

PROJECT CONCEPT SUMMARY REPORT

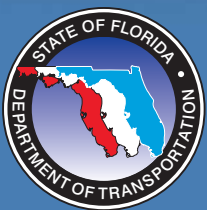
FINAL REPORT



Feasibility Study

SR 60 (COURTNEY CAMPBELL CAUSEWAY)

Multi-Use Trail Feasibility Study from
McMullen Booth Road to Veterans Expressway
Pinellas and Hillsborough Counties, Florida



Florida Department of Transportation
District 7

Work Program Item Number: 422640 1
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1.0 SUMMARY

This Study includes the evaluation of four separate alternatives and one interim staging option. The trail alternatives are located on the *north* or *south* of the causeway and include either the Structural Option 'W2' (widening with piles in the water) or Structural Option 'IS' (Independent Structure). These alternatives are:

ALTERNATIVE N1

This alternative includes the trail on the *north* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the *north* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the *south* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the *south* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

STAGING OPTION S3

This is an interim staging option which will provide a shared-use facility on the existing causeway prior to the construction of any new water crossings.

2.0 INTRODUCTION

2.1 Purpose

The proposed Courtney Campbell Causeway Multi-Use Trail has been identified in the Comprehensive Plans for the following jurisdictions: Hillsborough County; Pinellas County; the City of Tampa; and the City of Clearwater. The trail has also been identified in the City of Tampa Greenways & Trails Master Plan (2001), the City of Clearwater Bikeways and Trails Plan (1996) and Shifting Gears: Clearwater's Bicycle and Pedestrian Master Plan (2007). The proposed trail serves as a link in a regional network of trail systems serving the Tampa Bay region. As a needed east-west link, the trail will provide regional connectivity with the trail networks for the jurisdictions noted above. In providing this east-west link, regional connectivity could be further enhanced offering alternative modes of transportation in the region.

The Courtney Campbell Causeway Multi-Use Trail could accommodate recreational users that can experience the scenic qualities of the Causeway, further enhancing tourism and economic development. Beyond the trail's transportation benefits, the



trail could serve the recreational needs for residents in the area. The trail could also provide linkage to a series of recreation facilities along the Causeway.

2.2 Project Description

The project proposed is a multi-use trail that will be constructed along Courtney Campbell Causeway from the area near the proposed Bayshore Trail extension in Pinellas County (Bayshore Boulevard at SR 60) to the Trail eastern end point at the sidewalk/multi-use path currently under construction as a part of the Tampa Airport Interchange project in Hillsborough County. The project length is approximately eight miles. The proposed facility is intended for bicycle, pedestrian, and other recreational users thereby providing alternate modes of transportation.

The Courtney Campbell Causeway is an existing four-lane roadway that has dedicated turn lanes at key intersections. The Causeway has eight signalized intersections. They are located at: McMullen Booth Road; Bayshore Boulevard; Beach Entrance/Welcome Center Exit; Damascus Road; Boat Ramp Access Road; Ben T. Davis Beach; Bay Harbor Drive; and N. Rocky Point Boulevard. The existing roadway also has three bridge structures, one in Pinellas County, and two in Hillsborough County. The largest of the three bridges is west of Ben T. Davis Beach. None of the three bridges currently have designated bicycle or pedestrian facilities.

In addition to the SR 60 mainline roadway, there are segments of service roads that run parallel to the coastline of Old Tampa Bay along the Causeway. Not all segments of these service roads allow vehicular access. Those that do, accommodate access for sight-seeing, fishing, and general recreation. The access roads are non-contiguous and do not provide for crossings at channels. In some segments of the Causeway they are non-existent or have been overgrown and have deteriorated. The various segments are found on both the north and south shores. As part of the Feasibility Study, options are being explored using these segments for the proposed multi-use trail.

The Feasibility Study developed and evaluated alternatives for spanning the Upper Tampa Bay water body at the existing structures by attaching the trail connection to the existing structures or constructing independent structures to complete the connection. The study developed and evaluated any feasible means for the proposed Courtney Campbell Causeway Multi-Use Trail to connect to other trail systems in the future at each end of the proposed trail. Specifically an evaluation of the trail connections developed by the Tampa Airport Interchange Project Design was reviewed where connections are being made to the Cypress Street Trail at the southeast corner of this project's study area.

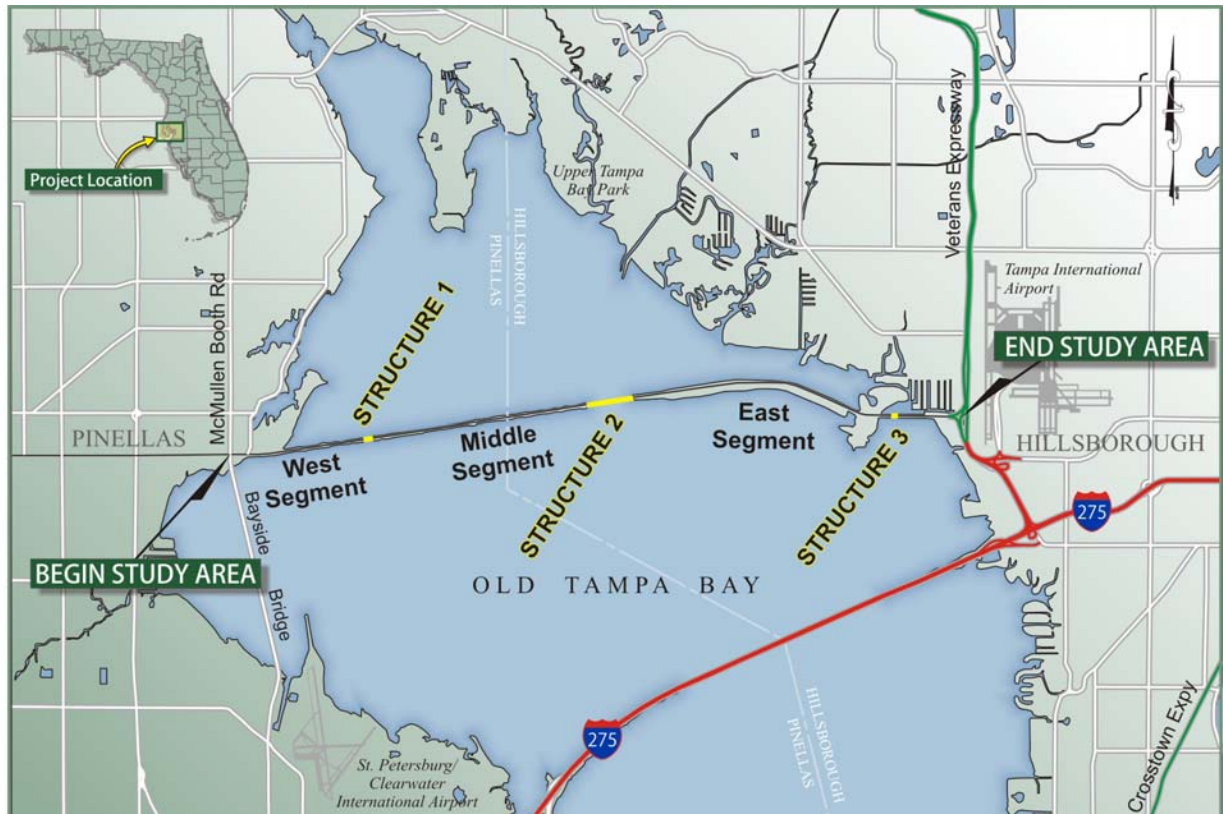


Figure 2.1 Project Location Map

3.0 NEED FOR IMPROVEMENT

3.1 Area Needs

3.1.1 System Linkage

The proposed Courtney Campbell Causeway trail would provide links for local and regional non-motorized trips. Both ends of this project would connect directly to other facilities that are programmed for future implementation.

On the western side of the Causeway the proposed trail will eventually connect to Pinellas County's extensive trail system. The City of Clearwater has plans for a sidepath adjacent to Bayshore Boulevard (at the western end of this project). The Bayshore Boulevard path will in turn connect to the Clearwater East-West Trail, which crosses the width of the city to the Gulf of Mexico and also connects to other regional facilities including the Pinellas and Progress Energy Trails. Additionally the west end of the proposed Courtney Campbell

path will come within $\frac{1}{4}$ mile of McMullen Booth Road, a major North-South arterial which is configured with paved shoulders and which leads to the portion of the Pinellas Trail that runs along the west side of East Lake Road. These connections will allow residents of and tourists visiting Clearwater and Safety Harbor to access the amenities along the causeway by using non-motorized modes.

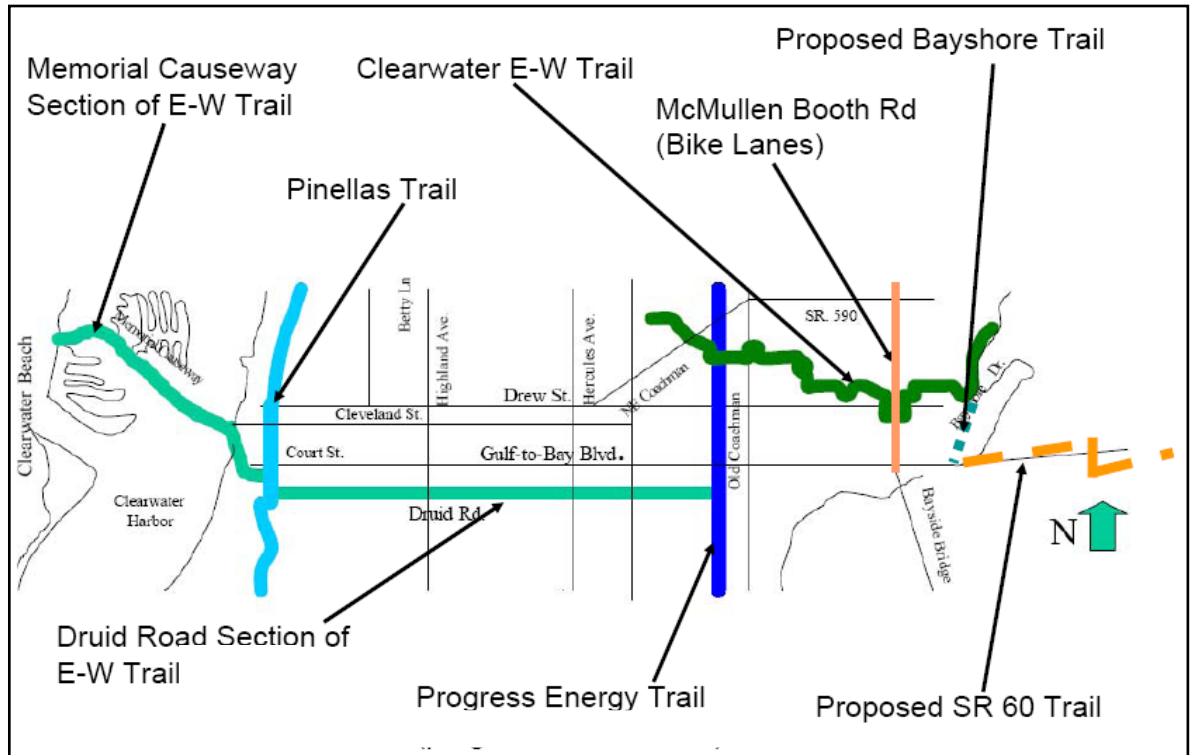


Figure 3.1 Connectivity with trails and other bicycle facilities in Clearwater (Graphic modified from Clearwater Dept. of Parks and Recreation)

On the east side of the study area the Courtney Campbell Causeway trail will connect to the West Tampa Greenway currently under construction as part of the Tampa Airport Interchange project. This Greenway will connect the Courtney Campbell Causeway to Rocky Point Park on the north and Cypress Point Park and the Brackins Tract to the south. Furthermore, this trail is to be connected through on-street facilities to the Upper Tampa Bay Trail. The Upper Tampa Bay Trail is planned to connect to the Suncoast Parkway Trail, which together will reach over 50 miles north from Tampa Bay through northern Hillsborough County, through Pasco County and into Hernando County. The east end of the trail will connect to a mixed use district of office buildings, high-density housing and resort properties, providing access for lunchtime exercise trips for office workers, leisure excursions for hotel guests and possible cross-bay commutes for office workers and residents on both ends of the causeway.

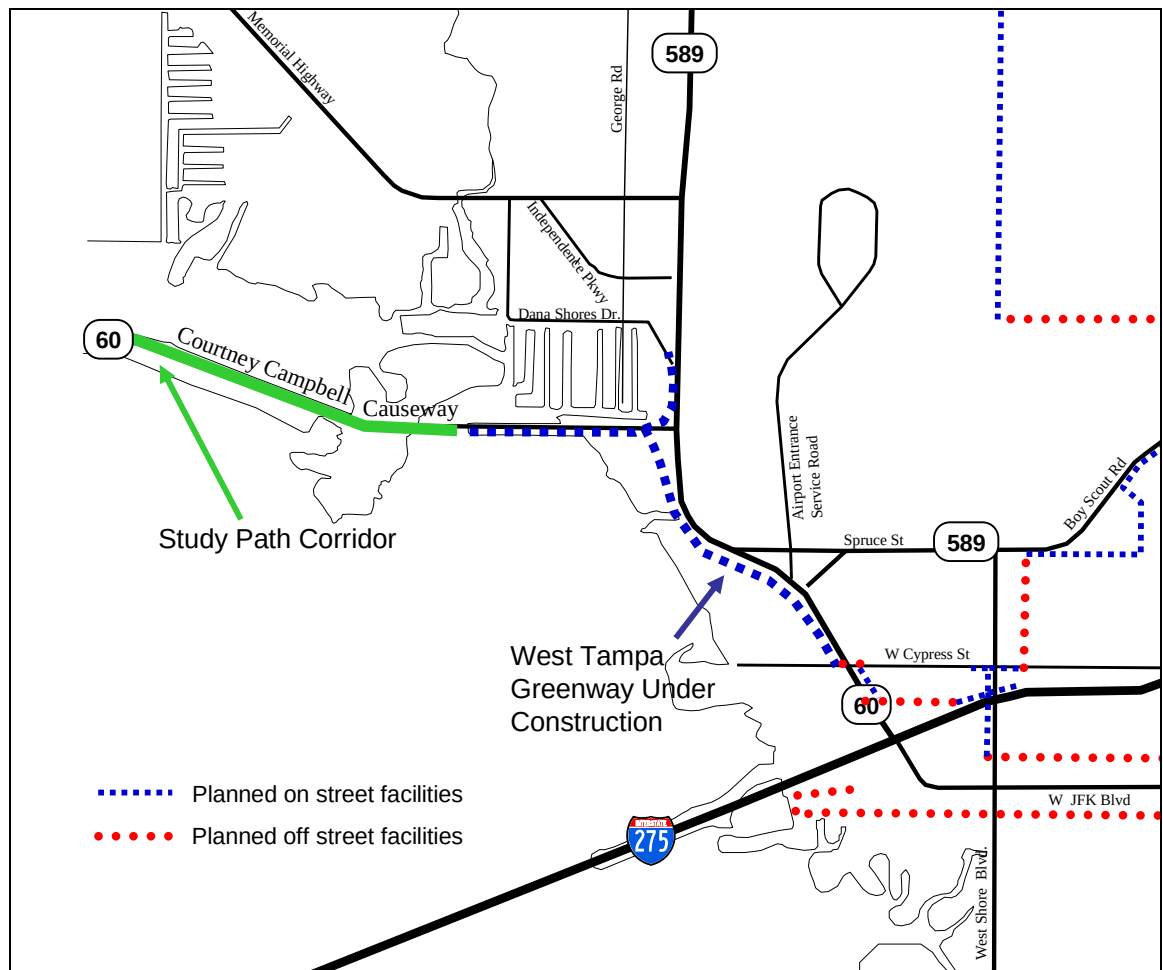


Figure 3.2 Connectivity with trails and other bicycle facilities in Hillsborough County.

3.1.2 Transportation Demand (Analysis of Projected Users)

Two methodologies have recently been developed by FDOT to provide an estimate of potential user volumes on proposed bicycle facilities: a utilitarian use model and a recreational demand model. The FDOT District 7 is working on Phase III of a three-phase project to develop a predictive methodology for the number of bicyclists who will use proposed facilities for utilitarian purposes (commuting to work or school, running errands, etc).¹ As part of that project, a mathematical model has been developed to provide estimates of utilitarian user numbers based upon the following factors:

- Congestion on the roadway
- Quality of the bicycle facility
- Transit quality of service

¹ Sprinkle Consulting, Inc. *Predicting Non-motorized Trips at the Corridor/Facility Level: The Bicycle & Pedestrian Mode Shift and Induced Travel Models*. Submitted to Florida Department of Transportation, February 2007.



- Quality of the surrounding bicycle network
- Trip length
- Population employment density

At the same time, the FDOT Central Office Bicycle and Pedestrian Program is managing a project which addresses utilitarian trips and recreational bicyclist's trips along shared use paths.² Data collected as part of this Central Office project has supplemented the aforementioned District 7 project data. The recreational model developed for the Central Office project provides estimates of potential recreational users based upon the following factors:

- Facility length
- Amenities/points of interest
- Scenery/aesthetics
- Density-weighted population
- Bicycle level of service

Both of these models were applied to the Courtney Campbell Causeway corridor.³ The models were applied using 2000 Census data; increases in population and employment in the area surrounding the path would increase the predicated volume of users. Based upon the results of these models, a sidepath⁴ type facility created along SR 60 in the study area could result in an estimated 27,000 bicycle trips per year, the majority of which (approximately 85%) are expected to be recreational in nature. Given the added bonus of connectivity to other trail facilities and the corresponding inducement of regional travel possibilities this value is likely to be conservative for two reasons. Given the anticipated lateral separation of the roadway to the proposed path, and the presence of a vegetative buffer, this pathway is more likely to attract a higher number of users than a sidepath type facility located on the exposed shoulder of a road. It is not, however, expected to attract the volume of users that an independent alignment type of path would attract (about 120,000 trips per year). Secondly, this pathway will eventually provide a direct connection to the several regional trails providing recreational opportunities and access from and to destinations in both Hillsborough and Pinellas Counties. As a result, the number of users on the proposed Courtney Campbell Causeway Multi-Use Trail would likely be higher than the 27,000 users predicted for an unconnected sidepath type facility.

3.1.3 Federal, State, or Local Government Authority

SR 60 is a State Highway and according to the Hillsborough and Pinellas County GIS Systems, the vast majority of the land on either side of road

² Sprinkle Consulting, Inc., *Conserve By Bicycle Program Study Phase I DRAFT Report*. Submitted to FDOT May, 2007.

³ While this analysis includes only bicycle users, other potential trail users including inline skaters, pedestrians, joggers, etc. should be expected as well.

⁴ For the purposes of this report, a *sidepath* is defined as a shared-use path that is within the highway right-of-way. A sidepath differs from a sidewalk in that a sidepath is designed for a variety of non-motorized users, while a sidewalk is designed for pedestrians (including those who use wheelchairs) but not for bicyclists.



across the causeway is owned by the Florida Department of Transportation. At the west end of this project, SR 60 is identified as Gulf to Bay Boulevard within the limits of the City of Clearwater, eastward to the intersection with Damascus Road (at the Clearwater Chamber of Commerce Welcome Center). At the west end of the project, where the preliminary alignment begins at the intersection of SR 60 and Bayshore Boulevard, the property adjacent to the east side of Bayshore Boulevard is shown by the Pinellas County Property Appraiser to be owned by Clearwater Christian College, which also owns the parcel to the north of the DOT-owned property on the north side of SR 60. The preliminary trail alignment shows the trail meeting Bayshore Boulevard to the north of the Department of Transportation Building at 3204 Gulf to Bay Boulevard, using the area behind the storage buildings and the back parking lot. Pinellas County GIS records appear to show this area to be on property belonging to Clearwater Christian College. Further study will be needed to determine where the parcel actually lies and whether an easement already exists or can be obtained. This determination will impact the final alignment of the trail, as there is not enough space to bring the trail in front of Clearwater Christian College building at the northwest corner of SR 60 and Bayshore Boulevard. The proposed trail alignment also crosses a parcel of land at 3350 Gulf to Bay Boulevard (just west of Damascus Road) that, while owned by the Department of Transportation is leased to the Clearwater Chamber of Commerce for its Tourist Welcome Center. All other land along the alignment is FDOT right-of-way, including the City of Tampa's Ben T. Davis Municipal Beach at the east end, of the project on the south side of SR 60. The Ben T. Davis Municipal Beach property is leased to the City of Tampa.

3.1.4 Social Demands or Economic Developments

There is significant population and employment density on each end of the Causeway bridge. Office, residential and resort property development are represented in the Rocky Point area. The Ben T. Davis Beach at the east end of the Causeway is a signature attraction of the Tampa Parks and Recreation Department and one of the few beaches within the Tampa city limits. The shorelines across the length of the Causeway are popular destinations for fishing and picnicking. The proximity of these attractions to residential and resort properties suggests a possible demand for a pathway along the causeway at this location.

The paved shoulders that are present for most of the length of the causeway provide limited accommodation for bicyclists. This type of facility has been found to provide safe and convenient accommodation for those cyclists who choose to ride on the roadway. However, there are numerous people – particularly recreational users - who simply will not be comfortable riding on the roadway. For these users (casual cyclists, families with small children, etc) the on-road paved shoulders will be perceived as neither safe nor comfortable. The proposed shared use path along SR 60 will provide for a greater diversity of users than just having paved shoulders on the roadway.



3.1.5 Modal Interrelationships

Please refer to Section 6 of this report.

3.2 Project Corridor Needs

The purpose of this project is to assess the feasibility of providing a multi-use path across the Courtney Campbell Causeway. The primary user needs that must be addressed as part such a path's development include addressing the capacity and needs of the potential users. These needs are discussed the subsequent sections.

3.2.1 Capacity

The user volume projection discussed in Section 3.1.2 indicates that approximately 27,000 bicyclists (the bulk of anticipated users) will travel the facility annually. Based on assumptions associated with seasonality, directionality, and daily peaking, it is expected that roughly ten peak hour directional users should be expected during a weekday PM peak period. Weekend volumes and post peak weekday volumes would likely exceed calculated PM peak period volumes. The Federal Highway Administration *Evaluation of Safety, Design, and Operation of Shared-Use Paths—Final Report*⁵ is a capacity-based indicator of the level of service provided by facilities such as the one proposed for the Courtney Campbell Causeway. A 12' shared use path would provide a level of service "A" for up to 25 directional users according to tables in the *Calculator Users' Guide* and a level of service "B" for up to 75 directional users. A level of service "D" would not be reached until more than 200 directional users per hour were using the trail. Consequently, the 12' path should provide adequate capacity for expected volumes of path users.

3.2.2 Safety

3.2.2.1 Pedestrian and Bicycle Crashes

Four years of crash data (2003 – 2006) for the study corridor were evaluated for this report. Crash detail reports for the corridor were obtained from the FDOT safety office. No systemic bicycle crash or pedestrian crash problems were identified during this review. During the review period, four pedestrian crashes were reported and no bicycle crashes were reported along the study section. A description of the pedestrian crashes follows:

One pedestrian crash involved a 13 year old pedestrian and was reported as occurring on the Pinellas County portion of the corridor at milepost 7.944. This places the crash approximately 1000' west of the westernmost service road access. The crash occurred at 8:30 in the morning on a clear Saturday (10/11/03). In an apparent inconsistency with this location, the crash detail reports the motorist was making a left turn and hit the pedestrian, who was

⁵ Hummer, et. al. *Evaluation of Safety, Design, and Operation of Shared-Use Paths—Final Report*, FHWA-HRT-05-137, July 2006.



on the north side of the road. (One might assume the crash occurred on the frontage road; however it was not coded as such on the crash detail.)

The other three pedestrian crashes occurred on the Hillsborough County side of the causeway. One occurred at the easternmost entrance to the beaches and the other two at (or near) the signal at Bay Harbor Drive. All three involved through motorists who “failed to yield the right of way” to pedestrians crossing Courtney Campbell Causeway. Two of the pedestrian crashes occurred after dark (one in the early morning, one in the evening); the other occurred during daylight.

3.2.2.2 Other Crashes

While no crashes were reported as occurring on the access/frontage road, numerous rear end collisions did occur on the main lanes of the Courtney Campbell Causeway in the vicinity of the access points to the frontage roads. Several angle and left turn collisions also occurred near the access locations. With respect to this Feasibility Study, these crashes represent the need to maintain the existing deceleration and turn lanes serving the median openings and right turn accesses to the frontage roads.

3.2.3 Structural

The proposed multi-use trail will require water crossings at three locations for a continuous pathway. Structures 1 and 2 (Figures 4.1 and 4.2) in their current configuration do not have sufficient deck width to provide the required trail width. These structures will need to be widened or a parallel structure built to provide a multi-use trail. Structure 3 (Figure 4.3) does have deck width to provide a minimal trail of 7', otherwise a parallel structure will need to be constructed to provide the preferred trail width.

3.2.4 Scenic Highway Designation

Through the collective efforts of many citizens and officials of the City's of Clearwater and Tampa, Westshore Alliance, the Clearwater Regional Chamber of Commerce, the Commissions of Pinellas and Hillsborough Counties, the FDOT Secretary officially designated SR 60 from McMullen Booth Road in Clearwater to the intersection with Veterans Expressway in Tampa as a Florida Scenic Highway. A part of this designation effort included the formation of the Courtney Campbell Causeway Scenic Highway Corridor Advisory Committee. This group established a Corridor Management Plan that included a series of Goals, Objectives, and Implementation Strategies for the Corridor. One of the primary goals of this plan was to establish bicycle/pedestrian connectivity between Clearwater and Tampa. A copy of the Goals, Objections and Strategies is included in Appendix J of this report.



4.0 EXISTING CONDITIONS

4.1 Existing Roadway/Path Characteristics

4.1.1 Functional Classification

Based on the 2000 FHWA Urban Area Boundaries and Federal Functional Classification Map, SR 60 has a Functional Classification of Urban Other Principal Arterial. The multi-use trail footprint will fall within the SR 60 right-of-way, however the majority of the trail will be adjacent to or on the existing causeway service roads, which are one-way low speed facilities.

4.1.2 Typical Sections

The facility for this study is a multi-use trail within the SR 60 corridor. Some interaction with the existing SR 60 roadway as well as the causeway service roads is proposed.

4.1.2.1 Roadway

In general SR 60 is divided into two basic sections; multi-lane urban and multi-lane rural, more specifically from West to East SR 60 has the following general Typical Section Features:

From Begin Project Study near, Bayshore Boulevard, Station 20+00 to Station 50+00 near Damascus Road : Urban section consisting of three 12' lanes both WB and EB, a variable median and Type F Curb and Gutter.

From Station 50+00 to End Project Study approximate station 491+00: Rural section consisting either two or three 12' lanes both EB and WB, a variable width median with either curb and gutter or barrier wall and 7' to 8' grass shoulders with 4' to 5' paved shoulders.

The service road typical section consists of a 10' to 11' one-lane, one-way rural roadway with an approximate 5% cross slope without defined shoulders. The roadway area that is now referred to as the beach service road was constructed between 1978 and 1980 as a part of the revetment construction project intended to be an integral part of a permanent erosion control system.

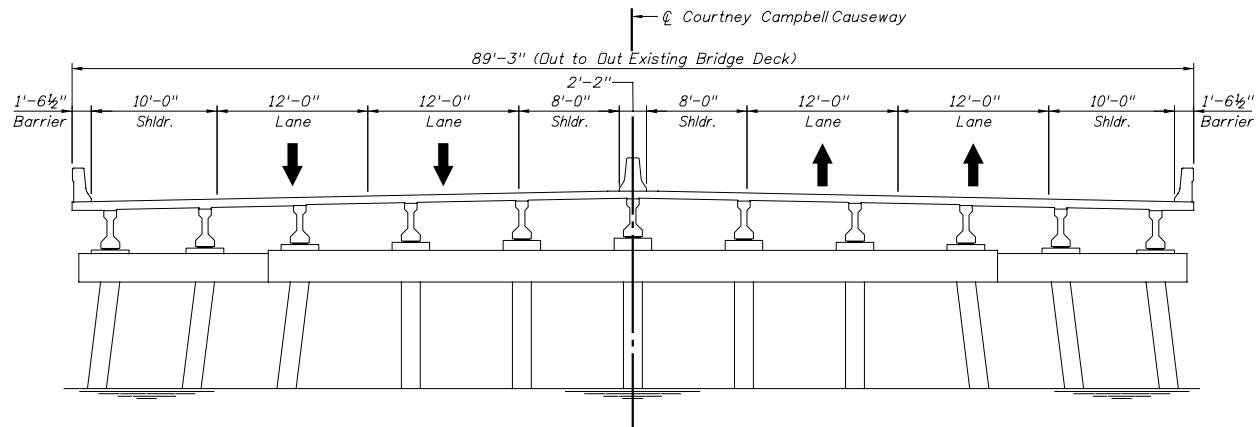
4.1.2.2 Structures

Structure 1

The existing bridge (Bridge No. 150138) located on SR 60 consists of 2-12' lanes, a 10' outside shoulder and an 8' inside shoulder in both directions. The outside barriers are Type F ; a double faced median barrier separates the opposing traffic. The section has a normal crown with a 2% slope. See **Figure 4.1.**

Structure 2

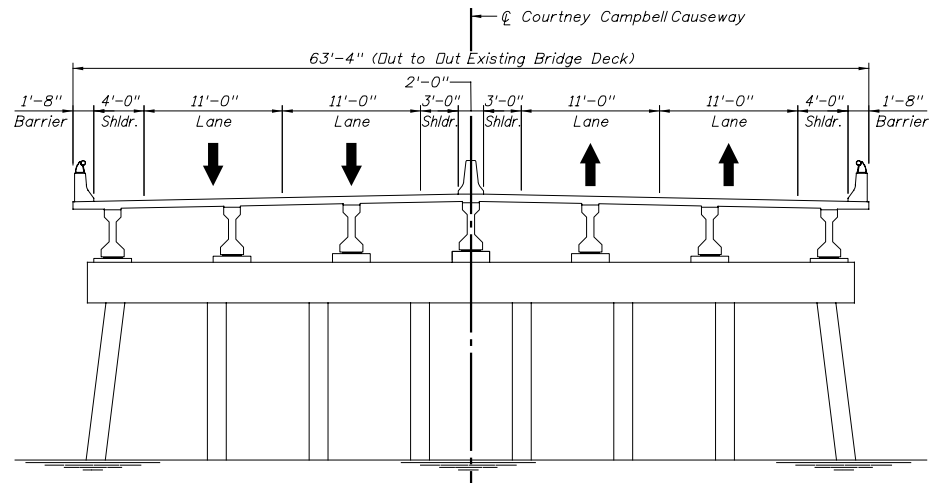
The existing bridge (Bridge No. 100301) located on SR 60 consists of 2-11' lanes, a 4' outside shoulder and a 3' inside shoulder in both directions. The



FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 1
EXISTING CROSS SECTION
BRIDGE NO. 150138

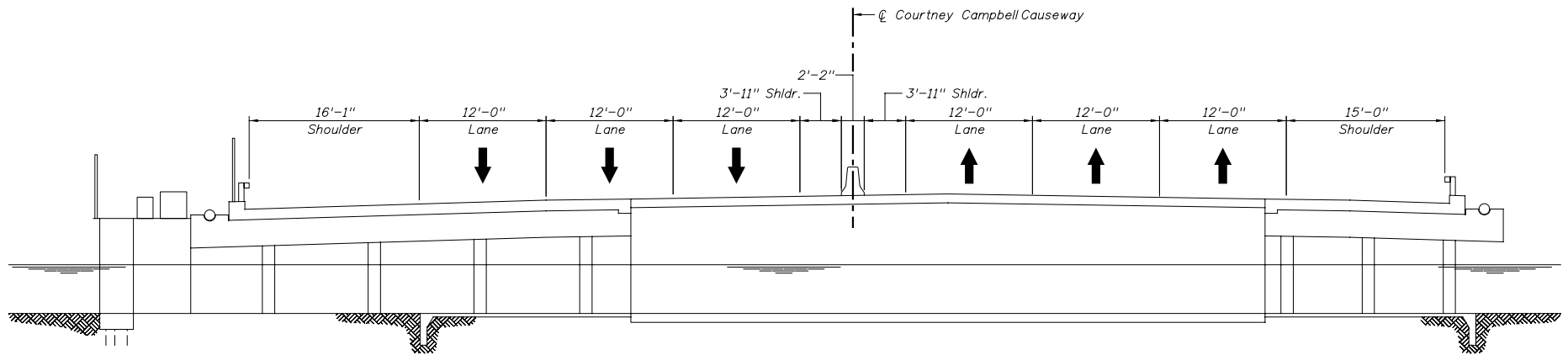
FIGURE 4.1



FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 2
EXISTING CROSS SECTION
BRIDGE NO. 100301

FIGURE 4.2



FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 3
EXISTING CROSS SECTION - BRIDGE CULVERT
BRIDGE NO. 100064

FIGURE 4.3



outside barriers are Jersey faced with an aluminum railing; a double faced median barrier separates the opposing traffic. The section has a normal crown with a 2% slope. See **Figure 4.2**.

