

Georgia State Bicycle Routes 10 and 20 Analysis

June 2013



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Introduction

In 2012 the Southern Georgia Regional Commission (SGRC) and the Valdosta-Lowndes Metropolitan Planning Organization (VLMPO) completed an analysis of State Bicycle Route 15, which runs north-south, primarily along US 41 in this region. That analysis was completed to examine the route for inclusion as a designated US Bicycle Route, following a prescribed set of guidelines given by the Georgia Department of Transportation (GDOT).



Figure 1 People are riding bicycles more for recreation and commuting.

This analysis of Routes 10 and 20 in Southern Georgia builds off the previous analysis of Route 15, but does not use the same methodology or data collection methods. The analysis completed in this report will allow local governments and GDOT to implement improvements and/or

changes to the routes described herein to promote safe bicycling in this region.

To complete the field work analysis of the routes, staff used GPS enabled, dash-mounted video cameras to record the roadway as we drove along the route. The GPS units record the road as well as sounds and significant bumps along the road. By recording the sounds and significant bumps staff is able to record voice notations that can be analyzed back in the office, while keeping the work in the field to a minimum and safe for staff, who would typically have to stop along the roadway to record or write down notations.

Along with this report, these videos are being edited and will be released on the Valdosta-Lowndes Metropolitan Planning Organizations YouTube channel to provide interested parties a 'virtual tour' of each of the routes.



Figure 2 Sharrows are becoming a popular lane marking when there is not enough room for a traditional bike lane.

The data and recommendations in this report will be used by GDOT and local governments to improve the cycling experience and safety along these corridors.

