



Safe Routes to School Update

ORANGE COUNTY, NORTH CAROLINA

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1. Introduction

Background

The **North Carolina Department of Transportation's (NCDOT) Integrated Mobility Division (IMD)** has a long history of promoting active travel to and around schools. The IMD continues to work with numerous communities across the state to develop pedestrian and bicycle plans. This is the first step in improving non-motorized transportation infrastructure within a municipality. IMD provides a number of other services, including safety education, bicycle use training, crossing guard training, and helmet promotions throughout the state. NCDOT first identified safe routes to school as a safety priority in 2000. The North Carolina **Safe Routes to School (SRTS)** Program was established in 2005 to coordinate with the federal program. The program works with schools, local governments and agencies, advocacy and non-profit organizations, and public health professionals at a grassroots level to identify improvements that can help make bicycling and walking to and from school a safe and healthy transportation alternative.

The **Orange County Safe Routes to School Update** analyzes the existing traffic conditions, pedestrian infrastructure, strengths, and deficiencies of 13 public schools in Orange County. The plan then recommends project and program recommendations to address the deficiencies at each school that are preventing active transportation. This report addresses 13 schools in Orange County:

- ◆ AL Stanback Middle,
- ◆ New Hope Elementary,
- ◆ Cedar Ridge High,
- ◆ Grady A Brown Elementary,
- ◆ Central Elementary,
- ◆ Hillsborough Elementary,
- ◆ Orange Middle,
- ◆ Orange High,
- ◆ Efland Cheeks Global Elementary,
- ◆ Gravelly Hill Middle,
- ◆ River Park Elementary,
- ◆ Partnership Academy, and
- ◆ Pathways Elementary.

The **Orange County Safe Routes to School Update** acts as a resource to further engage schools and identify how travel to and from schools can be made safer, and how to provide safe opportunities for the students to walk or bike to school. There are a multitude of reasons for the lack of active travel to school. A few of these reasons include valid concerns about traffic safety surrounding the schools, the absence of sufficient non-motorized transportation, land use policies, and school consolidation. As a result, more parents are driving their children to school, morning traffic congestion is worsening, and children are getting less exercise. Residents in Orange County can change this cycle, just as those in other communities across the country have done.

2. Existing Conditions

Introduction

Defining the existing conditions of the study area is an important first step towards creating an SRTS Action Plan. It documents the physical conditions of the study area, participant observations and the pedestrian and vehicle norms within each individual school that eventually decide the issues the Action Plan must mitigate. The existing conditions were documented through on-site visits, publicly available Geographic Information Systems (GIS) data, and information provided by each school. Infrastructure barriers and deficiencies were identified using the policies and patterns of the area around each school community. Using this information, a school overview was created to define the existing infrastructures strengths and deficiencies.

A comprehensive approach was used to analyze existing conditions including the collection of data from site work, field interviews, and area mapping. A thorough inventory of the existing conditions at each school was compiled to provide a baseline to measure the outcomes of the SRTS Program. Field assessments and Geographic Information Systems (GIS) data were used to develop the baseline profiles of the existing conditions.

Field assessments were used to assess the existing infrastructure, travel patterns, and user behavior. This included a thorough on-site assessment of existing infrastructure within the school zone, and an evaluation of both traffic and behavioral patterns exhibited by roadway users during drop off and pick up. Staff logged the important features of both the physical and behavioral components of the transportation environment within the school zone and spoke with police officers, teachers, and administrators. The field assessments broadly analyze school traffic patterns, characteristics of the transportation network users, and the existing infrastructure strengths and weaknesses within the school zone.

GIS data was used to find relevant points-of-interest, crash histories, existing bike and pedestrian facilities, and walk and bike zones. GIS data was also used to analyze bicycle and pedestrian facilities and gaps.



Overview

The 13 schools being examined for this study are part of the Orange County school system and all reside inside or near the Town of Hillsborough. The Town has made improving the active transportation around schools a high priority and the community wants to see investment in multimodal transportation. Cooperation between schools, citizens, and local officials is necessary for improvements surrounding the schools. **Figure 2.1** shows an overview map of the 13 schools.

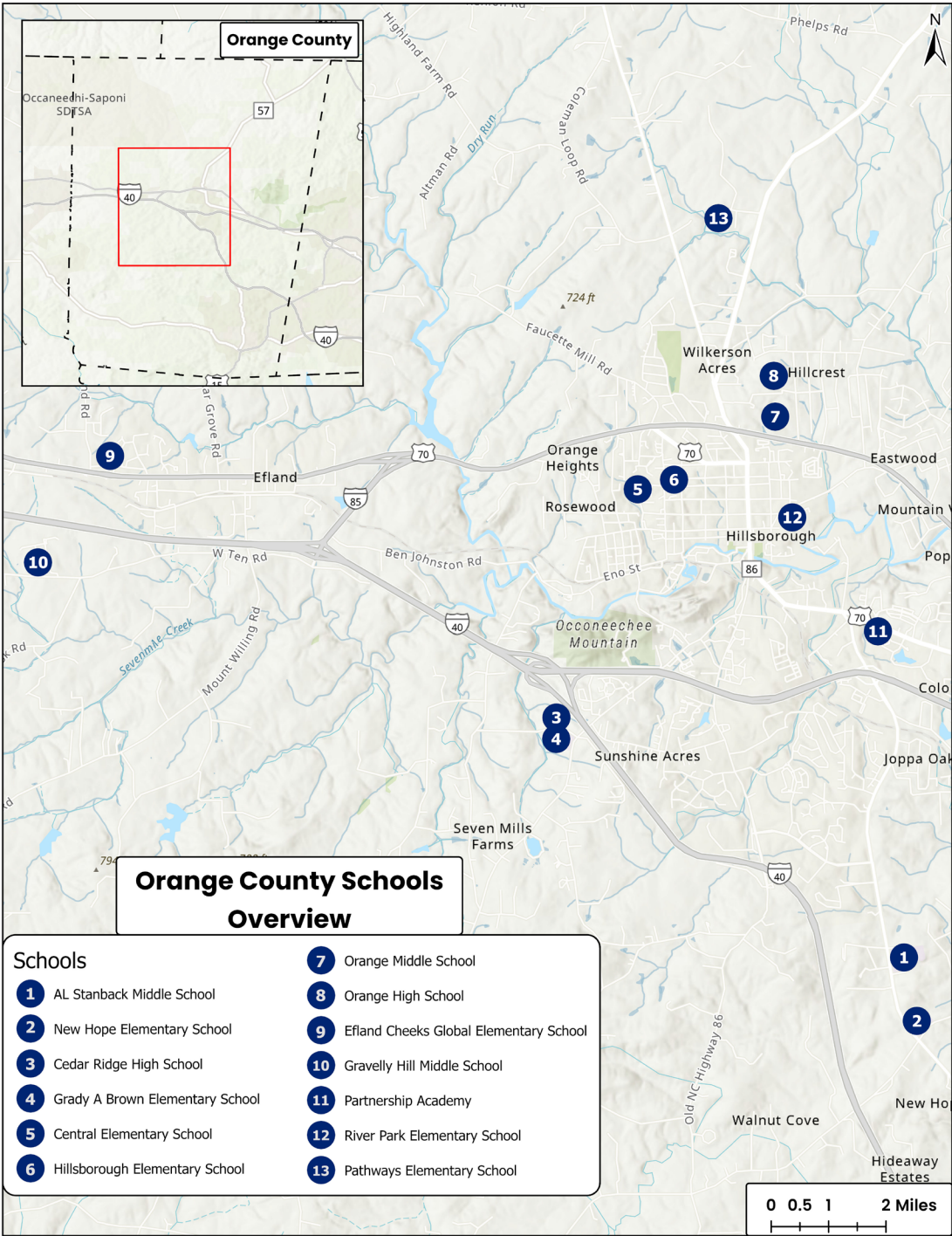


Figure 2.1: Schools Overview

1 - AL Stanback Middle School

AL Stanback Middle School serves grades 6 to 8 and has a total enrollment of 644 students. It is located south of Hillsborough town limits on Benton Drive and Storey Lane just off of NC 86. Traffic volumes along Benton Drive and Storey Lane are low, while traffic volumes along NC 86 range from 5,600 to 11,000 vehicles per day in the vicinity of the school. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. Three pedestrian crashes, with one suspected serious injury, and one bicycle crash have occurred within the 20-minute walk band. No students walk or bike to school. AL Stanback Middle School expressed satisfaction with the current infrastructure as no students currently walk or bike to school.

Table 1.1: AL Stanback Middle School Characteristics

Grades Serviced	6th–8th
Total Enrollment	644
Number of Buses	14
Number of Students Riding the Bus	424 in the AM; 457 in the PM
Number of Students Walking	0
Number of Students Cycling	0
Number of Students Driven	185
Special Needs Population	114 (18%)
Land Uses Surrounding School	Rural, Low-density residential
Presence of Bike Racks	No
No Walk Zones	Entire school zone
Crossing Guards	Sherriff directing traffic in AM
Policies that Restrict Walking or Bicycling	Yes—students are not allowed to walk or bike to school
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	Front lot: 74 spaces; Back lot: 20 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	3 staff in the AM and PM
Residences within a 10-min bike ride from the school	2181

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for AL Stanback Middle School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.2**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.4**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are no AL Stanback students walking or bicycling to school. On-site observations noted no elementary school pedestrians or cyclists walking in the vicinity of the school. Field staff noted the following travel norms for AL Stanback:

- ◆ Motorist behavior was observed as good. Drivers are generally respectful of other cars and follow the rules.
- ◆ The car rider drop off and pick up occurs at the entrance along Benton Drive. The car line queues along Benton Drive, but it was not observed backing up to NC 86.
- ◆ Staff indicated that the carpool line backs onto NC 86 sometimes, especially in the beginning of the school year before after-school sports start.
- ◆ Exiting traffic was a little backed up on BentWon Drive, but not substantial.
- ◆ The left-turn lane on NC 86 can back up at times.
- ◆ The morning drop-off line queues along the westernmost driveway and down Benton Road. The afternoon pick-up car line queues around the easternmost driveway near the sports fields to prevent significant backups.
- ◆ Traffic was slightly backed up on Benton Drive in the afternoon by a few vehicles, but not significant.
- ◆ Crossing guards were not present. However, staff indicated a sheriff sometimes directs traffic at the intersection of Benton Drive and NC 86.
- ◆ The shoulder on NC 86 is narrow and the terrain is difficult for walking.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + Due to its location in a very sparse residential neighborhood, there is no through traffic along Benton Drive and the car queues do not cause significant traffic issues or concerns.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There is no clear pedestrian crossing signage on any of the roads surrounding the school.
- There are multiple two-lane, rural roadways that pose safety barriers for school-age cyclists and pedestrians.
- Traffic is significant, especially during school start and end times, along the primary route to school, NC 86.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.1** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.1: Key Infrastructure Gaps at AL Stanback Middle

Road	Orientation	Gap
NC 86	Both directions	No sidewalk or bike lanes
Storey Lane	Both directions	No sidewalk or bike lanes
Benton Drive	Both directions	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

Benton Drive and NC 86 (Map ID 1): Benton Drive ends at NC 86 as an unsignalized intersection. Due to high speeds coupled with high traffic volumes along NC 86, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Photos



NC 86 right-turn lane onto Benton Drive



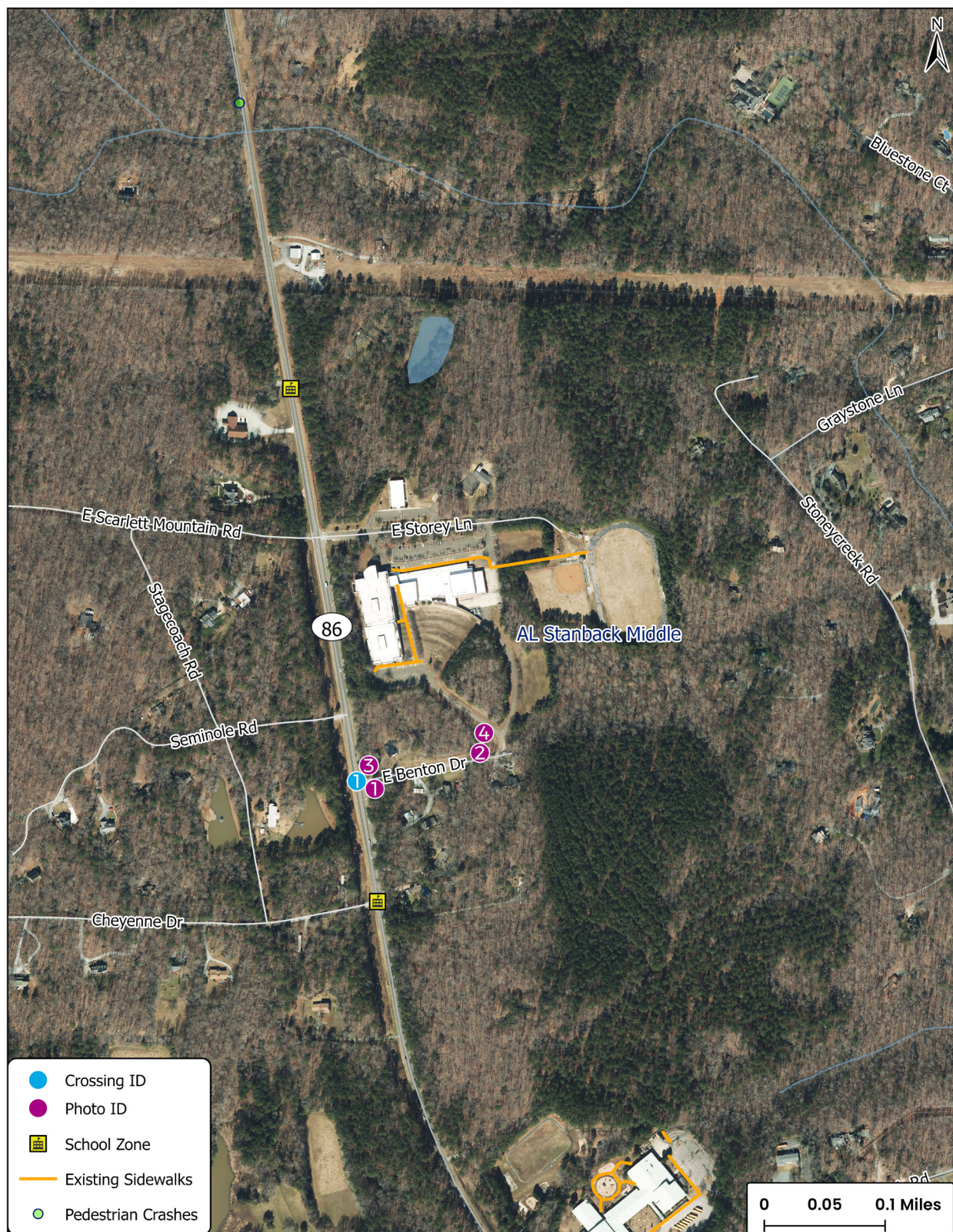
Looking west along Benton Road to NC 86



NC 86 left-turn lane onto Benton Drive



Afternoon pick-up line along the school driveway



2 - New Hope Elementary

New Hope Elementary School serves grades Pre-Kindergarten to 5 and has a total enrollment of 559 students. It is located south of Hillsborough town limits along New Hope Church Road just off of NC 86. Traffic volumes along New Hope Church Road range from 1,800 vehicles per day east of NC 86 to 5,100 vehicles per day west of NC 86. Traffic volumes along NC 86 range from 5,600 vehicles per day south of New Hope Church Road to 8,500 vehicles per day north of New Hope Church Road. The school is currently overcapacity based on projected land use in the area and future residential development projections. Three pedestrian crashes, with one suspected serious injury, and one bicycle crash have occurred within the 20-minute walk band. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. No students walk or bike to school.

Table 1.2: New Hope Elementary School Characteristics

Grades Served	Pre K-5th
Total Enrollment	559
Number of Buses	7
Number of Students Riding the Bus	316 in the AM; 391 in the PM
Number of Students Walking	0
Number of Students Cycling	0
Number of Students Driven	243 in the AM; 168 in the PM
Special Needs Population	16 (3%)
Land Uses Surrounding School	Rural, Low-density residential
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	No
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	Front lot: 60 spaces; Back lot: 77 spaces
Presence of Car Waiting Zones	No
Number of Staff Managing Drop off/Pick up	16 staff in the AM; 15 staff in the PM
Residences within a 10-min bike ride from the school	2181

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for New Hope Elementary School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.3**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.4**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are no New Hope students walking or bicycling to school. On-site observations noted no elementary school pedestrians or cyclists walking in the vicinity of the school. Field staff noted the following travel norms for New Hope:

- ◆ Motorist behavior was observed as poor. Many drivers try to cut in line and make illegal U-turns in the road. Through traffic passes in the center turn lane at full speed.
- ◆ There are three driveways into the school. Car-rider drop off and pick up occurs at the westernmost driveway. Cars queue around the easternmost and westernmost driveways. The middle driveway is for buses only.
- ◆ Cars are not supposed to turn left into the school. They are supposed to get in the car queue to turn right. This necessitates that cars coming from the west make a U-turn to enter the car queue.
- ◆ Several vehicles arriving from the southwest were observed making a U-turn on New Hope Church Road to get in the car queue. Field staff observed several near misses with a car driving straight and a car making a U-turn.
- ◆ The majority of motorists turn right out of the school towards NC 86.
- ◆ The morning carpool queue wraps all the way around the third/easternmost driveway and onto New Hope Church Road past the last school driveway. Traffic backs up onto New Hope Church Road by 7:17AM and backs up past the third driveway entrance by 7:25AM. Traffic does not clear until after 7:40AM.
- ◆ Through traffic was observed passing in the two-way left-turn lane.
- ◆ Buses were observed crossing through the morning carpool line and passing in the two-way left-turn lane.
- ◆ All traffic in the two-way left-turn lane causes a conflict for exiting traffic.
- ◆ The signal at the intersection of New Hope Church Road / NC 86 queues all the way to the carpool exit line and does not include a protected left phase/ exclusive turn lane.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + Clear school zone pavement marking is found along New Hope Church Road.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are multiple two-lane, rural roadways that pose safety barriers for school-age cyclists and pedestrians.
- Traffic is significant, especially during school start and end times, along the primary routes to school, NC 86 and New Hope Church Road.
- Overall, the carpool queue is not efficient or suitable for the morning drop off. Very few cars can drop off at one time and cars wait in the queue for an excessive amount of time. Additionally, many students were tardy in the morning due to the excessive amount of time to get through the car line.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.2** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.2: Key Infrastructure Gaps at New Hope Elementary

Road	Orientation	Gap
Highway 86	Both directions	No sidewalk or bike lanes
New Hope Church Road	Both directions	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

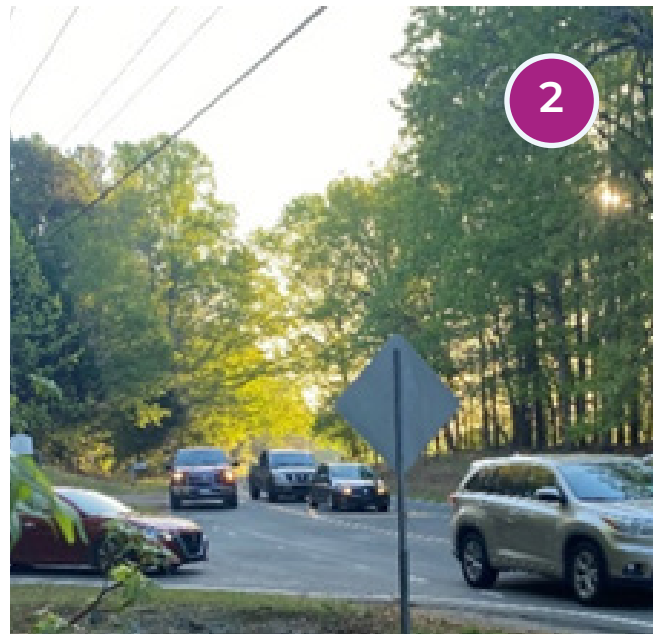
New Hope Church Road and NC 86 (Map ID 1): New Hope Church Road and NC 86 intersect at a signalized intersection. Due to high speeds coupled with high traffic volumes along NC 86, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

New Hope Church Road and I-40 Off/On Ramps (Map ID 2): New Hope Church Road crosses I-40 at a grade separated interchange. There are two stop controlled off ramps and two on ramps to I-40 on New Hope Road. These intersections are very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

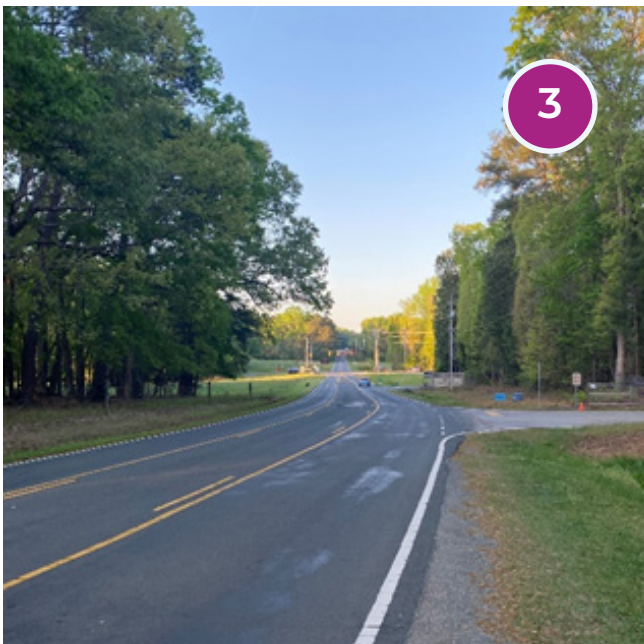
Photos



Bus crossing through the line of cars



School traffic turning left in center turn lane, while 2 cars also try to pass in the center turn lane