Structure 3

The existing bridge (Bridge No. 100064) located on SR 60 consists of 3-12' lanes in both directions. An outside shoulder of 15'-0" is provided on the southern side of the bridge culvert and a 16'-1" shoulder is provided on the northern side of the bridge culvert. An inside shoulder of 3'-11" is provided in both directions. Double faced median barrier separates the opposing traffic. Box beam guardrail is located outside the outer shoulder on each sides of the bridge culvert. The section has a normal crown with a 2% slope. See **Figure 4.3**.

4.1.3 Pedestrian and Bicycle Facilities

The only maintained pedestrian facility within this corridor is a 6' sidewalk at the westerly end of the project study limits, which runs between Bayshore Boulevard to Damascus Road. There are no designated Bicycle Facilities within the corridor although both pedestrian and bicycle opportunities exist at the Ben T. Davis Beach as well at the various access roads. Neither of these areas provides connectivity nor do they meet Americans with Disabilities Act Guidelines. In addition there are 4' to 5' paved shoulders throughout the majority of the study area, which see little pedestrian traffic due to the vehicular speeds and volume.

4.1.4 Right-of-Way

Based on existing right-of-way maps, the following right-of-way data was extracted.

Per Right-of-Way Map Section 15040-2522 and 1014-101: Beginning at the westerly project study limits at Bayshore Boulevard, approximate Station 20+00 and continuing east to the westerly high tide line of Rocky Point, near Ben T. Davis Beach area, near Station 454+00 the right-of-way is shown to be 1320' north and south of the centerline of Survey. Within the area between Stations 349+00 and 454+00 the City of Tampa leased 1220' of the 1320' for beach access and concession on the south side of the centerline survey, Ben T. Davis Beach leaving a 100' right-of-way. From the easterly high tide line, Station 454+00 to the End Project Study near Station 491+00 the right-of-way appears to 100' north and south of centerline of Survey.

The above referenced right-of-way maps are included in **Appendix F**.

4.1.5 Horizontal Alignment

The existing horizontal alignment of SR 60 in the project area is essentially in tangent for the majority of the causeway. The existing roadway has a horizontal curve near the eastern end of the project area in the proximity of Rocky Point Drive.



The access roads along both sides of the causeway are parallel to the mainline alignment. These access roads along which the proposed trail may be located are also essentially in tangent sections. Some meandering of the trail will be required at bridge ends and at locations where the trail must avoid interference with side street access.

4.1.6 Vertical Alignment

The majority of the causeway is in a flat vertical grade except at Structures 1 and 2. Here the alignment increases in grade to obtain required channel vertical clearances. For bridge geometry see Section 4.2.3. The proposed trail will follow the existing roadway and structural vertical alignment. ADA requirements will be met for the proposed trail.

4.1.7 Drainage

While west of the project there is a storm drain system, this urban system ends before the beginning of the trail project limit. For most of the project, runoff from the existing rural SR 60 roadway is by sheet flow only. Roadway ditches are not used and the sheet flow occurs across the proposed trail alignment. Runoff from the roadway flows directly over very flat vegetated front slopes to the riprap revetment or to a sandy natural slope. At the east end of the project, a semi-rural system exists and runoff drains to a swale section. Portions of the swale have been partially protected with ditch pavement and are currently used to provide stormwater management for more recent roadway improvements.

4.1.8 Geotechnical Data

No geotechnical data was collected for this phase of the study and thus none is available. Geotechnical investigations may be conducted in subsequent phases of this project if required.

4.1.9 Accident Data

See Section 3.2.2 Safety.

4.1.10 Intersections and Signalization

The following intersections are located within the project study area (from west to east):

Table 4-1

1.	McMullen Booth Road	Diamond Interchange with signalized ramps
2.	Bayshore Boulevard	'T' Intersection, signalized
3.	Beach Entrance/Welcome Center Exit	Signalized
4.	Damascus Road	Signalized
5.	Access Road at MP 8.142	Unsignalized (Pinellas)



6.	Access Road at MP 0.366	Unsignalized (Hillsborough)
7.	Access Road at MP 2.356	Signalized (Boat Ramp)
8.	Access Road at MP 2.954	Unsignalized
9.	Access Road at MP 3.560	Unsignalized
10.	Access Road at MP 3.892 (south side only)	Unsignalized
11.	W. Entrance to Ben T. Davis Beach	Unsignalized
12.	Main Entrance to Ben T. Davis Beach	Signalized
13.	Exit from Ben T. Davis Beach	Unsignalized
14.	Bay Harbor Drive	Signalized
15.	Rocky Point Drive	Signalized

4.1.11 Lighting

Conventional highway lighting exists from Begin Study to approximately Ben T. Davis Beach within the divided median. The typical double Cobra Head is shielded by median barrier and provides adequate lighting spread for the roadway only.

4.1.12 Utilities

Based on information provided by the Florida One Call system, there are eighteen utility agencies and owners (UAO's) located within the project limits. Aerials have been distributed to each of the UAO's requesting confirmation on the type, size and location of their existing facilities. Additionally, information for any major proposed facilities that could be affected by the project's proposed improvements was requested. Utilities located along the corridor are: AT&T; Bright House Networks; City of Clearwater; City of Tampa; Clearwater Gas Systems; Fiber Light, LLC; Florida Power and Light; Hillsborough County; Knology; Level III; MCI; Pinellas County; Progress Energy; Tampa Electric Co.; TECO/Peoples Gas; Verizon; and XO Communications. **Table 4-2** contains the UAO Contact information provided by Florida One Call.

Table 4-2

AT&T Communications Inc. Attn: Craig Petrie 6000 Metro West Blvd. Suite 201 Orlando, FL 32835 Phone: 407-578-8000 Cell: 321-662-7974 Email: cpetrie@pea-inc.net	Bright House Networks Attn: Lew Conti 2728 S. Falkenburg Riverview, FL 33569 Cell: 813-684-6100 Email: lew.conti@mybrighthouse.com
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City of Clearwater Attn: Michael Quillen 100 South Myrtle Avenue Clearwater, FL 33756 Phone: 727-562-4743 Email: michael.quillen@myclearwater.com	City of Tampa Stormwater Department Attn: Barbara Kilgroe 306 E. Jackson Street 6 North Tampa, FL 33602 Phone: 813-274-8963 Email: barbara.kilgroe@tampagov.net
City of Tampa Transportation Attn: Mike Scanlon 306 E. Jackson Street, MC290A4E Tampa, FL 33602 Phone: 813-274-8105 Email: mike.scanlon@tampagov.net	City of Tampa Wastewater Attn: Richard Rivera 306 E. Jackson Street 6 North Tampa, FL 33602 Phone: 813-274-8957 Email: richard.rivera@tampagov.net
City of Tampa Water Department Attn: Chris Barquin 306 E. Jackson Street 6 North Tampa, FL 33602 Phone: 813-274-8678 Email: chris.barquin@tampagov.net	City of Clearwater Gas Systems Attn: Bruce Griffin 400 N. Myrtle Avenue Clearwater, FL 33755 Phone: 727-562-4900, Ext. 7423 Email: bruce.griffin@clearwatergas.com
Fiber Light, LLC Attn: Tom Lewis 4023 North Armenia Ave Suite 200 Tampa, FL 33607 Phone: 813-877-7183 Email: tom.lewis@fiberlight.com	FPL Fibernet Attn: Noel Reese 9250 W. Flagler Street Miami, FL 33174 Phone: 305-552-3249 Email: noel_reese@fpl.com
Level 3 Communications Attn: Todd Mort 7909 Woodland Center Tampa, FL 33614 Phone: 813-349-1477 Cell: 813-477-6671 Email: todd.mort@level3.com	MCI Worldcom Attn: Neil Cleveland 8212 Woodlands Center Blvd. Suite G Tampa, FL 33614 Phone: 813-262-1909 Cell: 813-239-7224 Email: neilclevel@verizon.net.com
Pinellas County Utilities Attn: R. W. Grubbs 14 S. Fort Harrison Clearwater, FL 33756 Phone: 727-464-3874 Email: rwgrubbs@co.pinellas.fl.us	Progress Energy Attn: Kaiya Hall 3300 Exchange Place Lake Mary, FL 32746 Phone: 407-942-9243 Email: kaiya.hall@pgnmail.com



Tampa Electric Company Attn: Arlene Brown 2200 East Sligh Ave. Tampa, FL 33610 Phone: 813-275-3428 Cell: 813-309-9299 Email: albrown@tecoenergy.com	TECO / Peoples Gas Attn: Frank Kistner 1400 Channelside Drive Tampa, FL 33605 Phone: 813-275-3706 Cell: 727-423-7133 Email: fjkistner@tecoenergy.com
Verizon Attn: Mike Little 1909 US 301 N. Bldg. D MC-FLG2-750 Tampa, FL 33619 Phone: 813-627-8392 Cell: 813-892-9648 Email: mike.little@verizon.net	XO Communications Attn: Gary Walker 5904-A Hampton Oaks Parkway Tampa, FL 33610 Phone: 813-301-4026 Email: gary.l.walker@xo.com

4.1.13 Pavement Conditions

The majority of existing access road pavement that could be incorporated into the proposed trail is located on both sides of the causeway directly adjacent to the existing revetment system. This existing surface was installed between 1978 and 1980 as a part of a revetment project and was not intended to be utilized as a driving surface but instead as part of the permanent erosion control system. The original pavement section of 6" of soil cement base and a modified surface treatment was resurfaced in 1998. Based on our visual inspection this pavement seems to be performing well however a 2" to 4" resurfacing would be needed in order to remove longitudinal undulations and non-ADA compliant cross slopes. In addition a 7' to 8' widening would be necessary in order to provide the proposed Trail Typical Section. Since the existing pavement is performing well under current vehicular loads, trail maintenance vehicles would not pose any problems with the current structure with the added SN value from the resurfacing.



4.2 Existing Bridges

Information on the existing SR 60 (Courtney Campbell Causeway) Structures was obtained using FDOT's *Bridge Management System (BMS) Comprehensive Inventory Data Report* and from review of the existing SR 60 as-built construction drawings. The dates of the three Bridge Inspection Reports are from late 2005 and early 2006.

4.2.1 Type of Structure

Structure 1

The existing bridge (Bridge No. 150138) is a prestressed concrete girder facility that was originally built in 1974 and widened in 1992. This bridge is located from MP 7.543 to MP 7.633 in Pinellas County. The superstructure consists of an 89'-3" wide reinforced concrete deck cast over 11 - 43'-0" spans. The deck slab is cast continuously in two separate units. The prestressed concrete girders are AASHTO Type II. The substructure consists of pile bents utilizing 18" square prestressed concrete piles. Joints depend on a compression type seal. The current structure has a vertical clearance of 10.70' above the mean high water elevation and a horizontal clearance of 40'. See **Figure 4.1** for a typical section.



The existing traffic pattern on the bridge consists of two-lane, two-way traffic. A Type 'F' crash barrier is located on the outside of the bridge and a double faced median barrier along the centerline of the bridge. The lanes are 12' wide with a 10' outside shoulder and an 8' inside shoulder; this meets minimum criteria established by the *Florida Green Book May, 2007*. 4" diameter scuppers are located on both sides of the bridge at a uniform spacing. Lights are located in the median of the bridge and utilities are present on both sides of the bridge on the overhangs.

Structure 2

The existing bridge (Bridge No. 100301) is a prestressed concrete girder facility that was originally built in 1974. This bridge is located from MP 1.758 to MP 2.374 in Hillsborough County. The superstructure consists of a 63'-4" wide reinforced concrete deck cast over 45 spans. There are 12





approach spans on either side of the bridge which are 61'-6" in length and consist of AASHTO Type III girders. The inner spans are made up of ten 83'-6" spans on either side of a 110'-0" navigational span. The inner superstructures consist of Type IV girders. The approach spans are supported on pile bents utilizing 18" (end bents) and 24" (interior bents) square prestressed concrete piles. The 83'-6" inner spans are supported on two column bents grounded on pile footings. The navigational span is supported by three column bents with a 47' x 22' concrete crash walls between the columns. Joints depend on a compression type seal. The navigational span has a vertical clearance of 43.50' above the mean high water elevation and a horizontal clearance of 75.' The substructure is protected by a timber fender system. See **Figure 4.2** for a typical section.

The existing traffic pattern on the bridge consists of two-lane, two-way traffic. A concrete Jersey faced barrier with aluminum railing is located on the outside edges of the bridge and a double faced median barrier along the centerline of the bridge. The lanes are 11' wide with a 4' wide outside shoulder and a 3' wide inside shoulder. An appraisal of the deck geometry reports deficient lane widths and shoulder widths. 4" diameter scuppers are located on both sides of the bridge at a uniform spacing. Lights are located on both sides of the bridge and utilities are present on both sides of the deck overhang.

Structure 3

The existing bridge culvert (Bridge No. 100064) is a quadruple 10'x10'x60' reinforced concrete box culvert that was built in 1952. This bridge culvert is located at MP 5.363 in Hillsborough County. Walls are 10" deep, and the slab mats are 10" deep. The bridge culvert was widened in 1982 by adding 12" deep pile supported slab spans on both sides. Three slab spans range in length from 22'-6" to 25'-2." The pile bents utilize 14" square prestressed concrete piles. Bulkhead walls protect the begin and the end span. Tide control gates were added to the north side as part of the 1982 reconstruction but are not operational today. See **Figure 4.3** for a typical section.



The existing traffic pattern over the culvert consists of three-lane, two-way traffic. A double-faced median barrier separates the traffic movements. Box beam guardrail is located outside the outer shoulder on each side. The lanes are 12' wide. The inside shoulder is 3'-11" and the outside shoulders are 16'-



1" on the north side; 15'-0" on the south side. A 12" water main runs along the north side of the structure. Utilities flank both sides of the structure.

4.2.2 Current Condition and Year of Construction

Using the information provided in the *BMS* and recent bridge inspection reports, a sufficiency rating for the existing structures was obtained. The sufficiency rating is derived using a formula that methodically evaluates factors that are indicative of the structure's ability to remain in service. A sufficiency rating of 100% represents an entirely sufficient bridge while a sufficiency rating of 80% or less requires some rehabilitation, and a rating of less than 50% requires complete replacement.

Structure 1

The existing bridge (Bridge No. 150138) is a prestressed concrete girder facility that was originally built in 1974 and widened in 1992. According to a structural inventory and appraisal performed in March 2006, the existing Causeway Bridge has a structural sufficiency rating of 85.0% and was classified as "not deficient, above minimum criteria." The structure has no Load Rating restrictions.

Structure 2

The existing bridge (Bridge No. 100301) is a prestressed concrete girder facility that was originally built in 1974. According to a structural inventory and appraisal performed in November 2005, the existing causeway bridge has a structural sufficiency rating of 71.0% and was classified as "not deficient, above minimum tolerable." The structure has no Load Rating restrictions.

Structure 3

The existing bridge culvert (Bridge No. 100064) is a quadruple 10'x10'x60' reinforced concrete box culvert that was built in 1952 and widened with slab spans in 1982. According to a structural inventory and appraisal performed in June 2005, the existing culvert has a structural sufficiency rating of 69.8% and was classified as "not deficient, above minimum tolerable." The structure has no Load Rating restrictions.

4.2.3 Horizontal and Vertical Alignment

Structure 1

The alignment is tangent and crosses the channel forming a 90° angle. The bridge deck has a normal crown. The vertical alignment consists of a 650' vertical curve. The approach grade is 1.5%, and the departure grade is -1.5%. The VPI point is located at the center point of the bridge.

Structure 2

The alignment is tangent and crosses the channel forming a 90° angle. The bridge deck has a normal crown. The vertical alignment consists of a 1200'



vertical curve. The approach grade is 2.7%, and the departure grade is -2.7%. The VPI is located at the center point of the bridge.

Structure 3

The alignment is tangent and crosses the channel forming a 90° angle. The roadway has a normal crown over the structure. The vertical alignment consists of a sag vertical curve at this location. The approach grade is -0.3%, and the departure grade is 0.1%.

4.2.4 Span Arrangement – number and length of spans

Refer to Section 4.2.1

4.2.5 Channel Data

The SR 60 bridges cross over the northern regions of Old Tampa Bay. Old Tampa Bay is a high traffic zone used mainly by recreational vessels in this area.

The navigable channel consists of:

- Structure 1 – The current structure has a vertical clearance of 10.70' above the mean high water and a horizontal clearance of 40'. Deepest high water depth – 6' (Based on as-built construction drawings)
- Structure 2 – The current structure has a vertical clearance of 43.50' above the mean high water elevation and a horizontal clearance of 75'. Vessels are guided thru the channel by a timber fender system at the main span location. Deepest high water depth – 19' (Based on as-built construction drawings)
- Structure 3 is a non-navigable structure.

4.2.6 Bridge Openings

There are no moveable bridges within the project corridor. Therefore bridge openings are not applicable to this project.

4.2.7 Ship Impact Data

There have been no significant impacts to the structures on the Causeway since it was constructed.

4.3 Environmental Characteristics

4.3.1 Land Use Data (existing and proposed maps)

Existing land use within and immediately adjacent to the study corridor was evaluated by reviewing land use/land cover mapping developed according to the Florida Land Use, Cover, and Forms Classification System (FLUCFCS) format by the Southwest Florida Water Management District (SWFWMD) in



2005 (Appendix G). Based on the SWFWMD data, land use/land cover types that are present in and immediately adjacent to the study corridor include:

- Commercial and services (1400)
- Recreational (1800)
- Open land (1900)
- Upland mixed coniferous/hardwood (4340)
- Reservoirs (5300)
- Bays and estuaries (5400)
- Mangrove Swamps (6120)
- Wetland forested mixed (6300)
- Saltwater Marshes (6420)
- Transportation (8100)
- Utilities (8300)

Based on a review of the FLUCFCS data, 2006 aerial photography, and limited field reconnaissance, the area occupied by the study corridor primarily consists of land that is classified as transportation land use (8100). Since the project is located on a narrow causeway that crosses Old Tampa Bay the other land use types such as commercial and services (1400), recreational (1800), open land (1900), and utilities (8300) are clustered at the east and west ends of the study corridor where the causeway connects to the mainland of Hillsborough and Pinellas Counties, respectively. The causeway itself is surrounded by open waters of Old Tampa Bay to the north and south that are classified as bays and estuaries (5400). A narrow band of mangrove swamp (6120) is found at the west end of the project, beginning just west of the Damascus Road/SR 60 intersection and extending along the north side of the causeway for approximately 0.85 mile. West of Damascus Road, on the north side of the corridor, smaller areas of saltwater marsh (6420) and upland mixed coniferous/hardwood (4340) are indicated on the FLUCFCS mapping.

4.3.2 Cultural Features and Community Services

See Appendix G for the Florida Land Use / Land Cover (FLUCFCS) Maps.

4.3.3 Natural and Biological Features

Wetlands

The presence of wetlands and surface waters adjacent to the study corridor was determined by reviewing the 2005 FLUCFCS mapping, 2006 aerial photography, and limited field reconnaissance. Wetland communities that occur along the study corridor include areas of the following community types:

- Mangrove Swamps (6120)
- Wetland forested mixed (6300)
- Saltwater Marshes (6420)

A narrow band of mangrove swamp is mapped in the west study segment adjacent to the north side of the study corridor beginning just west of the



intersection of Damascus Road and SR 60 and extending approximately 0.85 mile eastward along the north side of the causeway. Another smaller area mapped as saltwater marsh fronts the north side of SR 60 for approximately 270 feet, abutting the western end of the mangrove swamp community described above.

The areas mapped as wetland forested mixed communities that abut the study corridor are located primarily in the eastern segment near the SR 60/SR 589 interchange. Based on the conceptual design there would be no impacts to these areas.

In addition to the wetlands mapped in the vicinity of the study corridor, two types of surface waters were mapped adjacent to the study corridor on the 2005 FLUCFCS mapping:

- Reservoirs (5300)
- Bays and estuaries (5400)

The reservoirs mapped adjacent to the study corridor occur in the eastern segment near the SR 60/SR 589 interchange. Based on the conceptual design, there would be no impact to these areas that would occur as a result of the project. Bays and estuaries is the land cover designation for Old Tampa Bay, which is the body of water that is crossed by the SR 60 causeway. Impacts to Old Tampa Bay would occur in association with the installation of the bridge support pilings for the three independent bridges that would be constructed adjacent to the three roadway bridges along the SR 60 causeway. Additional filling impacts may occur as a result of the construction of the approaches for the three bridges. This would be dependent on the final design for the project.

Potential Wetland and Surface Water Impacts

Because construction limits (limits of grading) have not been determined at this point in the project's development for an alignment on the north side of SR 60 or on the south side of SR 60, potential acreages of impacts to wetlands and surface waters were not calculated for the project. Based on the FLUCFCS mapping for the project, potentially impacted wetlands occur adjacent to each side of SR 60 as described below.

North Side

Approximately 5,250 linear feet of the land based portion of the north side of SR 60 could be located adjacent to, and could potentially impact, wetlands and other surface waters including:

- Approximately 4,400 linear feet on the north side of SR 60, east of Damascus Road is mapped as mangrove swamp and designated as conservation area based on the signage along the road shoulder;
- Approximately 550 linear feet on the north side of SR 60, west of Damascus Road is mapped as combination of mangrove swamp and saltwater marsh; and,



- Approximately 300 linear feet on the north side would abut an area east of South Bayshore Boulevard and is mapped as hardwood conifer mixed that warrants closer investigation to determine whether jurisdictional wetlands are present.

South Side

Approximately 750 linear feet of the land on the south side of SR 60 could be located adjacent to, and could potentially impact, wetlands and other surface waters:

- Between Ben T. Davis Beach and Bay Harbor Drive, the SR 60 causeway narrows somewhat and an area mapped as bays and estuaries lies immediately adjacent to a retaining wall adjacent to the south side of the existing road shoulder for approximately 100 feet. Additional areas of mangrove dominated wetlands occur in this area that were not identified as such on the FLUCFCS mapping. They extend approximately 550 feet along the road shoulder.
- Between Rocky Point Drive and bridge 3 (the eastern most bridge) the causeway narrows again. A small area of mangrove wetlands extends for approximately 100 linear feet adjacent to the south side of the causeway, on the east side of rocky point that could potentially be impacted.

Proposed Bridges

The independent trail bridges adjacent to SR 60 bridges 1, 2, and 3 would cross areas of open water approximately 450 feet wide; 3,260 feet wide; and 150 feet wide, respectively. These bridges would require multiple support pilings/piers and may or may not require additional fill in open waters for the construction of the bridge approaches.

Calculation of impacts to wetlands and surface waters will be completed once design begins and construction limits have been determined. At this time, the proposed project is not funded for design.

Wildlife and Habitat

The U.S. Fish and Wildlife Service (USFWS) lists of federally protected species documented to occur within Hillsborough and Pinellas Counties were obtained from the USFWS North Florida Field Office website [<http://fws.gov/northflorida/gotocity.htm>] (accessed 12/13/2007)]. In addition, the Florida Natural Areas Inventory (FNAI) lists of protected species documented to occur in Hillsborough and Pinellas Counties were obtained from the FNAI website [<http://www.fnai.org/trackinglist.cfm>] (accessed 12/13/2007)]. Based on a review of the habitat requirements of the species appearing on these lists, a review of the habitat types that are present in the study corridor as represented on the 2005 SWFWMD FLUCFCS mapping, and observations of habitat made during the limited field reconnaissance, a list of protected species that could potentially utilize the habitats present in the study corridor was developed (Table 4-3).



Prior to the construction of the proposed project a survey of the project's construction limits should be conducted to determine the presence or absence of these species and to determine the potential for protected species impacts. Due to the fact that the West Indian manatee is known to utilize waters in the vicinity of the project study corridor, it is likely that manatee protection measures will be required for the in water construction associated with portions of the project that would involve construction of new bridges. Special protection measures may also be required for protected sea turtles at the discretion of the National Oceanographic and Atmospheric Administration Fisheries Service (NOAA Fisheries).

Table 4-3
Potential Federal and State Protected Species
Based on Presence of Suitable Habitat

Common Name	Scientific Name	Federal Status	State Status
West Indian manatee	<i>Trichechus manatus latirostris</i>	E	E
Gulf sturgeon	<i>Acipenser oxyrinchus desotoi</i>	T	T
Green sea turtle	<i>Chelonia mydas</i>	E	E
Loggerhead sea turtle	<i>Caretta caretta</i>	T	T
Little blue heron	<i>Egretta caerulea</i>	N	SSC
Reddish egret	<i>Egretta rufescens</i>	N	SSC
Snowy egret	<i>Egretta thula</i>	N	SSC
Tricolored heron	<i>Egretta tricolor</i>	N	SSC
White ibis	<i>Eudocimus albus</i>	N	SSC
American oystercatcher	<i>Haematopus palliatus</i>	N	SSC
Bald eagle	<i>Haliaeetus leucocephalus</i>	N	T
Brown Pelican	<i>Pelecanus occidentalis</i>	N	SSC
Roseate Spoonbill	<i>Ajaia ajaja</i>	N	SSC
Black Skimmer	<i>Rynchops niger</i>	N	SSC
Least Tern	<i>Sterna antillarum</i>	N	T
E= endangered T= threatened SSC= State Species of Concern Source= USFWS Listed Species for Hillsborough County (last modified 6/28/2007), USFWS Listed Species for Pinellas County (last modified 6/28/2007), FNAI Tracking List for Hillsborough County (last updated 9/2007), FNAI Tracking List for Pinellas County (last updated 9/2007)			



Essential Fish Habitat

The conceptual design for the trail incorporates three bridges that will cross sections of Old Tampa Bay. Based on 2003 seagrass mapping for the project area that was developed by the Florida Marine Research Institute (See **Appendix H**) one area of seagrass is mapped beneath the eastern end of the central bridge along the causeway (bridge 2). This area of seagrass could potentially be impacted to a minor extent by the construction of the independent trail bridges for the North Alternative and/or South Alternative adjacent to SR 60 bridge 2 that are proposed in the conceptual design.

Based on a review of data available on the NOAA Fisheries website, areas adjacent to the mainland on the north side of the causeway at the eastern end of the project and at the western end of the project are mapped as intertidal estuary Essential Fish Habitat. The intertidal estuary at the western end of the project is contiguous with the mangrove swamp community on the north side of the causeway at the western end of the project, and therefore could potentially be impacted by the North Alternative. No Essential Fish Habitat is mapped in the areas of the three proposed bridge crossings. Because there are potential impacts to the marine environment that may occur as a result of the project, coordination with NOAA Fisheries will be required.

4.3.4 Permit Conditions

U.S. Coast Guard

As depicted in the conceptual design, the project will involve the construction of at least two or more independent bridges parallel and adjacent to the north or south sides of the three bridges on the SR 60 causeway. The bridges adjacent to SR 60 Structure 1 (the westernmost bridge) and Structure 2 (the central bridge) are bridges that will cross Waters of the U.S. 23 CFR 650, Subpart H, established the policies and coordination procedures for federally funded projects that require United States Coast Guard (USCG) jurisdictional considerations. Proposed bridges adjacent to Structures 1 and 2 are over tidal waters and are used by vessels in excess of 21 feet in length. Therefore, based on the 23 CFR 650 regulations, a USCG permit will be required. FDOT will need to initiate coordination with the U.S. Coast Guard (USCG) at an early stage in the project development process so that the USCG can be involved throughout the project's design process.

23 CFR 650 regulations stipulate that FDOT will need to accomplish sufficient preliminary design and consultation to evaluate bridge concepts, horizontal and vertical clearances, hydraulic conditions, safety, navigational needs and environmental considerations so that these items can be considered during the USCG permitting process. The USCG will need to approve structural concepts, hydraulics, and navigational clearances prior to the submission of the permit application.

For projects requiring a bridge permit, the USCG may become the lead permitting agency, and other federal agencies such as the U.S. Environmental



Protection Agency, NOAA Fisheries, and the U.S. Army Corps of Engineers could become commenting agencies.

SWFWMD

As stated previously, the project may involve potential encroachments to wetlands due to the construction of the land based portion of the trail and would involve encroachments to surface waters due to the construction of the three independent bridges that would be constructed in parallel to the three SR 60 bridges along the causeway. These wetlands and surface waters are subject to the permitting authority of the SWFWMD. An Environmental Resource Permit (ERP) from the SWFWMD would be required for the project, and depending on the impacts that would result from the final design, wetland mitigation may be required.

U.S. Army Corps of Engineers

The wetlands and surface waters that would be potentially impacted by the project are also subject to the jurisdiction and permitting authority of the U.S. Army Corps of Engineers (USACE) because they are by definition Waters of the U.S. Any dredging or filling of wetlands or other Waters of the U.S. would require a dredge and fill permit under Section 404 of the Clean Water Act. The construction of the bridges may require USACE permit approval if there is additional fill material, such as fill for bridge approaches, that would be placed in Waters of the U.S. in association with their construction.

If it is determined that the project would result in impacts to wetlands or other Waters of the U.S., but the impacts are relatively minor in extent, the project may qualify for a Nationwide Permit. USACE Nationwide Permit 14 applies to linear transportation projects in tidal waters that result in less than 1/3 acre of impact to Waters of the U.S. Pre-construction notification to the USACE would be required for this type of permit.

Alternatively, the project may be processed under a Nationwide Permit 23. Construction projects permitted under Nationwide 23 often also utilize Nationwide Permit 33, which applies to temporary impacts to Waters of the U.S. that result from construction impacts, access, and/or dewatering. Pre-construction notification is required in some cases for projects permitted under Nationwide Permit 23 and in all cases for projects utilizing a Nationwide Permit 33.

