



County Road 30-A Traffic Study

Walton County, Florida

Walton County Board of County Commissioners
Walton County Public Works Department
Walton County Planning Department



Prepared by:



Final Report: March 17, 2006

Walton County CR 30-A Traffic Study

Prepared for:



Walton County Board of County Commissioners

District 2 **Kenneth Pridgen** *Chairman*
District 1 **Scott Brannon** *Vice Chair*
District 3 **Larry Jones**
District 4 **Ro Cuchens**
District 5 **Cindy Meadows**

Walton County Public Works Department

97 Montgomery Circle
DeFuniak Springs, Florida 32435
(850) 892-8108

Walton County Planning Department

31 Coastal Centre Boulevard, Suite 100
Santa Rosa Beach, Florida 32459
(850) 267-1955

Walton County Staff Participants

Ryan Douglass (Project Manager),
Pat Blackshear, Greg Graham, Lois LaSeur, Tita Sokoloff,
Russ Barry (former), Dan Arner (former)

Prepared by:

Consultant:



2507 Callaway Road, Suite 100
Tallahassee, Florida 32303
(850) 224-4400
Contact: **Deborah M. Dantin, P.E.**
Project Manager

Subconsultants:



3837 North Dell Boulevard, Suite 242
Tampa, Florida 33624
(813) 949-8586
Contact: **Sharlene Lairsey** - President



13245 Atlantic Boulevard, Suite 4-121
Jacksonville, Florida 32225
(904) 992-8072
Contact: **Peggy Malone** - President

Acknowledgments:

We would like to thank the Walton County staff in the Engineering Division, Public Works Department, Planning Department, County Manager, administrative staff, the County Board of Commissioners, and committed citizens. In particular, we extend a special thanks to Commissioner Cindy Meadows for her above and beyond involvement and guidance in attending monthly technical and public involvement meetings. Participation in monthly public meetings by several committed citizens has proven to be very valuable and is appreciated.



Final Report: March 17, 2006

CONTENTS

	Page Nos.		Page Nos.
<i>Acknowledgements</i>	<i>i</i>		
<i>Contents</i>	<i>ii</i>		
<i>Appendices</i>	<i>iii</i>		
<i>County Road 30-A Traffic Study Limits and Landmarks</i>	<i>iv</i>		
<i>Acronyms Within Study Report</i>	<i>v</i>		
Section 1 - Introduction and Public Involvement		Section 4 - Growth Management Policy Language	
<i>A. Background (Past and Current Studies)</i>	<i>1</i>	<i>A. Land Use and Transportation</i>	<i>17</i>
<i>B. Executive Summary</i>	<i>2-3</i>	<i>B. Non-Residential Land Use Trip Attraction Areas</i>	<i>17</i>
<i>C. 2005 Traffic Goals</i>	<i>3</i>	<i>C. Proposed Policy Language Modifications</i>	<i>18</i>
<i>D. CR 30-A Issues</i>	<i>3-4</i>	<i>D. CR 30-A Design Standards</i>	<i>18-25</i>
<i>E. Public Information Process</i>	<i>4</i>		
<i>F. Personal Surveys</i>	<i>5-6</i>	Section 5 - Traffic Capacity, Concurrency and Long-Term Improvements	
		<i>A. Concurrency Road Segments</i>	<i>27</i>
Section 2 - Existing Conditions		<i>B. Build-Out Traffic Analysis</i>	<i>27-30</i>
<i>A. Initial Assessment</i>	<i>7</i>	<i>C. Capacity Improvement Considerations</i>	<i>30-32</i>
<i>B. Inventory of Maps</i>	<i>7</i>	<i>D. Revised Concurrency and Mitigation Strategies</i>	<i>32</i>
<i>C. Crash Data</i>	<i>7</i>		
		Section 6 - Summary of Recommendations, Priorities and Probable Costs	
Section 3 - Retrofit and Short-Term Improvements		<i>A. Short-Term Improvements</i>	<i>33</i>
<i>A. Traffic Operations Studies</i>	<i>9</i>	<i>B. Growth Management Policy Language</i>	<i>33</i>
<i>B. Optional Roundabout Consideration</i>	<i>9</i>	<i>C. Long-Term Improvements</i>	<i>34</i>
<i>C. Additional Turn Lane Considerations</i>	<i>9</i>		
<i>D. Other Safety Concerns</i>	<i>10</i>		
<i>E. Retrofit and Short-Term Recommendations</i>	<i>10-15</i>		



APPENDICES

	Page Nos.
Appendix A - CR 30-A Survey Results	
Category I	A-1 to A-2
Category II	A-2
Category III - Community Survey	A-3
Category III - Business Survey	A-4
Category III - Motorist Survey	A-5
Samples of Survey Responder's Primary Residential Locations	A-6
Appendix B - Existing Conditions	
Map A Hurricane Evacuation Route	B-1
Map B Crash Data (1/1/04 to 12/31/04)	B-2
Map C Traffic Counts	B-3
Map D Turn Lane and Median Locations	B-4
Map E Posted Stop Sign and Overhead Flasher Conditions	B-5
Map F Speed Limits and Roadway Section Designations	B-6
Map G Pedestrian Crosswalks Inventory	B-7
Map H Right-of-Way	B-8
Map I Trails, Sidewalks, and Parking	B-9
Map J Utilities, Shoulders, Curb and Gutter	B-10
Map K Beach Access	B-11
Chart 1 Travel Time Analysis	B-12
Chart 2 Sign Inventory	B-13
Appendix C - Retrofit and Short-Term Improvements	
Map L Turn Lanes and Warranted Traffic Signals	C-1
Map M Speed Limits and Roadway Section Designations	C-2
Map N Concurrency Recommendations	C-3
Diagram 1 Optional Roundabout Concepts	C-4
Diagram 2 Proposed Signage	C-5
Appendix D - Policy Language for Walton County Land Development Code/Comprehensive Plan	
	D-1 to D-4

	Page Nos.
Appendix E - Build-Out Traffic Analysis	
Map O Future Land Use Map	E-1 to E-2
Appendix F - North-South Road Analysis	
Text 1 North-South Road Analysis Summary	F-1 to F-2
Map P North-South Road Traffic Forecasts	F-3
Diagram 3 Proposed Conditions Typical Section	F-4
Diagram 4 Alternative Parallel Roadway Alignment	F-5
Appendix G - Intelligent Transportation Systems (ITS)	
Map Q ITS Concept Plan	G-1
Map R Phase 1 ITS Plan	G-2
Text 2 ITS Coordination Meeting Minutes (January 24, 2006)	G-3 to G-4
Appendix H - Transit Planning	
Text 3 Transit Coordination Meeting Minutes (November 30, 2005)	H-1 to H-2

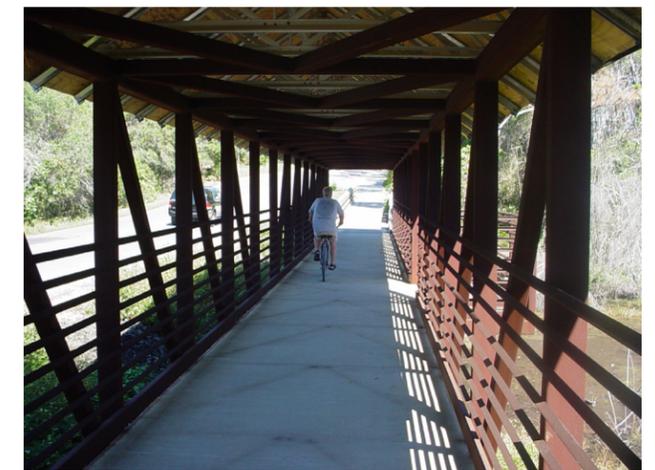


County Road 30-A Traffic Study Limits and Landmarks



ACRONYMS WITHIN STUDY REPORT

AADT	Annual Average Daily Traffic	ITE	Institute of Transportation Engineers
ADA	Americans with Disabilities Act	ITS	Intelligent Transportation System
ATMS	Advanced Traffic Management System	LDC	Land Development Code
CCTV	Closed-Circuit Television	LOS	Level of Service
CIP	Capital Improvement Projects	L RTP	Long Range Transportation Plan
DMS	Dynamic Message Sign	MUTCD	Manual of Uniform Traffic Control Devices
DRI	Development of Regional Impact	NTCIP	National Transportation Communications Interface Protocol
EAR	Evaluation and Appraisal Report	OCT	Okaloosa County Transit
FDOT	Florida Department of Transportation	TDC	Tourist Development Council
FHWA	Federal Highway Administration	TDM	Transportation Demand Management
FLUM	Future Land Use Map	TDP	Transit Development Plan
FTA	Federal Transit Authority	TPO	Transportation Planning Organization
GIS	Geographic Information Systems	VMU	Village Mixed Use



SECTION 1 - Introduction and Public Involvement

A. Background (Past and Current Studies)

FIRST CR 30-A TRAFFIC STUDY (May 1998)

In May 1998, a County Road (CR) 30-A Transportation Study was conducted by Hall Planning and Engineering. The study effort was initiated by former Walton County District 5 Commissioner, Mr. Van Ness Butler, Jr. The report provided recommendations including new roadway section designations (i.e., rural, residential or town), on-street parking layout, typical roadway cross sections, traffic calming techniques such as raised crosswalks, and roundabouts and a recommended landscaping plant list. A recommendation to include a multi-use trail on one side of CR 30-A as part of the resurfacing project was approved.

SECOND CR 30-A TRAFFIC STUDY (July 1999)

In July 1999, a CR 30-A task force was formed to review the first study and identify which recommendations should be immediately adopted, should establish a priority for adoption, or develop recommendations which require additional study. Results of this study included additional recommendations and other necessary studies. The recommendations that were proposed for adoption included:

- Implementing a north side bicycle path;
- Completing a bike path on the south side;
- Revisions to the Land Development Code (LDC) for the roadway section designations (including setbacks or parking requirements);
- Left and right turn lanes, where warranted;
- Revision for parallel parking in the right-of-way on the north side of CR 30-A in town centers only;
- Building setbacks per section designation.

Other additional recommendations or need for additional studies included:

- Provide additional enforcement for existing regulations and speed limits;
- Provide signage criteria;
- Define CR 30-A as scenic corridor with established standards and review process;
- Evaluate lighting along CR 30-A;
- Seek additional north/south connector roadway between CR 395 and east end of CR 30-A;
- Eliminate acceleration and deceleration lanes and provide turn lanes in single lane configuration (i.e., Butler Elementary School);
- Enter into agreements for private buses, trams, etc., or provide service by Walton County;
- Develop models for various land use development scenarios;
- Update traffic count data;
- Collect information on other locations in Florida that have experienced similar growth problems.

THIRD CR 30-A TRAFFIC STUDY (December 2000)

A third CR 30-A traffic study was conducted in December 2000, by HSA Consulting Group. This study was primarily conducted to identify traffic control device needs at Rosemary Beach, identify treatment of trail crossings along CR 30-A, which were completed, and parking concerns at the Wheelhouse Restaurant.

This study concluded and recommended:

- Traffic signals were not recommended or warranted at the Rosemary Beach, Barrett Street or Water Street intersections;
- Crosswalks should be made highly visible at Rosemary Beach with appropriate signing (as exist today);
- Do not provide raised multi-use trail crosswalks;
- Consideration be given to standardizing trail crosswalks, adding warning signs, and signal devices to increase visibility;

- Modify the Wheelhouse Restaurant parking to parallel or angle parking, or to totally prohibit parking on the public right-of-way.

CURRENT CR 30-A TRAFFIC STUDY (January 2005 to January 2006)

Walton County Engineering staff initiated discussions with consultants to standardize various traffic control devices along the entire 18.4 miles of CR 30-A. As a result of more and more people discovering the natural beauty of Walton County, staff's concern with managing increased traffic volumes from development precipitated the need to conduct a comprehensive traffic study along CR 30-A.

This study includes an evaluation of the existing roadway facility and recommends improvements/standards to enhance safety, traffic operations, multi-modal transportation amenities; while preserving aesthetics, mobility, and the scenic corridor designation. A combination of techniques are identified to achieve study goals without major reconstruction or widening of CR 30-A.

In addition to more immediate short-term improvements, long-term improvements will be accomplished over time as redevelopment occurs along CR 30-A. As shown on the Future Land Use Map, (Appendix E, Map O, Pages E-1 to E-2) and noted over the course of this study, many of the remaining vacant parcels have been either approved for development or are under construction; therefore, feasible opportunities to improve traffic conditions in the immediate future are subsequently reduced.

The CR 30-A Traffic Study is a twelve month study initiated on January 13, 2005. Coordination efforts with Walton County staff, the 30-A Advocacy Group to support a Florida Scenic Highway Designation, and coordination with the Traffic Concurrency Review Study was conducted.



Gulf Place



Rosemary Beach



Seaside

B. Executive Summary

The County Road (CR) 30-A Traffic Study was completed by a consultant team lead by Genesis Group under the guidance of the Walton County Public Works Department on behalf of the Board of County Commissioners. The CR 30-A Traffic Study was a twelve (12) month work effort which commenced January 13, 2005. The Study objective was to thoroughly evaluate the existing and projected traffic conditions, then to provide recommendations to address the mobility of the various users of the CR 30-A corridor. Existing conditions were analyzed to identify both short-term and long-term improvements required to enhance safety and mobility along the CR 30-A corridor.

Several of the CR 30-A long-term recommendations have been expanded to include regional or County wide issues. Identifying regional transportation related issues will assist in Walton County's ability to improve coordination between various agencies and secure State, Federal and private funding as plans (such as Transit and ITS - Emergency Management) evolve.

A substantial amount of private development projects of various sizes and types were under construction or in the permitting process during the study period. Projects were predominately residential in character and also included mixed land use projects. Larger developments under construction included The Preserves, Alys Beach, Sanctuary at Redfish, Adagio, WaterSound, WaterColor and Draper Lake.

Personal Survey Results

Over 900 personal surveys were conducted, February through March of 2005 (off-peak season), to identify corridor user's traffic goals. The results of the personal surveys included:

- No widening of CR 30-A to four (4) lanes;
- Safer intersections;
- Protection of environment and native vegetation; and
- Need to make the corridor safer for all modes of travel, particularly during the peak summer season.