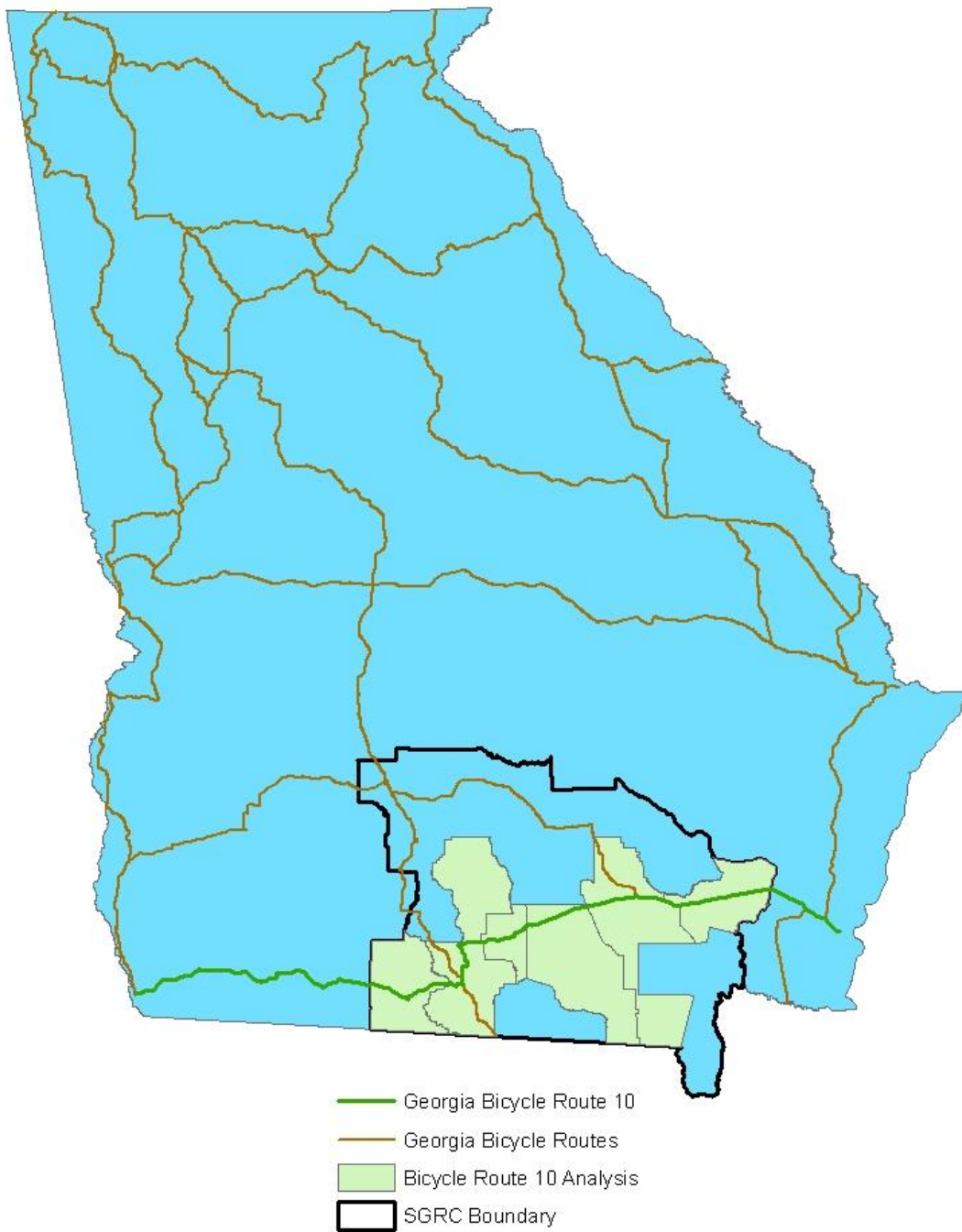


Figure 3 Georgia Bicycle Route System and Route 10 Analysis Area

Route 10 Assessment

The field assessment of Route 10 was completed over a two-day period in January and April 2013. This Route generally runs parallel to US 84 and US 82 through South Georgia from Cairo to Jekyll Island.

Brooks County

Entering Brooks County from the west on Dry Lake Road, the route travels through this rural area, along fields of cotton, peanuts, and pines before entering the City of Quitman. There are some instances of rough pavement along this curvy, rural road, which should be addressed at a future date when the road is next resurfaced. Shoulders along this section are narrow and force cyclists to ride in the travel lanes. While the traffic is low on this section, it may cause cyclists and drivers to be uncomfortable passing one another. Wider shoulders should be considered when future improvements are made to this road.

City of Quitman



Figure 4 Tree-lined Court Street in Quitman, GA

In Quitman the Route travels onto US 84 through the west side of the city. Along this four-lane, boulevard style roadway the lanes are wide and can accommodate both motorized vehicles and bicycles. The route turns north at Culpepper Street, and then west immediately onto Stephens Street, to go around the historic, Brooks County Courthouse, before turning north

onto Court Street. Signage along these quick turns was not easily seen and needs to be increased.

Court Street is a tree-lined boulevard stretching nearly the entire length of the city, making it ideal for sharrows or a bike lane to be included along the roadway.

From Court Street the route turns east onto Courtland Avenue, then continues onto Hwy 76, before joining Troupville Road to head to Valdosta.

Troupville Road is a level, gently curving rural road that should have wider shoulders installed, however no significant improvements are recommended other than good signage.

Lowndes County

Bicycle Route 10 enters Lowndes County and the City of Valdosta on Hwy 133, a busy, four-lane divided highway before turning southeast and crossing over I-75. Significant safety improvements for bicyclists are recommended along this corridor, and include better signage and bike lanes. A multi-use path would also be appropriate along this corridor; however this would require significant expense.

City of Valdosta

Bicycle Route 10, travels along Hwy 133 or St. Augustine Road (one of the busiest arterial roadways in the city) to Norman Drive, where the route turns east to go toward the Valdosta State University (VSU) campus, at the east end of Baytree Road.

Each of these roads are busy, and are not friendly to general bicycle riding. It is recommended that bicycle lanes be installed along these streets where appropriate to facilitate safe cycling and driving. In the Valdosta-Lowndes Bicycle and Pedestrian Master Plan, both St. Augustine Road

and Baytree Road are planned to have sidewalks and/or bike lanes installed where it is appropriate. There are no current plans for Norman Drive. However, bike lanes should be considered along this section as well.



