



F I N A L R E P O R T

PEDESTRIAN SAFETY ACTION PLAN

Submitted to: **Dunwoody**
Smart people – Smart city



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Introduction

The City of Dunwoody recognizes that a good sidewalk network provides many benefits to the community and enhances the quality of life of the citizens; therefore, this study was completed as an initiative of the City of Dunwoody Public Works Department to perform a citywide pedestrian safety study.

The study is intended as a step toward enhancing pedestrian safety near five elementary schools and other locations around the City of Dunwoody. Implementation of the proposed enhancements is intended to reduce pedestrian risks on roadways and at intersections, improve motorists' visibility of pedestrians, and provide improved pedestrian and motorist interaction. Through detailed research and a review of existing and collected data, opportunities for pedestrian upgrades were identified and prioritized at the 23 locations.

This study was conducted as a planning-level review and analysis effort and will require more detailed engineering evaluations prior to finalizing project-specific recommendations and related costs.

Study Approach

The study analyzes 23 locations selected by the City of Dunwoody with existing or the potential for future crosswalks. *Figure 1* shows the study locations that form the basis for the development of a prioritization list to identify potential pedestrian safety projects for design and construction. The following methods were used to identify pedestrian facility needs on roadways within the City of Dunwoody:

- Review of current policies and plans
- Interviews and site visits with representatives of the Safe Routes to School committees at each elementary school
- Inventory and assessment of existing pedestrian facilities
- Needs assessment, including a detailed analysis and documentation of pedestrian and vehicular volumes
- Identification of the potential for a reduction in pedestrian-related crashes through a detailed review of available crash data from years 2010 through 2013
- Development of a pedestrian facility needs plan to potentially reduce crashes and/or enhance safety based on National Highway Traffic Safety Administration (NHTSA) guidelines

Programmed Projects

The City of Dunwoody is within the Atlanta Regional Commission (ARC) metropolitan planning organization, from which federal funding is allocated toward transportation projects. ARC's regional transportation plan, PLAN 2040, has pinpointed hundreds of projects to complete in the next 30 years and is made up of programmed projects, long-range projects, and aspirations. There are two programmed projects listed in PLAN 2040 within the City of Dunwoody. While neither project is located near one of the study locations, these two bicycle/pedestrian projects will have an impact on making Dunwoody a more walkable place.

The Perimeter Center Trail seeks to increase transportation options by better connecting bicyclists and pedestrians to MARTA rail stations and by generally increasing mobility for non-motorists by connecting the major job centers in the area. The second project that is in its beginning stages of planning is evaluating the potential for bicycle and pedestrian facilities along Chamblee Dunwoody Road between Interstate 285 and North Shallowford Road and to fill in sidewalk and bicycle lane gaps on Cotillion Drive. When completed, these projects will aid in creating a greater walking and bicycling culture throughout the City of Dunwoody and will need to be supported by safer conditions for users throughout the system.

The City of Dunwoody's Comprehensive Transportation Plan (CTP) was completed in March 2011. The plan includes several pedestrian improvements, not already identified by ARC, that are at or near different study locations. The following improvements will make Dunwoody more pedestrian-friendly and will likely reevaluate existing pedestrian crossings within project boundaries.

Tier 1

- Signed bike route and/or sharrows: North Peachtree Road, Tilly Mill Road, Peachford Road, Old Spring House Lane, Dunwoody Park, Perimeter Center East, Valley View Road, Meadow Lane Road, Vermack Road, Peeler Road, Happy Hollow Road, Womack Road, Olde Perimeter Way (private), and Ridgeview Road.
- Mount Vernon Road at North Peachtree Road: add crosswalk and refuge island.
- Peachford Road multi-modal improvements from North Shallowford Road to North Peachtree Road.

Tier 2

- Add center turn lane, 4' bike lanes, and 6' sidewalks with a 2' buffer to Mount Vernon Road between Ashford Dunwoody Road and Mount Vernon Place.
- Add center turn lane, 4' bike lanes, and 6' sidewalks with a 2' buffer to Mount Vernon Road between Mount Vernon Place and Dunwoody Club Drive.

Tier 3

- Add center turn lane to North Peachtree Road between North Forrest Trail and Peachford Road.
- Add center turn lane to Tilly Mill Road between Peeler Road and Peachtree Industrial Boulevard.
- Mount Vernon Road at Jett Ferry Road: Install roundabout.

The projects that are recommended in the comprehensive transportation plan could greatly impact the operations compared to existing conditions. While these projects will eventually be undertaken, most are long-range projects and should not impact the priority of creating safer crossing conditions for pedestrians.

Since 2010, over five miles of sidewalk has been constructed and approximately \$2.2 million has been allocated to construction, design, and permitting of the additional sidewalk. Five main corridor sections are planned for the 2013/2014 Sidewalk Program, while many more miles are planned as future sidewalk projects. *Figure 2* shows the citywide sidewalk projects planned.

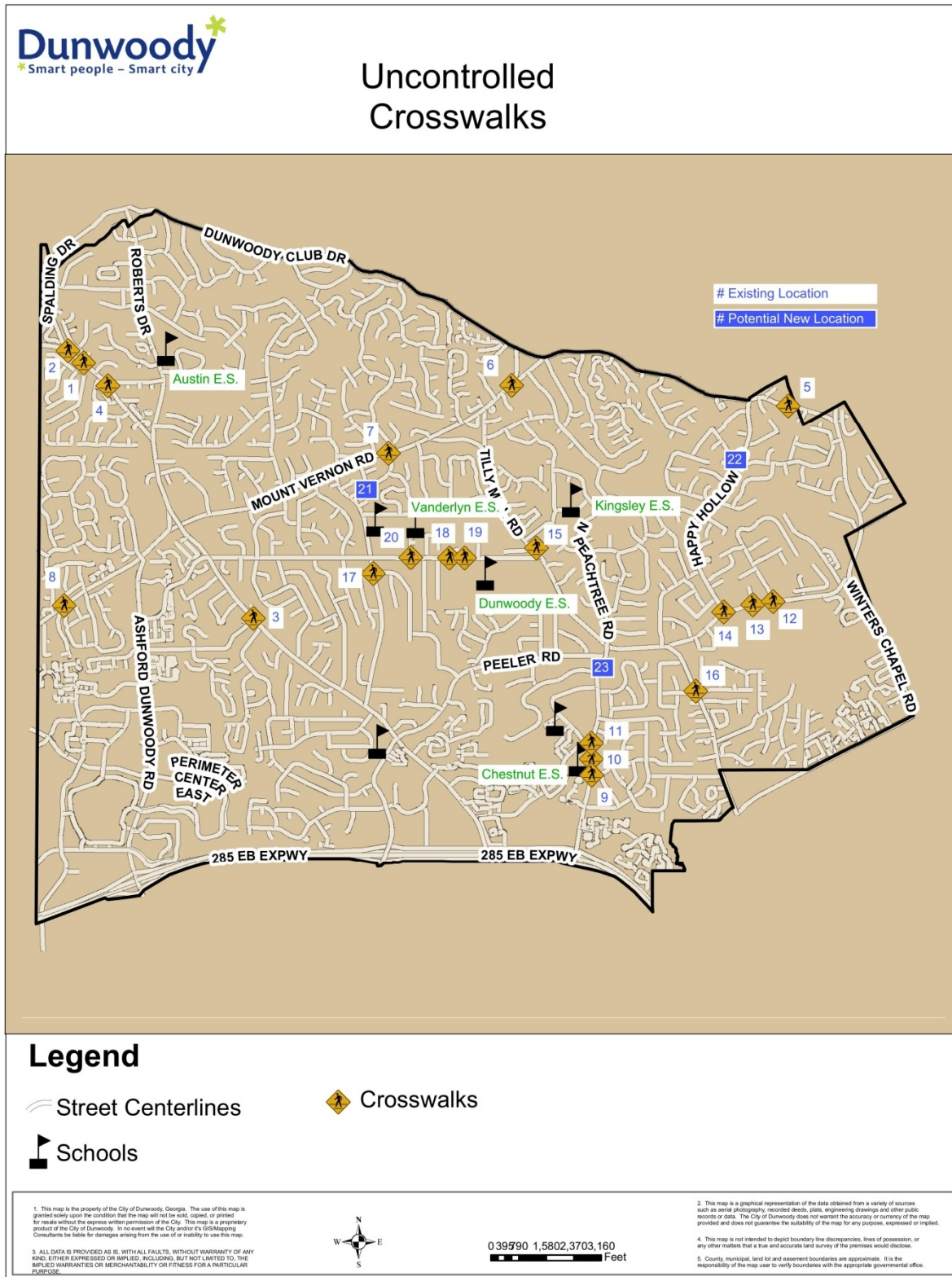


Figure 1. Study Locations

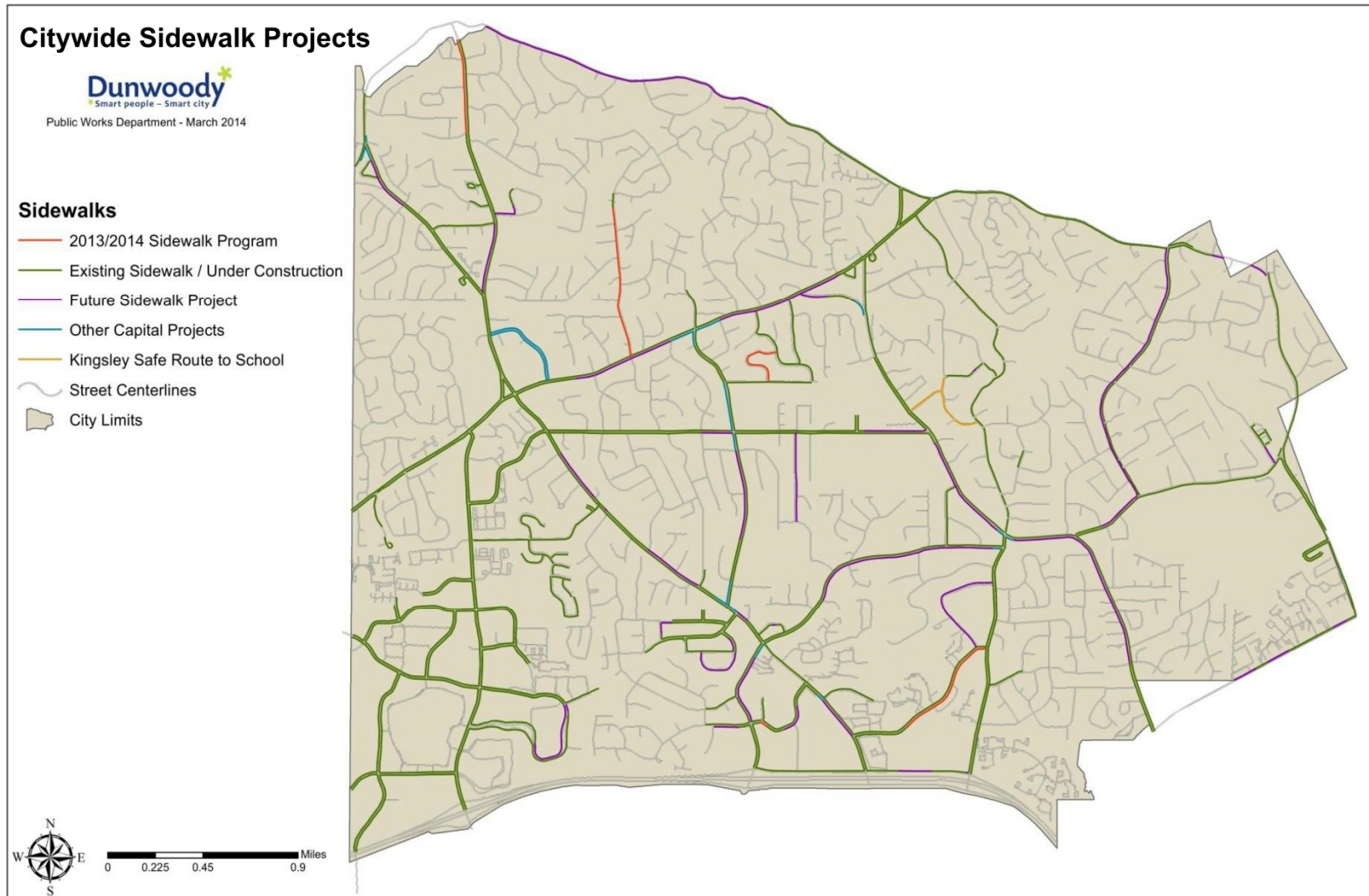


Figure 2. Citywide Sidewalk Projects

Safe Routes to Schools

In 2005, the federal government created a national Safe Routes to Schools (SRTS) program through the transportation bill, SAFETEA-LU, designed to enable and encourage school-aged children K-8 grades to walk/bike to school and to make walking and biking to school safe and more appealing. Funded by the federal program, Georgia's SRTS program funding is for projects with a 2-mile radius of primary and middle schools (grades K-8).

