0.5	0	0	0.5	0	0	0	0	0	0	0.4	0	0	0.4	0.4



APPENDIX C: TRIP GENERATION DATA

Figure C-1: AM Peak General Office Building (ITE Code 710)

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
General Office Building (710) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
Dense Multi-Use Urban

Trip Type:
Vehicle

Number of Studies:
19

Avg. 1000 Sq. Ft. GFA:
210

Average Rate:
0.84

Range of Rates:
0.22 - 1.84

Standard Deviation:
0.27

Fitted Curve Equation:
T = 0.72(X) + 25.14

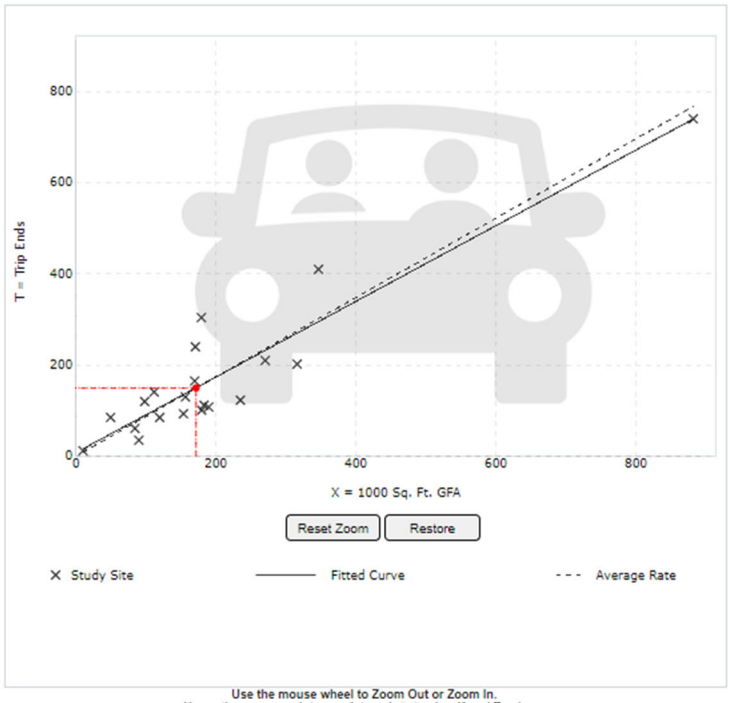
R^2:
0.89

Directional Distribution:
87% entering, 13% exiting

Calculated Trip Ends:
Average Rate: 144 (Total), 125 (Entry), 19 (Exit)
Fitted Curve: 149 (Total), 130 (Entry), 19 (Exit)

Figure C-2: PM Peak General Office Building (ITE Code 710)

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
General Office Building (710) Click for Description and Data Plots

Independent Variable:
1000 Sq. Ft. GFA

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
Dense Multi-Use Urban

Trip Type:
Vehicle

Number of Studies:
20

Avg. 1000 Sq. Ft. GFA:
200

Average Rate:
0.87

Range of Rates:
0.39 - 1.70

Standard Deviation:
0.33

Fitted Curve Equation:
T = 0.83(X) + 7.46

R^2:
0.86

Directional Distribution:
16% entering, 84% exiting

Calculated Trip Ends:
Average Rate: 150 (Total), 24 (Entry), 126 (Exit)
Fitted Curve: 150 (Total), 24 (Entry), 126 (Exit)

Figure C-3: AM Peak Hour Strip Retail Plaza (<40k) (ITE Code 822)

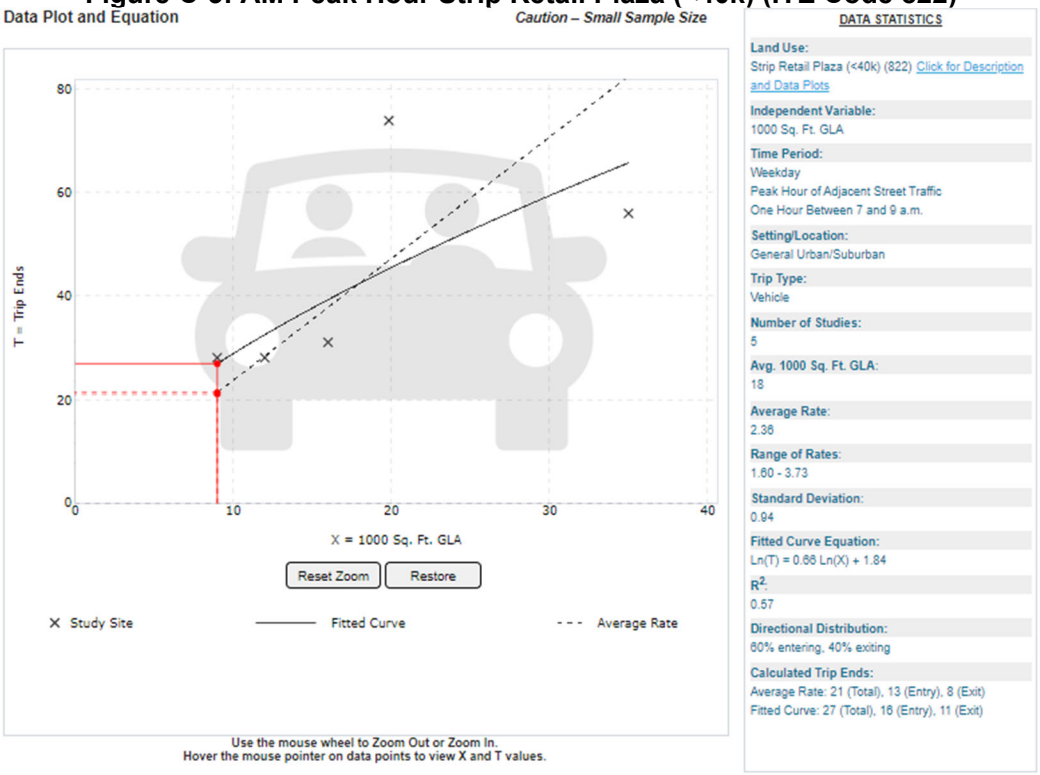


Figure C-4: PM Peak Hour Strip Retail Plaza (<40k) (ITE Code 822)

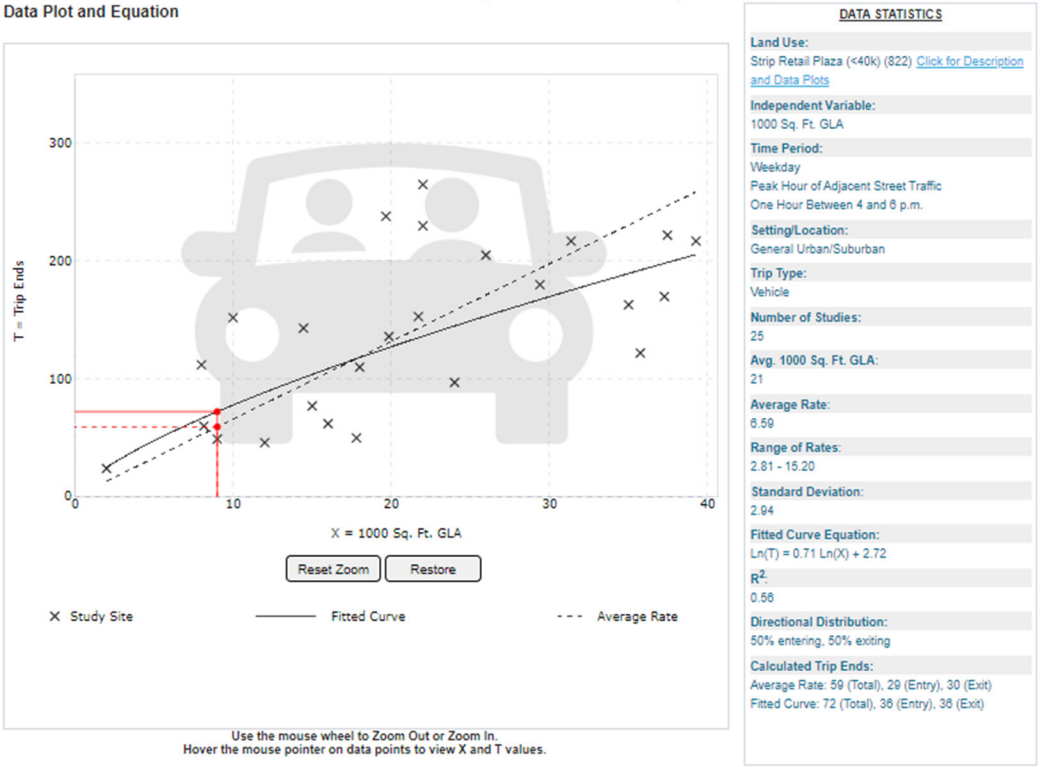


Figure C-5: AM Peak Multifamily (Mid-Rise) Dense Multi-Use Urban

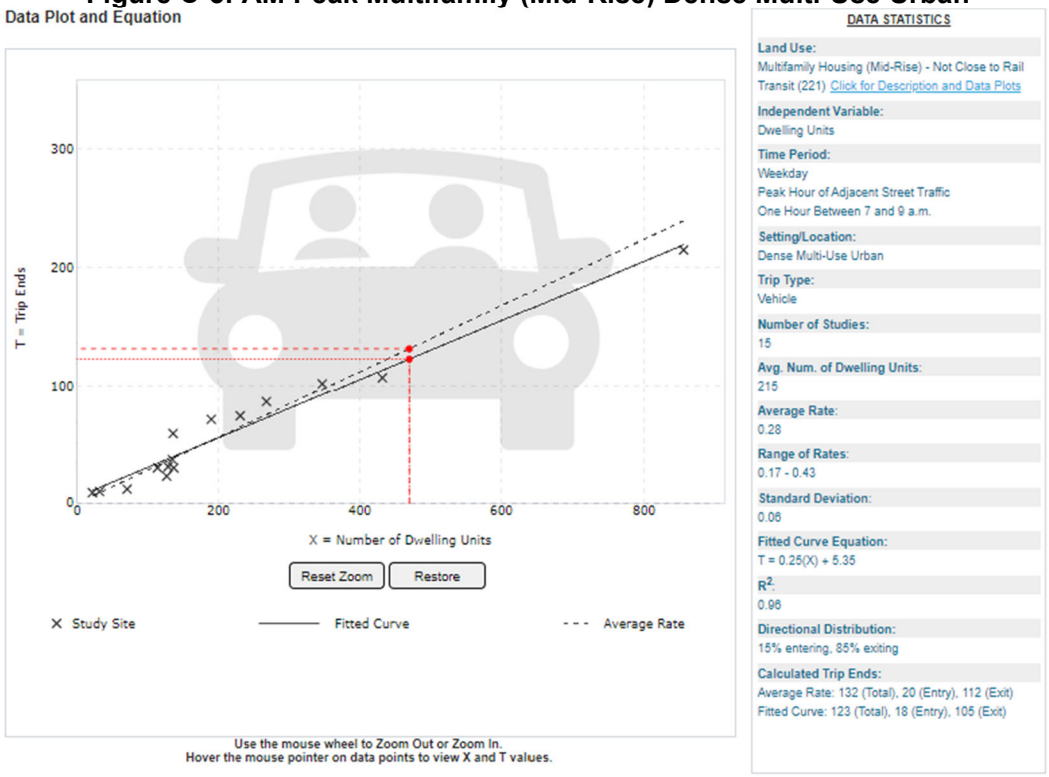


Figure C-6: PM Peak Multifamily (Mid-Rise) Dense Multi-Use Urban

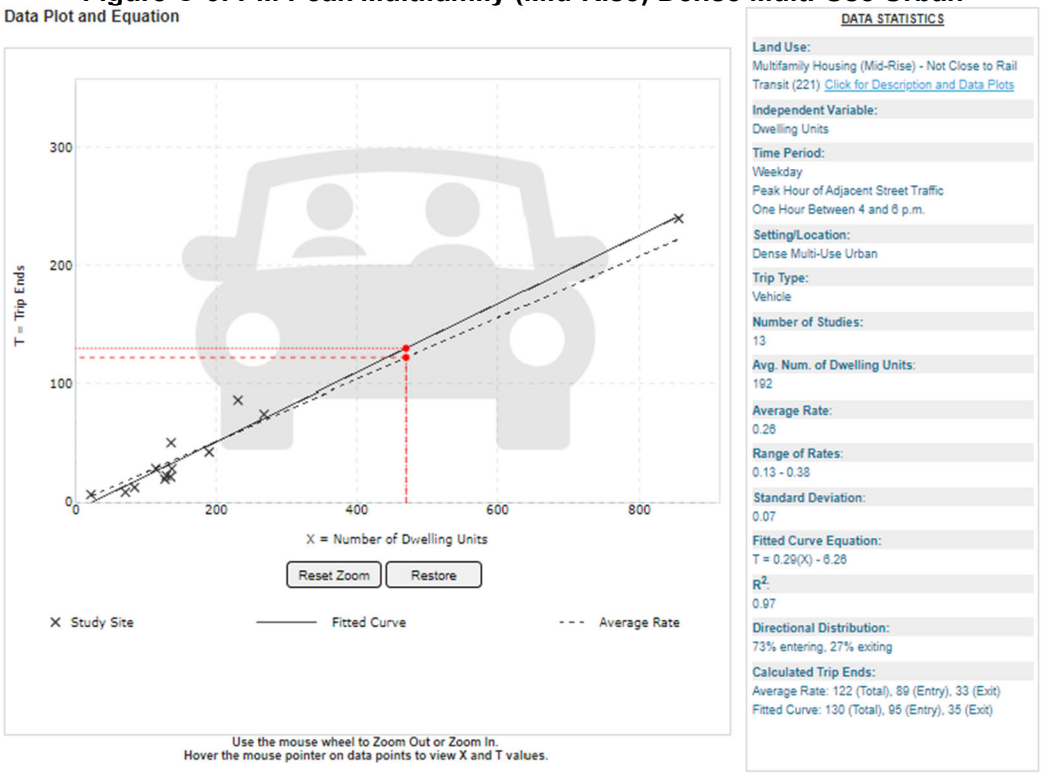
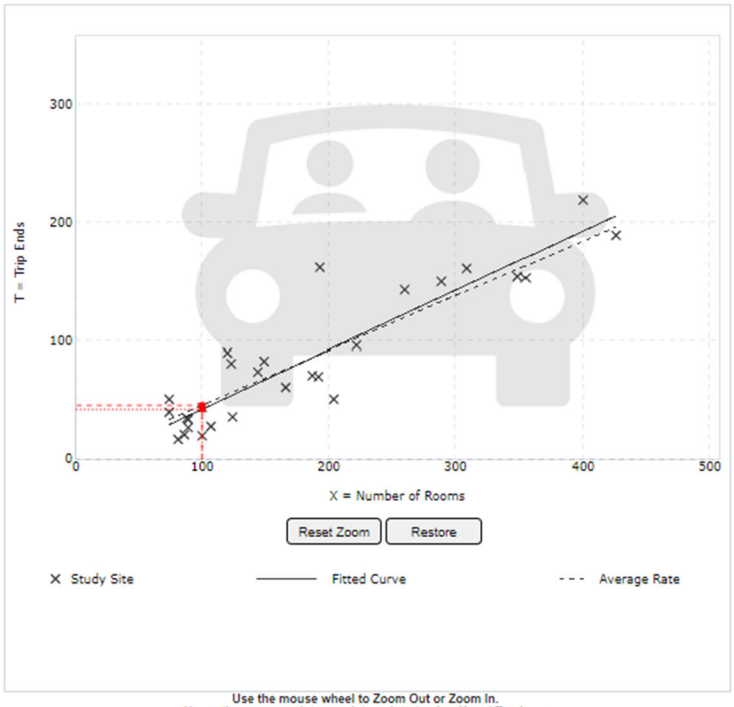


Figure C-7: AM Peak Hotel (ITE Code 310)

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Hotel (310) Click for Description and Data Plots

Independent Variable:
Rooms

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 and 9 a.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
28

Avg. Num. of Rooms:
182

Average Rate:
0.46

Range of Rates:
0.20 - 0.84

Standard Deviation:
0.14

Fitted Curve Equation:
T = 0.50(X) - 7.45

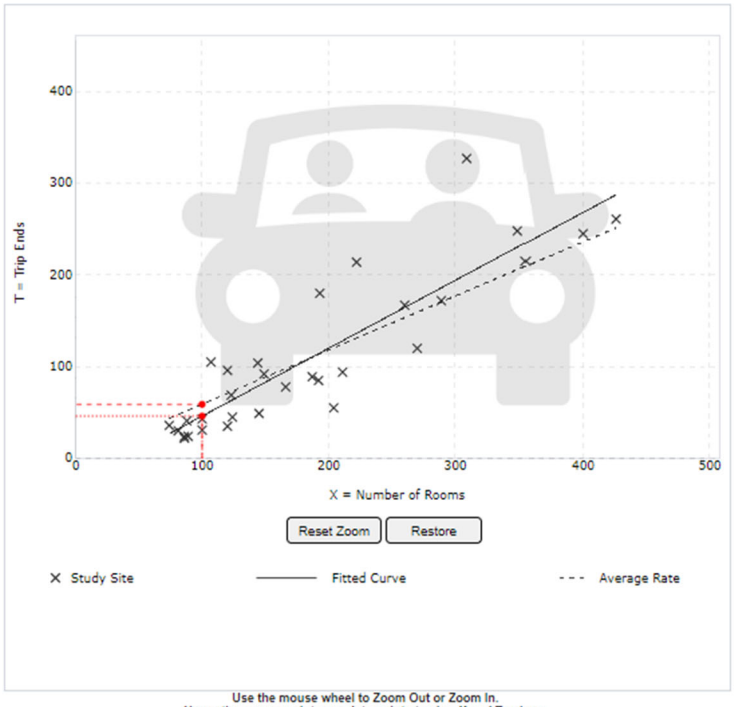
R^2:
0.84

Directional Distribution:
56% entering, 44% exiting

Calculated Trip Ends:
Average Rate: 46 (Total), 26 (Entry), 20 (Exit)
Fitted Curve: 43 (Total), 24 (Entry), 19 (Exit)

Figure C-8: PM Peak Hotel (ITE Code 310)

Data Plot and Equation



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

DATA STATISTICS

Land Use:
Hotel (310) Click for Description and Data Plots

Independent Variable:
Rooms

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4 and 6 p.m.

