



Bellwood Elementary School Walkabout Summary Report

Introduction

On Monday, February 23, 2015, stakeholders at Bellwood Elementary School in Chesterfield, Virginia met to examine the walking and bicycling network around the school and identify potential improvements to be included in a future Transportation Alternatives Program grant application. Their participation in a Virginia Department of Transportation (VDOT) Safe Routes to School (SRTS) Walkabout shows their support for improving the walking and biking environment and increasing the number of students safely walking and bicycling to school. The stakeholders participating in the Walkabout included school staff members and representatives from the Chesterfield County School Board, the Chesterfield Planning Department, Greater Richmond Fit4Kids, and VDOT. The two-hour meeting included an observation of school dismissal and a brief walkabout conducted during the dismissal observation.



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Walkabout Team

Name	Organization
Jennifer Rudd	Bellwood Elementary School, Principal
Amy Tierney	Chesterfield County Public Schools, Instructional Specialist for Health and Physical Education
Steve Haasch	Chesterfield County Planning Department, Planning Manager
Heather Barrar	Chesterfield County Planning Department, Principal Planner
Brooke Mahan	Fit4Kids, Chesterfield Public Schools, SRTS Division Coordinator
Nellie Bradley	Fit4Kids
Kayla B. Dransfield	Fit4Kids, SRTS Coordinator
Jason Williams	Virginia Department. of Transportation, District Location and Design Division Engineer
Rob Williams	Virginia Department of Transportation, SRTS Coordinator
Megan McCarty	Toole Design Group, LLC, Engineer
Jim Elliott	Local Technical Assistance Coordinator (LTAC), Piedmont Region



Existing Conditions

School location

Bellwood Elementary School is part of Chesterfield County Public Schools. The school is located at 9536 Dawnshire Road in a suburban section of Chesterfield County between World War II Veterans Memorial Highway (Virginia State Route 288), Virginia State Route 145, and Jefferson Davis Highway (U.S. Route 301). The Quail Oaks neighborhood borders school property to the east and the Proctors Point neighborhood borders school property to the south. Jefferson Davis Highway is located at the eastern border of Quail Oaks approximately 2/3 of a mile away.

Galena Avenue and Perlock Road provide access to the Quail Oaks neighborhood and Bellwood Elementary School from Jefferson Davis Highway; however, there is no vehicular access to the school property from the Proctors Point neighborhood, which is smaller than Quail Oaks and has a road network made up largely of cul de sacs. Proctors Point does, however, provide a sidewalk connection (with stairs) to the school from Ransom Hills Terrace, a street in the neighborhood.

The area's commercial uses are concentrated on Jefferson Davis Highway, where some students also live, either in mobile home parks or hotels. Jefferson Davis Highway has long been targeted for revitalization by Chesterfield County and the County will launch a Special Area Plan process to improve the Jefferson Davis corridor this May. In addition, the Jefferson Davis Association is developing a streetscape plan for Jefferson Davis Highway between the Richmond City limit and Route 288, and a new housing development, Colony Village, is going in on the west side of Jefferson Davis Highway south of Velda Road. Phase one of this development is complete, and phase two is currently under construction. Six students from Colony Village currently attend Bellwood Elementary School.

The school's attendance boundary is bounded by the James River to the east, the railroad tracks to the west, Swinefield Road to the north (approximately), and World War II Veterans Memorial Highway (Virginia State Route 288) to the south (see Appendix A). All students living within the attendance boundary are eligible for school bus service.



Road Information Table

Street	Speed limit	Road Width ¹	No. of lanes in each direction	Sidewalk width and continuity ²
Jefferson Davis Highway (U.S. Route 301) (between Kingsdale Road and Velda Road)	45 mph	60 feet	2	No Sidewalks
Galena Avenue (between school property and Brandywine Avenue)	25 mph	32-33 feet	1	No sidewalks
Galena Avenue (Brandywine Avenue and Jefferson Davis Highway)	25 mph	20 feet	1	No sidewalks
Perlock Road (between Ashwood Road and Brandywine Avenue)	25 mph	32-33 feet	1	No sidewalks
Perlock Road (between Brandywine Avenue and Jefferson Davis Highway)	25 mph	20 feet	1	No sidewalks
Cresswell Road (between school property and Proctors Road)	25 mph	32-45 feet	1	No sidewalks except on one block between the school campus and Dawnshire Road
Proctors Road (between Galena Avenue and Perlock Road)	25 mph	32-33 feet	1	No sidewalks
Ashwood Road (between school property and Perlock Road)	25 mph	32-33 feet	1	No sidewalks

1. Road width measurements are approximate and represent a general cross section.
2. Sidewalk widths are approximate.

Note: Roads are listed in order of importance as expressed by the Bellwood Walkabout Team.