Georgia Department of Transportation (GDOT) is tasked with spending 70 to 90 percent of the federal funding on infrastructure projects and 10 to 30 percent of the funding on non-infrastructure programs (public outreach).

All five of the elementary schools in the City of Dunwoody were considered in this study. Kimley-Horn and Associates, Inc. and the City of Dunwoody held meetings, throughout November and December 2013, with concerned stakeholders at each of the elementary schools to gain feedback about safety concerns and other pedestrian-focused ideas. The information gathered at these meetings was highly considered throughout the study and in particular the process of prioritizing pedestrian crossings for future treatments.

The following are summaries of the conversations with stakeholders at each school. It should be noted that comments were recorded from those present and that they may not accurately reflect the views of all interested parties. Due to the amount of information, the planning team relied on the information provided by stakeholders and was not able to validate all information, concerns, and data provided by the stakeholders present at each meeting.

Vanderlyn Elementary

On November 25, 2013, Kimley-Horn and Associates, Inc. and the City of Dunwoody met with stakeholders from Vanderlyn Elementary School to identify safety concerns in the walking area around the school. The school has approximately 700 students. The location of the school is shown in *Figure 2*. There are two streets through the Dunwoody Corners neighborhood surrounding the school that are of particular concern with future opportunities.

Hensley Drive (study location #21/#21A) is a main cut-through street to Vanderlyn Elementary. Currently, drivers speed around the curve, creating an unsafe area for pedestrians. There are no sidewalks on either side of the street so students either walk on the grass or in the street. The school and stakeholders would like the city to prioritize Hensley Drive as a location for new sidewalks in its sidewalk plan and to provide additional speed control along the street. A new raised crosswalk on the west side of Hensley Drive and Vanderlyn Drive could also be considered as a future project.

Stratham Drive (study location #7 at Stratham Drive and Mount Vernon Road) is used by walkers from the Dunwoody Club Forest subdivision to the elementary school. There is heavy queuing observed on Mount Vernon Road during the AM peak hours and drivers are seen speeding. The school and stakeholders would like the city to consider further treatment to the crosswalk at Mount Vernon Road and Stratham (study location #7) and to use ticketing to calm traffic.

Dunwoody Elementary

On December 9, 2013, Kimley-Horn and Associates, Inc. and the City of Dunwoody met with stakeholders from Dunwoody Elementary School to identify safety concerns in the walking area around the school. The location of the school is shown in *Figure 2*. There were several locations around the school that were identified as safety concerns with possible opportunities for improvement.

The Womack Road and Vermack Road intersection is considered by the stakeholders to be an unsafe intersection for pedestrians. The stakeholders wondered if there is a possibility for the city to provide a traffic officer at this intersection immediately before and after school hours or if an in-road sign can be installed to better warn drivers of the crosswalk. They were also concerned about how a future roundabout in this location would affect pedestrians and whether the intersection project would hold back current/immediate plans for intersection treatments.

The Wyntergate crosswalk (study location #20) was identified as another location of safety concern because the speed limit changes just before the crosswalk during school hours from 25 mph to 35 mph. Consideration could be given to make the School Zone continuous between Mill Stream Court and Windhaven Court. Village Creek Drive also is an area of concern because motorists park on both sides of the street and left-turns cause unsafe conditions for pedestrians. Stakeholders would like parking to be better enforced, due to the lack of sidewalks and pedestrians crossing the street in between cars on a high volume neighborhood street.

Both of the driveway entrances/exits to the elementary school are striped for pedestrians; however, the east crosswalk (study location #19) is underutilized and should not be a priority. During the AM and PM peak hours, the east location only allows right-turns. The west driveway (study location #18) is the only location with a crossing guard, though the street is wide (four-lanes) at the driveway. Other issues and opportunities identified include the lack of sidewalks in the neighborhoods and the need for a new path that avoids the playground and controls access to the school from Village North Court to the south side of the school to provide access from the subdivision.

Austin Elementary

On December 9, 2013, Kimley-Horn and Associates, Inc. and the City of Dunwoody met with stakeholders from Austin Elementary School to identify safety concerns in the walking area around the school. The school has approximately 200 to 300 students who walk to school, utilizing both the back path and the front of the school. The location of the school is shown in *Figure 2*. Several locations around the school were identified as safety concerns with possible opportunities for improvement.

The intersection of Chamblee Dunwoody Road and Redfield Road currently has no sidewalk south of the crosswalk and the road is wide. The width of the road could provide enough space for a pedestrian refuge island in the future. Chamblee Dunwoody Road is also the main corridor that separates part of the Redfield Subdivision from the Redfield Swim and Tennis Club.

Dunwoody Knoll Drive is a major cut-through from Chamblee Dunwoody Road to Roberts Drive. Dunwoody Knoll Drive and Chanel Court could be considered for a new crosswalk. Students currently run across Dunwoody Knoll Drive without giving drivers warning. Similarly, pedestrians have limited mobility on Glenrich Road and Witham Drive. These corridors need sidewalks on both sides of the street, as parked vehicles are creating unsafe conditions for pedestrians. Mill Glen Drive

was identified as a corridor in need of sidewalk enhancements from Roberts Drive to Austin Elementary School.

Other issues and opportunities identified by the meeting attendees were the need for more of a sidewalk buffer along Chamblee Dunwoody Road and Roberts Drive, the need to slow travel speeds along both of these corridors, the importance of continuing the crossing guard in front of the school, and the need to control drivers that are using the surrounding neighborhoods as turn-around locations during the afternoon due to left-turns being prohibited out of the school parking lot.

Chesnut Charter Elementary

On December 13, 2013, Kimley-Horn and Associates, Inc. and the City of Dunwoody met with stakeholders from Chesnut Charter Elementary School to identify safety concerns in the walking area around the school. The school has approximately 100 to 200 students who walk to school out of 500 students. The location of the school is shown in *Figure 2*. Several locations around the school were identified as safety concerns with possible opportunities for improvement.

North Peachtree Road is the corridor of biggest concern for pedestrian safety. The corridor separates most of the student-body from the school and has high volumes each day. There are three crossing locations along North Peachtree Road that connect to Chesnut Elementary School (study locations #9, #10, and #11). Only one of the locations is served by a crossing guard before and after school (study location #10). The corridor from north of Peachford Road (near Peachtree Charter Middle School) to Brookhurst Drive is a School Zone with reduced speeds of 25 mph during school hours. The three major crossings are all considered in this study due to the high volumes along North Peachtree Road.

The intersection of North Peachtree Road and Peachford Road is a concern at both pedestrian crossings. The sight distance along Peachford Road is inadequate to warn drivers of the intersection and pedestrians. Drivers entering the area via Peachford Road are unaware of this condition. Further consideration of treatments at this intersection could be considered. Sidewalks are also planned for the Peachford Road corridor.

The other locations of concern further away from the school are crosswalks along Tilly Mill Road. The school zoning boundary extends east of Tilly Mill Road, yet this area is unsafe for pedestrians to walk to school. Future consideration should be given to improve the crosswalks along this corridor.

Kingsley Elementary

On December 17, 2013, Kimley-Horn and Associates, Inc. and the City of Dunwoody met with stakeholders from Kingsley Elementary School to identify safety concerns in the walking area around the school. The school has approximately 50 to 100 students who walk to school out of 575 students. The location of the school is shown in *Figure 2*. Several locations around the school were identified as safety concerns with possible opportunities for improvement; however, the school already has a SRTS plan and grant in place.

The pedestrian crossings at North Peachtree Road and Davantray Drive and Brendon Drive and Davantray Drive are unsafe for pedestrians and should be considered for future improvements, such as raised tables to slow traffic speeds.

Furthermore, the intersection of Mount Vernon and North Peachtree was identified as a location to be considered for a crosswalk in the future to provide better access for the students residing across

Mount Vernon Road. This location is used as a main crossing on “Walk to School Wednesdays” and is near the All Saints Church crossing (study location #6).

For general pedestrian improvements in the area, a walking path connecting the Kingsley Club to neighborhoods on the east side of Kingsley Lake could provide better access and mobility for students and would be an aesthetic improvement for the surrounding neighborhoods.

Summary of Elementary School Meetings

The areas of concern that were identified at the SRTS meetings at the five elementary schools in Dunwoody were highly considered in this study. Study locations that are near schools were given higher priority, while also considering other sources of data.

Existing Conditions

This section identifies each of the 23 study locations and the attributes at and near the crosswalks. The following attributes were collected in the field in October 2013:

- Nearby School
- Land Uses
- Posted Speeds
- Number of Lanes
- Crosswalk Lengths
- Vehicular Average Daily Traffic
- American Disabilities Act Compliance
- Sight Distance
- Pedestrian Crosswalk Signage
- Advanced Motorist Warning Signage
- Existing Pedestrian Treatments
- Pedestrian Use

Each of the studied locations is listed as follows with the specific attributes that were used to further analyze the potential for improvements through additional pedestrian treatments in the future. Also important to note is that while some crossings may have low conflicting volumes, there may be high longitudinal volumes along the main corridor. The collected data is also shown in *Table 2* in the Analysis section.

1



Chamblee Dunwoody Road at Redfield Road

Nearby School: Austin Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Chamblee Dunwoody Road – 3 (including eastbound right-turn lane)
- Redfield Road – 2

Vehicular ADT: 7,680 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 4 (6)

ADA Compliance: Yes (no domes)

Sight Distance: Sufficient

Lighting: Insufficient

The intersection at Chamblee Dunwoody Road and Redfield Road is located in the northwest quadrant of Dunwoody (#1: See *Figure 2*). There are existing sidewalks on the north side of Chamblee Dunwoody, east and west of the intersection, along with one on the south side of the roadway east of Redfield Road. The current crosswalk striping is worn. There are crosswalk signs on both sides of Chamblee Dunwoody Road and a “State Law: Stop for Pedestrians” in-street sign between the eastbound and westbound through lanes. There are motorist warning signs approximately 215 feet east and 260 feet west of the intersection. The existing treatment at the intersection is an overhead flashing beacon. During observations, two pedestrians mentioned that traffic does not usually stop at the crosswalk for pedestrians.