Figure 5 Traffic on St. Augustine Road in Valdosta, GA

As Route 10 approaches VSU from Baytree Road, it turns south along Oak Street, east onto Brookwood Drive, through a section of VSU's campus, then north along Patterson Street.

The traffic configuration along Patterson Street allows for two southbound lanes, one northbound lane and a center turn lane. While bike lanes are preferred to be installed on this section, sharrows may be more appropriate based on the configuration and limitations of pavement width.

Patterson Street ends at the Five Points area in Valdosta, where traffic can be very heavy, especially at peak hours, several roads intersect here that result in quick turns to go in the desired direction. A roundabout has been proposed for this area, as well as significant redevelopment. Infrastructure for bicycles should be included in these redevelopment efforts for this congested and confusing area. This intersection does have good signage for cyclists to guide them through the intersections.

Route 10 continues north, out of Valdosta on Oak Street Extension, Cherry Creek Road, Orr Road and Skipper Bridge Road. These are rural

roads, typically with narrow shoulders and a fair amount of traffic, especially at peak periods. This area is also seeing the most growth and development of new residential properties, increasing traffic over time. Consideration should be given to providing multi-use paths along these rural and sometimes suburban roads in the future for both cyclists and pedestrians to use, separating non-motorized traffic from the roadway. Sharrows would be an ideal interim alternative to long-term infrastructure investment.

Route 10 continues along Skipper Bridge Road to Hwy 122, where it travels east into Lanier County. The shoulders along Hwy 122 have been improved and widened in some locations, but in the long-term they should be widened during the next resurfacing to provide a travel lane for bicyclists.

Lanier County

Route 10 continues on Hwy 122 towards the City of Lakeland, where the characteristics of the roadway are similar to that in Lowndes County and of other state highways in the region: narrow shoulders that do not allow for comfortable bicycling on rural roadways.



Figure 6 Banks Lake National Wildlife Refuge, Lakeland, GA

Along this section of roadway is the Banks Lake National Wildlife Refuge, which offers scenic wildlife views and recreation opportunities.

City of Lakeland

In the City of Lakeland Route 10 travels directly along Main Street in this small town. The roadway provides on street parking, but leaves enough room for bike lanes.



Figure 7 Hwy 122/Hwy 37 in Lanier County, notice the bike lanes and wide paved shoulders. Image: Google Maps

East of Lakeland, a recent project by the Georgia Department of Transportation to improve the safety of the intersection of Hwy 122 and Hwy 37 included the installation of bike lanes along the wide, paved shoulder. Signage in the area is more than appropriate to guide motorists and cyclists through the intersection. This intersection can serve as an example of how potentially hazardous and confusing intersections can be safely modified to allow for bicyclists and motorists to navigate them together.

Clinch County

Route 10 travels through northern Clinch County along Hwy 122, which is a very straight, rural highway. The straight, level roadway is

challenging for cyclists because of the lack of hills and ability to take an occasional rest. Through Clinch County signage is present, but could be increased. The road does not have wide shoulders, however the travel volume on this section is very low.

Ware County

As Route 10 enters Ware County the road continues to be flat and straight. The road continues to lack shoulders that can accommodate bicycles. As riders get closer to Waycross, traffic increases, but not significantly.

City of Waycross

Route 10 enters the City of Waycross on Carswell Avenue from the west. Destinations along this major city street include the main campus of Okefenokee Technical College and several large residential neighborhoods with connections throughout the west side of the city before entering downtown Waycross.

The Route travels under the Norfolk Southern Railroad, before turning north on Lee Avenue and then quickly on to Knight Avenue. Both Lee and Knight Avenues are part of a larger local bicycle route in the City of Waycross and Ware County.