Short-Term Recommendations

Based on current conditions, short-term improvements have been identified as follows (with recommendations compatible with existing land uses):

- Full traffic signalization is currently warranted (or roundabouts) at: CR 30-A/CR 283 and CR 30-A/CR 395;
- The CR 30-A/CR 393 intersection should be planned and will require an updated signal warrant study (traffic forecasts to 2006/2007 satisfy warrants);
- A total of six (6) turn lanes are warranted at the Main Park Road, Somerset Bridge Road, North/South Gulf Drive and Lakewood Drive intersections. These operational improvements combined with the new CR 30-A concurrency roadway segmentation will help to provide for an increase in capacity;
- Standardize and upgrade roadway signs and pavement markings;
- Safety improvements to intersections with limited visibility;
- Retrofit existing CR 30-A on-street parking for safety purposes;
- Upgrades to the multi-use trail;
- Dedicate CR 30-A as a constrained facility to encourage quality development, while providing enhancements to the public transportation system and protecting the scenic corridor designation.

Projected Build-Out Traffic Conditions

In addition to evaluating current conditions, an assessment was conducted to forecast build-out traffic along the CR 30-A corridor. Vacant parcels analyzed were located approximately 1,000 feet north and south of the roadway centerline. This build-out traffic analysis determined that only 282 acres or 7% of the total study area is vacant. Daily traffic impacts were assessed for these vacant parcels using the August 2004 Future Land Use Map (FLUM) designations.

Future daily traffic forecasts were generated by adding the vacant parcels' projected traffic to approved project traffic and existing conditions traffic counts. This analysis showed that build-out conditions will degrade the following CR 30-A roadway segments below the daily adopted Level of Service (LOS) D standards:

- US 98 W to CR 393
- CR 395 to Camp Creek
- CR 393 to CR 83
- Camp Creek to US 98E
- CR 83 to CR 283

It is also noted that the new Walton County Traffic Concurrency Management procedures (adopted January 2006) are currently being updated, to enhance the system accuracy and to convert daily traffic conditions to PM peak hour conditions. This report does not address the proposed traffic concurrency procedures, which are anticipated to be implemented by mid 2006.

Although modifications to the Comprehensive Plan and Land Development Code (LDC) regulations have been proposed, it should be acknowledged that these changes will not reduce the existing traffic or enhance existing mobility. However, it is not too late to manage growth in the future by implementing a combination of strategies to better address the continued rapid growth in South Walton County.

To improve traffic mobility over time, two (2) critical components should be accomplished:

- 1) Improved interconnectivity (between properties/developments)
- 2) Provide a better mix of land uses

Recommendations to manage the anticipated growth include the following:

Long-Term Improvement Recommendations

- Implementation of new CR 30-A design standards and LDC requirements;
- Enhanced amenities for alternative modes of travel and community cohesiveness;
- Strict enforcement of development regulations and Comprehensive Plan policies;
- Planning for long-term implementation of transit;
- Planning for advanced traffic technology systems to improve operation and emergency preparedness;
- Application of new concurrency mitigation strategies along CR 30-A (identified in a separate traffic concurrency study);
- Future consideration of a new roadway between CR 395 and WaterSound Parkway (North-South road and/or parallel road) to reduce loadings along CR 30-A and improve hurricane evacuation.

It should be anticipated that increased levels of congestion will increase the need to evaluate:

- 1) reducing current development/redevelopment intensities;
- 2) constructing new and costly roads;
- 3) the affects on the scenic corridor designation and environmental significance; and
- 4) the ability to safely evacuate residents during emergencies.

Probable Costs and Capital Improvement Projects (CIP)

Priorities and costs to implement short-term improvements are identified for inclusion in the County's Capital Improvement Projects (CIP). Probable costs for long-term improvements have been identified, based on best available data. Many long-term recommendations are dependant on alternative funding sources or partnerships with other public or private entities.

Short-term improvement probable costs \$10,668,597.00

Long-term improvement probable costs \$52,029,216.00

Total \$62,697,813.00 *

* Improvements recently added to Walton County's December 2005 CIP. (See Section 6 for details.)
Total = \$9,569,962.00

C. 2005 Traffic Goals

Study goals were identified as part of the project's scope of services. These primary goals were confirmed in public survey results conducted at the early stages of the project.

1. Increase vehicle, bicycle and pedestrian safety
2. Preservation of CR 30-A as a scenic corridor
3. Improve mobility for motor vehicles
4. Enhance mobility for alternative modes of travel
5. Environmental and native vegetation protection
6. Identify mitigation (flexible) strategies and Capital Improvement Plan (CIP) planning
7. Identify long-term traffic plan for corridor build-out
8. Emergency preparedness planning

D. CR 30-A Issues

The following specific issues were either raised at the onset of the project or were identified during the public information process. All of these issues have been addressed in this report.

1. Safety

- Need for improved traffic control such as signals at County Road intersections
- Five (5) multi-use trail crossings along CR 30-A
- Lateral clearance between trail and roadway/right-of-way constraints
- Trail maintenance
- Inconsistent signs and pavement markings
 - Pedestrian crossing signs
 - Pedestrian crossing pavement markings
 - Speed limits-multiple/transition review
- On-street parking – pedestrian visibility, sight distance and additional conflicts
- Median design concerns
- Unsupervised children crossing roadway
- Wide driveways
- Sight distance limitations due to roadway curvature



E. Public Information Process

2. Mobility

- Outdated and limited traffic concurrency requirements
- Uncertain measure of today's concurrency/capacity
- Need for improved accounting of development traffic impacts
- Need to identify desirable traffic mitigation strategies
- Need for improved bike/pedestrian Level of Service
- Recreational versus commuter/competitive cyclists needs
- Pedestrian crossing locations
- Lack of turn lanes where needed
- Traffic management during scheduled/unscheduled events
- Hurricane evacuation considerations
- New North-South road analysis
- Public beach access identification and parking areas
- Golf cart considerations
- Transit planning



3. Growth Management

- Development review-lack of operational/safety studies
- Desires of permanent residents versus seasonal residents
- Lack of development interconnections between developments (vehicle and pedestrian)
- Constraints
 - State owned property
 - Waterways
 - Environmentally sensitive areas
- Environmental resources/native preservation
- Scenic/aesthetic enhancement
- Dedication of collector and connector roadways as public roads
- Lack of existing off-street parking for businesses
- Lighting issues (sensitivity to sea turtles)
- Concern with not addressing land uses as part of traffic study
- Limited Capital Improvement Program (CIP)

The following activities were conducted at various stages throughout this CR 30-A study:

- Initial individual meetings with County Administrator and County Commissioners.
- A CR 30-A website was set up in February 2005 and was updated quarterly.
- Personal surveys were conducted during the off-peak season to receive general community input concerns and goals early on.
- A toll free number was made available through April 2005 to receive more detailed comments, referenced on the CR 30-A website, and listed on personal surveys.
- Quarterly Commission updates were conducted during regularly scheduled Commission meetings held in January, April, August, and November 2005.
- Monthly public updates were conducted following the technical meetings with County staff and regular citizen participants which included:
 - Claire Bannerman
 - Susan Breeden
 - Jim Bagby
 - Mark Flynn
 - Richard Fowlkes
 - Bob Dobs
 - Anita Page
 - Ruth Kirst
- Public Hearings for adoption of LDC modifications (tentative dates):
 - April 2006: Planning Commission Public Hearing
 - April 2006: County Commission Public Hearing
 - May 2006: County Commission adoption

NOTE: All dates for LDC modifications had been postponed at the request of the Planning Department due to unrelated CR 30-A Traffic Study changes being made to the LDC.

Website Accessible to the Public

<http://www.cr30a-walton.com>

Toll Free Number:

1-866-ON BOARD (662-6273)

F. Personal Surveys

Survey Methodology

In an effort to obtain public input regarding methods to maintain mobility, relieve congestion, and enhance safety, a public survey was conducted at the beginning of the project. Quest Corporation of America, Inc., (QCA) Public Information Consultant to Genesis Group, developed and conducted three surveys for use in collecting information from businesses, motorists, and people in the local communities.

Brown:	Community Survey
Blue:	Business Survey
Green:	Motorist Survey

A total of approximately 7,000 surveys were distributed on and around CR 30-A using a variety of distribution methods. **A total of 934 surveys were received as of March 2005.** The survey return was 13.5% (934/6920), which is higher than originally anticipated. More detailed procedures for each survey type is described herein.

Survey administration effectively began February 14, 2005, and continued until Sunday, February 20, 2005. Each of the three surveys (Community, Business & Motorist) were also available on the project website. All surveys were supplied with Business Reply Mail postage.

Survey Results Summary

Surveys were conducted during the off-peak summer season to obtain input from the permanent residents of Walton County. A comprehensive report of the survey process and results were submitted to Walton County Engineering and also available to the public via the CR 30-A website. Survey responses were also combined and the majority of the survey questions are listed in Appendix A.

A total of 60% of survey responders are residents of Walton County year round, with 52% residing in Santa Rosa Beach and Seagrove Beach (32459 zip code). Most stated they travel on CR 30-A more than once a day and were very familiar with this roadway. During the peak summer season, responders felt the road was approximately 40% less safe than off-peak season, which corresponds to vehicle traffic volumes being approximately 30-40% less during the off-peak season.

In the ranking of five (5) subjects, the top three (3) were:

1. Vehicle mobility and safety
2. Pedestrian/bicycle mobility and safety
3. Environmental protection

Safety improvements (identified in the survey) and favored by the majority included:

- Safer intersections
- Elimination of on-street parking
- Addition of turn lanes and raised medians
- A new North-South road connecting CR 30-A to US 98, located to the east of CR 395.

Only 4% of those that ride bicycles indicated they typically ride on the roadway. Excluding business surveys, the vehicle trip purpose of users was primarily for business, shopping and dining, and traveling to and from work.

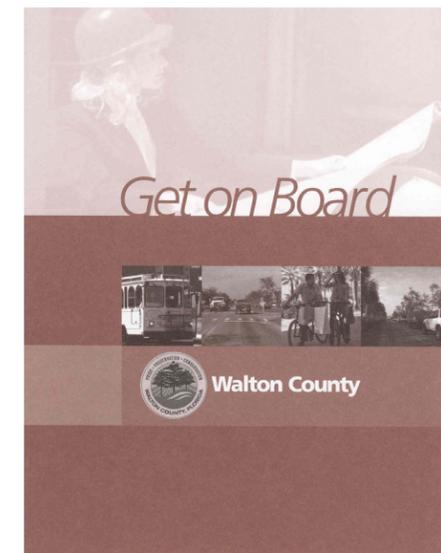
Many specific comments were received from the surveys, toll-free number or web site. These comments indicated:

1. A strong opposition to widening CR 30-A
2. A desire to maintain the scenic corridor and enhance the natural beauty
3. A need for improved law enforcement
4. A desire to move traffic
5. A desire to slow traffic
6. A desire to stop development

Although 58% of the respondents state they would not utilize the trolley service, several comments were received stating that it would depend on the type and efficiency of the trolley service.

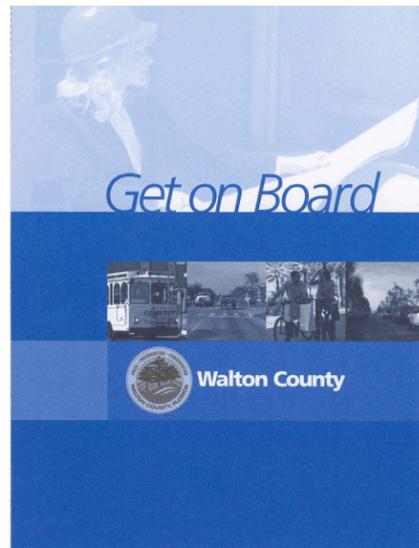
The **Community Survey** was mailed to 2,000 property owners in the vicinity of CR 30-A on February 14, 2005. The 2,000 recipients of the mailed surveys were randomly selected from the 40,000+ property owners identified by the Walton County G.I.S. office as owning property along or near CR 30-A. An additional 1,000 surveys were administered by QCA personnel over the course of a week to people in the communities of Rosemary Beach, Seacrest, Seaside, WaterColor, Grayton Beach, Blue Mountain, Dune Allen Beach, Santa Rosa Beach and Destin. Surveys were also placed at the South Walton Tourist Development Council and Information Center for distribution to visitors.

A total of 3,000 Community Surveys were distributed: **267 Community Surveys (9%)** were completed, either electronically or by U.S. Mail by March 2005.



Business Surveys were designed to assess the attitudes of those working along or near CR 30-A. QCA Public Information officers obtained permission to distribute surveys to staff at four Walton District schools in the area: Butler Elementary, South Walton High School, Bay Early School, and Seaside Charter School.

Several business, retail, and commercial establishments along CR 30-A (open during the week of February 14-20, 2005) were visited to deliver surveys for all employees. The communities of Rosemary Beach, Seaside, WaterColor and Grayton Beach were contacted and surveys were left for the current staff. Generally, surveys were distributed to the manager of the establishment and instructions were provided for completion along with a time schedule for retrieving completed surveys.



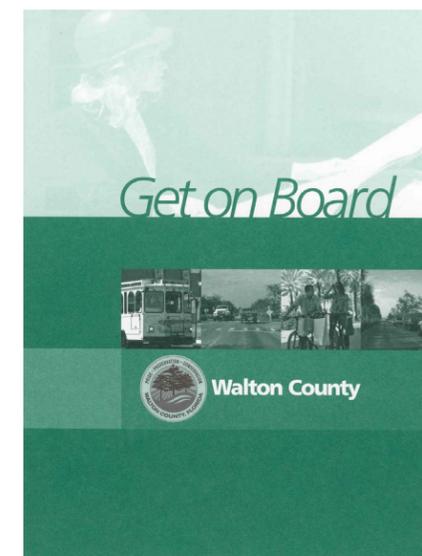
Business Survey Distribution to Employees Along CR 30-A:

- Employment centers
- Sacred Heart Hospital
- Adjacent Medical Center
- South Walton Fire District
- Seagrove Beach Fire Station located on CR 395
- Two area Publix supermarkets
- Nearby Winn-Dixie supermarket
- 110 retail establishments in the Silver Sands factory stores
- Wal-Mart Superstore on US 98W

Other Business Survey Distribution Areas:

- All shopping centers or other commercial establishments along the following County Roads and their intersections along CR 30-A:
 - CR 395 - CR 283
 - CR 83 - CR 393
- Retail centers at CR 30-A intersection and Highway 98 (East and West)
- South Walton Tourist Development Council and Information Center

Over 200 businesses along the corridor were contacted and, after a waiting period averaging 48 hours, each of the business and commercial establishments that received a “call back” time was revisited by a QCA staff member, and the completed surveys were collected. A total of 1,920 Business Surveys were distributed and **360 Business Surveys (19%)** were completed either electronically or by U.S. Mail.



