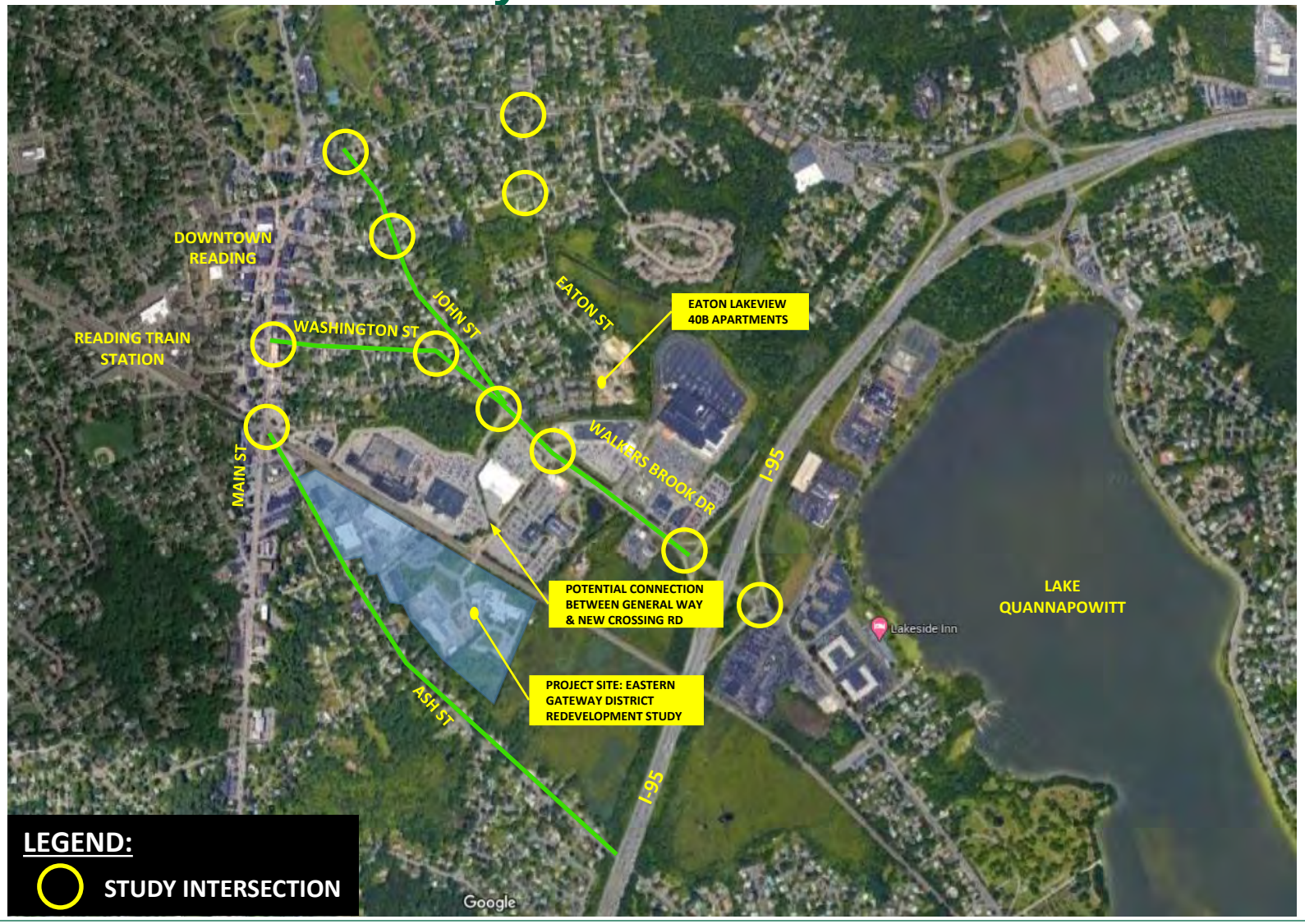
Walkers Brook Drive
Comprehensive Corridor Analysis and Improvements
Final Deliverable

March 9, 2021

Project History

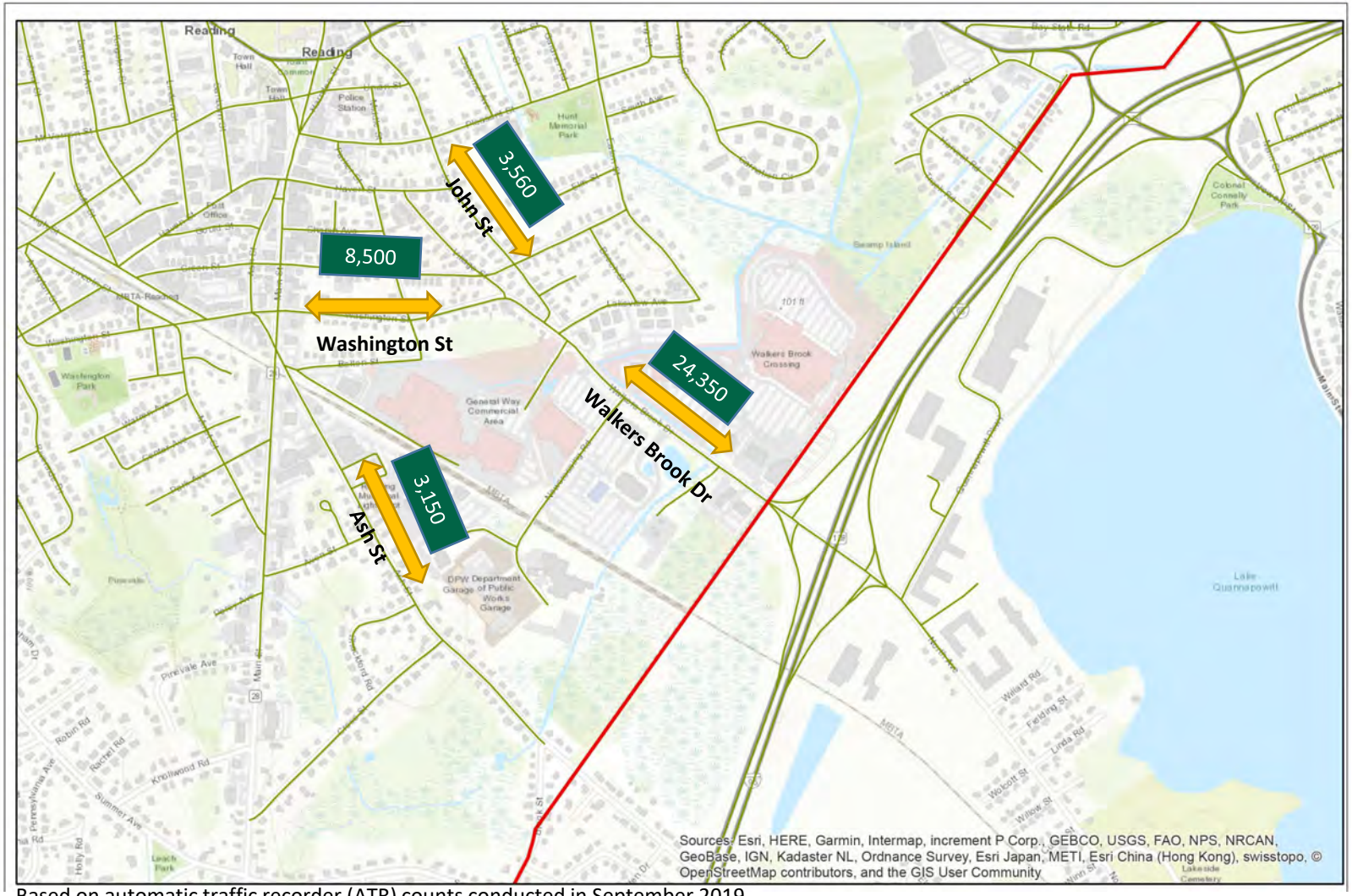
- In the Summer of 2018, Green International Affiliates, Inc. (Green) performed peer review of the Traffic Impact and Access Study (TIAS) and site plans for the Eaton Lakeview Apartments
- Peer review recommended further studies and mitigation at the Lakeview Avenue and Walkers Brook Drive intersection
- The community indicated that they would prefer a more holistic study approach to take for the surrounding area
- Green worked closely with the Town staff to develop a scope of work to perform a Comprehensive Corridor Analysis & Conceptual Redesign
- Project Meetings:
  - Meetings with Town Staff (3 total)
  - 2019 Economic Development Summit
  - 2020 Public Meeting with Eaton St, Lakeview Ave and John St residents
  - 2021 Board of Selectmen Meeting

Study Area Overview



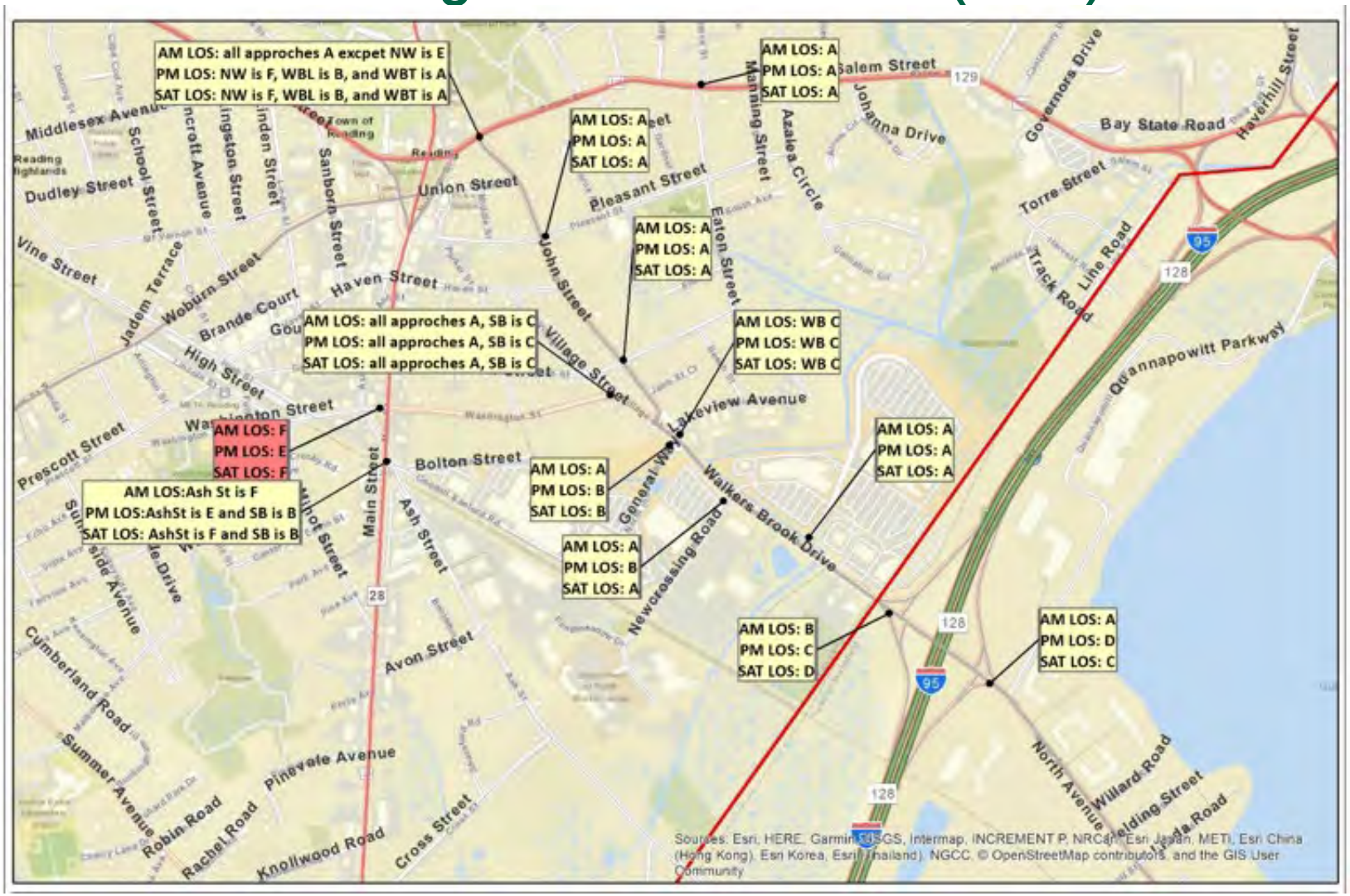
Data Collection / Analysis Results Summary

Average Daily Traffic (ADT) – Veh. / Day



Based on automatic traffic recorder (ATR) counts conducted in September 2019

Existing Level of Service (LOS)



Traffic Volume Forecasting Procedure

- Review of historical traffic count trends
- Establish annual background growth rate based on historical traffic count trends
  - 0.5% per year for 20 years
- Development projects considered for additional trips added to network
  - Eaton Lakeview 40B Residential Apartments Reading, MA
  - 20-24 Gould Street 40R – Residential Apartments & Commercial Reading, MA
  - 258-262 Main Street Office/Retail Development Reading, MA
  - 467 Main Street 40R – Residential Apartments & Commercial Reading, MA
  - 40B Residential Development, Tarrant Lane Wakefield, MA
  - Potential Comverse Technologies Redevelopment, 200 Quannapowitt Pkwy Wakefield, MA
  - Analog Devices, 804 Woburn Street Wilmington, MA
  - Mixed-Use Development, 203 Lowell Street Wilmington, MA
  - Yentile Farm Recreational Facility, 9 Cross Street Wilmington, MA

Vehicle Crash Summary

Ped. / Bike Crash Summary

Walkers Brook Drive – Conceptual Redesign Alternatives

Existing Deficiencies

Deficiencies

- No bicycle accommodations
- Narrow shoulders force bicyclists to ride in travel lane with heavy vehicular volumes
- Lack of connectivity for alternative modes of transportation from Downtown Reading to Lake Quannapowitt
- Lack of ADA-compliance
- Outdated pedestrian and bicycle signal equipment
- Utility poles in middle of sidewalk on south side between General Way and New Crossing Rd
- Lack of visual aesthetics along the main gateway from a major regional highway (I-95) into Downtown Reading
- No dedicated left-turn lanes at key signalized intersections
- No pedestrian crossing across Walkers Brook west leg at intersection with New Crossing Rd

Alternative 1 – Road Diet

Advantages

- Improved bicycle safety
- Increased pedestrian safety relative to Alt. 2
- Improved connectivity from Walkers Brook corridor to Downtown Reading
- Potential reduction in vehicle trips
- Healthier transportation choices
- No anticipated Right-of-Way (ROW) takings or permanent easements
- Bicycles continuing to travel westbound on Washington St will not need to cross Walkers Brook Dr.
- Lower cost relative to Alt. 2

Disadvantages

- Less efficient vehicular traffic flow
- Likely increase in traffic congestion

Road Diet Examples

Alternative 2 – Shared-Use Path

Alternative 2: Shared Use Path

2 Walkers Brook WB between New Crossing Road and Home Depot Drivway

4 Walkers Brook EB just east of the General Way

5 Walkers Brook WB, at John St, General Way

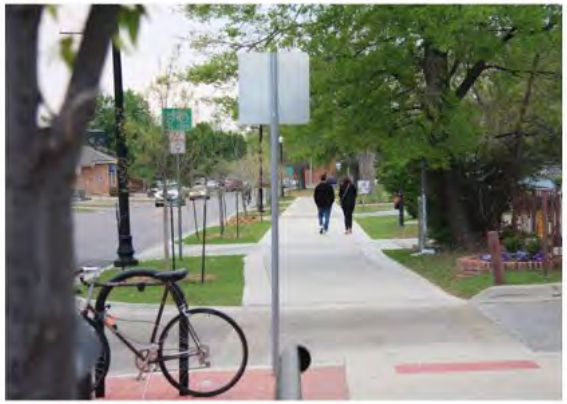
Advantages

- Improved bicycle safety
- Improved connectivity from Walkers Brook corridor to Downtown Reading
- Efficient vehicular traffic flow
- Efficient intersection operations
- Streetscaping opportunities
- Potential reduction in vehicle trips
- Healthier transportation choices
- Opportunity to relocate existing overhead utilities underground

Disadvantages

- Potential decrease in pedestrian and bicycle safety relative to Alt. 1
- Requires the relocation of approximately eight (8) utility poles
- Bicycles continuing to travel from the shared-use path along the south side of Walkers Brook Dr. westbound onto Washington St. will need to cross
- Can not provide the minimum separation (5 feet) between edge of shoulder and the shared-use path
- Right-of-Way (ROW) takings and/or permanent easements will be needed

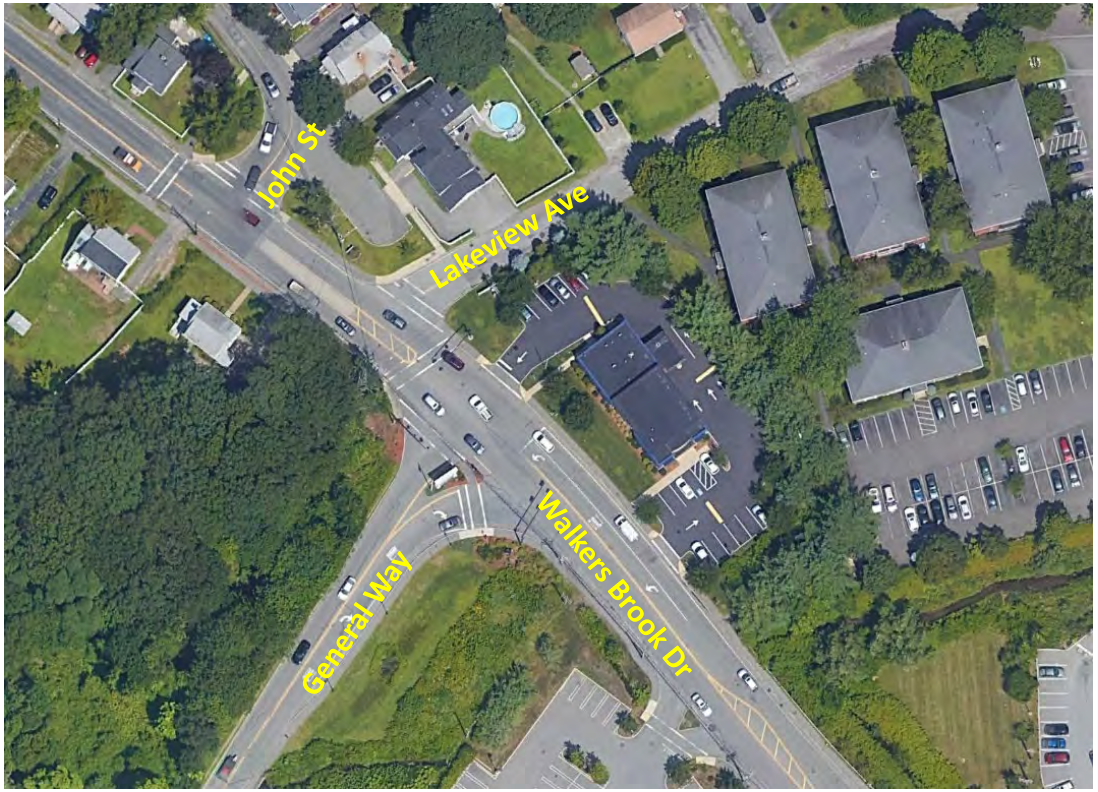
Shared-Use Path Examples



The Metro Orange Line Bike Path

Walkers Brook Drive / General Way – Intersection Alternatives

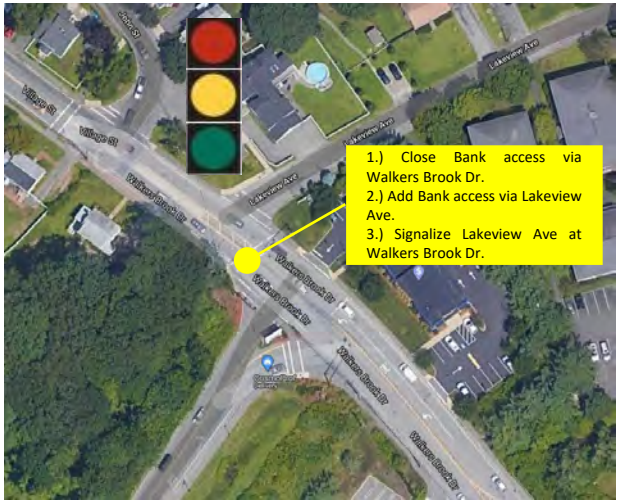
Existing Deficiencies

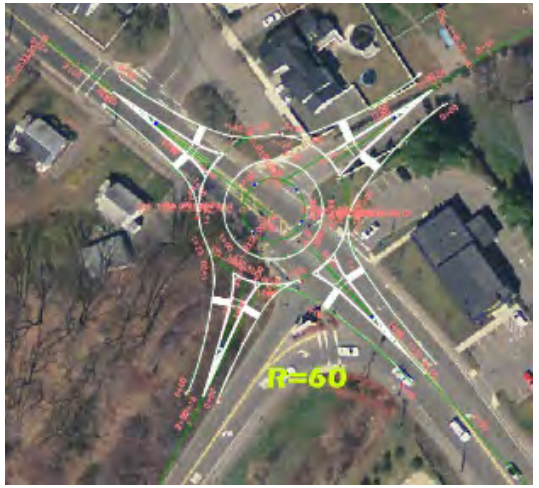


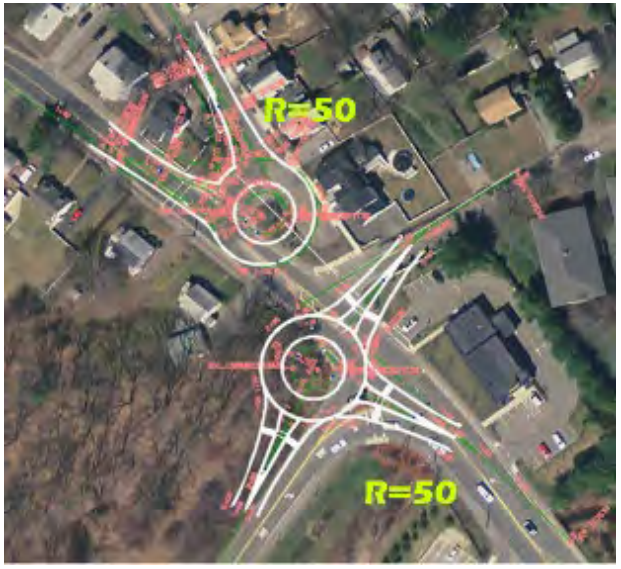
Deficiencies

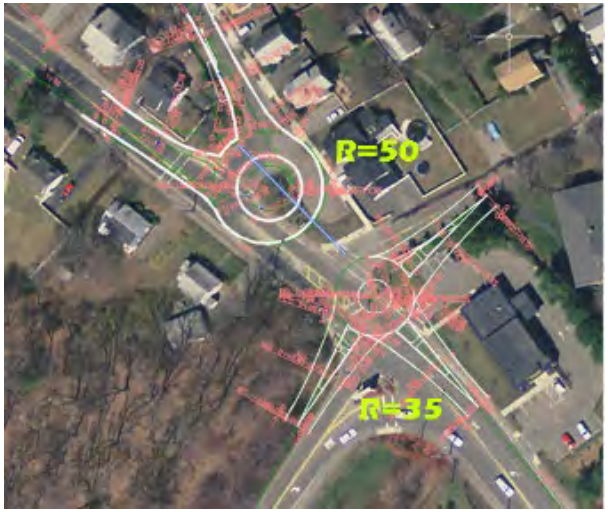
- Drivers have difficulty exiting Lakeview Ave onto Walkers Brook Dr.
- High number of conflict points for vehicles and pedestrians in a short distance along Walkers Brook Dr.
- Potential for additional traffic diverted from Lakeview Ave onto John St.

Intersection Alternatives Evaluation

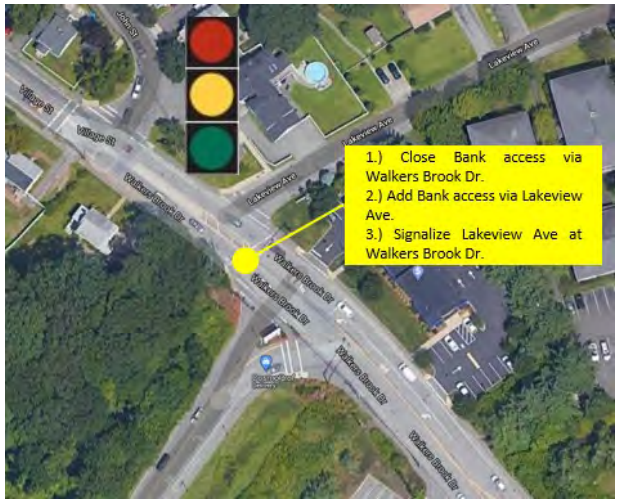








Preferred Intersection Alternatives

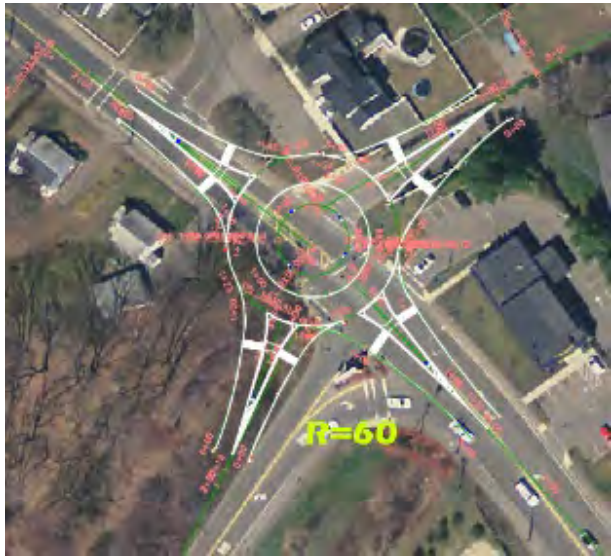


Advantages

- Improves safety for traffic entering and exiting Lakeview Ave
- Expected to improve traffic operations along Lakeview Ave and will better accommodate additional traffic volumes associated with the new Eaton Lakeview Apartments
- No anticipated Right-of-Way (ROW) takings or permanent easements
- Maintains existing access/egress conditions for residential home at #155 Walkers Brook Dr.

Disadvantages

- Closes the exit-only driveway for the Bank off Walkers Brook Dr.
- Less efficient traffic flow than roundabout alt.
- Likely increase in traffic congestion along Walkers Brook Dr.



Advantages

- Improves safety for traffic entering and exiting Lakeview Ave
- Expected to improve traffic operations along Lakeview Ave and will better accommodate additional traffic volumes associated with the new Eaton Lakeview Apartments
- Improves traffic congestion along Walkers Brook Dr.
- Potential improvements to pedestrian and bicycle accommodations
- Traffic calming measure to reduce vehicle travel speeds along Walkers Brook Dr
- Opportunities for increased green space and other aesthetic improvements within center island

Disadvantages

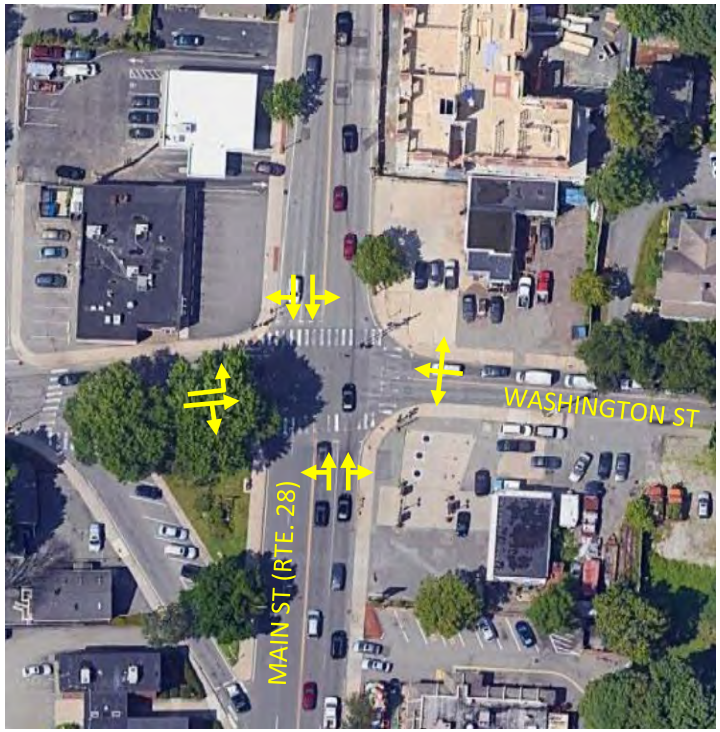
- Reconfiguration of the existing access driveways serving the Bank
- Right-of-Way (ROW) takings and/or permanent easements will be needed from the Market Basket Plaza
- Impacts to access/egress conditions for residential home at #155 Walkers Brook Dr.
- Requires wetland filling

Washington Street Corridor Improvements

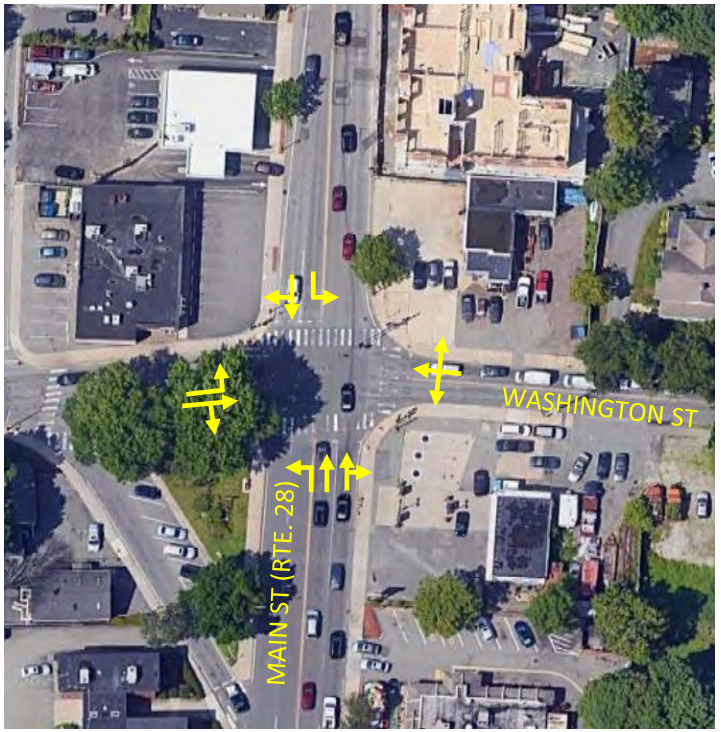
Corridor Improvements

Washington Street at Main Street (Route 28)

EXISTING CONDITIONS



PROPOSED CONDITIONS



Deficiencies

- High crash location
- Lack of protected left-turn lanes and phases for Main St approaches results in high number of rear-end and angle crashes
- Poor operations (LOS F during AM and SAT peak hours, LOS E during PM peak hour)
- Outdated signal heads (lack of backplates, retroreflective borders)

Improvements

- Provides protected left-turn lanes to reduce number of rear-end and angle crashes
- Modernized Traffic Signal System
- Improves operations during AM, PM and SAT peak hours by reducing vehicle delays and queues
- Signal head upgrades including backplates w/ retroreflective borders

Connectivity to Lake Quannapowitt

Goal

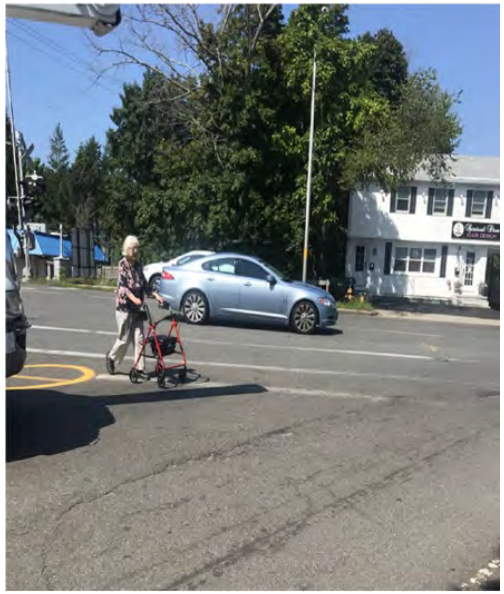
- Enhance multi-modal connectivity between the Town's two primary commercial areas – Walkers Brook and the Downtown – and a major recreational area – Lake Quannapowitt

Findings

- Location of I-95 and required land takings result in significant difficulties in providing off-road, multi-modal connection
- Washington St. & Walkers Brook corridors were the most convenient, direct connection
- Multi-modal enhancements along Walkers Brook are key to improving connectivity between Downtown and the Lake
- Lack of ADA compliance between Downtown, Walkers Brook and Lake Quannapowitt

Main Street (Rte. 28) / Ash Street– Intersection Alternatives

Existing Deficiencies



Deficiencies

- High crash location
- High number of conflict points between vehicles, pedestrians, bicyclists and railroad crossing in a small area
- Long pedestrian crossing
- Lack of safe pedestrian and bicycle accommodations
- Lack of ADA accommodations for disabled persons

- Long pedestrian crossing without pedestrian refuge across Ash St. at Main St.
- Lack of ADA accommodations at the crossing

Short-Term / Mid-Term Intersection Improvements

Alternative 1: Free flow at Bolton Street

Advantages

- Reduces number of conflict points
- Increase pedestrian safety by shortening the crossing distance across Ash St.
- T' up the intersection, reducing the amount of open space and reducing confusion for turning movements
- T' up intersection of Ash St at Bolton St providing a traditional 4-way intersection, improving safety and sight distance
- Safer pedestrian crossing from sidewalk along Main St to sidewalk along Ash St

Disadvantages

- Ash St, which is the higher traffic volumes approach is now a stop-controlled approach
- Short distance between Stop bar on Ash St and rail crossing (only room for approx. 1-2 vehicles)
- Impacts to MBTA parking spaces (relocate approx. 8 spaces)
- Coordination with MBTA to relocate gates for rail crossing
- Potential land taking

Short-Term / Mid-Term Intersection Improvements

Alternative 2: Free flow at Ash Street

Advantages

- Minimal impacts to commuter rail parking
- Increase pedestrian safety by shortening the crossing distance across Ash St.
- T' up the intersection, reducing the amount of open space and reducing confusion for turning movements
- Reduce number of conflict points
- More defined intersection geometry

Disadvantages

- Potential impacts to McDonald's parking lot access and site circulation
- Potential land takings

Long-Term Intersection Improvements

Alternative 3: Roundabout

Advantages

- Improvements to overall safety at intersection
- Minimal impacts to MBTA facilities
- Eliminates the rail crossing across Ash St
- Potential for improvements to bicycle accommodations
- Safer pedestrian crossings
- Traffic calming measure to reduce vehicle speeds along Main St
- Expected to improve operations and traffic flow along the Ash St approach
- Reduces the amount of open space and confusion for turning movements
- Increase in landscape opportunities

Disadvantages

- Complete taking of the existing Jiffy Lube and Burger King parcels
- Impacts to existing parking lot serving Reading Plaza
- Access/egress impacts for the properties on the west side of Main St
- High number of conflict points within the roundabout

Preferred Long-Term Intersection Improvements (1 of 2)

Alternative 4: Realigned Ash Street

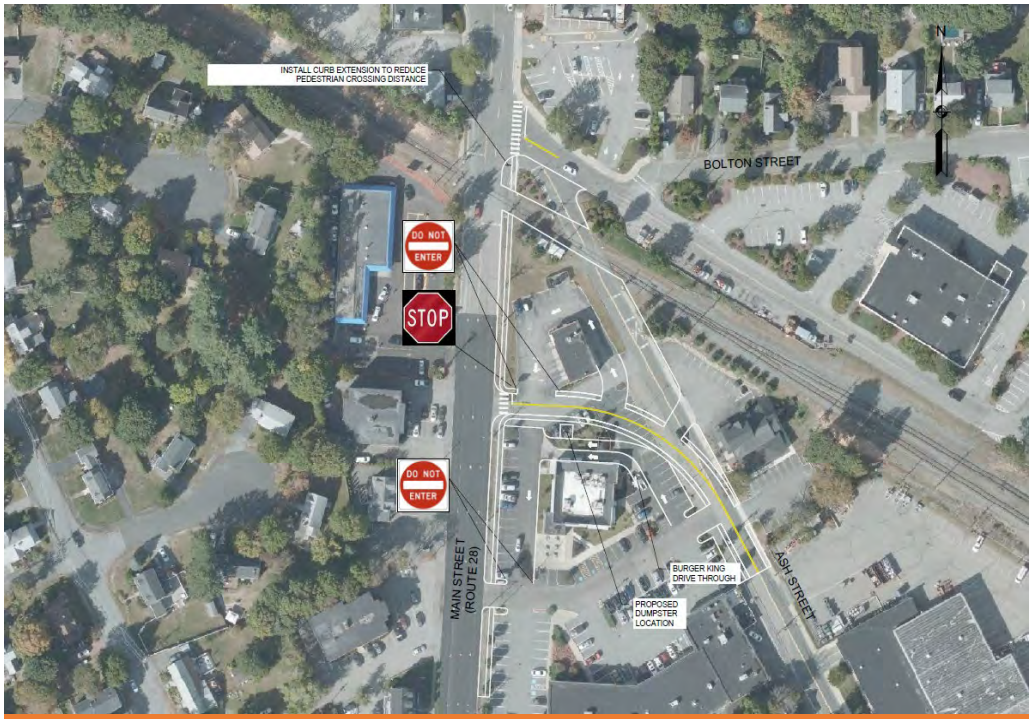
Advantages

- Reduces number of conflict points
- Eliminate rail crossing across Ash St.
- T' up the intersection, providing a traditional 4-way intersection with Simoniz Car Wash
- Reduces amount of open space and confusion for turning movements by providing greater separation between more defined intersections of Ash St at Main St and Main St at Bolton St
- Safer pedestrian crossings
- Only minor impacts to Burger King parcel, maintains majority of on-site operations
- Minimal impacts to MBTA facilities
- Increase in landscape opportunities

Disadvantages

- Complete taking of the existing Jiffy Lube parcel
- Impacts to Burger King's parking lot access and site circulation

Preferred Long-Term Intersection Improvements (2 of 2)



Alternative 5: Realigned Ash Street

Advantages

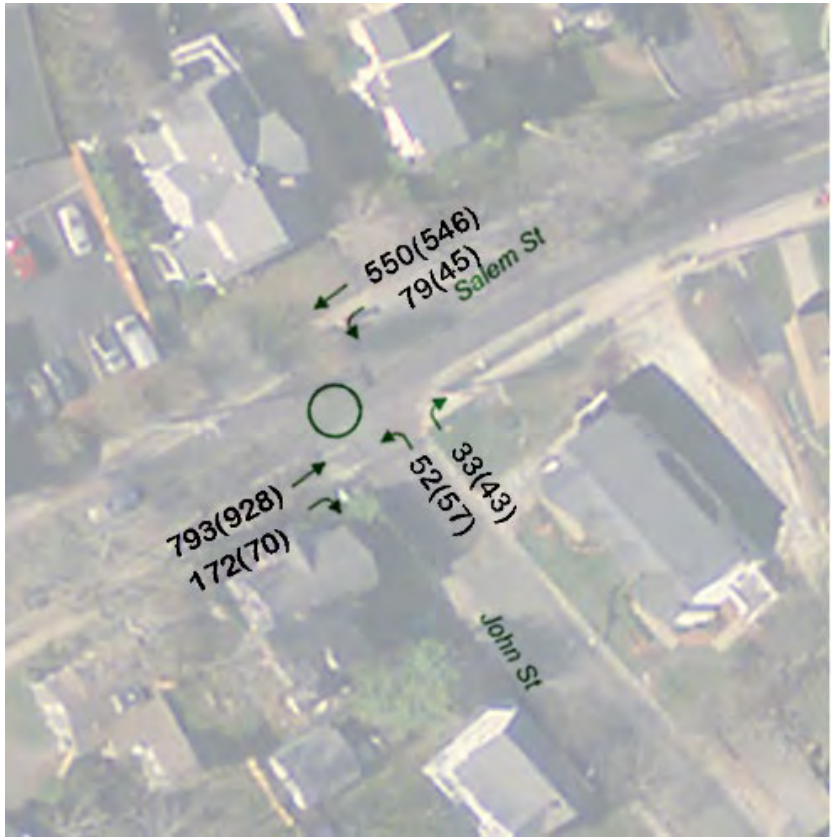
- Reduces number of conflict points
- Eliminate rail crossing across Ash St.
- T' up the intersection of Ash St at Main St
- Reduces amount of open space and confusion for turning movements by providing greater separation between more defined intersections of Ash St at Main St and Main St at Bolton St
- Safer pedestrian crossings
- Only minor impacts to the Jiffy Lube and Burger King parcels, maintains majority of on-site operations
- Minimal impacts to MBTA facilities

Disadvantages

- Impacts to Burger King's parking lot access and site circulation

John Street Corridor Improvements

Existing Conditions



Weekday AM (PM) Peak Hour

Deficiencies

- High crash location at John Street / Pleasant Street intersection
- Used as a cut-through street during peak commuting hours

Potential Corridor Improvement Options

Turn Restriction During Peak Hours

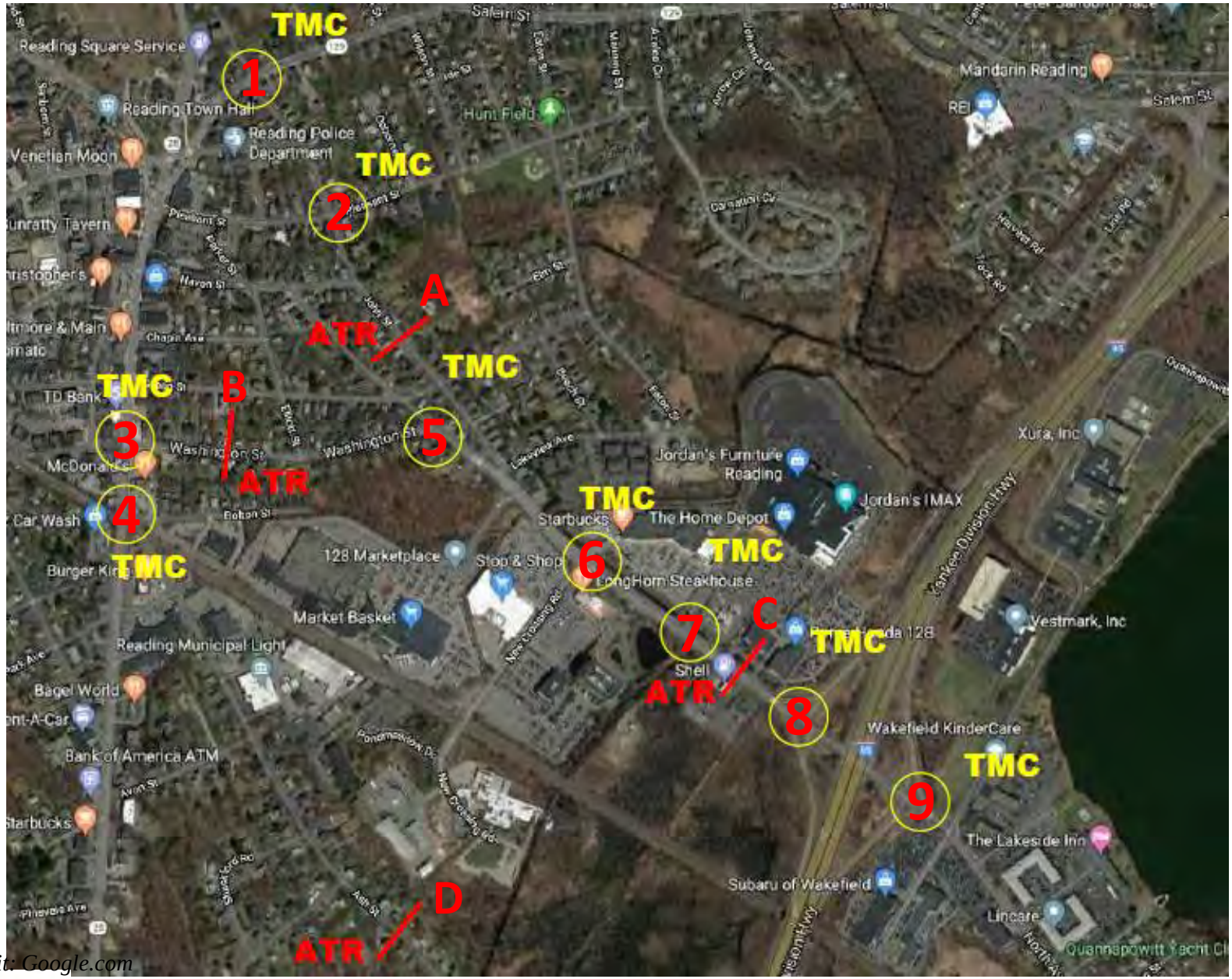
Raised Intersection at John St / Pleasant St

Raised Crosswalks

Radar Speed Feedback Signs

Appendix

Traffic Count Data



Map Credit: Google.com

BOSTON TRAFFIC DATA	BTD ID: 412_017_GI	Reading, MA	# of TMC's: 09	Client: Green International Affiliates, Inc.
		Collected on September 11 to 14, 2019	# of ATR's: 04	Contact: Somaye Dovirani, PhD

Volume Report

Job 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Wednesday, September 11, 2019

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Volume Report

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Area Reading, MA
Location John Street, between Haven Street & Green Street

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Thursday, September 12, 2019

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Classification Report

Job # 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Direction Northbound
Wednesday, September 11, 2019

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Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0100	3	0	3	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0500	8	0	7	1	0	0	0	0	0	0	0	0	0	0
0600	34	1	23	8	1	1	0	0	0	0	0	0	0	0
0700	85	1	69	9	0	5	1	0	0	0	0	0	0	0
0800	108	1	87	16	0	4	0	0	0	0	0	0	0	0
0900	99	0	73	17	2	7	0	0	0	0	0	0	0	0
1000	77	1	58	15	1	2	0	0	0	0	0	0	0	0
1100	98	1	73	21	1	1	1	0	0	0	0	0	0	0
1200	88	0	69	17	0	1	0	1	0	0	0	0	0	0
1300	86	2	65	15	1	3	0	0	0	0	0	0	0	0
1400	92	0	82	10	0	0	0	0	0	0	0	0	0	0
1500	96	0	80	14	0	2	0	0	0	0	0	0	0	0
1600	120	0	105	13	0	2	0	0	0	0	0	0	0	0
1700	142	0	123	16	2	0	0	1	0	0	0	0	0	0
1800	98	1	89	8	0	0	0	0	0	0	0	0	0	0
1900	88	1	83	4	0	0	0	0	0	0	0	0	0	0
2000	66	0	59	6	0	1	0	0	0	0	0	0	0	0
2100	25	0	23	1	0	1	0	0	0	0	0	0	0	0
2200	21	0	21	0	0	0	0	0	0	0	0	0	0	0
2300	20	0	18	2	0	0	0	0	0	0	0	0	0	0
Total	**1458**	**9**	**1214**	**193**	**8**	**30**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.62%**	**83.26%**	**13.24%**	**0.55%**	**2.06%**	**0.14%**	**0.14%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Direction Northbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	4	0	3	1	0	0	0	0	0	0	0	0	0	0
0100	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	0	1	0	0	0	0	0	0	0	0	0	0
0300	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0400	2	1	0	0	0	1	0	0	0	0	0	0	0	0
0500	9	0	8	1	0	0	0	0	0	0	0	0	0	0
0600	29	0	23	3	1	0	0	1	0	1	0	0	0	0
0700	87	0	65	16	0	5	1	0	0	0	0	0	0	0
0800	114	0	91	16	2	4	0	0	0	0	0	0	0	1
0900	97	0	70	19	1	7	0	0	0	0	0	0	0	0
1000	83	0	67	13	2	1	0	0	0	0	0	0	0	0
1100	92	0	69	21	0	2	0	0	0	0	0	0	0	0
1200	87	0	70	13	0	4	0	0	0	0	0	0	0	0
1300	81	0	64	14	1	2	0	0	0	0	0	0	0	0
1400	93	0	79	8	2	4	0	0	0	0	0	0	0	0
1500	111	1	92	15	1	2	0	0	0	0	0	0	0	0
1600	101	0	89	11	0	1	0	0	0	0	0	0	0	0
1700	136	0	126	9	0	1	0	0	0	0	0	0	0	0
1800	108	2	96	9	0	1	0	0	0	0	0	0	0	0
1900	85	0	74	9	0	2	0	0	0	0	0	0	0	0
2000	71	0	59	11	0	0	0	1	0	0	0	0	0	0
2100	43	0	41	2	0	0	0	0	0	0	0	0	0	0
2200	20	0	19	1	0	0	0	0	0	0	0	0	0	0
2300	26	0	21	5	0	0	0	0	0	0	0	0	0	0
Total	**1486**	**4**	**1232**	**198**	**10**	**37**	**1**	**2**	**0**	**1**	**0**	**0**	**0**	**1**
	100.00%	**0.27%**	**82.91%**	**13.32%**	**0.67%**	**2.49%**	**0.07%**	**0.13%**	**0.00%**	**0.07%**	**0.00%**	**0.00%**	**0.00%**	**0.07%**

Classification Report

Job # 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Direction Southbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	3	0	3	0	0	0	0	0	0	0	0	0	0	0
0100	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	10	1	6	2	0	1	0	0	0	0	0	0	0	0
0500	33	0	21	11	1	0	0	0	0	0	0	0	0	0
0600	111	0	79	28	0	4	0	0	0	0	0	0	0	0
0700	145	0	122	20	1	1	1	0	0	0	0	0	0	0
0800	229	3	195	26	0	5	0	0	0	0	0	0	0	0
0900	184	0	148	30	1	5	0	0	0	0	0	0	0	0
1000	120	1	90	24	1	4	0	0	0	0	0	0	0	0
1100	125	0	96	24	0	3	2	0	0	0	0	0	0	0
1200	108	2	84	19	2	1	0	0	0	0	0	0	0	0
1300	131	0	106	21	1	3	0	0	0	0	0	0	0	0
1400	132	0	110	19	0	3	0	0	0	0	0	0	0	0
1500	124	0	108	15	0	1	0	0	0	0	0	0	0	0
1600	127	1	107	19	0	0	0	0	0	0	0	0	0	0
1700	151	2	132	16	0	1	0	0	0	0	0	0	0	0
1800	139	1	130	8	0	0	0	0	0	0	0	0	0	0
1900	101	0	96	5	0	0	0	0	0	0	0	0	0	0
2000	49	0	44	2	0	3	0	0	0	0	0	0	0	0
2100	28	0	24	4	0	0	0	0	0	0	0	0	0	0
2200	7	0	7	0	0	0	0	0	0	0	0	0	0	0
2300	6	0	5	1	0	0	0	0	0	0	0	0	0	0
Total	**2066**	**11**	**1716**	**294**	**7**	**35**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.53%**	**83.06%**	**14.23%**	**0.34%**	**1.69%**	**0.15%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Direction Southbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
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Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	3	0	3	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	1	0	0	0	0	0	1	0	0	0	0	0	0	0
0400	7	0	5	1	0	1	0	0	0	0	0	0	0	0
0500	29	0	21	8	0	0	0	0	0	0	0	0	0	0
0600	121	0	88	29	1	3	0	0	0	0	0	0	0	0
0700	143	0	118	22	3	0	0	0	0	0	0	0	0	0
0800	250	0	204	40	1	5	0	0	0	0	0	0	0	0
0900	195	0	151	33	0	10	1	0	0	0	0	0	0	0
1000	139	0	107	28	1	2	1	0	0	0	0	0	0	0
1100	108	0	84	20	1	3	0	0	0	0	0	0	0	0
1200	118	0	99	14	2	3	0	0	0	0	0	0	0	0
1300	104	0	80	18	1	5	0	0	0	0	0	0	0	0
1400	122	0	99	16	1	4	2	0	0	0	0	0	0	0
1500	163	1	137	22	0	2	0	0	1	0	0	0	0	0
1600	135	0	116	18	0	1	0	0	0	0	0	0	0	0
1700	144	0	131	10	0	3	0	0	0	0	0	0	0	0
1800	128	0	114	14	0	0	0	0	0	0	0	0	0	0
1900	106	0	98	7	0	1	0	0	0	0	0	0	0	0
2000	53	0	45	8	0	0	0	0	0	0	0	0	0	0
2100	15	0	14	1	0	0	0	0	0	0	0	0	0	0
2200	13	0	12	1	0	0	0	0	0	0	0	0	0	0
2300	9	0	9	0	0	0	0	0	0	0	0	0	0	0
Total	**2106**	**1**	**1735**	**310**	**11**	**43**	**5**	**0**	**1**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.05%**	**82.38%**	**14.72%**	**0.52%**	**2.04%**	**0.24%**	**0.00%**	**0.05%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Speed Report

