

MEMORANDUM

To: Andreas Wolfe, AICP

From: Erin Fredette, P.E.

Date: October 12, 2023 rev. May 13, 2024

RE: Traffic Analysis and Design
Mount Auburn Street at Aberdeen Avenue & Homer Street
Cambridge, MA

McMahon, a Bowman company (Bowman) has completed an assessment for the proposed multimodal accommodations to be installed along Mount Auburn Street between Aberdeen Avenue and Homer Avenue. The following memorandum reviews the traffic operations at the signalized intersections of Mount Auburn Street at Aberdeen Avenue and Mount Auburn Street at Homer Avenue under both existing conditions and proposed conditions as coordinated with the City of Cambridge Traffic, Parking, and Transportation Department. The multimodal improvements include improvements to roadway geometries, signal timings, and signal equipment. The resulting design for the study area intersections and roadways has been submitted to the City of Cambridge in a 100% submittal package of the Aberdeen Signal Improvements plan set dated October 2023.

Existing Conditions

For the purposes of developing traffic signal timing and phasing to support the proposed two-way bike facility on Mount Auburn Street, the project study area included the following intersections for evaluation:

- Mount Auburn Street at Aberdeen Avenue
- Mount Auburn Street at Homer Avenue
- Mount Auburn Street at Star Market Driveway

The inclusion of the Star Market driveway in the study area is necessary to quantify and analyze the volume of traffic shifting from the existing driveway to the Homer Avenue intersection as described in the sections below. An assessment of the potential traffic impacts associated with the proposed multimodal project requires an understanding of the existing traffic conditions within the project study area. The existing conditions assessment consisted of an inventory of intersection and roadway geometries, of traffic control devices, and of peak period user volumes.

Roadway Network

Mount Auburn Street is classified as an urban principal arterial under City of Cambridge jurisdiction, providing access to various commercial and residential land uses. Mount Auburn Street generally runs in the east-west direction and provides two travel lanes in each direction, with sidewalks on both sides of the roadway. A bicycle lane or shared bicycle pavement markings are typically provided on the north side of Mount Auburn Street while shared bicycle pavement markings are typically provided on the south side of the roadway. The right most travel lane for Mount Auburn Street eastbound at the western limit of the project is currently a dedicated bus and bike lane, which becomes a standard vehicle travel lane prior to the intersection of Mount Auburn Street at Homer Avenue.

Aberdeen Avenue is classified as an urban principal arterial under City of Cambridge jurisdiction. Aberdeen Avenue is approximately a quarter of a mile in length and runs in the north-south direction from its northern terminus at Huron Avenue to its southern terminus at Mount Auburn Street. Aberdeen Avenue generally provides one travel lane in each direction, with a bicycle lane, sidewalks, and parallel street parking on both sides of the roadway. The Aberdeen Avenue northbound and southbound directions of travel are divided via a raised and planted median. Aberdeen Avenue primarily provides access to residential land uses.

Homer Avenue is an approximately 650 foot dead-end roadway that runs in the north-south direction between Mount Auburn Street and its northern terminus. Homer Avenue is classified as a local roadway under City of Cambridge jurisdiction. Homer Avenue allows for travel in both directions, but does not have a marked centerline north of the intersection with Mount Auburn Street. Parallel parking is allowed on the western side of Homer Avenue and sidewalks are provided on both sides of the roadway. Homer Avenue provides access to residential and commercial properties, including Star Market.

Public Transportation

The Massachusetts Bay Transportation Authority (MBTA) provides public transportation along Mount Auburn Street via Bus Routes 71 and 73. Bus Routes 71 and 73 provide bus stops at the intersection of Mount Auburn Street at Brattle Street and at the intersection of Mount Auburn Street at Homer Street. Bus Route 71 provides service between Harvard Square and Watertown Square, and bus route 73 provides service between Harvard Square and Waverly.

Bus Route 71 also provides service to a stop at the intersection of Mount Auburn Street at Aberdeen Avenue during weekday mornings only. Bus route 75, which provides service between Belmont Center and Harvard Square provides outbound service along Aberdeen Avenue at the stops located at the intersections of Aberdeen Avenue at Mount Auburn Street, Aberdeen Way, and Huron Avenue.

Intersection Configurations

The signalized intersection of Mount Auburn Street at Aberdeen Avenue is a three-leg intersection. The eastbound approach to the intersection includes one left-turn only lane and one through lane, while the westbound approach includes one through and shared through/right-turn lane. The southbound approach to the intersection includes a left-turn lane and a right-turn lane. Sidewalks are provided on both sides of Mount Auburn Street at Aberdeen Avenue, with crosswalks provided across Aberdeen Avenue and across the westbound approach of Mount Auburn Street. A bike lane is provided on the westbound and southbound approaches to the intersection, and shared bike lane markings are provided in the eastbound direction approaching the intersection.

The signalized intersection of Mount Auburn Street at Homer Avenue is a three-leg intersection. The eastbound approach consists of a through lane and a shared through/left-turn lane, while the westbound approach consists of a through lane and a shared through/right-turn lane. The southbound Homer Avenue approach provides one shared left/right-turn lane. Sidewalks are provided on both sides of both roadways, with a crosswalk provided across Homer Avenue and across the westbound approach of Mount Auburn Street. A shared bicycle lane marking is provided in the eastbound direction and a bike lane is provided in the westbound direction which continues through the intersection.

The intersection of Mount Auburn Street at the Star Market driveway west of Homer Avenue is unsignalized, with the southbound driveway movement under stop control. Currently the intersection is right-out only from the Star Market driveway, with both left-turn and right-turn entering movements allowed into the driveway from Mount Auburn Street.

Data Collection

To assess peak hour traffic conditions, manual turning movement counts (TMCs) were conducted at the study area intersections during the weekday morning and weekday afternoon peak traffic periods. TMCs were conducted at the intersection of Mount Auburn Street at Aberdeen Avenue on Wednesday, September 14, 2022 for the weekday morning period from 7:30 AM to 9:30 AM and for the weekday afternoon period from 4:30 PM to 6:30 PM. Counts at the intersections of Mount Auburn Street at Homer Avenue and Mount Auburn Street at the Star Market driveway were conducted on Tuesday, May 23, 2023 from 7:00 AM to 7:00 PM, as these locations were added to the study area later in the project development process. The four highest consecutive 15-minute periods during each of these count periods constitute the peak hours that are the basis of the traffic analysis provided in this memorandum.

Based on a review of the traffic data, the weekday morning peak hour at the intersection of Mount Auburn Street at Aberdeen Avenue occurred between 8:00 AM and 9:00 AM, while the weekday morning peak hour at Mount Auburn Street's intersections with Homer Avenue and the Star Market driveway occurred between 8:15 AM and 9:15 AM. The weekday afternoon peak hour at Mount Auburn Street's intersections with Aberdeen Avenue, Homer Avenue, and the Star Market Driveway all occurred between 5:00 PM and 6:00 PM. Because the traffic counts were conducted on different dates for different intersections, the individual peak hour traffic volumes were utilized for each intersection. The results of the TMCs are tabulated by 15-minute periods and are attached to this memorandum.

Proposed Improvements

Geometric Design

The proposed project as developed in coordination with the City of Cambridge Traffic, Parking, and Transportation Department would include the installation of a two-way separated bike facility on the north side of Mount Auburn Street, connecting to a two-way separated bike facility east of Aberdeen Avenue and extending to the east side of Homer Avenue. The project would also extend the existing eastbound bus-bike lane on Mount Auburn Street to Homer Avenue and install a ramp to connect eastbound bikes from the existing bus-bike lane on Mount Auburn Street to the proposed two-way separated bike facility on the north side of Mount Auburn Street. In order to accommodate these improvements, vehicle lane configurations would be adjusted and signal timings/phasing at the intersections of Mount Auburn Street at Aberdeen Avenue and Mount Auburn Street at Homer Avenue would be updated and coordinated.

As part of the multimodal geometry improvements, a two-way flexpost-protected bicycle lane would be installed on the north side of Mount Auburn Street between Brattle Street and Homer Avenue. The proposed two-way bicycle facility would connect to an existing two-way bicycle facility along Brattle Street that was recently installed in the summer of 2023. West of Homer Avenue, a one-way westbound bike lane would be maintained on the north side of Mount Auburn Street, while the eastbound bicycles would travel in a bus/bike-only lane on the south side of Mount Auburn Street, which would extend through the intersection with Homer Avenue. A signalized bicycle crossing would be provided across

Mount Auburn Street adjacent to the eastern crosswalk at the intersection of Mount Auburn Street at Homer Avenue, for eastbound bicycles to access the two-way bicycle facility.

At the intersection of Mount Auburn Street at Aberdeen Avenue, the westbound approach would be modified to include an exclusive right-turn lane and a through lane, and the eastbound approach would be modified to provide an exclusive left-turn lane and a through lane. The southbound Aberdeen Avenue approach is proposed to remain the same as the existing conditions as part of this phase of project development and may be modified in the future.

At the intersection of Mount Auburn Street at Homer Avenue, one exclusive left-turn lane and one through lane would be provided for vehicles with one exclusive bus/bike-only lane in the eastbound direction. The bus lane ends east of Homer Avenue and merges into the through vehicle lane approaching Aberdeen Avenue. Bus stops have been proposed to remain at existing bus stop locations. The bus lane extension at Homer Avenue is expected to improve the buses ability to travel through the signalized intersection and enter the bus stop in the eastbound direction. Eastbound cyclists looking to continue traveling eastbound via the two-way bicycle path on the north side of Mount Auburn Street would use a curb ramp to wait at sidewalk level on the south side of Mount Auburn Street for a bicycle phase to cross Mount Auburn Street and continue eastbound.

The original proposed project involved multimodal traffic signal improvements and geometry improvements at the intersection of Mount Auburn Street at Aberdeen Avenue. After the original scope was established, the intersection of Mount Auburn Street at Homer Avenue was added to the study area network. As part of the corridor modifications, left-turns into the Star Market Driveway from Mount Auburn Street eastbound would be prohibited, and all eastbound left-turns accessing Star Market would be routed to turn eastbound left at the signalized intersection of Mount Auburn Street at Homer Avenue. These changes in travel patterns are reflected in the capacity analyses provided below.