Looking southwest down New Hope Church Road towards the intersection with NC 86



Afternoon pick-up line along New Hope Church Road

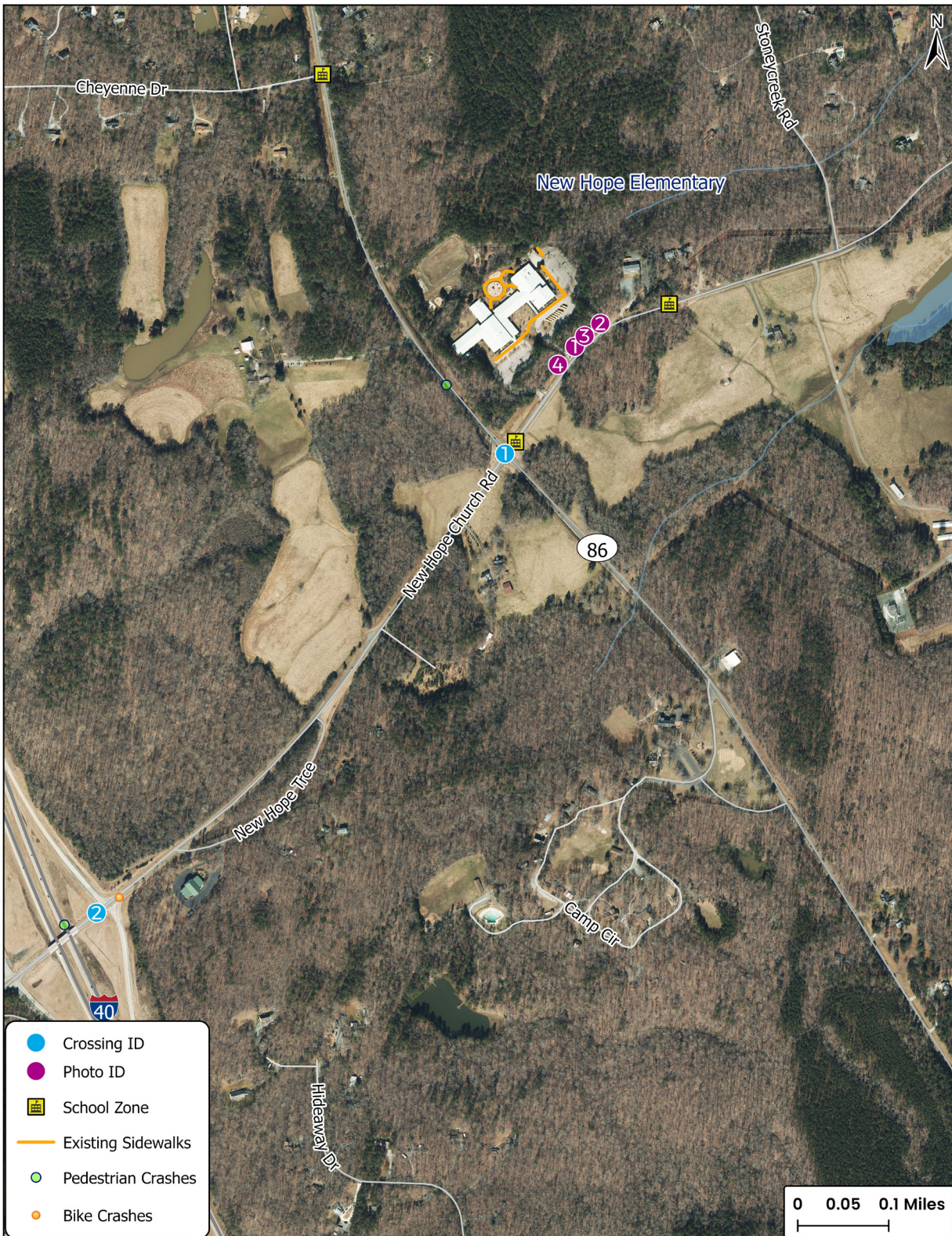


Figure 2.3: New Hope Elementary Campus Map

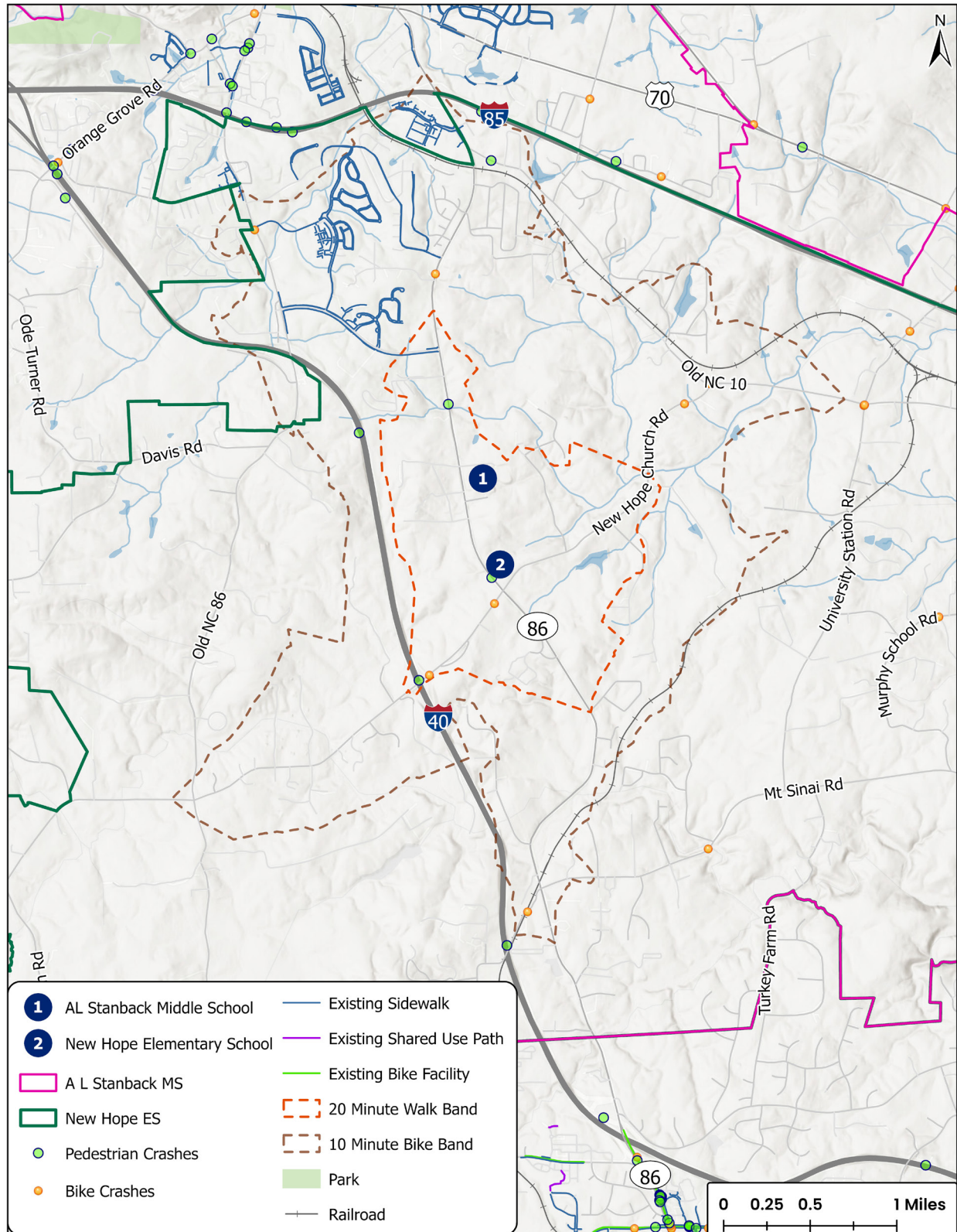


Figure 2.4: AL Stanback Middle and New Hope Elementary Overview

3 - Cedar Ridge High School

Cedar Ridge High serves grades 9 to 12 and is located southwest of Hillsborough town limits along New Grady Brown School Road just off of Orange Grove Road. The school has a total enrollment of 1,103 students. The traffic volume along New Grady Brown School Road is 3,200 vehicles per day, while Orange Grove Road has an average daily traffic volume of 4,600 vehicles per day. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. Six pedestrian crashes, with two fatalities and two suspected serious injuries, and one bicycle crash have occurred within the 20-minute walk band. Two of the pedestrian crashes involved high school-aged pedestrians. Approximately 20-30 students walk to school.

Table 1.3: Cedar Ridge High School Characteristics

Grades Served	9th - 12th
Total Enrollment	1103
Number of Buses	17
Number of Students Riding the Bus	503 in the AM; 615 in the PM
Number of Students Walking	20-30
Number of Students Cycling	0
Number of Students Driven	500
Special Needs Population	Unknown
Land Uses Surrounding School	Rural, Low-density residential, Agricultural
Presence of Bike Racks	Yes
No Walk Zones	None
Crossing Guards	Sherriff directing traffic in the AM and PM
Policies that Restrict Walking or Bicycling	Unknown
Bicycle/Pedestrian Safety Taught to Students	Unknown
Existing Parking Capacity	600 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	4-5
Residences within a 10-min bike ride from the school	2719

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Cedar Ridge High School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.5**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.7**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 20-30 students walking to school. On-site observations noted a number of high school pedestrians that walked from Orange Grove Road east of the school and from Grady Brown Elementary School across the street. Students use Orange Grove Road to access residences on Oakdale Drive and Timbers Drive. A small number of pedestrians walked from Orange Grove Road west of the school. Additional information describing the travel norms for Cedar Ridge High School is listed below:

- ◆ Motorist behavior was observed as poor. Many drivers park on the side of the road to avoid the afternoon car queue and make illegal U-turns in the road.
- ◆ Staff noted that approximately 20 walkers come down Orange Grove Road and then east along New Grady Brown School Road. Walkers mainly come from the apartment complex and mobile home park nearby.
- ◆ There were only minor backups of automobile traffic during drop-off times. Traffic does back up during the morning in the right turn lane into the school.
- ◆ In the morning, traffic on Oakdale Drive turning left onto Orange Grove Road backs up to Blair Drive.
- ◆ In the afternoon, approximately 15-25 vehicles parked along New Grady Brown School Road to avoid the pick-up queue. Most of these vehicles were then observed making U-turns in the road to leave the school.
- ◆ In the afternoon, traffic was heavily backed up at the New Grady Brown School Road and Orange Grove Road intersection.
- ◆ There are currently no sidewalks or crosswalks for walkers crossing the Orange Grove Road bridge over I-40, which has very narrow shoulders. Staff noted that a student has been hit walking in the area. Parents parking on the side of New Grady Brown School Road further limited a safe place for walkers.
- ◆ In the afternoon, several students were observed crossing Orange Grove Road bridge over I-40. Several students were observed crossing New Grady Brown School Road to go to New Grady Brown Elementary School. One student was observed crossing the New Grady Brown School Road and Orange Grove Road intersection to access a residence east of the intersection.
- ◆ The sheriff directing traffic expressed concerns over the level of traffic and said that it's a problem.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + Clear school zone signage is found along New Grady Brown School Road and Orange Grove Road.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are multiple two-lane, rural roadways that pose safety barriers for school-age cyclists and pedestrians.
- Through traffic is significant, especially during school start and end times, along the primary routes to school, New Grady Brown School Road and Orange Grove Road.
- Traffic speeds are an issue along all adjacent and nearby roadways. The speed limit along Orange Grove Road and New Grady Brown School Road is 40 mph and 30 mph within the school zone.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.3** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.3: Key Infrastructure Gaps at Cedar Ridge High

Road	Orientation	Gap
New Grady Brown School Road	Both directions	No sidewalk or bike lanes
Orange Grove Road	Both directions	No sidewalk or bike lanes
Oakdale Drive	Both directions	No sidewalk or bike lanes
Timbers Drive	Both directions	No sidewalk or bike lanes
Arbors Lane	Both directions	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

New Grady Brown School Road and Orange Grove Road (Map ID 1): New Grady Brown School Road and Orange Grove meet at a signalized intersection. Due to high traffic volumes and the high volume of turning traffic, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Orange Grove Road and I-40 (Map ID 2): Orange Grove Road bridges over I-40 at a grade separation. The shoulder along the bridge is very narrow, making this a very unsafe location for pedestrians. There are no sidewalks or pedestrian crossings at this location.

Orange Grove Road and Oakdale Drive (Map ID 3): Oakdale Drive ends at Orange Grove Road at a stop sign-controlled intersection. Due to high traffic volumes, this intersection is difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Photos



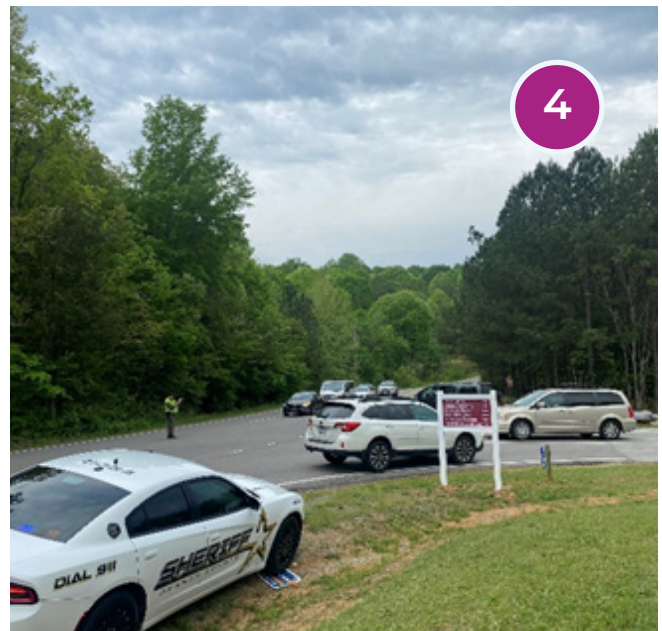
Cars parked on the side of the road during afternoon pick up. One car makes a U-turn in the road.



Traffic from the afternoon pick up is heavily backed up at the New Grady Brown School Road and Orange Grove Road intersection.



Student crossing the intersection at New Grady Brown School Road and Orange Grove Road



A sheriff is directing traffic in the morning at the school entrance and exit.



Figure 2.5: Cedar Ridge High Campus Map

4 - Grady A Brown Elementary School

Grady Brown Elementary serves grades Kindergarten to 5 and is located southwest of Hillsborough town limits along New Grady Brown School Road just off of Orange Grove Road. Surrounding land use is mostly rural, low density residential with some agricultural. The traffic volume along New Grady Brown School Road is 3,200 vehicles per day, while Orange Grove Road has an average daily traffic volume of 4,600 vehicles per day. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. Six pedestrian crashes, with two fatalities and two suspected serious injuries, and one bicycle crash have occurred within the 20-minute walk band. No students walk or bike to school, but some Cedar Ridge High students do cross the street to travel to and from the elementary school.

Table 1.4: Grady Brown Elementary School Characteristics

Grades Serviced	K-5th
Total Enrollment	415
Number of Buses	8
Number of Students Riding the Bus	189 in the AM; 251 in the PM
Number of Students Walking	0
Number of Students Cycling	0
Number of Students Driven	200
Special Needs Population	80 (19%)
Land Uses Surrounding School	Rural, Low-density residential, Agricultural
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	Sherriff directing traffic occasionally
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	90 spaces
Presence of Car Waiting Zones	No
Number of Staff Managing Drop off/Pick up	20
Residences within a 10-min bike ride from the school	2719

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Grady A Brown Elementary School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.6**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.7**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are no students walking or bicycling to this school. On-site observations noted no elementary school pedestrians or cyclists walking in the vicinity of the school, but there were a small number of high school students walking between the high school and elementary school. Field staff noted the following travel norms for Grady A Brown:

- ◆ Motorist behavior was observed as good. Drivers are generally respectful and follow rules.
- ◆ There is one point of entrance and exit for carpool traffic with a center turn lane on New Grady Brown School Road.
- ◆ Morning traffic was observed backing up to New Grady Brown School Road by 7:20AM and lining up in the center turn lane.
- ◆ In the morning, traffic on Oakdale Drive turning left onto Orange Grove Road backs up to Blair Drive.
- ◆ Through traffic was observed passing in the center turn lane coming from the west, but not a lot of non-school traffic was observed.
- ◆ Vehicles were observed zippering into the carpool line from both directions.
- ◆ Staff were observed passing the backed-up traffic to enter a separate staff entrance.
- ◆ Vehicles were observed in both the morning and afternoon making a U-turn along New Grady Brown School Road to get into the shortest queue.
- ◆ Moderate back up was observed in both directions in the morning.
- ◆ Vehicles turning left out of the school have a limited line of sight due to the vehicles in the center turn lane, creating safety concerns.
- ◆ A sheriff was present directing morning traffic, but staff noted they are not present every day.
- ◆ Heavy back up was observed from both directions in the afternoon. Traffic coming from the east backs up almost to the intersection with Orange Grove Road.
- ◆ In the afternoon, vehicles lined up in the center turn lane sometimes block the left turn exit out of the school.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + Clear school zone signage is found along New Grady Brown School Road and Orange Grove Road.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are multiple two-lane, rural roadways that pose safety barriers for school-age cyclists and pedestrians.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.4** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.4: Key Infrastructure Gaps at Grady A Brown Elementary
Key Crossing Issues

Road	Orientation	Gap
New Grady Brown School Road	Both directions	No sidewalk or bike lanes
Orange Grove Road	Both directions	No sidewalk or bike lanes
Oakdale Drive	Both directions	No sidewalk or bike lanes
Timbers Drive	Both directions	No sidewalk or bike lanes
Arbors Lane	Both directions	No sidewalk or bike lanes

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

New Grady Brown School Road and Orange Grove Road (Map ID 1): New Grady Brown School Road and Orange Grove meet at a signalized intersection. Due to high traffic volumes and the high volume of turning traffic, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Orange Grove Road and I-40 (Map ID 2): Orange Grove Road bridges over I-40 at a grade separation. The shoulder along the bridge is very narrow, making this a very unsafe location for pedestrians. There are no sidewalks or pedestrian crossings at this location.

Orange Grove Road and Oakdale Drive (Map ID 3): Oakdale Drive ends at Orange Grove Road at a stop sign-controlled intersection. Due to high traffic volumes, this intersection is difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Photos



Looking west along New Grady Brown School Road at cars turning right into the school for the afternoon pick up



Looking west along New Grady Brown School Road at cars turning left into the school for the afternoon pick up



Pedestrian signage on New Grady Brown School Road



Sheriff directing traffic exiting out of the school



Figure 2.6: Grady A Brown Elementary Campus Map

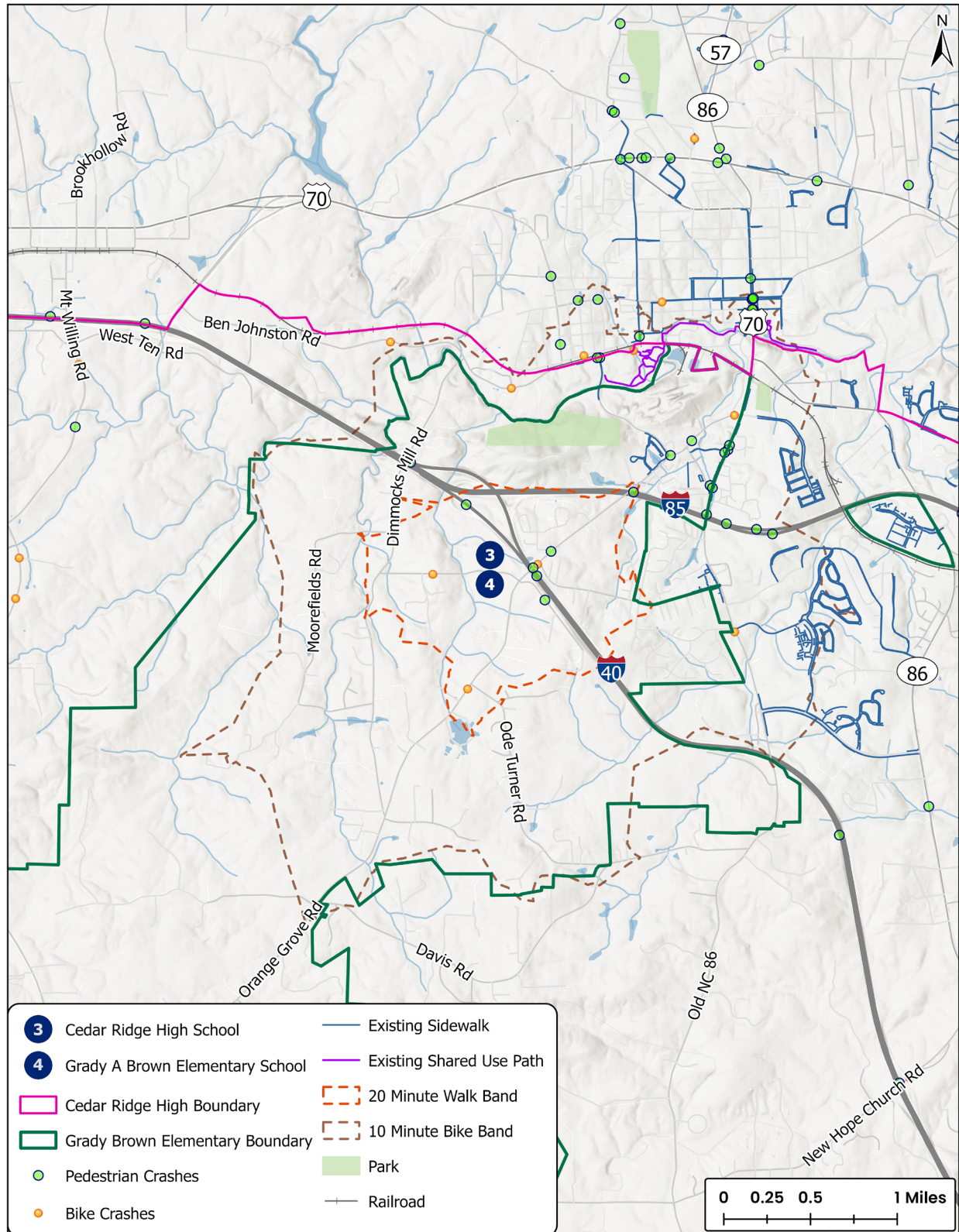


Figure 2.7: Cedar Ridge High School and Grady A Brown Elementary School Overview

5 - Central Elementary School

Central Elementary serves grades Kindergarten to 5 and is located in West Hillsborough along Hayes Street. The total enrollment of this school is 291 students. Surrounding land use is mostly residential. Traffic volumes along Hayes Street are low, while W King Street has an average daily traffic volume of 1,300 vehicles per day. There is a sidewalk along the north side of Hayes Street from Nash Street to the school. Twenty pedestrian crashes, with one fatality and one suspected serious injury, and four bicycle crashes have occurred within the 20-minute walk band. Approximately 5 students walk to school. Central Elementary School expressed a growing need for more bicycle and pedestrian infrastructure around the school.

Table 1.5: Central Elementary School Characteristics

Grades Served	K-5th
Total Enrollment	291
Number of Buses	6
Number of Students Riding the Bus	134 in the AM; 168 in the PM
Number of Students Walking	5
Number of Students Cycling	0
Number of Students Driven	113
Special Needs Population	36 (12%)
Land Uses Surrounding School	Residential
Presence of Bike Racks	Yes
No Walk Zones	Yes
Crossing Guards	Yes
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	70 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	6
Residences within a 10-mile bike ride from the school	3459

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Central Elementary School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.8**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.10**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 5 Central Elementary students walking to school. On-site observations noted several elementary school pedestrians that walked from Hayes Street west of the school. Field staff noted the following travel norms for Central Elementary:

- ◆ Motorist behavior was observed as fair. Drivers were respectful of pedestrians and other vehicles, but occasionally did not follow the rules.
- ◆ Crossing guards were present with a stop sign to let vehicles in and out. Police were also present to assist.
- ◆ In the afternoon queuing backs up in both directions past Foust Street and Spruce Street.
- ◆ Due to its proximity to Hillsborough Elementary School, there is potential for increased congestion along Hayes Street.
- ◆ Safety concerns include school buses passing without a passing lane during queuing.
- ◆ Vehicles will ignore signage restricting left turns out if there is no crossing guard.
- ◆ Some walkers were observed arriving from the back side of the school, Foust Street, Latimer Street, and Nash Street.
- ◆ Cyclists were observed coming from both directions along Hayes Street.

