



CORRIDOR

Road Safety Audit

PRINCE AVE/SR 15

Athens-Clarke County, Georgia

October 2014



G R E S H A M
S M I T H A N D
P A R T N E R S



Prepared for the
Georgia Department of Transportation

Prepared by
Gresham, Smith and Partners

In Cooperation with the
US Department of Transportation and FHWA



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EXECUTIVE SUMMARY

A Road Safety Audit (RSA) was performed for Prince Ave/SR 15 from Sunset Drive to Pulaski Street in Athens-Clarke County, Georgia Department of Transportation (GDOT) District 1 on September 30, 2014. The findings and top recommendations detailed in the following report are summarized in Table 1.

The audit team included representatives from Athens-Clark County United Government Transportation and Public Works Department, Athens-Clarke County Police Department, Athens-Clarke County Transit, Bike Athens, Athens Regional Medical Center, University of Georgia, Federal Highway Administration, and a neighborhood advocate. The GDOT team included both District 1 and General Office staff from the Office of Traffic Operations and the Area 2 office.

An extensive field inspection along this corridor was conducted for the audit and included a night field inspection. Findings were discussed at length and are summarized both for the corridor and at specific intersections.

The history of the corridor was discussed briefly, but as appropriate for a road safety audit, the focus of this exercise was on existing conditions, potential safety issues, and the identification of practical and implementable short-term solutions. These are detailed and evaluated in the full report.

Table 1. Top Recommendations

	RECOMMENDATIONS	RESPONSIBLE AGENCY	LEVEL OF EFFORT	TIME FRAME	COST
1.	Install raised islands and medians to calm traffic.	GDOT/ACC	High	High	High
2.	Upgrade pedestrian facilities including ramps, equipment, and signage.	GDOT/ACC	High	Intermediate	Moderate
3.	Install sidewalks where absent.	GDOT/ACC	Moderate	Intermediate	Moderate
4.	Install bulb-outs to improve pedestrian visibility.	ACC	Moderate	Intermediate	Moderate
5.	Initiate parking study to determine local needs.	ACC	Low	Short Term	Low
6.	Close excessive driveways.	ACC	High	Intermediate	Moderate
7.	Install bike lanes.	GDOT/ACC	High	Intermediate	Moderate
8.	Add pedestrian-scale lighting.	ACC	High	Intermediate	Moderate
9.	Consider road diet, either for entire corridor or portions of corridor.	GDOT/ACC	High	Long Term	High

ACC = Athens-Clarke County

LEGEND

<u>LEVEL OF EFFORT</u>	<u>TIME FRAME</u>	<u>COST</u>
Low <i>GDOT or Local Government</i>	Short Term <i>1 to 6 months</i>	Low <i>\$0 to \$100,000</i>
Moderate	Intermediate <i>6 to 24 months</i>	Moderate <i>\$100,000 to \$300,000</i>
High <i>Full PDP Process</i>	Long Term <i>Greater than 24 months</i>	High <i>Greater than \$300,000</i>

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Appendix

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Appendix B – Agenda

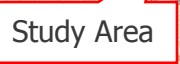
Appendix C – Invitation Letter

Appendix D – Attendees

Appendix E – Crash Data

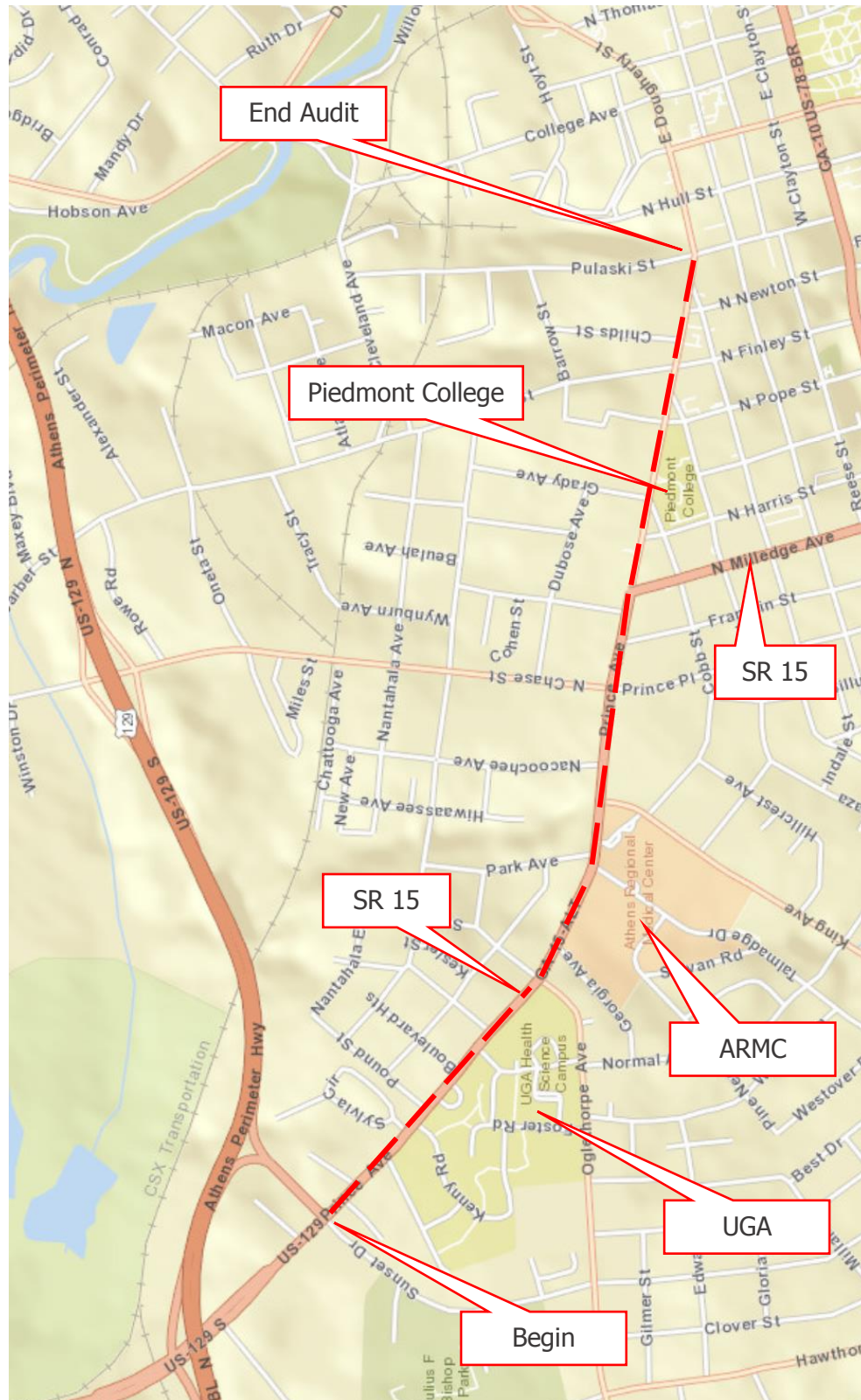
This document is the final report for the Road Safety Audit (RSA) for the portion of Prince Ave/SR 15 beginning at Sunset Drive and extending southward to Pulaski Street in Athens-Clarke County. The corridor is shown in Figure 1.0. The study was commissioned and conducted by GDOT with the assistance of facilitators and professional staff from Gresham, Smith and Partners who met with the audit team for a field inspection and audit meeting on Tuesday, September 30, 2014.

Several studies had been commissioned in the past to study Prince Avenue and were used as supplemental information for this study. However, the goal of this audit was to look at Prince Avenue anew and to identify safety issues along the corridor and opportunities for improvements over time beginning with those things that might be done as short-term, with intermediate and long range efforts and projects being discussed.



Study area in relation to Athens

Figure 1. Project Location/Layout Map



2.0 The Audit

A Road Safety Audit is a formal safety performance examination of an existing or future road or intersection by an audit team. RSAs have been used successfully for a wide variety of locations to identify potential solutions leading to both short-term improvements and longer term efforts including construction projects. It is a proactive tool, not solely dependent on crash data, but rather an innovative approach to identify safety issues to be considered in improvement projects.

The actual audit is a three-step process for the gathered team. These steps are: 1) the pre-audit meeting to review the project information, 2) the field review, and 3) the audit analysis. During these three key steps, the audit team has the opportunity to provide an objective, unbiased summary of safety issues, needs identification and consideration of local conditions, then make suggestions for future short, intermediate, and long term improvements.

In preparation for the team audit meeting, a number of data sets about the corridor were researched, compiled, reviewed, and analyzed. These included traffic volume data, turning movement counts, maps, aerial photographs, previous studies, and crash data.

3.0 Overview of the Study Area

The study area was the segment of Prince Ave beginning at Sunset Drive and extending to Pulaski Street, near downtown Athens. Prince Ave is co-routed with SR 15 from Sunset Drive, an entrance to and exit from Athens Perimeter Highway, to North Milledge Street, where SR 15 follows it into Athens. At North Milledge Street, Prince Ave becomes City Street 1228.

