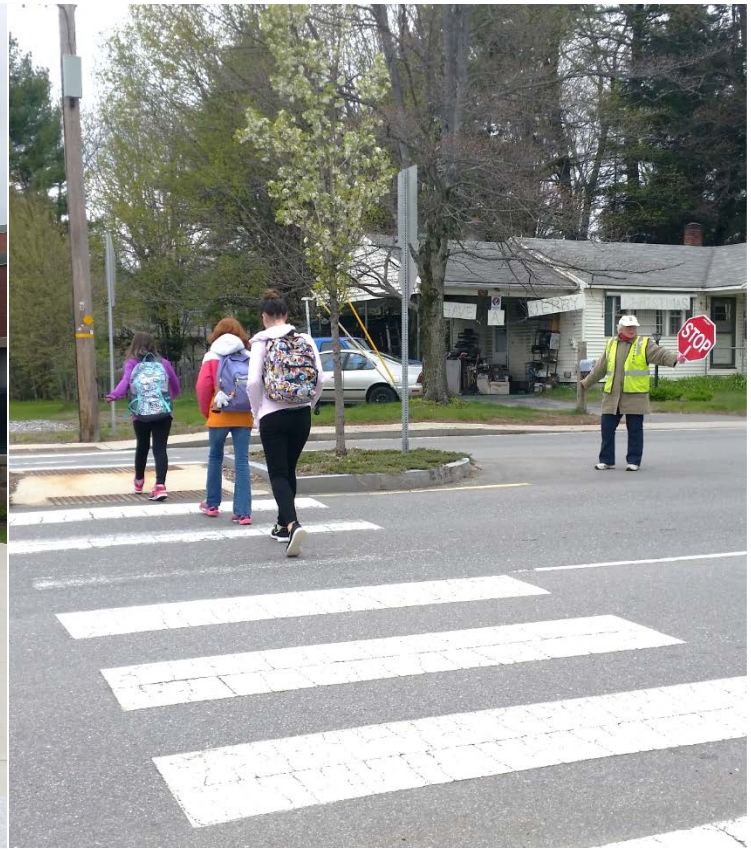
KEENE MIDDLE SCHOOL

SAFE ROUTES TO SCHOOL ACTION PLAN



SafeRoutes

SEPTEMBER 2016

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Acknowledgements

During the 2015/2016 school year, the Keene Middle School Wellness Committee worked with Southwest Region Planning Commission (SWRPC) to develop a Safe Routes to School Action Plan for Keene Middle School (KMS). KMS and SWRPC are grateful for the contributions provided by members of this committee, who are listed below.

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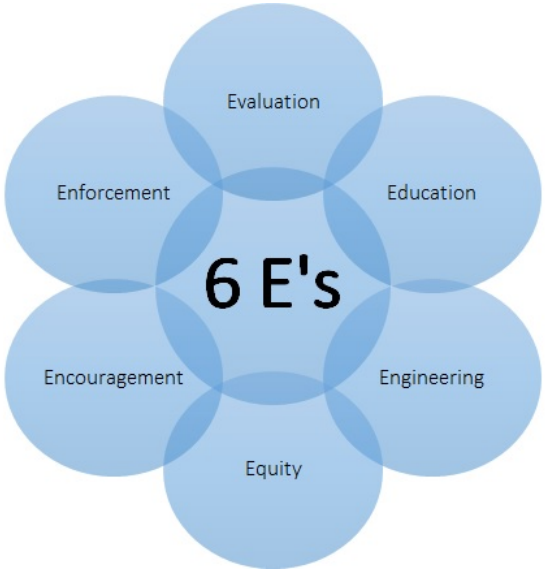
INTRODUCTION

The Keene Middle School (KMS) Safe Routes to School Action Plan was created to identify measures that will improve conditions for walking and biking to school. It includes an evaluation of existing travel conditions, strategies to improve education, encouragement, and enforcement activities, and recommendations for physical improvements, educational programs, and community efforts that will encourage walking and biking within a two-mile radius of the school.

There are far-reaching implications of an SRTS program. SRTS programs can improve safety for students and a community of pedestrians and bicyclists. They provide opportunities for students to incorporate the regular physical activity that they need each day while also forming healthy habits that can last a lifetime. SRTS programs also benefit the environment and a community's quality of life by reducing motor vehicle emissions and traffic congestion. The goal of the Action Plan is to identify recommended physical improvements and operational measures for neighborhood routes to KMS. The Action Plan will be available for use by the Wellness Committee as a framework to guide actionable next steps, both in the short-term and long-term. With the conclusions drawn from the collected information, the committee will be able to recommend priority projects and activities that the school, municipality and community can advance to promote safe walking and bicycling to school.

Figure 1 - The Six E's of Safe Routes to Schools.



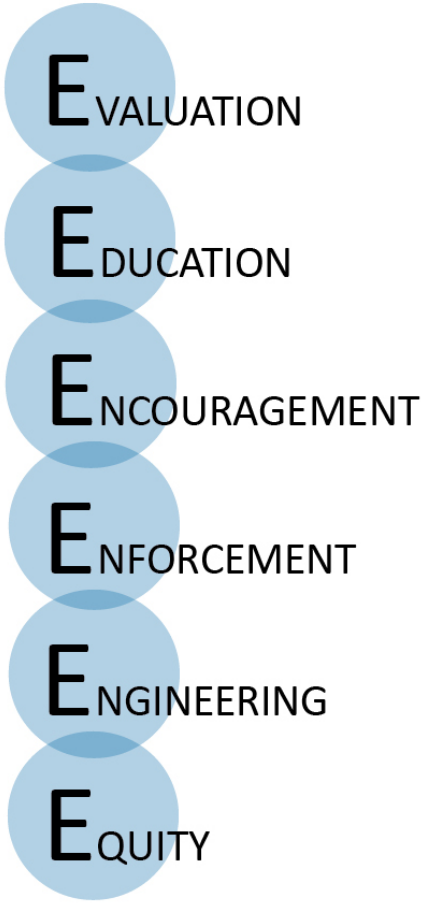
Project Overview

Safe Routes to School (SRTS) is a national program established in 2005[1] by the Federal Highway Administration (FHWA) that is focused on improving the health and wellbeing of children by creating safe opportunities to walk and bike to school. The program recognized a correlation between decreasing physical activity among America's youth and rising rates of obesity and associated chronic diseases such as diabetes. SRTS programs examine the conditions around schools and conduct activities to improve safety,

[1] "Safe Routes to School." Federal Highway Administration. Accessed April 21, 2016. http://www.fhwa.dot.gov/environment/safe_routes_to_school/.

accessibility, traffic, and air pollution near schools. Communities conducting these programs typically employ a combination of evaluation, education, encouragement, enforcement and engineering strategies to address the specific needs of their school(s).

This comprehensive approach, called the five (5) E's, is centered on an understanding that the barriers to safe walking and bicycling are both behavioral and physical. In 2015, the Safe Routes to School National Partnership introduced a sixth (6) E, Equity. Each of the six (6) E's (described below) is addressed in the Action Plan.



Evaluation involves monitoring and documenting outcomes, attitudes, and trends through the collection of data before and after program activities or projects. These activities help track which strategies would be most or least successful and which should be modified for better results.

Education programs include teaching pedestrian/bicyclist/traffic safety and creating awareness about the benefits and goals of SRTS. Education programs often incorporate health and environmental considerations associated with walking and bicycling.

Encouragement activities generate excitement and interest in walking and bicycling. Special events, mileage clubs, contests, and ongoing activities all provide ways for parents, caregivers, and children to discover or re-discover that walking and bicycling are doable and fun.

Enforcement programs are focused on deterring unsafe behaviors of pedestrians, bicylists, and motorists and encouraging all road users to obey traffic laws and share the road safely.

Engineering is a broad concept used to describe the design, construction, and maintenance of traffic control devices or physical measures. These strategies create safer environments for walking and bicycling through improvements to the infrastructure surrounding the schools.

Equity means working to support safe, active, and healthy opportunities for children and adults in low-income communities, communities of color, children with disabilities, and beyond. This involves incorporating equity concerns throughout the other E's to understand and address obstacles, create access, and ensure safe and equitable outcomes.

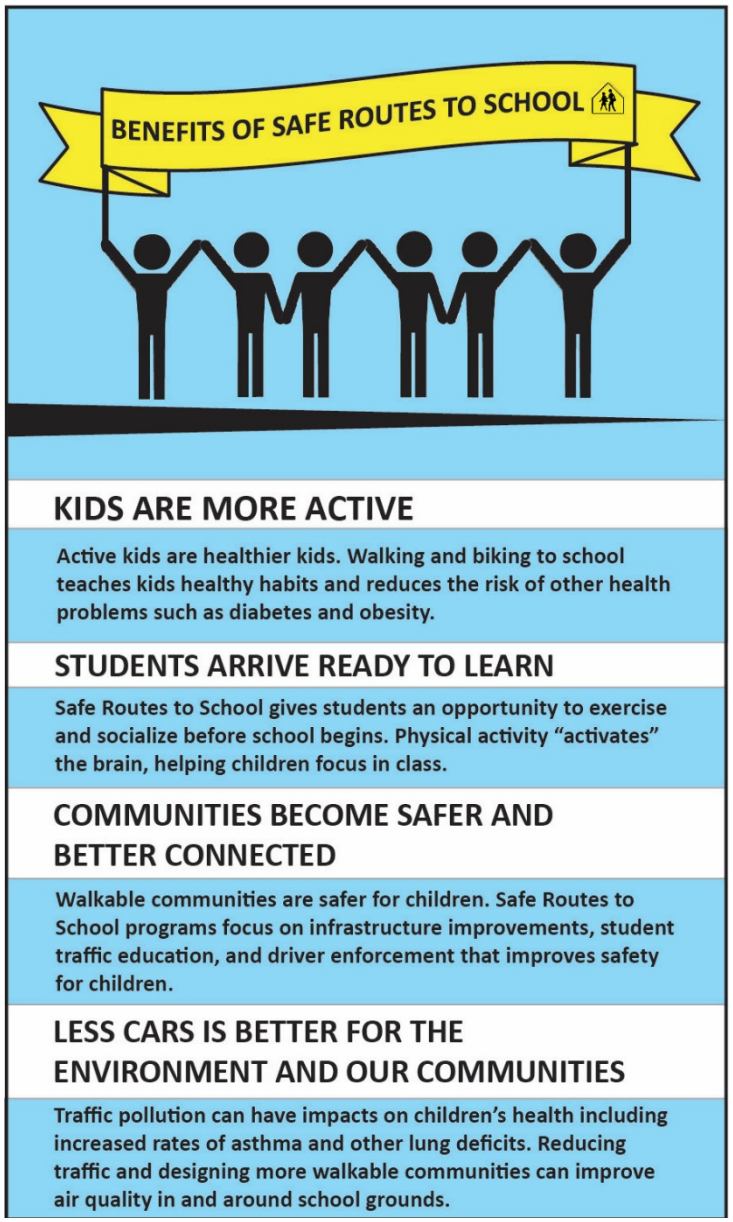
Benefits of Safe Routes to School

Safe Routes to School (SRTS) programs create a safer travel environment near schools and serve to reduce motor vehicle congestion at school drop-off and pick-up areas. One of the main goals of the SRTS program—along with increasing safety—is to increase the numbers of children who walk and bicycle to school. Students that choose to walk or bike to school are rewarded with the benefits of a more active lifestyle, as well as the responsibility and independence that comes from being in charge of the way they travel. SRTS can improve communities by making walking- and bicycling-safe ways to get to school and by encouraging more children to do so. SRTS programs offer additional benefits to neighborhoods by helping to reduce school-related traffic and providing infrastructure improvements that facilitate walking and bicycling for everyone. Identifying and improving routes for students to safely walk and bicycle to school can also help reduce traffic speeds in neighborhoods, reduce school-related traffic congestion on weekday mornings and afternoons, and decrease auto-related pollution around school environments.

Planning Process

In the fall of 2015 and the spring of 2016, staff from Southwest Region Planning Commission (SWRPC) met with the KMS Wellness Committee on a monthly basis to discuss the development of a SRTS Action Plan. Starting in the fall of 2015 and continuing in the spring of 2016, SWRPC staff assessed walking and bicycling conditions around the schools and collected baseline data about current walking and bicycling trends among students. SWRPC staff and the KMS Wellness Committee used the data to inform strategies KMS could undertake to increase the number of students walking and bicycling to school.

Figure 2 - Benefits of SRTS.



In order to better understand the walking, bicycling and travel conditions of each study area, SWRPC staff:

- Conducted field observations to review the behaviors and travel patterns of students, buses, and motorists at KMS during morning arrivals and afternoon departures;
- Distributed and analyzed parent surveys related to walking and bicycling behaviors;
- Distributed and analyzed student in-classroom travel tallies related to student arrival and departure travel modes;
- Conducted traffic volume and speed studies at locations near KMS, and
- Conducted turning movement counts at key intersections near KMS.

Study Area

KMS is located in the City of Keene on Maple Avenue just northeast of NH Route 12, as shown in Figure 3. The school, which was recently constructed in 2010, is within walking distance of several subdivisions, including the Maple Acres Neighborhood located across Maple Avenue from the school. The school includes grades six through eight and enrolled 680 students at the beginning of the 2015-2016 school year, 589 of which live in Keene. Approximately 28% of the KMS student population living in Keene, or 169 out of 589 students, lived within a two-mile radius of the school in 2015. Students who live within walking distance are shown in Figure 5, and the location of KMS students living in the City of Keene are shown in Figure 6.

Figure 3 - Aerial view of Keene Middle School.