If it is determined that the impacts that would result from the project are too great for it to qualify to be permitted under the Nationwide Permit program, it would be handled as an individual permit application. The permit application process for individual permits is very similar to that for Nationwide Permits; however, the timeframe for the processing of the permit normally is longer.

The SWFWMD permitting process is a joint permitting process with the USACE; therefore, the ERP application will also serve as the USACE application.



NOAA Fisheries

NOAA Fisheries would be a commenting agency on a USCG bridge permit application if required. Coordination with NOAA Fisheries will likely be required to address potential impacts to the marine environment as a result of the construction of the bridges. Based on the results of this coordination, a determination of whether impacts to Essential Fish Habitat will result from the project will be made. If it is determined that the project would impact essential fish habitat, NOAA fisheries will make recommendations to conserve the habitat and reduce the impacts of the project. The USCG would then likely require that those recommendations be implemented as a condition of the issuance of the bridge permit.

See Appendix H for the Seagrass Maps.



5.0 DESIGN CONTROLS AND STANDARDS

Design control and standards for the multi-use trail are found in **Table 5-1** below.

Table 5-1

DESIGN ELEMENTS	DESCRIPTION	CRITERIA	SOURCE
Controlling Design Vehicle		Bicycle	FDOT PPM Vol. 1 Chapter 8
Design Speed		20 MPH Downgrade >4% - 30MPH	FDOT PPM Vol. 1 8.6.7
Typical Section Elements			
Path Width	Desired Width	12 Feet	FDOT PPM Vol. 1 8.6.2
Path Width	Minimum Width	Two-Way Path – 12 feet	FDOT PPM Vol. 1 8.6.2
Shoulder Widths		2 feet	FDOT PPM Vol. 1 8.6.5
Horizontal Clearance		4 feet	FDOT PPM Vol. 1 8.6.5
Cross Slope	Path Pavement	2%	FDOT PPM Vol. 1 8.6.3
	Shoulders	Graded shoulder 1:6	FDOT PPM Vol. 1 8.6.5
Separation between Shared Use Path and Roadway	Two-Way Path	5 feet	FDOT PPM Vol. 1 8.6.10
Horizontal Alignment			
Minimum Radii		20 MPH 2% X-Slope 95 feet 20 MPH -2% X-Slope 110 feet 30 MPH 2% X-Slope 250 feet 30 MPH -2% X-Slope 300 feet	FDOT PPM Table 8.6.8.1
Minimum Length of Curve		N/A	
Cross Slope Transitioning		75 foot Minimum	FDOT PPM Vol. 1 8.6.8.1
Vertical Alignment			
Minimum Length of Curve	Derived from Stopping Sight Distance	When $S > L$ $L = 2S - (900/A)$ When $S < L$ $L = AS^2/900$	FDOT PPM Vol. 1 8.6.9
Grades		5% Maximum without level landings	FDOT PPM Table 8.6.4



DESIGN ELEMENTS	DESCRIPTION	CRITERIA	SOURCE
Stopping Sight Distance	Based on Grade	Min @ 20MPH 127 feet @ 30MPH 230 feet	FDOT PPM Table 8.6.8.2
Vertical Clearances	Shared Use Paths	8 feet Min 10 feet Desirable if Vehicle access is a consideration.	FDOT PPM Vol. 1 8.6.6
	ADA Requirement	6 feet 8 inches	ADAAG 4.4.2
Horizontal Clearance			
	Clearance from path to obstruction or drop-off	4 feet to obstructions > or = to 2 feet to drop offs. (See Drop off criteria below)	FDOT PPM Vol. 1 8.6.5
	Clearance from Path to Motorized Vehicles	5 feet minimum	FDOT PPM Vol. 1 8.6.10
Drop Off Criteria			
	Drop Offs within the specified offsets can be mitigated with Ped. Rail or Fence	Case I Vertical Drop >10 inches, Closer than 2 Feet	FDOT PPM Vol. 1 8.8, Figure 8.2
	Drop Offs within the specified offsets can be mitigated with Ped. Rail or Fence	Case II A slope >1:2, closer than 2 feet with a vertical difference > 30"	FDOT PPM Vol. 1 8.8, Figure 8.2
Lighting	Considered for safety, minimum at school areas and underpasses.		FDOT PPM Vol. 1 8.6.12
Signing and Pavement Marking	Standard Markings in Standard Index, MUTCD contains more specific Shared Use Path Markings		MUTCD and FDOT Standard Index 17346

NOTES: PPM = Plans Preparation Manual (Volume I) January 2007, Florida Department of Transportation
 Standard Index= FDOT Design Standards for Design, Construction, Maintenance and Utility Operations on
 The State Highway System Dated 2008
 ADAAG = Accessibility Guidelines for Buildings and Facilities
 MUTCD = Manual of Uniform Traffic Control Devices



6.0 TRAFFIC

6.1 Existing Traffic Conditions

SR 60 across the Courtney Campbell Causeway is a four-lane, divided highway, with posted speeds of 60 mph. Average annual daily traffic (AADT) volumes range from 48,000 to 71,500, as discussed in more detail below. The peak hour directional factor is approximately 0.55 and heavy vehicle percentages range from 5% to 7%.

6.2 Multimodal Transportation System Considerations

There are both express and local bus routes that either travel along or intersect with SR 60 near the proposed trail alignment. Transit service along this portion of SR 60 includes the HART Route 200X, commuter express service between downtown Tampa and the Eddie Moore Park and Ride Lot in Clearwater. As this is an express route, it only operates during weekday commuter rush hours. On a more regular schedule, the HART Route 30 intersects with the east end of the Causeway as it runs along Eisenhower Boulevard between downtown Tampa and the Town 'n' Country area. PSTA's Route 60 offers daily service from the intersection of SR 60 and McMullen Booth Road (approximately $\frac{1}{4}$ mile west of this project's beginning at SR 60's intersection with Bayshore Boulevard). See Section 3.1.1 for a discussion of linkages to the non-motorized transportation network.

The presence of these transit routes provides additional access opportunities for users of the proposed path.

6.3 Traffic Analysis Assumptions

Traffic analysis assumes that no changes will be made to the roadway. Traffic volumes are from the FDOT DVD-ROM, "Florida Traffic Information 2006."

6.4 Existing Traffic Volumes

The 2006 Florida Traffic Information DVD contains traffic volume data for three reporting locations along the Courtney Campbell Causeway. These locations and counts are as follows:

Table 6-1

Site #	Location	AADT
0057	West of the Pinellas Hillsborough County Line	52,500
0027	East of the Main Channel Bridge	48,000
5145	West of Eisenhower Boulevard	71,500

6.5 Traffic Volume Projections

Traffic volumes as projected through 2016 in the Florida Traffic Volume DVD are relatively flat for SR 60 across the causeway. AADT volumes are projected to rise between 1-2% on either end and remain constant over the bridge itself.



Table 6-2

Site	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
0057	52,600	52,700	52,900	53,000	53,100	53,200	53,300	53,400	53,600	53,700
0027	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000	48,000
5145	72,100	72,700	73,300	73,800	74,400	75,000	75,600	76,200	76,800	77,300

6.6 Level of Service

Even using the lowest reported AADT of 48,000 vehicles per day (Site 0027) SR 60 performs at a motor vehicle level of service "F" for an urbanized, four-lane, divided state highway with fewer than two signals per mile (as shown on the FDOT Q/LOS Generalized Tables). A more detailed analysis using FDOT's ARTPLAN software produces the same result.

Because the roadway includes paved shoulders along most of its length, there is room for bicyclists in the existing cross-section. Given the traffic characteristics and the roadway geometry, this leads to an existing bicycle level of service "D" based on the FDOT-adopted Bicycle Level of Service Model. Pedestrians are not currently accommodated along the roadway, and the Pedestrian Level of Service Model indicates a pedestrian level of service "F."

7.0 CORRIDOR ANALYSIS

The SR 60 (Courtney Campbell Causeway) Multi-use Trail Feasibility Study is intended to study possible alignments along the existing SR 60 Causeway. Alternative corridor analysis is therefore not included in this study.

8.0 ALTERNATIVE ALIGNMENT ANALYSIS

8.1 No-Build Alternative

The No-Build alternative consists of postponing or not building the proposed SR 60 Multi-Use Trail across the Courtney Campbell Causeway. Certain advantages would be associated with the implementation of the No-Build alternative, including:

- No new construction costs.
- No disruption to traffic due to construction activities.
- No environmental degradation or disruption of natural resources.

The disadvantages of the No-Build alternative include:

- Opportunities for increasing the economic viability and community values may not be realized.



- Does not meet the goals of the Comprehensive Plans of Hillsborough and Pinellas Counties and the Cities of Tampa and Clearwater for constructing the SR 60 Multi-Use Trail across Old Tampa Bay.
- Does not provide alternate modes of transportation on SR 60 for a roadway that is currently at capacity.
- Does provide a link in the regional trail network for the Tampa Bay Region.
- Does not meet the stated goals and objectives of this study.

8.2 Transportation System Management

Not applicable to this study.

8.3 Study Alternatives

To effectively develop and evaluate all viable improvement alternatives for the SR 60 Multi-Use Trail, the project was analyzed by looking at the two essential components of the trail:

Component One: Evaluate alternative locations for the land-side portion of the trail. Given the narrow width of the Causeway and the existence of access roads along the majority of both sides of the Causeway, it was assumed the land-side portion of the trail would be on or near the existing access roads. This analysis will include which side of the Causeway the trail should occupy.

Component Two: Evaluate structural options for the trail crossings of the three (3) bay crossings along the Causeway.

8.3.1 Trail

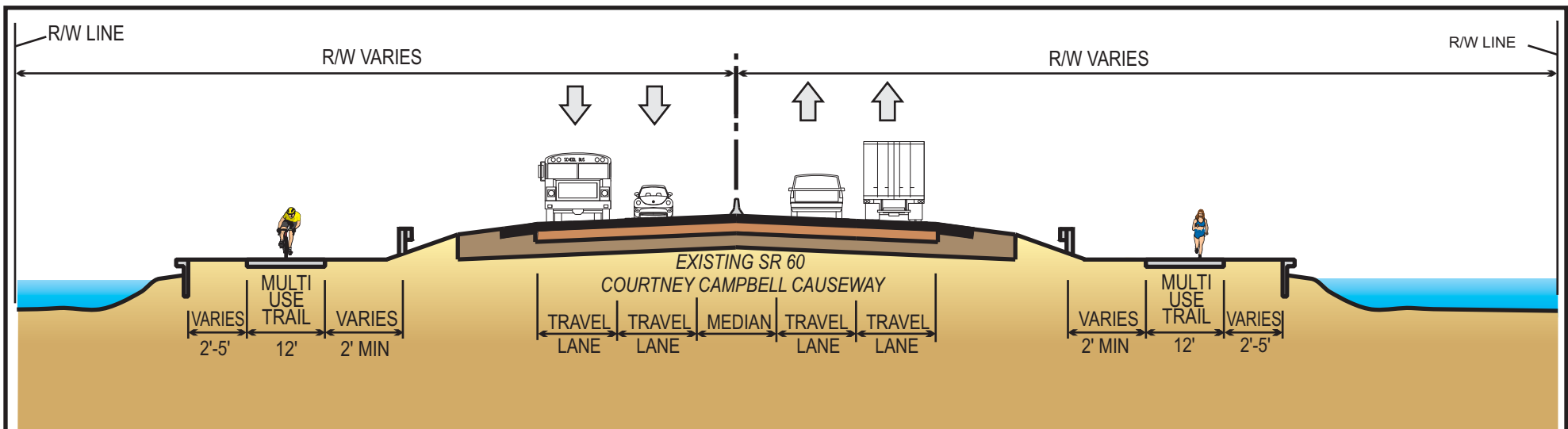
Based on analysis of the corridor, it appears that the most viable locations for the trail would be along the north side or the south side of the Causeway at or near the current location of the access roads located along both sides of the majority of the causeway. Essentially this leads to two proposed alternatives for the land side portions of a multi-use trail. One along the *north* side of Causeway and one along the *south* side. These two proposed alternatives will be called the North Alternative and the South Alternative respectively.

In areas where proposed alternatives (North or South) impact existing access road vehicular traffic, the access road will be relocated to the area between the Causeway and the existing access road.

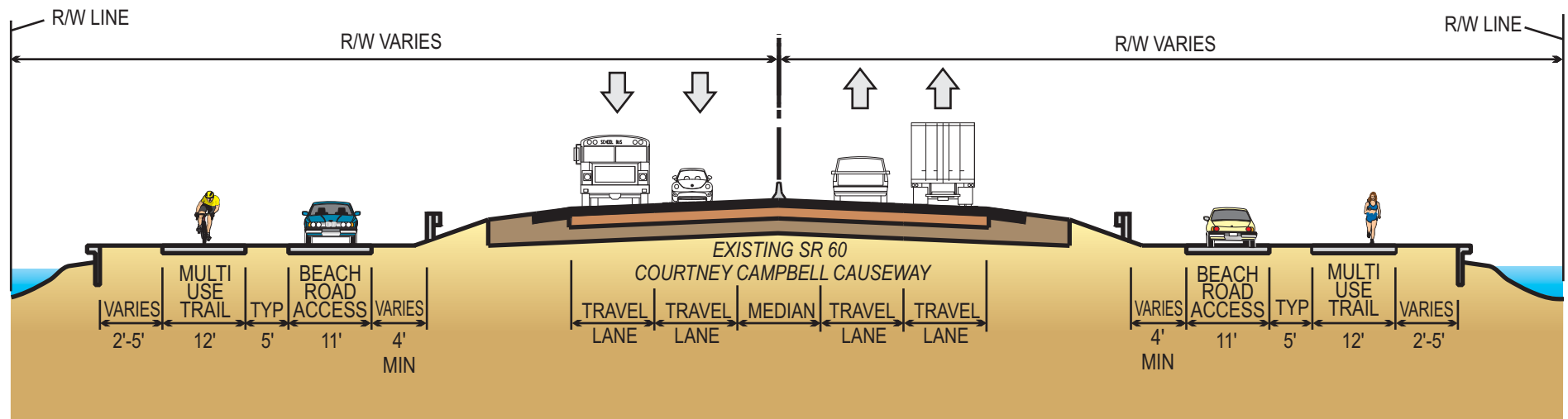
Alternative typical sections for the trail adjacent to and on top of the existing access road are shown in **Figure 8.1**.

8.3.1.1 Trail Parking

Existing parking is provided along the corridor at the beach area on the Clearwater end of the study area, the boat ramp on the east end of Structure 2 and at Ben T. Davis Beach. Informal parking areas also exist along the access roads where vehicles are currently allowed.



TYPICAL SECTION
(Where Vehicular Access Does Not Currently Exist)



TYPICAL SECTION
(With Vehicular Access)



FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL TYPICAL SECTIONS

FIGURE 8.1



For each of the study alternatives, every effort will be under taken to maintain all existing parking along the corridor. Additional parking will be investigated and provided during the final design phase of the project.

8.3.2 Structures

The proposed recreation trail requires improvements in order to span over the three bay crossings encountered along the Causeway. Multiple options were investigated at each of the three structure sites.

All structural Options are designated as:

‘W’ – For all Widening Options

‘IS’ – For all Independent Structure Options

8.3.2.1 General

Navigation

Consideration was given such that no option impedes the passage of vessels currently traveling beneath Structures 1 and 2. Any option chosen will provide at least the existing horizontal and vertical clearances. Placement of additional piers or piles will be done so alongside the existing substructures such that the safety of the water traffic is maintained. All work should conform to U.S. Coast Guard regulations.

Federal Aviation Administration

FAA regulations must be considered. Form FAA 7460 should be submitted at the appropriate time to the Administrator of the FAA as required per CFR Title 14 Part 77.13. The structures are within a 5 mile radius of the Tampa International and St. Petersburg Clearwater International Airports. Potential conflicts consist of runway 9-27 at Tampa International Airport and runway 17-35 at St. Petersburg Clearwater International Airport.

Structure 1

Option ‘W1’

Minimize additional environmental impacts by attaching a pathway structure to the existing structure. No additional piles are required in the water. Two cases are investigated.

(‘W1’-A) Use a scaffold type system (see **Figure 8.2**). This option consists of a 6’-0” pathway attached on both sides of the existing bridge providing for one-way foot traffic. The pathway will be constructed out of metal grating atop a network of structural members which are supported thru epoxy injected bolted connections and bearing supports. The structural members will be designed in such a way that the additional loads imposed by the pathway will be directed thru the shear center of the exterior girders. A dead load of 40 psf was assumed for the pathway configuration. This option was investigated using AASHTO Standard Specifications for Highway Bridges, 17th Edition and the AASHTO LRFD Bridge Design Specifications, 4th Edition using the design truck



live loads HS-20/HS-25 and HL-93 respectively. A live loading of 85 psf for the pathway was used for analysis. Analyses performed with the girder design software program, Conspan, show the exterior girders have enough reserve capacity to support the pathways with all of the live loads considered. Further investigation was performed to see if the existing pile bents could support the additional loads imposed. A complex analysis was performed using the bent design software program RC Pier; the HS-20 live load was considered. The results showed the prestressed concrete piles are at their full allowable bearing capacity in an "as is" condition. There is no reserve capacity to allow for the utilization of this conceptual option. This option is not feasible and is removed from further consideration.

('W1'-B) Use prefabricated steel bridge pathways spanning between cantilever supports that are connected to the existing bent caps (see [Figure 8.3](#)). The RC Pier model from Option A ('W1'-A) was adapted for this analysis. The HS-20 live load was considered on the roadway and an 85 psf live load was considered for the pathway. Strength analyses demonstrated the existing bent caps cannot support the additional moments transferred from the pathways without improvements. In addition, it was again shown that the prestressed concrete piles cannot support the additional imposed loading. There is no reserve capacity to allow for the utilization of this conceptual option. This option is not feasible and is removed from further consideration.

Option 'W2'

Widen the existing bridge (see [Figure 8.5](#)) such that it meets the minimum width to allow for a bi-directional pathway on one side. The bridge should be widened to 106'-2 ½" in order to meet the required standards in the *Plans Preparation Manual*. The pathway consists of a 12' multi-use trail with a 2' shoulder on each side. The barrier rail on the widening side will be replaced with a Type F barrier as shown on Index Number 420, *2008 FDOT Design Standards*. The outside of the pathway will have a pedestrian bicycle railing as shown on Index Number 820, *2008 FDOT Design Standards*. Early indications are this option will require three additional lines of Type II AASHTO girders. It is anticipated that an additional rectangular prestressed concrete pile will be needed under each girder line at each support.

Constructability

The widening side of this bridge will need removal of the existing deck to the centerline of the exterior girder to expose the existing reinforcing bars and facilitate formwork. The widening side should use a Type K barrier as shown on Index Number 414, *2008 FDOT Design Standards* will be required during construction to protect the drop off. The work required will reduce the existing roadway shoulders during various stages of construction. Temporary lane closures may be required. A well developed MOT plan will be required to facilitate this work due to the reduction of the roadway shoulders. The construction activities will have a high impact on the motorists. Barge



mounted equipment is anticipated to perform the work. If barge access is limited a trestle bridge could be used.

Option 'IS'

Construct new independent structures to accommodate the pathway (see **Figure 8.5**). The out to out dimension will be 18'-0." The pathway consists of a 12' multi-use trail, bi-directional with a 2' shoulder on each side. A pedestrian bicycle railing as shown on Index Number 820, *2008 FDOT Design Standards* will be provided on each side. The location of the bents will be in line with the existing bridge. The bridge will be designed to accommodate the heaviest required vehicle to perform routine maintenance and inspection.

Alignment

The bents will be placed inline with those of the existing structure. The alignment should be placed such that no conflicts are encountered between battered piles of the existing bridge. It should be noted that neither the existing bridge nor the proposed bridge meets the 12' minimum vertical clearance given in the *Plans Preparation Manual* thus a design exception is expected.

Constructability

The construction of new independent structures will not impact the vehicular traffic currently on Structure 1. This is an advantage over widening the bridge because MOT requirements are not an issue. Barge mounted equipment is anticipated to perform the work. If barge access is limited a trestle bridge could be used.

Structure 2

Option 'W1'

Minimize additional environmental impacts by attaching a pathway structure to the existing structure. No additional piles are required in the water. Two cases are investigated.

('W1'-A) Use a scaffold type system (see **Figure 8.2**). This option consists of a 6'-0" pathway attached to both sides of the existing bridge similar to Option A (W1-A) for Structure 1. The analysis methods used in Option A ('W1'-A) for Structure 1 are repeated for this scenario. The analyses performed showed that the Type IV AASHTO girders do not have sufficient reserve strength to accommodate a pathway of any appreciable width. It should be noted the Type III AASHTO girders can support the pathway based on calculations utilizing AASHTO Standard Specifications for Highway Bridges, 17th Edition with the HS-20 live load and AASHTO LRFD Bridge Design Specifications, 4th Edition with the HL 93 live load. The substructure was also analyzed in the same manner as that used for Structure 1. The results indicated the prestressed concrete piles at the pile bent locations are at their full allowable bearing capacity in an "as is" condition. There is no reserve capacity to allow



for the utilization of this conceptual option. This option is not feasible and is removed from further consideration.

('W1'-B) Use prefabricated steel bridge pathway spanning between cantilever supports that are connected to the existing bent caps (see **Figure 8.4**). The analysis methods used in Option A ('W1'-B) for Structure 1 are repeated for this scenario. Strength calculations for the column bents indicate the caps may be able to support the flexure effects from the pathway. This assumes adequate connections are possible. Strength calculations of the pile bents indicate they will be unable to support the flexural effects of the cantilever supports. As stated in Option A ('W1'-B), the prestressed concrete piles at the pile bent locations can not support the additional load from the pathway. There is no reserve capacity to allow for the utilization of this conceptual option. This option is not feasible and is removed from further consideration.

Option 'W2'

Widen the existing bridge on both sides for a bi-directional pathway (see **Figure 8.6**). The existing bridge has deficiencies in the deck geometry appraisal. The existing shoulders do not meet current design standards established by the FDOT. Eliminating these deficiencies will require additional widening to provide minimum allowable lane widths and shoulder dimensions required in the *Plans Preparation Manual*. The desired condition will provide two 12' lanes in each direction with 10' outside shoulders and 8' inside shoulders. The pathway consists of a 12' multi-use path with a 2' shoulder on each side. The barrier rail on the widened side will be Type F barrier as shown on Index Number 420, *2008 FDOT Design Standards*. The outside of the pathway will have a pedestrian bicycle railing as shown on Index Number 820, *2008 FDOT Design Standards*. Early indications are this option will require at least five additional lines of AASHTO girders on the north side of the structure and two additional lines of AASHTO girders on the south side. The pile bents will require at least one additional pile under at bearing point. The column bents will require an additional column support.

Constructability

Both sides of the bridge will need sections of the existing deck removed to the centerline of the exterior girders to expose existing reinforcing steel and facilitate formwork. Both sides of the bridge will require a Type K barrier as shown on Index Number 414, *2008 FDOT Design Standards* during the staged construction to protect from the drop off. The already substandard roadway shoulders will be reduced below the current dimension of 4'. Temporary lane closures may be required. The MOT requirements will play a major role in widening this bridge. The construction activities will have a high impact on the motorists. The existing timber fender system will be expanded upon to provide protection to the widened portions of the bridge and to reestablish the navigable channel limits. Barge mounted equipment is anticipated to perform the work. If barge access is limited a trestle bridge could be used.



Option 'IS'

Build new independent structures to accommodate the pathway (see **Figure 8.6**). The structure will be located on the north side of the existing structure. The out to out dimension will be 18'-0." The pathway consists of a 12' multi-use path bi-directional with a 2' shoulder on each side. A pedestrian bicycle railing as shown on Index Number 820, *2008 FDOT Design Standards* will be provided on each side. The location of the bents will be inline with the existing bridge. The bridge will be designed to accommodate the heaviest required vehicle to perform routine maintenance and inspection.

Alignment

The bents will be placed inline with those of the existing structure. The alignment should be placed such that no conflicts are encountered between battered piles of the existing bridge. It should be noted that neither the existing bridge nor the proposed bridge meets the 12' minimum vertical clearance given in the *Plans Preparation Manual* thus a design exception is expected.

Constructability

The construction of new independent structures will not impact the vehicular traffic currently on Structure 2. This is an advantage over widening the bridge because MOT requirements are not an issue. The existing timber fender system will be expanded upon to provide protection to the new structures and to reestablish the navigable channel limits. Barge mounted equipment is anticipated to perform the work. If barge access is limited a trestle bridge could be used.

Structure 3

Option 'W1'

There is not a cantilevered walkway option presented for Structure 3.

Option 'W2'

The existing roadway shoulder can be utilized to accommodate the multi-use trail (see **Figure 8.7**). The existing roadway shoulder will be reduced to eight feet, below the minimum desired dimension of 10' described in the *Florida Green Book May, 2007*. A 1'-6" Type F barrier, Index Number 420, *2008 FDOT Design Standards* is used behind the shoulder to protect the multi-use trail. The remaining dimension is used for the pathway (seven feet on north side, six feet on south side). A Pedestrian bicycle railing such as that shown in Index Number 822, *2008 FDOT Design Standards* will be provided outside the pathway. The pathway widths do not meet the requirements of the *Plans Preparation Manual* so a variance is required.

Option IS

Use a single span prefabricated steel pedestrian bridge structure adjacent of the bridge culvert to avoid impacting the existing roadway shoulder (see



Figure 8.8). The pedestrian bridge will be designed according to *AASHTO Guide Specifications for Design of Pedestrian Bridges, August, 1997*. The pedestrian bridge will be designed to support H-10 live load. The pathway will consist of a 12' multi-use path, two directions with a 2' shoulder on each side. The estimated pedestrian bridge length is 125' long. This estimated length may vary due to hydraulic or other requirements that may arise.

The structures options discussed and shown thus far consider a straight continuation of the alignment across the water crossing, i.e. West Segment North Side to Middle Segment North Side. Should a shift in alignments be desired from north to south or south to north at a bridge location this is expected to be possible at Structure 1 and Structure 2 by passing the trail under the existing bridge at grade and then on to the bridge. The bridge structure will need to account for the change in alignment and grade. The bridge ends will require minimal turning radii meeting trail design criteria and grade changes meeting ADA to facilitate this transition. A horseshoe or "U" shape turn is envisioned to make this connection.

Combined Trail and Structure Alternatives

As discussed in the sections above for trail and structure alternatives, the combined recommended alternatives for both the land-side portion of the trail and the structure options results in four alternatives for the multi-use trail. One interim staging option is also included. The trail alternatives are located on the *north* or *south* of the causeway and include either the Structural Option 'W2' (widening with piles in the water) or Structural Option 'IS' (Independent Structure). These alternatives are:

ALTERNATIVE N1

This alternative includes the trail on the *north* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the *north* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

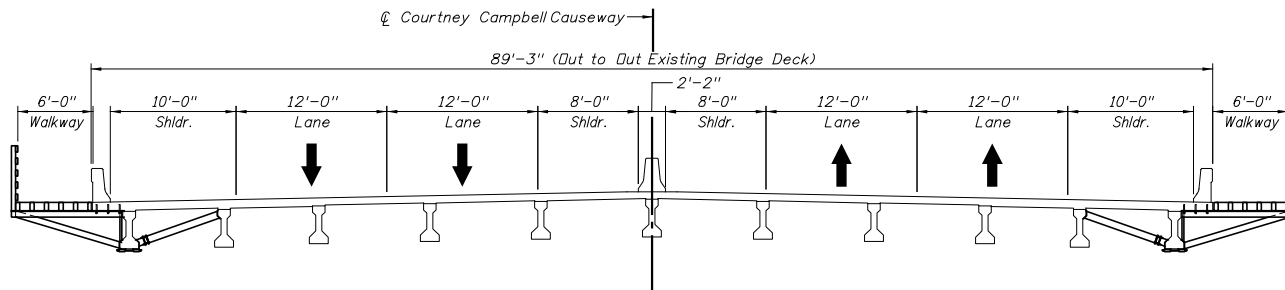
This alternative includes the trail on the *south* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

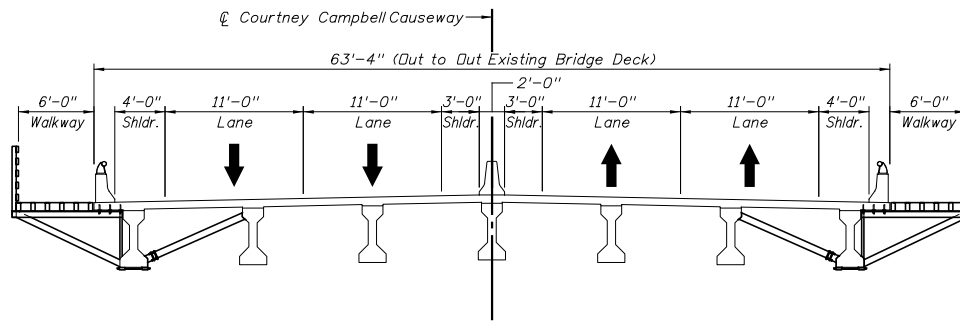
This alternative includes the trail on the *south* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

STAGING OPTION S3

This is an interim staging option which will provide a shared-use facility on the existing causeway prior to the construction of any new water crossings.