Prince Avenue is an important link between Athens Perimeter Highway and downtown Athens and serves many important institutions. The University of Georgia Health Sciences Campus, Piedmont College, and the Athens Regional Medical Center are on the corridor. Prince Ave also serves many local businesses, provides access to churches and schools, and connects the Normaltown, Boulevard, and Cobbham neighborhoods.

The corridor's typical section is inconsistent. From Sunset Drive to Satula/Oglethorpe Avenue, Prince Ave has 4 travel lanes with no median. There are no bike accommodations. Sidewalk is present on the eastbound side of Prince Ave, but is intermittent on the westbound side. Buffers do not exist between existing sidewalks and the travel lanes. The speed limit is posted at 40 MPH, but actual speeds are higher.

The speed limit drops at Satula/Oglethorpe Avenue to 35 MPH and a flush median is developed until it is dropped at North Chase Street. Sidewalk is present on both sides of Prince Ave, but there are no bike accommodations. On-street parking, angled and parallel, is allowed in the Normaltown commercial area.

From North Chase Street to Pulaski Street, there are 4 travel lanes with no median. The state route turns southward at North Milledge Street, but Prince Avenue continues with this typical section to Pulaski Street. Parallel, on-street parking is allowed from North Milledge Street to Pulaski Street. Sidewalks are present on both sides of Prince Ave, with tree-lined buffers, but there are no bike accommodations, though some Share The Road signs and "sharrows" are present.

Prince Avenue is an important corridor for pedestrians and cyclists to access schools, businesses, and transit. Athens-Clarke County Transit and University of Georgia buses service Prince Avenue with several stops along the corridor. The neighborhoods surrounding the Health Sciences Campus provides housing for students who walk to school and on-street parking for businesses. There are three marked mid-block pedestrian crossings on the corridor: at North Newton Street, at North Pope Street, and near Cobb Street/Grady Avenue.

Prince Avenue is a preferred route for cyclists, however due to inconsistent pavement widths and high traffic, many cyclists are forced onto other side streets or onto the sidewalk. Recreational cyclists who wish to connect to bike routes outside of Athens Perimeter Highway must access Prince Avenue to cross the highway at the Jeffersonville Road/Prince Avenue bridge. Bike lanes do exist on some side streets, like Oglethorpe Avenue, and are provided on the Health Science Campus.

Any improvements within the corridor should be mindful of the impacts to utilities, parking needs of local businesses, neighborhoods, and historic structures on the corridor. On-street parking is present in several sections of the corridor, and is important parking space for businesses. Many do not have adequate parking on-site. The Prince Avenue communities have also expressed concerns regarding tree preservation, particularly trees that help provide a buffer between the sidewalks and travel lanes.



Historic building at Hill Street

4.0 Meeting Summary

The audit team met at the Athens-Clarke County Government Building located at 120 W. Dougherty Street in Athens, near the corridor study area on September 30, 2014. The meeting began at 9:30 AM and commenced with a brief introduction to RSA's. The audit team then discussed the corridor history, known issues, and crash data. The field inspection began after this discussion. The audit team divided into two groups for the field inspection, one began their inspection at Sunset Drive and the other began at Pulaski Street. Both teams evaluated the entire corridor. The day's findings were summarized back at the meeting location and concluded around 4:30 PM. The nighttime inspection began at 7:30 PM.

A list of attendees can be found in Appendix D.

5.0 Crash Data

Crash data was provided by Athens-Clarke County and is included in Appendix E. One concern from the communities along the corridor are unreported, near crashes, especially involving pedestrians and bicycles, that contribute to the perception that Prince Ave is unsafe and unwelcoming for these modes and deters pedestrian and bicycle activities.

Five crashes involving pedestrians have occurred since 2009. Most of these have occurred in the congested area surrounding Georgia Avenue. Eight crashes involving bicycles have been recorded since 2009 along the corridor. The majority of these have occurred at the intersection with North Milledge Street.

6.0 Issues and Potential Enhancement Summary

During the audit meeting and field inspection, it was realized that a number of issues and solutions were common throughout the corridor. These have been identified in the report as “common corridor” issues. These are followed by recommendations specific to individual intersections identified by the audit team as needing improvements.

7.0 Prince Ave

The audit team evaluated Prince Ave from Sunset Drive to Pulaski Street, concentrating on the corridor as a whole and well as individual intersections. The observations of the audit team are listed below. Recommendations were generated based on 4 criteria: safety benefit, level of effort, timeframe, and cost. Safety benefit, level of effort, and cost were rated as high, moderate, and low. Timeframe was rated as short term, intermediate, and long term.

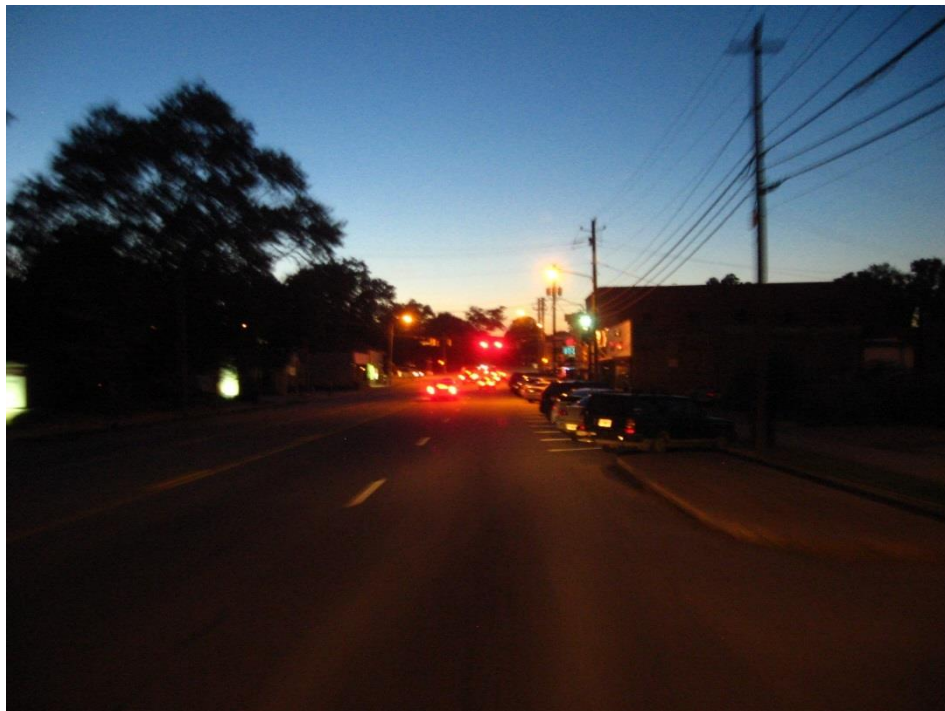
7.1 Common Corridor Recommendations

7.1.1 FINDINGS & TEAM OBSERVATIONS

1. Speeds are high. Traffic calming is needed.
2. ADA ramps and pedestrian equipment are misplaced, outdated, and/or are damaged.
3. Drainage issues along corridor due to misplaced and/or broken inlets, no gutter, and broken curb.
4. Sidewalks are incomplete.
5. Some sidewalks do not have buffers.
6. Poor pedestrian visibility at intersections.
7. On-street parking is inconsistent and unpredictable.
8. Corridor is uncomfortable for bikes.
9. Inconsistent pavement widths.
10. Some crosswalks are long.
11. Missing crosswalks at some locations.
12. Intersection radii is inadequate.
13. High number of driveways.
14. Signage is incorrectly placed and inconsistent across corridor.
15. It is difficult to see pedestrians at night.
16. Turn lanes are missing.
17. Mid-block crossings lack refuge and are inconsistently and/or poorly marked.
18. Utility poles are in clear zone.



No bike lanes exist on Prince Ave



It is difficult to see pedestrians at night



Worn paths exist without sidewalks



Cyclists use sidewalk to avoid Prince Ave



***Share The Road sign is not MUTCD compliant
and hidden by shrubs***



***Pavement markings are not to current standards and
pavement is in poor condition in some areas***

7.1.2 RECOMMENDATIONS & RATINGS

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Add raised islands, medians to calm traffic.	High	High	Long Term	High
2. Upgrade pedestrian facilities, including ramps, reflective truncated domes and equipment.	High	High	Intermediate	Moderate
3. Install sidewalks, with buffers, where missing on corridor.	High	Moderate	Intermediate	Moderate
4. Improve pedestrian visibility through the use of bulb-outs.	High	Moderate	Intermediate	Moderate
5. Initiate a parking study to determine parking needs on corridor.	High	Moderate	Short Term	Moderate
6. Provide bike lanes on corridor to establish predictable space for cyclists.	High	Moderate	Intermediate	Moderate
7. Provide refuge islands and bulb-outs, tighter curbs and radii to shorten long crosswalks.	High	Moderate	Intermediate	Moderate
8. Provide crosswalks at all legs of signalized intersections.	High	Moderate	Intermediate	Moderate
9. Evaluate appropriate radii size for intersections.	Low	Low	Short Term	Low
10. Close excessive driveways and promote interparcel connectivity.	High	High	Intermediate	Moderate
11. Evaluate signage. Remove redundant signs and correct inaccurate signage.	Moderate	Moderate	Intermediate	Moderate
12. Add pedestrian-scale lighting.	High	High	High	High
13. Consider road diet to calm traffic, provide turn lanes, and promote a consistent typical section.	High	High	High	High
14. Consider road diet from N. Milledge to Pulaski (local road) to lower speeds approaching downtown Athens.	High	High	High	High
15. Upgrade mid-block crossings with consistent signage, overhead flashers, and wide pavement markings.	High	High	Intermediate	High
16. Relocate utility poles outside clear zone or underground.	High	High	High	High

7.2 Prince Ave @ Sunset Drive

7.2.1 FINDINGS & TEAM OBSERVATIONS

1. Bicycles use Sunset Drive to bypass Prince Ave, but rejoin Prince Ave at this intersection to cross Athens Perimeter Highway to reach Jefferson Road.
2. A recent intersection project (completed in 2013) installed dual left turn lanes from Prince Ave eastbound to Sunset Drive northbound.
3. Sidewalks are not present at all approaches.
4. A crosswalk is not present on Prince Avenue east.
5. A utility pole in the sidewalk.
6. Driveway is too close to intersection in northeast quadrant.