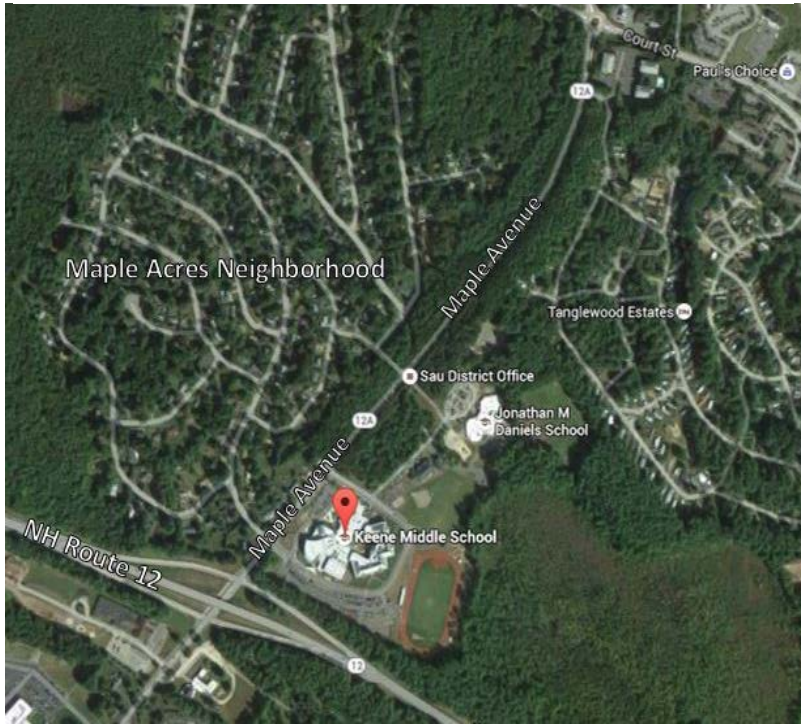


Figure 3 - October 1, 2015 Enrollment at Keene Middle School.

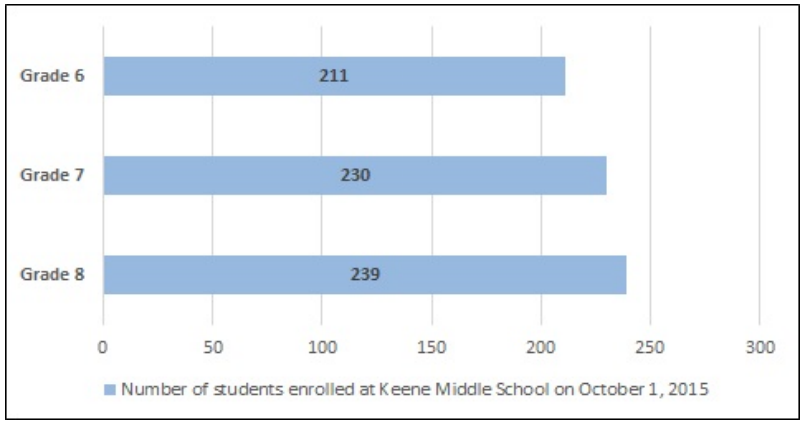


Figure 4 - Walking distances from Keene Middle School.

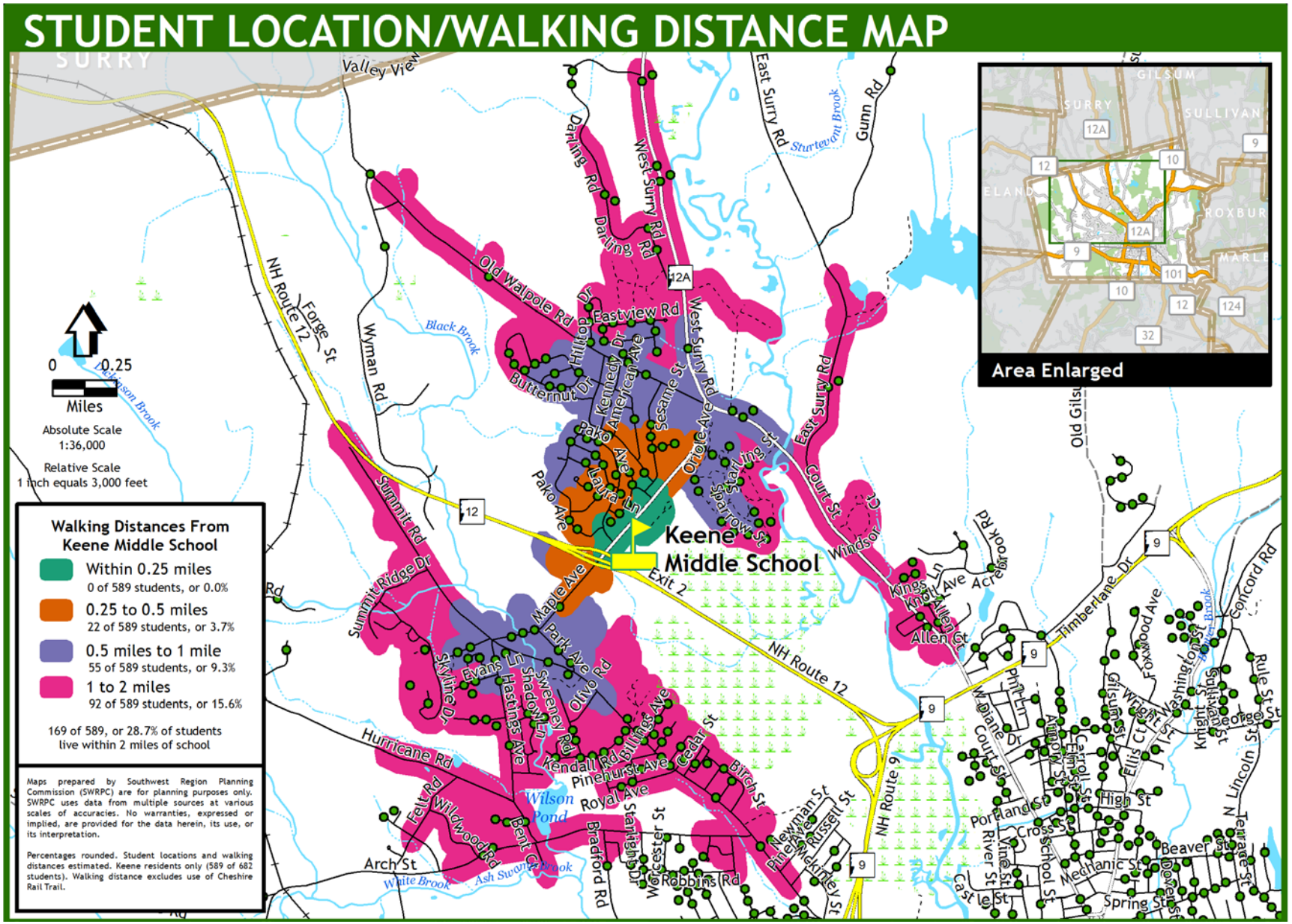
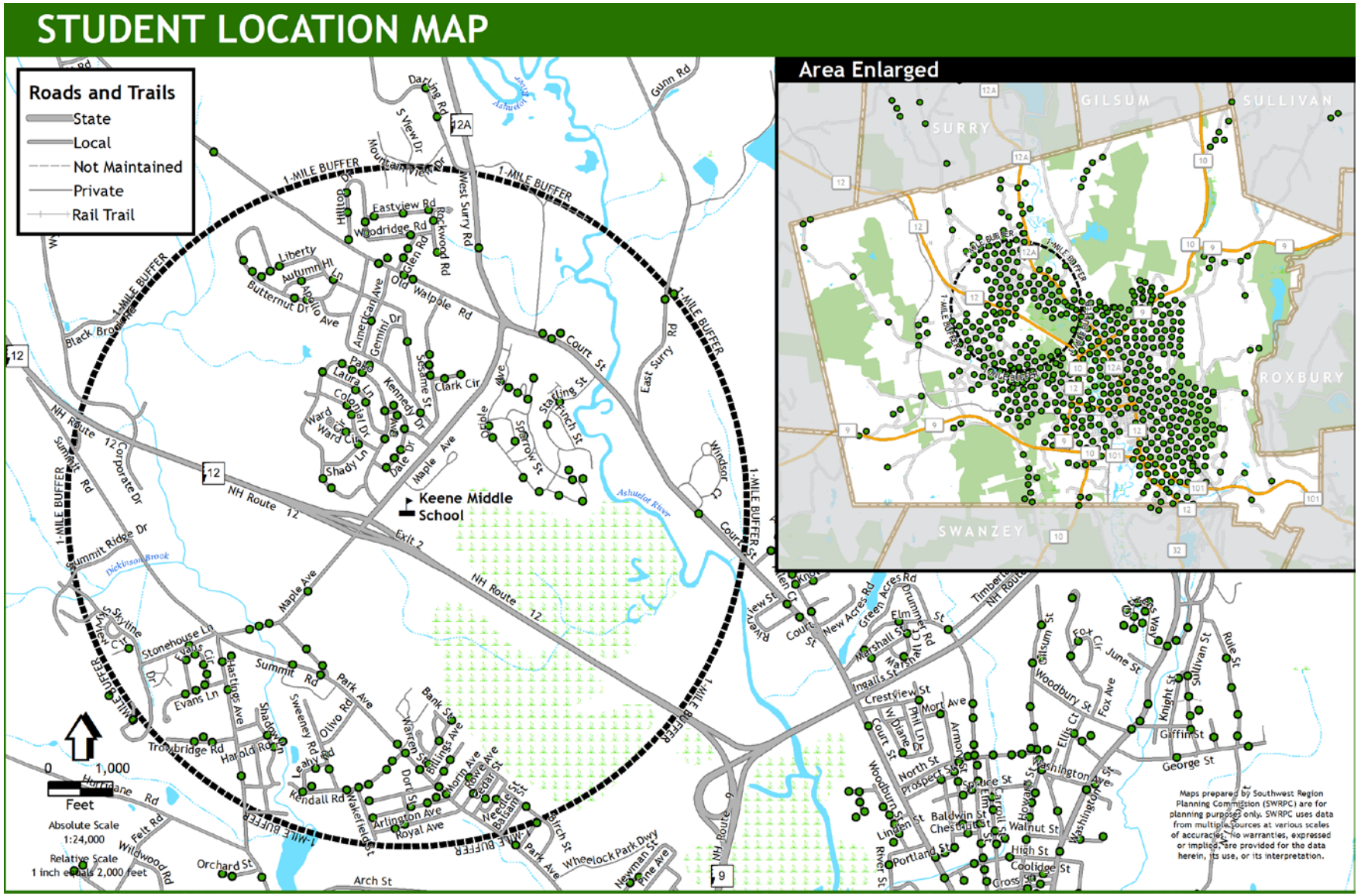


Figure 5 – Location of KMS students within the City of Keene.



EVALUATION OF EXISTING TRAVEL CONDITIONS

To better understand existing travel conditions within the study area (see Figure 7), SWRPC staff conducted morning and afternoon field observations to review the behaviors and travel patterns of students, buses, and motorists at KMS during drop-off and pick-up hours, collected and analyzed traffic speed and volume data on Maple Avenue, conducted vehicle turning movement analyses at intersections near the school, and distributed and analyzed data from a take-home parent survey and an in-class student tally related to student travel modes. A review of these observations and analysis is included in the sections below.

School Arrivals and Departures

Keene Middle School starts at 7:50 a.m. and lets out at 2:22 p.m. The main entrance to the school is located on the southwest end of the school off Maple Avenue, shown in Figure 7. The parking lot in front of the school is used by visitors and staff. A larger staff parking area is also located on the southern end of the school, near one of the bus drop-off and pick-up points.

Traffic Patterns

In the morning, parents start to line up in front of the school at 7:15 a.m., shown in yellow in Figure 7. Several parents were observed parking their cars along the opposite side of the travel lane to drop off students, causing less orderly and

Figure 6 – Parent and bus drop-off and pick-up Locations.

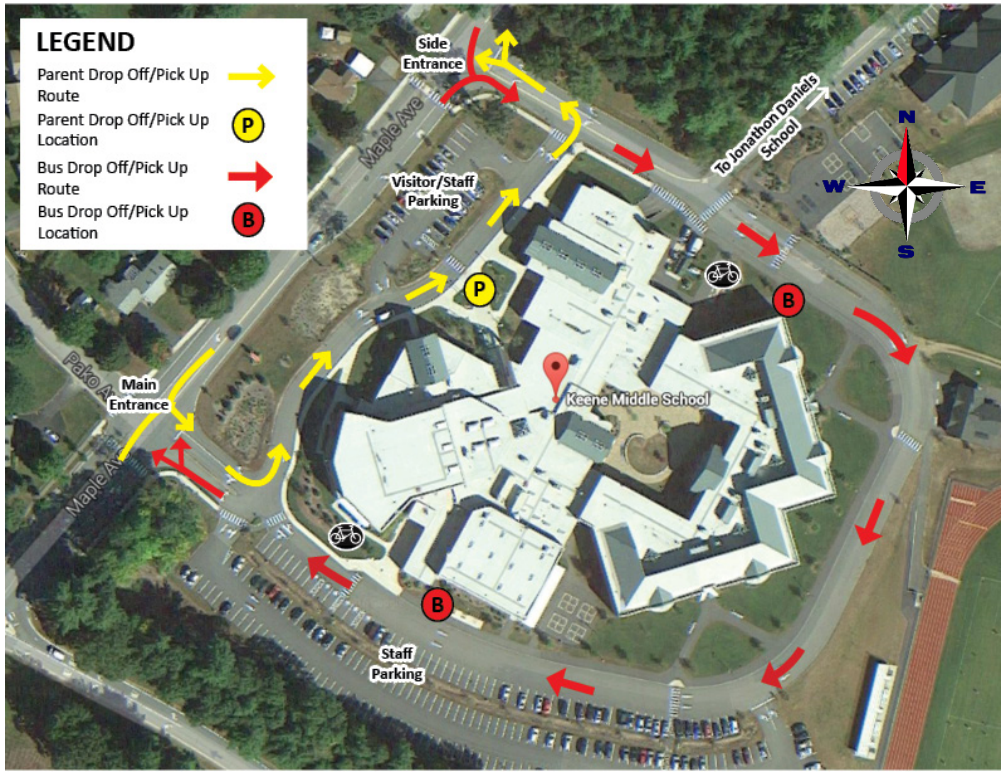


Figure 7 - A car parked on the other side of the travel lane during parent drop-off.