Existing Infrastructure - Strengths

The following observations were noted as existing system strengths:

- + There is sidewalk along the north side of Hayes Street from North Nash Street to Central Elementary School and a sidewalk along the west side of North Nash Street.
- + Pedestrian crossing signage is found along Hayes Street.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + There are crosswalks at the intersection of N Nash Street and Hayes Street.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are no school zone markings along Hayes Street.
- Sections of Hayes Street south of the school have narrow shoulders and overgrown vegetation, making it difficult for walking.
- There are no sidewalks or sidewalk gaps found on adjacent roadways. There are no bicycles facilities found on adjacent roadways. **Table 2.5** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.5: Key Infrastructure Gaps at Central Elementary

Road	Orientation	Gap
W King Street	Both directions	No sidewalk or bike lanes
Hayes Street	Both directions	No bike lanes. No sidewalk on the south/east side. No sidewalk on the west side east of the school.
Latimer Street	Both directions	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

Hayes Street and W King Street (Map ID 1): Hayes Street ends at W King Street at a stop sign-controlled intersection. This location has narrow shoulders and overgrown vegetation that makes it difficult for pedestrians to cross safely. There are no sidewalks or pedestrian crossings at this location.



Photos



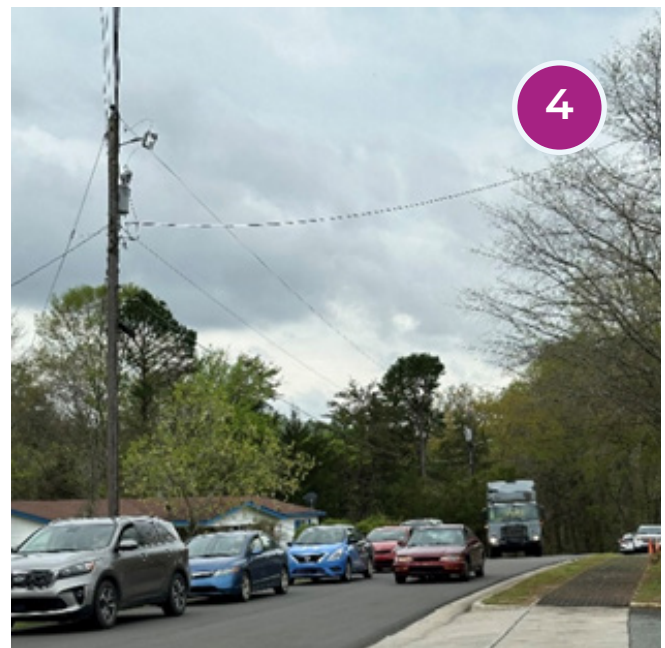
Students and a parent walking to school. Entering off of Hayes Street through the driveway exit



Driveway entrance for car queue. Cars waiting to turn left



Looking east along Hayes Street at traffic turning left into the school.



Looking west along Hayes Street. Through traffic is passing on the left side.

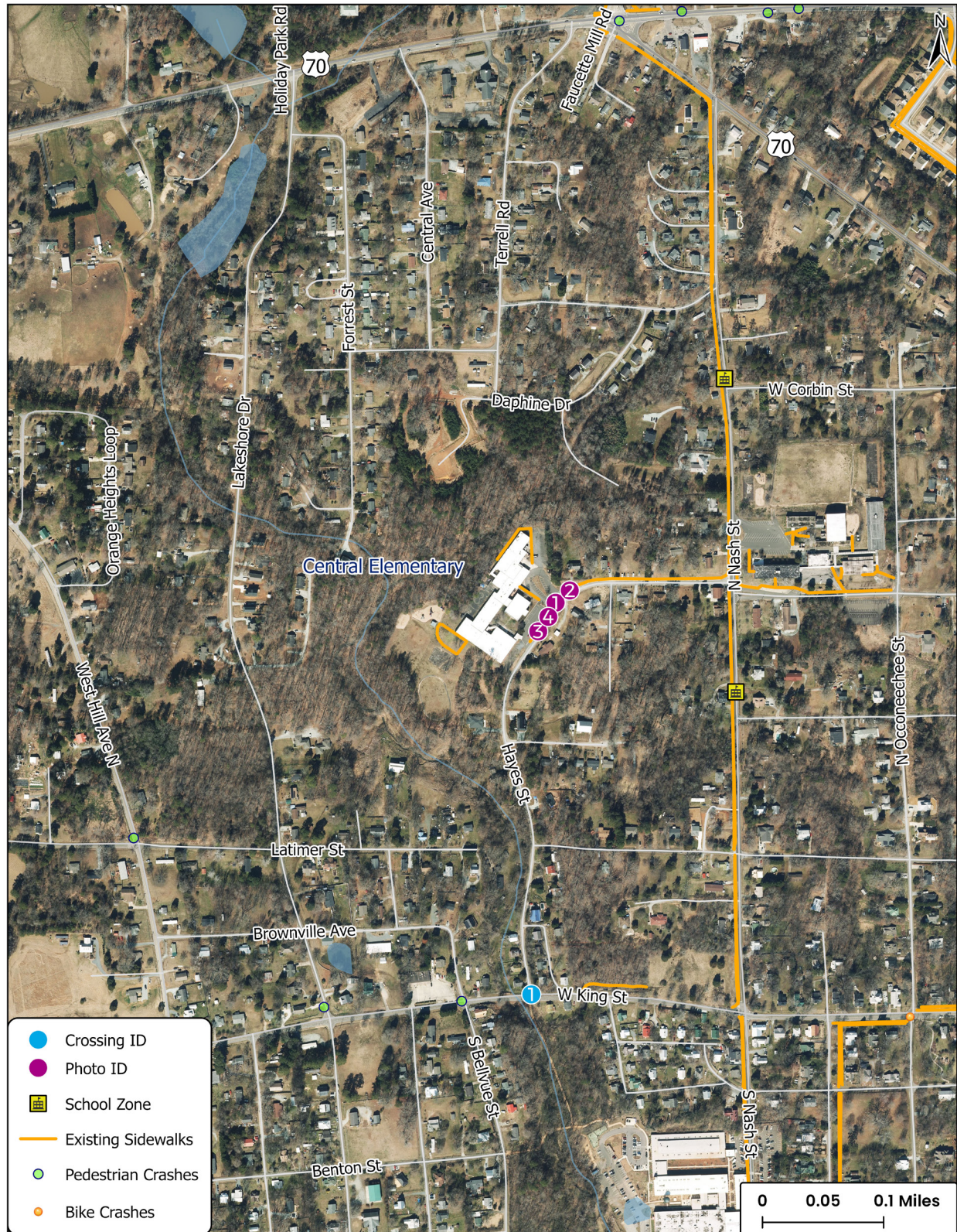


Figure 2.8: Central Elementary Campus Map

6 - Hillsborough Elementary School

Hillsborough Elementary serves grades Kindergarten to 5 and is located in West Hillsborough along W Union Street and N Nash Street. This school has a total enrollment of 438 students. Surrounding land use is mostly residential. Traffic volumes along W Union Street are low, while N Nash Street has an average daily traffic volume of 1,400-2,000 vehicles per day. Hillsborough Elementary is located in a residential neighborhood. The school is currently overcapacity based on projected land use in the area and future residential development projections. Hillsborough Elementary is a year-round magnet school and does not have a defined attendance zone. There are some sidewalks along the east side of North Nash Street opposite the school and along the north side of West Union Street adjoining the school. Twenty pedestrian crashes, with one fatality and one suspected serious injury, and four bicycle crashes have occurred within the 20-minute walk band. Approximately 20-30 students walk or bike to school.

Table 1.6: Hillsborough Elementary School Characteristics

Grades Serviced	K-5th
Total Enrollment	438
Number of Buses	4
Number of Students Riding the Bus	44 in the AM; 89 in the PM
Number of Students Walking	20
Number of Students Cycling	2
Number of Students Driven	365
Special Needs Population	72 (16%)
Land Uses Surrounding School	Residential
Presence of Bike Racks	Yes
No Walk Zones	None
Crossing Guards	Sherriff directing traffic
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	115 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	15-20
Residences within a 10-min bike ride from the school	3645

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Hillsborough Elementary School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.9**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.10**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 20-30 Hillsborough Elementary students walking or cycling to school. On-site observations noted several elementary school pedestrians walking from W Union Street, N Nash Street, and Occoneechee Street. Field staff noted the following travel norms for Hillsborough Elementary:

- ◆ Motorist behavior was observed as fair. Drivers are respectful and obey speed limits, but there is a high volume of through traffic that passes in the left lane.
- ◆ Traffic backup along N Nash Street is a major concern, leading to several near misses.
- ◆ There are two drop-off and pick-up areas for the car riders. Grades K-1 drop off and pick up at the W Union Street entrance. Grades 2-5 drop off and pick up at the N Nash Street entrance.
- ◆ Moderate non-school traffic was observed along N Nash Street including semi-trailers.
- ◆ Walkers enter at the school bus drop-off entrance.
- ◆ Some school and non-school pedestrians were observed walking along W Union Street and N Nash Street.
- ◆ In the afternoon, traffic for the K-1 pick-up backed up onto N Occoneechee Street with minor through traffic.
- ◆ Traffic backs up along N Nash Street in the right and left turn lanes for the 2-5 pick up. The school has separate entrance lanes for right turn traffic and left turn traffic. The left turn traffic backs up to W Corbin Street and the right turn traffic backs up past the intersection of N Nash Street and W Union Street.
- ◆ Due to its proximity to Central Elementary School, there is potential for increased congestion along Hayes Street.
- ◆ Through traffic passes in the opposite lane on N Nash Street. Through traffic is moderately heavy in the afternoon. Several near misses were observed.
- ◆ N Nash St is a significant north-south connector for the western side of town and traffic often uses this route to avoid Churton Street.
- ◆ Buses also pass in the opposite lane on N Nash Street to get around the car line, creating safety concerns.
- ◆ Vehicles were unable to exit left onto Nash Street because traffic was backed up and blocking the exit.
- ◆ The intersection of Hayes Street, N Nash Street, and W Union Street is a skewed intersection creating safety concerns.
- ◆ Vehicles were observed blocking the crosswalk at the school entrance on and the crosswalk to the parking across the street on W Union Street.
- ◆ Crossing guards were not present. However, a police car with lights on was situated at the grades 2-5 drop-off area.

Existing Infrastructure - Strengths

The following observations were noted as existing system strengths:

- + Clear school zone and pedestrian crossing signage is found along N Nash Street.
- + There is a bike rack located on campus.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + There are sidewalks and pedestrian crossings along the north side of W Union Street.
- + There is sidewalk located along the west side of N Nash Street across the street from the school.
- + There are crosswalks at the intersection of N Nash Street and Hayes Street.

Existing Infrastructure - Deficiencies

Key weaknesses, barriers, and obstacles include the following:

- There is a lack of connecting sidewalks on nearby roadways. There are no bicycle facilities on adjacent roadways. **Table 2.6** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.6: Hillsborough Elementary School Characteristics

Road	Orientation	Gap
W Union Street	South side	No sidewalk or bike lanes
N Nash Street	East side	No sidewalk or bike lanes
Occoneetchee Street	Both Sides	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

W Union Street and N Occoneetchee Street (Map ID 1): W Union Street and N Occoneetchee Street meet at a four-way stop intersection. Due to morning and afternoon traffic backups and through traffic passing on the left side, this intersection can be difficult for pedestrians to cross. The only sidewalk is located on W Union Street west of the intersection.

Photos



Looking south along N Nash St at the pick-up line for grades 2-5. A bus is passing on the left, while a car coming from the opposite direction is also passing.



Looking north along N Nash St at left-turn pick-up line for grades 2-5.



Standing on W Union Street looking west at the skewed intersection with N Nash Street and Hayes Street.



Crosswalks on W Union Street in front of the school



Figure 2.9: Hillsborough Elementary Campus Map

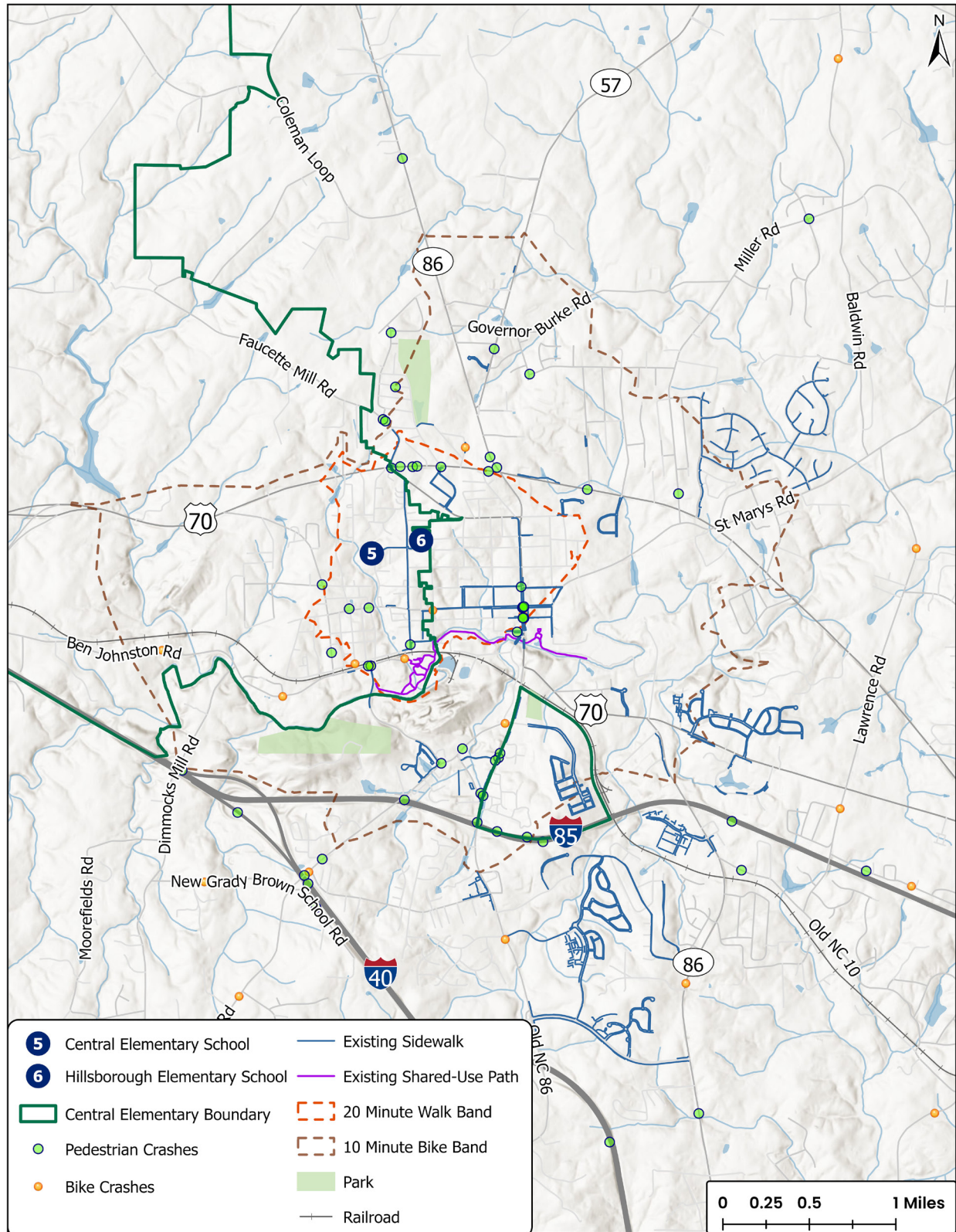


Figure 2.10: Central Elementary School and Hillsborough Elementary School Overview

7 - Orange Middle School

Orange Middle, previously known as C.W. Stanford, serves grades 6 to 8 and has a total enrollment of 521 students. It is located northeast of Hillsborough town limits along Orange High School Road just off of US 70 and the surrounding land use is mostly residential with some commercial. The traffic volume along Orange High School Road is 3,500 vehicles per day, while US 70 has an average daily traffic volume of 13,500 vehicles per day. There are no pedestrian or bicycle facilities in the vicinity of the school, other than a short section of sidewalk along Orange High School Road. Five pedestrian crashes have occurred within the 20-minute walk band. Approximately 15-20 students walk to school. Orange Middle School expressed a desire for more bicycle and pedestrian infrastructure around the school and support for the Safe Routes to School program.

Table 1.7: Orange Middle School Characteristics

Grades Serviced	6th-8th
Total Enrollment	521
Number of Buses	14
Number of Students Riding the Bus	274 in the AM; 320 in the PM
Number of Students Walking	15-20
Number of Students Cycling	0
Number of Students Driven	200-250
Special Needs Population	4-6 (1%)
Land Uses Surrounding School	Residential, Commercial
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	Sherriff directing traffic occasionally
Policies that Restrict Walking or Bicycling	Walkers must have written permission
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	100 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	2-5
Residences within a 10-min bike ride from the school	2908

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Orange Middle School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.11**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.13**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 15-20 Orange Middle students walking to school. On-site observations noted a number of middle school pedestrians walking from the direction of Orange High School. Field staff noted the following travel norms for Orange Middle:

- ◆ Motorist behavior was observed as good. Motorist behavior was observed as good. Drivers are generally respectful and pull off to the shoulder to allow other traffic to pass.
- ◆ There is one entrance and exit out of the same driveway for carpool traffic.
- ◆ During the morning drop off, motorists were observed queuing along Orange High School Road and traffic was backed up in both directions. Traffic cleared quickly once the sheriff arrived to direct traffic in the morning.
- ◆ During the afternoon pick up, traffic backed up in both directions along Orange High School Road. Vehicles were observed pulling onto the shoulder to wait until the afternoon bell. Through traffic was observed passing through the left lane at full speed, creating safety concerns.
- ◆ Staff noted that some walkers come from the direction of Orange High School down the street and walkers are not released in the afternoon until 3:55PM.
- ◆ Some cars pull into the driveway exit lane while the carpool traffic is also leaving the exit lane creating the potential for an accident.
- ◆ Buses must pass in the left lane to get past the cars lined up on Orange High School Road and into the bus lot.
- ◆ There is not a crossing guard present, but office staff said there is occasionally someone directing traffic during pick-up times when available.
- ◆ Town of Hillsborough staff noted that students walk from the school to the nearby Walgreens via an existing informal pedestrian path through the woods.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + There is some sidewalk along the immediate school entrance.
- + There is a short section of sidewalk along Orange High School Road, but it doesn't connect to any other sidewalk.
- + There is a crosswalk across Orange High School Road at Ann Road.
- + There is a short segment of sidewalk along the north side of US 70 on the House at Gatewood property.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- The high speeds and high traffic volume along US 70 presents a serious safety threat for pedestrians and bicyclists.
- There is no sidewalk connecting to the crosswalk.
- The shoulder along Orange High School Road is narrow and has a steep drop off along certain parts.
- There are no bicycle racks located on campus.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.7** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.7: Hillsborough Elementary School Characteristics

Road	Orientation	Gap
Orange High School Road	Both sides	No sidewalk or bike lanes
US 70	Both sides	No sidewalk or bike lanes
Ann Road	Both sides	No sidewalk or bike lanes
Joyce Road	Both sides	No sidewalk or bike lanes
Harold Latta Road	Both sides	No sidewalk or bike lanes
Gwen Road	Both sides	No sidewalk or bike lanes



Key Crossing Issues

The following crossings were noted in the 2013 Safe Route to School Strategic Action Plan. They are still barriers to safety and prevent children from walk and cycling to school safely:

Orange High School Road and US 70 (Map ID 1): Orange High School Road ends at US 70 as a signalized intersection. However, due to high speeds coupled with high traffic volumes along US 70, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian treatments at this location. Orange High School Road provides the primary access to the school, so any student walking from US 70 must utilize this intersection. Students living south of US 70 will have to cross this very busy 3-lane roadway.

Gwen Road and US 70 (Map ID 2): Gwen Road ends at US 70 at a stop sign-controlled intersection. Due to high speeds coupled with high traffic volumes along US 70, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian treatments at this location.

N Scotswood Boulevard and US 70 (Map ID 3): N Scotswood Boulevard provides access to the Churton Grove Community, a 330-acre residential area. Scotswood Boulevard currently ends at US 70 at an unsignalized intersection. There are no sidewalks or pedestrian treatments at this location. High traffic speeds and volumes along US 70 make this intersection difficult for pedestrians to cross. Due to the lack of east-west connectivity in the Churton Grove area, many of the students living in this community might choose US 70 as their preferred route if walking or bicycling to school.

NC 86 and NC 57 (Map ID 4): NC 86 and NC 57 meet at a signalized intersection northwest of the school. Students living northwest of the school may choose to use this intersection to access the school from Holman Drive. Traffic volumes can be high during the peak hours. There are currently no sidewalks or pedestrian treatments at this location.

Orange High School Road and Orange Middle School Entrance (Map ID 5): This unsignalized intersection provides primary access to the school. Although speeds are not high during arrival and dismissal times due to the school traffic, there is a significant amount of traffic at this location. Currently, there is a short section of sidewalk and one curb ramp along school property but no pedestrian crosswalk.

Orange High School Road and Harold Latta Road (Map ID 6): Orange High School Road meets Harold Latta Road at a stop sign-controlled intersection. Students living in this neighborhood may choose to use this intersection to access the school via Orange High School Road. There are currently no sidewalks or pedestrian treatments at this intersection. Due to the unusual geometry, pedestrian paths should be clearly defined at this intersection.

Photos



Small section of sidewalk along Orange High School Road



Looking north along Orange High School Road at the school entrance



School entrance and end of sidewalk



Looking south along Orange High School Road at traffic turning left into the school. A UPS truck is passing on the left side.