7.2.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Install sidewalks where missing and remove obstructions from existing sidewalks.	High	Moderate	Intermediate	Moderate
2. Install crosswalks from missing legs of intersection.	High	Moderate	Intermediate	Low
3. Close driveway too close to intersection.	High	Moderate	Intermediate	Moderate

7.3 Prince Ave @ Pound Street

7.3.1 FINDINGS & TEAM OBSERVATIONS

1. Bikes use Boulevard to avoid Prince Ave, but have to access Prince Ave from Pound Street to head north of Athens.
2. This intersection is challenging for bikes to make left turns from Pound Street.
3. Buses and other county vehicles use Pound Street to access bus and county facilities on Pound Street.
4. Illegal on-street parking occurs at the Social Security Administration building.
5. Many drop-offs occur at the Social Security Administration building.
6. Small radii for large turning vehicles, such as buses.

7.3.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Discuss parking and drop-off issues with Social Security administration.	High	Low	Low	Low
2. Provide left turn left from Prince Avenue.	High	High	Intermediate	Moderate
3. Repair and reconstruct drainage structures and gutter.	High	Moderate	Moderate	Moderate



7.4 Prince Ave @ Health Science Campus/Buena Vista Ave

7.4.1 FINDINGS & TEAM OBSERVATIONS

1. Wheelchair ramps point towards Prince Avenue.
2. Sidewalk ends.
3. Jaywalking is a problem here as students cross from the neighborhood on the north to get to the campus on the south.
4. Prince Avenue has a downward grade at this location encouraging higher speeds toward Athens Perimeter Highway.
5. Bike lanes are present on the Health Science campus but have no connection to Prince Ave.



Ramps point toward Prince Avenue



Pedestrian crossing Prince Avenue near UGA Heath Sciences Campus

7.4.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Update pedestrian facilities, including replacing outdated wheelchair ramps.	High	Moderate	Intermediate	Moderate
2. Initiate pedestrian-focused traffic engineering study to determine need for a pedestrian crossing or HAWK signal.	High	Moderate	Intermediate	Moderate

7.5 Prince Ave @ Satula Ave/Oglethorpe Avenue and Georgia Avenue

7.5.1 FINDINGS & TEAM OBSERVATIONS

1. Right turns from Satula/Oglethorpe Avenue must pull through crosswalk to see.
2. Driveways are too close to the intersection.
3. Driveways allows cars to cut through parking lots to avoid intersection.
4. Parked cars blocks sidewalk where right-of-way is not defined.
5. On-street, angled parking causes conflicts with bicyclists.
6. On-street parking makes pedestrian visibility difficult.
7. The speed limit is reduced here, but vehicles do not slow down.
8. Driveways have large pan widths.
9. Bikes use Oglethorpe Avenue to avoid Prince Ave.
10. Pedestrians jaywalk at Georgia Avenue to access Normaltown commercial area.
11. Parked cars have difficulty backing onto Prince Ave.



Parking encroaches on right-of-way



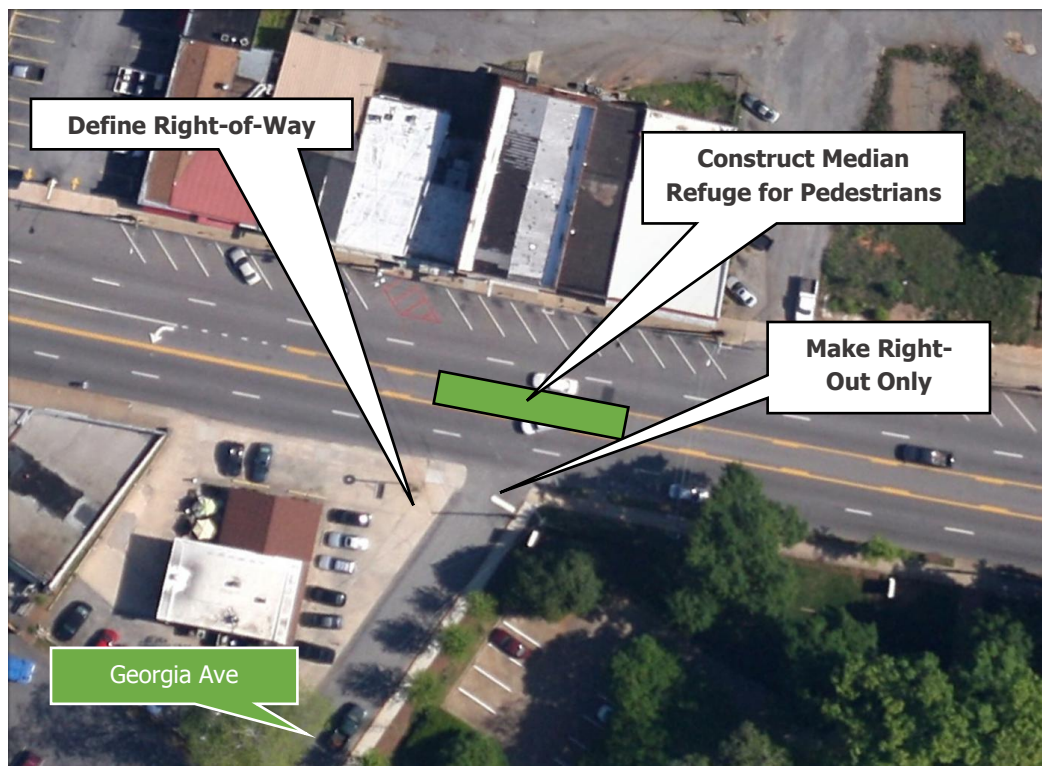
Driveways too close to intersection

7.5.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Restrict Oglethorpe/Satula Avenue right turns on red.	High	Low	Short Tem	Low
2. Close driveways too close to intersection. Reduce driveways with large pan widths.	High	Moderate	Intermediate	Moderate
3. Define sidewalk and right-of-way to prevent encroachment from parked cars.	High	Moderate	Intermediate	Moderate
4. Enhance pedestrian visibility with bulb-outs.	High	Moderate	Intermediate	Moderate
5. Consider reverse angle parking.	Moderate	Moderate	Intermediate	Moderate
6. Reconfigure Georgia Avenue access, consider adding crosswalk and median refuge.	High	High	Long Term	Moderate