Pedestrian Infrastructure

With the exception of sidewalks on Cresswell Road between the school campus and Dawnshire Road and a sidewalk on the north side of the Ransom Hills Road in the Proctors Point neighborhood, no streets within a half mile of the school have continuous sidewalks on either side of the street.

Bicycle Infrastructure

There are no on-street or off-street bicycle facilities within ½ mile of the school, such as shared lane markings, standard bicycle lanes, or separated bicycle facilities; however, some neighborhood streets near the school are suitable for bicycling. Bellwood Elementary School recently installed a bicycle rack on-campus.

Bellwood Elementary School Student Travel Modes

Bellwood Elementary School serves approximately 500 students in grades K through 5. Approximately 23 students (5 percent) regularly walk or bike to school; however, approximately 140 students (28 percent) live within 0.6 miles of school, suggesting the potential to increase walking and biking.¹

Dismissal Procedures & Observation

The Walkabout Team split into two groups to observe the 15-minute dismissal process. The two groups were stationed on opposite sides of Cresswell Road near the cafeteria exit. During the dismissal observation, members of one group walked to the south side of the school past Ashwood Road to the sidewalk connection from Proctors Point. Members of the other group walked up Cresswell Road in the direction of Dawnshire Road. See Appendix B for a map of the dismissal observation locations and walkabout route.

Students at Bellwood Elementary School are dismissed by grade level and travel mode. Pre-K students are dismissed before the first bell rings, at 3:35 p.m. Students in grades K-2 are dismissed at 3:40 p.m. and students in grades 3-5 are dismissed at 3:45 p.m.

Students who ride the school bus are dismissed through the school's main entrance on the north side of the school where Galena Avenue ends, and board buses in the north parking lot. Students who walk, bike, or ride in a family vehicle are dismissed through the school cafeteria at Cresswell Road.

Students who walk or bike must wait in the cafeteria until the school buses have cleared. There is no pickup line for students riding in family vehicles, and parents are required to park their vehicles and enter the cafeteria to sign out their children.

¹ Bellwood Elementary School has not yet completed Student Travel Tallies and did not provide estimates for travel modes other than walk and bike. This report references the number of students within 0.6, because students within this distance or noted on a map developed by the County. See Appendix A.



Arrival Procedures

The Walkabout Team did not observe arrival; however, a Walkabout Team member provided these details about the arrival process:

- Most students arrive between 8:55 and 9:15 a.m.
- Some students arrive as early as 8:00 a.m. for Head Start.
- The school building opens at 9:00 a.m. to students not in Head Start.
- The tardy bell rings at 9:15 a.m.

Other Procedures Impacting Students Who Walk or Bicycle to School.

The Bellwood Student Handbook includes the follow paragraph regarding student walkers and bikers:

Parents who wish to have children walk or ride a bicycle to school must write a note to the teacher. If a child begins to walk to school, he/she should continue to do this throughout the school year. Parents are urged to stress safety to any child who is a walker or bike rider. Bicycles may not be ridden on the sidewalks and are to be parked only in the assigned area. Parents must assume responsibility for the safety of walkers to and from school. Students are not to report to school prior to 9:00 A. M. There is no one to supervise students before 9:00 A. M. or after dismissal at 3:45 P. M.

Walkabout Summary

Prior to the dismissal observation, the Walkabout Team met in a classroom at Bellwood Elementary School for introductions and a brief discussion of school dismissal procedures, walking and bicycling related barriers and concerns, and existing efforts to encourage walking and bicycling to school. After the walkabout, the Walkabout Team reconvened in the classroom to debrief about dismissal observations and discuss next steps.

Key Barriers and Issues

The key barriers and issues identified by the Walkabout Team and Virginia SRTS Program staff include the following.

Lack of a Sidewalk Network in the Quail Oaks Neighborhood

- Most students who live within walking distance of the school live in Quail Oaks.
- There are no sidewalks along streets in Quail Oaks, including on key routes used by student walkers, such as Galena Avenue, Perlock Road, Proctors Road, and Cresswell Road (except between Dawnshire Road and the school property). (Figure 1)
- The presence of parked cars can make it difficult for students to walk along the side of the road, forcing them instead into the middle of the road.



Concern about Speeding on Galena Avenue and Perlock Road

- Galena Avenue and Perlock Road are the primary east-west streets in the Quail Oaks neighborhood, where most students who live within walking distance of the school live.
- Most students who walk or bicycle to school from Quail Oaks or locations along Jefferson Davis Highway must travel along Galena Avenue or Perlock Road for part of their journey.
- Students who attend other schools, including Bird High School, also walk along Galena Avenue or Perlock Road on their way to and from school bus stops.
- The speed limit on Galena Avenue and Perlock Road is 25 mph.
- There is concern about speeding on both streets. Characteristics of the streets that may encourage speeding include:
 - The width of the roadways west of Brandywine (approximately 32 feet).
 - The lack of STOP control at intersecting streets.
 - The lack of traffic calming measures (although the drainage dips on Galena Avenue west of Proctors Road do help with traffic calming between Proctors Road and the school property). (Figure 2)