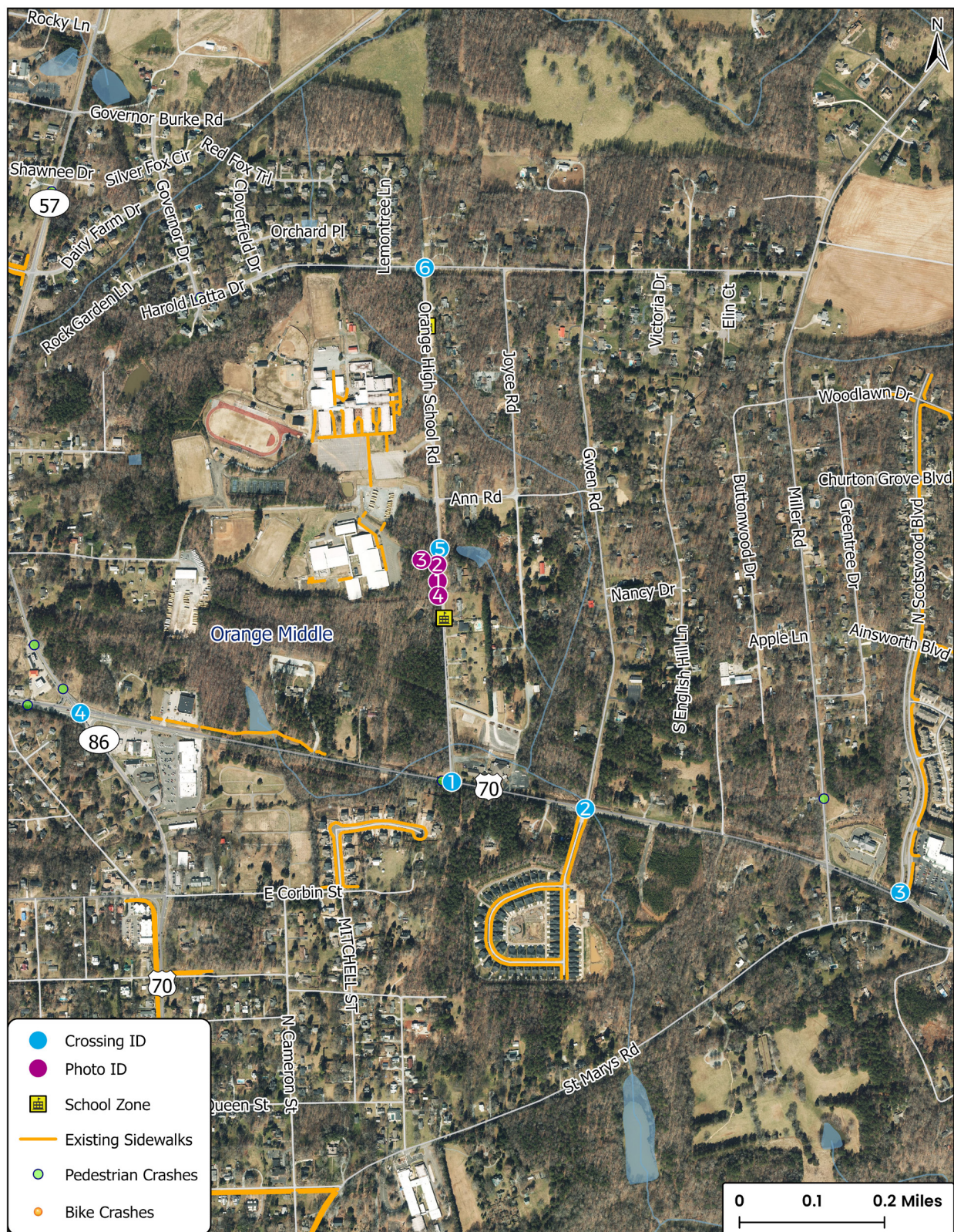


Figure 2.11: Orange Middle Campus Map

8 - Orange High School

Orange High serves grades 9 to 12 and has a total enrollment of 1,200 student. It is located in northeast Hillsborough along Orange High School Road just off of US 70 and the surrounding land use is mostly residential with some commercial. The traffic volume along Orange High School Road is 3,500 vehicles per day, while US 70 has an average daily traffic volume of 13,500 vehicles per day. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. Five pedestrian crashes have occurred within the 20-minute walk band. Two of these crashes involved high school-aged pedestrians. Approximately 15-20 students walk or bike to school.

Table 1.8: Orange High School Characteristics

Grades Serviced	9th-12th
Total Enrollment	1200
Number of Buses	22
Number of Students Riding the Bus	470 in the AM; 472 in the PM
Number of Students Walking	15
Number of Students Cycling	2
Number of Students Driven	730
Special Needs Population	Yes (# Unknown)
Land Uses Surrounding School	Residential, Commercial
Presence of Bike Racks	Yes
No Walk Zones	None
Crossing Guards	No
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	Yes
Existing Parking Capacity	600 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	3
Residences within a 10-min bike ride from the school	2908

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Orange Middle School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.12**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.13**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 15-20 Orange High students walking or cycling to school. On-site observations noted several high school pedestrians walking through the practice football field to the nearby neighborhood. Field staff noted the following travel norms for Orange High:

- ◆ Motorist behavior was observed as poor. Many drivers park on the side of the road to avoid the afternoon car queue and make illegal U-turns in the road, creating safety concerns for students and other drivers. Parents also cut into the car queue, park in visitor spots, and park in the woods causing a lot of potential for accidents. Other traffic speeds through the school zone.
- ◆ The car queue in the morning is short with relatively little to no queuing. Sometimes traffic turning left into the school causes a small back up of no more than 5 cars, but clears quickly.
- ◆ The car queue in the afternoon is heavier, however, there is no backup onto Orange High School Road.
- ◆ Approximately 10-15 cars park on the side of Orange High School to avoid waiting in the car queue. Cars park on both sides of the road and make a U-turn in the road to leave. Students walk out to the cars, sometimes crossing the street. Field staff observed a near miss between a vehicle and student.
- ◆ Students walking to and from school cut across the practice football field to walk from the nearby neighborhood.
- ◆ Town of Hillsborough staff noted that students walk from the school to the nearby Walgreens via an existing informal pedestrian path through the woods.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + Sidewalks in the immediate vicinity of the school are adequate.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- The high speeds and high traffic volume along US 70 presents a serious safety threat for pedestrians and bicyclists.
- There are no crosswalks or pedestrian signage in the vicinity of the school.
- There are no pedestrian or bicycle facilities found on adjacent roadways and there is no sidewalk connectivity to nearby neighborhoods. **Table 2.8** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.8: Key Infrastructure Gaps at Orange High

Road	Orientation	Gap
Orange High School Road	Both sides	No sidewalk or bike lanes
US 70	Both sides	No sidewalk or bike lanes
Ann Road	Both sides	No sidewalk or bike lanes
Joyce Road	Both sides	No sidewalk or bike lanes
Harold Latta Road	Both sides	No sidewalk or bike lanes
Gwen Road	Both sides	No sidewalk or bike lanes

Key Crossing Issues

The following crossings were noted in the 2013 Safe Route to School Strategic Action Plan. They are still barriers to safety and prevent children from walk and cycling to school safely:

Orange High School Road and US 70 (Map ID 1): Orange High School Road ends at US 70 as a signalized intersection. However, due to high speeds coupled with high traffic volumes along US 70, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian treatments at this location. Orange High School Road provides the primary access to the school, so any student walking from US 70 must utilize this intersection. Students living south of US 70 will have to cross this very busy 3-lane roadway.

Gwen Road and US 70 (Map ID 2): Gwen Road ends at US 70 at a stop sign-controlled intersection. Due to high speeds coupled with high traffic volumes along US 70, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian treatments at this location.

N Scotswood Boulevard and US 70 (Map ID 3): N Scotswood Boulevard provides access to the Churton Grove Community, a 330-acre residential area. Scotswood Boulevard currently ends at US 70 at an unsignalized intersection. There are no sidewalks or pedestrian treatments at this location. High traffic speeds and volumes along US 70 make this intersection difficult for pedestrians to cross. Due to the lack of east-west connectivity in the Churton Grove area, many of the students living in this community might choose US 70 as their preferred route if walking or bicycling to school.

Orange High School Road and Harold Latta Road (Map ID 4): Orange High School Road meets Harold Latta Road at a stop sign-controlled intersection. Students living in this neighborhood may choose to use this intersection to access the school via Orange High School Road. There are currently no sidewalks or pedestrian treatments at this intersection. Due to the unusual geometry, pedestrian paths should be clearly defined at this intersection.

Photos



Looking north along Orange High School Road at school entrance



Students walking on the opposite side of the road to get to a car



Traffic passing on both sides while cars are pulled off to the side



Cars pulled off to the side to avoid the car queue. A bus is passing the cars partially in the left lane

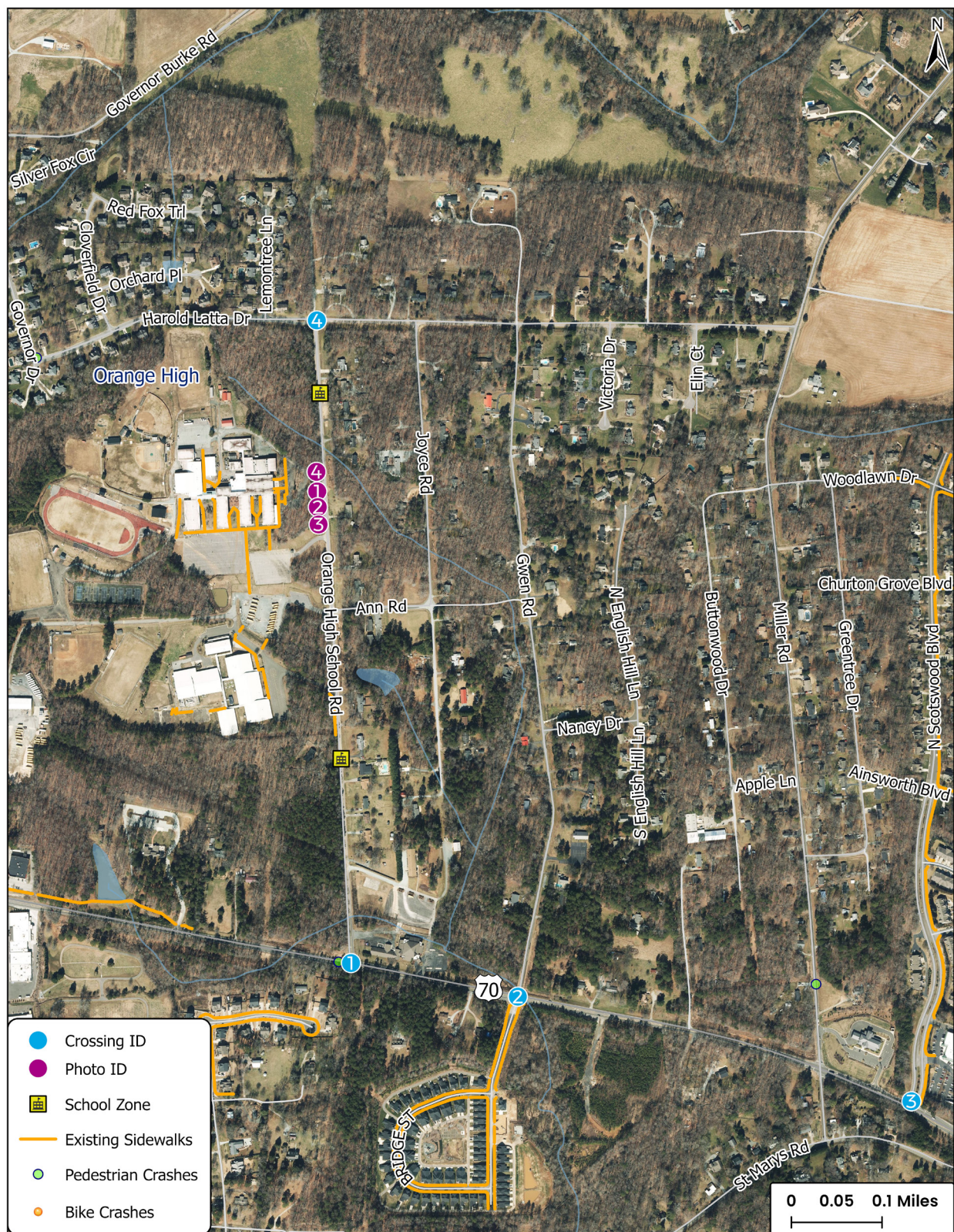


Figure 2.12: Orange High Campus Map

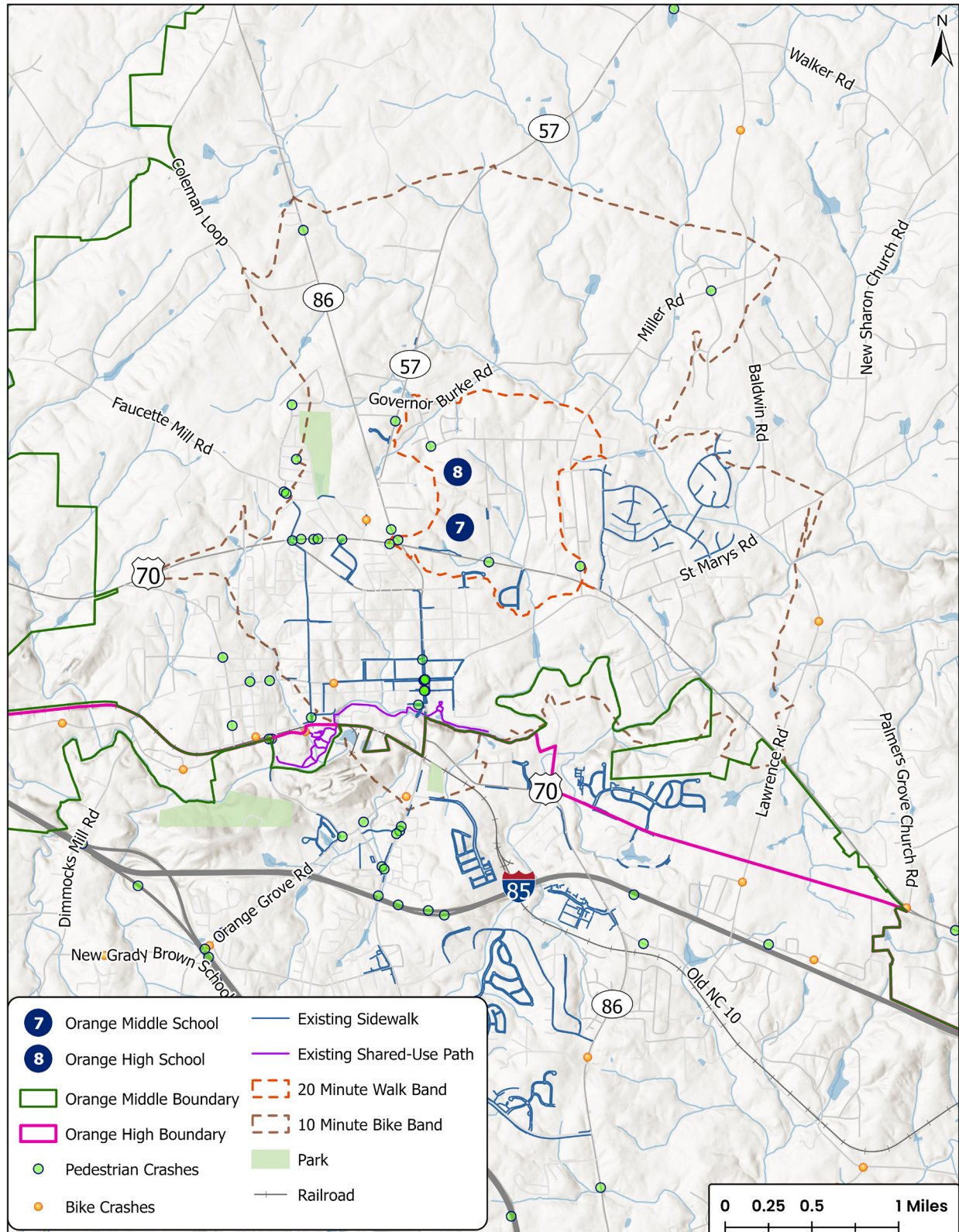


Figure 2.13: Orange Middle School and Orange High School Overview

9 - Efland Cheeks Global Elementary School

Efland Cheeks Global Elementary serves grades Kindergarten to 5 and has a total enrollment of 561 students. It is located in west Efland along Fuller Road just off of US 70 and the surrounding land use is mostly residential and undeveloped. Traffic volumes are low on Fuller Road and School House Road, while US 70 has an average daily traffic volume of 7,600 vehicles per day. The school is currently overcapacity based on projected land use in the area and future residential development projections. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school. There are no documented pedestrian or bicyclist crashes within the 20-minute walk band. Approximately 15 students walk to school. Efland Cheeks Global Elementary School expressed a desire for more bicycle and pedestrian infrastructure around the school and support for the Safe Routes to School program.

Table 1.9: Orange High School Characteristics

Grades Served	K-5th
Total Enrollment	561
Number of Buses	8
Number of Students Riding the Bus	275 in the AM; 320 in the PM
Number of Students Walking	15
Number of Students Cycling	0
Number of Students Driven	292
Special Needs Population	5 (1%)
Land Uses Surrounding School	Rural residential
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	Sherriff directing traffic
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	81 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	10
Residences within a 10-min bike ride from the school	1207

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Efland Cheeks Global Elementary School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.14**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.16**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 15 Efland Cheeks students walking or cycling to school. On-site observations noted several elementary school pedestrians walking from School House Road, Lucia Lane, Tinnin Road, and Fuller Road. Field staff noted the following travel norms for Efland Cheeks:

- ◆ Motorist behavior was observed as good. Drivers are respectful and obey speed limits.
- ◆ In the morning, traffic backs up onto Fuller Road and School House Road. Cars must queue east of the school on Fuller Road and then onto School House Road. Cars are not allowed to access Fuller Road from US 70. They must enter the car line on Tinnin Road from US 70.
- ◆ In the afternoon, traffic backs up to Tinnin Road. Cars block driveways of residences along School House Road.
- ◆ Security officer was observed directing exiting traffic out to US 70 during the morning drop off. Once traffic started backing up the officer directed exiting traffic back to Fuller Road.
- ◆ In the afternoon, several students walkers were observed using School House Road and Fuller Road. Parents walk to the school to pick students up. There is an obsolete driveway parents and students use to cut from School House Road to the school.
- ◆ Safety concerns include blind curves along School House Road and Fuller Road.
- ◆ Traffic is significant, especially during school start up and end times, along the Highway US 70 E which is a primary route to enter the school. Traffic along School House Road and Fuller Road is calm and slow.

Existing Infrastructure - Strengths

Few strengths were noted due to the lack of pedestrian and bicycle facilities. The following observations were noted as existing system strengths:

- + There is one school zone sign along the section of Fuller Road entering the school from US 70. There is clear school zone signage along US 70.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + Traffic is relatively slow and calm and there is no through traffic.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- Richmond Road connecting to Fuller Road is currently 45 mph.
- There is limited school zone signage along Fuller Road entering the school from the east where Fuller Road connects with Tinnin Road.
- There are multiple two-lane roadways that pose safety barriers for school-age cyclists and pedestrians.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.9** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.9: Key Infrastructure Gaps at Orange High

Road	Orientation	Gap
Fuller Road	Both sides	No sidewalk or bike lanes
School House Road	Both sides	No sidewalk or bike lanes
Tinnin Road	Both sides	No sidewalk or bike lanes
Richmond Road	Both sides	No sidewalk or bike lanes
US 70	Both sides	No sidewalk or bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

Fuller Road and US 70 (Map ID 1): Fuller Roads ends at US 70 as a stop sign-controlled intersection. Due to high speeds coupled with high traffic volumes along NC 70, this intersection is very difficult for pedestrians to cross. There are no sidewalks or pedestrian crossings at this location.

Fuller Road and School House Road (Map ID 2): Fuller Road and School House Road meet at a stop sign-controlled intersection. The dense vegetation at this intersection creates a blind corner when turning left onto School House Road from Fuller Road and when turning onto Fuller Road from School House Road, making it difficult for pedestrians to cross safely. There are no sidewalks or pedestrian crossings at this location.

Richmond Road and School Side Entrance (Map ID 3): The side driveway of Efland Cheeks ends at Richmond Road as a stop sign-controlled intersection. The speed limit on Richmond Road is 45 mph, making it difficult for pedestrians to cross safely. In addition, cars coming off of US 70 may be travelling quickly. There are no sidewalks or pedestrian crossings at this location.

Photos



Blind corner at School House Road and Fuller Road



Standing on Fuller Road looking north at the school entrance



**Afternoon pick-up line on School House Road.
Several parents walking to pick up students.**



Afternoon pick-up line on School House Road

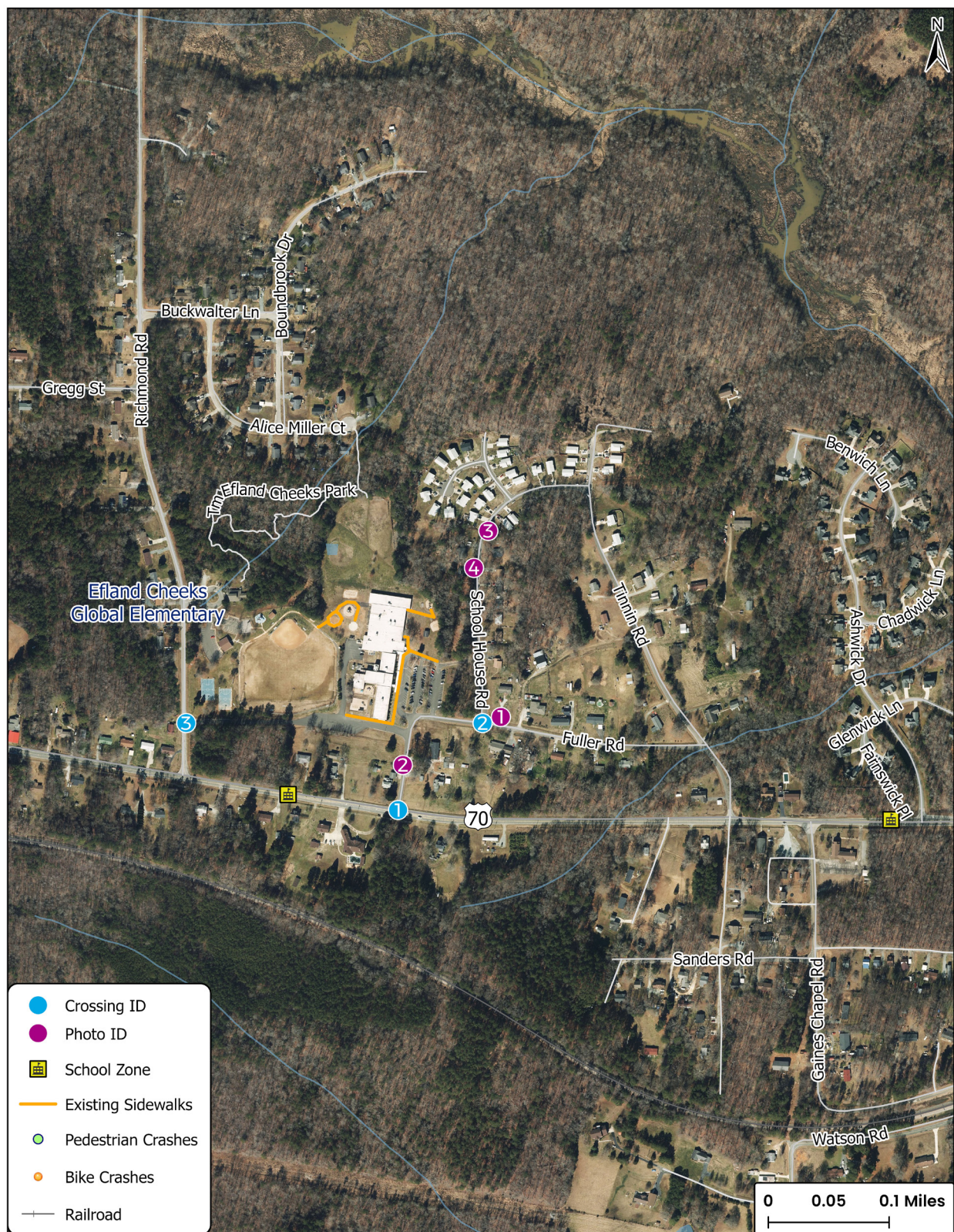


Figure 2.14: Efland Cheeks Global Elementary Campus Map

10 - Gravelly Hill Middle School

Gravelly Hill Middle serves grades 6 to 8 and has a total enrollment of 418 students. It is located in west Efland along W Ten Road and the surrounding land use is a mix of rural residential, commercial, industrial, and undeveloped. Traffic volumes along W Ten Road range from 1,100 to 3,000 vehicles per day in the vicinity of the school. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school, other than a sidewalk along W Ten Road on the school's property and a crosswalk. There are no documented pedestrian or bicyclist crashes within the 20-minute walk band. Approximately 2 students walk to school.