Job 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Dir Northbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	2	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
0100	3	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0500	8	0	1	0	1	2	2	2	0	0	0	0	0	0	0	0	0
0600	34	0	0	0	1	6	18	6	3	0	0	0	0	0	0	0	0
0700	85	0	0	2	2	19	35	22	5	0	0	0	0	0	0	0	0
0800	108	0	0	1	2	18	49	31	7	0	0	0	0	0	0	0	0
0900	99	0	0	0	5	7	47	35	5	0	0	0	0	0	0	0	0
1000	77	0	0	3	6	19	32	16	1	0	0	0	0	0	0	0	0
1100	98	0	0	0	3	22	54	17	2	0	0	0	0	0	0	0	0
1200	88	0	0	0	0	3	52	31	2	0	0	0	0	0	0	0	0
1300	86	0	0	0	1	9	41	29	5	1	0	0	0	0	0	0	0
1400	92	0	0	0	5	10	36	38	3	0	0	0	0	0	0	0	0
1500	96	0	0	0	0	12	43	40	1	0	0	0	0	0	0	0	0
1600	120	0	0	1	4	15	54	42	4	0	0	0	0	0	0	0	0
1700	142	0	1	3	2	11	70	51	4	0	0	0	0	0	0	0	0
1800	98	0	0	1	2	15	38	36	6	0	0	0	0	0	0	0	0
1900	88	0	0	0	2	11	44	29	1	1	0	0	0	0	0	0	0
2000	66	0	0	0	1	11	40	12	2	0	0	0	0	0	0	0	0
2100	25	0	0	0	1	4	14	6	0	0	0	0	0	0	0	0	0
2200	21	0	0	0	0	1	11	8	1	0	0	0	0	0	0	0	0
2300	20	0	0	0	0	5	8	6	1	0	0	0	0	0	0	0	0
Total	**1458**	**0**	**2**	**11**	**38**	**200**	**690**	**461**	**54**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.14%**	**0.75%**	**2.61%**	**13.72%**	**47.33%**	**31.62%**	**3.70%**	**0.14%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 41.9 mph, Minimum = 7.5 mph, Mean = 28.4 mph
85% Speed = 32.32 mph, 95% Speed = 34.45 mph, Median = 28.69 mph
10 mph Pace = 24 - 34, Number in Pace = 1189 (81.55%)
Variance = 17.82, Standard Deviation = 4.22 mph

Speed Report

Job 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Dir Northbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	4	0	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0
0100	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0300	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
0400	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
0500	9	0	1	1	0	0	3	3	1	0	0	0	0	0	0	0	0
0600	29	0	0	0	1	2	18	7	1	0	0	0	0	0	0	0	0
0700	87	0	0	0	5	3	46	30	3	0	0	0	0	0	0	0	0
0800	114	0	0	1	0	8	58	43	4	0	0	0	0	0	0	0	0
0900	97	0	0	0	0	12	44	35	5	1	0	0	0	0	0	0	0
1000	83	0	0	0	1	15	43	20	4	0	0	0	0	0	0	0	0
1100	92	0	0	0	2	14	47	25	3	1	0	0	0	0	0	0	0
1200	87	0	0	1	1	9	49	23	2	2	0	0	0	0	0	0	0
1300	81	0	0	0	0	8	51	18	4	0	0	0	0	0	0	0	0
1400	93	0	0	0	1	11	52	24	5	0	0	0	0	0	0	0	0
1500	111	0	1	1	2	23	47	35	2	0	0	0	0	0	0	0	0
1600	101	0	0	1	2	14	54	26	3	1	0	0	0	0	0	0	0
1700	136	0	1	2	6	31	75	20	1	0	0	0	0	0	0	0	0
1800	108	0	1	3	4	23	54	22	1	0	0	0	0	0	0	0	0
1900	85	0	0	0	5	18	43	16	3	0	0	0	0	0	0	0	0
2000	71	0	0	1	6	20	30	11	3	0	0	0	0	0	0	0	0
2100	43	0	0	2	2	6	21	11	1	0	0	0	0	0	0	0	0
2200	20	0	0	0	1	3	9	7	0	0	0	0	0	0	0	0	0
2300	26	0	0	0	1	2	13	9	1	0	0	0	0	0	0	0	0
Total	**1486**	**0**	**4**	**13**	**40**	**223**	**765**	**388**	**47**	**6**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.27%**	**0.87%**	**2.69%**	**15.01%**	**51.48%**	**26.11%**	**3.16%**	**0.40%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 41.2 mph, Minimum = 6.3 mph, Mean = 28.0 mph
85% Speed = 31.88 mph, 95% Speed = 34.32 mph, Median = 28.19 mph
10 mph Pace = 23 - 33, Number in Pace = 1212 (81.56%)
Variance = 18.04, Standard Deviation = 4.25 mph

Speed Report

Job 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Dir Southbound
Wednesday, September 11, 2019

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Office: 978-746-1259
DataRequest@BostonTrafficData.com
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Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	3	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0
0100	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	10	0	0	0	1	3	1	5	0	0	0	0	0	0	0	0	0
0500	33	0	1	1	2	3	13	11	1	1	0	0	0	0	0	0	0
0600	111	0	0	1	6	6	58	33	6	0	1	0	0	0	0	0	0
0700	145	0	0	6	11	15	57	49	7	0	0	0	0	0	0	0	0
0800	229	0	0	0	2	16	90	104	16	1	0	0	0	0	0	0	0
0900	184	0	0	2	6	19	86	62	9	0	0	0	0	0	0	0	0
1000	120	0	0	2	8	22	57	28	3	0	0	0	0	0	0	0	0
1100	125	0	0	0	5	22	70	24	4	0	0	0	0	0	0	0	0
1200	108	0	0	0	1	11	46	44	6	0	0	0	0	0	0	0	0
1300	131	0	0	0	2	12	69	42	6	0	0	0	0	0	0	0	0
1400	132	0	0	0	6	21	53	50	2	0	0	0	0	0	0	0	0
1500	124	0	0	0	2	10	58	48	6	0	0	0	0	0	0	0	0
1600	127	0	0	2	3	5	59	46	10	2	0	0	0	0	0	0	0
1700	151	0	0	2	2	11	80	48	7	1	0	0	0	0	0	0	0
1800	139	0	0	0	7	10	66	53	3	0	0	0	0	0	0	0	0
1900	101	0	0	0	1	15	50	33	2	0	0	0	0	0	0	0	0
2000	49	0	0	0	0	5	25	17	1	0	1	0	0	0	0	0	0
2100	28	0	0	0	0	5	13	9	1	0	0	0	0	0	0	0	0
2200	7	0	0	0	0	2	4	1	0	0	0	0	0	0	0	0	0
2300	6	0	0	0	0	2	3	1	0	0	0	0	0	0	0	0	0
Total	**2066**	**0**	**1**	**16**	**65**	**216**	**960**	**711**	**90**	**5**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.05%**	**0.77%**	**3.15%**	**10.45%**	**46.47%**	**34.41%**	**4.36%**	**0.24%**	**0.10%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 49.8 mph, Minimum = 9.5 mph, Mean = 28.8 mph
85% Speed = 32.83 mph, 95% Speed = 34.78 mph, Median = 29.02 mph
10 mph Pace = 24 - 34, Number in Pace = 1696 (82.09%)
Variance = 18.17, Standard Deviation = 4.26 mph

Speed Report

Job 412_017_GI_ATR A
Area Reading, MA
Location John Street, between Haven Street & Green Street
Dir Southbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
0400	7	0	0	0	0	1	2	4	0	0	0	0	0	0	0	0	0
0500	29	0	0	0	0	0	15	12	2	0	0	0	0	0	0	0	0
0600	121	0	0	0	0	6	48	56	9	1	1	0	0	0	0	0	0
0700	143	0	0	0	2	7	61	68	5	0	0	0	0	0	0	0	0
0800	250	0	0	1	6	18	109	88	26	2	0	0	0	0	0	0	0
0900	195	0	0	0	1	10	89	83	12	0	0	0	0	0	0	0	0
1000	139	0	0	1	3	20	61	48	6	0	0	0	0	0	0	0	0
1100	108	0	0	0	1	14	53	37	3	0	0	0	0	0	0	0	0
1200	118	0	0	1	3	11	58	37	7	1	0	0	0	0	0	0	0
1300	104	0	0	0	1	12	44	41	5	0	0	1	0	0	0	0	0
1400	122	0	0	1	3	17	48	44	9	0	0	0	0	0	0	0	0
1500	163	0	1	0	2	19	83	53	5	0	0	0	0	0	0	0	0
1600	135	0	0	2	2	14	58	52	6	1	0	0	0	0	0	0	0
1700	144	0	0	2	2	9	72	50	9	0	0	0	0	0	0	0	0
1800	128	0	0	1	1	22	59	42	3	0	0	0	0	0	0	0	0
1900	106	0	0	0	0	12	58	27	8	1	0	0	0	0	0	0	0
2000	53	0	0	0	1	11	19	20	2	0	0	0	0	0	0	0	0
2100	15	0	0	0	0	1	9	4	1	0	0	0	0	0	0	0	0
2200	13	0	0	0	1	1	5	2	4	0	0	0	0	0	0	0	0
2300	9	0	0	0	0	1	5	2	0	1	0	0	0	0	0	0	0
Total	**2106**	**0**	**1**	**9**	**30**	**206**	**956**	**773**	**122**	**7**	**1**	**1**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.05%**	**0.43%**	**1.42%**	**9.78%**	**45.39%**	**36.70%**	**5.79%**	**0.33%**	**0.05%**	**0.05%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 52.6 mph, Minimum = 9.5 mph, Mean = 29.2 mph
85% Speed = 33.05 mph, 95% Speed = 35.46 mph, Median = 29.42 mph
10 mph Pace = 25 - 35, Number in Pace = 1738 (82.53%)
Variance = 16.00, Standard Deviation = 4.00 mph

Volume Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Wednesday, September 11, 2019

Time	Total		EB		WB		Time	Total		EB		WB	
0000	5		4		1		1200	123		65		58	
0015	8		3		5		1215	123		66		57	
0030	3		1		2		1230	135		55		80	
0045	5	21	2	10	3	11	1245	107	488	67	253	40	235
0100	0		0		0		1300	139		77		62	
0115	1		1		0		1315	126		74		52	
0130	5		1		4		1330	133		76		57	
0145	0	6	0	2	0	4	1345	119	517	50	277	69	240
0200	4		3		1		1400	135		67		68	
0215	0		0		0		1415	130		65		65	
0230	0		0		0		1430	130		68		62	
0245	1	5	1	4	0	1	1445	148	543	80	280	68	263
0300	0		0		0		1500	161		83		78	
0315	0		0		0		1515	144		71		73	
0330	3		1		2		1530	159		91		68	
0345	4	7	4	5	0	2	1545	149	613	79	324	70	289
0400	3		3		0		1600	167		88		79	
0415	7		6		1		1615	175		99		76	
0430	4		3		1		1630	181		101		80	
0445	14	28	4	16	10	12	1645	171	694	106	394	65	300
0500	17		5		12		1700	172		100		72	
0515	19		8		11		1715	184		106		78	
0530	16		9		7		1730	195		127		68	
0545	35	87	18	40	17	47	1745	208	759	131	464	77	295
0600	54		28		26		1800	171		92		79	
0615	64		29		35		1815	132		73		59	
0630	65		36		29		1830	134		83		51	
0645	131	314	48	141	83	173	1845	118	555	69	317	49	238
0700	136		49		87		1900	119		63		56	
0715	152		35		117		1915	94		55		39	
0730	194		73		121		1930	92		49		43	
0745	186	668	72	229	114	439	1945	74	379	38	205	36	174
0800	165		50		115		2000	81		38		43	
0815	187		81		106		2015	73		29		44	
0830	169		77		92		2030	65		37		28	
0845	181	702	69	277	112	425	2045	63	282	28	132	35	150
0900	139		55		84		2100	58		22		36	
0915	158		62		96		2115	35		13		22	
0930	141		75		66		2130	37		16		21	
0945	134	572	62	254	72	318	2145	27	157	12	63	15	94
1000	133		65		68		2200	19		4		15	
1015	117		66		51		2215	25		14		11	
1030	120		66		54		2230	16		5		11	
1045	121	491	60	257	61	234	2245	21	81	10	33	11	48
1100	95		47		48		2300	9		3		6	
1115	109		60		49		2315	7		5		2	
1130	140		68		72		2330	6		2		4	
1145	125	469	58	233	67	236	2345	4	26	0	10	4	16
							Total	**8464**		**4220**		**4244**	

Volume Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Thursday, September 12, 2019

Time	Total		EB		WB		Time	Total		EB		WB	
0000	4		3		1		1200	164		92		72	
0015	4		1		3		1215	148		85		63	
0030	3		2		1		1230	132		70		62	
0045	3	14	2	8	1	6	1245	128	572	74	321	54	251
0100	3		2		1		1300	146		72		74	
0115	2		0		2		1315	120		67		53	
0130	1		0		1		1330	134		69		65	
0145	1	7	1	3	0	4	1345	142	542	65	273	77	269
0200	0		0		0		1400	122		64		58	
0215	2		1		1		1415	144		75		69	
0230	0		0		0		1430	145		69		76	
0245	1	3	0	1	1	2	1445	142	553	78	286	64	267
0300	1		1		0		1500	145		88		57	
0315	2		0		2		1515	174		101		73	
0330	2		1		1		1530	165		90		75	
0345	0	5	0	2	0	3	1545	153	637	85	364	68	273
0400	4		4		0		1600	183		104		79	
0415	7		5		2		1615	187		108		79	
0430	7		5		2		1630	180		108		72	
0445	16	34	6	20	10	14	1645	182	732	107	427	75	305
0500	14		4		10		1700	191		110		81	
0515	17		10		7		1715	207		130		77	
0530	15		10		5		1730	178		114		64	
0545	27	73	14	38	13	35	1745	204	780	133	487	71	293
0600	50		21		29		1800	141		73		68	
0615	66		30		36		1815	122		76		46	
0630	92		47		45		1830	134		80		54	
0645	103	311	39	137	64	174	1845	120	517	62	291	58	226
0700	137		50		87		1900	118		61		57	
0715	180		64		116		1915	91		46		45	
0730	155		61		94		1930	85		44		41	
0745	183	655	65	240	118	415	1945	74	368	34	185	40	183
0800	154		48		106		2000	78		42		36	
0815	139		72		67		2015	73		40		33	
0830	172		76		96		2030	56		20		36	
0845	155	620	60	256	95	364	2045	54	261	17	119	37	142
0900	163		66		97		2100	50		16		34	
0915	131		56		75		2115	32		19		13	
0930	128		57		71		2130	33		15		18	
0945	124	546	60	239	64	307	2145	17	132	9	59	8	73
1000	138		63		75		2200	34		11		23	
1015	141		67		74		2215	23		12		11	
1030	126		58		68		2230	23		10		13	
1045	120	525	63	251	57	274	2245	19	99	13	46	6	53
1100	133		75		58		2300	17		6		11	
1115	136		70		66		2315	19		14		5	
1130	133		68		65		2330	12		9		3	
1145	120	522	57	270	63	252	2345	5	53	1	30	4	23
							Total	**8561**		**4353**		**4208**	

Classification Report

Job # 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Direction Eastbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	10	0	7	3	0	0	0	0	0	0	0	0	0	0
0100	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0200	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0300	5	0	2	1	0	0	2	0	0	0	0	0	0	0
0400	16	0	8	6	0	1	1	0	0	0	0	0	0	0
0500	40	0	34	4	0	1	1	0	0	0	0	0	0	0
0600	141	1	104	26	2	6	1	1	0	0	0	0	0	0
0700	229	0	188	34	2	4	1	0	0	0	0	0	0	0
0800	277	2	237	27	3	5	2	0	0	1	0	0	0	0
0900	254	0	199	41	5	8	0	0	0	1	0	0	0	0
1000	257	0	214	32	1	9	0	0	0	1	0	0	0	0
1100	233	0	182	41	2	6	1	0	0	1	0	0	0	0
1200	253	1	214	26	3	9	0	0	0	0	0	0	0	0
1300	277	0	236	28	4	8	1	0	0	0	0	0	0	0
1400	280	0	233	36	4	6	0	0	1	0	0	0	0	0
1500	324	1	277	43	2	1	0	0	0	0	0	0	0	0
1600	394	2	342	45	2	3	0	0	0	0	0	0	0	0
1700	464	3	413	48	0	0	0	0	0	0	0	0	0	0
1800	317	0	289	27	1	0	0	0	0	0	0	0	0	0
1900	205	3	185	13	2	1	0	1	0	0	0	0	0	0
2000	132	1	119	12	0	0	0	0	0	0	0	0	0	0
2100	63	0	57	5	1	0	0	0	0	0	0	0	0	0
2200	33	0	30	2	1	0	0	0	0	0	0	0	0	0
2300	10	1	7	1	1	0	0	0	0	0	0	0	0	0
Total	**4220**	**15**	**3583**	**501**	**36**	**68**	**10**	**2**	**1**	**4**	**0**	**0**	**0**	**0**
	100.00%	**0.36%**	**84.91%**	**11.87%**	**0.85%**	**1.61%**	**0.24%**	**0.05%**	**0.02%**	**0.09%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Direction Eastbound
Thursday, September 12, 2019

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	8	0	8	0	0	0	0	0	0	0	0	0	0	0
0100	3	1	2	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	2	0	1	1	0	0	0	0	0	0	0	0	0	0
0400	20	1	11	6	0	1	1	0	0	0	0	0	0	0
0500	38	0	31	4	0	2	1	0	0	0	0	0	0	0
0600	137	1	88	39	2	6	1	0	0	0	0	0	0	0
0700	240	0	199	27	3	8	3	0	0	0	0	0	0	0
0800	256	0	215	32	4	4	1	0	0	0	0	0	0	0
0900	239	1	195	30	2	11	0	0	0	0	0	0	0	0
1000	251	0	212	28	4	7	0	0	0	0	0	0	0	0
1100	270	0	216	47	1	4	1	0	0	1	0	0	0	0
1200	321	0	268	42	1	6	3	0	0	0	1	0	0	0
1300	273	0	221	44	1	6	0	0	0	1	0	0	0	0
1400	286	0	228	43	4	9	1	1	0	0	0	0	0	0
1500	364	0	310	48	1	5	0	0	0	0	0	0	0	0
1600	427	0	362	57	2	5	0	0	0	1	0	0	0	0
1700	487	0	436	47	1	3	0	0	0	0	0	0	0	0
1800	291	0	256	32	1	2	0	0	0	0	0	0	0	0
1900	185	0	169	13	1	2	0	0	0	0	0	0	0	0
2000	119	1	108	9	0	0	1	0	0	0	0	0	0	0
2100	59	1	52	6	0	0	0	0	0	0	0	0	0	0
2200	46	0	40	3	1	2	0	0	0	0	0	0	0	0
2300	30	0	25	5	0	0	0	0	0	0	0	0	0	0
Total	**4353**	**6**	**3654**	**563**	**29**	**83**	**13**	**1**	**0**	**3**	**1**	**0**	**0**	**0**
	100.00%	**0.14%**	**83.94%**	**12.93%**	**0.67%**	**1.91%**	**0.30%**	**0.02%**	**0.00%**	**0.07%**	**0.02%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Direction Westbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	11	0	10	0	1	0	0	0	0	0	0	0	0	0
0100	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	0	1	0	0	0	0	0	0	0	0	0	0
0300	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0400	12	0	11	1	0	0	0	0	0	0	0	0	0	0
0500	47	0	37	10	0	0	0	0	0	0	0	0	0	0
0600	173	1	119	44	2	7	0	0	0	0	0	0	0	0
0700	439	2	330	78	2	22	5	0	0	0	0	0	0	0
0800	425	0	334	71	6	10	3	1	0	0	0	0	0	0
0900	318	1	235	69	2	7	3	0	1	0	0	0	0	0
1000	234	0	166	56	2	7	3	0	0	0	0	0	0	0
1100	236	0	168	58	4	5	1	0	0	0	0	0	0	0
1200	235	1	181	47	2	4	0	0	0	0	0	0	0	0
1300	240	0	187	42	1	8	2	0	0	0	0	0	0	0
1400	263	2	190	62	3	6	0	0	0	0	0	0	0	0
1500	289	3	223	56	1	6	0	0	0	0	0	0	0	0
1600	300	0	240	55	0	3	0	1	0	1	0	0	0	0
1700	295	0	253	40	1	0	0	1	0	0	0	0	0	0
1800	238	1	196	37	1	3	0	0	0	0	0	0	0	0
1900	174	2	143	23	2	1	3	0	0	0	0	0	0	0
2000	150	0	131	16	1	2	0	0	0	0	0	0	0	0
2100	94	1	69	21	1	2	0	0	0	0	0	0	0	0
2200	48	0	44	3	1	0	0	0	0	0	0	0	0	0
2300	16	0	14	2	0	0	0	0	0	0	0	0	0	0
Total	**4244**	**14**	**3287**	**792**	**33**	**93**	**20**	**3**	**1**	**1**	**0**	**0**	**0**	**0**
	100.00%	**0.33%**	**77.45%**	**18.66%**	**0.78%**	**2.19%**	**0.47%**	**0.07%**	**0.02%**	**0.02%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Direction Westbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	6	0	6	0	0	0	0	0	0	0	0	0	0	0
0100	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0200	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0300	3	0	3	0	0	0	0	0	0	0	0	0	0	0
0400	14	0	11	2	1	0	0	0	0	0	0	0	0	0
0500	35	0	23	8	2	0	2	0	0	0	0	0	0	0
0600	174	0	124	39	3	7	0	0	0	1	0	0	0	0
0700	415	0	320	72	4	15	4	0	0	0	0	0	0	0
0800	364	1	287	61	3	6	4	0	0	1	0	0	0	1
0900	307	0	221	65	6	12	3	0	0	0	0	0	0	0
1000	274	0	198	60	1	12	1	1	0	1	0	0	0	0
1100	252	0	183	55	3	7	3	1	0	0	0	0	0	0
1200	251	0	197	45	1	4	3	0	0	1	0	0	0	0
1300	269	1	196	61	1	6	4	0	0	0	0	0	0	0
1400	267	0	205	55	1	4	2	0	0	0	0	0	0	0
1500	273	0	207	56	2	8	0	0	0	0	0	0	0	0
1600	305	0	228	68	1	6	1	0	0	1	0	0	0	0
1700	293	1	247	35	1	7	2	0	0	0	0	0	0	0
1800	226	1	194	27	2	1	1	0	0	0	0	0	0	0
1900	183	1	148	28	1	2	3	0	0	0	0	0	0	0
2000	142	0	120	19	1	1	1	0	0	0	0	0	0	0
2100	73	0	63	8	0	2	0	0	0	0	0	0	0	0
2200	53	2	42	8	1	0	0	0	0	0	0	0	0	0
2300	23	0	21	2	0	0	0	0	0	0	0	0	0	0
Total	**4208**	**7**	**3250**	**774**	**35**	**100**	**34**	**2**	**0**	**5**	**0**	**0**	**0**	**1**
	100.00%	**0.17%**	**77.23%**	**18.39%**	**0.83%**	**2.38%**	**0.81%**	**0.05%**	**0.00%**	**0.12%**	**0.00%**	**0.00%**	**0.00%**	**0.02%**

Speed Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Dir Eastbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	10	0	0	0	0	0	1	6	2	1	0	0	0	0	0	0	0
0100	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0200	4	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0
0300	5	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	0
0400	16	0	0	0	0	1	6	5	3	1	0	0	0	0	0	0	0
0500	40	0	1	0	1	0	12	22	4	0	0	0	0	0	0	0	0
0600	141	0	0	0	1	2	42	70	23	3	0	0	0	0	0	0	0
0700	229	0	1	2	5	19	79	98	23	1	0	0	1	0	0	0	0
0800	277	0	0	1	6	28	114	114	13	1	0	0	0	0	0	0	0
0900	254	0	2	1	3	22	116	94	14	1	0	0	1	0	0	0	0
1000	257	0	0	0	1	20	98	120	14	3	1	0	0	0	0	0	0
1100	233	0	0	0	1	16	100	102	12	2	0	0	0	0	0	0	0
1200	253	0	0	0	1	8	93	112	33	5	0	1	0	0	0	0	0
1300	277	0	0	0	0	10	109	130	25	3	0	0	0	0	0	0	0
1400	280	0	0	0	3	16	110	123	26	2	0	0	0	0	0	0	0
1500	324	0	0	0	0	27	144	116	35	2	0	0	0	0	0	0	0
1600	394	0	0	1	2	28	150	179	31	2	1	0	0	0	0	0	0
1700	464	0	0	0	2	32	196	208	24	2	0	0	0	0	0	0	0
1800	317	0	0	0	3	18	117	151	24	4	0	0	0	0	0	0	0
1900	205	0	0	1	2	11	108	67	16	0	0	0	0	0	0	0	0
2000	132	0	0	1	3	6	59	50	13	0	0	0	0	0	0	0	0
2100	63	0	0	0	1	1	27	26	8	0	0	0	0	0	0	0	0
2200	33	0	0	0	0	2	9	18	3	1	0	0	0	0	0	0	0
2300	10	0	0	1	0	0	1	4	3	1	0	0	0	0	0	0	0
Total	**4220**	**0**	**4**	**8**	**35**	**267**	**1694**	**1822**	**350**	**35**	**2**	**1**	**2**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.09%**	**0.19%**	**0.83%**	**6.33%**	**40.14%**	**43.18%**	**8.29%**	**0.83%**	**0.05%**	**0.02%**	**0.05%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 57.6 mph, Minimum = 8.8 mph, Mean = 30.2 mph
85% Speed = 33.89 mph, 95% Speed = 36.29 mph, Median = 30.20 mph
10 mph Pace = 25 - 35, Number in Pace = 3522 (83.46%)
Variance = 15.63, Standard Deviation = 3.95 mph

Speed Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Dir Eastbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	8	0	0	0	0	1	3	2	2	0	0	0	0	0	0	0	0
0100	3	0	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0300	2	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
0400	20	0	0	0	0	1	8	8	3	0	0	0	0	0	0	0	0
0500	38	0	0	1	0	0	15	18	3	1	0	0	0	0	0	0	0
0600	137	0	0	1	0	2	37	76	17	4	0	0	0	0	0	0	0
0700	240	0	0	0	0	19	84	115	22	0	0	0	0	0	0	0	0
0800	256	0	0	0	1	24	98	119	12	1	0	0	0	1	0	0	0
0900	239	0	0	1	3	14	91	111	17	2	0	0	0	0	0	0	0
1000	251	0	1	1	1	16	110	98	24	0	0	0	0	0	0	0	0
1100	270	0	0	3	1	23	120	108	12	3	0	0	0	0	0	0	0
1200	321	0	0	0	3	16	160	111	30	1	0	0	0	0	0	0	0
1300	273	0	1	5	2	28	115	99	20	2	0	1	0	0	0	0	0
1400	286	0	0	0	2	18	136	111	17	2	0	0	0	0	0	0	0
1500	364	0	0	0	8	29	162	141	24	0	0	0	0	0	0	0	0
1600	427	0	0	2	2	19	163	203	34	4	0	0	0	0	0	0	0
1700	487	0	0	0	2	27	195	234	28	1	0	0	0	0	0	0	0
1800	291	0	0	0	0	1	87	164	36	3	0	0	0	0	0	0	0
1900	185	0	0	0	4	14	65	90	12	0	0	0	0	0	0	0	0
2000	119	0	0	1	0	8	35	60	14	1	0	0	0	0	0	0	0
2100	59	0	0	0	1	2	18	32	5	1	0	0	0	0	0	0	0
2200	46	0	0	0	0	2	12	25	7	0	0	0	0	0	0	0	0
2300	30	0	0	0	0	1	10	17	2	0	0	0	0	0	0	0	0
Total	**4353**	**0**	**2**	**15**	**31**	**265**	**1725**	**1945**	**341**	**27**	**0**	**1**	**0**	**1**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.05%**	**0.34%**	**0.71%**	**6.09%**	**39.63%**	**44.68%**	**7.83%**	**0.62%**	**0.00%**	**0.02%**	**0.00%**	**0.02%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 62.5 mph, Minimum = 7.0 mph, Mean = 30.2 mph
85% Speed = 33.88 mph, 95% Speed = 36.18 mph, Median = 30.25 mph
10 mph Pace = 26 - 36, Number in Pace = 3699 (84.98%)
Variance = 14.71, Standard Deviation = 3.84 mph

Speed Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Dir Westbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	11	0	0	0	1	2	4	1	3	0	0	0	0	0	0	0	0
0100	4	0	0	0	0	0	1	2	0	1	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0300	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
0400	12	0	0	0	0	0	4	5	2	1	0	0	0	0	0	0	0
0500	47	0	0	0	0	2	14	20	8	3	0	0	0	0	0	0	0
0600	173	0	0	1	5	8	64	75	18	1	1	0	0	0	0	0	0
0700	439	0	17	38	91	62	122	85	21	2	0	0	1	0	0	0	0
0800	425	0	9	40	101	82	90	75	25	3	0	0	0	0	0	0	0
0900	318	0	4	23	37	42	99	88	21	2	0	0	2	0	0	0	0
1000	234	0	0	0	9	19	102	77	25	1	1	0	0	0	0	0	0
1100	236	0	0	0	1	16	83	112	22	2	0	0	0	0	0	0	0
1200	235	0	0	0	3	12	71	108	39	2	0	0	0	0	0	0	0
1300	240	0	1	0	0	12	84	110	28	4	1	0	0	0	0	0	0
1400	263	0	0	4	13	21	102	106	16	1	0	0	0	0	0	0	0
1500	289	0	0	1	2	30	113	115	25	3	0	0	0	0	0	0	0
1600	300	0	1	7	14	35	91	113	35	4	0	0	0	0	0	0	0
1700	295	0	0	2	5	29	109	120	28	2	0	0	0	0	0	0	0
1800	238	0	1	3	3	27	77	102	23	2	0	0	0	0	0	0	0
1900	174	0	0	2	2	25	72	55	16	1	1	0	0	0	0	0	0
2000	150	0	0	1	0	7	57	64	20	1	0	0	0	0	0	0	0
2100	94	0	0	0	0	7	34	40	11	1	1	0	0	0	0	0	0
2200	48	0	0	0	0	5	20	18	5	0	0	0	0	0	0	0	0
2300	16	0	0	0	0	1	4	6	2	3	0	0	0	0	0	0	0
Total	**4244**	**0**	**33**	**122**	**287**	**445**	**1418**	**1497**	**394**	**40**	**5**	**0**	**3**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.78%**	**2.87%**	**6.76%**	**10.49%**	**33.41%**	**35.27%**	**9.28%**	**0.94%**	**0.12%**	**0.00%**	**0.07%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 57.6 mph, Minimum = 6.6 mph, Mean = 28.6 mph
85% Speed = 34.00 mph, 95% Speed = 36.85 mph, Median = 29.58 mph
10 mph Pace = 25 - 35, Number in Pace = 2931 (69.06%)
Variance = 37.03, Standard Deviation = 6.09 mph

Speed Report

Job 412_017_GI_ATR B
Area Reading, MA
Location Washington Street, between Main Street & Elliott Street
Dir Westbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	6	0	0	0	0	0	1	3	2	0	0	0	0	0	0	0	0
0100	4	0	0	0	0	0	0	3	0	0	1	0	0	0	0	0	0
0200	2	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
0300	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
0400	14	0	0	0	0	1	2	9	0	2	0	0	0	0	0	0	0
0500	35	0	0	0	0	2	8	17	7	1	0	0	0	0	0	0	0
0600	174	0	0	0	2	10	42	69	45	5	1	0	0	0	0	0	0
0700	415	0	20	67	72	51	89	92	20	3	1	0	0	0	0	0	0
0800	364	0	18	52	89	67	73	58	4	1	0	0	0	2	0	0	0
0900	307	0	8	30	17	34	89	99	27	3	0	0	0	0	0	0	0
1000	274	0	0	2	5	33	110	100	24	0	0	0	0	0	0	0	0
1100	252	0	1	0	1	17	110	95	26	2	0	0	0	0	0	0	0
1200	251	0	0	0	6	33	81	113	15	3	0	0	0	0	0	0	0
1300	269	0	6	11	15	32	97	84	23	1	0	0	0	0	0	0	0
1400	267	0	0	1	2	32	94	106	28	4	0	0	0	0	0	0	0
1500	273	0	0	0	9	26	84	131	22	1	0	0	0	0	0	0	0
1600	305	0	3	7	11	49	108	101	21	5	0	0	0	0	0	0	0
1700	293	0	1	29	15	20	101	96	27	4	0	0	0	0	0	0	0
1800	226	0	0	0	0	14	81	91	38	2	0	0	0	0	0	0	0
1900	183	0	0	1	7	22	61	75	16	1	0	0	0	0	0	0	0
2000	142	0	0	0	2	7	51	63	17	2	0	0	0	0	0	0	0
2100	73	0	0	0	1	8	27	27	9	1	0	0	0	0	0	0	0
2200	53	0	0	1	0	4	10	20	13	5	0	0	0	0	0	0	0
2300	23	0	0	0	0	2	6	8	6	1	0	0	0	0	0	0	0
Total	**4208**	**0**	**57**	**201**	**254**	**464**	**1328**	**1460**	**391**	**47**	**4**	**0**	**0**	**2**	**0**	**0**	**0**
	100.00%	**0.00%**	**1.35%**	**4.78%**	**6.04%**	**11.03%**	**31.56%**	**34.70%**	**9.29%**	**1.12%**	**0.10%**	**0.00%**	**0.00%**	**0.05%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 62.5 mph, Minimum = 6.4 mph, Mean = 28.2 mph
85% Speed = 34.06 mph, 95% Speed = 36.74 mph, Median = 29.42 mph
10 mph Pace = 25 - 35, Number in Pace = 2801 (66.56%)
Variance = 43.12, Standard Deviation = 6.57 mph

Volume Report

Job 412_017_GI_ATR C
Area Reading, MA
Location Walkers Brook Drive, between Home Depot Driveway & I-95 Southbound Ramps

Wednesday, September 11, 2019

Time	EB Vehicles & Trucks		EB Trucks		WB Vehicles & Trucks		WB Trucks	
0000	7		1		5		0	
0015	8		0		6		0	
0030	2		0		3		0	
0045	7	24	0	1	7	21	0	0
0100	0		0		1		0	
0115	10		0		7		1	
0130	1		0		4		0	
0145	0	11	0	0	1	13	0	1
0200	3		1		3		0	
0215	4		0		3		0	
0230	0		0		5		0	
0245	4	11	0	1	1	12	0	0
0300	2		0		2		1	
0315	3		1		1		0	
0330	3		1		3		1	
0345	4	12	0	2	2	8	0	2
0400	1		0		3		0	
0415	9		4		4		0	
0430	9		0		12		0	
0445	9	28	0	4	19	38	2	2
0500	7		0		29		0	
0515	8		0		41		5	
0530	22		0		48		2	
0545	31	68	2	2	62	180	1	8
0600	51		1		86		3	
0615	58		3		90		3	
0630	69		3		108		3	
0645	79	257	4	11	177	461	1	10
0700	84		5		208		4	
0715	80		6		239		4	
0730	102		7		246		5	
0745	140	406	5	23	278	971	2	15
0800	108		3		272		4	
0815	98		2		246		2	
0830	177		4		259		7	
0845	141	524	3	12	281	1058	5	18
0900	112		5		228		3	
0915	115		2		232		7	
0930	105		1		178		6	
0945	120	452	6	14	134	772	2	18
1000	165		5		239		6	
1015	196		6		218		0	
1030	216		5		213		9	
1045	173	750	8	24	228	898	3	18
1100	201		4		230		3	
1115	183		2		212		3	
1130	182		7		221		7	
1145	212	778	4	17	242	905	1	14

Time	EB Vehicles & Trucks		EB Trucks		WB Vehicles & Trucks		WB Trucks	
1200	215		5		253		2	
1215	202		3		245		6	
1230	194		3		264		5	
1245	229	840	4	15	243	1005	5	18
1300	215		3		258		4	
1315	211		6		229		6	
1330	206		6		214		4	
1345	214	846	3	18	247	948	2	16
1400	249		6		209		1	
1415	213		4		223		3	
1430	217		6		265		1	
1445	238	917	4	20	223	920	4	9
1500	245		2		223		5	
1515	228		3		232		2	
1530	233		3		219		2	
1545	224	930	2	10	205	879	0	9
1600	237		1		203		3	
1615	242		1		213		1	
1630	263		2		199		3	
1645	236	978	3	7	208	823	1	8
1700	276		1		219		1	
1715	231		2		223		1	
1730	259		1		192		0	
1745	240	1006	1	5	207	841	1	3
1800	230		0		175		2	
1815	196		1		221		0	
1830	211		1		220		0	
1845	169	806	1	3	192	808	0	2
1900	205		1		205		1	
1915	209		0		191		0	
1930	169		1		180		1	
1945	151	734	0	2	164	740	1	3
2000	161		1		140		2	
2015	148		0		113		2	
2030	145		0		97		2	
2045	117	571	2	3	81	431	1	7
2100	95		1		66		1	
2115	71		1		41		0	
2130	67		1		35		0	
2145	56	289	0	3	43	185	0	1
2200	41		0		30		1	
2215	35		1		31		1	
2230	31		1		18		1	
2245	25	132	0	2	14	93	0	3
2300	22		3		13		0	
2315	24		2		10		0	
2330	19		0		11		1	
2345	10	75	0	5	8	42	0	1
Total	**11445**		**204**		**13052**		**186**	

Volume Report

Job 412_017_GI_ATR C
Area Reading, MA
Location Walkers Brook Drive, between Home Depot Driveway & I-95 Southbound Ramps

BOSTON TRAFFIC DATA

Thursday, September 12, 2019

Time	EB Vehicles & Trucks		EB Trucks		WB Vehicles & Trucks		WB Trucks		Time	EB Vehicles & Trucks		EB Trucks		WB Vehicles & Trucks		WB Trucks	
0000	7		0		5		0		1200	220		7		231		16	
0015	6		0		2		0		1215	208		6		239		6	
0030	4		1		4		0		1230	227		7		206		6	
0045	3	20	0	1	5	16	0	0	1245	191	846	2	22	248	924	5	33
0100	1		0		4		0		1300	239		10		261		2	
0115	9		0		6		0		1315	226		7		231		5	
0130	3		0		1		0		1330	222		6		263		3	
0145	1	14	0	0	2	13	1	1	1345	237	924	6	29	214	969	7	17
0200	3		0		3		1		1400	234		5		258		3	
0215	1		1		3		0		1415	198		7		224		3	
0230	2		0		1		1		1430	213		2		227		1	
0245	6	12	2	3	3	10	1	3	1445	235	880	5	19	221	930	1	8
0300	4		0		6		0		1500	254		4		233		2	
0315	3		1		5		1		1515	234		7		197		2	
0330	1		0		4		0		1530	244		1		209		2	
0345	0	8	0	1	4	19	1	2	1545	229	961	1	13	221	860	4	10
0400	5		2		5		0		1600	244		2		216		3	
0415	4		0		7		1		1615	259		5		210		6	
0430	6		0		10		2		1630	251		3		194		2	
0445	13	28	1	3	24	46	1	4	1645	253	1007	5	15	235	855	3	14
0500	7		0		23		1		1700	276		3		233		2	
0515	13		0		27		2		1715	262		3		222		1	
0530	25		2		30		3		1730	263		2		207		3	
0545	22	67	0	2	61	141	0	6	1745	249	1050	1	9	209	871	1	7
0600	52		1		84		2		1800	213		1		207		4	
0615	60		3		90		7		1815	191		1		199		1	
0630	72		1		104		1		1830	175		1		170		0	
0645	78	262	2	7	168	446	0	10	1845	162	741	2	5	197	773	1	6
0700	98		6		186		5		1900	217		1		174		1	
0715	106		3		226		3		1915	165		2		149		2	
0730	124		5		222		7		1930	130		2		133		0	
0745	132	460	7	21	243	877	6	21	1945	136	648	1	6	112	568	1	4
0800	141		7		254		3		2000	118		1		115		0	
0815	134		3		237		3		2015	92		0		104		1	
0830	164		4		240		8		2030	100		1		91		1	
0845	147	586	5	19	226	957	4	18	2045	92	402	0	2	76	386	1	3
0900	130		5		252		10		2100	90		2		63		0	
0915	131		2		202		7		2115	76		1		53		0	
0930	125		4		185		8		2130	58		1		91		0	
0945	146	532	2	13	226	865	9	34	2145	52	276	1	5	28	235	0	0
1000	165		5		197		5		2200	61		1		39		2	
1015	157		3		187		6		2215	68		0		21		0	
1030	157		3		200		5		2230	63		1		22		0	
1045	199	678	6	17	225	809	5	21	2245	58	250	0	2	17	99	0	2
1100	189		6		168		3		2300	52		1		15		0	
1115	208		4		209		1		2315	47		1		28		0	
1130	182		6		217		3		2330	42		3		16		0	
1145	217	796	3	19	250	844	4	11	2345	35	176	1	6	10	69	0	0
									Total	**11624**		**239**		**12582**		**235**	

Volume Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Wednesday, September 11, 2019

Time	Total		NB		SB		Time	Total		NB		SB	
0000	2		1		1		1200	50		25		25	
0015	0		0		0		1215	45		16		29	
0030	1		1		0		1230	51		27		24	
0045	2	5	1	3	1	2	1245	37	183	24	92	13	91
0100	2		0		2		1300	52		24		28	
0115	2		2		0		1315	48		20		28	
0130	0		0		0		1330	40		15		25	
0145	1	5	0	2	1	3	1345	48	188	19	78	29	110
0200	1		1		0		1400	49		26		23	
0215	0		0		0		1415	49		19		30	
0230	0		0		0		1430	44		18		26	
0245	0	1	0	1	0	0	1445	56	198	35	98	21	100
0300	0		0		0		1500	57		26		31	
0315	2		2		0		1515	65		37		28	
0330	4		2		2		1530	51		23		28	
0345	1	7	0	4	1	3	1545	54	227	26	112	28	115
0400	3		2		1		1600	84		38		46	
0415	1		1		0		1615	58		20		38	
0430	1		0		1		1630	73		30		43	
0445	4	9	2	5	2	4	1645	65	280	26	114	39	166
0500	7		6		1		1700	66		25		41	
0515	7		6		1		1715	72		36		36	
0530	7		5		2		1730	78		25		53	
0545	15	36	8	25	7	11	1745	69	285	31	117	38	168
0600	17		8		9		1800	69		32		37	
0615	26		17		9		1815	74		27		47	
0630	28		14		14		1830	49		23		26	
0645	27	98	18	57	9	41	1845	52	244	23	105	29	139
0700	41		18		23		1900	47		24		23	
0715	39		25		14		1915	38		14		24	
0730	53		25		28		1930	41		11		30	
0745	84	217	54	122	30	95	1945	26	152	7	56	19	96
0800	70		45		25		2000	27		11		16	
0815	86		58		28		2015	31		13		18	
0830	83		50		33		2030	31		9		22	
0845	64	303	51	204	13	99	2045	25	114	13	46	12	68
0900	51		30		21		2100	25		4		21	
0915	53		33		20		2115	20		8		12	
0930	48		26		22		2130	20		6		14	
0945	46	198	19	108	27	90	2145	11	76	4	22	7	54
1000	33		19		14		2200	9		4		5	
1015	44		23		21		2215	6		1		5	
1030	48		23		25		2230	4		3		1	
1045	44	169	22	87	22	82	2245	4	23	2	10	2	13
1100	39		17		22		2300	4		1		3	
1115	41		16		25		2315	4		2		2	
1130	45		25		20		2330	2		2		0	
1145	31	156	10	68	21	88	2345	3	13	2	7	1	6
							Total	**3187**		**1543**		**1644**	

Volume Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Thursday, September 12, 2019

Time	Total		NB		SB		Time	Total		NB		SB	
0000	1		0		1		1200	51		21		30	
0015	3		1		2		1215	44		17		27	
0030	0		0		0		1230	40		14		26	
0045	2	6	1	2	1	4	1245	52	187	21	73	31	114
0100	0		0		0		1300	42		23		19	
0115	1		1		0		1315	45		15		30	
0130	0		0		0		1330	42		23		19	
0145	0	1	0	1	0	0	1345	41	170	20	81	21	89
0200	1		0		1		1400	59		23		36	
0215	1		1		0		1415	67		32		35	
0230	0		0		0		1430	37		25		12	
0245	0	2	0	1	0	1	1445	40	203	20	100	20	103
0300	1		1		0		1500	62		27		35	
0315	1		1		0		1515	57		22		35	
0330	0		0		0		1530	62		32		30	
0345	0	2	0	2	0	0	1545	46	227	15	96	31	131
0400	3		1		2		1600	67		31		36	
0415	2		2		0		1615	69		32		37	
0430	2		1		1		1630	58		22		36	
0445	4	11	2	6	2	5	1645	64	258	33	118	31	140
0500	5		4		1		1700	71		30		41	
0515	10		6		4		1715	54		25		29	
0530	3		1		2		1730	74		33		41	
0545	15	33	8	19	7	14	1745	54	253	19	107	35	146
0600	22		13		9		1800	65		19		46	
0615	16		11		5		1815	55		16		39	
0630	20		11		9		1830	44		12		32	
0645	35	93	22	57	13	36	1845	47	211	25	72	22	139
0700	26		12		14		1900	51		18		33	
0715	58		29		29		1915	38		21		17	
0730	63		39		24		1930	32		11		21	
0745	92	239	68	148	24	91	1945	35	156	16	66	19	90
0800	73		53		20		2000	38		16		22	
0815	73		43		30		2015	25		12		13	
0830	82		55		27		2030	39		18		21	
0845	63	291	44	195	19	96	2045	21	123	8	54	13	69
0900	60		38		22		2100	11		1		10	
0915	44		25		19		2115	12		5		7	
0930	49		23		26		2130	14		4		10	
0945	58	211	32	118	26	93	2145	9	46	3	13	6	33
1000	49		25		24		2200	9		4		5	
1015	47		22		25		2215	6		4		2	
1030	35		19		16		2230	10		5		5	
1045	35	166	17	83	18	83	2245	6	31	3	16	3	15
1100	57		19		38		2300	1		0		1	
1115	41		23		18		2315	5		3		2	
1130	45		22		23		2330	2		1		1	
1145	42	185	16	80	26	105	2345	1	9	0	4	1	5
							Total	**3114**		**1512**		**1602**	

Classification Report

Job # 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Direction Northbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	3	0	2	0	0	0	1	0	0	0	0	0	0	0
0100	2	0	1	1	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	4	0	2	2	0	0	0	0	0	0	0	0	0	0
0400	5	0	4	1	0	0	0	0	0	0	0	0	0	0
0500	25	0	17	8	0	0	0	0	0	0	0	0	0	0
0600	57	2	48	7	0	0	0	0	0	0	0	0	0	0
0700	122	0	97	20	1	4	0	0	0	0	0	0	0	0
0800	204	1	186	13	1	2	0	0	1	0	0	0	0	0
0900	108	0	89	18	0	1	0	0	0	0	0	0	0	0
1000	87	2	71	8	1	4	0	1	0	0	0	0	0	0
1100	68	0	57	8	0	1	2	0	0	0	0	0	0	0
1200	92	0	76	13	0	3	0	0	0	0	0	0	0	0
1300	78	0	67	9	1	1	0	0	0	0	0	0	0	0
1400	98	2	76	18	0	2	0	0	0	0	0	0	0	0
1500	112	0	87	21	0	4	0	0	0	0	0	0	0	0
1600	114	1	92	20	0	1	0	0	0	0	0	0	0	0
1700	117	0	95	20	0	2	0	0	0	0	0	0	0	0
1800	105	1	88	16	0	0	0	0	0	0	0	0	0	0
1900	56	3	47	5	0	0	0	1	0	0	0	0	0	0
2000	46	0	40	6	0	0	0	0	0	0	0	0	0	0
2100	22	0	20	1	0	1	0	0	0	0	0	0	0	0
2200	10	0	10	0	0	0	0	0	0	0	0	0	0	0
2300	7	0	7	0	0	0	0	0	0	0	0	0	0	0
Total	**1543**	**12**	**1280**	**215**	**4**	**26**	**3**	**2**	**1**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.78%**	**82.96%**	**13.93%**	**0.26%**	**1.69%**	**0.19%**	**0.13%**	**0.06%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Direction Northbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0100	1	0	0	1	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0400	6	0	6	0	0	0	0	0	0	0	0	0	0	0
0500	19	0	15	4	0	0	0	0	0	0	0	0	0	0
0600	57	1	45	11	0	0	0	0	0	0	0	0	0	0
0700	148	0	123	22	0	2	1	0	0	0	0	0	0	0
0800	195	0	170	21	1	3	0	0	0	0	0	0	0	0
0900	118	0	97	17	0	4	0	0	0	0	0	0	0	0
1000	83	0	61	15	2	5	0	0	0	0	0	0	0	0
1100	80	0	65	13	1	1	0	0	0	0	0	0	0	0
1200	73	0	58	14	0	1	0	0	0	0	0	0	0	0
1300	81	1	65	13	0	2	0	0	0	0	0	0	0	0
1400	100	0	89	10	1	0	0	0	0	0	0	0	0	0
1500	96	0	78	15	0	3	0	0	0	0	0	0	0	0
1600	118	0	103	14	0	1	0	0	0	0	0	0	0	0
1700	107	1	100	5	0	1	0	0	0	0	0	0	0	0
1800	72	0	60	12	0	0	0	0	0	0	0	0	0	0
1900	66	0	58	8	0	0	0	0	0	0	0	0	0	0
2000	54	0	49	5	0	0	0	0	0	0	0	0	0	0
2100	13	0	11	2	0	0	0	0	0	0	0	0	0	0
2200	16	0	14	2	0	0	0	0	0	0	0	0	0	0
2300	4	0	4	0	0	0	0	0	0	0	0	0	0	0
Total	**1512**	**3**	**1276**	**204**	**5**	**23**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.20%**	**84.39%**	**13.49%**	**0.33%**	**1.52%**	**0.07%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Direction Southbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequests@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	2	0	2	0	0	0	0	0	0	0	0	0	0	0
0100	3	0	3	0	0	0	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	3	0	2	1	0	0	0	0	0	0	0	0	0	0
0400	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0500	11	0	9	2	0	0	0	0	0	0	0	0	0	0
0600	41	0	33	8	0	0	0	0	0	0	0	0	0	0
0700	95	0	78	12	1	4	0	0	0	0	0	0	0	0
0800	99	0	78	16	0	5	0	0	0	0	0	0	0	0
0900	90	0	75	14	0	1	0	0	0	0	0	0	0	0
1000	82	0	70	8	1	2	0	1	0	0	0	0	0	0
1100	88	0	75	11	0	1	1	0	0	0	0	0	0	0
1200	91	0	80	6	1	4	0	0	0	0	0	0	0	0
1300	110	0	93	14	2	0	0	1	0	0	0	0	0	0
1400	100	0	80	18	0	2	0	0	0	0	0	0	0	0
1500	115	2	89	20	2	2	0	0	0	0	0	0	0	0
1600	166	1	135	29	0	1	0	0	0	0	0	0	0	0
1700	168	1	142	22	0	2	0	1	0	0	0	0	0	0
1800	139	1	121	15	0	1	0	1	0	0	0	0	0	0
1900	96	0	85	11	0	0	0	0	0	0	0	0	0	0
2000	68	0	60	7	0	1	0	0	0	0	0	0	0	0
2100	54	0	50	4	0	0	0	0	0	0	0	0	0	0
2200	13	0	12	1	0	0	0	0	0	0	0	0	0	0
2300	6	0	6	0	0	0	0	0	0	0	0	0	0	0
Total	**1644**	**5**	**1382**	**219**	**7**	**26**	**1**	**4**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.30%**	**84.06%**	**13.32%**	**0.43%**	**1.58%**	**0.06%**	**0.24%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Classification Report