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
31

Avg. Num. of Rooms:
186

Average Rate:
0.59

Range of Rates:
0.26 - 1.06

Standard Deviation:
0.22

Fitted Curve Equation:
T = 0.74(X) - 27.89

R^2:
0.78

Directional Distribution:
51% entering, 49% exiting

Calculated Trip Ends:
Average Rate: 59 (Total), 30 (Entry), 29 (Exit)
Fitted Curve: 46 (Total), 23 (Entry), 23 (Exit)

APPENDIX D: TRAFFIC FORECAST

Figure D-1: KYTC Historice Traffic Data Station 056M34 (Barrett Avenue)

Historical Traffic Volume Summary

Station Details:

Sta ID:	056M34
Sta Type:	Full Coverage
Map:	MapIt
District:	5
County:	Jefferson
Route:	056-CS-1009G -000
Route Desc:	BARRET AVE

Begin MP:	0.32
Begin Desc:	US 150 (EAST BROADWAY)
End Mp:	1.3920
End Desc:	CASTLEWOOD AVENUE
Impact Year:	
Year Added:	

Newest Count:

AADT:	6470
Year:	2020
% Single:	
% Combo:	
K Factor:	9.10
D Factor:	59

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012	9775	2002	
2021		2011		2001	10600
2020	6470	2010		2000	
2019		2009		1999	
2018		2008	11200	1998	10800
2017		2007		1997	
2016		2006		1996	
2015		2005	11200	1995	10300
2014	10915	2004		1994	
2013		2003		1993	

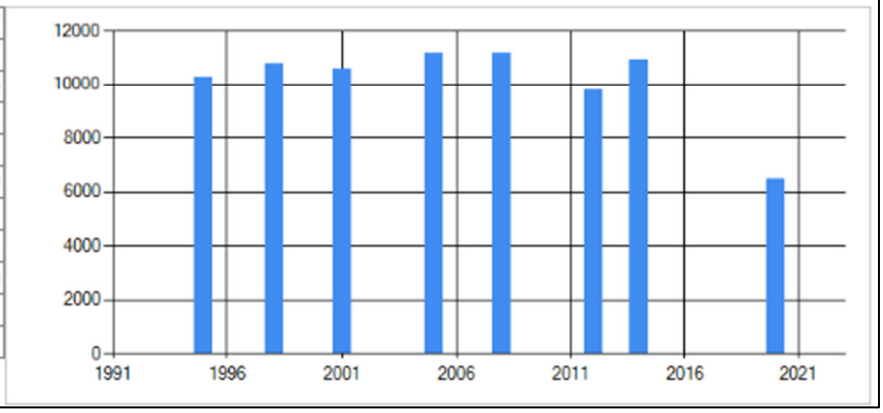


Figure D-2: Barrett Avenue Traffic Forecast

TIS Simplified Traffic Forecast

Count Year	2022	Number of Counts	4
Opening Year	2023		
Design Year	2033	Growth Rate	-5.40%
Years Back	15		

KYTC Traffic Count Station #1	
STA ID	056M34
Year	AADT
2022	
2021	
2020	6470
2019	
2018	
2017	
2016	
2015	
2014	10915
2013	
Year	AADT
2012	9775
2011	
2010	
2009	
2008	11200
2007	
2006	
2005	11200
2004	
2003	
Year	AADT
2002	
2001	10600
2000	
1999	
1998	10800
1997	
1996	
1995	10300
1994	
1993	

KYTC Traffic Count Station #2	
STA ID	XXXXXX
Paste Count Data Here	

KYTC Traffic Count Station #3	
STA ID	XXXXXX
Paste Count Data Here	

Figure D-3: KYTC Historice Traffic Data Station 056917 (Broadway; US 150)

Historical Traffic Volume Summary

Station Details:

Sta ID:	056917	Begin MP:	3.72	Newest Count:	
Sta Type:	Full Coverage	Begin Desc:	BARRETT AVENUE	AADT:	8946
Map:	MapIt	End Mp:	4.0940	Year:	2020
District:	5	End Desc:	US 31E (BAXTER AVENUE)	% Single:	8.5640
County:	Jefferson	Impact Year:		% Combo:	0.9270
Route:	056-US-0150 -000	Year Added:		K Factor:	12.90
Route Desc:	E BROADWAY			D Factor:	56

Definitions:
Sta. ID - Three digit county number + station number
MP - milepoint
Impact Year – year of significant change to traffic pattern within station segment
AADT – Annual Average Daily Traffic – the annualized average 24-hour volume of vehicles on a segment of roadway
% Single – single unit truck volume as a percentage of the AADT
% Combo – combination truck volume as a percentage of the AADT
K Factor – peak hour volume as a percentage of the AADT
D Factor – percentage of peak hour volume flowing in the peak direction

Year	AADT	Year	AADT	Year	AADT
2022		2012		2002	
2021		2011		2001	12100
2020	8946	2010	12000	2000	
2019		2009		1999	
2018		2008		1998	12700
2017		2007	12300	1997	
2016	10492	2006		1996	
2015		2005		1995	
2014		2004	13400	1994	13200
2013	10147	2003		1993	

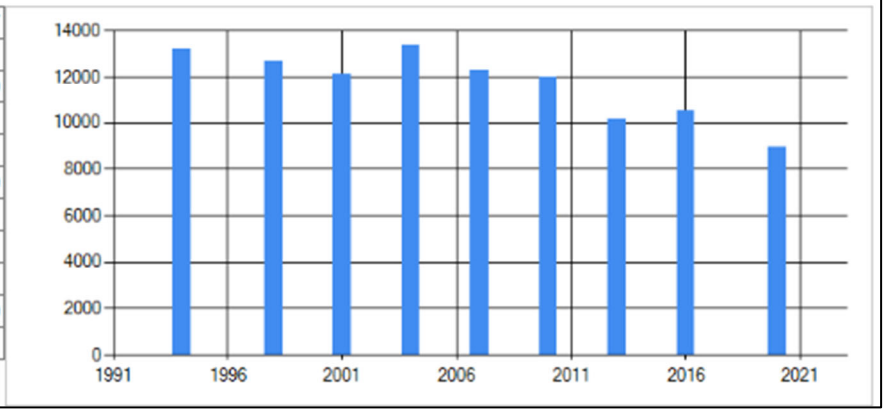


Figure D-4: Broadway Traffic Forecast

TIS Simplified Traffic Forecast

Count Year	2022	Number of Counts	4
Opening Year	2023		
Design Year	2033	Growth Rate	-2.98%
Years Back	15		

KYTC Traffic Count Station #1		KYTC Traffic Count Station #2		KYTC Traffic Count Station #3	
STA ID	056917	STA ID	XXXXXX	STA ID	XXXXXX
Year	AADT	Paste Count Data Here		Paste Count Data Here	
2022					
2021					
2020	8946				
2019					
2018					
2017					
2016	10492				
2015					
2014					
2013	10147				
Year	AADT				
2012					
2011					
2010	12000				
2009					
2008					
2007	12300				
2006					
2005					
2004	13400				
2003					
Year	AADT				
2002					
2001	12100				
2000					
1999					
1998	12700				
1997					
1996					
1995					
1994	13200				
1993					

APPENDIX E: TRIP DISTRIBUTION AND TURNING MOVEMENT FIGURES

Figure E-1: AM Peak Hour Trip Distribution

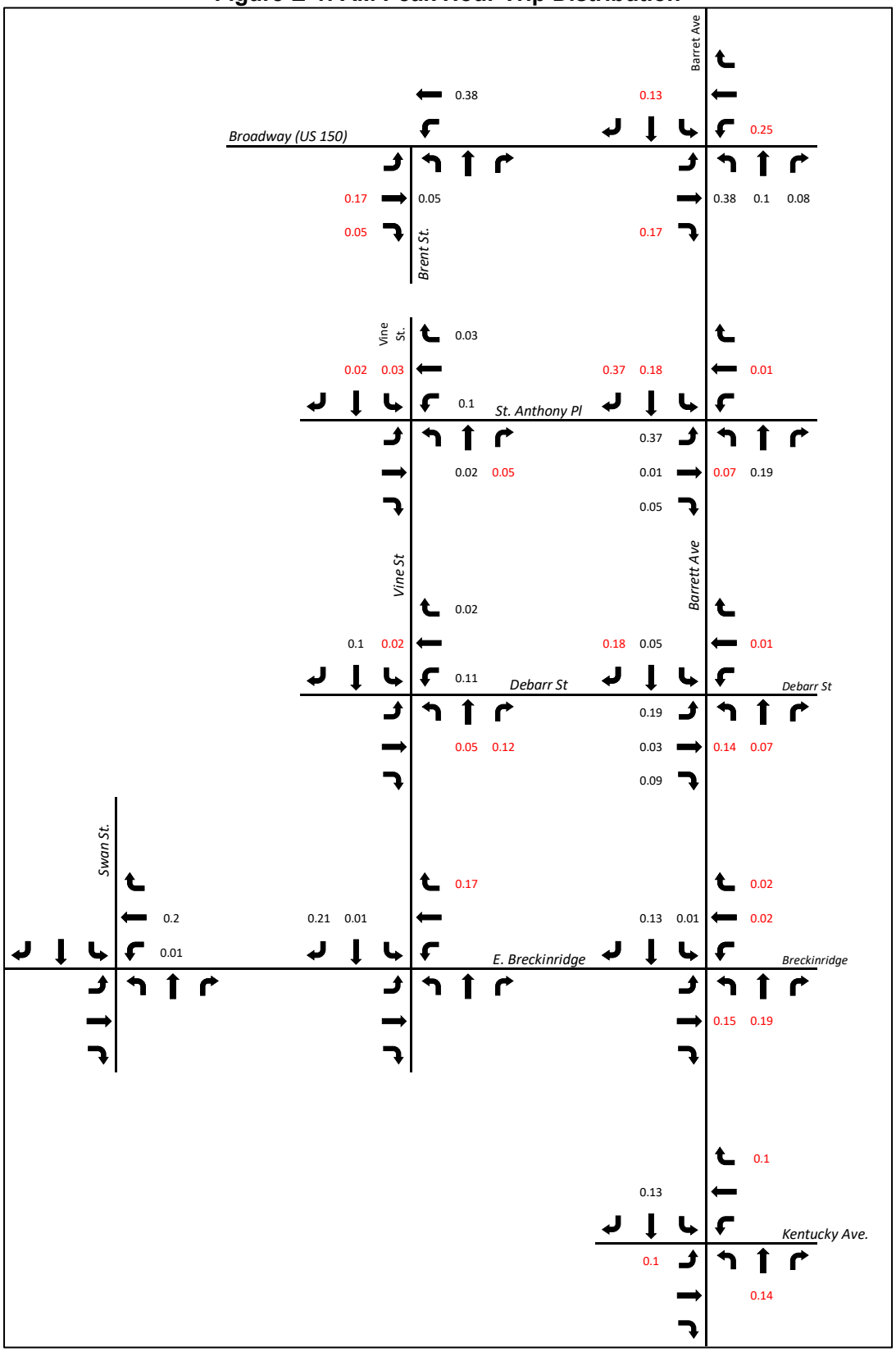


Figure E-2: PM Peak Hour Trip Distribution

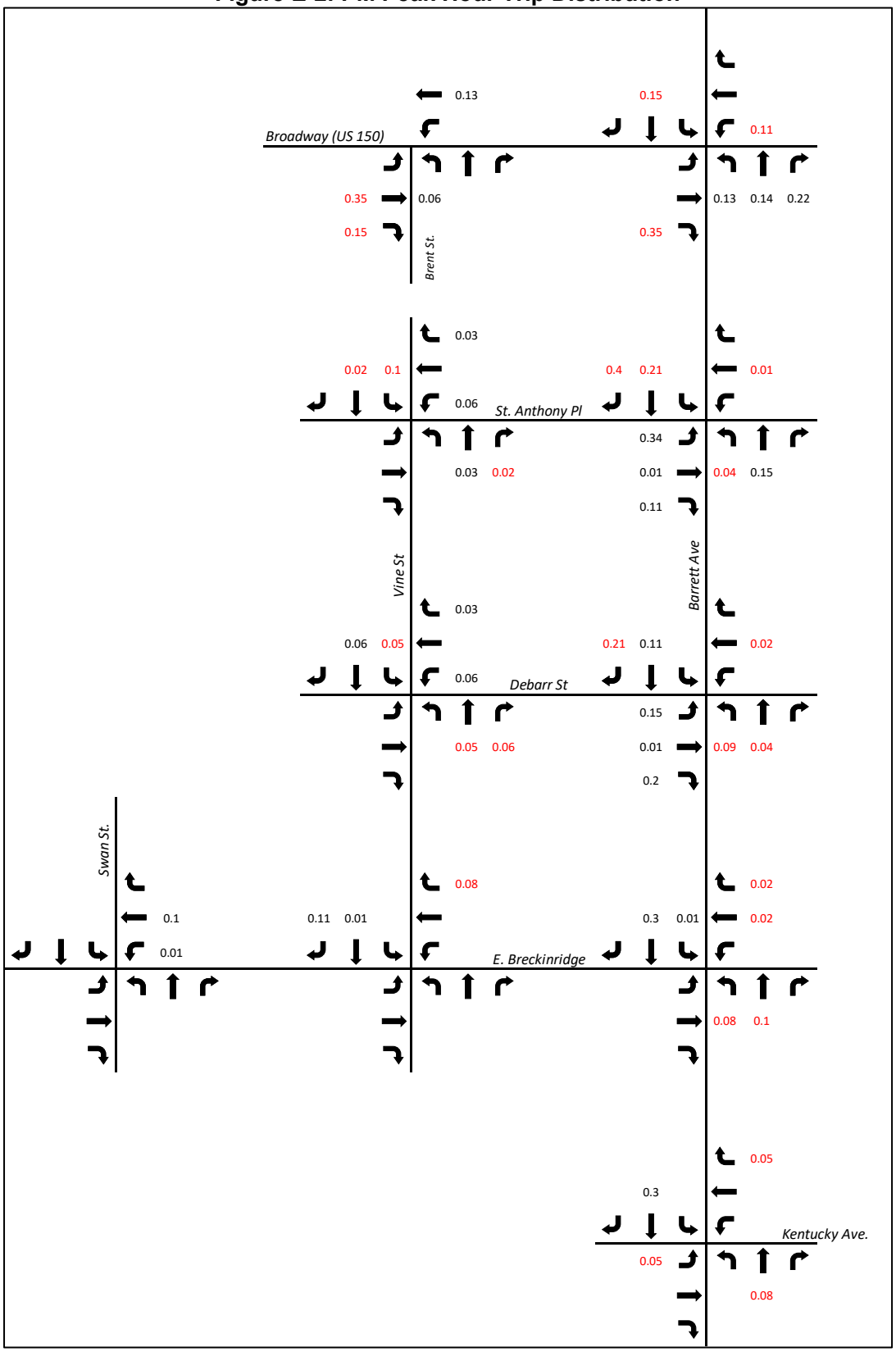


Figure E-3: AM Peak Trips Generated (Proposed)