Lack of a Convenient Pedestrian Crossing and Lack of Sidewalks on Jefferson Davis Highway

- Many Bellwood students live along or across Jefferson Davis Highway, including approximately 35 students in the Holiday Mobile Home Park near the intersection of Perlock Road and Jefferson Davis Highway. Other Bellwood students live in hotels along Jefferson Davis Highway.
- Jefferson Davis Highway is lined with commercial properties, each with their own driveway and parking. The 7-11 at the intersection of Jefferson Davis Highway and Perlock Road supplies groceries to residents of the Holiday Mobile Home Park across the street, who cross Jefferson Davis Highway at Perlock Road, even though there is no traffic signal or marked pedestrian crossing at this location. (Figure 3)
- Jefferson Davis Highway is a five-lane undivided highway with two travel lanes in each direction and a center turn lane. The speed limit is 45 mph.
- From the intersection of Jefferson Davis Highway and Perlock Road, the closest signalized intersections are at Kingsdale Road to the north and Reymet Road to the south, each of which is more than 900 feet away and neither of which includes a marked crosswalk or pedestrian signal heads.
- There are no sidewalks on Jefferson Davis Highway between Kingsdale Road and Reymet Road. (Figure 4)
- In addition to roadway intersections, pedestrians must also cross multiple driveways when walking along this segment.
- According to crash data provided by the Chesterfield County Planning Department for the years 2003-2013, 1 fatal crash and 3 non-fatal crashes involving pedestrians occurred on Jefferson Davis Highway between Kingsdale Road and Reymet Road.

Lack of Sidewalks and Lack of Accessible Pathway from the Proctors Point Neighborhood to the School Campus

- With the exception of a sidewalk on the north side of Ransom Hills Road, there are no sidewalks in the Proctors Point neighborhood.



- There is a sidewalk connection between the north end of Ransom Hills Terrace and the school campus; however, this connection includes a stair, making it non-ADA-compliant. (Figure 5)
- There is currently no formal pedestrian connection between the Proctors Point and Quail Oaks neighborhoods; however, there is a short sidewalk at the end of Perlock Road that becomes an informal goat path between the end of the street and Ransom Hills Terrace in Proctors Point.

Campus Accessibility

- The marked crosswalk connections between the school's sidewalk network and Cresswell Road do not include curb ramps and are often blocked parked or standing vehicles.
- The marked crosswalk on the north side of the intersection is relatively long (approximately 75 feet), resulting in increased pedestrian exposure. The marked crosswalk on the south side of the intersection is shorter (approximately 50 feet). (Figure 6 and Figure 7)
- There are no marked crosswalks or curb ramps connecting the school's sidewalk network to Ashwood Road. (Figure 8)

Outdated School Zone Signage

- School zone signs are provided on Galena Avenue and Cresswell Road near the entrance to the school property; however, the signs are not the fluorescent yellow-green color required by the 2009 MUTCD. (Figure 9)
- There is no school zone sign on the Ashwood Road approach to the school property.

Assessment of Barriers, Issues and Opportunities

Bellwood Elementary School is in a suburban location where the proportion of low-income residents has increased in recent years. Many Bellwood students speak Spanish at home, and about 80% receive free and reduced lunches. Some of these students' families do not have access to a private car. The school also has a transiency rate of approximately 40%, meaning about 40% of the student population turns over in a given year.

Bellwood Elementary School is more than just a school to this community. It also serves as a de facto community center, with ESL classes provided by the Latina Family Council, a Friday library night, a summer camp and other activities for adults and children outside school hours.

The school has a strong focus on wellness spearheaded by Communities in Schools and Greater Richmond Fit4Kids.² Students have contributed to the development of the school's wellness activities, including by generating ideas for a recent application for a QuickStart Mini-grant from the Virginia SRTS Program, which was approved. The mini-grant was for a Walk to School Day event.

² For more information about Communities in Schools, go to: <http://www.cisofrichmond.org/>. For more information about Greater Richmond Fit4Kids go to: <http://grfit4kids.org/>.



Currently, of the 140 students living within 0.6 miles of school, about 16 percent regularly walk or bicycle to school. Recent walking school bus events have demonstrated significant potential to increase bicycling and walking, with between 100-125 students participating (equivalent to 71-89% of students within 0.6 mile).

The primary barriers to walking and bicycling to school are the lack of sidewalks in the Quail Oaks neighborhood, traffic volumes and speeds on Galena Avenue and Perlock Road, and the lack of sidewalks and convenient crossing locations on Jefferson Davis Highway. Chesterfield County is working to revitalize the Jefferson Davis Highway corridor and improve pedestrian and bicycle conditions, and will launch a planning initiative targeting the section of Jefferson Davis Highway near Bellwood Elementary School in May 2015.