Figure 8 - Parents seen parking along both sides of the travel lane when picking up their children.

safe drop-offs in front of the school, as shown in Figure 8. There was some traffic congestion observed at the northeast entrance where parents exit school property. Buses arrive between 7:20 a.m. and 7:45 a.m. to drop off students at the side entrances to the school, as shown in Figure 7. Overall, bus drop-off proceeded smoothly. Walkers and bicyclists arrived at the school from all directions. There was a crossing guard to help students cross Maple Avenue at the northeast entrance to the school.

In the afternoon, parents start lining up to pick up their children from school as early as 1:30 p.m. Students started exiting the school building at 2:25 p.m. and parent vehicles were cleared out by 2:45 p.m. Overall, afternoon traffic flow was smooth and orderly; however, several parents were observed parking along the opposite side of the travel lane, causing some congestion as shown in Figure 9. A crossing guard was present at the northeast entrance to the school to help walkers cross Maple Avenue.

Areas of Safety Concern

The major areas of safety concern noted during the field studies are listed below. For a full summary of the field review, please see Appendix A.

- Driver Impatience: There is one crossing guard on duty to help students cross Maple Avenue at the northwest entrance to the school. In the afternoon, one vehicle took advantage of the stopped traffic while students were crossing the crosswalk to pull out of the school driveway. The crossing guard had to put her hand on the car and physically block its path to keep the car from getting too close to the crosswalk.
- Speeding on Maple Avenue: There are two speed limit/school zone signs for both approaches to KMS on Maple Avenue, which indicate that the speed limit is 20 miles per hour. Although these signs were flashing during the field review, speeding was detected on Maple Ave. (see page 13 for speed data). Although there is speed signage indicating speed limit and the school zone boundary, as well as center medians, additional traffic calming measures could be considered to decrease speeding.
- Lack of Bicycle Signage: There are no “Share the Road” signs or other signs/road markings on streets around the school indicating that drivers should share the road with bicyclists.
- Idling: Parents were observed idling their cars while waiting to drop off or pick up their children in front of the school building. This poses environmental health risks, as idling contributes to poor air quality. Additionally, there is heavy traffic on Maple Avenue due to the school’s close proximity to highway entrance and exit ramps, which can also affect air quality near the school.

Parent and In-Classroom Surveys

KMS and SWRPC staff worked with KMS faculty and administration to conduct the National SRTS Parent and In-Classroom Surveys during the second half of the 2015-2016 school year. These surveys helped generate a baseline of the number of students currently biking and walking to school and identified some of the barriers that prevent parents from allowing their children to walk or bike to school.

Parent Survey

The parent survey collects information from parents about how their children arrive and depart from school and what concerns, issues, and barriers parents have about their child walking or biking to school. Survey results help determine how to improve safety conditions and make walking and biking easier and more convenient for both children and parents.

A total of 56 households responded to the Parent Survey, representing 98 students. Of this sample, about 43% (24 respondents) lived within two miles of KMS, which is generally considered reasonable walking or bicycling distance. About 18% (10 respondents) lived within one mile of school. Figures 10 and 11 show how many students arrive or depart from school via school bus, carpool, family vehicle, biking, or walking as indicated on the Parent Survey. They also show the distance the students live from home by mode of travel.

The primary arrival mode, as indicated by parents, is family vehicle (48% of households) followed by school bus (43% of households). Of the students who arrive in a family vehicle or by bus, about 18% live less than a mile from school. No parents reported that their children walked or biked to school. The primary departure mode in the afternoon is school bus (48% of households) followed by a family vehicle (39% of households). Similarly, of the students who depart from school in a school bus or a family vehicle, about 16% of students live less than a mile from school. Seven percent of students walk home from school in the afternoon. No respondents indicated that their child biked home from school.

Figure 9 - How KMS students arrive to school by distance, according to the Parent Survey.

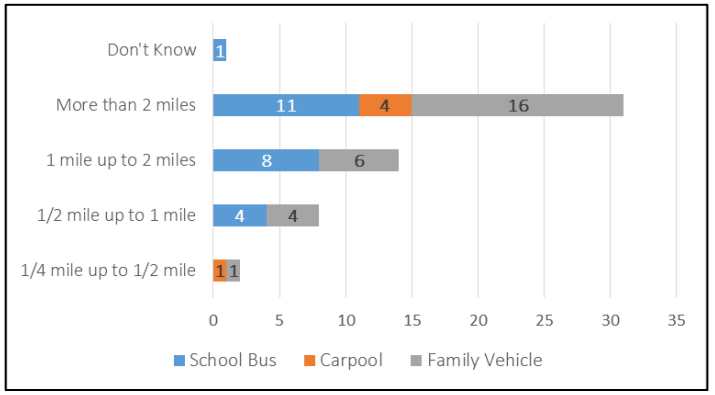
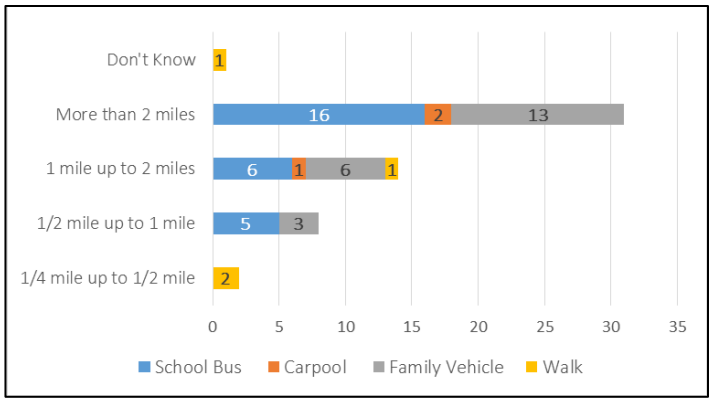


Figure 11 - How KMS students depart from school by distance, according to the Parent Survey.



Parents cited a number of factors that influence their decision to allow their child to walk or bike to school, as shown in Table 1. The top factor that influences parents is their distance from school (76% of respondents). This number is consistent with the fact that over half of the parents who filled out the survey (56%) live more than 2 miles from school. The second most identified factor parents cited is the safety of intersections and crossings (71% of respondents). Other significant factors include sidewalks/pathways, amount of traffic along route, and speed of traffic along route.

Of the parents who live within 2 miles of school, 42% (10 out of 24) indicated that they would feel comfortable allowing their child to walk or bike to school in grade six. Seventeen percent (4 out of 24) indicated that they would feel comfortable at grade 4, and 13% (3 out of 24) said they would not feel comfortable at any grade. Figure 12 summarizes parent responses to this question.

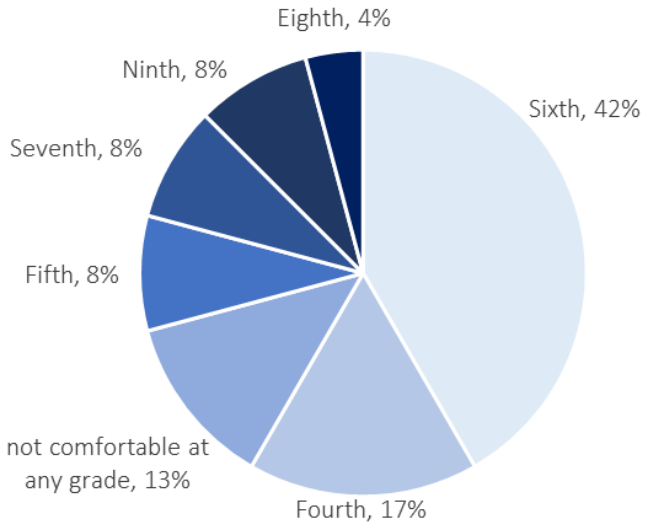
Only 10% of total respondents (46 people) said that KMS encourages their child to walk or bike to and from school, despite the fact that 87.5% of respondents identified walking and biking as being a healthy or very healthy activity. About 82% of respondents indicated that KMS neither encouraged nor discouraged their child to walk or bike to and from school.

A sample of comments shared by parents on this survey are included on the next page. Many of these comments emphasize that distance, traffic safety, and the need for infrastructure improvements are important factors in parents' decisions to allow, or not allow, their children to walk and bike to and from school.

Table 1 - Factors influencing parent decision to allow child to walk/bike to school.

Factor	% Respondents
Distance	76%
Safety of intersections or crossings	71%
Sideways or pathways	63%
Amount of traffic along route	61%
Speed of traffic along route	59%
Crossing guards	54%
Violence or crime	54%
Childs before or after school activities	50%
Time	42%
Adults to walk or bike with	42%
Weather or climate	42%
Convenience of Drive	22%

Figure 12 - Grade at which parents who live within 2 miles of school are comfortable allowing their child to walk or bike to/from school.



Selected Comments from the Parent Survey

DISTANCE

- "Some of the questions don't apply to my child as we live out of town and walking is not an option. We drive over 30 miles to bring our children to school."
- **"**If I lived in Keene, within 1-2 miles I would encourage my child to buddy up with other children and walk or bike to school. Depending on their age, with or without an adult."
- "We live too far away for foot transportation to be an option for my child to KMS. Even if the bike path could get her there, it is not a safe area for kids (or adults at times)."

TRAFFIC SAFETY

- "I've suggested that my daughter walk or bike to school, but she feels very unsafe crossing the highway exchange on Maple and Rt. 12. She had a couple of close calls there in 6th grade and since then- no dice."
- "Traffic in the morning exiting the 12n [NH Route 12 North] ramp backing up onto highway is unacceptable. Walking biking that intersection at 7:40 is hazardous as motor vehicle drivers are distracted and impatient from having been delayed."
- "If she were to walk home by Maple Ave, she would have to cross Maple Ave…there is no crosswalk at the entrance and traffic is horrendous at that time of day."

INFRASTRUCTURE

- "Hurricane Road could use a sidewalk or the Hastings Ave./Hurricane intersection needs better signage or a speed bump just before the stop sign."
- "The intersection at Park and Arch really needs improved signaling. We've have seen cars drive through the red light there countless times. Even with the crossing light, you cannot expect cars to stop."

OTHER COMMENTS

- "My child has ADHD-if she were more aware-I would let her walk."
- "Let's not perpetuate a fear based culture on our kids. Teach them, guide them and allow them to experience the responsibility and freedom of getting themselves to school."

In-Classroom Survey

The In-Classroom survey was administered by 33 classrooms at KMS in early May 2016. Teachers surveyed students each morning and afternoon for three consecutive days (Tuesday – Thursday) on their mode of travel to and from school. Between 500 and 510 students shared their arrival modes each day and between 480 and 490 students shared their departure modes each day.

According to the survey, an average of 14 students walked to school and 36 students walked home from school, representing 3% and 8% of the total student samples, respectively. Approximately 17 students, or 4% of the morning total, biked to school and 16, or 3%, biked home in the afternoon. The number of students who arrive to school in a parent vehicle was 212 (41%), however in the afternoon this number dropped to 164 (34%). More children rode the bus in the afternoon. In the morning, about 243 students, or 63% took the bus, which increased in the afternoon to 244, or 51%. Around 17 students (4%) carpooled to school and 20 (4%) carpooled home. Only one student took public transit to school in the morning, with no students reporting taking public transportation home.

Figure 10 - Mode of travel to and from school based on in-classroom survey.

Mode of Travel	Morning/Arrival		Afternoon/Departure	
	Average # of Students	% of Total Respondents	Average # of Students	% of Total Respondents
Walking	14	3%	36	8%
Biking	17	4%	16	3%
Family Vehicle	212	41%	164	34%
Bus	243	47%	244	51%
Carpool	17	4%	20	4%
Transit	1	1%	0	0%
Other	0	0%	0	0%

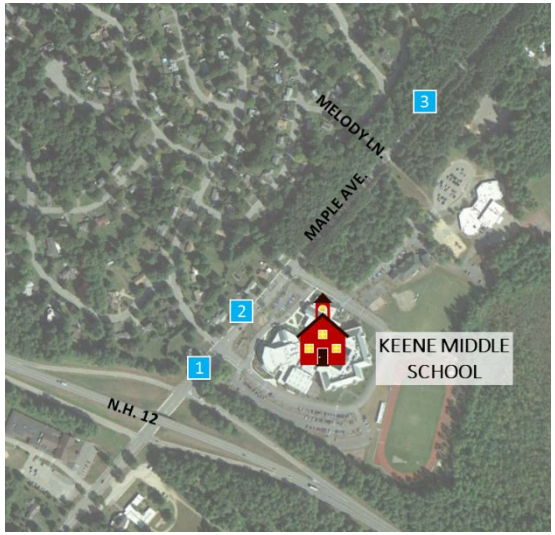
Traffic Conditions near Keene Middle School

Traffic Volume and Speeds

To better understand traffic conditions near the school, SWRPC staff conducted traffic volume and speed counts at three locations, including Maple Avenue south of Pako Avenue (Site 1), Maple Avenue between the school entrances (Site 2), and Maple Avenue north of Melody Lane (Site 3). Figure 14 shows the location of the traffic study sites.