Job # 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Direction Southbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
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Time	Total	Class 1 Motorcycle	Class 2 Passenger Car	Class 3 Vans, Pick up Trucks	Class 4 Bus	Class 5 2 Axle 6 Tires	Class 6 3 Axle Unit	Class 7 4 Axles or more Unit	Class 8 3 or 4 Axle Trailer	Class 9 5 Axle Trailer	Class 10 6 Axle or more Trailer	Class 11 5 Axle or less Multi-Trailer	Class 12 6 Axle Multi-Trailer	Class 13 7 Axle or more Multi-Trailer
0000	4	0	4	0	0	0	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	1	0	0	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	5	0	5	0	0	0	0	0	0	0	0	0	0	0
0500	14	0	11	2	0	1	0	0	0	0	0	0	0	0
0600	36	0	27	9	0	0	0	0	0	0	0	0	0	0
0700	91	1	69	13	3	5	0	0	0	0	0	0	0	0
0800	96	0	81	11	0	4	0	0	0	0	0	0	0	0
0900	93	0	70	19	0	4	0	0	0	0	0	0	0	0
1000	83	0	65	13	0	5	0	0	0	0	0	0	0	0
1100	105	0	85	16	2	2	0	0	0	0	0	0	0	0
1200	114	0	96	17	0	1	0	0	0	0	0	0	0	0
1300	89	0	77	12	0	0	0	0	0	0	0	0	0	0
1400	103	0	91	9	2	1	0	0	0	0	0	0	0	0
1500	131	0	105	23	1	2	0	0	0	0	0	0	0	0
1600	140	0	123	16	0	1	0	0	0	0	0	0	0	0
1700	146	0	126	20	0	0	0	0	0	0	0	0	0	0
1800	139	0	122	16	0	1	0	0	0	0	0	0	0	0
1900	90	0	74	15	0	1	0	0	0	0	0	0	0	0
2000	69	0	63	4	0	2	0	0	0	0	0	0	0	0
2100	33	0	29	4	0	0	0	0	0	0	0	0	0	0
2200	15	0	14	1	0	0	0	0	0	0	0	0	0	0
2300	5	0	5	0	0	0	0	0	0	0	0	0	0	0
Total	**1602**	**1**	**1343**	**220**	**8**	**30**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.06%**	**83.83%**	**13.73%**	**0.50%**	**1.87%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Speed Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Dir Northbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	3	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0
0100	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
0300	4	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
0400	5	0	0	0	0	0	1	2	1	1	0	0	0	0	0	0	0
0500	25	0	0	0	1	1	2	12	6	3	0	0	0	0	0	0	0
0600	57	0	0	2	0	2	10	31	6	5	1	0	0	0	0	0	0
0700	122	0	0	1	0	3	24	58	31	5	0	0	0	0	0	0	0
0800	204	0	0	0	1	6	40	111	37	7	2	0	0	0	0	0	0
0900	108	0	0	0	3	2	33	44	24	2	0	0	0	0	0	0	0
1000	87	0	0	2	4	13	28	26	14	0	0	0	0	0	0	0	0
1100	68	0	0	1	3	5	15	31	11	1	1	0	0	0	0	0	0
1200	92	0	0	0	0	2	16	47	26	1	0	0	0	0	0	0	0
1300	78	0	0	0	0	4	27	34	13	0	0	0	0	0	0	0	0
1400	98	0	1	0	1	1	33	48	13	1	0	0	0	0	0	0	0
1500	112	0	0	0	0	9	29	51	20	3	0	0	0	0	0	0	0
1600	114	0	0	1	0	1	21	58	31	2	0	0	0	0	0	0	0
1700	117	0	0	1	1	1	40	53	21	0	0	0	0	0	0	0	0
1800	105	0	0	2	0	1	32	44	20	5	1	0	0	0	0	0	0
1900	56	0	0	0	0	1	23	20	11	1	0	0	0	0	0	0	0
2000	46	0	0	0	0	6	9	21	9	1	0	0	0	0	0	0	0
2100	22	0	0	0	0	1	7	9	4	1	0	0	0	0	0	0	0
2200	10	0	0	0	0	0	1	6	3	0	0	0	0	0	0	0	0
2300	7	0	0	0	0	0	2	3	2	0	0	0	0	0	0	0	0
Total	**1543**	**0**	**1**	**10**	**14**	**62**	**395**	**712**	**304**	**40**	**5**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.06%**	**0.65%**	**0.91%**	**4.02%**	**25.60%**	**46.14%**	**19.70%**	**2.59%**	**0.32%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 49.3 mph, Minimum = 9.1 mph, Mean = 31.9 mph
85% Speed = 36.13 mph, 95% Speed = 38.98 mph, Median = 31.99 mph
10 mph Pace = 27 - 37, Number in Pace = 1211 (78.48%)
Variance = 21.00, Standard Deviation = 4.58 mph

Speed Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Dir Northbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
0100	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
0300	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
0400	6	0	0	0	1	1	0	3	1	0	0	0	0	0	0	0	0
0500	19	0	0	0	0	2	2	7	7	1	0	0	0	0	0	0	0
0600	57	0	0	1	0	0	9	27	14	5	1	0	0	0	0	0	0
0700	148	0	1	6	0	4	27	74	32	4	0	0	0	0	0	0	0
0800	195	0	0	1	0	5	46	88	46	9	0	0	0	0	0	0	0
0900	118	0	0	0	0	3	36	56	20	2	1	0	0	0	0	0	0
1000	83	0	0	1	1	4	32	27	18	0	0	0	0	0	0	0	0
1100	80	0	0	0	0	2	18	38	21	1	0	0	0	0	0	0	0
1200	73	0	0	0	1	1	22	31	14	4	0	0	0	0	0	0	0
1300	81	0	0	2	0	1	17	36	22	3	0	0	0	0	0	0	0
1400	100	0	0	0	0	1	27	50	19	2	1	0	0	0	0	0	0
1500	96	0	0	0	1	2	24	46	20	2	1	0	0	0	0	0	0
1600	118	0	0	0	0	2	20	66	25	5	0	0	0	0	0	0	0
1700	107	0	0	1	1	3	9	50	38	4	0	1	0	0	0	0	0
1800	72	0	0	0	0	2	11	37	20	1	0	1	0	0	0	0	0
1900	66	0	0	0	0	8	27	21	9	1	0	0	0	0	0	0	0
2000	54	0	0	0	0	3	7	30	12	2	0	0	0	0	0	0	0
2100	13	0	0	0	0	0	6	6	1	0	0	0	0	0	0	0	0
2200	16	0	0	0	0	0	4	10	2	0	0	0	0	0	0	0	0
2300	4	0	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0
Total	**1512**	**0**	**1**	**12**	**6**	**45**	**348**	**703**	**342**	**49**	**4**	**2**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.07%**	**0.79%**	**0.40%**	**2.98%**	**23.02%**	**46.49%**	**22.62%**	**3.24%**	**0.26%**	**0.13%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 51.1 mph, Minimum = 9.9 mph, Mean = 32.4 mph
85% Speed = 36.69 mph, 95% Speed = 39.59 mph, Median = 32.44 mph
10 mph Pace = 27 - 37, Number in Pace = 1186 (78.44%)
Variance = 21.04, Standard Deviation = 4.59 mph

Speed Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Dir Southbound
Wednesday, September 11, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	2	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
0100	3	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0
0200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0300	3	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0
0400	4	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0
0500	11	0	0	0	0	1	2	5	3	0	0	0	0	0	0	0	0
0600	41	0	0	0	0	1	11	17	10	0	2	0	0	0	0	0	0
0700	95	0	0	0	2	3	20	42	24	3	1	0	0	0	0	0	0
0800	99	0	0	0	0	8	33	41	13	3	1	0	0	0	0	0	0
0900	90	0	0	0	1	5	26	39	17	2	0	0	0	0	0	0	0
1000	82	0	0	1	6	15	34	20	5	1	0	0	0	0	0	0	0
1100	88	0	1	1	2	6	39	33	6	0	0	0	0	0	0	0	0
1200	91	0	0	0	1	12	24	44	8	2	0	0	0	0	0	0	0
1300	110	0	1	0	8	13	29	45	11	3	0	0	0	0	0	0	0
1400	100	0	0	0	1	11	31	41	16	0	0	0	0	0	0	0	0
1500	115	0	0	0	3	3	26	53	24	6	0	0	0	0	0	0	0
1600	166	0	0	0	0	5	24	84	46	7	0	0	0	0	0	0	0
1700	168	0	2	5	16	23	40	43	36	3	0	0	0	0	0	0	0
1800	139	0	0	1	5	11	31	55	29	7	0	0	0	0	0	0	0
1900	96	0	0	0	0	2	22	47	21	3	1	0	0	0	0	0	0
2000	68	0	0	0	0	3	16	28	19	0	2	0	0	0	0	0	0
2100	54	0	0	0	0	0	16	23	12	3	0	0	0	0	0	0	0
2200	13	0	0	0	1	0	4	6	2	0	0	0	0	0	0	0	0
2300	6	0	0	0	0	1	0	2	3	0	0	0	0	0	0	0	0
Total	**1644**	**0**	**4**	**8**	**46**	**123**	**431**	**672**	**310**	**43**	**7**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.24%**	**0.49%**	**2.80%**	**7.48%**	**26.22%**	**40.88%**	**18.86%**	**2.62%**	**0.43%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 50.0 mph, Minimum = 7.6 mph, Mean = 31.1 mph
85% Speed = 36.14 mph, 95% Speed = 38.85 mph, Median = 31.48 mph
10 mph Pace = 27 - 37, Number in Pace = 1164 (70.80%)
Variance = 27.94, Standard Deviation = 5.29 mph

Speed Report

Job 412_017_GI_ATR D
Area Reading, MA
Location Ash Street, between Cross Street & Brook Street
Dir Southbound
Thursday, September 12, 2019

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

Time	Total	Speed Bins (mph)															
		0 5	5 10	10 15	15 20	20 25	25 30	30 35	35 40	40 45	45 50	50 55	55 60	60 65	65 70	70 75	75 80
0000	4	0	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0
0100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0200	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
0300	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0400	5	0	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0
0500	14	0	0	0	0	1	2	7	2	1	1	0	0	0	0	0	0
0600	36	0	0	0	0	1	3	11	14	7	0	0	0	0	0	0	0
0700	91	0	2	0	0	2	17	46	22	2	0	0	0	0	0	0	0
0800	96	0	0	0	3	6	13	49	23	2	0	0	0	0	0	0	0
0900	93	0	0	0	1	4	26	44	16	1	1	0	0	0	0	0	0
1000	83	0	0	0	1	6	16	46	14	0	0	0	0	0	0	0	0
1100	105	0	0	1	0	5	21	56	22	0	0	0	0	0	0	0	0
1200	114	0	0	0	2	4	21	54	32	1	0	0	0	0	0	0	0
1300	89	0	0	0	3	8	18	34	24	2	0	0	0	0	0	0	0
1400	103	0	0	0	0	2	27	39	25	10	0	0	0	0	0	0	0
1500	131	0	0	2	4	8	39	53	23	2	0	0	0	0	0	0	0
1600	140	0	0	0	1	12	35	62	26	3	1	0	0	0	0	0	0
1700	146	0	0	0	0	2	9	73	54	7	1	0	0	0	0	0	0
1800	139	0	0	1	1	3	22	61	42	8	1	0	0	0	0	0	0
1900	90	0	0	0	1	6	22	45	15	1	0	0	0	0	0	0	0
2000	69	0	0	0	0	2	14	32	16	4	1	0	0	0	0	0	0
2100	33	0	0	0	0	0	3	19	9	2	0	0	0	0	0	0	0
2200	15	0	0	0	0	0	4	8	2	1	0	0	0	0	0	0	0
2300	5	0	0	0	0	0	0	2	3	0	0	0	0	0	0	0	0
Total	**1602**	**0**	**2**	**5**	**17**	**72**	**315**	**746**	**385**	**54**	**6**	**0**	**0**	**0**	**0**	**0**	**0**
	100.00%	**0.00%**	**0.12%**	**0.31%**	**1.06%**	**4.49%**	**19.66%**	**46.57%**	**24.03%**	**3.37%**	**0.37%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**	**0.00%**

Maximum = 49.3 mph, Minimum = 6.6 mph, Mean = 32.4 mph
85% Speed = 36.77 mph, 95% Speed = 39.09 mph, Median = 32.72 mph
10 mph Pace = 27 - 37, Number in Pace = 1234 (77.03%)
Variance = 21.69, Standard Deviation = 4.66 mph

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

BOSTON TRAFFIC DATA
PO BOX 1723, Framingham, MA 01701
Office: 978-746-1259
DataRequest@BostonTrafficData.com
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PASSENGER CARS & HEAVY VEHICLES COMBINED

	John Street Northbound				Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	5	0	7	0	0	0	0	0	0	108	18	0	4	166	0
7:15 AM	0	6	0	7	0	0	0	0	0	0	116	25	0	9	136	0
7:30 AM	0	13	0	6	0	0	0	0	0	0	136	19	0	17	140	0
7:45 AM	0	9	0	8	0	0	0	0	0	0	131	35	0	14	130	0
8:00 AM	0	11	0	10	0	0	0	0	0	0	136	32	0	20	134	0
8:15 AM	0	14	0	8	0	0	0	0	0	0	121	40	0	31	141	0
8:30 AM	0	16	0	5	0	0	0	0	0	0	132	51	0	14	133	0
8:45 AM	0	11	0	10	0	0	0	0	0	0	104	49	0	14	142	0

	John Street Northbound				Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	8	0	13	0	0	0	0	0	0	234	18	0	9	119	0
4:15 PM	0	7	0	6	0	0	0	0	0	0	208	14	0	10	129	0
4:30 PM	0	14	0	16	0	0	0	0	0	0	252	12	0	8	135	0
4:45 PM	0	17	0	11	0	0	0	0	0	0	212	19	0	16	136	0
5:00 PM	0	11	0	8	0	0	0	0	0	0	227	20	0	11	135	0
5:15 PM	0	15	0	8	0	0	0	0	0	0	237	19	0	10	140	0
5:30 PM	0	12	0	14	0	0	0	0	0	0	213	15	0	6	112	0
5:45 PM	0	14	0	9	0	0	0	0	0	0	223	23	0	18	96	0

AM PEAK HOUR 8:00 AM to 9:00 AM	John Street Northbound				Southbound				Salem Street Eastbound				Salem Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**52**	**0**	**33**	**0**	**0**	**0**	**0**	**0**	**0**	**493**	**172**	**0**	**79**	**550**	**0**
PHF	**0.97**				**0.00**				**0.91**				**0.91**			
HV %	**0.0%**	**1.9%**	**0.0%**	**15.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**5.1%**	**2.9%**	**0.0%**	**0.0%**	**4.0%**	**0.0%**

PM PEAK HOUR 4:30 PM to 5:30 PM	John Street Northbound				Southbound				Salem Street Eastbound				Salem Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**57**	**0**	**43**	**0**	**0**	**0**	**0**	**0**	**0**	**928**	**70**	**0**	**45**	**546**	**0**
PHF	**0.83**				**0.00**				**0.95**				**0.97**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.5%**	**0.0%**	**0.0%**	**0.0%**	**2.7%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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Office: 978-746-1259
DataRequest@BostonTrafficData.com
www.BostonTrafficData.com

HEAVY VEHICLES

	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	1	0	0	0	0	0	0	3	0	0	0	6	0
7:15 AM	0	0	0	2	0	0	0	0	0	0	7	0	0	1	8	0
7:30 AM	0	1	0	1	0	0	0	0	0	0	5	2	0	1	5	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	7	1	0	0	3	0
8:00 AM	0	0	0	1	0	0	0	0	0	0	6	1	0	0	5	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	1	0	0	7	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	10	3	0	0	4	0
8:45 AM	0	0	0	4	0	0	0	0	0	0	5	0	0	0	6	0

	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	7	0	0	0	4	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0

AM PEAK HOUR 8:00 AM to 9:00 AM	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**	**25**	**5**	**0**	**0**	**22**	**0**
PHF	**0.38**				**0.00**				**0.58**				**0.79**			

PM PEAK HOUR 4:15 PM to 5:15 PM	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**18**	**0**	**0**	**0**	**16**	**0**
PHF	**0.00**				**0.00**				**0.64**				**0.80**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

BOSTON TRAFFIC DATA
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PEDESTRIANS & BICYCLES

	John Street Northbound					John Street Southbound					Salem Street Eastbound					Salem Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	3		0	0	0	0		0	1	0	0		0	0	0	0	
7:15 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
8:00 AM	0	0	0	1		0	0	0	0		0	0	0	0		1	0	0	0	
8:15 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

	John Street Northbound					John Street Southbound					Salem Street Eastbound					Salem Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
4:15 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	1		0	0	0	0		0	2	0	0		0	0	0	0	
5:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	John Street Northbound					John Street Southbound					Salem Street Eastbound					Salem Street Westbound				
8:00 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
9:00 AM	0	0	0	3		0	0	0	0		0	0	0	0		1	0	0	0	

PM PEAK HOUR[1]	John Street Northbound					John Street Southbound					Salem Street Eastbound					Salem Street Westbound				
4:30 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:30 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	12	0	15	0	0	0	0	0	0	145	22	0	9	92	0
11:15 AM	0	16	0	19	0	0	0	0	0	0	157	19	0	10	112	0
11:30 AM	0	9	0	13	0	0	0	0	0	0	171	30	0	21	133	0
11:45 AM	0	7	0	14	0	0	0	0	0	0	172	24	0	13	154	0
12:00 PM	0	13	0	14	0	0	0	0	0	0	192	29	0	13	144	0
12:15 PM	0	11	0	11	0	0	0	0	0	0	188	28	0	11	139	0
12:30 PM	0	15	0	18	0	0	0	0	0	0	149	28	0	8	125	0
12:45 PM	0	24	0	19	0	0	0	0	0	0	185	21	0	13	126	0

MID PEAK HOUR 11:30 AM to 12:30 PM	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**40**	**0**	**52**	**0**	**0**	**0**	**0**	**0**	**0**	**723**	**111**	**0**	**58**	**570**	**0**
PHF	**0.85**				**0.00**				**0.94**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.9%**	**0.9%**	**0.0%**	**0.0%**	**2.3%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	2	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0
12:45 PM	0	0	0	1	0	0	0	0	0	0	4	0	0	0	4	0

MID PEAK HOUR	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
12:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:00 PM	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**13**	**0**	**0**	**0**	**21**	**0**
PHF	**0.25**				**0.00**				**0.81**				**0.75**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 1
Location:	Reading, MA
Street 1:	Salem Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	2	0	0	0	0	0	0	0	4	0	0	0	0
11:15 AM	0	0	0	5	0	0	0	0	0	0	0	2	0	1	0	0
11:30 AM	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	5	0	0	0	0	0	2	0	0	0	1	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0

MID PEAK HOUR 11:30 AM to 12:30 PM	John Street Northbound				John Street Southbound				Salem Street Eastbound				Salem Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	9	0	0	0	0	0	2	0	2	0	1	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	1	11	1	0	0	23	0	0	0	0	2	0	4	10	2
7:15 AM	0	3	17	4	0	1	27	1	0	0	2	2	0	4	16	2
7:30 AM	0	4	23	0	0	3	33	3	0	0	2	0	0	1	21	0
7:45 AM	0	3	21	7	0	3	40	3	0	2	2	0	0	9	15	1
8:00 AM	0	5	25	5	0	3	49	4	0	0	2	2	0	3	23	3
8:15 AM	0	3	21	4	0	5	60	3	0	1	3	4	0	7	11	2
8:30 AM	0	6	24	2	0	2	61	8	0	1	0	0	0	6	6	1
8:45 AM	0	4	19	4	0	0	64	4	0	1	0	2	0	5	19	2

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	2	20	0	0	3	27	0	0	1	6	1	0	1	3	0
4:15 PM	0	0	18	6	0	0	28	0	0	0	4	3	0	12	6	1
4:30 PM	0	1	29	4	0	2	26	1	0	0	3	2	0	3	1	1
4:45 PM	0	2	23	5	0	4	33	3	0	0	7	2	0	1	2	0
5:00 PM	0	5	18	5	0	3	27	1	0	0	4	2	0	4	6	0
5:15 PM	0	6	21	9	0	4	30	0	0	0	7	2	0	5	7	1
5:30 PM	0	4	30	4	0	2	24	1	0	1	6	6	0	4	3	0
5:45 PM	0	1	31	5	0	1	36	2	0	1	5	1	0	4	4	0

AM PEAK HOUR 8:00 AM to 9:00 AM	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**18**	**89**	**15**	**0**	**10**	**234**	**19**	**0**	**3**	**5**	**8**	**0**	**21**	**59**	**8**
PHF	**0.87**				**0.93**				**0.50**				**0.76**			
HV %	**0.0%**	**0.0%**	**6.7%**	**0.0%**	**0.0%**	**0.0%**	**2.6%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 5:00 PM to 6:00 PM	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**16**	**100**	**23**	**0**	**10**	**117**	**4**	**0**	**2**	**22**	**11**	**0**	**17**	**20**	**1**
PHF	**0.91**				**0.84**				**0.67**				**0.73**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**9.1%**	**0.0%**	**0.0%**	**5.0%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
7:15 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	3	1	0	0	2	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:15 AM to 8:15 AM	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**9**	**1**	**0**	**0**	**7**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.63**				**0.88**				**0.25**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**0**	**0**
PHF	**0.00**				**0.25**				**0.50**				**0.25**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	John Street Northbound					John Street Southbound					Pleasant Street Eastbound					Pleasant Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	1		0	0	0	2		0	0	0	0		0	0	0	0	
7:30 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	2		0	0	0	1		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

	John Street Northbound					John Street Southbound					Pleasant Street Eastbound					Pleasant Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	3		0	0	0	2		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 8:00 AM to 9:00 AM	John Street Northbound					John Street Southbound					Pleasant Street Eastbound					Pleasant Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	1		0	1	0	0		0	0	0	0		0	0	0	0	

PM PEAK HOUR[1] 5:00 PM to 6:00 PM	John Street Northbound					John Street Southbound					Pleasant Street Eastbound					Pleasant Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	7		0	0	0	2		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	2	27	3	0	0	32	2	0	0	3	2	0	9	4	0
11:15 AM	0	0	36	3	0	2	24	1	0	0	5	3	0	5	4	1
11:30 AM	0	0	22	6	0	4	47	4	0	1	2	3	0	4	9	2
11:45 AM	0	2	18	8	0	1	43	5	0	1	1	0	0	7	2	1
12:00 PM	0	2	27	6	0	2	42	1	0	2	9	1	0	12	6	0
12:15 PM	0	2	18	3	0	5	41	0	0	1	1	1	0	8	8	0
12:30 PM	0	2	30	2	0	5	26	0	0	2	8	1	0	4	3	0
12:45 PM	0	2	45	1	0	2	33	1	0	2	7	1	0	10	12	2

MID PEAK HOUR	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
12:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:00 PM	**0**	**8**	**120**	**12**	**0**	**14**	**142**	**2**	**0**	**7**	**25**	**4**	**0**	**34**	**29**	**2**
PHF	**0.73**				**0.86**				**0.75**				**0.68**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
10:45 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:45 AM	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.00**				**0.25**				**0.00**				**0.00**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 2
Location:	Reading, MA
Street 1:	Pleasant Street
Street 2:	John Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0
11:45 AM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 12:00 PM to 1:00 PM	John Street Northbound				John Street Southbound				Pleasant Street Eastbound				Pleasant Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	8	71	10	0	9	119	3	0	2	27	0	0	12	59	8
7:15 AM	0	19	68	8	0	9	125	11	0	8	53	7	0	24	78	7
7:30 AM	0	22	90	11	0	6	130	9	0	12	52	5	0	27	67	10
7:45 AM	0	21	115	13	0	10	158	6	0	10	37	5	0	26	85	15
8:00 AM	0	22	131	12	0	9	171	6	0	9	30	1	0	41	60	9
8:15 AM	0	32	116	14	0	18	145	6	0	11	42	2	0	17	46	9
8:30 AM	0	33	108	18	0	17	160	9	0	6	37	4	0	33	55	20
8:45 AM	0	23	119	6	0	14	136	1	0	3	46	4	0	37	52	19

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	34	141	15	0	14	79	4	0	9	74	3	0	12	39	27
4:15 PM	0	21	150	18	0	11	68	5	0	20	77	2	0	11	40	22
4:30 PM	0	23	146	17	0	15	69	3	0	8	76	2	0	11	45	19
4:45 PM	0	31	154	24	0	9	89	3	0	11	77	8	0	17	35	27
5:00 PM	0	30	155	11	0	20	90	5	0	26	73	3	0	10	40	24
5:15 PM	0	35	136	22	0	14	73	1	0	23	90	3	0	12	47	28
5:30 PM	0	31	169	26	0	23	93	6	0	10	68	3	0	14	33	20
5:45 PM	0	28	167	25	0	16	91	4	0	23	87	4	0	12	38	16

AM PEAK HOUR 7:45 AM to 8:45 AM	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**108**	**470**	**57**	**0**	**54**	**634**	**27**	**0**	**36**	**146**	**12**	**0**	**117**	**246**	**53**
PHF		**0.96**				**0.96**				**0.88**				**0.83**		
HV %	**0.0%**	**3.7%**	**3.8%**	**1.8%**	**0.0%**	**14.8%**	**1.4%**	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**0.9%**	**4.1%**	**13.2%**

PM PEAK HOUR 5:00 PM to 6:00 PM	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**124**	**627**	**84**	**0**	**73**	**347**	**16**	**0**	**82**	**318**	**13**	**0**	**48**	**158**	**88**
PHF		**0.92**				**0.89**				**0.89**				**0.84**		
HV %	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**1.2%**	**0.6%**	**7.7%**	**0.0%**	**2.1%**	**1.3%**	**1.1%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	5	1	0	1	2	0	0	0	1	0	0	0	0	3
7:15 AM	0	0	2	0	0	3	4	1	0	0	0	0	0	0	0	1
7:30 AM	0	3	7	1	0	1	0	0	0	0	0	1	0	1	4	3
7:45 AM	0	1	7	0	0	2	2	0	0	0	1	0	0	1	2	0
8:00 AM	0	1	4	0	0	2	2	0	0	0	1	0	0	0	3	3
8:15 AM	0	0	3	0	0	3	2	0	0	0	0	0	0	0	3	1
8:30 AM	0	2	4	1	0	1	3	0	0	0	0	0	0	0	2	3
8:45 AM	0	0	7	0	0	1	2	0	0	0	1	0	0	0	0	0

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	3	1	0	0	0	0	0	0	3	0	0	1	0	1
4:30 PM	0	0	4	0	0	1	2	0	0	0	1	0	0	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
5:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0
5:15 PM	0	0	1	0	0	0	2	0	0	0	1	0	0	0	0	1
5:30 PM	0	0	1	0	0	0	1	0	0	0	1	1	0	1	1	0
5:45 PM	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**21**	**1**	**0**	**8**	**6**	**0**	**0**	**0**	**2**	**1**	**0**	**2**	**12**	**7**
PHF	**0.61**				**0.70**				**0.75**				**0.66**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**1**	**8**	**1**	**0**	**1**	**4**	**0**	**0**	**0**	**5**	**0**	**0**	**1**	**1**	**6**
PHF	**0.63**				**0.42**				**0.42**				**0.67**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	Main Street Northbound					Main Street Southbound					Washington Street Eastbound					Washington Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	1	7		0	0	0	0		0	0	0	1	
7:30 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	2		0	1	0	0		0	1	0	1	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
8:15 AM	0	0	0	0		0	0	1	1		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	1	0		0	0	0	1		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	2		0	0	0	0		0	0	0	0	

	Main Street Northbound					Main Street Southbound					Washington Street Eastbound					Washington Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	3		0	0	0	3		0	1	0	2	
4:15 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	1		0	0	0	2		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	1		0	0	0	2		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:15 PM	0	0	0	1		0	0	0	1		0	0	0	1		0	0	0	1	
5:30 PM	0	0	0	1		0	0	0	0		0	0	2	0		0	0	0	0	
5:45 PM	0	0	0	0		0	2	0	3		0	1	0	0		0	0	0	1	

AM PEAK HOUR[1] 7:45 AM to 8:45 AM	Main Street Northbound					Main Street Southbound					Washington Street Eastbound					Washington Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	0		0	0	2	3		0	1	0	3		0	1	0	1	

PM PEAK HOUR[1] 5:00 PM to 6:00 PM	Main Street Northbound					Main Street Southbound					Washington Street Eastbound					Washington Street Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	2		0	2	0	4		0	1	2	2		0	0	0	2	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	36	147	22	0	20	97	3	0	17	47	3	0	14	30	23
11:15 AM	0	27	128	15	0	13	126	3	0	6	37	4	0	14	41	22
11:30 AM	0	29	116	15	0	22	98	2	0	11	54	4	0	22	42	19
11:45 AM	0	30	137	24	0	9	112	11	0	12	58	7	0	19	31	14
12:00 PM	0	29	127	22	0	18	113	9	0	13	40	3	0	21	43	32
12:15 PM	0	24	141	29	0	13	106	7	0	7	59	8	0	20	42	15
12:30 PM	0	27	124	18	0	16	92	3	0	8	43	6	0	10	48	28
12:45 PM	0	33	140	26	0	14	117	3	0	14	37	5	0	20	39	27

MID PEAK HOUR	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
11:30 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:30 PM	**0**	**112**	**521**	**90**	**0**	**62**	**429**	**29**	**0**	**43**	**211**	**22**	**0**	**82**	**158**	**80**
PHF	**0.93**				**0.93**				**0.90**				**0.83**			
HV %	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**1.6%**	**0.9%**	**0.0%**	**0.0%**	**2.3%**	**1.9%**	**0.0%**	**0.0%**	**0.0%**	**2.5%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	3	0	0	0	2	0	0	0	0	0	0	0	1	0
11:15 AM	0	0	2	0	0	0	1	0	0	1	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0
11:45 AM	0	0	0	0	0	0	1	0	0	0	4	0	0	0	1	0
12:00 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	1	0
12:15 PM	0	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0
12:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0

MID PEAK HOUR	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
11:00 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:00 PM	**0**	**0**	**5**	**0**	**0**	**0**	**5**	**0**	**0**	**2**	**4**	**0**	**0**	**0**	**3**	**0**
PHF	**0.42**				**0.63**				**0.38**				**0.75**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 3
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Washington Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	1	0	0	0	4	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	5	0	0	0	2	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
12:15 PM	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	2
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:45 PM	0	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0

MID PEAK HOUR 11:30 AM to 12:30 PM	Main Street Northbound				Main Street Southbound				Washington Street Eastbound				Washington Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	2	0	0	0	6	0	0	0	6	0	0	0	2

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
7:00 AM	0	78	4	0	0	3	13	125	0	0	6	2	0	1	13	5
7:15 AM	0	59	1	0	0	2	22	165	0	0	27	5	0	6	6	9
7:30 AM	0	81	6	2	0	9	13	159	0	0	30	7	0	7	8	12
7:45 AM	0	110	4	0	0	6	23	171	0	0	25	7	0	12	13	14
8:00 AM	0	132	12	1	0	9	12	194	0	1	20	8	0	7	9	13
8:15 AM	0	124	18	0	0	8	16	180	0	5	22	6	0	9	17	16
8:30 AM	0	118	8	1	0	10	15	173	0	0	29	13	0	7	14	12
8:45 AM	0	117	10	1	0	3	9	179	0	0	18	8	0	12	17	13

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
4:00 PM	0	138	17	1	0	20	16	88	0	0	20	16	0	17	7	32
4:15 PM	0	140	18	2	0	14	12	86	0	1	19	11	0	19	14	30
4:30 PM	0	152	22	1	0	15	10	83	0	1	13	4	0	15	12	21
4:45 PM	0	153	23	0	0	20	9	106	0	0	16	13	0	16	15	40
5:00 PM	0	136	15	0	0	11	11	107	0	0	22	15	0	25	7	38
5:15 PM	0	144	20	0	0	23	8	104	0	1	14	16	0	22	13	35
5:30 PM	0	168	28	0	0	16	17	125	0	0	20	14	0	18	8	38
5:45 PM	0	179	21	0	0	21	12	108	0	0	12	12	0	18	9	29

AM PEAK HOUR 8:00 AM to 9:00 AM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**491**	**48**	**3**	**0**	**30**	**52**	**726**	**0**	**6**	**89**	**35**	**0**	**35**	**57**	**54**
PHF	**0.93**				**0.94**				**0.77**				**0.87**			
HV %	**0.0%**	**3.9%**	**0.0%**	**33.3%**	**0.0%**	**0.0%**	**5.8%**	**1.1%**	**0.0%**	**16.7%**	**3.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

PM PEAK HOUR 5:00 PM to 6:00 PM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**627**	**84**	**0**	**0**	**71**	**48**	**444**	**0**	**1**	**68**	**57**	**0**	**83**	**37**	**140**
PHF	**0.89**				**0.89**				**0.85**				**0.93**			
HV %	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**0.0%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
7:00 AM	0	6	0	0	0	0	0	2	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0
7:30 AM	0	11	0	0	0	0	0	1	0	0	0	0	0	0	0	0
7:45 AM	0	8	0	0	0	0	0	3	0	0	0	0	0	0	0	0
8:00 AM	0	5	0	0	0	0	2	1	0	0	0	0	0	0	0	0
8:15 AM	0	3	0	0	0	0	0	2	0	1	0	0	0	0	0	0
8:30 AM	0	6	0	1	0	0	0	2	0	0	1	0	0	0	0	0
8:45 AM	0	5	0	0	0	0	1	3	0	0	2	0	0	0	0	0

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
4:00 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
4:15 PM	0	4	0	0	0	0	1	0	0	0	0	0	0	0	1	0
4:30 PM	0	4	0	0	0	1	0	1	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	3	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	0	0	0	0	2	0	0	0	1	0	0	0	0
5:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0

AM PEAK HOUR 7:30 AM to 8:30 AM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**27**	**0**	**0**	**0**	**0**	**2**	**7**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.61**				**0.75**				**0.25**				**0.00**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**10**	**0**	**0**	**0**	**1**	**1**	**3**	**0**	**0**	**0**	**0**	**0**	**1**	**1**	**0**
PHF	**0.63**				**0.63**				**0.00**				**0.50**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	Main Street Northbound					Main Street Southbound					Ash Street Northwestbound					Bolton Street Westbound				
Start Time	Thru	Right	Hard Right	PED		Left	Soft Left	Thru	PED		Left	Soft Right	Hard Right	PED		Hard Left	Left	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	1	0	0	0		0	0	0	0		0	1	0	0		0	0	0	1	
8:00 AM	0	1	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	2	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
8:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	1	

	Main Street Northbound					Main Street Southbound					Ash Street Northwestbound					Bolton Street Westbound				
Start Time	Thru	Right	Hard Right	PED		Left	Soft Left	Thru	PED		Left	Soft Right	Hard Right	PED		Hard Left	Left	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
4:45 PM	0	0	0	2		0	0	0	0		0	0	0	0		0	0	0	2	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	2		0	0	0	0		0	0	1	1		0	0	0	2	
5:45 PM	1	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Main Street Northbound					Main Street Southbound					Ash Street Northwestbound					Bolton Street Westbound				
8:00 AM to 9:00 AM	Thru	Right	Hard Right	PED		Left	Soft Left	Thru	PED		Left	Soft Right	Hard Right	PED		Hard Left	Left	Right	PED	
	0	1	0	1		0	0	0	0		0	0	0	1		0	0	0	3	

PM PEAK HOUR[1]	Main Street Northbound					Main Street Southbound					Ash Street Northwestbound					Bolton Street Westbound				
5:00 PM to 6:00 PM	Thru	Right	Hard Right	PED		Left	Soft Left	Thru	PED		Left	Soft Right	Hard Right	PED		Hard Left	Left	Right	PED	
	1	0	0	2		0	0	0	0		0	0	1	2		0	0	0	2	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
11:00 AM	0	151	16	1	0	8	12	116	0	2	22	8	0	17	10	32
11:15 AM	0	130	13	1	0	18	22	136	0	1	14	9	0	12	9	26
11:30 AM	0	122	21	2	0	8	18	112	0	0	13	14	0	15	8	25
11:45 AM	0	131	35	0	0	17	14	139	0	1	21	22	0	15	12	39
12:00 PM	0	129	32	1	0	23	18	135	0	1	15	17	0	18	19	34
12:15 PM	0	132	15	0	0	13	16	143	0	1	22	8	0	10	14	40
12:30 PM	0	118	18	1	0	19	10	114	0	2	17	12	0	24	14	34
12:45 PM	0	142	25	1	0	26	21	126	0	0	21	25	0	20	22	36

MID PEAK HOUR 12:00 PM to 1:00 PM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**521**	**90**	**3**	**0**	**81**	**65**	**518**	**0**	**4**	**75**	**62**	**0**	**72**	**69**	**144**
PHF	**0.91**				**0.94**				**0.77**				**0.91**			
HV %	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
11:00 AM	0	3	0	1	0	0	0	2	0	0	0	0	0	0	0	0
11:15 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
12:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0
12:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:00 AM to 12:00 PM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	U-Turn	Thru	Right	Hard Right	U-Turn	Left	Soft Left	Thru	U-Turn	Left	Soft Right	Hard Right	U-Turn	Hard Left	Left	Right
	0	**5**	**0**	**1**	**0**	**0**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
PHF	**0.38**				**0.50**				**0.00**				**0.00**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 4
Location:	Reading, MA
Street 1:	Main Street
Street 2:	Ash Street/Bolton Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
Start Time	Thru	Right	Hard Right	PED	Left	Soft Left	Thru	PED	Left	Soft Right	Hard Right	PED	Hard Left	Left	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
11:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

MID PEAK HOUR 12:00 PM to 1:00 PM	Main Street Northbound				Main Street Southbound				Ash Street Northwestbound				Bolton Street Westbound			
	Thru	Right	Hard Right	PED	Left	Soft Left	Thru	PED	Left	Soft Right	Hard Right	PED	Hard Left	Left	Right	PED
	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	8	0	3	0	3	48	0	0	0	91	14
7:15 AM	0	0	0	0	0	7	0	3	0	1	57	0	0	0	108	22
7:30 AM	0	0	0	0	0	9	0	3	0	2	59	0	0	0	119	30
7:45 AM	0	0	0	0	0	7	0	4	0	0	64	0	0	0	111	18
8:00 AM	0	0	0	0	0	9	0	2	0	1	50	0	0	0	104	22
8:15 AM	0	0	0	0	0	5	0	2	0	1	72	0	0	0	92	15
8:30 AM	0	0	0	0	0	14	0	1	0	2	81	0	0	0	95	23
8:45 AM	0	0	0	0	0	8	0	1	0	0	65	0	0	0	93	10

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	7	0	3	0	2	104	0	0	0	78	14
4:15 PM	0	0	0	0	0	9	0	0	0	4	120	0	0	0	73	16
4:30 PM	0	0	0	0	0	7	0	0	0	5	101	0	0	0	74	20
4:45 PM	0	0	0	0	0	9	0	2	0	5	99	0	0	0	68	21
5:00 PM	0	0	0	0	0	4	0	2	0	3	113	0	0	0	96	23
5:15 PM	0	0	0	0	0	10	0	2	0	5	123	0	0	0	67	14
5:30 PM	0	0	0	0	0	9	0	1	0	4	119	0	0	0	61	26
5:45 PM	0	0	0	0	0	6	0	1	0	9	122	0	0	0	63	12

AM PEAK HOUR 7:15 AM to 8:15 AM	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**32**	**0**	**12**	**0**	**4**	**230**	**0**	**0**	**0**	**442**	**92**
PHF	**0.00**				**0.92**				**0.91**				**0.90**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.3%**	**0.0%**	**0.0%**	**0.0%**	**3.4%**	**6.5%**

PM PEAK HOUR 5:00 PM to 6:00 PM	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**29**	**0**	**6**	**0**	**21**	**477**	**0**	**0**	**0**	**287**	**75**
PHF	**0.00**				**0.73**				**0.95**				**0.76**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**	**0.0%**	**0.0%**	**0.7%**	**4.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	4	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	10	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	4	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1

AM PEAK HOUR 7:00 AM to 8:00 AM	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**0**	**0**	**0**	**16**	**6**
PHF	**0.00**				**0.00**				**0.92**				**0.50**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**8**	**0**
PHF	**0.00**				**0.00**				**0.42**				**0.67**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	Northbound					Village Street Southbound					Washington Street Eastbound					Village Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	2	1		0	0	0	1		0	0	0	0	
7:30 AM	0	0	0	0		1	0	0	1		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Northbound					Village Street Southbound					Washington Street Eastbound					Village Street Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	2		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1]	Northbound					Village Street Southbound					Washington Street Eastbound					Village Street Westbound				
7:15 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
8:15 AM	0	0	0	0		1	0	2	2		0	1	0	1		0	1	0	0	

PM PEAK HOUR[1]	Northbound					Village Street Southbound					Washington Street Eastbound					Village Street Westbound				
5:00 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
6:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	5	0	1	0	1	85	0	0	0	66	14
11:15 AM	0	0	0	0	0	6	0	2	0	2	72	0	0	0	73	18
11:30 AM	0	0	0	0	0	8	0	1	0	1	82	0	0	0	74	10
11:45 AM	0	0	0	0	0	6	0	1	0	2	90	0	0	0	69	11
12:00 PM	0	0	0	0	0	14	0	3	0	0	85	0	0	0	91	10
12:15 PM	0	0	0	0	0	14	0	1	0	6	102	0	0	0	79	9
12:30 PM	0	0	0	0	0	7	0	1	0	0	79	0	0	0	81	13
12:45 PM	0	0	0	0	0	10	0	1	0	4	75	0	0	0	103	9

MID PEAK HOUR	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
12:00 PM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:00 PM	**0**	**0**	**0**	**0**	**0**	**45**	**0**	**6**	**0**	**10**	**341**	**0**	**0**	**0**	**354**	**41**
PHF	**0.00**				**0.75**				**0.81**				**0.88**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.8%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

MID PEAK HOUR	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
11:15 AM	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
to 12:15 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**0**	**0**	**0**	**5**	**2**
PHF	**0.00**				**0.00**				**0.31**				**0.58**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 5
Location:	Reading, MA
Street 1:	Washington Street
Street 2:	Village Street
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

MID PEAK HOUR 12:00 PM to 1:00 PM	Northbound				Village Street Southbound				Washington Street Eastbound				Village Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	6	1	8	0	9	0	9	0	9	84	9	0	14	123	7
7:15 AM	0	13	1	6	0	6	1	13	0	11	82	10	0	27	168	8
7:30 AM	0	23	2	6	0	7	2	12	0	9	94	10	0	16	143	5
7:45 AM	0	9	0	14	0	13	2	11	0	9	93	18	0	48	160	8
8:00 AM	0	13	0	4	0	10	0	10	0	13	103	19	0	32	154	7
8:15 AM	0	15	1	16	0	6	4	11	0	16	92	25	0	26	138	2
8:30 AM	0	11	0	16	0	15	4	17	0	15	140	23	0	45	170	7
8:45 AM	0	20	1	14	0	9	4	12	0	14	107	23	0	43	135	4

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	33	4	43	0	13	2	24	0	19	136	9	0	32	131	2
4:15 PM	0	40	2	57	0	9	2	15	0	16	159	8	0	28	127	5
4:30 PM	0	25	1	35	0	13	2	26	0	22	175	12	0	31	113	4
4:45 PM	0	31	5	41	0	5	2	19	0	28	160	8	0	22	153	5
5:00 PM	0	29	1	48	0	8	3	27	0	17	172	9	0	22	168	2
5:15 PM	0	22	1	35	0	8	5	25	0	20	193	12	0	26	126	6
5:30 PM	0	28	2	43	0	7	0	20	0	33	183	9	0	28	135	4
5:45 PM	0	27	1	28	0	12	4	16	0	23	171	9	0	31	119	2

AM PEAK HOUR 8:00 AM to 9:00 AM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**59**	**2**	**50**	**0**	**40**	**12**	**50**	**0**	**58**	**442**	**90**	**0**	**146**	**597**	**20**
PHF	**0.79**				**0.71**				**0.83**				**0.86**			
HV %	**0.0%**	**11.9%**	**50.0%**	**6.0%**	**0.0%**	**0.0%**	**0.0%**	**4.0%**	**0.0%**	**0.0%**	**2.5%**	**5.6%**	**0.0%**	**2.7%**	**2.0%**	**0.0%**

PM PEAK HOUR 4:45 PM to 5:45 PM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**110**	**9**	**167**	**0**	**28**	**10**	**91**	**0**	**98**	**708**	**38**	**0**	**98**	**582**	**17**
PHF	**0.92**				**0.85**				**0.94**				**0.91**			
HV %	**0.0%**	**0.0%**	**11.1%**	**1.2%**	**0.0%**	**3.6%**	**0.0%**	**1.1%**	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	2	0	2	0	0	0	0	0	0	5	1	0	2	2	0
7:15 AM	0	6	1	0	0	0	0	0	0	0	2	2	0	1	1	0
7:30 AM	0	8	0	0	0	1	1	0	0	1	3	0	0	0	6	0
7:45 AM	0	2	0	2	0	0	0	0	0	0	4	2	0	1	3	0
8:00 AM	0	4	0	0	0	0	0	0	0	0	3	0	0	0	1	0
8:15 AM	0	1	1	1	0	0	0	0	0	0	1	3	0	0	3	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	7	0
8:45 AM	0	2	0	2	0	0	0	2	0	0	2	1	0	4	1	0

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	1	0	1	0	0	0	0	0	0	1	0	0	1	3	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	1	2	0
4:30 PM	0	2	0	0	0	0	0	1	0	0	4	0	0	0	0	1
4:45 PM	0	0	1	2	0	0	0	0	0	0	2	0	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	0	0	1	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
5:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

AM PEAK HOUR 7:00 AM to 8:00 AM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**18**	**1**	**4**	**0**	**1**	**1**	**0**	**0**	**1**	**14**	**5**	**0**	**4**	**12**	**0**
PHF	**0.72**				**0.25**				**0.83**				**0.67**			

PM PEAK HOUR 4:00 PM to 5:00 PM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**3**	**1**	**3**	**0**	**0**	**0**	**1**	**0**	**0**	**11**	**0**	**0**	**2**	**6**	**1**
PHF	**0.58**				**0.25**				**0.69**				**0.56**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	New Crossing Road Northbound					Shopping Center Driveway Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	1		0	0	0	1		0	0	0	0		0	0	0	1	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	0	1		0	1	0	0		0	0	0	2	
7:45 AM	0	0	0	0		0	0	0	1		0	1	0	0		0	0	0	1	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	1	0	1	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	New Crossing Road Northbound					Shopping Center Driveway Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
5:00 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	1	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	

AM PEAK HOUR[1]	New Crossing Road Northbound					Shopping Center Driveway Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
8:00 AM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
9:00 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	2	0	1	

PM PEAK HOUR[1]	New Crossing Road Northbound					Shopping Center Driveway Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
4:45 PM																				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:45 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	2	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	17	2	12	0	22	2	19	0	24	142	4	0	15	166	6
11:15 AM	0	22	1	16	0	20	2	26	0	26	158	1	0	28	145	7
11:30 AM	0	21	0	4	0	8	5	26	0	35	171	9	0	18	151	6
11:45 AM	0	15	1	17	0	12	3	17	0	30	176	8	0	27	155	7
12:00 PM	0	22	2	15	0	13	3	21	0	28	164	8	0	28	160	12
12:15 PM	0	23	4	20	0	13	4	25	0	31	173	8	0	30	157	4
12:30 PM	0	27	3	16	0	9	2	30	0	18	155	5	0	33	163	8
12:45 PM	0	25	2	20	0	20	3	27	0	21	167	12	0	17	182	6

MID PEAK HOUR 12:00 PM to 1:00 PM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**97**	**11**	**71**	**0**	**55**	**12**	**103**	**0**	**98**	**659**	**33**	**0**	**108**	**662**	**30**
PHF	**0.95**				**0.85**				**0.93**				**0.98**			
HV %	**0.0%**	**0.0%**	**0.0%**	**1.4%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.3%**	**0.0%**	**0.0%**	**0.0%**	**0.2%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3	0
11:45 AM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0
12:00 PM	0	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:15 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:15 PM	**0**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**1**	**5**	**0**
PHF	**0.75**				**0.00**				**0.50**				**0.50**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 6
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	New Crossing Rd/Shopping Drive
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
11:30 AM	0	0	0	3	0	0	0	1	0	0	0	0	0	3	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
12:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 12:00 PM to 1:00 PM	New Crossing Road Northbound				Shopping Center Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	2

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	22	0	9	0	6	76	0	0	0	146	40
7:15 AM	0	0	0	0	0	29	0	7	0	14	77	0	0	0	182	44
7:30 AM	0	0	0	0	0	30	0	13	0	8	94	0	0	0	180	42
7:45 AM	0	0	0	0	0	25	0	14	0	5	107	0	0	0	193	50
8:00 AM	0	0	0	0	0	33	0	8	0	6	108	0	0	0	202	52
8:15 AM	0	0	0	0	0	31	0	9	0	9	103	0	0	0	190	47
8:30 AM	0	0	0	0	0	42	0	6	0	17	122	0	0	0	181	59
8:45 AM	0	0	0	0	0	33	0	19	0	14	114	0	0	0	174	52

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	62	0	23	0	17	182	0	0	0	145	71
4:15 PM	0	0	0	0	0	54	0	24	0	19	205	0	0	0	137	73
4:30 PM	0	0	0	0	0	48	0	22	0	16	203	0	0	0	128	66
4:45 PM	0	0	0	0	0	52	0	24	0	19	201	0	0	0	157	78
5:00 PM	0	0	0	0	0	71	0	25	0	13	205	0	0	0	162	71
5:15 PM	0	0	0	0	0	59	0	16	0	27	203	0	0	0	144	78
5:30 PM	0	0	0	0	0	64	0	21	0	26	199	0	0	0	150	57
5:45 PM	0	0	0	0	0	62	0	16	0	17	187	0	0	0	131	78

AM PEAK HOUR 8:00 AM to 9:00 AM	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**139**	**0**	**42**	**0**	**46**	**447**	**0**	**0**	**0**	**747**	**210**
PHF	**0.00**				**0.87**				**0.89**				**0.94**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**3.6%**	**0.0%**	**0.0%**	**0.0%**	**2.2%**	**3.1%**	**0.0%**	**0.0%**	**0.0%**	**1.6%**	**2.9%**

PM PEAK HOUR 4:45 PM to 5:45 PM	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**246**	**0**	**86**	**0**	**85**	**808**	**0**	**0**	**0**	**613**	**284**
PHF	**0.00**				**0.86**				**0.97**				**0.95**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.6%**	**0.0%**	**0.0%**	**0.0%**	**1.2%**	**1.1%**	**0.0%**	**0.0%**	**0.0%**	**0.8%**	**1.4%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	3	0	0	0	1	3	0	0	0	4	1
7:15 AM	0	0	0	0	0	2	0	0	0	0	1	0	0	0	3	0
7:30 AM	0	0	0	0	0	1	0	1	0	1	4	0	0	0	6	1
7:45 AM	0	0	0	0	0	1	0	0	0	0	6	0	0	0	4	2
8:00 AM	0	0	0	0	0	2	0	0	0	0	5	0	0	0	2	1
8:15 AM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	3	0
8:30 AM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	6	2
8:45 AM	0	0	0	0	0	1	0	0	0	0	4	0	0	0	1	3

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	1
4:15 PM	0	0	0	0	0	1	0	1	0	0	4	0	0	0	2	4
4:30 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	1
4:45 PM	0	0	0	0	0	1	0	0	0	0	4	0	0	0	1	2
5:00 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	2	0
5:15 PM	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	1
5:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	2	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1

AM PEAK HOUR 7:00 AM to 8:00 AM	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**7**	**0**	**1**	**0**	**2**	**14**	**0**	**0**	**0**	**17**	**4**
PHF	**0.00**				**0.67**				**0.67**				**0.75**			

