

Date: 4/20/2026 Job No.: 11958
To: Cristina Burwell, Executive Director, Munroe Center for the Arts
Cc: Bob Adams, Munroe Center for the Arts
From: Jeff Maxtutis, Anna Sangree, BETA Group, Inc.
Subject: **Traffic and Parking Evaluation – Summer Events at the Munroe Center for the Arts**

INTRODUCTION

The Munroe Center for the Arts (MCA) located at 1403 Massachusetts Avenue in Lexington, MA has requested BETA Group, Inc. (BETA) evaluate parking and traffic operations associated with a proposed plan to provide outdoor events in front of the center beginning in 2027. The proposed outdoor events will consist of the following:

- Small scale entertainment, in addition to the summer camp use: small musical ensembles, speakers, movie nights, art fairs, community gatherings on Saturday afternoons aimed mostly at families with some events geared towards adults as well
- 120 seats maximum located under a tent canopy
- 45 proposed on-site parking spaces in rear
- 10-15 staff/performers per event
- Event season: May through October beginning in 2027
- Maximum use - three events per week (Friday afternoon weeknight, Saturday morning and/or afternoon and Sunday afternoon)
- Events to end by 8:30 PM
- Events will not overlap with classes
- Events will consist of free events and those requiring ticket purchase
- Bicycle parking will be provided on-site
- A traffic management plan for events

There have been previous events held in the front yard of the center with up to 135 attendees without traffic and parking issues.

It is understood that the MCA building is currently under construction and that parking is limited to 21 spaces on-site (including one accessible spaces). As a result, vehicle drop-off/pick-up operations and parking for regular classes occur both on-site and along Massachusetts Avenue. This is recognized as a temporary condition until construction is completed.

The goal of this memo is to evaluate potential seasonal traffic and parking impacts generated by the proposed worst-case outdoor events and to identify measures to mitigate the impact on both Massachusetts Avenue, surrounding property owners, and on-site. This will consist of measures to improve safety and operations for all users.

Map 1. Locus Map

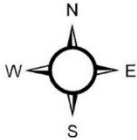


Munroe Center
for the Arts

nearmap



0 0.02 0.04 Miles



EXISTING CONDITIONS EVALUATION

BETA staff conducted site visits to the study area on the following days to observe and record roadway and sidewalk geometrics, signage, pavement markings, crosswalks, posted speed limit, parking demand and regulations, traffic volume and circulation and operations:

- Sunday, March 15th, 2026 11:00 to 11:30 AM
- Thursday, March 19th, 2026 10:00 to 11:30 AM
- Thursday, March 19th, 2026 5:00 to 6:00 PM
- Sunday, March 22nd, 2026 11:00 to 11:30 AM

ROADWAY, PEDESTRIAN AND BICYCLE CHARACTERISTICS

The (MCA is located on Massachusetts Avenue (Routes 4/225) in Lexington. Massachusetts Avenue in this area is under town jurisdiction and classified as a principle arterial.¹ The roadway is generally 40' wide with one travel lane in each direction and on-street parking allowed on both sides. Marked shoulders are provided on both sides for a short distance (50 feet) in front of the MCA. The posted speed limit is 35 MPH in the area and signs are located within the study area alerting drivers to the speeds (one sign west of Muzzy Condos for vehicles travelling eastbound and one sign south of Seasons Four for vehicles travelling westbound).

There are sidewalks on both sides of Massachusetts Avenue in the study area. On the north side (MCA side) side, sidewalks are 6' wide with a 4' grass buffer. On the south side, sidewalks are generally 5' wide but are 9' wide in front of Community of Christ Church across the street. Right in front of the MCA, there is a high visibility crosswalk and ramps with a curb extension on both sides as well as a rectangular rapid flashing beacon (RRFB). There is a bike rack located on the west side of the building which holds around 10 bicycles. The popular Minuteman Bikeway is located behind MCA center and is accessible next to Seasons Four around a quarter mile to the east or from Woburn Street around 0.4 miles to the west. Bike lanes are located on both sides of Massachusetts Avenue east of Seasons Four and West of Muzzy Condos, but not within the project area.

ON-SITE TRAFFIC AND PEDESTRIAN CIRCULATION

The MCA has a parking lot behind the building accessible by one driveway, approximately 23' wide, connecting to Massachusetts Avenue. Currently, the MCA building and parking lot are undergoing renovations. At this time, there are 20 regular parking spaces and 1 accessible space behind the building. A drop-off/pick-up area is also located by the door in the back of the school. Once the renovations are completed, there will be 45 parking spaces in the rear of the MCA. Figure 1 shows the future site plan for the back parking lot. Vehicles will enter and exit from the driveway on Massachusetts Avenue and follow a one-way loop through the parking area, as they do today, but there will be additional parking space to the east accessible by a one-way pair in and out.