Knight Avenue parallels Memorial Drive and US 82 for quite some distance travelling through the busiest commercial districts of the city. The bike route along Knight Avenue is designated by bike lanes on both sides of the road ending just after City Boulevard. This section of Knight Avenue could be improved with sharrow until a wider pavement/shoulder treatment can be applied at a later date.

The Route continues on US 82 where Knight Avenue intersects with Aycock Road. The local bicycle route continues south on Aycock Road, to

the Okefenokee Swamp Park, while Route 10 continues onto Brantley County.

Brantley County

Route 10 travels east from Waycross on US 82, through the cities of Hoboken and Nahunta, to the Glynn County line. Bicycle Route 10 travels this relatively straight, four-lane divided highway, US 82 this entire distance.

Many bicyclists will find it difficult to ride along this busy arterial highway for various safety reasons. Wide separated shoulders (similar to that which is provided on US 1, south of Waycross) would be an ideal solution to providing a safe cycling area along this roadway.



Figure 8 Bike lane along US 1, south of Waycross, GA

Another good solution might be to install a multiuse path along the highway right-of-way and the railroad right-of-way which runs nearly parallel for most of the length of Route 10 through Brantley County. In the Cities of Hoboken and Nahunta, bike lanes should be installed so that traffic can be aware of the potential presence of bicycles.

Route 10 Recommendations

Since Route 10 generally travels along low volume, rural roads, there are few recommendations to implement for a great length of the Route. Signage and wider shoulders are the key recommendations throughout the corridor, and can easily be implemented as other

projects are constructed and roads are repaved as a part of regular maintenance schedules.

It is in the urban areas and small towns where more significant improvements are needed. Separated bike lanes are key to providing awareness and safety along the corridor in cities like Valdosta and Waycross.

Another major recommendation is to remove the bicycle route from US 82 in Ware and Brantley Counties. A multiuse path would be ideal to separate non-motorized and motorized traffic along this corridor.

Turn-by-turn, Existing Route 10		Turn-by-turn, Proposed Route 10
1	At Thomas County line, travel east, on Dry Lake Road	No changes to route proposed
2	Turn right on Barwick Road	
3	Turn left of US 84/Screven Street	
4	Turn left on Culpepper Street	
5	Turn left on Stephens Street	
6	Turn right on Court Street	
7	Turn right on Courtland Avenue	
8	Veer right on Troupville Road	
9	Turn right on Hwy 133	
10	Turn left on Norman Drive	
11	Turn right on Baytree Road	
12	Turn right on Oak Street	
13	Turn left on Brookwood Drive	
14	Turn left on Patterson Street	
15	Turn right on Smithbriar Drive	
16	Turn left on Ashley Street	
17	Turn right on Oak Street Extension	
18	Veer left on Cherry Creek Road	
19	Turn right on Orr Road	
20	Turn left on Skipper Bridge Road	
21	Turn right on Skipper Bridge Road	
22	Turn right on Hwy 122	
23	Turn left on Hwy 122	
24	Turn right on Hwy 122	
25	Turn right on Hwy 122	
26	Turn left on Hwy 122	
27	Continue on Carswell Avenue	
28	Turn left on Lee Avenue	
29	Turn right on Knight Avenue	
30	Turn right/left onto US 82 (at Aycock Road)	
31	Continue on US 82 at Glynn County line	