The recommendations that follow on page 10 address these issues, barriers, and opportunities as well as others identified by the Walkabout Team.

Glossary of Infrastructure (Engineering) Recommendations

The following infrastructure treatments can be used to improve the bicycle and pedestrian environment around Bellwood Elementary School. Location-specific recommendations are referenced under the section, Bellwood Elementary School Infrastructure (Engineering) Recommendations

Crosswalks

Marked crosswalks highlight the portion of the right-of-way where motorists can expect pedestrians to cross and designate a stopping or yielding location. They also indicate to pedestrians the optimal or preferred locations to cross the street. At midblock or other uncontrolled locations, crosswalks should use a high-visibility pavement marking pattern and be accompanied with pedestrian crossing signs that meet current Manual on Uniform Traffic Control Devices (MUTCD) standards. In addition, crosswalks can be raised on a speed table to be level with the sidewalk. This design helps slow drivers, increase pedestrian visibility and make it easier for pedestrians with mobility limitations to cross the street.

Curb Ramps

Curb ramps provide access between the sidewalk and roadway for people using wheelchairs, strollers, and bicycles. Curb ramps must be installed at all intersections and midblock locations where pedestrian crossings exist, as mandated by the 1990 Americans with Disabilities Act. In most cases, a separate curb ramp for each crosswalk at an intersection should be provided rather than a single ramp at the corner for both crosswalks. Current guidelines for curb ramp designs are included in the Public Right-of-Way Accessibility Guidelines, Chapter R3: Technical Requirements. (<http://www.access-boaRoadgov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/proposed-rights-of-way-guidelines/chapter-r3-technical-requirements>)

Crossing Islands

Crossing islands are raised median islands placed in the center of the street at intersection approaches or midblock. They allow pedestrians to cross one direction of traffic at a time by enabling them to stop partway across the street and



wait for an adequate gap in traffic before crossing the second half of the street. They can reduce crashes between vehicles and pedestrians at uncontrolled crossing locations on higher volume multi-lane roadways where gaps are difficult to find, particularly for slower pedestrians, e.g. disabled, older pedestrians, and children. The application would need to be studied before implementing crossing islands on state roads.

Curb Extensions

Curb extensions extend the curb line into the roadway. They can improve the ability of pedestrians and motorists to see each other, reduce crossing distances (and thus exposure to traffic), provide additional pedestrian queuing space, and slow motor vehicle turning speeds.

In-Street Pedestrian Crossing Signs

In-street pedestrian crossing signs placed in the roadway at pedestrian crossing locations warn drivers and encourage yielding.

Pedestrian Lighting

Pedestrian-scale lighting such as street lamps helps illuminate the sidewalk and improves pedestrian safety and security. Lighting should be provided near transit stops, commercial areas, or other locations where night-time or pre-dawn pedestrian activity is likely.

Pedestrian Signals

Pedestrian signal heads indicate to pedestrians when they should cross a street. The use of WALK/DON'T WALK pedestrian indications at signal locations is particularly important when signal timing is complex (e.g., there is a dedicated left- or right-turn signal for motorists) and at established school zone crossings. For wide streets, countdown signals that indicate the remaining amount of time pedestrians have to cross the street should be present.

School Speed Limit Signs

School speed limit signs alert drivers that they are entering a school zone and need to prepare to yield to students that may be crossing the street. School speed limits vary based on local laws and typically range from 15 to 25 mph. School speed limit signs with lights that flash (flashing beacons) during arrival and dismissal times can be effective on busy streets, however, all school speed limit zones require occasional police enforcement to ensure driver compliance. Refer to the Manual on Uniform Traffic Control Devices (MUTCD) for more guidance.

Sidewalks

Sidewalks provide pedestrians and younger bicyclists a safe place to travel that is separate from motor vehicles. It is important to provide a continuous sidewalk route, connected with high-visibility crosswalks so that pedestrians are not forced to share travel space with motor vehicles. All sidewalks should meet ADA guidelines for width and cross-slope, and include curb ramps that meet ADA guidelines at street crossings.



Pedestrian Hybrid Beacon

A pedestrian hybrid beacon is a traffic signal used to stop road or highway traffic and allow pedestrians to cross safely. When a full traffic signal is not warranted, these signals may be used to facilitate a traffic stop when pedestrians are present and need to cross the road.

Infrastructure (Engineering) Recommendations

A map of the following infrastructure recommendations is provided in Appendix C.

Lack of a Sidewalk Network in the Quail Oaks Neighborhood

- Install sidewalks on at least one side, and preferably both sides, of Galena Avenue between the school property and Jefferson Davis Highway.
- Install sidewalks on at least one side, and preferably both sides, of Perlock Road between the dead-end west of Ashwood Road and Jefferson Davis Highway.
- Install sidewalks on at least one side, and preferably both sides, of Cresswell Road between the Dawnshire Road and Proctors Road.
- Install sidewalks on at least one side, and preferably both sides, of Proctors Road between Galena Avenue and Perlock Road.
- Install sidewalk on the east side of Ashwood Road between Perlock Road and school property.
- Extend the on-campus sidewalk along the bus loop to Galena Avenue.