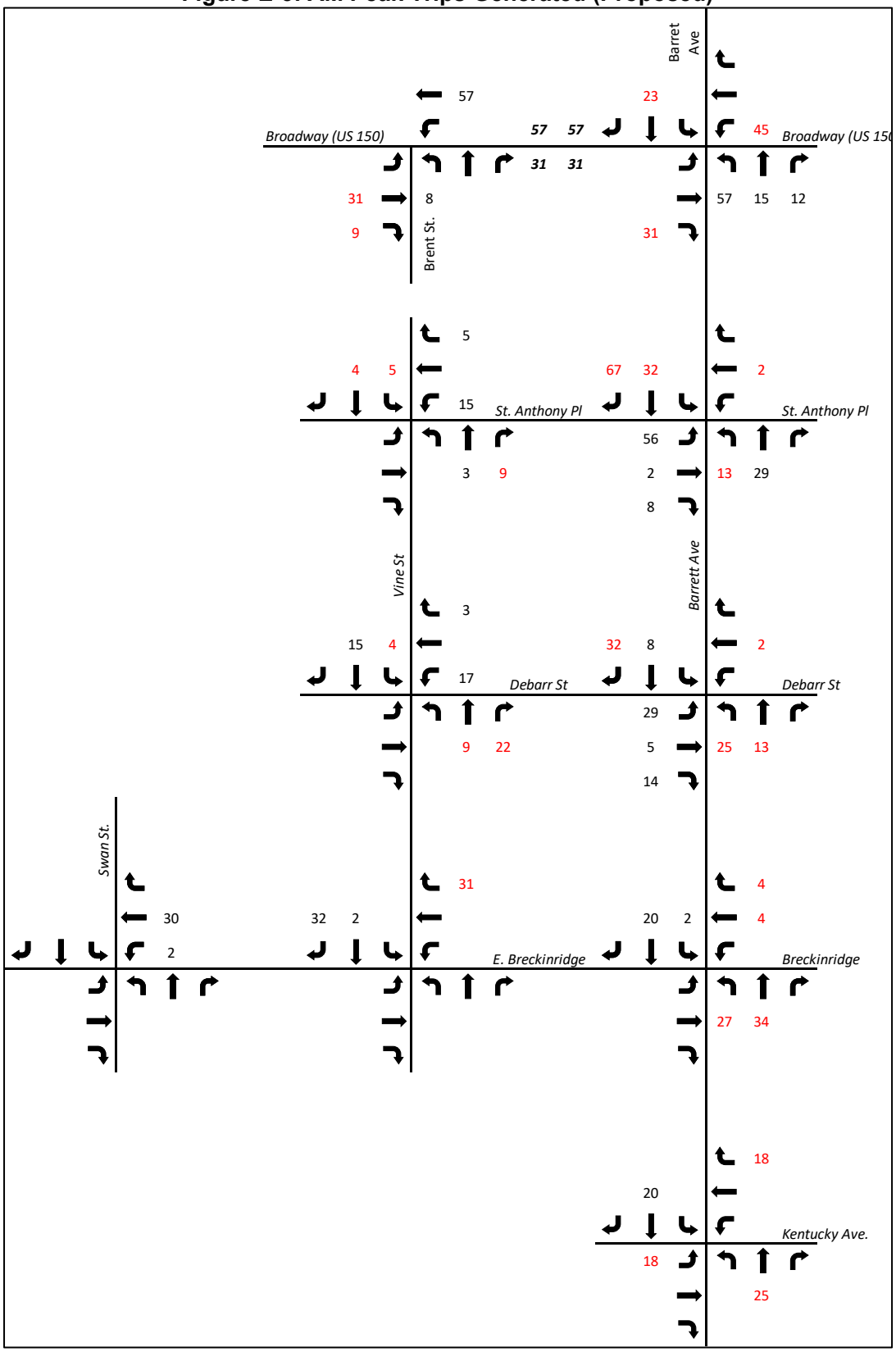


Figure E-4: PM Peak Trips Generated (Proposed)

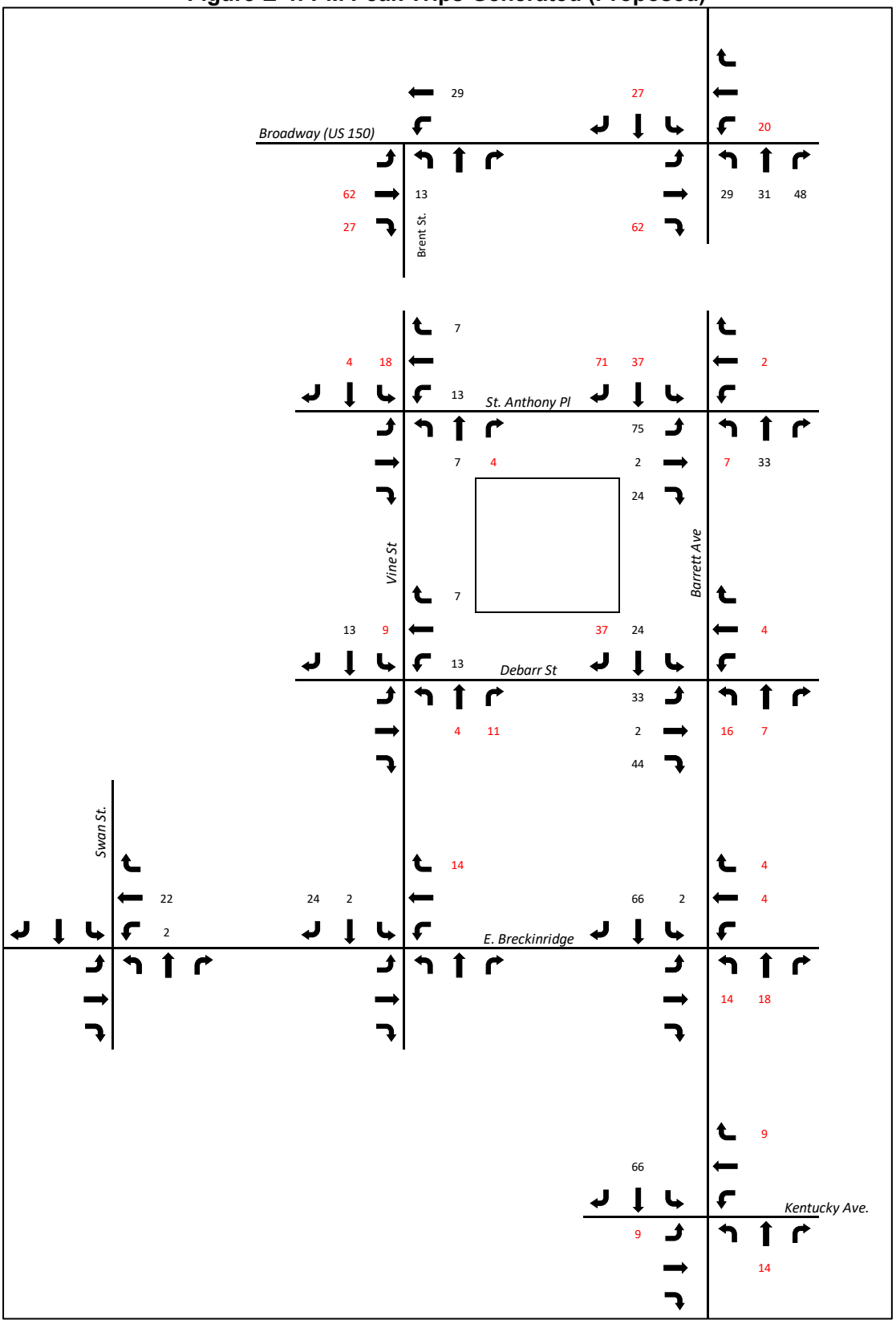


Figure E-5: Final AM Peak Hour Traffic Volumes (Proposed)

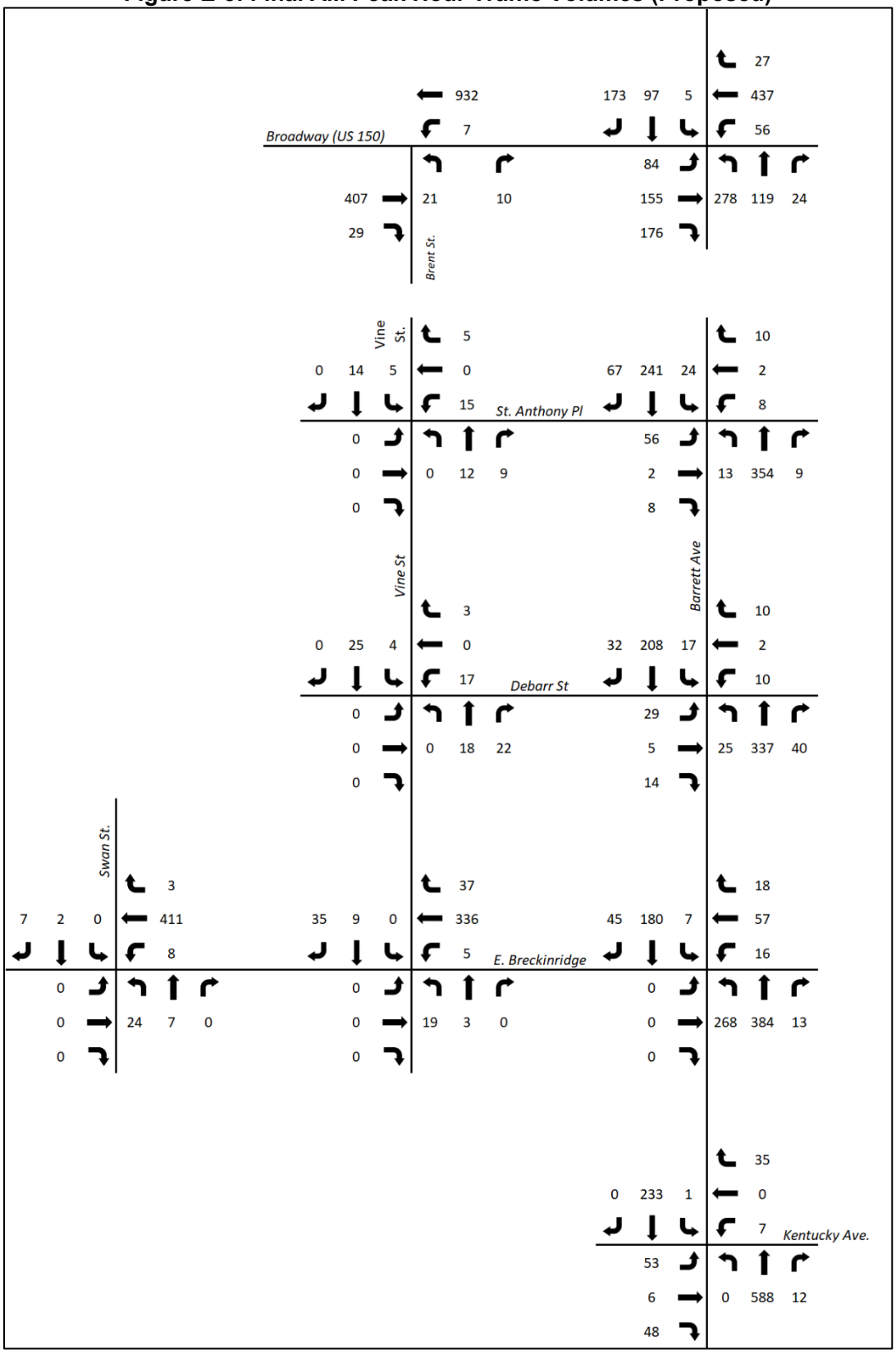


Figure E-6: Final PM Peak Hour Traffic Volumes (Proposed)

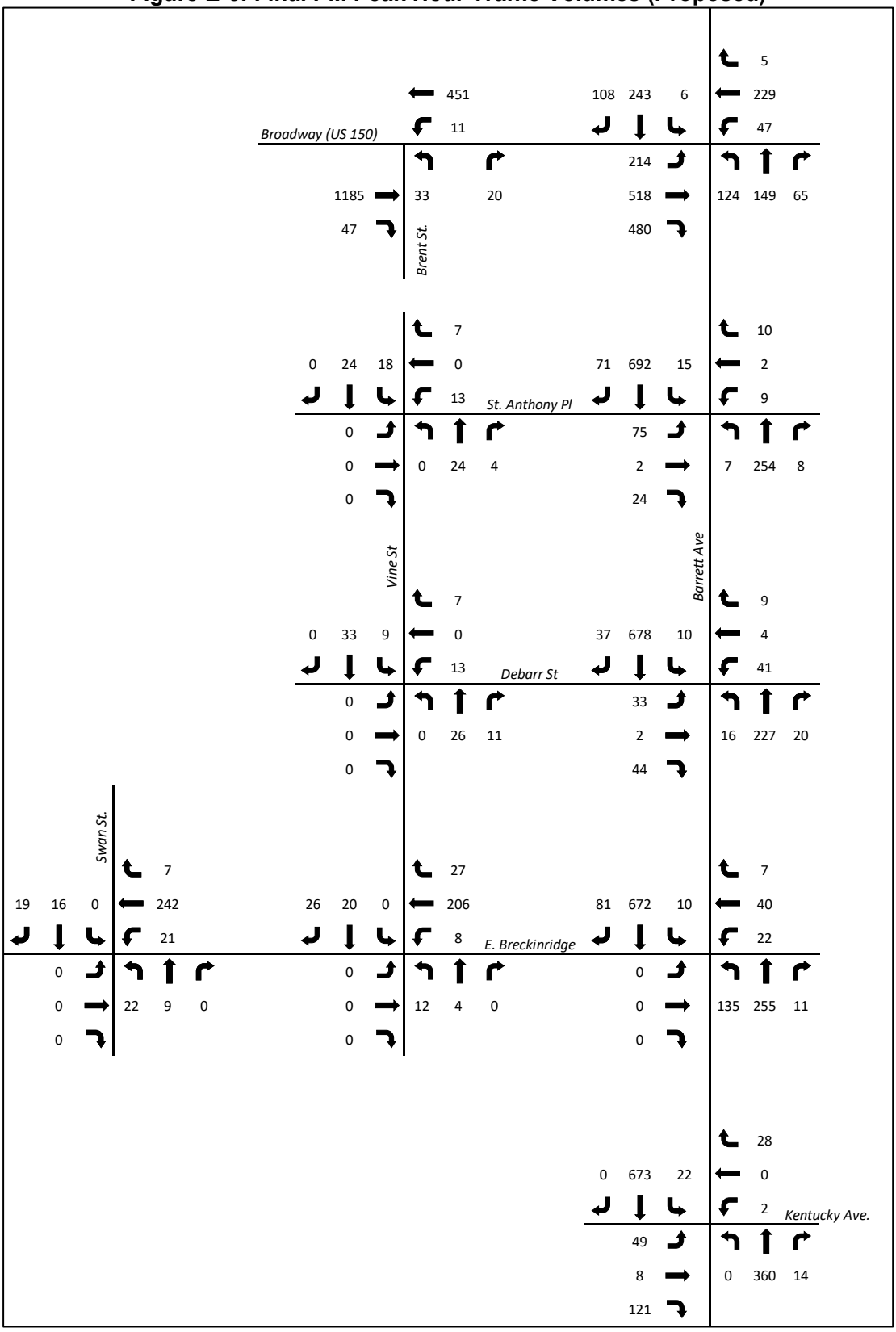


Figure E-7: Final AM Peak Hour Traffic Volumes (Existing Government Center)