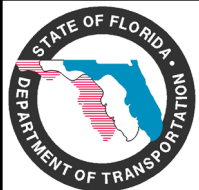


CROSS SECTION - STRUCTURE 1



CROSS SECTION - STRUCTURE 2

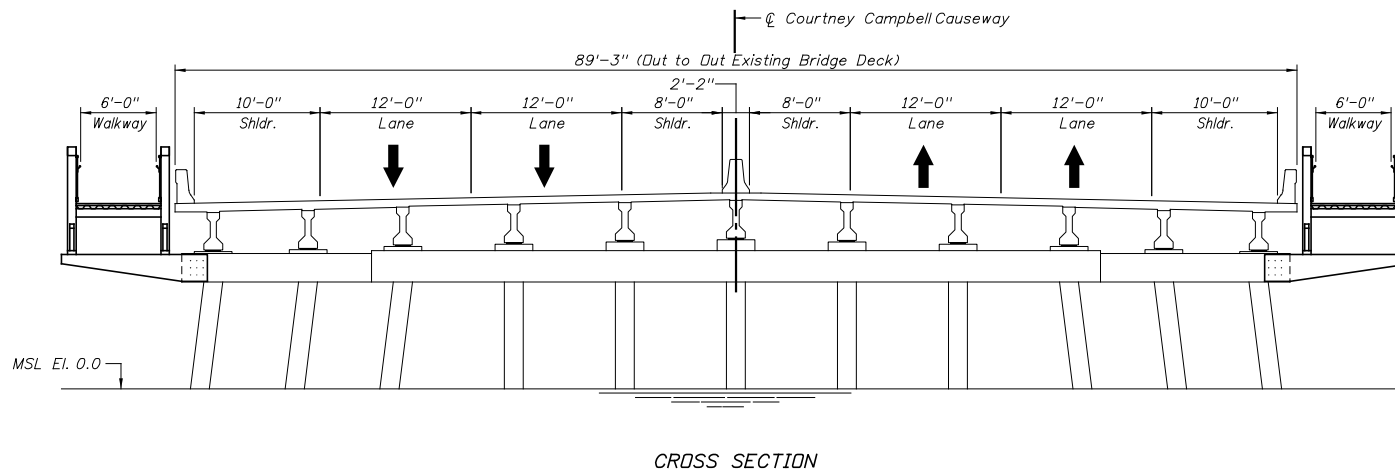
OPTION W1-A



FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 1
STRUCTURE NO. 2
PROPOSED CANTILEVERED WALKWAYS

FIGURE 8.2

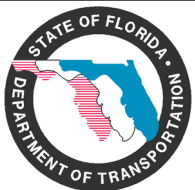


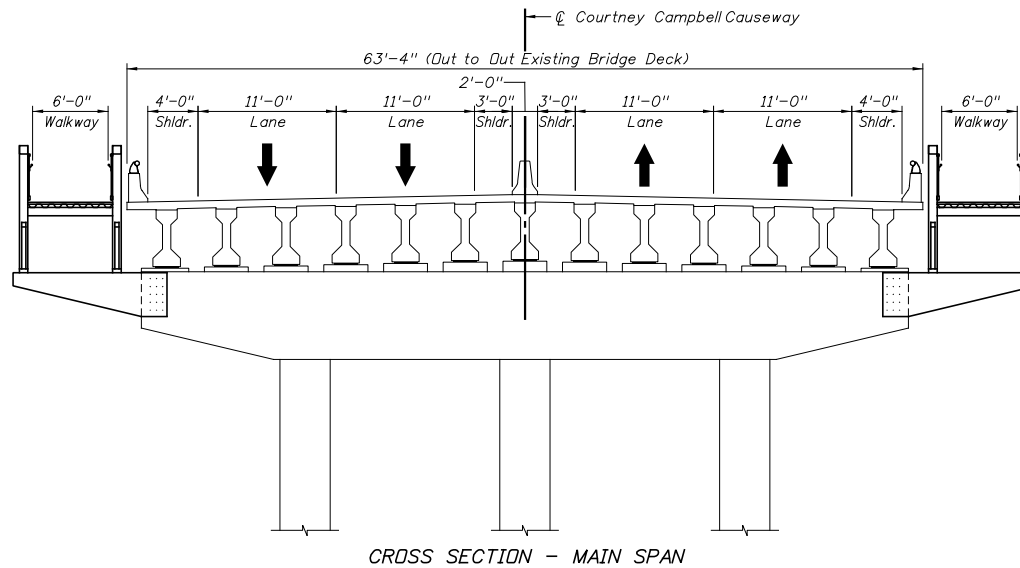
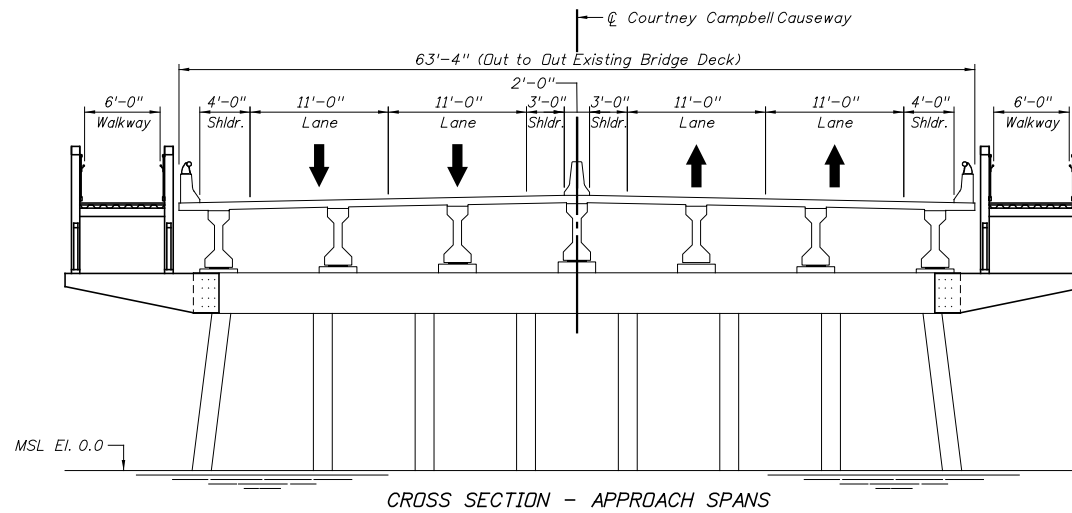
OPTION W1-B

FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

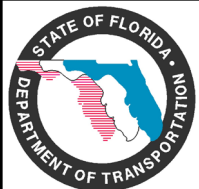
STRUCTURE NO. 1
PROPOSED CANTILEVERED PREFAB TRUSS
BRIDGE NO. 150138

FIGURE 8.3





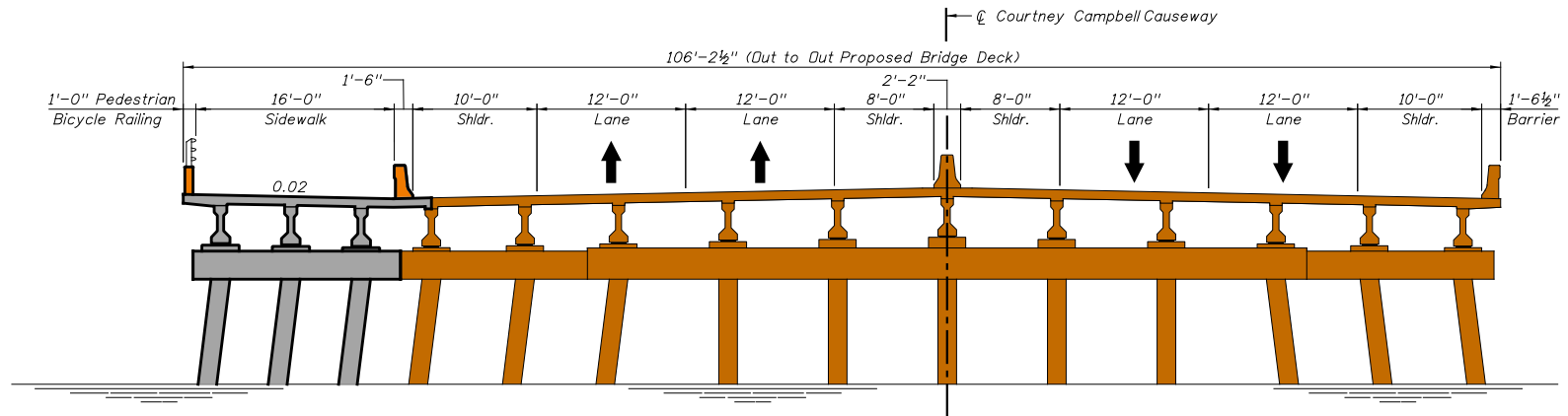
OPTION W1-B



FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

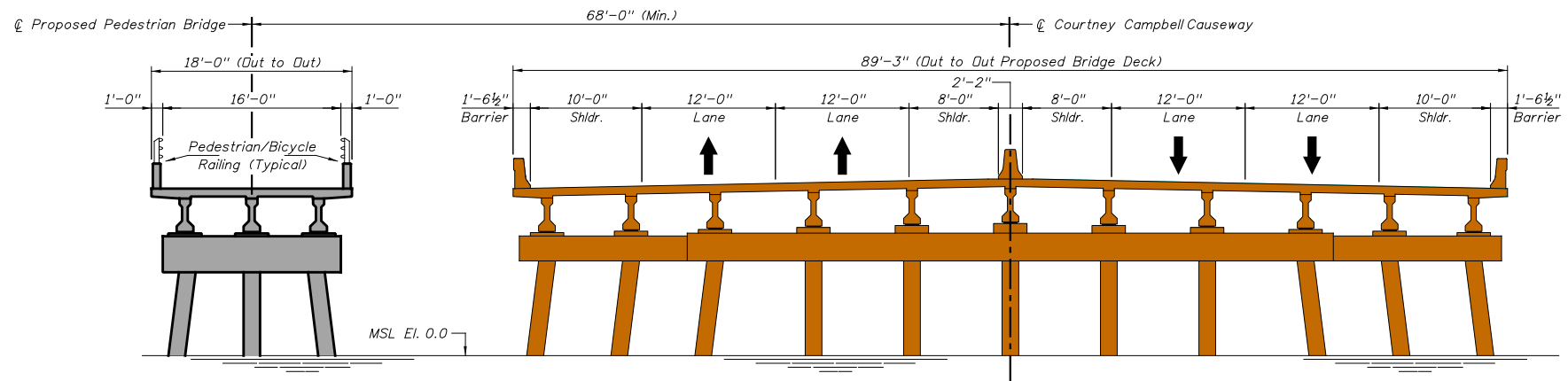
STRUCTURE NO. 2
PROPOSED CANTILEVERED PREFAB TRUSS
BRIDGE NO. 100301

FIGURE 8.4



OPTION W2

NORTH ALIGNMENT ALTERNATIVE SHOWN
SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE



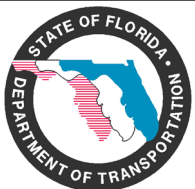
OPTION IS

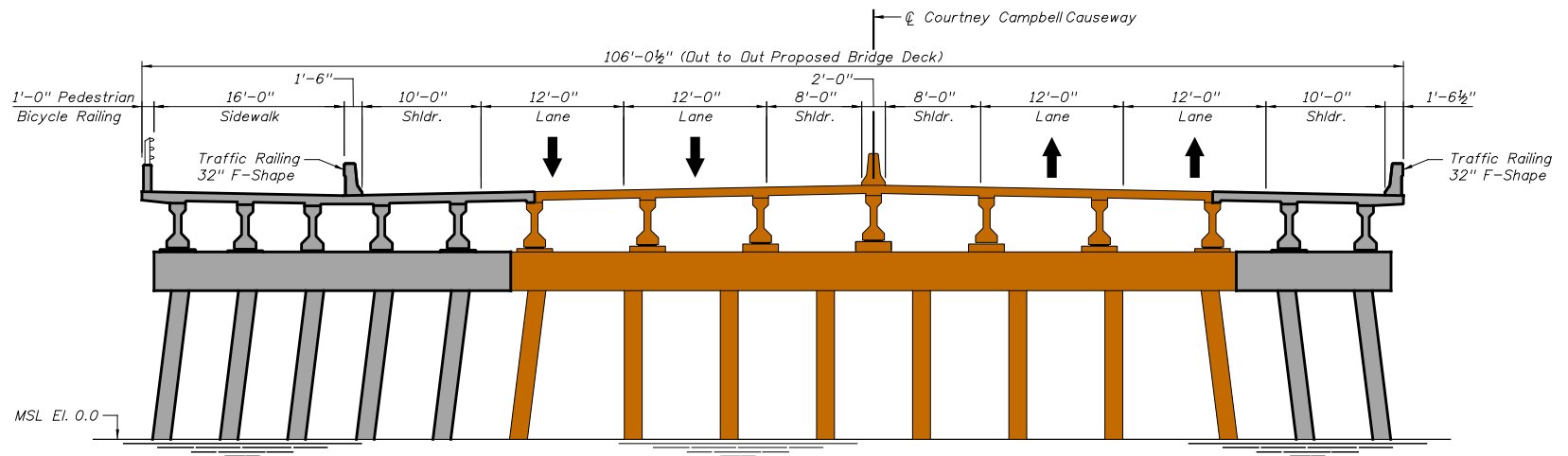
NORTH ALIGNMENT ALTERNATIVE SHOWN
SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE

FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 1
PROPOSED CROSS SECTIONS
BRIDGE NO. 150138

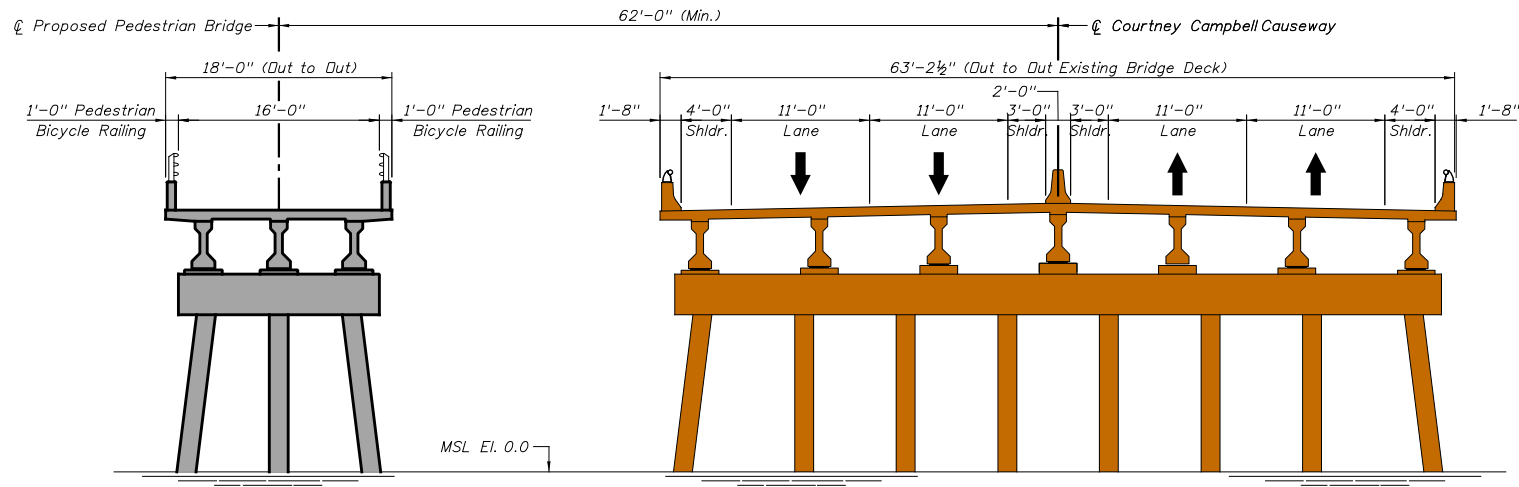
FIGURE 8.5





OPTION W2

NORTH ALIGNMENT ALTERNATIVE SHOWN
SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE



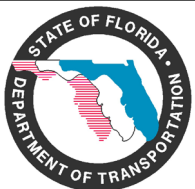
OPTION IS

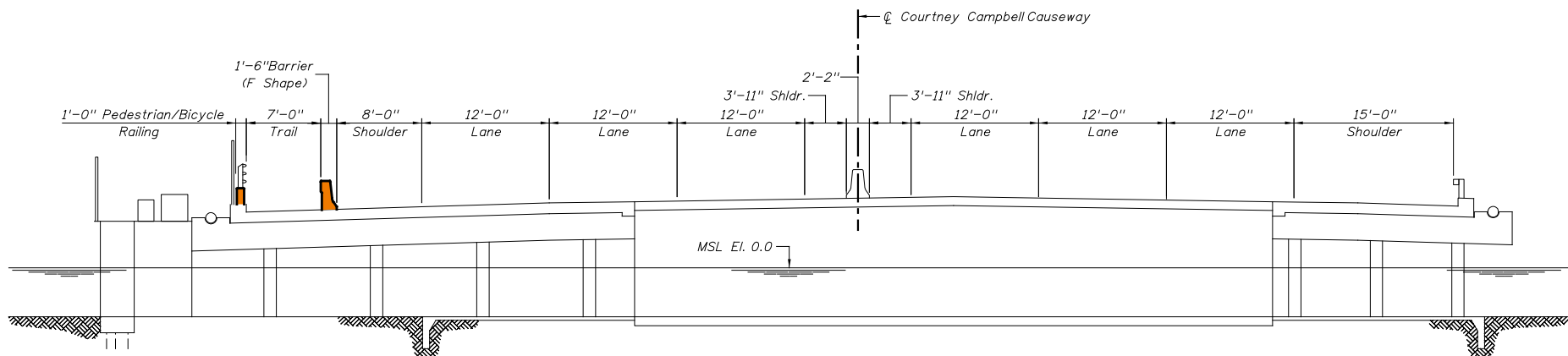
NORTH ALIGNMENT ALTERNATIVE SHOWN
SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE

FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 2
PROPOSED CROSS SECTIONS
BRIDGE NO. 100301

FIGURE 8.6





PROPOSED CROSS SECTION

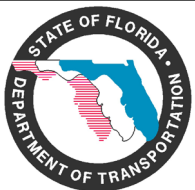
OPTION W2

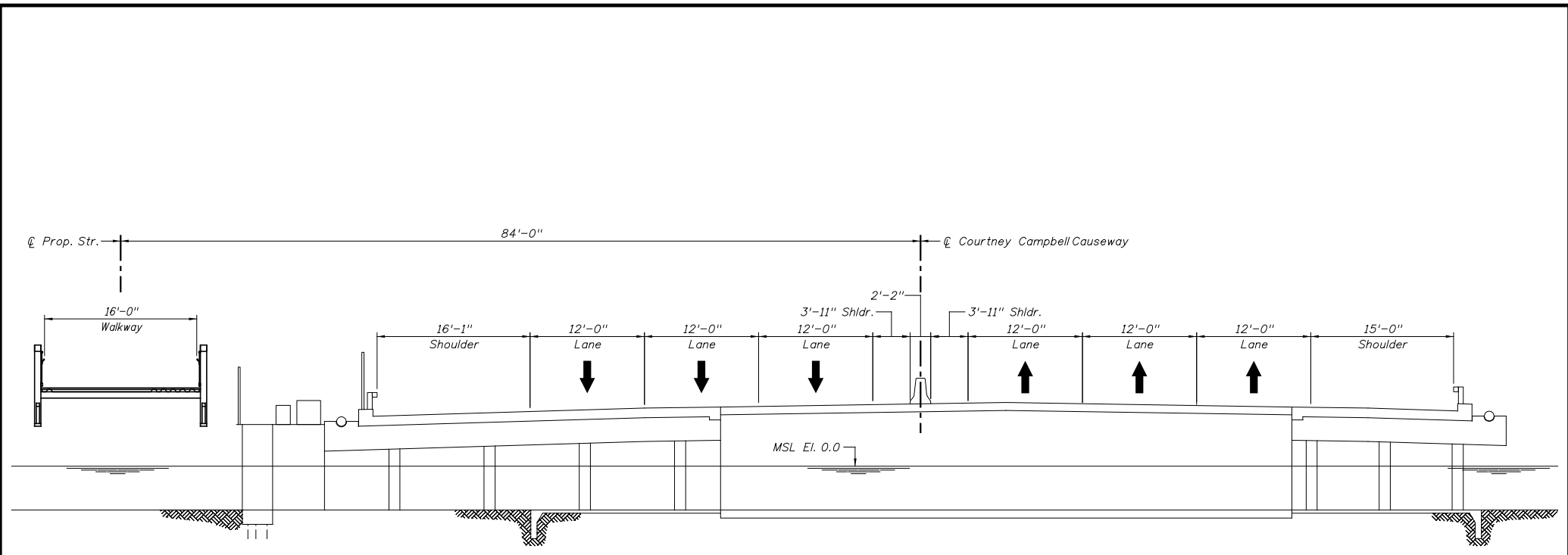
NORTH ALIGNMENT ALTERNATIVE SHOWN
SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE

FEASIBILITY STUDY FOR
- SR60 -
COURTNEY CAMPBELL
CAUSEWAY
MULTI-USE TRAIL

STRUCTURE NO. 3
PROPOSED CROSS SECTION - BRIDGE CULVERT
BRIDGE NO. 100064

FIGURE 8.7

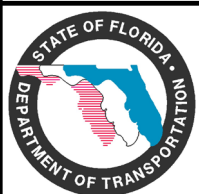




PROPOSED CROSS SECTION

OPTION IS

NORTH ALIGNMENT ALTERNATIVE SHOWN
 SOUTH ALIGNMENT ALTERNATIVE IS A MIRROR IMAGE



FEASIBILITY STUDY FOR
 - SR60 -
 COURTNEY CAMPBELL
 CAUSEWAY
 MULTI-USE TRAIL

STRUCTURE NO. 3
 PROPOSED PREFAB TRUSS - BRIDGE CULVERT
 BRIDGE NO. 100064

FIGURE 8.8



8.4 Evaluation Matrix

In order to compare the Trail Alternatives with the No-Build, the evaluation matrix shown in **Table 8-1** was prepared using quantifiable criteria from a multitude of categories including, socio-economic, environmental, cultural, and costs (engineering, right-of-way, and construction). The matrix data was developed utilizing aerial photography. Land-side trail costs remain essentially the same no matter which structural alternate is selected.

A brief description of these quantifiable evaluation criteria is presented below.

Business Impacts

The number of businesses expected to be affected by the Build Alternative so as to require relocation were evaluated using aerial photography and field verification.

Residential Impacts

The impacts on existing residences along the project were assessed by determining the number of residences that exist within the proposed right-of-way and which will have to be relocated if the Build Alternative is implemented.

Community Facility Impacts

The project impacts on existing community facilities such as churches, schools, hospitals, fire stations, etc., were assessed. Similar to the residential impacts, the number of the community facilities requiring relocation within the proposed right-of-way were counted.

Impacts on Cultural/Historic Resources and Public Parks

Potential Impacts to public parks have been evaluated. Cultural/Historical Resources impacts were not evaluated as a part of this study.

Natural Environment Impacts

Impacts of the proposed trail construction on the natural environment include impacts on wetlands, floodplains and floodways.

Right-of-Way Impacts

Private property impacts were quantified with two measures: number of parcels being impacted and acreage of private property to be purchased.

Estimated Project Costs

Preliminary cost estimates were prepared for the Build Alternatives, including separate estimates of the right-of-way acquisition, engineering/design, construction, and construction engineering and inspection costs (CEI).

The construction cost of the Build Alternative was calculated using the FDOT District 7 Planning Cost Data (2007).

The engineering (PD&E and final design) cost was calculated as a percentage (20.0 percent) of the construction cost. The CEI costs were also estimated at 15.0 percent of the construction cost.



Table 8-1 Evaluation Matrix

EVALUATION FACTORS	ALTERNATIVES				
	N1	N2	S1	S2	NoBuild Alt.
BUSINESS EFFECTS					
Number of businesses expected to be relocated	none	none	none	none	none
RESIDENTIAL EFFECTS					
Number of residences expected to be relocated	none	none	none	none	none
RIGHT-OF-WAY INVOLVEMENT					
Number of parcels	none	none	none	none	none
Right-of-way to be acquired in acres, including ponds	none	none	none	none	none
COMMUNITY EFFECTS (within right-of-way)					
Number of churches	none	none	none	none	none
Number of schools	none	none	none	none	none
Number of child care facilities	none	none	none	none	none
Number of nursing homes	none	none	none	none	none
Number of hospitals	none	none	none	none	none
Number of cemeteries	none	none	none	none	none
Number of other public services (fire stations, etc.)	none	none	none	none	none
EFFECTS ON CULTURAL/HISTORIC RESOURCES AND PUBLIC PARKS					
Number of historic sites within or adjacent to right-of-way	none	none	none	none	none
NATURAL ENVIRONMENTAL EFFECTS					
Total wetland area encroachment in acres (not quantified)	minor	minor	minor	minor	minor
FLOODPLAIN AND FLOODWAY ENCROACHMENT					
Area of base floodplain encroachment in acres	none	none	none	none	none
Area of base floodway encroachment in acres	none	none	none	none	none
ESTIMATED PROJECT COSTS (Year 2007 Present value in million \$)					
Trail Construction Cost	\$22.0	\$14.7	\$23.9	\$16.6	none
Structures Construction Cost	\$26.6	\$10.0	\$26.6	\$10.0	none
SUBTOTAL CONSTRUCTION COST	\$46.6	\$24.7	\$50.5	\$26.6	none
Engineering cost, 10% of Construction Cost	\$ 4.9	\$ 2.5	\$ 5.1	\$ 2.7	none
Construction Engineering & Inspection, 15% of Const.	\$ 7.3	\$ 3.7	\$ 7.6	\$ 4.0	none
Right-of-Way acquisition cost	none	none	none	none	none
TOTAL COST	\$60.8	\$30.9	\$63.2	\$33.3	none

ALTERNATIVE N1

This alternative includes the trail on the *north* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconstruction of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the *north* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the *south* side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconstruction of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the *south* side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.



8.5 Recommended Alternative

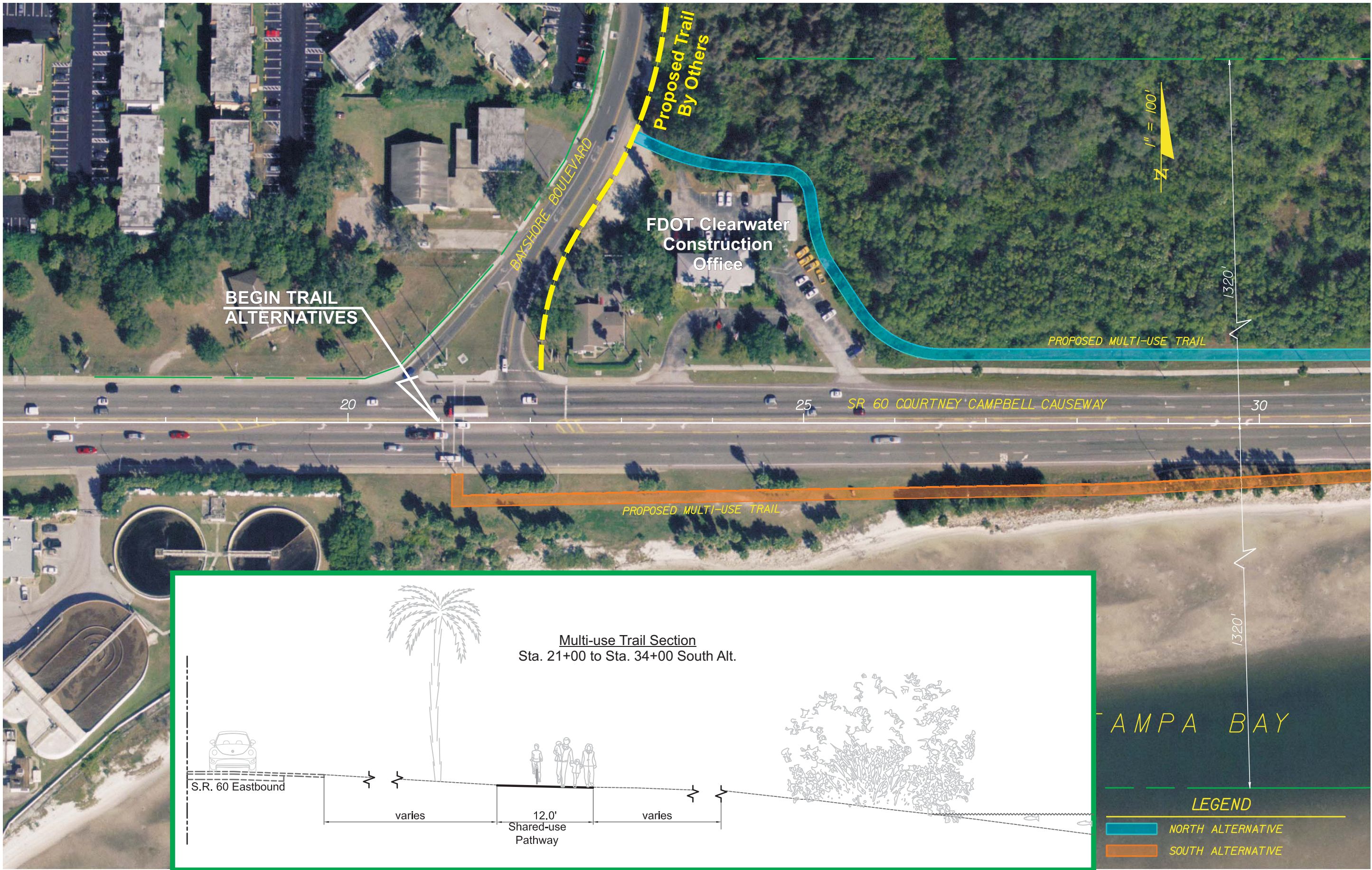
The recommended alternative will be determined after the completion of the next phase of this study.

8.6 Public Comments Received

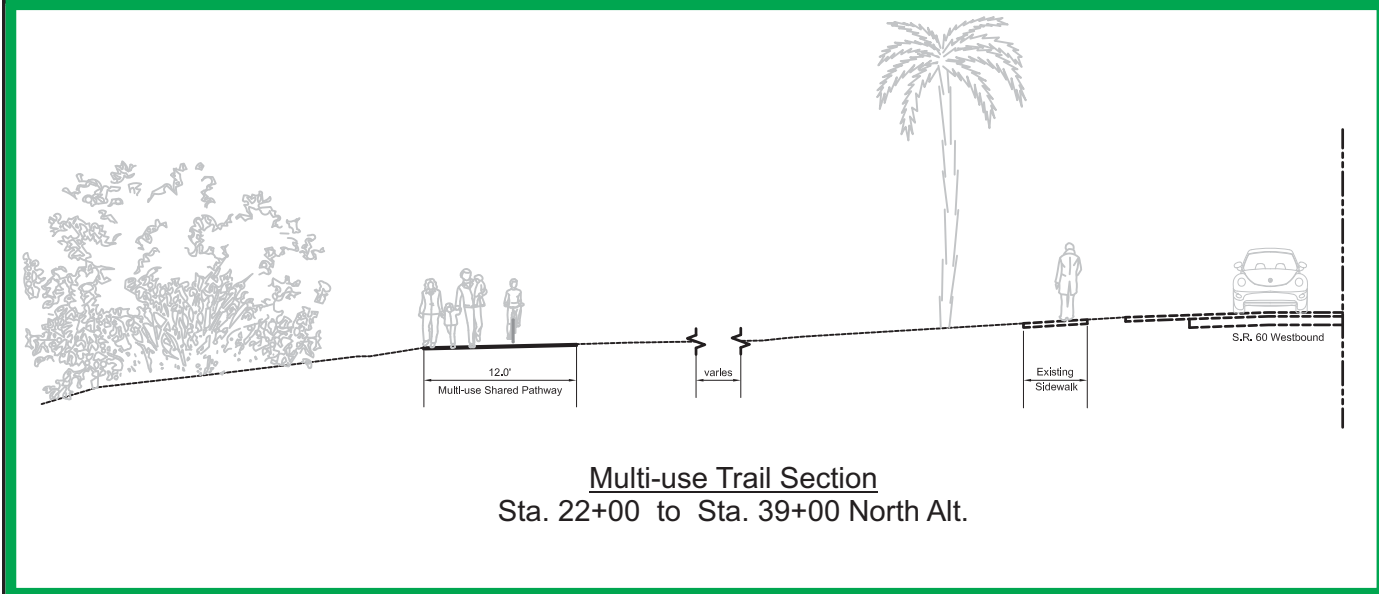
Two public information meetings were held to present the findings of this report and to solicit public comment. Since the project traverses both Pinellas and Hillsborough Counties, one meeting was held in Tampa on May 19, 2008 and one meeting was held in Clearwater on May 22, 2008. A total of 23 comment forms were received. A summary of these comments may be found in **Appendix E**. In general, the majority of the comments were in favor of the project. Several governmental agencies and a citizen's group also provided comments with suggestions to improvements to the study.