Motorist Surveys were designed to measure concerns regarding mobility, safety and aesthetics along this scenic corridor. On February 16, 2005, the QCA survey team was posted at the intersections of US 98 and CR 30-A and distributed surveys to motorists as they waited at the traffic signals. This process was repeated on February 20, 2005. A total of 400 surveys were distributed at those two (2) intersections with the intention for mail back by the respondents.

Motorist Survey Distribution Along CR 30-A Intersections:

- CR 30-A and Water Street - CR 393
- CR 395 - Deer Lake
- CR 283 - Seaside
- CR 83 - WaterColor

A total of 2,000 Motorist Surveys were distributed and **307 Motorist Surveys (15%)** were completed either electronically or by U.S. Mail.

Section 2 - Existing Conditions

A. Initial Assessment

During the initial phases of the CR 30-A Traffic Study, an existing conditions inventory was conducted. An assessment was compiled of roadway characteristics including:

- Trails and Sidewalks
- On-Street Parking
- Pedestrian Crossings
- Turn Lanes and Medians
- Existing Shoulders/Curb and Gutter
- Underground Utilities
- Hurricane Evacuation Route
- Posted Speed Limits
- Traffic Control Devices
- Beach Parking/Access
- Crash Data
- Waterways
- State Owned Property

B. Inventory of Maps

Existing conditions have been shown on maps listed in Appendix B.

Map		Page No.
A	Hurricane Evacuation Route	B-1
B	Crash Data (1/1/04 to 12/31/04)	B-2
C	Traffic Counts	B-3
D	Turn Lane and Median Locations	B-4
E	Posted Stop Sign and Overhead Flasher Conditions	B-5
F	Speed Limits and Roadway Section Designations	B-6
G	Pedestrian Crosswalks Inventory	B-7
H	Right-of-Way	B-8
I	Trails, Sidewalks, and Parking	B-9
J	Utilities, Shoulders, Curb and Gutter	B-10
K	Beach Access	B-11

C. Crash Data

Summary of Crash Data

A total of 68 crashes occurred along CR 30-A between January 1 to December 31, 2004: nine (9) intersection and 59 mid-block crashes. This data was obtained from the Walton County Sheriff's Department. Only one (1) reported crash involved a pedestrian. (For further details, see Appendix B, Map B, Page B-2.) There were no fatal accidents which occurred in 2004.

Of the 68 crashes:

- Twelve (12) of the crashes occurred west of the CR 395 intersection near Seaside of which eight (8) involved parked vehicles or parking maneuvering.
- Thirty-four (34) of the crashes or 50% involved rear-end crashes along CR 30-A.

Various causes of the 34 crashes involved:

1. Turning vehicles
2. Stopping for stop signs
3. Stopping for pedestrian crossings
4. Stopping for school buses
5. Congested traffic

It is noted that one (1) crash in August 2005 did result in one (1) fatality along CR 30-A. The fatality was apparently the result of limited visibility created by a construction vehicle parking within the public right-of-way. In the fall of 2005, the County Commission implemented a new ordinance requiring developers to secure off-street parking during construction.

Section 3 - Retrofit and Short-Term Improvements

A. Traffic Operations Studies

Safety improvements were considered at numerous existing intersections along CR 30-A. Safer intersections were identified as the most important safety need in all three survey results. (See Appendix A, Page A-1, Number 12.) Signal warrants, in accordance with the Manual on Uniform Traffic Control Devices (MUTCD), were used to determine if traffic signals are needed at the existing County Road intersections with CR 30-A. The need for left and right turn lanes were analyzed at 14 intersections, in accordance with Highway Research Board Report, number 279, in controlled intersections.

Data Collection

An Operational Analysis Report was prepared and submitted to Walton County Engineering in September 2005. The final report was signed and sealed by a Registered Professional Engineer. (See Appendix B, Map C, Page B-3, Traffic Counts.) The following traffic count data was necessary to perform the signal warrant and turn lane operations studies.

- 24 hour approach counts along CR 30-A recorded in 15 minute intervals at CR 393, CR 83, CR 283 and CR 395
- Eight hour turning movement counts of vehicles, pedestrians, and bikes at:

1 - North and South Bishop Road	8 - The Villages (Seacrest)
2 - Allen Loop East	9 - CR 283
3 - CR 393	10 - CR 395
4 - Acacia Street	11 - Main Park Road (Grayton Beach entrance)
5 - Village Boulevard	12 - Somerset Bridge Road
6 - CR 83	13 - North and South Gulf Drive
7 - Forest Dunes Boulevard (Gulf Trace)	14 - Lakewood Drive
- 72 hour vehicle classification counts between:
 1. CR 393 and CR 83
 2. CR 283 and CR 395
 3. CR 395 and WaterSound Parkway

Traffic counts were conducted in the peak season between May 31, 2005 and June 11, 2005.

Signal Warrant Studies

Signal Warrant Studies were conducted at four (4) intersections:

- CR 30-A/CR 393
- CR 30-A/CR 283
- CR 30-A/CR 83
- CR 30-A/CR 395

Results indicate that traffic signals are warranted and signals (or roundabouts) should be installed at the following intersections:

- CR 30-A/CR 283
- CR 30-A/CR 395

Forecasted traffic volumes indicate traffic signals will satisfy warrants in the future:

- CR 30-A/CR 393 (by 2006-2007)
- CR 30-A/CR 83 (by 2013-2015)

(See Appendix C, Map L, Page C-1, Turn Lanes and Warranted Traffic Signals.)

Turn Lanes

Few turn lanes exist along CR 30-A at this time. (For more details, see Appendix B, Map D, Turn Lane and Median Locations.) Historical traffic studies performed for development projects typically did not include requirements to investigate a need for turn lanes. New traffic concurrency requirements (developed under separate contract for Walton County) include requirements to assess turn lane needs. As part of this study, the following locations were analyzed for left and right turn lanes. Results indicate that six (6) turn lanes are necessary.

- Main Park Road - westbound left
- Somerset Bridge Road - eastbound left
- North and South Gulf Drive - eastbound and westbound left
- Lakewood Drive - eastbound left and right

(See Appendix C, Map L, Page C-1, Turn Lanes and Warranted Traffic Signals.)

B. Optional Roundabout Consideration

A roundabout is an alternative traffic control device to traffic signals or multi-way stop conditions. There are many safety and environmental benefits that are provided with roundabouts. However, roundabouts often require additional right-of-way, may be confusing to motorists unfamiliar with the device, and do not typically require vehicles to stop for pedestrians and bicycles crossing the intersection. (See Appendix C, Diagram 1, Page C-4, Optional Roundabout Concepts.) A roundabout was being pursued by a private developer at the intersection of CR 30-A/CR 395 at the completion of this study.

C. Additional Turn Lane Considerations

Study locations included in this report, for which turn lanes are not warranted at this time, should be monitored in the future.

Other locations (development entrances or roadway intersections) should be studied in the future for possible turn lanes and traffic control devices, including several new developments that are currently under construction. These developments and/or roadway intersections are as follows:

1. WaterSound Parkway
2. Preserves (*under construction*)
3. Sanctuary at Redfish (*under construction*)
4. Adagio (*under construction*)
5. Gulfview Heights
6. Retreat
7. Blue Mountain Road
8. San Juan Avenue
9. Draper Lake (*under construction*)
10. Van Ness Butler School - turn lane extensions

D. Other Safety Concerns

Review of crash data, staff and citizen comments, and field reviews identified additional specific safety concerns. These specific issues were raised and are addressed in the following Section 3.E.

1. Limited Roadway Visibility and Sight Distance Obstructions

Sight distance visibility concerns from side roads at the CR 30-A intersections of Acacia Street, Satinwood Drive, Blue Fish Road, and Flounder Street. (See Section 3.E.5., Page 12.)

2. Multi-Use Trail and Safety Enhancements

Trail infrastructure and signage enhancements are needed. (See Section 3.E.8., Page 14.)

3. Modifications to Parking Within County Right-of-Way

- a. Seaside's on-street parking on the north side of CR 30-A is too narrow. There is relatively no lateral clearance between the roadway edge or sidewalk on both sides.
- b. The Wheelhouse Restaurant's 90 degree parking in Seagrove Beach causes motorists to back-out directly into CR 30-A with limited visibility of pedestrians, cyclists, and vehicles.

E. Retrofit and Short-Term Recommendations

1. Consistent Sign Standard Recommendation (See Appendix C, Diagram 2, Page C-5, Proposed Signage.)

- a. CR 30-A section area types should be modified and used for the purpose of incorporating speed limits and specific land use regulations. Replace and install speed limit signs, as necessary. (For more details, see Appendix C, Map M, Page C-2, Speed Limits and Roadway Section Designations.)
- b. A minimum speed limit of 25 mph shall be posted along CR 30-A.
- c. No speed limit greater than 40 mph shall be posted unless shoulders are present on both sides of CR 30-A. A 45 mph maximum speed limit is permitted in rural areas where shoulders are present on both sides of the roadway.
- d. Speed limit signs shall be consistently posted on both sides of the roadway and in accordance with Manual of Uniform Traffic Control Devices (MUTCD).
- e. A 10 mph maximum speed limit transition shall be posted for reduced speed areas, and a "Reduced Speed Ahead" sign shall be posted in advance.
- f. Walton County Code should consider upgrade and consistent color and size for street name signs, for 911 purposes. Green street name signs for all public roads and blue signs for all private roads, as an option. Nine inch (9") street name sign blades are recommended for all signs where the speed limit is posted at 40 mph or greater. Probable costs do not include this item since retrofitting of street name signs is recommended County wide.
- g. Replace all substandard traffic control sign posts to comply with height requirements in the MUTCD.
- h. "No Parking or Motorized Vehicles on Bike Path" shall be consistent using red lettering with red border.
- i. Install eighteen inch (18") overhead street name signs on existing span wires at all County Road intersections.



Substandard Sign Post

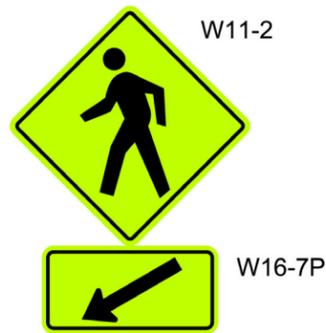
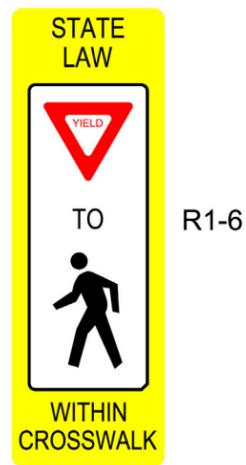


Community Directional and County Road Signs



Standard - No Parking or Motorized Vehicles on Bike Path

- j. Install “State Law Yield to Pedestrian” sign at a minimum of both entrances onto CR 30-A from US 98, and in both directions after the CR 283 intersection with CR 30-A. Consider posting a supplemental “Fee of \$500.00” sign for violations.
- k. Install “Cyclists Share the Road” signs downstream of existing paved shoulder termini. (The locations of paved shoulders can be found in Appendix B, Map J, Page B-10, Utilities, Shoulders, Curb and Gutter.)
- l. Install pedestrian crossing signs with diagonal downward pointing arrow plaque at all trail or pedestrian crossing locations. An advance pedestrian crossing sign is optional and only recommended when special emphasis is necessary.
- m. Install “Bike Route” signs with directional arrow(s) supplemental signs, as appropriate, in advance of all multi-use trail crossings on CR 30-A or side roads designated as a Bike Route. Bike Route signs are to be used to warn cyclists on the trail of upcoming decision making points.
- n. Remove all “Bicycle Crossing” signs, MUTCD W11-1, at trail crossings and particularly where multiple signs exist such as pedestrian crossing, bike route and bicycle crossing signs, (i.e., Allen Loop Road East.)
- o. Replace all “County Road” designation signs with standard signs.
- p. Remove and/or replace all traffic control signs that are not in accordance with the MUTCD, such as “Children We Care” signs.
- q. Improve all community site identifier signs when installation of the proposed TDC Community Gateway signs are installed.



County Road 283 Designation Sign (Replace)



Non-MUTCD Signs (Remove)

2. Consistent Pavement Marking and Crosswalk Standards

- a. Pedestrian crosswalks shall be signed with fluorescent yellow-green color signs (including school crosswalks), as necessary. (See Appendix C, Diagram 2, Page C-5, Proposed Signage.)
- b. Re-stripe all existing and install all future crosswalks with zebra high intensity thermoplastic pavement markings. Longitudinal lines shall be twenty four inches (24”) wide and spaced eighteen inches (18”) apart.
- c. Crosswalk spacing shall be a minimum of two hundred feet (200’). Modifications to existing crosswalks needed in the areas of Rosemary Beach and Seaside. (See Appendix B, Map G, Page B-7, Pedestrian Crosswalks Inventory.)
- d. Remove speed hump and all associated pavement markings, and replace with standard pedestrian crosswalk pavement markings and pedestrian crossing sign located east of CR 395. (See Appendix B, Map G, Page B-7, Pedestrian Crosswalks Inventory.)



Zebra Pavement Markings (Recommended)



Speed Hump (Remove)

3. Install New Turn Lanes at the Following Locations:

- (See Appendix C, Map L, Page C-1, Turn Lanes and Warranted Traffic Signals.)
- Main Park Road (Grayton Beach entrance) - westbound left
 - Somerset Bridge Road - eastbound left
 - North and South Gulf Drive - eastbound and westbound left
 - Lakewood Drive - eastbound left and right

4. Install New Traffic Signals or Roundabouts at the Following Locations:

- (See Appendix C, Map L, Page C-1, Turn Lanes and Diagram 1, Page C-4, Warranted Traffic Signals.)
- CR 30-A/CR 395
 - CR 30-A/CR 283
 - CR 30-A/CR 393 (Re-evaluate for signal warrant in 2006/ 2007 prior to installation.)



One-Lane Roundabout (Tallahassee, Florida)

5. Intersection Sight Distance/Visibility Improvements

All roadway approaches to CR 30-A were generally reviewed. Locations identified as problem areas by staff, evident in crash data or those located in curves were specifically reviewed and sight distance was measured. The following safety improvements are recommended:

- a. Acacia Street southbound movement looking east, there is only 300 feet available and 330 feet is required. Tree removal within right-of-way is necessary, however, follow-up review should be performed to determine if the tree removal outside of the public right-of-way is part of the adjacent vacant site's development plan.
- b. Satinwood Drive southbound movement looking west, is obstructed by two (2) signs within the sight distance triangle. These signs need to be relocated.
- c. Blue Fish Road southbound movement looking east, has a dirt parallel parking area and horizontal curve which obstructs visibility. Recommend restricting southbound left turn movements and installing "Right Turn Only" sign. Construct a small raised island to further restrict movement.
- d. Flounder Street southbound movement looking east, is obstructed by bushes located behind the "Robin Realty" sign, which needs to be removed. Visibility looking west is also less than the minimum requirement and it is recommended that a "Side Road Ahead" sign be installed for the CR 30-A eastbound movement. This "Side Road Ahead" sign should be designed to indicate the two (2) side roads (Flounder Street and Blue Fish Road).
- e. Mystic Cobalt at WaterColor has extremely obstructed visibility looking east and west for the southbound movement. WaterColor (St. Joe) representatives had been contacted and follow-up may be necessary to modify shrubbery, which is blocking visibility at the intersection and exceeds the three feet (3') height requirement identified in the current LDC. Median plantings at WaterColor should also be modified, to less than three feet (3'), approaching the WaterColor Boulevard intersection to improve visibility at the pedestrian crosswalk.