Table 2 on the next page shows the average traffic volume detected at each of the three sites in vehicles per hour during school arrival and departure times. Figure 15 on the following page shows the 85th percentile speed (i.e., the speed which 15% of traffic is exceeding) for the morning and afternoon at each traffic counter site in comparison to the school zone speed limit

Figure 114 - Traffic study sites near KMS.



of 20 mph, and Table 3 shows the maximum, average, and 85th percentile speed detected at each traffic study site in miles per hour (mph) during school arrival and departure times.

Some speeding was detected at all three traffic study sites on Maple Avenue during school arrival and departure times. Site 1, which includes a right turn lane, has the lowest average speeds of 22.9 mph in the morning and 24.4 mph in the afternoon. However, this site has the highest average hourly traffic volumes, which were 1,147 vehicles per hour from 7:00-8:00 a.m. and 1,088 vehicles per hour from 2:00-3:00 p.m. The higher traffic volumes at Site 1 are likely due to its proximity to NH Route 12.

The traffic volumes at Site 2 are slightly lower – 1,015 vehicles per hour in the morning and 997 vehicles per hour in the afternoon – however, the average speeds are higher. In the morning, the average speed detected at Site 2 was 24.3 mph, and the 85th percentile speed was 29.2 mph (i.e., 15% of vehicles were going faster than 29.2 mph). In the afternoon, these values increased to 26.1 mph and 31.3 mph, respectively.

The highest speeds were detected at Site 3, which is located within the school speed zone but near the edge. The average speed at this site was 29 mph. About 43.5% of vehicles exceeded the speed limit by at least 10 mph at this location in the morning, and in the afternoon this percentage increased to 49.3% of vehicles.

Figure 15 - 85th percentile speeds at traffic study sites during morning (7-8 a.m.) and afternoon (3-4 p.m.) hours.

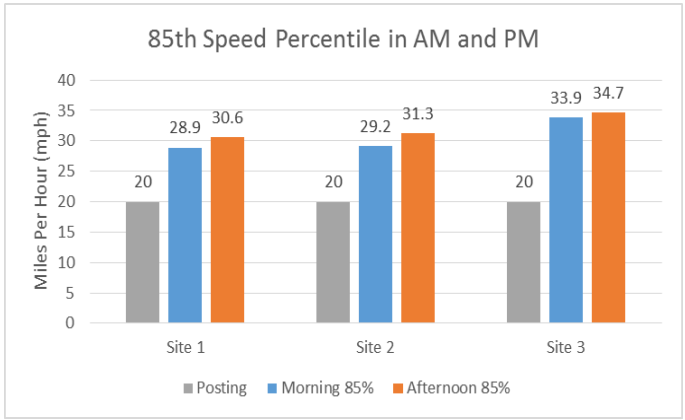


Table 2 - Traffic volume counts in vehicles per hour during morning and afternoon times.

Traffic Counter Location	Morning 7-8 a.m.	Afternoon 3-4 p.m.
Site 1	1147	1088
Site 2	1015	997
Site 3	890	896

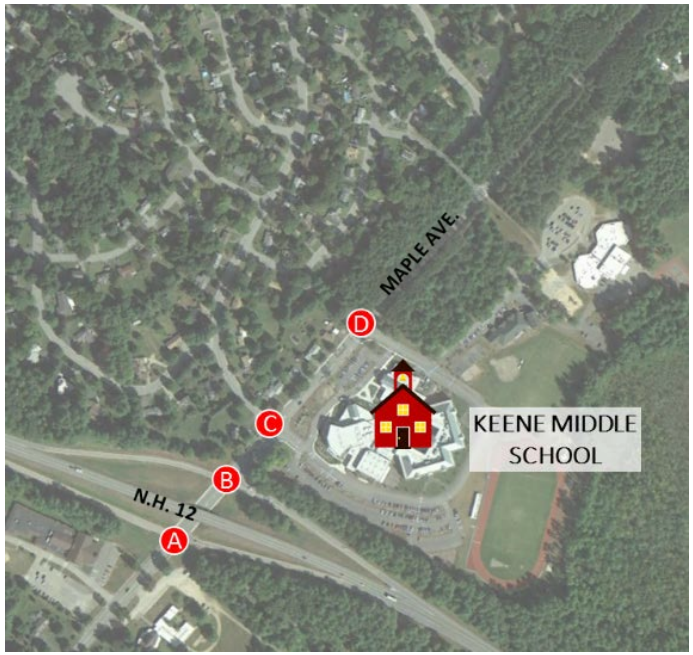
Table 2 - Traffic speed data for traffic study sites near KMS.

Traffic Counter Location	Morning (7:00-8:00 a.m.)			Afternoon (2:00-3:00 p.m.)		
	Maximum	Average	85%	Maximum	Average	85%
Site 1	40.6	22.9	28.9	44.2	24.4	30.6
Site 2	41.2	24.3	29.2	48.4	26.1	31.3
Site 3	47.4	29.0	33.9	47.5	29.7	34.7

Turning Movement Counts

In addition to traffic volume and speed counts, SWRPC staff conducted turning movement counts during peak morning (7:00-8:00 a.m.) and afternoon (2:00-4:00 p.m.) hours at the NH 12 highway entrance and exit ramps (Sites A and B) and the entrances to Keene Middle School (Sites C and D). These counts were conducted on April 27, 2016 (Site B), May 2, 2016 (Site D), May 3, 2016 (Site C), and May 4, 2016 (Site A). The locations of the turning movement studies are shown in Figure 16, and the results of the turning movement counts are shown in Figures 17-20. Yellow arrows indicate the direction of vehicle flow, and the numbers next to the yellow arrows indicate the number of vehicles counted making that movement. The black number next to the pedestrian symbol indicates the number of pedestrians that crossed the intersection at each location.

Figure 126 - Locations of turning movement count sites near KMS.



At Sites A and B, there were significantly more vehicles counted making turning movements in the afternoon than in the morning. At Site A, there was a total of 526 vehicles making turning movements in morning, whereas in the afternoon there was a total of 767 vehicles. At Site B, the number of vehicles making turning movements in the morning and afternoon were 567 and 820 vehicles, respectively. The number of pedestrians counted at Site A ranged from 15 pedestrians in the morning to 9 pedestrians in the afternoon. At Site B, there were 24 pedestrians in the morning and 32 pedestrians in the afternoon. The difference in the number of pedestrians at these two sites can be attributed to the fact that the counts were conducted on different days, which likely had different weather conditions.

Site C, which is the entrance that parents use to drop off and pick up their children, had a total of 17 pedestrians moving through the intersection in the morning and 10 pedestrians in the afternoon. The majority used marked crosswalks, however two pedestrians crossed the school driveway where there is no crosswalk in the morning. A total of 435 vehicles made turning movements at this site in the morning, and 431 vehicles made turning movements in the afternoon. Site D, which includes the official crosswalk that students walking to school are supposed to use, had a total of 23 pedestrians in the morning and 19 pedestrians in the afternoon. All of the pedestrians used the marked crosswalk. There were 326 vehicles that made turning movements in the morning at this site, and 367 in the afternoon.

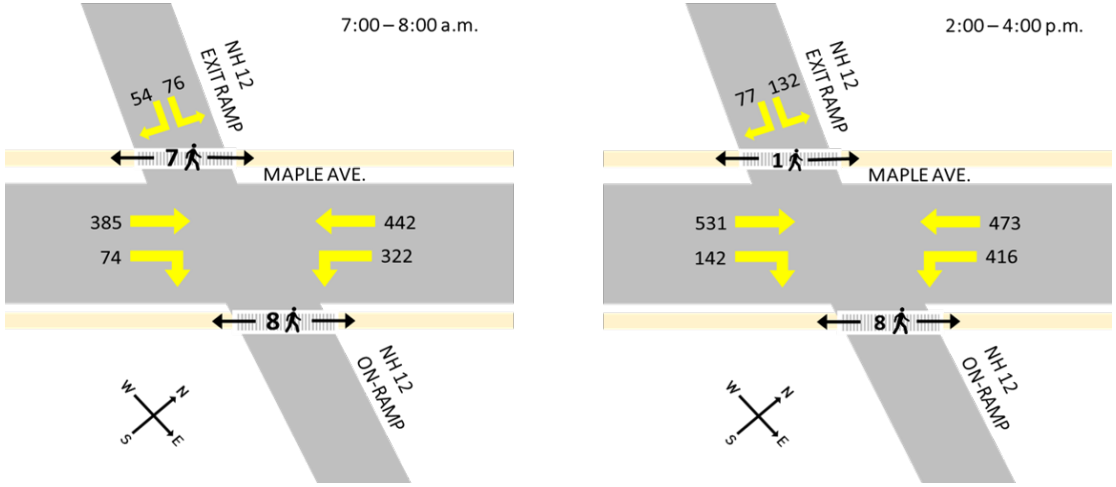


Figure 13 - Results of the morning and afternoon turning movement counts at Site A. Yellow arrows indicate the direction of vehicle flow, and the numbers next to the yellow arrows indicate the number of vehicles counted making that movement. The black number next to the pedestrian symbol indicates the number of pedestrians counted at this site. Counts were conducted on May 4, 2016 by SWRPC staff.

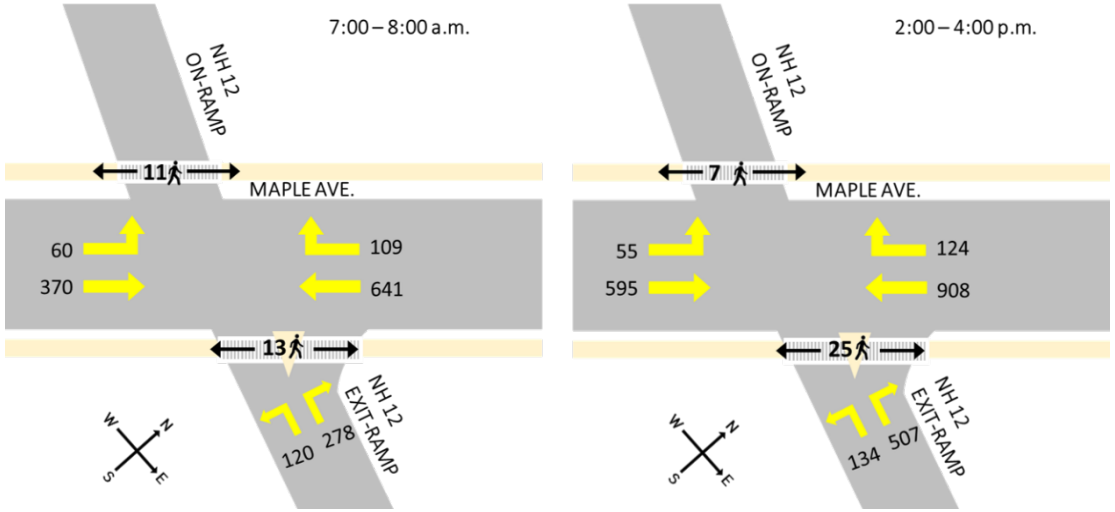


Figure 18 - Results of the morning and afternoon turning movement counts at Site B. Yellow arrows indicate the direction of vehicle flow, and the numbers next to the yellow arrows indicate the number of vehicles counted making that movement. The black number next to the pedestrian symbol indicates the number of pedestrians counted at this site. Counts were conducted on April 27, 2016 by SWRPC staff.

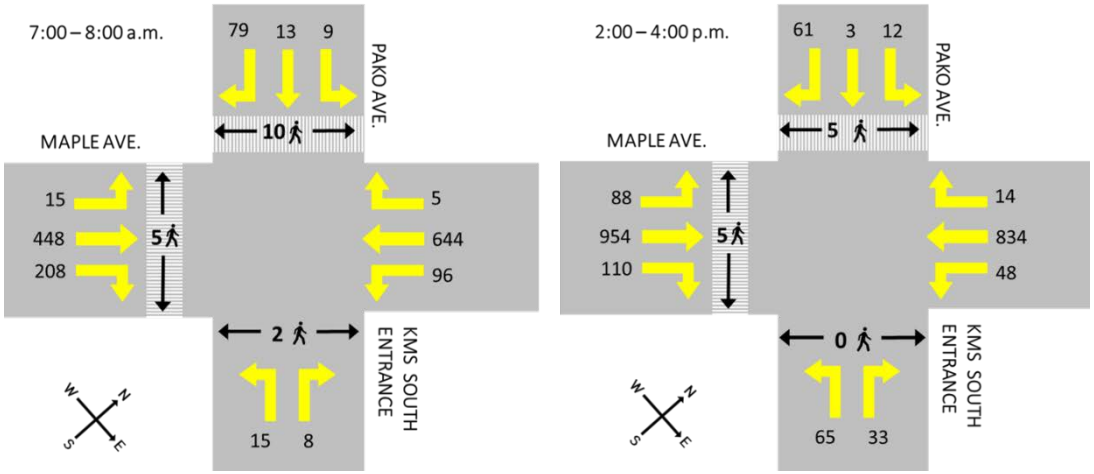


Figure 15 - Results of the morning and afternoon turning movement counts at Site C. Yellow arrows indicate the direction of vehicle flow, and the numbers next to the yellow arrows indicate the number of vehicles counted making that movement. The black number next to the pedestrian symbol indicates the number of pedestrians counted at this site. Counts were conducted on May 3, 2016 by SWRPC staff.

