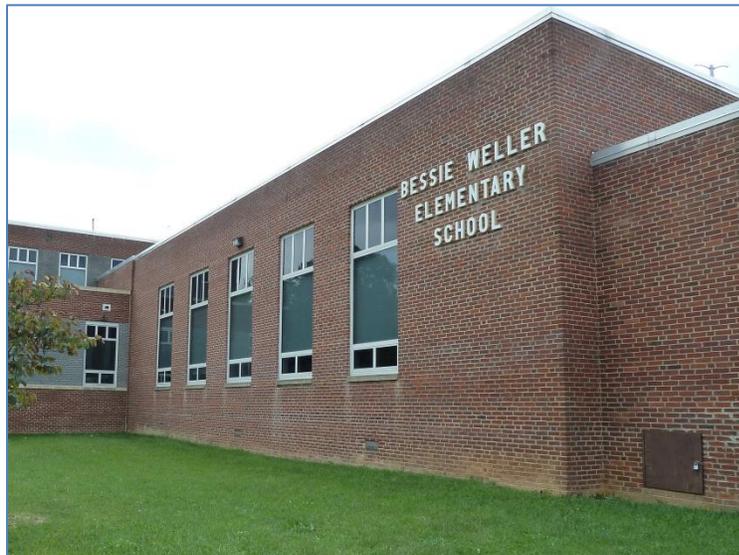


Walkabout Summary Report

Introduction

On September 3, 2014, stakeholders at Bessie Weller Elementary School (Bessie Weller ES) in Staunton, Virginia met to examine the walking and bicycling network around the school and identify potential improvements to be included in a Transportation Alternatives Program grant. Their participation in a VDOT Safe Routes to School (SRTS) Walkabout shows their support of improving the walking and biking environment and increasing the number of students safely walking and bicycling to school. The stakeholders included members of the school staff, the City of Staunton, the Staunton police department, the Central Shenandoah Planning Commission, a student, and his parent.



Bessie Weller Elementary School, Staunton

The two-hour meeting included observation of school dismissal and a guided walk of the streets nearest the school including the trail that connects the rear of the school and the neighborhood to the south of the school. The table below summarizes existing conditions along key streets included in the guided walk.

Walking Routes

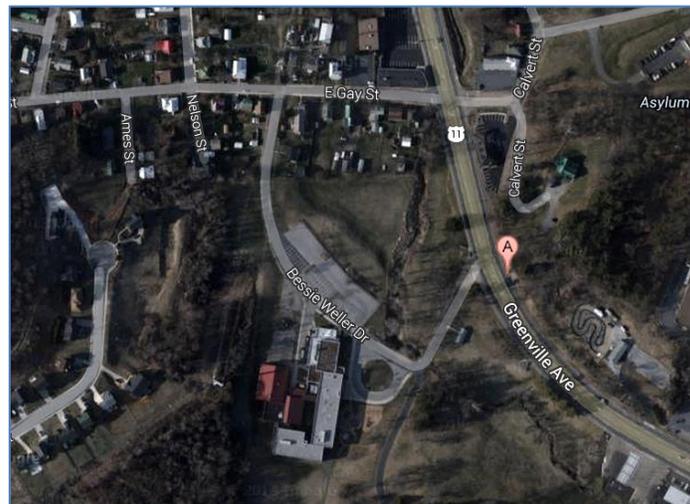
Street	Speed limit	Road Width ¹	No. lanes each direction	Sidewalk width and continuity, if present ¹
Ames Street	25 mph	17 ft	1	N/A
Bessie Weller Drive	25 mph	23 ft	1	5ft sidewalk,
Fisher Circle	25 mph	40 ft	1	N/A
Gay Street	25 mph	18 – 20 ft	1	5 ft sidewalks, varies between no sidewalks and sidewalks on both sides of the street
E Liberty Street	25 mph	28 ft	1	5ft sidewalks, both sides of the street
Nelson Street	25 mph	25 ft	1	5 ft sidewalk, one side of the street
Robertson Street	25 mph	28 ft	1	5ft, intermittent on both sides of the street
W Liberty Street	25 mph	19 ft	1	4ft, one side of the street

1. Street and sidewalk widths are approximate

Existing conditions

School location

Bessie Weller ES is located in the southwest corner of E. Gay Street and Greenville Avenue. While its address is 600 Greenville Avenue in Staunton, Virginia, the school is located on city-owned Bessie Weller Drive, a curving road that connects Gay Street and Greenville Avenue. A school zone crossing sign just south of E. Gay Street on Bessie Weller ES alerts motorists of the presence of pedestrians. The school building is on one side of Bessie Weller Drive and the school's parking lot is on the other. The school uses a temporary gate to close the street to through traffic during arrival and dismissal. The portion of Bessie Weller Drive from Gay Street to the school is well used and the asphalt is in need of repair.