- f. Side street visibility is obstructed at the intersections of Robert Ellis Street looking west along CR 30-A and Gardenia Street looking east. Parking adjacent to CR 30-A is causing the visibility problem. Walton County should pursue contacting the business located adjacent to Robert Ellis street to install a separation (raised or pavement markings) to restrict parking immediately adjacent to the stop sign. The Gardenia Street visibility would be enhanced as part of The Wheelhouse Restaurant parking retrofit.

6. Consistent Traffic Signals/Flashers

- a. All traffic signals along CR 30-A shall be on an ornamental mast arm signal support system similar to signals installed at Rosemary Beach.
- b. Retrofit all post mounted flashers with a solar panel power source.
- c. Replace all existing overhead span wire flashers with mast arm support systems (designed for future full signalization). (See Appendix B, Map E, Page B-5, Posted Stop Sign and Overhead Flasher Conditions.)

7. Removal or Retrofit Existing On-Street Parking for Safety Purposes

General recommendations for existing parking:

- a. Install wider lanes with on-street parallel parking with bulb-outs and increase sidewalk width adjacent to on-street parking; or
- b. Install raised median (i.e., frontage road) to separate parallel or angle parking; or
- c. Totally eliminate on-street parking at these locations; and
- d. Provide fifty foot (50') minimum corner clearance to parking spaces.
- e. Consider modification or elimination of all other existing on-street parking at other locations along CR 30-A (as noted on Page 13, 3.)



Robert Ellis Street



Ornamental Mast Arm



Solar Powered Flasher



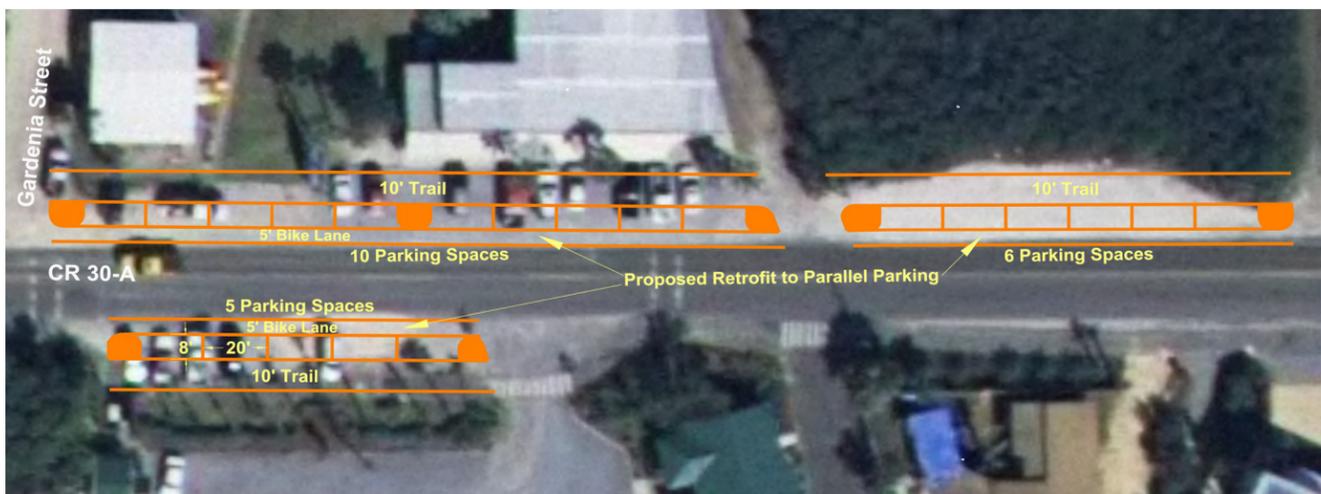
On-Street Parking Using Frontage Road (Pier Park)

Specific recommendations to retrofit parking:

- 1.) Wheelhouse Restaurant ninety (90) degree parking: propose retrofit ninety (90) degree parking to parallel parking as shown to the right. Parking spaces are reduced by approximately fifty (50) percent.
- 2.) Seaside parallel parking: A meeting was held with a Seaside representative on 12/1/05 to request modifications to on-street parking along CR 30-A identified as a safety problem (see Appendix B, Map B – Crash Data). Site plan changes are expected to be submitted by Seaside in the near future. Specifically, a request was made to retrofit parallel parking to include a 10' wide parking lane, a 50' corner clearance from intersections/driveways, and installation of a minimum 10' trail adjacent to parking on sections of CR 30-A being reconstructed. It was discussed that the County may have CIP funding to assist with retrofit, or the County may ultimately determine that parking along CR 30-A may need to be removed in its entirety versus parking retrofit, consistent with the new CR 30-A Design Standards.
- 3.) Additional on-street parking located at Gulf Place, WaterColor and small parking areas located at various retail establishments along CR 30-A are also a concern. Modifications or elimination of these parking areas, particularly any angle or 90 degree parking, should be considered as part of the long-term improvement plan.



Wheelhouse Restaurant - Existing Conditions
Perpendicular Parking (45 spaces)



Wheelhouse Restaurant - Proposed Retrofit
Parallel Parking (21 spaces)

8. Roadway, Trail and Right-of-Way Maintenance Needs

In June 2005, Walton County Board of Commissioners approved contracting trail maintenance. Concerns raised during this study, identified a need to address the following:

- a. Trail infrastructure or signage are recommended as enhancements to improve safety. Pedestrian crossing signs for warning motorists, and bike route signs specifically warning pedestrians/cyclists should be consistently placed in advance of all trail crossings along CR 30-A.
- b. New design standards on CR 30-A identify the minimum width of pedestrian facilities to be 10' wide to ultimately provide for a multi-use trail on both sides of the roadway.
- c. Property owners should be contacted to modify (at their expense) devices and equipment located within County right-of-way causing impediments to bicycle and pedestrian traffic, (i.e. sprinkler systems along trails and sidewalks).
- d. Extend existing trail on the north side of the roadway, and pedestrian facilities at west end of CR 30-A, to connect to US 98 West.
- e. Consider bridge modifications to safely accommodate bicycle/pedestrians and satisfy necessary lateral clearances. Many locations exist where the bridge should be wider or at a minimum, for interim safety measure, consider ten foot (10') travel lanes and/or lane shifting to provide an increase in trail width and improve clearances. If and when bridge reconstruction occurs, it is further recommended that the County replace drainage structures with concrete to reduce maintenance caused by storm drainage.



Extend Existing Trail or Merge Into Existing Trail on North Side



Property Owner's Sprinkler Effecting Trail



Poor Bridge Clearance Recommend Bridge Widening

- f. Monitor locations of high pedestrian traffic in developments which do not accommodate a minimum of an eight foot (8') trail on both sides. These less than eight foot (8') wide trail locations on both sides of CR 30-A are primarily located at Seaside, WaterColor, Rosemary Beach, and Alys Beach. If any of these developments propose a modification to the approved site plan, the County can require the pedestrian facility along CR 30-A to be upgraded to the new 10' minimum standard on both sides of the roadway immediately adjacent to that development. The County may choose to participate in this upgrade if a demand or safety concern arises.
- g. All sidewalks/trails, crosswalks, ramps, signs, posts, poles, and access to public facilities shall be installed or modified in accordance with Americans with Disabilities Act (ADA) and Florida Statutes 553.501, et. al.
- h. Install/replace raised pavement markers (R.P.M.) when trail is adjacent to road where missing.
- i. It is desired to add painted mile markers for trail users (eastbound and westbound) on right edge of trail.
- j. Add raised island at Tom Thumb adjacent to Somerset Bridge Road to improve vehicle and pedestrian safety.



Install Raised Island at Tom Thumb

Note: In 2005, the Walton County Public Works Department entered into a contract with outside services to assist with right-of-way maintenance.

9. Routine Enforcement Along CR 30-A

- a. Apply for Federal Grants to purchase speed radar trailers for application by Sheriff or Public Works Departments. (See Appendix C, Diagram 2, Page C-5, Proposed Signage.)
- b. Apply for Federal Grants to purchase portable Dynamic Message Signs (DMS) for use at scheduled or unscheduled events. These signs should be considered also during adverse weather conditions (i.e., fog).

NOTE: On July 1, 2005, Walton County’s newly approved five deputy traffic patrol unit was on duty with a primary focus on US 98 and CR 30-A for speeding, illegal parking along right-of-way and other traffic violations.



Electronic Speed Sign

10. Shoulders or Bicycle Lane Installation

- a. Shoulder or bicycle lanes shall be installed on both sides of CR 30-A in roadway sections where the speed limit is posted at 35 mph or greater.
- b. A standard ‘clay’ colored pavement shall be used.

(See Section 4.D., Page 24, for additional details on Shoulders/In-Road Bicycle Lanes.)

11. Traffic Control Device Inventory in Geographic Information Systems (G.I.S.)

- a. Inventory all signs for maintenance program using G.I.S.
- b. Inventory traffic signals, flashers and traffic communications equipment for inventory and assistance in locations for construction activity.



Portable Dynamic Message Sign (DMS)

12. Dedicate CR 30-A as ‘Constrained’ Roadway Facility

This designation will encourage quality development, provide enhancements to the public transportation system and protect the roadway as a scenic corridor. A specific designation in the Comprehensive Plan will further enable the County to implement CR 30-A traffic mitigation strategies with livable community design amenities, as identified in the County’s New Traffic Concurrency Management Procedures. Language has been provided to the Walton County Planning Department staff for Plan modifications. (See Appendix D, Page D-4.)

Section 4 - Growth Management Policy Language

In order to achieve the goals of the CR 30-A Traffic Study, additional and new requirements on private development have been identified. Recommended changes to Growth Management policies (i.e., Comprehensive Plan and Land Development Code) are specific to CR 30-A. Consideration to regional issues are included such as emergency management, traffic management, transit and multi-modal travel. Walton County should pursue agreements with public, private or intergovernmental entities to promote changes recommended under this section.

The following is recognized as part of this CR 30-A Traffic Study:

1. CR 30-A is a constrained facility with limited roadway improvement opportunities.
2. There is a need to minimize conflict between vehicles, pedestrians/cyclists and golf carts, and improve mobility through access management and Intelligent Transportation System (ITS).
3. There is a desire to encourage other modes of transportation, reduce motor vehicle trip lengths, and protect and preserve the native vegetation.

B. Non-Residential Land Use Trip Attraction Areas

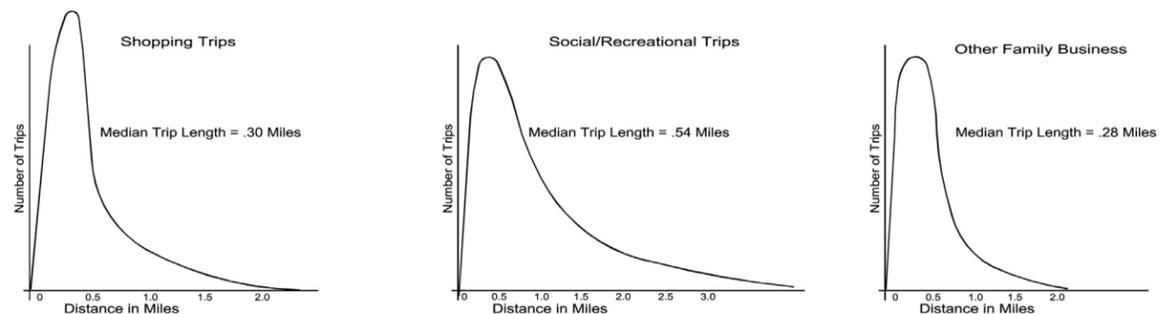
Land use recommendations were not included in the scope of services for CR 30-A Traffic Study. There are many areas along CR 30-A that contain primarily residential land uses. (See Appendix C, Map M, Page C-2, Speed Limits and Roadway Section Designations.)

A mix of residential and non-residential land uses in close proximity will encourage bicycle, pedestrian and transit trips as an alternative to personal motor vehicles. Incentives should be considered as part of redevelopment/infill projects to encourage non-residential land uses where they would help satisfy demand. Non-residential uses, particularly Infill and Village Mixed Use (VMU) should be further reviewed to enhance neighborhood commercial uses.

A. Land Use and Transportation

To obtain desired traffic safety and mobility along CR 30-A, it is imperative to promote a good land use mix. Seasonal residents, permanent residents, and tourists alike come to the beautiful beaches and Gulf of Mexico of Walton County, and enjoy being in an area where they are not totally dependent on motor vehicles. To further promote alternative modes of travel and reduce vehicle trips, the following walking distances by trip purpose are desirable:

The curves below suggest that activities be placed no more than 1/4 mile from housing if walking is to be a serious mode of travel.



Source: Tabulations from the 1990 Nationwide Personal Transportation Survey (NPTS). Walking distances were estimated from reported travel times, assuming everyone walked at the NPTS average speed of 3.16 mph. Curves were smoothed to account for people's tendency to round off travel times.

C. Proposed Policy Language Modifications

Land Development Code (LDC) and Comprehensive Plan language modifications to support CR 30-A traffic study recommendations detailed in Appendix D, Pages D-1 to D-4.

D. CR 30-A Design Standards

The following design standards are recommended for the CR 30-A corridor.

1. Vehicle/Pedestrian Interconnections

a. Compatible Definition:

Vehicular and pedestrian interconnections *shall be provided* between all compatible land uses defined as follows:

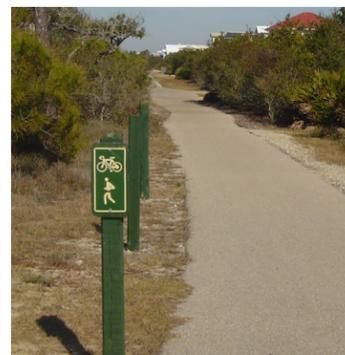
- 1) Within mixed use projects
- 2) Between all residential developments
- 3) Between all non-residential land uses

Pedestrian interconnections *shall be provided* between all incompatible land uses, including between any existing or proposed gated parcels. Gated communities should be discouraged and traditional neighborhood design concepts encouraged. (See Section 4.D.11., Page 22, Mix of Land Uses).