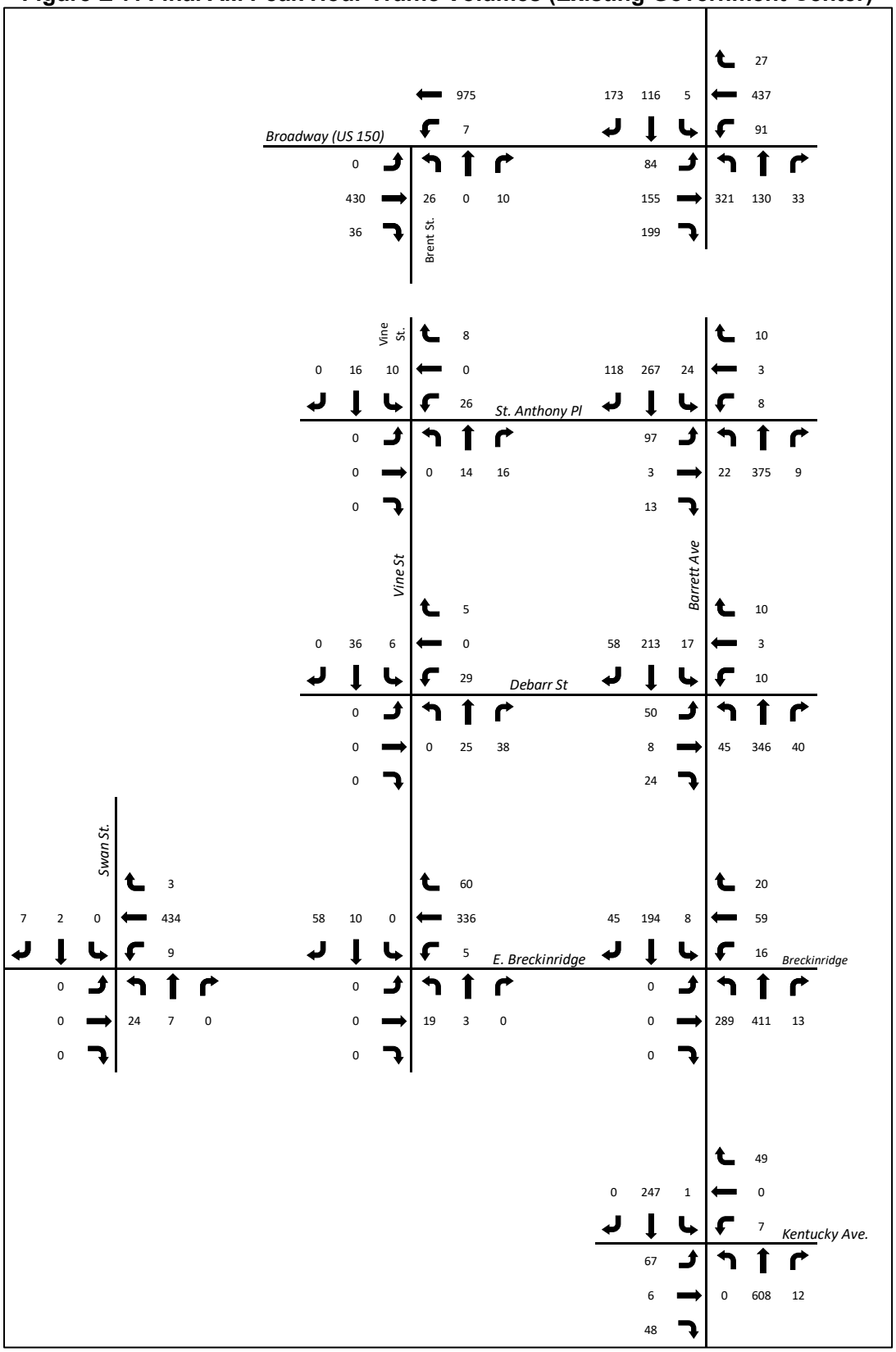
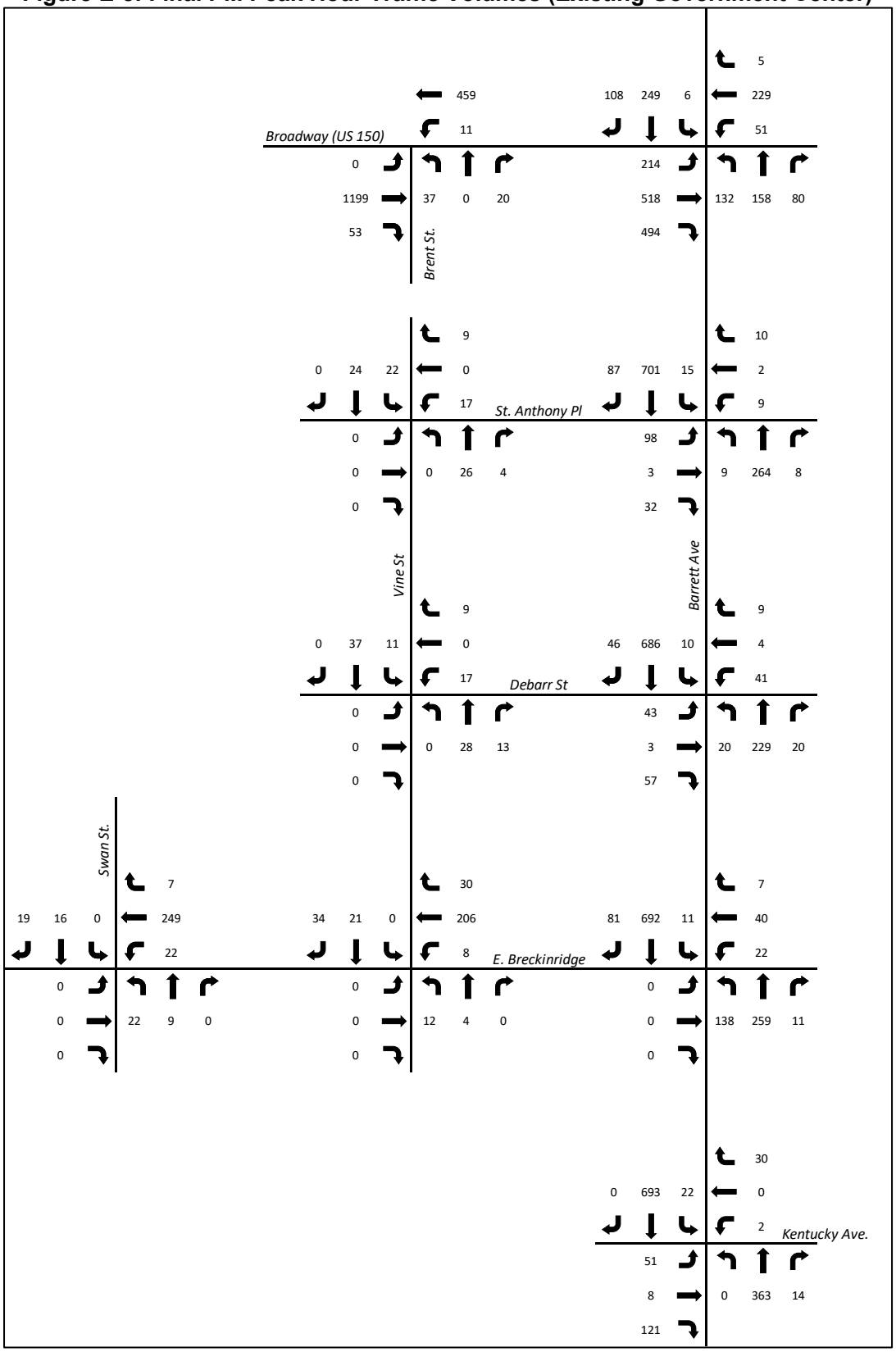


Figure E-8: Final PM Peak Hour Traffic Volumes (Existing Government Center)



APPENDIX F: CAPACITY ANALYSIS OUTPUT

HCS Two-Way Stop-Control Report

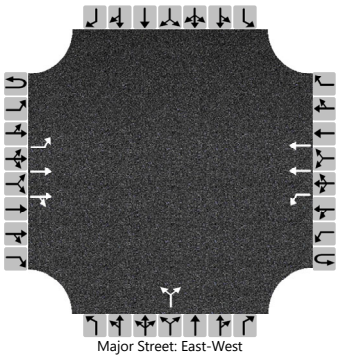
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	AM No Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	376	20	0	7	875			13		10				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				8					25					
Capacity, c (veh/h)		712				1118					465					
v/c Ratio		0.00				0.01					0.05					
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.2					
Control Delay (s/veh)		10.1				8.2					13.2					
Level of Service (LOS)		B				A					B					
Approach Delay (s/veh)	0.0				0.1				13.2							
Approach LOS	A				A				B							

HCS Two-Way Stop-Control Report

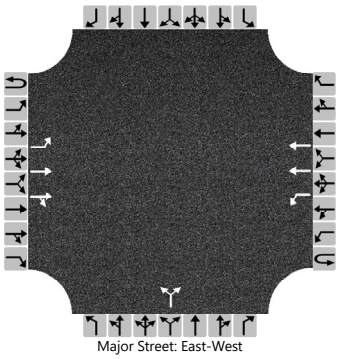
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	430	36	0	7	975			26		10				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				8					39					
Capacity, c (veh/h)		647				1047					374					
v/c Ratio		0.00				0.01					0.10					
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.3					
Control Delay (s/veh)		10.6				8.5					15.7					
Level of Service (LOS)		B				A					C					
Approach Delay (s/veh)	0.0				0.1				15.7							
Approach LOS	A				A				C							

HCS Two-Way Stop-Control Report

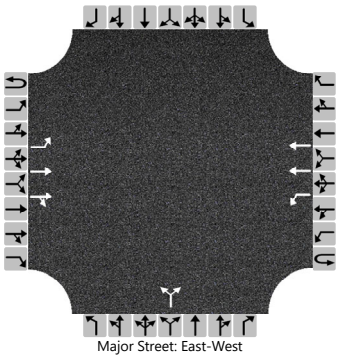
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	407	29	0	7	932			21		10				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				8					34					
Capacity, c (veh/h)		674				1077					404					
v/c Ratio		0.00				0.01					0.08					
95% Queue Length, Q_{95} (veh)		0.0				0.0					0.3					
Control Delay (s/veh)		10.3				8.4					14.7					
Level of Service (LOS)		B				A					B					
Approach Delay (s/veh)	0.0				0.1				14.7							
Approach LOS	A				A				B							

HCS Two-Way Stop-Control Report

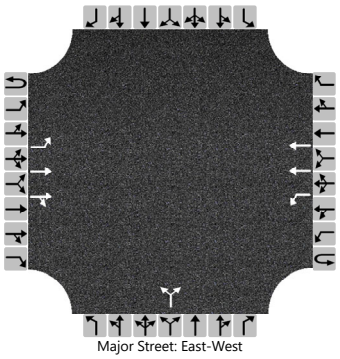
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	PM No Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	1123	20	0	11	422			20		20				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				12					43					
Capacity, c (veh/h)		1092				551					230					
v/c Ratio		0.00				0.02					0.19					
95% Queue Length, Q_{95} (veh)		0.0				0.1					0.7					
Control Delay (s/veh)		8.3				11.7					24.3					
Level of Service (LOS)		A				B					C					
Approach Delay (s/veh)	0.0				0.3				24.3							
Approach LOS	A				A				C							

HCS Two-Way Stop-Control Report

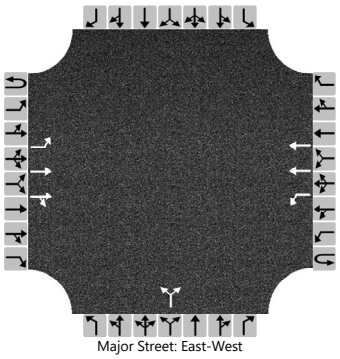
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	1199	53	0	11	459			37		20				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				12					62					
Capacity, c (veh/h)		1054				496					176					
v/c Ratio		0.00				0.02					0.35					
95% Queue Length, Q_{95} (veh)		0.0				0.1					1.5					
Control Delay (s/veh)		8.4				12.4					36.1					
Level of Service (LOS)		A				B					E					
Approach Delay (s/veh)	0.0				0.3				36.1							
Approach LOS	A				A				E							

HCS Two-Way Stop-Control Report

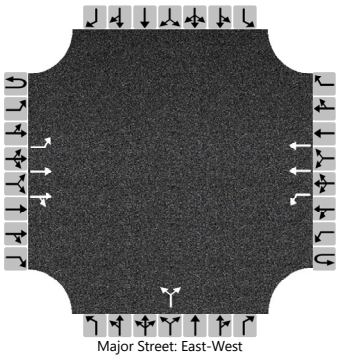
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/7/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Brent St at Broadway
Jurisdiction	
East/West Street	Broadway (US 150)
North/South Street	Brent St.
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	1	2	0	0	1	2	0		0	1	0		0	0	0
Configuration		L	T	TR		L	T				LR					
Volume (veh/h)	0	0	1185	47	0	11	451			33		20				
Percent Heavy Vehicles (%)	3	3			3	3				3		3				
Proportion Time Blocked																
Percent Grade (%)									0							
Right Turn Channelized																
Median Type | Storage	Left Only								1							

Critical and Follow-up Headways

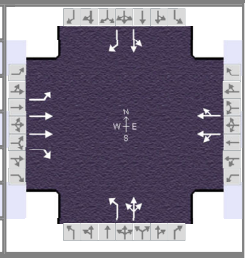
Base Critical Headway (sec)		4.1				4.1				7.5		6.9				
Critical Headway (sec)		4.16				4.16				7.56		6.96				
Base Follow-Up Headway (sec)		2.2				2.2				3.5		3.3				
Follow-Up Headway (sec)		2.23				2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		0				12					58					
Capacity, c (veh/h)		1062				505					185					
v/c Ratio		0.00				0.02					0.31					
95% Queue Length, Q_{95} (veh)		0.0				0.1					1.3					
Control Delay (s/veh)		8.4				12.3					33.0					
Level of Service (LOS)		A				B					D					
Approach Delay (s/veh)	0.0				0.3				33.0							
Approach LOS	A				A				D							

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_AM_NoBuild.xus		
Project Description	AM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	155	145	11	437	27	221	104	12	5	74	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4		
Green	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		
Yellow	0.0	0.0	0.0	0.0	0.0	0.0						
Red	0.0	0.0	0.0	0.0	0.0	0.0						

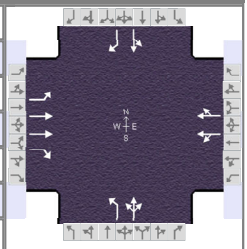
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	12.0	71.0		59.0		25.0		24.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	0.0	0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s	0.0	0.0		0.0		0.0		0.0
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		0.0
Phase Call Probability	0.00	0.00		0.00		0.00		0.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	0	0	0	0		0	0	0			0	0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0	0	0		0	0	0			0	0
Queue Service Time (g_s), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Green Ratio (*g/C*)	0.54	0.56	0.56	0.46		0.46	0.18	0.18			0.17	0.17
Capacity (*c*), veh/h	514	2020	899	893		776	317	326			316	268
Volume-to-Capacity Ratio (*X*)	0.178	0.083	0.175	0.304		0.315	0.759	0.386			0.272	0.701
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	2.3	1.9	3.8	8.6		8.0	12.8	6.5			4.3	10.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	14.1	12.3	13.0	20.5		20.6	47.1	43.8			43.6	47.2
Incremental Delay (d_2), s/veh	0.8	0.1	0.4	0.9		1.1	15.6	3.4			2.1	14.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	14.8	12.4	13.4	21.4		21.6	62.7	47.2			45.8	61.4
Level of Service (LOS)	B	B	B	C		C	E	D			D	E
Approach Delay, s/veh / LOS	13.3	B		21.5	C		57.4	E		56.5	E	
Intersection Delay, s/veh / LOS	33.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	1.91	B	2.15	B	2.46	B
Bicycle LOS Score / LOS	0.83	A	0.91	A	1.09	A	0.94	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_AM_BuildGovtCtr.xus		
Project Description	AM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	155	199	91	437	27	321	130	33	5	116	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		
Red	0.0	0.0	0.0	0.0	0.0	0.0						