APPENDIX A

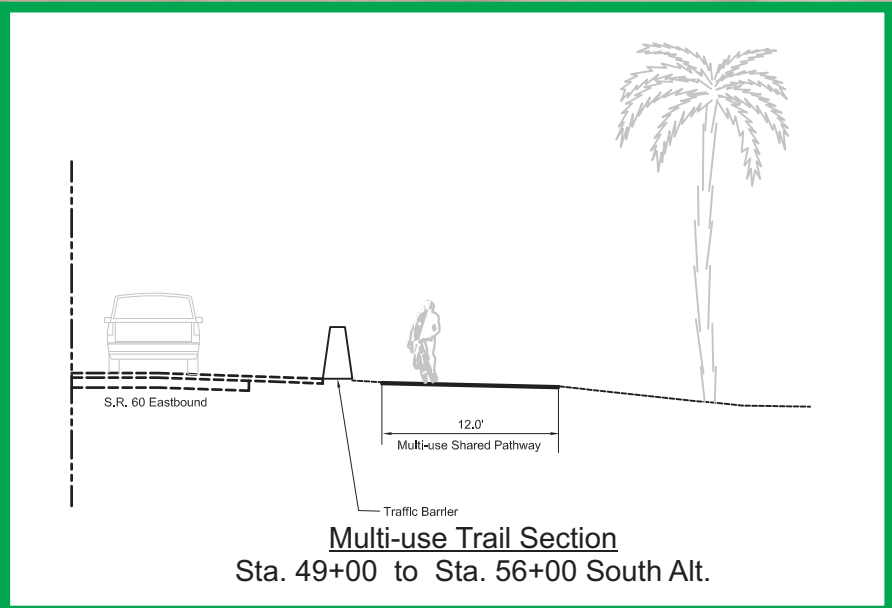
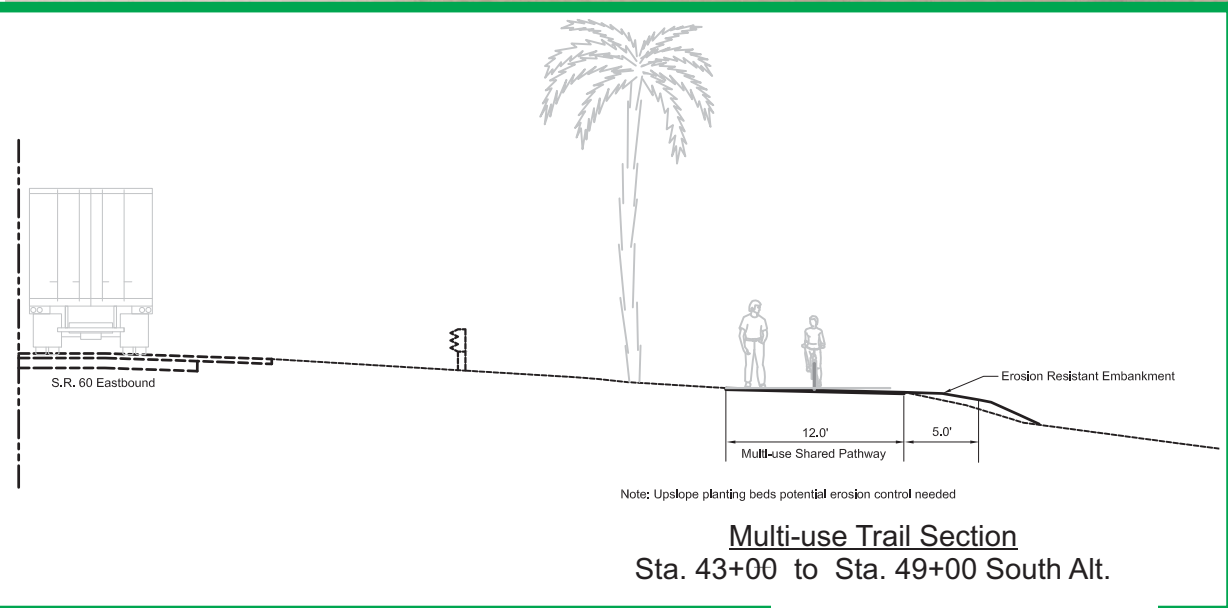
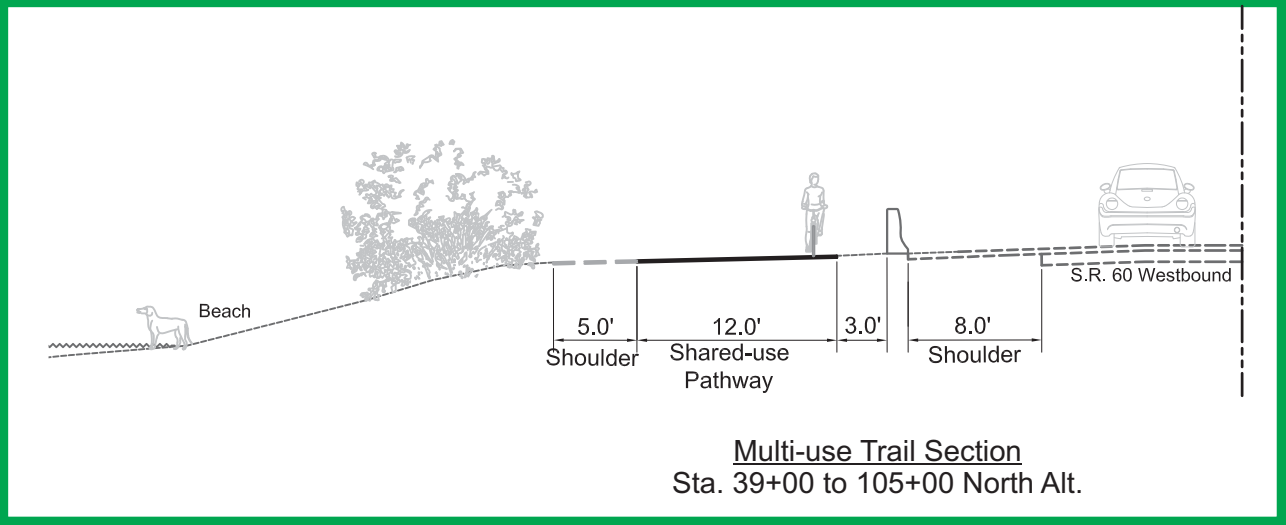
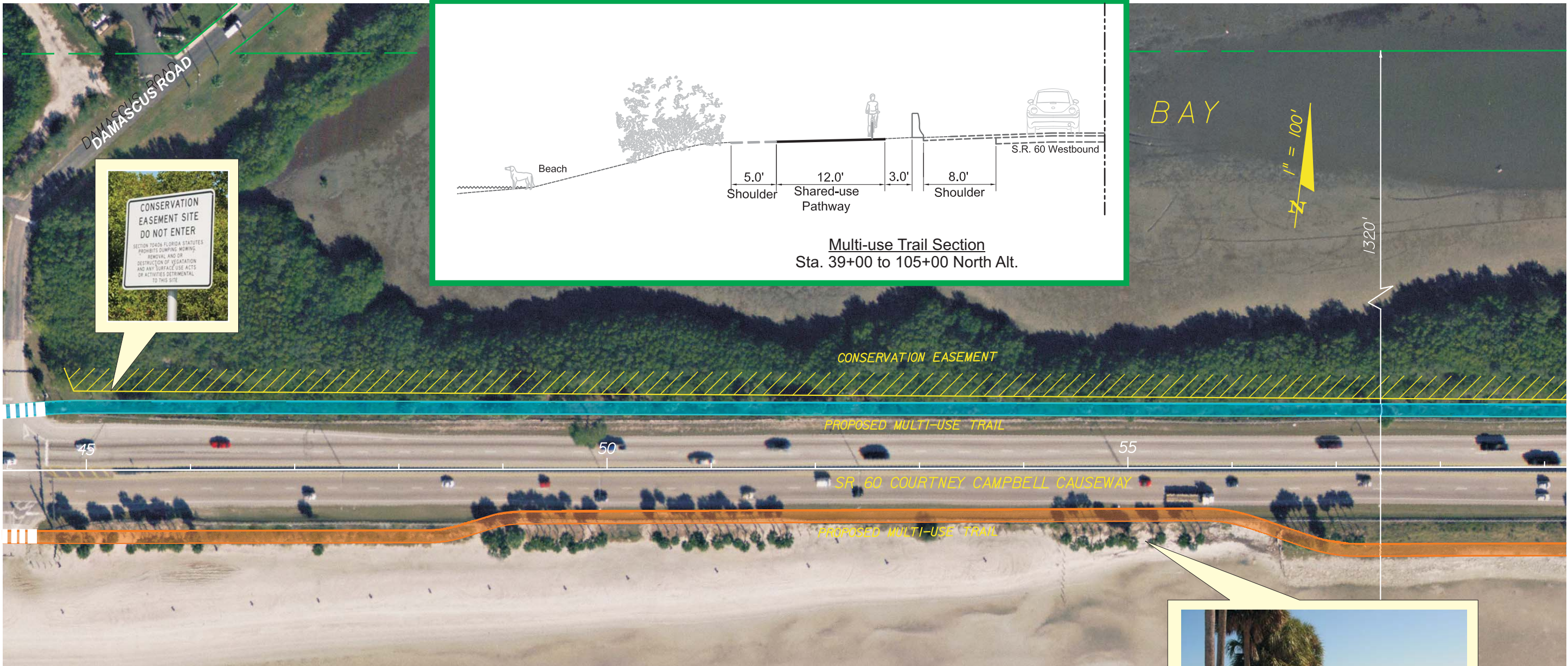
Concept Plan Sheets



REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 15+00 - STA. 31+00	SHEET NO. 1
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	PINELLAS	422640-4-22-01		



REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 31+00 - STA. 45+00	SHEET NO. 2
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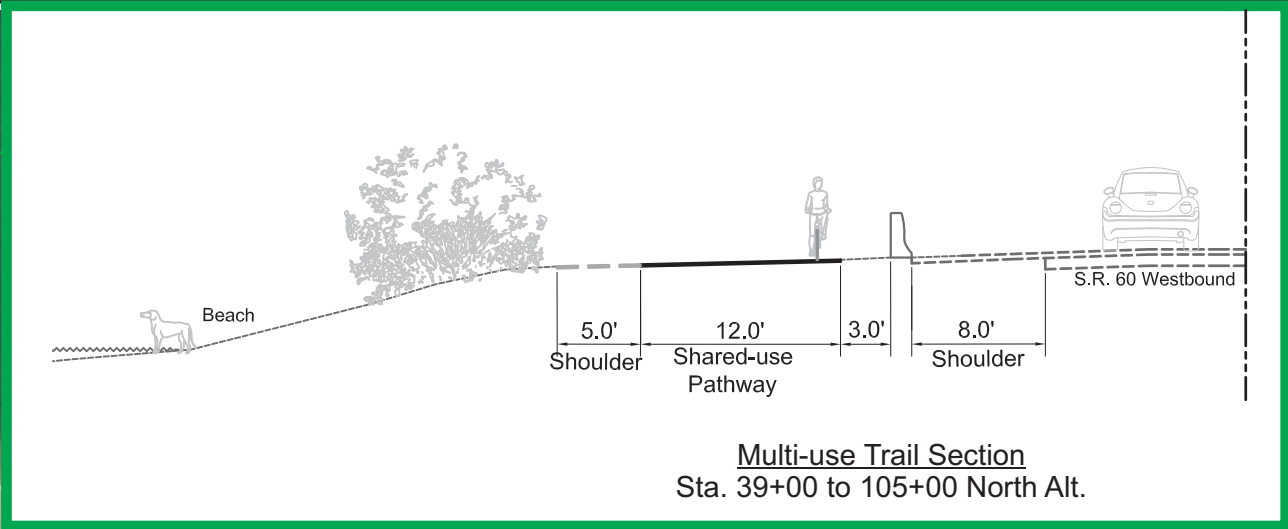
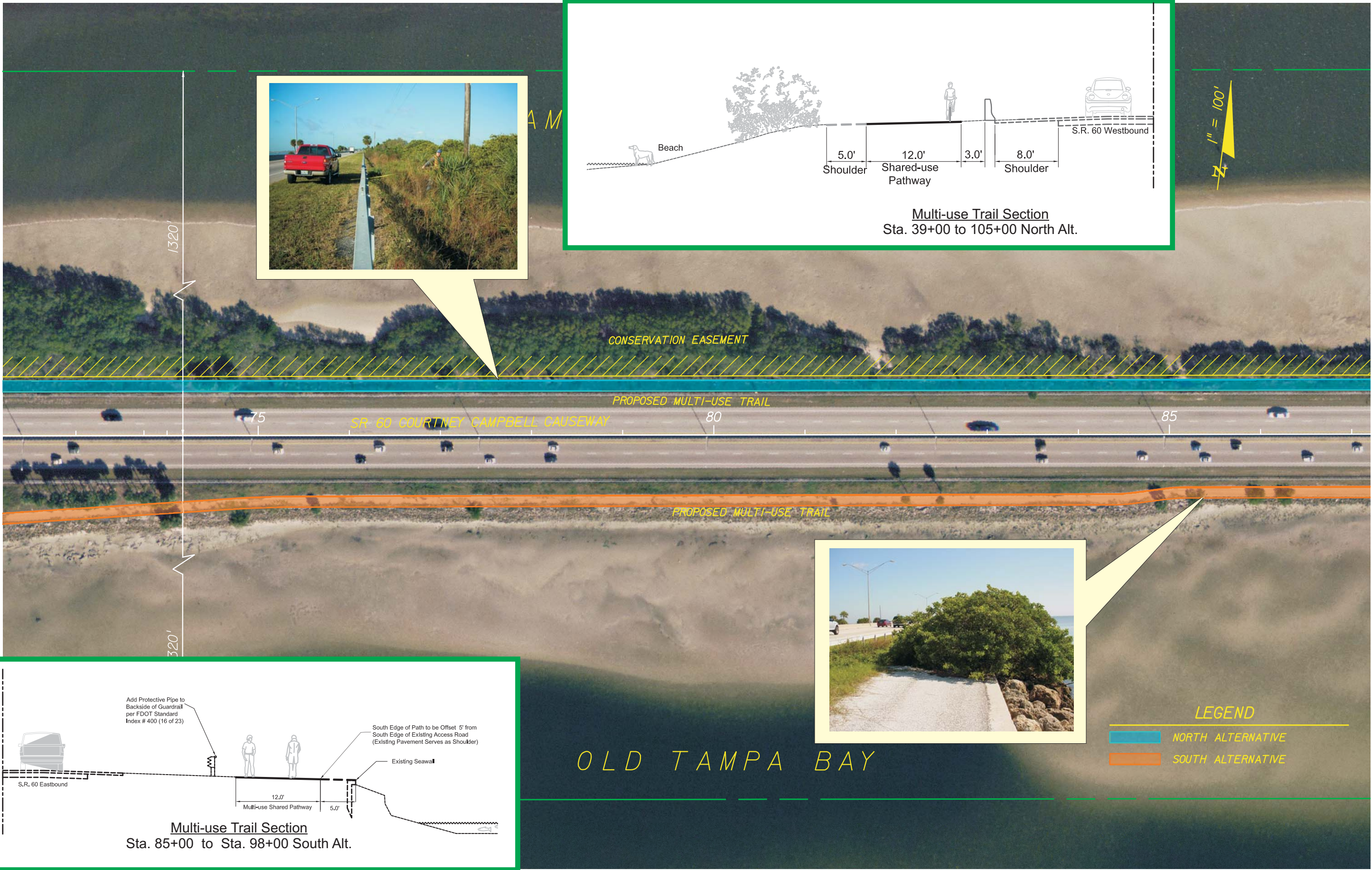


- LEGEND**
- NORTH ALTERNATIVE
 - SOUTH ALTERNATIVE

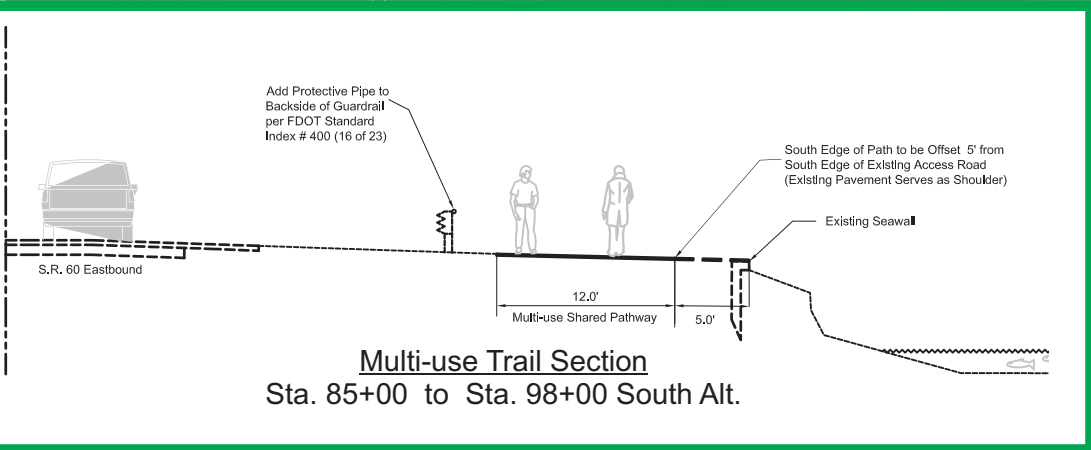
REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 45+00 - STA. 59+00	SHEET NO. 3
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 59+00 - STA. 73+00	SHEET NO. 4
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	PINELLAS	422640-4-22-01		



Multi-use Trail Section
Sta. 39+00 to 105+00 North Alt.



Multi-use Trail Section
Sta. 85+00 to Sta. 98+00 South Alt.

LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE

REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 73+00 - STA 82+00		SHEET NO. 5
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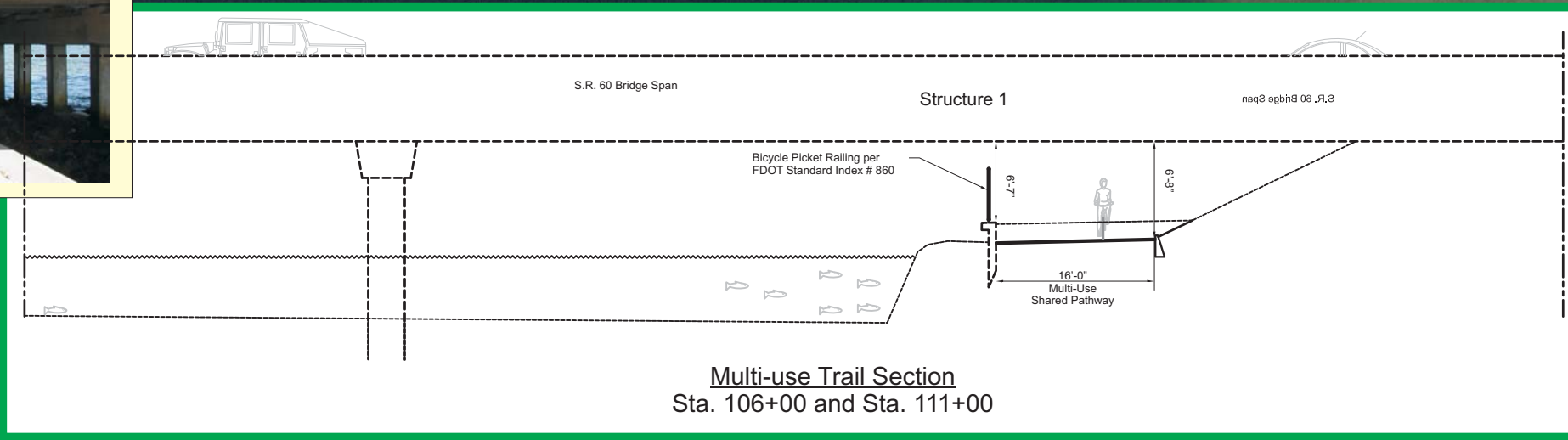
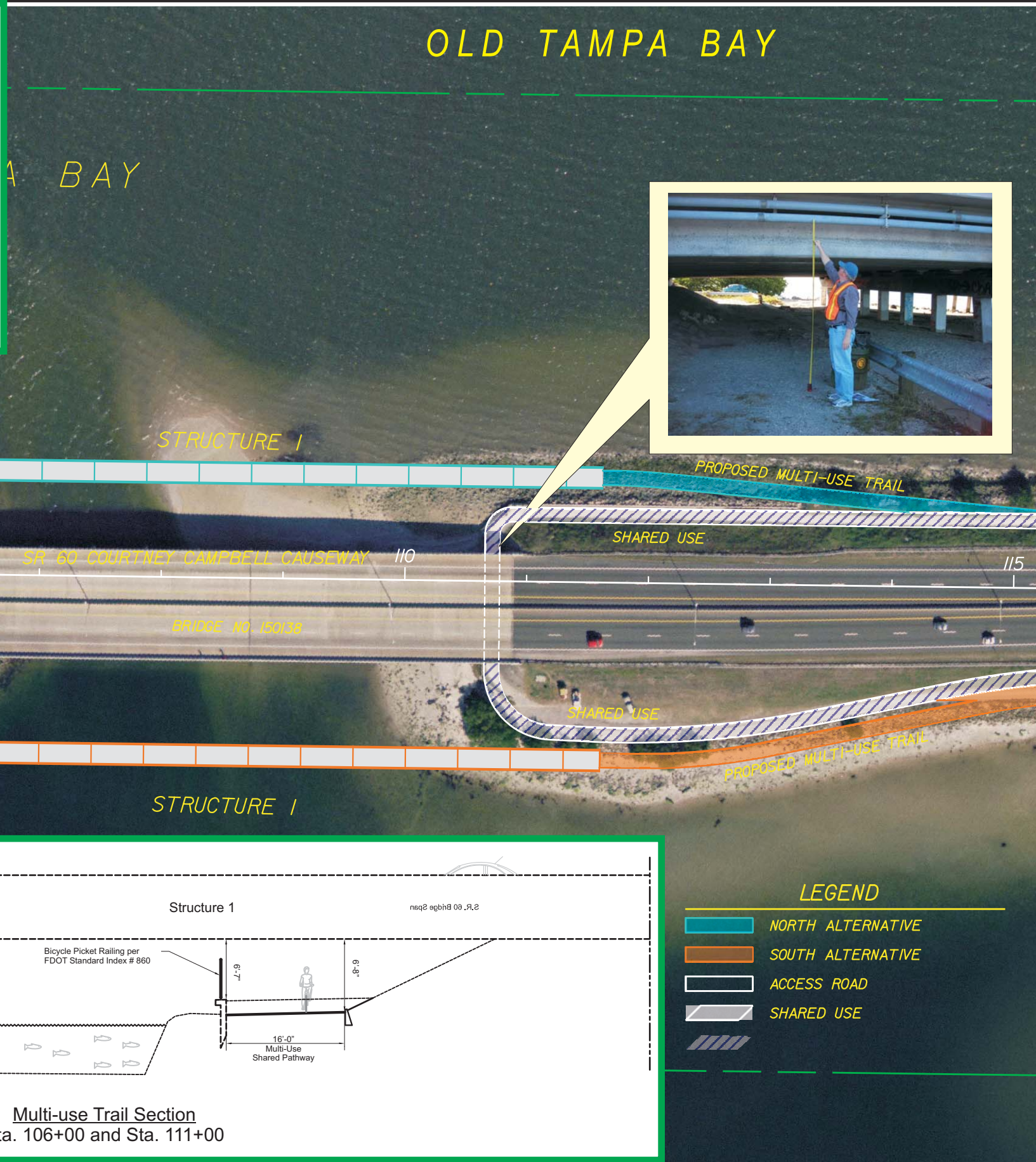
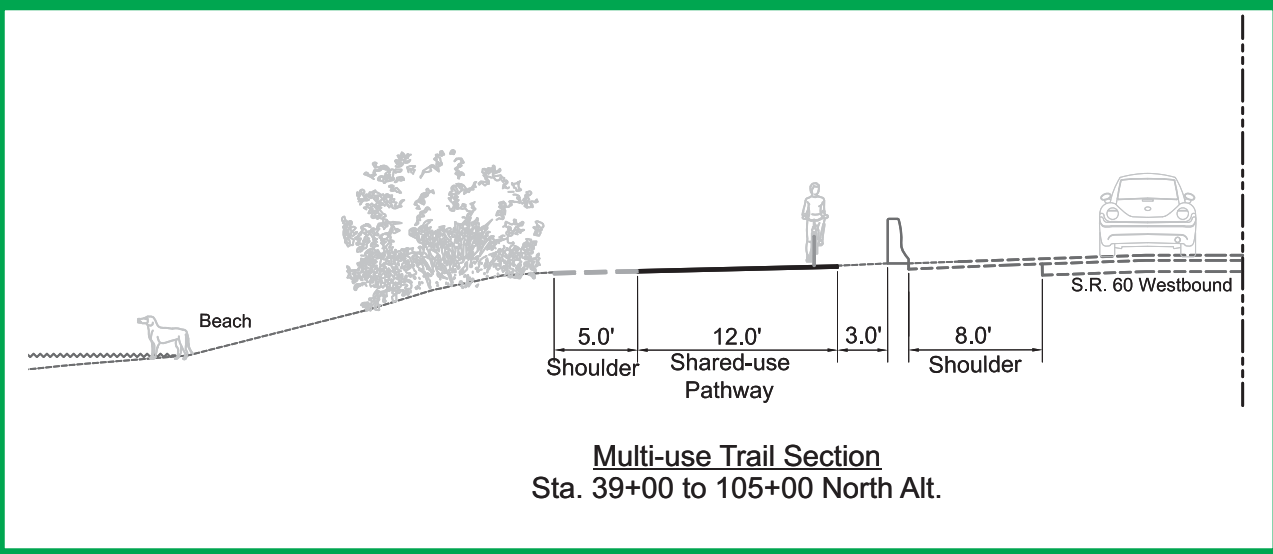


REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SHEET NO.
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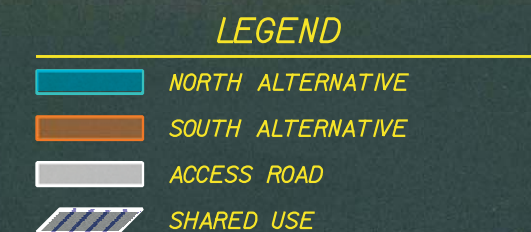
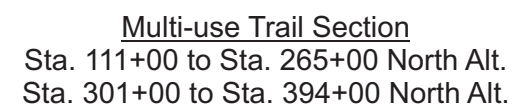
THE LPA GROUP INCORPORATED
4503 Woodland Corporate Blvd.
Suite 400
Tampa, FL 33614
Ph. (813) 889-3892

C.A. #4307

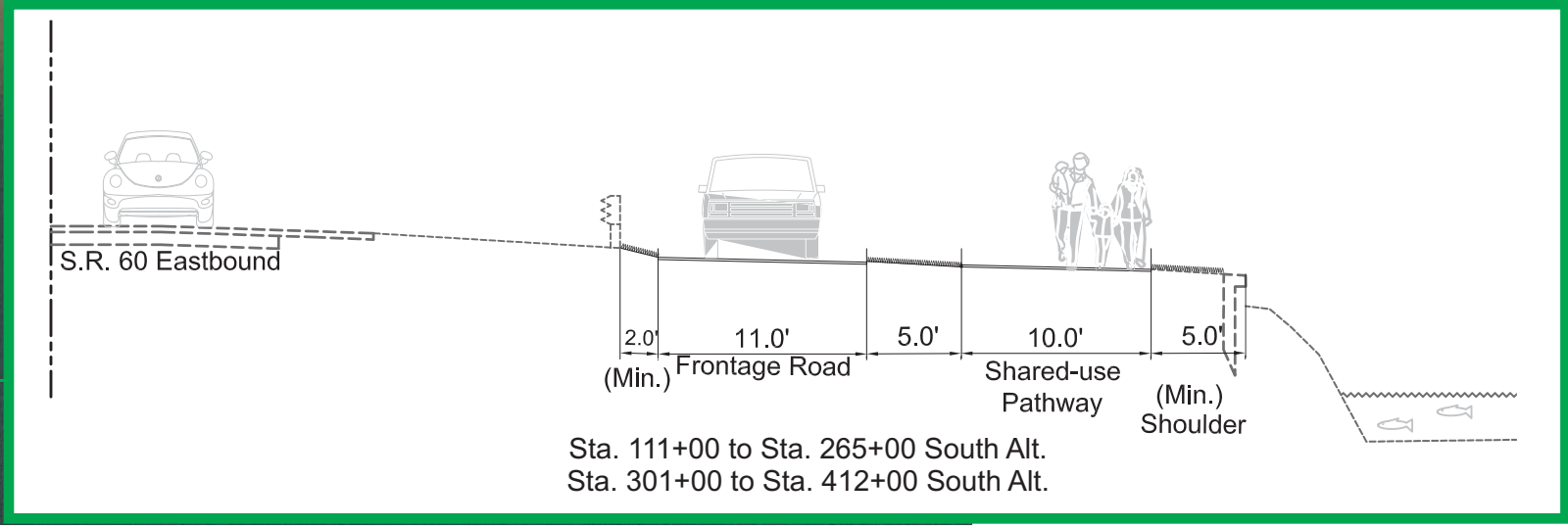
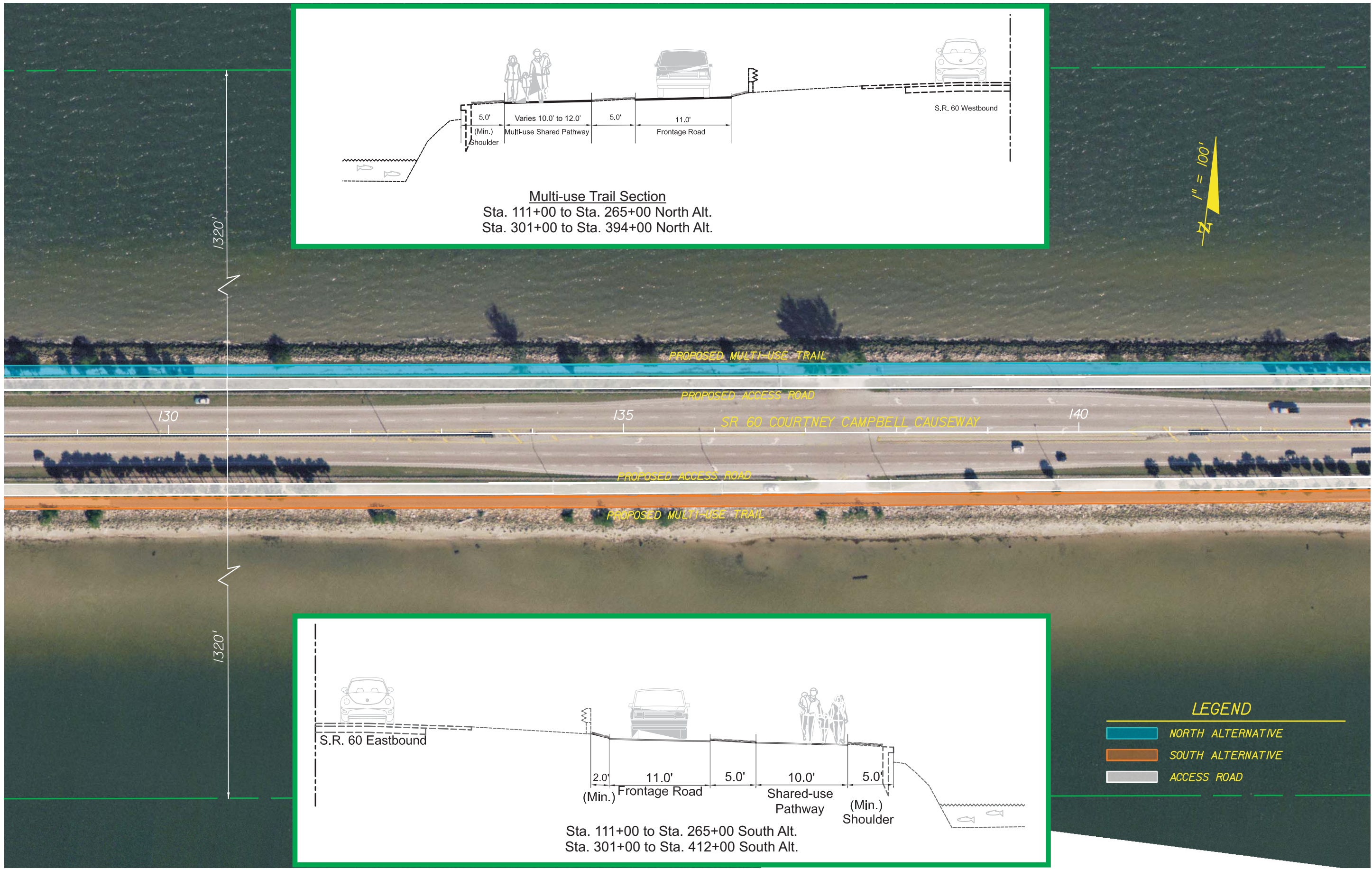
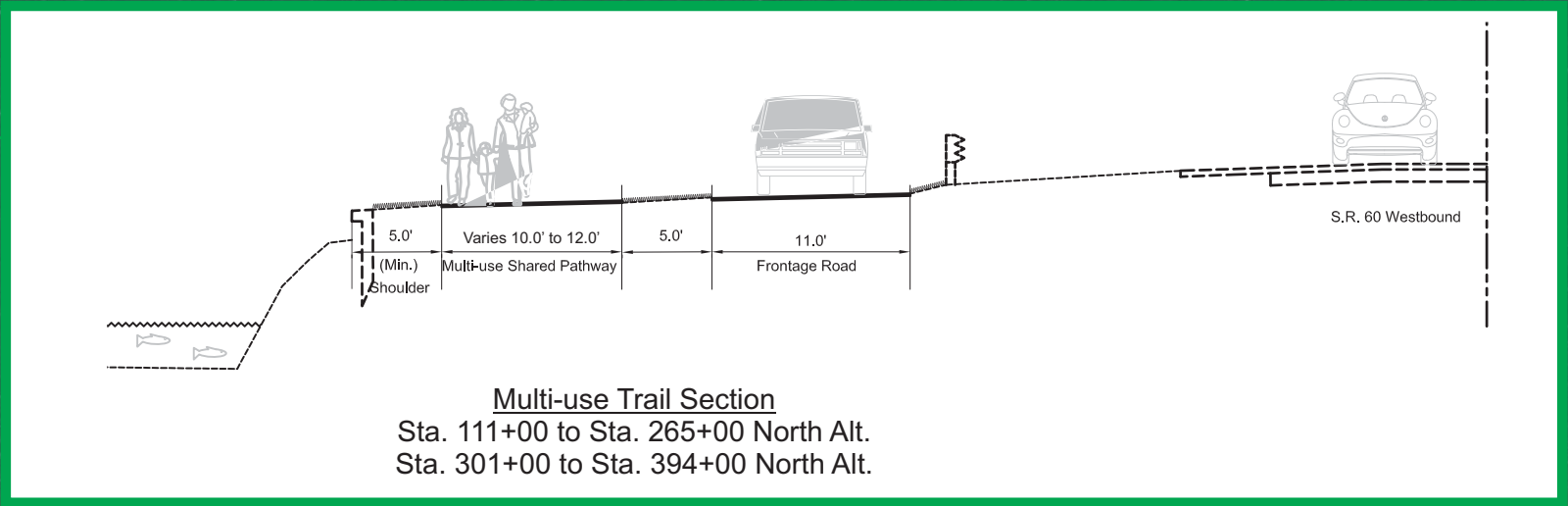
TRAIL PLAN VIEW
STA. 82+00 - STA. 101+00