Vehicular interconnections *are encouraged* between all incompatible land use. In few instances, residential developments may not be required to have an internal vehicle connection. To eliminate the residential vehicle interconnection requirement, the connection must be determined detrimental to the health, safety and welfare of the neighborhood or when one or both of the developments are configured in a manner that cut-thru traffic from the adjacent development would more than double the traffic on the existing roadway(s) of the adjacent residential area. The burden of proof is on the developer to support such waivers.



Pedestrian Connection
Internal to Development



Off-Street Multi-Use Trail
and Bike Route
St. George Island

b. Interconnection Requirements:

No vehicle trip reductions for internal capture between adjacent parcels shall be allowed unless all requirements are satisfied.

For all interconnections:

- 1) A cross-access easement shall be dedicated along the interconnection to the primary roadway access right-of-way line.
- 2) Pedestrian connections shall be constructed of concrete, smooth pavers or other suitable materials that do not pose a barrier to people with disabilities.
- 3) Bridge structures may also be required for vehicle or pedestrian interconnections.
- 4) Final locations of all interconnections shall be reviewed and approved by the County Plans Review Engineer or designee.

For interconnections to a non-vacant parcel (compatible or incompatible land use):

- 1) The connection shall be constructed and paved to physically connect to the adjacent parcel's parking area, driveway aisle, sidewalk/trail, or other paved area which is feasible for safe vehicle and pedestrian circulation.
- 2) Property owner is also responsible for:
 - a. Obtaining written approval from the adjacent property owner and securing any necessary cross-access agreements (typically including financial, maintenance and liability responsibilities) to construct and maintain the interconnection.
 - b. Making any necessary grading, striping or landscaping changes.
 - c. Notifying the County of any constraints which cannot be resolved (environmental or between property owners).

For interconnections to a vacant parcel, a physical connection shall be:

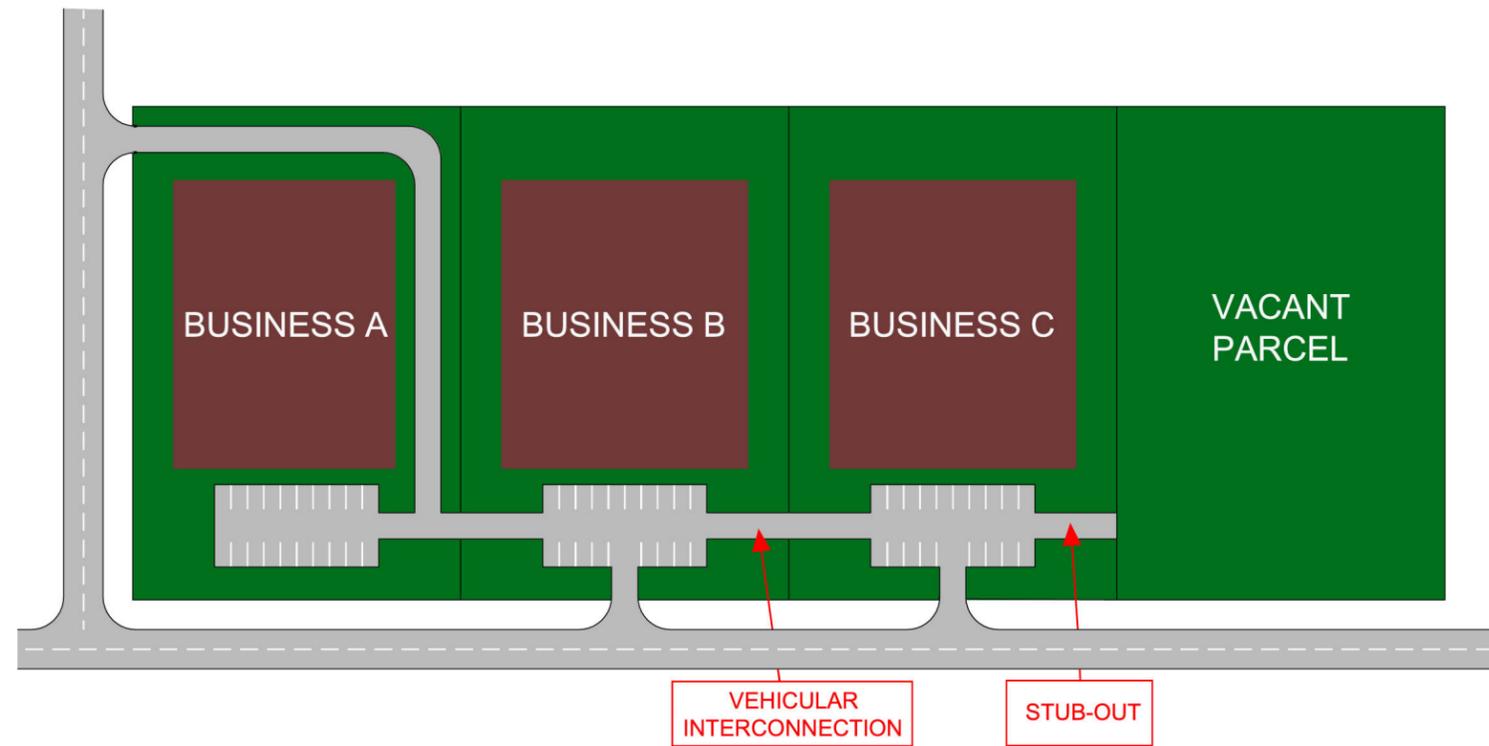
- 1) Constructed and paved to the property line with a minimum width to accommodate two-way traffic (vehicular) and ten foot (10') minimum width (pedestrian) in a feasible location as determined by the County Plans Review Engineer or designee.
- 2) Stub-outs to vacant parcels shall be made visually obvious to abutting properties.
- 3) Cross-access easements shall provide a two foot (2') clearance on both sides of the pavement.

Other interconnection considerations:

Consideration should be given by Walton County to require all new roads to be dedicated to the public and eliminate private roads. In particular, all collector or connector roadways should be required to be public roads. This action will promote interconnections and reduce traffic along CR 30-A.

NOTE: County standards require private roads to be built to public standards. These standards reduce the burden and costs to upgrade private facilities, prior to any private road being dedicated to the public. Maintenance issues can be addressed by developers entering into a Right-of-Way agreement to either pay for maintenance, or pay a fee to the County to outsource services.

COMMERCIAL INTERCONNECTIONS



2. Golf Carts

Golf carts are prohibited from utilizing the right-of-way along CR 30-A per County requirements. However, golf carts can be allowed within a private development or on an interconnected off-street bicycle/pedestrian facility between developments. This internal bicycle/pedestrian facility must:



Golf Carts in Parking Lot

- a. Be a minimum of twelve (12) feet wide with dedicated easements located internal to developments.
- b. Must be signed for bicycle/pedestrian and golf carts.
- c. The length of any golf cart facility must exceed a distance of one half mile and connect to a destination-oriented non-residential area.

3. Signals/Intelligent Transportation System (ITS)

a. Mast Arms (Ornamental):

Ornamental mast arms are required along CR 30-A.



Ornamental Mast Arm

b. Countdown Pedestrian Signals:

These devices may be required by County staff.



Countdown Pedestrian Signals

c. Overhead Street Name Signs: Eighteen inch (18") overhead street name signs are required on all span wires and mast arm support systems.

d. Underground Fiber Optic Communication: Fiber optic communication is required between any proposed ITS or signal device, and required to connect to existing facilities in close proximity to the device. Fiber optic communication for traffic control should be considered along CR 30-A and County Roads connecting to CR 30-A with installation of a minimum two inch (2") conduit within the right-of-way.

e. Dynamic Message Signs (DMS): Fixed DMS should only be considered after a plan is developed by Walton County to implement an advanced traffic management center. DMS must meet Florida Department of Transportation (FDOT) District 3 Regional ITS Architectural Standards, meet National Transportation Communications Interface Protocol (NTCIP) Standards, be a fixed structure, and must be maintained by FDOT or other parties under contract with FDOT or Walton County. Sign locations must be approved by Walton County Public Works and Emergency Management staff to ensure sign placement satisfies the goal of providing useful motorist information in a timely manner to allow motorists to choose an alternative travel route. A Closed-Circuit Television (CCTV) is recommended to be installed with a DMS.

f. Closed Circuit Television (CCTV): Traffic monitoring cameras, known as CCTV, allows for signal timing improvements as well as enhanced traffic mobility during scheduled and unscheduled events. CCTV specifications must meet FDOT District 3 Regional ITS Standards, and must be maintained by FDOT or other parties contracted by FDOT or Walton County. CCTV should only be considered after a plan is developed by Walton County to implement an advanced traffic management center.

4. Landscaping Standards

a. Shade Trees and Shrubbery: Shade trees are encouraged to be planted adjacent to trails along CR 30-A to provide a comfortable environment for cyclists and pedestrians. Trees must be mature and no less than three inches (3") in diameter. Trees should be installed in close proximity to the bicycle/pedestrian facility in accordance with Walton County design standards, but no closer than two feet (2') from the edge of the trail/sidewalk. Tree spacing shall be approved by Walton County and will vary depending on the species.

Landscape maintenance, pruning and watering is required by the private entity during the maturation period. Trees must be under warranty and any tree that does not survive after one (1) year from installation, shall be replaced.

To ensure safety, sight visibility from the roadway must be maintained. Street tree and shrubbery installations adjacent to pedestrian facilities shall maintain a vertical clearance between three feet (3') and nine feet (9') in height.



Ornamental Lighting and Shading

b. Roadway Landscaping: Landscaping adjacent to the roadway shall satisfy lateral clearance 'clear zone' requirements.

c. Sight Distance: The clear visibility triangle requirements must be satisfied from all side roads or driveway intersections.

5. Illumination Standards

- a. **Roadway Lighting:** Lighting should be included in all walkable areas and concentrated at intersections and crosswalks to ensure visibility for pedestrians, cyclists and vehicles.
- b. **Ornamental Lighting:** Light posts and fixtures should be consistent with the architectural character of the immediate area.
- c. **Pedestrian Lighting:** Lighting is encouraged along the CR 30-A right-of-way adjacent to the pedestrian/bicycle trail for security purposes.
 - Luminaries should not be mounted to exceed twelve feet (12') in height and have a maximum of 8,000 lumens.
 - Pedestrian light posts should be spaced no greater than fifty feet (50').
 - Light shields should be used to keep light focused downward to reduce light pollution for the nighttime sky and stars.
 - No light fixtures shall be installed near the beaches for protection of sea turtles.



Pedestrian Lighting



Intersection Bulb-Outs

6. Parking Standards

- a. **On-Street Parking:** Parking immediately adjacent to CR 30-A should be restricted for new developments and is allowed along frontage roads only.
- b. **Bulb-Outs:** The devices should be used to minimize the pedestrian crossing distances at intersections, and bulb-outs are recommended to be landscaped or include street furniture.
- c. **Parking Garages:** Above grade or underground parking structures are appropriate in high-density areas to reduce the paved surface area. Above grade parking garages are recommended to include

retail uses on the ground floor. All above ground parking garage structures in close proximity to CR 30-A, must satisfy scenic corridor standards and be approved by the CR 30-A Design Review Board. (See Page 22, Section 4, D,13.e., for recommendations of pedestrian overpasses.)

7. Sidewalks/Trails

- a. **Infrastructure:** All new pedestrian facilities along CR 30-A should be designed as a multi-use trail and have a minimum width of ten feet (10') adjacent to any vacant or redeveloped property. Facilities can be provided outside of the County right-of-way to meet safety requirements and shall record a dedicated fourteen foot (14') wide easement for such facilities.
- b. **Clearance Requirements:** 'Clear zone' requirements shall be satisfied between the road and the paved sidewalk/trail.
- c. **Shading:** Street trees are required adjacent to facility as an effective way to ensure a comfortable pedestrian zone protected from moving traffic.
- d. **Benches and Water Fountains:** Street furniture and water fountains should be considered along with pedestrian amenities adjacent to CR 30-A.



Minimum 10' Wide Trail

8. Lateral Clearance 'Clear Zone' Requirements

Facility Type	Posted Speed Limit (mph)				
	25	30	35	40	45
Rural	6.0'	6.0'	10.0'	10.0'	14.0'
Rural with 4' Shoulder	4.0'	6.0'	6.0'	6.0'	10.0'
Curb & Gutter	2.5'	2.5'	4.0'	4.0'	6.0'

Notes: Measurements are from edge of travel lane or face of curb to non-frangible obstacle. Requirements vary slightly from FDOT Greenbook for CR 30-A.

9. Utilities

All new utilities shall be underground. If underground utilities are not economically feasible, a spot or partial overhead shall be provided.

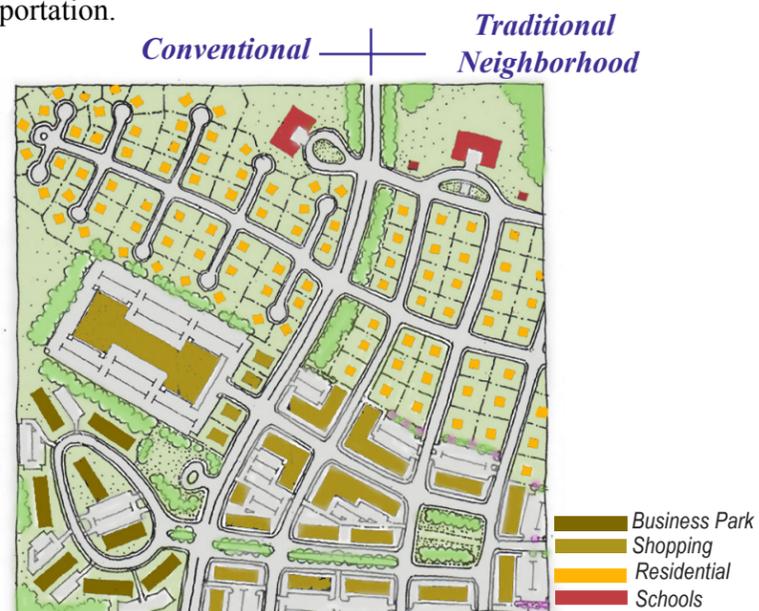
10. Speed Limit and Roadway Section Designations

Posted speed limits are generally as follows:

- Town Sections - 25 mph (min.)
- Residential Sections - 35 mph
- Rural Sections - 40 mph
(45 mph maximum would be allowed if paved shoulders exist on both sides of CR 30-A.)

