



Walkabout Summary Report

Introduction

On September 12, 2014, stakeholders at McCleary Elementary School in New Castle, 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 application. Their participation in a 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 members of the school staff, the Roanoke Valley-Allegheny Regional Commission, the Craig County Sheriff's Office, the VDOT Salem District Office, and the Craig County Administrator.

Walkabout Team

Name	Organization
Clay Goodman	Craig County, County Administrator
Kelly Wilmore	Craig County Schools, Superintendent
Gennifer Miller	McCleary Elementary School, Principal
Geromy Nachols	Craig County Sheriffs Office
Adam Czesnowski	VDOT, Salem District
Ed Wells	Roanoke Valley Allegheny Regional Commission
Lauren Kaufmann	Toole Design Group
Bryan Barnett-Woods	Virginia Safe Routes to School

The two-hour meeting included an observation of school dismissal and a tour of the nearby neighborhood and downtown, including a trail that connects the school with the Craig Creek Neighborhood, just to the southwest of the school campus. The table below summarizes existing conditions along key streets in the area.

Walking Routes

Street	Speed limit	Road Width ¹	No. lanes each direction	Sidewalk and shoulder width, if present ¹
Craigs Creek Road	25 - 35 mph	18-22 ft	1	N/A
Commerce Avenue	25 mph	18 ft	1	N/A
2nd Street	25 mph	18 ft	1	N/A
4th Street	25 mph	18 ft	1	N/A
5th Street	25 mph	18 ft	1	N/A
6th Street	25 mph	20 ft	1	N/A
Camp Mitchell Road	25 mph	20 ft	1	N/A

¹ Street and sidewalk widths are approximate

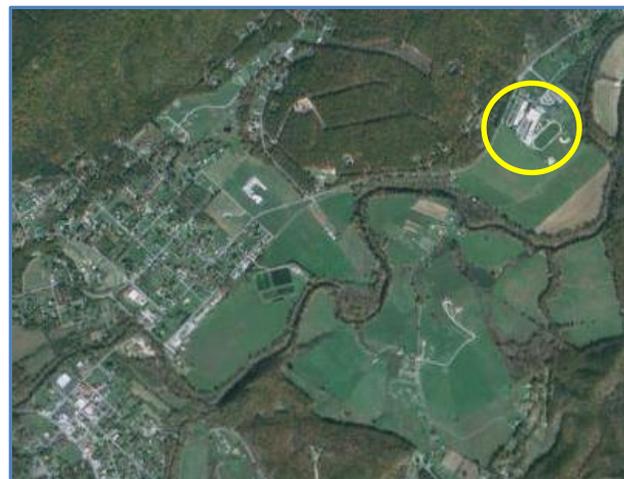
Existing conditions

School location and students proximity

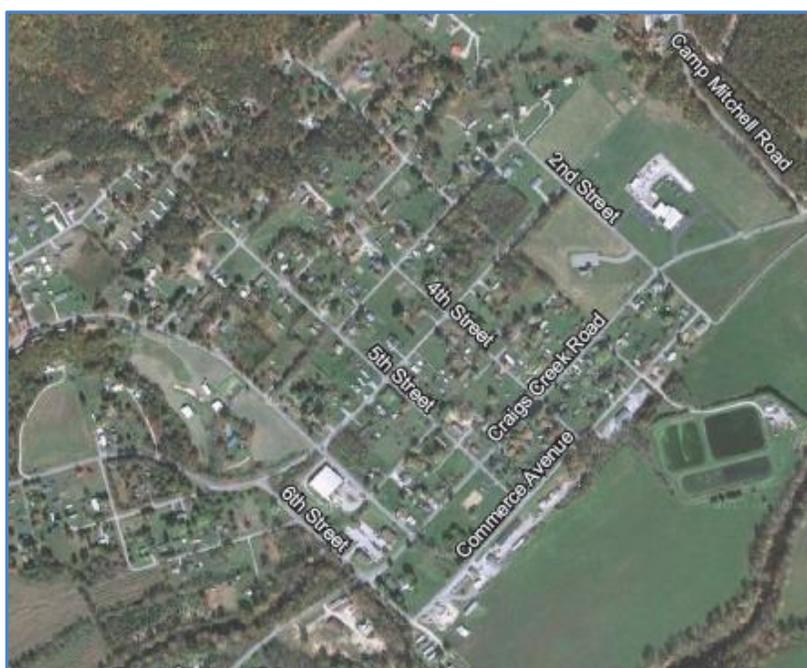
McCleary Elementary School is located at 25345 Craigs Creek Road, New Castle, Virginia. The school is on the Craig County Schools campus, along with the county's middle and high school. There are no residential neighborhoods in the immediate vicinity of the school. The nearest residential neighborhood is Craig City, approximately one mile southwest of the school. Further to the southwest is downtown New Castle.