Signal Timing and Phasing Design

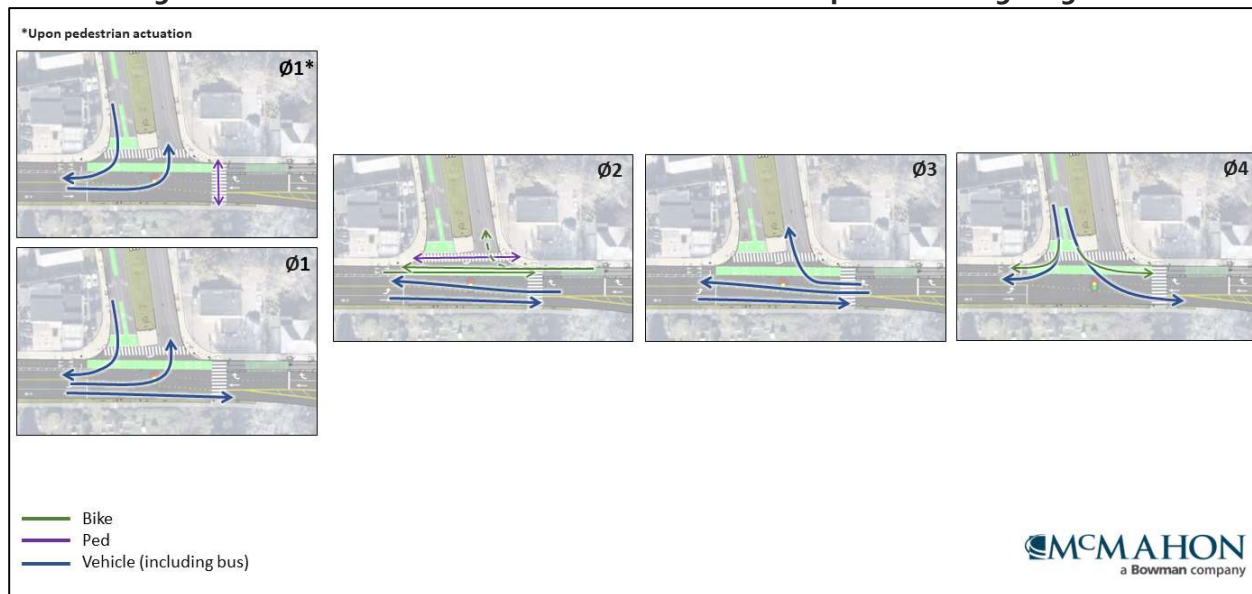
As part of the signal improvements at Homer Avenue and Aberdeen Avenue, the two signalized intersections in the study area network would be coordinated. The multimodal intersection improvements would also include installation of audible pedestrian signal push buttons and bicycle signals at both signalized intersections.

With the introduction of separated bike lanes and bicycle specific signals, additional phases are needed to minimize vehicle conflict with multimodal movements. Phasing improvements are also needed to accommodate changed lane configurations and mitigate traffic impacts due to the intersection reconfigurations.

At the intersection of Mount Auburn Street at Aberdeen Avenue, the previous phasing included concurrent westbound through/right and Aberdeen Avenue crosswalk phases. Under proposed conditions, with an exclusive right-turn lane and a two-way separated bicycle facility on the north side of Mount Auburn Street, right-turns will not run concurrently with pedestrians and bicycles and will instead operate on a separate phase in the cycle. Under proposed conditions, the Mount Auburn Street crosswalk would continue to run concurrently with the eastbound left exclusive movement, as an actuated phase — if no pedestrian calls the pedestrian phase, eastbound through vehicles will be allowed to proceed with eastbound left vehicles. The proposed phasing is shown below in Figure 1. It should be noted that under the proposed phasing plan, the westbound right-turn phase at this intersection would run following the

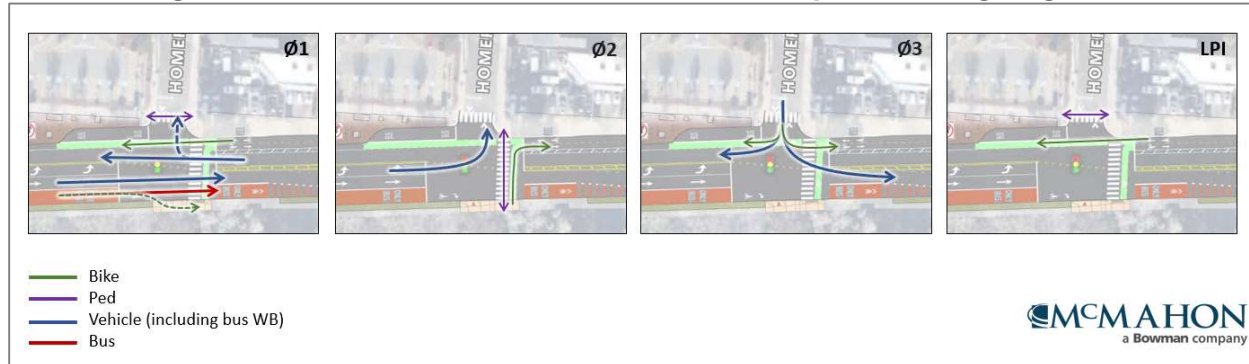
westbound bicycle and Aberdeen Avenue crosswalk phase. Previous iterations of the capacity analysis included the westbound right-turn phase prior to the crosswalk phase.

Figure 1: Mount Auburn Street at Aberdeen Avenue Proposed Phasing Diagram



At the intersection of Mount Auburn Street at Homer Avenue, the current phasing includes a pedestrian phase for the Homer Avenue crosswalk which runs concurrently with the Mount Auburn Street through movements and permissive eastbound left-turns and westbound right-turns yielding to pedestrians. The existing phasing also includes a pedestrian-actuated exclusive pedestrian phase, allowing for pedestrians to cross both Homer Avenue and Mount Auburn Street. Under proposed conditions, right-turning vehicles would continue to yield to the Homer Avenue crosswalk, but left-turning vehicles would have a separate protected phase, which would run concurrently with the Mount Auburn Street crosswalk. The protected phase is necessary to avoid requiring vehicles to cross flows of oncoming vehicles, bicycles, and pedestrians simultaneously. Additionally, this exclusive left-turn phase would help accommodate rerouted left-turn traffic which would have previously turned left into the Star Market driveway west of Homer Avenue. Bicycles traveling eastbound on Mount Auburn Street would be able to cross from the one-way bicycle lane on the south side of Mount Auburn Street to the two-way bicycle path on the north side of Mount Auburn Street during the Mount Auburn Street crosswalk pedestrian phase. A leading pedestrian/bike interval (LPI) would also be included for westbound bikes and pedestrians crossing Homer Avenue, to better establish their presence within the intersection prior to the release of westbound right-turning vehicles. An exclusive pedestrian phase was considered for the intersection of Mount Auburn Street at Homer Avenue, but the intersection operations with exclusive phasing in place were not deemed to be not acceptable. The proposed phasing diagram for the intersection of Mount Auburn Street at Homer Avenue is shown below in Figure 2.

Figure 2: Mount Auburn Street at Homer Avenue Proposed Phasing Diagram



Capacity Analysis Results

Intersection capacity analysis was conducted using the Synchro intersection capacity analysis software under the Existing and Proposed conditions outlined above. The unsignalized intersection of Mount Auburn Street at the Star Market driveway was not included in the capacity analysis. The analysis is based on Synchro capacity analysis methodologies as well as procedures contained in the *Highway Capacity Manual, 6th Edition* (HCM). Average total vehicle delay is reported as level-of-service (LOS) on a scale of A to F. LOS A represents delays of 10 seconds or less and LOS F represents delays in excess of 80 seconds for signalized intersections.

The Synchro capacity analysis results for the Existing and Proposed conditions are provided in the attachments. A summary of the results of the capacity analyses for the signalized intersections are presented in Table 1 and

Intersection	Movement	2022 Existing						2023 Proposed					
		LOS ¹	Delay ²	V/C ³	50th Q ⁴	95th Q ⁵		LOS	Delay	V/C	50th Q	95th Q	
Mount Auburn Street at Aberdeen Avenue	EB L	D	49.1	0.62	106	177		E	66.2	0.78	119	141	
	T	B	18.0	0.69	224	736		A	9.8	0.69	63	639	
	WB TR/T	C	20.4	0.53	177	230		C	23.6	0.68	273	393	
	R	n/a	n/a	n/a	n/a	n/a		E	73.3	0.85	117	228	
	SB L	F	108.5	1.03	166	265		E	70.9	0.87	152	230	
	R	C	25.4	0.40	99	141		C	25.8	0.39	99	141	
	Overall	C	32.0	0.62				C	31.6	0.66			
Mount Auburn Street at Homer Avenue	EB L	n/a	n/a	n/a	n/a	n/a		D	38.4	0.26	42	85	
	T/LT	B	13.4	0.49	181	232		C	31.8	0.87	485	774	
	WB TR	C	22.4	0.52	188	246		B	15.3	0.74	194	285	
	SB LR	C	29.1	0.28	27	45		D	44.6	0.53	30	50	
	Overall	B	17.9	0.65				C	25.7	0.64			

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

4 50th percentile queue length in feet

5 95th percentile queue length in feet

n/a Not applicable

Table 2 below for the weekday morning and weekday afternoon peak hours, respectively.