To the north of the school is an older residential neighborhood situated between Greenville Avenue and Middlebrook Avenue. The streets in this neighborhood are relatively narrow and laid out in an incomplete grid. Gay Street is on the south side of the neighborhood and Nelson and Thompson Streets travel north-south through the center of the neighborhood.

To the south of the school is another residential neighborhood, but unlike the neighborhood to the north, the streets are wider and are not laid out in a grid pattern. Fisher Circle is the closest street to the school and is connected to the rear of the school by a paved trail. Paul Street is also close to the school; however there are no direct connections from Paul Street to the school.

Greenville Avenue is a four-lane road with a center turn lane. There is no crosswalk at the intersection with Bessie Weller Drive, and although there is a crosswalk at the intersection with Gay Street, the crosswalk is not the high-visibility zebra or ladder pattern. According to the Walkabout Team, the perceived speed and volume of traffic creates a potential barrier to students walking and bicycling to school.

Students living in adjacent neighborhoods west of Middlebrook Avenue, a four-lane road about a half-mile west of the school, cannot walk or bike to school because of a lack of pedestrian crossing facilities at the two intersections that could serve as connections to the school. Similar to Greenville Avenue, Walkabout participants noted that the perceived speeds and volumes of traffic on this road create another potential barrier to walking and bicycling.

Gay Street is a narrow east-west residential street beginning at Perry Street to the west, intersects with Greenville Avenue, ending at Calvert Street to the east, with no on-street parking. Sidewalks are present on both sides of the street between Greenville Avenue and Bessie Weller Drive, dropping to a sidewalk on the south side only (nearest the school) between Bessie Weller Drive and Nelson Street, and no sidewalks west of Nelson Street. A hill on the west end of Gay Street makes westbound travel on foot or by bicycle an uphill climb. There is a school zone crossing sign on Gay Street between Bessie Weller Drive and Greenville Avenue. There are no crosswalks at the intersection of Gay Street



and Bessie Weller Drive, however there are two crosswalks at the intersection of Nelson Street and Gay Street – one crossing Gay Street on the west side and another crossing Nelson Street on the south side. A crossing guard at the intersection of Gay and Nelson Streets helps students travel to and from school.

E. Liberty Street is an east-west residential street on street north of Gay Street with sidewalks on both sides. This one-block street with on-street parking runs between Baltimore Avenue on the east and Nelson Street on the west. At the intersection of Nelson Street, the topography presents a potential issue for visibility between pedestrians and motorists.

Nelson Street is a north-south residential street that is one block west, and slightly uphill, of Bessie Weller Drive. Nelson Street dead-ends one block south of Gay Street. This end of Nelson Street is within visual range of Paul Street to the south, which ends in a cul-de-sac. A sidewalk on one side of the street complements on-street parking on the other.

Robertson Street is a north-south street that is one block west of Nelson Street. There is on-street parking on both sides of the street and there are five-foot wide sidewalks on nearly all of the eastern side, and portions of the western side. Robertson rises to a steeper slope when traveling southbound toward Gay Street.

W. Liberty Street is an east-west street that links Nelson Street with Robertson Street. There is a four foot wide sidewalk along the south side of the street. There is limited on-street parking on the north side of the street and no vehicle parking on the south side of the street.

Bessie Weller Elementary School travel modes and dismissal procedure

The majority of K through 5th grade students enrolled in September 2014 lives within a mile of school:

5% (20 students) live within 0.25 miles of the school

24% (97 students) live within 0.5 miles of the school

52% (212 students) live within 1 mile of the school

Prior to the Walkabout, school officials estimated that about 10 students walked or bike to school (only one student who rode a bicycle). The remaining students ride in a family vehicle or take the bus, so the arrival and dismissal procedure is focused on motor vehicles. During dismissal, a temporary gate is set up across Bessie Weller Drive in between the parking lot and the driveway circle at the front entrance of the school. At 3:30 pm students that walk home or ride home in a family vehicles are dismissed from class. Students who ride the bus are released afterwards and in a staggered manner according to order in which the seven buses depart from the driveway circle. After boarding, the buses exit the school by way of the Greenville Avenue – Bessie Weller Drive intersection. Walkabout participants noted that the bus dismissal process ran efficiently and that students are supervised by teachers when boarding the buses.