Craigs Creek Road connects downtown New Castle, the Craig City neighborhood, and the school. The two lane road does not have sidewalks or wide shoulders, and does not have any stop control through the Craig City neighborhood. Additionally, the road has relatively low traffic volumes.

A shared use path runs parallel to Craigs Creek Road between the school and the eastern corner of the Craig City neighborhood. The path is unlit and almost completely separated from vehicle traffic with only one driveway that leads to the farm buildings adjacent the path. Walkabout participants noted that the existing shared use path is one section of a longer planned trail that will connect downtown New Castle and the school via Commerce Avenue and the creek, then continues far beyond the school to the northeast.



McCleary Elementary School (circled) is part of the Craig County Schools campus, approximately one mile northeast of the Craig City neighborhood (see map below) and downtown New Castle.



The Craig City neighborhood is laid out in an incomplete grid pattern; Commerce Avenue makes up the southern border, 2nd Street is the eastern border; and forested areas make up the northern and western borders. The neighborhood is not a complete square; it expands northwest of downtown New Castle. None of the streets in the neighborhood have sidewalks.

Commerce Avenue is a two-lane northeast-southwest street that runs parallel to Craigs Creek Road in the Craig City neighborhood. Commerce Avenue intersects with 6th, 5th, 4th, and 2nd Streets, all of which are northwest-southeast streets in the neighborhood. The shared use path that links to the school connects to north east end of Commerce Avenue. Additionally, a VDOT



facility is located on the southeastern end of Commerce Avenue, creating some construction vehicle traffic along Commerce Avenue.

2nd, 4th, 5th, and 6th Streets are each narrow two lane roads that run perpendicular to Craigs Creek Road in the Craig City neighborhood. These streets terminate on the southeast side of the neighborhood at Commerce Avenue, intersect Craigs Creek Road, and run northwest into the neighborhood. As shown in the map on the previous page, each of these streets is a different length, affecting connectivity within the neighborhood. Although none of these streets have sidewalks, wide shoulders, or crosswalks at intersections, they have perceived low volumes of traffic and can be used to access the shared use path at the end of Commerce Avenue.

Camp Mitchell Road is a two-lane northeast-southwest road that ends at the intersection with Craigs Creek Road about three-quarters of a mile southwest of the school entrance. Camp Mitchell Road has a several houses and is the access road to a summer camp. Like many of the streets in Craig County, Camp Mitchell Road does not have a perceived high volume of traffic nor sidewalks. Near the intersection of Craigs Creek Road and Camp Mitchell Road is a driveway entrance perpendicular to Craigs Creek Road, running southeast. This driveway is used to access agricultural land that is adjacent to the school. Although the driveway is not a public road, it can be used to access the shared use path that runs parallel to Craigs Creek Road.

The majority of Craig County students (elementary, middle, and high school students), enrolled in September 2014, do not live within two miles of school²:

- 0.3% (2 students) live within 0.25 miles of the school
- 1.2% (7 students) live within 0.5 miles of the school
- 2.5 % (14 students) live within 1 mile of the school
- 30.1 % (167 students) live within 2 miles of the school

Walkabout Summary

Prior to observing student dismissal, the Walkabout Team met at McCleary Elementary School to discuss possible walking and bicycling infrastructure improvements for the community. The team first surveyed the elementary school's parking lot and the entrance to the shared use path, which is across from the parking lot driveway. The parking lot has a few parking spaces reserved for shared use path users. After observing student dismissal, the Walkabout Team drove to the Craig City neighborhood to assess walking and bicycling conditions. Specifically, the Team assessed the shared use path entrance at Commerce Avenue, the intersection of Commerce Avenue and 6th Street, the intersection of Craigs Creek Road and 6th Street, and the intersection of Craigs Creek Road and 4th Street, as shown on the Walkabout Route map. Afterwards, the Walkabout Team toured downtown New Castle, driving along Market Street, Main Street, and

² These percentages are based on a total of 555 students, which does not include students with a PO Box as a primary address or students who did not provide addresses. There are 584 students attending Craig County Schools.