Table 1: Weekday Morning Signalized Capacity Analysis Results

Intersection	Movement	2022 Existing						2023 Proposed				
		LOS ¹	Delay ²	V/C ³	50th Q ⁴	95th Q ⁵		LOS	Delay	V/C	50th Q	95th Q
Mount Auburn Street at Aberdeen Avenue	EB L	D	49.1	0.62	106	177		E	66.2	0.78	119	141
	T	B	18.0	0.69	224	736		A	9.8	0.69	63	639
	WB TR/T	C	20.4	0.53	177	230		C	23.6	0.68	273	393
	R	n/a	n/a	n/a	n/a	n/a		E	73.3	0.85	117	228
	SB L	F	108.5	1.03	166	265		E	70.9	0.87	152	230
	R	C	25.4	0.40	99	141		C	25.8	0.39	99	141
	<i>Overall</i>	<i>C</i>	<i>32.0</i>	<i>0.62</i>				<i>C</i>	<i>31.6</i>	<i>0.66</i>		
Mount Auburn Street at Homer Avenue	EB L	n/a	n/a	n/a	n/a	n/a		D	38.4	0.26	42	85
	T/LT	B	13.4	0.49	181	232		C	31.8	0.87	485	774
	WB TR	C	22.4	0.52	188	246		B	15.3	0.74	194	285
	SB LR	C	29.1	0.28	27	45		D	44.6	0.53	30	50
	<i>Overall</i>	<i>B</i>	<i>17.9</i>	<i>0.65</i>				<i>C</i>	<i>25.7</i>	<i>0.64</i>		

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

4 50th percentile queue length in feet

5 95th percentile queue length in feet

n/a Not applicable

Table 2: Weekday Afternoon Signalized Capacity Analysis Results

Intersection	Movement	2022 Existing						2023 Proposed				
		LOS ¹	Delay ²	V/C ³	50th Q ⁴	95th Q ⁵		LOS	Delay	V/C	50th Q	95th Q
Mount Auburn Street at Aberdeen Avenue	EB L	E	57.9	0.78	151	229		F	133.9	1.10	187	305
	T	B	15.4	0.69	196	587		A	6.5	0.67	62	149
	WB TR/T	C	29.0	0.87	387	496		D	41.5	0.85	458	694
	R	n/a	n/a	n/a	n/a	n/a		F	182.8	1.29	424	625
	SB L	F	139.0	1.08	123	255		F	86.7	0.88	115	239
	R	C	25.8	0.26	58	105		C	30.4	0.29	65	116
	<i>Overall</i>	<i>C</i>	<i>33.9</i>	<i>0.74</i>				<i>E</i>	<i>66.0</i>	<i>0.79</i>		
Mount Auburn Street at Homer Avenue	EB L	n/a	n/a	n/a	n/a	n/a		D	42.7	0.35	61	109
	T/LT	B	12.5	0.44	151	186		C	22.1	0.74	383	522
	WB TR	C	28.4	0.76	337	424		E	66.3	1.08	882	1144
	SB LR	C	33.5	0.40	52	99		E	58.7	0.71	61	122
	<i>Overall</i>	<i>C</i>	<i>22.4</i>	<i>0.55</i>				<i>D</i>	<i>48.7</i>	<i>0.85</i>		

1 Level-of-Service

2 Average vehicle delay in seconds

3 Volume to capacity ratio; intersection capacity utilization reported for overall

4 50th percentile queue length in feet

5 95th percentile queue length in feet

n/a Not applicable

As shown in Table 1, under proposed conditions the intersection of Mount Auburn Street at Aberdeen Avenue is projected to continue to operate at overall LOS C with a minor reduction in overall vehicle delay during the weekday morning peak hour. The intersection of Mount Auburn Street at Homer Avenue is projected to operate at overall LOS C, with approximately eight additional seconds of average vehicle delay.

During the weekday afternoon peak hour, the intersection of Mount Auburn Street at Aberdeen Avenue is projected to operate at overall LOS E with select movements operating at LOS F and over capacity. The intersection of Mount Auburn Street at Homer Avenue is projected to operate at overall LOS D. The vehicle operations at both intersections have been optimized to the extent practicable while providing improved pedestrian and bicycle facilities and crossings as proposed for the project.

Transit Operations

Buses traveling eastbound and westbound through on Mount Auburn Street at its intersection with Aberdeen Avenue would be traveling in the vehicle lane and would experience the same delay as through vehicles at this intersection. At the intersection of Mount Auburn Street at Homer Avenue, westbound buses would be traveling in the vehicle lane and would experience the same delay as passenger vehicles as indicated in the level-of-service summary tables above. These movements are shown to experience approximately the same or less average vehicle delay under the proposed condition. In the eastbound direction on Mount Auburn Street approaching Homer Avenue, the existing exclusive bus lane would be extended to travel through the signalized intersection of Mount Auburn Street at Homer Avenue to the existing bus stop east of Homer Avenue. As such, eastbound through bus delay at the intersection of Mount Auburn Street at Homer Avenue is anticipated to be reduced from what is currently experienced, where buses are traveling in the vehicle lane and experiencing the same delay as vehicles.

Pedestrian/Bicycle Operations

Pedestrian walk signals at the intersection of Mount Auburn Street at Aberdeen Avenue generally follow the same pattern as existing phasing, with concurrent pedestrian phases. However, under proposed conditions, the westbound right-turning vehicles would have an exclusive turning phase, and both bicycles and pedestrians would experience less conflict with turning vehicles across the Aberdeen Avenue crosswalk. At the intersection of Mount Auburn Street at Homer Avenue, the existing pedestrian phasing includes a concurrent pedestrian phase for crossing Homer Avenue, and an exclusive phase for pedestrians crossing Mount Auburn Street. The proposed phasing would have all concurrent pedestrian phases. With the separation of the eastbound left-turn movement from the concurrent Homer Avenue crossing phase, and the introduction of a pedestrian and bicycle leading interval, the conflict between bicycles, pedestrians, and vehicles under proposed conditions would be better managed for the concurrent crossing.

Cyclists traveling along Mount Auburn Street would overall experience less vehicle conflict under proposed conditions as a result of fewer permissive vehicle phases. Although there is a crossing transition from one-way bike lanes west of Homer Avenue to a two-way bicycle path east of Homer, the two-way bicycle path is anticipated to offer more continuous travel for users cycling to and from Brattle Street, where a new two-way bicycle path has been installed.



The resulting design for the study area intersections and roadways as described in this memo is depicted in the Aberdeen Signal Improvements plan set dated May 2024 which has been submitted as part of the PS&E Rev 1 Submittal Package. Please do not hesitate to contact me should you require any further information.

Attachments

Traffic Volume Counts

Capacity Analysis Worksheets

Attachments

Traffic Volume Counts

Client: Emil Gruber, EIT
 Project #: 1276_22_MM
 BTB #: Location 1
 Location: Cambridge, MA
 Street 1: Mt Auburn Street
 Street 2: Homer Ave
 Count Date: 5/23/2023
 Day of Week: Tuesday
 Weather: Clouds & Sun, 60°F

PASSENGER CARS & HEAVY VEHICLES COMBINED

Start Time	Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	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	6	0	0	0	5	168	0	0	0	74	3
7:15 AM	0	0	0	0	0	9	0	3	0	2	200	0	0	0	106	12
7:30 AM	0	0	0	0	0	11	0	3	0	3	223	0	0	0	123	6
7:45 AM	0	0	0	0	0	8	0	5	0	3	236	0	0	0	151	10
8:00 AM	0	0	0	0	0	4	0	6	0	2	207	0	0	0	132	5
8:15 AM	0	0	0	0	0	2	0	5	0	10	221	0	0	0	180	11
8:30 AM	0	0	0	0	0	8	0	2	0	2	236	0	0	0	168	11
8:45 AM	0	0	0	0	0	11	0	3	0	4	227	0	0	0	171	12
9:00 AM	0	0	0	0	0	9	0	10	0	13	217	0	0	0	142	14
9:15 AM	0	0	0	0	0	11	0	1	0	4	205	0	0	0	122	11
9:30 AM	0	0	0	0	0	12	0	7	0	6	193	0	1	0	150	9
9:45 AM	0	0	0	0	0	12	0	6	0	4	172	0	0	0	122	14
10:00 AM	0	0	0	0	0	14	0	10	0	12	177	0	0	0	121	12
10:15 AM	0	0	0	0	0	10	0	9	0	5	146	0	0	0	114	14
10:30 AM	0	0	0	0	0	17	0	6	0	6	134	0	0	0	127	13
10:45 AM	0	0	0	0	0	20	0	11	0	3	139	0	0	0	126	18
11:00 AM	0	0	0	0	0	10	0	6	0	8	141	0	0	0	119	12
11:15 AM	0	0	0	0	0	13	0	5	0	6	112	0	0	0	118	16
11:30 AM	0	0	0	0	0	16	0	13	0	8	116	0	0	0	128	12
11:45 AM	0	0	0	0	0	27	0	10	0	3	133	0	0	0	125	20
12:00 PM	0	0	0	0	0	23	0	13	0	4	133	0	0	0	160	10
12:15 PM	0	0	0	0	0	20	0	6	0	5	144	0	0	0	160	12
12:30 PM	0	0	0	0	0	19	0	7	1	8	138	0	0	0	118	11
12:45 PM	0	0	0	0	0	15	0	11	0	5	150	0	0	0	149	16
1:00 PM	0	0	0	0	0	18	0	6	0	6	134	0	0	0	125	11
1:15 PM	0	0	0	0	0	20	0	5	0	7	120	0	0	0	139	12
1:30 PM	0	0	0	0	0	15	0	7	0	4	132	0	0	0	143	10
1:45 PM	0	0	0	0	0	11	0	5	0	4	123	0	0	0	236	18
2:00 PM	0	0	0	0	0	30	0	4	0	3	118	0	0	0	187	15
2:15 PM	0	0	0	0	0	22	0	4	0	4	114	0	0	0	167	12
2:30 PM	0	0	0	0	0	17	0	2	0	2	128	0	0	0	167	15
2:45 PM	0	0	0	0	0	14	0	8	0	6	145	0	0	0	189	17
3:00 PM	0	0	0	0	0	26	0	8	0	3	126	0	0	0	208	9
3:15 PM	0	0	0	0	0	18	0	7	0	2	153	0	0	0	174	9
3:30 PM	0	0	0	0	0	20	0	12	0	8	150	0	0	0	212	13
3:45 PM	0	0	0	0	0	14	0	7	0	9	140	0	0	0	210	16
4:00 PM	0	0	0	0	0	11	0	10	0	2	141	0	0	0	200	16
4:15 PM	0	0	0	0	0	20	0	11	0	1	145	0	0	0	251	7
4:30 PM	0	0	0	0	0	14	0	13	0	4	157	0	0	0	253	16
4:45 PM	0	0	0	0	0	14	0	8	0	4	130	0	0	0	226	10
5:00 PM	0	0	0	0	0	16	0	8	0	8	174	0	0	0	283	6
5:15 PM	0	0	0	0	0	15	0	14	0	2	155	0	0	0	236	13
5:30 PM	0	0	0	0	0	19	0	11	0	8	199	0	0	0	269	11
5:45 PM	0	0	0	0	0	9	0	9	0	4	173	0	0	0	234	13
6:00 PM	0	0	0	0	0	16	0	6	0	4	152	0	0	0	222	8
6:15 PM	0	0	0	0	0	12	0	5	0	5	166	0	0	0	246	12
6:30 PM	0	0	0	0	0	11	0	7	0	6	132	0	0	0	196	7
6:45 PM	0	0	0	0	0	16	0	9	0	2	145	0	0	0	171	16