Prince Ave @ Oglethorpe/Satula Avenue



Prince Ave @ Georgia Avenue

7.6 Prince Ave @ Park Avenue/Talmadge Drive

7.6.1 FINDINGS & TEAM OBSERVATIONS

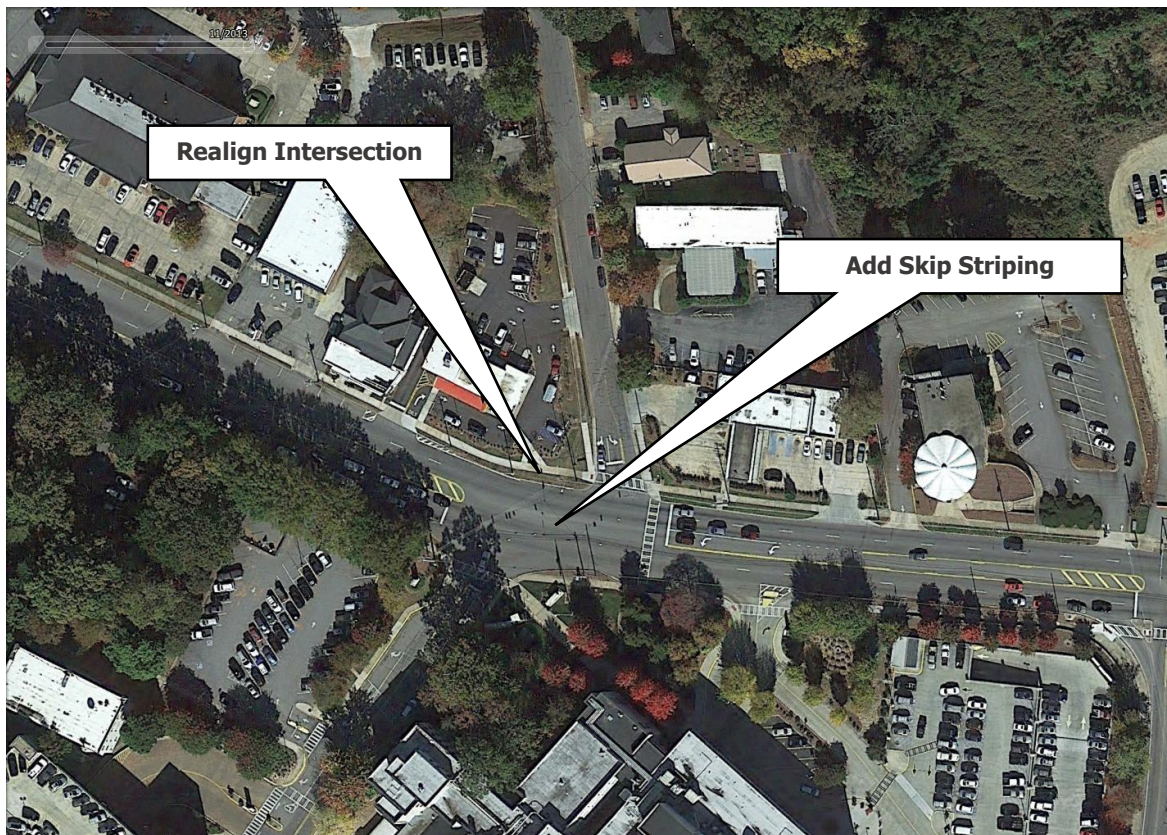
1. Signal phasing is incorrect – pedestrian crossings should be timed with Park Avenue, not Talmadge Drive.
2. Parked cars block the sidewalk at Marty's and Care Medical.
3. Inconsistent pavement width is problematic for bicycles.
4. Bus stop locations are in conflict.
5. Westbound to southbound left turn movement is too long and confusing.
6. Eastbound to northbound left turn movement has no turn lane. It is long and confusing.
7. Pedestrian facilities are lacking.



Car parked on sidewalk near hospital

7.6.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Upgrade signal and correct phasing.	Moderate	Moderate	Intermediate	Moderate
2. Upgrade pedestrian facilities and straighten/shorten crosswalk at Talmadge.	High	Moderate	Intermediate	Moderate
3. Define sidewalk and right-of-way to prevent encroachment from parked cars.	High	Moderate	Intermediate	Moderate
4. Implement recommendations from bus stop study proposed for 2015.	Moderate	Moderate	Intermediate	Moderate
5. Realign Park Ave and Talmadge Drive to common intersection.	High	High	Long Term	High
6. Add skip striping and signage for long left turns.	Moderate	Moderate	Intermediate	Low



Prince Ave @ Park Avenue/Talmadge Drive

7.7 Prince Ave @ King Avenue and Nacoochee Avenue

7.7.1 FINDINGS & TEAM OBSERVATIONS

1. High incidence of pedestrians crossing at this intersection to access hospital parking on north side of Prince Ave.
2. Intersection recently upgraded as part of a Safe Routes To School project, installed contrast crosswalks with a thermoplastic, mock-brick pattern.
3. Vehicles making a right-turn do not stop for pedestrians.
4. Intersection geometry encourages free flow right-turns.
5. Numerous driveways exist between King Avenue and Nacoochee Avenue.
6. Pedestrian signs are incorrectly placed.



Incorrectly placed pedestrian sign at King Ave

7.7.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Reconfigure King Avenue intersection without flares to slow down turning vehicles.	High	Moderate	Intermediate	Moderate
2. Close driveways and establish interparcel connectivity.	High	Moderate	Intermediate	Moderate
3. Add crosswalk on westside of intersection for hospital.	High	Moderate	Intermediate	Low
4. Correct pedestrian signage	Moderate	Low	Short Term	Low



Prince Ave @ King Avenue and Nacoochee Avenue

7.8 Prince Ave @ North Chase Street/Prince Place

7.8.1 FINDINGS & TEAM OBSERVATIONS

1. Undefined sidewalk and right-of-way allows cars to in pedestrian path.
2. Intersection recently upgraded as part of a Safe Routes To School project, installed contrast crosswalks with a thermoplastic, mock-brick pattern.
3. Driveway in deceleration lane taper.
4. Driveways have large pan width.
5. Turning radii are small.
6. Congested intersection where drivers do not expect pedestrians.
7. Significant bike movements due to fact North Chase is a school route.
8. Drainage issues exist at intersection.
9. Westbound right-turns block sight distance for right turns from North Chase Street.
10. Sight distance issues for pedestrians.
11. Utility pole in southwest quadrant too close to Prince Place travel lane, forces tight radius and blocks the view of pedestrians.



Driveways with large pan widths and undefined right-of-way and sidewalk



Parked cars encroach onto sidewalk



***Restricted right-turns when pedestrians are crossing at North Chase Street.
Utilities are distracting to motorist.***



Utility pole too close to travel lane.

7.8.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Define parking areas with curbing.	High	Moderate	Intermediate	Moderate
2. Remove driveways close to intersection and rebuild driveways with smaller pan width.	High	Moderate	Intermediate	Moderate
3. Add drainage inlet.	High	Moderate	Intermediate	Moderate
4. Redesign signal.	Moderate	Moderate	Intermediate	Moderate
5. Relocate utility pole in southwest quadrant.	High	High	Long Term	Moderate

7.9 Prince Ave @ North Milledge Avenue (SR 15)

7.9.1 FINDINGS & TEAM OBSERVATIONS

1. No left turn lanes exist.
2. Right turns have no red phase – free flow right turns at high speeds conflict with pedestrians.
3. Dunkin Doughnuts driveway is too close to intersection.
4. Crosswalk, waiting pedestrians hard to see from Prince Ave.
5. Drainage structures are inadequate.
6. Crosswalk missing on western side of intersection.



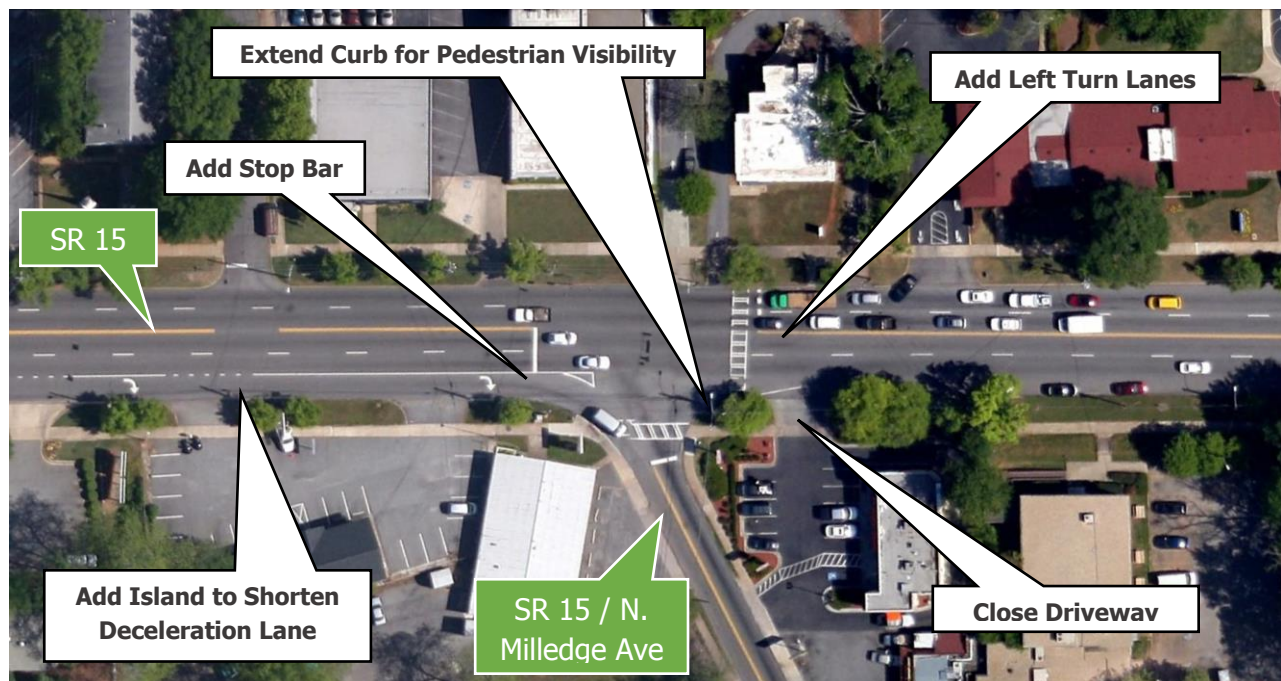
Would be pedestrians obscured by trees and utility poles.