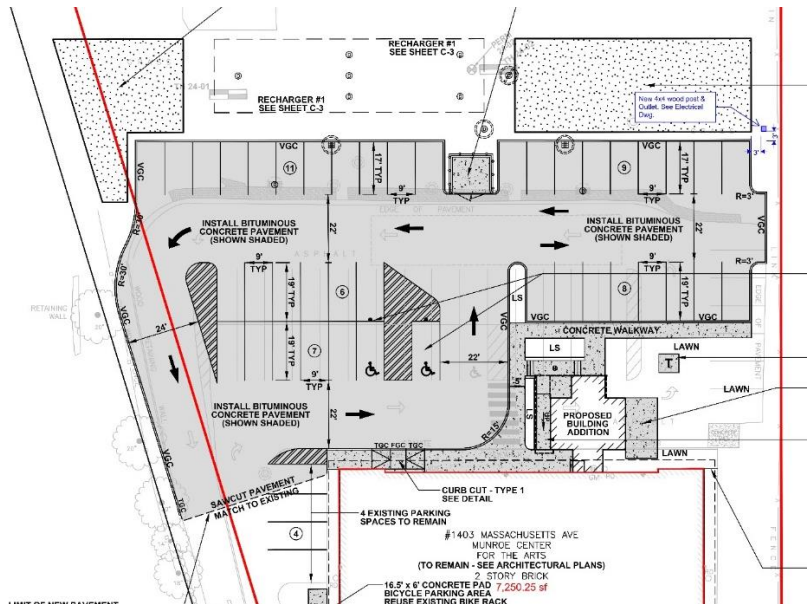


Bike racks on the side of Munroe Center.

¹ [2024. MassDOT. Roadway Inventory.](#)

On the MCA property, there are concrete pathways in front that lead to the Massachusetts Avenue sidewalk, as well as a concrete path along the side of the building to the parking area.

Figure 1. Site Plan for Future Parking Lot



Source: Taken from Full Site Plan produced by DGT Associates and Jones Architecture in June 2025

TRAFFIC, PEDESTRIAN AND BICYCLE VOLUMES

Massachusetts Avenue experiences moderate peak hour traffic volumes. BETA conducted a traffic count on Massachusetts Avenue and the MCA driveway on Thursday, March 19, 2026, between 5:00 and 5:30 PM. This is the time when the combination of traffic volumes on Massachusetts Avenue and vehicles entering and exiting MCA were expected to be highest. The traffic volumes for Massachusetts Avenue were factored upward to represent a one-hour period. The PM peak hour two-way traffic volume on Massachusetts Avenue is 812 vehicles, 440 vehicles eastbound (54%) and 372 vehicles westbound (46%). These volumes represent a moderate traffic volume for an arterial roadway.

Between 5:00 and 5:30 PM a total of 17 vehicles were counted entering the MCA driveway and 16 vehicles exiting the driveway. During this time a maximum of 16 vehicles were observed parked on the north side of Massachusetts Avenue and 3 vehicles parked on the south side (19 vehicles total). Passengers from these vehicles were seen walking to MCA to drop off or pick up children for classes. Little to no traffic congestion or conflicts were observed. However, during the current construction period we understand that neighbors nearby have noted that people parking on Massachusetts Avenue for MCA pick ups and drop offs have impacted access and egress into private driveways, which was not observed during the field observations but noted for evaluation.

During BETA's site visits pedestrians and bicyclists were observed along Massachusetts Avenue in the vicinity of MCA. Generally, approximately 10 to 20 total pedestrians/cyclists were observed during the site visits (not including pedestrians parking and walking to MCA). These consisted of walkers, runners, dog walkers, and cyclists. As the weather was seasonably cold, the numbers of pedestrians and cyclists

would be assumed to increase in warmer weather. During field observations, little to no congestion was noted.

TRANSIT ACCESS

There is an MBTA bus stop on each side Massachusetts Avenue in front of MCA serving routes 62 and 76 which both go to Alewife Station as well as Bedford and Lincoln Labs, respectively. Each route operates roughly every hour, with combined service about every 30 minutes to Alewife Station. Along with the MBTA service, the Lexpress bus service also serves the area every hour. During the evening field observation on Thursday March 19, 2026, one person was observed alighting the westbound MBTA bus at the stop in front of MCA.



MBTA Route 62 on Massachusetts Avenue travelling towards Alewife

ON AND OFF-STREET PARKING

Parking Supply

As mentioned previously, the MCA building and parking lot are under construction with 20 general spaces and 1 accessible space in the rear of the building. The future plan for the MCA will have 43 general parking spaces and 2 accessible spaces (45 total). On-street parking is available on both sides of Massachusetts Avenue within the project area. The parking is unmarked and unregulated, and easily accommodated within the 40' roadway width. Bloomfield Street intersects with Massachusetts Avenue west of MCA and has unregulated on-street parking. The road is 28' wide and can accommodate parking on one side (there are no signs prohibiting parking). As most of the nearby land use on both sides Massachusetts Avenue between Bloomfield Street on the west and Percy Road on the east is single-family homes with private driveways, on-street parking is generally unoccupied apart from vehicles visiting the MCA or resident use. On-street parking is striped on Massachusetts Avenue on both sides in front of Muzzy School Condos to the west of the MCA. A total of 5 cars were observed in these spaces.