Race Street. School officials noted that no students regularly walk or bicycle to school; however Walkabout participants commented that on occasion students have walked or ridden their bicycles on the trail when traveling to and from school.

The Walkabout Team stayed in one group to observe dismissal, but went from one location to another to observe dismissal from two different vantage points. First, the Team observed the elementary dismissal for students that rode home in a family vehicle; students met their parents or guardians at a back entrance of the elementary school. All of the parents and guardians who parked their vehicles behind the elementary school walked to the back entrance to pick up their child. Elementary school students who took the bus home were escorted by a teacher to the high school entrance, and once the buses were lined up in the parking lot, the students exited the building and boarded their buses. Shortly after the elementary school students were dismissed, the middle school and high school students were released from class and exited from the main high school entrance as well. During the Walkabout, none of the participants observed students walking or bicycling home.

Key Barriers, and Issues

The lack of students and families walking or bicycling to school is in part due to the relative isolation of the school to nearby residential neighborhoods. Another potential factor contributing to the low share of walkers and bicyclists is a built environment that lacks sidewalks to support walking and bicycling. The following issues likely discourage students and their families from walking or bicycling to school.

Shared Use Path Connection

- *School Entrance.* The shared use path that connects the school with the rest of New Castle is a valuable amenity for the community. Although the path connects to the school parking lot, there is no direct pedestrian connection to the school entrance.

Craigs Creek Road

- *Crossings.* None of the intersections along Craigs Creek Road in the Craig City neighborhood, or near the school have marked crosswalks.
- *Perceived vehicle speeds.* Vehicles traveling along Craigs Creek Road do so at speeds perceived to be faster than the speed limit. Additionally, there is no stop control along Craigs Creek Road at intersecting streets in the Craig City neighborhood or near the school to manage speeds; this can make motorists less likely to stop for pedestrian or bicycle cross traffic.
- *Narrow Bridge.* Northeast of downtown New Castle, the Craigs Creek Road crosses John's Creek. This creek separates the neighborhood from downtown New Castle. The bridge crossing the creek is a narrow two lane bridge, without room for bicycle lanes, nor sidewalks.

Craig City Neighborhood Streets – 2nd, 4th, 5th, and 6th Streets

- *Sidewalks.* The neighborhood streets that intersect with Craigs Creek Road and Commerce Avenue do not have sidewalks, which could be used to encourage walking and bicycling.



Commerce Avenue

- *Sidewalks and Wide Shoulders.* Commerce Avenue does not have a sidewalks or wide paved shoulders to accommodate travel on foot or by bike, so pedestrians and bicyclists who wish to use the trail must travel along Commerce Avenue, sharing the road with motor vehicles and construction vehicles using the VDOT facility.
- *Crossings.* None of the intersections along Commerce Avenue have marked crosswalks.

Shared Use Path

- *Lighting.* The path is currently unlit, so it will likely be too dark for students to use during late fall and winter months.

Assessment of barriers and issues and opportunities

In spite of relatively low motor vehicle traffic volumes, there are very limited pedestrian and bicycle facilities in the area. Streets without sidewalks or wide shoulders, or crosswalks can signal to potential pedestrians and bicyclists that streets are for motor vehicle use only, further discouraging safe walking and bicycling. Additionally, the school's relative isolation from the Craig City neighborhood and downtown New Castle can contribute to the low occurrence of students walking and bicycling. The student locator map shows that the majority of Craig County students do not live within two miles of the school.

The best practices approach to increasing the number of students safely walking and bicycling to school is to improve and expand upon the existing walking and bicycling facilities. This approach builds on Craig County's existing plan to extend the shared use path, eventually connecting the school with downtown New Castle. The infrastructure improvements are designed to help create additional safe walking and bicycling connections to the shared use trail, thereby providing an active transportation link between the residences in the Craig City neighborhood to both downtown and McCleary Elementary School. These infrastructure improvements should then be reinforced with programmatic efforts to encourage walking and biking through activities such as walk and bike to school days. The infrastructure and programmatic recommendations are outlined below and can be seen on the Walkabout recommendation maps.