Missing drainage structure

7.9.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Add left turn lanes.	High	High	Intermediate	Moderate
2. Add stop bar.	Moderate	Low	Short Term	Low
3. Define shorter deceleration lane from eastbound Prince Ave to N. Milledge Street.	High	Moderate	Intermediate	Moderate
4. Close driveways too close to intersection.	High	Moderate	Intermediate	Moderate
5. Reprogram signal for a pedestrian leading phase.	High	Low	Short Term	Moderate
6. Rebuild curb, add bulb-out for better pedestrian visibility at Prince Ave crosswalk.	High	Moderate	Intermediate	Moderate

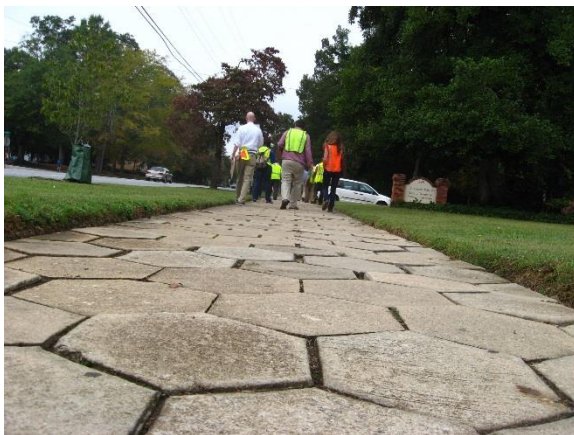


Prince Ave @ N. Milledge Avenue

7.10 Prince Ave @ Cobb Street/Grady Avenue and Mid-Block Crossing

7.10.1 FINDINGS & TEAM OBSERVATIONS

1. Unmarked, long crosswalk across Cobb Street. Refuge island is striped.
2. Mid-Block Crossing has no refuge and poor signage. There are no flashers and crosswalk sign is hidden by trees.
3. Intersections not aligned.
4. Sidewalk consists of octagonal pavers and is in poor condition on the north side of Prince Ave.
5. Without a center turn lane, left turns are difficult for bikes, encourages sidewalk bicycle use.
6. Skew encourages quick left and right turns, especially for right-turns from Cobb Street.
7. High speeds have been noticed.
8. Non-MUTCD standard Share The Road pavement markings and signage exists.



Sidewalk is made of pavers



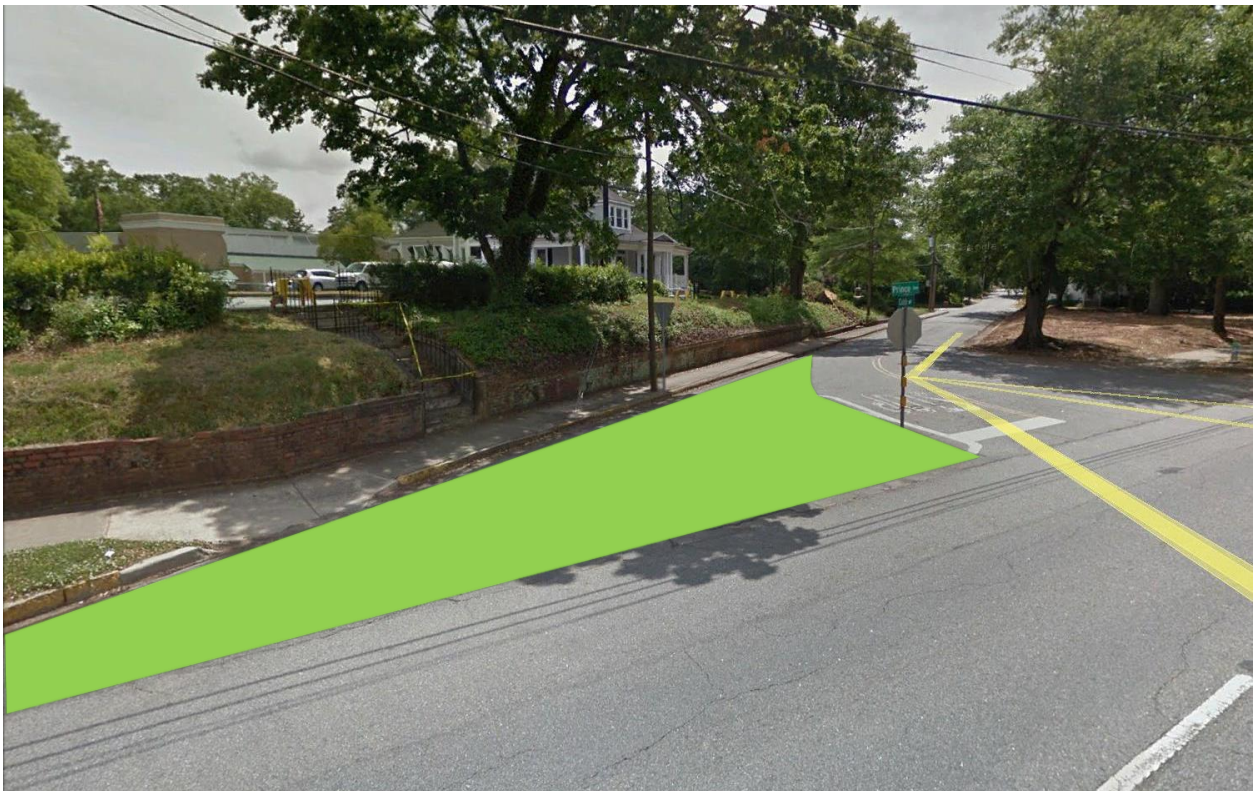
Mid-block crossing signage is not prominent

7.10.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Replace octagonal pavers with concrete sidewalk.	Low	Intermediate	Short Term	Low
2. Move mid-block crossing closer to Cobb Street/Grady Avenue.	Moderate	Moderate	Intermediate	Moderate
3. Sign crosswalk with overhead flashers, or HAWK signal.	High	Moderate	Intermediate	Moderate
4. Slow right-turn movements by adding channelizing island to eliminate skew on Cobb Street.	High	Moderate	Intermediate	Moderate
5. Shorten crosswalk by adding refuge island.	High	Moderate	Intermediate	Moderate
6. Update Share The Road signs and markings	Moderate	Low	Short Term	Low



Existing intersection of Cobb Street and Prince Ave



Recommended pavement removal at Cobb Street and Prince Ave

7.11 Prince Avenue @ North Pope Street/Hill Street

7.11.1 FINDINGS & TEAM OBSERVATIONS

1. Poor sight distance found on North Pope Street northbound, as drivers approach Prince Ave.
2. Cars block crosswalk attempting to see vehicles on Prince Ave.
3. Long crosswalk in road at Hill Street.
4. Left turns problematic for pedestrians and cyclists.
5. High incidence of jaywalking at this intersection.
6. Signs block signs and are not MUTCD compliant.
7. A day school is present on North Pope Street.
8. Obstructions make it difficult for pedestrians to see cars.
9. Rear end collisions occur when cars stop for pedestrians.
10. Sidewalks point to Prince Avenue without crosswalks, encouraging jaywalking.



Mid-block crossing signage is not prominent



Sidewalk, without ramps, point to street



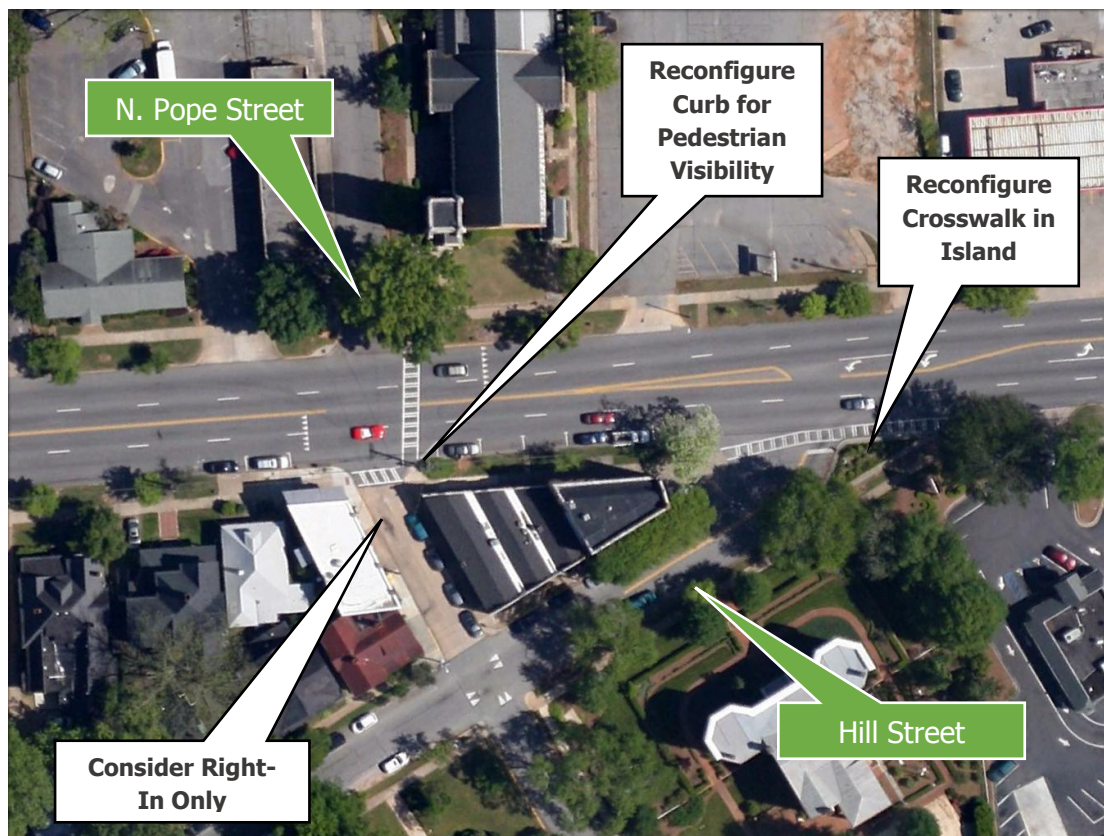
Long crosswalk in roadway



Yield to Pedestrian sign is incorrect.