The project team calculated the supply of on-street parking spaces within the project area, an approximately 2–3-minute walk from the MCA. To estimate the total number of available unmarked spaces, BETA measured the length of roadway between driveways and side streets and divided this length by 22' (the length of marked spaces provided in front of Muzzy School Condos). For parking estimation purposes, on-street parking is not allowed within 5 feet of driveways, within 20 feet of intersections, within 15 feet of fire hydrants and in bus stops. The Town of Lexington Regulations prohibits parking “upon or in front of any private road or driveway without the consent of the owner of said private road or driveway,” or “upon any street or highway within 20 feet of an intersecting way, except alleys.”²

The following summarizes current and future parking supply in the study area:

- Existing: 21 MCA on-site and 98 on-street spaces = 119 total spaces
- Future: 45 MCA on-site and 98 on-street spaces = 143

² Lexington Town Regulations. Article V. [§ 192-17 General prohibitions.](#)

The future condition will increase MCA on-site parking by 24 parking spaces. Map 2 shows the results of the parking supply inventory.

Parking Demand

During the afternoon field observations on Thursday, March 19, 2026, 16 vehicles were observed parked on the north side of Massachusetts Avenue extending east to the driveway of #1377 Massachusetts Avenue and extending west to #1419 Massachusetts Avenue. Three vehicles were parked on the south side of Massachusetts Avenue. Most or all of this parking appears to be related to activities at the MCA. Five vehicles were also observed parked in the marked parking spaces on the north side of Massachusetts Avenue near Muzzy School Condos. A total of 24 vehicles were parked on-street on Massachusetts Avenue in the study area during the late afternoon between 5:00 and 6:00 PM. This indicates that 24% of the available on-street parking spaces in the area were occupied.

To understand availability of other parking areas nearby, the team also looked at the Community of Christ church across the street from the MCA. On Sunday, March 15, 2026 at 11:00 AM there were 15 vehicles parked in the back lot at MCA and 3 vehicles parked at the Community of Christ Church. The vehicles parked at the church appeared to be there for church service/activity. On Thursday, March 19, 2026 at 5:00 PM there were 18 vehicles parked in the MCA lot and no vehicles at the church lot. On Sunday, March 22, 2026 at 11:00 AM there were 13 vehicles parked in the MCA lot and no cars in the church lot.