Table 1.10: Gravelly Hill Middle School Characteristics

Grades Serviced	6th-8th
Total Enrollment	418
Number of Buses	9
Number of Students Riding the Bus	175 in the AM and PM
Number of Students Walking	2
Number of Students Cycling	0
Number of Students Driven	250
Special Needs Population	116 (28%)
Land Uses Surrounding School	Rural residential, Commercial, Industrial, Underdeveloped
Presence of Bike Racks	No
No Walk Zones	Yes
Crossing Guards	No
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	Yes
Existing Parking Capacity	50 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	4-6
Residences within a 10 min bike ride from the school	1207

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Gravelly Hill School. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.15**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.16**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 2 Gravelly Hill students walking or cycling to school. On-site observations noted one middle school pedestrian walking from W Ten Road to houses across the street. Field staff noted the following travel norms for Gravelly Hill:

- ◆ Motorist behavior was observed as good. Drivers are respectful and obey speed limits. Cars do occasionally block the crosswalk, but there are no pedestrians around.
- ◆ There is one entrance to the school and left and right turn exit lanes out of the school.
- ◆ There is light traffic along W Ten Road during the morning and light to moderate traffic in the afternoon.
- ◆ During the afternoon pick up, vehicles back up to W Ten Road. Traffic backs up past the right turn lane—cars do pull over on the shoulder. Traffic backs up to the end of the left turn lane.
- ◆ Through traffic will use the center turn lane to pass. Traffic is able to safely pass in both directions.
- ◆ One walker was observed in the afternoon.
- ◆ There are no crossing guards or sheriffs present to direct traffic.
- ◆ Safety concerns include limited sight distance for cars exiting left out of the school due to the vehicles backed up along W Ten Road. Additionally, vehicles must pull into the crosswalk to see around the cars in the right turn lane.

Existing Infrastructure - Strengths

The following observations were noted as existing system strengths:

- + Clear school zone and pedestrian crossing signage is found along W Ten Road.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + There is sidewalk on the section of school property adjacent to W Ten Road.
- + There is a crosswalk at the school entrance along W Ten Road.
- + There is a bike rack located at the school.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are multiple two-lane, rural roadways that pose safety barriers for school-age cyclists and pedestrians.
- W Ten Road presents a serious safety threat for pedestrians and bicyclists because of its lacking infrastructure, high speeds, traffic volume, and hilly terrain. Either side of W Ten Road presents engineering challenges for sidewalk or trails since there is no curb and gutter.
- The speed limit within the school zone is 45 mph.
- There are no pedestrian or bicycle facilities found on adjacent roadway, other than the sidewalk on school property. **Table 2.10** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.10: Gravelly Hill Middle School Characteristics

Road	Orientation	Gap
W Ten Road	Both sides	No sidewalk outside of school property. No bike lanes

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

W Ten Road and School Entrance: The main entrance to Gravelly Hill Middle is located on W Ten Road. While there is a crosswalk at this location, it does often get blocked by cars exiting and entering the school driveway, making it a difficult location for pedestrians to cross. Additionally, the speed limit in the school zone is 45 mph, making it dangerous for pedestrians to cross across W Ten Road.

Photos



Crosswalk at school entrance



Sidewalk along W Ten Road in front of school



Cars blocking the crosswalk during afternoon pick up



Traffic in the left-turn lane during the afternoon pick up



Figure 2.15: Gravelly Hill Middle Campus Map

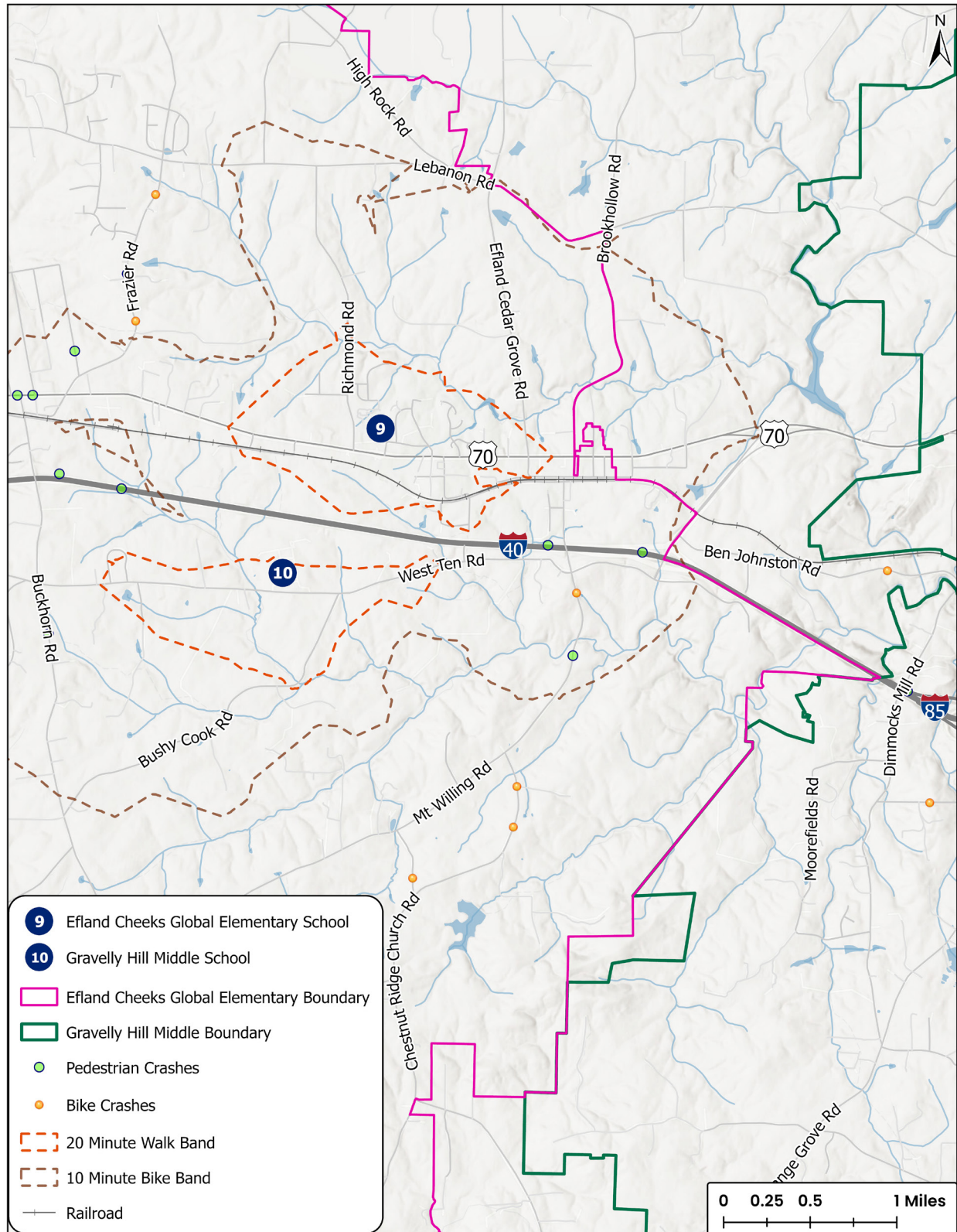


Figure 2.16: Efland Cheeks Global Elementary and Gravelly Hill Middle School Overview

11 - Partnership Academy High School

Partnership Academy serves grades 9 to 12 and has a total enrollment of 54 students. It is located in east Hillsborough along Corporate Drive just off of US 70 Alternate and the surrounding land use is mostly residential and commercial. Traffic volumes are low on Meadowlands Drive and Corporate Drive, while US Highway 70A has an average daily traffic volume of 6,400 vehicles per day. Town of Hillsborough staff noted the parcel directly south of the school is likely to redevelop to a more intense use, which could increase traffic volumes on Corporate Drive. Partnership Academy is a year-round magnet school and does not have a defined attendance zone. There are some sidewalks in the vicinity around the school along Meadowlands Drive and US Highway 70A. There are no documented pedestrian or bicyclist crashes within the 20-minute walk band. No students walk or bike to school.

Table 1.11: Partnership Academy High School Characteristics

Grades Served	9th-12th
Total Enrollment	54
Number of Buses	4
Number of Students Riding the Bus	28 in the AM; 31 in the PM
Number of Students Walking	0
Number of Students Cycling	0
Number of Students Driven	20
Special Needs Population	(50%)
Land Uses Surrounding School	Residential, Commercial
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	No
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	23 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	7
Residences within a 10 min bike ride from the school	6128

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Partnership Academy. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.17**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.19**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are no Partnership Academy students walking or cycling to school. On-site observations noted no pedestrians or cyclists walking in the vicinity of the school. Field staff noted the following travel norms for Partnership Academy:

- ◆ Motorist behavior was observed as good. Drivers obey speed limits and are respectful of other traffic.
- ◆ No students were observed walking or cycling during the site visit.
- ◆ Due to the small school size, there is no traffic back up. The morning car line is never more than 2-3 cars and the afternoon car line is never more than 4-5 vehicles at peak times.
- ◆ There are no crossing guards or sheriffs directing traffic.

Existing Infrastructure - Strengths

The following observations were noted as existing system strengths:

- + Clear school zone signage is found along Corporate Drive.
- + Clear pedestrian crossing signage is found along US 70A.
- + There are crosswalks along US 70A at the intersections with Prestwood Dr and Quincy Cottage Road.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + There are sidewalks along portions of Meadowlands Drive, US 70A, and nearby neighborhood roads.
- + There is no through traffic on Corporate Drive or Meadowlands Drive making these roads safer for walking.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- Traffic is significant along US 70A and poses a safety barrier for school-age cyclists and pedestrians.
- There are no bicycle racks on campus.
- Within the surrounding the area, there is no curb and gutter. Drainage ditches and right-of-way are an obstacle to further sidewalk or side path development.
- There are no sidewalks or sidewalk gaps on adjacent roadways. There are no bicycle facilities on adjacent roadways. **Table 2.11** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.11: Key Infrastructure Gaps at Partnership Academy

Road	Orientation	Gap
Corporate Drive	Both sides	No sidewalk or bike lanes.
US 70A	Both sides	No sidewalk from Meadowlands Dr to 650 feet west. No sidewalk east of Orange County SportsPlex.

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

Corporate Drive and Meadowlands Drive: There is currently no pedestrian crossing treatment from Corporate Drive across Meadowlands Drive to connect to the sidewalk. Corporate Drive is stop controlled and the traffic along Meadowlands Drive coming from US 70 is free flowing at the intersection.



Photos



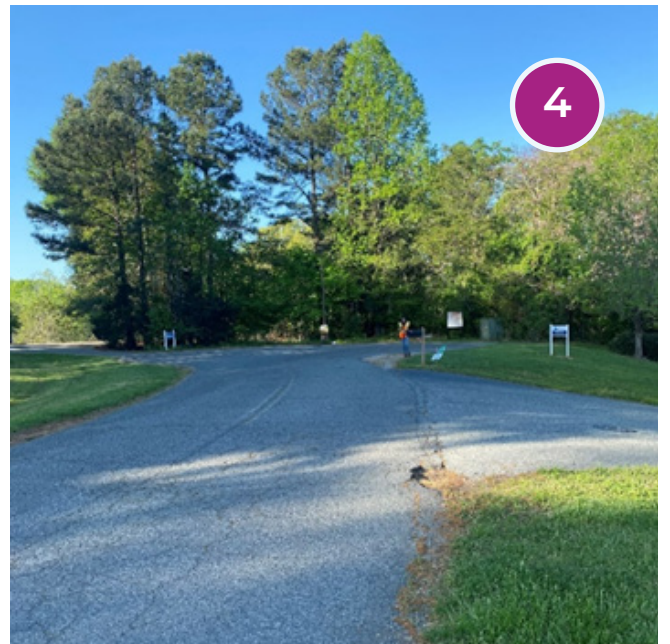
School campus and parking lot



Cars entering school entrance during morning drop off



School entrance



Cul-de-sac at the end of Corporate Drive



Figure 2.17: Partnership Academy Campus Map

12 - River Park Elementary School

River Park Elementary, previously known as Cameron Park, serves grades Kindergarten to 5 and has a total enrollment of 558 students. It is located near downtown Hillsborough along St Marys Road and the surrounding land use is mostly residential and commercial. The traffic volume along St Marys Road is 3,100 vehicles per day in the vicinity of the school. The school is currently overcapacity based on projected land use in the area and future residential development projections. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school, other than a small sidewalk directly in front the school. Thirteen pedestrian crashes, with one suspected serious injury, and two bicycle crashes have occurred within the 20-minute walk band. Approximately 25-30 students walk to school.

Table 1.12: River Park Elementary School Characteristics

Grades Served	K-5th
Total Enrollment	558
Number of Buses	7
Number of Students Riding the Bus	220 in the AM; 351 in the PM
Number of Students Walking	25-30
Number of Students Cycling	0
Number of Students Driven	350-400
Special Needs Population	11 (2%)
Land Uses Surrounding School	Residential, Commercial
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	Sheriff directing traffic and serving as crossing guard occasionally
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	78 spaces
Presence of Car Waiting Zones	No
Number of Staff Managing Drop off/Pick up	5-10
Residences within a 10-min bike ride from the school	5121

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for River Park Elementary. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.18**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.19**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 25-30 students walking or cycling to school. On-site observations noted 24 students walking to school mainly from Lydia Lane. A few students walked from St Marys Road west of the school. Field staff noted the following travel norms for River Park Elementary:

- ◆ Motorist behavior was observed as fair. School traffic was respectful of other drivers but did not always yield to pedestrians.
- ◆ In the morning, traffic is backed up moderately in both directions. There is a high volume of school traffic.
- ◆ In the afternoon, traffic is backed up significantly in both directions. Some through traffic passes in the left lane from both directions, while some through traffic waits in the car line. Some through traffic turns down Lydia Lane and E Tryon Street to avoid waiting in the queue.
- ◆ Due to the long queues on St. Marys Road, several dangerous maneuvers were witnessed during the observation period. One car was observed turning left out of the school while families were crossing the crosswalk. Vehicles were observed turning out of the school while traffic is going by on St Marys Road. Multiple vehicles were observed making a U-turn on St. Marys Road to get out of the school carpool line.
- ◆ Most of the 24 students that walked to school came from Lydia Lane and 3-4 families walked from the west along St Marys Road. Families were observed using the crosswalk to cross St Marys Road.
- ◆ Traffic backs up into the crosswalk during the morning and afternoon, which limits the line of sight for pedestrians, creating safety concerns.
- ◆ A sheriff was observed directing traffic and serving as crossing guard in the morning. The sheriff did not arrive until 7:33AM after several students had already walked to school. A sheriff directed traffic in the afternoon but did not assist with pedestrians crossing.

Existing Infrastructure - Strengths

River Park Elementary's location near downtown Hillsborough makes it a prime location for students to walk or bicycle to school. The following observations were noted as existing system strengths:

- + Clear school zone and pedestrian crossing signage is found along St Marys Road.
- + There are on-campus sidewalks along the building front and side. There is a small section of sidewalk along St Marys Road at the school front.
- + There is a crosswalk with crossing signage across St. Marys Road at the intersection with Lydia Lane.
- + neighborhood roads.
- + There is no through traffic on Corporate Drive or Meadowlands Drive making these roads safer for walking.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- There are multiple roadways in the area that pose safety barriers for elementary student pedestrians and bicyclists.
- Neighborhoods to the north of US 70 do not have a safe crossing to the roads that lead to the school.
- Besides the crossing on St. Marys Road at the intersection of Lydia Lane, there are no other marked crosswalks within the vicinity of the school.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.12** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.12: Key Infrastructure Gaps at River Park Elementary

Road	Orientation	Gap
St. Marys Road	Both sides	No sidewalk or bike lanes.
Lydia Lane	Both sides	No sidewalk or bike lanes.
East Queen Street	Both sides	No sidewalk or bike lanes.
North Cameron Street	Both sides	No sidewalk or bike lanes.
South Cameron Street	East side	No sidewalk or bike lanes.
East Tryon Street	North side	No sidewalk or bike lanes.

Key Crossing Issues

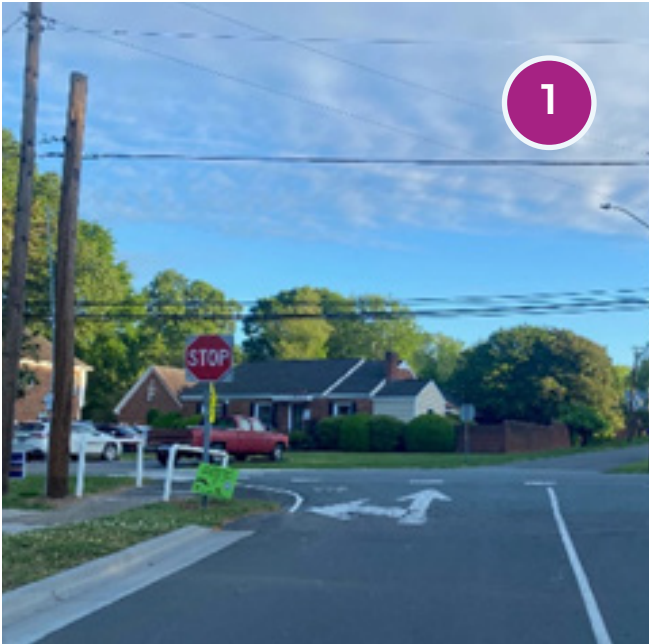
The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

St Marys Road and Lydia Lane: Lydia Lane ends at St Marys Road at a stop sign-controlled intersection. While there is already a crosswalk at this location, the high volume of traffic along St Marys Road still creates safety concerns for pedestrians. In addition, the crosswalk is located next to the left-turn lane out of the school, creating potential conflicts for turning traffic and pedestrians crossing.

St Marys Road and E Tryon Road: E Tryon Road ends at St Marys Road at a stop sign-controlled intersection. E Tryon Road meets St Marys Road as it comes out of a curve, creating a dangerous location for pedestrians. There is a sidewalk on the south side of E Tryon Road, but no pedestrian crossings at this location.

St Marys Road, Cameron Street, and E King Street: St Marys Road, Cameron Street, and E King Street meet at a stop sign-controlled skewed intersection. Due to the unusual geometry of this intersection, is very difficult for pedestrians to cross. There is a crosswalk at E King Street and sidewalks along both sides of E King Street, the west side of St Marys Road, and the west side of S Cameron Street.

Photos



Exit lanes out of school. Left-turn lane is right next to crosswalk



Morning traffic backed up on St Marys Road



Sidewalk in front of River Park Elementary



Crosswalk on St Marys Road

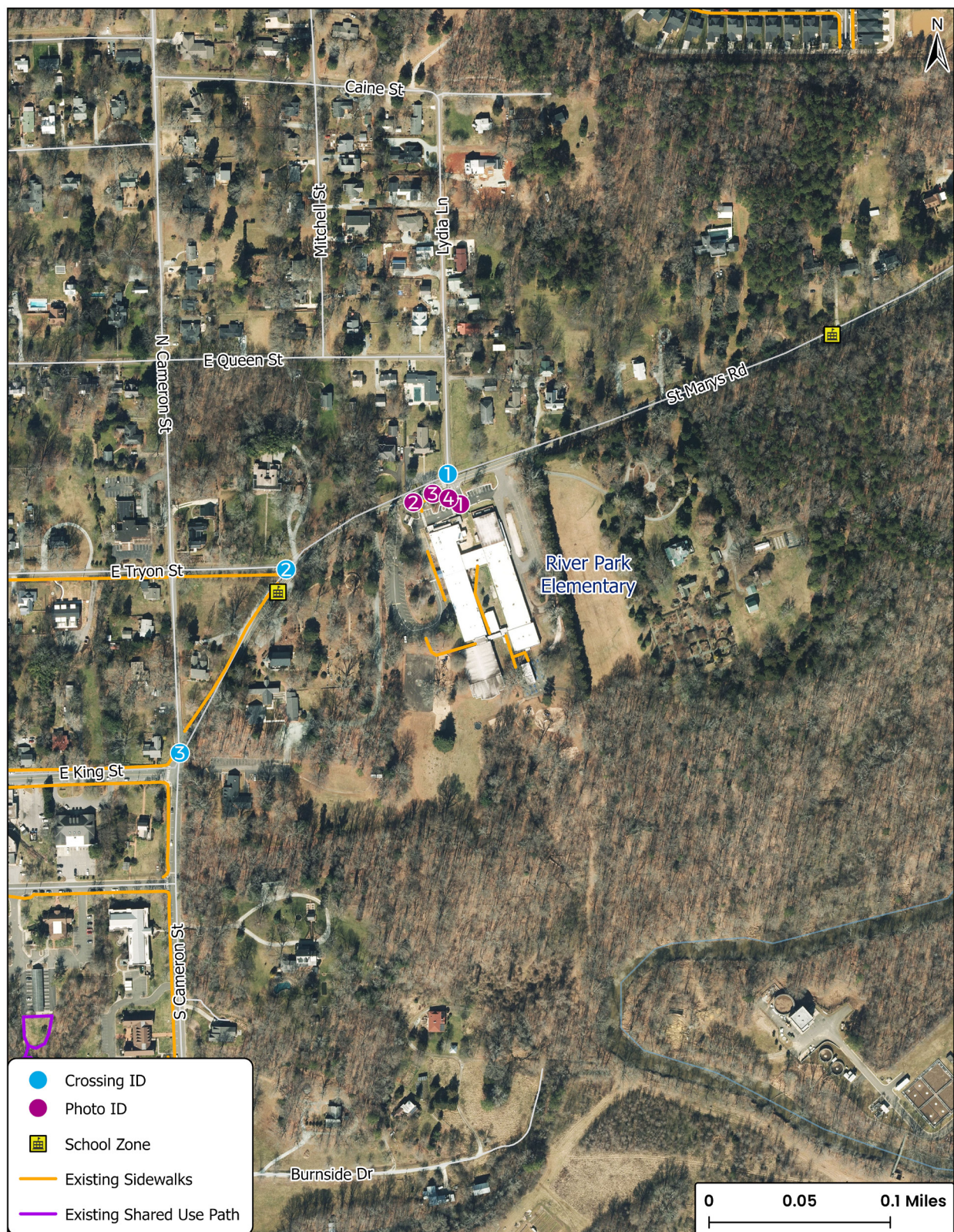


Figure 2.18: River Park Elementary Campus Map

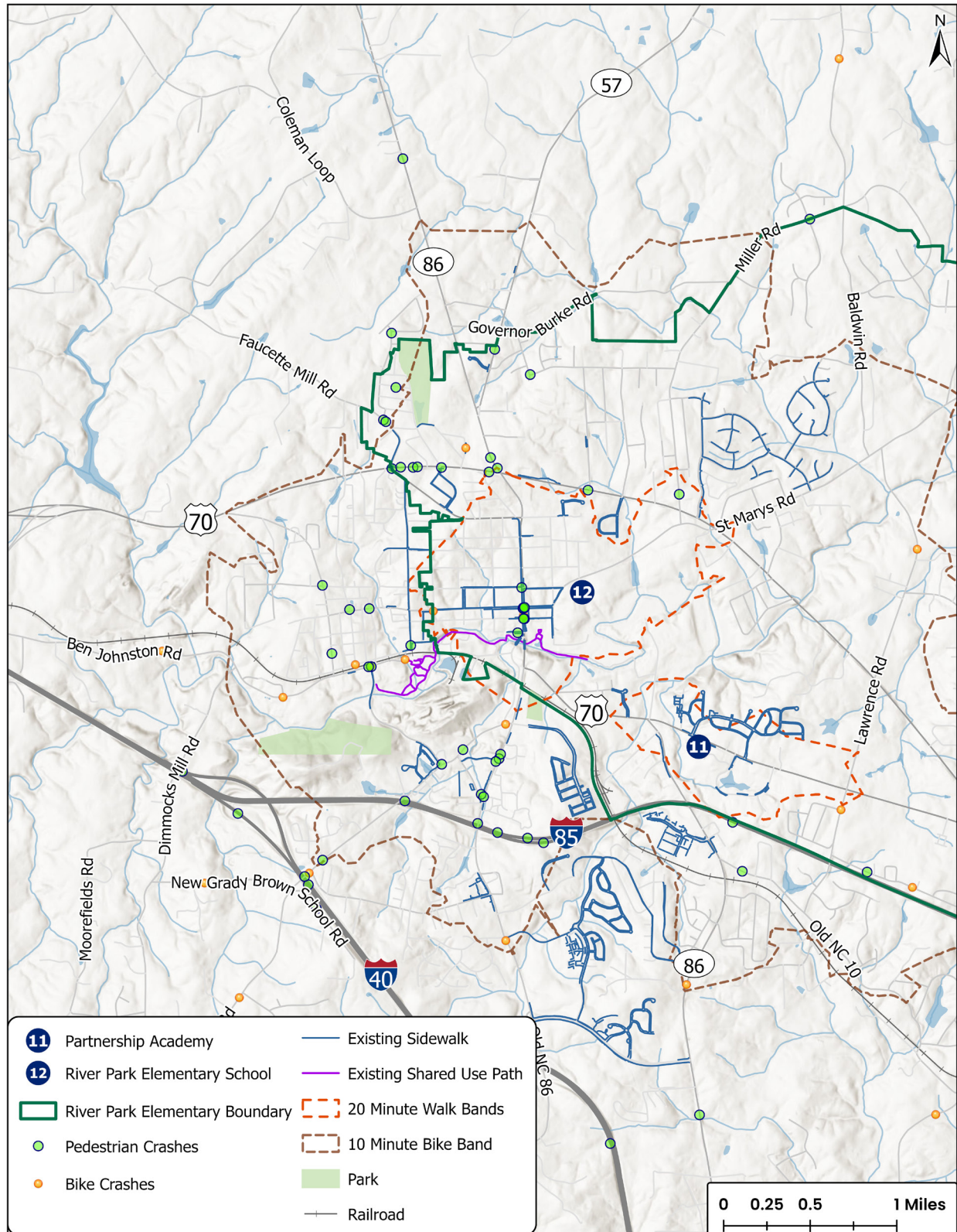


Figure 2.19: Partnership Academy and River Park Elementary Overview

13 - Pathways Elementary School

Pathways Elementary serves grades Pre-Kindergarten to 5 and has a total enrollment of 370 students. It is located north of Hillsborough town limits along Strouds Creek Road just off of NC 57 and the surrounding land use is mostly agricultural and residential. Traffic volumes are low on Strouds Creek Road, while NC 70 has an average daily traffic volume of 6,400 vehicles per day. There are no pedestrian or bicycle facilities on the roadways in the vicinity of the school, other than a small section of sidewalk along Strouds Creek Road. There are no documented pedestrian or bicyclist crashes within the 20-minute walk band. Approximately 8 students walk to school.