AM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
8:15 AM to 9:15 AM		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	30	0	20	0	29	901	0	0	0	661	48
PHF		0.00				0.66				0.98				0.93			
HV %		0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	5.0%	0.0%	3.4%	4.0%	0.0%	0.0%	0.0%	4.8%	0.0%

MID PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
12:00 PM to 1:00 PM		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	77	0	37	1	22	565	0	0	0	587	49
PHF		0.00				0.79				0.95				0.92			
HV %		0.0%	0.0%	0.0%	0.0%	0.0%	3.9%	0.0%	2.7%	0.0%	9.1%	5.1%	0.0%	0.0%	0.0%	5.1%	4.1%

PM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
5:00 PM to 6:00 PM		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	59	0	42	0	22	701	0	0	0	1022	43
PHF		0.00				0.84				0.87				0.92			
HV %		0.0%	0.0%	0.0%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%	0.0%	0.0%	1.4%	0.0%

Client: Emil Gruber, EIT
 Project #: 1276_22_MM
 BTM #: Location 1
 Location: Cambridge, MA
 Street 1: Mt Auburn Street
 Street 2: Homer Ave
 Count Date: 5/23/2023
 Day of Week: Tuesday
 Weather: Clouds & Sun, 60°F



HEAVY VEHICLES

Northbound					Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn 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	1	0	0	0	0	7	0	0	0	8	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	12	0	0	0	6	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	4	0
7:45 AM	0	0	0	0	0	0	0	1	0	1	8	0	0	0	5	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	5	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	8	0	0	0	9	0
8:45 AM	0	0	0	0	0	3	0	0	0	1	8	0	0	0	10	0
9:00 AM	0	0	0	0	0	1	0	1	0	0	7	0	0	0	8	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	14	0	0	0	4	0
9:30 AM	0	0	0	0	0	0	0	0	0	1	13	0	0	0	5	0
9:45 AM	0	0	0	0	0	1	0	0	0	0	5	0	0	0	7	1
10:00 AM	0	0	0	0	0	1	0	1	0	0	5	0	0	0	6	0
10:15 AM	0	0	0	0	0	1	0	0	0	0	9	0	0	0	3	1
10:30 AM	0	0	0	0	0	1	0	0	0	0	4	0	0	0	7	2
10:45 AM	0	0	0	0	0	2	0	0	0	0	6	0	0	0	7	0
11:00 AM	0	0	0	0	0	0	0	1	0	0	9	0	0	0	6	0
11:15 AM	0	0	0	0	0	1	0	0	0	0	5	0	0	0	6	1
11:30 AM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	5	0
11:45 AM	0	0	0	0	0	2	0	0	0	0	4	0	0	0	6	0
12:00 PM	0	0	0	0	0	0	0	1	0	1	6	0	0	0	7	0
12:15 PM	0	0	0	0	0	1	0	0	0	0	6	0	0	0	8	0
12:30 PM	0	0	0	0	0	2	0	0	0	0	9	0	0	0	7	1
12:45 PM	0	0	0	0	0	0	0	0	0	1	8	0	0	0	8	1
1:00 PM	0	0	0	0	0	2	0	0	0	0	4	0	0	0	4	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
2:00 PM	0	0	0	0	0	2	0	0	0	0	4	0	0	0	5	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	1
2:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	2
2:45 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	1
3:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0
3:45 PM	0	0	0	0	0	1	0	1	0	0	5	0	0	0	3	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0
4:45 PM	0	0	0	0	0	1	0	1	0	0	6	0	0	0	4	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	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	1	0	0	0	0	4	0	0	0	5	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	1
6:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0

AM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
8:45 AM to 9:45 AM		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	5	0	1	0	2	42	0	0	0	27	0
PHF		0.00				0.50				0.79				0.68			

MID PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
12:00 PM to 1:00 PM		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	2	29	0	0	0	30	2
PHF		0.00				0.50				0.86				0.89			

PM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
2:00 PM to 3:00 PM		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	0	0	0	0	20	0	0	0	16	4
PHF		0.00				0.25				0.56				0.63			

Client: Emil Gruber, EIT
 Project #: 1276_22_MM
 BTM #: Location 1
 Location: Cambridge, MA
 Street 1: Mt Auburn Street
 Street 2: Homer Ave
 Count Date: 5/23/2023
 Day of Week: Tuesday
 Weather: Clouds & Sun, 60°F

PEDESTRIANS & BICYCLES

Start Time	Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	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	5	0	2	0	0	0	2	0	2
7:15 AM	0	0	0	0	0	0	0	3	0	8	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	8	0	4	0	0	0	2	0	5
7:45 AM	0	0	0	0	0	0	0	9	0	8	0	1	0	2	1	4
8:00 AM	0	0	0	0	0	0	0	9	0	7	0	0	0	2	0	8
8:15 AM	0	0	0	0	0	0	0	11	0	9	0	0	0	1	0	8
8:30 AM	0	0	0	0	0	0	0	15	0	4	0	0	0	1	1	9
8:45 AM	0	0	0	0	1	0	0	14	0	11	0	0	0	1	2	4
9:00 AM	0	0	0	0	0	0	0	10	0	4	0	1	0	1	0	3
9:15 AM	0	0	0	0	1	0	0	17	0	9	0	0	0	4	0	8
9:30 AM	0	0	0	0	1	0	0	13	0	5	0	1	0	7	0	2
9:45 AM	0	0	0	0	0	0	0	14	0	3	0	0	0	1	0	9
10:00 AM	0	0	0	0	0	0	0	6	0	4	0	0	0	1	0	4
10:15 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	7
10:30 AM	0	0	0	0	0	0	0	13	0	2	0	0	0	1	0	4
10:45 AM	0	0	0	0	0	0	0	12	0	0	0	0	0	6	0	8
11:00 AM	0	0	0	0	0	0	1	6	0	0	0	1	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	13	0	1	0	0	0	2	0	3
11:30 AM	0	0	0	0	0	0	0	17	0	5	0	0	0	1	0	6
11:45 AM	0	0	0	0	0	0	0	15	0	2	0	0	0	0	0	4
12:00 PM	0	0	0	0	0	0	0	23	0	2	0	0	0	3	0	6
12:15 PM	0	0	0	0	0	0	0	22	0	2	0	0	0	3	0	8
12:30 PM	0	0	0	0	0	0	0	10	0	1	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	0	0	10	0	3	0	0	0	1	0	2
1:00 PM	0	0	0	0	0	0	0	22	0	4	0	1	0	1	0	2
1:15 PM	0	0	0	0	1	0	0	18	0	0	0	1	0	3	0	11
1:30 PM	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	3
1:45 PM	0	0	0	0	0	0	0	10	0	2	0	0	0	4	0	5
2:00 PM	0	0	0	0	0	0	0	10	0	0	0	0	0	1	0	7
2:15 PM	0	0	0	0	0	0	0	7	0	2	0	0	0	3	0	3
2:30 PM	0	0	0	0	0	0	0	16	0	0	0	0	0	3	0	4
2:45 PM	0	0	0	0	0	0	0	11	0	0	0	1	0	3	0	7
3:00 PM	0	0	0	0	0	0	0	10	0	1	0	3	0	4	1	3
3:15 PM	0	0	0	0	0	0	0	14	0	1	0	1	0	2	0	4
3:30 PM	0	0	0	0	0	0	0	13	0	1	0	1	0	5	0	2
3:45 PM	0	0	0	0	0	0	0	19	0	2	0	1	0	2	1	9
4:00 PM	0	0	0	0	0	0	0	16	0	0	0	2	0	6	2	3
4:15 PM	0	0	0	0	0	0	0	9	0	1	0	0	0	8	1	2
4:30 PM	0	0	0	0	0	0	0	7	0	1	0	0	0	7	1	4
4:45 PM	0	0	0	0	0	0	0	10	0	1	0	1	0	5	2	5
5:00 PM	0	0	0	0	0	0	0	14	0	0	0	1	0	4	0	7
5:15 PM	0	0	0	0	0	0	0	11	0	0	0	0	0	3	0	1
5:30 PM	0	0	0	0	1	0	0	13	0	4	0	0	0	9	0	1
5:45 PM	0	0	0	0	0	0	0	16	0	7	0	0	0	8	0	6
6:00 PM	0	0	0	0	0	0	0	16	0	2	0	0	0	17	0	10
6:15 PM	0	0	0	0	0	0	0	10	0	1	0	0	0	14	0	3
6:30 PM	0	0	0	0	0	0	0	8	0	2	0	0	0	4	0	5
6:45 PM	0	0	0	0	2	0	0	8	0	5	0	0	0	8	1	2

AM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
8:15 AM to 9:15 AM		Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
		0	0	0	0	1	0	0	50	0	28	0	1	0	4	3	24

MID PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
12:00 PM to 1:00 PM		Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
		0	0	0	0	0	0	0	65	0	8	0	0	0	7	0	20

PM PEAK HOUR		Northbound				Homer Ave Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
5:00 PM to 6:00 PM		Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
		0	0	0	0	1	0	0	54	0	11	0	1	0	24	0	15

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

Client: Emil Gruber, EIT
Project #: 1276_22_MM
BTD #: Location 2
Location: Cambridge, MA
Street 1: Mt Auburn Street
Street 2: Star Market driveway
Count Date: 5/23/2023
Day of Week: Tuesday
Weather: Clouds & Sun, 60°F