ROADWAY CRASHES

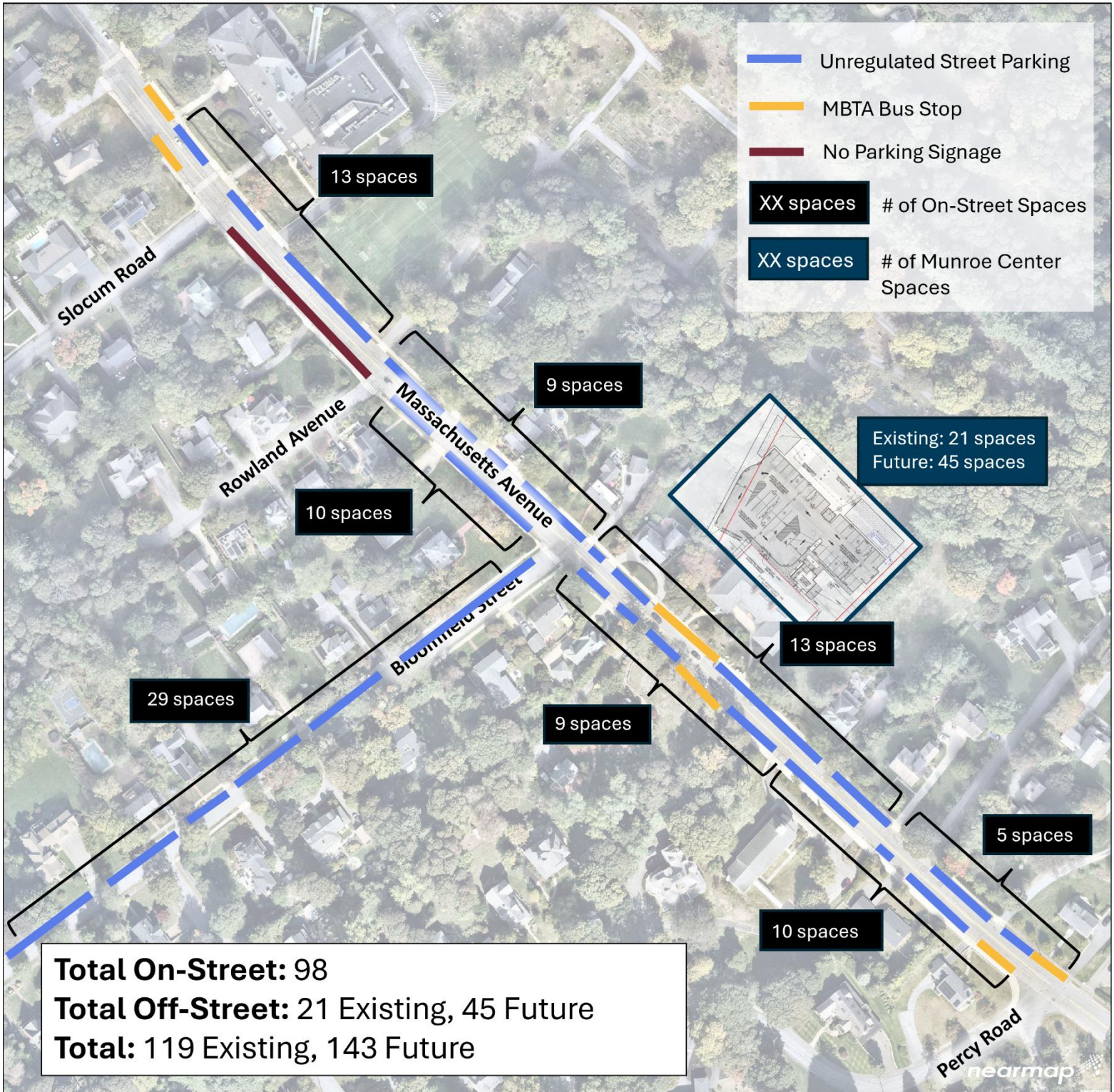
The project team also collected roadway crash information in the project area from 2020-2024. There were nine crashes in the project area. Of these, two occurred in front of the MCA. Both were single vehicle crashes where the vehicle hit the curb resulting in property damage only. One cyclist crash occurred by Percy Road and did not result in injury. One possible injury involved an angle crash at Rowland Avenue and Massachusetts Avenue. Crashes are shown in Table 1 and Map 3.

Table 1. Roadway Crashes by the Munroe Center for the Arts from 2020-2024

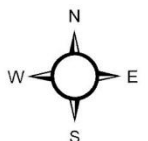
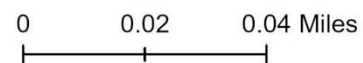
Munroe Center Study Area	
CRASH TYPE	
Angle	1
Head-On	0
Rear-End	3
Sideswipe	2
Single Vehicle	2
Vehicle-Cyclist	1
INJURY	
Fatal/Serious Injury	0
Minor/Possible Injury	1
Property Damage Only	7
Unknown	1
WEATHER	
Clear	6
Cloudy	2
Snow	1
LIGHTING CONDITION	
Daylight	8
Dark- lighted	1
SUMMARY	
Total Crashes 2020-2024	9
Average Crashes Per Year	1.8