Students riding home in private vehicles and those walking home are released from the main entrance. The few students who use the trail, exit the school at the rear of the building. Walkabout participants observed six students walking home from school, most of who walked along Bessie Weller Drive with a parent. Two students were observed walking home by cutting a path from the sidewalk along Bessie Weller Drive towards the end of Nelson Street.

Parents and student guardians who pick up their children by private vehicle begin to line up along Bessie Weller Drive from Gay Street to the south end of the school's parking lot well in advance of the student dismissal time. Students wait to be picked up in groups of three on curb extensions on the school side of Bessie Weller Drive. After students get into their vehicle, motorists loop around the parking lot and exit the school by way of the Gay Street – Bessie Weller Drive intersection. The process took about 20 minutes the day of the Walkabout, during which walkabout participants observed vehicles illegally parking, motorists driving on the wrong side of the road, and that the vehicle loading was not separated from students walking. Walkabout participants noted that there have been discussions to expand the parking lot or to build a new drive through loop to help ease the congestion.

Walkabout Summary

Prior to the student dismissal observation, the Walkabout Team walked along a paved trail that leads from the rear entrance of the school to Fisher Circle and the neighborhood to the south of the school. Walkabout participants noted that the trail was used for school activities, such as nature walks, but is seldom used as a transportation route, except for the few students traveling to houses in the nearby neighborhood. Students who do use the trail are able to enter and leave from the rear entrance of the school. There are no signs or markings when the trail ends at Fisher Circle.

After using the trail, the Walkabout Team separated into two groups to observe student dismissal. The first group observed the dismissal process from the southern end of the parking lot, where students boarded the vehicles. The second walkabout group observed dismissal from the intersection of Gay Street and Bessie Weller Drive. The first group also observed the bus dismissal procedure, while the second group experienced the walking environment by walking along Gay Street, Nelson Drive, Robertson Street, and Liberty Street. Afterwards, both groups discussed their findings.

Key Barriers, Issues and Opportunities

Although there are adequate sidewalks along some streets in the adjacent neighborhoods, there is not a complete pedestrian network linking the neighborhoods surrounding the school with appropriate pedestrian crossing facilities, lighting, wayfinding, and signage.

Trail Connections

- *Paul Street.* This street ends in a cul-de-sac about two-hundred feet from the end of Ames Street, without a connection between these two streets, students living at the end of Paul Street would have to travel four times the distance to reach the school.
- *Trail connection at rear of school.* The trail that connects the rear of the school with Fisher Circle is a great asset to the school and could be used to encourage active transportation. The absence of lighting along the trail makes the trail too dark to use during early mornings or late afternoons in fall and winter months.



Wayfinding and pedestrian signage

- *School zone signs.* There is a school zone flashing beacon on Greenville Avenue north of Gay Street. Additionally, there are school zone crossing signs on Bessie Weller Drive and Gay Street, however these signs do not meet the current Manual on Uniform Traffic Control Devices (MUTCD) guidelines (S1-1, S4-3P, and W16-7p in MUTCD).

Barrier Streets

- *Greenville Avenue and Middlebrook Avenue.* These streets are wider streets with perceived higher speeds and volumes of traffic that would make crossing a relatively uncomfortable experience. The lack of pedestrian crossing facilities at the two intersections that would otherwise be used for travel across Middlebrook Avenue adds to the barriers.

Congested pick-up procedure

The number of parents and guardians in vehicles waiting to pick students creates significant congestion along Bessie Weller Drive, and Gay Street for all. The congestion also creates a perceived stressful driving environment for motorists, some of whom avoid the queue by parking illegally.