Concern about Speeding on Galena Avenue and Perlock Road

- Conduct a traffic study to gain a better understanding of motor vehicle speeds.
- If the traffic study demonstrates that the concerns about speeding are valid, install traffic calming measures. Recommended measures include:
 - Mini roundabouts
 - Speed tables or speed humps

Lack of a Convenient Pedestrian Crossing and Lack of Sidewalks on Jefferson Davis Highway

- Install a pedestrian hybrid beacon to facilitate pedestrians crossing Jefferson Davis Highway at Perlock Road. Support with a high-visibility crosswalk.
- Construct sidewalks along both sides of Jefferson Davis Highway between Kingsdale Road and Colony Village, south of Velda Road.
- Mark crosswalks on both sides of Jefferson Davis Highway across intersecting streets and significant driveway intersections.
- Look for ways to minimize the number of driveways intersecting these sidewalks (access management).



Lack of Sidewalks and Lack of Accessible Pathway from the Proctors Point Neighborhood to the School Campus

- Construct sidewalk on at least one side of Ransom Hills Terrace.
- Establish a formal sidewalk connection between Perlock Road and Ransom Hills Terrace.
- Determine the feasibility of establishing an ADA-compliant connection to the school next to the steps.

Campus Accessibility

- Where Cresswell Road intersects school property, construct curb extensions with ADA-compliant curb ramps on all corners and remark the existing marked crosswalks as high visibility crosswalks.
- Where Ashwood Road intersects school property, install an ADA-compliant curb ramp on the northeast corner and mark a high-visibility crosswalk connecting the curb ramp to the southeast corner of the intersection. This marked crosswalk will connect with the proposed sidewalk on the east side of Ashwood Road.
- Upgrade all existing on-campus curb ramps to meet current ADA guidelines and install curb ramps where they are missing.

Outdated School Zone Signage

- Update the school zone signs on Galena Avenue and Cresswell Road near the entrance to school property so that they comply with the current MUTCD.
- Add a school zone sign to the Ashwood Road approach to the school property.

Programmatic Recommendations

The programmatic recommendations are designed to work in conjunction with the infrastructure recommendations and each other to instill safe walking, bicycling and driving practices. The recommendations are organized according to the four "E's" of Safe Routes to School: Education, Encouragement, Enforcement, and Evaluation.³

Education

- Continue and consider expanding pedestrian safety education. Pedestrian safety education should occur in advance of major walk to school events so students are adequately prepared and have an opportunity to practice the skills they have learned. Two pedestrian safety resources are listed below, both of which are free.
 - The *Child Pedestrian Safety Curriculum* was developed by the National High Traffic Safety Administration. The curriculum emphasizes skills practice and includes take home tip sheets for parents in English and Spanish. <http://www.nhtsa.gov/ChildPedestrianSafetyCurriculum>
 - The *Pedestrian Safer Journey* curriculum was developed by the Federal Highway Administration and features videos, quizzes and additional resources for educators teaching pedestrian safety. http://www.pedbikeinfo.org/pedsaferjourney/el_en.html

³ The fifth E is Engineering, included in this report under Infrastructure Recommendations.



Continue bicycle safety education and consider adding a bicycle rodeo with activities aimed at helping students develop bicycle safety skills. Bicycle safety education is particularly important in advance of activities that encourage biking to school, such as National Bike to School Day held in early May each year.

- *Bikeology* is a free, model bike curriculum aligned with National Standards for K-12 Physical Education. The curriculum was developed through a collaboration between the American Alliance for Health, Physical Education, Recreation and Dance (AAPHERD) and the National Highway Traffic Safety Administration (NHTSA). <http://www.walkbiketoschool.org/node/50466>
- Additional bike safety resources can be found on the WalkBiketoSchool.Org website at: <http://www.walkbiketoschool.org/keep-going/bike-safety>
- Incorporate information on walking and bicycling to school in communications with parents. Inform parents that Bellwood Elementary School supports walking and bicycling to school and educate parents about the academic and health benefits of walking and biking.
- Provide parents and guardians with safe driving information and materials that stress the importance of driving safely in school zones and being alert for pedestrians and bicyclists during arrival and dismissal. These materials can be provided during back-to-school nights, health and safety fairs, and Safe Routes to School events. There are several organizations that have free materials available on their websites:
 - The National Center for Safe Routes to School has a helpful list of "Driving Tips Around Schools: Keeping Children Safe." http://apps.saferoutesinfo.org/lawenforcement/resources/driving_tips.cfm
 - The Federal Highway Administration has an entire website devoted to reducing distracted driving, including information and free downloadable materials. <http://www.distraction.gov/content/take-action/downloads.html>
 - The National Safety Council also has a page dedicated to distracted driving resources. Find it here <http://www.nsc.org/learn/NSC-Initiatives/Pages/distracted-driving-resources.aspx>