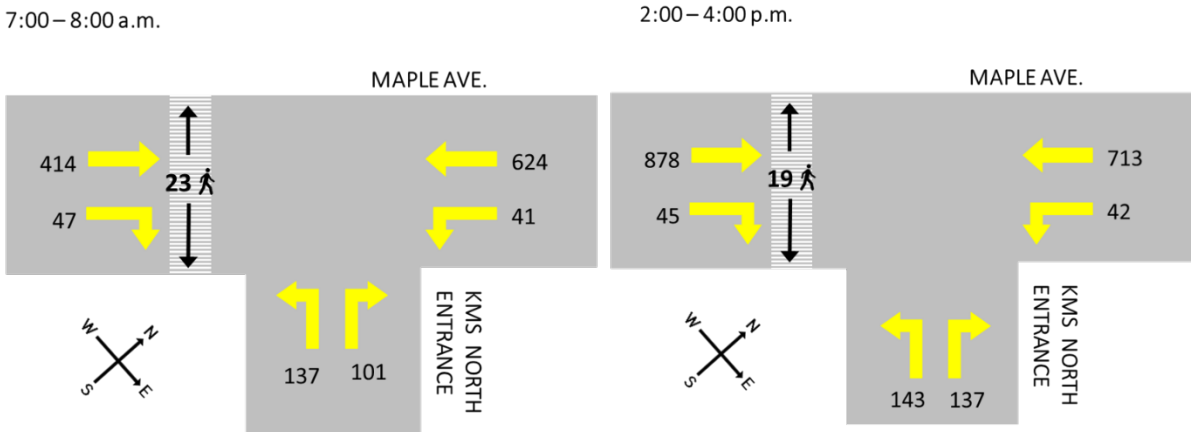


Figure 15 - Results of the morning and afternoon turning movement counts at Site D. Yellow arrows indicate the direction of vehicle flow, and the numbers next to the yellow arrows indicate the number of vehicles counted making that movement. The black number next to the pedestrian symbol indicates the number of pedestrians counted at this site. Counts were conducted on May 2, 2016 by SWRPC staff.

SAFE ROUTES TO SCHOOL STRATEGIES

The KMS SRTS program works to create safe, active, and healthy opportunities for all children and seeks to engage families from all incomes, abilities, and walks of life. To achieve this, all of the strategies developed under the 5 "E's" should incorporate the sixth "E"- equity. Resources to help implement these strategies are listed in Appendix D.

Education

Education is essential for improving safe walking and biking conditions. Keene Middle School should consider using this Action Plan as an opportunity to educate the school community about the benefits of walking and biking to school and on safe travel behavior for students and parents. Recommendations for enhancing education and awareness of the importance of and need for safe walking and bicycling routes to school are described below.

1. Incorporate Safe Routes to Schools into Extensions Program and/or School Curriculum

Students in the Extensions program could take on special projects, or teachers could incorporate Safe Routes to School into the curriculum for each grade. Ideas include:

- Analyze data from the "Safe Routes to School Arrival and Departure Travel Tally" and the "Parent Survey About Walking and Biking to School" and share results with the student body;
- Create an educational video about safe walking and bicycling practices;
- Make calculations showing the benefits of reducing gasoline consumption. For example: calculate the miles per gallon of the students' family cars (using odometer readings and number of gallons it takes to fill up the car); Calculate the greenhouse gas emissions that could be avoided if every student walked or biked to school;
- Write a report on the history of transportation; and/or,
- Have KMS students help teach bicycle education to younger students at bike rodeos.

Figure 161- Alexandria, Virginia's Junior Bicycle Ambassadors demonstrate a turn signal during a bike rodeo at an elementary school.

2. Start a "KMS Bike Club" to teach students bicycling skills in a safe and supervised environment.

   After School Bike Clubs teach students the skills necessary to become responsible cyclists and allow students to practice these skills in a safe and structured setting. Generally, bike clubs are led by at least one staff member or trained coach with help from parent volunteers. KMS may want to require students to complete a bicycle safety training course (for example, a "bike rodeo") before they are allowed to go out on rides. Family members can benefit from learning proper helmet fitting techniques, easy bicycle checks, tips for riding safely with children to school, and state and local laws about where and/or how to ride (e.g. sidewalk riding is allowed for children under age 10 in residential areas, etc.).

3. Share information on student bicycle and pedestrian safety via the school website, newsletter, and/or other information outlets.

   KMS should periodically remind parents and students about school rules for walking and bicycling and provide safety tips. For example, when the weather starts to get cold, the school could post information about when bicycling to school is allowed, as well as the proper clothing to wear while walking or bicycling in cool weather.

4. Include information about how families can walk, bike, take the bus, or carpool to school in the KMS Parent Handbook.

   The KMS Parent Handbook should include information such as who is eligible to ride the bus, where parents can find information about bus routes and schedules, recommended walking/bicycling routes to school, etc. Also, the school may want to consider providing resources to help parents arrange carpools (see Strategy 4 under "Encouragement" for more information).

5. Give presentations about Safe Routes to School at School Board meetings, Parent Group meetings, and other meetings as appropriate.

   The KMS Wellness Committee (or future KMS Safe Routes to School task force) should consider giving at least one presentation to the School Board and Parent Group each year about the KMS Safe Routes to School program. These presentations could include information such as an overview of the SRTS Action Plan, an overview of the benefits of Safe Routes to School, and/or an update on the Safe Routes to School activities that KMS has undertaken or will undertake during the year. The Wellness Committee/SRTS task force may also want to consider giving presentations to other groups that may have an interest in Safe Routes to School programming.

Encouragement

Encouragement activities help generate excitement and interest in walking and bicycling to school. Coordinating special events, contests, mileage clubs, and ongoing activities all provide ways for students to discover, or re-discover, the benefits of walking and bicycling to school. Several recommended encouragement activities are listed below:

1. Organize Walk/Bike to School Day Events to Promote Walking and Bicycling to School.

Walk and Bike to School Day events create opportunities for children to interact and socialize with their peers and encourage families and children to try walking or bicycling to school. National Walk to School Day occurs the first week of October, and National Bike to School day occurs the first week of May, but many schools choose to hold walk/bike to school day events throughout the year. Tips for organizing a Walk/Bike to School Day event are listed below. For more detailed guidance, see the Safe Routes to Schools Resource List in Appendix D or visit www.walkbiketoschool.org.

2. Create a School-Wide Mileage Club or Contest to Offer Incentives to Students who Bike or Walk to School.

Mileage Clubs can provide ongoing reinforcement to students for walking and bicycling to school. Students track the number of times they walk or bike to school and are rewarded with recognition, prizes, or awards. Contests can be between individuals, classrooms, or between schools. Mileage Clubs are generally year-round programs, but schools can also choose to coordinate a "Mileage Contest" as an event. Prizes can include stickers, wristbands, healthy treats, etc. KMS could also consider participating in nation-wide mileage contests including the 100-Mile Contest, a Fuel up to Play 60 Initiative. The 100-Mile Club challenges students to walk, jog, or run 100 miles to school in a single school year. For more information about how to plan a mileage club or contest, see Appendix D.

Figure 17- Salt Brook Elementary students and parents organized a walking school bus for Walk to School Day in 2013.

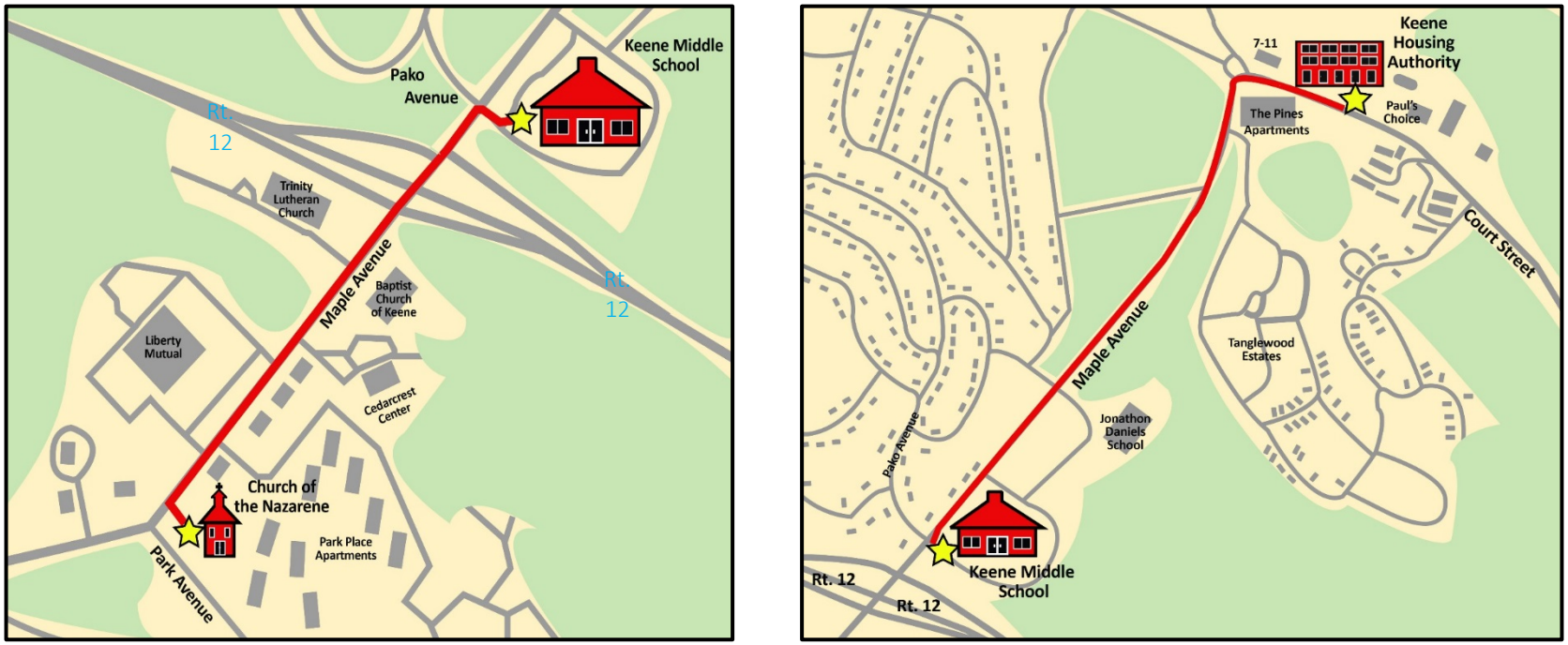
Figure 23 - Symonds Elementary School students get their cards punched for the Symonds "Walk, Roll, and Ride" program.

3. Establish a Remote Drop-Off Location to encourage students who live further away to participate in walking or bicycling to school.

Over 75% of KMS students live further than two miles from school, which limits their ability to participate in walk/bike to school events. Remote drop-off locations are pre-determined sites (such as parking lots, churches, etc.) that serve as a meeting space for students who typically have to ride in a parent's vehicle or the bus. Once parents or buses drop off children, they can walk the rest of the way to school under the supervision of an adult. Usually drop off locations are a half mile to a mile from school.

SWRPC staff visited two potential remote drop off locations near Keene Middle School and evaluated the safety of the walking route from each drop-off location to the school property. Potential remote drop-off locations and walking routes were identified with the Keene Middle School Wellness Committee. Each location is within walking distance of the school and has parking lots large enough to accommodate a high number of vehicles and students safely, as shown in Figure 24. For more information about potential remote drop-off locations, please see Appendix E.

Figure 24 - Two potential remote drop-off locations for KMS. One at the Church of the Nazarene (left), the other at the Keene Housing Authority (right)



4. **Provide Resources for Parents to Carpool to School.**

   Many communities involved in Safe Routes to School have encouraged parents to organize carpools to alleviate traffic congestion in parent pick-up and drop-off areas and reduce auto emissions. Parent volunteers share the responsibility of getting children to and from school safely. Carpools to remote drop-off locations may also increase the number of students who participate in walking or bicycling to school by dropping off students at a remote drop-off location (see Strategy 3). For more information about how to organize a parent carpool, see Appendix D.

Enforcement

Enforcement strategies help reduce unsafe behaviors by drivers, pedestrians, and bicyclists and encourage all road users to obey traffic laws and share the road safely. Law enforcement, school personnel, and community members can work together to create and sustain a safe environment for walking and biking to school. Enforcement strategies should be implemented in combination with education, encouragement, and engineering strategies to have maximum impact. Recommended enforcement strategies are listed below.

Figure 25 - A KMS crossing guard directs students to cross Maple Avenue.

1. **Continue Successful Crossing Guard Program.**

   Crossing guards are an integral part of any Safe Routes to School program. They help children cross the road safely, enforce proper driver behavior, and help make parents feel more comfortable letting their children walk/bike to school. Currently, there is one crossing guard located at the pedestrian crosswalk on Maple Avenue. The school should continue to partner with local law enforcement to maintain this crossing guard. There is also opportunity to grow the crossing guard program to help with crossings at busy intersections, such as the highway entrance and exit ramp crossings on Maple Avenue.

2. **Strictly Enforce Parent Drop-Off and Pick-Up Process and Improve Parent Drop-Off/Pick-Up Zone.**

   The school should inform and remind parents of the proper drop-off and pick-up process on a regular basis. Though most KMS parents follow the correct drop-off and pick-up process, some parents try to skip the line by letting their child out at an unapproved location. KMS could increase their presence of enforcement personnel in the parent pick-up and drop-off area to ensure parents are following safe pick-up and drop-off procedures. Clearly defining the drop-off/pick-up lane with paint could help encourage the correct drop-off and pick-up procedure, and additional signage could address other issues that were observed in the parent pick up and drop off area including "No Idling" signage and a "Pedestrian Crossing" sign next to the crosswalk in front of the school.

Engineering

Engineering is a broad concept used to describe the design, implementation, operation and maintenance of traffic control devices or physical measures, including low-cost as well as high-cost capital measures. Infrastructure such as sidewalks, wide paved shoulders or bike lanes, visible crosswalks, trails/paths, and connectivity between sidewalks and trails/paths creates conditions that improve safety for walking and bicycling in the area surrounding the school. Recommended engineering strategies for KMS are listed below.

1. **Work with the City of Keene to make Maple Avenue more "Bicycle-Friendly"**.