- *Inadequate accommodation for pedestrians.* Students and their parents who walk to travel along the vehicles through a relatively less comfortable walking or bicycling environment.
- *Vehicle queue.* Vehicles lined up along Bessie Weller Drive turns the street into a one-lane street, which creates problems as exiting vehicles are blocked by incoming vehicles choosing to look for a parking spot instead of wait in the vehicle queue. In this situation, vehicles are forced onto the grass adjacent the street to the east.
- *Limited parking.* Furthermore, the number of drivers who hope to find a parking spot are often forced to park in the grass next to the parking lot when no spaces are available.
- *Gay Street congestion.* Lastly, since there is less space on Bessie Weller Drive than what is needed, the additional vehicles queue up along Gay Street, on both sides of Bessie Weller Drive. These waiting cars create further congestion on Gay Street, forcing any through traffic to drive on the wrong side of the road to pass the lined up vehicles, further discouraging pedestrians from crossing the street.

Gay Street

- *Topography.* Gay Street's incline creates a potential barrier to students and parents who would want to walk or bike to school. The incline of the hill feels particularly steep after Ames Street, and Walkabout participated noted that it would be unlikely for parents to walk up and down the hill. None of the students walking during the Walkabout walked past Ames Street.
- *Sidewalk gaps.* Although there are sidewalks along Gay Street between Greenville Avenue and Bessie Weller Drive, there are no sidewalks two blocks west of the school entrance.
- *Perceived speed limits.* The relatively steep slope of the hill allows drivers traveling downhill to do so at speeds perceived faster than the speed limit. Additionally, there are no stop signs along Gay Street to manage speeds; this can make motorists less likely to stop on Gay Street for pedestrian cross traffic.



Bessie Weller Drive

- *Sidewalk.* Although there is a sidewalk along Bessie Weller between Gay Street and the school entrance, portions of the sidewalk are level with the vehicle travel lane, creating a potentially unsafe walking environment.
- *Repaving.* There are large breaks in the asphalt on Bessie Weller Drive at the intersection with Gay Street, specifically where a crosswalk would be placed, this surface should be repaved.

Nelson Street

- *Mid-block crossing.* The sidewalk along Nelson Street switches from the east side of the road to the west side of the road just north of E. Liberty Street. However, there is no crosswalk to indicate where pedestrians should cross the street and the sidewalks on each side of the street do not match up, causing pedestrians to walk in the street for a short distance either before or after they have crossed the street to get to the sidewalk on the other side.

Bessie Weller Drive and Gay Street

The intersection at Bessie Weller Drive and Gay Street is the closest intersection to the school and during dismissal is inundated with vehicle traffic.

- *Crosswalks.* There are no marked crosswalks at this intersection.
- *Curb ramps.* There is no curb ramp on the southeast corner of the intersection, although there is a vehicle curb cut just east of the intersection. On the southwest corner of the intersection the curb ramp is oriented at a diagonal to the intersection, forcing pedestrians into the motor vehicle travel lane (i.e., oncoming traffic). There is neither a sidewalk nor a curb ramp on the northeast corner of the intersection.

Nelson Street and Gay Street

The intersection at Nelson Street and Gay Street is the only intersection in the school zone with a crossing guard. This intersection also has existing sidewalks on the south side of Gay Street as well as the east side of Nelson Street.

- *Crosswalks.* The existing crosswalks cross Gay Street on the west side of the intersection as well as the south side of Nelson Street. There is no crosswalk to connect the existing sidewalks on Gay and Nelson Streets. Additionally, the crosswalks are not the recommended zebra or ladder pattern used for higher visibility.

Assessment of barriers and issues

The existing walking and bicycling conditions in the surrounding neighborhoods and the volume of automobiles on the school campus during dismissal discourage students and their families from walking and bicycling to and from school. Although there are opportunities to expand the parking lot or create a new drive through loop, these efforts would only encourage more parents and guardians to pick up their children by motor vehicle and would increase the amount of congestion during dismissal while further discouraging walking and bicycling.

The best practices approach to increasing the number of students safely walking and bicycling is to create a walking and biking environment that is comfortable and convenient for students and parents and to limit the number of motor vehicles on roadways and driveways immediately adjacent to the school during arrival and dismissal, i.e., Bessie Weller Drive. Since Greenville Avenue and Middlebrook Avenue are likely barriers to walking and biking, short term



infrastructure improvements should target the 30% of students living within ½ mile of school in areas adjacent the school, and could further promote parents and guardians parking their vehicles in the adjacent neighborhoods and walking to the school. This could also contribute to decreasing the amount of congestion along Bessie Weller Drive during dismissal. These infrastructure efforts should then be reinforced with programmatic efforts that will encourage the use of the infrastructure improvements through walking and biking activities, such as park-and-walks and walk/bike to school events. The infrastructure and programmatic recommendations are outlined below.