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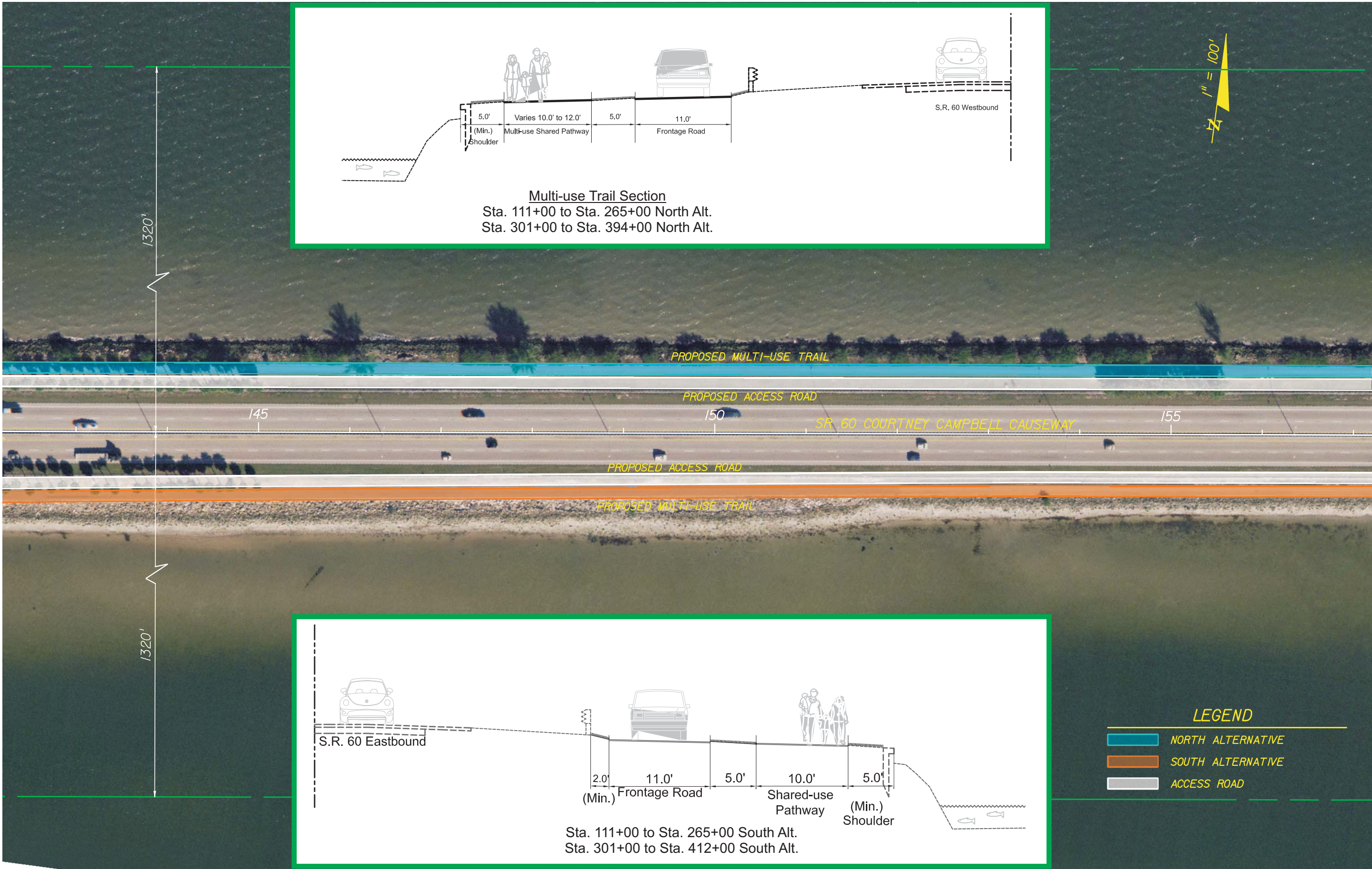


REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 115+00 - STA.129+00	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		8
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LEGEND		
	NORTH	ALTERNATIVE
	SOUTH	ALTERNATIVE
	ACCESS	ROAD

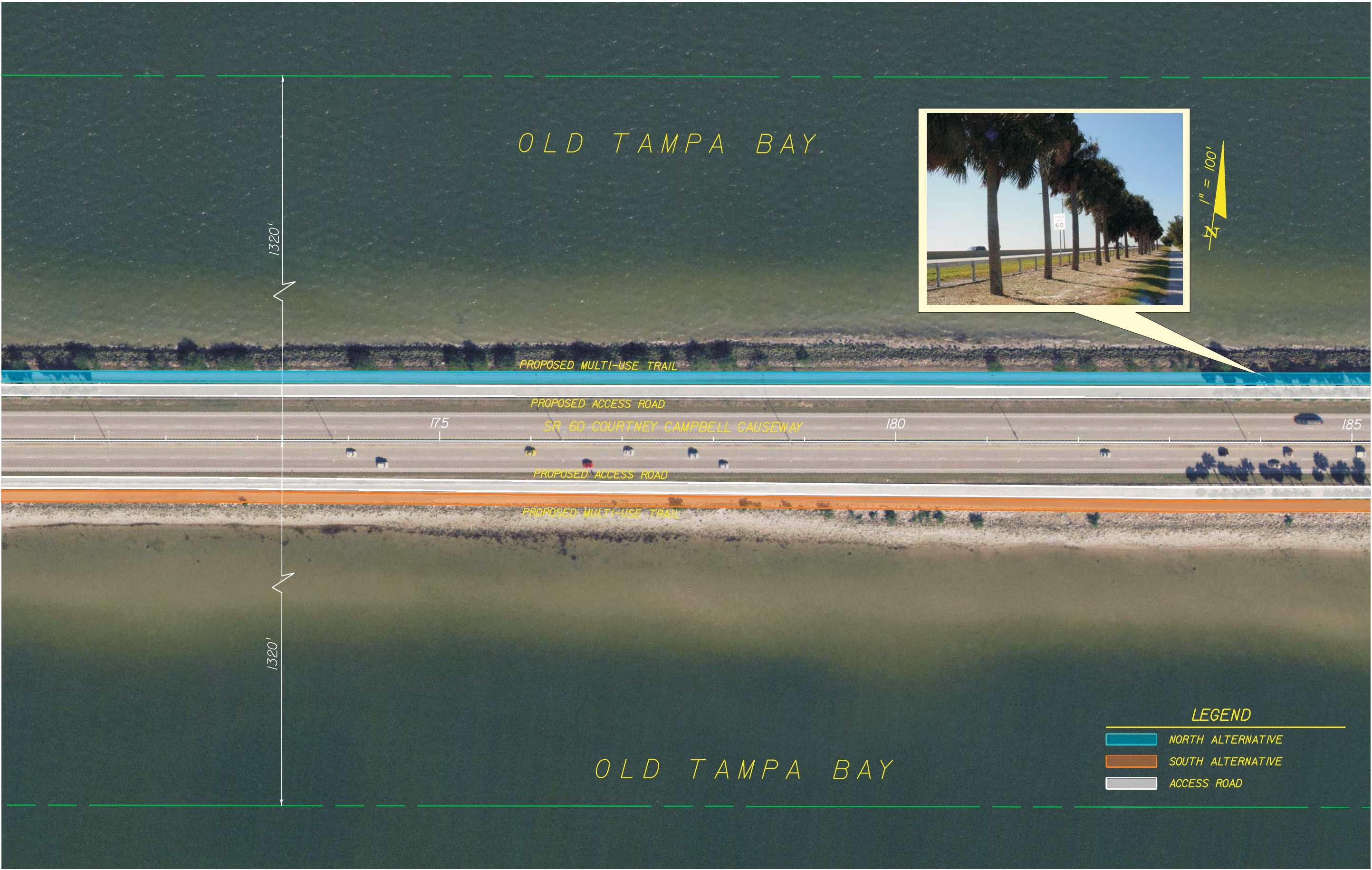
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 143+00 - STA.157+00	SHEET NO. 10
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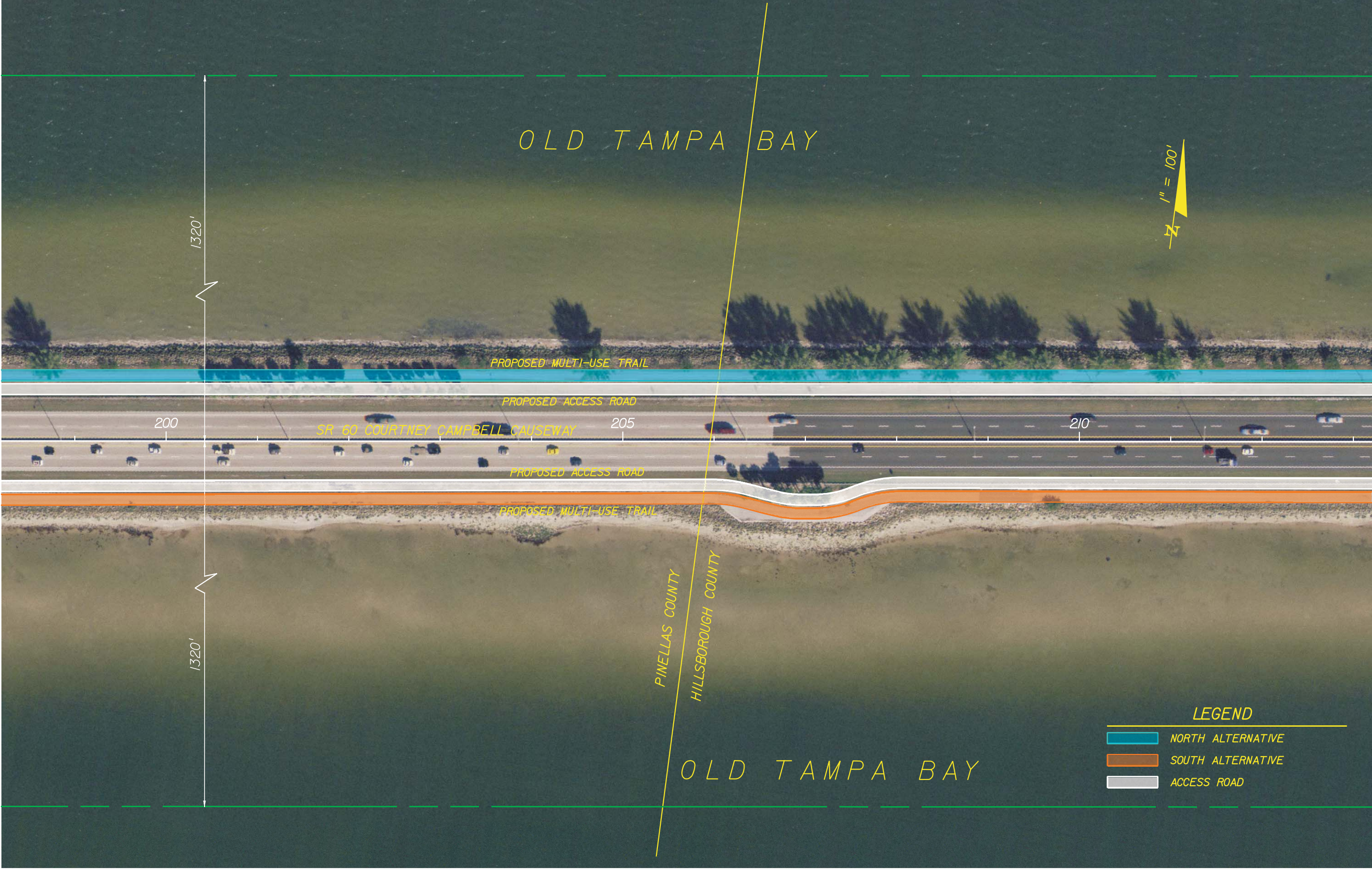
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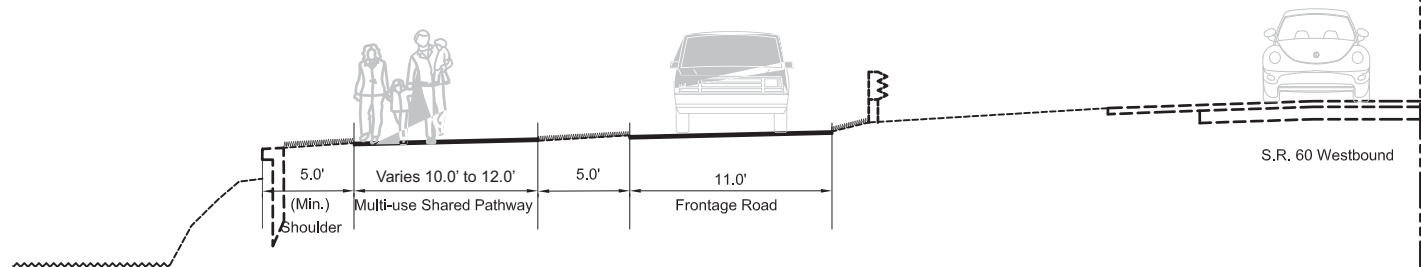
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 185+00 - STA.199+00	SHEET NO. 13
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 199+00 - STA.213+00	SHEET NO. 14
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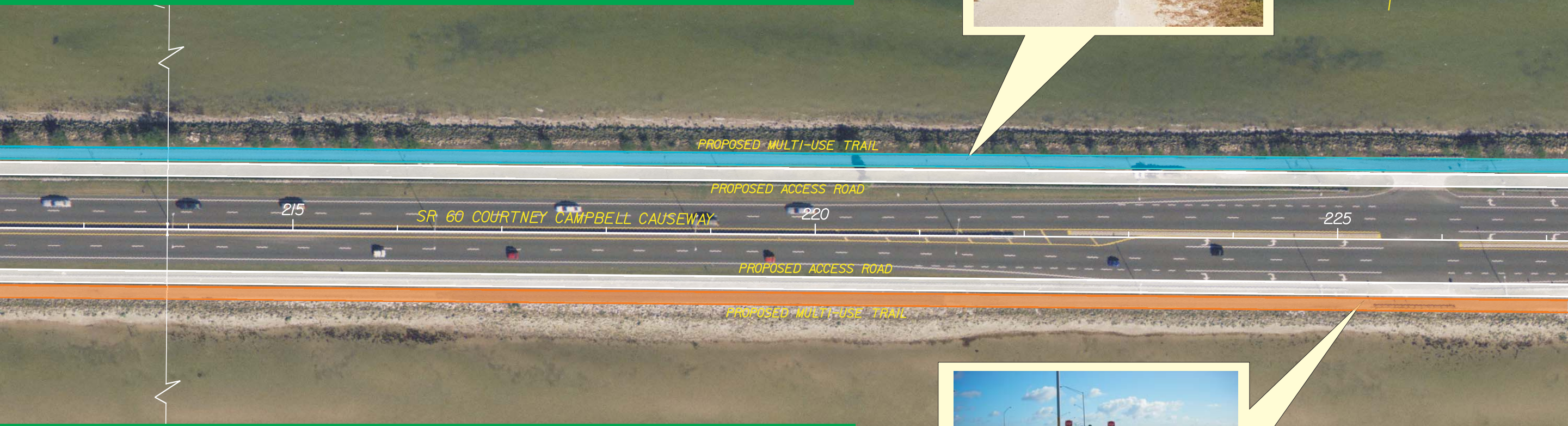


Multi-use Trail Section
 Sta. 111+00 to Sta. 265+00 North Alt.
 Sta. 301+00 to Sta. 394+00 North Alt.

BAY



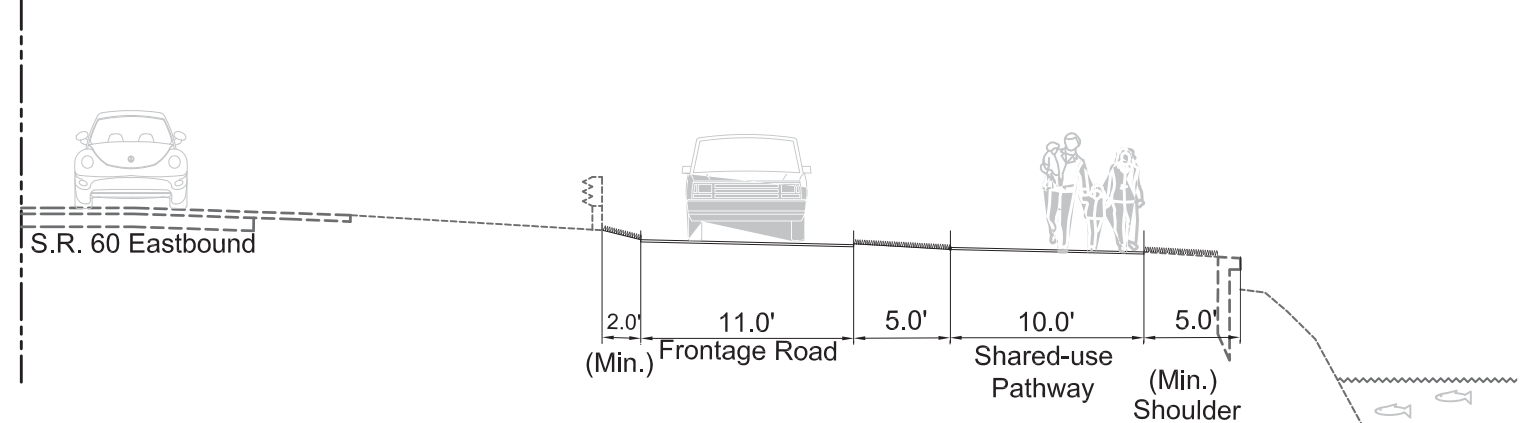
1" = 100'



TAMPA BAY

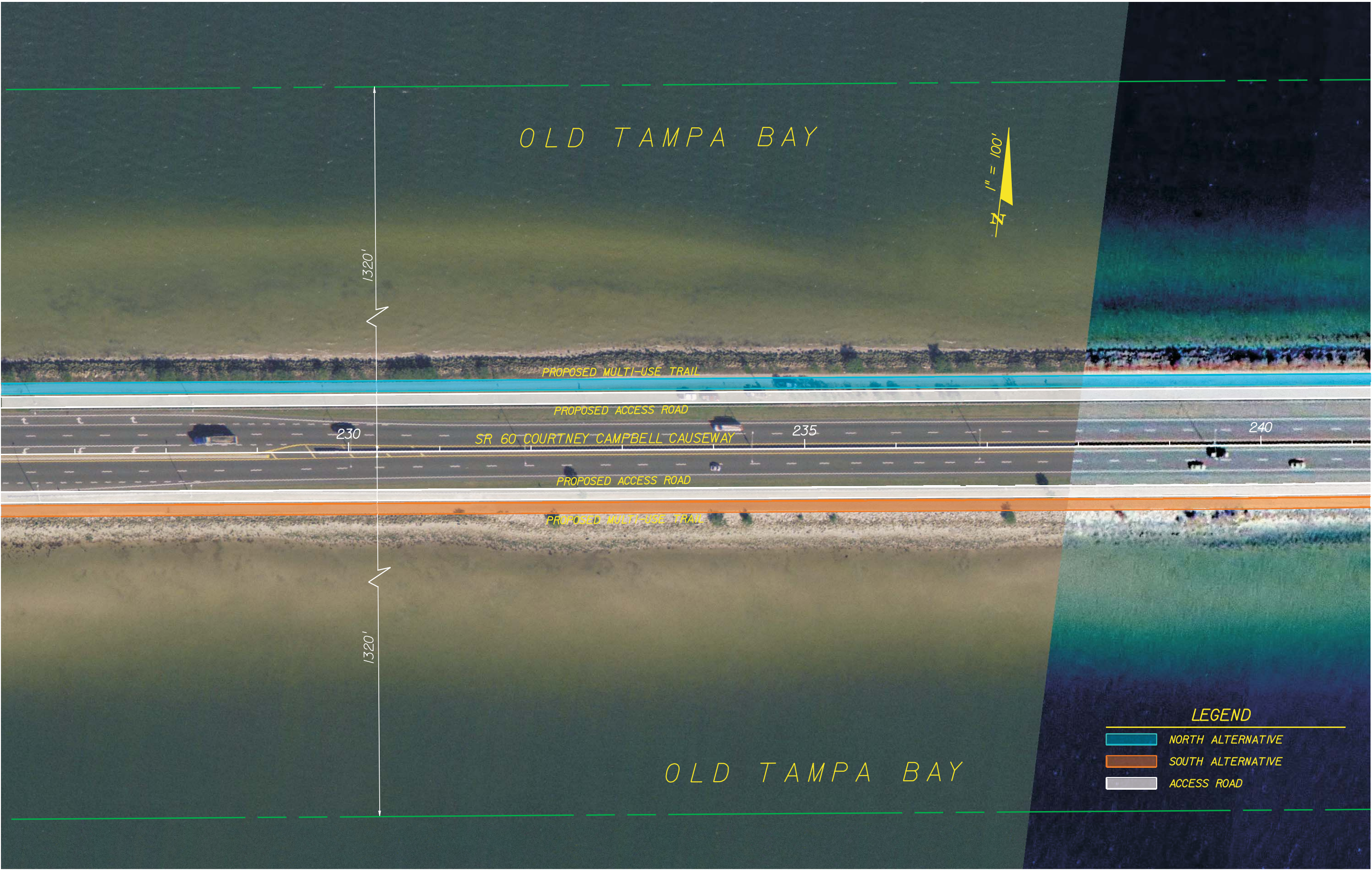
LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE
- ACCESS ROAD

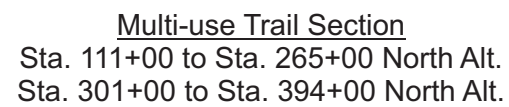
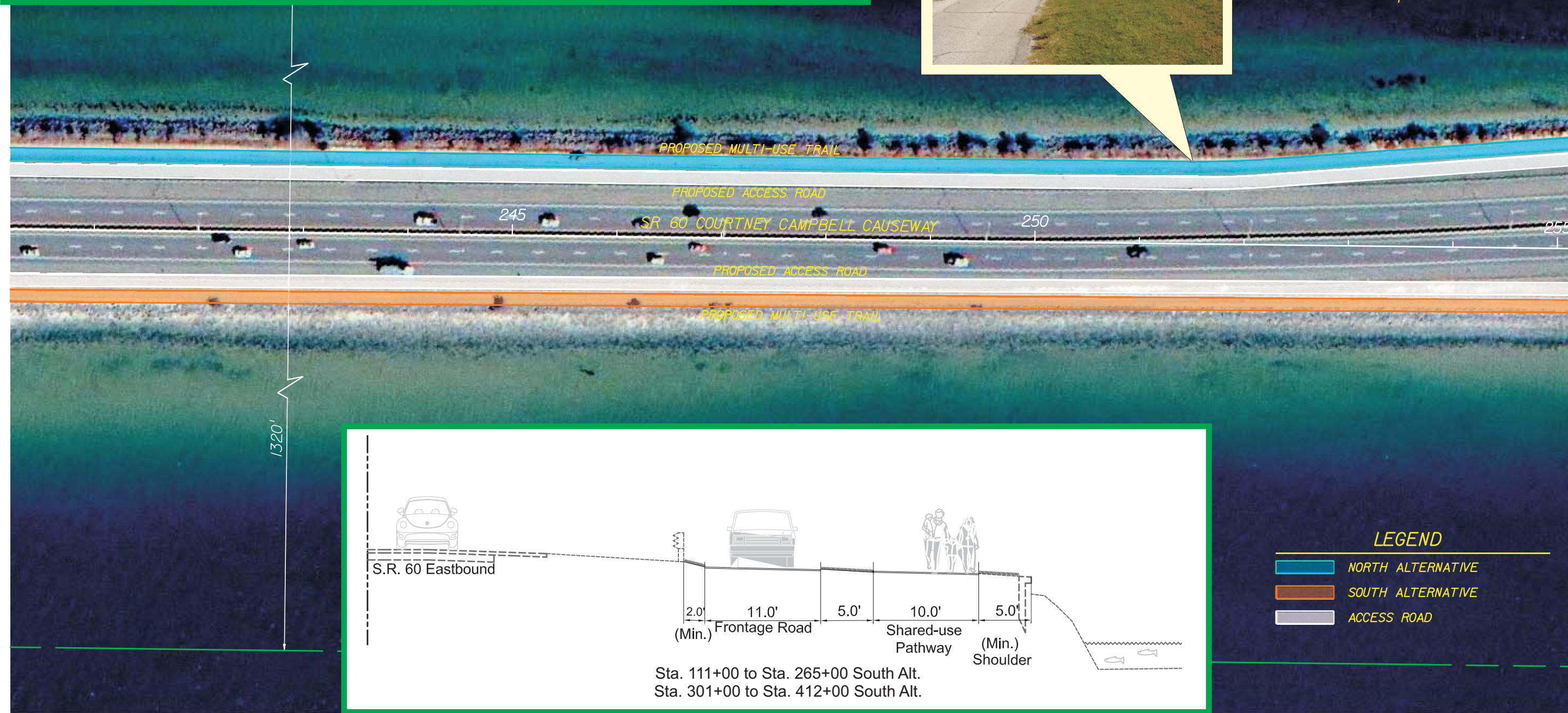


Sta. 111+00 to Sta. 265+00 South Alt.
Sta. 301+00 to Sta. 412+00 South Alt.