   Currently, narrow shoulders and high traffic volumes make Maple Avenue feel unsafe for young bicyclists. However, students riding on the sidewalks may come into conflict with pedestrians. Ideally, students should be riding on the street and following traffic laws. In order to make this a safe option, a combination of infrastructure improvements and bicycle education should be

Figure 19 - Directional arrows and a sandwich board sign identify pick-up and drop-off traffic flow and designated loading and unloading location.

Figure 19 - - A school in Santa Barbara, CA that has painted a pick up/drop off lane to create smoother traffic flow.

used to teach students how to safely ride with traffic. To this end, the School should approach the City to discuss options for making Maple Avenue more "bicycle friendly." Potential design considerations could include narrowing the travel lanes to slow traffic and increase the width of the shoulders to a minimum of four feet, installing bicycle lanes that are a minimum of four feet wide on both sides of the roadway, placing Shared Lane Markings (i.e. Sharrows) in areas where the road is too narrow to accommodate a four foot shoulder or bike lane, including "Share the Road" or "Bicycle May Use Full Lane" signs, and/or other traffic calming measures.

2. **Work with the City of Keene and NHDOT to increase safety of highway exit and entrance ramp crossings.**

   The crosswalks at the highway entrance and exit ramps near the school have been identified by both school staff and parents in the Parent Survey About Walking and Biking to School as a safety concern for students walking to and from school, and for students walking to the YMCA for after school programming. The school should engage the City in discussion about improving safety at these crosswalks. Design solutions could include installing "Yield to Pedestrian" signs and/or "Yield to Pedestrians" pavement markings. If the issue persists, another potential solution the school may want to explore with the City is using "Rectangular Rapid Flashing Beacons," which are user-activated flashing lights that supplement warning signs at unsignalized crossings, such as those at the highway entrance and exit ramps near the school. RRFBs can be activated by manually pushing a button or passively by a pedestrian detection system.

City of Keene Complete Streets

In 2015, the City of Keene and SWRPC developed a Complete Streets policy for the City along with a set Complete Streets design guidelines. Complete Streets is a national program that encourages local municipalities across the country to build road networks that are safer, more livable and welcoming to everyone, including bicyclists and pedestrians. Maple Avenue is identified as a "Bicycle Street" within the Keene Complete Streets Guidelines, which means that the City considers it to be an important connector for bicyclists. A copy of the Keene Complete Streets policy may be found at: www.ci.keene.nh.us under the city's master plan).

Figure 20 - A Shared Lane Marking, or "Sharrow."

Figure 29 - A Rectangular Rapid Flashing Beacon (RRFB).

Evaluation

Evaluation involves monitoring and documenting outcomes, attitudes and trends through the collection of data before and after program activities or projects. These activities help track which strategies would be most or least successful and which should be modified for better results. Evaluation recommendations are listed below.

1. **Administer the "Safe Routes to School Arrival and Departure Tally Sheet" on an annual basis to track trends over time.**

   The Student arrival and departure tally sheet is simple to administer, and it provides useful data on student travel modes to and from school. In addition, students can be involved with data collection and analysis, turning it into an educational opportunity. By collecting this data on an annual basis, the school will be able to track trends in travel modes over time and adjust education, encouragement, enforcement, and engineering strategies accordingly. The data from the tally sheets can also be used to enhance applications for grant funds to help support Safe Routes to School programs and/or infrastructure projects. The National Center for Safe Routes to School can perform a data tabulation through its enhanced data collection system at no cost. A copy of this survey can be found in Appendix C.

2. **Administer the "Parent Survey about Walking and Biking to School" on a bi-annual basis (every two years).**

   The parent take-home survey provides useful information about parents' safety concerns related to their children walking and biking to school, and it helps to uncover the reasons behind travel behaviors. In addition, students can be involved with data collection and analysis, turning it into an educational opportunity. In order to stay current with the school population, this survey should be administered once every two years. A copy of this survey can be found in Appendix B.

3. **Update the Safe Routes to School Action Plan every five years.**

   The data and recommendations outlined in this Action Plan are intended to be used as a starting point for launching a comprehensive Safe Routes to School program. As the program progresses, the Action Plan will need to be updated to include current data and recommendations that fit the needs of the school and community at that time. The Wellness Committee or a task force consisting of parents, staff, and community members should consider taking this task on.

IMPLEMENTATION

Following the adoption of this Action Plan, Keene Middle School should identify an existing committee (e.g. KMS Wellness Committee) or form a Safe Routes to School Task Force to implement this plan. If possible, the Committee or SRTS Task Force should include representation from parents, school administrators and teachers, community members, City staff and/or officials, and students.

Once a group has been identified to implement this Action Plan, the SRTS strategies should be prioritized based on factors such as the level of impact for each strategy, the funding and/or resources available to help implement each strategy, and the ease of implementation. Figure 30 gives an example chart that can be used to help with the prioritization process. Table 4 provides information about each strategy, including partners to help with the strategy, timeframe for implementation, implementer, and resources for implementation.

IMPLEMENTATION STEPS:

1) Designate an existing committee or form a SRTS Task Force to implement this Action Plan that includes the following:
    a. Parents
    b. School administrators and teachers
    c. Community members
    d. City staff and/or officials
    e. Students
2) Prioritize Strategies for implementation. Factors to consider may include:
    a. Expected impact of strategy
    b. Ease of implementation
    c. Availability of resources such as funding, volunteers, etc.
3) Begin putting high priority strategies into action
4) Evaluate success and share results!

Figure 30 - Prioritization chart for SRTS strategies.

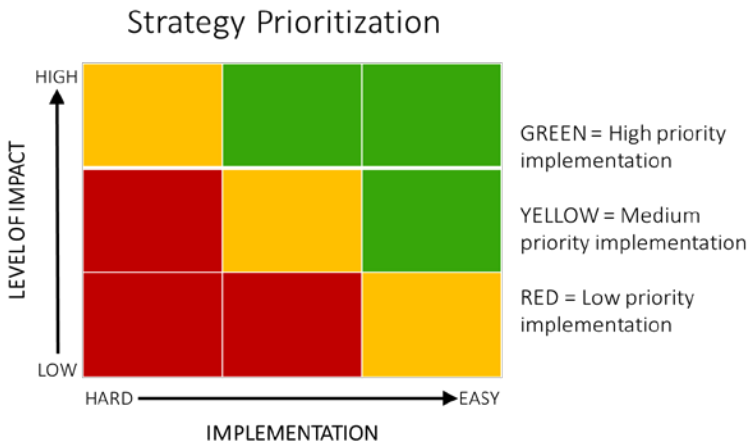


Table 3 - Strategy Implementation Chart goal: To increase the number/percentage of students that walk and bike to school.

	Strategy	Partners	Timeframe	Implementer	Potential Sources of Funding
EDUCATION	1. Incorporate Safe Routes to Schools into Extensions Program and/or School Curriculum.	Extensions Teachers; Classroom Teachers	6 - 12 months to implement, then ongoing	Keene Middle School	Keene School District (KSD)/Keene Middle School (KMS)
	2. Start a "KMS Bike Club" to teach students bicycling skills in a safe and supervised environment.	Parents; School Staff person(s) interested in leading the club; Bike Walk Alliance of NH to provide safety training	6 - 12 months to implement, then ongoing	Keene Middle School	KSD/KMS; National Center for Safe Routes to School mini grant; Advocates for Healthy Youth (AFHY) Mini Grant;
	3. Share information on student bicycle and pedestrian safety via the school website, newsletter, and/or other information outlets.	N/A	Start September 2016, then ongoing	Keene Middle School	KSD/KMS
	4. Include information about how families can walk, bike, take the bus, or carpool to school in the KMS Parent Handbook.	SWRPC (to make walking/bicycling maps); KMS staff responsible for developing Parent Handbook	Start September 2016, then ongoing	Keene Middle School	KSD/KMS
	5. Give presentations about Safe Routes to School at School Board meetings, Parent Group meetings, and other meetings as appropriate.	SWRPC	Start September 2016, then ongoing	KMS Wellness Committee or KMS SRTS Task Force	KSD/KMS

	Strategy	Partners	Timeframe	Implementer	Potential Sources of Funding
ENCOURAGEMENT	1. Organize Walk/Bike to School Day events to promote walking and bicycling to school.	PTA; Teachers	Start September 2016, then ongoing	KMS Wellness Committee or KMS SRTS Task Force	KSD/KMS; AFHY Mini Grant Program
	2. Create a School-Wide Mileage Club or Contest to offer incentives to students who bike or walk to school.	Teachers; Other School Staff Members	3-6 months to implement, then ongoing	Keene Middle School	KSD/KMS; AFHY Mini Grant;
	3. Establish a Remote Drop-Off Location to encourage students who live further away to participate in walking or bicycling to school.	Wellness Committee; Parents; Teachers	1-3 months to implement, then ongoing	KMS Wellness Committee or KMS SRTS Task Force	KSD/KMS;
	4. Provide Resources for Parents to Carpool to School	KMS; PTA	Start September 2016	KMS Wellness Committee or KMS SRTS Task Force	KSD/KMS
ENFORCEMENT	1. Continue successful Crossing Guard program.	Local Law Enforcement; Community Members	Start September 2016, then ongoing	Keene Middle School	Keene police department (KPD)
	2. Enforce Parent Drop-Off/ Pick-Up process.	Local Law Enforcement; Parents	Start September 2016, then ongoing	Keene Middle School	KSD/KMS; KPD

	Strategy	Partners	Timeframe	Implementer	Potential Sources of Funding
ENGINEERING	1. Work with the City of Keene to make Maple Avenue more "Bicycle-Friendly".	City of Keene Planning Department; City of Keene Public Works Department; SWRPC	6 months - 5 years (depending on type of project undertaken)	City of Keene	Transportation Alternative Program (TAP) grant*; City of Keene
	2. Work with the City of Keene to increase safety of highway exit and entrance ramp crossings.	City of Keene Planning Department; City of Keene Public Works Department; NHDOT Traffic Bureau	3 months - 5 years (depending on type of project undertaken)	City of Keene; NH DOT Traffic Bureau	TAP grant*; City of Keene
EVALUATION	1. Administer the "Safe Routes to School Arrival and Departure Tally Sheet" on an annual basis to track trends over time.	SWRPC (can enter data for school); National Center for Safe Routes to School Data Center	Yearly	Keene Middle School/ students	N/A
	2. Administer the "Parent Survey about Walking and Biking to School" on a bi-annual basis (every two years).	SWRPC (can enter data for school)	Every two years	Keene Middle School/ students	N/A
	3. Update the KMS Safe Routes to School Action Plan every five years.	SWRPC	Every 5 years	KMS Wellness Committee or KMS SRTS Task Force	TAP*; SWRPC

APPENDICES

Appendix A: Keene Middle School Field Review Summary

Date: Thursday, May 5, 2016
Weather: Overcast, 43 degrees in the morning and 52 degrees in the afternoon

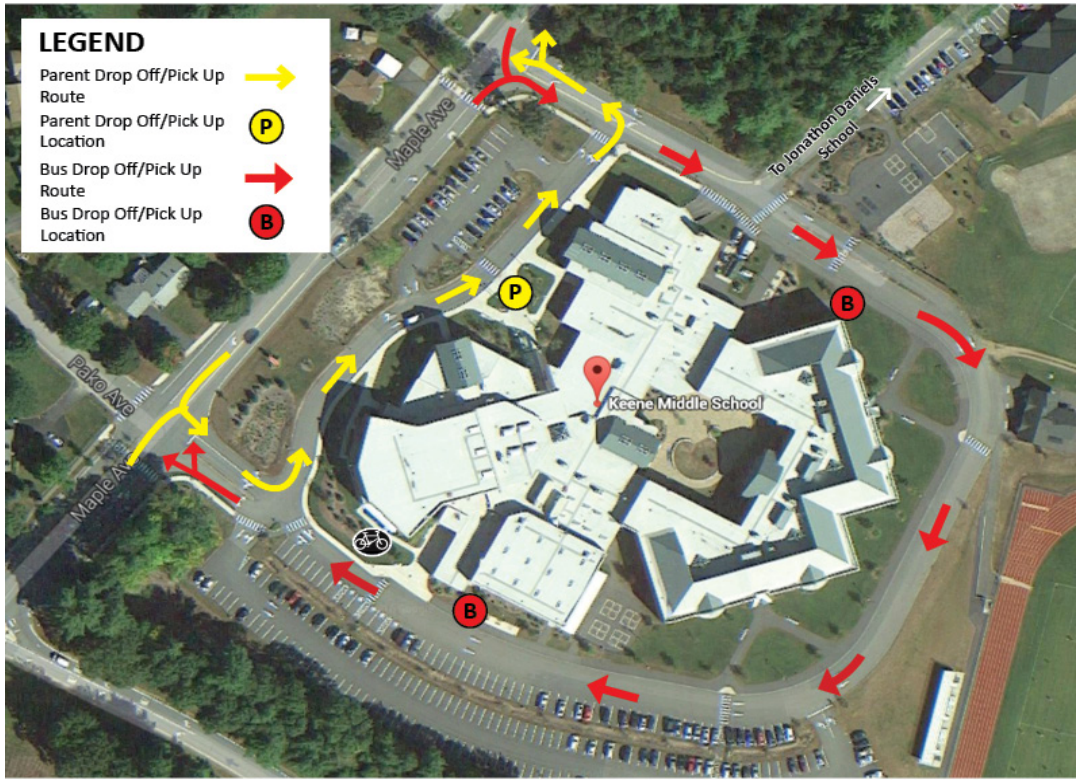
BUS DROP-OFF AND PICK-UP

There are two bus drop-off locations on the sides of the school, shown in Figure 3. All buses enter at the north entrance to the school and exit using the south entrance. Buses arrive between 7:20 a.m. and 7:45 a.m. The first three buses stopped on the northeast side of the school and dropped off students in front of the north side entrance to the school. One staff person was present to hold open the door and let students in the school. The rest of the buses (about 9 total) continued around the school and dropped off students at the south side entrance to the school. There was some congestion at about 7:35 a.m. when three buses were backed up at the north side entrance to the school. Otherwise, bus traffic moved smoothly. The only safety concern noted during bus drop-off was the fact that buses temporarily blocked the crosswalk on the north side entrance to the school, which is used by walkers and bicyclists coming from the north.