Infrastructure (Engineering) Recommendations

Crosswalk improvements

Crosswalks are an important component of creating a pedestrian network; they show pedestrians the best location to cross the street as well as help make drivers more alert of possible pedestrians crossing the street. All crosswalks should use a high-visibility pavement marking pattern and be accompanied with appropriate signs. Updated or new crosswalks should be at the following locations:

- Intersection of Gay Street and Nelson Street, crossing Gay Street on the east side of the intersection
- Intersection of Gay Street and Nelson Street, crossing Nelson Street on the south side of the intersection
- Intersection of Gay Street and Bessie Weller Drive, crossing Gay Street on the east side of the intersection
- Intersection of Gay Street and Bessie Weller Drive, crossing Bessie Weller Drive on the south side of the intersection
- Intersection of E. Liberty Street and Nelson Street, crossing Nelson St on the north side of the intersection
- Intersection of E. Liberty Street and Nelson Street, crossing E. Liberty Street on the east side of the intersection

Curb Ramps

Curb Ramps that meet ADA guidelines make it easier and more convenient for roadway users of all abilities to cross the street. The preferred curb ramp directly faces the road crossing and uses a detectable warning surface of truncated domes. Existing curb ramps at the following locations should be rebuilt to meet ADA guidelines:

- The intersection of Bessie Weller Drive and Gay Street
- The Intersection of Nelson Drive and Gay Street

Sidewalk improvements

Sidewalks are another significant component to creating a pedestrian network; sidewalks provide pedestrians and younger bicyclists a safe place to travel that is separated from motor vehicle travel lanes. It is necessary to keep 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 and should use curb ramps that meet ADA guidelines when linking to a crosswalk. The sidewalks at the following locations should be repaired, extended, or built new:

- Build a new sidewalk along Nelson Street, from the south end of the street to Gay Street, on the east side of the street

- Extend the sidewalk along west side of Nelson Street from the existing sidewalk in front of the Teen Community Center to the intersection at E. Liberty Street
- Raise the sidewalk along Bessie Weller Drive so that there is vertical separation between the sidewalk and the roadway, or add a painted white line that meets MUTCD standards to delineate the vehicle from pedestrian zone
- Build a new sidewalk along the south side of Gay Street from Nelson Street to Ames Street
- Build a new sidewalk along the east side of Ames Street from Gay Street to the end of the road

Shared Use Paths and Trails

Shared use paths are a valuable tool for building a comprehensive pedestrian and bicycling network. These paths are low-stress routes that are off-the-street so pedestrians and bicyclists do not have to compete for space with motor vehicles. Shared use paths in the following locations would not only create walking and biking paths separate from motor vehicles, but also better connect the neighborhoods adjacent the school. The paths and trails should also include adequate lighting for year-round use.

- Link the cul-de-sac of Paul Street with the end of Ames Street
- Link the sidewalk on Bessie Weller Drive near the school with the end of Nelson Street
- Install lighting on the trail connecting Fisher Circle and the rear of Bessie Weller ES

Pedestrian Wayfinding signage

Pedestrian signage can be a useful tool for providing information to pedestrians regarding the location of the school, as well as a method to alert other road users that students and families use a particular route for traveling to and from school. Unlike traditional motor vehicle signage, these signs are designed specifically for pedestrian use. To help direct pedestrians and bicyclists to Bessie Weller ES, pedestrian way finding signs should be placed at the follow locations:

- The intersection of Gay Street and Bessie Weller Drive
- The intersection of Gay Street and Nelson Street
- The Intersection of Gay Street and Ames Street
- The intersection of Fisher Circle and the trail connecting the rear of the school
- The intersection of E Liberty Street and Nelson Street



An example of a wayfinding sign

School Zone Signage

School zone signage can be an effective method to improve motorist awareness of pedestrians at crossing locations. The existing signage should be updated to meet the current Manual on Uniform Traffic Control Devices (MUTCD) guidelines (S1-1, S4-3P, and W16-7p in MUTCD). Additionally, new crossings should also have updated school zone sign assemblies.