7.11.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Review North Pope Street, consider making it one-way in.	Moderate	Low	Short Term	Low
2. Evaluate signage and update.	Moderate	Low	Short Term	Low
3. Sign crosswalk with overhead flashers, or HAWK signal. Update pavement markings.	High	Moderate	Intermediate	Moderate
4. Add bulb-outs for better pedestrian visibility.	High	Moderate	Intermediate	Moderate
5. Reconfigure island on Hill Street to accommodate crosswalk.	Moderate	Moderate	Intermediate	Moderate

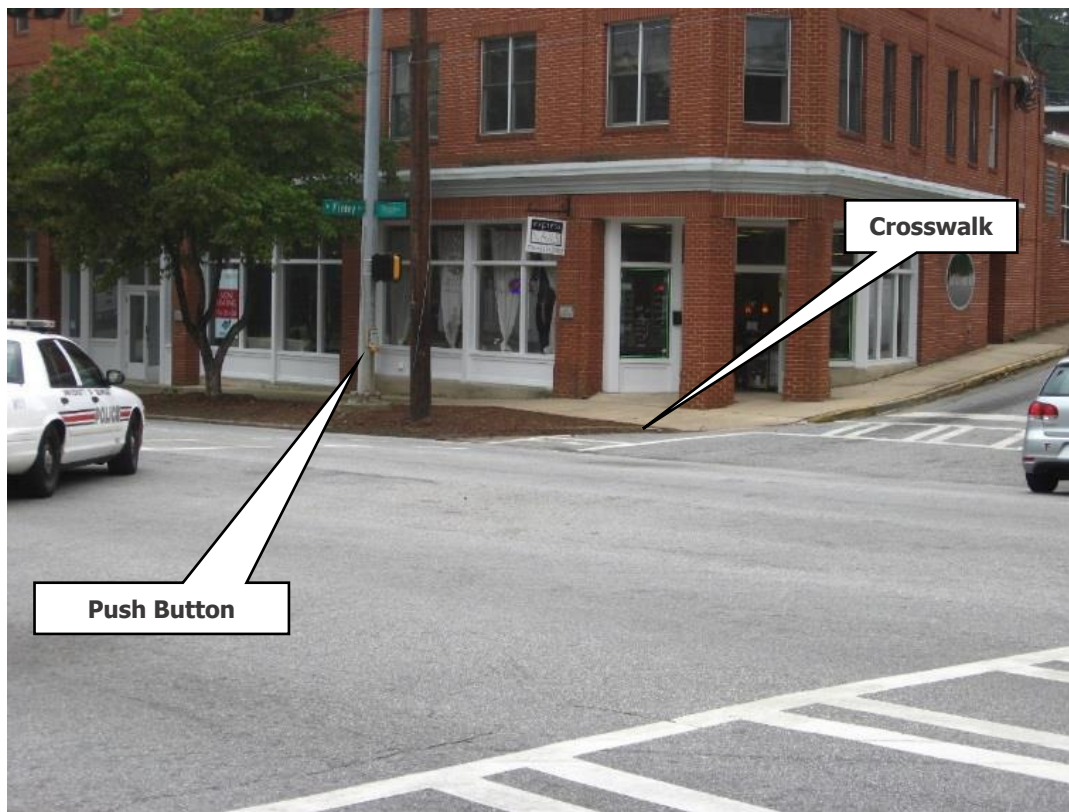


Prince Ave @ North Pope Street & Hill Street

7.12 Prince Ave @ Barber Street/North Finley Street

7.12.1 FINDINGS & TEAM OBSERVATIONS

1. Pavement is in poor shape and is badly rutted.
2. Crosswalks do not match ramps.
3. Too many driveways and they are too wide. Driveways too close to intersection. Many of the crashes at this intersection are attributed to fast food driveways.
4. Shadows in crosswalk.
5. Pedestrian crossing push button is located far from crosswalk.



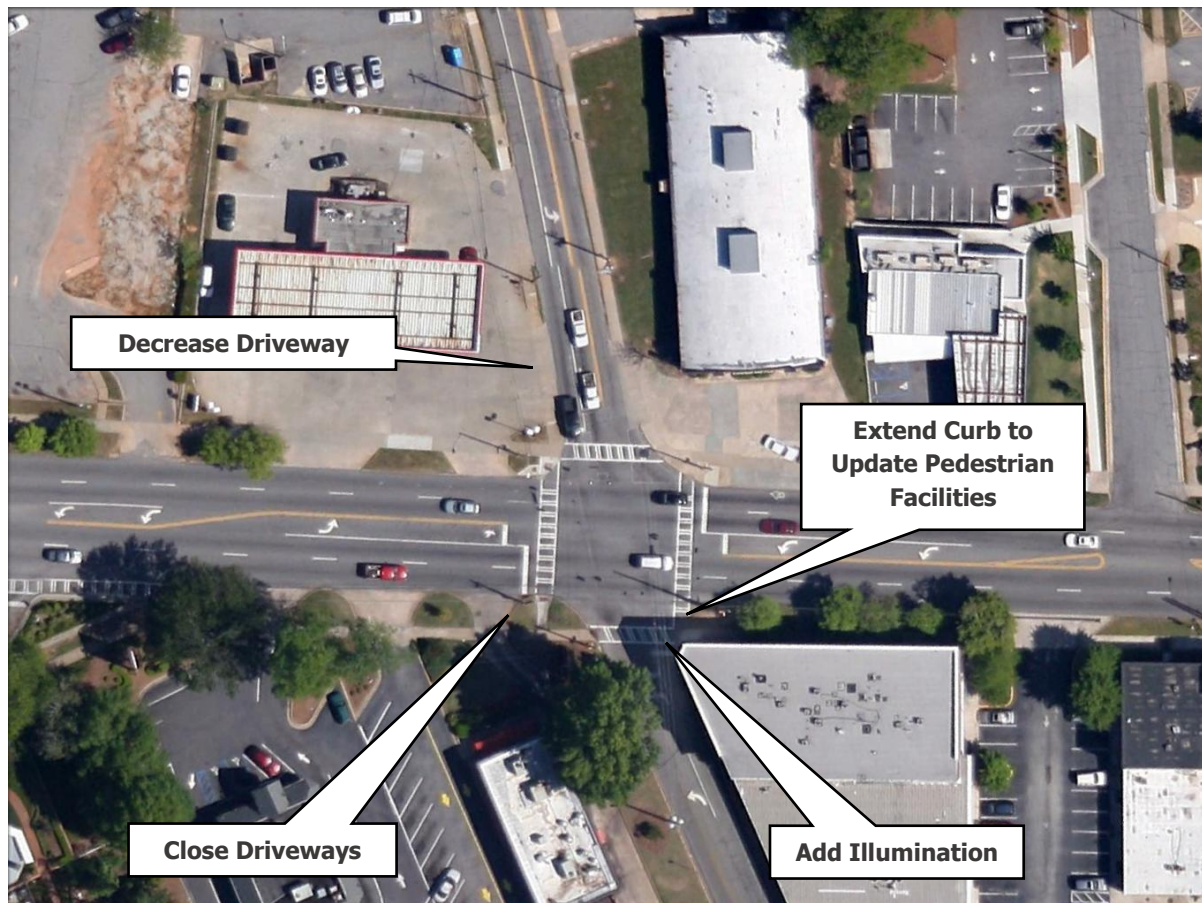
Push button far from crosswalk



Wavy pavement at Barber Street

7.12.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Replace pavement full-depth to remove rutting.	Moderate	Moderate	Intermediate	Moderate
2. Upgrade pedestrian facilities and move push button.	High	Moderate	Intermediate	Moderate
3. Close driveways that are too close to the intersection. Rebuild driveways with smaller pan widths.	High	Moderate	Intermediate	Moderate
4. Add lighting to southwest quadrant.	Moderate	Moderate	Intermediate	Moderate



Prince Ave @ Barber Street/North Findlay Street

7.13 Prince Ave @ North Newton Street/Meigs Street and Mid-Block Crossing

7.13.1 FINDINGS & TEAM OBSERVATIONS

1. Utility poles block pedestrians on both sides of mid-block crossing.
2. Prince Ave crosswalk on wrong side of North Newton Street.
3. Crosswalk empties into driveway.
4. Drainage blocks lane.
5. Long crosswalk across Meigs Street.
6. Angle of intersection leads to high speed turns from Meigs Street to Prince Ave.