Table 1.13: River Park Elementary School Characteristics

Grades Serviced	Pre-K-5th
Total Enrollment	370
Number of Buses	5
Number of Students Riding the Bus	105 in the AM; 126 in the PM
Number of Students Walking	8
Number of Students Cycling	0
Number of Students Driven	130
Special Needs Population	0
Land Uses Surrounding School	Residential, Agricultural
Presence of Bike Racks	No
No Walk Zones	None
Crossing Guards	No
Policies that Restrict Walking or Bicycling	No
Bicycle/Pedestrian Safety Taught to Students	No
Existing Parking Capacity	94 spaces
Presence of Car Waiting Zones	Yes
Number of Staff Managing Drop off/Pick up	16
Residences within a 10 min bike ride from the school	643

The following pages highlight the data collected pertaining to the strengths and weaknesses of the existing pedestrian environment for Pathways Elementary. A campus map showing bicycle and pedestrian crashes, existing infrastructure, school zone signage, key crossing IDs, and photo IDs is included in **Figure 2.20**. An overview map showing the bicycle and pedestrian crashes, existing infrastructure, a 20-minute walking radius, and a 10-minute biking radius is included in **Figure 2.21**.

Behavioral Components of Vehicular and Pedestrian Traffic Patterns

There are approximately 8 students walking to school. On-site observations noted several elementary school pedestrians walking from the Stroud's Creek neighborhood adjacent to the school. Field staff noted the following travel norms for Pathways Elementary:

- ◆ Motorist behavior was observed as fair to good. Traffic appears to go faster than the posted speed limit of 25mph along Strouds Creek Road, but drivers are respectful overall.
- ◆ There are separate drop-off and pick-up zones for the Pre-K and K-5 grades.
- ◆ There were no backups of traffic during the morning drop off. Traffic for the K-5 pick up does backup onto Strouds Creek Road past Village Grove Court.
- ◆ Cars and buses were observed passing in the left lane to get into the school entrance. A few cars traveling to Tumbling Brook Lane also had to pass on the left.
- ◆ Parents were observed walking from the neighborhood to pick up students. A few students were observed walking home alone, which is not allowed according to school staff.
- ◆ Safety concerns include vehicles passing in the left lane while vehicles are exiting the school at the same time and cars turning left out of Tumbling Brook Lane having limited sight distance due to the line of cars.
- ◆ Other safety concerns include no crosswalks across the Pre-K car entrance where students were observed crossing.

Existing Infrastructure - Strengths

Pathways Elementary's location on a dead-end road makes it a viable location for walking and biking to school from nearby residences. The following observations were noted as existing system strengths:

- + Clear school zone signage and pavement markings are found along Strouds Creek Road and NC 57.
- + There are on-campus sidewalks along the building front, adjacent to the carpool drop-off line.
- + There is a sidewalk connection from Village Grove Court to the first school driveway entrance.
- + There is no through traffic on Strouds Creek Road and Tumbling Brook Lane is a gated community with no through traffic.

Existing Infrastructure - Deficiencies

There are multiple issues related to infrastructure deficiency and traffic issues that warrant improvement, create safety hazards, and prevent children from walking and cycling to school safely. Key weaknesses, barriers, and obstacles include the following:

- Traffic is significant along the primary route to school NC 57.
- There are no crosswalks or curb ramps located on adjacent roadways.
- There is no on campus sidewalk connecting from Strouds Creek Road to the school.
- There are no pedestrian or bicycle facilities found on adjacent roadways. **Table 2.13** summarizes key locations where insufficient infrastructure creates barriers to pedestrians and bicyclists.

Table 2.13: Key Infrastructure Gaps at Pathways Elementary

Road	Orientation	Gap
Strouds Creek Road	Both sides	No sidewalk or bike lanes.
Tumbling Brook Lane	Both sides	No sidewalk or bike lanes.
Village Grove Court	Both sides	No sidewalk or bike lanes.

Key Crossing Issues

The following crossings are barriers to safety and prevent children from walk and cycling to school safely:

Strouds Creek Road and School Eastern Entrance: The eastern driveway to Pathways Elementary meets Strouds Creek Road a stop sign-controlled intersection. Pedestrians walking from the Stroud’s Creek neighborhood use this crossing to walk to and from school. Due to number of vehicles turning in and out of this driveway, this intersection difficult for pedestrians to cross. There is a sidewalk coming from the Stroud’s Creek neighborhood, but there are no sidewalks along the western side of the intersection. There are no pedestrian crossings at this location.



Photos



Sidewalk in front of Stroud's Creek neighborhood



End of sidewalk at the eastern driveway



Bus passing in the left lane to get into the bus lot



Afternoon pick-up line



Figure 2.20: Pathways Elementary Campus Map

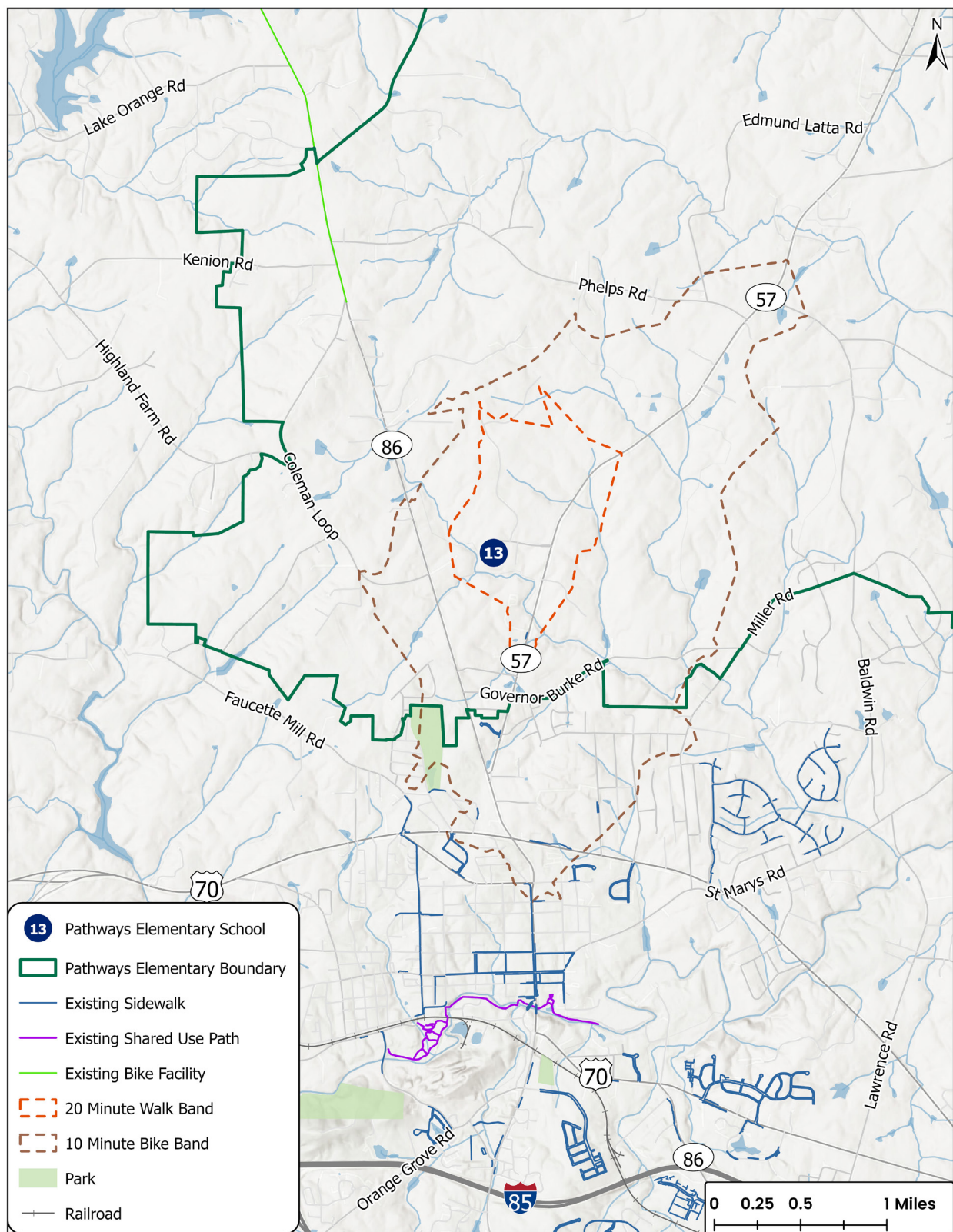


Figure 2.21: Pathways Elementary School Overview

3. Public Involvement Summary

On July 8, 2024, from 9:00 am to 12:00 pm, Orange County Transportation Service (OCTS) conducted a Public Engagement event with all Orange County Public Schools in accordance with the approved Scope of Work. All the principals, vice-principles, school board staff were invited to participate in an open discussion on the SRTS Program. The audience provided OCTS staff important feedback on the program, existing conditions report and potential recommendations to improve the County's SRTS plan.

Key highlights from the event include:

- ◆ Students continue to walk and bike along dangerous roads like NC 86 (AL Stanback Middle and New Hope Elementary), Orange Grove Road (Cedar Ridge High and Grady Brown Elementary), Richmond Road (Efland Cheeks Elementary).
- ◆ Increasing population is resulting in increasing impact on schools, and subsequent increase in walking and biking to/from schools.
- ◆ All schools are working on transitioning to Infinite Campus (from Power School) to help improve messaging to students and parents.
- ◆ The Existing Conditions report was very helpful and informative to the schools.

The Orange County Safe Routes to School Plan update was also presented to the Orange Unified Transportation Board (OUTBoard) on August 19, 2024 to gather more feedback. The following highlights the County's transportation advisory board feedback:

- ◆ Public school buses are the safest way students can get to/from school, more should be done to promote them.
- ◆ The plan should also establish a Safe Routes to School Champion to help implement the updated program.
- ◆ Students are one of the most at-risk traveling populations, more should be done to support them, perhaps through Environmental Justice considerations.

4. Project Recommendations

Overview

The following chapters describe infrastructure and program recommendations for each of the 13 schools studied. Several inputs were used to form the recommendations for each school. These include a combination of public input, County input, school input, field observations and analysis, and infrastructure recommendations from current planning documents, such as the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) 2017 Comprehensive Transportation Plan (CTP), Orange County 2013 CTP, Hillsborough Comprehensive Sustainability Plan (CSP) 2030, and Triangle Area Rural Planning Organization (TARPO) 2015 Bicycle and Pedestrian Planning Framework.

Recommendations have been categorized by need: high need, medium need, and low need. These categories can help the County and Town determine how to allocate funding to proposed projects.

Projects defined as high need may be located in areas where there is already a significant population walking or biking to school, exist in areas with unsafe walking conditions where the project would have high impact, or improve motor behavior significantly to create safer conditions for students to walk or bike to school. Projects defined as medium need may be located in areas with fewer students walking or biking to school. Projects defined as low need may have no students currently walking or biking along the route, exist in a rural setting so projected usage is low, or exist in areas with safer walking conditions where the project would have low impact.

Recommendations for improvements in this plan have been developed in coordination with affected municipalities but additional coordination is warranted before projects within municipal limits are prioritized or funded. Projects within municipal boundaries shall be reviewed and approved by the municipality before implementation. Each school is encouraged to work with NCDOT for Municipal School Transportation Assistance to address their car line as it continues to cause increasing safety hazards onto town and state maintained roads.

Infrastructure Types

The follow section provides descriptions and examples of recommended infrastructure improvements in this SRTS plan.

Bicycle Lane: A dedicated lane on the roadway for bicycle traffic. They are typically 5 to 6 feet in width. Bicycle lanes are recommended along arterials and collectors with speeds greater than 25 mph.

Buffered Bicycle Lane: A dedicated lane on the roadway for bicycle traffic that utilizes a small buffer to separate the bike lane from the roadway. They are typically 5 to 6 feet in width and include a buffer of at least 1.5 feet from the roadway.

Paved Shoulder: In lieu of bike lanes, the shoulder may be paved to a width of 4 feet or more to provide a space for cyclists. Paved shoulders are recommended for rural highways with low bike traffic. They may provide a viable short-term and low-cost solution for other road types as well.

Sidewalk: A path separated from the road that provides a safe space for pedestrians. They are typically 6 feet in width and include a buffer of 5 feet from the roadway. Sidewalks are recommended along routes with speeds higher than 10 mph and traffic volumes higher than 2,000 vehicles per day.

Greenway: A paved surface separated from the roadway for pedestrian and bicycle traffic. Greenways may run along roadways or streams, through utility corridors, parks, or undeveloped areas, making them a versatile option for safe travel to school. Greenways are typically 10 to 12 feet wide, but may be narrower in areas with constraints or wider in areas with high usage.

Bicycle and Pedestrian Bridge: A bridge separated from the roadway for use only by bicycle and pedestrian traffic. These bridges allow cyclists and pedestrians to safely cross over obstacles, such as roads, rivers, and railways.

School Zone: Typically located 100-500 feet from the school boundary, school zones require vehicular traffic to reduce their speed while travelling through the zone. School zones may be marked by signage and/or roadway markings. Recommendations may include extending the school zone to a larger area or further reducing the speed limit inside the school zone.

High Visibility Crosswalk: A designated crossing area on the road with bold markings to gain the attention of drivers. High visibility crosswalks may utilize red or yellow markings in school zones and are often accompanied with pedestrian crossing signs. They encourage drivers to slow down by alerting them to potential pedestrians in the area.

Midblock Crossing: A designated crossing area on the road to provide safe crossing between intersections where there is significant pedestrian traffic. Midblock crossings may feature high visibility markings, refuge islands in the center on wider roads, pedestrian crossing signs or signals.

Pedestrian Crossing Signal: A pedestrian signal head that is added to existing stoplight-controlled intersections, particularly those with high traffic volumes. Pedestrian crossing signals typically feature a signal head, push button activation, and countdown timer. They help maintain an orderly flow of vehicular and pedestrian traffic, enhance pedestrian safety, and reduce the likelihood of accidents.

High-Intensity Activated Crosswalk (HAWK) Signal: A traffic control device used at midblock crossings where pedestrians may have difficulty crossing due to fast-moving vehicles. HAWK signals utilize a pedestrian push button and traffic signal that require drivers to stop when activated. These devices significantly enhancing pedestrian safety while maintaining traffic efficiency.

Speed Hump: A traffic calming measure designed to reduce vehicle speeds to 15 to 20 mph. Speed humps may be placed in areas where lower speeds are desired, such as school zones or near pedestrian crossings.

Speed Cushion: A traffic calming measure design to reduce vehicle speeds. Speed cushions are typically placed in a series of two or more and suitable for roads with frequent bus and emergency vehicle traffic.

1 - AL Stanback Middle School

The following set of recommendations have been developed for AL Stanback Middle. **Figure 4.1** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
1a	Add traffic calming measures, such as extending the school zone further south and reducing the speed limit from 45 mph to 35 mph throughout the school zone.	Traffic is significant along NC 86 and poses a safety barrier for cyclists and pedestrians.	High	
1b	Add a high visibility crosswalk and pedestrian crossing signage to NC 86 and Benton Drive.	Benton Drive and NC 86 presents a key crossing issue for cyclists and pedestrians.	Medium	
1c	Add 3.5 miles of sidewalk and 4' paved shoulders, a bicycle lane, or a shared-use path along NC 86 from Hillsborough's northern town limit to south of New Hope Church Road.	The lack of bicycle and pedestrian infrastructure along NC 86 presents key infrastructure gaps for cyclists and pedestrians.	Medium	DCHC MPO 2017 CTP; Hillsborough CSP 2030
1d	Add 0.1 miles of sidewalk or a shared-use path along Benton Drive.	The lack of bicycle and pedestrian infrastructure along Benton Drive presents key infrastructure gaps for cyclists and pedestrians.	Medium	
1e	Add 0.1 miles of sidewalk or a shared-use path along Storey Lane.	The lack of bicycle and pedestrian infrastructure along and Storey Lane presents key infrastructure gaps for cyclists and pedestrians	Medium	



Figure 4.1: AL Stanback Middle Recommendations

2 - New Hope Elementary School

The following set of recommendations have been developed for New Hope Elementary. **Figure 4.2** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
2a	Evaluate alternative internal queueing measures, such as beginning drop off and pick up at an earlier time, a longer area for drop off and pick up, and utilizing two driveways for drop off and pick up.	The carpool queue is not efficient or suitable for drop off and pick up. Very few cars can drop off and pick up at one time and cars wait in the queue for an excessive amount of time.	High	
2b	Retime the traffic signal to prioritize traffic along New Hope Church Road.	The signal at the intersection of New Hope Church Road and NC 86 queues all the way to the carpool exit line.	High	
2c	Evaluate the need for a dedicated left-turn lane onto NC 86.	The signal at the intersection of New Hope Church Road and NC 86 queues all the way to the carpool exit line.	Low	
2d	Add traffic calming measures, such as extending the school zone 600 feet further west and reducing the speed limit from 45 mph to 35 mph throughout the school zone.	Traffic is significant along NC 86 and New Hope Church Road and poses a safety barrier for cyclists and pedestrians.	High	
2e	Add a right-turn lane into the school from the westernmost driveway to the easternmost driveway for the car queue.	The morning and afternoon car queues experience heavy backups along New Hope Church Road. Buses and cars must pass in the two-way left turn lane to get around the queue.	Medium	
2f	Add a high visibility crosswalk and pedestrian crossing signal to New Hope Church Road and NC 86.	New Hope Church Road and NC 86 presents a key crossing issue for cyclists and pedestrians.	Medium	

2g	Add 4.2 miles of 4' paved shoulders , a bicycle lane, or a shared-use path along NC 86 from south of New Hope Church Road to Eubanks Road.	The lack of bicycle and pedestrian infrastructure along NC 86 and presents key infrastructure gaps for cyclists and pedestrians.	Medium	DCHC MPO 2017 CTP
2h	Add 4.1 miles of 4' paved shoulders or a shared-use path along New Hope Church Road from Old NC 86 to Old NC 10.	The lack of bicycle and pedestrian infrastructure along New Hope Church Road presents key infrastructure gaps for cyclists and pedestrians.	Medium	DCHC MPO 2017 CTP
2i	Add 4.1 miles of sidewalk or a shared-use path along New Hope Church Road.	The lack of bicycle and pedestrian infrastructure along New Hope Church Road presents key infrastructure gaps for cyclists and pedestrians.	Medium	