2



Chamblee Dunwoody Road at Dunwoody Road

Nearby School: Austin Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Chamblee Dunwoody Road – 2
- Dunwoody Road – 2

Vehicular ADT: 7,680 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (1)

ADA Compliance: Yes (with domes)

Sight Distance: Limited

Lighting: Sufficient

The intersection at Chamblee Dunwoody Road and Dunwoody Road is located in the northwest quadrant of Dunwoody (#2: See *Figure 2*). There are existing sidewalks on the north side of Chamblee Dunwoody, east and west of the intersection and at the southwest corner. The current crosswalk striping is in good condition. Vegetation covers the only crosswalk sign that faces westbound travelers on Chamblee Dunwoody Road. There are motorist warning signs

approximately 240 feet east and 220 feet west of the intersection. The edge of road consists of curb and gutter along the north side of Chamblee Dunwoody Road and shoulder along the south side. The sight distance, when crossing southbound, is limited due to the horizontal alignment of the roadway and vegetation. There are no existing treatments to the crosswalks.

3



Chamblee Dunwoody Road at Kings Down Road

Nearby School: Dunwoody Christian Academy

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Chamblee Dunwoody Road – 3 (including northbound right-turn lane)
- Kings Down Road – 2

Vehicular ADT: 8,906 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (0)

ADA Compliance: Yes (no domes) west side*

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Chamblee Dunwoody Road at Kings Down Road is located in the southwest quadrant of Dunwoody (#3: See *Figure 2*). There are existing sidewalks south of the crosswalk on both the east and west sides of Chamblee Dunwoody Road. The current crosswalk striping is in good condition. Pedestrian crossing signage exists at the crosswalk. There are motorist warning signs approximately 340 feet north and 400 feet south of the intersection. The edge of road consists of curb and gutter along both sides of Chamblee Dunwoody Road. There are no existing treatments to the crosswalks.

4



Chamblee Dunwoody Road at Dunwoody Knoll Drive

Nearby School: Austin Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Chamblee Dunwoody Road – 2
- Dunwoody Knoll Drive – 2

Vehicular ADT: 7,680 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (0)

ADA Compliance: Yes (with south side dome)

Sight Distance: Limited

Lighting: Insufficient

The intersection at Chamblee Dunwoody Road and Dunwoody Knoll Drive is located in the northwest quadrant of Dunwoody (#4: See *Figure 2*). There are existing sidewalks on both sides of

Chamblee Dunwoody; however, the width of the sidewalk on the west side of the road is only 4 feet. The current crosswalk striping is in good condition. Vegetation covers the pedestrian crossing sign facing westbound travelers on Chamblee Dunwoody Road. There are motorist warning signs approximately 390 feet north and 370 feet south of the intersection. The edge of road consists of curb and gutter along the north side of Chamblee Dunwoody Road and shoulder along the south side. The sight distance when crossing northbound is limited due to vegetation. While there are no existing treatments to the crosswalks, there are overhanging speed limit beacons to the north and south of the crosswalks for school hours.

5



Dunwoody Club Drive at Dunwoody Club Creek

Nearby School: Seigakuin International

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Dunwoody Club Drive – 2
- Dunwoody Club Creek – 2

Vehicular ADT: 4,548 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (0)

ADA Compliance: Yes (no domes)*

Sight Distance: Limited

Lighting: Sufficient

The intersection at Dunwoody Club Drive and Dunwoody Club Creek is located in the northeast quadrant of Dunwoody (#5: See *Figure 2*). There are existing sidewalks on the south side of Dunwoody Club Drive, east and west of the intersection. The current crosswalk striping is in good condition. There are motorist warning signs approximately 480 feet east and 400 feet west of the intersection, but pedestrian crossing signs at the crosswalk do not exist. The edge of road consists of a shoulder and curb. The sight distance when crossing southbound, facing west, is limited due to the horizontal alignment of the roadway and vegetation. There are no existing treatments to the crosswalks. While the crosswalk is ADA-compliant, the north side ramp is not flush with the crosswalk.

6



Mt. Vernon Road at All Saints Catholic Church Driveway

Nearby School: All Saints Preschool

Land Use: Commercial

Posted Speed: 35 mph

Number of Lanes:

- Mt. Vernon Road – 3
- Jett Ferry Road – 3

Vehicular ADT: 13,705 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 55 (2)

ADA Compliance: Yes (no domes)

Sight Distance: Sufficient

Lighting: Insufficient

The intersection at Mt. Vernon Road and the All Saints Catholic Church driveway is located in the northeast quadrant of Dunwoody (#6: See *Figure 2*). There are existing sidewalks on both sides of Mt. Vernon Road, east and west of the intersection. The current crosswalk striping is in fair condition. There are pedestrian crossing signs on both sides of the roadway; however, the east-facing sign is currently covered by vegetation. Motorist warning signs exist approximately 100 feet east and 92 feet west of the intersection. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks. There is concern that the unsignalized crosswalk is too close to a signalized intersection and could be unsafe for pedestrians during times of heavy traffic and queuing. Also, the west-facing motorist warning sign does not meet the Manual on Uniform Traffic Control Devices (MUTCD) guidelines, which state that an advanced warning sign should be placed 100 feet from the crosswalk in a 35 mph zone.

7



Mt. Vernon Road at Stratham Drive

Nearby School: Vanderlyn Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Mt. Vernon Road – 2
- Stratham Drive – 2

Vehicular ADT: 18,930 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 1 (1)

ADA Compliance: Yes (no domes)

Sight Distance: Limited

Lighting: Insufficient

The intersection at Mt. Vernon Road and Stratham Drive is located in the northeast quadrant of Dunwoody (#7: See *Figure 2*). There is existing sidewalk on the north side of Mt. Vernon Road, east and west of the intersection. The current crosswalk striping is in good condition. Pedestrian crossing signs are posted at the crosswalk. There are motorist warning signs approximately 300 feet east and 480 feet west of the intersection. The edge of road consists of curb and gutter along

the north side of Chamblee Dunwoody Road and shoulder along the south side. The sight distance when crossing southbound is limited due to the horizontal alignment of the roadway and vegetation. There is an existing in-road sign located at the crosswalk.

8



Mt. Vernon Road between Ridgeview Road and Trailbridge Drive

Nearby School: None

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Mt. Vernon Road – 2

Vehicular ADT: 21,909 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 7 (2)

ADA Compliance: Yes (with domes)

Sight Distance: Sufficient

Lighting: Insufficient

The crosswalk on Mt. Vernon Road between Hidden Branch Drive and Trailbridge Drive is located in the northwest quadrant of Dunwoody (#8: See Figure 2). There are existing sidewalks on both sides of Mt. Vernon Road, east and west of the intersection. The current crosswalk striping is in good condition. Pedestrian crossing signs are located on both sides of the crosswalk. Motorist warning signs “State Law: Stop for Pedestrians” are located at Ridgeview Road and east of the crosswalk. The edge of road consists of curb and gutter along both sides of Mt. Vernon Road. Sight distance at the crosswalk is good. Flashing beacons are on the two pedestrian signs at the crosswalk, including pedestrian push buttons.

9



N Peachtree Road at Brookhurst Drive

Nearby School: Chesnut Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- N Peachtree Road – 2
- Brookhurst Drive – 2

Vehicular ADT: 15,378 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 8 (7)

ADA Compliance: Yes (no domes)

Sight Distance: Sufficient

Lighting: Insufficient

The intersection at N Peachtree Road and Brookhurst Drive is located in the southeast quadrant of Dunwoody (#9: See Figure 2). There are existing sidewalks on both sides of N Peachtree Road. The current crosswalk striping is in good condition. Advanced motorist warning signs and pedestrian

crossing signs are not located at the crosswalk. The edge of road consists of curb and gutter. The sight distance for pedestrians is sufficient; however, the sight distance for motorists on Brookhurst Drive is limited behind the stop bar. There are no existing treatments to the crosswalks, although there is an overhead flashing beacon for the School Zone speed limit change. A MARTA bus stop is located at the crosswalk.

10



N Peachtree Road between Peachford Road and Brookhurst Drive

Nearby School: Chesnut Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- N Peachtree Road – 3 (including acceleration/parking lane)

Vehicular ADT: 15,378 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 66 (21)

ADA Compliance: Yes (no domes)

Sight Distance: Limited

Lighting: Sufficient

The crossing on N Peachtree Road between Peachford Road and Brookhurst Drive is located in the southeast quadrant of Dunwoody (#10: See *Figure 2*). There are existing sidewalks on both sides of N Peachtree Road. The sidewalks have no buffer on the west side and a 2 foot buffer on the east side of the road. The current crosswalk striping is in good condition. Pedestrian signage is located at the crosswalk, facing south and approximately 60 feet from the crosswalk facing north. There also is an in-street pedestrian crossing sign and during school arrival and dismissal there is a school crossing guard. There is one motorist warning sign approximately 270 feet to the south of the crosswalk. The edge of road consists of curb and gutter. When facing north, the sight distance for pedestrians crossing eastbound is limited. There is an existing in-road sign at the crosswalk.

11



N Peachtree Road at Peachford Road

Nearby School: Chesnut Elementary School

Land Use: Residential/Commercial

Posted Speed: 35 mph

Number of Lanes:

- N Peachtree Road – 2
- Peachford Road – 2

Vehicular ADT: 15,378 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 7 (4)

ADA Compliance: Yes (no domes on east side)

Sight Distance: Limited

Lighting: Sufficient

The intersection at N Peachtree Road and Peachford Road is located in the southeast quadrant of Dunwoody (#11: See *Figure 2*). There are existing sidewalks on both sides of N Peachtree Road. The sidewalk on the east side has a 2-foot buffer. The sidewalk on the west side has a 10-foot buffer. The current crosswalk striping is in good condition. Pedestrian signage is located at the crosswalk facing north and south. A motorist warning sign is approximately 240 feet north of the intersection, but there is not a south facing advance warning sign. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks. A MARTA bus stop is located at the crosswalk. Stopped buses may limit sight while loading and unloading.

12



Peeler Road at Lakeside Drive

Nearby School: None

Land Use: Residential/Recreational

Posted Speed: 35 mph

Number of Lanes:

- Peeler Road – 2
- Lakeside Drive – 2

Vehicular ADT: 7,670 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (0)

ADA Compliance: Yes (no domes)

Sight Distance: Limited

Lighting: Sufficient

The intersection at Peeler Road and Lakeside Drive is located in the southeast quadrant of Dunwoody (#12: See *Figure 2*). There is an existing sidewalk on the south side of Peeler Road along the reservoir property. The current crosswalk striping is in good condition. Pedestrian signage is located at the crosswalk facing both directions of traffic. There are no advanced motorist warning signs for the crosswalk. The edge of road consists of curb and gutter with a 2-foot buffer. The sight

distance when crossing northbound is limited due to vegetation. There are no existing treatments to the crosswalks.