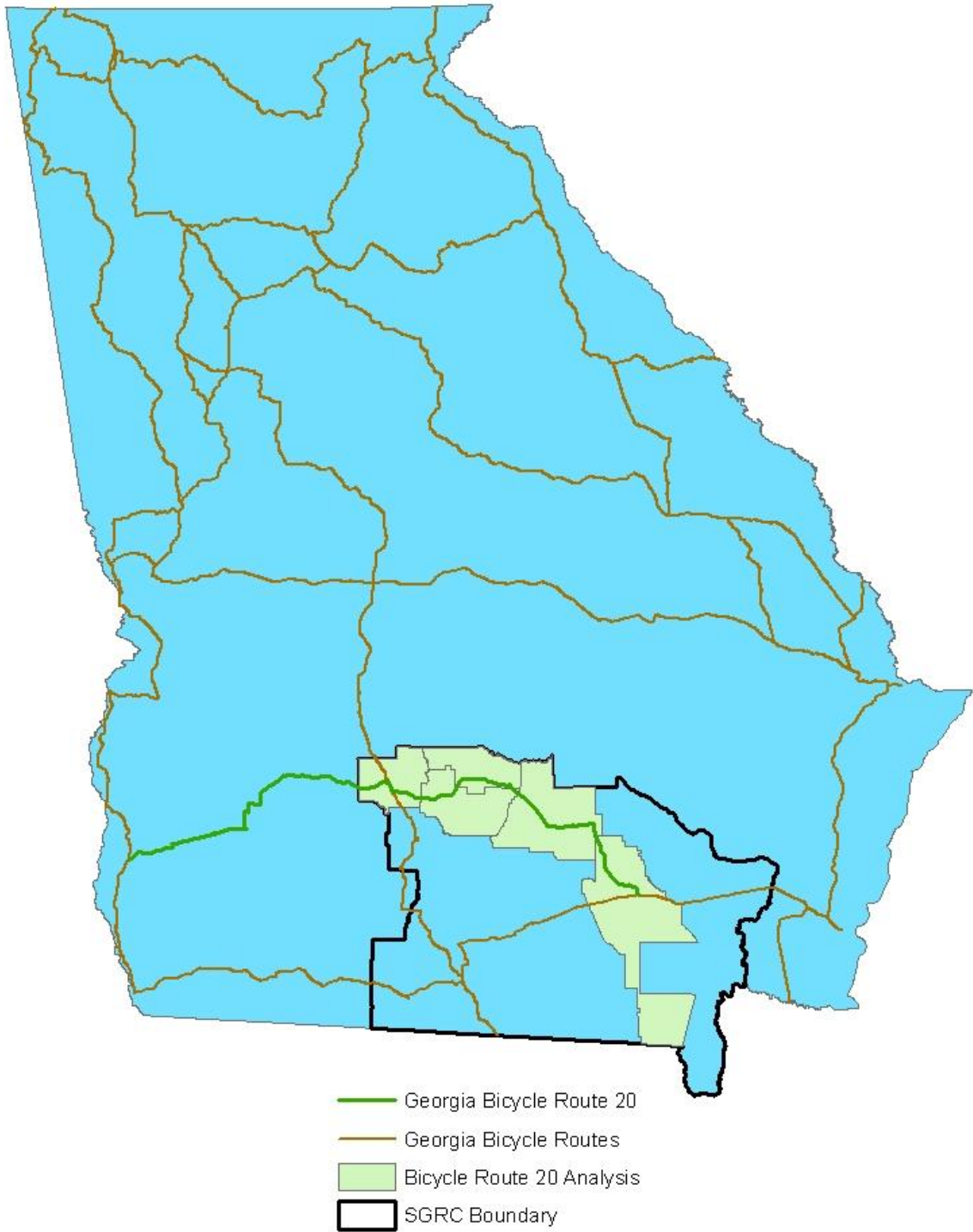


Figure 9 Georgia Bicycle Route System and Route 20 Analysis Area

Route 20 Assessment

The field assessment of Route 20 was completed in early April 2013 over a one-day period.

This route generally follows GA Highway 32 from Ashburn to Nicholls, GA. There are several instances where the route diverts from this highway, however.

Turner County

Entering Turner County from the west, GA Highway 32 is generally in good condition with moderately narrow shoulders and follows a gently rolling and curvy landscape through agricultural and rural residential land uses.

There are a couple of instances of rough pavement west and east of the City of Ashburn, but nothing so significant as to require immediate replacement. It is recommended that when Highway 32, west of Ashburn is resurfaced, that the GDOT Complete Street Policy (S-8, Milled Rumble Strips and Bicycle Accommodation Details) for rural road shoulders be followed to allow for a 4' or 6' paved shoulder.

