



Transportation Demand Management (TDM) Plan Baxter Academy for Technology and Science March 8, 2017

Baxter Academies of Maine provides this Transportation Demand Management (TDM) Plan for the relocated and consolidated Baxter Academy of Science and Technology at 185 Lancaster Street. This public charter high school has a strong cultural commitment to continuing and furthering its robust TDM work to encourage and enable the use of public transportation, carpooling, bicycling and walking at this new location. It does this in support of both its own and the City of Portland's transportation, liveability, and sustainability goals.

A. Site Transportation Overview & Context

Baxter Academy has operated under a Transportation Demand Management (TDM) Plan at its present York and Congress Street sites since the school's inception in September 2013 and has successfully implemented key TDM strategies to mitigate costs and meet the school's various transportation challenges. Baxter is free to Maine students and current pupils come from 57 municipalities based in the Southern, Central, and Midcoast regions - drawing from as far away as Owls Head, Norway, Windsor, and Berwick. In addition, the student body geographical make-up shifts each year with students entering and leaving the school. Families have been strongly motivated to utilize the school's busing and carpooling opportunities to make it possible for their children to attend the school and to free themselves from costs and travel time associated with transporting their students themselves.

Seventy-nine percent of students use public or charter transportation, walk or bike, or carpool with at least one other student. As stated in the City of Portland's draft 2017 Comprehensive Plan, "The 1993 *A Time of Change: Portland Transportation Plan* called for reducing the share of single occupancy vehicle trips City-wide to 50%, just under the share briefly achieved following the oil crisis of the late 1970s, while at the same time increasing the share of trips by other modes." Thus, Baxter Academy's student multi-modal rate far surpasses this standard.

The staff is also diverse, with individuals commuting from 19 municipalities, including as remote as the Waterville area. Only 30% of Baxter employees drive alone for every trip to the campus; all of these drivers indicate that they are conscious of seeking alternatives, but this is the only current viable option. For example, one staff member mentioned that she is hoping to use the proposed Metro public transportation route from Gorham. Other faculty often

travel with students and/or with a spouse/partner. Local staff consistently commute on foot and by bicycle. Public transit use is reimbursable by the school and when applicable, staff have availed themselves of this benefit.

Baxter Academy is leasing and remodeling 31,571 square feet of the existing two-story 92,561 square foot building at 185 Lancaster Street. Total enrollment at the new site is expected to be 400 students, with 60 employed staff. The adaptive reuse of the structure at this location, in the heart of the Bayside neighborhood, supports the multi-modal objectives of the B-7 zone in which it stands – where dense urban form, mixed-uses, and the utilization of transportation beyond the automobile are strongly encouraged. The school and its multi-modal initiatives are part of Bayside’s continued renaissance and align with the goals of *A New Vision for Bayside* and the *Bayside Master Transportation Plan*.

The new school site is pedestrian and bicycle-friendly, located within the strong sidewalk network and lower-speed street grid of the Portland Peninsula - and just a block and a half from the Bayside Trail. The location is served by the Metro Route #8, and perhaps most importantly, it is just three short blocks from the hub of Greater Portland’s transit services at the Elm Street Pulse and Monument Square. Current students use all of the area’s transit providers - Metro local buses and the Breez, Casco Bay Lines ferry service, the South Portland Bus Service, the Lakes Region Explorer, and Shuttlebus-Zoom. The school pays 100% of the students’ fares.

The site will also include a 150-foot drop-off zone on Elm Street to support the use of the school’s three charter buses. These collect additional students in Lewiston, Windham, and Topsham who come from there and nearby municipalities. The school’s lease at 185 Lancaster Street includes access to 50 parking spaces in an off-street lot across from the school, which will be used for staff and visitors.

B. TDM Coordinator

The two most vital characteristics of highly successful TDM programs are: (1) they are dynamic - piloting strategies, assessing impacts, and modifying tactics as needed, and (2) they are managed by committed and enthusiastic staff who are responsible for overseeing, promoting and sustaining the program.

Tia Wilson, Operations & Admissions Manager, serves as Baxter Academy’s TDM Coordinator and will continue in this role at the school’s new location. Ms. Wilson is a problem-solver who works to educate and connect students, families, and staff with public transportation and carpool options. She conducts an electronic survey of the student body annually before the school year begins to remind families of the school’s multi-modal goals, inform them regarding transportation options, and gain a better understanding of which transportation mode(s) will benefit them the most.

At 185 Lancaster Street, the TDM Coordinator will implement a more comprehensive survey of students and staff to meet the City's TDM Plan surveying requirements (see Section C). Ms. Wilson will continue to explore and help implement additional TDM strategies to reduce single-occupancy and low-occupancy vehicle trips to the school. She also will assist the school to continue its pedestrian safety training with students and encourage bicycle commuting and safety education for local students and staff. The Coordinator's contact information is: Tia Wilson, Baxter Academy, 54 York Street, Portland, ME 04101; (207) 699-5500.

C. Employee and Student Survey

Per the City of Portland's Technical Standards regarding TDM Plans, Baxter Academy will employ a comprehensive survey of staff and student families at the 185 Lancaster Street site. The survey will be conducted annually in electronic form to educate faculty and families regarding their transportation options, record mode share, and assist employees and students to find carpool matches.