13



Peeler Road at Windwood Drive

Nearby School: None

Land Use: Residential/Recreational

Posted Speed: 35 mph

Number of Lanes:

- Peeler Road – 2
- Windwood Drive – 2

Vehicular ADT: 7,670 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (0)

ADA Compliance: Yes (no domes)

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Peeler Road and Windwood Drive is located in the southeast quadrant of Dunwoody (#13: See *Figure 2*). There is existing sidewalk on the south side of Peeler Road along the reservoir property. The current crosswalk striping is in good condition. Pedestrian signage is present on both sides of the crosswalk. There are advanced motorist warning signs approximately 330 feet east and 440 feet west of the intersection. The edge of road consists of curb and gutter along the south side of Peeler Road and shoulder along the north side. There are no existing treatments to the crosswalks.

14



Peeler Road at Happy Hollow Road

Nearby School: None

Land Use: Residential/Recreational

Posted Speed: 35 mph

Number of Lanes:

- Peeler Road – 2
- Happy Hollow Road – 2

Vehicular ADT: 6,270 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 1 (1)

ADA Compliance: Yes (no domes)

Sight Distance: Limited

Lighting: Sufficient

The intersection at Peeler Road and Happy Hollow Road is located in the southeast quadrant of Dunwoody (#14: See *Figure 2*). There is existing sidewalk on the south side of Peeler Road and along the east side of Happy Hollow Road. The current crosswalk striping is in good condition. Pedestrian signage is located on both sides of the crosswalk. There are advanced motorist warning signs approximately 340 feet east and 250 feet west of the crosswalk. The edge of road consists of

curb and gutter along both sides of Peeler Road with a 2-foot buffer. The sight distance when crossing northbound is limited due to the horizontal alignment of the roadway and vegetation. There are no existing treatments to the crosswalks.

15



Tilly Mill Road at Dunwoody Glen

Nearby School: Dunwoody Elementary School

Land Use: Residential/Institutional

Posted Speed: 35 mph

Number of Lanes:

- Tilly Mill Road – 3 (including southbound right turn lane)
- Dunwoody Glen – 2

Vehicular ADT: 9,458 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 61 (2)

ADA Compliance: Yes (west/east); No (south)

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Tilly Mill Road and Dunwoody Glen is located in the northeast quadrant of Dunwoody (#15: See *Figure 2*). There are existing sidewalks on both sides of Tilly Mill Road. The current east and west crosswalk striping is in good condition. The south crosswalk is currently worn. Vegetation covers the pedestrian sign that faces southbound traffic on Tilly Mill Road. There are no advanced motorist warning signs for the crosswalks. The edge of road consists of curb and gutter with a 2-foot buffer. There are no existing treatments to the crosswalk.

16



Tilly Mill Road at Andover Drive

Nearby School: Chesnut Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Tilly Mill Road – 3 (including northbound right turn lane)
- Andover Drive – 2

Vehicular ADT: n/a

Peak Hour AM (PM) Pedestrian Volumes: 4 (1)

ADA Compliance: Yes (nodomes); No (SW)

Sight Distance: Sufficient

Lighting: Insufficient

The intersection at Tilly Mill Road and Andover Drive is located in the southeast quadrant of Dunwoody (#16: See *Figure 2*). There is an existing 4-foot wide sidewalk on the east side of Tilly Mill Road. There is a sidewalk buffer to the north of the intersection, but not to the south. The current east crosswalk striping is in good condition while the south crosswalk is worn. Pedestrian

signage is located on both sides of the mainline crosswalk. Advanced motorist warning signs for the crosswalks are located approximately 700 feet to the north and 525 feet to the south. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks.

17



Vermack Road at Parliament Drive

Nearby School: Dunwoody Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- Vermack Road – 2
- Parliament Drive – 2

Vehicular ADT: 5,228 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 3 (2)

ADA Compliance: Yes (with domes); No (NW)

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Vermack Road and Parliament Drive is located in the southwest quadrant of Dunwoody (#17: See *Figure 2*). There are existing sidewalks on the east side of Vermack Road. The current crosswalk striping is worn. Pedestrian signage is located on both sides of the Vermack Road crosswalk. There is an advanced motorist warning sign approximately 380 feet to the south of the mainline crosswalk, facing the northbound approach. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks.

18



Womack Road at Lakeland Woods Court

Nearby School: Dunwoody Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- Womack Road – 4 (west side), 3 (east side)
- Lakeland Woods Court – 2

Vehicular ADT: 7,068 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 2 (7)

ADA Compliance: Yes (SW with domes); No (NW)

Sight Distance: Limited

Lighting: Insufficient

The intersection at Womack Road and Lakeland Woods Court is located in the southeast quadrant of Dunwoody (#18: See *Figure 2*). There are existing sidewalks on the south side of Womack Road and on the north side, west of the intersection. There is a 2-foot grass buffer between the road and the north sidewalk. The current crosswalk striping is in good condition; however, there is no striping for the south side crosswalk. Pedestrian signage is located on both sides of the crosswalk. There is an advanced motorist warning sign approximately 150 feet west of the crosswalk for the eastbound approach, but there is not a warning sign for the westbound approach. There also is and

in street pedestrian sign and a crossing guard present during school arrival and dismissal. The edge of road consists of curb and gutter along the north side of Chamblee Dunwoody Road and shoulder along the south side. Sight distance is limited on the eastbound approach due to the vertical alignment of the road. On the northwest corner of the intersection, the grade of the ramp appears to be too steep to be ADA compliant.

19



Womack Road at Dunwoody Elementary School Driveway

Nearby School: Dunwoody Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- Womack Road – 2
- Driveway – 2

Vehicular ADT: 7,068 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 2 (7)

ADA Compliance: Yes (S with domes); No (N)

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Womack Road and the Dunwoody Elementary School driveway is located in the southeast quadrant of Dunwoody (#19: See Figure 2). There are existing sidewalks on both sides of Womack Road. The current crosswalk striping is in fair condition. Pedestrian signage is located at the crosswalk on both sides of the roadway. An advanced motorist warning sign is only present for the westbound approach, approximately 450 feet east of the crosswalk. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks.

20



Womack Road at Mill Stream Court

Nearby School: Dunwoody Elementary School

Land Use: Residential

Posted Speed: 35 mph (25 mph School Zone)

Number of Lanes:

- Womack Road – 3
- Mill Stream Court – 2

Vehicular ADT: 7,833 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 3 (3)

ADA Compliance: Yes (no domes)

Sight Distance: Sufficient

Lighting: Insufficient

The intersection at Womack Road and Mill Stream Court is located in the southeast quadrant of Dunwoody (#20: See Figure 2). There are existing sidewalks on both sides of Womack Road with 2-foot grass buffers from the roadway. The current crosswalk striping is in good condition. Pedestrian signage is located at the crosswalk on both sides of the roadway; however, the sign on the north

side of the crosswalk presents a sight issue for pedestrians. There are not advanced motorist warning signs on either Womack Road approach to the crosswalk. The edge of road consists of curb and gutter with a 1-foot-wide shoulder in the pavement. There are no existing treatments to the crosswalks, but there is a flashing beacon for the 25 mph School Zone just west of the intersection.

21



Vanderlyn Drive at Hensley Drive

Nearby School: Vanderlyn Elementary School

Land Use: Residential/Recreational

Posted Speed: 25 mph

Number of Lanes:

- Vanderlyn Drive – 2
- Hensley Drive – 2

Vehicular ADT: 3,883 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 6 (24)

ADA Compliance: No (N); Yes (with domes)

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Vanderlyn Drive and Hensley Drive is located in the northeast quadrant of Dunwoody (#21: See *Figure 2*). There is existing sidewalk on the south side of Vanderlyn Drive paralleling the Vanderlyn Elementary School property. The current crosswalk striping is in good condition. There is no pedestrian signage located at the crosswalk on either side of the roadway. There are no advanced motorist warning signs for the crosswalk. A crossing guard is present during school arrival and dismissal. The edge of road consists of curb and gutter. There are no existing treatments to the crosswalks.

21A



Mid-Block of Hensley Drive

Nearby School: Vanderlyn Elementary School

Land Use: Residential/Recreational

Posted Speed: 25 mph

Number of Lanes:

- Hensley Drive - 2

Vehicular ADT: n/a

Peak Hour AM (PM) Pedestrian Volumes: 6 (24)

ADA Compliance: No

Sight Distance: Limited

Lighting: Insufficient

Hensley Drive is located in the northeast quadrant of Dunwoody and is near Vanderlyn Elementary School (#21: See *Figure 2*). There are no existing sidewalks on either side of Hensley Drive. There are no striped crosswalks along the corridor. The edge of road consists of curb and gutter along both sides of Hensley Drive. The sight distance when crossing is limited due to the horizontal and vertical alignment of the roadway.

22



Happy Hollow Road at Fontainebleau Drive

Nearby School: None

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- Happy Hollow Road – 2
- Fontainebleau – 2

Vehicular ADT: 3,223 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 16 (5)

ADA Compliance: No

Sight Distance: Sufficient

Lighting: Sufficient

The intersection at Happy Hollow Road and Fontainebleau Drive is located in the northeast quadrant of Dunwoody (#22: See *Figure 1*). There is an existing sidewalk on the east side of Happy Hollow Road. There are no crosswalks or advanced motorist warning signs for pedestrians. The edge of road consists of curb and gutter with bike lanes.

23



North Peachtree Road at Brook Run Avenue/Georgia Way South

Nearby School: Chesnut Elementary School

Land Use: Residential

Posted Speed: 35 mph

Number of Lanes:

- North Peachtree Road – 3 (including northbound left-turn lane)
- Brook Run Avenue – 2

Vehicular ADT: 11,799 vehicles/day

Peak Hour AM (PM) Pedestrian Volumes: 0 (1)

ADA Compliance: Yes (W, no domes); No (E)

Sight Distance: Limited

Lighting: Sufficient

The intersection at North Peachtree Road and Brook Run Avenue is located in the southeast quadrant of Dunwoody (#23: See *Figure 1*). There are existing 4-foot-wide sidewalks on both sides of North Peachtree Road. There is a 2-foot sidewalk buffer on the east side of the roadway. The only striped crosswalk that exists just connects north and south of the intersection on the east side and is worn. There are no pedestrian or advanced motorist warning signs for the intersection. The edge of road consists of curb. There are no existing treatments to the crosswalks.

Pedestrian Crossing Analysis

This study uses 23 existing or potential crosswalk locations. Once the existing conditions of each crosswalk was observed the Federal Highway Administration (FHWA) *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations* guidelines were used to determine if additional treatments are needed for each study location. The guidance considers the number of lanes, speed limit, and the vehicular average daily traffic, as shown in *Table 1*. The guidelines prioritize crosswalks into three tiers. Tier C states that a crosswalk is a candidate for a marked crosswalk. Tier P states that a possible increase in pedestrian crash risk may occur if crosswalks are added without pedestrian facility enhancements. Tier N, being the most serious tier, states that marked crosswalks alone are insufficient because pedestrian crash risk may be increased by providing marked crosswalks alone. The types of pedestrian facility enhancements that may fulfill the P and N tiers include treatments such as pedestrian refuge island, Rectangular Rapid Flashing Beacons, and in-road signs.

In addition to the FHWA guidelines, each location was evaluated using additional characteristics, as described below and shown in *Table 2*.