Encouragement

- Continue walking school bus events and consider conducting them more frequently (e.g., weekly or monthly). A walking school bus is a group of children walking to school with one or more adults. It can be as informal as two families taking turns walking their children to school or as structured as a planned route with meeting points, a timetable and a schedule of trained volunteers. A walking school bus currently operates from/toward the direction of North Avenue. See the Virginia SRTS Program's webinar on walking school buses and bicycle trains. <https://www.dropbox.com/s/7kzoqoyxc6o3ggk/VDOT%2oSRTS%2o-%2oWalking%2oSchool%2oBus%2oand%2oBike%2oTrain%2oWebinar.pdf?dl=0>
- Continue participation in International Walk to School Day. Walk to School Day is an excellent opportunity to get students walking, teach the benefits of an active lifestyle, and highlight walking and biking issues. Resources to help plan Walk to School Day are available on the Virginia SRTS Program website. http://www.virginiadot.org/programs/srsm_srts_all_website_resources.asp.



- Establish a frequent walker/biker program. Frequent walker/biker programs encourage students to walk and bike frequently by offering incentives to students who walk and bike frequently or by establishing a competition between classes. To accommodate students who cannot walk or bike to school, the school could make laps around the school track as a way to fulfill the frequent walker/biker criteria. The Virginia SRTS Program provides a punch card template that can be used to track student walking and biking as part of frequent walker/biker template.
http://www.virginiadot.org/programs/srsm_marketing_toolkit.asp

Enforcement

- Establish a driver pledge program. Encourage parents and community members to sign a pledge that they will abide by traffic laws, avoid distracted driving, drive at a safe speed, and safely share the road with pedestrians and bicyclists.
- Mount a yard sign campaign to encourage drivers to slow down on Galena Avenue and Perlock Road. Ask students to develop the design for the yard sign, potential through a contest.
- Work with the Chesterfield County Police Department to provide periodic speed enforcement on Galena Avenue and Perlock Road in the vicinity of the school during arrival and dismissal times.

Evaluation

- Conduct Student Travel Tallies to get baseline data and annual for student travel patterns. In Virginia, schools across the state record how students are getting to school during Student Travel Tally Week every September. This data can be used to assess progress toward increasing the number of students who walk and bike to school. For more information about Student Tally Week go to the Virginia SRTS Program website.
http://www.virginiadot.org/programs/srsm_student_travel_tally_week.asp
- Administer Parent Surveys to collect information on parents' attitudes towards walking and bicycling and reasons why they may or may not allow their children to walk or bike to school. Administering parent surveys at least once a year can help determine whether Safe Routes to School efforts are changing parents' attitudes towards walking and bicycling to school. For tips on administering Parent Surveys, see the Virginia SRTS Program's **Learn it! Do it! Live it!** tip sheet. https://www.dropbox.com/s/nl274zoliqegw5t/Parent%20Survey_LDLv2.pdf?dl=0

Walkabout Photographs

Walkabout participants took photographs to document the walkabout as well as supplement the walkabout project recommendations. The following photos are from the walkabout. All of the walkabout photographs are available at: <https://www.dropbox.com/sh/5t5y6o8a7ktzgyj/AACQNV06SVP3uarANQPduDnda?dl=0>.



Figure 1. Galena Avenue (facing west). Galena Avenue is one of the primary access routes to Bellwood Elementary School from the Quail Oaks neighborhood and Jefferson Davis Highway. Like all streets in Quail Oaks (excepting a short stretch of Cresswell near the school), Galena Avenue lacks sidewalks.



Figure 2. Perlock Road (facing east). Perlock Road is the second key access route to Bellwood Elementary School from the Quail Oaks neighborhood and Jefferson Davis Highway. Both Perlock Road and Galena Avenue are relatively wide, unstriped (32-33 feet) and do not have any STOP controls between Jefferson Davis Highway and the school, which may encourage speeding.



Figure 3. Jefferson Davis Highway at Perlock Road (facing south). Families with students who attend Bellwood Elementary School live in Holiday Mobile Home Park, the entrance to which is on the east side of this intersection. These families shop for groceries at the 7-11 across the street; however, there is no signal or marked crosswalk at this intersection, and the nearest signalized intersections are more than 900 feet away.



Figure 4. Jefferson Davis Highway at Perlock Road (facing north). Bellwood Elementary School students live along Jefferson Davis Highway, which is lined with commercial uses; however, there are no sidewalks..