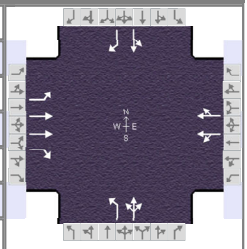
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	11.0	61.0		50.0		35.0		24.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	0.0	0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s	0.0	0.0		0.0		0.0		0.0
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		0.0
Phase Call Probability	0.00	0.00		0.00		0.00		0.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	0	0	0	0		0	0	0			0	0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0	0	0		0	0	0			0	0
Queue Service Time (g_s), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Green Ratio (*g/C*)	0.46	0.48	0.48	0.38		0.38	0.26	0.26			0.17	0.17
Capacity (*c*), veh/h	393	1718	765	668		651	467	474			316	268
Volume-to-Capacity Ratio (*X*)	0.232	0.098	0.283	0.452		0.463	0.746	0.374			0.416	0.701
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	2.8	2.3	6.8	11.1		11.1	16.0	8.0			6.9	10.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	20.0	17.3	19.1	27.6		27.7	40.9	36.5			44.8	47.2
Incremental Delay (d_2), s/veh	1.4	0.1	0.9	2.2		2.4	10.4	2.3			4.0	14.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	21.4	17.5	20.0	29.8		30.1	51.3	38.8			48.8	61.4
Level of Service (LOS)	C	B	C	C		C	D	D			D	E
Approach Delay, s/veh / LOS	19.4	B		30.0	C		47.1	D		56.2	E	
Intersection Delay, s/veh / LOS	36.4						D					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.92	B	2.15	B	2.46	B
Bicycle LOS Score / LOS	0.88	A	0.99	A	1.36	A	1.01	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_AM_Build.xus		
Project Description	AM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	84	155	176	56	437	27	278	119	24	5	97	173

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		
Red	0.0	0.0	0.0	0.0	0.0	0.0						

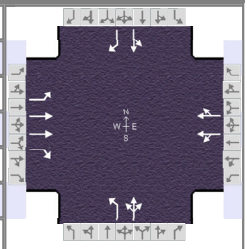
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	11.0	62.0		51.0		34.0		24.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	0.0	0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s	0.0	0.0		0.0		0.0		0.0
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		0.0
Phase Call Probability	0.00	0.00		0.00		0.00		0.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	0	0	0	0		0	0	0			0	0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0	0	0		0	0	0			0	0
Queue Service Time (g_s), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Green Ratio (*g/C*)	0.47	0.48	0.48	0.39		0.39	0.25	0.25			0.17	0.17
Capacity (*c*), veh/h	414	1749	778	717		664	452	461			316	268
Volume-to-Capacity Ratio (*X*)	0.221	0.096	0.246	0.403		0.415	0.668	0.337			0.351	0.701
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	2.8	2.3	5.8	10.3		10.0	13.8	7.1			5.7	10.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	19.2	16.8	18.2	26.3		26.5	40.5	36.9			44.3	47.2
Incremental Delay (d_2), s/veh	1.2	0.1	0.8	1.7		1.9	7.6	2.0			3.0	14.2
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	20.4	16.9	18.9	28.0		28.4	48.1	38.8			47.3	61.4
Level of Service (LOS)	C	B	B	C		C	D	D			D	E
Approach Delay, s/veh / LOS	18.5	B		28.2	C		45.0	D		56.2	E	
Intersection Delay, s/veh / LOS	34.8						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.91	B	1.92	B	2.15	B	2.46	B
Bicycle LOS Score / LOS	0.86	A	0.95	A	1.24	A	0.98	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_PM_NoBuild.xus		
Project Description	PM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	214	518	418	27	229	5	95	118	17	6	216	108

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0	5	6	7	8		
Red	0.0	0.0	0.0	0.0	0.0	0.0						

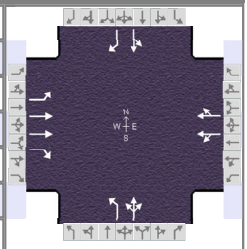
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	11.0	76.0		65.0		18.0		26.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	0.0	0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s	0.0	0.0		0.0		0.0		0.0
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		0.0
Phase Call Probability	0.00	0.00		0.00		0.00		0.00
Max Out Probability	0.00	0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	0	0	0	0		0	0	0			0	0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0	0	0		0	0	0			0	0
Queue Service Time (g_s), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Green Ratio (*g/C*)	0.58	0.60	0.60	0.51		0.51	0.12	0.12			0.18	0.18
Capacity (*c*), veh/h	696	2171	966	834		873	211	217			348	295
Volume-to-Capacity Ratio (*X*)	0.334	0.259	0.470	0.171		0.162	0.489	0.677			0.694	0.398
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	5.6	6.3	11.2	3.9		3.9	6.0	8.9			12.3	6.1
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	12.4	11.4	13.4	15.7		15.8	49.6	50.8			45.8	43.2
Incremental Delay (d_2), s/veh	1.3	0.3	1.6	0.4		0.4	7.9	15.7			10.9	4.0
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	13.7	11.7	15.0	16.1		16.2	57.5	66.5			56.7	47.1
Level of Service (LOS)	B	B	B	B		B	E	E			E	D
Approach Delay, s/veh / LOS	13.3	B		16.2	B		62.8	E		53.6	D	
Intersection Delay, s/veh / LOS	26.2						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.89	B	1.90	B	2.15	B	2.46	B
Bicycle LOS Score / LOS	1.52	B	0.72	A	0.90	A	1.08	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_PM_BuildGovtCtr.xus		
Project Description	PM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	214	518	494	51	229	5	132	158	80	6	349	108

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	6.0	32.0	14.0	22.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	4.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

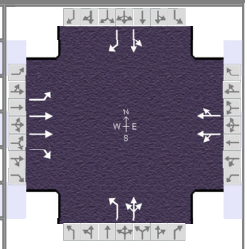
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	10.0	46.0		36.0		18.0		26.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s	8.0					14.8		19.3
Green Extension Time (g_e), s	0.0	0.0		0.0		0.0		0.3
Phase Call Probability	1.00					1.00		1.00
Max Out Probability	1.00					1.00		1.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	233	563	537	151		159	143	259			386	117
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1378		1718	1810	1792			1898	1610
Queue Service Time (g_s), s	6.0	8.8	24.0	2.3		5.9	6.5	12.8			17.3	5.3
Cycle Queue Clearance Time (g_c), s	6.0	8.8	24.0	5.8		5.9	6.5	12.8			17.3	5.3
Green Ratio (*g/C*)	0.44	0.47	0.47	0.36		0.36	0.16	0.16			0.24	0.24
Capacity (*c*), veh/h	532	1688	751	545		611	281	279			464	394
Volume-to-Capacity Ratio (*X*)	0.437	0.334	0.715	0.276		0.261	0.510	0.928			0.832	0.298
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	5.8	6.3	14.5	4.2		4.4	6.0	13.2			14.8	4.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	17.5	15.2	19.2	20.4		20.6	34.9	37.5			32.2	27.7
Incremental Delay (d_2), s/veh	2.6	0.5	5.7	1.3		1.0	6.5	38.2			15.8	1.9
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	20.1	15.7	24.9	21.6		21.6	41.3	75.7			48.1	29.6
Level of Service (LOS)	C	B	C	C		C	D	E			D	C
Approach Delay, s/veh / LOS	20.2	C		21.6	C		63.5	E		43.8	D	
Intersection Delay, s/veh / LOS	31.9						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	1.91	B	2.14	B	2.44	B
Bicycle LOS Score / LOS	1.59	B	0.74	A	1.15	A	1.32	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	US 150	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Broadway	File Name	Broadway_Barrett_PM_Build.xus		
Project Description	PM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	214	518	480	47	229	5	124	149	65	6	243	108

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	7.0	31.0	17.0	19.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	4.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

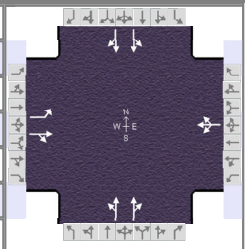
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase	5	2		6		8		4
Case Number	1.0	3.0		8.3		10.0		11.0
Phase Duration, s	11.0	46.0		35.0		21.0		23.0
Change Period, ($Y+R_c$), s	4.0	4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s	3.1	0.0		0.0		3.1		3.1
Queue Clearance Time (g_s), s	9.0					12.8		13.8
Green Extension Time (g_e), s	0.0	0.0		0.0		0.3		0.4
Phase Call Probability	1.00					1.00		1.00
Max Out Probability	1.00					0.46		0.23

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	5	2	12	1	6	16	3	8	18	7	4	14
Adjusted Flow Rate (*v*), veh/h	233	563	522	150		156	135	233			271	117
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1810	1809	1610	1414		1718	1810	1802			1898	1610
Queue Service Time (g_s), s	7.0	8.8	23.0	1.7		5.9	5.9	10.8			11.8	5.6
Cycle Queue Clearance Time (g_c), s	7.0	8.8	23.0	5.6		5.9	5.9	10.8			11.8	5.6
Green Ratio (*g/C*)	0.44	0.47	0.47	0.34		0.34	0.19	0.19			0.21	0.21
Capacity (*c*), veh/h	540	1688	751	541		592	342	340			401	340
Volume-to-Capacity Ratio (*X*)	0.431	0.334	0.694	0.277		0.263	0.394	0.684			0.676	0.345
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	5.8	6.3	13.9	4.2		4.4	5.1	9.5			10.3	4.3
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00
Uniform Delay (d_1), s/veh	16.7	15.2	18.9	21.0		21.3	32.0	34.0			32.7	30.2
Incremental Delay (d_2), s/veh	2.5	0.5	5.2	1.3		1.1	3.4	10.6			8.8	2.8
Initial Queue Delay (d_3), s/veh	0.0	0.0	0.0	0.0		0.0	0.0	0.0			0.0	0.0
Control Delay (*d*), s/veh	19.2	15.7	24.2	22.3		22.4	35.4	44.6			41.5	33.0
Level of Service (LOS)	B	B	C	C		C	D	D			D	C
Approach Delay, s/veh / LOS	19.7	B		22.3	C		41.2	D		38.9	D	
Intersection Delay, s/veh / LOS	26.5						C					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	1.90	B	1.92	B	2.14	B	2.44	B
Bicycle LOS Score / LOS	1.57	B	0.74	A	1.09	A	1.13	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_AM_NoBuild.xus		
Project Description	AM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	0	0	8	0	10	0	325	9	24	209	0

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

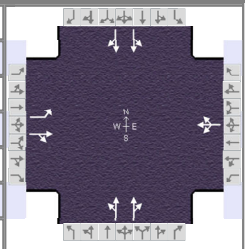
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		11.0		11.0		79.0		79.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s		0.0		0.0		0.0		0.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	0	0			0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0			0		0		0	0		0
Queue Service Time (g_s), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)	0.08				0.08				0.83	0.83		
Capacity (*c*), veh/h	80				182				1568	1426		
Volume-to-Capacity Ratio (*X*)	0.000	0.000			0.108		0.000		0.115	0.090		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	0.0			0.8		0.0		0.5	0.3		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	0.0				38.7				1.4	1.3		
Incremental Delay (d_2), s/veh	0.0	0.0			1.2		0.0		0.1	0.1		0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	0.0				39.9				1.5	1.5		
Level of Service (LOS)					D				A	A		
Approach Delay, s/veh / LOS	0.0			39.9		D	1.5		A	1.5		A
Intersection Delay, s/veh / LOS	2.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.58	B	1.81	B
Bicycle LOS Score / LOS	0.49	A	0.52	A	0.79	A	0.70	A

HCS Signalized Intersection Results Summary

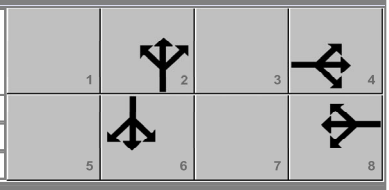
General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_AM_BuildGovtCtr.xus		
Project Description	AM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	97	3	13	8	3	10	22	375	9	24	267	118

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	69.0	13.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	0.0	0.0	0.0	0.0	0.0	0.0	



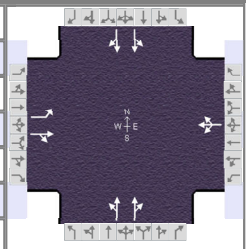
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		17.0		17.0		73.0		73.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.1		3.1		0.0		0.0
Queue Clearance Time (g_s), s		9.3		3.0				
Green Extension Time (g_e), s		0.1		0.2		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.49		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	105	17			23		227		215	236		209
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1422	1658			1608		1771		1715	1763		1557
Queue Service Time (g_s), s	6.2	0.8			0.0		0.0		3.0	0.0		3.3
Cycle Queue Clearance Time (g_c), s	7.3	0.8			1.0		2.8		3.0	3.0		3.3
Green Ratio (*g/C*)	0.14	0.14			0.14		0.77		0.77	0.77		0.77
Capacity (*c*), veh/h	269	239			287		1402		1315	1396		1194
Volume-to-Capacity Ratio (*X*)	0.392	0.073			0.079		0.162		0.163	0.169		0.175
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	4.4	0.6			0.8		1.4		1.4	1.5		1.4
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	36.5	33.3			33.4		2.8		2.8	2.8		2.8
Incremental Delay (d_2), s/veh	4.2	0.6			0.5		0.2		0.3	0.3		0.3
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	40.8	33.9			33.9		3.0		3.1	3.1		3.1
Level of Service (LOS)	D	C			C		A		A	A		A
Approach Delay, s/veh / LOS	39.8	D		33.9	C		3.0	A		3.1	A	
Intersection Delay, s/veh / LOS	8.1						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.61	B	1.83	B
Bicycle LOS Score / LOS	0.69	A	0.53	A	0.85	A	0.85	A

HCS Signalized Intersection Results Summary

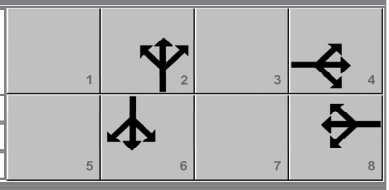
General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_AM_Build.xus		
Project Description	AM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	56	2	8	8	2	10	13	354	9	24	241	67

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	75.0	7.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	0.0	0.0	0.0	0.0	0.0	0.0	



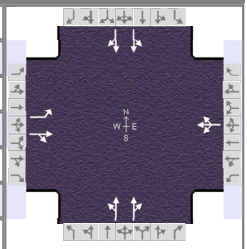
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		11.0		11.0		79.0		79.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.1		3.1		0.0		0.0
Queue Clearance Time (g_s), s		6.8		3.0				
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		1.00		0.32				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	61	11			22		212		196	188		173
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1423	1661			1621		1838		1714	1726		1607
Queue Service Time (g_s), s	3.8	0.5			0.0		0.0		1.9	0.0		1.8
Cycle Queue Clearance Time (g_c), s	4.8	0.5			1.0		1.9		1.9	1.6		1.8
Green Ratio (*g/C*)	0.08	0.08			0.08		0.83		0.83	0.83		0.83
Capacity (*c*), veh/h	174	129			182		1574		1428	1484		1339
Volume-to-Capacity Ratio (*X*)	0.350	0.084			0.119		0.135		0.137	0.127		0.129
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	2.8	0.5			0.9		0.6		0.6	0.5		0.5
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	41.0	38.5			38.8		1.4		1.4	1.4		1.4
Incremental Delay (d_2), s/veh	5.5	1.3			1.3		0.2		0.2	0.2		0.2
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	46.5	39.8			40.1		1.6		1.6	1.6		1.6
Level of Service (LOS)	D	D			D		A		A	A		A
Approach Delay, s/veh / LOS	45.4	D		40.1	D		1.6	A		1.6	A	
Intersection Delay, s/veh / LOS	6.2						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.58	B	1.81	B
Bicycle LOS Score / LOS	0.61	A	0.52	A	0.82	A	0.79	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_PM_NoBuild.xus		
Project Description	PM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	0	0	0	9	0	10	0	221	8	15	655	0

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

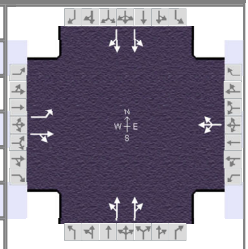
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		11.0		11.0		79.0		79.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s		0.0		0.0		0.0		0.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	0	0			0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0			0		0		0	0		0
Queue Service Time (g_s), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)	0.08				0.08				0.83	0.83		
Capacity (*c*), veh/h	80				182				1564	1602		
Volume-to-Capacity Ratio (*X*)	0.000	0.000			0.113		0.000		0.079	0.237		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	0.0	0.0			0.9		0.0		0.3	1.2		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	0.0				38.7				1.3	1.6		
Incremental Delay (d_2), s/veh	0.0	0.0			1.3		0.0		0.1	0.3		0.0
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	0.0				40.0				1.4	1.9		
Level of Service (LOS)					D				A	A		
Approach Delay, s/veh / LOS	0.0			40.0		D	1.4		A	1.9		A
Intersection Delay, s/veh / LOS	2.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.58	B	1.81	B
Bicycle LOS Score / LOS	0.49	A	0.52	A	0.69	A	1.09	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_PM_BuildGovtCtr.xus		
Project Description	PM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	98	3	32	9	2	10	9	264	8	15	701	87