Infrastructure (Engineering) Recommendations

Crossing improvements

Crosswalks are an important component of creating a pedestrian network; they show pedestrians the best location to cross the street and alert drivers to the possibility of pedestrians crossing the street. All crosswalks should be a minimum of six feet wide, designated with a high-visibility pavement marking pattern and be accompanied with pedestrian crossing signs that meet current Manual on Uniform Traffic Control Devices (MUTCD) standards. Furthermore, pedestrian lighting should be installed at all crosswalks. New crosswalks should be at the following locations:



- Intersection of Craigs Creek Road and 4th Street, crossing Craigs Creek Rd on the northeast side of the intersection
- Intersection of Craigs Creek Road and 6th Street, crossing Craigs Creek Rd on the northeast side of the intersection
- Intersection of Commerce Avenue and 4th Street, crossing Commerce Avenue on the northeast side of the intersection
- Intersection of Commerce Avenue and 6th Street, crossing Commerce Avenue on the northeast side of the intersection
- Intersection of Craigs Creek Road and Camp Mitchell Road, crossing Craigs Creek Road on the northeast side of the intersection
- School parking lot, crossing the driveway nearest the trail entrance and connecting to the sidewalk in front of the elementary school building

Rectangular Rapid Flashing Beacons (RRFB) are user activated LED caution signs that supplement pedestrian crossing signs at unsignalized intersections. The beacon flashes in an irregular pattern and can increase motorist awareness of potential pedestrian conflicts. RRFBs should be installed at the following locations:

- The proposed pedestrian crossing at Craigs Creek Road and Camp Mitchell Road, directed toward motorists on Craigs Creek Road
- The proposed pedestrian crossing at Craigs Creek Road and 4th Street, directed toward motorists on Craigs Creek Road

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. New sidewalks will help build a pedestrian network and should be built at the following locations:

- Northeast side of 6th Street, between Craigs Creek Road and Commerce Avenue
- A Sidewalk ramp and landing area on northeast corner of Craigs Creek Road and 6th Street
- Northeast side of 4th Street, between Craigs Creek Road and Commerce Avenue
- Sidewalk ramp and landing area on northeast corner of Craigs Creek Road and 4th Street
- Sidewalk ramp and landing area on northeast corner of Craigs Creek Road and Camp Mitchell Road
- Sidewalk ramp and landing area on Craigs Creek Road across from Camp Mitchell Road
- Sidewalk from intersection at Craigs Creek Road and Camp Mitchell Road to shared use path
- Along school parking lot driveway, between trail entrance and front of school building



Advisory Lanes (Alternative Recommendation)

Advisory lanes are shared-use roadways that delineate road space with pavement markings, separating the roadway into a single motor vehicle lane in the center and two narrower, non-motorized lanes on the outside. Advisory lanes are traditionally used on low-speed roads to provide bicyclists with a designated place to travel. These lanes could be used in the Craig City neighborhood instead of sidewalks, as a lower cost alternative. Additionally, an advisory lane treatment could be placed throughout the neighborhood instead of only roads connecting Commerce Avenue and Craigs Creek Road. If advisory lanes were to be used, it would also be necessary include signage and an education effort to make road users aware of their purpose.³

Shared Use Paths

Shared use paths are a valuable element of comprehensive pedestrian and bicycling networks. Often, they are built in areas where it is not possible to build sidewalks adjacent to the roadway. As low-stress facilities, these paths offer a preferred alternative on which pedestrians and bicyclists do not have to compete for space with motor vehicles. Shared use paths in several locations would better connect the neighborhoods adjacent the school. The paths and trails should also include adequate lighting for year-round use.

- Extend the shared use path between the northeast end of Commerce Avenue and 6th Street
- Determine feasibility of building a pedestrian and bicycle bridge over Johns Creek to further extend the shared use path into downtown New Castle
- Install lighting on the existing shared use path between Commerce Avenue and McCleary Elementary School
- Explore the potential to use the driveway opposite Camp Mitchell Road as another access point to the shared used path

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 according to the "E's" of Safe Routes to School: Education, Encouragement, Enforcement, and Evaluation.⁴

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 McCleary Elementary School 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.