11. Mix of Land Uses

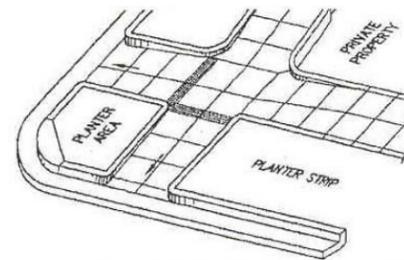
Proximity of shopping services, recreational amenities, and employment centers to each other and to the surrounding residential uses facilitate walking and bicycling, as an alternative to driving. The traditional neighborhood concept with interconnectivity of land uses and transportation facilities should be applied in all cases. The Future Land Use Map (FLUM) should be modified as needed to provide for an appropriate density, intensity and mix of land uses to support multi-modal transportation.



Source: DPZ

12. ADA Standards

Sidewalk and pedestrian facilities should meet Americans with Disabilities Act (ADA) and Florida Statutes 553.501, et. al., to serve the needs of the elderly and disabled. Two (2) ramps per corner are required or one (1) ramp is sufficient if clearly defined curb return edge (i.e., curb and gutter). Tactile warning surface is required.



Handicap Ramps Two Ramps per Corner

13. Bicycle/Pedestrian Crossings

- a. **Pavement Markings:** Crosswalks shall be designed with high intensity (Zebra) thermo plastic; stamped and/or colored concrete or crosswalk pavers are permitted; angled crosswalks may be used to increase visibility between pedestrians and motorist. The orientation of the angled crosswalks allow pedestrians to face oncoming traffic instead of crossing in the standard perpendicular location. Thermoplastic stripes shall be designated with twenty-four inches (24”) wide longitudinal lines and spaced eighteen inches (18”) apart.
- b. **Crosswalk Distances:** Spacing between crosswalks shall not be closer than two hundred feet (200’).
- c. **Sight Distance:** Sight distance shall be in accordance with intersection visibility requirements and include safe vehicle stopping distances.
- d. **Signs:** Crosswalk signs must be installed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD) and consistent with CR 30-A sign standards.
- e. **Grade Separated Crossings:** Overhead pedestrian crossings over CR 30-A, shall be considered in conjunction with and connecting to multi-level parking or building structures. These structures must be approved by the CR 30-A Design Review Board.



Zebra Pavement Markings



Stamped and Colored Crosswalk



Pedestrian Overpass

f. Pedestrian Crossing Guidelines: The recommendations in the table below are intended to provide guidance for installing marked crosswalks and other pedestrian crossing facilities based primarily on research and engineering study analysis results. In all cases, the final design must accomplish the goal of getting pedestrians across the road safely.

In most cases, marked crosswalks are used best in combination with other treatments, such as curb extension ‘bulb-outs’, traffic signals, in-pavement pedestrian flashing devices, roadway narrowing, enhanced overhead lighting or traffic calming measures. Marked crosswalks should be thought of as one option in a progression of crosswalk design treatments. Failure of one particular treatment is not a license to give up and do nothing.



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

Number of travel lanes (including center turn lane) and median type	Vehicle ADT ≤ 9,000			Vehicle ADT ≥ 9,000 to 12,000			Vehicle ADT ≥ 12,000 to 15,000			Vehicle ADT ≥ 15,000		
	≤ 30 mph	35 mph	40 mph	≤ 30 mph	35 mph	40 mph	≤ 30 mph	35 mph	40 mph	≤ 30 mph	35 mph	40 mph
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
≤ four lanes with raised median ^b	C	C	P	C	P	N	P	P	N	N	N	N
≥ four lanes with on median	C	P	N	P	P	N	N	N	N	N	N	N

*Note: 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 design, 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 it necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (such as raised medians, traffic signals, roadway narrowing, enhanced overhead lighting, traffic calming measures and 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.

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 in-depth study of pedestrian volume, vehicle speed, sight distance and vehicle mix may be needed at other sites. It is recommended that a minimum of 20 pedestrian crossings per peak hour (or 15 or more elderly and/or child pedestrians) exist 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 monitored closely and enhanced with other pedestrian crossing improvements, if necessary, before adding a marked crosswalk.

N= Marked crosswalks alone are insufficient because pedestrian crash risk may be increased due to providing marked crosswalks alone. Other treatments should be considered, such as traffic calming treatments, traffic signals with pedestrian signals where warranted, or other substantial crossing improvements to improve crossing safety for pedestrians.

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

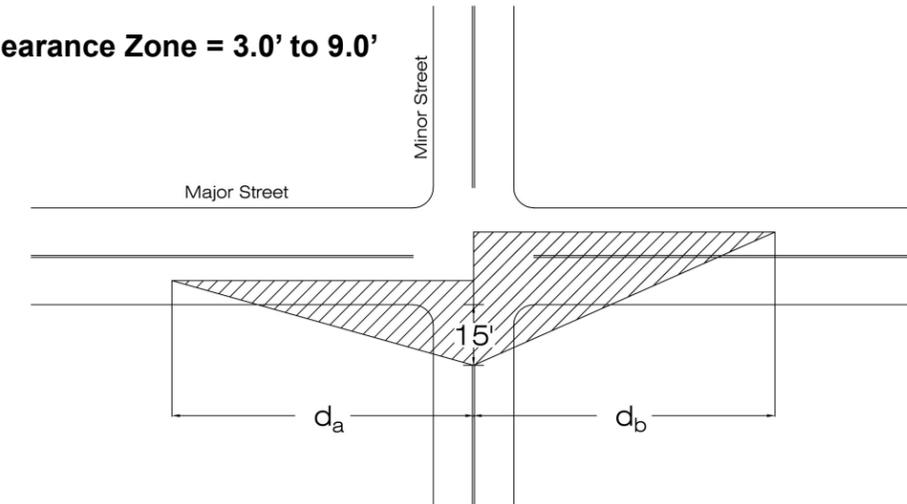
^b The raised median or crossing island must be at least 4 feet (1.2 meters) wide and 6 feet (1.8 meters) long to serve adequately as a refuge area for pedestrians in accordance with MUTCD and American Association of State Highway and Transportation Officials guidelines.

Source: ITE

14. Clear Visibility Triangle

Sight distance must be satisfied from all side roads or driveway intersections.

Vertical Clearance Zone = 3.0' to 9.0'



Design Speed (Vmajor)	Sight Distance Required	
	da	db
25 mph	240	280
30 mph	290	335
35 mph	335	390
40 mph	385	445
45 mph	430	500

- Sight Distances are based on AASHTO ‘A Policy On Geometric Design Of Highways and Streets, 2001’, Chapter 9, Intersection Sight Triangles, Cases B.

- Observes eye height at 3’6” and observed object height at 3’6”.

$$d = 1.47 \times V_{major} \times tg^*$$

d = Intersection sight distance

Vmajor = design speed of major roadway

*tg = time gap for minor road vehicle to enter the major road

(passenger car = 7.5 seconds for left turn & 6.5 seconds for right turn)

15. Turn Lanes

For any roadway modifications, (i.e., addition of turn lanes) the new roadway alignment should minimize any adverse environmental, social, and economic impacts.

16. Medians

Medians are required (unless environmental constraints exist) when left turn lanes are warranted and constructed. Medians must be a minimum total length of 200', and minimum width of 5' for safe pedestrian refuge. FDOT Type A curb and gutter is required.

17. Compact Intersection Design

The following shall be considered at all intersections with CR 30-A to enhance pedestrian safety:

- Island turn lanes
- Right turn yield to pedestrian signs
- Corner clearances (especially at intersections with traffic control devices, or on-street parking)
- Minimal design vehicle turning radii

18. Shoulders/In-Road Bicycle Lanes

Requirements for safety shoulders or bicycle lanes are as follows:

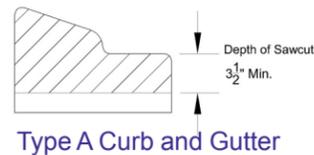
- Along all roadway segments posted at or above 35 mph, a four foot (4') shoulder is required on both sides or five foot (5') shoulder required adjacent to existing or retrofit on-street parallel parking.
- Shoulders and bike lanes shall be colored in a standard 'clay' color as approved by Walton County Public Works.
- At the termini of the paved shoulder and transition to a speed limit less than 35 mph, a bicycle ramp shall be constructed to connect the shoulder and trail/sidewalk
- A 'Cyclists Share the Road' sign shall be installed along roadway segments without shoulders or bicycle lane.



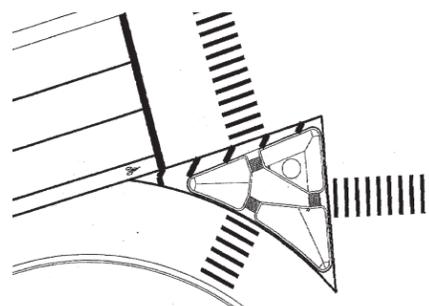
'Clay' Colored Shoulder



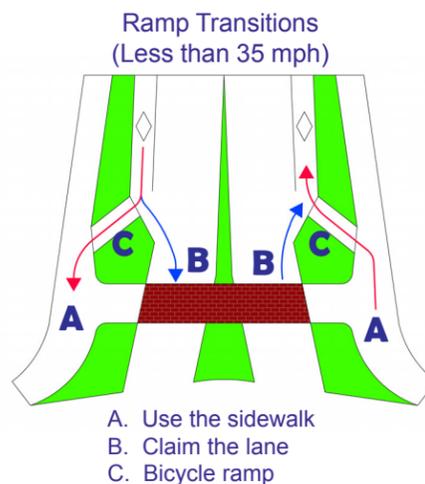
Turn Lanes with Landscaped Median



Type A Curb and Gutter



Island Turn Lane



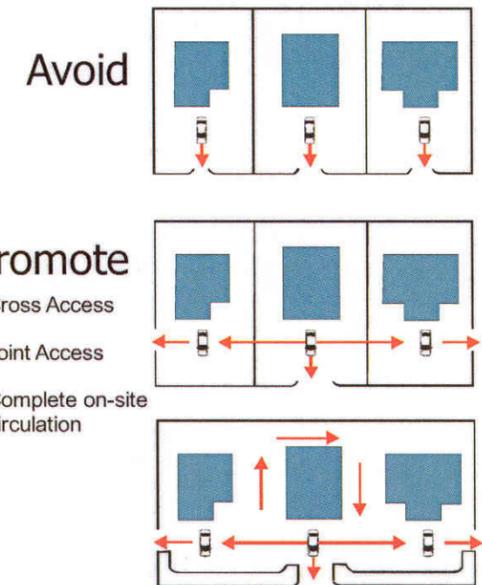
- A. Use the sidewalk
- B. Claim the lane
- C. Bicycle ramp



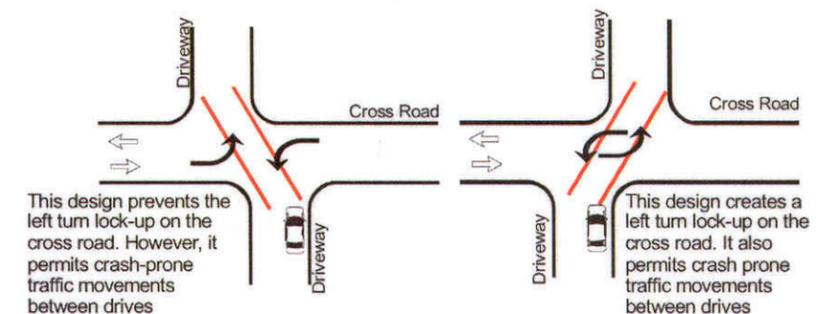
"Cyclists Share the Road"

19. Access Management

- a. **Shared driveways or cross-access easements:** Minimum offset distances between driveways on opposite sides of the roadway are required to be offset by 200'. Driveways shall be no closer than 250' apart, except where the parcel does not allow for this separation. In such cases where the parcel width does not provide a 250' separation, a shared/joint access should be required. If the shared/joint access is determined to be unfeasible at the time of permitting, the site shall be designed to maximize the separation of driveways or provide an easement to accommodate a future shared/joint access. Nonconforming driveways may be required to be modified in the future, at the owner's expense, if a shared/joint access becomes attainable. See Vehicle / Pedestrian Interconnections (Section 4.D.1.) for general information regarding cross-access easements.

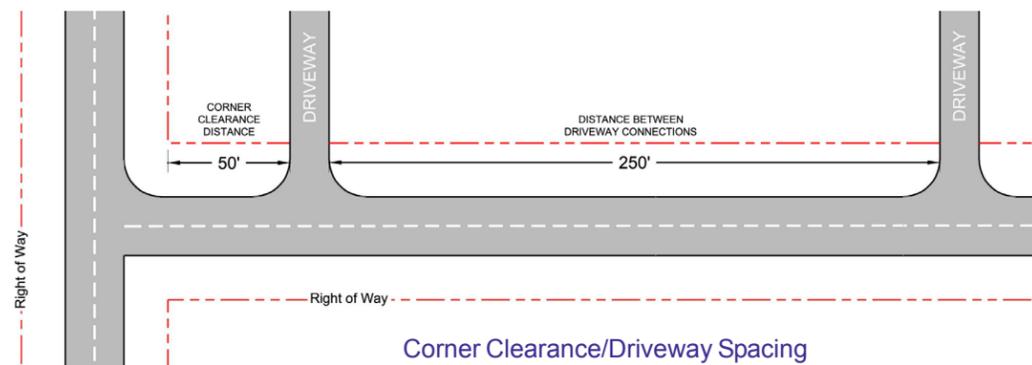


Shared Driveways and Internal Site Interconnection
Source: FDOT Driveway Handbook, Chapter 9

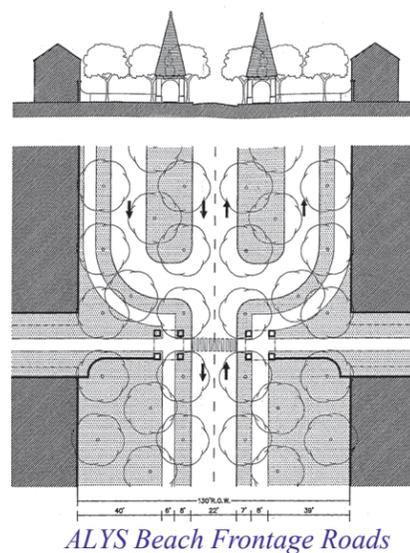


Access Connections on Opposite Sides of a Roadway
Source: FDOT Driveway Handbook, Chapter 9

b. Corner Clearances: Clear visibility must be a minimum of fifty feet (50') from the intersection right-of-way, and may be required to be located at a greater distance to ensure safety or operational problems are not created. If no other reasonable access exists, exceptions will be allowed but may be required to be modified in the future (at the owner's expense) if an alternative access becomes available.



c. Parallel (frontage) roads: Frontage roads or a boulevard design of CR 30-A (similar to CR 30-A adjacent to Alys Beach) shall be used, when possible, to minimize the number of access driveways and intersecting roads, and maintain safe and efficient operations of CR 30-A. Frontage roads are located in close proximity and parallel to the main roadway and are typically located between the main road and building/parking area. However, rear service or interconnected roadways set further away from the main road can provide similar benefits.