PASSENGER CARS & HEAVY VEHICLES COMBINED

Start Time	Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	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	3	0	5	173	0	0	0	72	2
7:15 AM	0	0	0	0	0	1	0	8	0	8	201	0	0	0	108	1
7:30 AM	0	0	0	0	0	1	0	8	0	8	225	0	0	0	124	2
7:45 AM	0	0	0	0	0	0	0	7	0	13	239	0	0	0	149	7
8:00 AM	0	0	0	0	0	0	0	10	0	6	209	0	0	0	135	3
8:15 AM	0	0	0	0	0	0	0	7	0	12	231	0	0	0	178	7
8:30 AM	0	0	0	0	0	0	0	12	0	9	238	0	0	0	167	3
8:45 AM	0	0	0	0	0	0	0	12	0	11	231	0	0	0	164	10
9:00 AM	0	0	0	0	0	0	0	13	0	14	230	0	0	0	141	11
9:15 AM	0	0	0	0	0	2	0	13	0	11	207	0	0	0	118	5
9:30 AM	0	0	0	0	0	2	0	15	0	14	197	0	0	0	148	9
9:45 AM	0	0	0	0	0	2	0	9	0	11	174	0	0	0	121	7
10:00 AM	0	0	0	0	0	1	0	10	0	12	188	0	0	0	122	9
10:15 AM	0	0	0	0	0	0	0	16	0	8	151	0	0	0	118	5
10:30 AM	0	0	0	0	0	0	0	15	0	10	140	0	0	0	126	7
10:45 AM	0	0	0	0	0	0	0	4	0	5	142	0	0	0	130	7
11:00 AM	0	0	0	0	0	2	0	17	0	19	147	0	0	0	118	7
11:15 AM	0	0	0	0	0	1	0	14	0	16	117	0	0	0	119	4
11:30 AM	0	0	0	0	0	1	0	17	0	23	123	0	0	0	137	4
11:45 AM	0	0	0	0	0	0	0	17	0	17	136	0	0	0	127	8
12:00 PM	0	0	0	0	0	3	0	22	0	13	134	0	0	0	160	13
12:15 PM	0	0	0	0	0	0	0	24	0	20	149	0	0	0	154	12
12:30 PM	0	0	0	0	0	0	0	19	0	17	147	0	0	0	117	8
12:45 PM	0	0	0	0	0	1	0	22	0	12	154	0	0	0	151	9
1:00 PM	0	0	0	0	0	0	0	30	0	29	140	0	0	0	120	11
1:15 PM	0	0	0	0	0	1	0	27	0	15	126	0	0	0	138	6
1:30 PM	0	0	0	0	0	1	0	22	0	14	135	0	0	0	141	9
1:45 PM	0	0	0	0	0	1	0	21	0	15	126	0	0	0	231	10
2:00 PM	0	0	0	0	0	0	0	18	0	11	121	0	0	0	182	9
2:15 PM	0	0	0	0	0	1	0	17	0	13	117	0	0	0	161	10
2:30 PM	0	0	0	0	0	1	0	17	0	19	129	0	0	0	159	10
2:45 PM	0	0	0	0	0	2	0	21	0	10	149	0	0	0	188	9
3:00 PM	0	0	0	0	0	1	0	19	0	5	128	0	0	0	208	8
3:15 PM	0	0	0	0	0	0	0	22	0	16	155	0	0	0	174	7
3:30 PM	0	0	0	0	0	0	0	17	0	16	158	0	0	0	216	8
3:45 PM	0	0	0	0	0	0	0	16	0	19	149	0	0	0	204	13
4:00 PM	0	0	0	0	0	0	0	27	0	12	143	0	0	0	198	12
4:15 PM	0	0	0	0	0	0	0	32	0	20	146	0	0	0	249	13
4:30 PM	0	0	0	0	0	1	0	22	0	19	160	0	0	0	257	9
4:45 PM	0	0	0	0	0	0	0	29	0	10	134	0	0	0	223	11
5:00 PM	0	0	0	0	0	0	0	21	0	13	182	0	0	0	285	6
5:15 PM	0	0	0	0	0	0	0	26	0	13	157	0	0	0	240	10
5:30 PM	0	0	0	0	0	0	0	21	0	18	207	0	0	0	268	12
5:45 PM	0	0	0	0	0	0	0	24	0	23	177	0	0	0	230	13
6:00 PM	0	0	0	0	0	0	0	24	0	29	156	0	0	0	220	8
6:15 PM	0	0	0	0	0	4	0	38	0	18	167	0	0	0	242	9
6:30 PM	0	0	0	0	0	0	0	23	0	20	138	0	0	0	192	11
6:45 PM	0	0	0	0	0	3	0	24	0	19	144	0	0	0	171	9

AM PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
8:15 AM to 9:15 AM		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	0	0	0	0	0	44	0	46	930	0	0	0	650	31
HV %		0.00				0.85				0.99				0.92			
		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	4.0%	0.0%	0.0%	0.0%	5.1%	0.0%

MID PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
1:00 PM to 2:00 PM		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	0	0	0	3	0	100	0	73	527	0	0	0	630	36
HV %		0.00				0.86				0.89				0.69			
		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%	0.0%	0.0%	2.5%	0.0%

PM PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
5:00 PM to 6:00 PM		U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right
PHF		0	0	0	0	0	0	0	92	0	67	723	0	0	0	1023	41
HV %		0.00				0.88				0.88				0.91			
		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%	1.5%	2.2%	0.0%	0.0%	0.0%	1.4%	0.0%

Client: Emil Gruber, EIT
 Project #: 1276_22_MM
 BTM #: Location 2
 Location: Cambridge, MA
 Street 1: Mt Auburn Street
 Street 2: Star Market driveway
 Count Date: 5/23/2023
 Day of Week: Tuesday
 Weather: Clouds & Sun, 60°F



HEAVY VEHICLES

Northbound					Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn 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	1	0	1	7	0	0	0	8	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	12	0	0	0	6	0
7:30 AM	0	0	0	0	0	0	0	1	0	1	9	0	0	0	4	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	6	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0
8:15 AM	0	0	0	0	0	0	0	0	0	2	13	0	0	0	5	0
8:30 AM	0	0	0	0	0	0	0	0	0	1	8	0	0	0	9	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	10	0
9:00 AM	0	0	0	0	0	0	0	0	0	1	7	0	0	0	9	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	14	0	0	0	4	0
9:30 AM	0	0	0	0	0	1	0	0	0	0	13	0	0	0	5	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	7	0
10:00 AM	0	0	0	0	0	0	0	0	0	1	5	0	0	0	6	1
10:15 AM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	3	0
10:30 AM	0	0	0	0	0	0	0	1	0	0	4	0	0	0	6	1
10:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	7	0
11:00 AM	0	0	0	0	0	1	0	0	0	2	8	0	0	0	6	1
11:15 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
11:45 AM	0	0	0	0	0	0	0	1	0	1	4	0	0	0	5	1
12:00 PM	0	0	0	0	0	0	0	0	0	2	7	0	0	0	7	1
12:15 PM	0	0	0	0	0	0	0	0	0	1	6	0	0	0	8	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	7	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	9	0	0	0	8	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	6	0
2:45 PM	0	0	0	0	0	1	0	0	0	0	8	0	0	0	1	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	7	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	3	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	6	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	4	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	3	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	4	0	0	0	5	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	5	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0

AM PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
8:15 AM to 9:15 AM		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	4	37	0	0	0	33	0
PHF		0.00				0.00				0.68				0.83			

MID PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
12:00 PM to 1:00 PM		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	3	31	0	0	0	30	1
PHF		0.00				0.00				0.94				0.97			

PM PEAK HOUR		Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
4:30 PM to 5:30 PM		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	1	0	0	19	0	0	0	18	0
PHF		0.00				0.25				0.79				0.75			

Client: Emil Gruber, EIT
 Project #: 1276_22_MM
 BTM #: Location 2
 Location: Cambridge, MA
 Street 1: Mt Auburn Street
 Street 2: Star Market driveway
 Count Date: 5/23/2023
 Day of Week: Tuesday
 Weather: Clouds & Sun, 60°F

PEDESTRIANS & BICYCLES

Start Time	Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	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	4	0	2	0	0	0	1	1	0
7:15 AM	0	0	0	0	0	0	0	3	0	8	0	0	0	1	0	0
7:30 AM	0	0	0	0	0	0	0	7	0	4	0	0	0	2	0	0
7:45 AM	0	0	0	0	0	0	0	8	0	8	0	0	0	2	0	0
8:00 AM	0	0	0	0	0	0	0	9	0	7	0	0	0	2	0	0
8:15 AM	0	0	0	0	0	0	0	12	0	9	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	14	0	4	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	12	0	11	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	11	0	4	0	0	0	1	0	0
9:15 AM	0	0	0	0	0	0	0	16	0	9	0	0	0	2	2	0
9:30 AM	0	0	0	0	0	0	0	11	0	5	0	0	0	6	1	0
9:45 AM	0	0	0	0	0	0	0	12	0	3	0	0	0	1	0	0
10:00 AM	0	0	0	0	0	0	0	7	0	4	0	0	0	1	0	0
10:15 AM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	11	0	2	0	0	0	0	1	1
10:45 AM	0	0	0	0	0	0	0	12	0	0	0	0	0	5	1	0
11:00 AM	0	0	0	0	0	0	0	7	0	0	0	0	0	1	0	0
11:15 AM	0	0	0	0	0	0	0	12	0	1	0	0	0	2	0	0
11:30 AM	0	0	0	0	0	0	0	15	0	5	0	0	0	1	0	0
11:45 AM	0	0	0	0	0	0	0	16	0	2	0	0	0	0	0	1
12:00 PM	0	0	0	0	0	0	0	20	0	2	0	0	0	2	1	0
12:15 PM	0	0	0	0	0	0	0	21	0	2	0	0	0	3	0	0
12:30 PM	0	0	0	0	0	0	0	12	0	1	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	11	0	3	0	0	0	1	0	0
1:00 PM	0	0	0	0	0	0	0	20	1	4	0	0	0	1	0	0
1:15 PM	0	0	0	0	0	0	0	18	0	0	0	0	0	3	0	0
1:30 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	11	0	2	0	0	0	3	1	0
2:00 PM	0	0	0	0	0	0	0	8	0	0	0	0	0	1	0	0
2:15 PM	0	0	0	0	0	0	0	9	0	2	0	0	0	3	0	0
2:30 PM	0	0	0	0	0	0	0	14	0	0	0	1	0	3	0	0
2:45 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	3	0	0
3:00 PM	0	0	0	0	0	0	0	10	0	1	0	0	0	4	0	0
3:15 PM	0	0	0	0	0	0	0	12	0	1	0	0	0	2	0	0
3:30 PM	0	0	0	0	0	0	0	11	0	1	0	0	0	4	1	0
3:45 PM	0	0	0	0	0	0	0	17	0	2	0	0	0	2	0	0
4:00 PM	0	0	0	0	0	0	0	16	0	0	0	0	0	6	0	0
4:15 PM	0	0	0	0	0	0	0	10	0	1	0	0	0	8	0	0
4:30 PM	0	0	0	0	0	0	0	8	0	1	0	0	0	7	0	0
4:45 PM	0	0	0	0	0	0	0	9	0	1	0	0	0	4	1	0
5:00 PM	0	0	0	0	0	0	0	12	0	0	0	0	0	4	0	0
5:15 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	3	0	0
5:30 PM	0	0	0	0	0	0	0	10	0	4	0	0	0	8	1	0
5:45 PM	0	0	0	0	0	0	0	15	0	7	0	0	0	7	1	0
6:00 PM	0	0	0	0	0	0	0	13	1	2	0	0	0	16	1	0
6:15 PM	0	0	0	0	0	0	0	7	0	1	0	0	0	14	0	0
6:30 PM	0	0	0	0	0	0	0	8	0	2	0	0	0	3	1	0
6:45 PM	0	0	0	0	0	0	0	7	0	5	0	0	0	8	0	0