Programmatic Recommendations

The programmatic recommendations are designed to work in conjunction with each other to instill safe walking, bicycling, and driving practices. The recommendations are organized by four of the five Es of Safe Routes to School: Education, Encouragement, Enforcement, and Evaluation.¹

Education

- Incorporate information on walking and bicycling to school in communications with parents. At the beginning of and throughout the school year, provide parents with information to clarify that Bessie Weller ES supports walking and bicycling to school. This communication can also be used to suggest ways that parents can support safe walking and bicycling, and promote the social and health benefits of walking and biking.
- Integrate pedestrian and bicycling safety education into the school curriculum. Pedestrian and bicycle safety education will ideally occur in advance of major walk or bike to school events, so that children are adequately prepared and have an opportunity to practice the skills they have learned. The Child Pedestrian Safety Curriculum produced by the National Highway Traffic Safety Administration (NHTSA) is an example a curriculum that might be used for this instruction.
- 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, among others.

Encouragement

- Participate in statewide walking and biking to school events. International Walk to School Day, held in October, and National Bike to School Day, held in May, are used to celebrate walking and bicycling to school. These events provide an excellent opportunity to not only get students walking and bicycling, but also to teach them the benefits of an active lifestyle.
- Establish a park-and-walk system for student pick up and drop off. Recommend that parents park their vehicles along Fisher Circle to the south of the school or in the neighborhood to the north of the school and walk to pick up or drop off their children. Parents who park and walk will likely save time compared to those waiting in the vehicle queue.
- Hold monthly or weekly walk or bike to school days. Formalized walking and biking events once a month will carry over the momentum from International Walk to School Day and National Bike to School Day. These events will also provide opportunities to partner with different stakeholder groups and community associations throughout the school year.

Enforcement

- Participate in Crossing Guard Appreciation Month. In Virginia, Crossing Guard Appreciation Month takes place in February and gives schools, students, parents, and the community the opportunity to recognize their school's crossing guard and to thank them for the service that they provide. Schools can hold events recognizing their

¹ The fifth E is Engineering, included in this report under Infrastructure Recommendations



school's crossing guards and parents can nominate their crossing guard as one of Virginia's Most Outstanding Crossing Guards of the Year.

- Standardize arrival and dismissal procedures in the schools handbook. Set new regulations for parents and guardians picking up and dropping off their children in a family vehicle. New regulations can include restricted parking during pick-up and drop-off, require carpooling, or restrict entering the parking lot from the wrong direction.

Evaluation

- Conduct Student Travel Tallies. Student Travel Tallies are an effective way to get baseline data for student travel patterns. In Virginia, Student Travel Tally Week is in September and schools across the state record how students are getting to school. This data can then be used to identify trends and help guide the types of projects that a school's Safe Routes program should develop.
- Administer Parent Surveys. Parent surveys are similar to student travel tallies in that they help a school get a better sense of how students are getting to and from school, but the parent surveys also help 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 parent's attitudes towards walking and bicycling to school.

Additionally, Bessie Weller Elementary School and the City of Staunton school district should consider applying for a SRTS Division Coordinator. Division coordinators are funded through VDOT SRTS Non-Infrastructure grants and can initiate and support various activities for a year-long, comprehensive SRTS program.

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/obruja6ix3ri4y6/AACl794oPYYxQjoj12U8kgeBa?dl=0>



Figure 1. Intersection of Greenville Avenue and Gay Street, facing south. Even with crosswalks, Greenville Avenue is a potential barrier to walking and biking.



Figure 2. Walkabout participants travel along the trail that connects the back of the school with Fisher Circle.



Figure 3. Intersection of Gay Street and Bessie Weller Drive, looking east. A lack of cross walks and curb ramps discourages potential walking and biking.



Figure 4. The sidewalk along Bessie Weller Drive is level with the roadway at points.



Figure 5. Intersection of Gay Street and Nelson Street facing north. The intersection lacks a crosswalk connecting the two sidewalks.



Figure 6. Students wait for their parents and guardians in the vehicle pick up line.