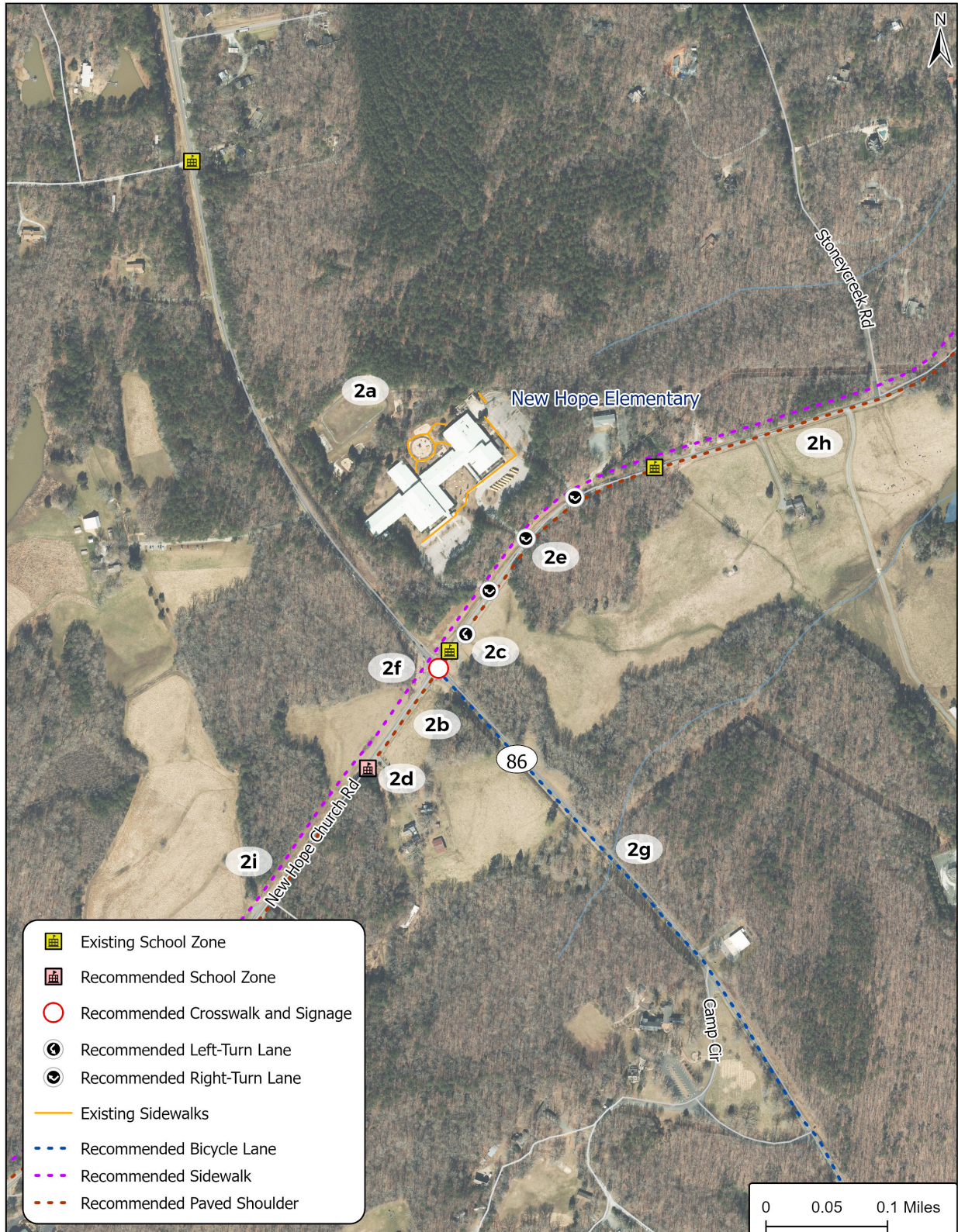


Figure 4.2: New Hope Elementary Recommendations

3 - Cedar Ridge High School

The following set of recommendations have been developed for Cedar Ridge High. **Figure 4.3** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
3a	Provide a midblock crossing with a median island refuge in the existing turn lane. Add high visibility crossings and in-roadway crossing signage.	Several high school students are walking to and from Grady Brown Elementary School across the street.	High	
3b	Construct 0.3 miles of sidewalk or shared-use path along New Grady Brown School Road from New Grady Brown School to Orange Grove Road.	Approximately 20-30 students walk to school from the east. There are no pedestrian facilities and narrow shoulders, especially along the Orange Grove Road bridge over I-40.	High	DCHC MPO 2017 CTP; Hillsborough CSP 2030
3c	Construct 1 mile of 4' paved shoulders and a sidewalk or a shared-use path along Orange Grove Road from New Grady Brown School Road to Elfin Blvd.	Approximately 20-30 students walk to school from the east. There are no pedestrian facilities and narrow shoulders, especially along the Orange Grove Road bridge over I-40.	High	DCHC MPO 2017 CTP; Hillsborough CSP 2030
3d	Construct a bicycle and pedestrian bridge adjacent to Orange Grove Road that crosses over I-40 to provide safe passage.	Approximately 20-30 students walk to school from the east. There are no pedestrian facilities and narrow shoulders, especially along the Orange Grove Road bridge over I-40.	High	
3e	Install no parking signs along New Grady Brown School Road to deter parents from parking on the side of the road during afternoon pick up.	Drivers park on the side of the road to avoid the afternoon car queue, then make U-turns in the road to leave, further limiting a safe space for walkers.	High	

3f	Construct 1 mile of sidewalk or shared-use path along Oakdale Drive from Orange Grove Road to S Churton Street.	Several students walk to school via Oakdale Drive. There are no pedestrian facilities along this route.	High	Hillsborough CSP 2030
3g	Add a high visibility crosswalk and pedestrian crossing signal at the intersection of New Grady Brown School Road and Orange Grove Road.	Several students walk to school via Oakdale Drive. There are no pedestrian facilities along this route.	Medium	
3h	Add a high visibility crosswalk and pedestrian signage to the intersection of Orange Grove Road and Oakdale Drive.	Several students walk to school via Oakdale Drive. There are no pedestrian facilities along this route.	Medium	
3i	Construct 0.5 miles of sidewalk or shared-use path along New Grady Brown School Road from Dimmocks Mill Road to Cedar Ridge High.	The lack of bicycle and pedestrian infrastructure west of Cedar Ridge High presents infrastructure gaps for cyclists and pedestrians.	High	
3j	Add 0.3 miles of sidewalk or a shared-ue path to Timbers Drive.	The lack of bicycle and pedestrian infrastructure along Timbers Drive presents key infrastructure gaps for cyclists and pedestrians. Students living in Patriots Pointe and Timbers Mobile Home Park utilize Timbers Drive to access Orange Grove Road.	Medium	
3k	Add 0.08 miles of a trail connection from Patriots Pointe to Timbers Drive.	The lack of bicycle and pedestrian infrastructure along Timbers Drive presents key infrastructure gaps for cyclists and pedestrians. Students living in Patriots Pointe and Timbers Mobile Home Park utilize Timbers Drive to access Orange Grove Road.	Medium	



Figure 4.3: Cedar Ridge High Recommendations

4 - Grady A Brown Elementary School

The following set of recommendations have been developed for Grady A Brown Elementary.

Figure 4.4 shows the recommended projects. Projects 3b-3d, 3f-3h, and 3i have also been identified for Grady A Brown Elementary School.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
4a	Add 0.3 miles of sidewalk, bicycle lane, or a shared-use path to Arbors Lane.	The lack of bicycle and pedestrian infrastructure along Timbers Drive and Arbors Lane presents key infrastructure gaps for cyclists and pedestrians.	High	





Figure 4.4: Grady A Brown Elementary Recommendations

5 - Central Elementary School

The following set of recommendations have been developed for Central Elementary. **Figure 4.5** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
5a	Add school zone signage and markings along Hayes Street.	There are no school zone markings or signs along Hayes Street.	High	
5b	Construct sidewalk and bicycle lanes on W King Street from N Occoneechee Street to West Hill Avenue. A near-term solution would be to widen the shoulders along these roads and maintain vegetation to create a safer environment for elementary students walking and cycling to school.	There is a growing need for more bicycle and pedestrian infrastructure around Central Elementary School. The lack of bicycle and pedestrian infrastructure along W King Street present key infrastructure gaps for cyclists and pedestrians.	Medium	
5c	Construct 0.4 miles of sidewalk or shared-use path on Latimer Street from King Charles Road to Lakeshore Drive.	There is a growing need for more bicycle and pedestrian infrastructure around Central Elementary School. The lack of bicycle and pedestrian infrastructure along Latimer Street present key infrastructure gaps for cyclists and pedestrians.	High	
5d	Construct 0.8 miles of sidewalk or a shared-use path on Lakeshore Drive from US 70 to W King Street.	The lack of bicycle and pedestrian infrastructure along Lakeshore Street present key infrastructure gaps for cyclists and pedestrians.	High	
5e	Construct 0.4 miles of sidewalk and bicycle lanes or a shared-use path on Hayes Street from Central Elementary to W King Street.	The lack of bicycle and pedestrian infrastructure along parts of Hayes Street presents key infrastructure gaps for cyclists and pedestrians.	High	

5f	Add a high visibility crosswalk and pedestrian crossing signage to Hayes Street and W King Street.	Hayes Street and W King Street presents a key crossing issue for cyclists and pedestrians.	Medium	
5g	Employ a crossing guard to ensure vehicles are following traffic rules and create a safer environment for pedestrians and cyclists.	Vehicles ignore signage restricting left turns out of the school when no crossing guard is present.	Medium	
5h	Construct a passing lane for school buses and non-school traffic to pass the car queue.	School buses turning left onto Hayes Street must pass in the left lane to get around the car queue, increasing the potential for conflict.	Medium	





Figure 4.5: Central Elementary Recommendations

6 - Hillsborough Elementary School

The following set of recommendations have been developed for Hillsborough Elementary. **Figure 4.6** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
6a	Install a high visibility crosswalk and pedestrian signage at W Union Street and the south leg of N Nash Street at the intersection, and evaluate realigning the intersection to create safer conditions overall.	The skewed intersection at Hayes Street, N Nash Street, and W Union Street creates a safety concern for vehicles and pedestrians.	High	
6b	Construct a southbound left-turn lane so that traffic coming north of the school can pass safely in the through lane.	Traffic backup along N Nash Street is a major concern. Through traffic, buses, and traffic exiting left out of the car queue pass in the opposite lane increasing the potential for conflict.	High	
6c	The exit out of the school on N Nash Street should be right-turn only to decrease the amount of cars passing in the opposite lane.	Traffic backup along N Nash Street is a major concern. Through traffic, buses, and traffic exiting left out of the car queue pass in the opposite lane increasing the potential for conflict.	High	
6d	Construct 0.5 miles of sidewalk or shared-use path along Occoneechee Street, to serve the students currently walking to school and fill in existing infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Occoneechee Street, the south side of W Union Street, and the east side of N Nash Street presents key infrastructure gaps for cyclists and pedestrians.	High	
6e	Construct 0.3 miles of sidewalk or shared-use path along the south side of W Union Street to serve the students currently walking to school and fill in existing infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along the south side of W Union Street presents key infrastructure gaps for cyclists and pedestrians.	High	

6f	Construct 0.3 miles of sidewalk or shared-use path along the east side of N Nash Street to serve the students currently walking to school and fill in existing infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along the east side of N Nash Street presents key infrastructure gaps for cyclists and pedestrians.	High	
6h	Add a high visibility crosswalk and pedestrian crossing signage to W Union Street and N Occoneechee Street.	W Union Street and N Occoneechee Street presents a key crossing issue for cyclists and pedestrians.	Medium	





Figure 4.6: Hillsborough Elementary Recommendations

7 - Orange Middle School

The following set of recommendations have been developed for Orange Middle. **Figure 4.7** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
7a	Construct 0.2 miles of sidewalk or shared-use path connecting from Orange Middle School building along the driveway to the short section of existing sidewalk along Orange High School Road.	There are no on campus sidewalks connecting to the school entrance.	High	
7b	Construct 0.7 miles of sidewalk or shared-use path along Orange High School Road from Harold Latta Drive to US 70.	The lack of bicycle and pedestrian infrastructure along Orange High School Road present key infrastructure gaps for cyclists and pedestrians.	High	DCHC MPO 2017 CTP; Hillsborough CSP 2030
7c	Construct 2.1 miles of 4' paved shoulders and a sidewalk or a shared-use path along US 70 from Combs Circle to N Scotswood Boulevard.	The lack of bicycle and pedestrian infrastructure along US 70 present key infrastructure gaps for cyclists and pedestrians.	High	DCHC MPO 2017 CTP; Hillsborough CSP 2030
7d	Construct 0.2 miles of sidewalk or shared-use path along Harold Latta Drive from Orange High School Road to Cloverfield Drive.	The lack of bicycle and pedestrian infrastructure along Harold Latta Road, present key infrastructure gaps for cyclists and pedestrians.	High	DCHC MPO 2017 CTP; Hillsborough CSP 2030
7e	Construct 0.5 miles of sidewalk or a shared-use path along Orange High School Road from Harold Latta Road to Miller Road to fill in infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Orange High School Road present key infrastructure gaps for cyclists and pedestrians.	High	
7f	Construct 0.1 miles of sidewalk or a shared-use path along Ann Road to fill in infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Ann Road present key infrastructure gaps for cyclists and pedestrians. There is a crosswalk at Orange High School Road and Ann Road with no connecting sidewalks.	High	

7g	Construct 0.6 miles of sidewalk or shared-use path along Joyce Road to fill in infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Ann Road, Joyce Road present key infrastructure gaps for cyclists and pedestrians.	High	
7h	Construct 0.7 miles of sidewalk or shared-use path along Gwen Road to fill in infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Gwen Road present key infrastructure gaps for cyclists and pedestrians.	High	
7i	Construct 0.5 miles of sidewalk or shared-use path along Rencher Street from Fairview Park to Orange High School soccer field.	The lack of bicycle and pedestrian infrastructure from west of Orange Middle School presents a barrier to students walking and biking to school.	High	Hillsborough CSP 2030
7j	Construct 0.5 miles of a shared-use path along Holman Drive from NC 86 to Orange Middle School.	The lack of bicycle and pedestrian infrastructure from west of Orange Middle School presents a barrier to students walking and biking to school.	High	
7k	Construct 0.3 miles of a trail from Orange Middle School to Walgreens to promote safe travel for students.	Students are walking to the nearby Walgreens via an informal pedestrian path through the woods.	High	
7l	Add a high visibility crosswalk and pedestrian crossing signal to the intersection at Orange High School Road and US 70.	The intersection of Orange High School Road and US 70 present key crossing issues for pedestrians.	Medium	
7m	Add a high visibility crosswalk and pedestrian crossing signal to the intersection at Gwen Road and US 70.	The intersection of Gwen Road and US 70 present key crossing issues for pedestrians.	Medium	
7n	Add a high visibility crosswalk and pedestrian crossing signal to the intersection at N Scotswood Boulevard and US 70.	The intersection of N Scotswood Boulevard and US 70 present key crossing issues for pedestrians.	Medium	
7o	Add a high visibility crosswalk and pedestrian crossing signal to the intersection at NC 86 and NC 57.	The intersection of NC 86 and NC 57 present key crossing issues for pedestrians.	Medium	

7p	Add a high visibility crosswalk and pedestrian crossing signage to the intersection at Orange High School Road and Orange Middle School entrance.	The intersection of Orange High School Road and Orange Middle School present key crossing issues for pedestrians.	Medium	
7q	Add a high visibility crosswalk and pedestrian crossing signage to the intersection at Orange High School Road and Harold Latta Road.	The intersection of Orange High School Road and Harold Latta Road present key crossing issues for pedestrians.	Medium	
7r	Route school traffic along Holman Road towards the back entrance of the school, then to the car drop off and pickup line. Exiting traffic can then be routed out on Orange High School Road. This route provides room for a longer car queue that would not cause backups on through roads or block bus traffic. Alternately, Construct a right-turn lane along Orange High School Road into the school if there is a strong desire to maintain the current travel pattern.	School traffic backs up in both directions along Orange High School Road. Through traffic was observed passing through the left lane at full speed, creating safety concerns. Buses must pass in the left lane to get past the cars lined up on Orange High School Road and into the bus lot.	Medium	
7s	Construct a right-turn lane along Orange High School Road into the school if there is a strong desire to maintain the current travel pattern.	School traffic backs up in both directions along Orange High School Road. Through traffic was observed passing through the left lane at full speed, creating safety concerns. Buses must pass in the left lane to get past the cars lined up on Orange High School Road and into the bus lot.	Medium	
7t	Add traffic calming measures, such as reducing the speed limit from 45 mph to 35 mph along US 70 from Miller Road to NC 86.	The high speeds and high traffic volume along US 70 presents a serious safety threat for pedestrians and bicyclists.	High	

7u	Construct 0.9 miles of sidewalk or shared-use path along one side of NC 86 from Governor Burke Road to US 70.	The high speeds and traffic volumes and lack of bicycle and pedestrian infrastructure along NC 86 create barriers to safely walking and biking to school.	Medium	2013 Orange County SRTS
7v	Construct 0.5 miles of sidewalk or shared-use path along one side of NC 57 from Governor Burke Road to US 70.	The high speeds and traffic volumes and lack of bicycle and pedestrian infrastructure along NC 57 create barriers to safely walking and biking to school.	Medium	2013 Orange County SRTS
7w	Add a bicycle rack on campus to promote biking to school.	There are no bicycle racks on campus.	Low	



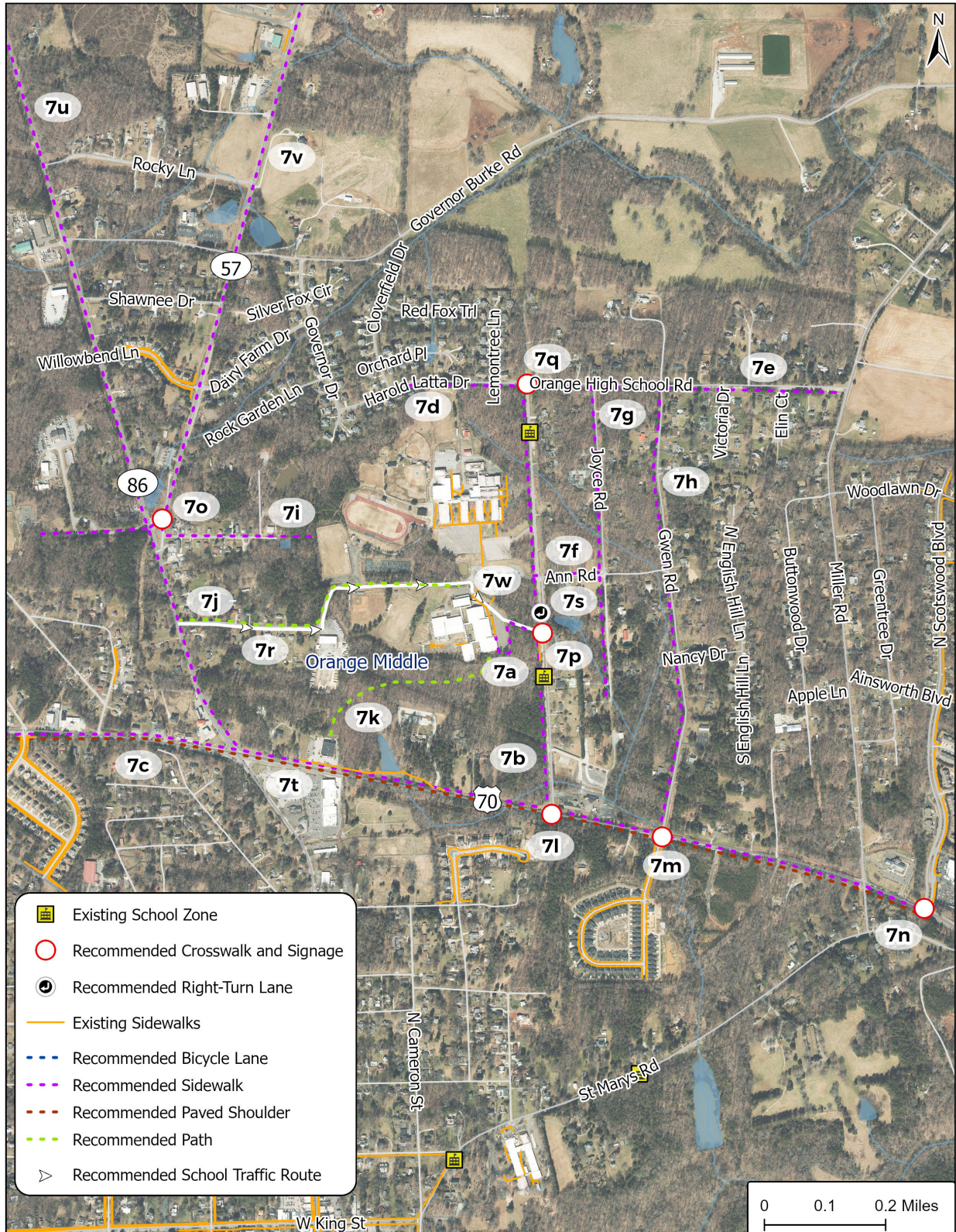


Figure 4.7: Orange Middle Recommendations

8 - Orange High School

The following set of recommendations have been developed for Orange High. **Figure 4.8** shows the recommended projects. Projects 7b-7i, 7k-7o, 7q, 7s-7u have also been identified for Orange High School.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
8a	Install no parking signs along Orange High School Road to deter parents from parking on the side of the road during afternoon pick up.	Drivers park on the side of the road to avoid the afternoon car queue, then make U-turns in the road to leave, creating safety concerns for students and other drivers. Students walk from the school to these cars, sometimes crossing the road.	High	
8b	Construct 0.3 miles of sidewalk or shared-use path along Governor Drive from Governor Burke Drive to Harold Latta Road.	The lack of bicycle and pedestrian infrastructure in the Cameron Estates neighborhood presents a barrier to students walking and biking to school.	Medium	
8c	Construct 0.2 miles of sidewalk or shared-use path along Dairy Farm Drive from NC 57 to Governor Drive.	The lack of bicycle and pedestrian infrastructure in the Cameron Estates neighborhood presents a barrier to students walking and biking to school.	Medium	

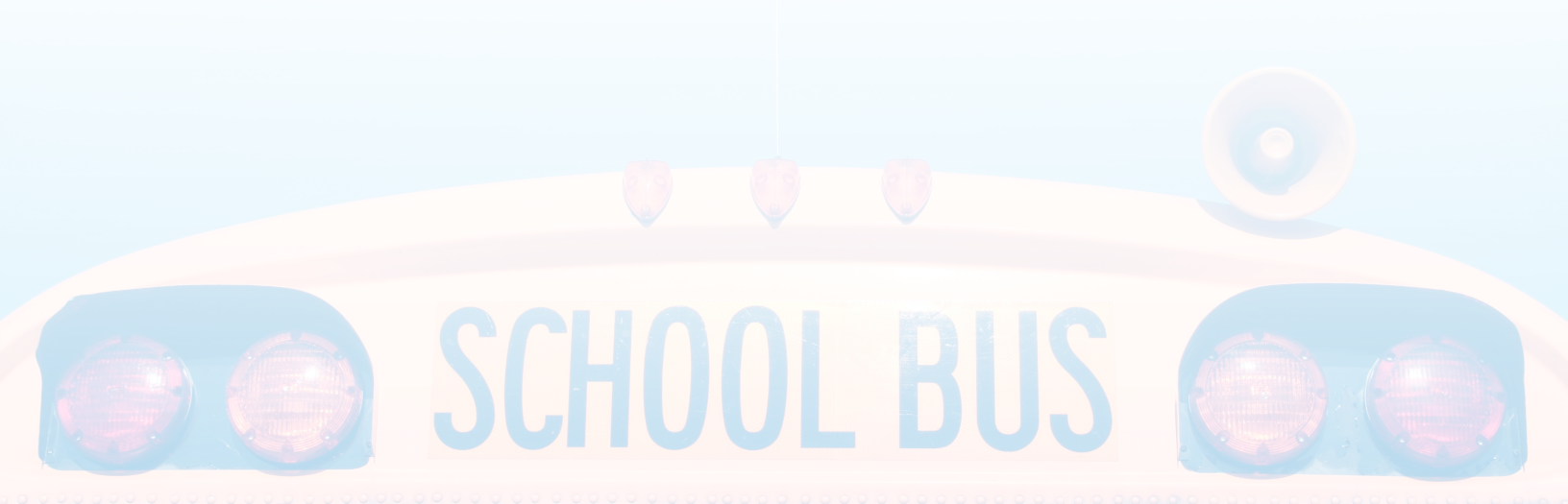




Figure 4.8: Orange High Recommendations

9 - Efland Cheeks Global Elementary School

The following set of recommendations have been developed for Efland Cheeks Global Elementary. **Figure 4.9** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
9a	Add school zone markings and signage along Fuller Road.	There is limited school zone signage on Fuller Road.	High	
9b	Add school zone markings and signage along Tinnin Road.	There is limited school zone signage on Tinnin Road.	High	
9c	Add school zone markings and signage along School House Road.	There is limited school zone signage on School House Road.	High	
9d	Construct 0.3 miles of sidewalk or shared-use path along Fuller Road to increase safety for current walkers.	Several students and parents are walking along Fuller Road with no sidewalks or bike lanes.	High	
9e	Construct 0.3 miles of sidewalk or shared-use path along School House Road to increase safety for current walkers.	Several students and parents are walking along School House Road with no sidewalks or bike lanes.	High	
9f	Construct 0.3 miles of sidewalk or shared-use path along Tinnin Road to fill in key infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Tinnin Road presents key infrastructure gaps for cyclists and pedestrians.	High	
9g	Construct 0.5 miles of sidewalk or shared-use path along Richmond Road to fill in key infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along Richmond Road presents key infrastructure gaps for cyclists and pedestrians.	High	
9h	Construct 1 mile of sidewalk or shared-use path along US 70 to fill in key infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along US 70 presents key infrastructure gaps for cyclists and pedestrians.	High	
9i	Decrease the speed limit to 35mph to promote safer conditions for pedestrians	The speed limit along Richmond Road is 45mph, creating unsafe conditions for pedestrians.	High	

9j	Add a high visibility crosswalk and pedestrian signage to the intersection at Fuller Road and US 70.	The intersection of Fuller Road and US 70 presents a key crossing issue for pedestrians.	Medium	
9k	Add a high visibility crosswalk and pedestrian crossing sign to the intersection at Fuller Road and School House Road.	The intersection of Fuller Road and School House Road presents a key crossing issues for pedestrians.	Medium	
9l	Add a high visibility crosswalk and pedestrian crossing sign to the intersection at Richmond Road and the school side entrance.	The intersection of Richmond Road and the side entrance to Efland Cheeks Global Elementary presents a key crossing issues for pedestrians.	Medium	





Figure 4.9: Efland Cheeks Global Elementary Recommendations

10 - Gravelly Hill Middle School

The following set of recommendations have been developed for Gravelly Hill Middle. **Figure 4.10** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
10a	Decrease the speed limit from 45 mph to 35 mph within the school zone to promote safer conditions for pedestrians	W Ten Road presents a serious safety threat for pedestrians and bicyclists because of its high speeds and traffic volume.	High	
10b	Extend the right-turn lane further east.	During the afternoon pick up, vehicles back up past the right-turn lane on W Ten Road.	Medium	
10c	Construct 3.7 miles of 4' paved shoulders or a shared-use path along W Ten Road from Rock Quarry Road to I-85 Connector.	The lack of bicycle and pedestrian infrastructure along W Ten Road presents a key infrastructure gap for cyclists and pedestrians.	Medium	DCHC MPO 2017 CTP
10d	Construct 3.7 miles of sidewalk or shared-use path along W Ten Road to fill in key infrastructure gaps.	The lack of bicycle and pedestrian infrastructure along W Ten Road presents a key infrastructure gap for cyclists and pedestrians.	Medium	
10e	Convert the existing crosswalk to a high visibility crosswalk and install pedestrian signage at this location.	The intersection at W Ten Road and Gravelly Hill Middle entrance presents a key crossing issue for pedestrians. The crosswalk at this location often gets blocked by cars exiting and entering the school driveway.	Low	



Figure 4.10: Gravelly Hill Middle Recommendations

11 - Partnership Academy High School

The following set of recommendations have been developed for Partnership Academy High.