³ As an alternative recommendation, advisory lanes are not included in the recommendations maps.

⁴ The fifth E is Engineering, included in this report under Infrastructure Recommendations



- 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.
- Make use of the existing shared use path to 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. The trail also provides a safe route for students, families and the community to walk and bike along. These events will also provide opportunities to partner with different stakeholder groups and community associations throughout the school year.

Enforcement

- Create a student safety patrol. A student safety patrol, with the support of the Craig County Sheriff department, can help enforce safe walking and bicycling behaviors during arrival and dismissal, as well as during walk to school and bike to school events.

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 each year 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.

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/b5x6f4u1k7cxwco/AAA6DThcQNIepFIUigUYwfePa?dl=0>



Figure 1. Craig County Schools main entrance, looking northeast toward bus pick up. Elementary, middle, and high school students board buses together at the end of the school day.



Figure 2. School parking lot entrance, looking south towards the Shared Use Path. Although the path connects to the school parking lot, there is no direct pedestrian connection to the school entrance.



Figure 3. School parking lot entrance, looking north towards McCleary Elementary School. A high visibility crosswalk and sidewalk extension at this point would create a pedestrian link from the school to the shared use path and minimize potential conflict points with motor vehicles.

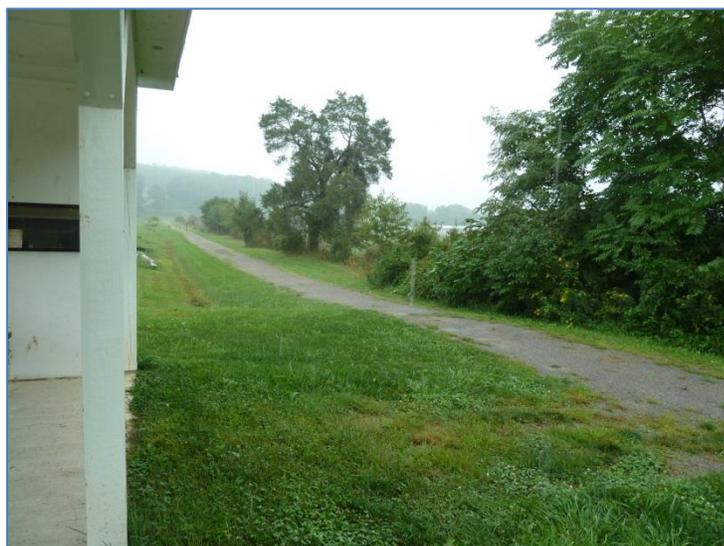


Figure 4. Shared use path entrance from Commerce Avenue, looking northeast. This shared use path is a valuable asset for McCleary Elementary School, creating a safe bicycle and pedestrian link to the school from the Craig City neighborhood.



Figure 5. Intersection of Commerce Avenue and 6th Street looking northeast along Commerce Avenue. An extended shared use path along Commerce Avenue would increase the comfort of pedestrians and bicyclists traveling to McCleary Elementary School.



Figure 6. Intersection of Craigs Creek Road and 4th Street looking southeast along 4th Street lacks a sidewalk and crosswalk.



Figure 7. Intersection of Craigs Creek Road and 4th Street, looking northeast along Craigs Creek Road. Only 4th Street traffic is stop-controlled and there are no crosswalks. (Image from Google Streetview, 2014)