PM PEAK HOUR 4:00 PM to 5:00 PM	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**3**	**0**	**1**	**0**	**0**	**12**	**0**	**0**	**0**	**6**	**8**
PHF	**0.00**				**0.50**				**0.75**				**0.58**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	Home Depot Driveway					Walkers Brook Drive					Walkers Brook Drive				
	Northbound					Southbound					Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	0		0	0	1	0		0	1	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	1	0	1	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

	Home Depot Driveway					Walkers Brook Drive					Walkers Brook Drive				
	Northbound					Southbound					Eastbound					Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	

AM PEAK HOUR[1]	Home Depot Driveway					Walkers Brook Drive					Walkers Brook Drive				
8:00 AM	Northbound					Southbound					Eastbound					Westbound				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
9:00 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	2	0	1	

PM PEAK HOUR[1]	Home Depot Driveway					Walkers Brook Drive					Walkers Brook Drive				
4:45 PM	Northbound					Southbound					Eastbound					Westbound				
to	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	78	0	33	0	25	156	0	0	0	142	110
11:15 AM	0	0	0	0	0	80	0	30	0	31	154	0	0	0	111	147
11:30 AM	0	0	0	0	0	85	0	27	0	27	145	0	0	0	130	151
11:45 AM	0	0	0	0	0	84	0	29	0	30	163	0	0	0	133	140
12:00 PM	0	0	0	0	0	111	0	44	0	35	155	0	0	0	115	151
12:15 PM	0	0	0	0	0	101	0	35	0	39	158	0	0	0	129	152
12:30 PM	0	0	0	0	0	93	0	35	0	26	144	0	0	0	120	166
12:45 PM	0	0	0	0	0	85	0	38	0	27	170	0	0	0	99	173

MID PEAK HOUR	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
12:00 PM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
1:00 PM	**0**	**0**	**0**	**0**	**0**	**390**	**0**	**152**	**0**	**127**	**627**	**0**	**0**	**0**	**463**	**642**
PHF	**0.00**				**0.87**				**0.96**				**0.97**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.3%**	**0.0%**	**2.0%**	**0.0%**	**0.8%**	**0.6%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**0.3%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	3
11:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	2
11:30 AM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	2	2
11:45 AM	0	0	0	0	0	1	0	0	0	2	1	0	0	0	1	2
12:00 PM	0	0	0	0	0	3	0	2	0	1	3	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:30 PM	0	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0
12:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	2

MID PEAK HOUR	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:15 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:15 PM	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**3**	**0**	**3**	**7**	**0**	**0**	**0**	**4**	**6**
PHF	**0.00**				**0.45**				**0.63**				**0.63**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 7
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	Home Depot Driveway
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	1	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

MID PEAK HOUR 12:00 PM to 1:00 PM	Northbound				Home Depot Driveway Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	27	4	111	0	0	64	34	0	34	75	0
7:15 AM	0	0	0	0	0	34	3	143	0	0	83	23	0	39	83	0
7:30 AM	0	0	0	0	0	26	7	122	0	0	98	26	0	32	100	0
7:45 AM	0	0	0	0	0	30	7	134	0	0	104	28	0	30	109	0
8:00 AM	0	0	0	0	0	35	8	150	0	0	124	17	0	26	104	0
8:15 AM	0	0	0	0	0	28	14	128	0	0	106	28	0	27	109	0
8:30 AM	0	0	0	0	0	22	9	141	0	0	135	29	0	32	99	0
8:45 AM	0	0	0	0	0	29	6	118	0	0	121	26	0	30	108	0

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	16	0	76	0	0	167	77	0	63	140	0
4:15 PM	0	0	0	0	0	25	0	83	0	0	194	65	0	61	127	0
4:30 PM	0	0	0	0	0	26	0	76	0	0	181	70	0	71	118	0
4:45 PM	0	0	0	0	0	22	0	84	0	0	189	64	0	68	151	0
5:00 PM	0	0	0	0	0	28	0	97	0	0	201	75	0	81	136	0
5:15 PM	0	0	0	0	0	22	0	87	0	0	188	74	0	56	135	0
5:30 PM	0	0	0	0	0	25	0	78	0	0	195	68	0	63	129	0
5:45 PM	0	0	0	0	0	33	0	88	0	0	163	86	0	60	121	0

AM PEAK HOUR 7:45 AM to 8:45 AM	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**115**	**38**	**553**	**0**	**0**	**469**	**102**	**0**	**115**	**421**	**0**
PHF	**0.00**				**0.91**				**0.87**				**0.96**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.7%**	**2.6%**	**1.8%**	**0.0%**	**0.0%**	**3.4%**	**4.9%**	**0.0%**	**1.7%**	**2.4%**	**0.0%**

PM PEAK HOUR 4:45 PM to 5:45 PM	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**97**	**0**	**346**	**0**	**0**	**773**	**281**	**0**	**268**	**551**	**0**
PHF	**0.00**				**0.89**				**0.95**				**0.93**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.0%**	**0.0%**	**1.2%**	**0.0%**	**0.0%**	**0.8%**	**2.5%**	**0.0%**	**0.0%**	**1.1%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	0	0	0	0	0	0	0	0	0	5	1	0	0	5	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	2	1	0	0	2	0
7:30 AM	0	0	0	0	0	0	0	2	0	0	3	2	0	0	5	0
7:45 AM	0	0	0	0	0	0	0	2	0	0	5	2	0	0	4	0
8:00 AM	0	0	0	0	0	1	0	1	0	0	6	1	0	1	2	0
8:15 AM	0	0	0	0	0	1	0	1	0	0	1	2	0	0	2	0
8:30 AM	0	0	0	0	0	0	1	6	0	0	4	0	0	1	2	0
8:45 AM	0	0	0	0	0	0	0	2	0	0	3	2	0	1	2	0

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	0	0	0	0	0	0	2	0	0	1	1	0	0	3	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	4	1	0	0	5	0
4:30 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	2	1	0
4:45 PM	0	0	0	0	0	0	0	2	0	0	3	2	0	0	1	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	1	2	0	0	2	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0
5:30 PM	0	0	0	0	0	1	0	1	0	0	0	2	0	0	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0

AM PEAK HOUR 7:45 AM to 8:45 AM	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**2**	**1**	**10**	**0**	**0**	**16**	**5**	**0**	**2**	**10**	**0**
PHF	**0.00**				**0.46**				**0.75**				**0.75**			

PM PEAK HOUR 4:00 PM to 5:00 PM	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**0**	**11**	**4**	**0**	**2**	**10**	**0**
PHF	**0.00**				**0.75**				**0.75**				**0.60**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	I-95 Southbound On-Ramp Northbound					I-95 Southbound Off-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
8:00 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

	I-95 Southbound On-Ramp Northbound					I-95 Southbound Off-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 7:45 AM to 8:45 AM	I-95 Southbound On-Ramp Northbound					I-95 Southbound Off-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	2		0	0	0	1		0	0	0	0		0	0	0	0	

PM PEAK HOUR[1] 4:45 PM to 5:45 PM	I-95 Southbound On-Ramp Northbound					I-95 Southbound Off-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	1		0	0	0	1		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	25	0	98	0	0	161	73	0	57	154	0
11:15 AM	0	0	0	0	0	22	0	110	0	0	160	74	0	59	148	0
11:30 AM	0	0	0	0	0	35	0	102	0	0	147	83	0	60	179	0
11:45 AM	0	0	0	0	0	33	0	103	0	0	168	79	0	67	170	0
12:00 PM	0	0	0	0	0	26	0	117	0	0	179	87	0	63	149	0
12:15 PM	0	0	0	0	0	25	0	108	0	0	173	86	0	50	173	0
12:30 PM	0	0	0	0	0	26	1	115	0	0	157	80	0	63	171	0
12:45 PM	0	0	0	0	0	31	2	123	0	0	188	67	0	46	149	0

MID PEAK HOUR	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:45 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:45 PM	**0**	**0**	**0**	**0**	**0**	**110**	**1**	**443**	**0**	**0**	**677**	**332**	**0**	**243**	**663**	**0**
PHF	**0.00**				**0.97**				**0.95**				**0.96**			
HV %	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.5%**	**0.0%**	**0.0%**	**0.8%**	**0.8%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0
11:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	0	0	2	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	2	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0

MID PEAK HOUR	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:00 AM																
to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:00 PM	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**7**	**1**	**0**	**2**	**11**	**0**
PHF	**0.00**				**0.25**				**0.67**				**0.65**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 8
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Southbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PEDESTRIANS & BICYCLES

	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:45 AM to 12:45 PM	I-95 Southbound On-Ramp Northbound				I-95 Southbound Off-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	30	0	68	0	0	0	0	0	38	53	0	0	0	79	36
7:15 AM	0	40	0	76	0	0	0	0	0	49	68	0	0	0	82	37
7:30 AM	0	52	1	42	0	0	0	0	0	35	89	0	0	0	80	22
7:45 AM	0	44	0	69	0	0	0	0	0	47	87	0	0	0	95	21
8:00 AM	0	40	1	55	0	0	0	0	0	46	113	0	0	0	90	29
8:15 AM	0	44	0	75	0	0	0	0	0	50	84	0	0	0	92	39
8:30 AM	0	61	1	58	0	0	0	0	0	51	106	0	0	0	70	26
8:45 AM	0	47	0	69	0	0	0	0	0	62	88	0	0	0	91	31

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	45	0	48	0	0	0	0	0	100	83	0	0	0	158	46
4:15 PM	0	49	0	50	0	0	0	0	0	116	103	0	0	0	139	37
4:30 PM	0	33	1	43	0	0	0	0	0	93	114	0	0	0	156	47
4:45 PM	0	39	0	53	0	0	0	0	0	87	124	0	0	0	180	39
5:00 PM	0	43	3	52	0	0	0	0	0	108	121	0	0	0	174	57
5:15 PM	0	47	0	58	0	0	0	0	0	95	115	0	0	0	144	46
5:30 PM	0	50	1	80	0	0	0	0	0	93	127	0	0	0	142	36
5:45 PM	0	46	3	52	0	0	0	0	0	106	90	0	0	0	135	20

AM PEAK HOUR 8:00 AM to 9:00 AM	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**192**	**2**	**257**	**0**	**0**	**0**	**0**	**0**	**209**	**391**	**0**	**0**	**0**	**343**	**125**
PHF	**0.94**				**0.00**				**0.94**				**0.89**			
HV %	**0.0%**	**4.2%**	**0.0%**	**5.1%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**4.3%**	**1.8%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**1.6%**

PM PEAK HOUR 4:45 PM to 5:45 PM	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**179**	**4**	**243**	**0**	**0**	**0**	**0**	**0**	**383**	**487**	**0**	**0**	**0**	**640**	**178**
PHF	**0.81**				**0.00**				**0.95**				**0.89**			
HV %	**0.0%**	**1.7%**	**0.0%**	**1.2%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**1.6%**	**0.4%**	**0.0%**	**0.0%**	**0.0%**	**0.6%**	**1.1%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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HEAVY VEHICLES

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
7:00 AM	0	1	0	2	0	0	0	0	0	3	2	0	0	0	4	3
7:15 AM	0	0	0	8	0	0	0	0	0	2	0	0	0	0	2	1
7:30 AM	0	2	0	1	0	0	0	0	0	2	1	0	0	0	3	0
7:45 AM	0	2	0	7	0	0	0	0	0	3	2	0	0	0	2	2
8:00 AM	0	3	0	2	0	0	0	0	0	2	5	0	0	0	0	1
8:15 AM	0	0	0	3	0	0	0	0	0	2	0	0	0	0	2	0
8:30 AM	0	2	0	5	0	0	0	0	0	2	2	0	0	0	1	0
8:45 AM	0	3	0	3	0	0	0	0	0	3	0	0	0	0	0	1

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
4:00 PM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	1	1
4:15 PM	0	2	0	3	0	0	0	0	0	3	1	0	0	0	3	3
4:30 PM	0	0	0	3	0	0	0	0	0	1	2	0	0	0	3	0
4:45 PM	0	0	0	1	0	0	0	0	0	1	2	0	0	0	1	1
5:00 PM	0	3	0	1	0	0	0	0	0	2	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0
5:30 PM	0	0	0	1	0	0	0	0	0	1	0	0	0	0	2	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0

AM PEAK HOUR 7:00 AM to 8:00 AM	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**0**	**18**	**0**	**0**	**0**	**0**	**0**	**10**	**5**	**0**	**0**	**0**	**11**	**6**
PHF	**0.64**				**0.00**				**0.75**				**0.61**			

PM PEAK HOUR 4:15 PM to 5:15 PM	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
	0	**5**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**7**	**5**	**0**	**0**	**0**	**7**	**5**
PHF	**0.65**				**0.00**				**0.75**				**0.50**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/12/2019
Day of Week:	Thursday
Weather:	Mostly Cloudy, 75°F

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PEDESTRIANS & BICYCLES

	I-95 Northbound Off-Ramp Northbound					I-95 Northbound On-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
7:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
7:30 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
7:45 AM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	1	
8:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
8:45 AM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

	I-95 Northbound Off-Ramp Northbound					I-95 Northbound On-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
Start Time	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
4:00 PM	0	0	0	0		0	0	0	1		0	0	0	0		0	0	0	1	
4:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
4:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:00 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
5:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
5:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

AM PEAK HOUR[1] 8:00 AM to 9:00 AM	I-95 Northbound Off-Ramp Northbound					I-95 Northbound On-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

PM PEAK HOUR[1] 4:45 PM to 5:45 PM	I-95 Northbound Off-Ramp Northbound					I-95 Northbound On-Ramp Southbound					Walkers Brook Drive Eastbound					Walkers Brook Drive Westbound				
	Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED		Left	Thru	Right	PED	
	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	

[1] *Peak hours corresponds to vehicular peak hours.*

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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PASSENGER CARS & HEAVY VEHICLES COMBINED

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	64	0	69	0	0	0	0	0	78	108	0	0	0	147	50
11:15 AM	0	61	0	47	0	0	0	0	0	83	99	0	0	0	146	45
11:30 AM	0	65	2	41	0	0	0	0	0	81	101	0	0	0	174	43
11:45 AM	0	58	0	64	0	0	0	0	0	97	104	0	0	0	179	37
12:00 PM	0	67	0	53	0	0	0	0	0	95	110	0	0	0	145	33
12:15 PM	0	71	0	52	0	0	0	0	0	73	125	0	0	0	152	43
12:30 PM	0	49	0	24	0	0	0	0	0	65	118	0	0	0	185	21
12:45 PM	0	43	0	38	0	0	0	0	0	96	123	0	0	0	152	38

MID PEAK HOUR	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:30 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:30 PM	**0**	**261**	**2**	**210**	**0**	**0**	**0**	**0**	**0**	**346**	**440**	**0**	**0**	**0**	**650**	**156**
PHF	**0.96**				**0.00**				**0.96**				**0.93**			
HV %	**0.0%**	**0.8%**	**0.0%**	**1.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**2.3%**	**0.0%**	**0.0%**	**0.0%**	**0.9%**	**0.0%**

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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HEAVY VEHICLES

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
11:00 AM	0	1	0	1	0	0	0	0	0	0	1	0	0	0	4	0
11:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0
11:30 AM	0	0	0	1	0	0	0	0	0	0	2	0	0	0	3	0
11:45 AM	0	1	0	1	0	0	0	0	0	0	2	0	0	0	2	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0
12:15 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	2

MID PEAK HOUR	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
11:00 AM to	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
12:00 PM	**0**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**2**	**5**	**0**	**0**	**0**	**11**	**0**
PHF	**0.63**				**0.00**				**0.88**				**0.69**			

Client:	Somaye Dovirani, PhD
Project #:	412_017_GI
BTD #:	Location 9
Location:	Reading, MA
Street 1:	Walkers Brook Drive
Street 2:	I-95 Northbound On/Off-Ramps
Count Date:	9/14/2019
Day of Week:	Saturday
Weather:	Mostly Sunny, 70°F

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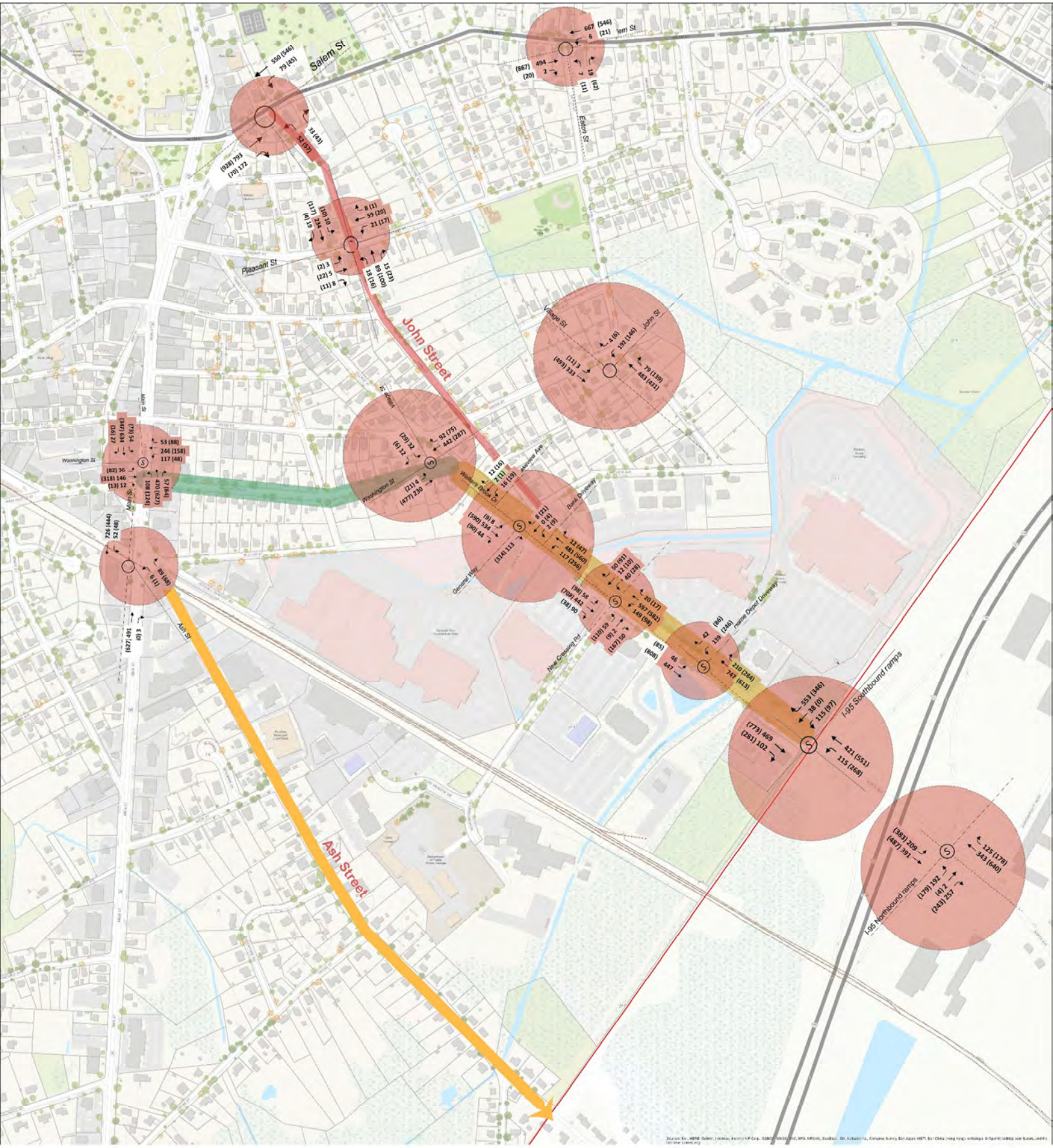
PEDESTRIANS & BICYCLES

	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
Start Time	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0
11:45 AM	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

MID PEAK HOUR 11:30 AM to 12:30 PM	I-95 Northbound Off-Ramp Northbound				I-95 Northbound On-Ramp Southbound				Walkers Brook Drive Eastbound				Walkers Brook Drive Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	2	0	0	0	2	0	0	0	0	0	0	3	0

NOTE: Peak hour summaries here correspond to peak hours identified for passenger car and heavy vehicles combined.

Traffic Volume Figures



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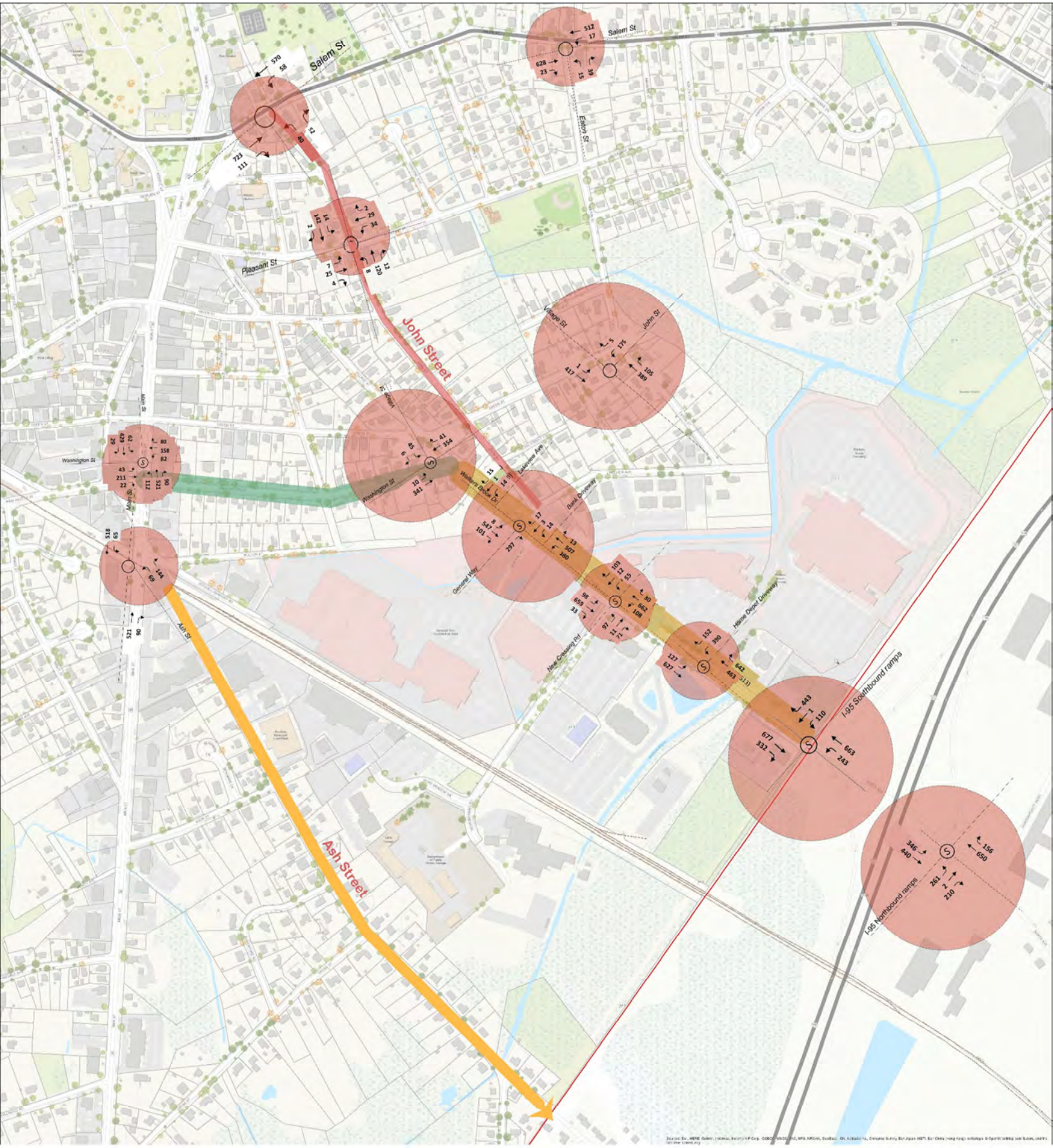
TRANSPORTATION STRUCTURAL WATER RESOURCES CIVIL/SITE

Walkers Brook Drive Improvement Project

2019 Existing Weekday AM (PM) Traffic Volumes



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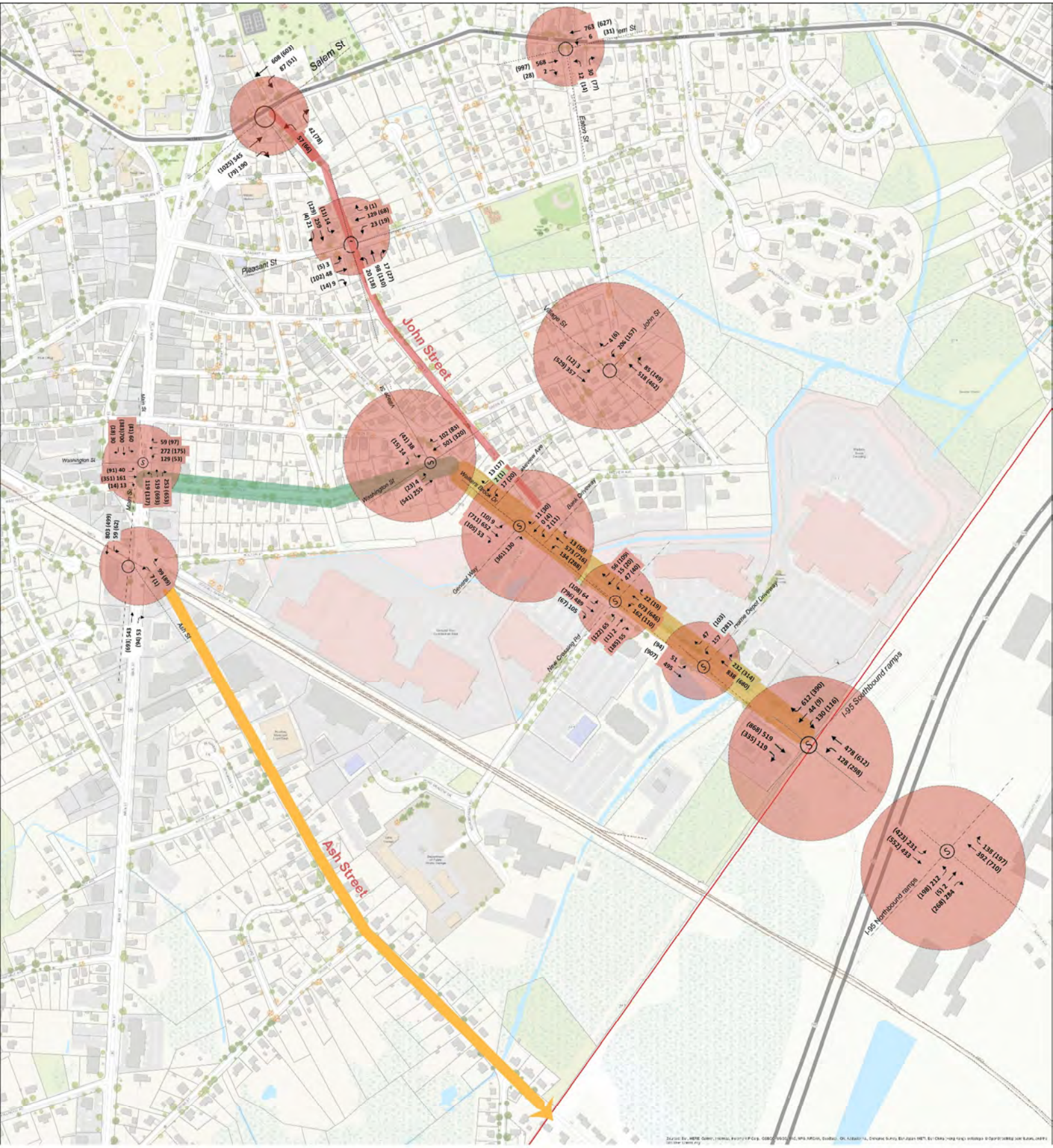
Walkers Brook Drive Improvement Project

2019 Existing Saturday Mid-Day Traffic Volumes



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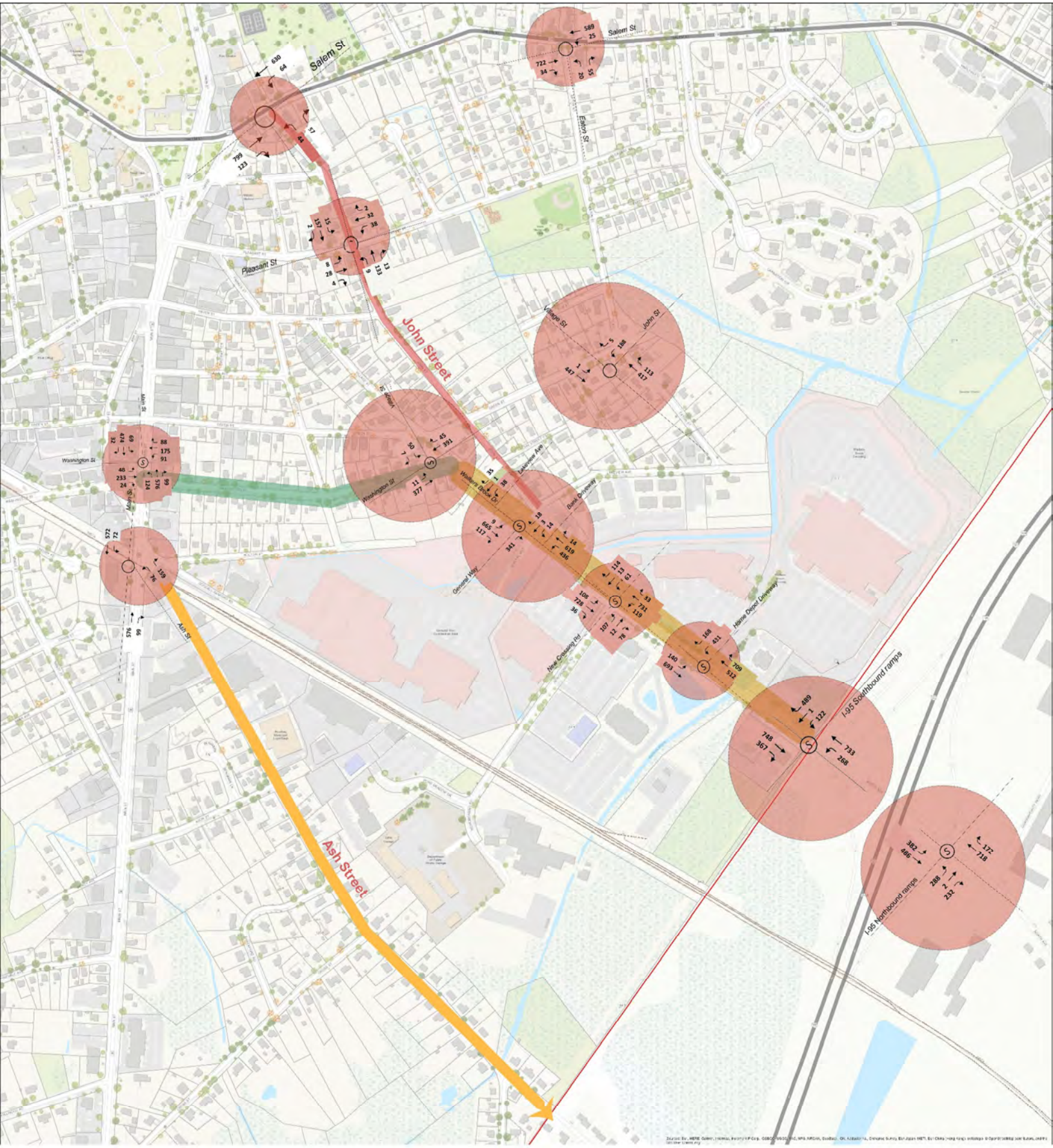
TRANSPORTATION STRUCTURAL WATER RESOURCES CIVIL/SITE

Walkers Brook Drive Improvement Project

2039 Weekday AM (PM) Traffic Volumes



GREEN INTERNATIONAL AFFILIATES, INC.
TRANSPORTATION STRUCTURAL WATER RESOURCES CIVIL/SITE

Walkers Brook Drive Improvement Project

2039 Saturday Mid-Day Traffic Volumes

Safety Data Analysis

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading | COUNT DATE : Sept. 2019

DISTRICT : 4 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

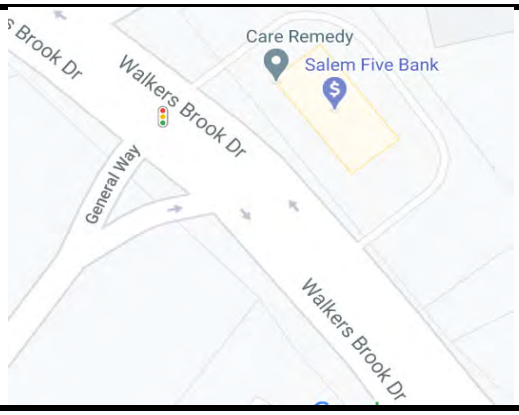
MAJOR STREET : Walkers Brook Dr

MINOR STREET(S) : General Way

Bank Driveway

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	689	863	314	34		**1,900**

" K " FACTOR : **0.080** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **23,750**

TOTAL # OF CRASHES : 12 | # OF YEARS : 3.5 | AVERAGE # OF CRASHES PER YEAR (**A**) : **3.43**

CRASH RATE CALCULATION : **0.40**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : John Street

MINOR STREET(S) : Pleasant Street

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	35	38	139	131		**343**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **4,288**

TOTAL # OF CRASHES : 5 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **1.43**

CRASH RATE CALCULATION : **0.91** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

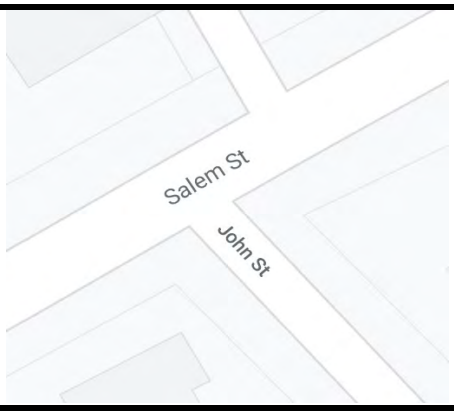
~ INTERSECTION DATA ~

MAJOR STREET : Salem Street

MINOR STREET(S) : John Street

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	998	591	100			**1,689**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **21,113**

TOTAL # OF CRASHES : 5 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **1.43**

CRASH RATE CALCULATION : **0.19** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Salem St

MINOR STREET(S) : Eaton St

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	887	567	73			**1,527**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **19,088**

TOTAL # OF CRASHES : 3 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.86**

CRASH RATE CALCULATION : **0.12** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Walkers Brook Dr / Village St

MINOR STREET(S) : John St

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	504	570		152		**1,226**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **15,325**

TOTAL # OF CRASHES : 7 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **2.00**

CRASH RATE CALCULATION : **0.36** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

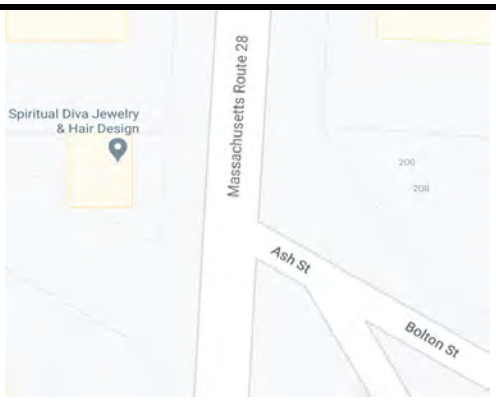
~ INTERSECTION DATA ~

MAJOR STREET : Main Street (Route 128)

MINOR STREET(S) : Ash Street

INTERSECTION DIAGRAM
(Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :		95	494	778		**1,367**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **17,088**

TOTAL # OF CRASHES : 40 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **11.43**

CRASH RATE CALCULATION : **1.83** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV
Weekday AM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : SIGNALIZED : X

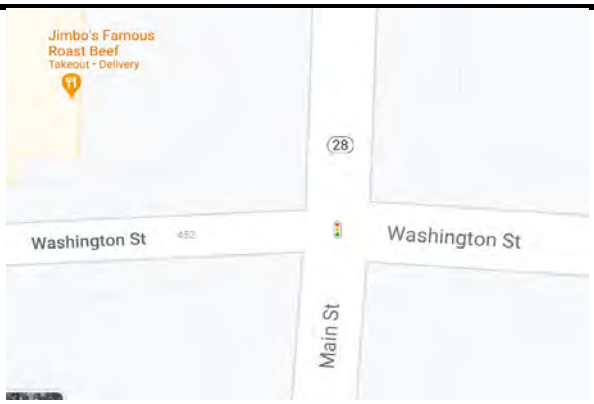
~ INTERSECTION DATA ~

MAJOR STREET : Main Street (Route 128)

MINOR STREET(S) : Washington Street

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	413	294	835	436		**1,978**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **24,725**

TOTAL # OF CRASHES : 36 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **10.29**

CRASH RATE CALCULATION : **1.14** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : X SIGNALIZED :

~ INTERSECTION DATA ~

MAJOR STREET : Washington Street

MINOR STREET(S) : Village Street

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	498	362		35		**895**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **11,188**

TOTAL # OF CRASHES : 1 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **0.29**

CRASH RATE CALCULATION : **0.07** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at unsignalized intersections is 0.57/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

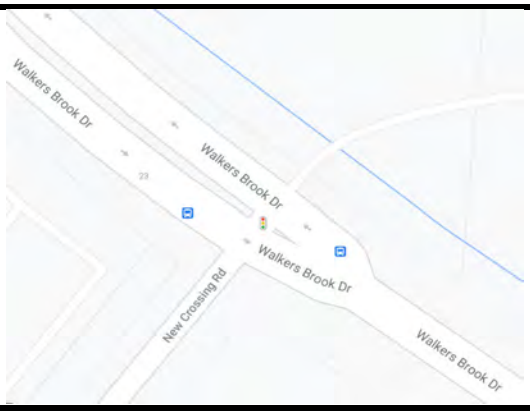
MAJOR STREET : Walkers Brook Drive

MINOR STREET(S) : New Crossing Road

Plaza Driveway

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	844	697	286	129		**1,956**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **24,450**

TOTAL # OF CRASHES : 22 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **6.29**

CRASH RATE CALCULATION : **0.70** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading COUNT DATE : Sept. 2019

DISTRICT : 4 UNSIGNALIZED : SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Walkers Brook Drive

MINOR STREET(S) : Home Depot Driveway

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	893	897		332		**2,122**

" K " FACTOR : **0.080** INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **26,525**

TOTAL # OF CRASHES : 34 # OF YEARS : 3.5 AVERAGE # OF CRASHES PER YEAR (**A**) : **9.71**

CRASH RATE CALCULATION : **1.00** RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading | COUNT DATE : Sept. 2019

DISTRICT : 4 | UNSIGNALIZED : | SIGNALIZED : X

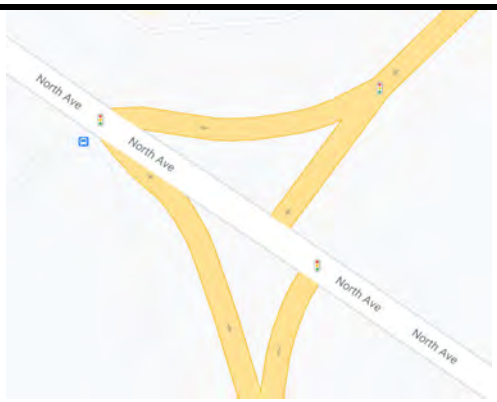
~ INTERSECTION DATA ~

MAJOR STREET : Walkers Brook Drive

MINOR STREET(S) : I-95 SB Ramps

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*



PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	1,054	819		443		**2,316**

" K " FACTOR : **0.080** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **28,950**

TOTAL # OF CRASHES : 7 | # OF YEARS : 3.5 | AVERAGE # OF CRASHES PER YEAR (**A**) : **2.00**

CRASH RATE CALCULATION : **0.19**

RATE = $\frac{(A * 1{,}000{,}000)}{(V * 365)}$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

INTERSECTION CRASH RATE WORKSHEET

CITY/TOWN : Reading | COUNT DATE : Sept. 2019

DISTRICT : 4 | UNSIGNALIZED : | SIGNALIZED : X

~ INTERSECTION DATA ~

MAJOR STREET : Walkers Brook Drive

MINOR STREET(S) : I-95 NB Ramps

INTERSECTION DIAGRAM (Label Approaches)

↑ *North*

PEAK HOUR VOLUMES

APPROACH :	1	2	3	4	5	Total Peak Hourly Approach Volume
DIRECTION :	EB	WB	NB	SB		
PEAK HOURLY VOLUMES (AM/PM) :	870	818	426			**2,114**

" K " FACTOR : **0.080** | INTERSECTION ADT (**V**) = TOTAL DAILY APPROACH VOLUME : **26,425**

TOTAL # OF CRASHES : 1 | # OF YEARS : 3.5 | AVERAGE # OF CRASHES PER YEAR (**A**) : **0.29**

CRASH RATE CALCULATION : **0.03**

$$\text{RATE} = \frac{(A * 1{,}000{,}000)}{(V * 365)}$$

Comments : MassDOT District 4 average crash rate at signalized intersections is 0.73/MEV

Weekday PM peak hour traffic volumes used

Project Title & Date:

Intersection Capacity Analysis

2019 Existing Conditions
Weekday AM Peak Hour

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	230	442	92	32	12
Future Vol, veh/h	4	230	442	92	32	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	92	92
Heavy Vehicles, %	0	4	3	6	0	0
Mvmt Flow	4	253	491	102	35	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	593	0	-	0	803	542
Stage 1	-	-	-	-	542	-
Stage 2	-	-	-	-	261	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	993	-	-	-	355	544
Stage 1	-	-	-	-	587	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	993	-	-	-	353	544
Mov Cap-2 Maneuver	-	-	-	-	353	-
Stage 1	-	-	-	-	584	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	993	-	-	-	390
HCM Lane V/C Ratio	0.004	-	-	-	0.123
HCM Control Delay (s)	8.6	0	-	-	15.5
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Intersection	
Int Delay, s/veh	9.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	491	51	82	726	66	143
Future Vol, veh/h	491	51	82	726	66	143
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	94	94	77	77
Heavy Vehicles, %	4	33	6	1	17	3
Mvmt Flow	528	55	87	772	86	186

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	583	0	1116	292
Stage 1	-	-	-	-	556	-
Stage 2	-	-	-	-	560	-
Critical Hdwy	-	-	4.22	-	7.14	6.96
Critical Hdwy Stg 1	-	-	-	-	6.14	-
Critical Hdwy Stg 2	-	-	-	-	6.14	-
Follow-up Hdwy	-	-	2.26	-	3.67	3.33
Pot Cap-1 Maneuver	-	-	960	-	180	701
Stage 1	-	-	-	-	498	-
Stage 2	-	-	-	-	495	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	960	-	151	701
Mov Cap-2 Maneuver	-	-	-	-	151	-
Stage 1	-	-	-	-	419	-
Stage 2	-	-	-	-	495	-

Approach	NB	SB	NW
HCM Control Delay, s	0	1.5	52.9
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	326	960	-
HCM Lane V/C Ratio	-	-	0.833	0.091	-
HCM Control Delay (s)	-	-	52.9	9.1	0.6
HCM Lane LOS	-	-	F	A	A
HCM 95th %tile Q(veh)	-	-	7.2	0.3	-

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	8	21	59	8	18	89	15	10	234	19
Future Vol, veh/h	3	5	8	21	59	8	18	89	15	10	234	19
Peak Hour Factor	0.50	0.50	0.50	0.76	0.76	0.76	0.87	0.87	0.87	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	3	0
Mvmt Flow	6	10	16	28	78	11	21	102	17	11	252	20
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8	8.8	8.5	9.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	19%	24%	4%
Vol Thru, %	73%	31%	67%	89%
Vol Right, %	12%	50%	9%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	122	16	88	263
LT Vol	18	3	21	10
Through Vol	89	5	59	234
RT Vol	15	8	8	19
Lane Flow Rate	140	32	116	283
Geometry Grp	1	1	1	1
Degree of Util (X)	0.176	0.042	0.157	0.345
Departure Headway (Hd)	4.527	4.743	4.881	4.386
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	791	752	734	820
Service Time	2.56	2.789	2.919	2.412
HCM Lane V/C Ratio	0.177	0.043	0.158	0.345
HCM Control Delay	8.5	8	8.8	9.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.6	0.1	0.6	1.5

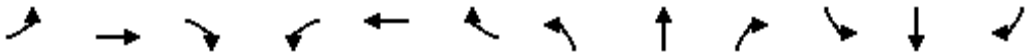
Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	493	172	79	550	52	33
Future Vol, veh/h	493	172	79	550	52	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	97	97
Heavy Vehicles, %	5	3	0	4	2	15
Mvmt Flow	542	189	87	604	54	34

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	731	0	1415	637
Stage 1	-	-	-	-	637	-
Stage 2	-	-	-	-	778	-
Critical Hdwy	-	-	4.1	-	6.42	6.35
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.435
Pot Cap-1 Maneuver	-	-	883	-	151	455
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	453	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	883	-	129	455
Mov Cap-2 Maneuver	-	-	-	-	129	-
Stage 1	-	-	-	-	527	-
Stage 2	-	-	-	-	386	-

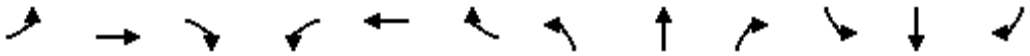
Approach	EB	WB	NW
HCM Control Delay, s	0	1.2	43
HCM LOS			E

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	179	-	-	883	-
HCM Lane V/C Ratio	0.49	-	-	0.098	-
HCM Control Delay (s)	43	-	-	9.5	0
HCM Lane LOS	E	-	-	A	A
HCM 95th %tile Q(veh)	2.4	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	146	12	117	246	53	108	470	57	54	634	27
Future Volume (vph)	36	146	12	117	246	53	108	470	57	54	634	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.988			0.983			0.987			0.994	
Flt Protected	0.950				0.986			0.992			0.996	
Satd. Flow (prot)	1805	1860	0	0	1766	0	0	3404	0	0	3503	0
Flt Permitted	0.330				0.843			0.691			0.850	
Satd. Flow (perm)	627	1860	0	0	1509	0	0	2371	0	0	2990	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Peak Hour Factor	0.88	0.88	0.88	0.83	0.83	0.83	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	1%	4%	13%	4%	4%	2%	15%	1%	0%
Adj. Flow (vph)	41	166	14	141	296	64	113	490	59	56	660	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	41	180	0	0	501	0	0	662	0	0	744	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	19.5	19.0			10.1			40.3			40.3	
Actuated g/C Ratio	0.27	0.27			0.14			0.56			0.56	
v/c Ratio	0.14	0.36			2.36			0.49			0.44	
Control Delay	19.3	22.8			645.9			12.1			11.0	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	19.3	22.8			645.9			12.1			11.0	
LOS	B	C			F			B			B	
Approach Delay		22.2			645.9			12.1			11.0	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	13	64			~399			98			106	
Queue Length 95th (ft)	33	110			#535			152			157	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	399	787			212			1338			1688	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.10	0.23			2.36			0.49			0.44	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 71.4			
Natural Cycle: 140			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.36			
Intersection Signal Delay: 162.0		Intersection LOS: F	
Intersection Capacity Utilization 90.6%		ICU Level of Service E	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

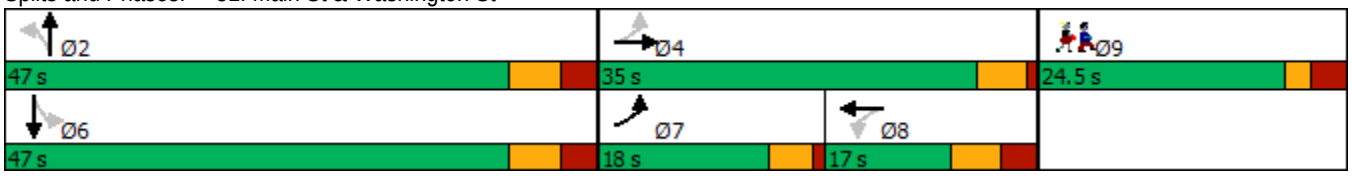
Intersection Summary

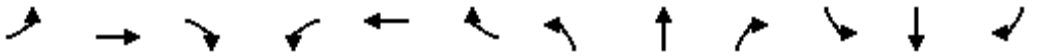
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St

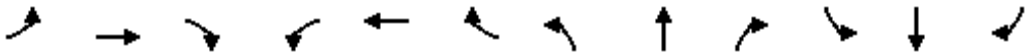




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	146	12	117	246	53	108	470	57	54	634	27
Future Volume (vph)	36	146	12	117	246	53	108	470	57	54	634	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.99			0.98			0.99			0.99	
Flt Protected	0.95	1.00			0.99			0.99			1.00	
Satd. Flow (prot)	1805	1861			1765			3402			3505	
Flt Permitted	0.33	1.00			0.84			0.69			0.85	
Satd. Flow (perm)	626	1861			1509			2372			2990	
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	41	166	14	141	296	64	112	490	59	56	660	28
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	41	180	0	0	501	0	0	662	0	0	744	0
Heavy Vehicles (%)	0%	1%	0%	1%	4%	13%	4%	4%	2%	15%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.0	21.0			10.1			40.3			40.3	
Effective Green, g (s)	21.0	21.0			10.1			40.3			40.3	
Actuated g/C Ratio	0.29	0.29			0.14			0.55			0.55	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	250	533			207			1304			1643	
v/s Ratio Prot	0.01	c0.10										
v/s Ratio Perm	0.04				c0.33			c0.28			0.25	
v/c Ratio	0.16	0.34			2.42			0.51			0.45	
Uniform Delay, d1	20.2	20.7			31.6			10.3			9.9	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.3	0.1			653.6			1.4			0.9	
Delay (s)	20.5	20.8			685.2			11.7			10.8	
Level of Service	C	C			F			B			B	
Approach Delay (s)		20.7			685.2			11.7			10.8	
Approach LOS		C			F			B			B	

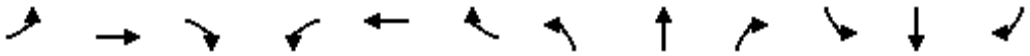
Intersection Summary			
HCM 2000 Control Delay	170.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	73.3	Sum of lost time (s)	23.5
Intersection Capacity Utilization	90.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	442	90	146	597	20	59	2	50	40	12	50
Future Volume (vph)	58	442	90	146	597	20	59	2	50	40	12	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.996				0.850		0.879	
Flt Protected		0.995			0.991			0.954		0.950		
Satd. Flow (prot)	0	3427	0	0	3489	0	0	1598	1524	1805	1618	0
Flt Permitted		0.798			0.691			0.671		0.706		
Satd. Flow (perm)	0	2748	0	0	2432	0	0	1124	1524	1341	1618	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			3				69		70	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.83	0.83	0.83	0.86	0.86	0.86	0.79	0.79	0.79	0.71	0.71	0.71
Heavy Vehicles (%)	0%	2%	6%	3%	2%	0%	12%	50%	6%	0%	0%	4%
Adj. Flow (vph)	70	533	108	170	694	23	75	3	63	56	17	70
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	711	0	0	887	0	0	78	63	56	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

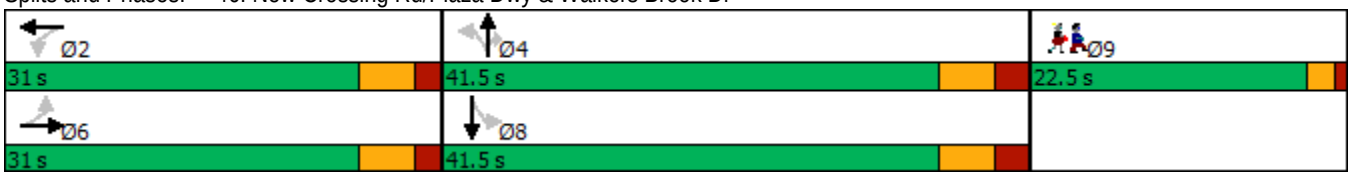
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		29.3			29.3			10.0	10.0	10.0	10.0	
Actuated g/C Ratio		0.62			0.62			0.21	0.21	0.21	0.21	
v/c Ratio		0.42			0.59			0.33	0.17	0.20	0.22	
Control Delay		7.3			9.7			20.3	6.0	17.5	8.1	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		7.3			9.7			20.3	6.0	17.5	8.1	
LOS		A			A			C	A	B	A	
Approach Delay		7.3			9.7			13.9			11.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		55			83			18	0	13	4	
Queue Length 95th (ft)		80			128			41	16	28	20	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1713			1510			833	1147	993	1216	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.42			0.59			0.09	0.05	0.06	0.07	