- Nearby School
- Crash History
- Presence of a Median
- Conflicting Peak Hour Vehicular Volumes
- Conflicting Peak Hour Pedestrian Volumes
- Crossing Distance

Crosswalks near schools were given the highest priority because they receive the heaviest use and are used predominantly by children.

Crash history was also heavily considered in determining priority crosswalks. There were four pedestrian-related crashes near or at the study locations. These crashes are described on the next pages.

Mount Vernon Road between Ridgeview Road and Trailbridge Drive: “Vehicles 1, 2, and 3 were traveling west on Mount Vernon Road approaching the pedestrian crossing near Ridgeview Road. Vehicle 1 was directly behind Vehicle 2, which was directly behind Vehicle 3. Vehicle 2 and 3 stopped in the roadway for a pedestrian who activated the flashing yellow light. Driver 1 failed to stop in time and struck the rear of Vehicle 2. Vehicle 2 was pushed forward into the rear of Vehicle 3. The driver of vehicle 1 was cited for following too close.”

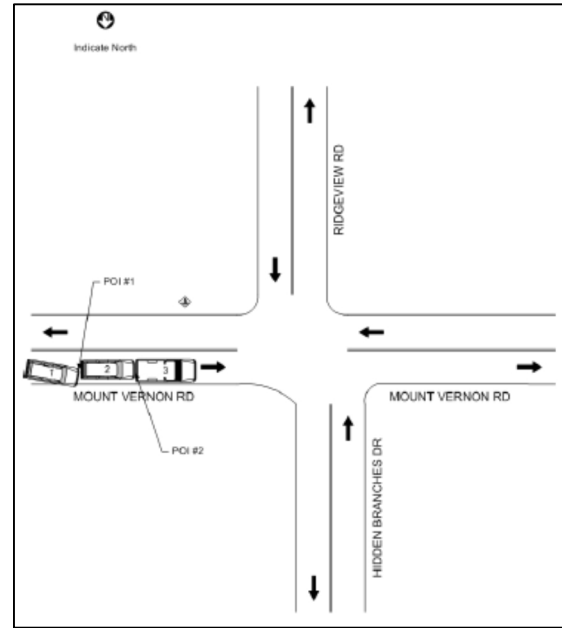


Figure 3. Crash Diagram

Womack Road at Lakeland Wood Court: “Vehicle 1 was traveling east on Womack Road in the right turn lane into Dunwoody Elementary School. Pedestrian 1 (Crossing Guard) came from the south sidewalk area with his handheld stop sign up for Vehicle 1 to stop. Vehicle 1 stopped, proceeded to go and struck the left foot/knee area of the crossing guard. The crossing guard was treated at the scene by DeKalb Rescue 18 for a complaint of left foot/knee pain but refused to be transported to the hospital.”

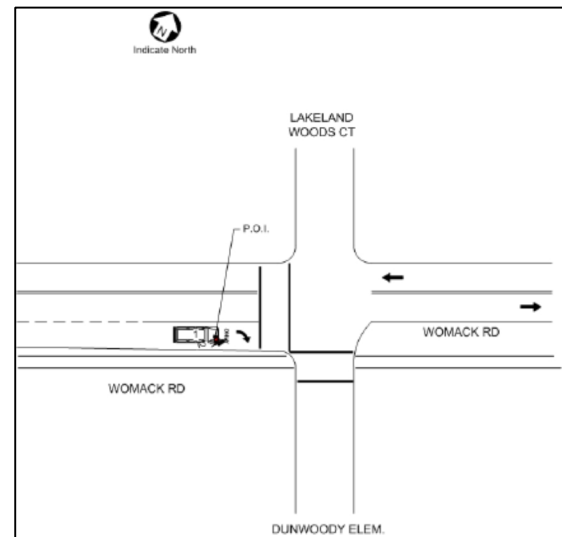


Figure 4. Crash Diagram

Womack Road at Dunwoody Elementary School East Driveway: “Pedestrian 1 stated that she was walking west on the south side of Womack Road on the sidewalk en route to Dunwoody High School where she is a student. Pedestrian 1 stated that as she was standing on the sidewalk prior to crossing the drive to Dunwoody Elementary School (East Driveway), a tan Nissan four-door ran over her left foot with the right-front tire of Vehicle 1. Pedestrian 1 stated that when this occurred, she fell to the ground and into a puddle of water. Pedestrian 1 stated it was raining very hard when this incident took place.”

North Peachtree Road at Peachford Road: “Vehicle 1 was traveling east on Peachford Road and stopped at the stop sign at the intersection of Peachford Road and North Peachtree Road. Pedestrian 1 was crossing North Peachtree Road from the east side to the west side in the crosswalk. Vehicle 1 proceeded to turn left onto North Peachtree Road and struck Pedestrian 1. Pedestrian 1 was transported to Atlanta Medical Center by DeKalb Rescue 18 with a complaint of left knee/hip and back pain. The driver of Vehicle 1 was issued a citation for failure to yield to a pedestrian in a crosswalk.”

North Peachtree Road between Peachford Road and Brookhurst Drive: An incident at this crosswalk location was discussed at the Safe Routes to Schools meeting at Chesnut Elementary School. Pedestrians were crossing at the crosswalk, which was being serviced by a crossing guard at the time. Vehicles were stopped in the travel lane for the pedestrians, while the outside drop-off lane was open. The driver used the outside drop-off lane to avoid the congestion without knowing there was a crosswalk ahead and was forced to react to pedestrians in the crosswalk. The vehicle came to a stop in the crosswalk, avoiding a more serious incident.

While some of these crashes were unavoidable, better striping and better treatments could have made the drivers more aware of the possibility of pedestrians. In the case of the flashing beacon on Mount Vernon Road near Ridgeview Road, drivers were not prepared to yield to a pedestrian. Studies have shown that traditional flashing beacons, such as those present, do not reduce pedestrian crashes, although, the Rectangular Rapid Flashing Beacon has been identified to reduce crashes. Another location that would have benefited greatly from extra crosswalk treatments is the Womack Road at Lakeland Woods Court intersection in front of Dunwoody Elementary School. The driver did not slowdown in time and hit the crossing guard. Pedestrian refuge islands tend to slow drivers while giving pedestrians, or in this case the crossing guard, refuge from vehicles.

Table 2 shows the collected data for each of the study locations and how they scored (C, P, or N) based on the FHWA *Safety Effects of Marked Versus Unmarked Crosswalks at Uncontrolled Locations* guidelines.

Recommendations for installing marked crosswalks and other needed pedestrian improvements at uncontrolled locations.*

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT ≤ 9,000			Vehicle ADT >9,000 to 12,000			Vehicle ADT >12,000–15,000			Vehicle ADT > 15,000		
	Speed Limit**											
	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)	≤ 48.3 km/h (30 mi/h)	56.4 km/h (35 mi/h)	64.4 km/h (40 mi/h)
Two lanes	C	C	P	C	C	P	C	C	N	C	P	N
Three lanes	C	C	P	C	P	P	P	P	N	P	N	N
Multilane (four or more lanes) with raised median***	C	C	P	C	P	N	P	P	N	N	N	N
Multilane (four or more lanes) without raised median	C	P	N	P	P	N	N	N	N	N	N	N

* These guidelines include intersection and midblock locations with no traffic signals or stop signs on the approach to the crossing. They do not apply to school crossings. A two-way center turn lane is not considered a median. Crosswalks should not be installed at locations that could present an increased safety risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone will not make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic-calming measures, curb extensions), as needed, to improve the safety of the crossing. These are general recommendations; good engineering judgment should be used in individual cases for deciding where to install crosswalks.

** Where the speed limit exceeds 64.4 km/h (40 mi/h), marked crosswalks alone should not be used at unsignalized locations.

*** The raised median or crossing island must be at least 1.2 m (4 ft) wide and 1.8 m (6 ft) long to serve adequately as a refuge area for pedestrians, in accordance with MUTCD and American Association of State Highway and Transportation Officials (AASHTO) guidelines.

C = Candidate sites for marked crosswalks. Marked crosswalks must be installed carefully and selectively. Before installing new marked crosswalks, an engineering study is needed to determine whether the location is suitable for a marked crosswalk. For an engineering study, a site review may be sufficient at some locations, while a more indepth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, and other factors may be needed at other sites. It is recommended that a minimum utilization of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) be confirmed at a location before placing a high priority on the installation of a marked crosswalk alone.

P = Possible increase in pedestrian crash risk may occur if crosswalks are added without other pedestrian facility enhancements. These locations should be closely monitored and enhanced with other pedestrian crossing improvements, if necessary, before adding a marked crosswalk.

N = Marked crosswalks alone are insufficient, since pedestrian crash risk may be increased by providing marked crosswalks alone. Consider using other treatments, such as traffic-calming treatments, traffic signals with pedestrian signals where warranted, or other substantial crossing improvement to improve crossing safety for pedestrians.

Table 1

Recommendations

Following the scoring based on FHWA guidance, priority criteria were used to select mitigation recommendations for each location and sort them in prioritized order. Below is a list of the criteria selected to prioritize the potential mitigation projects.

- Located within a school zone
- Potential to improve safety
- Number of pedestrians impacted
- Cost of implementation
- Ease of implementation/constructability

The priority list, which identified locations for further mitigation and priority, is shown in *Table 3*. The prioritized order and treatments were developed based on data collected from visits to the field, laneage/geometry, and cost in addition to the FHWA guidelines score. The highest priority “N” location warrants a Rectangular Rapid Flashing Beacon (RRFB) because it provides a pedestrian refuge island and additional warning for vehicular traffic. In most other cases, the roadway widths and geometry provide enough space for pedestrian refuge islands for high vehicular and pedestrian volume areas. In addition to the RRFB and pedestrian refuge island treatments, other recommendations have been made in *Table 3* for improvements to existing crosswalks for crosswalks that warrant pedestrian facility enhancements and others that warrant a marked crosswalk only. These additional enhancements and maintenance elements include striping stop bars, widening pedestrian sidewalk pads, removing and replacing existing crosswalk striping, installing new sidewalks, complying with ADA guidelines, adding pedestrian and advanced motorist warning signs, and using police enforcement to slow traffic and enforce parking codes. *Table 3* shows the priority rankings and the treatment recommendations for each intersection.

Some locations were chosen not to undergo mitigation because there were low traffic and pedestrian volumes, there was not a school nearby, or the crosswalk had already recently received improvements.