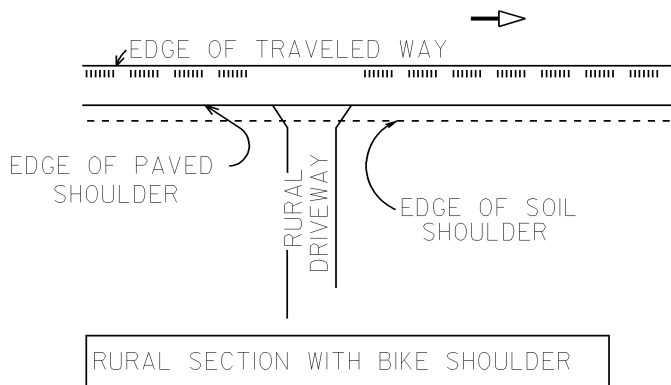


Figure 10 Typical Shoulder Treatment for Rural Section

Other improvements in these rural areas include the installation of signage of bicycle route markers and 'Share the Road' signs along the corridor at key locations. Locations that are recommend (at a maximum, further analysis may actually require less) include after each crossing of an arterial or collector road, at other significant intersections where a rider may become directionally confused, and at areas where hazards

dictate that motorists and cyclists be reminded by signage to 'Share the Road' with one another.

Cities of Ashburn and Sycamore

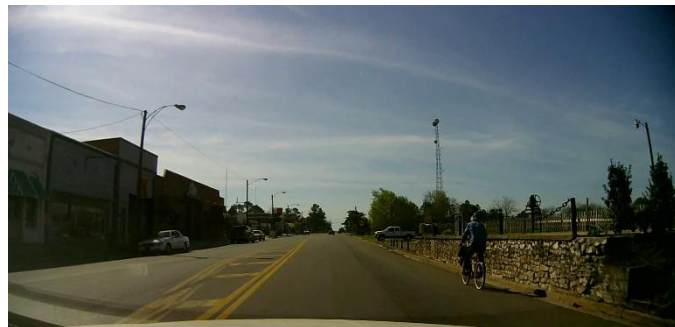


Figure 11 Cyclist on Route 20/15 in Ashburn, GA

Entering Ashburn from the west on Highway 112, there is room for striped bike lanes on the pavement; however this is probably not appropriate for this area, due to the likely hood of a lower volume of cyclists in this area. Additional signage along the Hwy 112 and Hwy 41 corridors should be installed for both directional and safety purposes. Hwy 41 in Ashburn and Sycamore is more heavily traveled and it may be more appropriate to add bike lanes in downtown Ashburn, as recommended in the Route 15 Analysis (which shares this section of Hwy 41 in Ashburn).

An example of an intersection that needs better marking and/or signage for safety reasons is the intersection of Hwy 32 and Hwy 41, just south of Sycamore. Other locations similar to this includes Purcell Road (advanced warning flashers already in place at this location, indicating a curve at this intersection location).



Figure 12 Intersection needing better markings/signage, near Sycamore, GA

Irwin County

In Irwin County, the Route continues along Hwy 32, before joining Hwy 125, just west of Irwinville. This intersection located on a curve, is another example of an area that would benefit cyclist safety by installing pavement markings, signage or both to direct both motorists and cyclists to be aware of one another at this intersection. Another location in Irwin County where an intersection needs further treatment is the intersection of Hwy 32/Hwy 125, where the Route continues north on Hwy 125, this intersection is also on a curve that requires additional safety measures for motorists and cyclists.

In Irwin County the roadways continue to be in good repair with moderately narrow shoulders that could be widened at a future date to meet current GDOT standards. General Route signage needs to be installed to direct cyclist traffic through the community.

Ben Hill County

In Ben Hill County the roadways continue to be in good repair with moderately narrow shoulders that could be widened at a future date to meet current GDOT standards. General Route signage needs to be installed to direct cyclist traffic through the community.