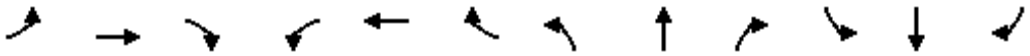
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 47.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.59			
Intersection Signal Delay: 9.3		Intersection LOS: A	
Intersection Capacity Utilization 63.6%		ICU Level of Service B	
Analysis Period (min) 15			
Description: m			

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

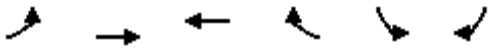


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	442	90	146	597	20	59	2	50	40	12	50
Future Volume (vph)	58	442	90	146	597	20	59	2	50	40	12	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.98			1.00			1.00	0.85	1.00	0.88	
Flt Protected		1.00			0.99			0.95	1.00	0.95	1.00	
Satd. Flow (prot)		3428			3487			1598	1524	1805	1619	
Flt Permitted		0.80			0.69			0.67	1.00	0.71	1.00	
Satd. Flow (perm)		2750			2431			1124	1524	1342	1619	
Peak-hour factor, PHF	0.83	0.83	0.83	0.86	0.86	0.86	0.79	0.79	0.79	0.71	0.71	0.71
Adj. Flow (vph)	70	533	108	170	694	23	75	3	63	56	17	70
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	53	0	58	0
Lane Group Flow (vph)	0	702	0	0	886	0	0	78	10	56	29	0
Heavy Vehicles (%)	0%	2%	6%	3%	2%	0%	12%	50%	6%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		28.1			28.1			8.0	8.0	8.0	8.0	
Effective Green, g (s)		28.1			28.1			8.0	8.0	8.0	8.0	
Actuated g/C Ratio		0.58			0.58			0.16	0.16	0.16	0.16	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1590			1405			185	250	220	266	
v/s Ratio Prot											0.02	
v/s Ratio Perm		0.26			c0.36			c0.07	0.01	0.04		
v/c Ratio		0.44			0.63			0.42	0.04	0.25	0.11	
Uniform Delay, d1		5.8			6.8			18.2	17.1	17.7	17.3	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		0.9			2.2			0.6	0.0	0.2	0.1	
Delay (s)		6.7			9.0			18.8	17.1	17.9	17.3	
Level of Service		A			A			B	B	B	B	
Approach Delay (s)		6.7			9.0			18.0			17.6	
Approach LOS		A			A			B			B	

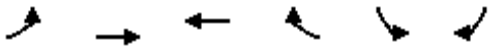
Intersection Summary			
HCM 2000 Control Delay	9.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.6	Sum of lost time (s)	15.5
Intersection Capacity Utilization	63.6%	ICU Level of Service	B
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



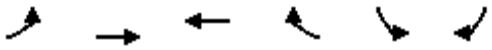
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	46	447	747	210	139	42
Future Volume (vph)	46	447	747	210	139	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	3491	3539	1568	3367	1615
Flt Permitted		0.839			0.950	
Satd. Flow (perm)	0	2943	3539	1568	3367	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						48
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.89	0.89	0.94	0.94	0.87	0.87
Heavy Vehicles (%)	2%	3%	2%	3%	4%	0%
Adj. Flow (vph)	52	502	795	223	160	48
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	554	795	223	160	48
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		15.3	15.3	32.5	7.2	7.2
Actuated g/C Ratio		0.47	0.47	1.00	0.22	0.22
v/c Ratio		0.40	0.48	0.14	0.21	0.12
Control Delay		6.9	7.3	0.2	11.1	5.0
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		6.9	7.3	0.2	11.1	5.0
LOS		A	A	A	B	A
Approach Delay		6.9	5.7		9.7	
Approach LOS		A	A		A	
Queue Length 50th (ft)		27	41	0	11	0
Queue Length 95th (ft)		56	80	0	24	13
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2943	3539	1568	2807	1354
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.19	0.22	0.14	0.06	0.04

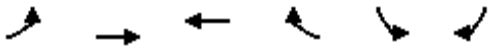
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 32.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay: 6.6		Intersection LOS: A	
Intersection Capacity Utilization 51.8%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	46	447	747	210	139	42
Future Volume (vph)	46	447	747	210	139	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3492	3539	1568	3367	1615
Flt Permitted		0.84	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2942	3539	1568	3367	1615
Peak-hour factor, PHF	0.89	0.89	0.94	0.94	0.87	0.87
Adj. Flow (vph)	52	502	795	223	160	48
RTOR Reduction (vph)	0	0	0	0	0	37
Lane Group Flow (vph)	0	554	795	223	160	11
Heavy Vehicles (%)	2%	3%	2%	3%	4%	0%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		15.3	15.3	22.5	7.2	7.2
Effective Green, g (s)		15.3	15.3	22.5	7.2	7.2
Actuated g/C Ratio		0.47	0.47	0.69	0.22	0.22
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1385	1666	1568	745	357
v/s Ratio Prot			c0.22	c0.03	0.05	
v/s Ratio Perm		0.19		0.11		0.01
v/c Ratio		0.40	0.48	0.14	0.21	0.03
Uniform Delay, d1		5.6	5.9	1.7	10.3	9.9
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1	0.0	0.1	0.0
Delay (s)		5.8	5.9	1.7	10.5	9.9
Level of Service		A	A	A	B	A
Approach Delay (s)		5.8	5.0		10.4	
Approach LOS		A	A		B	

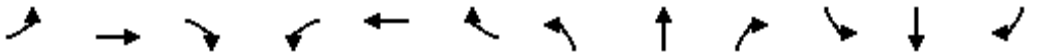
Intersection Summary			
HCM 2000 Control Delay	5.9	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	32.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



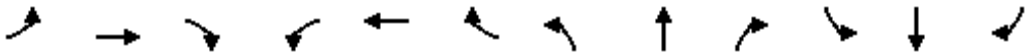
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	46	447	747	210	139	42
Future Volume (veh/h)	46	447	747	210	139	42
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1856	1841	1900
Adj Flow Rate, veh/h	52	502	795	223	160	48
Peak Hour Factor	0.89	0.89	0.94	0.94	0.87	0.87
Percent Heavy Veh, %	3	3	2	3	4	0
Cap, veh/h	207	1515	1781	1047	561	265
Arrive On Green	0.50	0.50	0.50	0.50	0.16	0.16
Sat Flow, veh/h	129	3108	3647	1572	3401	1610
Grp Volume(v), veh/h	280	274	795	223	160	48
Grp Sat Flow(s),veh/h/ln	1549	1604	1777	1572	1700	1610
Q Serve(g_s), s	0.0	3.1	4.3	1.7	1.2	0.8
Cycle Q Clear(g_c), s	2.7	3.1	4.3	1.7	1.2	0.8
Prop In Lane	0.19			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	919	804	1781	1047	561	265
V/C Ratio(X)	0.31	0.34	0.45	0.21	0.29	0.18
Avail Cap(c_a), veh/h	1994	2143	4748	2360	2954	1398
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.4	4.5	4.8	1.9	11.0	10.8
Incr Delay (d2), s/veh	0.2	0.2	0.1	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	0.5	0.3	0.4	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.6	4.7	4.9	2.0	11.2	11.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		554	1018		208	
Approach Delay, s/veh		4.7	4.2		11.2	
Approach LOS		A	A		B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	9.9
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	26.0
Max Q Clear Time (g_c+I1), s	6.3				5.1	3.2
Green Ext Time (p_c), s	4.3				4.1	0.7

Intersection Summary	
HCM 6th Ctrl Delay	5.2
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	469	102	115	421	0	0	0	0	115	35	553
Future Volume (vph)	0	469	102	115	421	0	0	0	0	115	35	553
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973										0.850
Flt Protected					0.989						0.963	
Satd. Flow (prot)	0	3398	0	0	3500	0	0	0	0	0	1790	1583
Flt Permitted					0.662						0.963	
Satd. Flow (perm)	0	3398	0	0	2343	0	0	0	0	0	1790	1583
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		68										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.92	0.92	0.92	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	5%	2%	2%	0%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	0	539	117	120	439	0	0	0	0	126	38	608
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	656	0	0	559	0	0	0	0	0	164	608
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	

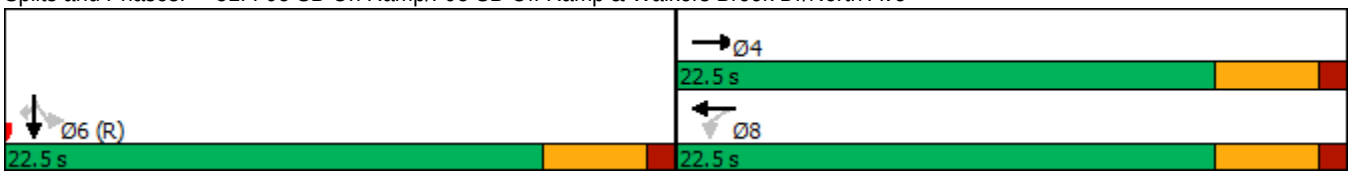


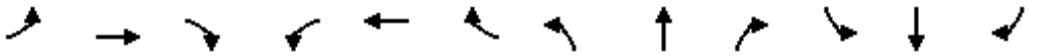
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		15.0			15.0						21.0	21.0
Actuated g/C Ratio		0.33			0.33						0.47	0.47
v/c Ratio		0.56			0.72						0.20	0.82
Control Delay		12.4			17.4						9.0	26.3
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		12.4			17.4						9.0	26.3
LOS		B			B						A	C
Approach Delay		12.4			17.4						22.6	
Approach LOS		B			B						C	
Queue Length 50th (ft)		60			50						24	129
Queue Length 95th (ft)		84			83						56	#318
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1400			937						836	739
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.47			0.60						0.20	0.82

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.82			
Intersection Signal Delay: 17.8		Intersection LOS: B	
Intersection Capacity Utilization 56.7%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

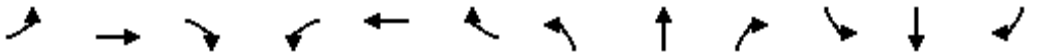
Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	469	102	115	421	0	0	0	0	115	35	553
Future Volume (vph)	0	469	102	115	421	0	0	0	0	115	35	553
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.97			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.96	1.00
Satd. Flow (prot)		3399			3502						1790	1583
Flt Permitted		1.00			0.66						0.96	1.00
Satd. Flow (perm)		3399			2344						1790	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.96	0.96	0.96	0.92	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	0	539	117	120	439	0	0	0	0	126	38	608
RTOR Reduction (vph)	0	45	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	611	0	0	559	0	0	0	0	0	164	608
Heavy Vehicles (%)	0%	3%	5%	2%	2%	0%	2%	2%	2%	2%	3%	2%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		15.0			15.0						21.0	21.0
Effective Green, g (s)		15.0			15.0						21.0	21.0
Actuated g/C Ratio		0.33			0.33						0.47	0.47
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1133			781						835	738
v/s Ratio Prot		0.18										
v/s Ratio Perm					c0.24						0.09	c0.38
v/c Ratio		0.54			0.72						0.20	0.82
Uniform Delay, d1		12.2			13.1						7.0	10.4
Progression Factor		1.00			0.92						1.00	1.00
Incremental Delay, d2		0.5			3.1						0.5	10.1
Delay (s)		12.7			15.2						7.6	20.5
Level of Service		B			B						A	C
Approach Delay (s)		12.7			15.2			0.0			17.8	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM 2000 Control Delay	15.4	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



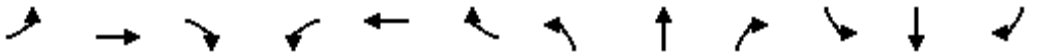
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	469	102	115	421	0	0	0	0	115	35	553
Future Volume (veh/h)	0	469	102	115	421	0	0	0	0	115	35	553
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1870	1870	0				1870	1856	1870
Adj Flow Rate, veh/h	0	539	0	120	439	0				126	38	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96				0.91	0.91	0.91
Percent Heavy Veh, %	0	3	3	2	2	0				2	3	2
Cap, veh/h	0	1134		225	759	0				657	198	
Arrive On Green	0.00	0.32	0.00	0.32	0.32	0.00				0.48	0.48	0.00
Sat Flow, veh/h	0	3711	0	339	2445	0				1373	414	1585
Grp Volume(v), veh/h	0	539	0	271	288	0				164	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	0	1082	1617	0				1787	0	1585
Q Serve(g_s), s	0.0	5.5	0.0	5.4	6.6	0.0				2.4	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.5	0.0	10.9	6.6	0.0				2.4	0.0	0.0
Prop In Lane	0.00		0.00	0.44		0.00				0.77		1.00
Lane Grp Cap(c), veh/h	0	1134		464	520	0				855	0	
V/C Ratio(X)	0.00	0.48		0.58	0.55	0.00				0.19	0.00	
Avail Cap(c_a), veh/h	0	1410		560	647	0				855	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	0.00	0.98	0.98	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	12.2	0.0	13.9	12.6	0.0				6.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	1.1	0.9	0.0				0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	0.0	2.2	2.0	0.0				0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	12.5	0.0	15.1	13.5	0.0				7.2	0.0	0.0
LnGrp LOS	A	B		B	B	A				A	A	
Approach Vol, veh/h		539	A		559						164	A
Approach Delay, s/veh		12.5			14.3						7.2	
Approach LOS		B			B						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			19.0		26.0		19.0					
Change Period (Y+Rc), s			4.5		4.5		4.5					
Max Green Setting (Gmax), s			18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s			7.5		4.4		12.9					
Green Ext Time (p_c), s			2.5		0.7		1.6					

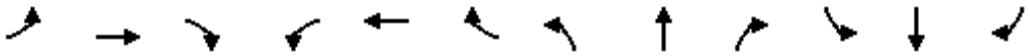
Intersection Summary												
HCM 6th Ctrl Delay			12.6									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



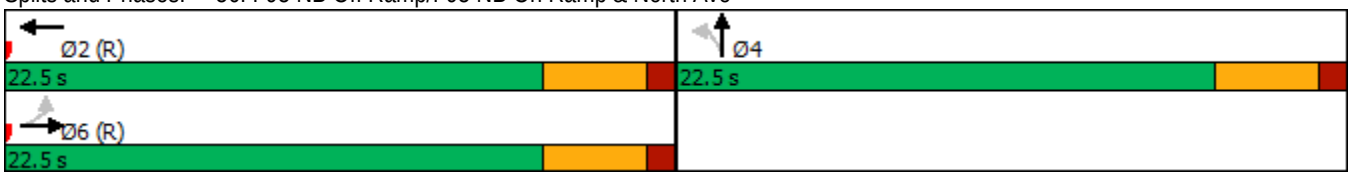
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	391	0	0	343	125	192	2	257	0	0	0
Future Volume (vph)	209	391	0	0	343	125	192	2	257	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.960				0.850			
Flt Protected		0.983					0.950	0.953				
Satd. Flow (prot)	0	3455	0	0	3422	0	1649	1655	1538	0	0	0
Flt Permitted		0.666					0.950	0.953				
Satd. Flow (perm)	0	2341	0	0	3422	0	1649	1655	1538	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					137				273			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	0%	1%	2%	4%	0%	5%	2%	2%	2%
Adj. Flow (vph)	222	416	0	0	385	140	204	2	273	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	638	0	0	525	0	102	104	273	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA	Free			
Protected Phases		6			2			4				

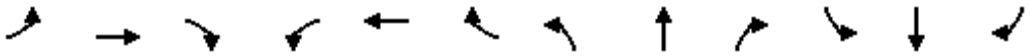


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6						4		Free			
Detector Phase	6	6			2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0		0.0	0.0				
Total Lost Time (s)		4.5			4.5		4.5	4.5				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	C-Max	C-Max			C-Max		None	None				
Walk Time (s)	7.0	7.0			7.0		7.0	7.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		30.5			30.5		8.4	8.4	45.0			
Actuated g/C Ratio		0.68			0.68		0.19	0.19	1.00			
v/c Ratio		0.40			0.22		0.33	0.34	0.18			
Control Delay		4.0			3.4		17.9	18.0	0.3			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		4.0			3.4		17.9	18.0	0.3			
LOS		A			A		B	B	A			
Approach Delay		3.9			3.4			7.9				
Approach LOS		A			A			A				
Queue Length 50th (ft)		7			17		24	25	0			
Queue Length 95th (ft)		109			42		51	52	0			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1586			2363		659	662	1538			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.40			0.22		0.15	0.16	0.18			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.40			
Intersection Signal Delay: 4.9		Intersection LOS: A	
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	209	391	0	0	343	125	192	2	257	0	0	0
Future Volume (vph)	209	391	0	0	343	125	192	2	257	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.0			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.96		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3455			3422		1649	1656	1538			
Flt Permitted		0.67			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2343			3422		1649	1656	1538			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	222	416	0	0	385	140	204	2	273	0	0	0
RTOR Reduction (vph)	0	0	0	0	50	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	638	0	0	475	0	102	104	273	0	0	0
Heavy Vehicles (%)	4%	2%	0%	0%	1%	2%	4%	0%	5%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Free			
Protected Phases		6			2			4				
Permitted Phases	6						4		Free			
Actuated Green, G (s)		28.7			28.7		7.3	7.3	45.0			
Effective Green, g (s)		28.7			28.7		7.3	7.3	45.0			
Actuated g/C Ratio		0.64			0.64		0.16	0.16	1.00			
Clearance Time (s)		4.5			4.5		4.5	4.5				
Vehicle Extension (s)		3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)		1494			2182		267	268	1538			
v/s Ratio Prot					0.14							
v/s Ratio Perm		c0.27					0.06	0.06	0.18			
v/c Ratio		0.43			0.22		0.38	0.39	0.18			
Uniform Delay, d1		4.1			3.4		16.8	16.9	0.0			
Progression Factor		0.63			1.00		1.00	1.00	1.00			
Incremental Delay, d2		0.8			0.2		0.9	0.9	0.3			
Delay (s)		3.4			3.7		17.7	17.8	0.3			
Level of Service		A			A		B	B	A			
Approach Delay (s)		3.4			3.7			7.8			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	47.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

2019 Existing Conditions
Weekday PM Peak Hour

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	477	287	75	29	6
Future Vol, veh/h	21	477	287	75	29	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	76	76	73	73
Heavy Vehicles, %	0	0	1	4	0	0
Mvmt Flow	22	502	378	99	40	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	477	0	-	0	974	428
Stage 1	-	-	-	-	428	-
Stage 2	-	-	-	-	546	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1096	-	-	-	282	631
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	584	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1096	-	-	-	274	631
Mov Cap-2 Maneuver	-	-	-	-	274	-
Stage 1	-	-	-	-	643	-
Stage 2	-	-	-	-	584	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	19.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1096	-	-	-	303
HCM Lane V/C Ratio	0.02	-	-	-	0.158
HCM Control Delay (s)	8.4	0	-	-	19.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

Intersection	
Int Delay, s/veh	7.4

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	627	84	119	444	38	208
Future Vol, veh/h	627	84	119	444	38	208
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	85	85
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	704	94	134	499	45	245

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	798	0	1269	399
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	518	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	833	-	163	606
Stage 1	-	-	-	-	432	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	833	-	127	606
Mov Cap-2 Maneuver	-	-	-	-	127	-
Stage 1	-	-	-	-	336	-
Stage 2	-	-	-	-	568	-

Approach	NB	SB	NW
HCM Control Delay, s	0	2.7	38.3
HCM LOS			E

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	383	833	-
HCM Lane V/C Ratio	-	-	0.756	0.161	-
HCM Control Delay (s)	-	-	38.3	10.1	0.7
HCM Lane LOS	-	-	E	B	A
HCM 95th %tile Q(veh)	-	-	6.1	0.6	-

Intersection	
Intersection Delay, s/veh	8.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	22	11	17	20	1	16	100	23	10	117	4
Future Vol, veh/h	2	22	11	17	20	1	16	100	23	10	117	4
Peak Hour Factor	0.67	0.67	0.67	0.73	0.73	0.73	0.91	0.91	0.91	0.84	0.84	0.84
Heavy Vehicles, %	0	0	9	0	5	0	0	0	0	0	0	0
Mvmt Flow	3	33	16	23	27	1	18	110	25	12	139	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.8	8.1	8.2	8.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	6%	45%	8%
Vol Thru, %	72%	63%	53%	89%
Vol Right, %	17%	31%	3%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	139	35	38	131
LT Vol	16	2	17	10
Through Vol	100	22	20	117
RT Vol	23	11	1	4
Lane Flow Rate	153	52	52	156
Geometry Grp	1	1	1	1
Degree of Util (X)	0.18	0.065	0.068	0.186
Departure Headway (Hd)	4.234	4.467	4.715	4.301
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	803	761	836
Service Time	2.247	2.486	2.735	2.316
HCM Lane V/C Ratio	0.18	0.065	0.068	0.187
HCM Control Delay	8.2	7.8	8.1	8.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.2	0.7

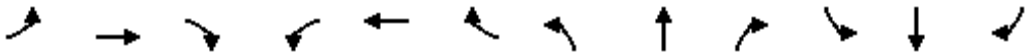
Intersection	
Int Delay, s/veh	8

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	928	70	45	546	57	43
Future Vol, veh/h	928	70	45	546	57	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	97	97	83	83
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	977	74	46	563	69	52

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1051	0	1669	1014
Stage 1	-	-	-	-	1014	-
Stage 2	-	-	-	-	655	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	670	-	107	292
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	521	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	670	-	96	292
Mov Cap-2 Maneuver	-	-	-	-	96	-
Stage 1	-	-	-	-	353	-
Stage 2	-	-	-	-	469	-

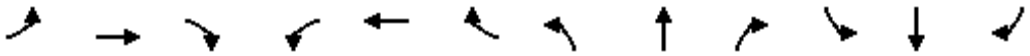
Approach	EB	WB	NW
HCM Control Delay, s	0	0.8	113.7
HCM LOS			F

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	135	-	-	670	-
HCM Lane V/C Ratio	0.892	-	-	0.069	-
HCM Control Delay (s)	113.7	-	-	10.8	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	5.9	-	-	0.2	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	318	13	48	158	88	124	627	84	73	347	16
Future Volume (vph)	82	318	13	48	158	88	124	627	84	73	347	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.994			0.959			0.985			0.994	
Flt Protected	0.950				0.992			0.993			0.992	
Satd. Flow (prot)	1787	1865	0	0	1787	0	0	3505	0	0	3532	0
Flt Permitted	0.263				0.857			0.773			0.680	
Satd. Flow (perm)	495	1865	0	0	1544	0	0	2728	0	0	2420	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	8%	2%	1%	1%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	92	357	15	57	188	105	135	682	91	82	390	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	372	0	0	350	0	0	908	0	0	490	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	23.2	22.7			10.1			40.2			40.2	
Actuated g/C Ratio	0.31	0.30			0.13			0.54			0.54	
v/c Ratio	0.31	0.66			1.69			0.62			0.38	
Control Delay	20.9	28.6			358.7			15.4			12.1	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	20.9	28.6			358.7			15.4			12.1	
LOS	C	C			F			B			B	
Approach Delay		27.1			358.7			15.4			12.1	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	31	148			~254			155			70	
Queue Length 95th (ft)	62	231			#390			232			110	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	388	750			207			1463			1298	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.24	0.50			1.69			0.62			0.38	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 75			
Natural Cycle: 120			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.69			
Intersection Signal Delay: 71.5		Intersection LOS: E	
Intersection Capacity Utilization 91.4%		ICU Level of Service F	

Lane Group	Ø9
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

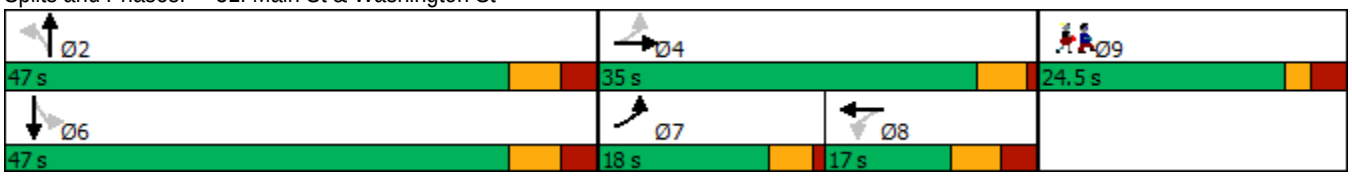
Intersection Summary

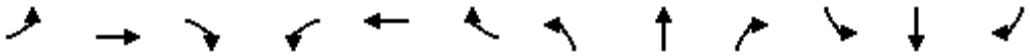
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St



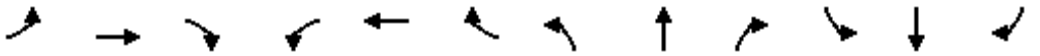


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	82	318	13	48	158	88	124	627	84	73	347	16
Future Volume (vph)	82	318	13	48	158	88	124	627	84	73	347	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.96			0.98			0.99	
Flt Protected	0.95	1.00			0.99			0.99			0.99	
Satd. Flow (prot)	1787	1865			1788			3503			3532	
Flt Permitted	0.26	1.00			0.86			0.77			0.68	
Satd. Flow (perm)	496	1865			1545			2729			2422	
Peak-hour factor, PHF	0.89	0.89	0.89	0.84	0.84	0.84	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	92	357	15	57	188	105	135	682	91	82	390	18
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	92	372	0	0	350	0	0	908	0	0	490	0
Confl. Peds. (#/hr)										4		
Heavy Vehicles (%)	1%	1%	8%	2%	1%	1%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	23.8	23.8			10.1			40.3			40.3	
Effective Green, g (s)	23.8	23.8			10.1			40.3			40.3	
Actuated g/C Ratio	0.31	0.31			0.13			0.53			0.53	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	277	583			205			1445			1282	
v/s Ratio Prot	0.03	c0.20										
v/s Ratio Perm	0.07				c0.23			c0.33			0.20	
v/c Ratio	0.33	0.64			1.71			0.63			0.38	
Uniform Delay, d1	20.0	22.5			33.0			12.6			10.6	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.7	1.7			338.2			2.1			0.9	
Delay (s)	20.7	24.1			371.2			14.7			11.4	
Level of Service	C	C			F			B			B	
Approach Delay (s)		23.5			371.2			14.7			11.4	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	72.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	76.1	Sum of lost time (s)	23.5
Intersection Capacity Utilization	91.4%	ICU Level of Service	F
Analysis Period (min)	15		

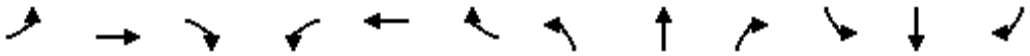
c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	708	38	98	582	17	110	9	167	28	10	91
Future Volume (vph)	98	708	38	98	582	17	110	9	167	28	10	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.996				0.850		0.865	
Flt Protected		0.994			0.993			0.956		0.950		
Satd. Flow (prot)	0	3534	0	0	3541	0	0	1801	1599	1736	1629	0
Flt Permitted		0.769			0.714			0.659		0.674		
Satd. Flow (perm)	0	2734	0	0	2546	0	0	1242	1599	1231	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3				182		107	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	11%	1%	4%	0%	1%
Adj. Flow (vph)	104	753	40	108	640	19	120	10	182	33	12	107
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	897	0	0	767	0	0	130	182	33	119	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

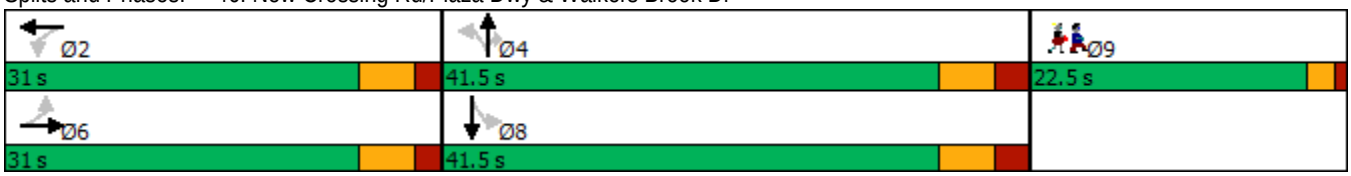
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		25.0			25.0			10.7	10.7	10.7	10.7	
Actuated g/C Ratio		0.52			0.52			0.22	0.22	0.22	0.22	
v/c Ratio		0.63			0.58			0.47	0.37	0.12	0.27	
Control Delay		11.0			10.4			22.6	5.6	16.0	6.7	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		11.0			10.4			22.6	5.6	16.0	6.7	
LOS		B			B			C	A	B	A	
Approach Delay		11.0			10.4			12.7			8.7	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		80			66			32	0	7	3	
Queue Length 95th (ft)		148			124			72	36	23	29	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1419			1321			901	1210	893	1211	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.63			0.58			0.14	0.15	0.04	0.10	

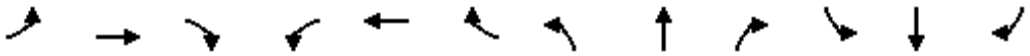
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 48.3			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 10.9		Intersection LOS: B	
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			
Description: m			

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

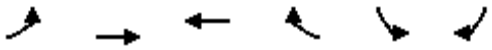


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	708	38	98	582	17	110	9	167	28	10	91
Future Volume (vph)	98	708	38	98	582	17	110	9	167	28	10	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.99			1.00			1.00	0.85	1.00	0.87	
Flt Protected		0.99			0.99			0.96	1.00	0.95	1.00	
Satd. Flow (prot)		3536			3542			1801	1599	1736	1629	
Flt Permitted		0.77			0.71			0.66	1.00	0.67	1.00	
Satd. Flow (perm)		2735			2545			1241	1599	1231	1629	
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	104	753	40	108	640	19	120	10	182	33	12	107
RTOR Reduction (vph)	0	2	0	0	1	0	0	0	142	0	83	0
Lane Group Flow (vph)	0	895	0	0	766	0	0	130	40	33	36	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	11%	1%	4%	0%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		25.0			25.0			10.7	10.7	10.7	10.7	
Effective Green, g (s)		25.0			25.0			10.7	10.7	10.7	10.7	
Actuated g/C Ratio		0.52			0.52			0.22	0.22	0.22	0.22	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1418			1320			275	354	273	361	
v/s Ratio Prot											0.02	
v/s Ratio Perm		c0.33			0.30			c0.10	0.03	0.03		
v/c Ratio		0.63			0.58			0.47	0.11	0.12	0.10	
Uniform Delay, d1		8.3			8.0			16.3	15.0	15.0	14.9	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.1			1.9			0.5	0.1	0.1	0.0	
Delay (s)		10.4			9.9			16.8	15.0	15.1	15.0	
Level of Service		B			A			B	B	B	B	
Approach Delay (s)		10.4			9.9			15.7			15.0	
Approach LOS		B			A			B			B	

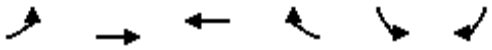
Intersection Summary			
HCM 2000 Control Delay	11.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	48.2	Sum of lost time (s)	15.5
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



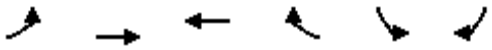
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	808	613	284	246	86
Future Volume (vph)	85	808	613	284	246	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	3556	3574	1599	3433	1615
Flt Permitted		0.835			0.950	
Satd. Flow (perm)	0	2985	3574	1599	3433	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						100
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.97	0.97	0.95	0.95	0.86	0.86
Heavy Vehicles (%)	1%	1%	1%	1%	2%	0%
Adj. Flow (vph)	88	833	645	299	286	100
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	921	645	299	286	100
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		20.4	20.4	40.6	9.8	9.8
Actuated g/C Ratio		0.50	0.50	1.00	0.24	0.24
v/c Ratio		0.61	0.36	0.19	0.35	0.22
Control Delay		9.5	6.9	0.3	15.0	5.5
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		9.5	6.9	0.3	15.0	5.5
LOS		A	A	A	B	A
Approach Delay		9.5	4.8		12.5	
Approach LOS		A	A		B	
Queue Length 50th (ft)		63	37	0	25	0
Queue Length 95th (ft)		136	81	0	61	25
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2761	3306	1599	2289	1110
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.33	0.20	0.19	0.12	0.09

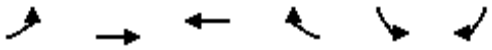
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 40.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 8.0		Intersection LOS: A	
Intersection Capacity Utilization 61.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	85	808	613	284	246	86
Future Volume (vph)	85	808	613	284	246	86
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3557	3574	1599	3433	1615
Flt Permitted		0.83	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2984	3574	1599	3433	1615
Peak-hour factor, PHF	0.97	0.97	0.95	0.95	0.86	0.86
Adj. Flow (vph)	88	833	645	299	286	100
RTOR Reduction (vph)	0	0	0	0	0	76
Lane Group Flow (vph)	0	921	645	299	286	24
Heavy Vehicles (%)	1%	1%	1%	1%	2%	0%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		20.4	20.4	30.2	9.8	9.8
Effective Green, g (s)		20.4	20.4	30.2	9.8	9.8
Actuated g/C Ratio		0.51	0.51	0.75	0.24	0.24
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1514	1813	1599	836	393
v/s Ratio Prot			0.18	0.05	c0.08	
v/s Ratio Perm		c0.31		0.14		0.02
v/c Ratio		0.61	0.36	0.19	0.34	0.06
Uniform Delay, d1		7.1	6.0	1.4	12.5	11.7
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.7	0.0	0.1	0.2	0.1
Delay (s)		7.8	6.0	1.5	12.8	11.7
Level of Service		A	A	A	B	B
Approach Delay (s)		7.8	4.6		12.5	
Approach LOS		A	A		B	

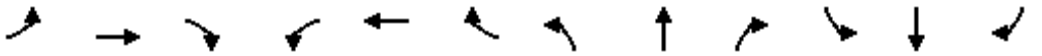
Intersection Summary			
HCM 2000 Control Delay	7.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	40.2	Sum of lost time (s)	10.0
Intersection Capacity Utilization	61.3%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



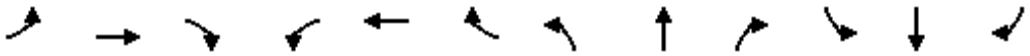
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	85	808	613	284	246	86
Future Volume (veh/h)	85	808	613	284	246	86
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1870	1900
Adj Flow Rate, veh/h	88	833	645	299	286	100
Peak Hour Factor	0.97	0.97	0.95	0.95	0.86	0.86
Percent Heavy Veh, %	1	1	1	1	2	0
Cap, veh/h	219	1496	1792	1092	634	295
Arrive On Green	0.50	0.50	0.50	0.50	0.18	0.18
Sat Flow, veh/h	167	3075	3676	1598	3456	1610
Grp Volume(v), veh/h	453	468	645	299	286	100
Grp Sat Flow(s),veh/h/ln	1527	1630	1791	1598	1728	1610
Q Serve(g_s), s	0.0	6.4	3.5	2.3	2.3	1.7
Cycle Q Clear(g_c), s	5.0	6.4	3.5	2.3	2.3	1.7
Prop In Lane	0.19			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	900	815	1792	1092	634	295
V/C Ratio(X)	0.50	0.57	0.36	0.27	0.45	0.34
Avail Cap(c_a), veh/h	1917	2062	4531	2314	2842	1324
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.2	5.5	4.8	1.9	11.5	11.2
Incr Delay (d2), s/veh	0.4	0.6	0.0	0.0	0.5	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.0	0.5	0.5	0.7	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.6	6.2	4.9	2.0	12.0	11.9
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		921	944		386	
Approach Delay, s/veh		5.9	4.0		12.0	
Approach LOS		A	A		B	

Timer - Assigned Phs	2			6	8
Phs Duration (G+Y+Rc), s	20.8			20.8	10.8
Change Period (Y+Rc), s	5.0			5.0	5.0
Max Green Setting (Gmax), s	40.0			40.0	26.0
Max Q Clear Time (g_c+I1), s	5.5			8.4	4.3
Green Ext Time (p_c), s	3.5			7.5	1.3

Intersection Summary	
HCM 6th Ctrl Delay	6.1
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	773	281	268	551	0	0	0	0	97	0	346
Future Volume (vph)	0	773	281	268	551	0	0	0	0	97	0	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960										0.850
Flt Protected					0.984						0.950	
Satd. Flow (prot)	0	3422	0	0	3529	0	0	0	0	0	1787	1599
Flt Permitted					0.580						0.950	
Satd. Flow (perm)	0	3422	0	0	2080	0	0	0	0	0	1787	1599
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		137										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	2%	2%	2%	1%	0%	1%
Adj. Flow (vph)	0	814	296	288	592	0	0	0	0	109	0	389
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1110	0	0	880	0	0	0	0	0	109	389
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	

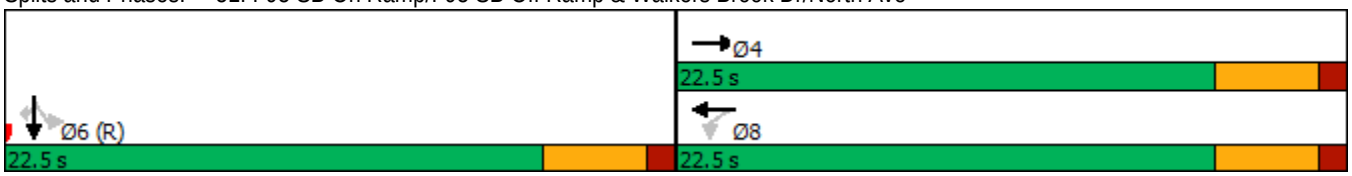


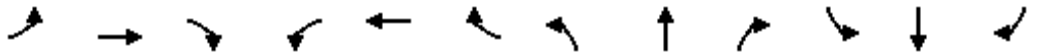
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
v/c Ratio		0.76			1.71dl						0.15	0.61
Control Delay		14.7			63.2						9.4	15.7
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		14.7			63.2						9.4	15.7
LOS		B			E						A	B
Approach Delay		14.7			63.2						14.3	
Approach LOS		B			E						B	
Queue Length 50th (ft)		105			~150						17	75
Queue Length 95th (ft)		167			#243						39	142
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1451			832						714	639
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.76			1.06						0.15	0.61

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.06			
Intersection Signal Delay: 31.8		Intersection LOS: C	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave



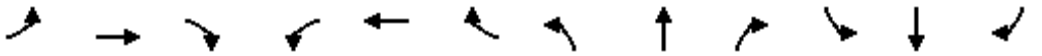


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	773	281	268	551	0	0	0	0	97	0	346
Future Volume (vph)	0	773	281	268	551	0	0	0	0	97	0	346
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.95	1.00
Satd. Flow (prot)		3422			3528						1787	1599
Flt Permitted		1.00			0.58						0.95	1.00
Satd. Flow (perm)		3422			2079						1787	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.93	0.93	0.93	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	814	296	288	592	0	0	0	0	109	0	389
RTOR Reduction (vph)	0	82	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1028	0	0	880	0	0	0	0	0	109	389
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	2%	2%	2%	1%	0%	1%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		18.0			18.0						18.0	18.0
Effective Green, g (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1368			831						714	639
v/s Ratio Prot		0.30										
v/s Ratio Perm					c0.42						0.06	c0.24
v/c Ratio		0.75			1.71dl						0.15	0.61
Uniform Delay, d1		11.6			13.5						8.6	10.7
Progression Factor		1.00			0.93						1.00	1.00
Incremental Delay, d2		2.4			45.9						0.5	4.3
Delay (s)		14.0			58.4						9.1	15.0
Level of Service		B			E						A	B
Approach Delay (s)		14.0			58.4			0.0			13.7	
Approach LOS		B			E			A			B	

Intersection Summary			
HCM 2000 Control Delay	29.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	70.0%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



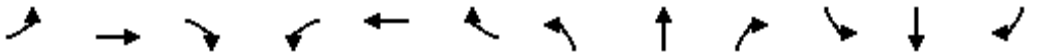
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	773	281	268	551	0	0	0	0	97	0	346
Future Volume (veh/h)	0	773	281	268	551	0	0	0	0	97	0	346
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1900	1885
Adj Flow Rate, veh/h	0	814	0	288	592	0				109	0	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93				0.89	0.89	0.89
Percent Heavy Veh, %	0	1	1	1	1	0				1	0	1
Cap, veh/h	0	1433		287	681	0				724	0	
Arrive On Green	0.00	0.40	0.00	0.40	0.40	0.00				0.40	0.00	0.00
Sat Flow, veh/h	0	3770	0	352	1788	0				1810	0	1598
Grp Volume(v), veh/h	0	814	0	348	532	0				109	0	0
Grp Sat Flow(s),veh/h/ln	0	1791	0	425	1630	0				1810	0	1598
Q Serve(g_s), s	0.0	7.9	0.0	10.1	13.1	0.0				1.7	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.9	0.0	18.0	13.1	0.0				1.7	0.0	0.0
Prop In Lane	0.00		0.00	0.83		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1433		316	652	0				724	0	
V/C Ratio(X)	0.00	0.57		1.10	0.82	0.00				0.15	0.00	
Avail Cap(c_a), veh/h	0	1433		316	652	0				724	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.00	0.78	0.78	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	10.5	0.0	19.8	12.0	0.0				8.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	74.3	6.4	0.0				0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.4	0.0	9.5	4.6	0.0				0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.9	0.0	94.1	18.4	0.0				9.1	0.0	0.0
LnGrp LOS	A	B		F	B	A				A	A	
Approach Vol, veh/h		814	A		880						109	A
Approach Delay, s/veh		10.9			48.3						9.1	
Approach LOS		B			D						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5					
Change Period (Y+Rc), s			4.5		4.5		4.5					
Max Green Setting (Gmax), s			18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s			9.9		3.7		20.0					
Green Ext Time (p_c), s			3.3		0.4		0.0					

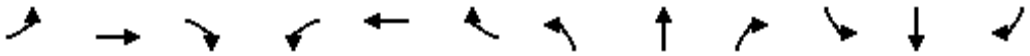
Intersection Summary		
HCM 6th Ctrl Delay		29.1
HCM 6th LOS		C

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	487	0	0	640	178	179	4	243	0	0	0
Future Volume (vph)	383	487	0	0	640	178	179	4	243	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.967				0.850			
Flt Protected		0.978					0.950	0.954				
Satd. Flow (prot)	0	3500	0	0	3456	0	1681	1690	1599	0	0	0
Flt Permitted		0.583					0.950	0.954				
Satd. Flow (perm)	0	2086	0	0	3456	0	1681	1690	1599	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					94				300			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.81	0.81	0.81	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	1%	1%	2%	0%	1%	2%	2%	2%
Adj. Flow (vph)	403	513	0	0	719	200	221	5	300	0	0	0
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	0	916	0	0	919	0	113	113	300	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				

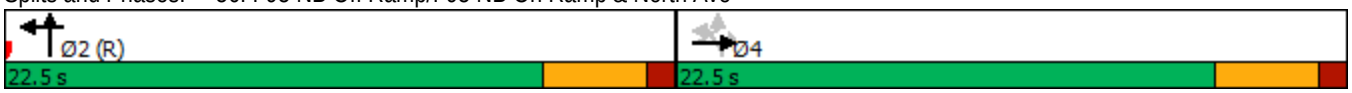


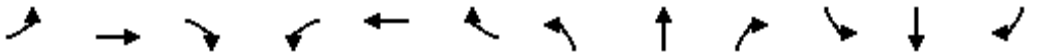
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!						4!		4			
Detector Phase	4	4			2		4	2	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	None			C-Max		None	C-Max	None			
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
v/c Ratio		1.74dl			0.64		0.17	0.17	0.37			
Control Delay		77.6			12.2		9.6	9.5	3.0			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		77.6			12.2		9.6	9.5	3.0			
LOS		E			B		A	A	A			
Approach Delay		77.6			12.2			5.8				
Approach LOS		E			B			A				
Queue Length 50th (ft)		~106			83		18	18	0			
Queue Length 95th (ft)		m#222			130		38	37	24			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		834			1438		672	676	819			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		1.10			0.64		0.17	0.17	0.37			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBWB and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.10			
Intersection Signal Delay: 36.1		Intersection LOS: D	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	383	487	0	0	640	178	179	4	243	0	0	0
Future Volume (vph)	383	487	0	0	640	178	179	4	243	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3501			3458		1681	1690	1599			
Flt Permitted		0.58			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2085			3458		1681	1690	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.81	0.81	0.81	0.92	0.92	0.92
Adj. Flow (vph)	403	513	0	0	719	200	221	5	300	0	0	0
RTOR Reduction (vph)	0	0	0	0	56	0	0	0	180	0	0	0
Lane Group Flow (vph)	0	916	0	0	863	0	113	113	120	0	0	0
Heavy Vehicles (%)	2%	0%	0%	0%	1%	1%	2%	0%	1%	2%	2%	2%
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				
Permitted Phases	4!						4!		4			
Actuated Green, G (s)		18.0			18.0		18.0	18.0	18.0			
Effective Green, g (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		834			1383		672	676	639			
v/s Ratio Prot					c0.25							
v/s Ratio Perm		c0.44					0.07	0.07	0.08			
v/c Ratio		1.74dl			0.62		0.17	0.17	0.19			
Uniform Delay, d1		13.5			10.8		8.7	8.7	8.8			
Progression Factor		1.14			1.00		1.00	1.00	1.00			
Incremental Delay, d2		57.4			2.1		0.1	0.5	0.1			
Delay (s)		72.9			12.9		8.8	9.2	8.9			
Level of Service		E			B		A	A	A			
Approach Delay (s)		72.9			12.9			8.9			0.0	
Approach LOS		E			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	35.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

! Phase conflict between lane groups.

c Critical Lane Group

HCM 6th Edition methodology cannot be performed with phasing conflicts.