AM PEAK HOUR 8:15 AM to 9:15 AM	Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	49	0	28	0	0	0	4	0	0

MID PEAK HOUR 1:00 PM to 2:00 PM	Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	57	1	6	0	0	0	7	1	0

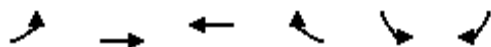
PM PEAK HOUR 5:00 PM to 6:00 PM	Northbound				Star Market driveway Southbound				Mt Auburn Street Eastbound				Mt Auburn Street Westbound			
	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED	Left	Thru	Right	PED
	0	0	0	0	0	0	0	50	0	11	0	0	0	22	2	0

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

Existing Capacity Analysis Worksheets

Aberdeen at Mount Auburn Redesign
2: Mount Auburn Street & Aberdeen Ave

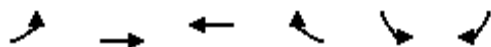
Weekday Morning Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø13
Lane Configurations								
Traffic Volume (vph)	163	742	522	167	195	172		
Future Volume (vph)	163	742	522	167	195	172		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	10	11	12	9	9		
Grade (%)		0%	0%		0%			
Storage Length (ft)	0			0	0	0		
Storage Lanes	1			0	1	1		
Taper Length (ft)	25				25			
Satd. Flow (prot)	1678	1705	3100	0	1593	1425		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1678	1705	3100	0	1593	1425		
Right Turn on Red				No		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	30		30			
Link Distance (ft)		581	166		970			
Travel Time (s)		13.2	3.8		22.0			
Confl. Peds. (#/hr)				38				
Confl. Bikes (#/hr)				9				
Peak Hour Factor	0.92	0.92	0.89	0.89	0.80	0.80		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	4%	4%	7%	4%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)		0%	0%		0%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	177	807	775	0	244	215		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	9	6	2		3	3 9	1	13
Permitted Phases								
Detector Phase	9	6	2		3	3 9		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0		1.0	1.0
Minimum Split (s)	11.0	22.5	38.0		11.0		3.0	23.0
Total Split (s)	23.0	56.0	53.0		21.0		3.0	23.0
Total Split (%)	23.0%	56.0%	53.0%		21.0%		3%	23%
Yellow Time (s)	3.0	3.0	3.0		3.0		2.0	3.0
All-Red Time (s)	3.0	3.0	3.0		3.0		0.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.0	6.0	6.0		6.0			
Lead/Lag	Lead						Lag	
Lead-Lag Optimize?	Yes						Yes	
Recall Mode	Max	Max	Max		Max		Max	None
Act Effect Green (s)	17.0	68.4	47.0		15.0	38.0		
Actuated g/C Ratio	0.17	0.68	0.47		0.15	0.38		
v/c Ratio	0.62	0.69	0.53		1.03	0.40		
Control Delay	49.1	16.3	20.4		108.5	25.4		
Queue Delay	0.0	1.7	0.0		0.0	0.0		
Total Delay	49.1	18.0	20.4		108.5	25.4		

Aberdeen at Mount Auburn Redesign
2: Mount Auburn Street & Aberdeen Ave

Weekday Morning Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø13
LOS	D	B	C		F	C		
Approach Delay		23.6	20.4		69.6			
Approach LOS		C	C		E			
Queue Length 50th (ft)	106	224	177		~166	99		
Queue Length 95th (ft)	177	#736	230		#265	141		
Internal Link Dist (ft)		501	86		890			
Turn Bay Length (ft)								
Base Capacity (vph)	285	1166	1457		238	541		
Starvation Cap Reductn	0	202	0		0	0		
Spillback Cap Reductn	0	0	0		0	0		
Storage Cap Reductn	0	0	0		0	0		
Reduced v/c Ratio	0.62	0.84	0.53		1.03	0.40		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 32.0

Intersection LOS: C

Intersection Capacity Utilization 61.5%

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.

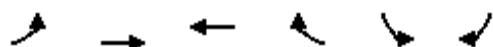
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mount Auburn Street & Aberdeen Ave

Ø9	Ø2	Ø3
23 s	53 s	21 s
Ø13	Ø6	
23 s	56 s	

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

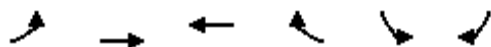
Weekday Morning Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations		↑↑	↑↑		↑↑		
Traffic Volume (vph)	29	901	661	48	30	20	
Future Volume (vph)	29	901	661	48	30	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	
Grade (%)		0%	0%		0%		
Storage Length (ft)	0			0	0	0	
Storage Lanes	0			0	1	0	
Taper Length (ft)	25				25		
Satd. Flow (prot)	0	3465	3394	0	1556	0	
Flt Permitted		0.922			0.971		
Satd. Flow (perm)	0	3201	3394	0	1556	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			9		28		
Link Speed (mph)		30	30		30		
Link Distance (ft)		163	581		388		
Travel Time (s)		3.7	13.2		8.8		
Confl. Peds. (#/hr)				50			
Confl. Bikes (#/hr)				4			
Peak Hour Factor	0.98	0.98	0.93	0.93	0.66	0.66	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	3%	4%	5%	0%	17%	5%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)		0%	0%		0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	949	763	0	75	0	
Turn Type	pm+pt	NA	NA		Prot		
Protected Phases	5	1	6		4		3
Permitted Phases	1						
Detector Phase	5	1	6		4		
Switch Phase							
Minimum Initial (s)	12.0	41.0	41.0		15.0		7.0
Minimum Split (s)	15.0	60.0	45.0		19.0		21.0
Total Split (s)	15.0	60.0	45.0		19.0		21.0
Total Split (%)	15.0%	60.0%	45.0%		19.0%		21%
Yellow Time (s)	3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	0.0	1.0	1.0		1.0		1.0
Lost Time Adjust (s)		0.0	0.0		0.0		
Total Lost Time (s)		4.0	4.0		4.0		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	Min	Min	Min		Min		None
Act Effct Green (s)		56.5	41.4		15.1		
Actuated g/C Ratio		0.59	0.43		0.16		
v/c Ratio		0.49	0.52		0.28		
Control Delay		13.4	22.4		29.1		
Queue Delay		0.0	0.0		0.0		
Total Delay		13.4	22.4		29.1		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Morning Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
LOS		B	C		C		
Approach Delay		13.4	22.4		29.1		
Approach LOS		B	C		C		
Queue Length 50th (ft)		181	188		27		
Queue Length 95th (ft)		232	246		45		
Internal Link Dist (ft)		83	501		308		
Turn Bay Length (ft)							
Base Capacity (vph)		1918	1470		269		
Starvation Cap Reductn		0	0		0		
Spillback Cap Reductn		0	0		0		
Storage Cap Reductn		0	0		0		
Reduced v/c Ratio		0.49	0.52		0.28		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 95.8

Natural Cycle: 100

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 0.52

Intersection Signal Delay: 17.9

Intersection LOS: B

Intersection Capacity Utilization 65.1%

ICU Level of Service C

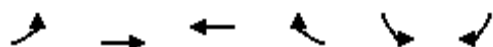
Analysis Period (min) 15

Splits and Phases: 7: Mount Auburn Street & Homer Ave

 Ø1	 Ø3	 Ø4
60 s	21 s	19 s
 Ø5	 Ø6	
15 s	45 s	

Aberdeen at Mount Auburn Redesign
2: Mount Auburn Street & Aberdeen Ave

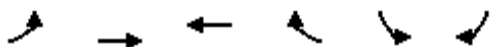
Weekday Afternoon Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø13
Lane Configurations								
Traffic Volume (vph)	202	714	826	464	162	119		
Future Volume (vph)	202	714	826	464	162	119		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	10	11	12	9	9		
Grade (%)		0%	0%		0%			
Storage Length (ft)	0			0	0	0		
Storage Lanes	1			0	1	1		
Taper Length (ft)	25				25			
Satd. Flow (prot)	1745	1722	3100	0	1593	1425		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1745	1722	3100	0	1593	1425		
Right Turn on Red				No		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	30		30			
Link Distance (ft)		581	166		970			
Travel Time (s)		13.2	3.8		22.0			
Confl. Peds. (#/hr)				33				
Confl. Bikes (#/hr)				57				
Peak Hour Factor	0.82	0.82	0.94	0.94	0.94	0.94		
Growth Factor	100%	100%	100%	100%	100%	100%		
Heavy Vehicles (%)	0%	3%	3%	1%	2%	2%		
Bus Blockages (#/hr)	0	0	0	0	0	0		
Parking (#/hr)								
Mid-Block Traffic (%)		0%	0%		0%			
Shared Lane Traffic (%)								
Lane Group Flow (vph)	246	871	1373	0	172	127		
Turn Type	Prot	NA	NA		Prot	pt+ov		
Protected Phases	9	6	2		3	3 9	1	13
Permitted Phases								
Detector Phase	9	6	2		3	3 9		
Switch Phase								
Minimum Initial (s)	5.0	5.0	5.0		5.0		1.0	1.0
Minimum Split (s)	11.0	22.5	38.0		11.0		3.0	24.0
Total Split (s)	24.0	60.0	57.0		16.0		3.0	24.0
Total Split (%)	24.0%	60.0%	57.0%		16.0%		3%	24%
Yellow Time (s)	3.0	3.0	3.0		3.0		2.0	3.0
All-Red Time (s)	3.0	3.0	3.0		3.0		0.0	3.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0			
Total Lost Time (s)	6.0	6.0	6.0		6.0			
Lead/Lag	Lead						Lag	
Lead-Lag Optimize?	Yes						Yes	
Recall Mode	Max	Max	Max		Max		Max	None
Act Effct Green (s)	18.0	73.4	51.0		10.0	34.0		
Actuated g/C Ratio	0.18	0.73	0.51		0.10	0.34		
v/c Ratio	0.78	0.69	0.87		1.08	0.26		
Control Delay	57.9	13.6	29.0		139.0	25.8		
Queue Delay	0.0	1.8	0.0		0.0	0.0		
Total Delay	57.9	15.4	29.0		139.0	25.8		

Aberdeen at Mount Auburn Redesign
2: Mount Auburn Street & Aberdeen Ave

Weekday Afternoon Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø13
LOS	E	B	C		F	C		
Approach Delay		24.8	29.0		90.9			
Approach LOS		C	C		F			
Queue Length 50th (ft)	151	196	387		~123	58		
Queue Length 95th (ft)	#229	#587	496		#255	105		
Internal Link Dist (ft)		501	86		890			
Turn Bay Length (ft)								
Base Capacity (vph)	314	1264	1581		159	484		
Starvation Cap Reductn	0	233	0		0	0		
Spillback Cap Reductn	0	0	0		0	0		
Storage Cap Reductn	0	0	0		0	0		
Reduced v/c Ratio	0.78	0.84	0.87		1.08	0.26		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Natural Cycle: 90

Control Type: Semi Act-Uncoord

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 33.9

Intersection LOS: C

Intersection Capacity Utilization 73.9%

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.