Table 2 Pedestrian Crossing Analysis																	
Location Number	Location	Number of Lanes	Speed Limit (mph)	Median (Y/N)	ADT	Conflicting AM Peak Hour Vehicular	Conflicting PM Peak Hour Vehicular	Conflicting AM Peak Hour Pedestrian	Conflicting PM Peak Hour Pedestrian	7-9 AM Pedestrian Volumes	2-4 PM Pedestrian Volumes	4-6 PM Pedestrian Volumes	Saturday/Sunday Six-Hour Volumes	Crossing Distance (ft)	Pedestrian Crash History	Special Consideration	FHWA Score
1	Chamblee Dunwoody Rd at Redfield Rd	3	35	N	9447	681	544	4	6	6	6	N/A	N/A	51	0	Near Redfield Swim and Tennis Club	P
2	Chamblee Dunwoody Rd at Dunwoody Rd	2	35	N	9447	413	278	0	1	0	1	N/A	N/A	30	0	Near Redfield Swim and Tennis Club	C
3	Chamblee Dunwoody Rd at Kings Down Rd	3	35	N	8906	1404	1196	0	0	0	0	N/A	N/A	38	0	Near Church; Near volume threshold	C
4	Chamblee Dunwoody Rd at Dunwoody Knoll Dr	2	35	N	7680	713	606	0	0	0	0	N/A	N/A	31	0	Austin SRTS Meeting stated heavy use and safety issues	C
5	Dunwoody Club Dr at Dunwoody Club Creek	2	35	N	4548	398	278	0	0	0	0	N/A	N/A	31	0	Bike Lanes planned	C
6	Mt. Vernon Rd at All Saints Catholic Church	3	35	N	13705*	1033	1177	55**	2	2	2	4	94	34	0	Near busy intersection, mixed-use, and queue at signal could interfere	P
7	Mt. Vernon Rd at Stratham Dr	2	35	N	18930	1319	1608	1	1	2	0	1	N/A	40	0	Being considered for improvements by Dunwoody; Wide location	P
8	Mt. Vernon Rd (between Ridgeview Rd & Trailbridge Dr)	2	35	N	21909	N/A	N/A	7	2	11	2	5	N/A	33	1	Flashing Beacons currently in operation; Highest ADT	P
9	N Peachtree Rd at Brookhurst Dr	2	35	N	15378	1241	1398	8	7	8	6	12	N/A	35	0	MARTA Bus Stop and SRTS meeting	P
10	N Peachtree Rd (between Peachford Rd and Brookhurst Dr)	3	35	N	15378	1202	1312	66	21	67	61	22	N/A	38	0	High pedestrian volume across driveway	N
11	N Peachtree Rd at Peachford Rd*****	2	35	N	15378	1119	1294	7	4	9	5	7	N/A	41	1	High pedestrian volume across Peachford Road	P
12	Peeler Rd at Lakeside Dr	2	35	N	7670	655	631	0	0	0	1	0	N/A	27	0		C
13	Peeler Rd at Windwood Dr	2	35	N	7670	662	609	0	0	0	0	0	N/A	27	0		C
14	Peeler Rd at Happy Hollow Rd	2	35	N	6270	756	1028	1	1	2	1	2	N/A	35	0		C
15	Tilly Mill Rd at Dunwoody Glen**	3	35	N	9458	462	906	61***	2	4	6	2	N/A	38	0		P
16	Tilly Mill Rd at Andover Dr	3	35	N	5128	1026	1294	4	1	7	0	8	N/A	37	0		C
17	Vermack Rd at Parliament Dr	2	35	N	5228	659	634	3	2	5	0	5	N/A	41	0		C
18	Womack Rd at Lakeland Woods Ct	4	35	N	7068	826	546	2	7	2	7	N/A	N/A	62	1	4-lanes of traffic, high speeds, school zone	C
19	Womack Rd at Dunwoody Elementary School	2	35	N	7068	816	216	2	7	2	7	N/A	N/A	34	1		C
20	Womack Rd at Mill Stream Ct	3	35	N	7833	894	1010	3	3	6	9	3	N/A	35	0		C
21	Vanderlyn Dr at Hensley Dr	2	25	N	3883	521	268	6	24	8	35	33	N/A	35	0		C
21A	Hensley Dr mid-block	2	25	N	N/A	131	16	6	24	9	35	33	N/A	24	0		C
22	Happy Hollow Rd at Fontainebleau Dr****	2	35	N	3223	1490	305	16***	5***	3	2	11	N/A	37	0		C
23	N Peachtree Rd at Brook Run Ave*****	2	35	N	11799	1305	852	0	1	0	0	1	N/A	31	0	Sight distance, laneage, and park sets up safety concerns; near volume threshold	P

* GDOT reports 19,819 vehicles per day

** AM volumes are based on Saturday/Sunday Church counts

*** Includes pedestrians crossing without crosswalk on north leg

**** Assumes Happy Hollow Rd crossing is on south leg

***** Assumes N Peachtree Rd crossing is on north leg

***** Peachford Road crossing has high pedestrian volumes

=

Study Location located in School Zone

Table 3 Treatment Recommendations by Study Location				
Priority Level	Location Number	Location	FHWA Score	Treatment Recommendation
1	10	N Peachtree Rd (between Peachford Rd and Brookhurst Dr)	N	Rectangular Rapid Flashing Beacons; Move Crosswalk to South Chesnut School Driveway; Stop Bars; Widen Pedestrian Sidewalk Pad
2	6	Mt. Vernon Rd at All Saints Catholic Church	P	Pedestrian Refuge Islands; Remove Existing Crosswalk; Install New Crosswalk; Add Lighting
3	7	Mt. Vernon Rd at Stratham Dr	P	Pedestrian Refuge Island; Remove Existing Crosswalk; Install New Sidewalk; Add Lighting
4	1	Chamblee Dunwoody Rd at Redfield Rd	P	Pedestrian Refuge Island; Add Striping; Install New Sidewalks; Add Lighting
5	23	N Peachtree Rd at Brook Run Ave	P	Pedestrian Refuge Island; Install New Crosswalks
6	15	Tilly Mill Rd at Dunwoody Glen	P	Restripe Crosswalk; ADA Standards; Install In-Road Sign
7	18	Womack Rd at Lakeland Woods Ct	C	Pedestrian Refuge Island; Remove Existing Left-Turn Lane; ADA Standards; Add Lighting
8	3	Chamblee Dunwoody Rd at Kings Down Rd	C	Pedestrian Refuge Island; Reconstruct Curb; Install New Sidewalk
9	11	N Peachtree Rd at Peachford Rd	P	Overhead Warning Signs; Crossing Guard
10	22	Happy Hollow Rd at Fontainebleau Dr	C	Install New Crosswalks
11	21A	Hensley Dr mid-block	C	Install New Sidewalks; Install New Crosswalk; Install In-Road Sign; Add Lighting
12	21	Vanderlyn Dr at Hensley Dr	C	Add Pedestrian and Advanced Warning Signs
13	9	N Peachtree Rd at Brookhurst Dr	P	Remove Crosswalk
14	20	Womack Rd at Mill Stream Ct	C	Combine Dunwoody Elementary and Dunwoody High School school zones; Add Lighting
15	19	Womack Rd at Dunwoody Elementary School	C	Remove Crosswalk
16	5	Dunwoody Club Dr at Dunwoody Club Creek	C	Remove Crosswalk; Complete Sidewalk on North Side
17	17	Vermack Rd at Parliament Dr	C	Enforce On-Street Parking; Restripe Crosswalks
18	4	Chamblee Dunwoody Rd at Dunwoody Knoll Dr	C	Add Pedestrian Signs; Trim Vegetation; Add Lighting
19	2	Chamblee Dunwoody Rd at Dunwoody Rd	C	Trim Vegetation
No Priority Order	8	Mt. Vernon Rd (between Ridgeview Rd & Trailbridge Dr)	P	Improvements Already Made
	12	Peeler Rd at Lakeside Dr	C	No Action
	13	Peeler Rd at Windwood Dr	C	No Action
	14	Peeler Rd at Happy Hollow Rd	C	No Action
	16	Tilly Mill Rd at Andover Dr	C	No Action

Recommended Project Locations

Table 3 shows the prioritized treatment recommendations for each study location. Five locations were found to need no further improvements based on the analysis. The remaining 19 locations were recommended for further mitigation. The major treatment recommendations are discussed below.

The **North Peachtree Road between Peachford Road and Brookhurst Drive (study location #10)** crosswalk is recommended to be treated with a RRFB and moved to a new location at the south Chesnut Elementary School driveway. The crosswalk received a score “N” from the FHWA analysis based on high traffic volumes on North Peachtree Road with moderate vehicular speeds across three travel lanes. It is also located in front of the Chesnut Charter Elementary School and was identified in the Safe Routes to Schools meeting as unsafe for pedestrians. There is currently a crossing guard at the location during school hours, but additional improvements are necessary. In addition to the RRFB, stop bars are proposed for both directions of traffic. It has been observed that vehicles stop too close to the crosswalk before and after school hours. A sidewalk pad on the east side of North Peachtree Road is proposed to be added because the width of the existing sidewalk does not provide enough space for the high volumes of pedestrians before and after school. Included in this recommendation is the removal of the **North Peachtree Road at Brookhurst Drive (study location #9)** crossing, which would also require the relocation of the existing MARTA bus stop. Figure 4 shows the concept design for this location.

Mount Vernon Road at All Saints Catholic Church Driveway (study location #6) is recommended to be treated with pedestrian refuge islands in two different locations. The crosswalk received a score “P” from the FHWA analysis based on high vehicular traffic volumes with moderate vehicular speeds across three travel lanes. This treatment is warranted due to the high volume of pedestrians that cross Mount Vernon Road before and after church service hours. During most weekends, the parking overflows into parking areas north of Mount Vernon Road, causing pedestrians to cross the heavily traveled road. The width of the road provides the space needed for a pedestrian refuge island in front of the church. The second location is proposed for the three-legged intersection of Mount Vernon Road at North Peachtree Road to provide better access for any church overflow parking and for students walking to Kinglsey Elementary School. As stated before, “Walk to School Wednesdays” has a start location north of Mount Vernon Road. At this location, the existing median on North Peachtree Road could be extended to provide additional pedestrian refuge. This median extension is included in the cost estimate. Additionally, the existing crosswalk should be removed. Figure 5 shows the concept design for this location.

Mount Vernon Road at Stratham Drive (study location #7) is recommended to be treated with a pedestrian refuge island. The crosswalk received a score of “P” from the FHWA analysis based on high vehicular traffic volumes with moderate speeds across two travel lanes. Stratham Drive is also used as a major cut-through location for vehicles and pedestrians traveling to Vanderlyn Elementary School and further south. While there currently is not a high volume of pedestrians using the crosswalk, there were pedestrians on both sides of Mount Vernon Road observed while in the field. Removing the acceleration lane exiting Forest Springs Drive will provide the available space needed to add the refuge island. The crosswalk would be moved east of Forest Springs Drive in order to reduce conflicting traffic volumes. Additionally, a new sidewalk is proposed for

installation on the south side of Mount Vernon Road while removing the existing crosswalk. *Figure 6* shows the concept design for this location.

Chamblee Dunwoody Road at Redfield Road (study location #1) is recommended to be treated with a pedestrian refuge island. While the crosswalk received only a score of “C” from the FHWA analysis based on its low traffic volumes with moderate speeds across three travel lanes, there is a high number of pedestrians using the existing crosswalk and it connects the Redfield subdivision. The roadway geometry allows for the necessary space for a refuge island by removing the current southeast-bound deceleration right-turn lane, which is not warranted by the current traffic volumes. Additionally, striping and new sidewalks are proposed to be added to provide safer operations for vehicles and pedestrians. *Figure 7* shows the concept design for this location.

North Peachtree Road at Brook Run Avenue (study location #23) is recommended to be treated with a pedestrian refuge island. The crosswalk received a score of “P” from the FHWA analysis based on high vehicular traffic volumes with moderate speeds across three travel lanes. While there are currently low volumes of pedestrians at the intersection, there are no existing crosswalks that cross North Peachtree Road between Brook Run Park and Saint Patrick’s Episcopal Church to provide the opportunity for pedestrians to cross. There is also a MARTA bus stop located at the intersection that attracts pedestrians. The roadway operations provide an exclusive left-turn lane into Brook Run Park, leaving space open north of the intersection. This space would be better utilized as a pedestrian refuge island. Additionally, new crosswalks would be striped across the park and church driveways. *Figure 8* shows the concept design for this location.