Source: MassDOT Impact Crash Portal

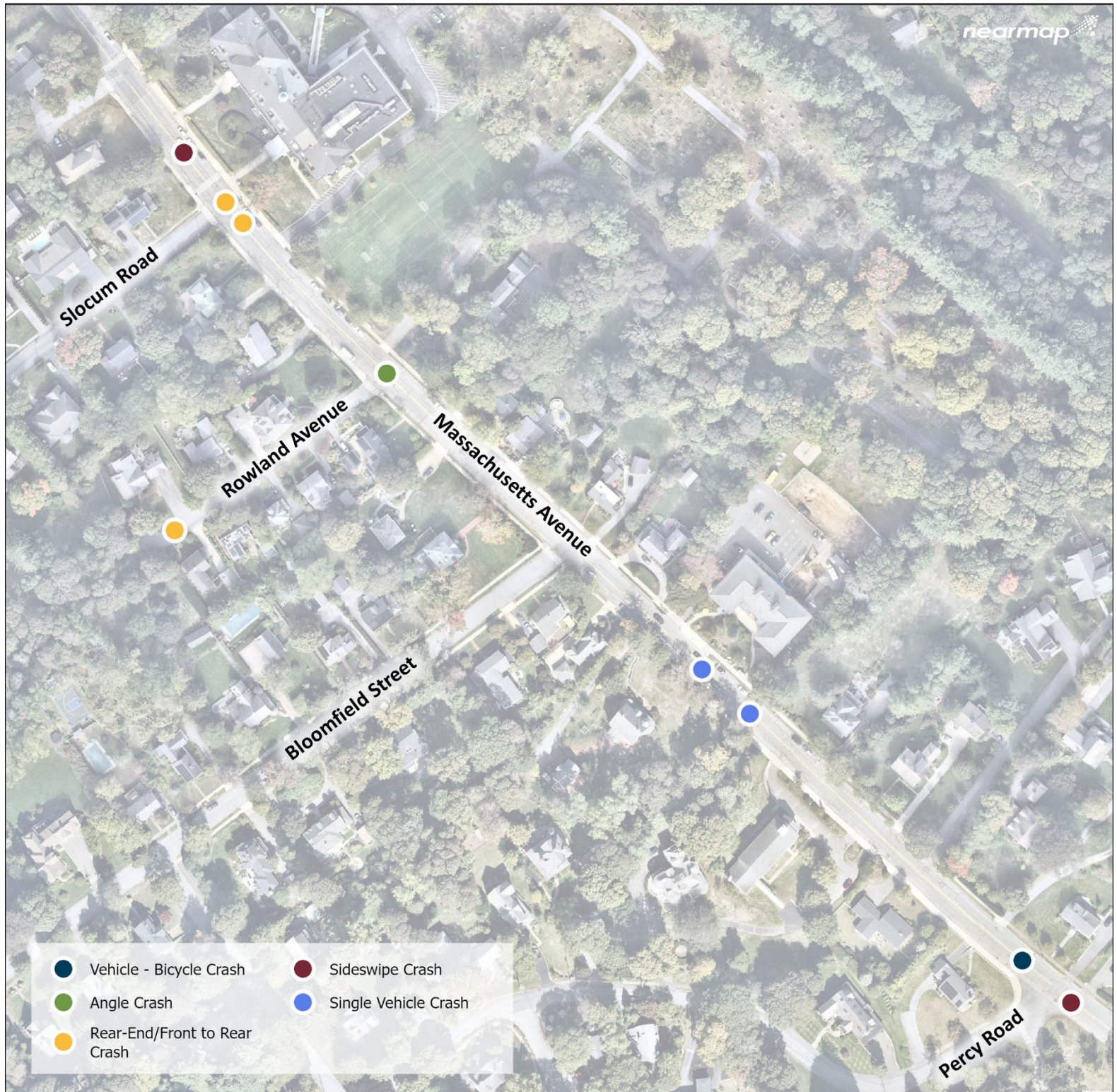
Map 2. Parking within 3 Minute Walk of Munroe Center for the Arts



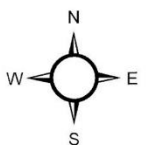
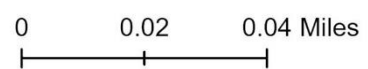
Source: Munroe Center Reconfigured Parking Site Plan. Marked on-street spaces counted. Unmarked spaces estimated using 22 foot length per vehicle, avoiding 5 feet from driveways, 20 feet from an intersection, bus stops and hydrants.



Map 3. Roadway Crashes 2020-2024



Source: MassDOT Crash Repository 2020-2024



TRAFFIC EVALUATION

The traffic evaluation was conducted to estimate potential impacts associated with the proposed summer events at the MCA.

MODE SPLIT

To estimate the total number of vehicles that will travel to an event, BETA first estimated travel mode split, or the percentage of attendees likely to drive, walk, bike or take public transportation. BETA reviewed commute mode splits for the area and reviewed traffic patterns at past events and assessed walkability and bikeability in the area.

The commute to work mode split shows that most people in the area either drive to work, work from home or take public transportation. Around 1 percent of people either walk or bike to work.

Table 2. Commute to Work Mode Split

Drove alone	Carpooled	Public transportation	Walked	Bicycle	Taxi or ride-hailing services, motorcycle, or other means	Worked from home
50.4 %	5.6 %	4.8 %	0.8 %	0.4 %	0.3 %	37.8 %

Source: ACS 2020-2024 5-Year Estimates for Census Tract 3584.00

While this data indicates that driving is the primary mode of transportation in the area, the MCA events are likely to attract families who live nearby. The summertime setting of the events additionally makes walking or biking to the event more attractive. The sidewalks by the MCA are well connected and in good condition and there are many homes located within one mile of the MCA (20 minute walk). The popular Minuteman Bikeway trail is located right behind the MCA and is accessible east on Massachusetts Avenue by Seasons 4 and to the west at Woburn Street. Many cyclists currently use Massachusetts Avenue. Additionally, MBTA buses 62 and 76 and the Lexpress run along Massachusetts Avenue with stops right in front of the MCA.

BETA conducted a sensitivity analysis to see what the impact to parking and traffic would be assuming a range of travel model splits as data is not available on the exact mode split for events like this one. The three model split scenarios are shown in Table 3.