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

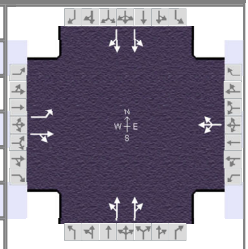
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		13.0		13.0		77.0		77.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s		0.0		0.0		0.0		0.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	0	0			0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln	0	0			0		0		0	0		0
Queue Service Time (g_s), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)	0.10	0.10			0.10		0.81		0.81	0.81		0.81
Capacity (*c*), veh/h	205	163			216		1482		1388	1565		1346
Volume-to-Capacity Ratio (*X*)	0.519	0.233			0.106		0.106		0.107	0.296		0.304
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	5.0	1.6			0.9		0.6		0.6	2.1		1.9
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	40.4	37.3			36.9		1.8		1.8	2.1		2.1
Incremental Delay (d_2), s/veh	9.1	3.3			1.0		0.1		0.2	0.5		0.6
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	49.5	40.6			37.9		1.9		1.9	2.6		2.7
Level of Service (LOS)	D	D			D		A		A	A		A
Approach Delay, s/veh / LOS	47.2	D		37.9	D		1.9	A		2.7	A	
Intersection Delay, s/veh / LOS	7.9						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.59	B	1.82	B
Bicycle LOS Score / LOS	0.73	A	0.53	A	0.74	A	1.21	A

HCS Signalized Intersection Results Summary

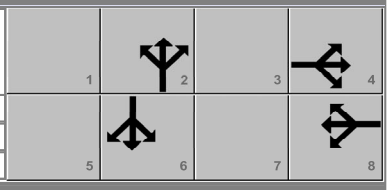
General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	St Anthony at Barrett	File Name	StAnthony_Barrett_PM_Build.xus		
Project Description	PM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	75	2	24	9	2	10	7	254	8	15	692	71

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	74.0	8.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	0.0	0.0	0.0	0.0	0.0	0.0	



Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		6.0		8.0		8.0		8.0
Phase Duration, s		12.0		12.0		78.0		78.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.1		3.1		0.0		0.0
Queue Clearance Time (g_s), s		8.1		3.1				
Green Extension Time (g_e), s		0.0		0.1		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		1.00		0.12				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h	82	28			23		152		141	448		398
Adjusted Saturation Flow Rate (*s*), veh/h/ln	1423	1629			1600		1810		1710	1878		1671
Queue Service Time (g_s), s	5.0	1.4			0.0		0.0		1.4	0.0		5.0
Cycle Queue Clearance Time (g_c), s	6.1	1.4			1.1		1.4		1.4	4.9		5.0
Green Ratio (*g/C*)	0.09	0.09			0.09		0.82		0.82	0.82		0.82
Capacity (*c*), veh/h	189	145			199		1530		1406	1585		1374
Volume-to-Capacity Ratio (*X*)	0.431	0.195			0.115		0.099		0.100	0.282		0.290
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)	3.8	1.2			0.9		0.5		0.5	1.7		1.6
Queue Storage Ratio (*RQ*) (95 th percentile)	0.00	0.00			0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh	40.7	38.0			37.8		1.5		1.5	1.9		1.9
Incremental Delay (d_2), s/veh	7.0	3.0			1.2		0.1		0.1	0.4		0.5
Initial Queue Delay (d_3), s/veh	0.0	0.0			0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh	47.7	41.0			39.0		1.7		1.7	2.3		2.4
Level of Service (LOS)	D	D			D		A		A	A		A
Approach Delay, s/veh / LOS	46.0	D		39.0	D		1.7	A		2.4	A	
Intersection Delay, s/veh / LOS	6.6						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.13	B	2.13	B	1.59	B	1.81	B
Bicycle LOS Score / LOS	0.67	A	0.53	A	0.73	A	1.19	A

HCS Two-Way Stop-Control Report

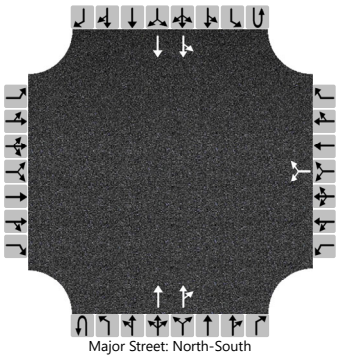
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM No Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume (veh/h)						10		10			324	40		17	200	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.86		6.96						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							18		
Capacity, c (veh/h)							598							1152		
v/c Ratio							0.04							0.02		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							11.2							8.2	0.1	
Level of Service (LOS)							B							A	A	
Approach Delay (s/veh)						11.2								0.8		
Approach LOS						B								A		

HCS Two-Way Stop-Control Report

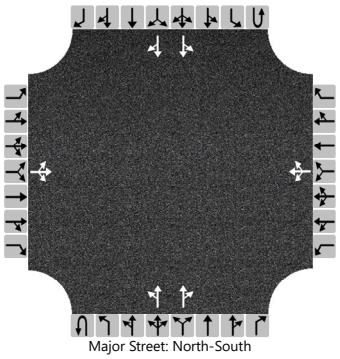
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume (veh/h)		50	8	24		10	3	10		45	346	40		17	213	58
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			89				25			49				18		
Capacity, c (veh/h)			420				415			1257				1129		
v/c Ratio			0.21				0.06			0.04				0.02		
95% Queue Length, Q_{95} (veh)			0.8				0.2			0.1				0.0		
Control Delay (s/veh)			15.9				14.2			8.0	0.3			8.2	0.1	
Level of Service (LOS)			C				B			A	A			A	A	
Approach Delay (s/veh)	15.9				14.2				1.1				0.6			
Approach LOS	C				B				A				A			

HCS Two-Way Stop-Control Report

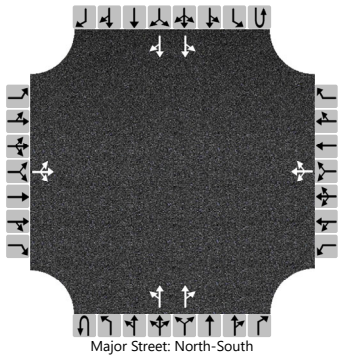
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume (veh/h)		29	5	14		10	2	10		25	337	40		17	208	32
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			52				24			27				18		
Capacity, c (veh/h)			473				472			1293				1138		
v/c Ratio			0.11				0.05			0.02				0.02		
95% Queue Length, Q_{95} (veh)			0.4				0.2			0.1				0.0		
Control Delay (s/veh)			13.6				13.0			7.8	0.2			8.2	0.1	
Level of Service (LOS)			B				B			A	A			A	A	
Approach Delay (s/veh)	13.6				13.0				0.6				0.6			
Approach LOS	B				B				A				A			

HCS Two-Way Stop-Control Report

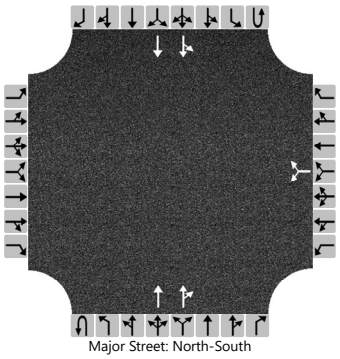
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM No Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	2	0	0	0	2	0
Configuration							LR				T	TR		LT	T	
Volume (veh/h)						41		9			220	20		10	654	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.5		6.9						4.1		
Critical Headway (sec)						6.86		6.96						4.16		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							54							11		
Capacity, c (veh/h)							453							1293		
v/c Ratio							0.12							0.01		
95% Queue Length, Q_{95} (veh)							0.4							0.0		
Control Delay (s/veh)							14.0							7.8	0.1	
Level of Service (LOS)							B							A	A	
Approach Delay (s/veh)						14.0								0.2		
Approach LOS						B								A		

HCS Two-Way Stop-Control Report

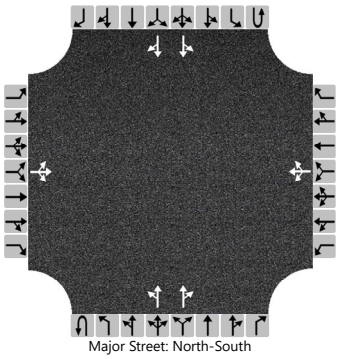
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume (veh/h)		43	3	57		41	4	9		20	229	20		10	686	46
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			112				59			22				11		
Capacity, c (veh/h)			310				300			815				1283		
v/c Ratio			0.36				0.20			0.03				0.01		
95% Queue Length, Q_{95} (veh)			1.6				0.7			0.1				0.0		
Control Delay (s/veh)			23.0				19.9			9.5	0.2			7.8	0.1	
Level of Service (LOS)			C				C			A	A			A	A	
Approach Delay (s/veh)		23.0				19.9				0.9				0.2		
Approach LOS		C				C				A				A		

HCS Two-Way Stop-Control Report

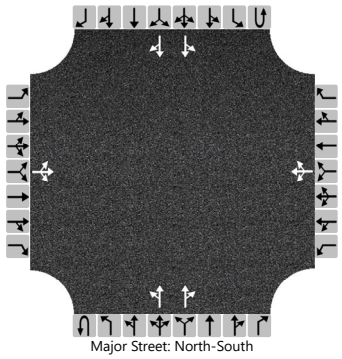
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Barrett
Jurisdiction	
East/West Street	Debarr
North/South Street	Barrett
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	2	0	0	0	2	0
Configuration			LTR				LTR			LT		TR		LT		TR
Volume (veh/h)		33	2	44		41	4	9		16	227	20		10	678	37
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3				3		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

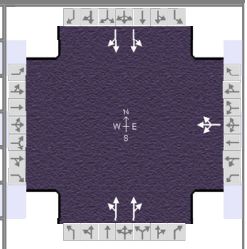
Base Critical Headway (sec)		7.5	6.5	6.9		7.5	6.5	6.9		4.1				4.1		
Critical Headway (sec)		7.56	6.56	6.96		7.56	6.56	6.96		4.16				4.16		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23				2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			86				59			17				11		
Capacity, c (veh/h)			323				319			829				1285		
v/c Ratio			0.27				0.18			0.02				0.01		
95% Queue Length, Q_{95} (veh)			1.0				0.7			0.1				0.0		
Control Delay (s/veh)			20.1				18.8			9.4	0.2			7.8	0.1	
Level of Service (LOS)			C				C			A	A			A	A	
Approach Delay (s/veh)	20.1				18.8				0.7				0.2			
Approach LOS	C				C				A				A			

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Streets1.xus		
Project Description	AM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				16	53	14	241	350	13	5	160	45

Signal Information													
Cycle, s	90.0	Reference Phase	2							1	2	3	4
Offset, s	0	Reference Point	End	Green	70.0	12.0	0.0	0.0	0.0	0.0	5	6	7	8
Uncoordinated	No	Simult. Gap E/W	On	Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Force Mode	Fixed	Simult. Gap N/S	On	Red	0.0	0.0	0.0	0.0	0.0	0.0				

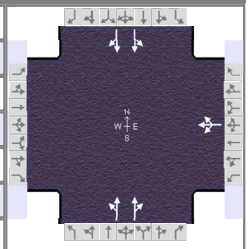
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				16.0		74.0		74.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				3.1		0.0		0.0
Queue Clearance Time (g_s), s				6.1				
Green Extension Time (g_e), s				0.1		0.0		0.0
Phase Call Probability				1.00				
Max Out Probability				0.02				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					90		290		367	121		107
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1827		1202		1717	1862		1598
Queue Service Time (g_s), s					4.1		6.2		5.4	0.0		1.4
Cycle Queue Clearance Time (g_c), s					4.1		7.7		5.4	1.4		1.4
Green Ratio (*g/C*)					0.13		0.78		0.78	0.78		0.78
Capacity (*c*), veh/h					244		1011		1336	1490		1243
Volume-to-Capacity Ratio (*X*)					0.370		0.287		0.275	0.081		0.086
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					3.7		2.2		2.4	0.6		0.6
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					35.6		3.2		2.8	2.4		2.4
Incremental Delay (d_2), s/veh					4.3		0.7		0.5	0.1		0.1
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					39.8		3.9		3.3	2.5		2.5
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			39.8		D	3.6		A	2.5		A
Intersection Delay, s/veh / LOS	6.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.31	A	1.31	A
Bicycle LOS Score / LOS			0.64	A	1.03	A	0.68	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Breckinridge_Barrett_AM_BuildGovtCtr.xus		
Project Description	AM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				16	59	20	289	411	13	8	194	45

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

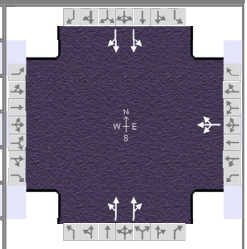
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				14.0		76.0		76.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				0.0		0.0		0.0
Queue Clearance Time (g_s), s				0.0		0.0		0.0
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				0.00		0.00		0.00
Max Out Probability				0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln					0		0		0	0		0
Queue Service Time (g_s), s					0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s					0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)					0.11		0.80		0.80	0.80		0.80
Capacity (*c*), veh/h					202		985		1375	1508		1293
Volume-to-Capacity Ratio (*X*)					0.512		0.334		0.324	0.094		0.098
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					4.7		2.4		2.5	0.6		0.6
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					37.7		3.0		2.4	1.9		2.0
Incremental Delay (d_2), s/veh					9.0		0.9		0.6	0.1		0.2
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					46.7		3.9		3.1	2.1		2.1
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			46.7		D	3.4		A	2.1		A
Intersection Delay, s/veh / LOS	7.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.30	A	1.30	A
Bicycle LOS Score / LOS			0.66	A	1.13	A	0.71	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Breckinridge_Barrett_AM_Nuild.xus		
Project Description	AM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				16	57	18	268	384	13	7	180	45

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

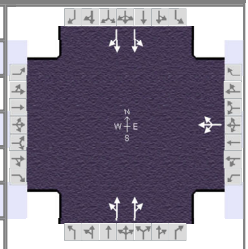
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				16.0		74.0		74.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				0.0		0.0		0.0
Queue Clearance Time (g_s), s				0.0		0.0		0.0
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				0.00		0.00		0.00
Max Out Probability				0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln					0		0		0	0		0
Queue Service Time (g_s), s					0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s					0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)					0.13		0.78		0.78	0.78		0.78
Capacity (*c*), veh/h					243		977		1337	1475		1252
Volume-to-Capacity Ratio (*X*)					0.408		0.319		0.307	0.090		0.095
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					4.1		2.6		2.8	0.7		0.7
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					35.7		3.5		2.9	2.4		2.4
Incremental Delay (d_2), s/veh					5.0		0.9		0.6	0.1		0.2
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					40.8		4.4		3.5	2.5		2.6
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			40.8		D	3.9		A	2.5		A
Intersection Delay, s/veh / LOS	7.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.31	A	1.31	A
Bicycle LOS Score / LOS			0.65	A	1.08	A	0.70	A

HCS Signalized Intersection Results Summary

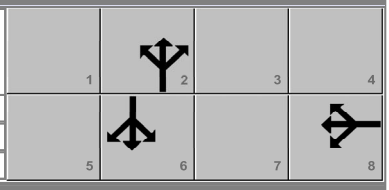
General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Breckinridge_Barrett_PM_NoBuild.xus		
Project Description	PM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				22	36	3	121	237	11	8	606	81

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

Green	74.0	8.0	0.0	0.0	0.0	0.0	
Yellow	4.0	4.0	0.0	0.0	0.0	0.0	
Red	0.0	0.0	0.0	0.0	0.0	0.0	



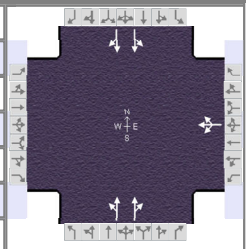
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.0		78.0		78.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				3.1		0.0		0.0
Queue Clearance Time (g_s), s				5.0				
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				1.00				
Max Out Probability				1.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					66		153		248	403		353
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1850		755		1714	1891		1655
Queue Service Time (g_s), s					3.0		3.9		2.7	0.0		4.3
Cycle Queue Clearance Time (g_c), s					3.0		8.2		2.7	4.3		4.3
Green Ratio (*g/C*)					0.09		0.82		0.82	0.82		0.82
Capacity (*c*), veh/h					164		696		1409	1596		1361
Volume-to-Capacity Ratio (*X*)					0.403		0.220		0.176	0.252		0.259
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					3.0		1.0		0.9	1.5		1.4
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					38.7		2.5		1.7	1.8		1.8
Incremental Delay (d_2), s/veh					7.2		0.7		0.3	0.4		0.5
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					45.9		3.2		1.9	2.2		2.3
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			45.9		D	2.4		A	2.2		A
Intersection Delay, s/veh / LOS	4.7						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.29	A	1.29	A
Bicycle LOS Score / LOS			0.60	A	0.82	A	1.11	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Breckinridge_Barrett_PM_BuildGovtCtr.xus		
Project Description	PM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				22	40	7	138	259	11	11	692	81