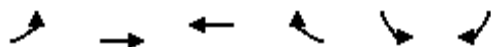
Queue shown is maximum after two cycles.

Splits and Phases: 2: Mount Auburn Street & Aberdeen Ave

 Ø9	 Ø2	 Ø3
24 s	3 s 57 s	16 s
 Ø13	 Ø6	
24 s	60 s	

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

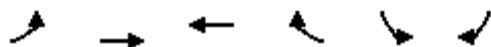
Weekday Afternoon Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
Lane Configurations		↑↑	↑↑		↑↑		
Traffic Volume (vph)	22	701	1022	43	59	42	
Future Volume (vph)	22	701	1022	43	59	42	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	
Grade (%)		0%	0%		0%		
Storage Length (ft)	0			0	0	0	
Storage Lanes	0			0	1	0	
Taper Length (ft)	25				25		
Satd. Flow (prot)	0	3534	3538	0	1723	0	
Flt Permitted		0.889			0.972		
Satd. Flow (perm)	0	3148	3538	0	1723	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			5		30		
Link Speed (mph)		30	30		30		
Link Distance (ft)		163	581		388		
Travel Time (s)		3.7	13.2		8.8		
Confl. Peds. (#/hr)				54			
Confl. Bikes (#/hr)				24			
Peak Hour Factor	0.87	0.87	0.91	0.91	0.84	0.84	
Growth Factor	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	2%	1%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	0	0	
Parking (#/hr)							
Mid-Block Traffic (%)		0%	0%		0%		
Shared Lane Traffic (%)							
Lane Group Flow (vph)	0	831	1170	0	120	0	
Turn Type	pm+pt	NA	NA		Prot		
Protected Phases	5	1	6		4		3
Permitted Phases	1						
Detector Phase	5	1	6		4		
Switch Phase							
Minimum Initial (s)	12.0	41.0	41.0		15.0		7.0
Minimum Split (s)	15.0	60.0	45.0		19.0		21.0
Total Split (s)	15.0	60.0	45.0		19.0		21.0
Total Split (%)	15.0%	60.0%	45.0%		19.0%		21%
Yellow Time (s)	3.0	3.0	3.0		3.0		2.0
All-Red Time (s)	0.0	1.0	1.0		1.0		1.0
Lost Time Adjust (s)		0.0	0.0		0.0		
Total Lost Time (s)		4.0	4.0		4.0		
Lead/Lag	Lead		Lag		Lag		Lead
Lead-Lag Optimize?	Yes		Yes		Yes		Yes
Recall Mode	Min	Min	Min		Min		None
Act Effct Green (s)		56.5	41.4		15.1		
Actuated g/C Ratio		0.59	0.43		0.16		
v/c Ratio		0.44	0.76		0.40		
Control Delay		12.5	28.3		33.5		
Queue Delay		0.0	0.0		0.0		
Total Delay		12.5	28.4		33.5		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Afternoon Peak Hour
2022 Existing



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø3
LOS		B	C		C		
Approach Delay		12.5	28.4		33.5		
Approach LOS		B	C		C		
Queue Length 50th (ft)		151	337		52		
Queue Length 95th (ft)		186	424		99		
Internal Link Dist (ft)		83	501		308		
Turn Bay Length (ft)							
Base Capacity (vph)		1901	1530		297		
Starvation Cap Reductn		0	6		0		
Spillback Cap Reductn		0	0		0		
Storage Cap Reductn		0	0		0		
Reduced v/c Ratio		0.44	0.77		0.40		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 95.8

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 22.4

Intersection LOS: C

Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 7: Mount Auburn Street & Homer Ave

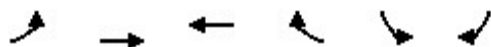
 Ø1	 Ø3	 Ø4
60 s	21 s	19 s
 Ø5	 Ø6	
15 s	45 s	

Proposed Capacity Analysis Worksheets

Aberdeen at Mount Auburn Redesign
1: Mount Auburn Street & Aberdeen Ave

Weekday Morning Peak Hour

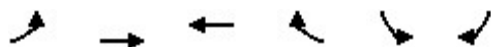
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø5	Ø9
Lane Configurations								
Traffic Volume (vph)	163	742	522	167	195	172		
Future Volume (vph)	163	742	522	167	195	172		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	10	11	10		
Storage Length (ft)	250			0	0	0		
Storage Lanes	1			1	1	1		
Taper Length (ft)	25				25			
Satd. Flow (prot)	1678	1766	1717	1449	1711	1478		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1678	1766	1717	1449	1711	1478		
Right Turn on Red				No		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	30		30			
Link Distance (ft)		581	166		970			
Travel Time (s)		13.2	3.8		22.0			
Confl. Peds. (#/hr)				38				
Confl. Bikes (#/hr)				9				
Peak Hour Factor	0.92	0.92	0.89	0.89	0.80	0.80		
Heavy Vehicles (%)	4%	4%	7%	4%	2%	2%		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	177	807	587	188	244	215		
Turn Type	Prot	NA	NA	custom	Prot	pm+ov		
Protected Phases	1	6	2 9	2	4	1	5	9
Permitted Phases						4		
Detector Phase	1	6	9	2	4	1		
Switch Phase								
Minimum Initial (s)	13.5	5.0		5.0	5.0	13.5	5.0	5.0
Minimum Split (s)	20.0	11.0		11.0	18.0	20.0	20.0	34.0
Total Split (s)	20.0	56.0		22.0	24.0	20.0	20.0	34.0
Total Split (%)	20.0%	56.0%		22.0%	24.0%	20.0%	20%	34%
Yellow Time (s)	3.0	3.5		3.5	3.0	3.0	3.5	3.5
All-Red Time (s)	3.5	2.5		2.5	4.0	3.5	3.0	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.0		6.0	7.0	6.5		
Lead/Lag	Lead	Lag				Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes
Recall Mode	Min	C-Min		Min	Min	Min	None	C-Min
Act Effct Green (s)	13.5	66.6	50.6	15.4	16.4	36.9		
Actuated g/C Ratio	0.14	0.67	0.51	0.15	0.16	0.37		
v/c Ratio	0.78	0.69	0.68	0.85	0.87	0.39		
Control Delay	66.2	9.6	23.6	73.3	70.9	25.8		
Queue Delay	0.0	0.2	0.0	0.0	0.0	0.0		
Total Delay	66.2	9.8	23.7	73.3	70.9	25.8		
LOS	E	A	C	E	E	C		
Approach Delay		19.9	35.7		49.8			
Approach LOS		B	D		D			
Queue Length 50th (ft)	119	63	273	117	152	99		
Queue Length 95th (ft)	m141	m#639	393	#228	#230	141		

Aberdeen at Mount Auburn Redesign
1: Mount Auburn Street & Aberdeen Ave

Weekday Morning Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø5	Ø9
Internal Link Dist (ft)		501	86		890			
Turn Bay Length (ft)	250							
Base Capacity (vph)	226	1176	849	232	290	545		
Starvation Cap Reductn	0	51	0	0	0	0		
Spillback Cap Reductn	0	0	4	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0		
Reduced v/c Ratio	0.78	0.72	0.69	0.81	0.84	0.39		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 9:WBT and 6:EBT, Start of Green, Master Intersection

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 31.6

Intersection LOS: C

Intersection Capacity Utilization 65.8%

ICU Level of Service C

Analysis Period (min) 15

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.

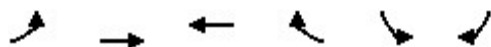
Splits and Phases: 1: Mount Auburn Street & Aberdeen Ave

Ø1	Ø9 (R)	Ø2	Ø4
20 s	34 s	22 s	24 s
Ø5	Ø6 (R)		
20 s	56 s		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Morning Peak Hour

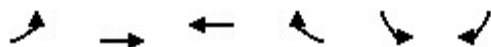
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Lane Configurations							
Traffic Volume (vph)	75	901	661	48	30	20	
Future Volume (vph)	75	901	661	48	30	20	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	1687	1827	1789	0	1556	0	
Flt Permitted	0.950				0.971		
Satd. Flow (perm)	1687	1827	1789	0	1556	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			6		26		
Link Speed (mph)		30	30		30		
Link Distance (ft)		163	581		388		
Travel Time (s)		3.7	13.2		8.8		
Confl. Peds. (#/hr)				50			
Confl. Bikes (#/hr)				4			
Peak Hour Factor	0.99	0.99	0.93	0.93	0.66	0.66	
Heavy Vehicles (%)	7%	4%	5%	0%	17%	5%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	76	910	763	0	75	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	2	1	1		3		4
Permitted Phases							
Detector Phase	2	1	1		3		
Switch Phase							
Minimum Initial (s)	12.0	41.0	41.0		5.0		2.0
Minimum Split (s)	22.0	46.0	46.0		11.0		4.0
Total Split (s)	22.0	60.0	60.0		14.0		4.0
Total Split (%)	22.0%	60.0%	60.0%		14.0%		4%
Yellow Time (s)	3.0	3.5	3.5		3.0		2.0
All-Red Time (s)	1.5	1.0	1.0		2.5		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	4.5	4.5		5.5		
Lead/Lag	Lag	Lead	Lead		Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes		Yes
Recall Mode	Ped	C-Max	C-Max		Min		None
Act Effect Green (s)	17.5	57.2	57.2		7.6		
Actuated g/C Ratio	0.18	0.57	0.57		0.08		
v/c Ratio	0.26	0.87	0.74		0.53		
Control Delay	38.4	30.0	15.1		44.6		
Queue Delay	0.0	1.8	0.2		0.0		
Total Delay	38.4	31.8	15.3		44.6		
LOS	D	C	B		D		
Approach Delay		32.3	15.3		44.6		
Approach LOS		C	B		D		
Queue Length 50th (ft)	42	485	194		30		
Queue Length 95th (ft)	85	#774	285		50		
Internal Link Dist (ft)		83	501		308		
Turn Bay Length (ft)							
Base Capacity (vph)	295	1045	1026		156		
Starvation Cap Reductn	0	0	26		0		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Morning Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Spillback Cap Reductn	0	50	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.26	0.91	0.76		0.48		

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 92 (92%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.87

Intersection Signal Delay: 25.7

Intersection LOS: C

Intersection Capacity Utilization 64.2%

ICU Level of Service C

Analysis Period (min) 15

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

Queue shown is maximum after two cycles.