Table 3. Mode Split Sensitivity Evaluation, Mode Split Percentages

Scenario	Drive	Walk	Bike	Transit
1	100%	0%	0%	0%
2	85%	10%	2.5%	2.5%
3	70%	20%	5%	5%

VEHICLE OCCUPANCY

For the number of people in each vehicle, BETA assumed an occupancy of 2.5 people per vehicle for family events and an assumed 1.5 people per vehicle for events aimed at mostly adults. The MCA expects the adult events, based on previous experience, to bring a smaller crowd – 40-50 attendees; however, BETA evaluated a worst-case traffic scenario where events with 120 people bring mostly adults – with a lower expected vehicle occupancy than a family event, as some adults may drive themselves.

EVALUATION

Using a maximum of 120 attendees and 2.5 people per vehicle for a family-oriented event and 1.5 people per vehicle for an adult-oriented event, BETA developed the projected number of vehicles, walkers, bikers and transit users as shown in Tables 4 and 5 below.

Table 4. Mode Split Sensitivity Analysis with 2.5 People Per Vehicle (Family-Oriented Event)

Scenario	# of Vehicles	# of Walkers	# of Bicycles	# of Transit Users
A1	48	0	0	0
A2	41	12	3	3
A3	34	24	6	6

Table 5. Mode Split Sensitivity Analysis with 1.5 People per Vehicle (Adult-Oriented Event)

Scenario	# of Vehicles	# of Walkers	# of Bicycles	# of Transit Users
B1	80	0	0	0
B2	68	12	3	3
B3	56	24	6	6

Along with the attendees, the events will have up to 15 staff and performers. The evaluation assumes that staff and performers will all drive themselves to the event. The chart below shows the three different scenarios including the fifteen vehicles for staff and performers.

Table 6. Mode Split Sensitivity Analysis with Assumed 2.5 People Per Vehicle (Family-Oriented Event) Including Staff and Performers

Scenario	# of Vehicles	# of Walkers	# of Bicycles	# of Transit Users
A1	63	0	0	0
A2	56	12	3	3
A3	49	24	6	6

Table 7. Mode Split Sensitivity Analysis with 1.5 People per Vehicle (Adult-Oriented Event) including Staff and Performers

Scenario	# of Vehicles	# of Walkers	# of Bicycles	# of Transit Users
B1	95	0	0	0
B2	83	12	3	3
B3	71	24	6	6

PARKING EVALUATION

Using the number of vehicles estimated in the traffic evaluation above, the expected parking demand was developed as a percentage of the supply to estimate parking utilization during events. Currently, apart from MCA events, most on-street parking is not occupied as the area is primarily characterized by single-family homes with driveways. As MCA events will not be planned during periods when MCA classes are in session, the parking supply will not need to accommodate class and event parking at the same time. The supply of parking during events takes into account that on-street parking is used in front of Muzzy School condos, which may include parking for children’s soccer. A total of 5 vehicles were observed parked in the spaces in front of Muzzy School condos. These spaces were assumed to be occupied during an event and were removed from the total supply in the evaluation below.

The evaluation shows that there will be sufficient parking between the MCA on-site parking and on-street parking for all scenarios. The “worst-case scenario” for a family event where all attendees would arrive by auto would result in 100% utilization of off-street spaces and 19% utilization of on-street spaces (18 spaces). The “worst case scenario” for a mostly adult event would result in 100% utilization of the off-street spaces and 54% utilization of on-street spaces (50 spaces). Of note, there is a public lot at town hall which is a 10-minute walk away and there is more on-street parking outside the immediate project study area. Maps 4 and Map 5 show the highest parking demands for family-oriented and adult-oriented events.

Table 8. Parking Utilization with Assumed 2.5 People Per Vehicle (Family-Oriented Event) Including Staff and Performers