2019 Existing Conditions
Saturday Mid-Day Peak Hour

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	341	354	41	45	6
Future Vol, veh/h	10	341	354	41	45	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	88	88	75	75
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	12	421	402	47	60	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	449	0	-	0	871	426
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	445	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1122	-	-	-	324	633
Stage 1	-	-	-	-	663	-
Stage 2	-	-	-	-	650	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1122	-	-	-	319	633
Mov Cap-2 Maneuver	-	-	-	-	319	-
Stage 1	-	-	-	-	654	-
Stage 2	-	-	-	-	650	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1122	-	-	-	339
HCM Lane V/C Ratio	0.011	-	-	-	0.201
HCM Control Delay (s)	8.2	0	-	-	18.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection	
Int Delay, s/veh	81.1

Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	821	90	146	518	74	219
Future Vol, veh/h	821	90	146	518	74	219
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	94	94	77	77
Heavy Vehicles, %	1	0	0	0	0	0
Mvmt Flow	902	99	155	551	96	284

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1001	0	1538	501
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	586	-
Critical Hdwy	-	-	4.1	-	6.8	6.9
Critical Hdwy Stg 1	-	-	-	-	5.8	-
Critical Hdwy Stg 2	-	-	-	-	5.8	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	700	-	109	521
Stage 1	-	-	-	-	340	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	700	-	~ 74	521
Mov Cap-2 Maneuver	-	-	-	-	~ 74	-
Stage 1	-	-	-	-	232	-
Stage 2	-	-	-	-	525	-

Approach	NB	SB	NW
HCM Control Delay, s	0	3.5	$ 438.6
HCM LOS			F

Minor Lane/Major Mvmt	NBT	NBR	NWLn1	SBL	SBT
Capacity (veh/h)	-	-	206	700	-
HCM Lane V/C Ratio	-	-	1.847	0.222	-
HCM Control Delay (s)	-	-	$ 438.6	11.6	1.2
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	27.1	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	28	4	38	32	2	9	133	13	15	157	2
Future Vol, veh/h	8	28	4	38	32	2	9	133	13	15	157	2
Peak Hour Factor	0.75	0.75	0.75	0.68	0.68	0.68	0.73	0.73	0.73	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	37	5	56	47	3	12	182	18	17	183	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.9	9.2	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	20%	53%	9%
Vol Thru, %	86%	70%	44%	90%
Vol Right, %	8%	10%	3%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	40	72	174
LT Vol	9	8	38	15
Through Vol	133	28	32	157
RT Vol	13	4	2	2
Lane Flow Rate	212	53	106	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.265	0.074	0.147	0.256
Departure Headway (Hd)	4.491	4.967	5	4.547
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	718	715	789
Service Time	2.527	3.019	3.047	2.585
HCM Lane V/C Ratio	0.266	0.074	0.148	0.256
HCM Control Delay	9.2	8.4	8.9	9.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.2	0.5	1

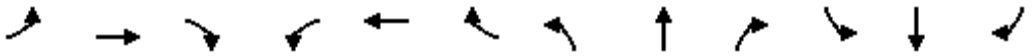
Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	799	123	64	630	44	57
Future Vol, veh/h	799	123	64	630	44	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	85	85
Heavy Vehicles, %	2	1	0	2	0	0
Mvmt Flow	850	131	68	670	52	67

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	981	0	1722	916
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	806	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	712	-	99	333
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	712	-	84	333
Mov Cap-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	376	-

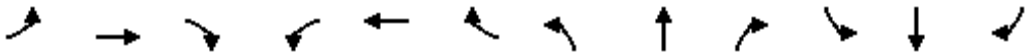
Approach	EB	WB	NW
HCM Control Delay, s	0	1	93.2
HCM LOS			F

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	145	-	-	712	-
HCM Lane V/C Ratio	0.819	-	-	0.096	-
HCM Control Delay (s)	93.2	-	-	10.6	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	5.2	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	211	22	82	158	80	112	521	90	62	429	29
Future Volume (vph)	43	211	22	82	158	80	112	521	90	62	429	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.986			0.966			0.981			0.992	
Flt Protected	0.950				0.987			0.992			0.994	
Satd. Flow (prot)	1770	1840	0	0	1794	0	0	3488	0	0	3522	0
Flt Permitted	0.320				0.829			0.755			0.782	
Satd. Flow (perm)	596	1840	0	0	1507	0	0	2655	0	0	2771	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93	0.96	0.93	0.93
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	1%	0%	2%	1%	0%
Adj. Flow (vph)	48	234	24	99	190	96	120	560	97	65	461	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	258	0	0	385	0	0	777	0	0	557	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	19.6	19.1			10.1			40.3			40.3	
Actuated g/C Ratio	0.27	0.27			0.14			0.56			0.56	
v/c Ratio	0.17	0.52			1.82			0.52			0.36	
Control Delay	19.7	25.9			409.5			12.3			10.4	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	19.7	25.9			409.5			12.3			10.4	
LOS	B	C			F			B			B	
Approach Delay		24.9			409.5			12.3			10.4	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	16	96			~285			119			75	
Queue Length 95th (ft)	38	160			#414			178			116	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	390	777			212			1496			1561	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.12	0.33			1.82			0.52			0.36	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 71.5			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.82			
Intersection Signal Delay: 89.2		Intersection LOS: F	
Intersection Capacity Utilization 86.9%		ICU Level of Service E	

Lane Group	Ø9
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

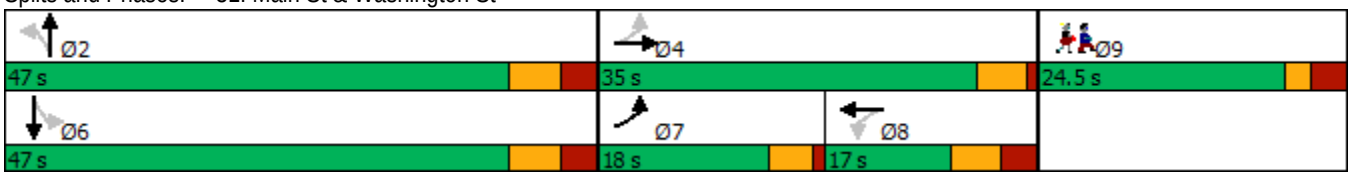
Intersection Summary

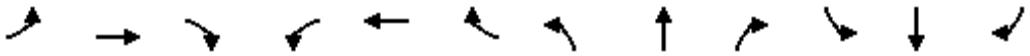
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St



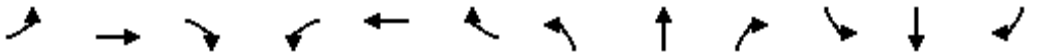


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	43	211	22	82	158	80	112	521	90	62	429	29
Future Volume (vph)	43	211	22	82	158	80	112	521	90	62	429	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.97			0.98			0.99	
Flt Protected	0.95	1.00			0.99			0.99			0.99	
Satd. Flow (prot)	1770	1840			1795			3490			3521	
Flt Permitted	0.32	1.00			0.83			0.75			0.78	
Satd. Flow (perm)	595	1840			1507			2654			2768	
Peak-hour factor, PHF	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93	0.96	0.93	0.93
Adj. Flow (vph)	48	234	24	99	190	96	120	560	97	65	461	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	48	258	0	0	385	0	0	777	0	0	557	0
Confl. Peds. (#/hr)										4		
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	1%	0%	2%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.1	21.1			10.1			40.3			40.3	
Effective Green, g (s)	21.1	21.1			10.1			40.3			40.3	
Actuated g/C Ratio	0.29	0.29			0.14			0.55			0.55	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	243	528			207			1457			1519	
v/s Ratio Prot	0.01	c0.14										
v/s Ratio Perm	0.04				c0.26			c0.29			0.20	
v/c Ratio	0.20	0.49			1.86			0.53			0.37	
Uniform Delay, d1	20.3	21.7			31.7			10.6			9.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.3			404.9			1.4			0.7	
Delay (s)	20.7	21.9			436.6			12.0			10.0	
Level of Service	C	C			F			B			B	
Approach Delay (s)		21.7			436.6			12.0			10.0	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	93.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	73.4	Sum of lost time (s)	23.5
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		

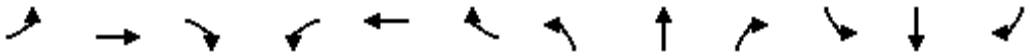
c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	659	33	108	662	30	97	11	71	55	12	103
Future Volume (vph)	98	659	33	108	662	30	97	11	71	55	12	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.994				0.850		0.866	
Flt Protected		0.994			0.993			0.957		0.950		
Satd. Flow (prot)	0	3567	0	0	3563	0	0	1818	1599	1805	1645	0
Flt Permitted		0.756			0.736			0.656		0.684		
Satd. Flow (perm)	0	2713	0	0	2641	0	0	1246	1599	1300	1645	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4				75		121	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.98	0.98	0.98	0.95	0.95	0.95	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	105	709	35	110	676	31	102	12	75	65	14	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	849	0	0	817	0	0	114	75	65	135	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

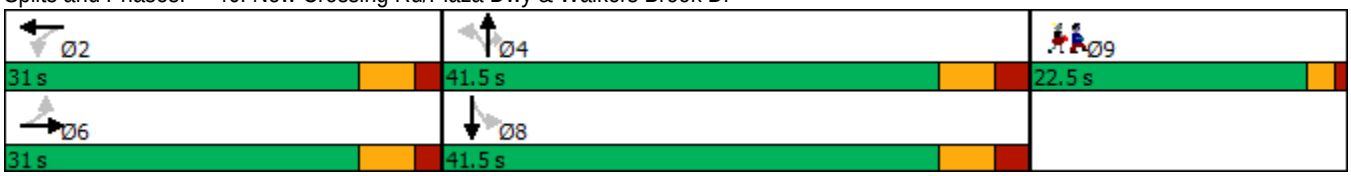
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		27.9			27.9			10.5	10.5	10.5	10.5	
Actuated g/C Ratio		0.62			0.62			0.23	0.23	0.23	0.23	
v/c Ratio		0.51			0.50			0.39	0.17	0.21	0.28	
Control Delay		8.7			8.7			20.8	6.1	17.5	6.7	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		8.7			8.7			20.8	6.1	17.5	6.7	
LOS		A			A			C	A	B	A	
Approach Delay		8.7			8.7			15.0			10.2	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		74			71			27	0	15	3	
Queue Length 95th (ft)		130			125			64	24	37	31	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1675			1630			976	1269	1018	1315	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.51			0.50			0.12	0.06	0.06	0.10	

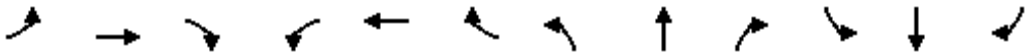
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 45.2			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.51			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 72.5%		ICU Level of Service C	
Analysis Period (min) 15			
Description: m			

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

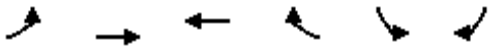


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	659	33	108	662	30	97	11	71	55	12	103
Future Volume (vph)	98	659	33	108	662	30	97	11	71	55	12	103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.99			0.99			1.00	0.85	1.00	0.87	
Flt Protected		0.99			0.99			0.96	1.00	0.95	1.00	
Satd. Flow (prot)		3566			3565			1819	1599	1805	1645	
Flt Permitted		0.76			0.74			0.66	1.00	0.68	1.00	
Satd. Flow (perm)		2713			2643			1246	1599	1299	1645	
Peak-hour factor, PHF	0.93	0.93	0.93	0.98	0.98	0.98	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	105	709	35	110	676	31	102	12	75	65	14	121
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	62	0	101	0
Lane Group Flow (vph)	0	847	0	0	815	0	0	114	13	65	34	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		26.3			26.3			7.9	7.9	7.9	7.9	
Effective Green, g (s)		26.3			26.3			7.9	7.9	7.9	7.9	
Actuated g/C Ratio		0.56			0.56			0.17	0.17	0.17	0.17	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1527			1488			210	270	219	278	
v/s Ratio Prot											0.02	
v/s Ratio Perm		c0.31			0.31			c0.09	0.01	0.05		
v/c Ratio		0.55			0.55			0.54	0.05	0.30	0.12	
Uniform Delay, d1		6.5			6.4			17.7	16.2	17.0	16.5	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.5			1.5			1.5	0.0	0.3	0.1	
Delay (s)		7.9			7.9			19.3	16.3	17.2	16.5	
Level of Service		A			A			B	B	B	B	
Approach Delay (s)		7.9			7.9			18.1			16.8	
Approach LOS		A			A			B			B	

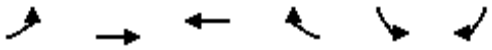
Intersection Summary			
HCM 2000 Control Delay	9.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	46.7	Sum of lost time (s)	15.5
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



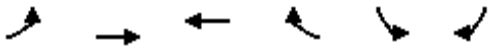
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	127	627	463	642	390	152
Future Volume (vph)	127	627	463	642	390	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.992			0.950	
Satd. Flow (prot)	0	3546	3574	1615	3467	1583
Flt Permitted		0.785			0.950	
Satd. Flow (perm)	0	2806	3574	1615	3467	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						175
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.96	0.96	0.97	0.97	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%
Adj. Flow (vph)	132	653	477	662	448	175
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	785	477	662	448	175
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		20.4	20.4	44.9	14.1	14.1
Actuated g/C Ratio		0.45	0.45	1.00	0.31	0.31
v/c Ratio		0.62	0.29	0.41	0.41	0.28
Control Delay		12.2	8.6	0.8	14.1	4.2
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		12.2	8.6	0.8	14.1	4.2
LOS		B	A	A	B	A
Approach Delay		12.2	4.1		11.3	
Approach LOS		B	A		B	
Queue Length 50th (ft)		70	35	0	42	0
Queue Length 95th (ft)		150	77	0	93	32
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2461	3135	1612	2105	1030
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.32	0.15	0.41	0.21	0.17

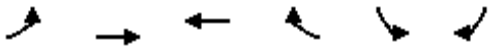
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 44.9			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 8.3		Intersection LOS: A	
Intersection Capacity Utilization 69.1%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	127	627	463	642	390	152
Future Volume (vph)	127	627	463	642	390	152
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.99	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3544	3574	1615	3467	1583
Flt Permitted		0.78	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2806	3574	1615	3467	1583
Peak-hour factor, PHF	0.96	0.96	0.97	0.97	0.87	0.87
Adj. Flow (vph)	132	653	477	662	448	175
RTOR Reduction (vph)	0	0	0	0	0	120
Lane Group Flow (vph)	0	785	477	662	448	55
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		20.4	20.4	34.5	14.1	14.1
Effective Green, g (s)		20.4	20.4	34.5	14.1	14.1
Actuated g/C Ratio		0.46	0.46	0.78	0.32	0.32
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1286	1638	1615	1098	501
v/s Ratio Prot			0.13	c0.13	0.13	
v/s Ratio Perm		c0.28		0.28		0.04
v/c Ratio		0.61	0.29	0.41	0.41	0.11
Uniform Delay, d1		9.1	7.5	1.6	11.9	10.8
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.9	0.0	0.2	0.2	0.1
Delay (s)		9.9	7.6	1.8	12.2	10.9
Level of Service		A	A	A	B	B
Approach Delay (s)		9.9	4.2		11.8	
Approach LOS		A	A		B	

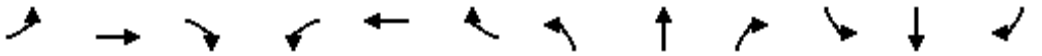
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	44.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	69.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



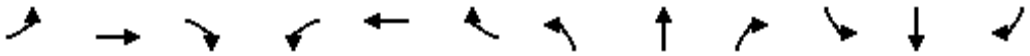
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	127	627	463	642	390	152
Future Volume (veh/h)	127	627	463	642	390	152
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1885	1870
Adj Flow Rate, veh/h	132	653	477	662	448	175
Peak Hour Factor	0.96	0.96	0.97	0.97	0.87	0.87
Percent Heavy Veh, %	1	1	1	0	1	2
Cap, veh/h	281	1143	1683	1138	824	375
Arrive On Green	0.47	0.47	0.47	0.47	0.24	0.24
Sat Flow, veh/h	286	2518	3676	1610	3483	1585
Grp Volume(v), veh/h	337	448	477	662	448	175
Grp Sat Flow(s),veh/h/ln	1089	1630	1791	1610	1742	1585
Q Serve(g_s), s	2.4	6.8	2.8	7.0	3.8	3.2
Cycle Q Clear(g_c), s	5.5	6.8	2.8	7.0	3.8	3.2
Prop In Lane	0.39			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	659	766	1683	1138	824	375
V/C Ratio(X)	0.51	0.59	0.28	0.58	0.54	0.47
Avail Cap(c_a), veh/h	1293	1913	4205	2271	2658	1210
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.9	6.6	5.5	2.5	11.4	11.2
Incr Delay (d2), s/veh	0.6	0.7	0.0	0.2	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	1.3	0.5	2.2	1.2	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	6.5	7.3	5.6	2.7	12.0	12.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		785	1139		623	
Approach Delay, s/veh		7.0	3.9		12.0	
Approach LOS		A	A		B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	21.0				21.0	13.1
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	26.0
Max Q Clear Time (g_c+I1), s	9.0				8.8	5.8
Green Ext Time (p_c), s	3.5				7.2	2.2

Intersection Summary	
HCM 6th Ctrl Delay	6.8
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	677	332	243	663	0	0	0	0	110	1	443
Future Volume (vph)	0	677	332	243	663	0	0	0	0	110	1	443
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951										0.850
Flt Protected					0.987						0.953	
Satd. Flow (prot)	0	3410	0	0	3528	0	0	0	0	0	1811	1615
Flt Permitted					0.565						0.953	
Satd. Flow (perm)	0	3410	0	0	2019	0	0	0	0	0	1811	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		222										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	0	713	349	253	691	0	0	0	0	113	1	457
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1062	0	0	944	0	0	0	0	0	114	457
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	

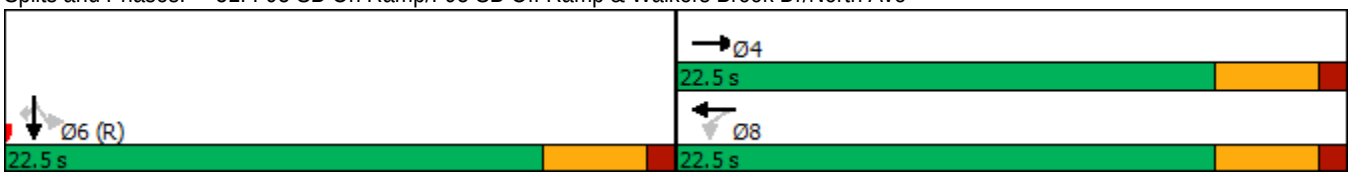


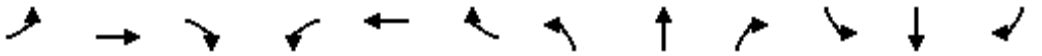
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
v/c Ratio		0.71			1.51dl						0.16	0.71
Control Delay		12.0			106.4						9.4	19.5
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		12.0			106.4						9.4	19.5
LOS		B			F						A	B
Approach Delay		12.0			106.4						17.5	
Approach LOS		B			F						B	
Queue Length 50th (ft)		86			~174						18	93
Queue Length 95th (ft)		142			#267						41	#212
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1497			807						724	646
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.71			1.17						0.16	0.71

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.17			
Intersection Signal Delay: 47.8		Intersection LOS: D	
Intersection Capacity Utilization 72.1%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave



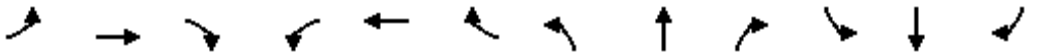


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	677	332	243	663	0	0	0	0	110	1	443
Future Volume (vph)	0	677	332	243	663	0	0	0	0	110	1	443
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.95			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.95	1.00
Satd. Flow (prot)		3409			3527						1810	1615
Flt Permitted		1.00			0.57						0.95	1.00
Satd. Flow (perm)		3409			2021						1810	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	713	349	253	691	0	0	0	0	113	1	457
RTOR Reduction (vph)	0	133	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	929	0	0	944	0	0	0	0	0	114	457
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	2%	2%	2%	0%	0%	0%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		18.0			18.0						18.0	18.0
Effective Green, g (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1363			808						724	646
v/s Ratio Prot		0.27										
v/s Ratio Perm					c0.47						0.06	c0.28
v/c Ratio		0.68			1.51dl						0.16	0.71
Uniform Delay, d1		11.1			13.5						8.6	11.3
Progression Factor		1.00			0.93						1.00	1.00
Incremental Delay, d2		1.4			87.6						0.5	6.4
Delay (s)		12.6			100.1						9.1	17.7
Level of Service		B			F						A	B
Approach Delay (s)		12.6			100.1			0.0			16.0	
Approach LOS		B			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	45.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



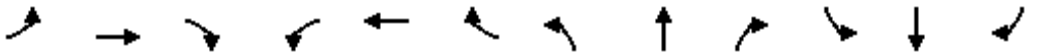
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	677	332	243	663	0	0	0	0	110	1	443
Future Volume (veh/h)	0	677	332	243	663	0	0	0	0	110	1	443
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1900	1900	1900
Adj Flow Rate, veh/h	0	713	0	253	691	0				113	1	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96				0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	1	1	0				0	0	0
Cap, veh/h	0	1433		283	755	0				718	6	
Arrive On Green	0.00	0.40	0.00	0.40	0.40	0.00				0.40	0.40	0.00
Sat Flow, veh/h	0	3770	0	381	1974	0				1794	16	1610
Grp Volume(v), veh/h	0	713	0	397	547	0				114	0	0
Grp Sat Flow(s),veh/h/ln	0	1791	0	639	1630	0				1810	0	1610
Q Serve(g_s), s	0.0	6.7	0.0	11.3	13.6	0.0				1.8	0.0	0.0
Cycle Q Clear(g_c), s	0.0	6.7	0.0	18.0	13.6	0.0				1.8	0.0	0.0
Prop In Lane	0.00		0.00	0.64		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1433		387	652	0				724	0	
V/C Ratio(X)	0.00	0.50		1.03	0.84	0.00				0.16	0.00	
Avail Cap(c_a), veh/h	0	1433		387	652	0				724	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.82	0.00	0.82	0.82	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	10.1	0.0	18.2	12.2	0.0				8.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	48.2	8.0	0.0				0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.0	0.0	8.8	5.0	0.0				0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.3	0.0	66.5	20.2	0.0				9.1	0.0	0.0
LnGrp LOS	A	B		F	C	A				A	A	
Approach Vol, veh/h		713	A		944						114	A
Approach Delay, s/veh		10.3			39.6						9.1	
Approach LOS		B			D						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5					
Change Period (Y+Rc), s			4.5		4.5		4.5					
Max Green Setting (Gmax), s			18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s			8.7		3.8		20.0					
Green Ext Time (p_c), s			3.2		0.5		0.0					

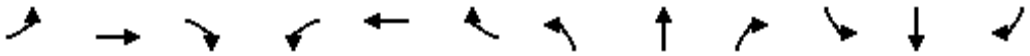
Intersection Summary												
HCM 6th Ctrl Delay			25.9									
HCM 6th LOS			C									

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	346	440	0	0	650	156	261	2	210	0	0	0
Future Volume (vph)	346	440	0	0	650	156	261	2	210	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.971				0.850			
Flt Protected		0.978					0.950	0.953				
Satd. Flow (prot)	0	3491	0	0	3477	0	1698	1703	1599	0	0	0
Flt Permitted		0.581					0.950	0.953				
Satd. Flow (perm)	0	2074	0	0	3477	0	1698	1703	1599	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					78				219			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.96	0.96	0.96	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	2%	2%	2%
Adj. Flow (vph)	360	458	0	0	699	168	272	2	219	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	818	0	0	867	0	136	138	219	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				

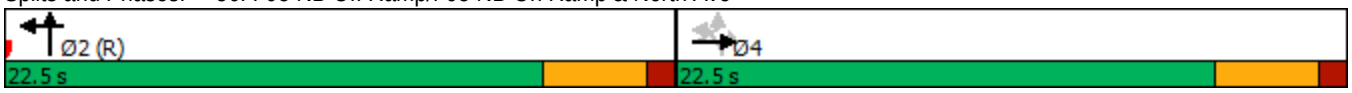


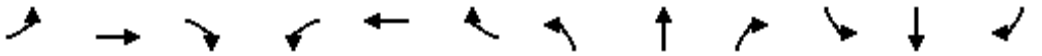
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!						4!		4			
Detector Phase	4	4			2		4	2	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	None			C-Max		None	C-Max	None			
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
v/c Ratio		1.45dl			0.60		0.20	0.20	0.28			
Control Delay		42.9			11.8		9.8	9.8	2.9			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		42.9			11.8		9.8	9.8	2.9			
LOS		D			B		A	A	A			
Approach Delay		42.9			11.8			6.8				
Approach LOS		D			B			A				
Queue Length 50th (ft)		83			78		23	23	0			
Queue Length 95th (ft)		#197			123		50	51	28			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		829			1437		679	681	771			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.99			0.60		0.20	0.20	0.28			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBWB and 6:, Start of Green			
Natural Cycle: 55			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.99			
Intersection Signal Delay: 22.3		Intersection LOS: C	
Intersection Capacity Utilization 63.7%		ICU Level of Service B	
Analysis Period (min) 15			

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	346	440	0	0	650	156	261	2	210	0	0	0
Future Volume (vph)	346	440	0	0	650	156	261	2	210	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3493			3477		1698	1703	1599			
Flt Permitted		0.58			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2076			3477		1698	1703	1599			
Peak-hour factor, PHF	0.96	0.96	0.96	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	360	458	0	0	699	168	272	2	219	0	0	0
RTOR Reduction (vph)	0	0	0	0	47	0	0	0	131	0	0	0
Lane Group Flow (vph)	0	818	0	0	820	0	136	138	88	0	0	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	2%	2%	2%
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				
Permitted Phases	4!						4!		4			
Actuated Green, G (s)		18.0			18.0		18.0	18.0	18.0			
Effective Green, g (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		830			1390		679	681	639			
v/s Ratio Prot					c0.24							
v/s Ratio Perm		c0.39					0.08	0.08	0.05			
v/c Ratio		1.45dl			0.59		0.20	0.20	0.14			
Uniform Delay, d1		13.4			10.6		8.8	8.8	8.6			
Progression Factor		1.05			1.00		1.00	1.00	1.00			
Incremental Delay, d2		23.7			1.8		0.1	0.7	0.1			
Delay (s)		37.7			12.4		9.0	9.5	8.7			
Level of Service		D			B		A	A	A			
Approach Delay (s)		37.7			12.4			9.0			0.0	
Approach LOS		D			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	21.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	63.7%	ICU Level of Service	B
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.
c Critical Lane Group

HCM 6th Edition methodology cannot be performed with phasing conflicts.

2039 No-Build Conditions
Weekday AM Peak Hour

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	254	488	102	35	13
Future Vol, veh/h	4	254	488	102	35	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	90	90	92	92
Heavy Vehicles, %	0	4	3	6	0	0
Mvmt Flow	4	279	542	113	38	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	655	0	-	0	886	599
Stage 1	-	-	-	-	599	-
Stage 2	-	-	-	-	287	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	942	-	-	-	318	505
Stage 1	-	-	-	-	553	-
Stage 2	-	-	-	-	766	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	942	-	-	-	316	505
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	550	-
Stage 2	-	-	-	-	766	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	942	-	-	-	352
HCM Lane V/C Ratio	0.005	-	-	-	0.148
HCM Control Delay (s)	8.8	0	-	-	17
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection	
Intersection Delay, s/veh	9.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	9	23	65	9	20	98	17	11	258	21
Future Vol, veh/h	3	5	9	23	65	9	20	98	17	11	258	21
Peak Hour Factor	0.50	0.50	0.50	0.76	0.76	0.76	0.87	0.87	0.87	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	7	0	0	3	0
Mvmt Flow	6	10	18	30	86	12	23	113	20	12	277	23
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	9.1	8.8	10.3
HCM LOS	A	A	A	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	18%	24%	4%
Vol Thru, %	73%	29%	67%	89%
Vol Right, %	13%	53%	9%	7%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	135	17	97	290
LT Vol	20	3	23	11
Through Vol	98	5	65	258
RT Vol	17	9	9	21
Lane Flow Rate	155	34	128	312
Geometry Grp	1	1	1	1
Degree of Util (X)	0.198	0.046	0.177	0.385
Departure Headway (Hd)	4.605	4.853	4.988	4.447
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	777	734	717	808
Service Time	2.646	2.91	3.035	2.481
HCM Lane V/C Ratio	0.199	0.046	0.179	0.386
HCM Control Delay	8.8	8.1	9.1	10.3
HCM Lane LOS	A	A	A	B
HCM 95th-tile Q	0.7	0.1	0.6	1.8

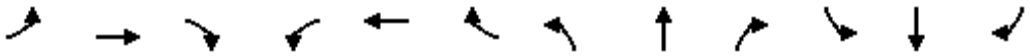
Intersection	
Int Delay, s/veh	4.7

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	545	190	87	608	57	36
Future Vol, veh/h	545	190	87	608	57	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	97	97
Heavy Vehicles, %	5	3	0	4	2	15
Mvmt Flow	599	209	96	668	59	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	808	0	1564	704
Stage 1	-	-	-	-	704	-
Stage 2	-	-	-	-	860	-
Critical Hdwy	-	-	4.1	-	6.42	6.35
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.2	-	3.518	3.435
Pot Cap-1 Maneuver	-	-	826	-	123	416
Stage 1	-	-	-	-	490	-
Stage 2	-	-	-	-	414	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	826	-	100	416
Mov Cap-2 Maneuver	-	-	-	-	100	-
Stage 1	-	-	-	-	490	-
Stage 2	-	-	-	-	337	-

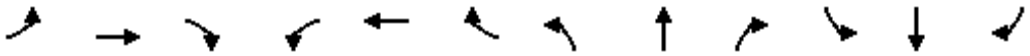
Approach	EB	WB	NW
HCM Control Delay, s	0	1.2	71.5
HCM LOS			F

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	142	-	-	826	-
HCM Lane V/C Ratio	0.675	-	-	0.116	-
HCM Control Delay (s)	71.5	-	-	9.9	0
HCM Lane LOS	F	-	-	A	A
HCM 95th %tile Q(veh)	3.8	-	-	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	161	13	129	272	59	119	519	63	60	700	30
Future Volume (vph)	40	161	13	129	272	59	119	519	63	60	700	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.989			0.983			0.986			0.994	
Flt Protected	0.950				0.986			0.992			0.996	
Satd. Flow (prot)	1805	1862	0	0	1765	0	0	3401	0	0	3503	0
Flt Permitted	0.326				0.837			0.650			0.832	
Satd. Flow (perm)	619	1862	0	0	1499	0	0	2229	0	0	2926	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Peak Hour Factor	0.88	0.88	0.88	0.83	0.83	0.83	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	1%	0%	1%	4%	13%	4%	4%	2%	15%	1%	0%
Adj. Flow (vph)	45	183	15	155	328	71	124	541	66	63	729	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	198	0	0	554	0	0	731	0	0	823	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	19.6	19.1			10.1			40.3			40.3	
Actuated g/C Ratio	0.27	0.27			0.14			0.56			0.56	
v/c Ratio	0.16	0.40			2.63			0.58			0.50	
Control Delay	19.5	23.4			763.6			13.7			11.8	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	19.5	23.4			763.6			13.7			11.8	
LOS	B	C			F			B			B	
Approach Delay		22.7			763.6			13.7			11.8	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	15	71			~453			117			124	
Queue Length 95th (ft)	36	120			#594			184			183	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	399	787			211			1257			1650	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.11	0.25			2.63			0.58			0.50	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 71.5			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.63			
Intersection Signal Delay: 190.7		Intersection LOS: F	
Intersection Capacity Utilization 97.8%		ICU Level of Service F	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.

Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

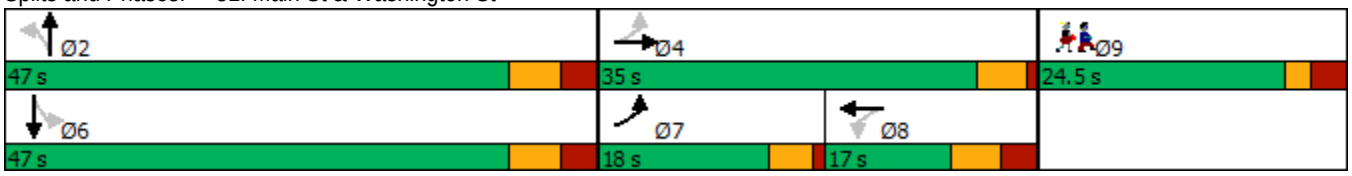
Intersection Summary

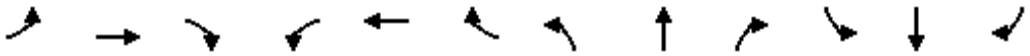
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St

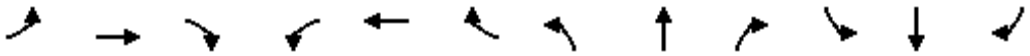




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	161	13	129	272	59	119	519	63	60	700	30
Future Volume (vph)	40	161	13	129	272	59	119	519	63	60	700	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frt	1.00	0.99			0.98			0.99			0.99	
Flt Protected	0.95	1.00			0.99			0.99			1.00	
Satd. Flow (prot)	1805	1861			1765			3401			3505	
Flt Permitted	0.33	1.00			0.84			0.65			0.83	
Satd. Flow (perm)	619	1861			1499			2231			2926	
Peak-hour factor, PHF	0.88	0.88	0.88	0.83	0.83	0.83	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	45	183	15	155	328	71	124	541	66	62	729	31
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	45	198	0	0	554	0	0	731	0	0	823	0
Heavy Vehicles (%)	0%	1%	0%	1%	4%	13%	4%	4%	2%	15%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.0	21.0			10.1			40.3			40.3	
Effective Green, g (s)	21.0	21.0			10.1			40.3			40.3	
Actuated g/C Ratio	0.29	0.29			0.14			0.55			0.55	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	248	533			206			1226			1608	
v/s Ratio Prot	0.01	c0.11										
v/s Ratio Perm	0.04				c0.37			c0.33			0.28	
v/c Ratio	0.18	0.37			2.69			0.60			0.51	
Uniform Delay, d1	20.2	20.9			31.6			11.1			10.3	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.2			773.9			2.1			1.2	
Delay (s)	20.6	21.0			805.5			13.2			11.5	
Level of Service	C	C			F			B			B	
Approach Delay (s)		21.0			805.5			13.2			11.5	
Approach LOS		C			F			B			B	

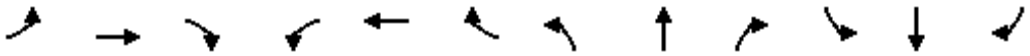
Intersection Summary			
HCM 2000 Control Delay	200.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	73.3	Sum of lost time (s)	23.5
Intersection Capacity Utilization	97.8%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	488	99	161	659	22	65	2	55	44	13	55
Future Volume (vph)	64	488	99	161	659	22	65	2	55	44	13	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.977			0.996				0.850		0.878	
Flt Protected		0.995			0.991			0.954		0.950		
Satd. Flow (prot)	0	3427	0	0	3489	0	0	1599	1524	1805	1616	0
Flt Permitted		0.777			0.672			0.665		0.702		
Satd. Flow (perm)	0	2676	0	0	2366	0	0	1115	1524	1334	1616	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		21			3				70		77	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.83	0.83	0.83	0.86	0.86	0.86	0.79	0.79	0.79	0.71	0.71	0.71
Heavy Vehicles (%)	0%	2%	6%	3%	2%	0%	12%	50%	6%	0%	0%	4%
Adj. Flow (vph)	77	588	119	187	766	26	82	3	70	62	18	77
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	784	0	0	979	0	0	85	70	62	95	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

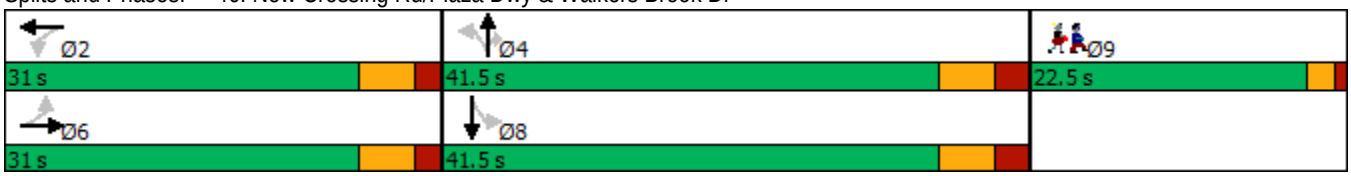
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		29.4			29.4			10.2	10.2	10.2	10.2	
Actuated g/C Ratio		0.62			0.62			0.22	0.22	0.22	0.22	
v/c Ratio		0.47			0.67			0.36	0.18	0.22	0.23	
Control Delay		8.0			12.1			20.9	6.5	17.7	8.0	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		8.0			12.1			20.9	6.5	17.7	8.0	
LOS		A			B			C	A	B	A	
Approach Delay		8.0			12.1			14.4			11.8	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		64			100			20	0	14	4	
Queue Length 95th (ft)		95			160			44	18	30	20	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1665			1466			824	1144	985	1214	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.47			0.67			0.10	0.06	0.06	0.08	

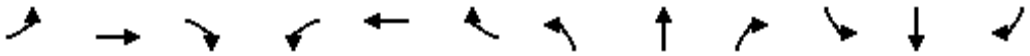
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 47.4			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 10.7		Intersection LOS: B	
Intersection Capacity Utilization 67.9%		ICU Level of Service C	
Analysis Period (min) 15			
Description: m			

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

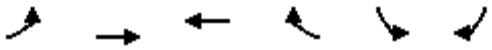


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	488	99	161	659	22	65	2	55	44	13	55
Future Volume (vph)	64	488	99	161	659	22	65	2	55	44	13	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.98			1.00			1.00	0.85	1.00	0.88	
Flt Protected		1.00			0.99			0.95	1.00	0.95	1.00	
Satd. Flow (prot)		3428			3487			1599	1524	1805	1617	
Flt Permitted		0.78			0.67			0.67	1.00	0.70	1.00	
Satd. Flow (perm)		2676			2365			1115	1524	1333	1617	
Peak-hour factor, PHF	0.83	0.83	0.83	0.86	0.86	0.86	0.79	0.79	0.79	0.71	0.71	0.71
Adj. Flow (vph)	77	588	119	187	766	26	82	3	70	62	18	77
RTOR Reduction (vph)	0	9	0	0	1	0	0	0	58	0	64	0
Lane Group Flow (vph)	0	775	0	0	978	0	0	85	12	62	31	0
Heavy Vehicles (%)	0%	2%	6%	3%	2%	0%	12%	50%	6%	0%	0%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		28.1			28.1			8.1	8.1	8.1	8.1	
Effective Green, g (s)		28.1			28.1			8.1	8.1	8.1	8.1	
Actuated g/C Ratio		0.58			0.58			0.17	0.17	0.17	0.17	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1544			1364			185	253	221	268	
v/s Ratio Prot											0.02	
v/s Ratio Perm		0.29			c0.41			c0.08	0.01	0.05		
v/c Ratio		0.50			0.72			0.46	0.05	0.28	0.11	
Uniform Delay, d1		6.1			7.4			18.3	17.1	17.8	17.3	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		1.2			3.3			0.7	0.0	0.3	0.1	
Delay (s)		7.3			10.7			19.0	17.1	18.0	17.3	
Level of Service		A			B			B	B	B	B	
Approach Delay (s)		7.3			10.7			18.1			17.6	
Approach LOS		A			B			B			B	

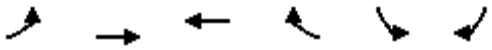
Intersection Summary			
HCM 2000 Control Delay	10.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	15.5
Intersection Capacity Utilization	67.9%	ICU Level of Service	C
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



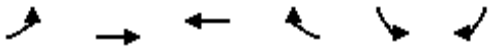
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	494	825	232	154	46
Future Volume (vph)	51	494	825	232	154	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	3490	3539	1568	3367	1615
Flt Permitted		0.824			0.950	
Satd. Flow (perm)	0	2891	3539	1568	3367	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						53
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.89	0.89	0.94	0.94	0.87	0.87
Heavy Vehicles (%)	2%	3%	2%	3%	4%	0%
Adj. Flow (vph)	57	555	878	247	177	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	612	878	247	177	53
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		15.7	15.7	33.3	7.5	7.5
Actuated g/C Ratio		0.47	0.47	1.00	0.23	0.23
v/c Ratio		0.45	0.53	0.16	0.23	0.13
Control Delay		7.4	7.7	0.2	11.6	5.2
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		7.4	7.7	0.2	11.6	5.2
LOS		A	A	A	B	A
Approach Delay		7.4	6.1		10.1	
Approach LOS		A	A		B	
Queue Length 50th (ft)		32	47	0	12	0
Queue Length 95th (ft)		66	94	0	30	16
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2891	3539	1568	2753	1330
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.21	0.25	0.16	0.06	0.04

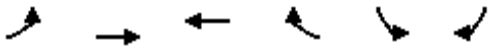
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 33.3			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.53			
Intersection Signal Delay: 7.0		Intersection LOS: A	
Intersection Capacity Utilization 55.4%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	51	494	825	232	154	46
Future Volume (vph)	51	494	825	232	154	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3492	3539	1568	3367	1615
Flt Permitted		0.82	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2892	3539	1568	3367	1615
Peak-hour factor, PHF	0.89	0.89	0.94	0.94	0.87	0.87
Adj. Flow (vph)	57	555	878	247	177	53
RTOR Reduction (vph)	0	0	0	0	0	41
Lane Group Flow (vph)	0	612	878	247	177	12
Heavy Vehicles (%)	2%	3%	2%	3%	4%	0%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		15.8	15.8	23.3	7.5	7.5
Effective Green, g (s)		15.8	15.8	23.3	7.5	7.5
Actuated g/C Ratio		0.47	0.47	0.70	0.23	0.23
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1372	1679	1568	758	363
v/s Ratio Prot			c0.25	c0.04	0.05	
v/s Ratio Perm		0.21		0.12		0.01
v/c Ratio		0.45	0.52	0.16	0.23	0.03
Uniform Delay, d1		5.8	6.1	1.7	10.5	10.1
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.1	0.0	0.2	0.0
Delay (s)		6.1	6.3	1.7	10.7	10.1
Level of Service		A	A	A	B	B
Approach Delay (s)		6.1	5.3		10.6	
Approach LOS		A	A		B	

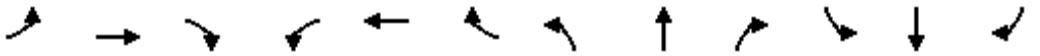
Intersection Summary			
HCM 2000 Control Delay	6.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	33.3	Sum of lost time (s)	10.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



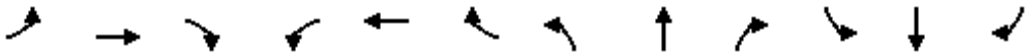
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	51	494	825	232	154	46
Future Volume (veh/h)	51	494	825	232	154	46
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1856	1856	1870	1856	1841	1900
Adj Flow Rate, veh/h	57	555	878	247	177	53
Peak Hour Factor	0.89	0.89	0.94	0.94	0.87	0.87
Percent Heavy Veh, %	3	3	2	3	4	0
Cap, veh/h	204	1492	1770	1050	579	274
Arrive On Green	0.50	0.50	0.50	0.50	0.17	0.17
Sat Flow, veh/h	124	3080	3647	1572	3401	1610
Grp Volume(v), veh/h	306	306	878	247	177	53
Grp Sat Flow(s),veh/h/ln	1516	1604	1777	1572	1700	1610
Q Serve(g_s), s	0.0	3.6	5.0	1.9	1.4	0.9
Cycle Q Clear(g_c), s	3.0	3.6	5.0	1.9	1.4	0.9
Prop In Lane	0.19			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	897	799	1770	1050	579	274
V/C Ratio(X)	0.34	0.38	0.50	0.24	0.31	0.19
Avail Cap(c_a), veh/h	1916	2130	4719	2355	2935	1390
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	4.5	4.7	5.0	2.0	10.9	10.7
Incr Delay (d2), s/veh	0.2	0.3	0.1	0.0	0.3	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.5	0.7	0.3	0.4	0.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	4.8	5.0	5.1	2.0	11.2	11.1
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		612	1125		230	
Approach Delay, s/veh		4.9	4.4		11.2	
Approach LOS		A	A		B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	20.0				20.0	10.1
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	26.0
Max Q Clear Time (g_c+I1), s	7.0				5.6	3.4
Green Ext Time (p_c), s	4.9				4.7	0.8

Intersection Summary	
HCM 6th Ctrl Delay	5.4
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	518	113	127	465	0	0	0	0	127	42	611
Future Volume (vph)	0	518	113	127	465	0	0	0	0	127	42	611
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.973										0.850
Flt Protected					0.989						0.964	
Satd. Flow (prot)	0	3398	0	0	3500	0	0	0	0	0	1791	1583
Flt Permitted					0.633						0.964	
Satd. Flow (perm)	0	3398	0	0	2240	0	0	0	0	0	1791	1583
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		69										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96	0.92	0.92	0.92	0.91	0.91	0.91
Heavy Vehicles (%)	0%	3%	5%	2%	2%	0%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	0	595	130	132	484	0	0	0	0	140	46	671
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	725	0	0	616	0	0	0	0	0	186	671
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	



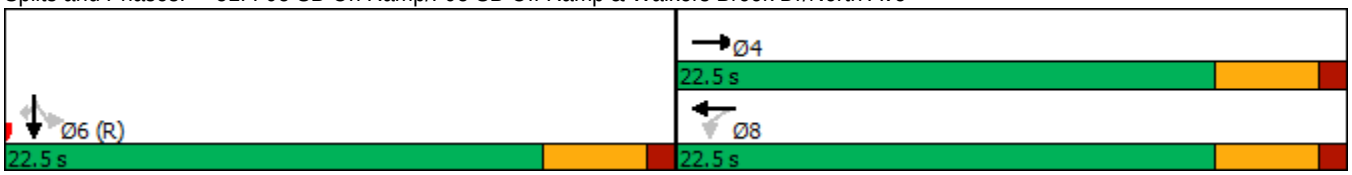
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		15.9			15.9						20.1	20.1
Actuated g/C Ratio		0.35			0.35						0.45	0.45
v/c Ratio		0.58			0.78						0.23	0.95
Control Delay		12.3			19.1						9.6	42.4
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		12.3			19.1						9.6	42.4
LOS		B			B						A	D
Approach Delay		12.3			19.1						35.3	
Approach LOS		B			B						D	
Queue Length 50th (ft)		64			57						29	~170
Queue Length 95th (ft)		95			97						63	#359
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1400			896						800	707
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.52			0.69						0.23	0.95

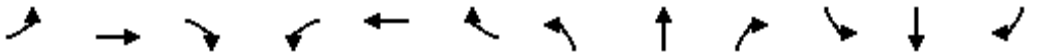
Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 23.2		Intersection LOS: C	
Intersection Capacity Utilization 61.9%		ICU Level of Service B	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

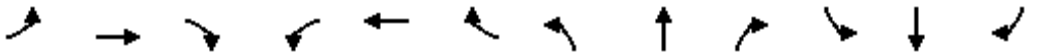
Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	518	113	127	465	0	0	0	0	127	42	611
Future Volume (vph)	0	518	113	127	465	0	0	0	0	127	42	611
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.97			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.96	1.00
Satd. Flow (prot)		3399			3502						1791	1583
Flt Permitted		1.00			0.63						0.96	1.00
Satd. Flow (perm)		3399			2242						1791	1583
Peak-hour factor, PHF	0.87	0.87	0.87	0.96	0.96	0.96	0.92	0.92	0.92	0.91	0.91	0.91
Adj. Flow (vph)	0	595	130	132	484	0	0	0	0	140	46	671
RTOR Reduction (vph)	0	45	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	680	0	0	616	0	0	0	0	0	186	671
Heavy Vehicles (%)	0%	3%	5%	2%	2%	0%	2%	2%	2%	2%	3%	2%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		15.9			15.9						20.1	20.1
Effective Green, g (s)		15.9			15.9						20.1	20.1
Actuated g/C Ratio		0.35			0.35						0.45	0.45
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1200			792						799	707
v/s Ratio Prot		0.20										
v/s Ratio Perm					c0.27						0.10	c0.42
v/c Ratio		0.57			0.78						0.23	0.95
Uniform Delay, d1		11.8			13.0						7.7	12.0
Progression Factor		1.00			0.90						1.00	1.00
Incremental Delay, d2		0.6			4.8						0.7	23.5
Delay (s)		12.4			16.4						8.4	35.4
Level of Service		B			B						A	D
Approach Delay (s)		12.4			16.4			0.0			29.5	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM 2000 Control Delay	20.2	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



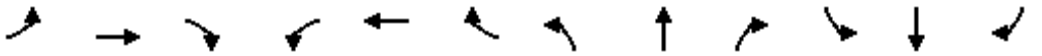
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	518	113	127	465	0	0	0	0	127	42	611
Future Volume (veh/h)	0	518	113	127	465	0	0	0	0	127	42	611
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1856	1856	1870	1870	0				1870	1856	1870
Adj Flow Rate, veh/h	0	595	0	132	484	0				140	46	0
Peak Hour Factor	0.87	0.87	0.87	0.96	0.96	0.96				0.91	0.91	0.91
Percent Heavy Veh, %	0	3	3	2	2	0				2	3	2
Cap, veh/h	0	1234		233	808	0				606	199	
Arrive On Green	0.00	0.35	0.00	0.35	0.35	0.00				0.45	0.45	0.00
Sat Flow, veh/h	0	3711	0	334	2392	0				1346	442	1585
Grp Volume(v), veh/h	0	595	0	292	324	0				186	0	0
Grp Sat Flow(s),veh/h/ln	0	1763	0	1024	1617	0				1788	0	1585
Q Serve(g_s), s	0.0	5.9	0.0	6.5	7.3	0.0				2.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	5.9	0.0	12.4	7.3	0.0				2.9	0.0	0.0
Prop In Lane	0.00		0.00	0.45		0.00				0.75		1.00
Lane Grp Cap(c), veh/h	0	1234		475	566	0				805	0	
V/C Ratio(X)	0.00	0.48		0.61	0.57	0.00				0.23	0.00	
Avail Cap(c_a), veh/h	0	1410		534	647	0				805	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.92	0.00	0.98	0.98	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	11.4	0.0	13.6	11.9	0.0				7.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	1.7	0.9	0.0				0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.8	0.0	2.4	2.2	0.0				1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.7	0.0	15.2	12.8	0.0				8.3	0.0	0.0
LnGrp LOS	A	B		B	B	A				A	A	
Approach Vol, veh/h		595	A		616						186	A
Approach Delay, s/veh		11.7			14.0						8.3	
Approach LOS		B			B						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			20.3		24.7		20.3					
Change Period (Y+Rc), s			4.5		4.5		4.5					
Max Green Setting (Gmax), s			18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s			7.9		4.9		14.4					
Green Ext Time (p_c), s			2.8		0.8		1.4					

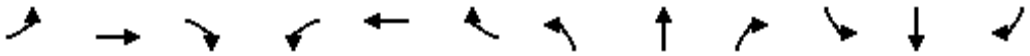
Intersection Summary												
HCM 6th Ctrl Delay			12.2									
HCM 6th LOS			B									

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



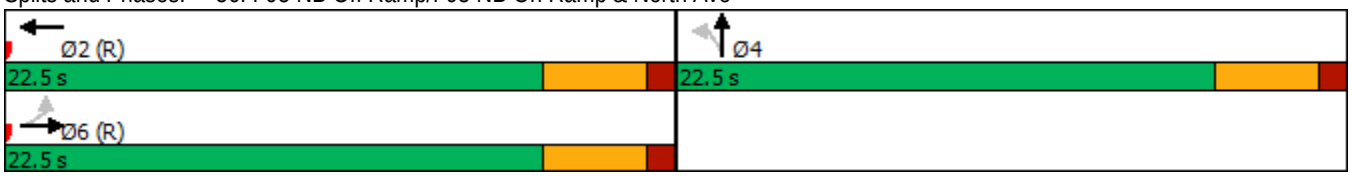
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	432	0	0	379	138	192	2	284	0	0	0
Future Volume (vph)	231	432	0	0	379	138	192	2	284	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.960				0.850			
Flt Protected		0.983					0.950	0.953				
Satd. Flow (prot)	0	3455	0	0	3422	0	1649	1655	1538	0	0	0
Flt Permitted		0.650					0.950	0.953				
Satd. Flow (perm)	0	2285	0	0	3422	0	1649	1655	1538	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					137				302			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.92	0.92	0.92
Heavy Vehicles (%)	4%	2%	0%	0%	1%	2%	4%	0%	5%	2%	2%	2%
Adj. Flow (vph)	246	460	0	0	426	155	204	2	302	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	706	0	0	581	0	102	104	302	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		Perm	NA	Free			
Protected Phases		6			2			4				

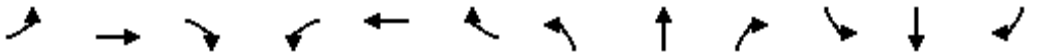


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6						4		Free			
Detector Phase	6	6			2		4	4				
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0				
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (s)	22.5	22.5			22.5		22.5	22.5				
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%				
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0				
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5				
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0				
Lost Time Adjust (s)		0.0			0.0		0.0	0.0				
Total Lost Time (s)		4.5			4.5		4.5	4.5				
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0				
Recall Mode	C-Max	C-Max			C-Max		None	None				
Walk Time (s)	7.0	7.0			7.0		7.0	7.0				
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0				
Pedestrian Calls (#/hr)	0	0			0		0	0				
Act Effct Green (s)		30.5			30.5		8.4	8.4	45.0			
Actuated g/C Ratio		0.68			0.68		0.19	0.19	1.00			
v/c Ratio		0.46			0.25		0.33	0.34	0.20			
Control Delay		4.4			3.6		17.9	18.0	0.3			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		4.4			3.6		17.9	18.0	0.3			
LOS		A			A		B	B	A			
Approach Delay		4.4			3.6			7.5				
Approach LOS		A			A			A				
Queue Length 50th (ft)		8			20		24	25	0			
Queue Length 95th (ft)		125			48		51	52	0			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		1548			2363		659	662	1538			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		0.46			0.25		0.15	0.16	0.20			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Green			
Natural Cycle: 50			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.46			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 50.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	231	432	0	0	379	138	192	2	284	0	0	0
Future Volume (vph)	231	432	0	0	379	138	192	2	284	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.0			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.96		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3455			3422		1649	1656	1538			
Flt Permitted		0.65			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2286			3422		1649	1656	1538			
Peak-hour factor, PHF	0.94	0.94	0.94	0.89	0.89	0.89	0.94	0.94	0.94	0.92	0.92	0.92
Adj. Flow (vph)	246	460	0	0	426	155	204	2	302	0	0	0
RTOR Reduction (vph)	0	0	0	0	50	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	706	0	0	531	0	102	104	302	0	0	0
Heavy Vehicles (%)	4%	2%	0%	0%	1%	2%	4%	0%	5%	2%	2%	2%
Turn Type	Perm	NA			NA		Perm	NA	Free			
Protected Phases		6			2			4				
Permitted Phases	6						4		Free			
Actuated Green, G (s)		28.7			28.7		7.3	7.3	45.0			
Effective Green, g (s)		28.7			28.7		7.3	7.3	45.0			
Actuated g/C Ratio		0.64			0.64		0.16	0.16	1.00			
Clearance Time (s)		4.5			4.5		4.5	4.5				
Vehicle Extension (s)		3.0			3.0		3.0	3.0				
Lane Grp Cap (vph)		1457			2182		267	268	1538			
v/s Ratio Prot					0.16							
v/s Ratio Perm		c0.31					0.06	0.06	0.20			
v/c Ratio		0.48			0.24		0.38	0.39	0.20			
Uniform Delay, d1		4.3			3.5		16.8	16.9	0.0			
Progression Factor		0.63			1.00		1.00	1.00	1.00			
Incremental Delay, d2		1.0			0.3		0.9	0.9	0.3			
Delay (s)		3.8			3.8		17.7	17.8	0.3			
Level of Service		A			A		B	B	A			
Approach Delay (s)		3.8			3.8			7.4			0.0	
Approach LOS		A			A			A			A	

Intersection Summary			
HCM 2000 Control Delay	4.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

HCM 6th Edition methodology does not support turning movements with shared & exclusive lanes.