Splits and Phases: 7: Mount Auburn Street & Homer Ave



Aberdeen at Mount Auburn Redesign
8: Mount Auburn Street & Star Market Driveway

Weekday Morning Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕			↗
Traffic Volume (vph)	0	976	650	31	0	44
Future Volume (vph)	0	976	650	31	0	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3471	3422	0	0	1644
Flt Permitted						
Satd. Flow (perm)	0	3471	3422	0	0	1644
Link Speed (mph)		30	30		30	
Link Distance (ft)		213	163		312	
Travel Time (s)		4.8	3.7		7.1	
Confl. Peds. (#/hr)	49			49		
Confl. Bikes (#/hr)				4		
Peak Hour Factor	0.99	0.99	0.92	0.92	0.85	0.85
Heavy Vehicles (%)	2%	4%	5%	0%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	986	741	0	0	52
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

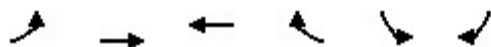
Intersection Capacity Utilization 30.3% ICU Level of Service A

Analysis Period (min) 15

Aberdeen at Mount Auburn Redesign
1: Mount Auburn Street & Aberdeen Ave

Weekday Afternoon Peak Hour

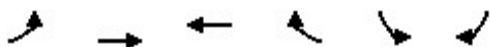
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø5	Ø9
Lane Configurations								
Traffic Volume (vph)	202	714	826	464	162	119		
Future Volume (vph)	202	714	826	464	162	119		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Lane Width (ft)	11	11	11	10	11	10		
Storage Length (ft)	250			0	0	0		
Storage Lanes	1			1	1	1		
Taper Length (ft)	25				25			
Satd. Flow (prot)	1745	1783	1783	1492	1711	1478		
Flt Permitted	0.950				0.950			
Satd. Flow (perm)	1745	1783	1783	1492	1711	1478		
Right Turn on Red				No		No		
Satd. Flow (RTOR)								
Link Speed (mph)		30	30		30			
Link Distance (ft)		581	166		970			
Travel Time (s)		13.2	3.8		22.0			
Confl. Peds. (#/hr)				33				
Confl. Bikes (#/hr)				57				
Peak Hour Factor	0.82	0.82	0.94	0.94	0.94	0.94		
Heavy Vehicles (%)	0%	3%	3%	1%	2%	2%		
Shared Lane Traffic (%)								
Lane Group Flow (vph)	246	871	879	494	172	127		
Turn Type	Prot	NA	NA	custom	Prot	pm+ov		
Protected Phases	1	6	2 9	2	4	1	5	9
Permitted Phases						4		
Detector Phase	1	6	9	2	4	1		
Switch Phase								
Minimum Initial (s)	13.5	5.0		5.0	5.0	13.5	5.0	5.0
Minimum Split (s)	20.0	11.0		11.0	18.0	20.0	20.0	34.0
Total Split (s)	20.0	67.0		33.0	18.0	20.0	20.0	34.0
Total Split (%)	19.0%	63.8%		31.4%	17.1%	19.0%	19%	32%
Yellow Time (s)	3.0	3.5		3.5	3.0	3.0	3.5	3.5
All-Red Time (s)	3.5	2.5		2.5	3.0	3.5	3.0	2.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		
Total Lost Time (s)	6.5	6.0		6.0	6.0	6.5		
Lead/Lag	Lead	Lag				Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes				Yes	Yes	Yes
Recall Mode	Min	C-Min		Min	Min	Min	None	C-Min
Act Effct Green (s)	13.5	77.0	61.0	27.0	12.0	31.5		
Actuated g/C Ratio	0.13	0.73	0.58	0.26	0.11	0.30		
v/c Ratio	1.10	0.67	0.85	1.29	0.88	0.29		
Control Delay	133.9	6.4	28.0	182.8	86.7	30.4		
Queue Delay	0.0	0.1	13.5	0.0	0.0	0.0		
Total Delay	133.9	6.5	41.5	182.8	86.7	30.4		
LOS	F	A	D	F	F	C		
Approach Delay		34.5	92.4		62.8			
Approach LOS		C	F		E			
Queue Length 50th (ft)	~187	62	458	~424	115	65		
Queue Length 95th (ft)	#305	149	#694	#625	#239	116		

Aberdeen at Mount Auburn Redesign
1: Mount Auburn Street & Aberdeen Ave

Weekday Afternoon Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø5	Ø9
Internal Link Dist (ft)		501	86		890			
Turn Bay Length (ft)	250							
Base Capacity (vph)	224	1307	1035	383	195	443		
Starvation Cap Reductn	0	37	0	0	0	0		
Spillback Cap Reductn	0	0	155	0	0	0		
Storage Cap Reductn	0	0	0	0	0	0		
Reduced v/c Ratio	1.10	0.69	1.00	1.29	0.88	0.29		

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 0 (0%), Referenced to phase 9:WBT and 6:EBT, Start of Green, Master Intersection

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.29

Intersection Signal Delay: 66.0

Intersection LOS: E

Intersection Capacity Utilization 79.1%

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.

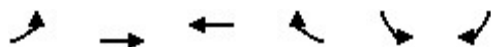
Splits and Phases: 1: Mount Auburn Street & Aberdeen Ave

Ø1	Ø9 (R)	Ø2	Ø4
20 s	34 s	33 s	18 s
Ø5	Ø6 (R)		
20 s	67 s		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Afternoon Peak Hour

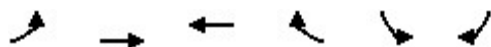
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Lane Configurations							
Traffic Volume (vph)	89	701	1022	43	59	42	
Future Volume (vph)	89	701	1022	43	59	42	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Satd. Flow (prot)	1736	1863	1865	0	1723	0	
Flt Permitted	0.950				0.972		
Satd. Flow (perm)	1736	1863	1865	0	1723	0	
Right Turn on Red				Yes		Yes	
Satd. Flow (RTOR)			3		27		
Link Speed (mph)		30	30		30		
Link Distance (ft)		163	581		388		
Travel Time (s)		3.7	13.2		8.8		
Confl. Peds. (#/hr)				54			
Confl. Bikes (#/hr)				24			
Peak Hour Factor	0.88	0.88	0.91	0.91	0.84	0.84	
Heavy Vehicles (%)	4%	2%	1%	0%	2%	0%	
Shared Lane Traffic (%)							
Lane Group Flow (vph)	101	797	1170	0	120	0	
Turn Type	Prot	NA	NA		Prot		
Protected Phases	2	1	1		3		4
Permitted Phases							
Detector Phase	2	1	1		3		
Switch Phase							
Minimum Initial (s)	12.0	41.0	41.0		5.0		2.0
Minimum Split (s)	22.0	46.0	46.0		11.0		4.0
Total Split (s)	22.0	64.0	64.0		15.0		4.0
Total Split (%)	21.0%	61.0%	61.0%		14.3%		4%
Yellow Time (s)	3.0	3.5	3.5		3.0		2.0
All-Red Time (s)	1.5	1.0	1.0		2.5		0.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0		
Total Lost Time (s)	4.5	4.5	4.5		5.5		
Lead/Lag	Lag	Lead	Lead		Lead		Lag
Lead-Lag Optimize?	Yes	Yes	Yes		Yes		Yes
Recall Mode	Ped	C-Max	C-Max		Min		None
Act Effect Green (s)	17.5	60.9	60.9		8.9		
Actuated g/C Ratio	0.17	0.58	0.58		0.08		
v/c Ratio	0.35	0.74	1.08		0.71		
Control Delay	42.7	21.9	66.3		58.7		
Queue Delay	0.0	0.2	0.0		0.0		
Total Delay	42.7	22.1	66.3		58.7		
LOS	D	C	E		E		
Approach Delay		24.4	66.3		58.7		
Approach LOS		C	E		E		
Queue Length 50th (ft)	61	383	~882		61		
Queue Length 95th (ft)	109	522	#1144		#122		
Internal Link Dist (ft)		83	501		308		
Turn Bay Length (ft)							
Base Capacity (vph)	289	1081	1083		180		
Starvation Cap Reductn	0	0	0		0		

Aberdeen at Mount Auburn Redesign
7: Mount Auburn Street & Homer Ave

Weekday Afternoon Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø4
Spillback Cap Reductn	0	27	0		0		
Storage Cap Reductn	0	0	0		0		
Reduced v/c Ratio	0.35	0.76	1.08		0.67		

Intersection Summary

Area Type: Other

Cycle Length: 105

Actuated Cycle Length: 105

Offset: 100 (95%), Referenced to phase 1:EBWB, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 48.7

Intersection LOS: D

Intersection Capacity Utilization 84.5%

ICU Level of Service E

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.

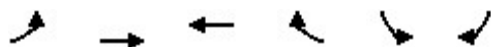
Queue shown is maximum after two cycles.

Splits and Phases: 7: Mount Auburn Street & Homer Ave



Aberdeen at Mount Auburn Redesign
8: Mount Auburn Street & Star Market Driveway

Weekday Afternoon Peak Hour
Proposed



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕			↗
Traffic Volume (vph)	0	790	1023	41	0	92
Future Volume (vph)	0	790	1023	41	0	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3438	3488	0	0	1644
Flt Permitted						
Satd. Flow (perm)	0	3438	3488	0	0	1644
Link Speed (mph)		30	30		30	
Link Distance (ft)		213	163		312	
Travel Time (s)		4.8	3.7		7.1	
Confl. Peds. (#/hr)	50			50		
Confl. Bikes (#/hr)				22		
Peak Hour Factor	0.88	0.88	0.91	0.91	0.88	0.88
Heavy Vehicles (%)	2%	5%	3%	0%	2%	0%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	898	1169	0	0	105
Sign Control		Free	Free		Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.1% ICU Level of Service A

Analysis Period (min) 15