Tilly Mill Road at Dunwoody Glen (study location #15) is not recommended for pedestrian facility treatment, but is a priority location for restriping, complying with ADA standards, and installing an in-road sign. There are high volumes of pedestrians crossing at the intersection on Sundays during church service, in particular. *Figure 9* shows the concept design for this location.

Womack Road at Lakeland Woods Court (study location #18) is recommended to be treated with a pedestrian refuge island. While the crosswalk received only a score of “C” from the FHWA analysis based on its low traffic volumes with moderate speeds across four travel lanes, there are a high number of pedestrians using the existing crosswalk and a previous pedestrian-related crash. The eastbound left-turn lane that enters Lakeland Woods Court does not have the traffic volumes to warrant an exclusive left-turn lane. By removing the left-turn lane, the geometry provides the space for a pedestrian refuge island. The crosswalk would be offset from the intersection to provide the turning radius for left turning vehicles exiting Dunwoody Elementary School and to create a safer condition for pedestrians. The new crosswalk would need to be upgraded to ADA compliance. Included in this recommendation is the removal of the **Womack Road at Dunwoody Elementary School Driveway (study location #9)** crossing. *Figure 10* shows the concept design for this location.

Chamblee Dunwoody Road at Kings Down Road (study location #3) is recommended to be treated with a pedestrian refuge island. While the crosswalk received only a score of “C” from the FHWA analysis, the traffic volumes and speeds are close to the “P” threshold. Combined with the geometry, the location provides the opportunity to install a refuge island. In order to make this concept possible, the east side curb would need to be removed and reconstructed further back from the road to provide for the northbound lane striping taper. Additionally, a new sidewalk would be

installed. Bike lanes are planned along the Chamblee Dunwoody Road corridor, which could impact the proposed concept cost and geometry. *Figure 11* shows the concept design for this location.

North Peachtree Road at Peachford Road (study location #11) is not currently recommended for pedestrian facility upgrades. The crosswalk received a score of “P” from the FHWA analysis based on high traffic volumes with moderate speeds across two travel lanes. There are a high number of pedestrians that use the crosswalks on Peachford Road and North Peachtree Road. The Chesnut Charter Elementary School is located just south of the intersection, which will be accessed by a new RRFB at study location #10. Steps that can be taken to make the intersection safer include providing an additional crossing guard at the intersection during peak travel hours and installing overhead warning signs for vehicles entering the school zone off of Peachford Road.

Study locations **#2, #4, #5, #9, #11, #17, #19, #20, #21, #21A, and #22** are also considered priority project locations because they are near schools and have high volumes of pedestrians using sidewalks in the area. Opportunities at these locations include installing in-road signs, removing crosswalks, installing new sidewalks, trimming vegetation for sight distance, adding lighting, and combining School Zones. Because the opportunities recommended for these locations are more typical, concepts are not included for these locations.

The figures of the concept designs for each of the priority locations are shown in **Figure 5** through **Figure 12**.

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Figure 5. North Peachtree Road between Peachford Road and Brookhurst Drive Concept

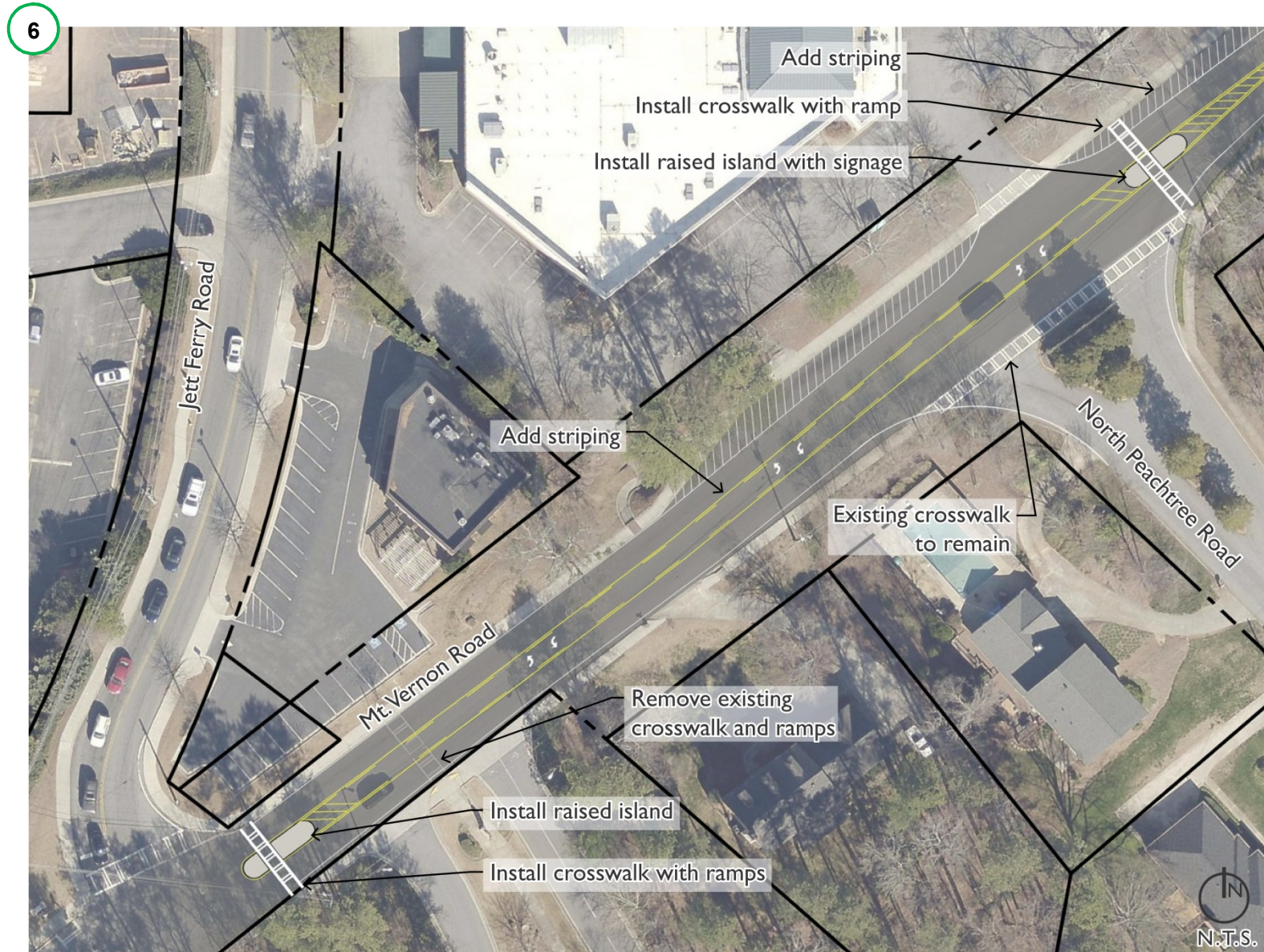


Figure 6. Mount Vernon Road at All Saints Church Driveway Concept



Figure 7. Mount Vernon Road at Stratham Drive Concept

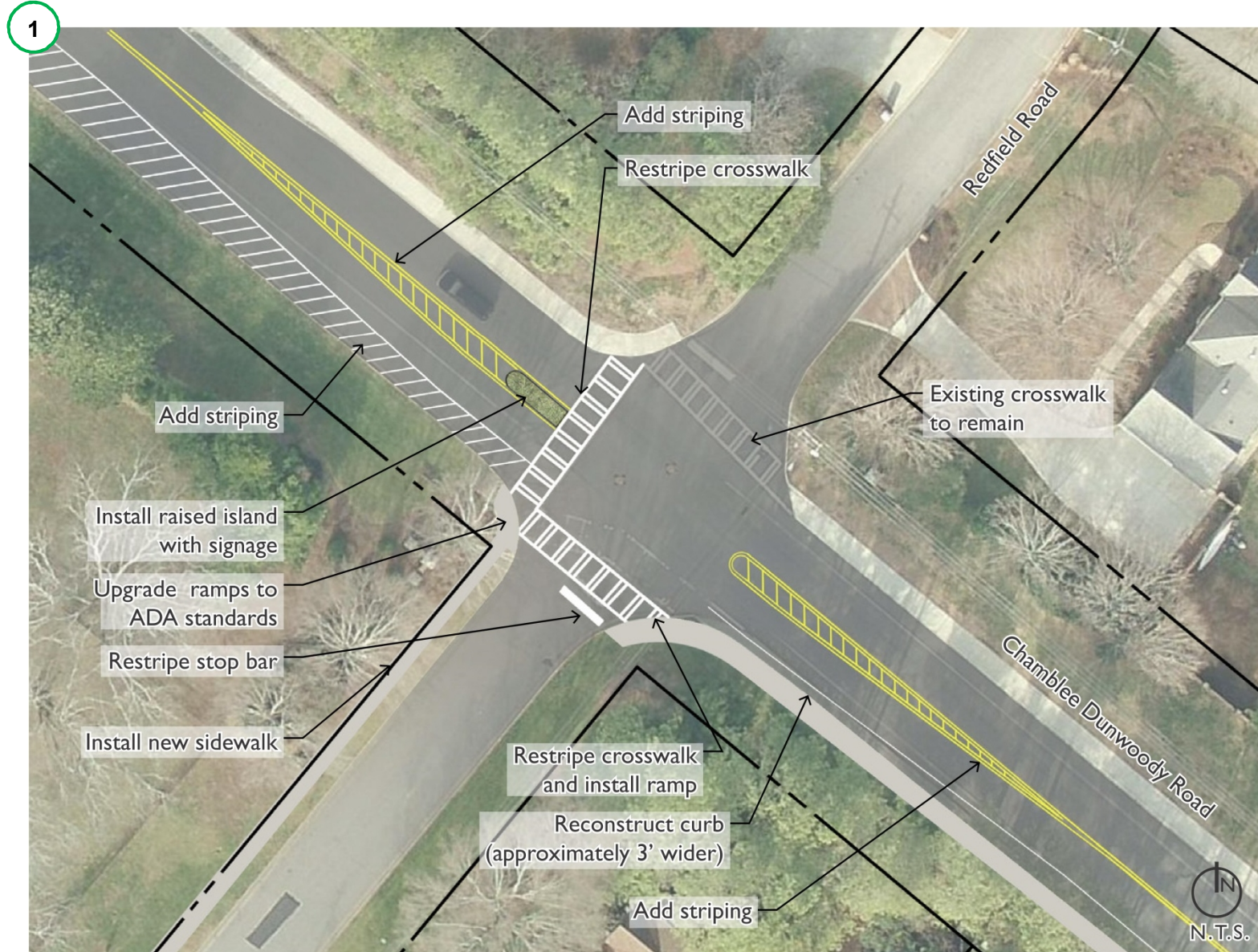


Figure 8. Chamblee Dunwoody Road at Redfield Road Concept

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Figure 9. North Peachtree Road at Brook Run Avenue Concept