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

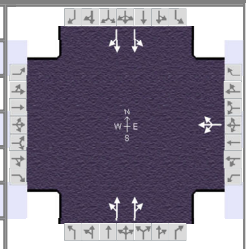
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.0		78.0		78.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				0.0		0.0		0.0
Queue Clearance Time (g_s), s				0.0		0.0		0.0
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				0.00		0.00		0.00
Max Out Probability				0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln					0		0		0	0		0
Queue Service Time (g_s), s					0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s					0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)					0.09		0.82		0.82	0.82		0.82
Capacity (*c*), veh/h					163		598		1411	1592		1367
Volume-to-Capacity Ratio (*X*)					0.459		0.257		0.205	0.284		0.292
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					3.5		1.3		1.1	1.8		1.6
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					38.9		3.1		1.7	1.9		1.9
Incremental Delay (d_2), s/veh					9.0		1.0		0.3	0.4		0.5
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					48.0		4.2		2.0	2.3		2.4
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			48.0		D	2.8		A	2.4		A
Intersection Delay, s/veh / LOS	5.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.29	A	1.29	A
Bicycle LOS Score / LOS			0.61	A	0.85	A	1.19	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Barrett at Breckinridge	File Name	Breckinridge_Barrett_PM_Build.xus		
Project Description	PM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h				22	40	7	135	255	11	10	672	81

Signal Information			
Cycle, s	90.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	74.0	8.0	0.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	0.0	0.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

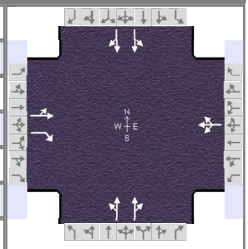
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase				8		2		6
Case Number				12.0		8.0		8.0
Phase Duration, s				12.0		78.0		78.0
Change Period, ($Y+R_c$), s				4.0		4.0		4.0
Max Allow Headway (*MAH*), s				3.1		0.0		0.0
Queue Clearance Time (g_s), s				5.5				
Green Extension Time (g_e), s				0.0		0.0		0.0
Phase Call Probability				1.00				
Max Out Probability				1.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement				3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h					75		154		282	441		388
Adjusted Saturation Flow Rate (*s*), veh/h/ln					1837		657		1716	1888		1661
Queue Service Time (g_s), s					3.5		5.5		3.1	0.0		4.9
Cycle Queue Clearance Time (g_c), s					3.5		10.4		3.1	4.8		4.9
Green Ratio (*g/C*)					0.09		0.82		0.82	0.82		0.82
Capacity (*c*), veh/h					163		618		1411	1594		1366
Volume-to-Capacity Ratio (*X*)					0.459		0.250		0.200	0.277		0.284
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)					3.5		1.2		1.0	1.7		1.6
Queue Storage Ratio (*RQ*) (95 th percentile)					0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh					38.9		3.0		1.7	1.9		1.9
Incremental Delay (d_2), s/veh					9.0		1.0		0.3	0.4		0.5
Initial Queue Delay (d_3), s/veh					0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh					48.0		3.9		2.0	2.3		2.4
Level of Service (LOS)					D		A		A	A		A
Approach Delay, s/veh / LOS	0.0			48.0		D	2.7		A	2.3		A
Intersection Delay, s/veh / LOS	5.0						A					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.14	B	1.29	A	1.29	A
Bicycle LOS Score / LOS			0.61	A	0.85	A	1.17	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_AM_NoBuild.xus		
Project Description	AM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	35	6	48	7	0	17	0	563	12	1	213	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	88.0	9.0	11.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

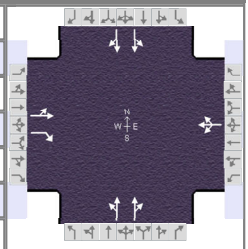
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		13.0		15.0		92.0		92.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.2		3.3		0.0		0.0
Queue Clearance Time (g_s), s		5.7		3.7				
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.96		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		45	52		26		0		311	122		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1822	1610		1664		0		1886	1896		0
Queue Service Time (g_s), s		2.8	3.7		1.7		0.0		6.3	0.0		0.0
Cycle Queue Clearance Time (g_c), s		2.8	3.7		1.7		0.0		6.3	2.2		0.0
Green Ratio (*g/C*)		0.08	0.08		0.09				0.73	0.73		
Capacity (*c*), veh/h		137	121		152				1383	1421		
Volume-to-Capacity Ratio (*X*)		0.326	0.432		0.171		0.000		0.225	0.086		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		2.7	3.3		1.5		0.0		4.1	1.4		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		52.6	53.1		50.3				5.1	4.6		
Incremental Delay (d_2), s/veh		6.2	10.9		2.4		0.0		0.4	0.1		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		58.9	63.9		52.7				5.5	4.7		
Level of Service (LOS)		E	E		D				A	A		
Approach Delay, s/veh / LOS	61.6	E		52.7	D		5.5	A		4.7	A	
Intersection Delay, s/veh / LOS	12.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.15	B	1.63	B	1.86	B
Bicycle LOS Score / LOS	0.65	A	0.53	A	1.00	A	0.68	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_AM_BuildGovtCtr.xus		
Project Description	AM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	67	6	48	7	0	49	0	608	12	1	247	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

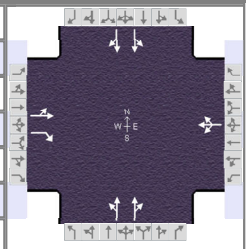
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		14.0		14.0		92.0		92.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s		0.0		0.0		0.0		0.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		0	0		0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		0	0		0		0		0	0		0
Queue Service Time (g_s), s		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)		0.08	0.08		0.08				0.73	0.73		
Capacity (*c*), veh/h		151	134		136				1384	1421		
Volume-to-Capacity Ratio (*X*)		0.524	0.389		0.447		0.000		0.243	0.099		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		5.0	3.2		3.8		0.0		4.5	1.7		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		52.7	52.1		52.4				5.2	4.6		
Incremental Delay (d_2), s/veh		12.4	8.3		10.3		0.0		0.4	0.1		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		65.1	60.4		62.7				5.6	4.7		
Level of Service (LOS)		E	E		E				A	A		
Approach Delay, s/veh / LOS	63.2	E		62.7	E		5.6	A		4.8	A	
Intersection Delay, s/veh / LOS	15.1						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.15	B	2.15	B	1.63	B	1.86	B
Bicycle LOS Score / LOS	0.70	A	0.59	A	1.04	A	0.71	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_AM_Build.xus		
Project Description	AM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	53	6	48	7	0	35	0	588	12	1	233	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	88.0	9.0	11.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

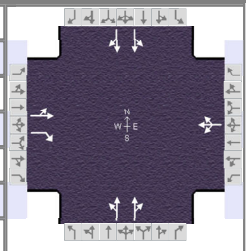
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		13.0		15.0		92.0		92.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.2		3.3		0.0		0.0
Queue Clearance Time (g_s), s		6.1		5.1				
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		1.00		0.02				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		64	52		46		0		325	133		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1818	1610		1640		0		1886	1896		0
Queue Service Time (g_s), s		4.1	3.7		3.1		0.0		6.7	0.0		0.0
Cycle Queue Clearance Time (g_c), s		4.1	3.7		3.1		0.0		6.7	2.4		0.0
Green Ratio (*g/C*)		0.08	0.08		0.09				0.73	0.73		
Capacity (*c*), veh/h		136	121		150				1383	1421		
Volume-to-Capacity Ratio (*X*)		0.470	0.432		0.304		0.000		0.235	0.094		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		4.1	3.3		2.7		0.0		4.4	1.6		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		53.2	53.1		50.9				5.2	4.6		
Incremental Delay (d_2), s/veh		11.2	10.9		5.1		0.0		0.4	0.1		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		64.4	63.9		56.1				5.6	4.7		
Level of Service (LOS)		E	E		E				A	A		
Approach Delay, s/veh / LOS	64.2	E		56.1	E		5.6	A		4.7	A	
Intersection Delay, s/veh / LOS	13.9						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.15	B	1.63	B	1.86	B
Bicycle LOS Score / LOS	0.68	A	0.56	A	1.03	A	0.70	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_PM_NoBuild.xus		
Project Description	PM No Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	40	8	121	2	0	19	0	346	14	22	607	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

								1	2	3	4	
Green	0.0	0.0	0.0	0.0	0.0	0.0						
Yellow	0.0	0.0	0.0	0.0	0.0	0.0		5	6	7	8	
Red	0.0	0.0	0.0	0.0	0.0	0.0						

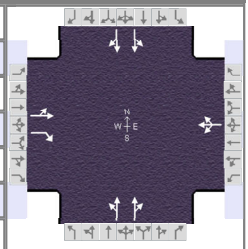
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		23.0		23.0		74.0		74.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		0.0		0.0		0.0		0.0
Queue Clearance Time (g_s), s		0.0		0.0		0.0		0.0
Green Extension Time (g_e), s		0.0		0.0		0.0		0.0
Phase Call Probability		0.00		0.00		0.00		0.00
Max Out Probability		0.00		0.00		0.00		0.00

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		0	0		0		0		0	0		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		0	0		0		0		0	0		0
Queue Service Time (g_s), s		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Cycle Queue Clearance Time (g_c), s		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Green Ratio (*g/C*)		0.16	0.16		0.16				0.58	0.58		
Capacity (*c*), veh/h		288	255		256				1094	1100		
Volume-to-Capacity Ratio (*X*)		0.249	0.516		0.165		0.000		0.190	0.331		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		3.6	7.4		2.1		0.0		4.8	8.8		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		44.2	46.3		43.6				11.7	12.9		
Incremental Delay (d_2), s/veh		2.1	7.3		1.4		0.0		0.4	0.8		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		46.3	53.6		45.0				12.1	13.7		
Level of Service (LOS)		D	D		D				B	B		
Approach Delay, s/veh / LOS	51.0	D		45.0	D		12.1	B		13.8	B	
Intersection Delay, s/veh / LOS	19.8						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.15	B	1.67	B	1.89	B
Bicycle LOS Score / LOS	0.82	A	0.56	A	0.83	A	1.07	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_PM_BuildGovtCtr.xus		
Project Description	PM Build (Govt Ctr)				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	51	8	121	2	0	30	0	363	14	22	693	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	70.0	19.0	19.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

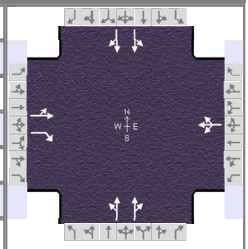
Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		23.0		23.0		74.0		74.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.3		3.4		0.0		0.0
Queue Clearance Time (g_s), s		11.0		4.2				
Green Extension Time (g_e), s		0.2		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.01		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		64	132		35		0		204	401		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1821	1610		1621		0		1875	1841		0
Queue Service Time (g_s), s		3.7	9.0		2.2		0.0		6.1	0.0		0.0
Cycle Queue Clearance Time (g_c), s		3.7	9.0		2.2		0.0		6.1	13.4		0.0
Green Ratio (*g/C*)		0.16	0.16		0.16				0.58	0.58		
Capacity (*c*), veh/h		288	255		257				1094	1106		
Volume-to-Capacity Ratio (*X*)		0.222	0.516		0.135		0.000		0.187	0.363		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		3.2	7.4		1.7		0.0		4.6	9.7		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		44.1	46.3		43.4				11.7	13.2		
Incremental Delay (d_2), s/veh		1.8	7.3		1.1		0.0		0.4	0.9		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		45.8	53.6		44.5				12.1	14.1		
Level of Service (LOS)		D	D		D				B	B		
Approach Delay, s/veh / LOS	51.0	D		44.5	D		12.1	B		14.2	B	
Intersection Delay, s/veh / LOS	19.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.15	B	1.67	B	1.89	B
Bicycle LOS Score / LOS	0.81	A	0.54	A	0.83	A	1.13	A

HCS Signalized Intersection Results Summary

General Information				Intersection Information	
Agency				Duration, h	0.250
Analyst		Analysis Date	12/7/2022	Area Type	Other
Jurisdiction		Time Period		PHF	0.92
Urban Street	Barrett	Analysis Year	2022	Analysis Period	1> 7:00
Intersection	Kentucky at Barrett	File Name	Kentucky_Barrett_PM_Build.xus		
Project Description	PM Build				



Demand Information	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Demand (*v*), veh/h	49	8	121	2	0	28	0	360	14	22	673	0

Signal Information			
Cycle, s	120.0	Reference Phase	2
Offset, s	0	Reference Point	End
Uncoordinated	No	Simult. Gap E/W	On
Force Mode	Fixed	Simult. Gap N/S	On

							1	2	3	4
Green	70.0	19.0	19.0	0.0	0.0	0.0	5	6	7	8
Yellow	4.0	4.0	4.0	0.0	0.0	0.0				
Red	0.0	0.0	0.0	0.0	0.0	0.0				

Timer Results	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Assigned Phase		4		8		2		6
Case Number		11.0		12.0		8.0		8.0
Phase Duration, s		23.0		23.0		74.0		74.0
Change Period, ($Y+R_c$), s		4.0		4.0		4.0		4.0
Max Allow Headway (*MAH*), s		3.3		3.4		0.0		0.0
Queue Clearance Time (g_s), s		11.0		4.1				
Green Extension Time (g_e), s		0.2		0.0		0.0		0.0
Phase Call Probability		1.00		1.00				
Max Out Probability		0.01		0.00				

Movement Group Results	EB			WB			NB			SB		
Approach Movement	L	T	R	L	T	R	L	T	R	L	T	R
Assigned Movement	7	4	14	3	8	18	5	2	12	1	6	16
Adjusted Flow Rate (*v*), veh/h		62	132		33		0		202	390		0
Adjusted Saturation Flow Rate (*s*), veh/h/ln		1822	1610		1622		0		1875	1839		0
Queue Service Time (g_s), s		3.6	9.0		2.1		0.0		6.1	0.0		0.0
Cycle Queue Clearance Time (g_c), s		3.6	9.0		2.1		0.0		6.1	12.9		0.0
Green Ratio (*g/C*)		0.16	0.16		0.16				0.58	0.58		
Capacity (*c*), veh/h		288	255		257				1094	1104		
Volume-to-Capacity Ratio (*X*)		0.215	0.516		0.127		0.000		0.185	0.353		0.000
Back of Queue (*Q*), ft/ln (95 th percentile)												
Back of Queue (*Q*), veh/ln (95 th percentile)		3.1	7.4		1.6		0.0		4.6	9.4		0.0
Queue Storage Ratio (*RQ*) (95 th percentile)		0.00	0.00		0.00		0.00		0.00	0.00		0.00
Uniform Delay (d_1), s/veh		44.0	46.3		43.4				11.7	13.1		
Incremental Delay (d_2), s/veh		1.7	7.3		1.0		0.0		0.4	0.9		0.0
Initial Queue Delay (d_3), s/veh		0.0	0.0		0.0		0.0		0.0	0.0		0.0
Control Delay (*d*), s/veh		45.7	53.6		44.4				12.1	14.0		
Level of Service (LOS)		D	D		D				B	B		
Approach Delay, s/veh / LOS	51.0	D		44.4	D		12.0	B		14.1	B	
Intersection Delay, s/veh / LOS	19.4						B					

Multimodal Results	EB		WB		NB		SB	
Pedestrian LOS Score / LOS	2.14	B	2.15	B	1.67	B	1.89	B
Bicycle LOS Score / LOS	0.81	A	0.54	A	0.82	A	1.11	A

HCS Two-Way Stop-Control Report

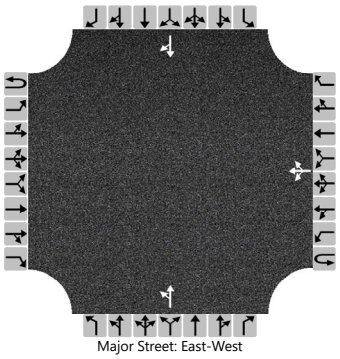
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM No Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						5	336	6		19	3				7	3
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				24						11
Capacity, c (veh/h)						1151				560						581
v/c Ratio						0.00				0.04						0.02
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.1
Control Delay (s/veh)						8.1	0.0	0.0		11.7						11.3
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.2				11.7				11.3			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