Craig County Schools - Student Locator Map



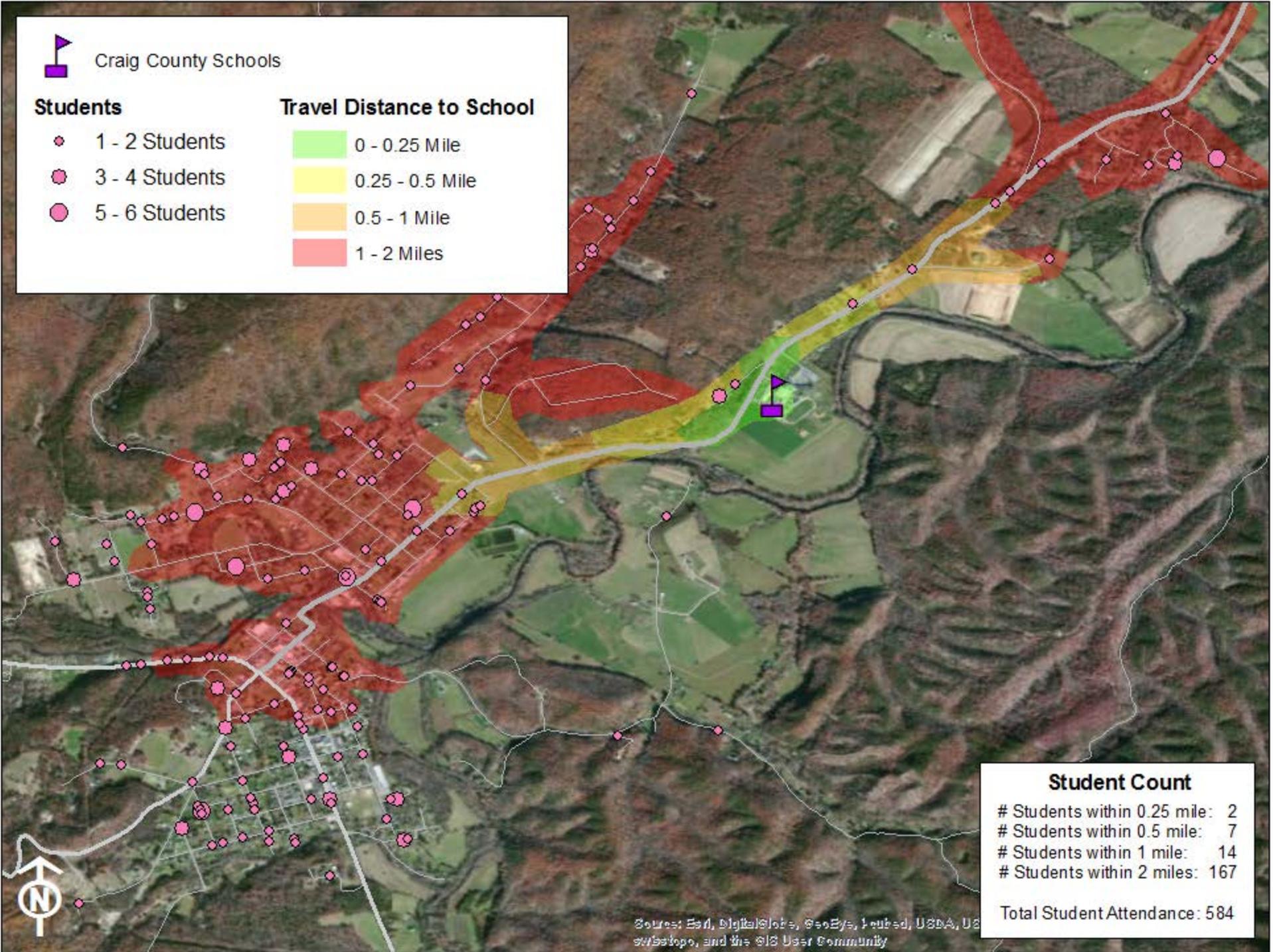
 Craig County Schools

Students

-  1 - 2 Students
-  3 - 4 Students
-  5 - 6 Students

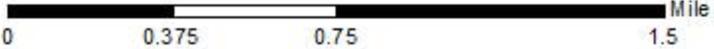
Travel Distance to School

-  0 - 0.25 Mile
-  0.25 - 0.5 Mile
-  0.5 - 1 Mile
-  1 - 2 Miles



Student Count	
# Students within 0.25 mile:	2
# Students within 0.5 mile:	7
# Students within 1 mile:	14
# Students within 2 miles:	167
Total Student Attendance: 584	