*Sidewalk obstructed**Long crosswalk at Meigs Street*7.13.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Remove obstructions from sidewalk.	Moderate	Moderate	Intermediate	Moderate
2. Upgrade pedestrian facilities, move crosswalk to west side of North Newton Street.	High	Moderate	Intermediate	Moderate
3. Slow right-turn movements by adding channelizing island to eliminate skew on Meigs Street.	High	Moderate	Intermediate	Moderate
4. Shorten crosswalk by adding refuge island.	High	Moderate	Intermediate	Moderate

7.14 Prince Ave @ Pulaski Street

7.14.1 FINDINGS & TEAM OBSERVATIONS

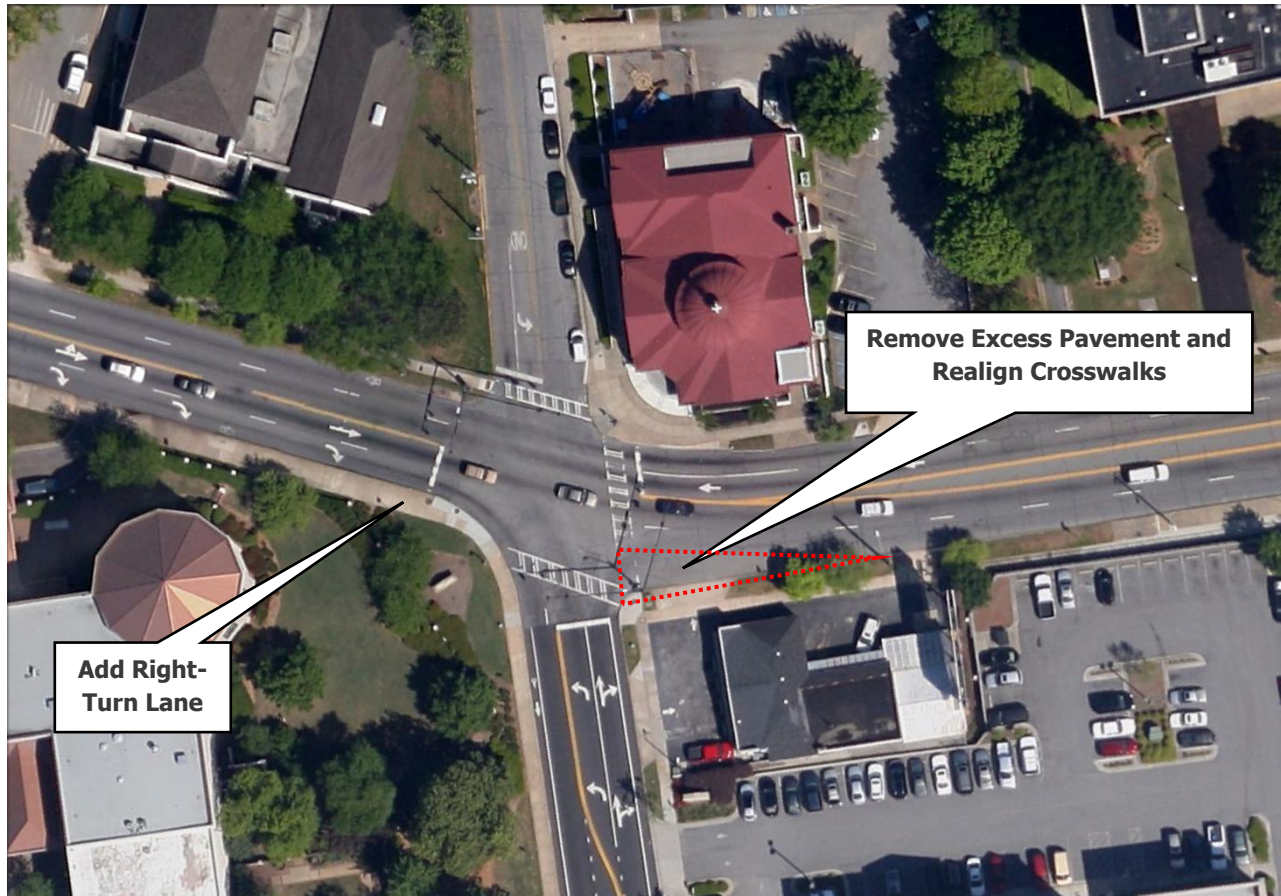
1. A right-turn only lane is needed. Many motorists continue straight instead of turning.
2. Pavement undulates.
3. Share The Road signs are old and small. Bicycle pavement markings are outdated.
4. Crosswalks skewed and missing on some approaches.



Outdated Share the Road signage and pavement markings near Pulaski Street

7.14.2 RECOMMENDATIONS & RATING

	SAFETY BENEFIT	LEVEL OF EFFORT	TIME FRAME	COST
1. Replace pavement full-depth to remove rutting.	Moderate	Moderate	Intermediate	Moderate
2. Upgrade signs and pavement markings.	Moderate	Moderate	Intermediate	Low
3. Reconfigure intersection to remove excess pavement and provide right-turn only lane.	High	High	Long Term	High
4. Straighten crosswalks.	Moderate	Moderate	Intermediate	Moderate



Prince Ave @ Pulaski Street

8.0 Conclusion

This report formally summarizes the findings and recommendations of the audit team. The audit team suggests that the recommendations stated in this report be implemented as resources become available. The responsible agency(s) should document any decisions to modify or eliminate recommendations based on engineering judgment or lack of feasibility.

It was the conclusion of the audit team that there are opportunities for improvement to safety related items as noted in the findings and recommendations sections on the previous pages. From the discussion at the audit and during the field inspection, one primary safety issue is that drivers do not observe the change in roadway characteristics as they proceed down Prince Avenue into downtown Athens. A gateway is needed to inform the driver that the speeds have decreased and the roadway has changed into an urban environment with significant bicycle and pedestrian volumes. It is recommended as part of this report to provide traffic calming through raised medians, islands, and landscaping. This will also give the area a sense of place for the community.

High speeds and traffic congestion, combined with a lack of pedestrian and bicycle facilities, discourages multi-modal use. Sidewalks should be extended across the entire corridor and existing pedestrian facilities enhanced through improved signage, lighting, warning devices, refuge medians, and bulb-outs to encourage pedestrian use. Similarly, inconsistent and unpredictable pavement widths make biking uncomfortable for the many users present on the corridor. Bike lanes should be provided to let cyclists know where they are to be positioned on the roadway and where motorists can expect them to be.

Existing mid-block crossing warnings should be evaluated for appropriateness and upgraded accordingly. Pedestrian crossings should be signed consistently throughout the corridor. Pedestrian crossing should also be considered at the Heath Science Campus and at Georgia Avenue, areas of heavy pedestrian crossing volumes.

The audit team recommends additional studies to address other major issues along the corridor. These include the following:

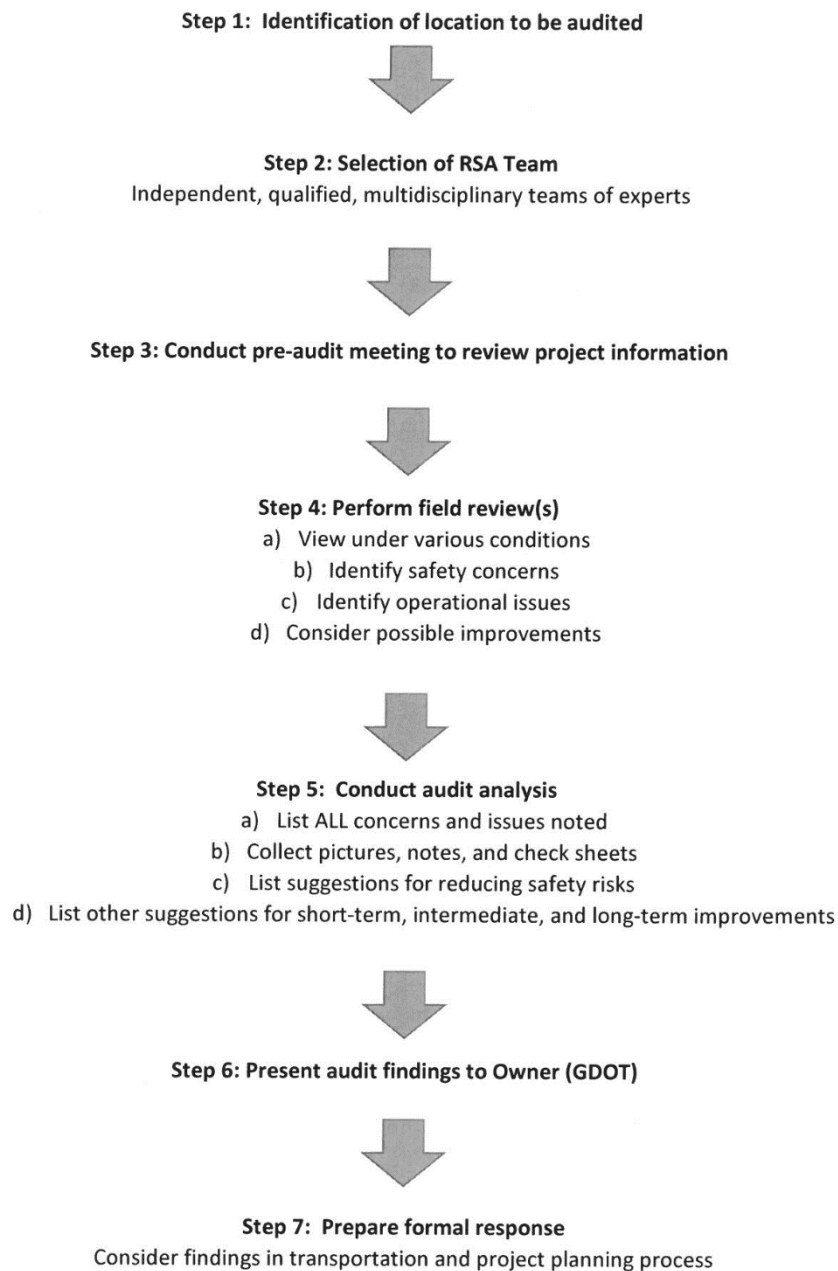
1. A parking study to determine the needs of local businesses and neighborhoods. This should include recommendations on how to best accomplish on-street parking: angled, reverse angle, or parallel.
2. An access management study to close excessive driveways and promote interparcel connectivity and joint-use driveways. Fewer driveways will eliminate turning movement conflicts on the corridor and make sidewalks more inviting for pedestrians and children who cycle on the sidewalk.