2039 No-Build Conditions
Weekday PM Peak Hour

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	527	317	83	32	7
Future Vol, veh/h	23	527	317	83	32	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	76	76	73	73
Heavy Vehicles, %	0	0	1	4	0	0
Mvmt Flow	24	555	417	109	44	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	526	0	-	0	1075	472
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	603	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1051	-	-	-	245	596
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	550	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1051	-	-	-	237	596
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	611	-
Stage 2	-	-	-	-	550	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	21.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1051	-	-	-	266
HCM Lane V/C Ratio	0.023	-	-	-	0.201
HCM Control Delay (s)	8.5	0	-	-	21.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	24	12	19	22	1	18	110	25	11	129	4
Future Vol, veh/h	2	24	12	19	22	1	18	110	25	11	129	4
Peak Hour Factor	0.67	0.67	0.67	0.73	0.73	0.73	0.91	0.91	0.91	0.84	0.84	0.84
Heavy Vehicles, %	0	0	9	0	5	0	0	0	0	0	0	0
Mvmt Flow	3	36	18	26	30	1	20	121	27	13	154	5
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.2	8.4	8.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	5%	45%	8%
Vol Thru, %	72%	63%	52%	90%
Vol Right, %	16%	32%	2%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	153	38	42	144
LT Vol	18	2	19	11
Through Vol	110	24	22	129
RT Vol	25	12	1	4
Lane Flow Rate	168	57	58	171
Geometry Grp	1	1	1	1
Degree of Util (X)	0.2	0.072	0.077	0.207
Departure Headway (Hd)	4.281	4.544	4.795	4.348
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	788	747	826
Service Time	2.3	2.57	2.821	2.367
HCM Lane V/C Ratio	0.2	0.072	0.078	0.207
HCM Control Delay	8.4	7.9	8.2	8.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.2	0.2	0.8

Intersection	
Int Delay, s/veh	17.5

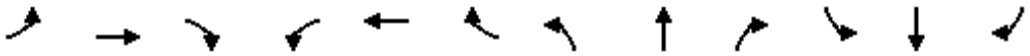
Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	1025	77	50	603	63	47
Future Vol, veh/h	1025	77	50	603	63	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	97	97	83	83
Heavy Vehicles, %	2	0	0	3	0	0
Mvmt Flow	1079	81	52	622	76	57

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	1160	0	1846	1120
Stage 1	-	-	-	-	1120	-
Stage 2	-	-	-	-	726	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	610	-	83	254
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	483	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	610	-	~ 72	254
Mov Cap-2 Maneuver	-	-	-	-	~ 72	-
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	420	-

Approach	EB	WB	NW
HCM Control Delay, s	0	0.9	255.2
HCM LOS			F

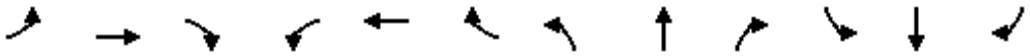
Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	104	-	-	610	-
HCM Lane V/C Ratio	1.274	-	-	0.085	-
HCM Control Delay (s)	255.2	-	-	11.4	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	9.1	-	-	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	351	14	53	175	97	137	693	576	81	383	18
Future Volume (vph)	91	351	14	53	175	97	137	693	576	81	383	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.994			0.960			0.939			0.994	
Flt Protected	0.950				0.992			0.995			0.992	
Satd. Flow (prot)	1787	1865	0	0	1789	0	0	3356	0	0	3532	0
Flt Permitted	0.258				0.848			0.807			0.527	
Satd. Flow (perm)	485	1865	0	0	1529	0	0	2722	0	0	1876	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	1%	1%	8%	2%	1%	1%	0%	1%	0%	0%	1%	0%
Adj. Flow (vph)	102	394	16	63	208	115	149	753	626	91	430	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	410	0	0	386	0	0	1528	0	0	541	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	23.9	23.4			10.5			40.2			40.2	
Actuated g/C Ratio	0.32	0.31			0.14			0.53			0.53	
v/c Ratio	0.33	0.71			1.82			1.06			0.90dl	
Control Delay	21.3	30.5			413.9			61.3			15.2	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	21.3	30.5			413.9			61.3			15.2	
LOS	C	C			F			E			B	
Approach Delay		28.6			413.9			61.3			15.2	
Approach LOS		C			F			E			B	
Queue Length 50th (ft)	34	168			~294			~443			87	
Queue Length 95th (ft)	67	258			#433			#601			141	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	386	743			212			1446			997	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.26	0.55			1.82			1.06			0.54	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 75.6			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.82			
Intersection Signal Delay: 93.1		Intersection LOS: F	
Intersection Capacity Utilization 114.2%		ICU Level of Service H	

Lane Group	Ø9
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

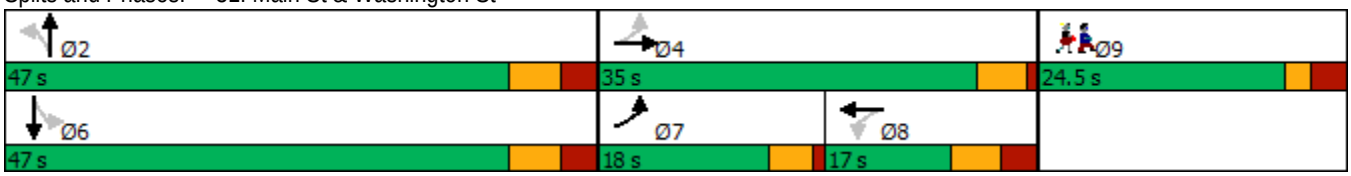
Analysis Period (min) 15

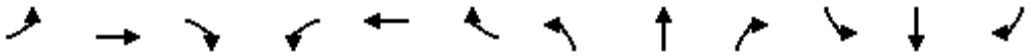
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 31: Main St & Washington St



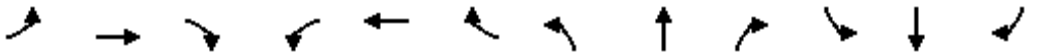


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	351	14	53	175	97	137	693	576	81	383	18
Future Volume (vph)	91	351	14	53	175	97	137	693	576	81	383	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.96			0.94			0.99	
Flt Protected	0.95	1.00			0.99			1.00			0.99	
Satd. Flow (prot)	1787	1865			1788			3355			3532	
Flt Permitted	0.26	1.00			0.85			0.81			0.53	
Satd. Flow (perm)	486	1865			1528			2720			1876	
Peak-hour factor, PHF	0.89	0.89	0.89	0.84	0.84	0.84	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	102	394	16	63	208	115	149	753	626	91	430	20
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	102	410	0	0	386	0	0	1528	0	0	541	0
Confl. Peds. (#/hr)										4		
Heavy Vehicles (%)	1%	1%	8%	2%	1%	1%	0%	1%	0%	0%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	24.4	24.4			10.5			40.2			40.2	
Effective Green, g (s)	24.4	24.4			10.5			40.2			40.2	
Actuated g/C Ratio	0.32	0.32			0.14			0.52			0.52	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	280	594			209			1427			984	
v/s Ratio Prot	0.04	c0.22										
v/s Ratio Perm	0.08				c0.25			c0.56			0.29	
v/c Ratio	0.36	0.69			1.85			1.07			0.90dl	
Uniform Delay, d1	20.0	22.8			33.0			18.2			12.2	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.8	2.8			399.0			45.3			2.2	
Delay (s)	20.8	25.6			432.1			63.5			14.4	
Level of Service	C	C			F			E			B	
Approach Delay (s)		24.6			432.1			63.5			14.4	
Approach LOS		C			F			E			B	

Intersection Summary			
HCM 2000 Control Delay	95.8	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	76.6	Sum of lost time (s)	23.5
Intersection Capacity Utilization	114.2%	ICU Level of Service	H
Analysis Period (min)	15		

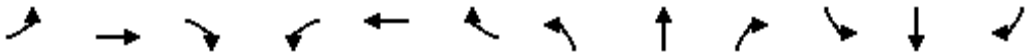
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	782	42	108	643	19	122	10	184	31	11	101
Future Volume (vph)	108	782	42	108	643	19	122	10	184	31	11	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993			0.996				0.850		0.865	
Flt Protected		0.994			0.993			0.956		0.950		
Satd. Flow (prot)	0	3534	0	0	3541	0	0	1801	1599	1736	1629	0
Flt Permitted		0.738			0.661			0.650		0.665		
Satd. Flow (perm)	0	2624	0	0	2357	0	0	1225	1599	1215	1629	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			3				200		119	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	11%	1%	4%	0%	1%
Adj. Flow (vph)	115	832	45	119	707	21	133	11	200	36	13	119
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	992	0	0	847	0	0	144	200	36	132	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		25.0			25.0			11.3	11.3	11.3	11.3	
Actuated g/C Ratio		0.51			0.51			0.23	0.23	0.23	0.23	
v/c Ratio		0.74			0.70			0.51	0.38	0.13	0.28	
Control Delay		14.3			13.6			23.4	5.4	15.8	6.3	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		14.3			13.6			23.4	5.4	15.8	6.3	
LOS		B			B			C	A	B	A	
Approach Delay		14.3			13.6			12.9			8.4	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		95			79			36	0	8	3	
Queue Length 95th (ft)		#207			167			78	37	24	30	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1348			1210			879	1204	872	1203	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.74			0.70			0.16	0.17	0.04	0.11	

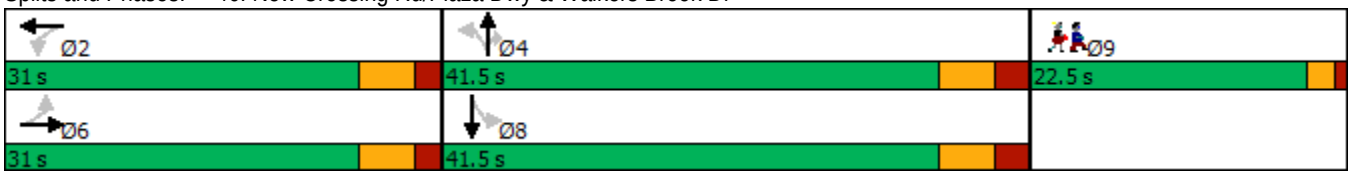
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 48.8			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 13.4		Intersection LOS: B	
Intersection Capacity Utilization 77.0%		ICU Level of Service D	
Analysis Period (min) 15			
Description: m			

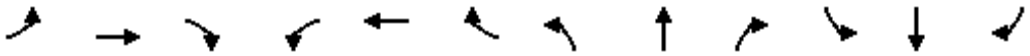
Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



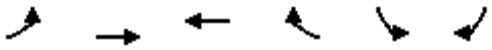


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	782	42	108	643	19	122	10	184	31	11	101
Future Volume (vph)	108	782	42	108	643	19	122	10	184	31	11	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.99			1.00			1.00	0.85	1.00	0.86	
Flt Protected		0.99			0.99			0.96	1.00	0.95	1.00	
Satd. Flow (prot)		3535			3542			1801	1599	1736	1628	
Flt Permitted		0.74			0.66			0.65	1.00	0.67	1.00	
Satd. Flow (perm)		2625			2359			1225	1599	1215	1628	
Peak-hour factor, PHF	0.94	0.94	0.94	0.91	0.91	0.91	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	115	832	45	119	707	21	133	11	200	36	13	119
RTOR Reduction (vph)	0	2	0	0	1	0	0	0	154	0	91	0
Lane Group Flow (vph)	0	990	0	0	846	0	0	144	46	36	41	0
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	11%	1%	4%	0%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		25.0			25.0			11.3	11.3	11.3	11.3	
Effective Green, g (s)		25.0			25.0			11.3	11.3	11.3	11.3	
Actuated g/C Ratio		0.51			0.51			0.23	0.23	0.23	0.23	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1344			1208			283	370	281	376	
v/s Ratio Prot											0.02	
v/s Ratio Perm		c0.38			0.36			c0.12	0.03	0.03		
v/c Ratio		0.74			0.70			0.51	0.13	0.13	0.11	
Uniform Delay, d1		9.3			9.0			16.3	14.8	14.8	14.8	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		3.6			3.4			0.5	0.1	0.1	0.0	
Delay (s)		12.9			12.4			16.9	14.9	14.9	14.8	
Level of Service		B			B			B	B	B	B	
Approach Delay (s)		12.9			12.4			15.7			14.8	
Approach LOS		B			B			B			B	

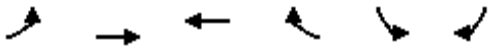
Intersection Summary			
HCM 2000 Control Delay	13.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	15.5
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



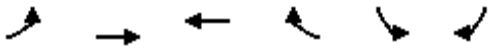
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	94	893	677	314	272	95
Future Volume (vph)	94	893	677	314	272	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.995			0.950	
Satd. Flow (prot)	0	3556	3574	1599	3433	1615
Flt Permitted		0.818			0.950	
Satd. Flow (perm)	0	2924	3574	1599	3433	1615
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						110
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.97	0.97	0.95	0.95	0.86	0.86
Heavy Vehicles (%)	1%	1%	1%	1%	2%	0%
Adj. Flow (vph)	97	921	713	331	316	110
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1018	713	331	316	110
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		23.7	23.7	45.1	10.8	10.8
Actuated g/C Ratio		0.53	0.53	1.00	0.24	0.24
v/c Ratio		0.66	0.38	0.21	0.38	0.23
Control Delay		10.2	7.0	0.3	17.1	5.9
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		10.2	7.0	0.3	17.1	5.9
LOS		B	A	A	B	A
Approach Delay		10.2	4.8		14.3	
Approach LOS		B	A		B	
Queue Length 50th (ft)		85	48	0	33	0
Queue Length 95th (ft)		163	92	0	77	29
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2547	3113	1599	2086	1024
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.40	0.23	0.21	0.15	0.11

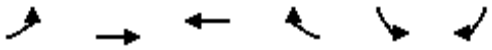
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 45.1			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 66.4%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	94	893	677	314	272	95
Future Volume (vph)	94	893	677	314	272	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3557	3574	1599	3433	1615
Flt Permitted		0.82	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2923	3574	1599	3433	1615
Peak-hour factor, PHF	0.97	0.97	0.95	0.95	0.86	0.86
Adj. Flow (vph)	97	921	713	331	316	110
RTOR Reduction (vph)	0	0	0	0	0	83
Lane Group Flow (vph)	0	1018	713	331	316	27
Heavy Vehicles (%)	1%	1%	1%	1%	2%	0%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		23.7	23.7	34.5	10.8	10.8
Effective Green, g (s)		23.7	23.7	34.5	10.8	10.8
Actuated g/C Ratio		0.53	0.53	0.78	0.24	0.24
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1556	1903	1599	833	391
v/s Ratio Prot			0.20	0.05	c0.09	
v/s Ratio Perm		c0.35		0.16		0.02
v/c Ratio		0.65	0.37	0.21	0.38	0.07
Uniform Delay, d1		7.5	6.1	1.3	14.1	13.0
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.0	0.0	0.1	0.3	0.1
Delay (s)		8.5	6.1	1.4	14.3	13.0
Level of Service		A	A	A	B	B
Approach Delay (s)		8.5	4.6		14.0	
Approach LOS		A	A		B	

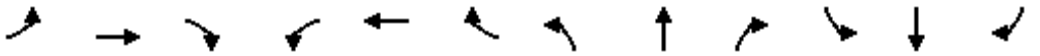
Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	44.5	Sum of lost time (s)	10.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



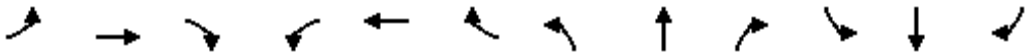
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	94	893	677	314	272	95
Future Volume (veh/h)	94	893	677	314	272	95
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1885	1870	1900
Adj Flow Rate, veh/h	97	921	713	331	316	110
Peak Hour Factor	0.97	0.97	0.95	0.95	0.86	0.86
Percent Heavy Veh, %	1	1	1	1	2	0
Cap, veh/h	215	1556	1904	1137	622	290
Arrive On Green	0.53	0.53	0.53	0.53	0.18	0.18
Sat Flow, veh/h	170	3013	3676	1598	3456	1610
Grp Volume(v), veh/h	490	528	713	331	316	110
Grp Sat Flow(s),veh/h/ln	1467	1630	1791	1598	1728	1610
Q Serve(g_s), s	0.0	7.8	4.0	2.6	2.9	2.1
Cycle Q Clear(g_c), s	5.7	7.8	4.0	2.6	2.9	2.1
Prop In Lane	0.20			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	904	866	1904	1137	622	290
V/C Ratio(X)	0.54	0.61	0.37	0.29	0.51	0.38
Avail Cap(c_a), veh/h	1694	1881	4134	2131	2592	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	5.1	5.6	4.7	1.8	12.8	12.5
Incr Delay (d2), s/veh	0.5	0.7	0.0	0.1	0.6	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	1.3	0.6	0.6	1.0	0.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	5.6	6.3	4.8	1.9	13.5	13.3
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		1018	1044		426	
Approach Delay, s/veh		6.0	3.9		13.4	
Approach LOS		A	A		B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	23.4				23.4	11.2
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	26.0
Max Q Clear Time (g_c+I1), s	6.0				9.8	4.9
Green Ext Time (p_c), s	4.0				8.6	1.5

Intersection Summary	
HCM 6th Ctrl Delay	6.4
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	854	310	296	609	0	0	0	0	107	0	382
Future Volume (vph)	0	854	310	296	609	0	0	0	0	107	0	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.960										0.850
Flt Protected					0.984						0.950	
Satd. Flow (prot)	0	3422	0	0	3528	0	0	0	0	0	1787	1599
Flt Permitted					0.586						0.950	
Satd. Flow (perm)	0	3422	0	0	2101	0	0	0	0	0	1787	1599
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		136										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93	0.92	0.92	0.92	0.89	0.89	0.89
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	2%	2%	2%	1%	0%	1%
Adj. Flow (vph)	0	899	326	318	655	0	0	0	0	120	0	429
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1225	0	0	973	0	0	0	0	0	120	429
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	

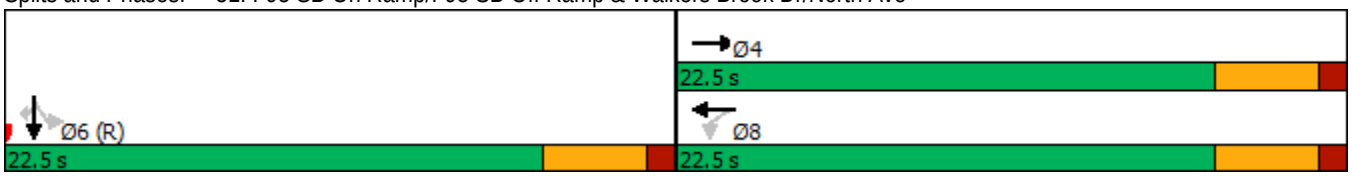


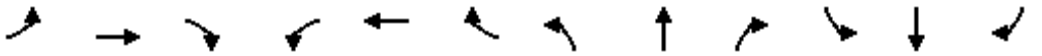
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
v/c Ratio		0.84			1.89dl						0.17	0.67
Control Delay		18.5			100.3						9.5	17.9
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		18.5			100.3						9.5	17.9
LOS		B			F						A	B
Approach Delay		18.5			100.3						16.1	
Approach LOS		B			F						B	
Queue Length 50th (ft)		125			~179						19	86
Queue Length 95th (ft)		#240			#274						42	#167
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1450			840						714	639
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.84			1.16						0.17	0.67

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.16			
Intersection Signal Delay: 47.0		Intersection LOS: D	
Intersection Capacity Utilization 76.1%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave



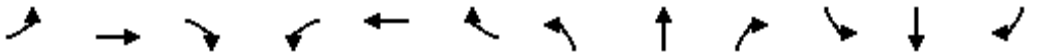


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	854	310	296	609	0	0	0	0	107	0	382
Future Volume (vph)	0	854	310	296	609	0	0	0	0	107	0	382
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.96			1.00						1.00	0.85
Flt Protected		1.00			0.98						0.95	1.00
Satd. Flow (prot)		3423			3528						1787	1599
Flt Permitted		1.00			0.59						0.95	1.00
Satd. Flow (perm)		3423			2100						1787	1599
Peak-hour factor, PHF	0.95	0.95	0.95	0.93	0.93	0.93	0.92	0.92	0.92	0.89	0.89	0.89
Adj. Flow (vph)	0	899	326	318	655	0	0	0	0	120	0	429
RTOR Reduction (vph)	0	82	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1143	0	0	973	0	0	0	0	0	120	429
Heavy Vehicles (%)	0%	1%	2%	0%	1%	0%	2%	2%	2%	1%	0%	1%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		18.0			18.0						18.0	18.0
Effective Green, g (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1369			840						714	639
v/s Ratio Prot		0.33										
v/s Ratio Perm					c0.46						0.07	c0.27
v/c Ratio		0.84			1.89dl						0.17	0.67
Uniform Delay, d1		12.2			13.5						8.7	11.1
Progression Factor		1.00			0.91						1.00	1.00
Incremental Delay, d2		4.6			82.3						0.5	5.5
Delay (s)		16.7			94.6						9.2	16.6
Level of Service		B			F						A	B
Approach Delay (s)		16.7			94.6			0.0			15.0	
Approach LOS		B			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	44.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	76.1%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



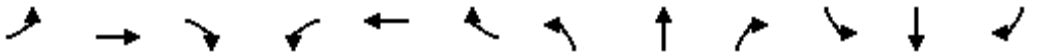
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	854	310	296	609	0	0	0	0	107	0	382
Future Volume (veh/h)	0	854	310	296	609	0	0	0	0	107	0	382
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1885	1900	1885
Adj Flow Rate, veh/h	0	899	0	318	655	0				120	0	0
Peak Hour Factor	0.95	0.95	0.95	0.93	0.93	0.93				0.89	0.89	0.89
Percent Heavy Veh, %	0	1	1	1	1	0				1	0	1
Cap, veh/h	0	1433		266	672	0				724	0	
Arrive On Green	0.00	0.40	0.00	0.40	0.40	0.00				0.40	0.00	0.00
Sat Flow, veh/h	0	3770	0	294	1765	0				1810	0	1598
Grp Volume(v), veh/h	0	899	0	372	601	0				120	0	0
Grp Sat Flow(s),veh/h/ln	0	1791	0	344	1630	0				1810	0	1598
Q Serve(g_s), s	0.0	9.0	0.0	9.0	15.8	0.0				1.9	0.0	0.0
Cycle Q Clear(g_c), s	0.0	9.0	0.0	18.0	15.8	0.0				1.9	0.0	0.0
Prop In Lane	0.00		0.00	0.85		0.00				1.00		1.00
Lane Grp Cap(c), veh/h	0	1433		286	652	0				724	0	
V/C Ratio(X)	0.00	0.63		1.30	0.92	0.00				0.17	0.00	
Avail Cap(c_a), veh/h	0	1433		286	652	0				724	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.77	0.00	0.71	0.71	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	10.8	0.0	20.3	12.8	0.0				8.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.7	0.0	152.5	14.4	0.0				0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	0.0	14.8	6.8	0.0				0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	11.5	0.0	172.9	27.2	0.0				9.2	0.0	0.0
LnGrp LOS	A	B		F	C	A				A	A	
Approach Vol, veh/h		899	A		973						120	A
Approach Delay, s/veh		11.5			82.9						9.2	
Approach LOS		B			F						A	

Timer - Assigned Phs			4		6		8					
Phs Duration (G+Y+Rc), s			22.5		22.5		22.5					
Change Period (Y+Rc), s			4.5		4.5		4.5					
Max Green Setting (Gmax), s			18.0		18.0		18.0					
Max Q Clear Time (g_c+I1), s			11.0		3.9		20.0					
Green Ext Time (p_c), s			3.3		0.5		0.0					

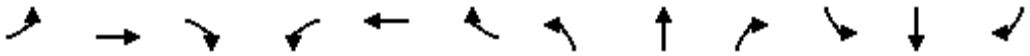
Intersection Summary												
HCM 6th Ctrl Delay			46.2									
HCM 6th LOS			D									

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	423	538	0	0	707	197	198	4	268	0	0	0
Future Volume (vph)	423	538	0	0	707	197	198	4	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.967				0.850			
Flt Protected		0.978					0.950	0.954				
Satd. Flow (prot)	0	3500	0	0	3456	0	1681	1690	1599	0	0	0
Flt Permitted		0.585					0.950	0.954				
Satd. Flow (perm)	0	2093	0	0	3456	0	1681	1690	1599	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					94				331			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.95	0.95	0.95	0.89	0.89	0.89	0.81	0.81	0.81	0.92	0.92	0.92
Heavy Vehicles (%)	2%	0%	0%	0%	1%	1%	2%	0%	1%	2%	2%	2%
Adj. Flow (vph)	445	566	0	0	794	221	244	5	331	0	0	0
Shared Lane Traffic (%)							49%					
Lane Group Flow (vph)	0	1011	0	0	1015	0	124	125	331	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				

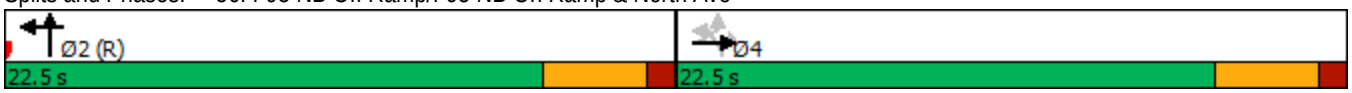


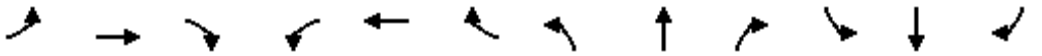
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!						4!		4			
Detector Phase	4	4			2		4	2	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	None			C-Max		None	C-Max	None			
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
v/c Ratio		2.12dl			0.71		0.18	0.18	0.39			
Control Delay		121.4			13.4		9.7	9.7	3.1			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		121.4			13.4		9.7	9.7	3.1			
LOS		F			B		A	A	A			
Approach Delay		121.4			13.4			5.9				
Approach LOS		F			B			A				
Queue Length 50th (ft)		~158			97		21	21	0			
Queue Length 95th (ft)		m#224			149		42	42	25			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		837			1438		672	676	838			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		1.21			0.71		0.18	0.18	0.39			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBWB and 6:, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.21			
Intersection Signal Delay: 53.6		Intersection LOS: D	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	423	538	0	0	707	197	198	4	268	0	0	0
Future Volume (vph)	423	538	0	0	707	197	198	4	268	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3501			3458		1681	1690	1599			
Flt Permitted		0.59			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2094			3458		1681	1690	1599			
Peak-hour factor, PHF	0.95	0.95	0.95	0.89	0.89	0.89	0.81	0.81	0.81	0.92	0.92	0.92
Adj. Flow (vph)	445	566	0	0	794	221	244	5	331	0	0	0
RTOR Reduction (vph)	0	0	0	0	56	0	0	0	199	0	0	0
Lane Group Flow (vph)	0	1011	0	0	959	0	124	125	132	0	0	0
Heavy Vehicles (%)	2%	0%	0%	0%	1%	1%	2%	0%	1%	2%	2%	2%
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				
Permitted Phases	4!						4!		4			
Actuated Green, G (s)		18.0			18.0		18.0	18.0	18.0			
Effective Green, g (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		837			1383		672	676	639			
v/s Ratio Prot					c0.28							
v/s Ratio Perm		c0.48					0.07	0.07	0.08			
v/c Ratio		2.12dl			0.69		0.18	0.18	0.21			
Uniform Delay, d1		13.5			11.2		8.7	8.7	8.8			
Progression Factor		1.18			1.00		1.00	1.00	1.00			
Incremental Delay, d2		100.8			2.9		0.1	0.6	0.2			
Delay (s)		116.7			14.1		8.9	9.4	9.0			
Level of Service		F			B		A	A	A			
Approach Delay (s)		116.7			14.1			9.0			0.0	
Approach LOS		F			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	52.8	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

! Phase conflict between lane groups.

c Critical Lane Group

HCM 6th Edition methodology cannot be performed with phasing conflicts.

2039 No-Build Conditions
Saturday Mid-Day Peak Hour

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	377	391	45	50	7
Future Vol, veh/h	11	377	391	45	50	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	81	81	88	88	75	75
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	14	465	444	51	67	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	495	0	-	0	963	470
Stage 1	-	-	-	-	470	-
Stage 2	-	-	-	-	493	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1079	-	-	-	286	598
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	618	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1079	-	-	-	281	598
Mov Cap-2 Maneuver	-	-	-	-	281	-
Stage 1	-	-	-	-	622	-
Stage 2	-	-	-	-	618	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1079	-	-	-	301
HCM Lane V/C Ratio	0.013	-	-	-	0.252
HCM Control Delay (s)	8.4	0	-	-	21
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1

Intersection	
Intersection Delay, s/veh	9.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	28	4	38	32	2	9	133	13	15	157	2
Future Vol, veh/h	8	28	4	38	32	2	9	133	13	15	157	2
Peak Hour Factor	0.75	0.75	0.75	0.68	0.68	0.68	0.73	0.73	0.73	0.86	0.86	0.86
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	11	37	5	56	47	3	12	182	18	17	183	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.4	8.9	9.2	9.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	20%	53%	9%
Vol Thru, %	86%	70%	44%	90%
Vol Right, %	8%	10%	3%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	155	40	72	174
LT Vol	9	8	38	15
Through Vol	133	28	32	157
RT Vol	13	4	2	2
Lane Flow Rate	212	53	106	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.265	0.074	0.147	0.256
Departure Headway (Hd)	4.491	4.967	5	4.547
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	718	715	789
Service Time	2.527	3.019	3.047	2.585
HCM Lane V/C Ratio	0.266	0.074	0.148	0.256
HCM Control Delay	9.2	8.4	8.9	9.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1.1	0.2	0.5	1

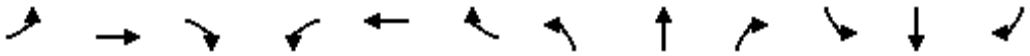
Intersection	
Int Delay, s/veh	6.4

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Traffic Vol, veh/h	799	123	64	630	44	57
Future Vol, veh/h	799	123	64	630	44	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	85	85
Heavy Vehicles, %	2	1	0	2	0	0
Mvmt Flow	850	131	68	670	52	67

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	981	0	1722	916
Stage 1	-	-	-	-	916	-
Stage 2	-	-	-	-	806	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	712	-	99	333
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	443	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	712	-	84	333
Mov Cap-2 Maneuver	-	-	-	-	84	-
Stage 1	-	-	-	-	393	-
Stage 2	-	-	-	-	376	-

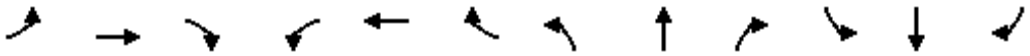
Approach	EB	WB	NW
HCM Control Delay, s	0	1	93.2
HCM LOS			F

Minor Lane/Major Mvmt	NWLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	145	-	-	712	-
HCM Lane V/C Ratio	0.819	-	-	0.096	-
HCM Control Delay (s)	93.2	-	-	10.6	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	5.2	-	-	0.3	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Future Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		50
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.986			0.966			0.981			0.992	
Flt Protected	0.950				0.987			0.992			0.994	
Satd. Flow (prot)	1770	1840	0	0	1794	0	0	3488	0	0	3522	0
Flt Permitted	0.317				0.820			0.732			0.760	
Satd. Flow (perm)	590	1840	0	0	1490	0	0	2574	0	0	2693	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93	0.96	0.93	0.93
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	1%	0%	2%	1%	0%
Adj. Flow (vph)	52	259	27	110	211	106	133	619	106	71	510	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	286	0	0	427	0	0	858	0	0	615	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	L NA	Left	R NA	L NA	Left	R NA	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	18.0	35.0		17.0	17.0		47.0	47.0		47.0	47.0	
Total Split (%)	16.9%	32.9%		16.0%	16.0%		44.1%	44.1%		44.1%	44.1%	
Maximum Green (s)	13.5	30.0		10.0	10.0		40.0	40.0		40.0	40.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0			0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0			7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	19.8	19.3			10.2			40.3			40.3	
Actuated g/C Ratio	0.28	0.27			0.14			0.56			0.56	
v/c Ratio	0.18	0.58			2.02			0.59			0.41	
Control Delay	19.8	27.2			501.0			13.7			11.0	
Queue Delay	0.0	0.0			0.0			0.0			0.0	
Total Delay	19.8	27.2			501.0			13.7			11.0	
LOS	B	C			F			B			B	
Approach Delay		26.0			501.0			13.7			11.0	
Approach LOS		C			F			B			B	
Queue Length 50th (ft)	17	108			~328			140			86	
Queue Length 95th (ft)	41	178			#461			211			133	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)												
Base Capacity (vph)	389	775			211			1447			1514	
Starvation Cap Reductn	0	0			0			0			0	
Spillback Cap Reductn	0	0			0			0			0	
Storage Cap Reductn	0	0			0			0			0	
Reduced v/c Ratio	0.13	0.37			2.02			0.59			0.41	

Intersection Summary			
Area Type:	Other		
Cycle Length: 106.5			
Actuated Cycle Length: 71.7			
Natural Cycle: 150			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 2.02			
Intersection Signal Delay: 107.8		Intersection LOS: F	
Intersection Capacity Utilization 93.8%		ICU Level of Service F	

Lane Group	Ø9
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	23%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

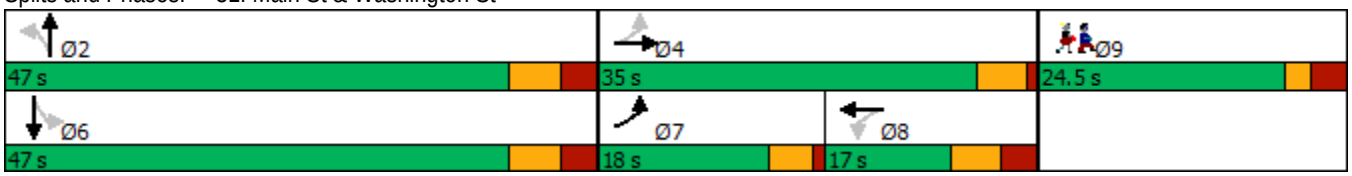
Intersection Summary

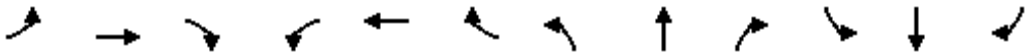
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St



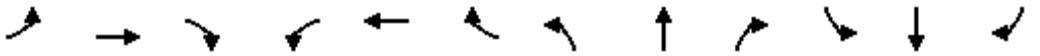


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Future Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.5	5.0			7.0			7.0			7.0	
Lane Util. Factor	1.00	1.00			1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	
Frt	1.00	0.99			0.97			0.98			0.99	
Flt Protected	0.95	1.00			0.99			0.99			0.99	
Satd. Flow (prot)	1770	1840			1795			3491			3522	
Flt Permitted	0.32	1.00			0.82			0.73			0.76	
Satd. Flow (perm)	590	1840			1490			2574			2693	
Peak-hour factor, PHF	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93	0.96	0.93	0.93
Adj. Flow (vph)	52	259	27	110	211	106	133	619	106	71	510	34
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	52	286	0	0	427	0	0	858	0	0	615	0
Confl. Peds. (#/hr)										4		
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	1%	0%	2%	1%	0%
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	21.3	21.3			10.2			40.3			40.3	
Effective Green, g (s)	21.3	21.3			10.2			40.3			40.3	
Actuated g/C Ratio	0.29	0.29			0.14			0.55			0.55	
Clearance Time (s)	4.5	5.0			7.0			7.0			7.0	
Vehicle Extension (s)	3.0	2.0			2.0			2.0			2.0	
Lane Grp Cap (vph)	244	532			206			1409			1474	
v/s Ratio Prot	0.01	c0.16										
v/s Ratio Perm	0.05				c0.29			c0.33			0.23	
v/c Ratio	0.21	0.54			2.07			0.61			0.42	
Uniform Delay, d1	20.3	22.0			31.7			11.3			9.8	
Progression Factor	1.00	1.00			1.00			1.00			1.00	
Incremental Delay, d2	0.4	0.5			499.1			2.0			0.9	
Delay (s)	20.7	22.5			530.8			13.3			10.6	
Level of Service	C	C			F			B			B	
Approach Delay (s)		22.3			530.8			13.3			10.6	
Approach LOS		C			F			B			B	

Intersection Summary			
HCM 2000 Control Delay	112.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	73.6	Sum of lost time (s)	23.5
Intersection Capacity Utilization	93.8%	ICU Level of Service	F
Analysis Period (min)	15		

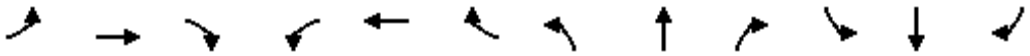
c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	728	36	119	731	33	107	12	78	61	13	114
Future Volume (vph)	108	728	36	119	731	33	107	12	78	61	13	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		100	55		0
Storage Lanes	0		0	0		0	0		1	1		0
Taper Length (ft)	75			75			75			50		
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.994				0.850		0.865	
Flt Protected		0.994			0.993			0.957		0.950		
Satd. Flow (prot)	0	3567	0	0	3563	0	0	1818	1599	1805	1644	0
Flt Permitted		0.730			0.709			0.646		0.676		
Satd. Flow (perm)	0	2619	0	0	2544	0	0	1227	1599	1284	1644	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4			4				82		134	
Link Speed (mph)		35			35			25			25	
Link Distance (ft)		521			599			734			424	
Travel Time (s)		10.1			11.7			20.0			11.6	
Peak Hour Factor	0.93	0.93	0.93	0.98	0.98	0.98	0.95	0.95	0.95	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Adj. Flow (vph)	116	783	39	121	746	34	113	13	82	72	15	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	938	0	0	901	0	0	126	82	72	149	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			20			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	

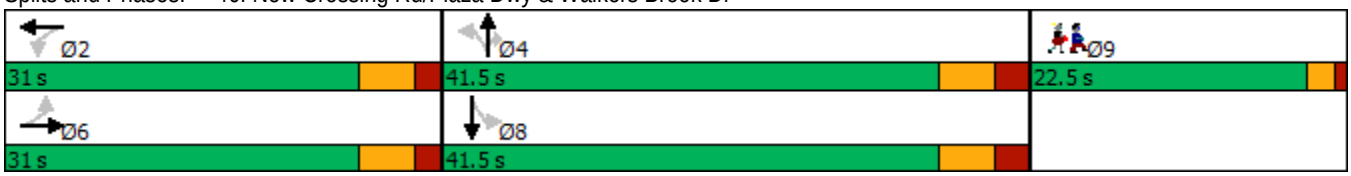
Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Enter Blocked Intersection	
Lane Alignment	
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	
Turning Speed (mph)	
Number of Detectors	
Detector Template	
Leading Detector (ft)	
Trailing Detector (ft)	
Detector 1 Position(ft)	
Detector 1 Size(ft)	
Detector 1 Type	
Detector 1 Channel	
Detector 1 Extend (s)	
Detector 1 Queue (s)	
Detector 1 Delay (s)	
Detector 2 Position(ft)	
Detector 2 Size(ft)	
Detector 2 Type	
Detector 2 Channel	
Detector 2 Extend (s)	
Turn Type	
Protected Phases	9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	6			2			4		4	8		
Detector Phase	6	6		2	2		4	4	4	8	8	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0	10.0	10.0	10.0	
Minimum Split (s)	24.0	24.0		24.0	24.0		24.5	24.5	24.5	24.5	24.5	
Total Split (s)	31.0	31.0		31.0	31.0		41.5	41.5	41.5	41.5	41.5	
Total Split (%)	32.6%	32.6%		32.6%	32.6%		43.7%	43.7%	43.7%	43.7%	43.7%	
Maximum Green (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)		0.0			0.0			0.0	0.0	0.0	0.0	
Total Lost Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Recall Mode	Max	Max		Max	Max		None	None	None	None	None	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)		27.6			27.6			10.9	10.9	10.9	10.9	
Actuated g/C Ratio		0.61			0.61			0.24	0.24	0.24	0.24	
v/c Ratio		0.58			0.58			0.42	0.18	0.23	0.30	
Control Delay		10.1			10.0			21.3	5.8	17.6	6.4	
Queue Delay		0.0			0.0			0.0	0.0	0.0	0.0	
Total Delay		10.1			10.0			21.3	5.8	17.6	6.4	
LOS		B			B			C	A	B	A	
Approach Delay		10.1			10.0			15.2			10.0	
Approach LOS		B			B			B			B	
Queue Length 50th (ft)		87			83			31	0	17	3	
Queue Length 95th (ft)		163			157			70	25	41	33	
Internal Link Dist (ft)		441			519			654			344	
Turn Bay Length (ft)									100	55		
Base Capacity (vph)		1609			1563			956	1264	1001	1311	
Starvation Cap Reductn		0			0			0	0	0	0	
Spillback Cap Reductn		0			0			0	0	0	0	
Storage Cap Reductn		0			0			0	0	0	0	
Reduced v/c Ratio		0.58			0.58			0.13	0.06	0.07	0.11	

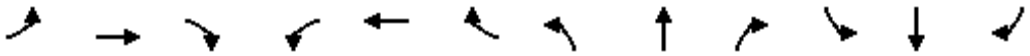
Intersection Summary			
Area Type:	Other		
Cycle Length: 95			
Actuated Cycle Length: 44.9			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 86.6%		ICU Level of Service E	
Analysis Period (min) 15			
Description: m			

Splits and Phases: 46: New Crossing Rd/Plaza Dwy & Walkers Brook Dr



Lane Group	Ø9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	22.5
Total Split (s)	22.5
Total Split (%)	24%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	1.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	2.0
Recall Mode	None
Walk Time (s)	5.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

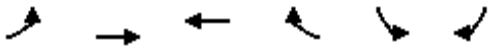


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	728	36	119	731	33	107	12	78	61	13	114
Future Volume (vph)	108	728	36	119	731	33	107	12	78	61	13	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Lane Util. Factor		0.95			0.95			1.00	1.00	1.00	1.00	
Frt		0.99			0.99			1.00	0.85	1.00	0.87	
Flt Protected		0.99			0.99			0.96	1.00	0.95	1.00	
Satd. Flow (prot)		3565			3566			1818	1599	1805	1644	
Flt Permitted		0.73			0.71			0.65	1.00	0.68	1.00	
Satd. Flow (perm)		2621			2544			1228	1599	1285	1644	
Peak-hour factor, PHF	0.93	0.93	0.93	0.98	0.98	0.98	0.95	0.95	0.95	0.85	0.85	0.85
Adj. Flow (vph)	116	783	39	121	746	34	113	13	82	72	15	134
RTOR Reduction (vph)	0	2	0	0	2	0	0	0	68	0	111	0
Lane Group Flow (vph)	0	936	0	0	899	0	0	126	14	72	38	0
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4		4	8		
Actuated Green, G (s)		25.8			25.8			8.0	8.0	8.0	8.0	
Effective Green, g (s)		25.8			25.8			8.0	8.0	8.0	8.0	
Actuated g/C Ratio		0.56			0.56			0.17	0.17	0.17	0.17	
Clearance Time (s)		6.0			6.0			6.5	6.5	6.5	6.5	
Vehicle Extension (s)		2.0			2.0			2.0	2.0	2.0	2.0	
Lane Grp Cap (vph)		1460			1417			212	276	222	284	
v/s Ratio Prot											0.02	
v/s Ratio Perm		c0.36			0.35			c0.10	0.01	0.06		
v/c Ratio		0.64			0.63			0.59	0.05	0.32	0.13	
Uniform Delay, d1		7.1			7.0			17.7	16.0	16.8	16.2	
Progression Factor		1.00			1.00			1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.2			2.2			3.0	0.0	0.3	0.1	
Delay (s)		9.2			9.2			20.6	16.0	17.1	16.3	
Level of Service		A			A			C	B	B	B	
Approach Delay (s)		9.2			9.2			18.8			16.6	
Approach LOS		A			A			B			B	

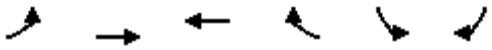
Intersection Summary			
HCM 2000 Control Delay	10.8	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	15.5
Intersection Capacity Utilization	86.6%	ICU Level of Service	E
Analysis Period (min)	15		
Description: m			

c Critical Lane Group

HCM 6th Edition methodology does not support exclusive ped or hold phases.



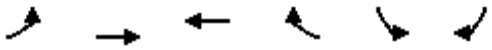
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	140	693	511	709	431	168
Future Volume (vph)	140	693	511	709	431	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			130	150	0
Storage Lanes	0			1	1	1
Taper Length (ft)	75				50	
Lane Util. Factor	0.95	0.95	0.95	1.00	0.97	1.00
Frt				0.850		0.850
Flt Protected		0.992			0.950	
Satd. Flow (prot)	0	3546	3574	1615	3467	1583
Flt Permitted		0.764			0.950	
Satd. Flow (perm)	0	2731	3574	1615	3467	1583
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						193
Link Speed (mph)		35	35		25	
Link Distance (ft)		599	782		328	
Travel Time (s)		11.7	15.2		8.9	
Peak Hour Factor	0.96	0.96	0.97	0.97	0.87	0.87
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%
Adj. Flow (vph)	146	722	527	731	495	193
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	868	527	731	495	193
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		0	0		30	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		30	50		20	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Permitted Phases	6			2		8
Detector Phase	6	6	2	8	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	6.0	6.0	6.0
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	45.0	45.0	45.0	31.0	31.0	31.0
Total Split (%)	59.2%	59.2%	59.2%	40.8%	40.8%	40.8%
Maximum Green (s)	40.0	40.0	40.0	26.0	26.0	26.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		5.0	5.0	5.0	5.0	5.0
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)	3.0	3.0	2.0	3.0	3.0	3.0
Recall Mode	Min	Min	Min	None	None	None
Walk Time (s)	7.0	7.0	7.0	7.0	7.0	7.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)		24.5	24.5	51.5	16.2	16.2
Actuated g/C Ratio		0.48	0.48	1.00	0.31	0.31
v/c Ratio		0.67	0.31	0.45	0.45	0.31
Control Delay		13.7	9.1	0.9	16.4	4.5
Queue Delay		0.0	0.0	0.0	0.0	0.0
Total Delay		13.7	9.1	0.9	16.4	4.5
LOS		B	A	A	B	A
Approach Delay		13.7	4.4		13.1	
Approach LOS		B	A		B	
Queue Length 50th (ft)		93	45	0	56	0
Queue Length 95th (ft)		197	97	0	123	36
Internal Link Dist (ft)		519	702		248	
Turn Bay Length (ft)				130	150	
Base Capacity (vph)		2193	2870	1615	1885	948
Starvation Cap Reductn		0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0
Reduced v/c Ratio		0.40	0.18	0.45	0.26	0.20

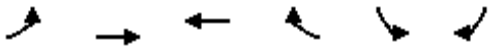
Intersection Summary			
Area Type:	Other		
Cycle Length: 76			
Actuated Cycle Length: 51.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.67			
Intersection Signal Delay: 9.4		Intersection LOS: A	
Intersection Capacity Utilization 75.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 49: Walkers Brook Dr & Home Depot Dwy



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	140	693	511	709	431	168
Future Volume (vph)	140	693	511	709	431	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0	5.0	5.0	5.0	5.0
Lane Util. Factor		0.95	0.95	1.00	0.97	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.99	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3544	3574	1615	3467	1583
Flt Permitted		0.76	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2732	3574	1615	3467	1583
Peak-hour factor, PHF	0.96	0.96	0.97	0.97	0.87	0.87
Adj. Flow (vph)	146	722	527	731	495	193
RTOR Reduction (vph)	0	0	0	0	0	131
Lane Group Flow (vph)	0	868	527	731	495	62
Heavy Vehicles (%)	1%	1%	1%	0%	1%	2%
Turn Type	Perm	NA	NA	pm+ov	Prot	Perm
Protected Phases		6	2	8	8	
Permitted Phases	6			2		8
Actuated Green, G (s)		24.5	24.5	40.7	16.2	16.2
Effective Green, g (s)		24.5	24.5	40.7	16.2	16.2
Actuated g/C Ratio		0.48	0.48	0.80	0.32	0.32
Clearance Time (s)		5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)		3.0	2.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1320	1727	1615	1107	505
v/s Ratio Prot			0.15	c0.14	0.14	
v/s Ratio Perm		c0.32		0.31		0.04
v/c Ratio		0.66	0.31	0.45	0.45	0.12
Uniform Delay, d1		9.9	7.9	1.5	13.7	12.2
Progression Factor		1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		1.2	0.0	0.2	0.3	0.1
Delay (s)		11.1	8.0	1.8	14.0	12.3
Level of Service		B	A	A	B	B
Approach Delay (s)		11.1	4.4		13.5	
Approach LOS		B	A		B	

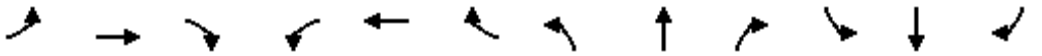
Intersection Summary			
HCM 2000 Control Delay	8.7	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	50.7	Sum of lost time (s)	10.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



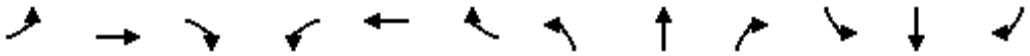
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	140	693	511	709	431	168
Future Volume (veh/h)	140	693	511	709	431	168
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1885	1885	1885	1900	1885	1870
Adj Flow Rate, veh/h	146	722	527	731	495	193
Peak Hour Factor	0.96	0.96	0.97	0.97	0.87	0.87
Percent Heavy Veh, %	1	1	1	0	1	2
Cap, veh/h	273	1140	1810	1200	836	380
Arrive On Green	0.51	0.51	0.51	0.51	0.24	0.24
Sat Flow, veh/h	281	2342	3676	1610	3483	1585
Grp Volume(v), veh/h	340	528	527	731	495	193
Grp Sat Flow(s),veh/h/ln	907	1630	1791	1610	1742	1585
Q Serve(g_s), s	6.1	9.3	3.4	8.3	4.9	4.1
Cycle Q Clear(g_c), s	9.5	9.3	3.4	8.3	4.9	4.1
Prop In Lane	0.43			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	590	824	1810	1200	836	380
V/C Ratio(X)	0.58	0.64	0.29	0.61	0.59	0.51
Avail Cap(c_a), veh/h	994	1660	3648	2026	2306	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	7.1	5.6	2.3	13.2	12.9
Incr Delay (d2), s/veh	0.9	0.8	0.0	0.2	0.7	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.0	0.7	3.1	1.7	1.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.4	7.9	5.7	2.5	13.9	14.0
LnGrp LOS	A	A	A	A	B	B
Approach Vol, veh/h		868	1258		688	
Approach Delay, s/veh		7.7	3.8		13.9	
Approach LOS		A	A		B	

Timer - Assigned Phs	2				6	8
Phs Duration (G+Y+Rc), s	24.9				24.9	14.4
Change Period (Y+Rc), s	5.0				5.0	5.0
Max Green Setting (Gmax), s	40.0				40.0	26.0
Max Q Clear Time (g_c+I1), s	10.3				11.5	6.9
Green Ext Time (p_c), s	4.0				8.4	2.5

Intersection Summary	
HCM 6th Ctrl Delay	7.5
HCM 6th LOS	A



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	748	367	268	732	0	0	0	0	122	1	489
Future Volume (vph)	0	748	367	268	732	0	0	0	0	122	1	489
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		180
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951										0.850
Flt Protected					0.987						0.953	
Satd. Flow (prot)	0	3410	0	0	3528	0	0	0	0	0	1811	1615
Flt Permitted					0.570						0.953	
Satd. Flow (perm)	0	3410	0	0	2037	0	0	0	0	0	1811	1615
Right Turn on Red			Yes			Yes			No			No
Satd. Flow (RTOR)		223										
Link Speed (mph)		35			35			30			25	
Link Distance (ft)		782			605			531			702	
Travel Time (s)		15.2			11.8			12.1			19.1	
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92	0.97	0.97	0.97
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	2%	2%	2%	0%	0%	0%
Adj. Flow (vph)	0	787	386	279	763	0	0	0	0	126	1	504
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1173	0	0	1042	0	0	0	0	0	127	504
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		20			50			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors		2		1	2					1	2	1
Detector Template		Thru		Left	Thru					Left	Thru	Right
Leading Detector (ft)		100		20	100					20	100	20
Trailing Detector (ft)		0		0	0					0	0	0
Detector 1 Position(ft)		0		0	0					0	0	0
Detector 1 Size(ft)		6		20	6					20	6	20
Detector 1 Type		Cl+Ex		Cl+Ex	Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Queue (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 1 Delay (s)		0.0		0.0	0.0					0.0	0.0	0.0
Detector 2 Position(ft)		94			94						94	
Detector 2 Size(ft)		6			6						6	
Detector 2 Type		Cl+Ex			Cl+Ex						Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0						0.0	
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	

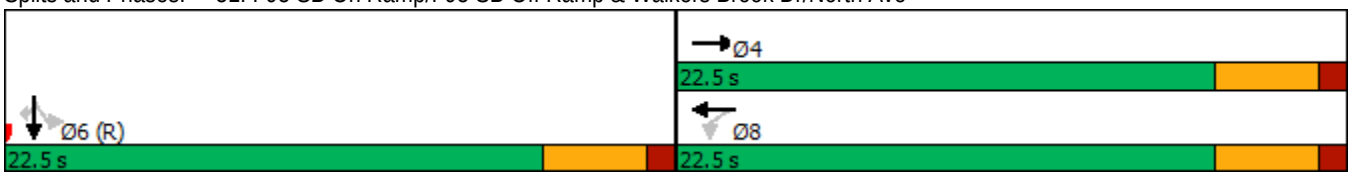


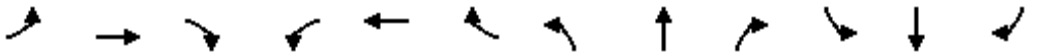
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases				8						6		6
Detector Phase		4		8	8					6	6	6
Switch Phase												
Minimum Initial (s)		5.0		5.0	5.0					5.0	5.0	5.0
Minimum Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (s)		22.5		22.5	22.5					22.5	22.5	22.5
Total Split (%)		50.0%		50.0%	50.0%					50.0%	50.0%	50.0%
Maximum Green (s)		18.0		18.0	18.0					18.0	18.0	18.0
Yellow Time (s)		3.5		3.5	3.5					3.5	3.5	3.5
All-Red Time (s)		1.0		1.0	1.0					1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0						0.0	0.0
Total Lost Time (s)		4.5			4.5						4.5	4.5
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0		3.0	3.0					3.0	3.0	3.0
Recall Mode		None		None	None					C-Max	C-Max	C-Max
Walk Time (s)		7.0		7.0	7.0					7.0	7.0	7.0
Flash Dont Walk (s)		11.0		11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)		0		0	0					0	0	0
Act Effct Green (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
v/c Ratio		0.78			1.67dl						0.18	0.78
Control Delay		14.4			152.7						9.6	23.4
Queue Delay		0.0			0.0						0.0	0.0
Total Delay		14.4			152.7						9.6	23.4
LOS		B			F						A	C
Approach Delay		14.4			152.7						20.6	
Approach LOS		B			F						C	
Queue Length 50th (ft)		103			~204						20	107
Queue Length 95th (ft)		#172			#301						45	#244
Internal Link Dist (ft)		702			525			451			622	
Turn Bay Length (ft)												180
Base Capacity (vph)		1497			814						724	646
Starvation Cap Reductn		0			0						0	0
Spillback Cap Reductn		0			0						0	0
Storage Cap Reductn		0			0						0	0
Reduced v/c Ratio		0.78			1.28						0.18	0.78