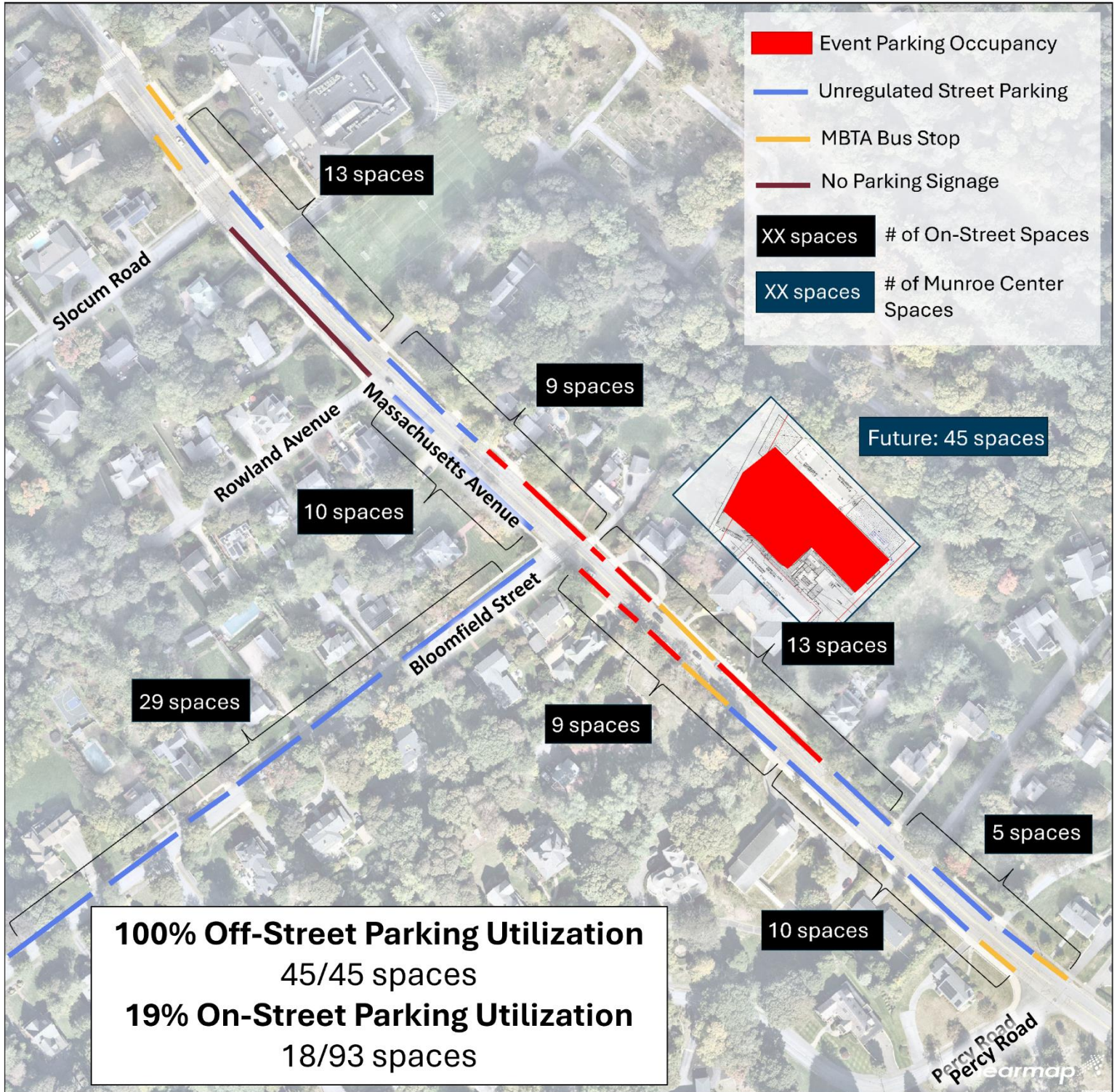
Scenario	# of Vehicles	Total Off-Street Spaces Used (45 total available spaces)	Total On-Street Spaces Used (93 total available spaces)
A1	63	45 (100%)	18 (19%)
A2	56	45 (100%)	11 (12%)
A3	49	45 (100%)	4 (4%)

Table 9. Parking Utilization with Assumed 1.5 People Per Vehicle (Adult-Oriented Event) Including Staff and Performers

Scenario	# of Vehicles	Total Off-Street Spaces Used (45 total)	Total On-Street Spaces Used (93 total)
B1	95	45 (100%)	50 (54%)
B2	83	45 (100%)	38 (41%)
B3	71	45 (100%)	26 (28%)