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Appendix A – RSA Process: Typical RSA Steps

Road Safety Audit Process: Typical RSA steps include:



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Appendix B – Agenda



G R E S H A M
S M I T H A N D
P A R T N E R S

Roadway Safety Audit
Prince Avenue/SR15 from Sunset Drive to Pulaski Street
Athens/Clarke County, GDOT District 1
AGENDA

GDOT Statewide Roadway Safety Audits
Project #: CSSTP-0011-00(651)
PI No. 0011651
GS&P Project No: 28121.14

MEETING DATE: September 30, 2014

MEETING TIME: 9:30 AM – 5:00 PM

LOCATION: 120 W. Dougherty Street, Athens, GA, 30601

1. Introduction of attendees (9:30 AM)
2. Reasons for having a Road Safety Audit and what they are (9:40 AM)
 - a. RSA process
 - b. Focus on Safety
 - c. Schedule and activities for this RSA.
 - d. Goals for this RSA
3. General Discussion of Road Safety Audit for Prince Avenue and review of RSA folder materials (10:00 – 10:30 AM)
 - a. Limits of the study area – Prince Avenue from Sunset Drive to Pulaski Street
 - b. Discussion of background information.
 - i. Nearby traffic generators
 - ii. Past traffic engineering and other studies.
 - iii. Bikes/Pedestrians

Design Services For The Built Environment

2325 Lakeview Parkway, Suite 300 / Alpharetta, Georgia 30009-7940 / Phone 770.754.0755 / www.greshamsmith.com



AGENDA

Road Safety Audit – Price Ave/SR15 from Sunset Drive to Pulaski Street, Athens/Clark County

Page 2

- iv. Traffic volumes and trends.
 - v. Crash reports, summary and trends
 - 4. Use of checklist – focus on safety issues.
 - a. Identification and enumeration of issues
 - b. Identification and listing of short-term and intermediate potential solutions and safety enhancements along corridor.
 - 5. RSA field inspection. (10:30 AM to 12:30 PM)
 - 6. 12:30PM to 1:30 PM - Lunch arrangements? Local suggestions?
 - 7. Return to 120 W. Dougherty Street by 1:45 PM.
 - 8. Afternoon facilitated session to identify, enumerate and list deficiencies and suggested solutions. (1:45 – 5:00 PM).

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Appendix C – Invitation Letter

Braswell, Jody

Subject: SR 15/Prince Ave. from Sunset Dr. to Pulaski St.
Location: Governmental Building: 120 W. Daughtery St., Athens, GA 30601

Start: Tue 9/30/2014 9:30 AM
End: Tue 9/30/2014 5:00 PM
Show Time As: Out of Office

Recurrence: (none)

Meeting Status: Accepted

Organizer: Turpeau Jr, Michael

Dear Road Safety Audit Participant:

The Georgia Department of Transportation has determined that a Road Safety Audit (RSA) is appropriate for the location described above. You have been identified as a potential member of the Audit team because of your expertise and experience in local conditions, traffic engineering, safety, roadway design, traffic operations, human factors or some other knowledge specialty area that may be useful in identifying practical solutions for this location. Therefore, your participation is requested for the Audit.

The RSA for this location is expected to require approximately a day of your time. Realizing that this is a major investment of effort, please accept this letter as an expression of appreciation for your consideration and hopefully, your participation. An RSA is a formal safety performance examination of a roadway section or intersection performed by an independent, qualified and multidisciplinary team of experts to identify potential solutions to improve the safety of the selected roadway location. The design of the location will be considered, this is NOT a design activity, but rather a positive opportunity to identify short-term, intermediate and long-term solutions which can be considered for implementation by the Department in cooperation with the local governments and the community in the immediate vicinity of the location.

As stated above, it is anticipated that this RSA will require a day of your time and it will be performed on Tuesday September 30th. It will begin at 9:30 a.m. with a briefing meeting held at the Governmental Building at the address above. At the meeting, we will furnish all the materials and information you will need to perform the field inspection, which will be held immediately following the briefing and then we will break for lunch. We will then return to Governmental Building for a debriefing meeting to consolidate your observations and recommendations. A second inspection will be performed after-dark. Your participation in the after-dark field visit is encouraged but not required. The purpose of the after-dark inspection will be to determine the existing conditions at the site under limited visibility conditions and to identify those specific improvements related to nighttime operations. These observations will be included in the report as well. A final report including recommendations for improvements and further action by the Department will be returned to you by November 14th, 2014.

Again, your participation in this activity is greatly appreciated. A response to let us know your availability for the meetings and inspection will be very helpful. If there are any questions please contact Michael Turpeau Jr. at (404)635-2831.

Thank you,
Kathy Zahul
State Traffic Engineer

Georgia DOT partners with Georgia Commute Options to promote commute alternatives in metro Atlanta. Get more by driving less. Save money, reduce stress and have time to work, rest or relax while someone else drives. Find out more at 1-877-9GA-OPTIONS (1-877-942-6784) or visit us at <http://www.dot.ga.gov>; follow us on <http://www.facebook.com/GeorgiaCommuteOptions>, or <http://www.facebook.com/GeorgiaDOT> and <http://twitter.com/gadepthoftrans>

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Appendix E – Crash Data

Provided by Athens-Clarke County United Government Transportation and Public Works Department

Location: Prince Ave. at Sunset Dr.

Appendix E

Location: Prince Ave. at Georgia Ave.

Appendix E

Location: Prince Ave. at Oglethorpe Ave. and Satula Ave.

Appendix E

Location: Prince Ave. at Talmadge Dr. and Park Ave.

Appendix E

Crash Summary

Location: Prince Ave. between Talmadge Dr. and King Ave.

Year	Angle			Type Of Crash								Total	Bicycle	Animal	Fixed Object	Injury	Fatality
	Left-Turn	Thru	Right-Turn	Head On	Rear End	Side Swipe Same Direction	Side Swipe Opposite Direction	Left Turn	Ped	Fixed Object	Animal						
1/1/2009 - 12/31/2009	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0
1/1/2010 - 12/31/2010	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1/1/2011 - 12/31/2011	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1/1/2012 - 12/31/2012	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1/1/2013 - 12/31/2013	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0
1/1/2014 - 8/31/2014	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	1	0	0	0	0	0	0	1	2	0	0	4	0

Location: Prince Ave. at King Ave.

Appendix E

Location: Prince Ave. at Nacoochee Ave.

Appendix E

Crash Summary

Location: Prince Ave. at N. Milledge Ave.

Year	Type Of Crash																
	Angle					Head On	Rear End	Side Swipe Same Direction	Side Swipe Opposite Direction	Left Turn	Ped	Fixed Object	Animal	Bicycle	Total	Injury	Fatality
	Left-Turn	Thru	Right-Turn	Unknown													
1/1/2009 - 12/31/2009	1	0	0	0		0	4	4		0							
1/1/2010 - 12/31/2010	0	0	0	0		0	3	1		0					0	10	4
1/1/2011 - 12/31/2011	2	0	0	0		0	2	2		1					1	6	0
1/1/2012 - 12/31/2012	1	0	1	0		0	2	0		0					0	6	0
1/1/2013 - 12/31/2013	1	0	0	0		0	6	2		0					1	5	7
1/1/2014 - 8/31/2014	1	0	0	0		0	1	0		1					0	10	7
Total	6	0	1	0		0	18	9		2		1			4	37	18

Location: Prince Ave. at N. Pope St.

Appendix E

Location: Prince Ave. at Meigs St.

Appendix E

Location: Prince Ave. at Pulaski St.

Appendix E

Location: Prince Ave. at Sunset Dr.

Appendix E

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