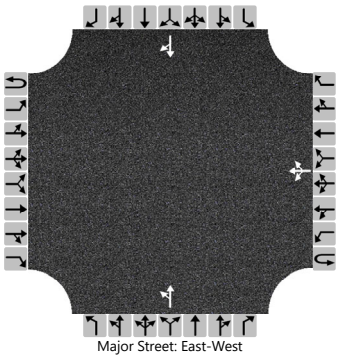
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						5	336	60		19	3				10	58
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				24						74
Capacity, c (veh/h)						1151				505						628
v/c Ratio						0.00				0.05						0.12
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.4
Control Delay (s/veh)						8.1	0.1	0.1		12.5						11.5
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.2				12.5				11.5			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

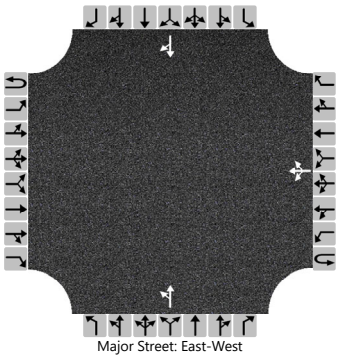
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						5	336	37		19	3				9	35
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						5				24						48
Capacity, c (veh/h)						1151				528						630
v/c Ratio						0.00				0.05						0.08
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.2
Control Delay (s/veh)						8.1	0.0	0.0		12.1						11.2
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.2				12.1				11.2			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

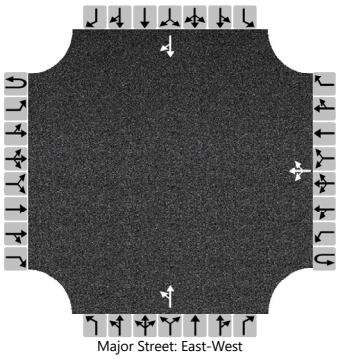
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM No Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						8	206	13		12	4				18	2
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						9				17						22
Capacity, c (veh/h)						1151				664						660
v/c Ratio						0.01				0.03						0.03
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.1
Control Delay (s/veh)						8.2	0.1	0.1		10.6						10.6
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.4				10.6				10.6			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

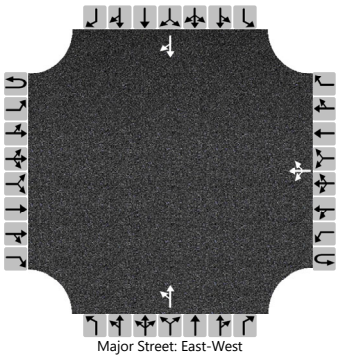
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						8	206	30		12	4				21	34
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						9				17						60
Capacity, c (veh/h)						1151				634						728
v/c Ratio						0.01				0.03						0.08
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.3
Control Delay (s/veh)						8.2	0.1	0.1		10.8						10.4
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.3				10.8				10.4			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

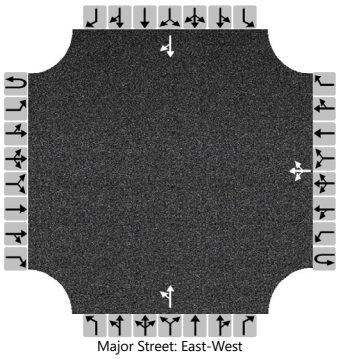
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Vine at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	0	1	0		0	1	0		0	1	0
Configuration							LTR			LT						TR
Volume (veh/h)						8	206	27		12	4				20	26
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						9				17						50
Capacity, c (veh/h)						1151				641						721
v/c Ratio						0.01				0.03						0.07
95% Queue Length, Q_{95} (veh)						0.0				0.1						0.2
Control Delay (s/veh)						8.2	0.1	0.1		10.8						10.4
Level of Service (LOS)						A	A	A		B						B
Approach Delay (s/veh)					0.3				10.8				10.4			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

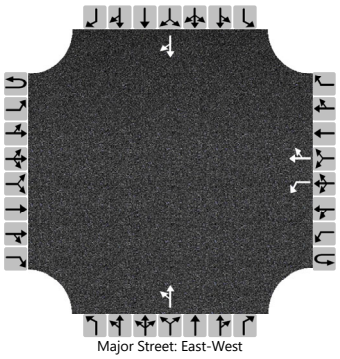
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM No Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Swan at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Swan
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						6	381	3		24	7				2	7
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						7				34						10
Capacity, c (veh/h)						1151				521						603
v/c Ratio						0.01				0.06						0.02
95% Queue Length, Q_{95} (veh)						0.0				0.2						0.0
Control Delay (s/veh)						8.1				12.4						11.1
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)						0.1				12.4				11.1		
Approach LOS						A				B				B		

HCS Two-Way Stop-Control Report

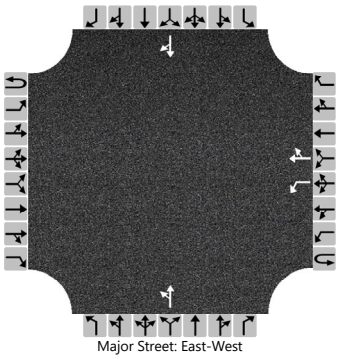
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Swan at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Swan
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						9	434	3		24	7				2	7
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						10				34						10
Capacity, c (veh/h)						1151				472						558
v/c Ratio						0.01				0.07						0.02
95% Queue Length, Q_{95} (veh)						0.0				0.2						0.1
Control Delay (s/veh)						8.2				13.2						11.6
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)					0.2				13.2				11.6			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

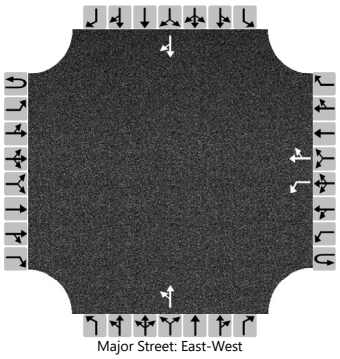
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Swan at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Swan
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						8	411	3		24	7				2	7
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

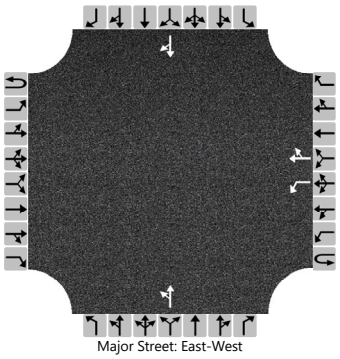
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						9				34						10
Capacity, c (veh/h)						1151				492						577
v/c Ratio						0.01				0.07						0.02
95% Queue Length, Q_{95} (veh)						0.0				0.2						0.1
Control Delay (s/veh)						8.2				12.9						11.3
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)					0.2				12.9				11.3			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

General Information		Site Information	
Analyst	AJK	Intersection	Swan at Breckinridge
Agency/Co.	AKE	Jurisdiction	
Date Performed	12/9/2022	East/West Street	Breckinridge
Analysis Year	2022	North/South Street	Swan
Time Analyzed	PM No Build	Peak Hour Factor	0.92
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Paristown Heights		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						19	220	7		22	9				16	19
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						21				34						38
Capacity, c (veh/h)						1151				613						699
v/c Ratio						0.02				0.05						0.05
95% Queue Length, Q_{95} (veh)						0.1				0.2						0.2
Control Delay (s/veh)						8.2				11.2						10.4
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)					0.6				11.2				10.4			
Approach LOS					A				B				B			

HCS Two-Way Stop-Control Report

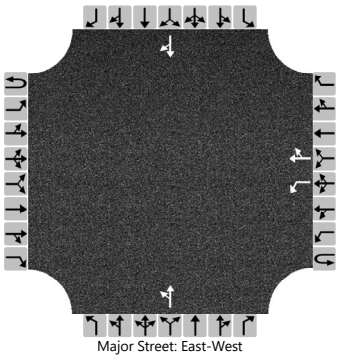
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Swan at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Swan
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						22	249	7		22	9				16	19
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						24				34						38
Capacity, c (veh/h)						1151				577						667
v/c Ratio						0.02				0.06						0.06
95% Queue Length, Q_{95} (veh)						0.1				0.2						0.2
Control Delay (s/veh)						8.2				11.6						10.7
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)						0.6				11.6				10.7		
Approach LOS						A				B				B		

HCS Two-Way Stop-Control Report

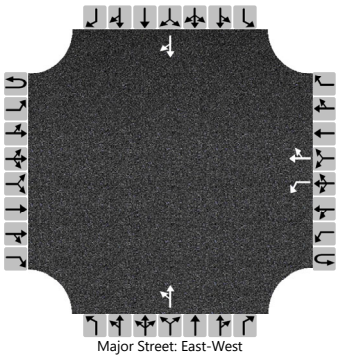
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	East-West
Project Description	Paristown Heights

Site Information

Intersection	Swan at Breckinridge
Jurisdiction	
East/West Street	Breckinridge
North/South Street	Swan
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: East-West

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	0	0	0	1	1	0		0	1	0		0	1	0
Configuration						L		TR		LT						TR
Volume (veh/h)						21	242	7		22	9				16	19
Percent Heavy Vehicles (%)						3				3	3				3	3
Proportion Time Blocked																
Percent Grade (%)										0				0		
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						5.3				7.1	6.5				6.5	6.2
Critical Headway (sec)						5.33				7.13	6.53				6.53	6.23
Base Follow-Up Headway (sec)						3.1				3.5	4.0				4.0	3.3
Follow-Up Headway (sec)						3.13				3.53	4.03				4.03	3.33

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						23				34						38
Capacity, c (veh/h)						1151				587						675
v/c Ratio						0.02				0.06						0.06
95% Queue Length, Q_{95} (veh)						0.1				0.2						0.2
Control Delay (s/veh)						8.2				11.5						10.7
Level of Service (LOS)						A				B						B
Approach Delay (s/veh)						0.6				11.5				10.7		
Approach LOS						A				B				B		

HCS Two-Way Stop-Control Report

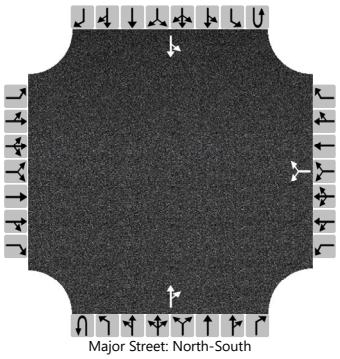
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	St Anthony at Vine
Jurisdiction	
East/West Street	St. Anthony
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						26		8			14	16		10	16	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							37							11		
Capacity, c (veh/h)							959							1573		
v/c Ratio							0.04							0.01		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							8.9							7.3	0.1	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.9								2.8		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

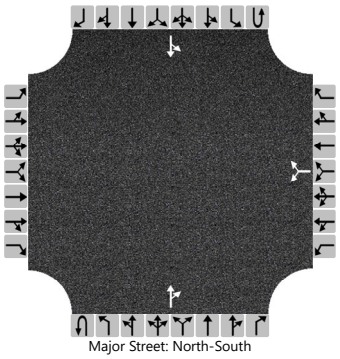
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	St Anthony at Vine
Jurisdiction	
East/West Street	St. Anthony
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						15		5			12	9		5	14	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							5		
Capacity, c (veh/h)							983							1586		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							8.7							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.7								1.9		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

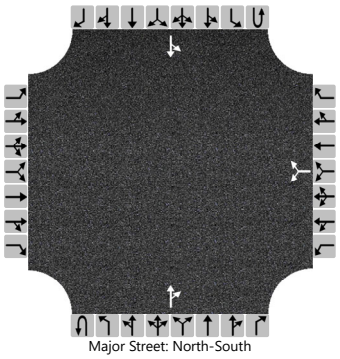
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	St Anthony at Vine
Jurisdiction	
East/West Street	St. Anthony
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						17		9			26	4		22	24	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							28							24		
Capacity, c (veh/h)							928							1573		
v/c Ratio							0.03							0.02		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.0							7.3	0.1	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						9.0								3.6		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

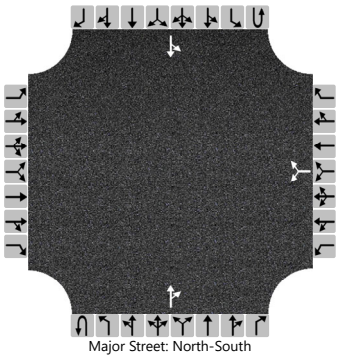
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	St Anthony at Vine
Jurisdiction	
East/West Street	St. Anthony
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						15		5			12	9		5	14	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							5		
Capacity, c (veh/h)							983							1586		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							8.7							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.7								1.9		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

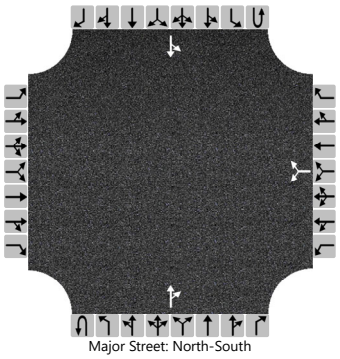
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Vine
Jurisdiction	
East/West Street	Debarr
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						29		5			25	38		6	36	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							37							7		
Capacity, c (veh/h)							909							1526		
v/c Ratio							0.04							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.1							7.4	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						9.1								1.1		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

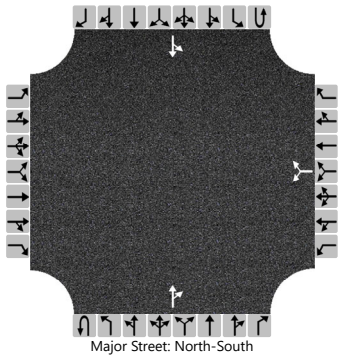
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	AM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Vine
Jurisdiction	
East/West Street	Debarr
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						17		3			18	22		4	25	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage						Undivided										

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							4		
Capacity, c (veh/h)							947							1559		
v/c Ratio							0.02							0.00		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							8.9							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.9								1.0		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

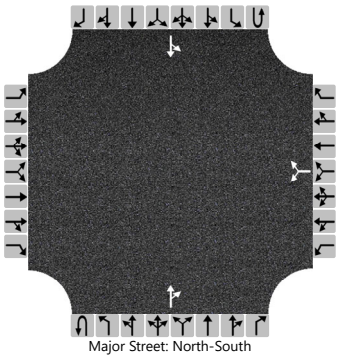
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build (Govt Ctr)
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Vine
Jurisdiction	
East/West Street	Debarr
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						17		9			28	13		11	37	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							28							12		
Capacity, c (veh/h)							933							1557		
v/c Ratio							0.03							0.01		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							9.0							7.3	0.1	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						9.0								1.7		
Approach LOS						A								A		

HCS Two-Way Stop-Control Report

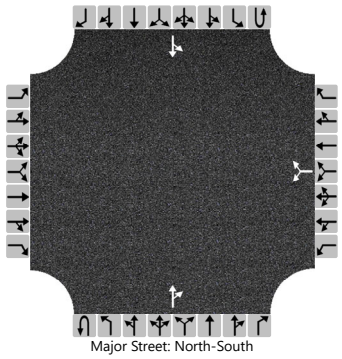
General Information

Analyst	AJK
Agency/Co.	AKE
Date Performed	12/9/2022
Analysis Year	2022
Time Analyzed	PM Build
Intersection Orientation	North-South
Project Description	Paristown Heights

Site Information

Intersection	Debarr at Vine
Jurisdiction	
East/West Street	Debarr
North/South Street	Vine
Peak Hour Factor	0.92
Analysis Time Period (hrs)	0.25

Lanes


Major Street: North-South

Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	0	0		0	1	0	0	0	1	0	0	0	1	0
Configuration							LR					TR		LT		
Volume (veh/h)						13		7			26	11		9	33	
Percent Heavy Vehicles (%)						3		3						3		
Proportion Time Blocked																
Percent Grade (%)						0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)						7.1		6.2						4.1		
Critical Headway (sec)						6.43		6.23						4.13		
Base Follow-Up Headway (sec)						3.5		3.3						2.2		
Follow-Up Headway (sec)						3.53		3.33						2.23		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)							22							10		
Capacity, c (veh/h)							945							1563		
v/c Ratio							0.02							0.01		
95% Queue Length, Q_{95} (veh)							0.1							0.0		
Control Delay (s/veh)							8.9							7.3	0.0	
Level of Service (LOS)							A							A	A	
Approach Delay (s/veh)						8.9								1.6		
Approach LOS						A								A		