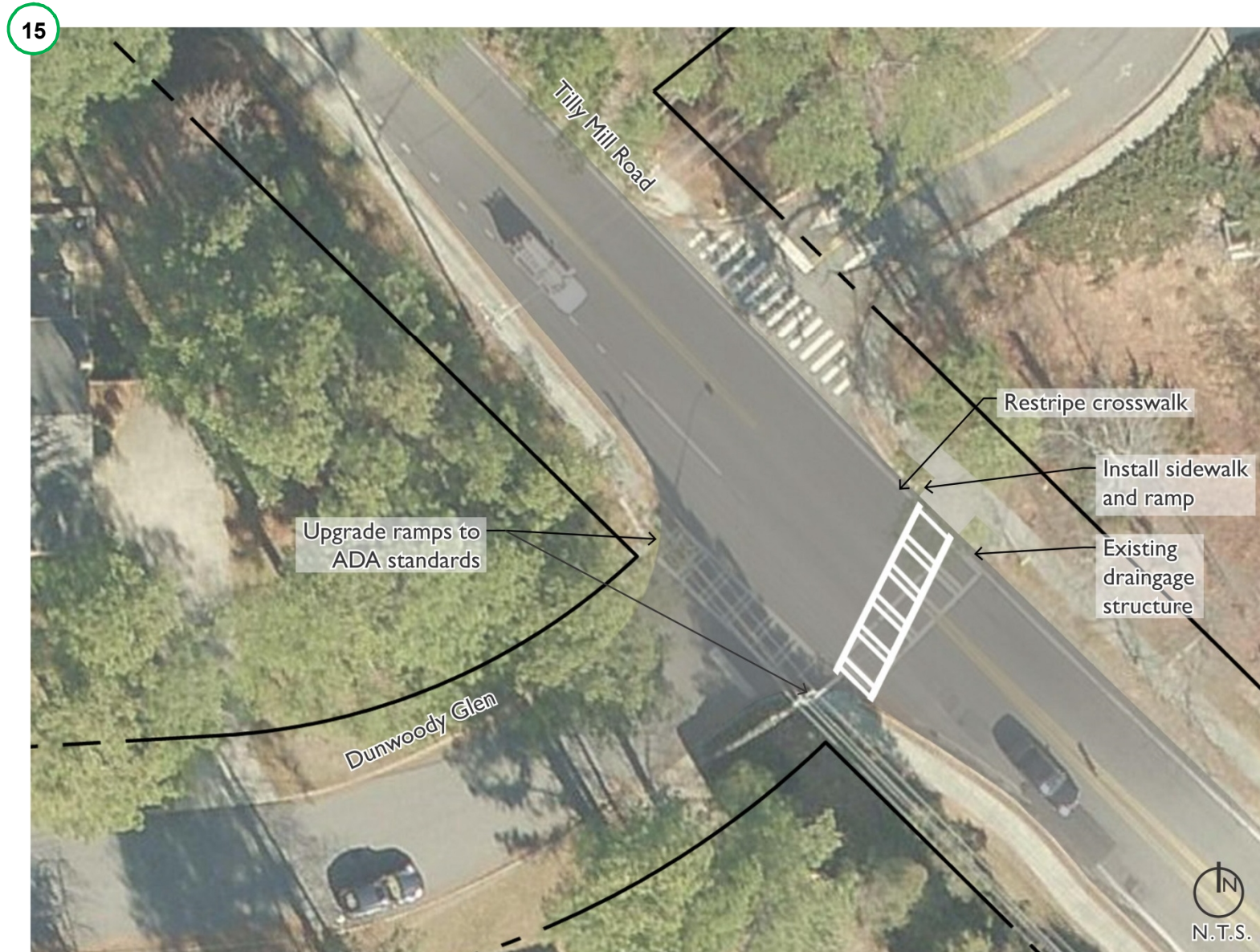


Figure 10. Tilly Mill Road at Dunwoody Glen Concept

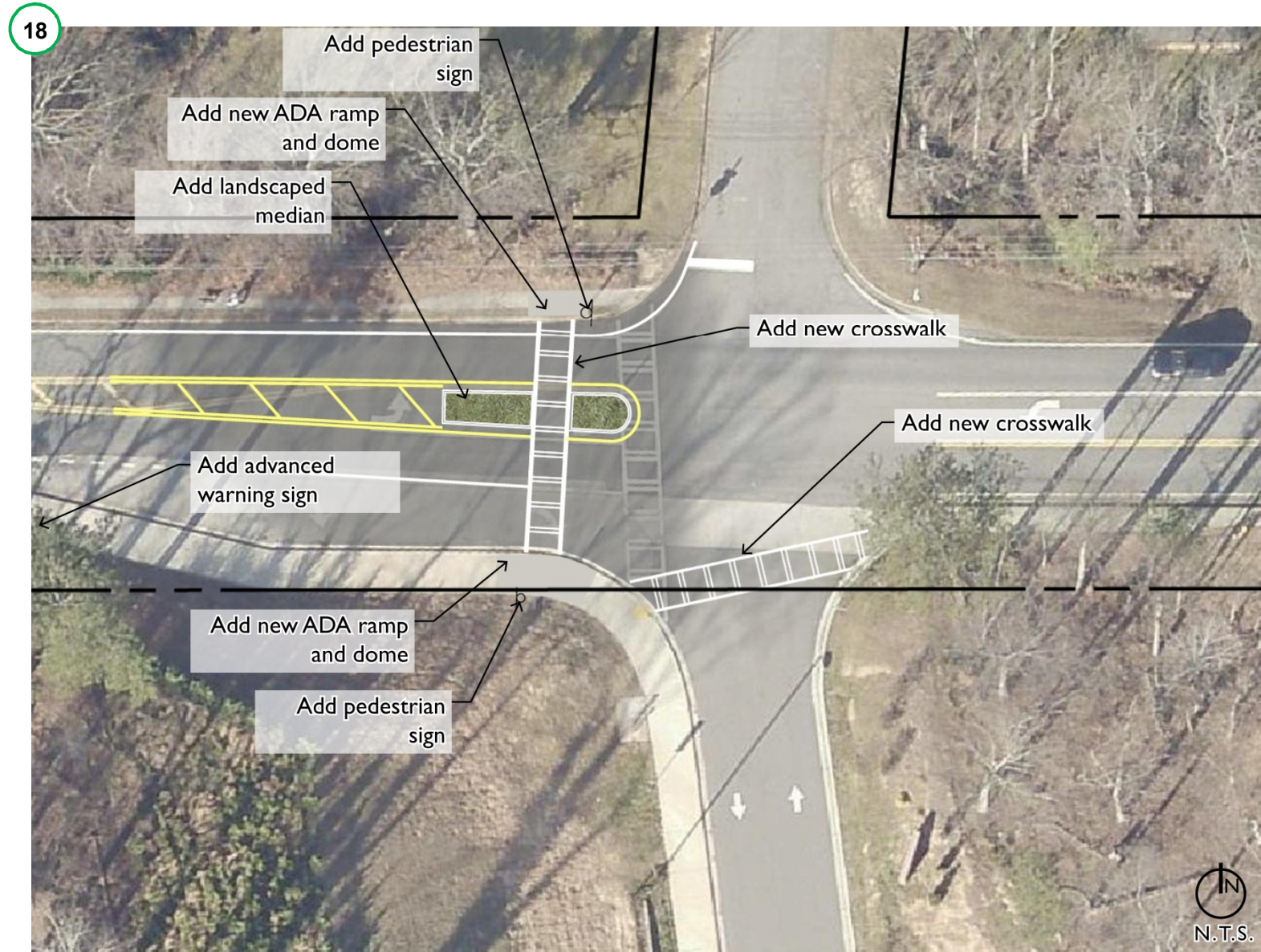


Figure 11. Womack Road at Lakeland Woods Court Concept



Figure 12. Chamblee Dunwoody Road at Kings Down Road Concept

Opinion of Probable Cost

The opinion of probable cost associated with the priority study locations is listed on the next page in *Table 4*. Opinion of cost was determined using *Costs for Pedestrian and Bicyclist Infrastructure Improvements* by the UNC Highway Safety Research Center, which was prepared in 2013 for FHWA as a resource for engineers and planners. The document provides minimum, maximum, and average cost estimates for pedestrian infrastructure projects, including engineering, design, mobilization, and furnish and installation costs. These estimates are based on the collection of up-to-date cost information from states and cities across the country.

The document *Costs for Pedestrian and Bicyclist Infrastructure Improvements* includes large ranges of costs for each element of pedestrian infrastructure. It is important to note that infrastructure cost estimates will likely differ substantially between communities and between states. Additionally, the costs provided in the document may not accurately reflect the constantly changing market price of materials, labor, and mobilization. The cost to remove existing features can also vary widely based on the current infrastructure in place.

It is important to note that *Costs for Pedestrian and Bicyclist Infrastructure* provides each infrastructure component with a large range between the minimum and maximum cost estimates. However, the opinion of probable cost listed on the next page shows a range based on the average cost estimate provided by the document. For example, the opinion of probable cost for the project at North Peachtree Road (between Peachford Road and Brookhurst Road) was determined using the sum of the average estimated cost of advance stop lines, Rectangular Rapid Flashing Beacons, ramp upgrades, and sidewalk extensions.

Table 4
Opinion of Probable Cost

Priority	Location #	Location	Range (\$)
1	10	N Peachtree Road (between Peachford Road and Brookhurst Drive)	\$40,000 - \$60,000
2	6	Mt. Vernon Road at All Saints Catholic Church Driveway	\$42,000 - \$58,000*
3	7	Mt. Vernon Road at Stratham Drive	\$32,000 - \$48,000
4	1	Chamblee Dunwoody Road at Redfield Road	\$32,000 - \$48,000
5	23	N Peachtree Road at Brook Run Avenue	\$16,000 - \$24,000
6	15	Tilly Mill Road at Dunwoody Glen	\$8,000 - \$12,000
7	18	Womack Road at Lakeland Woods Court	\$16,000 - \$24,000
8	3	Chamblee Dunwoody Road at Kings Down Road**	\$34,000 - \$46,000*
9	11	N Peachtree Road at Peachford Road	\$800 - \$1,200
10	22	Happy Hollow Road at Fontainebleau Drive	\$16,000 - \$24,000
11	21A	Hensley Drive mid-block	\$16,000 - \$24,000
12	21	Vanderlyn Drive at Hensley Drive	\$800 - \$1,200
13	9	N Peachtree Road at Brookhurst Drive	\$2,000 - \$3,000
14	20	Womack Road at Mill Stream Court	\$4,000 - \$6,000
15	19	Womack Road at Dunwoody Elementary School	\$2,000 - \$3,000
16	5	Dunwoody Club Drive at Dunwoody Club Creek	\$38,000 - \$56,000
17	17	Vermack Road at Parliament Drive	\$600 - \$800
18	4	Chamblee Dunwoody Road at Dunwoody Knoll Drive	\$4,000 - \$7,000
19	2	Chamblee Dunwoody Road at Dunwoody Road	\$800 - \$1,200

* Includes \$10,000 allowance for side street median improvements to provide pedestrian refuge

** Does not include planned bicycle facility project

Next Steps/Conclusion

After identifying the existing conditions of the study crosswalk locations, Kimley-Horn and Associates, Inc. recommends that the City of Dunwoody set a goal of completing improvements at the nine priority pedestrian locations in the future. The next step in initial pedestrian facility enhancements is to select the top priority locations of the nine and move forward into design and implementation. The proposed pedestrian facility enhancements will provide for safer routes to schools, parks, neighborhoods, and commercial areas and will make the City of Dunwoody a friendlier place for families and walkability-seeking residents to live.