20. Vehicle Storage

a. Gated Entrances: For developments with gated entrances, the gates must be setback from the public right-of-way a minimum of one hundred feet (100'), or seventy five feet (75') if it is a residential development with less than ten (10) single-family dwelling units. Gated communities should be discouraged, and traditional neighborhood design concepts encouraged.



Gated Entrance

b. Driveway Throat Length: A two-minute vehicle stacking for each driveway access during critical peak hour(s) shall be provided without obstruction to the adjacent roadway, or internal parking and internal access aisles.



Driveway Length

Source: FDOT Driveway Handbook, Chapter 6

Section 5 - Traffic Capacity, Concurrency and Long-Term Improvements

This Traffic and Concurrency Section provides a long-term plan to address the buildout of developable properties and encourage managed growth while protecting the environment. The recommended Traffic Concurrency Management System (coordinated with a separate study) should be utilized to monitor the roadway capacity status as the new developments currently under construction are completed, and to evaluate the potential impacts from additional development along the CR 30-A corridor.

A. Concurrency Road Segments

CR 30-A is currently divided into six (6) roadway segments in the County's concurrency management system. Up to twenty six (26) segments are being considered along the 18.4 miles of CR 30-A in the new system to allow for:

- improved assessment of impacts;
- more reasonable trip distribution;
- a logical breakdown of roadway characteristics;
- improved traffic counts; and
- the ability to conduct more accurate operations analyses.

Existing and proposed concurrency segmentation is shown on Appendix C, Map N, Page C-3, Concurrency Recommendations. New traffic concurrency standards have been adopted (January 2006). The implementation process to convert daily figures to P.M. peak hour data with new roadway segments, is anticipated to be complete by mid 2006.

B. Build-Out Traffic Analysis

Vacant Parcel Information:

Aerial photography was used to identify vacant parcels located approximately 925' north and south of CR 30-A right-of-way. Aerial photography was obtained from Regional Utilities/Preble Rish (2004 aerials) and more recent 2005 aerials were obtained from FDOT. The distances used to analyze vacant parcels from the right-of-way along CR 30-A varies using three hundred feet (300') as a minimum, in accordance with the scope of services. Vacant parcels were identified in distances as much as 925' from the CR 30-A right-of-way line, and at times are limited by the Gulf of Mexico but include entire subdivisions or parcels in their entirety. Field reviews were conducted to verify larger parcels. A review of committed trips within the existing traffic concurrency system, maintained by Walton County, was referenced to identify and eliminate duplication of parcels currently approved but not developed.

A total of 430 vacant parcels were identified, with a total area of approximately 282 acres. The vacant parcel acreage compared to the total study area acreage used in this analysis (approximately 4,000 acres) indicates a 7% vacancy.

In addition, due to recent DRI threshold changes in Walton County (499 to 799 dwelling units), the Alys Beach property was considered to potentially include an additional 300 dwelling units. Vacant parcels were overlaid with the August 2004 Future Land Use Map (FLUM) provided by Walton County. Land use amendments currently in the Comprehensive Plan Amendment cycle for Fall 2005 were not considered in this analysis. A map showing all vacant parcels and the FLUM overlay has been provided to the Walton County Planning Department.

Land Use Designation, Densities and Intensities:

There are a total of seven (7) land use designations within this vacant parcel study area. Of all 430 vacant parcels, 86.5% are less than 1.0 acre and 13.5% are 1.0 acre or more. A summary of the vacant parcels per FLUM designation is as follows:

<u>FLUM Designation</u>	<u>Acres</u>	<u># Parcels</u>
Conservation	7.55	3
Conservation Residential	1.21	1
General Agriculture	2.00	1
Infill	90.05	70
Residential Preservation	111.98	291
Small Neighborhood	7.70	2
Village Mixed Use Center (VMUC)	<u>61.35</u>	<u>62</u>
	281.84	430

A land use density and intensity analysis was conducted in coordination with Walton County Planning Department staff for the applicable FLUM land use designations. The density and intensity assumptions for each FLUM category are identified in the following table:

DENSITY/INTENSITY ASSUMPTIONS FOR VACANT PARCELS

FLUM CATEGORY	DENSITY	INTENSITY
Conservation	0DU/Ac	
Conservation Residential	2DU/AC	
Residential Preservation	1DU per lot	
Infill	<p>If vacant lot is less than 3 acres, 100% of Vacant lot acreage generally developed as Residential – 7.5 DU/AC</p> <p>If greater than 3 acres, 80% of vacant lot acreage generally developed as Residential – 7.5 DU/AC</p>	<p>If vacant lot is less than 3 acres, Non Residential is generally 0%</p> <p>If greater than 3 acres, 20% of vacant lot acreage generally developed as Non-Residential -10,000sf per acre</p>
VMUC Village Mixed Use (VMU)	<p>If vacant lot is less than 3 acres, 100% of Vacant lot acreage generally developed as Residential – 12 DU/AC</p> <p>If greater than 3 acres, 80% of vacant lot acreage generally developed as Residential –12 DU/AC</p>	<p>If vacant lot is less than 3 acres, Non Residential is generally 0%</p> <p>If greater than 3 acres, 20% of vacant lot acreage generally developed as Non-Residential - 10,000sf per acre</p>
Small Neighborhood	<p>If vacant lot is less than 3 acres, 100% of Vacant lot acreage generally developed as Residential – 7.5 DU/AC</p> <p>If greater than 3 acres, 80% of vacant lot acreage generally developed as Residential – 7.5 DU/AC</p>	<p>If vacant lot is less than 3 acres, Non Residential is generally 0%</p> <p>If greater than 3 acres, 20% of vacant lot acreage generally developed as Non-Residential - 10,000sf per acre</p>
Agriculture	1DU/40AC	

The correlation of vacant parcels to the densities/intensities along the entire corridor is as follows:

- 1,941 residential dwelling units
- 92,470 square feet non-residential

Parcels and corresponding dwelling units square feet of non-residential were divided into twelve (12) locations (western and eastern portions), for each of the six (6) concurrency segments (in the existing concurrency system) along CR 30-A.

The six (6) segments include:

- US 98 West to CR 393
- CR 393 to CR 83
- CR 83 to CR 283
- CR 283 to CR 395
- CR 395 to Camp Creek
- Camp Creek to US 98 East

Trip Generation and Distribution:

Daily trip generation was developed per parcel for the twelve (12) locations using *Institute of Transportation Engineers (ITE) Trip Generation, 7th Edition*. In all cases, a conservative trip generation rate was used; single-family (permanent dwelling unit) trip rate for residential, and specialty retail (higher than shopping center for small parcels) used for non-residential. These more conservative rates were applied so potential changes for redevelopment would be captured. Furthermore, no reductions for internal capture or changes to modal split were considered.

The entering and exiting trip split was applied consistent with ITE. For each of these twelve (12) locations a daily trip distribution and attenuation was conducted for the entire length of CR 30-A. This attenuation is more conservative than required

under current concurrency procedures which limits the trip length from 0.25 miles to up to one (1) mile for residential or two (2) miles for non-residential.

It is noted that the traffic concurrency procedure modifications were adjusted in January 2006. As a result of changes proposed in concurrency procedures:

- 1) The trip attenuation length will be similar to those used in this analysis;
- 2) A P.M. peak hour trip generation and P.M. peak hour capacity will be available upon implementation of new procedures; and
- 3) The six (6) concurrency roadway segments will be further divided.

The additional daily trips generated by vacant parcels result in a combined total of 22,674 vehicles per day (vpd). Attenuation of these 22,674 vpd trips along the various roadway segments result in traffic loadings equaling 30,029 vpd. The 30,029 vpd are estimated to occur along the CR 30-A segments as follows:

Roadway Segments	Vacant Parcel Trips (vehicles per day)
US 98 West to CR 393	6,061
CR 393 to CR 83	4,627
CR 83 to CR 283	3,729
CR 283 to CR 395	4,642
CR 395 to Camp Creek	6,076
Camp Creek to US 98 East	<u>4,894</u>
	30,029

Build-Out Concurrency Conditions:

These vacant parcel build-out trips were then added to the daily concurrency system numbers available at the time of this study. A summary of vacant parcel/build-out condition is as follows:

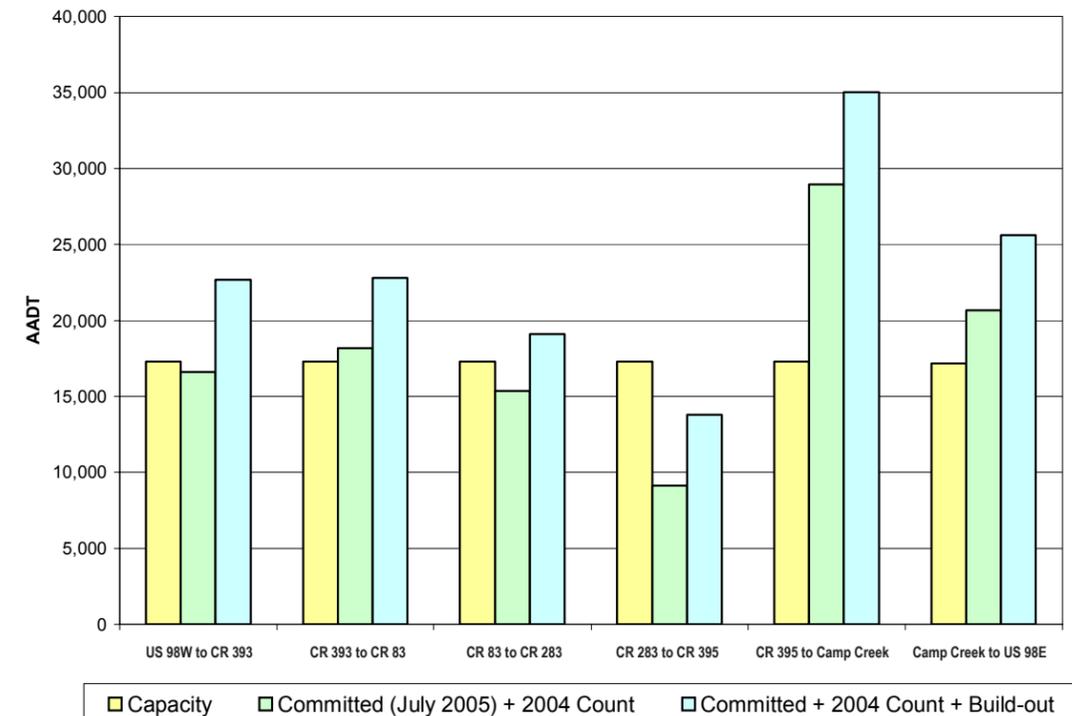
CR 30-A Vacant Parcel/Build-Out Traffic Conditions

-----This data was obtained from Walton County's July 2005 Traffic Concurrency Spreadsheet----->

FDOT Count Station Numbers	Segment	Daily Maximum Service Flow ("Capacity") at Adopted LOS	AADT (2004 Count)	Committed Traffic	Total Daily Demand, Committed Traffic + 2004 Count	Total Daily Available Capacity	Added Daily 'Build-out' Traffic from Vacant Parcels	Committed Traffic + 2004 Count + Build-out Traffic	Total Daily Available Capacity w/ Build-out Traffic
220	US 98W to CR 393	17,300	6,600	10,025	16,625	675	6061	22,686	-5,386
258	CR 393 to CR 83	17,300	7,900	10,265	18,165	-865	4,627	22,792	-5,492
263	CR 83 to CR 283	17,300	8,100	7,268	15,368	1,932	3,729	19,097	-1,797
267	CR 283 to CR 395	17,300	7,600	1,542	9,142	8,158	4,642	13,784	3,516
268	CR 395 to Camp Creek	17,300	13,500	15,460	28,960	-11,660	6,076	35,036	-17,736
235	Camp Creek to US 98E	17,162	6,800	13,894	20,694	-3,532	4,894	25,588	-8,426

Summary of All Vacant Parcel Analysis:	
Total Study Area Acreage	4,005
Total Vacant Parcels	430
Total Vacant Acreage	281.84
Percentage of Vacant Acreage to Total Study Area Acreage	7.04%
Total Residential D.U.	1,941
Total Non-Residential S.F.	92,470
Total Daily Trips	22,674
Total Future Daily Trips to CR 30-A (including attenuation)	30,029

Daily Traffic Capacity and Forecasted Volumes for CR 30-A Per Roadway Section



Results and Recommendations:

This table and graph indicates that three (3) roadway segments along CR 30-A were deficient at the time of the analysis, July 2005. The majority of the segments will be deficient in the future based on current growth patterns and adopted Level of Service (LOS) 'D' standards. Traffic concurrency procedures, adopted January 2006 and to be implemented by mid 2006, will allow for mitigation of deficient project trips, require traffic operations and safety studies, and consider alternative transportation modes to reduce the automobile traffic along CR 30-A.

In combination with recommendations in this report to improve existing conditions, modified design standards and development requirements, designation of CR 30-A as a constrained facility, and efforts to achieve this long-term transportation vision, the forecasted LOS traffic volumes could be significantly reduced. In the near future, the regional Long Range Transportation Plan (LRTP) model will be enhanced through the Transportation Planning Organization (TPO) process to also provide an assessment of traffic forecasts along this scenic corridor.

It is anticipated that these manual traffic forecasts would provide a more conservative level of analysis than forecasts from a regional model, provided ongoing enhancements are made to the transportation system combined with land use patterns to support reduced vehicle trip lengths and automobile dependency. An ongoing effort to evaluate annual traffic counts, regional model forecasts and the affects of traffic concurrency mitigation strategies along CR 30-A are recommended to successfully achieve long-term strategies and goal for mobility, safety and livability.

C. Capacity Improvement Considerations

Several strategies have been considered throughout this report to improve mobility and increase vehicle capacity. There is no single solution to improve mobility and reduce vehicle congestion.