Sign image from the Manual of Traffic Signs - <http://www.trafficsigns.us/> - These sign images copyright Richard C. Moore. All rights reserved.
Figure 13 Example of Bike Route Directional Signage



W11-1 / W16-1
Share the Road with Bicyclists assembly
Sign image from the Manual of Traffic Signs - <http://www.trafficsigns.us/> - These sign images copyright Richard C. Moore. All rights reserved.
Figure 14 Example of Safety Signage

East of Fitzgerald, Route 20 follows Hwy 206 towards Douglas, turns to the southeast at another curve in the road where Hwy 706 splits to go onto Broxton. Additional signage and/or pavement markings should be installed at these locations for the safety and direction of motorists and cyclists alike.

City of Fitzgerald

In Fitzgerald, Hwy 125 becomes a broad boulevard with lanes wide enough to accommodate bike lanes through the tree-lined residential areas as well as through downtown.



Figure 15 Central Avenue 'boulevard' in Fitzgerald, GA

Directional and safety signage should be installed in Fitzgerald for the safety of cyclists and motorists alike. Fitzgerald offers a great opportunity for additional bike lane development throughout the city that can connect with the existing Route 20.

Coffee County

After Hwy 206 turns southeast towards Douglas, just before leaving Ben Hill County, the shoulders of the roadway become wider and may be appropriate for cycling on the shoulder, beyond the rumble strips. This area appears to already have wider shoulders as described earlier in this report. This section of roadway is still in need of Route specific and safety signage. This section continues until Route 20 turns east onto Hwy 32/Ward Street in Douglas.



Figure 16 Wider Shoulders along Hwy 206, north of Douglas, GA

Leaving Douglas on the east the intersection of Hwy 31 and Hwy 206 is confusing and it is recommended to provide additional signage to direct bicyclists to continue onto Hwy 32 towards Nicholls.

The SGRC is currently working with the City of Nicholls to develop a Safe Routes to School program for the Nicholls Elementary School. Safety issues have been raised in this community of students crossing Hwy 32 to get to school and to local shops (for snacks and drinks) during the summer and after school hours. Currently along Hwy 32, there are areas of deep roadside ditches with little room for walking alongside the busy roadway traffic. More information will be provided via this ongoing Safe Routes to School report in the coming months.

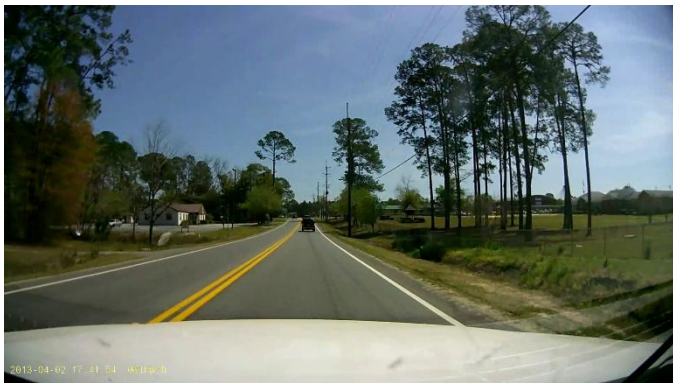


Figure 17 City of Nicholls, GA. Area of Safe Routes to School Study.

In Coffee County Hwy 32 continues to be in good repair with moderately narrow shoulders (some are wider, but it is not consistent) that could be widened at a future date to meet current GDOT standards. General Route signage needs to be installed to direct cyclist traffic through the community.

South of Nicholls, Route 20 continues on county-maintained roads for several miles, before joining with Hwy 158. These roads are in fair to good condition in general with narrow travel lanes and little to no bikeable shoulders. Ideally these roads should be widened to standard design guidelines with wide paved shoulders as described earlier. The low traffic volume on these roadways however indicates that additional room for bikeable shoulders and wide travel lanes may not be appropriate. Additional directional and safety signage

should be installed for awareness of motorists and bicyclists alike.