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2: and 6:SBTL, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.28			
Intersection Signal Delay: 66.4		Intersection LOS: E	
Intersection Capacity Utilization 78.5%		ICU Level of Service D	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 51: I-95 SB On Ramp/I-95 SB Off Ramp & Walkers Brook Dr/North Ave



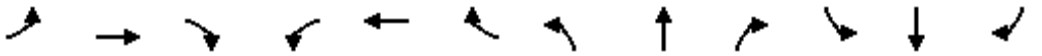


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	748	367	268	732	0	0	0	0	122	1	489
Future Volume (vph)	0	748	367	268	732	0	0	0	0	122	1	489
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5						4.5	4.5
Lane Util. Factor		0.95			0.95						1.00	1.00
Frt		0.95			1.00						1.00	0.85
Flt Protected		1.00			0.99						0.95	1.00
Satd. Flow (prot)		3409			3527						1810	1615
Flt Permitted		1.00			0.57						0.95	1.00
Satd. Flow (perm)		3409			2036						1810	1615
Peak-hour factor, PHF	0.95	0.95	0.95	0.96	0.96	0.96	0.92	0.92	0.92	0.97	0.97	0.97
Adj. Flow (vph)	0	787	386	279	762	0	0	0	0	126	1	504
RTOR Reduction (vph)	0	134	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1039	0	0	1042	0	0	0	0	0	127	504
Heavy Vehicles (%)	0%	1%	0%	1%	1%	0%	2%	2%	2%	0%	0%	0%
Turn Type		NA		Perm	NA					Perm	NA	Perm
Protected Phases		4			8						6	
Permitted Phases				8						6		6
Actuated Green, G (s)		18.0			18.0						18.0	18.0
Effective Green, g (s)		18.0			18.0						18.0	18.0
Actuated g/C Ratio		0.40			0.40						0.40	0.40
Clearance Time (s)		4.5			4.5						4.5	4.5
Vehicle Extension (s)		3.0			3.0						3.0	3.0
Lane Grp Cap (vph)		1363			814						724	646
v/s Ratio Prot		0.30										
v/s Ratio Perm					c0.51						0.07	c0.31
v/c Ratio		0.76			1.67dl						0.18	0.78
Uniform Delay, d1		11.7			13.5						8.7	11.8
Progression Factor		1.00			0.91						1.00	1.00
Incremental Delay, d2		2.6			134.1						0.5	9.1
Delay (s)		14.2			146.4						9.2	20.8
Level of Service		B			F						A	C
Approach Delay (s)		14.2			146.4			0.0			18.5	
Approach LOS		B			F			A			B	

Intersection Summary			
HCM 2000 Control Delay	63.6	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



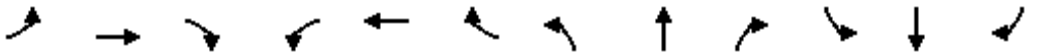
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	748	367	268	732	0	0	0	0	122	1	489
Future Volume (veh/h)	0	748	367	268	732	0	0	0	0	122	1	489
Initial Q (Qb), veh	0	0	0	0	0	0				0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00				1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Work Zone On Approach		No			No						No	
Adj Sat Flow, veh/h/ln	0	1885	1885	1885	1885	0				1900	1900	1900
Adj Flow Rate, veh/h	0	787	0	279	762	0				126	1	0
Peak Hour Factor	0.95	0.95	0.95	0.96	0.96	0.96				0.97	0.97	0.97
Percent Heavy Veh, %	0	1	1	1	1	0				0	0	0
Cap, veh/h	0	1433		268	724	0				718	6	
Arrive On Green	0.00	0.40	0.00	0.40	0.40	0.00				0.40	0.40	0.00
Sat Flow, veh/h	0	3770	0	337	1895	0				1796	14	1610
Grp Volume(v), veh/h	0	787	0	421	620	0				127	0	0
Grp Sat Flow(s),veh/h/ln	0	1791	0	517	1630	0				1810	0	1610
Q Serve(g_s), s	0.0	7.6	0.0	10.4	16.6	0.0				2.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	7.6	0.0	18.0	16.6	0.0				2.0	0.0	0.0
Prop In Lane	0.00		0.00	0.66		0.00				0.99		1.00
Lane Grp Cap(c), veh/h	0	1433		340	652	0				724	0	
V/C Ratio(X)	0.00	0.55		1.24	0.95	0.00				0.18	0.00	
Avail Cap(c_a), veh/h	0	1433		340	652	0				724	0	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)	0.00	0.78	0.00	0.76	0.76	0.00				1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	10.4	0.0	19.2	13.1	0.0				8.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.3	0.0	125.3	19.8	0.0				0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	0.0	15.0	8.0	0.0				0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	10.7	0.0	144.6	32.9	0.0				9.2	0.0	0.0
LnGrp LOS	A	B		F	C	A				A	A	
Approach Vol, veh/h		787	A		1041						127	A
Approach Delay, s/veh		10.7			78.1						9.2	
Approach LOS		B			E						A	

Timer - Assigned Phs		4		6		8						
Phs Duration (G+Y+Rc), s		22.5		22.5		22.5						
Change Period (Y+Rc), s		4.5		4.5		4.5						
Max Green Setting (Gmax), s		18.0		18.0		18.0						
Max Q Clear Time (g_c+I1), s		9.6		4.0		20.0						
Green Ext Time (p_c), s		3.3		0.5		0.0						

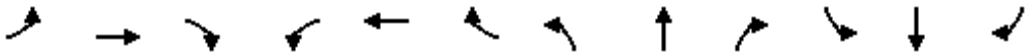
Intersection Summary	
HCM 6th Ctrl Delay	46.5
HCM 6th LOS	D

Notes

Unsignalized Delay for [EBR, SBR] is excluded from calculations of the approach delay and intersection delay.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	382	486	0	0	718	172	288	2	232	0	0	0
Future Volume (vph)	382	486	0	0	718	172	288	2	232	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	1		1	0		0
Taper Length (ft)	75			75			75			75		
Lane Util. Factor	0.95	0.95	1.00	1.00	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00
Frt					0.971				0.850			
Flt Protected		0.978					0.950	0.953				
Satd. Flow (prot)	0	3491	0	0	3477	0	1698	1703	1599	0	0	0
Flt Permitted		0.584					0.950	0.953				
Satd. Flow (perm)	0	2085	0	0	3477	0	1698	1703	1599	0	0	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					77				242			
Link Speed (mph)		35			35			25			30	
Link Distance (ft)		605			248			504			669	
Travel Time (s)		11.8			4.8			13.7			15.2	
Peak Hour Factor	0.96	0.96	0.96	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	2%	2%	2%
Adj. Flow (vph)	398	506	0	0	772	185	300	2	242	0	0	0
Shared Lane Traffic (%)							50%					
Lane Group Flow (vph)	0	904	0	0	957	0	150	152	242	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		60			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2	1			
Detector Template	Left	Thru			Thru		Left	Thru	Right			
Leading Detector (ft)	20	100			100		20	100	20			
Trailing Detector (ft)	0	0			0		0	0	0			
Detector 1 Position(ft)	0	0			0		0	0	0			
Detector 1 Size(ft)	20	6			6		20	6	20			
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex			
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0	0.0			
Detector 2 Position(ft)		94			94			94				
Detector 2 Size(ft)		6			6			6				
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex				
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0				
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				

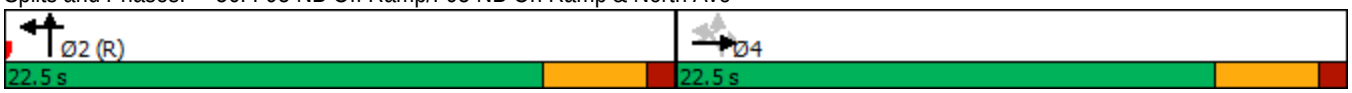


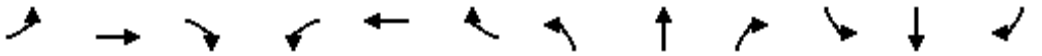
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4!						4!		4			
Detector Phase	4	4			2		4	2	4			
Switch Phase												
Minimum Initial (s)	5.0	5.0			5.0		5.0	5.0	5.0			
Minimum Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (s)	22.5	22.5			22.5		22.5	22.5	22.5			
Total Split (%)	50.0%	50.0%			50.0%		50.0%	50.0%	50.0%			
Maximum Green (s)	18.0	18.0			18.0		18.0	18.0	18.0			
Yellow Time (s)	3.5	3.5			3.5		3.5	3.5	3.5			
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0	1.0			
Lost Time Adjust (s)		0.0			0.0		0.0	0.0	0.0			
Total Lost Time (s)		4.5			4.5		4.5	4.5	4.5			
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0			3.0		3.0	3.0	3.0			
Recall Mode	None	None			C-Max		None	C-Max	None			
Walk Time (s)	7.0	7.0			7.0		7.0	7.0	7.0			
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0			
Pedestrian Calls (#/hr)	0	0			0		0	0	0			
Act Effct Green (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
v/c Ratio		1.75dl			0.67		0.22	0.22	0.31			
Control Delay		71.4			12.9		10.0	10.0	2.9			
Queue Delay		0.0			0.0		0.0	0.0	0.0			
Total Delay		71.4			12.9		10.0	10.0	2.9			
LOS		E			B		B	B	A			
Approach Delay		71.4			12.9			6.9				
Approach LOS		E			B			A				
Queue Length 50th (ft)		~107			91		25	25	0			
Queue Length 95th (ft)		m#212			142		55	55	30			
Internal Link Dist (ft)		525			168			424			589	
Turn Bay Length (ft)									150			
Base Capacity (vph)		834			1437		679	681	784			
Starvation Cap Reductn		0			0		0	0	0			
Spillback Cap Reductn		0			0		0	0	0			
Storage Cap Reductn		0			0		0	0	0			
Reduced v/c Ratio		1.08			0.67		0.22	0.22	0.31			

Intersection Summary			
Area Type:	Other		
Cycle Length: 45			
Actuated Cycle Length: 45			
Offset: 0 (0%), Referenced to phase 2:NBWB and 6:, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.08			
Intersection Signal Delay: 33.5		Intersection LOS: C	
Intersection Capacity Utilization 69.2%		ICU Level of Service C	
Analysis Period (min) 15			

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
! Phase conflict between lane groups.

Splits and Phases: 56: I-95 NB Off Ramp/I-95 NB On Ramp & North Ave





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	382	486	0	0	718	172	288	2	232	0	0	0
Future Volume (vph)	382	486	0	0	718	172	288	2	232	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5			4.5		4.5	4.5	4.5			
Lane Util. Factor		0.95			0.95		0.95	0.95	1.00			
Frt		1.00			0.97		1.00	1.00	0.85			
Flt Protected		0.98			1.00		0.95	0.95	1.00			
Satd. Flow (prot)		3493			3477		1698	1703	1599			
Flt Permitted		0.58			1.00		0.95	0.95	1.00			
Satd. Flow (perm)		2084			3477		1698	1703	1599			
Peak-hour factor, PHF	0.96	0.96	0.96	0.93	0.93	0.93	0.96	0.96	0.96	0.92	0.92	0.92
Adj. Flow (vph)	398	506	0	0	772	185	300	2	242	0	0	0
RTOR Reduction (vph)	0	0	0	0	46	0	0	0	145	0	0	0
Lane Group Flow (vph)	0	904	0	0	911	0	150	152	97	0	0	0
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	1%	0%	1%	2%	2%	2%
Turn Type	Perm	NA			NA		custom	NA	custom			
Protected Phases		4!			2!			2!				
Permitted Phases	4!						4!		4			
Actuated Green, G (s)		18.0			18.0		18.0	18.0	18.0			
Effective Green, g (s)		18.0			18.0		18.0	18.0	18.0			
Actuated g/C Ratio		0.40			0.40		0.40	0.40	0.40			
Clearance Time (s)		4.5			4.5		4.5	4.5	4.5			
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0			
Lane Grp Cap (vph)		833			1390		679	681	639			
v/s Ratio Prot					c0.26							
v/s Ratio Perm		c0.43					0.09	0.09	0.06			
v/c Ratio		1.75dl			0.66		0.22	0.22	0.15			
Uniform Delay, d1		13.5			11.0		8.9	8.9	8.6			
Progression Factor		1.07			1.00		1.00	1.00	1.00			
Incremental Delay, d2		52.5			2.4		0.2	0.8	0.1			
Delay (s)		67.0			13.4		9.1	9.7	8.7			
Level of Service		E			B		A	A	A			
Approach Delay (s)		67.0			13.4			9.1			0.0	
Approach LOS		E			B			A			A	

Intersection Summary			
HCM 2000 Control Delay	32.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	9.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

! Phase conflict between lane groups.

c Critical Lane Group

HCM 6th Edition methodology cannot be performed with phasing conflicts.

2039 Build Conditions
Main St / Washington St

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	161	13	129	272	59	119	519	253	60	700	30
Future Volume (vph)	40	161	13	129	272	59	119	519	253	60	700	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		0	175		0	0		50
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.989			0.983			0.951			0.994	
Flt Protected	0.950				0.986		0.950			0.950		
Satd. Flow (prot)	1805	1862	0	0	1765	0	1736	3322	0	1570	1871	0
Flt Permitted	0.351				0.837		0.081			0.249		
Satd. Flow (perm)	667	1862	0	0	1499	0	148	3322	0	411	1871	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.83	0.83	0.83	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	4%	13%	4%	4%	2%	15%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	45	183	15	155	328	71	124	541	264	63	729	31
Shared Lane Traffic (%)												
Lane Group Flow (vph)	45	198	0	0	554	0	124	805	0	63	760	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		9.5	25.0		9.5	25.0	
Total Split (s)	10.5	56.5		46.0	46.0		10.0	54.0		10.0	54.0	
Total Split (%)	7.2%	39.0%		31.7%	31.7%		6.9%	37.2%		6.9%	37.2%	
Maximum Green (s)	6.0	51.5		39.0	39.0		5.5	47.0		5.5	47.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		1.0	3.0		1.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0			7.0		4.5	7.0		4.5	7.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		2.0	2.0		3.0	2.0		3.0	2.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	17%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	49.8	49.3			39.1		56.0	49.2		55.1	47.1	
Actuated g/C Ratio	0.42	0.42			0.33		0.47	0.42		0.47	0.40	
v/c Ratio	0.13	0.26			1.12		0.86	0.58		0.26	1.02	
Control Delay	21.0	23.4			115.8		68.3	30.0		18.9	75.2	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	21.0	23.4			115.8		68.3	30.0		18.9	75.2	
LOS	C	C			F		E	C		B	E	
Approach Delay		23.0			115.8			35.1			70.9	
Approach LOS		C			F			D			E	
90th %ile Green (s)	6.0	51.5		39.0	39.0		5.5	47.0		5.5	47.0	
90th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
70th %ile Green (s)	6.0	51.5		39.0	39.0		5.5	47.0		5.5	47.0	
70th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
50th %ile Green (s)	6.0	51.5		39.0	39.0		5.5	47.0		5.5	47.0	
50th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
30th %ile Green (s)	6.0	51.5		39.0	39.0		5.5	47.0		5.5	47.0	
30th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
10th %ile Green (s)	0.0	41.0		39.0	39.0		5.5	57.0		0.0	47.0	
10th %ile Term Code	Skip	Hold		Max	Max		Max	Hold		Skip	MaxR	
Queue Length 50th (ft)	20	97			~504		51	262		25	~640	
Queue Length 95th (ft)	42	148			#637		#165	330		50	#878	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)							175					
Base Capacity (vph)	338	810			494		144	1380		245	743	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.13	0.24			1.12		0.86	0.58		0.26	1.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 118.4			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.12			
Intersection Signal Delay: 63.0		Intersection LOS: E	
Intersection Capacity Utilization 99.1%		ICU Level of Service F	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120.5			
70th %ile Actuated Cycle: 120.5			
50th %ile Actuated Cycle: 120.5			
30th %ile Actuated Cycle: 120.5			

Lane Group	Ø9
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

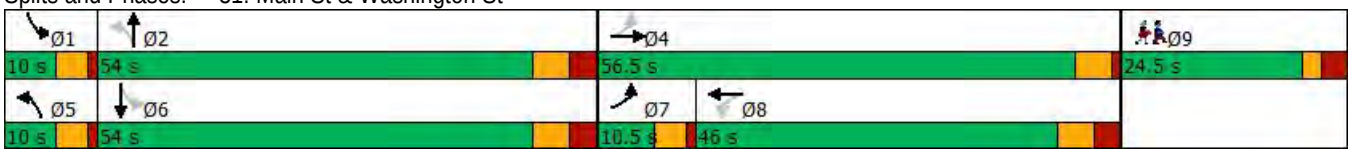
Intersection Summary

10th %ile Actuated Cycle: 110

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	91	351	14	53	175	97	137	693	653	81	383	18
Future Volume (vph)	91	351	14	53	175	97	137	693	653	81	383	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		0	175		0	0		50
Storage Lanes	1		1	0		0	1		0	1		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Ped Bike Factor										1.00		
Frt		0.994			0.960			0.927			0.993	
Flt Protected	0.950				0.992		0.950			0.950		
Satd. Flow (prot)	1787	1865	0	0	1789	0	1805	3329	0	1805	1869	0
Flt Permitted	0.369				0.786		0.287			0.087		
Satd. Flow (perm)	694	1865	0	0	1417	0	545	3329	0	165	1869	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.89	0.89	0.89	0.84	0.84	0.84	0.92	0.92	0.92	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	8%	2%	1%	1%	0%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	102	394	16	63	208	115	149	753	710	91	430	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	102	410	0	0	386	0	149	1463	0	91	450	0
Turn Type	pm+pt	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		5.0	10.0		5.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		9.5	25.0		9.5	25.0	
Total Split (s)	10.5	54.5		44.0	44.0		13.0	56.5		9.5	53.0	
Total Split (%)	7.2%	37.6%		30.3%	30.3%		9.0%	39.0%		6.6%	36.6%	
Maximum Green (s)	6.0	49.5		37.0	37.0		8.5	49.5		5.0	46.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		1.0	3.0		1.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	5.0			7.0		4.5	7.0		4.5	7.0	
Lead/Lag	Lead			Lag	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	2.0		2.0	2.0		3.0	2.0		3.0	2.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	17%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		None	Max		None	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	50.0	49.5			37.0		60.4	49.5		53.6	46.1	
Actuated g/C Ratio	0.41	0.41			0.31		0.50	0.41		0.44	0.38	
v/c Ratio	0.30	0.54			0.89		0.41	1.07		0.65	0.63	
Control Delay	24.5	30.0			63.2		19.5	80.3		38.5	35.1	
Queue Delay	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay	24.5	30.0			63.2		19.5	80.3		38.5	35.1	
LOS	C	C			E		B	F		D	D	
Approach Delay		28.9			63.2			74.7			35.7	
Approach LOS		C			E			E			D	
90th %ile Green (s)	6.0	49.5		37.0	37.0		8.5	49.5		5.0	46.0	
90th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
70th %ile Green (s)	6.0	49.5		37.0	37.0		8.5	49.5		5.0	46.0	
70th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
50th %ile Green (s)	6.0	49.5		37.0	37.0		8.5	49.5		5.0	46.0	
50th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
30th %ile Green (s)	6.0	49.5		37.0	37.0		8.5	49.5		5.0	46.0	
30th %ile Term Code	Max	Hold		Max	Max		Max	MaxR		Max	MaxR	
10th %ile Green (s)	6.0	49.5		37.0	37.0		7.9	49.5		5.0	46.6	
10th %ile Term Code	Max	Hold		Max	Max		Gap	MaxR		Max	Hold	
Queue Length 50th (ft)	48	237			286		60	~663		35	282	
Queue Length 95th (ft)	85	331			#414		99	#802		#85	390	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)							175					
Base Capacity (vph)	342	766			435		362	1367		141	715	
Starvation Cap Reductn	0	0			0		0	0		0	0	
Spillback Cap Reductn	0	0			0		0	0		0	0	
Storage Cap Reductn	0	0			0		0	0		0	0	
Reduced v/c Ratio	0.30	0.54			0.89		0.41	1.07		0.65	0.63	

Intersection Summary			
Area Type:	Other		
Cycle Length: 145			
Actuated Cycle Length: 120.5			
Natural Cycle: 145			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.07			
Intersection Signal Delay: 58.6		Intersection LOS: E	
Intersection Capacity Utilization 101.6%		ICU Level of Service G	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 120.5			
70th %ile Actuated Cycle: 120.5			
50th %ile Actuated Cycle: 120.5			
30th %ile Actuated Cycle: 120.5			

Lane Group	Ø9
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

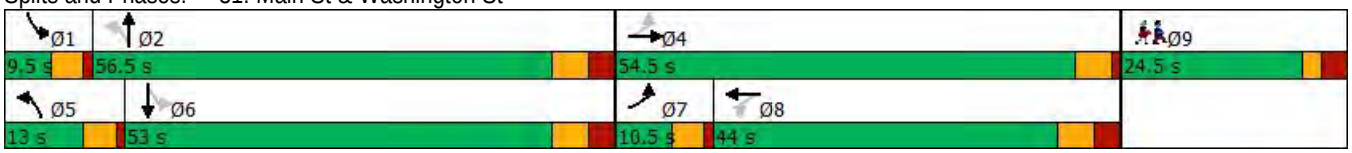
Intersection Summary

10th %ile Actuated Cycle: 120.5

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Future Volume (vph)	47	233	24	91	175	88	124	576	99	68	474	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		50	0		0	175		0	0		50
Storage Lanes	1		1	0		0	1		0	0		1
Taper Length (ft)	50			75			75			75		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Ped Bike Factor											1.00	
Frt		0.986			0.966			0.978			0.992	
Flt Protected	0.950				0.987		0.950				0.994	
Satd. Flow (prot)	1770	1840	0	0	1794	0	1805	3501	0	0	3522	0
Flt Permitted	0.421				0.820		0.360				0.709	
Satd. Flow (perm)	784	1840	0	0	1490	0	684	3501	0	0	2512	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		567			939			325			334	
Travel Time (s)		12.9			21.3			7.4			7.6	
Confl. Peds. (#/hr)										4		
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.83	0.83	0.83	0.93	0.93	0.93	0.96	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	1%	0%	2%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	52	259	27	110	211	106	133	619	106	71	510	34
Shared Lane Traffic (%)												
Lane Group Flow (vph)	52	286	0	0	427	0	133	725	0	0	615	0
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	6.0	6.0		6.0	6.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	10.5	11.0		13.0	13.0		25.0	25.0		25.0	25.0	
Total Split (s)	10.5	47.5		37.0	37.0		38.0	38.0		38.0	38.0	
Total Split (%)	9.5%	43.2%		33.6%	33.6%		34.5%	34.5%		34.5%	34.5%	
Maximum Green (s)	6.0	42.5		30.0	30.0		31.0	31.0		31.0	31.0	
Yellow Time (s)	3.5	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lost Time Adjust (s)	0.0	0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)	4.5	5.0			7.0		7.0	7.0			7.0	
Lead/Lag	Lead			Lag	Lag							
Lead-Lag Optimize?	Yes			Yes	Yes							
Vehicle Extension (s)	3.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	

Lane Group	Ø9
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Width (ft)	
Grade (%)	
Storage Length (ft)	
Storage Lanes	
Taper Length (ft)	
Lane Util. Factor	
Ped Bike Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Confl. Peds. (#/hr)	
Confl. Bikes (#/hr)	
Peak Hour Factor	
Growth Factor	
Heavy Vehicles (%)	
Bus Blockages (#/hr)	
Parking (#/hr)	
Mid-Block Traffic (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	9
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	24.5
Total Split (s)	24.5
Total Split (%)	22%
Maximum Green (s)	19.5
Yellow Time (s)	2.0
All-Red Time (s)	3.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Gap (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	None	None		None	None		Max	Max		Max	Max	
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)	38.6	38.1			30.1		31.1	31.1			31.1	
Actuated g/C Ratio	0.47	0.47			0.37		0.38	0.38			0.38	
v/c Ratio	0.12	0.33			0.77		0.51	0.54			0.64	
Control Delay	11.7	14.6			35.4		29.2	22.1			25.1	
Queue Delay	0.0	0.0			0.0		0.0	0.0			0.0	
Total Delay	11.7	14.6			35.4		29.2	22.1			25.1	
LOS	B	B			D		C	C			C	
Approach Delay		14.1			35.4			23.2			25.1	
Approach LOS		B			D			C			C	
90th %ile Green (s)	6.0	42.5		30.0	30.0		31.0	31.0		31.0	31.0	
90th %ile Term Code	Max	Hold		Max	Max		MaxR	MaxR		MaxR	MaxR	
70th %ile Green (s)	6.0	42.5		30.0	30.0		31.0	31.0		31.0	31.0	
70th %ile Term Code	Max	Hold		Max	Max		MaxR	MaxR		MaxR	MaxR	
50th %ile Green (s)	6.0	42.5		30.0	30.0		31.0	31.0		31.0	31.0	
50th %ile Term Code	Max	Hold		Max	Max		MaxR	MaxR		MaxR	MaxR	
30th %ile Green (s)	0.0	32.0		30.0	30.0		31.0	31.0		31.0	31.0	
30th %ile Term Code	Skip	Hold		Max	Max		MaxR	MaxR		MaxR	MaxR	
10th %ile Green (s)	0.0	32.0		30.0	30.0		31.0	31.0		31.0	31.0	
10th %ile Term Code	Skip	Hold		Max	Max		MaxR	MaxR		MaxR	MaxR	
Queue Length 50th (ft)	14	87			206		56	162			144	
Queue Length 95th (ft)	32	140			#313		117	218			205	
Internal Link Dist (ft)		487			859			245			254	
Turn Bay Length (ft)							175					
Base Capacity (vph)	445	965			552		262	1340			961	
Starvation Cap Reductn	0	0			0		0	0			0	
Spillback Cap Reductn	0	0			0		0	0			0	
Storage Cap Reductn	0	0			0		0	0			0	
Reduced v/c Ratio	0.12	0.30			0.77		0.51	0.54			0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 110			
Actuated Cycle Length: 81.3			
Natural Cycle: 110			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 24.7		Intersection LOS: C	
Intersection Capacity Utilization 90.2%		ICU Level of Service E	
Analysis Period (min) 15			
90th %ile Actuated Cycle: 85.5			
70th %ile Actuated Cycle: 85.5			
50th %ile Actuated Cycle: 85.5			
30th %ile Actuated Cycle: 75			

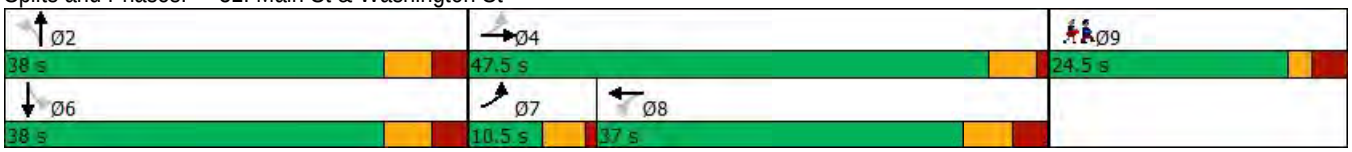
Lane Group	Ø9
Minimum Gap (s)	3.0
Time Before Reduce (s)	0.0
Time To Reduce (s)	0.0
Recall Mode	None
Walk Time (s)	6.0
Flash Dont Walk (s)	12.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	
Approach LOS	
90th %ile Green (s)	0.0
90th %ile Term Code	Skip
70th %ile Green (s)	0.0
70th %ile Term Code	Skip
50th %ile Green (s)	0.0
50th %ile Term Code	Skip
30th %ile Green (s)	0.0
30th %ile Term Code	Skip
10th %ile Green (s)	0.0
10th %ile Term Code	Skip
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

10th %ile Actuated Cycle: 75

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 31: Main St & Washington St

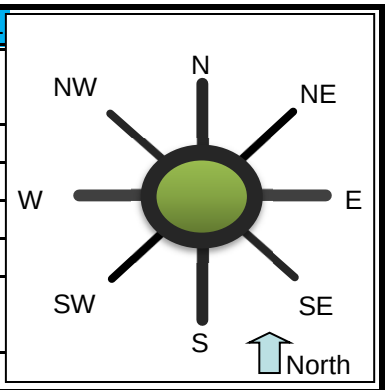


2039 Roundabout Analysis
Ash St / Main St

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	3/2/2020
Project or PI#:	19057.00X
Year, Peak Hour:	2019 AM Peak Hour
County/District:	Reading
Intersection Name:	Ash Street / Main Street



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph			**124**		**539**			
Exit	NE (2), vph								
Legs	E (3), vph	**109**				**3**			
(TO)	SE (4), vph								
	S (5), vph	**726**		**6**					
	SW (6), vph								
	W (7), vph								
	NW (8), vph								
Output	Total Vehicles	835	0	130	0	542	0	0	0

Volume Characteristics

	N	NE	E	SE	S	SW	W	NW
% Cars	98.6%	100.0%	96.9%	100.0%	96.3%	100.0%	100.0%	100.0%
% Heavy Vehicles	1.4%		3.1%		3.7%			
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.92*	*0.92*	*0.89*	*0.92*	*0.94*	*0.92*	*0.94*	*0.92*
F_{HV}	0.986	1.000	0.970	1.000	0.964	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows

	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	144	0	595	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	120	0	0	0	3	0	0	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	800	0	7	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	0	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	920	0	151	0	598	0	0	0
Conflicting flow, pcu/h	7	0	595	0	120	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	1351	NA	730	NA	1177	NA	NA	NA
Entry Flow Rates, vph	908	NA	146	NA	577	NA	NA	NA

V/C ratio	**0.67**		**0.20**		**0.49**			
Control Delay, sec/pcu	**11**		**7**		**8**			
LOS	B		A		A			
95th % Queue (ft)	**141**		**19**		**72**			

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

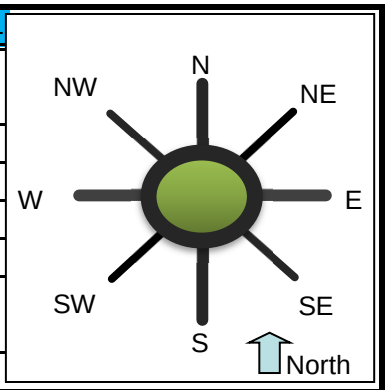
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	3/2/2020
Project or PI#:	19057.00X
Year, Peak Hour:	2019 PM Peak Hour
County/District:	Reading
Intersection Name:	Ash Street / Main Street



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph			**125**		**711**			
Exit	NE (2), vph								
Legs	E (3), vph	**85**							
(TO)	SE (4), vph								
	S (5), vph	**444**		**1**					
	SW (6), vph								
	W (7), vph								
	NW (8), vph								
Output	Total Vehicles	529	0	126	0	711	0	0	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	98.7%	100.0%	99.2%	100.0%	99.5%	100.0%	100.0%	100.0%
% Heavy Vehicles	1.3%		0.8%		0.5%			
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.92*	*0.92*	*0.89*	*0.92*	*0.94*	*0.92*	*0.94*	*0.92*
F_{HV}	0.987	1.000	0.992	1.000	0.995	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	142	0	760	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	94	0	0	0	0	0	0	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	489	0	1	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	0	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	582	0	143	0	760	0	0	0
Conflicting flow, pcu/h	1	0	760	0	94	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	1361	NA	630	NA	1248	NA	NA	NA
Entry Flow Rates, vph	575	NA	142	NA	756	NA	NA	NA

V/C ratio	**0.42**		**0.22**		**0.61**			
Control Delay, sec/pcu	**7**		**8**		**10**			
LOS	A		A		B			
95th % Queue (ft)	**54**		**22**		**108**			

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

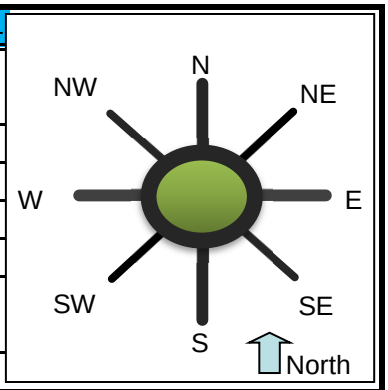
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	3/2/2020
Project or PI#:	19057.00X
Year, Peak Hour:	2019 SAT Peak Hour
County/District:	Reading
Intersection Name:	Ash Street / Main Street



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph			**137**		**611**			
Exit	NE (2), vph								
Legs	E (3), vph	**134**							
(TO)	SE (4), vph								
	S (5), vph	**518**		**4**					
	SW (6), vph								
	W (7), vph								
	NW (8), vph								
Output	Total Vehicles	652	0	141	0	611	0	0	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	99.8%	100.0%	100.0%	100.0%	99.2%	100.0%	100.0%	100.0%
% Heavy Vehicles	0.2%		0.0%		0.8%			
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.92*	*0.92*	*0.89*	*0.92*	*0.94*	*0.92*	*0.94*	*0.92*
F_{HV}	0.998	1.000	1.000	1.000	0.992	1.000	1.000	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	154	0	655	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	146	0	0	0	0	0	0	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	564	0	4	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	0	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	710	0	158	0	655	0	0	0
Conflicting flow, pcu/h	4	0	655	0	146	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	1371	NA	707	NA	1180	NA	NA	NA
Entry Flow Rates, vph	709	NA	158	NA	650	NA	NA	NA

V/C ratio	**0.52**		**0.22**		**0.55**			
Control Delay, sec/pcu	**8**		**8**		**9**			
LOS	A		A		A			
95th % Queue (ft)	**78**		**21**		**88**			

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

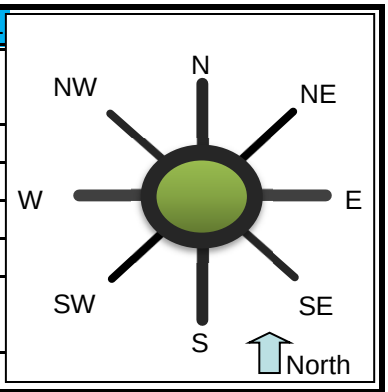
Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)						
Select Exit Leg for Bypass (TO)						
Does the bypass have a dedicated receiving lane?						
Volumes						
Right Turn Volume removed from Entry Leg						
Volume Characteristics (for entry leg)						
PHF						
F_{HV}						
F_{ped}						
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr						
Conflicting Flow, pcu/hr						
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph						
Flow Rates of Exiting Traffic, vph						
V/C ratio						
Control Delay, s/veh						
LOS						
95th % Queue (ft)						
Approach w/Bypass Delay, s/veh						
Approach w/Bypass LOS						

2039 Roundabout Analysis
Walkers Brook / I-95 NB Ramps

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/9/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2039 No-Build AM Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 NB Ramps



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph					**2**		**255**	
Exit	NE (2), vph								
Legs	E (3), vph							**478**	
(TO)	SE (4), vph								
	S (5), vph								
	SW (6), vph								
	W (7), vph			**432**		**234**			
	NW (8), vph								
Output	Total Vehicles	0	0	432	0	236	0	733	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100.0%	100.0%	96.4%	100.0%	94.9%	100.0%	97.5%	100.0%
% Heavy Vehicles			3.6%		5.1%		2.5%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.92*	*0.92*	*0.89*	*0.92*	*0.94*	*0.92*	*0.94*	*0.92*
F_{HV}	1.000	1.000	0.965	1.000	0.951	1.000	0.976	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	2	0	278	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	0	0	0	0	0	0	521	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	0	0	0	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	503	0	262	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	0	0	503	0	264	0	799	0
Conflicting flow, pcu/h	0	0	542	0	799	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	NA	NA	766	NA	581	NA	1346	NA
Entry Flow Rates, vph	NA	NA	485	NA	251	NA	780	NA

V/C ratio			**0.63**		**0.43**		**0.58**	
Control Delay, sec/pcu			**16**		**13**		**9**	
LOS			C		B		A	
95th % Queue (ft)			**119**		**57**		**100**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

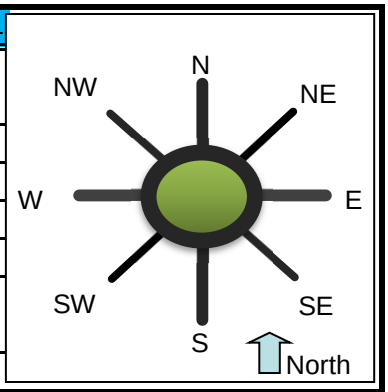
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**S (5)**	**E (3)**				
Select Exit Leg for Bypass (TO)	**E (3)**	**N (1)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**314**	**153**				
Volume Characteristics (for entry leg)						
PHF	0.94	0.89				
F_{HV}	0.95	0.97				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	351	178				
Conflicting Flow, pcu/hr	521	280				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	772	1001				
Flow Rates of Exiting Traffic, vph	334	172				
V/C ratio	**0.43**	**0.18**				
Control Delay, s/veh	**10.3**	**5.3**				
LOS	B	A				
95th % Queue (ft)	**58**	**17**				
Approach w/Bypass Delay, s/veh	***11.5***	***12.9***				
Approach w/Bypass LOS	*B*	*B*				

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/17/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2039 No-Build PM Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 NB Ramps



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph					**6**		**467**	
Exit	NE (2), vph								
Legs	E (3), vph							**608**	
(TO)	SE (4), vph								
	S (5), vph								
	SW (6), vph								
	W (7), vph			**784**		**218**			
	NW (8), vph								
Output	Total Vehicles	0	0	784	0	224	0	1075	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100.0%	100.0%	97.4%	100.0%	96.9%	100.0%	98.6%	100.0%
% Heavy Vehicles			2.6%		3.1%		1.4%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.92*	*0.92*	*0.89*	*0.92*	*0.81*	*0.92*	*0.95*	*0.92*
F_{HV}	1.000	1.000	0.975	1.000	0.970	1.000	0.986	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	8	0	498	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	0	0	0	0	0	0	649	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	0	0	0	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	904	0	277	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	0	0	904	0	285	0	1147	0
Conflicting flow, pcu/h	0	0	784	0	1147	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	NA	NA	605	NA	415	NA	1361	NA
Entry Flow Rates, vph	NA	NA	881	NA	277	NA	1132	NA

V/C ratio			**1.46**		**0.67**		**0.83**	
Control Delay, sec/pcu			**234**		**28**		**18**	
LOS			F		D		C	
95th % Queue (ft)			**1085**		**121**		**273**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

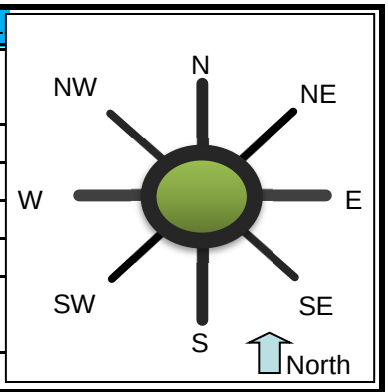
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**S (5)**	**E (3)**				
Select Exit Leg for Bypass (TO)	**E (3)**	**N (1)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**297**	**217**				
Volume Characteristics (for entry leg)						
PHF	0.81	0.89				
F_{HV}	0.97	0.97				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	378	250				
Conflicting Flow, pcu/hr	649	506				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	690	803				
Flow Rates of Exiting Traffic, vph	367	244				
V/C ratio	**0.53**	**0.31**				
Control Delay, s/veh	**13.6**	**8.1**				
LOS	B	A				
95th % Queue (ft)	**81**	**34**				
Approach w/Bypass Delay, s/veh	***19.6***	***184.9***				
Approach w/Bypass LOS	*C*	*F*				

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/17/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2039 No-Build SAT Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 NB Ramps



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph					**2**		**422**	
Exit	NE (2), vph								
Legs	E (3), vph							**537**	
(TO)	SE (4), vph								
	S (5), vph								
	SW (6), vph								
	W (7), vph			**793**		**318**			
	NW (8), vph								
Output	Total Vehicles	0	0	793	0	320	0	959	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	100.0%	100.0%	98.6%	100.0%	98.9%	100.0%	99.1%	100.0%
% Heavy Vehicles			1.4%		1.1%		0.9%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.97*	*0.96*	*0.93*	*0.96*	*0.96*	*0.96*	*0.96*	*0.96*
F_{HV}	1.000	1.000	0.986	1.000	0.989	1.000	0.991	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	2	0	444	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	0	0	0	0	0	0	564	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	0	0	0	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	865	0	334	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	0	0	865	0	336	0	1008	0
Conflicting flow, pcu/h	0	0	780	0	1008	0	0	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	NA	NA	614	NA	488	NA	1368	NA
Entry Flow Rates, vph	NA	NA	853	NA	333	NA	999	NA

V/C ratio			**1.39**		**0.68**		**0.73**	
Control Delay, sec/pcu			**204**		**25**		**13**	
LOS			F		D		B	
95th % Queue (ft)			**968**		**129**		**178**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

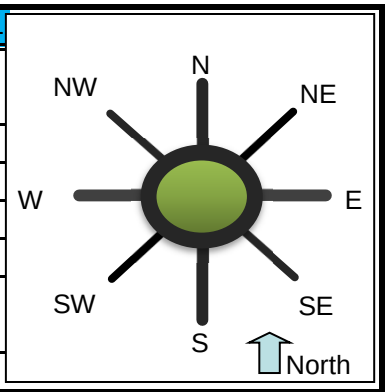
Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**S (5)**	**E (3)**				
Select Exit Leg for Bypass (TO)	**E (3)**	**N (1)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**256**	**190**				
Volume Characteristics (for entry leg)						
PHF	0.96	0.93				
F_{HV}	0.99	0.99				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	269	207				
Conflicting Flow, pcu/hr	564	446				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	768	864				
Flow Rates of Exiting Traffic, vph	266	204				
V/C ratio	**0.35**	**0.24**				
Control Delay, s/veh	**8.9**	**6.7**				
LOS	A	A				
95th % Queue (ft)	**39**	**24**				
Approach w/Bypass Delay, s/veh	***17.9***	***166.2***				
Approach w/Bypass LOS	*C*	*F*				

2039 Roundabout Analysis
Walkers Brook / I-95 SB Ramps

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/9/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2039 No-Build AM Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 SB Ramps



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph								
Exit	NE (2), vph								
Legs	E (3), vph	143						573	
(TO)	SE (4), vph								
	S (5), vph	48		141					
	SW (6), vph								
	W (7), vph			527					
	NW (8), vph								
Output	Total Vehicles	191	0	668	0	0	0	573	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	98.2%	100.0%	97.8%	100.0%	100.0%	100.0%	96.3%	100.0%
% Heavy Vehicles	1.8%		2.2%				3.7%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.91*	*0.96*	*0.96*	*0.96*	*0.96*	*0.96*	*0.87*	*0.96*
F_{HV}	0.982	1.000	0.978	1.000	1.000	1.000	0.964	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	0	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	160	0	0	0	0	0	683	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	54	0	150	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	561	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	214	0	711	0	0	0	683	0
Conflicting flow, pcu/h	711	0	0	0	0	0	364	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	656	NA	1350	NA	NA	NA	918	NA
Entry Flow Rates, vph	210	NA	696	NA	NA	NA	659	NA

V/C ratio	**0.32**		**0.52**				**0.72**	
Control Delay, sec/pcu	**10**		**8**				**17**	
LOS	A		A				C	
95th % Queue (ft)	**35**		**79**				**165**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

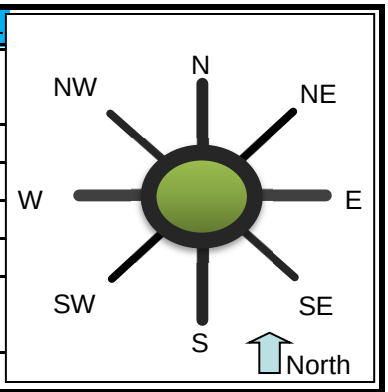
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**N (1)**	**W (7)**				
Select Exit Leg for Bypass (TO)	**W (7)**	**S (5)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**676**	**130**				
Volume Characteristics (for entry leg)						
PHF	0.91	0.87				
F_{HV}	0.98	0.96				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	756	155				
Conflicting Flow, pcu/hr	561	204				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	765	1081				
Flow Rates of Exiting Traffic, vph	743	149				
V/C ratio	**0.97**	**0.14**				
Control Delay, s/veh	**48.9**	**4.6**				
LOS	E	A				
95th % Queue (ft)	**391**	**13**				
Approach w/Bypass Delay, s/veh	***40.2***	***14.5***				
Approach w/Bypass LOS	*E*	*B*				

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/9/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2039 No-Build PM Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 SB Ramps



Volumes		Entry Legs (FROM)							
		N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
Exit Legs (TO)	N (1), vph								
	NE (2), vph								
	E (3), vph	**127**						**957**	
	SE (4), vph								
	S (5), vph	**9**		**329**					
	SW (6), vph								
	W (7), vph			**675**					
	NW (8), vph								
Output	Total Vehicles	136	0	1004	0	0	0	957	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	98.6%	100.0%	98.5%	100.0%	100.0%	100.0%	98.6%	100.0%
% Heavy Vehicles	1.4%		1.5%				1.4%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.89*	*0.96*	*0.93*	*0.96*	*0.96*	*0.96*	*0.95*	*0.96*
F_{HV}	0.986	1.000	0.985	1.000	1.000	1.000	0.986	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	0	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	145	0	0	0	0	0	1021	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	10	0	359	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	737	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	155	0	1096	0	0	0	1021	0
Conflicting flow, pcu/h	1096	0	0	0	0	0	514	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	445	NA	1360	NA	NA	NA	806	NA
Entry Flow Rates, vph	153	NA	1080	NA	NA	NA	1007	NA

V/C ratio	**0.34**		**0.79**				**1.25**	
Control Delay, sec/pcu	**14**		**16**				**141**	
LOS	B		C				F	
95th % Queue (ft)	**38**		**233**				**907**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

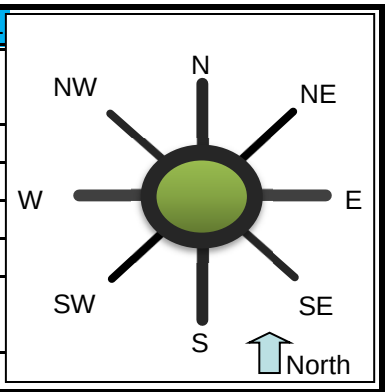
Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**W (7)**	**N (1)**				
Select Exit Leg for Bypass (TO)	**S (5)**	**W (7)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**368**	**430**				
Volume Characteristics (for entry leg)						
PHF	0.95	0.89				
F_{HV}	0.99	0.99				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	393	490				
Conflicting Flow, pcu/hr	369	737				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	934	642				
Flow Rates of Exiting Traffic, vph	387	483				
V/C ratio	**0.41**	**0.76**				
Control Delay, s/veh	**8.6**	**25.2**				
LOS	A	D				
95th % Queue (ft)	**52**	**179**				
Approach w/Bypass Delay, s/veh	***104.4***	***22.5***				
Approach w/Bypass LOS	*F*	*C*				

General & Site Information

v3.1

Analyst:	JG
Agency/Co:	Green International Affiliates, Inc.
Date:	10/9/2019
Project or PI#:	19057.00X
Year, Peak Hour:	2029 No-Build SAT Peak Hour
County/District:	Reading
Intersection Name:	Walkers Brook Dr / I-95 SB Ramps



Volumes

		Entry Legs (FROM) N (1)	NE (2)	E (3)	SE (4)	S (5)	SW (6)	W (7)	NW (8)
	N (1), vph								
Exit	NE (2), vph								
Legs	E (3), vph	134						826	
(TO)	SE (4), vph								
	S (5), vph	1		297					
	SW (6), vph								
	W (7), vph			809					
	NW (8), vph								
Output	Total Vehicles	135	0	1106	0	0	0	826	0

Volume Characteristics	N	NE	E	SE	S	SW	W	NW
% Cars	99.6%	100.0%	98.6%	100.0%	100.0%	100.0%	99.2%	100.0%
% Heavy Vehicles	0.4%		1.4%				0.8%	
% Bicycle								
# of Pedestrians **(ped/hr)**								
PHF	*0.97*	*0.96*	*0.96*	*0.96*	*0.96*	*0.96*	*0.95*	*0.96*
F_{HV}	0.996	1.000	0.986	1.000	1.000	1.000	0.992	1.000
F_{ped}	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Entry/Conflicting Flows	N	NE	E	SE	S	SW	W	NW
Flow to Leg # N (1), pcu/h	0	0	0	0	0	0	0	0
NE (2), pcu/h	0	0	0	0	0	0	0	0
E (3), pcu/h	139	0	0	0	0	0	876	0
SE (4), pcu/h	0	0	0	0	0	0	0	0
S (5), pcu/h	1	0	314	0	0	0	0	0
SW (6), pcu/h	0	0	0	0	0	0	0	0
W (7), pcu/h	0	0	855	0	0	0	0	0
NW (8), pcu/h	0	0	0	0	0	0	0	0
Entry flow, pcu/h	140	0	1168	0	0	0	876	0
Conflicting flow, pcu/h	1168	0	0	0	0	0	453	0

Results: Approach Measures of Effectiveness

HCM 6th Edition	N	NE	E	SE	S	SW	W	NW
Entry Capacity, vph	417	NA	1361	NA	NA	NA	862	NA
Entry Flow Rates, vph	139	NA	1152	NA	NA	NA	869	NA

V/C ratio	**0.33**		**0.85**				**1.01**	
Control Delay, sec/pcu	**15**		**19**				**55**	
LOS	B		C				F	
95th % Queue (ft)	**36**		**291**				**467**	

Notes: v3.1

Unit Legend:
vph = vehicles per hour
PHF = peak hour factor
F_{HV} = heavy vehicle factor
pcu = passenger car unit

Bypass Lane Merge Point Analysis (if applicable)

Bypass Characteristics	**Bypass #1**	**Bypass #2**	**Bypass #3**	**Bypass #4**	**Bypass #5**	**Bypass #6**
Select Entry Leg from Bypass (FROM)	**W (7)**	**N (1)**				
Select Exit Leg for Bypass (TO)	**S (5)**	**W (7)**				
Does the bypass have a dedicated receiving lane?	**No**	**No**				
Volumes						
Right Turn Volume removed from Entry Leg	**405**	**541**				
Volume Characteristics (for entry leg)						
PHF	0.95	0.97				
F_{HV}	0.99	1.00				
F_{ped}	1.00	1.00				
NOTE: Volume Characteristics for Exit Leg are already taken into account						
Entry/Conflicting Flows						
Entry Flow, pcu/hr	430	560				
Conflicting Flow, pcu/hr	315	855				
Bypass Lane Results (HCM 6th Edition)						
Entry Capacity of Bypass, vph	993	575				
Flow Rates of Exiting Traffic, vph	426	558				
V/C ratio	**0.43**	**0.97**				
Control Delay, s/veh	**8.5**	**58.0**				
LOS	A	F				
95th % Queue (ft)	**55**	**341**				
Approach w/Bypass Delay, s/veh	***39.5***	***49.3***				
Approach w/Bypass LOS	*E*	*E*				