Figure 5. Sidewalk connection from Ransom Hills Terrace (facing north toward school). There is a sidewalk connection between Proctors Point and Ransom Hills Terrace; however, it includes a stair and therefore does not provide an accessible pathway.



Figure 6. School property at Cresswell Road (facing east). Although there are two marked crosswalks at the intersection of school property and Cresswell, neither crosswalk is equipped with curb ramps and the crosswalk on the north side of the intersection (shown here) is quite long (approximately 75 feet).



Figure 7. School property at Cresswell Road (facing northwest). Waiting motorists' cars block the crosswalk during dismissal.



Figure 8. School property at Ashwood Road (facing east). There are no marked crosswalks or curb ramps at this intersection.



Figure 9. Cresswell Road on the approach to school property. The school zone signs on the Cresswell Road and Galena Avenue on the approaches to school property do not meet current MUTD standards, which require a fluorescent yellow green color.

Bellwood Elementary School Safe Routes Walkabout - Observation Locations



Legend

- Bellwood Elementary
- Observation Locations
- Walkabout Route

Source: Esri, DigitalGlobe, GeoEye, IGN, GeoEye, USDA, USGS, AeroGRID, IGN, Esri, Mapbox, the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

0 0.015 0.03 0.06 Mile

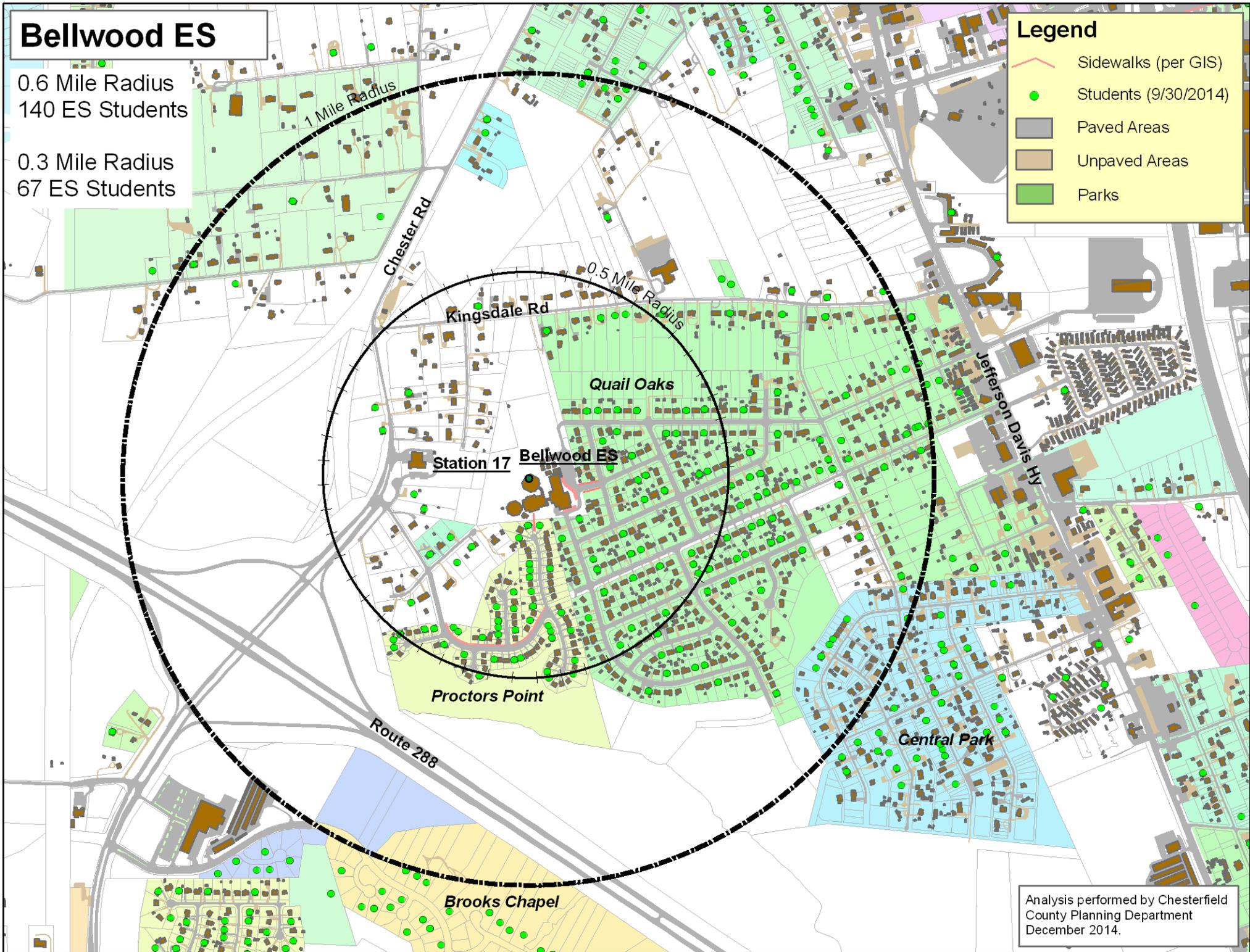
Bellwood ES

0.6 Mile Radius
140 ES Students

0.3 Mile Radius
67 ES Students

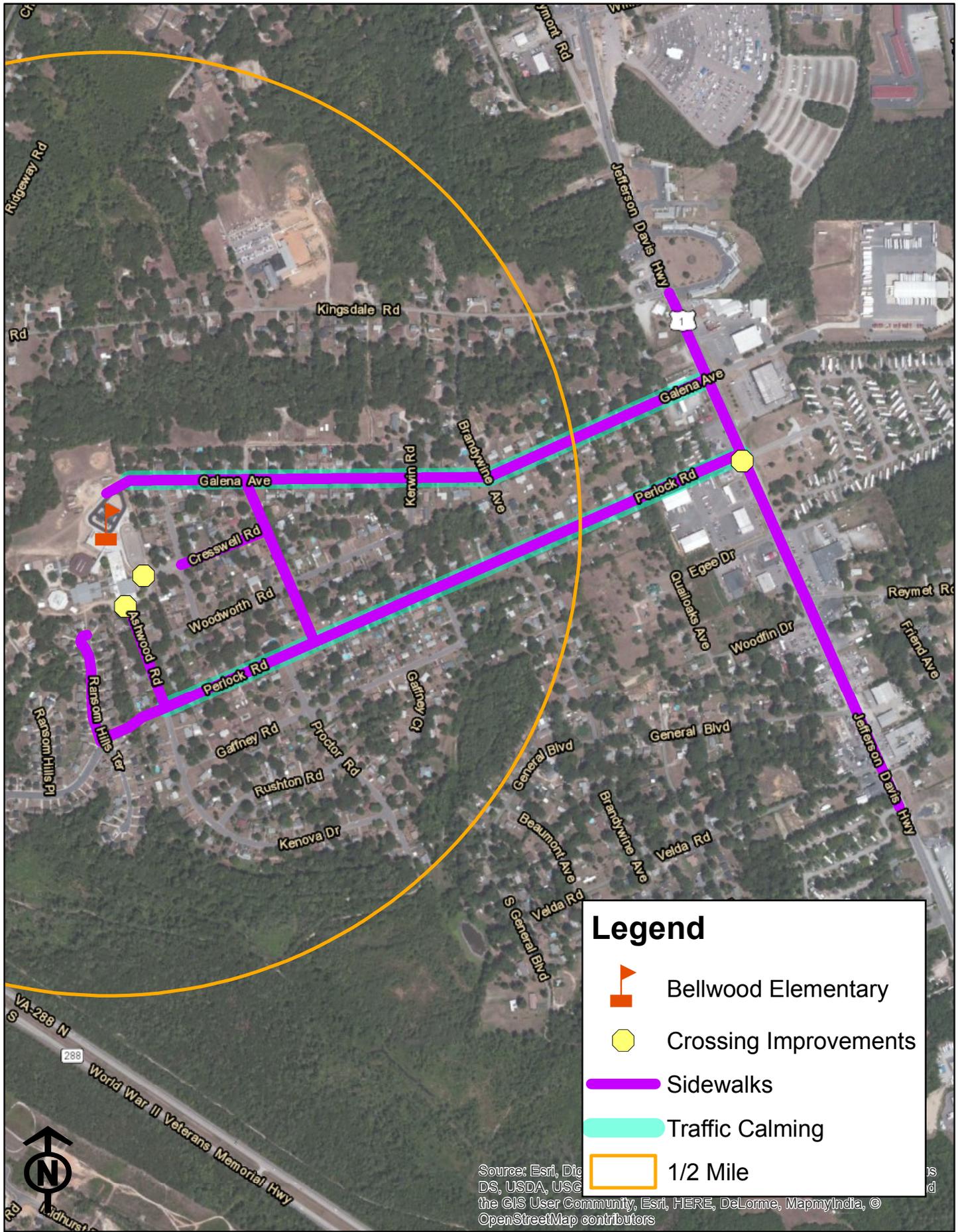
Legend

-  Sidewalks (per GIS)
-  Students (9/30/2014)
-  Paved Areas
-  Unpaved Areas
-  Parks



Analysis performed by Chesterfield
County Planning Department
December 2014.

Bellwood Elementary School Safe Routes Walkabout - Recommendations



Legend

-  Bellwood Elementary
-  Crossing Improvements
-  Sidewalks
-  Traffic Calming
-  1/2 Mile

Source: Esri, DigitalGlobe, GeoEye, IGN, GeoEye, USDA, USGS, AeroGRID, IGN, the GIS User Community, Esri, HERE, DeLorme, MapmyIndia, © OpenStreetMap contributors