City of Douglas

Ward Street in Douglas is a wide arterial street that should be improved to include bicycle lanes, or shared lanes as appropriate. The density of population and land uses in Douglas are appropriate for additional bicycle infrastructure and signage in this community for both safety and directional way finding. Because Ward Street is a one-way pair with Ashley Street, signage and bike lanes should also be included on the parallel lanes of Ashley Street when any improvements are made to Ward Street.

In FY2013, the SGRC undertook a study of the Douglas Greenway Trail Connectivity throughout the community. This study provides more detail on bicycle and pedestrian connectivity issues in Douglas, relating to Route 20. More detailed recommendations are also provided in this Connectivity Report.

Ware County

In Ware County, Route 20, joins Hwy 158 heading toward Waycross. This intersection is another of concern, and additional signage should be installed to direct bicyclists and motorists to safely navigate the intersection. Hwy 158 provides wider shoulders, but has continuous rumble strips in the white painted edge strip. These rumble strips can be hazardous to bicyclists trying to enter the shoulder to avoid motor vehicles. Future improvements to this roadway should provide wide, paved shoulders, which are accessible through breaks in the rumble strips.

Hwy 158 intersects US 82/Hwy 520, a four-lane, divided highway, carrying major truck and vehicular traffic through South Georgia. Route 20 ends here, but it connects to Route 10 which continues on Carswell Avenue to enter the City of Waycross.

Route 20 Recommendations

Overall the recommendations for Route 20 are simple and not complex, and typically are low-cost when done in the scope of larger paving projects.

One major recommendation is that Route 20 be moved from US 82 to a less busy roadway, along Albany Avenue west of Waycross, before the route joins with Route 10 in downtown. By moving this route to Albany Avenue, cyclists will be on a city street rather than a busy four-lane divided highway. Details of this proposed alteration are provided in the turn-by-turn direction that follows this section.

Signage is the top priority for improving Route 20. This simple step will provide cyclists with the knowledge they need to navigate the Route, while additional safety signage can inform motorists and cyclists to be aware of one another.

Specific locations identified in the report should be given extra attention by local engineers to determine if additional signage or lane markings are appropriate for safety and directional needs, and intersections that can be confusing to both cyclists and motorists.

Overall it is recommended to the Georgia Department of Transportation and local governments that when roadways along this corridor are next resurfaced that wider shoulders be installed to allow for safe bicycling along this Route.

Turn-by-turn, Existing Route 20		Turn-by-turn, Proposed Route 20	
1	At Worth County Line, travel west on GA 32	1	At Worth County Line, travel west on GA 32
2	Turn left on GA 112/GA 32	2	Turn left on GA 112/GA 32
3	Turn right on US 41/GA 32	3	Turn right on US 41/GA 32
4	Turn left on GA 32	4	Turn left on GA 32
5	Continue on GA 32/ GA 125	5	Continue on GA 32/ GA 125
6	Continue on GA 125	6	Continue on GA 125
7	Continue on US 319	7	Continue on US 319
8	Continue on GA 206	8	Continue on GA 206
9	Turn right on GA 206/GA 353	9	Turn right on GA 206/GA 353
10	Turn left on GA 32	10	Turn left on GA 32
11EB	Continue on GA 32 (Ward Street)	11EB	Continue on GA 32 (Ward Street)
11WB	Continue on GA 32 (Ashley Street)	11WB	Continue on GA 32 (Ashley Street)
12	Turn left on GA 32/US 221	12	Turn left on GA 32/US 221
13	Turn left on GA 32	13	Turn left on GA 32
14	Turn right on Liberty Street	14	Turn right on Liberty Street
15	Continue on Flying Hawk Road	15	Continue on Flying Hawk Road
16	Turn left on GA 158	16	Turn left on GA 158
17	Turn left on US 82	17	Turn left on US 82
18	Continue on US 82 to join Bicycle Route 10	18	Turn right on Pineview Church Road
		19	Turn left on Albany Avenue
		20	Continue on Knight Avenue/Bicycle Route 10