Figure 4.11 shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
11a	Construct 2 miles of an on-road bicycle lane or shared-use path along US 70A from S Churton Street to Lawrence Road.	The lack of bicycle and pedestrian infrastructure along US 70A presents a key infrastructure gap for cyclists and pedestrians.	High	Hillsborough CSP 2030; DCHC MPO 2017 CTP
11b	Construct 2 miles of sidewalk or shared-use path along US 70A from S Churton Street to Lawrence Road.	The lack of bicycle and pedestrian infrastructure along US 70A presents a key infrastructure gap for cyclists and pedestrians.	High	Hillsborough CSP 2030; DCHC MPO 2017 CTP
11c	Construct 0.2 miles of sidewalk or shared-use path along Corporate Drive from its terminus to Meadowlands Drive.	The lack of bicycle and pedestrian infrastructure along Corporate Drive presents a key infrastructure gap for cyclists and pedestrians.	High	
11d	Install a high visibility crosswalk and pedestrian signage at this location.	The intersection at Corporate Drive and Meadowlands Drive presents a key crossing issue for pedestrians. The traffic along Meadowlands Drive coming from US 70 is free flowing at this intersection.	Medium	
11e	Add a bicycle rack on campus to promote biking to school.	There are no bicycle racks on campus.	Low	



Figure 4.11: Partnership Academy High Recommendations

12 - River Park Elementary School

The following set of recommendations have been developed for River Park Elementary. **Figure 4.12** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
12a	Install a HAWK signal to the existing crosswalk to increase pedestrian visibility and safety of students crossing.	The existing crosswalk on St Marys Road in front of River Park Elementary is located next to the left-turn lane out of the school and experiences safety concerns, including vehicles blocking the crosswalk and limited line of sight for vehicles.	High	
12b	Disallow left turns out of the school during the drop off and pick up periods.	The existing crosswalk on St Marys Road in front of River Park Elementary is located next to the left-turn lane out of the school and experiences safety concerns, including vehicles turning left out of River Park Elementary while families are crossing the crosswalk.	High	
12c	Realign the skewed intersection to create better sight distance for vehicles and visibility for pedestrians.	St Marys Road, Cameron Street, and E King Street meet at a stop sign-controlled skewed intersection. Due to the unusual geometry of this intersection, is very difficult for pedestrians to cross.	Medium	
12d	Realign St Marys Road, particularly the curve west of River Park Elementary, to create safer conditions for vehicles and pedestrians.	St Marys Road exhibits irregular geometry and blind curves that limits sight distance for vehicles and visibility for pedestrians.	Medium	
12e	Install a high visibility crosswalk and HAWK signal across St Marys Road at its intersection with E Tryon Street.	The intersection at St Marys Road and E Tryon Road presents a key crossing issue for pedestrians.	Medium	

12f	Construct 0.5 miles of sidewalk or shared-use path along St Marys Road from Cameron Street to east of River Park Elementary.	The lack of bicycle and pedestrian infrastructure along St Marys Road presents a key infrastructure gap for cyclists and pedestrians.	High	
12g	Construct 1.1 miles of a buffered bicycle lane or shared-use path along St Marys Road from Cameron Street to US 70.	The lack of bicycle and pedestrian infrastructure along St Marys Road presents a key infrastructure gap for cyclists and pedestrians.	High	
12h	Construct 0.2 miles of sidewalk or shared-use path along Lydia Lane from Caine Street to St Marys Road.	The lack of bicycle and pedestrian infrastructure along Lydia Lane presents a key infrastructure gap for cyclists and pedestrians.	High	
12i	Construct 0.3 miles of sidewalk or shared-use path along E Queen Street from N Churton Street to Lydia Lane.	The lack of bicycle and pedestrian infrastructure along E Queen Street presents a key infrastructure gap for cyclists and pedestrians.	High	
12j	Construct 0.2 miles of sidewalk or shared-use path along N Cameron Street from E Queen Street to E King Street.	The lack of bicycle and pedestrian infrastructure along Cameron Street presents a key infrastructure gap for cyclists and pedestrians.	High	
12k	Construct 0.2 miles of greenway from Cameron Street to the east through undeveloped land to the southern side of River Park Elementary.	The areas to the east, south, and west of River Park Elementary are underdeveloped and underutilized for bicycle and pedestrian infrastructure.	High	
12l	Implement traffic calming measures, such as speed humps along Queen Street.	There are multiple roadways in the area that pose safety barriers for elementary student pedestrians and bicyclists.	Medium	
12m	Implement traffic calming measures, such as speed humps along Cameron Street.	There are multiple roadways in the area that pose safety barriers for elementary student pedestrians and bicyclists.	Medium	
12n	Implement traffic calming measures, such as raising the existing crosswalk on St Marys Road.	There are multiple roadways in the area that pose safety barriers for elementary student pedestrians and bicyclists.	Medium	



Figure 4.12: River Park Elementary Recommendations

13 - Pathways Elementary School

The following set of recommendations have been developed for Pathways Elementary. **Figure 4.13** shows the recommended projects.

Project ID	Recommendation	Issue Addressed	Need	MTP Reference
13a	Implement traffic calming measures, such as speed cushions along Strouds Creek Road.	Traffic travels faster than the posted speed limit of 25 mph along Strouds Creek Road.	High	
13b	Install a high visibility crosswalk and pedestrian signage at the intersection of Strouds Creek Road and the school's eastern driveway to provide awareness to vehicles and safer crossing for pedestrians at this location.	The intersection of Strouds Creek Road and the school's eastern driveway presents a key crossing issue for pedestrians.	High	
13c	Construct 0.1 miles of sidewalk or shared-use path from the existing sidewalk to the main school entrance.	There is no on-campus sidewalk connecting from the existing sidewalk on Strouds Creek Road to the school.	High	
13d	Construct 13.7 miles of sidewalk or shared-use path along NC 57 from NC 86 to the Orange County line.	Traffic is significant, and speeds are high along the primary route to school, NC 57.	Medium	TARPO 2015 Bicycle and Pedestrian Planning Framework; Orange County 2013 CTP



Figure 4.13: Pathways Elementary Recommendations

5. Program Recommendations

In addition to the infrastructure recommendations described in the previous chapter, programming recommendations are also necessary to encourage and improve safety for students walking and biking to school. The following section describes non-infrastructure recommendations to promote safer active transportation to school.

Promote School Bus Usage

Schools should promote school bus usage as a safe and reliable mode of transportation to school. School buses are designed with specific safety features that make them one of the safest forms of transportation for students, including bright colors, flashing lights, and specialized training for drivers.

The high volume of personal vehicles during school drop off and pick up increases the risk of accidents around schools. By promoting school bus usage, schools can mitigate this risk and create a safer environment for children walking or biking to school. School buses generally have their own entrance and parking lot at the school to further separate them from the high volume of personal vehicles.

One of the main drawbacks to students traveling by school bus is that travel time can be significantly longer than those traveling by car. To further encourage school bus usage, schools should evaluate their bus routes to ensure routes are as efficient as possible. By doing so, it will reduce the average travel time to school and the amount of time spent on the bus, making it a more viable alternative.

Schools should regularly educate students and parents about the importance of school bus safety. Programs that teach students proper bus safety—such as remaining seated, listening to the driver, and safely boarding and exiting—can reinforce the message that school buses are a secure and reliable form of transportation.

Walking School Bus

A walking school bus is an organized, group-based way for students to walk to school safely under adult supervision. Typically, one or more parents supervise the group of students along the route to school. The group follows a set route with scheduled stops, much like a traditional school bus route, where children can join or leave the group.

A walking school bus promotes safety and comfortability with walking to school, while promoting health benefits. Students will learn safe walking practices, such as staying alert to surroundings, obeying traffic signals, and using crosswalks. Walking in a group allows children to be more visible to drivers, reducing the risk of traffic accidents.

Schools should evaluate the desire for a walking school bus program by reaching out to parents and staff. Then a potential route can be identified that is safe for walking and has minimal traffic hazards. By walking together under the guidance of adults, a walking school bus provides a safe alternative to traditional school transportation.

Safety Education Programs

Safety education programs are a critical component of a SRTS plan. They equip students, parents, and staff with the knowledge and skills necessary to travel safely to and from school, whether by walking, biking, or driving.

Pedestrian safety education should teach students the basics of safe walking practices, focusing on how to navigate streets, cross intersections, and recognize traffic signals. Schools should utilize classroom time, interactive games, or mock simulations to help children learn and practice these skills.

Bicycle safety education should ensure students understand the rules of the road for cyclists and how to properly use their bikes. Education topics should include helmet usage, hand signals, inspecting brakes, tires, and chain, and understanding the blind spots of cars and buses. Schools should utilize classroom time and bike rodeos to teach students these skills.

Driver safety education should educate drivers, including parents, staff, and community members, about how to drive safely around schools, pedestrians, and cyclists. Education topics should include reducing speed in school zones, yielding to pedestrians, stopping for school buses, and awareness of children's behaviors. Schools should work with local police or safety organization to post informational flyers, host community safety talks, and address key issues.

Walking and Biking Incentive Programs

Schools should encourage students to walk or bike to school by offering rewards, recognitions, and fun activities. These programs help foster a culture of active transportation while promoting physical activity, reducing traffic congestions, and increasing safety around schools.

Schools should host monthly Walk or Bike to School Days where students are invited to walk or bike to school. On these days, schools can create a festive atmosphere by setting up tables and handing out snacks and badges for participation.

Walking and biking contests can also be used to motivate students to walk or bike to school more frequently. Schools should design competitions between classrooms or grades to track the number of trips walked and biked. Those with the highest numbers can then be awarded with trophies or special parties. Alternatively, the school can set a collective goal for all students and then reward all students with a special party once the goal has been achieved.

Walking and biking incentive programs provide many health and safety benefits for students. Regular physical activity improves overall health and enhance mental well-being. When more students walk and bike to school, neighborhoods become more walkable and safer with less vehicular traffic. Through fun and engaging activities, these incentive programs help create a more active and safer school community.

6. Funding

Funding is a crucial part of any SRTS program, as it enables schools and communities to implement infrastructure improvements, education programs, and initiatives that promote safe travel for students. This section describes potential funding sources for the project and program recommendations described in this report.

Highway Safety Improvement Program (HSIP): The Federal Highway Administration (FHWA) administers the HSIP. This program provides funding for projects that reduce traffic fatalities and serious injuries on public roads. HSIP requires states to use crash data to identify hazardous locations and key safety needs. Funds are allocated based on measurable outcomes like the reduction of fatalities or injuries. HSIP funds can be used to target areas around schools where pedestrian and cyclist traffic is high and where safety hazards like speeding, unsafe walking and biking conditions, and unsafe intersections exist.

Surface Transportation Block Grant (STBG) Program: FHWA's STBG Program provides funding for projects that improve transportation safety, efficiency, and accessibility. These funds can be used for a variety of transportation projects, including constructing sidewalks and bike lanes, intersection improvements, turn lanes, traffic calming measures, and other pedestrian and cyclist safety improvements near schools. STBG funds can also be used for non-infrastructure projects such as planning and education efforts that promote transportation safety.

Safe Streets and Roads for All (SS4A) Program: FHWA's SS4A Program provides funding for projects that enhance road safety for all users and reduce traffic-related injuries and fatalities. Funds may be used for infrastructure improvements, safety plans, and safety assessments.

Carbon Reduction Program: FHWA's Carbon Reduction Program provide funding for projects that reduce carbon emissions and promote sustainable transportation options. Funding can be leveraged for SRTS projects that create more sustainable and low-emission transportation options. Carbon Reduction funds can be used for infrastructure improvements, as well as educational programs and incentives.

North Carolina Department of Transportation (NCDOT) Safe Routes to School Program: NCDOT provides funding, technical assistance, and resources for communities to plan and implement SRTS projects. SRTS funding may be used for infrastructure and non-infrastructure projects that create safer routes, reduce traffic congestion, and encourage safe and active transportation to school. Matching local funds are often required with SRTS grants.

School District Budget: Schools can allocate a portion of their budget to support SRTS programs and infrastructure improvements. Funds may be used for installing bike racks, purchasing safety gears, or developing educational materials about pedestrian and cycling safety. School districts should establish a dedicated line item in the budget specifically for SRTS programs to ensure that funds are set aside for related activities and infrastructure.

7. Implementation

Successful implementation of the SRTS plan requires careful planning, coordination, and ongoing management to ensure that the proposed improvements and programs are effectively carried out. This section describes the near-term and long-term actions that are needed to implement the recommendations outlined in this plan.

Plan Adoption: The first step in implementing the SRTS plan is to formally adopt the plan by relevant authorities. Orange County should present the plan to the Orange Unified Transportation Board (OUTBoard) for initial approval and adoption. Once OUTBoard adoption has been achieved, the plan should be adopted by the County Commissioners for County adoption. The SRTS plan should finally be presented for adoption by the DCHC MPO and the Town of Hillsborough.

Transportation Plan Updates: Orange County and DCHC MPO should add the project recommendations to their Comprehensive Transportation Plan at the next update. The Town of Hillsborough should add the project recommendations to their Comprehensive Sustainability Plan at its next update.

Establish a SRTS Champion: A SRTS Champion should be selected to facilitate implementation of the plan. This individual will be responsible for coordinating efforts, maintaining momentum, and ensuring long-term sustainability for the plan. The SRTS Champion coordinates and leads the SRTS meetings, builds partnerships, oversees the implementation of projects and programs, advocates for safety improvements, and engages the community. The SRTS Champion should have a passion for student safety and active transportation alternatives, possess strong leadership skills, be an effective communicator, and have the capacity for long-term commitment.

Form SRTS Steering Committee: Once a SRTS Champion has been selected, a steering committee should be formed to oversee the implementation process. Committee members should be comprised of school administrations, local government officials, parents, students, teachers, and planners. Roles and responsibilities for committee members includes overseeing specific tasks, coordinating with stakeholders, creating a timeline for project and program recommendations, and developing a detailed budget for the costs.

Engagement: The SRTS Steering Committee should work to involve parents, students, community leaders, and staff in engagement activities to gain and maintain support for SRTS initiatives. Engagement activities may include promoting SRTS activities on social media, school newsletters, and at community meetings.

Funding: A funding plan should be developed that includes grants to pursue, responsible party for grant writing, and timeline. Once this has been developed, the County can allocate budget to SRTS projects, as well as apply for funding through various federal and state programs.

Evaluation: Metrics should be established to track the progress of implementation efforts, including monitoring the completion of infrastructure improvements, participation in educational programs, and changes in overall safety. These metrics will help assess the success of different approaches and identify areas for improvement. Based on the findings, make necessary adjustments and updates to the plan on a periodic basis.



8. Resources

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9. Appendix

Email Correspondence With Outreach Participants

Dear Mr. Trivedi,

Thank you for all your work at our Town and County level as Transportation Services Director. I attended the last council meeting that discussed “Safe Routes to School” and was impressed by everything your department is planning to do about the safety of student walkers to and from Cedar Ridge High School.

I just wanted to comment on what I think can be done immediately to improve traffic and a particular issue in front of the school. There is a turn lane in front of Cedar Ridge and Grady Brown Elementary School. Some kids cross Grady Brown School Road while traffic is “intense” during drop off and pick up. At the same time, cars are turning in and out of Cedar Ridge High School onto Grady Brown Road. The traffic as you may know is erratic and many cars that just want to drive through (not picking anyone from the schools) speed straight through heading west on Grady Brown road. I have noticed that the reason these cars can speed through, is because they can get onto the turning lane and avoid the slow cars or stopped traffic turning into Cedar Ridge.

My thought, is to simply cut that turning lane short (even blocking it with cones) so that cars don't get onto it to continue to go (speed) through going west on Grady Brown Road. I think this can improve the traffic issues in three very distinctive ways:

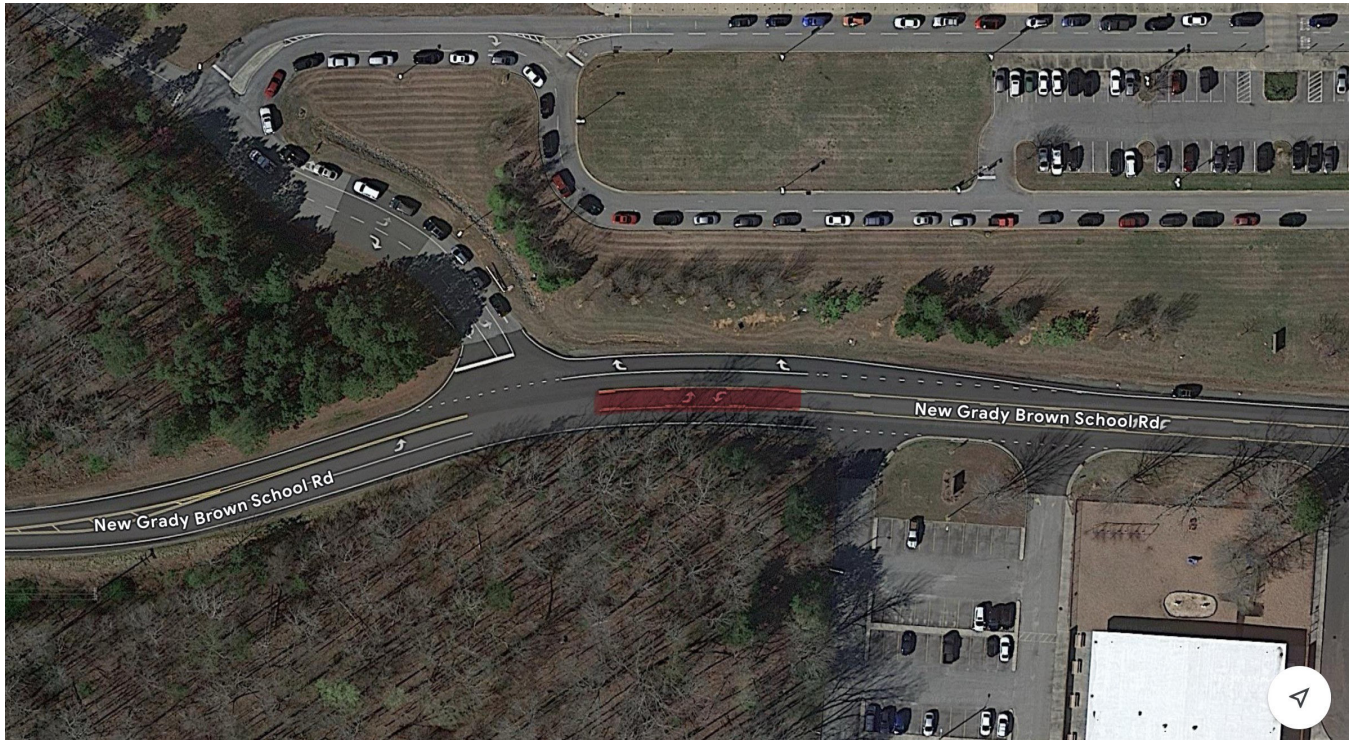
1. Can increase the safety of kids crossing the street between the two schools. As it would reduce speeds and improve visibility for cars to notice kids crossing. Or to simply slow down!
2. Improve the visibility of cars as people are exiting from Cedar Ridge onto Grady Brown as the turn east onto it. It is very hard to turn left as you exit Cedar Ridge because it is hard to see the incoming traffic. Specially when cars get on the median turning lane and are blocked by the incoming traffic that is turning into the school.
3. Slow down overall traffic and reduce some of the erratic driving that occurs. Specially, deterring people from doing U-turns on the median turning lane.

Coincidentally, today I saw a patrol car with their lights on exactly where I'm suggesting we cut the turning median lane short, and the police officer didn't even have to direct traffic. He was inside the patrol car!

Please see attached for an aerial pictured with marked suggested block highlighted in red.

Thanks again for your time. I'm sure that your department has looked into this in much better traffic best practices than I have. But I hope my testimony can help your efforts at the very least help your efforts in one way or another.

P.S.: One more thing while I'm at it, putting no parking (or not drop offs) signs on Grady Brown in front of Cedar Ridge would be helpful.



Once again, thank you for your time.
Luis Hernandez
Hillsborough Resident