In addition, the survey will identify barriers to the use of public transit, the school charter bus system, carpooling, and bicycling and walking for more local students and staff. Staff and students may also be asked to offer additional ideas and strategies for reducing single occupancy and low-occupancy private vehicle trips. The survey will produce comparable data from year to year and be available for compilation with other sites' commute data by a third party, such as the City.

D. Trip Generation and Parking Demand Targets

On behalf of Baxter Academy, Traffic Solutions has produced ITE trip generation and parking demand projections to establish the impact of the new school location. Total forecasted trips during the "morning" peak hour are 200 and the parking demand using the 85th percentile is projected to be 52 spaces for staff, students, and visitors.

Baxter Academy is committed to continuing its work to reduce single-occupancy and low-occupancy trips to the campus - to improve multi-modal safety at and near the site, ease traffic congestion, and be a sustainable and liveable presence in downtown Portland and the Bayside neighborhood. The school's trip and parking reduction goals are based on the fact that the school has already done a tremendous amount of work to provide collective transportation options for its students (via public transportation, charter buses, and carpooling) and encourage walking and bicycling for more local students and staff. These existing TDM efforts limit the amount of additional peak hour trip and parking reductions still possible. However, potential reductions might be made in two areas: the single-occupancy vehicle trips and parking impacts of staff (51) and students (36) and the low-occupancy trips of a single student being dropped off by an adult (80).

Trip Reduction Target

Balancing the school's new setting and multi-modal accessibility, its current TDM practices and high multi-modal rates, and student and staff originating locations, an achievable trip reduction target is 2% over the first two years after opening for both faculty and pupils. This means a target trip generation of 50 staff trips and 78 one student/one adult trips during the AM peak hour by 2019.

Parking Reduction Target

As stated in the initial narrative above, Baxter Academy's policy will be to continue to provide only a limited number of off-site parking spaces for its staff and none for its students. The school will use parking permits to manage shared employee use of the lot. Baxter will also reserve a small portion of the parking area for rotating visitors who come to do school business (nurses, psychologists, consultants, board members, legal team, etc.).

Students electing to travel to or from Baxter Academy by private automobile will be directed to use public off-street parking areas located on Marginal Way, versus on-street spaces located near the campus. The Bayside Trail will facilitate their walk to the school. This will be made clear in the school's registration materials and its annual communications with families before the school year begins. Students will continue to be issued registration forms that collect a copy of their license, car make and model, plate number and where they park in Portland.

E. Trip/Parking Reduction Strategies & Incentives

Baxter Academy will take up its current comprehensive trip reduction strategies again at the new location, including:

- Providing charter buses for outlying communities
- Encouraging the use of public transit within the urban core with 100% funding of student and staff trips; the school's closer proximity to the Elm St. Pulse may help reduce some current parent drop-off vehicle trips
- Encouraging and facilitating carpooling/ridesharing among families and staff
- Encouraging bicycling through the provision of on-site bike racks
- Encouraging walking both as a primary mode for local students and staff and also from transit hubs and remote parking sites; additionally, providing students with hands-on pedestrian safety training

The following are other avenues for the school to explore to meet trip reduction targets.

Commuter Assistance

Baxter Academy is encouraged to engage Go Maine, the statewide commuter assistance program, in order to sign up participating staff who walk, bike, carpool, and use public transit for:

- the Emergency Ride Home benefit
- NuRide trip rewards
- expanding ride-matching possibilities to include additional downtown Portland employees.

Carpooling for school staff is a challenge because of their geographic spread and diverse schedules both at the school and in their home lives. However, some staff do carpool when possible. One or more vanpools, utilizing vRide, may also become an option if a number of staff from a particular municipality enter the school's employ.

Baxter can also partner with Go Maine and other local multi-modal groups, such as the Bicycle Coalition of Maine, to provide staff with educational materials regarding active transportation and to offer "commute coaching" at the beginning of each school year.

The school can further encourage adults driving an individual pupil to school to match up with additional students to carpool. The school will continue to explore various carpooling apps such as groupcarpool.com and share these resources with parents. As the student body grows, the school may wish to develop a customized SchoolPool website interface for students and families looking to find a carpool directly. Confidentiality concerns can be ameliorated with an "opt out" form for parents, while still ensuring a higher participation rate than an "opt-in" program.

Facilitating Walking Trips to and from the School Site

The school will continue its staff-led hands-on pedestrian safety training for students walking in and around downtown. Many students need to walk to and from the school site for daytime activities and to reach public transportation stops and remote parking areas like the Marginal Way Park & Ride. In addition, families dropping off student(s) will be encouraged, when feasible, to drive the student passenger(s) to their respective place of work with the students walking to/from the 185 Lancaster Street Campus.

To address any concerns about personal safety, the school and student leadership can also foster the informal formation of WalkPools, peer walking groups originating at the school or at transit stops and remote parking locations to enable students to walk together.

Flexitime

When possible, staff who do not need to be at the school during the morning peak hour should be encouraged to arrive at a later time and offered a flexitime work schedule.