Future Planning to include:

- a. New parallel roads such as connector roadways between existing roadways and developments, rear road connectors to existing County Roads, a new North-South roadway, and WaterSound Parkway dedication as a public road;
- b. Advanced traffic management/ITS technology and emergency management;
- c. Transit facilities;
- d. Multi-modal design features.

Capacity is a function of roadway characteristics and traffic volumes. Capacity is measured as the maximum traffic volume that can travel a particular roadway segment at the adopted LOS standard. Operations programs are used to assess capacity. Typical program outputs are average vehicle travel speeds, average vehicle delay or volume to capacity. To generally understand the varying conditions of CR 30-A, travel time runs conducted were compiled. (See Appendix B, Chart 1, Page B-12.)

Some of the major enhancements to CR 30-A include both physical improvements and development of new and advanced transportation elements. Recommended enhancements will require regional, long-term planning efforts and alternative funding sources for implementation, operations and maintenance. Because we have had a record breaking number of hurricanes to hit the USA and State of Florida during the 2004/2005 hurricane season, hurricane preparedness has become even more of an emphasis for coastal communities.

1. New and Dedicated Public Roads

a. New Road Between CR 395 and WaterSound Parkway:

A vehicle capacity and hurricane evacuation improvement consideration includes a new North-South road to connect CR 30-A to US 98, located between CR 395 and US 98 East. Results from the North-South road analysis (summarized below and detailed in Appendix F) indicates the following:

- Traffic loadings in immediate years are low along the North-South road.
- There is some benefit/use of this new North-South road at CR 30-A build-out. However, the affect on the environmental and permitting issues necessary to construct a new roadway within the State Forest may not be feasible.
- This roadway could also be used for hurricane evacuation, however, a law enforcement officer or traffic signal would likely be needed at the intersection of US 98 to allow motorists to enter onto US 98.
- A parallel alternative road to CR 30-A (which can also be achieved through interconnections), located on the south side of the State Forest, would likely provide more benefit in reducing daily and peak hour traffic loadings along CR 30-A than a North-South road connecting to US 98. Model results from the 2004 base year model indicate this parallel roadway, which connects to CR 395 to the west, would attract approximately 6 times the traffic or 1,144 vpd (versus 189 vpd) than a new North-South roadway would attract.
- If a North-South roadway corridor connecting CR 30-A to US 98 is pursued by Walton County in the future, recommendations and Guiding Principles for Design Features and Construction should be established. (See Appendix F, Text 1, Page F-2, North-South Road Analysis Summary.)

b. **WaterSound Parkway:**

A discussion held with a St. Joe representative indicated that dedication of this roadway to the public was planned in early 2006. County representatives were notified, although no details as to any conditions for dedication were identified. It should be noted that the County has required St. Joe to install a signal at US 98 / WaterSound Parkway and an eastbound left turn lane along CR 30-A at this road.

2. Advanced Traffic Management System (ATMS) (Signals/Intelligent Transportation System (ITS) and Emergency Management):

Intelligent Transportation System (ITS) equipment is intended to improve traffic mobility and safety. In addition, these devices can assist with traffic management during unscheduled and scheduled events (i.e., hurricane evacuation, roadway/lane closures, construction activities, fog/weather conditions and special events). However, prior to proceeding with fixed Dynamic Message Sign (DMS) or Closed Circuit Television (CCTV), the County must develop a plan for an advanced traffic management center. This center would be coordinated with Florida Department of Transportation (FDOT) and may be an extension of the Okaloosa County signal system, a remote traffic center, or joint facility with Walton County Emergency Management.

Intelligent Transportation System (ITS) devices include:

- a. Fixed Dynamic Message Signs (DMS)
- b. Fiber-optic communication
- c. Replacement of span wire flashers/signals with mast arm signals
- d. Closed Circuit Television (CCTV)



CCTV on Mast Arm



Fixed DMS

A concept ITS Plan was developed for Walton County (see Appendix G, Map Q, Page G-1, ITS Concept Plan.) A phase one plan to install fiber optic communications and test ITS devices on US 98 is initially proposed. (See Appendix G, Map R, Page G-2, Phase 1 ITS Plan.) A coordination meeting was held on January 24, 2006 with Walton County Emergency Management, Walton County Sheriff Department and Planning Department staff to discuss long-term planning for ATMS, ITS with Emergency Management. Meeting minutes are shown in Appendix G, Text 2, Pages G-3 to G-4. Partners identified to participate in coordinated efforts include the following:



3. Transit: To address current congestion and future congestion anticipated at build-out along CR 30-A, transit implementation is recommended as one of the strategies to improve mobility. Requirements to plan and implement a transit system are identified in new traffic concurrency mitigation strategies along CR 30-A and future Walton County Comprehensive Plan language recommended as shown in Appendix D, Pages D-1 to D-4. It is recommended that Walton County coordinate with Okaloosa County Transit (OCT) and pursue Federal, State, local and private funding.

Possible Transit/Trolley Stops: to implement transit in Walton County, and assist with operations/maintenance costs.

- | | |
|--|----------------------------------|
| • US 98 West | • Seaside |
| • Van R. Butler School/
Cypress Dunes | • CR 395 |
| • Highland Avenue | • Seagrove Park/Gulf Shore Manor |
| • Ed Walline | • Lakewood Drive/Towne Center |
| • Gaffreys Art Gallery | • WaterSound Parkway |
| • CR 83 | • Seacrest |
| • Grayton Beach | • Highpoint Condos |
| | • Rosemary Beach |

Source: Seaside

On November 30, 2005, a coordination meeting was held with Okaloosa County Transit staff, Walton County Planning Department, and TDC staff to discuss ways to proceed with transit along CR 30-A and South Walton County. Meeting minutes are identified in Appendix H which identify action items necessary to proceed.

4. Multi-Modal Transportation: Sections within this report include enhancements to support bicycle, pedestrian and transit safety/mobility. A bicycle-pedestrian master plan is recommended to be developed for CR 30-A and other areas of Walton County in the future.



Transit Trolley



Bus Stop/Shelter

D. Revised Concurrency and Mitigation Strategies

Modification to the traffic concurrency system is underway. A more accurate measure of existing conditions and monitoring the affect on traffic from developments is proposed. Recommendations of that project, (under separate contract), had identified problems with the current system, such as:

- Double counting of trips
- DRI's and de minimis projects not fully accounted for
- Inclusion of pending project traffic (not yet approved)
- Long segments with limited count stations
- Unrealistic trip attenuation limits
- Daily trip assignments limiting operational details
- No ability for mitigation and inconsistent application of procedures due to staff turnover in last several years.

Mitigation Strategies:

1) Proportionate Fair Share (County wide)

- Projects included in the County's approved CIP can be funded by private developers as a fair share to offset traffic impacts.
- Proportionate Fair Share requirements were developed by Walton County staff and consistent with FDOT's model ordinance.

2) Alternative Modes of Travel (CR 30-A Only)

- | | |
|--|---|
| • Sidewalk widths above minimum | • Bus/shuttle pull outs |
| • Bicycle rental or free use | • Internal connections |
| • Transit service | • Lighting |
| • Transit/bus shelters | • Intelligent Transportation System (ITS) |
| • Benches and water fountains | • Informational kiosk |
| • Transportation Demand Management (TDM) | • Shade trees |

Section 6 - Summary of Recommendations, Priorities and Probable Costs

A. Short-Term Improvements

Details of these recommendations are found in Section 3. Recommendations below are needed in the more immediate future and should be initiated by Walton County through the Annual Budget, Capital Improvement Projects (CIP) process or through agreements with private developers.

Probable Costs have been developed for budgeting purposes only. All costs were prepared without detailed engineering plans, survey data, right-of-way appraisals, or extensive field work on infrastructure improvements. Any infrastructure enhancements should be designed to minimize adverse environmental, social, and economic impacts.

Probable cost estimates are based on 2004-2005 figures.

1. Consistent Sign Standards - \$31,375.00 *
2. Consistent Pavement Marking and Crosswalk Standards - \$35,500.00 *
3. Install New Turn Lanes - \$1,322,400.00 *
4. Install New Traffic Signals or Roundabouts - \$750,000.00
(Note: County's CIP Cost \$3,750,000.00 * and includes signal or roundabout at CR 30-A/WaterSound Parkway.)
5. Intersection/Sight Distance Visibility Improvements - \$5,687.00 *
6. Consistent Traffic Signals/Flashers - \$260,000.00
7. Removal or Retrofit Existing On-Street Parking for Safety Purposes - \$150,000.00
(Note: County's CIP cost = \$300,000.00 *)
8. Roadway, Trail and Right-of-Way Maintenance Needs - \$38,635.00
9. Routine Enforcement Along CR 30-A - n/a
10. Clay Colored Shoulder or Bicycle Lane Installation on Both Sides of CR 30-A in Areas Posted at 35 mph or Greater - \$8,043,750.00
11. Traffic Control Device Inventory in G.I.S. for Maintenance Program - \$31,250.00
12. Designation of CR 30-A as 'Constrained' Roadway Facility - n/a

* Included in Walton County's approved CIP (December 2005)

B. Growth Management Policy Language

The recommendations below are proposed to be adopted by the Walton County Board of Commission and implemented into current policy. In addition to establishing future goals and objectives for CR 30-A, specific design standards should be adhered to for all new or redeveloped property along the corridor. (See Appendix D, Pages D-1 to D-4, Policy Language for Walton County.)

1. Walton County Land Development Code (LDC) Modifications/New Language (See Appendix D, Pages D-1 to D-3.)
2. Walton County Comprehensive Plan Modifications/New Language (See Appendix D, Pages D-3 to D-4.)
3. Design Standards for CR 30-A are to be included in the LDC. The CR 30-A new design standards and traffic mitigation strategies should be evaluated after three (3) years to determine if vehicle, pedestrian, bicycle and transit improvements are satisfying desired Level of Service standards as growth and redevelopment occur along the corridor.
4. The Future Land Use Map (FLUM) is recommended to be evaluated and modified as needed to provide for an appropriate density, intensity and mix of land uses to support multi-modal transportation. Although the majority of parcels are developed, under construction or approved for development, redevelopment of parcels will occur over time.

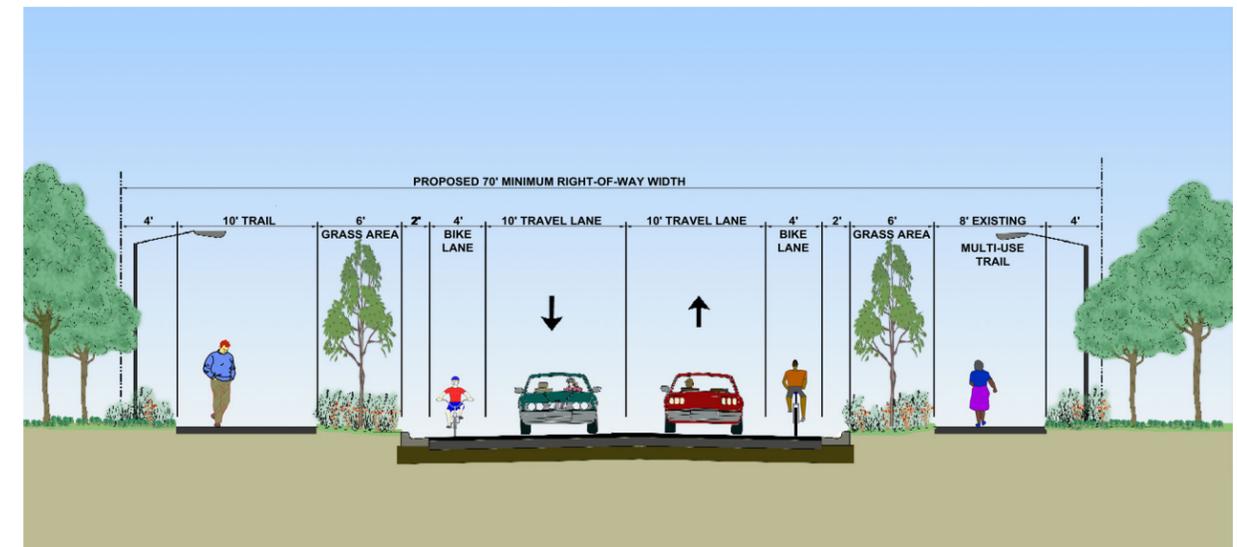
C. Long-Term Improvements

This section primarily considers long-term needs for the CR 30-A corridor. Many of these build-out features will require alternative funding through FDOT, FHWA, Federal Transit Authority (FTA), interagency cooperation, Long Range Transportation Planning through the Transportation Planning Organization (TPO), and public-private partnerships. The more successful the County is in having private developers satisfy design standards identified in Section 4 or in implementing alternative mitigation strategies generally identified in Section 5, the more the primary focus can be shifted to maintaining these amenities, preserving the environment, and sustaining economic prosperity.

Probable costs have been developed for budgeting purposes only. All costs were prepared without detailed engineering plans, survey data, right-of-way appraisals, or extensive field work on infrastructure improvements. Any infrastructure enhancements should be designed to minimize any adverse environmental, social, and economic impacts.

1. New Road Between CR 395 and WaterSound Parkway:
North-South Road: \$9,000,000.00 Alternative Parallel Road: \$8,100,000.00
(Note: County's CIP cost = \$3,500,000.00 *)
2. ITS - Total County wide plan = \$10,199,040.00; Phase 1 (US 98 only) = \$2,156,716.00
3. Transit/Trolley - \$625,000.00*
(Includes development of transit plan and purchase of two (2) trolleys.)
4. Trail on Both Sides of CR 30-A - \$9,200,000.00
5. Parallel Roads/Interconnections - \$37,500.00
6. Underground Utilities - \$30,750,000.00
7. Environmental Protection and Native Preservation - n/a
8. Maintain and Enhance Scenic Vistas - n/a
9. Scenic By-Way Corridor Action Plan (By Others-Corridor Advocacy Group) - n/a
10. Traffic Concurrency Staffing - Planning and Operations - n/a
11. Work with the St. Joe Company to have WaterSound Parkway dedicated as a Public Road - n/a

12. Review Changes to Future Land Use Map and Zoning Designations; and Specifically Address Re-Development, Infill Requirements, and Non-Residential Incentives - \$60,000.00
13. Conduct Local Trip Characteristics Study South of Bay Through Public-Private Partnership - \$80,000.00
14. Develop ITS Master Plan - \$60,000.00
15. Develop Bicycle/Pedestrian Master Plan - \$60,000.00
16. Develop Transportation Demand Management (TDM) Strategies with Park-n-Ride or Transit Transfer Stations - n/a



*Future Desired CR 30-A Typical Section
(Posted Greater Than 25 m.p.h. Speed Limit)*

* Included in Walton County's approved CIP (December 2005)