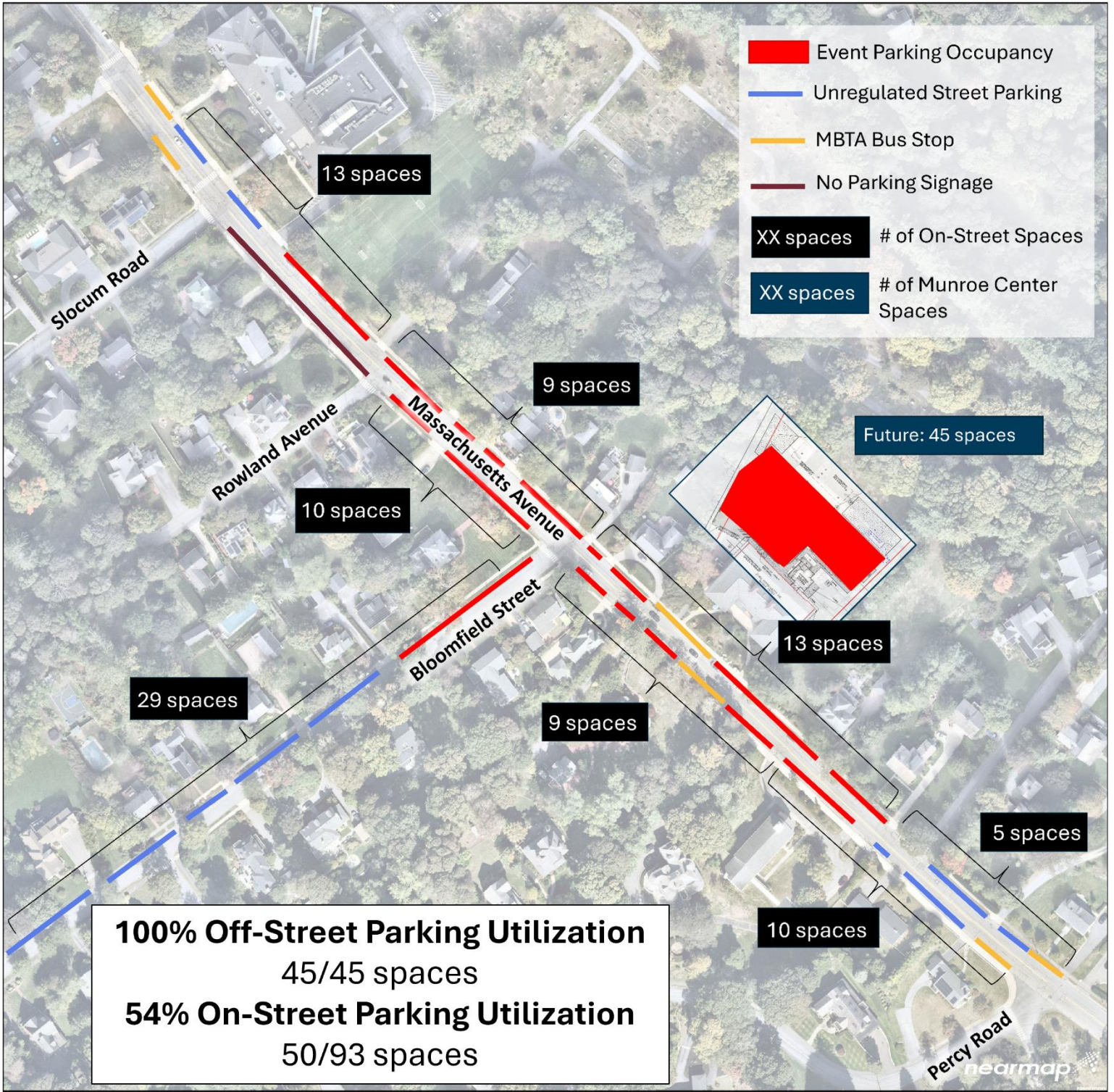
Map 4. Highest Parking Demand for a Family Event

- 100% of people arrive in vehicles
- 2.5 people per vehicle
- Staff/performers drive alone



Map 5. Highest Parking Demand for Adult-Oriented Event

- 100% of people arrive in vehicles
- 1.5 people per vehicle
- Staff/performers drive alone



RECOMMENDATIONS

It is recommended that a Traffic Management Plan (TMP) be developed by MCA that can be used to manage and mitigate traffic and parking for summer events. Elements to be considered for the TMP are shown below.

Distribution of Information and Materials Before Events

- Provide and distribute information to public on event traffic and parking
 - Develop informational maps showing:
 - Site location, on-site and on-street parking, drop-off locations, and accessible parking
 - Bicycle access and parking
 - Walking and transit access
 - Additional parking in town-owned lots in the center
 - Narrative for attendees driving to respect parking near neighbors' driveways
- Distribute information via emails to attendees, website, social media and flyers
- Provide contact information for neighbors to reach out to MCA with any questions and concerns

Mitigation Measures

- Hold smaller events to start to evaluate Traffic Management Plan elements and make adjustments for future events
- Coordinate with Town to consider striping currently unmarked on-street parking spaces to prevent parking too close to private driveways
- Consider providing police detail to direct traffic for larger events
- Designate a drop-off zone
- Provide temporary wayfinding signage directing drivers to on-site and on-street parking
- Provide temporary signage on Bloomfield Street for parking on one side only
- Coordinate with Lexington Emergency Services on Traffic Management Plan to ensure adequate emergency vehicle access
- Ensure there is adequate bicycle parking that is convenient and does not conflict with traffic and pedestrian flow. This may include installing additional bicycle racks
- Provide incentives for attendees to walk, bike or take transit by partnering with local stores and restaurants to offer discounts on meals, beverages and goods
- Explore potential to use unused off-street parking at nearby institutions
- Explore a direct connection to Minuteman Bikeway as a long-term measure
- Monitor traffic and parking impacts for events and adjust accordingly. This will include receiving input and feedback from neighbors, the town staff and event attendees. The TMP should be reviewed annually.

It is noted that the Lexington Symphony distributes parking directions for their events at Cary Hall through their website and email list. This includes information about parking in public lots and on-street. Also

Cristina Burwell, Executive Director MCA

4/20/2026

Page 17 of 17

provided is a link to town's website Parking in Lexington Center. This information should be reviewed for inclusion in the TMP for MCA.