UHaulCarShare & Informal Bikeshare

Baxter Academy has an account with UHaulCarShare that the school's employees can access. Some Baxter Academy staff bring their vehicles to school because they need a car available for trips during the work day. Concerted education of staff and encouragement to use this benefit could alleviate this need.

UHaulCarShare is available in Portland and South Portland, currently providing access to a total of nine vehicles on an hourly or daily basis. One of these is located at 26 Elm Street, just three blocks from the school. At one time there were two UhaulCarShare vehicles on Elm Street and, if the demand is strong enough, the school can negotiate with the company for additional available vehicles.

Similarly, for shorter staff trips, the school could maintain one or more shared bicycles and associated gear such as helmets and locks available for use at the site.

Other Incentives

Campus Campaigns: Baxter could organize an incentive campaign where users of public and charter buses, carpools with at least two students, and registered walkers and bicyclists are entered into a monthly raffle for gift cards, movie passes, and other benefits. Alternately, the school could consider an internal competition between classes or students and staff - with the winners earning a special celebration, such as a field trip to a favorite destination or a class party.

F. Education & Promotion

Baxter Academy administrators will carry on with their strong multi-modal education and promotion efforts at the 185 Lancaster Street site. This includes:

- Conducting the annual transportation survey of all in-coming students and members of the staff and encouraging other modal travel options versus personal auto travel.
- Communicating regularly, via email and open houses, the school's goal to shift as many students as possible to public transportation via the 100% subsidy, as well as other modes of transportation.
- Facilitating student and staff carpool matching

Per the City of Portland's Technical Standards regarding TDM Plans, Baxter Academy will also:

- produce a multi-modal page for the school's website (currently under development) and will actively maintain both it and a highly visible TDM bulletin board at the school. Both will provide:
 - Transit provider maps and schedules
 - Go Maine (and Emergency Ride Home Guarantee) and vRide vanpool service information
 - Internal information sharing about things such as: desired carpools, transit or bicycle commuting mentoring, and the results of student and staff transportation surveys
 - Information about specific incentives offered by the school (e.g. the 100% transit subsidy)
 - Information on walking and bicycling routes, school parking policies and locations, etc.
- Periodically recognize individual students and staff whose multi-modal activities reduce the traffic impact of the school - through newsletter, email, bulletin board, or other announcements.

Additional promotional suggestions for the school to explore, in order to reach trip reduction targets, are:

- Develop a Multimodal Access Map that is posted on the school's website and TDM bulletin board kiosk, identifying the walk zone, common walk routes and times, bike lanes and trails, and transit stops and routes. With the new site, students and staff may not realize how short walk and bike times are to particular downtown locations and this may encourage fewer auto trips.
- Form a student committee/subcommittee to advise the school's TDM work and develop peer-led campaigns that encourage active transportation and reduce the appeal of driving to school.

G. Monitoring

Baxter Academy's TDM Plan will be monitored by its TDM Coordinator. This effort will include:

- Annual family surveys regarding school transportation preferences
- Ridership figures on the school-sponsored charter buses
- Public transit usage through subsidy information
- The number of families participating in the school's ride-share/matching program
- The number of students biking to school
- The number of students registering their private vehicles with the school and where they park in town

- The number of staff utilizing school-leased parking
- The number of staff utilizing public transportation or other travel options
- Evaluating the daily parking demand of both campus visitors and vendor service providers and evaluate if other parking arrangements are deemed warranted
- Site traffic observations to cross-reference with the annual survey

This data will be compiled and compared against the parking and vehicle trip generation goals contained in Section D above. A summary report will be produced annually and submitted to the City's TDM planning office for review and comment.

H. Project Specific Standards

Infrastructure

School Zone Safety Features: Baxter Academy will install a flashing school zone speed limit sign assembly on Elm Street in advance of the 185 Lancaster Street Campus. An "End School Zone" sign will be appropriately located on Elm Street just west of the designated school bus loading zone advising motorists that they are leaving the school zone area. Secondary school speed zone signage will also be installed on both approaches of Lancaster Street that informs approaching motorists they are entering a designated school zone.

Baxter Academy will augment the City's annual crosswalk re-striping program, re-painting each of the existing crosswalk markings early spring of each year at the Lancaster Street/Elm Street intersection.

School staff will serve as a pedestrian crossing guard at the Lancaster/Elm Streets intersection aiding students crossing the Elm Street approach. A portable "school crossing" sign will be appropriately located in the center of the intersection reinforcing the school zone area.

Sidewalk Improvements: The City recently made sidewalk improvements on Elm Street and the Baxter Academy relocation will fund additional sidewalk expansion on Lancaster Street, along the frontage of the staff parking area.

Bicycle Parking: A total of 6 downtown "lollipop" bike racks are being installed for parking 12 bicycles as part of the school's Site Plan. If demand warrants additional facilities, the school is committed to providing them.

TDM Bulletin Board: In addition to the school's website transportation page, the school will erect a transportation bulletin board in a prominent location with information on various transportation options. This will include commuter assistance, public transportation, and ride matching.