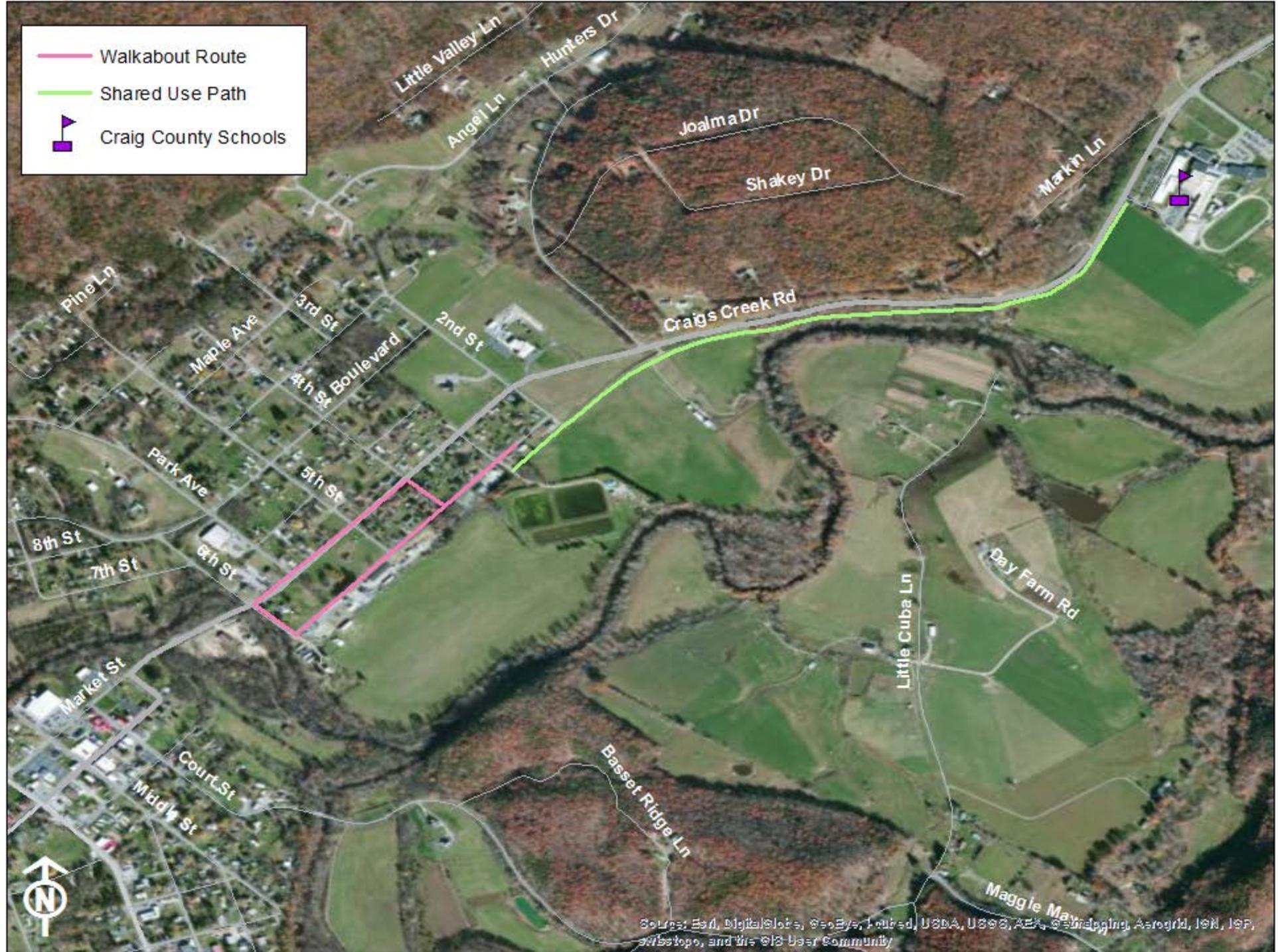
Source: Esri, DigitalGlobe, GeoEye, iSatcom, USDA, USGS, AeroGRID, IGN, and the GIS User Community



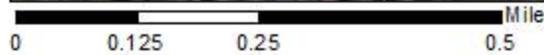
Craig County Schools - Walkabout Route



- Walkabout Route
- Shared Use Path
- Craig County Schools



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, Swisstopo, and the GIS User Community



Craig County Schools - Walkabout Recommendations Map (1 of 2)



- ◆ Rectangular Rapid Flashing Beacon
- Proposed Crosswalk
- Proposed Sidewalk
- - - Trail Lighting
- ▬ Craig County Schools



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AeroGRID, IGN, IGP, Swire, and the GIS User Community



Craig County Schools - Walkabout Recommendations Map (2 of 2)