Figure 1 - A bus blocks the crosswalk at the north side entrance of the school, which is used by walkers and bicyclists coming from the north.

Figure 2 - Parents seen parking along both sides of the travel lane when picking up their children.

Figure 3 – Parent & Bus Drop-Off and Pick-Up Locations



PARENT DROP-OFF AND PICK-UP

The parent drop-off and pick-up route is shown in Figure 3. In the morning, parents start to line up in front of the school at 7:15 a.m. and were observed dropping off their kids until 7:55 a.m. It was noted that parent drop off activity was heaviest from 7:35-7:45 a.m. Parents are encouraged to use Keene Middle School's southwest entrance off Maple Avenue to enter the school property. Overall, the parent drop-off traffic flow was smooth and orderly. Once the line started moving, the average wait time for parents to drop-off their children was roughly 15 seconds. Because Keene Middle School is a fairly large campus set back from the road, the line was never long enough to block the southwest entrance/exit to the school or extend into the street. There was some traffic congestion once parents dropped off their children and were waiting to leave via the northeast exit onto Maple Avenue.

In the afternoon, parents start lining up to pick up their children from school as early as 1:30 p.m. As the line started getting longer, a number of parents were observed driving past the parent pick-up line and parking their cars along the opposite side of the travel lane (shown in Figure 2), causing traffic congestion in front of the school. Students started exiting the school building at 2:25 p.m. and parent vehicles were cleared out by 2:45 p.m. It was noted that parents were getting impatient to leave KMS after they picked up their children. One parent tried to exit the school grounds while the crossing guard was leading a large group of students across Maple Avenue, causing a safety issue at that particular intersection.

Figure 4 - A crossing guard stops traffic for students crossing the road at the north entrance to the school

STUDENTS COMMUTING BY FOOT OR BICYCLE

Students who walk or bike to school enter the school at three locations: the north entrance to the school (this is the most common entrance point), the north side entrance to the school, and the south entrance to the school. On the day of the field review, a total of 20 students were observed walking to school and 15 were observed bicycling to school. In the afternoon, 47 walkers and 15 bicyclists were observed departing from school. The majority of walkers entered/exited the school using the north entrance to the school (11 walkers in the a.m. and 24 walkers in the p.m.), whereas the majority of bicyclists entered/exited the school

Table 1 - Student walking and bicycling counts.

Entrance/Exit Location	Morning		Afternoon	
	WALKERS	BICYCLISTS	WALKERS	BICYCLISTS
North Entrance	11	2	24	4
North Side Entrance	6	9	17	7
South Entrance	3	4	6	4
Total	**20**	**15**	**47**	**15**

using the north side entrance (nine bicyclists in the a.m. and eight bicyclists in the p.m.). See Table 1 for a full summary of student entrance and departure points.

CROSSINGS

There is one crossing guard on duty to help students cross Maple Avenue at the north entrance to the school from 7:15-7:45 a.m. in the morning and 2:20-2:35 p.m. in the afternoon. This crossing guard wears a bright yellow safety vest and holds a hand-held stop sign to direct traffic. While there is a person stationed at the south entrance to the school, this person is there solely to direct traffic, not to help students cross the road. Traffic in both the morning and the afternoon is busy and parents seem impatient to exit the school. In the afternoon, one parent took advantage of the stopped traffic while kids were crossing the crosswalk to pull out of the school driveway. The crossing guard had to put her hand on the car and physically block its path to keep the car from getting too close to the crosswalk. The crossing guard mentioned that there are trees on the median of Maple Street that make it difficult to see vehicles.

The crosswalks near the Route 12 off-ramp on Maple Avenue were faded due to the high level of vehicle traffic. It was also observed during the field review that vehicles would stop on the crosswalk instead of before it.

SPEED

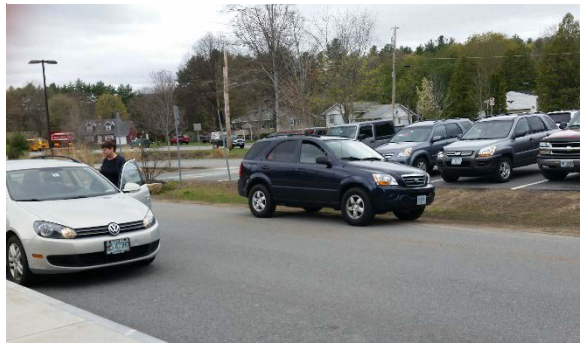
There are two speed limit/school zone signs on both directions of Maple Avenue, which indicate that the speed limit is 20 miles per hour. Although these signs were flashing during the field review, there was noticeable speeding on Maple Avenue. According to a crossing guard, speeding is a problem on Maple Avenue. Although there is speed signage indicating speed limit and school zone boundary, additional traffic calming measures could be considered to decrease speeding.

LIGHTING

Figure 5 - A flashing speed limit sign on Maple Ave.

Figure 6 – Three of the many lampposts outside KMS.

Figure 7 – A car unlawfully parked on the other side of the travel lane.



No lighting issues were observed during the field review, which took place during daylight hours. Street lamps are posted at regular intervals along Maple Avenue and several lights are located around school premises. Lampposts were dotted along the parent and bus drop-off/pick-up areas and

WAYFARING

In general, wayfaring around the school is adequate for drivers. The entrance and exit to the school are clearly marked and drivers generally knew which direction to go.

There is one exception, however, even though the traffic lane is one way in front of the school(see Figure 3), vehicles from the small parking lot in front of Maple Avenue, which allows bidirectional traffic, can enter and exit from that lane, creating some confusion for visitors. Although painted directional arrows are clearly defined near that area, a sign could provide further clarity. There are also no wayfaring signs to direct people on bike or foot to the school and a few near Maple Avenue would be helpful. Pedestrian crossing signs are located by the crosswalks on Maple Avenue.

BICYCLE USE & FACILITIES

Wave-style bike racks are present at each of the side entrances to the school, providing approximately 18 bicycle parking spaces. On the day of the field review, ten bicycles were parked on the north side of the school, and five bicycles were parked on the south side of the school.

There are no "Share the Road" signs or other signs/road markings on streets around the school indicating that drivers should share the road with bicyclists. The shoulders along Maple Avenue leading onto school property were narrow. Although pedestrian walking paths are clearly defined, biking routes are not.

SIDEWALKS

In general, sidewalks on Maple Avenue and on the school grounds are in good condition and are well maintained. Most of the sidewalks are five-foot-wide concrete with granite curbs or a green

Figure 8 – Bike racks located on the North side of KMS.

Figure 9 – Most sidewalks in and around KMS were new and generally uncracked.

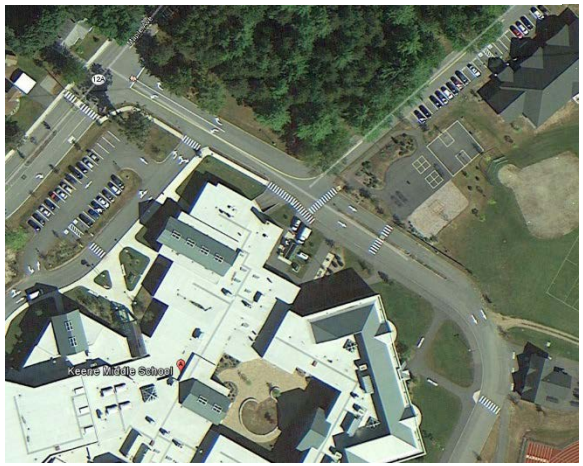
Figure 10 – A vehicle juts out across a faded crosswalk near the Route 12 off-ramp.

buffer separating them from the travel lanes. Sidewalks are well connected and free from obstructions. Paths are lighted and during the field review, vehicles were not observed walking routes.

DRIVER BEHAVIOR

Other than the instance of problematic driver behavior where a car tried to exit the school while the crossing guard was crossing a large group of students and was promptly yelled at by the crossing guard, for the most part parents and other motorists drove carefully while in the vicinity of the school. There is some congestion during the afternoon and it is difficult to exit the school parking lot. Parents seem impatient as they try to exit the school parking lot in a hurry, however, the crossing guard will not let them out. Additionally, a second crossing guard directed only vehicular traffic in the morning because of the necessity of preventing school traffic from backing up onto Maple Avenue.

Figure 11 - A map of the north side of KMS



ENVIRONMENTAL CONDITIONS

Parents were observed idling their cars while waiting to drop off or pick up their children in front of the school building. This poses environmental health risks, as idling contributes to poor air quality. There is heavy traffic on Maple Avenue due to the school's close proximity to highway entrance and exit ramps, which can also affect air quality near the school.

Parent Survey About Walking and Biking to School

Dear Parent or Caregiver,

Your child's school wants to learn your thoughts about children walking and biking to school. This survey will take about 5 - 10 minutes to complete. We ask that each family complete only one survey per school your children attend. If more than one child from a school brings a survey home, please fill out the survey for the child with the next birthday from today's date.

After you have completed this survey, send it back to the school with your child or give it to the teacher. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results.

Thank you for participating in this survey!

+ CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY +

School Name:

1. What is the grade of the child who brought home this survey? ☐☐ Grade (PK,K,1,2,3…)

2. Is the child who brought home this survey male or female? ☐ Male ☐ Female

3. How many children do you have in Kindergarten through 8th grade? ☐☐

4. What is the street intersection nearest your home? (Provide the names of two intersecting streets)

and

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box.

5. How far does your child live from school?

- ☐ Less than ¼ mile
- ☐ ¼ mile up to ½ mile
- ☐ ½ mile up to 1 mile
- ☐ 1 mile up to 2 miles
- ☐ More than 2 miles
- ☐ Don't know

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box. +

6. On most days, how does your child arrive and leave for school? (Select one choice per column, mark box with X)

Arrive at school	Leave from school
☐ Walk	☐ Walk
☐ Bike	☐ Bike
☐ School Bus	☐ School Bus
☐ Family vehicle (only children in your family)	☐ Family vehicle (only children in your family)
☐ Carpool (Children from other families)	☐ Carpool (Children from other families)
☐ Transit (city bus, subway, etc.)	☐ Transit (city bus, subway, etc.)
☐ Other (skateboard, scooter, inline skates, etc.)	☐ Other (skateboard, scooter, inline skates, etc.)

+ Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box +

7. How long does it normally take your child to get to/from school? (Select one choice per column, mark box with X)

Travel time to school	Travel time from school
☐ Less than 5 minutes	☐ Less than 5 minutes
☐ 5 – 10 minutes	☐ 5 – 10 minutes
☐ 11 – 20 minutes	☐ 11 – 20 minutes
☐ More than 20 minutes	☐ More than 20 minutes
☐ Don't know / Not sure	☐ Don't know / Not sure

+ +

8. Has your child asked you for permission to walk or bike to/from school in the last year? ☐ Yes ☐ No

9. At what grade would you allow your child to walk or bike to/from school without an adult?

(Select a grade between PK,K,1,2,3…) ☐☐ grade **(or)** ☐ I would not feel comfortable at any grade

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

10. What of the following issues affected your decision to allow, or not allow, your child to walk or bike to/from school? (Select ALL that apply)

11. Would you probably let your child walk or bike to/from school if this problem were changed or improved? (Select one choice per line, mark box with X)

	My child already walks or bikes to/from school		
☐ Distance	☐ Yes	☐ No	☐ Not Sure
☐ Convenience of driving	☐ Yes	☐ No	☐ Not Sure
☐ Time	☐ Yes	☐ No	☐ Not Sure
☐ Child's before or after-school activities	☐ Yes	☐ No	☐ Not Sure
☐ Speed of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Amount of traffic along route	☐ Yes	☐ No	☐ Not Sure
☐ Adults to walk or bike with	☐ Yes	☐ No	☐ Not Sure
☐ Sidewalks or pathways	☐ Yes	☐ No	☐ Not Sure
☐ Safety of intersections and crossings	☐ Yes	☐ No	☐ Not Sure
☐ Crossing guards	☐ Yes	☐ No	☐ Not Sure
☐ Violence or crime	☐ Yes	☐ No	☐ Not Sure
☐ Weather or climate	☐ Yes	☐ No	☐ Not Sure

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

12. In your opinion, how much does your child's school encourage or discourage walking and biking to/from school?

☐ Strongly Encourages ☐ Encourages ☐ Neither ☐ Discourages ☐ Strongly Discourages

13. How much fun is walking or biking to/from school for your child?

☐ Very Fun ☐ Fun ☐ Neutral ☐ Boring ☐ Very Boring

14. How healthy is walking or biking to/from school for your child?

☐ Very Healthy ☐ Healthy ☐ Neutral ☐ Unhealthy ☐ Very Unhealthy

Place a clear 'X' inside box. If you make a mistake, fill the entire box, and then mark the correct box

15. What is the highest grade or year of school you completed?

☐ Grades 1 through 8 (Elementary)
☐ Grades 9 through 11 (Some high school)
☐ Grade 12 or GED (High school graduate)
☐ College 1 to 3 years (Some college or technical school)
☐ College 4 years or more (College graduate)
☐ Prefer not to answer

16. Please provide any additional comments below.

Safe Routes to School Students Arrival and Departure Tally Sheet

CAPITAL LETTERS ONLY – BLUE OR BLACK INK ONLY

School Name:

Teacher's First Name:

Teacher's Last Name:

Grade: (PK,K,1,2,3...) 0 2

Monday's Date (Week count was conducted) M M D D Y Y Y Y

Number of Students Enrolled in Class: 1 5

- Please conduct these counts **on two of the following three days Tuesday, Wednesday, or Thursday. (Three days would provide better data if counted)**
- **Please do not conduct these counts on Mondays or Fridays.**
- Before asking your students to raise their hands, please read through all possible answer choices so they will know their choices. Each Student may only answer once.
- Ask your students as a group the question "**How did you arrive at school today?**"
- Then, reread each answer choice and record the number of students that raised their hands for each. **Place just one character or number in each box.**
- Follow the same procedure for the question **"How do you plan to leave for home after school?"**
- You can conduct the counts once per day but during the count please ask students both the school arrival and departure questions.
- Please conduct this count regardless of weather conditions (i.e., ask these questions on rainy days, too).