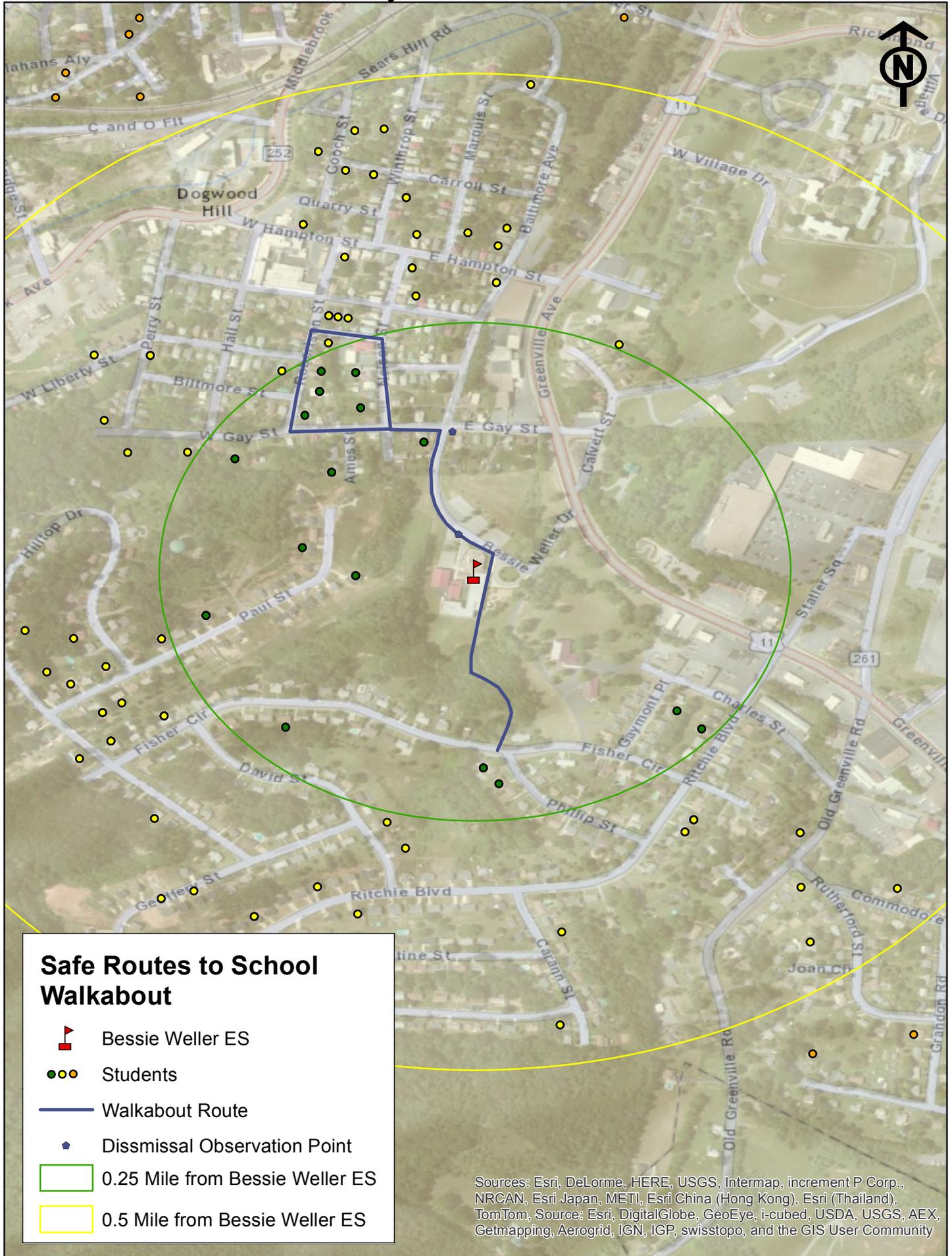


Figure 7. Intersection of Bessie Weller Drive and Gay Street facing south. Students and their parent walk along the cars in line for the student pick up.



Figure 8. End of Ames Street, looking south. Houses on Paul Street, approximately 200 ft away, can be seen, but there is no pedestrian or bicycle connection between the two neighborhoods.

Bessie Weller Elementary School



Safe Routes to School Walkabout



Bessie Weller ES



Students



Walkabout Route



Dismissal Observation Point



0.25 Mile from Bessie Weller ES



0.5 Mile from Bessie Weller ES

Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

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Bessie Weller Elementary School



Walkabout Recommendations

- Wayfinding Signs
- Updated School Zone Sign
- Trail Lighting
- High Visibility Crosswalk
- New or Repair Sidewalk
- Shared Use Path

Sources: Esri, DeLorme, HERE, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