Step 1.
Fill in the weather conditions and number of students in each class

Step 2.
AM – "**How did you arrive at school today?**" Record the number of hands for each answer.
PM – "**How do you plan to leave for home after school?**" Record the number of hands for each answer.

Key	**Weather** S= sunny R= rainy O=overcast SN=snow	**Student Tally** Number in class when count made	**Walk** -	**Bike** -	**School Bus** -	**Family Vehicle** Only with Children from your family	**Carpool** Riding with children from other families	**Transit** City bus, subway, etc.	**Other** Skate-board, scooter, etc.
Sample AM	S N	2 0	2	3	8	3		3	1
Sample PM	R	1 9	3	3	8	1	2	2	
Tues. AM									
Tues. PM									
Wed. AM									
Wed. PM									
Thurs. AM									
Thurs. PM									

Please list any disruptions to these counts or any unusual travel conditions to/from the school on the days of the tally.

Appendix D: Safe Routes to School Resources

National Safe Routes to School Guide:
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_full.pdf
This guide is a comprehensive online reference manual designed to support the development of Safe Routes to School (SRTS) programs. Available online or in a downloadable PDF version, the guide covers engineering, education, enforcement, encouragement, evaluation and more.

Safe Routes to School's Bicycle and Pedestrian Curricula Guide: Making the Case for Bicycle and Pedestrian Youth Education
http://www.in.gov/indot/files/BicyclePedestrianCurriculaGuide2011.pdf
The Safe Routes to School National Partnership created this guide to provides background and tips for systematic implementation of bicycle and pedestrian safety education and a variety of curriculum programs and materials are provided.

How to Plan a Walk to School Day Event Guide:
http://www.walkbiketoschool.org/sites/default/files/WBTS_HowToPlan_ForWeb.pdf
This guide provides steps, tips, and ideas for planning a fun and safe walk to school day event.

Get Out and Get Moving: Opportunities to Walk to School through Remote Drop off Programs:
http://www.changelabsolutions.org/sites/default/files/SRTS-Remote-Drop-Off-Rural_School_Districts-FINAL_20140611.pdf
This resource provides information on organizing a remote drop off location and offers examples of how different schools have structured their own remote drop off programs to ensure safety.

Safe Routes to School Encouragement Guide
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Encouragement.pdf
The Safe Routes to School Encouragement Guide provides tips for organizing a variety of encouragement activities including walk to school day events and mileage clubs and contests.

Student Drop off and Pick up Guide:
http://guide.saferoutesinfo.org/pdf/SRTS-Guide_Dropoff-Pickup.pdf
The Student Drop off and Pick up Guide provides information on how to improve drop off and pick up procedures using engineering, enforcement, and education, and encouragement solutions.

School Walk and Bike Routes: A Guide for Planning and Improving Walk and Bike to School Options for Students
http://www.wsdot.wa.gov/NR/rdonlyres/5463FD69-F7B9-477D-B9AA-D21CEEFCF722/0/SchoolAdminGuide.pdf
This guide provides resources for school administrators and educators to help develop, maintain, and improve school walk routes and address bicycle and pedestrian safety.

Walkability Checklist
http://www.saferoutesinfo.org/sites/default/files/walkabilitychecklist.pdf
The walkability checklist allows users to evaluate a neighborhood's walkability to plan safe walking routes to and from school.

Bikability Checklist
http://www.saferoutesinfo.org/sites/default/files/resources/Bikeability_Checklist.pdf
The bikability checklist allows users to evaluate a neighborhood's bikability.

SAFE ROUTES TO SCHOOL
REMOTE DROP OFF LOCATIONS

What are remote drop-off locations?

Remote drop-off locations are designated areas within walking distance of school where students are dropped off by either a parent or a bus. Students meet volunteers at the drop-off location who will accompany them to school. This enables those students who live further from school to still receive the benefits of walking to school. Typically, drop-off areas are located within 1/2-1 mile of the school, or a 10-20 minute walk from school.

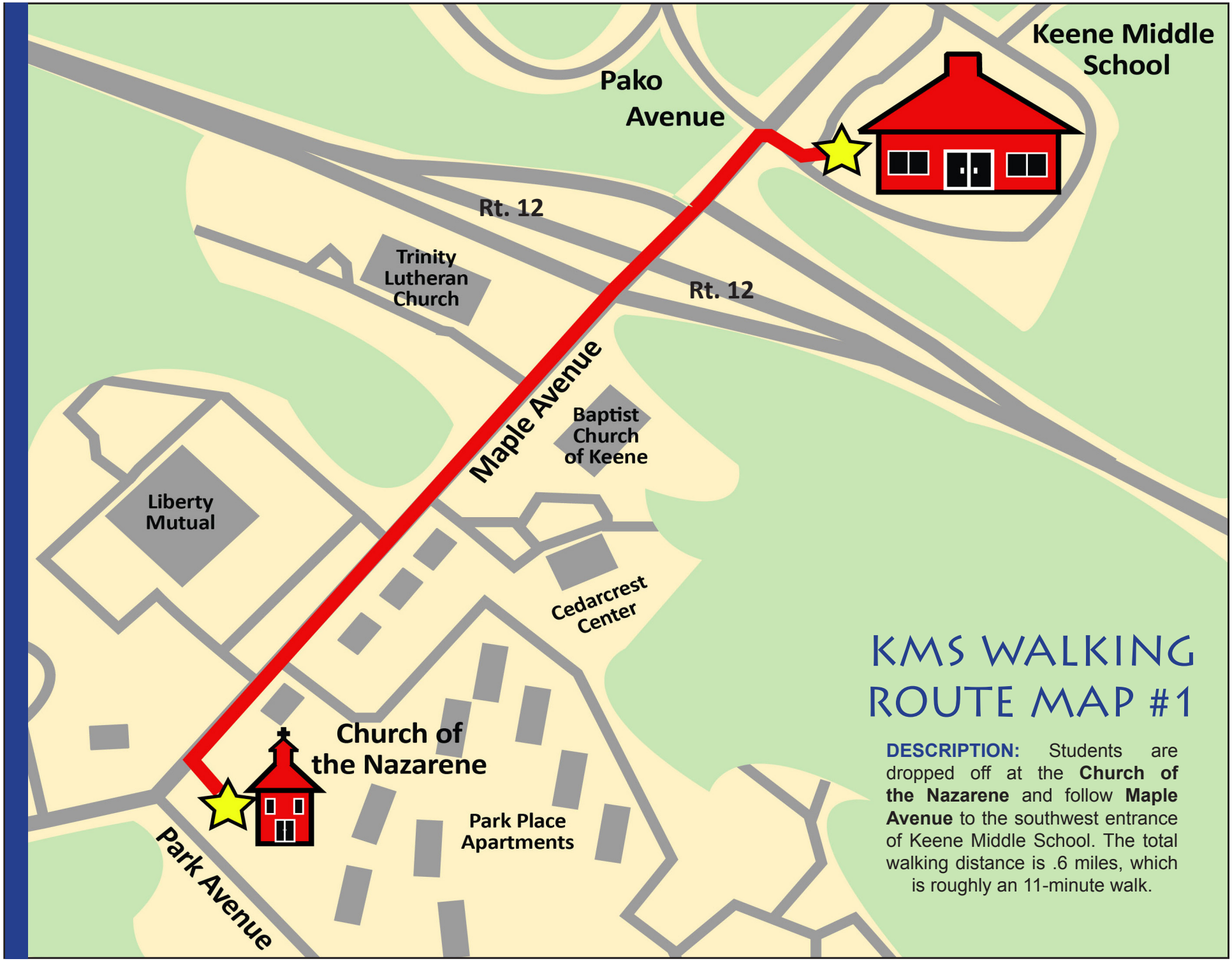
Benefits of remote drop-off locations

- Includes families who live too far to walk or have an unsafe route
- Increases physical activity and improves health
- Students arrive at school more focused and engaged
- Reduces the time families spend on their morning commute
- Reduces traffic congestion at Keene Middle School
- Improves air quality near the school
- Encourages neighborhood involvement

Assessing potential locations and safe walking routes

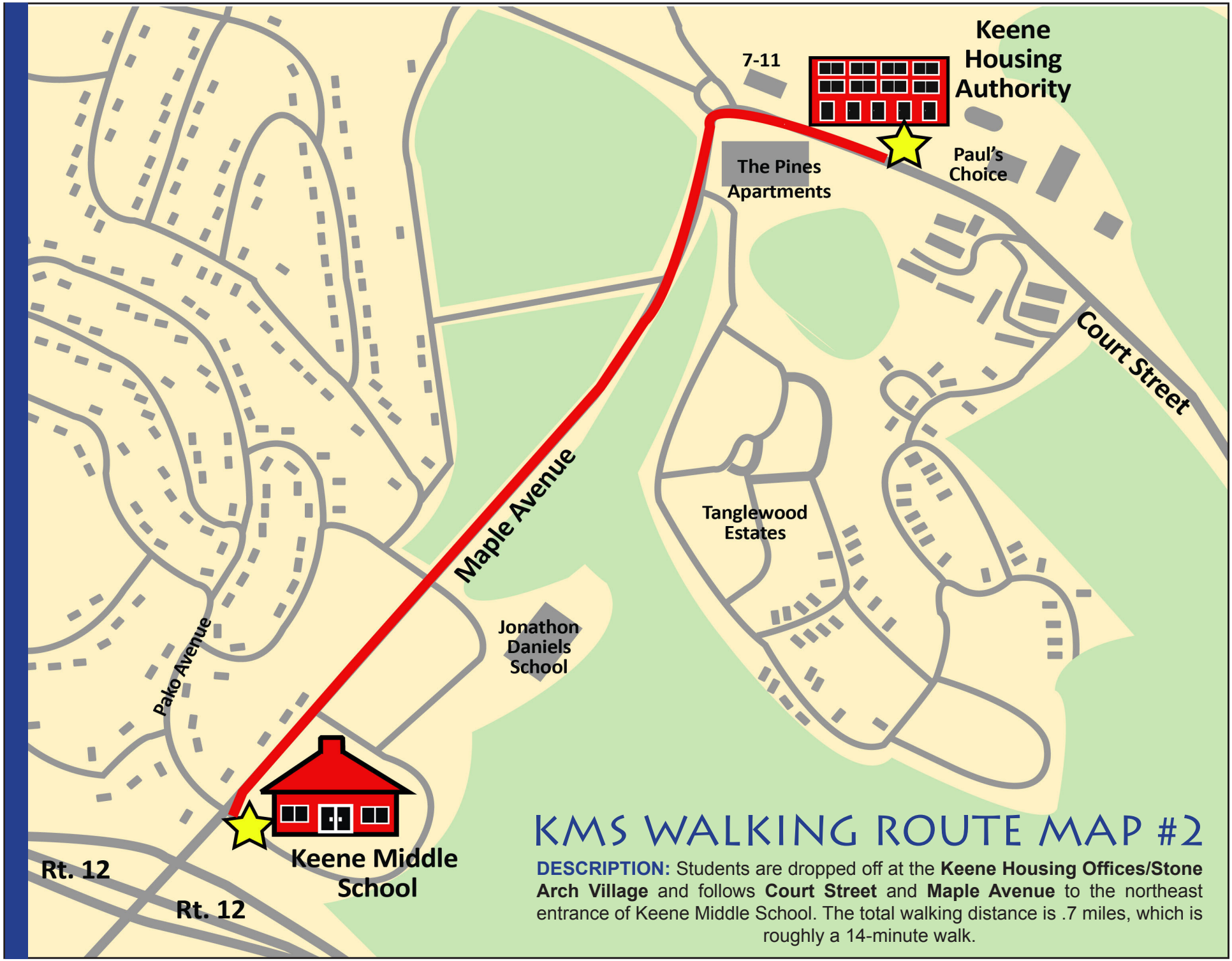
Two potential remote drop-off sites near KMS were assessed to determine the safety of the walking route from each location to the school. Each location is within walking distance of the school and has parking lots large enough to accommodate a high number of vehicles and students safely. The following two pages show two possible remote drop-off locations near Keene Middle School.

Remote drop-off locations are conveniently located spaces that have ample parking and are a reasonable walking distance from the school (example shown above). Walking routes will have separated pedestrian infrastructure that's in good condition, crosswalks, appropriate signage, and other safety features (see below)



KMS WALKING ROUTE MAP #1

DESCRIPTION: Students are dropped off at the **Church of the Nazarene** and follow **Maple Avenue** to the southwest entrance of Keene Middle School. The total walking distance is .6 miles, which is roughly an 11-minute walk.



KMS WALKING ROUTE MAP #2

DESCRIPTION: Students are dropped off at the **Keene Housing Offices/Stone Arch Village** and follows **Court Street** and **Maple Avenue** to the northeast entrance of Keene Middle School. The total walking distance is .7 miles, which is roughly a 14-minute walk.