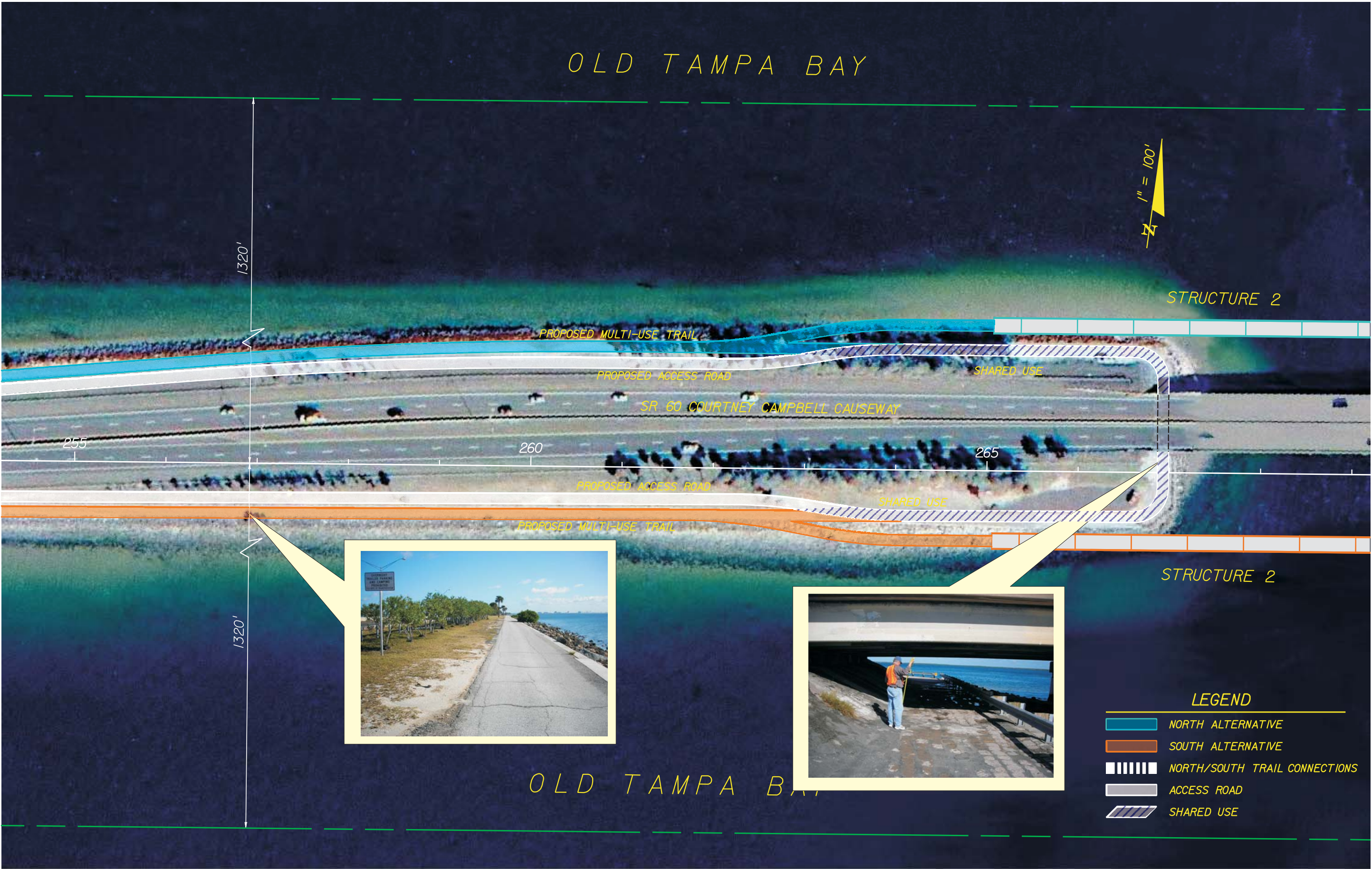
REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 213+00 - STA.227+00		SHEET NO. 15
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 227+00 - STA.241+00	SHEET NO. 16
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		


$$\frac{1}{100}'' = 100'$$


REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 241+00 - STA.255+00	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		17
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 255+00 - STA.269+00		SHEET NO. 18
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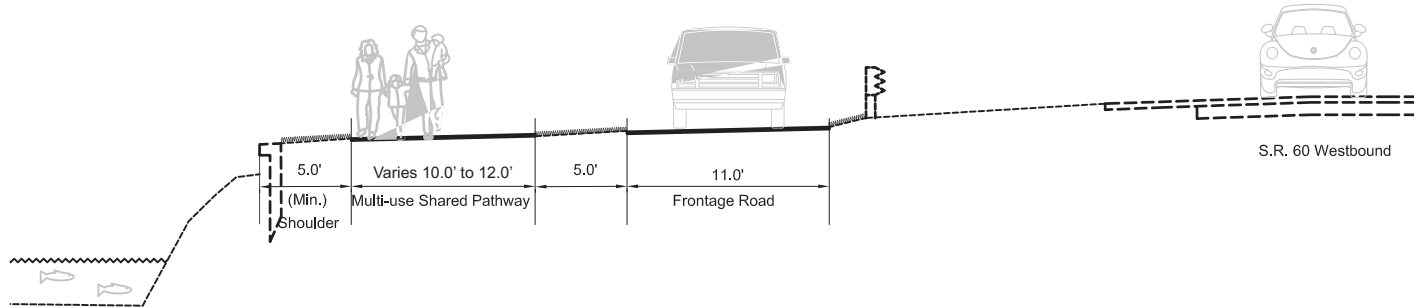


R E V I S I O N S						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 269+00 - STA.283+00	SHEET NO.
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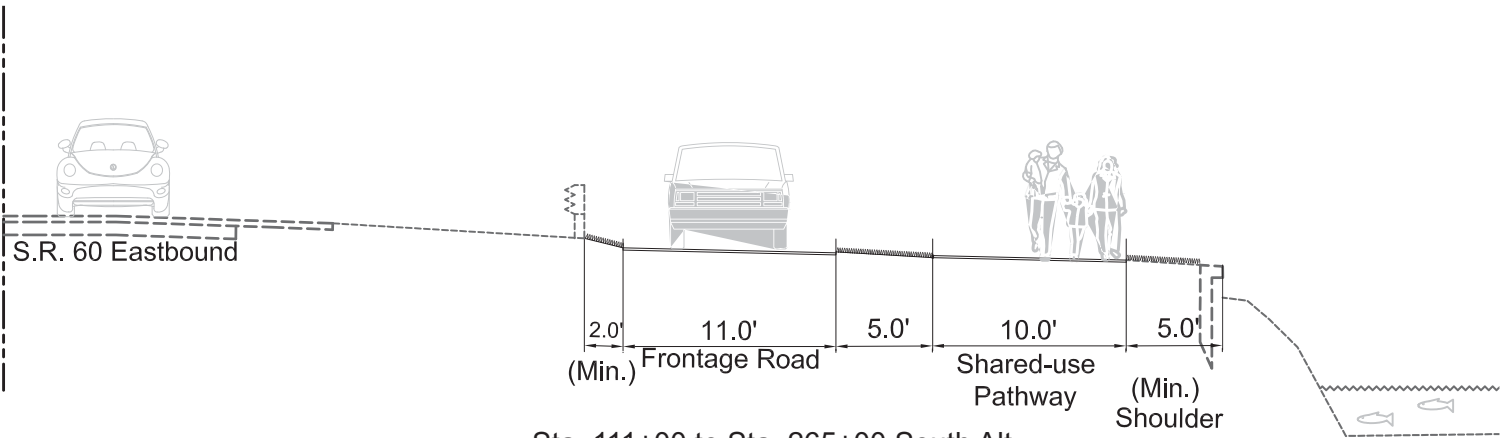
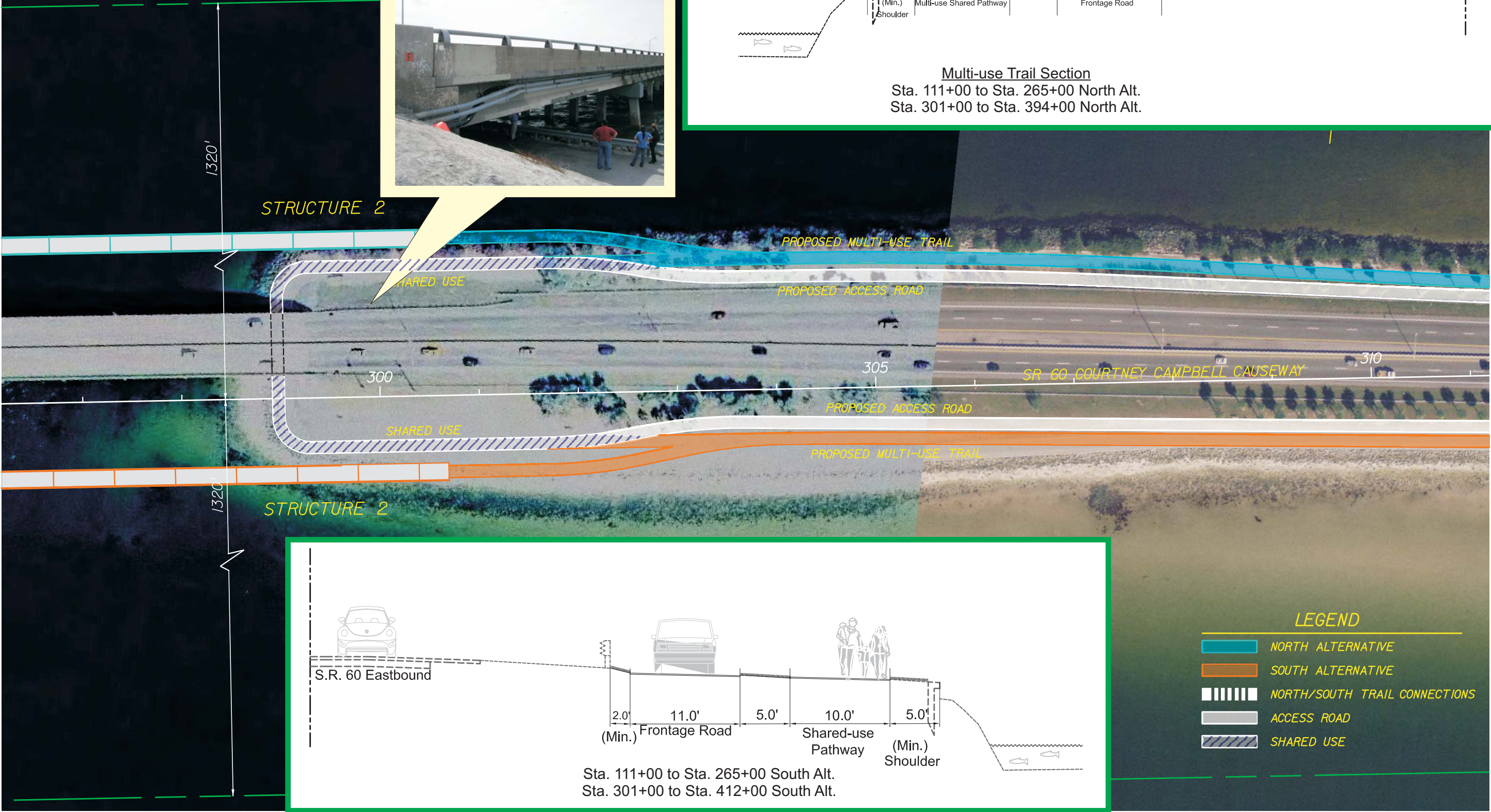


REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 283+00 - STA.297+00	SHEET NO. 20
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		

OLD TAMPA BAY



Multi-use Trail Section
Sta. 111+00 to Sta. 265+00 North Alt.
Sta. 301+00 to Sta. 394+00 North Alt.



Sta. 111+00 to Sta. 265+00 South Alt.
Sta. 301+00 to Sta. 412+00 South Alt.

LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE
- NORTH/SOUTH TRAIL CONNECTIONS
- ACCESS ROAD
- SHARED USE

REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 297+00 - STA.311+00	SHEET NO. 21
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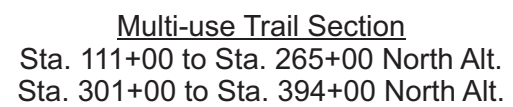
REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 311+00 - STA. 325+00	SHEET NO. 22
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 325+00 - STA.339+00		SHEET NO. 23
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 339+00 - STA.353+00	SHEET NO. 24
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		



-  NORTH ALTERNATIVE
 SOUTH ALTERNATIVE
 ACCESS ROAD

REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 353+00 - STA.367+00	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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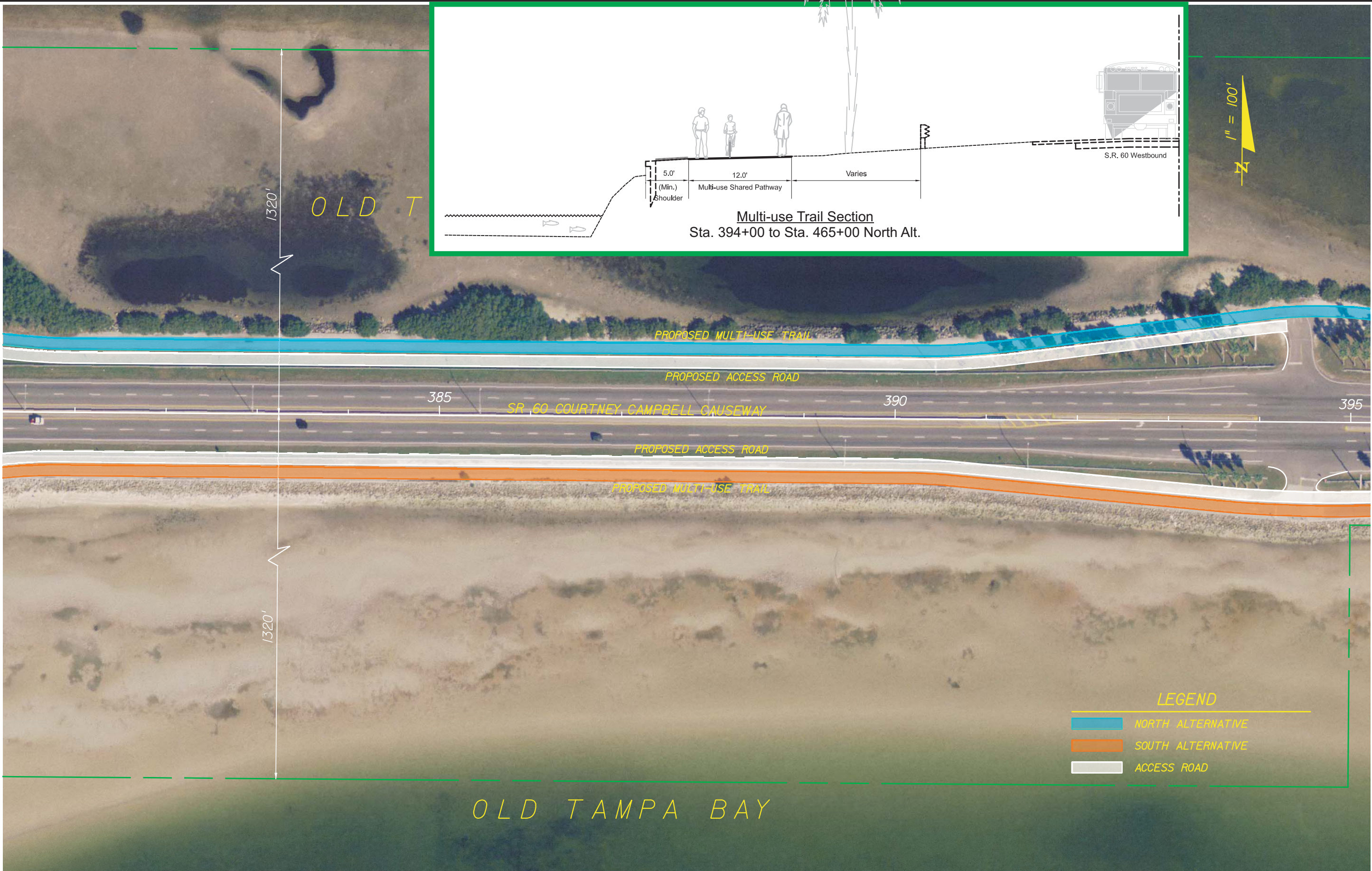
Multi-use Trail Section
Sta. 111+00 to Sta. 265+00 North Alt.
Sta. 301+00 to Sta. 394+00 North Alt.

LEGEND

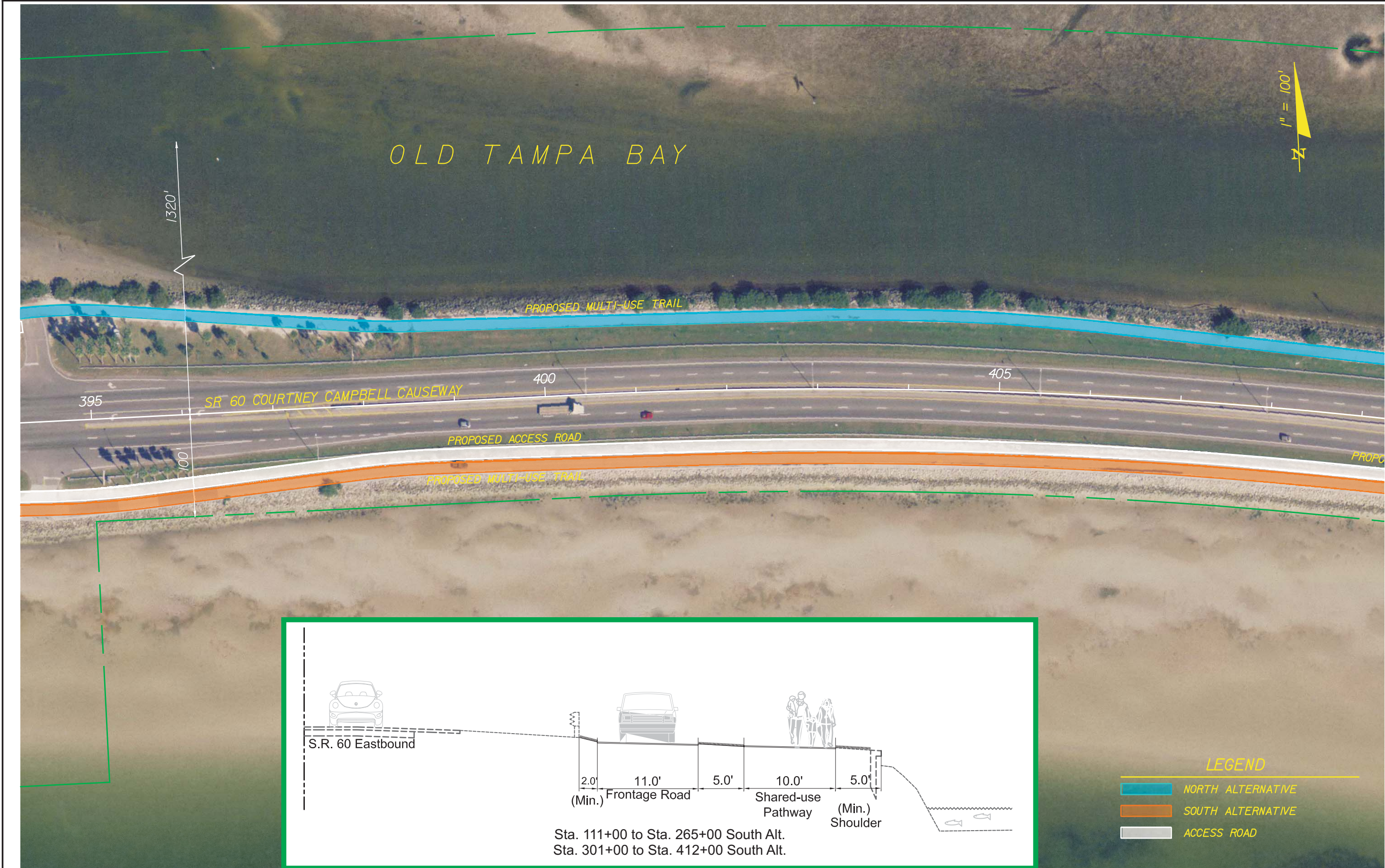
- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE
- ACCESS ROAD

Multi-use Trail Section
Sta. 111+00 to Sta. 265+00 South Alt.
Sta. 301+00 to Sta. 412+00 South Alt.

REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 367+00 - STA.381+00	SHEET NO. 26
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 381+00 - STA. 395+00		SHEET NO. 27
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID			
							SR60	HILLSBOROUGH	422640-4-22-01			



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THE LPA GROUP INCORPORATED
4503 Woodland Corporate Blvd.
Suite 400
Tampa, FL 33614
Ph. (813) 889-3892 C.A. #4307

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR60	HILLSBOROUGH	422640-4-22-01

TRAIL PLAN VIEW STA. 395+00 - STA.409+00	
SHEET NO. 28	

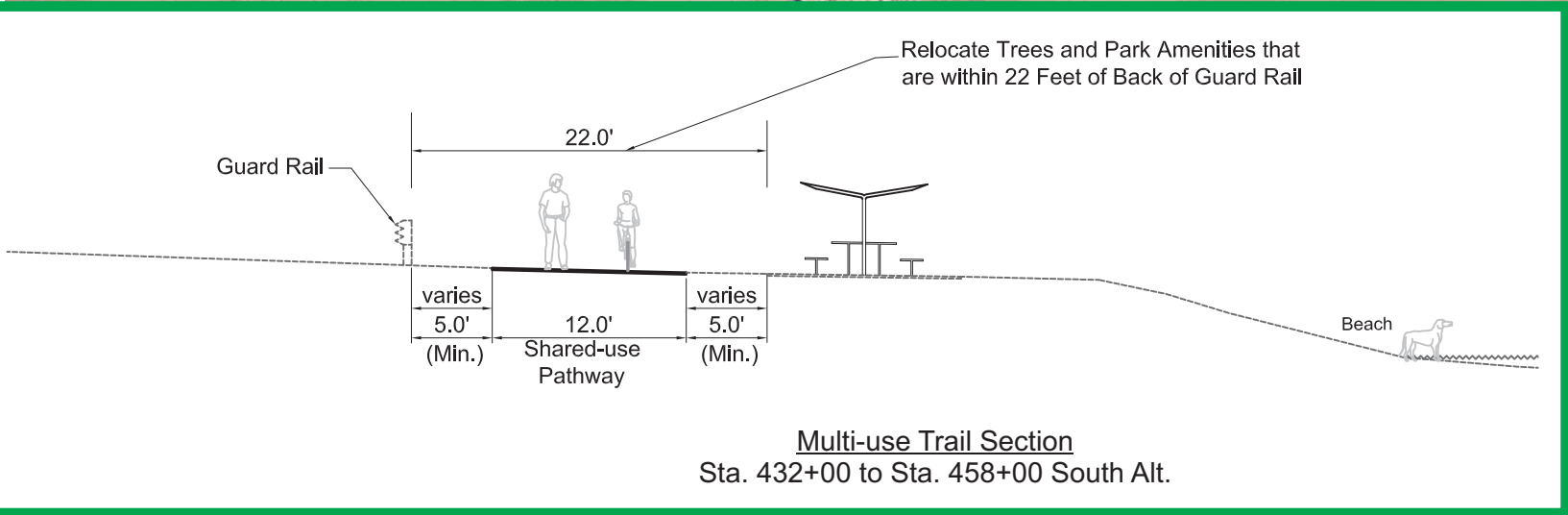


R E V I S I O N S						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 409+00 - STA. 423+00	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		29



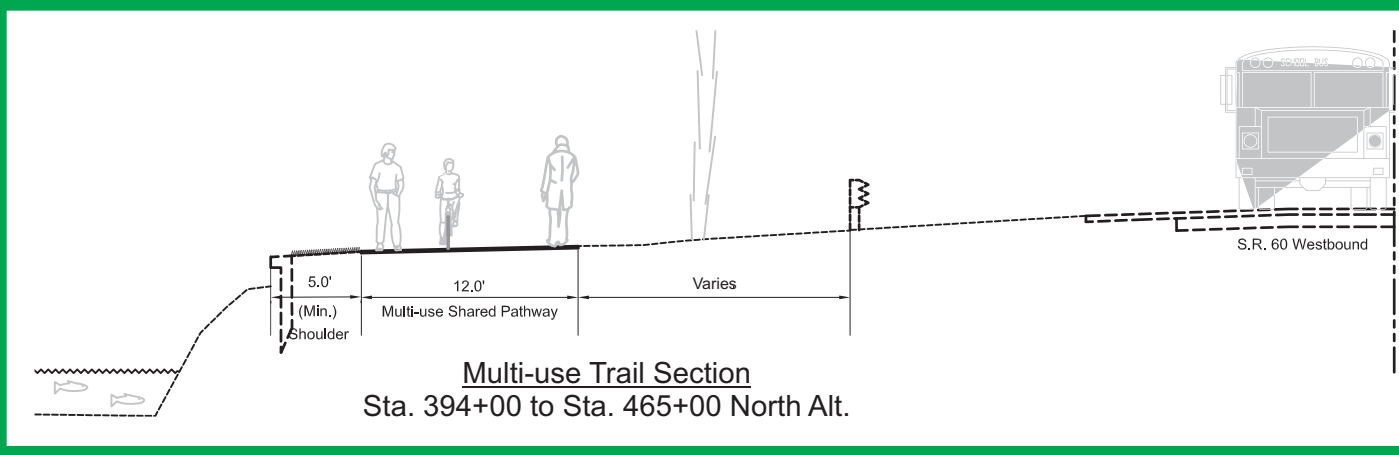
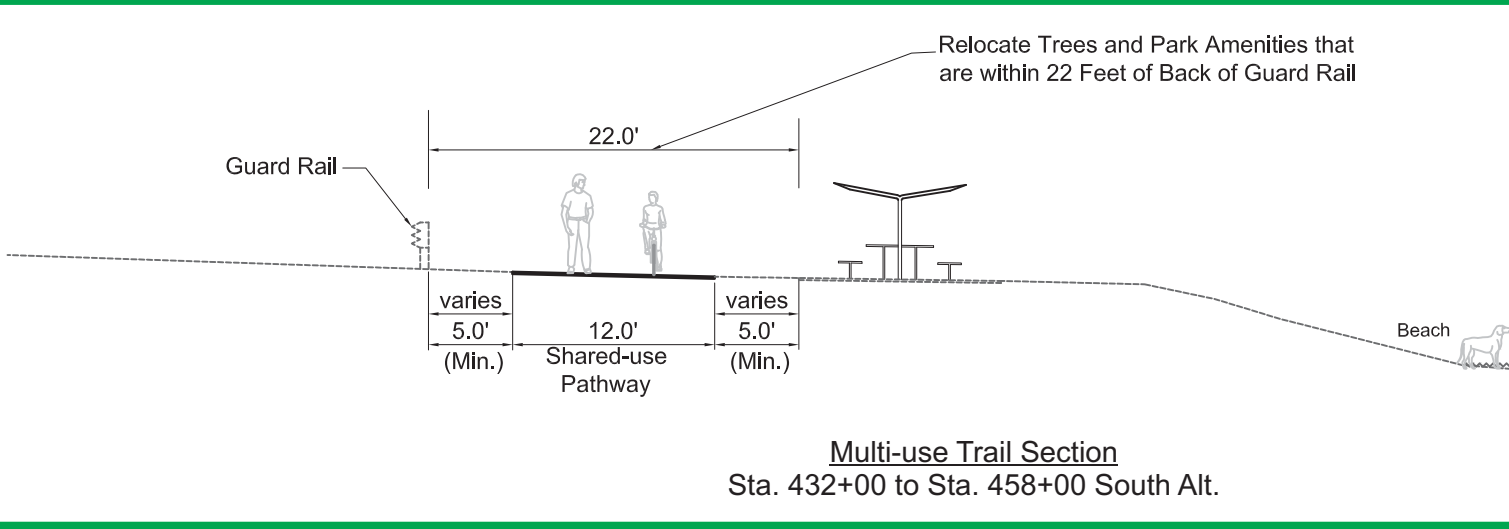
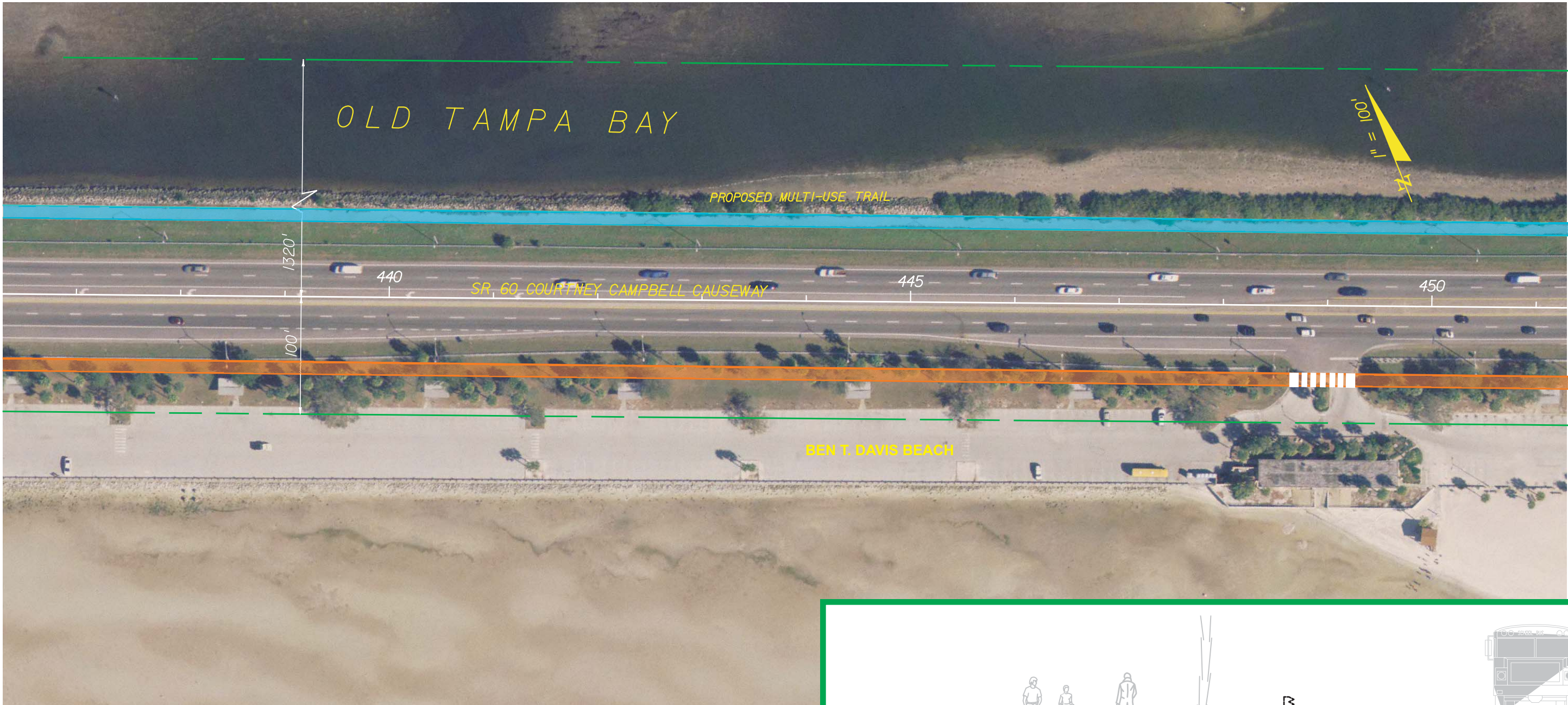
LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE



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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		
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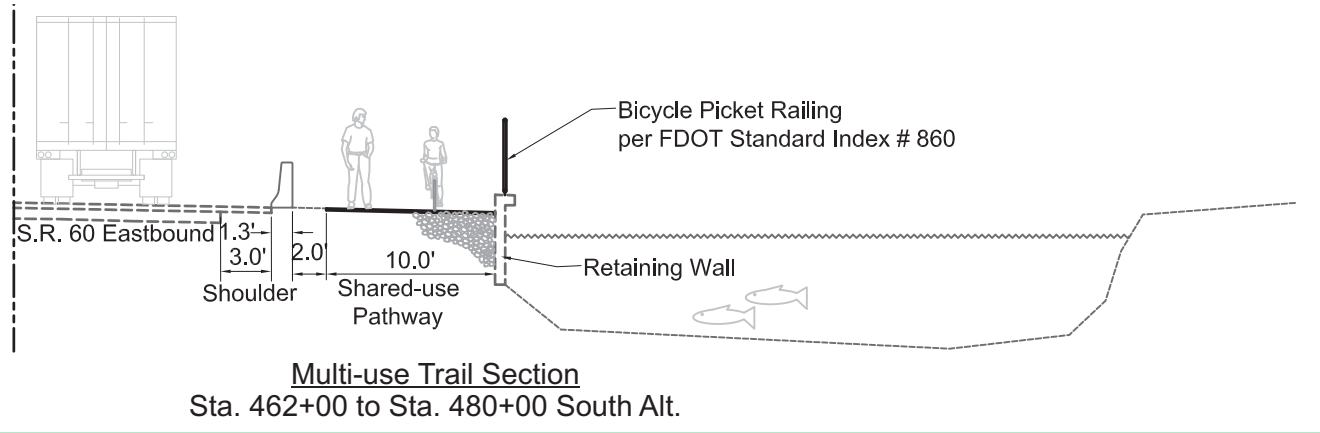
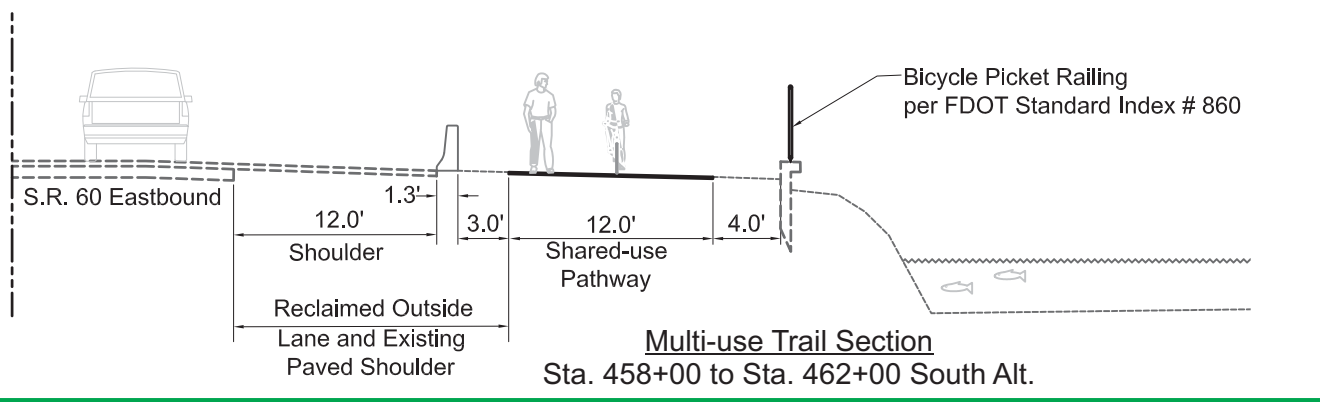
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Suite 400
Tampa, FL 33614
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LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE
- ||||| NORTH/SOUTH TRAIL CONNECTIONS

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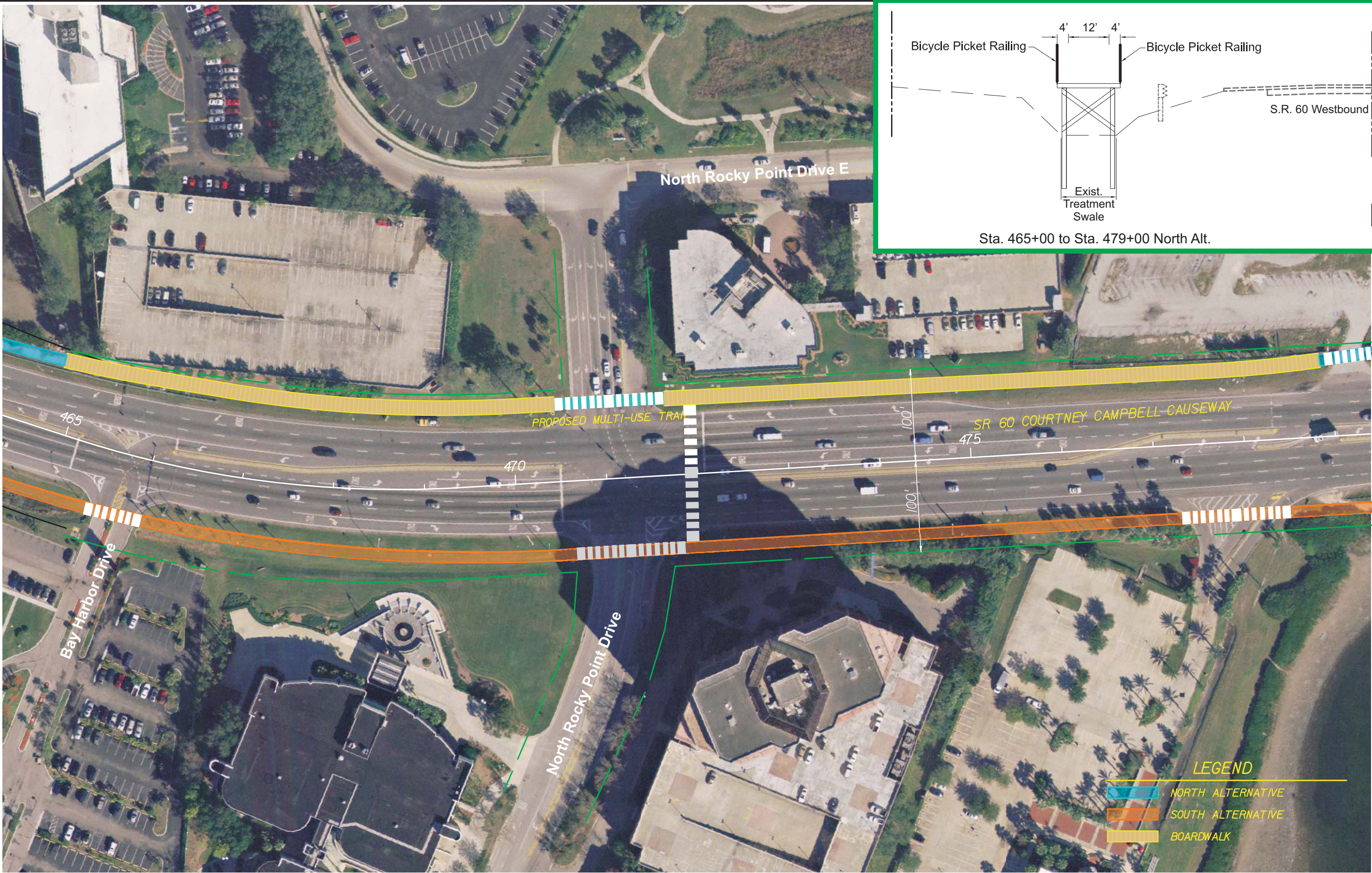


LEGEND

- NORTH ALTERNATIVE
- SOUTH ALTERNATIVE
- BOARDWALK

REVISIONS						STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 451+00 - STA. 465+00	SHEET NO. 32
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
						SR60	HILLSBOROUGH	422640-4-22-01		

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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

THE LPA GROUP INCORPORATED
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Suite 400
Tampa, FL 33614
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STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR60	HILLSBOROUGH	422640-4-22-01

TRAIL PLAN VIEW STA. 465+00 - STA.479+00

SHEET NO.
33



REVISIONS						THE LPA GROUP INCORPORATED 4503 Woodland Corporate Blvd. Suite 400 Tampa, FL 33614 Ph. (813) 889-3892 C.A. #4307	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			TRAIL PLAN VIEW STA. 479+00 - STA. 493+00	SHEET NO. 34
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
							SR60	HILLSBOROUGH	422640-4-22-01		

APPENDIX B

Preliminary Construction Cost Estimate

FDOT Long Range Estimate For Alternatives

ALTERNATIVE N1

This alternative includes the trail on the north side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the north side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the south side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the south side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

Date: 4/7/2008 2:55:56 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 2 Project Grand Total**\$48,628,971.23**

Description: **N1 Alternative** (North Alignment) - Multiuse trail, vehicle access road and bridges on the north.
Bridges 1 & 2 are widenings, Bridge 3 is a prefab steel truss.

Sequence: 1 RSU - Resurfacing, Undivided**Net Length:** 7.800 MI

Description: Resurfacing of existing access road to be used as new multi-use trail. 12 foot trail width assumed
for entire length

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-1	MILLING EXIST ASPH PAVT (1" AVG DEPTH)	54,912.00 SY	\$4.32	\$237,219.84
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	3,020.16 TN	\$109.28	\$330,043.08

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	0
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Roadway Component Total**\$567,262.92****SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00

Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
575-1	SODDING	24,435.84 SY	\$1.92	\$46,916.81

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-4	MOWING	9.36 AC	\$125.03	\$1,170.28
104-11	TURBIDITY BARRIER FLOATING	780.00 LF	\$11.99	\$9,352.20
104-12	TURBIDITY BARRIER STAKED	780.00 LF	\$6.46	\$5,038.80
Shoulder Component Total				\$62,478.09

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	78.00 AS	\$265.08	\$20,676.24
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	110.00 AS	\$668.34	\$73,517.40
700-20-40	SINGLE POST SIGN, RELOCATE	16.00 AS	\$62.95	\$1,007.20
700-20-60	SINGLE POST SIGN, REMOVE	94.00 AS	\$19.48	\$1,831.12
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	16.00 AS	\$3,046.95	\$48,751.20
700-21-60	MULTI- POST SIGN, REMOVE	16.00 AS	\$481.48	\$7,703.68
Signing Component Total				\$153,486.84

Sequence 1 Total	\$783,227.85
-------------------------	---------------------

Sequence: 2 NUR - New Construction, Undivided, Rural**Net Length:** 4.800 MI**Description:** New Access Road using permeable shoulder base (one side) material for water treatment**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	4.800
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	17.45	AC	\$30,530.50	\$532,757.22
120-6	EMBANKMENT	45,844.48	CY	\$18.38	\$842,621.54
Earthwork Component Total					\$1,375,378.77

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	STABILIZATION TYPE B	48,829.44	SY	\$6.29	\$307,137.18
285-709	BASE OPTIONAL (BASE GROUP 09)	34,721.28	SY	\$18.55	\$644,079.74
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	4,646.40	TN	\$109.28	\$507,758.59

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	2
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT	19.20	NM	\$1,169.10	\$22,446.72

MARK,STD,WHITE,SOLID,6"

Roadway Component Total

\$1,481,422.23

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	15,037.44	SY	\$3.13	\$47,067.19

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
287-1	ASPHALT TREATED PERMEABLE BASE	4,648.00	CY	\$196.65	\$914,029.20

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-72	GRAVEL FILL	4,648.00	CY	\$219.45	\$1,020,003.60
514-71-1	PLASTIC FILTER FABRIC, SUBSURFACE	33,467.00	SY	\$2.95	\$98,727.65

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-2	SYNTHETIC BALES	5,068.80	LF	\$13.43	\$68,073.98
104-13-1	SILT FENCE STAKED (TYPE III)	50,688.00	LF	\$1.41	\$71,470.08
104-15	PREVENTION DEVICE SOIL TRACKING	5.00	EA	\$3,485.22	\$17,426.10

Shoulder Component Total

\$2,236,797.81

Sequence 2 Total

\$5,093,598.81

Sequence: 3 MIS - Miscellaneous Construction
Description: 3 Bridge Crossings

Net Length: 0.792 MI

BRIDGES COMPONENT

Bridge 100064

Description	Value
Length	125.00
Width	16.00
Type	High Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$160.00
Factored Cost per SF	\$160.00
Final Cost per SF	\$175.34
Basic Bridge Cost	\$320,000.00
Description	BRIDGE 3 (BRIDGE NO. 100064) - PREFAB STEEL TRUSS - HIGH LEVEL BRIDGE CHOSEN TO APPROXIMATE UNIT COST.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
Bridge 100064 Total				\$350,688.28

Bridge 100301

Description	Value
Length	3,256.00
Width	42.70
Type	Medium Level, Widen
Substructure Type	Combination
Superstructure Type	AASHTO Girder
Cost Factor	1.20
Removal of existing structures area	19,536.00
Default Cost per SF	\$140.00
Factored Cost per SF	\$168.00
Final Cost per SF	\$168.59
Basic Bridge Cost	\$23,357,241.60
Description	STRUCTURE 2 - BRIDGE NO. 100301 BRIDGE IS WIDENED TO BOTH SIDES

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	STRUCTURE REMOVAL OF EXISTING	19,536.00 SF	\$73.78	\$1,441,366.08
400-2-10	CONC CLASS II (APPROACH SLABS)	94.89 CY	\$688.00	\$65,284.32
415-1-9	REINF STEEL (APPROACH SLABS)	16,605.75 LB	\$1.00	\$16,605.75
Bridge 100301 Total				\$24,880,497.75

Bridge 150138

Description	Value
Length	473.00
Width	16.96
Type	Low Level, Widen
Substructure Type	Pile Bents
Superstructure Type	AASHTO Girder
Cost Factor	1.20
Removal of existing structures area	1,419.00
Default Cost per SF	\$131.00
Factored Cost per SF	\$157.20
Final Cost per SF	\$161.25
Basic Bridge Cost	\$1,261,070.98
Description	STRUCTURE 1 - BRIDGE NO 150138 BRIDGE IS WIDENED TO ONE SIDE.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	STRUCTURE REMOVAL OF EXISTING	1,419.00 SF	\$73.78	\$104,693.82
400-2-10	CONC CLASS II (APPROACH SLABS)	37.69 CY	\$688.00	\$25,930.72
415-1-9	REINF STEEL (APPROACH SLABS)	6,595.75 LB	\$1.00	\$6,595.75
Bridge 150138 Total				\$1,398,291.27
Bridges Component Total				\$26,629,477.30

Sequence 3 Total	\$26,629,477.30
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Sequence: 4 MIS - Miscellaneous Construction**Net Length:** 0.239 MI**Description:** Boardwalk Structures**Special** Timber Boardwalks - Bridge pull down options chosen to give unit price close to \$100/sf then 50%**Conditions:** adjustment factor applied for a final unit cost close to \$50/sf**BRIDGES COMPONENT****Bridge N/A**

Description	Value
Length	540.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$56.00
Basic Bridge Cost	\$483,840.00
Description	BOARDWALK 1 - TIMBER STRUCTURE

Bridge N/A Total	\$483,840.00
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Bridge N/A

Description	Value
Length	720.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$58.66
Basic Bridge Cost	\$645,120.00
Description	BOARDWALK 2 - TIMBER STRUCTURE

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
	Bridge N/A Total			\$675,808.28
	Bridges Component Total			\$1,159,648.28

Sequence 4 Total	\$1,159,648.28
-------------------------	-----------------------

Date: 4/7/2008 2:55:56 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 2 Project Grand Total**\$48,628,971.23**

Description: N1 Alternative (North Alignment) - Multiuse trail, vehicle access road and bridges on the north.
Bridges 1 & 2 are widenings, Bridge 3 is a prefab steel truss.

Project Sequences Subtotal	\$33,665,952.24
-----------------------------------	------------------------

102-1	Maintenance of Traffic	20.00 %	\$6,733,190.45
101-1	Mobilization	20.00 %	\$8,079,828.54

Project Sequences Total	\$48,478,971.23
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Project Unknowns	0.00 %		\$0.00
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Justification for high %: MOT & Mobilization each increased 10% to account for 20% total project unknowns.

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY (DO NOT BID)		LS	\$150,000.00	\$150,000.00
Project Non-Bid Subtotal					\$150,000.00

Version 2 Project Grand Total	\$48,628,971.23
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FDOT Long Range Estimate For Alternatives

ALTERNATIVE N1

This alternative includes the trail on the north side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the north side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the south side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the south side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

Date: 4/7/2008 2:55:03 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 1-P Project Grand Total**\$24,689,332.63**

Description: **N2 Alternative** (North Alignment) - Multiuse trail, vehicle access road and bridges on the north. All bridges are independant bridges

Sequence: 1 RSU - Resurfacing, Undivided**Net Length:** 7.800 MI

Description: Resurfacing of existing access road to be used as new multi-use trail. 12 foot trail width assumed for entire length

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-1	MILLING EXIST ASPH PAVT (1" AVG DEPTH)	54,912.00 SY	\$4.32	\$237,219.84
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	3,020.16 TN	\$109.28	\$330,043.08

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	0
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Roadway Component Total**\$567,262.92****SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00

Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
575-1	SODDING	24,435.84 SY	\$1.92	\$46,916.81

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-4	MOWING	9.36 AC	\$125.03	\$1,170.28
104-11	TURBIDITY BARRIER FLOATING	780.00 LF	\$11.99	\$9,352.20
104-12	TURBIDITY BARRIER STAKED	780.00 LF	\$6.46	\$5,038.80
Shoulder Component Total				\$62,478.09

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	78.00 AS	\$265.08	\$20,676.24
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	110.00 AS	\$668.34	\$73,517.40
700-20-40	SINGLE POST SIGN, RELOCATE	16.00 AS	\$62.95	\$1,007.20
700-20-60	SINGLE POST SIGN, REMOVE	94.00 AS	\$19.48	\$1,831.12
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	16.00 AS	\$3,046.95	\$48,751.20
700-21-60	MULTI- POST SIGN, REMOVE	16.00 AS	\$481.48	\$7,703.68
Signing Component Total				\$153,486.84

Sequence 1 Total	\$783,227.85
-------------------------	---------------------

Sequence: 2 NUR - New Construction, Undivided, Rural**Net Length:** 4.800 MI**Description:** New Access Road using permeable shoulder base (one side) material for water treatment**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	4.800
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	17.45	AC	\$30,530.50	\$532,757.22
120-6	EMBANKMENT	45,844.48	CY	\$18.38	\$842,621.54
Earthwork Component Total					\$1,375,378.77

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	STABILIZATION TYPE B	48,829.44	SY	\$6.29	\$307,137.18
285-709	BASE OPTIONAL (BASE GROUP 09)	34,721.28	SY	\$18.55	\$644,079.74
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	4,646.40	TN	\$109.28	\$507,758.59

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	2
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT	19.20	NM	\$1,169.10	\$22,446.72

MARK,STD,WHITE,SOLID,6"

Roadway Component Total

\$1,481,422.23

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	15,037.44	SY	\$3.13	\$47,067.19

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
287-1	ASPHALT TREATED PERMEABLE BASE	4,648.00	CY	\$196.65	\$914,029.20

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-72	GRAVEL FILL	4,648.00	CY	\$219.45	\$1,020,003.60
514-71-1	PLASTIC FILTER FABRIC, SUBSURFACE	33,467.00	SY	\$2.95	\$98,727.65

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-2	SYNTHETIC BALES	5,068.80	LF	\$13.43	\$68,073.98
104-13-1	SILT FENCE STAKED (TYPE III)	50,688.00	LF	\$1.41	\$71,470.08
104-15	PREVENTION DEVICE SOIL TRACKING	5.00	EA	\$3,485.22	\$17,426.10

Shoulder Component Total

\$2,236,797.81

Sequence 2 Total

\$5,093,598.81

Sequence: 3 MIS - Miscellaneous Construction
Description: 3 Bridge Crossings

Net Length: 0.792 MI

BRIDGES COMPONENT

Bridge 100064

Description	Value
Length	125.00
Width	16.00
Type	High Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$160.00
Factored Cost per SF	\$160.00
Final Cost per SF	\$175.34
Basic Bridge Cost	\$320,000.00
Description	BRIDGE 3 (BRIDGE NO. 100064) - PREFAB STEEL TRUSS - HIGH LEVEL BRIDGE CHOSEN TO APPROXIMATE UNIT COST.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
Bridge 100064 Total				\$350,688.28

Bridge 100301

Description	Value
Length	3,562.00
Width	18.00
Type	Medium Level
Substructure Type	Combination
Superstructure Type	AASHTO Girder
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$130.00
Factored Cost per SF	\$130.00
Final Cost per SF	\$130.54
Basic Bridge Cost	\$8,335,080.00
Description	STRUCTURE 2 - BRIDGE NO. 100301

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	40.00 CY	\$688.00	\$27,520.00
415-1-9	REINF STEEL (APPROACH SLABS)	7,000.00 LB	\$1.00	\$7,000.00
Bridge 100301 Total				\$8,369,600.00

Bridge 150138

Description	Value
Length	620.00

Width	18.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	AASHTO Girder
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$112.00
Final Cost per SF	\$115.09
Basic Bridge Cost	\$1,249,920.00
Description	STRUCTURE 1 - BRIDGE NO 150138

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	40.00	CY	\$688.00	\$27,520.00
415-1-9	REINF STEEL (APPROACH SLABS)	7,000.00	LB	\$1.00	\$7,000.00
Bridge 150138 Total					\$1,284,440.00
Bridges Component Total					\$10,004,728.28
Sequence 3 Total					\$10,004,728.28

Sequence: 4 MIS - Miscellaneous Construction**Net Length:** 0.239 MI**Description:** Boardwalk Structures**Special** Timber Boardwalks - Bridge pull down options chosen to give unit price close to \$100/sf then 50%**Conditions:** adjustment factor applied for a final unit cost close to \$50/sf**BRIDGES COMPONENT****Bridge N/A**

Description	Value
Length	540.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$56.00
Basic Bridge Cost	\$483,840.00
Description	BOARDWALK 1 - TIMBER STRUCTURE

Bridge N/A Total	\$483,840.00
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Bridge N/A

Description	Value
Length	720.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$58.66
Basic Bridge Cost	\$645,120.00
Description	BOARDWALK 2 - TIMBER STRUCTURE

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
	Bridge N/A Total			\$675,808.28
	Bridges Component Total			\$1,159,648.28

Sequence 4 Total	\$1,159,648.28
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Date: 4/7/2008 2:55:04 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 1-P Project Grand Total**\$24,689,332.63**

Description: N2 Alternative (North Alignment) - Multiuse trail, vehicle access road and bridges on the north. All
bridges are independant bridges

Project Sequences Subtotal	\$17,041,203.22
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102-1	Maintenance of Traffic	20.00 %	\$3,408,240.64
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101-1	Mobilization	20.00 %	\$4,089,888.77
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Project Sequences Total	\$24,539,332.63
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Project Unknowns	0.00 %	\$0.00
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Justification for high MOT & Mobilization each increased 10% to account for 20% total
%: project unknowns.

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal	\$150,000.00
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Version 1-P Project Grand Total	\$24,689,332.63
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FDOT Long Range Estimate For Alternatives

ALTERNATIVE N1

This alternative includes the trail on the north side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the north side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the south side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the south side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

Date: 4/7/2008 2:57:48 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 4 Project Grand Total**\$50,535,940.10**

Description: **S1 Alternative** (South Alignment) - Multiuse trail, vehicle access road and bridges on the south.
Bridges 1 & 2 are widenings, Bridge 3 is a prefab steel truss.

Sequence: 1 RSU - Resurfacing, Undivided**Net Length:** 8.100 MI

Description: Resurfacing of existing access road to be used as new multi-use trail. 12 foot trail width assumed
for entire length

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-1	MILLING EXIST ASPH PAVT (1" AVG DEPTH)	57,024.00 SY	\$4.32	\$246,343.68
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	3,136.32 TN	\$109.28	\$342,737.05

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	0
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Roadway Component Total**\$589,080.73****SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00

Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
575-1	SODDING	25,375.68 SY	\$1.92	\$48,721.31

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-4	MOWING	9.72 AC	\$125.03	\$1,215.29
104-11	TURBIDITY BARRIER FLOATING	810.00 LF	\$11.99	\$9,711.90
104-12	TURBIDITY BARRIER STAKED	810.00 LF	\$6.46	\$5,232.60
Shoulder Component Total				\$64,881.10

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-94-1	DESILTING PIPE, 0 - 24"	6,480.00 LF	\$6.79	\$43,999.20
430-94-2	DESILTING PIPE, 25 - 36"	1,360.80 LF	\$12.47	\$16,969.18
Drainage Component Total				\$60,968.38

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	81.00 AS	\$265.08	\$21,471.48
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	114.00 AS	\$668.34	\$76,190.76
700-20-40	SINGLE POST SIGN, RELOCATE	17.00 AS	\$62.95	\$1,070.15
700-20-60	SINGLE POST SIGN, REMOVE	98.00 AS	\$19.48	\$1,909.04
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	17.00 AS	\$3,046.95	\$51,798.15
700-21-60	MULTI- POST SIGN, REMOVE	17.00 AS	\$481.48	\$8,185.16
Signing Component Total				\$160,624.74

Sequence 1 Total	\$875,554.95
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Sequence: 2 NUR - New Construction, Undivided, Rural**Net Length:** 5.100 MI**Description:** New Access Road using permeable shoulder base (one side) material for water treatment**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	5.100
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	18.55	AC	\$30,530.50	\$566,340.78
120-6	EMBANKMENT	48,709.76	CY	\$18.38	\$895,285.39
Earthwork Component Total					\$1,461,626.16

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	STABILIZATION TYPE B	51,881.28	SY	\$6.29	\$326,333.25
285-709	BASE OPTIONAL (BASE GROUP 09)	36,891.36	SY	\$18.55	\$684,334.73
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	4,936.80	TN	\$109.28	\$539,493.50

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	2
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT	20.40	NM	\$1,169.10	\$23,849.64

MARK,STD,WHITE,SOLID,6"

Roadway Component Total

\$1,574,011.12

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	15,977.28	SY	\$3.13	\$50,008.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
287-1	ASPHALT TREATED PERMEABLE BASE	4,648.00	CY	\$196.65	\$914,029.20

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-72	GRAVEL FILL	4,648.00	CY	\$219.45	\$1,020,003.60
514-71-1	PLASTIC FILTER FABRIC, SUBSURFACE	33,467.00	SY	\$2.95	\$98,727.65

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-4	MOWING	6.12	AC	\$125.03	\$765.18
104-10-2	SYNTHETIC BALES	5,385.60	LF	\$13.43	\$72,328.61
104-11	TURBIDITY BARRIER FLOATING	1,275.00	LF	\$11.99	\$15,287.25
104-12	TURBIDITY BARRIER STAKED	1,275.00	LF	\$6.46	\$8,236.50
104-13-1	SILT FENCE STAKED (TYPE III)	53,856.00	LF	\$1.41	\$75,936.96
104-15	PREVENTION DEVICE SOIL TRACKING	6.00	EA	\$3,485.22	\$20,911.32

Shoulder Component Total

\$2,276,235.16

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II (ENDWALLS)	91.80	CY	\$736.44	\$67,605.19
430-172-102	PIPE CULV OPT MATL, ROUND, 25-36", CD	856.00	LF	\$142.42	\$121,911.52
430-174-101	PIPE CULV, OPT MATL, ROUND,0-24"SD	4,080.00	LF	\$82.66	\$337,252.80

430-984-129	MITERED END SECT (OPTIONAL RD) (24" SD)	204.00 EA	\$1,840.28	\$375,417.12
575-1	SODDING	3,590.40 SY	\$1.92	\$6,893.57
Drainage Component Total				\$909,080.20

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	11.00 AS	\$265.08	\$2,915.88
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	102.00 AS	\$668.34	\$68,170.68
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	11.00 AS	\$3,046.95	\$33,516.45
Signing Component Total				\$104,603.01

Sequence 2 Total	\$6,325,555.65
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Sequence: 3 MIS - Miscellaneous Construction
Description: 3 Bridge Crossings

Net Length: 0.792 MI

BRIDGES COMPONENT

Bridge 100064

Description	Value
Length	125.00
Width	16.00
Type	High Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$160.00
Factored Cost per SF	\$160.00
Final Cost per SF	\$175.34
Basic Bridge Cost	\$320,000.00
Description	BRIDGE 3 (BRIDGE NO. 100064) - PREFAB STEEL TRUSS - HIGH LEVEL BRIDGE CHOSEN TO APPROXIMATE UNIT COST.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
Bridge 100064 Total				\$350,688.28

Bridge 100301

Description	Value
Length	3,256.00
Width	42.70
Type	Medium Level, Widen
Substructure Type	Combination
Superstructure Type	AASHTO Girder
Cost Factor	1.20
Removal of existing structures area	19,536.00
Default Cost per SF	\$140.00
Factored Cost per SF	\$168.00
Final Cost per SF	\$168.59
Basic Bridge Cost	\$23,357,241.60
Description	STRUCTURE 2 - BRIDGE NO. 100301 BRIDGE IS WIDENED TO BOTH SIDES

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	STRUCTURE REMOVAL OF EXISTING	19,536.00 SF	\$73.78	\$1,441,366.08
400-2-10	CONC CLASS II (APPROACH SLABS)	94.89 CY	\$688.00	\$65,284.32
415-1-9	REINF STEEL (APPROACH SLABS)	16,605.75 LB	\$1.00	\$16,605.75
Bridge 100301 Total				\$24,880,497.75

Bridge 150138

Description	Value
Length	473.00
Width	16.96
Type	Low Level, Widen
Substructure Type	Pile Bents
Superstructure Type	AASHTO Girder
Cost Factor	1.20
Removal of existing structures area	1,419.00
Default Cost per SF	\$131.00
Factored Cost per SF	\$157.20
Final Cost per SF	\$161.25
Basic Bridge Cost	\$1,261,070.98
Description	STRUCTURE 1 - BRIDGE NO 150138 BRIDGE IS WIDENED TO ONE SIDE.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	STRUCTURE REMOVAL OF EXISTING	1,419.00 SF	\$73.78	\$104,693.82
400-2-10	CONC CLASS II (APPROACH SLABS)	37.69 CY	\$688.00	\$25,930.72
415-1-9	REINF STEEL (APPROACH SLABS)	6,595.75 LB	\$1.00	\$6,595.75
	Bridge 150138 Total			\$1,398,291.27
	Bridges Component Total			\$26,629,477.30

Sequence 3 Total	\$26,629,477.30
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Sequence: 4 MIS - Miscellaneous Construction**Net Length:** 0.239 MI**Description:** Boardwalk Structures**Special** Timber Boardwalks - Bridge pull down options chosen to give unit price close to \$100/sf then 50%**Conditions:** adjustment factor applied for a final unit cost close to \$50/sf**BRIDGES COMPONENT****Bridge N/A**

Description	Value
Length	540.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$56.00
Basic Bridge Cost	\$483,840.00
Description	BOARDWALK 1 - TIMBER STRUCTURE

Bridge N/A Total	\$483,840.00
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Bridge N/A

Description	Value
Length	720.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$58.66
Basic Bridge Cost	\$645,120.00
Description	BOARDWALK 2 - TIMBER STRUCTURE

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
	Bridge N/A Total			\$675,808.28
	Bridges Component Total			\$1,159,648.28

Sequence 4 Total	\$1,159,648.28
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Date: 4/7/2008 2:57:49 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 4 Project Grand Total**\$50,535,940.10**

Description: S1 Alternative (South Alignment) - Multiuse trail, vehicle access road and bridges on the south.
Bridges 1 & 2 are widenings, Bridge 3 is a prefab steel truss.

Project Sequences Subtotal	\$34,990,236.18
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102-1	Maintenance of Traffic	20.00 %	\$6,998,047.24
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101-1	Mobilization	20.00 %	\$8,397,656.68
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Project Sequences Total	\$50,385,940.10
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Project Unknowns	0.00 %	\$0.00
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Justification for high %: MOT & Mobilization each increased 10% to account for 20% total project unknowns.

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal	\$150,000.00
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Version 4 Project Grand Total	\$50,535,940.10
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FDOT Long Range Estimate For Alternatives

ALTERNATIVE N1

This alternative includes the trail on the north side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE N2

This alternative includes the trail on the north side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the south side of the Causeway and the Structures Widening Option 'W2' for Structures 1 and 2, and the reconfiguration of Structure 3.

ALTERNATIVE S2

This alternative includes the trail on the south side of the Causeway and the Independent Structural Option 'IS' for Structures 1, 2 and 3.

Date: 4/7/2008 2:56:40 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 3 Project Grand Total**\$26,596,301.51**

Description: S2 Alternative (South Alignment) - Multiuse trail, vehicle access road and bridges on the south. All bridges are independant bridges

Sequence: 1 RSU - Resurfacing, Undivided**Net Length:** 8.100 MI

Description: Resurfacing of existing access road to be used as new multi-use trail. 12 foot trail width assumed for entire length

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	12.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
327-70-1	MILLING EXIST ASPH PAVT (1" AVG DEPTH)	57,024.00 SY	\$4.32	\$246,343.68
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	3,136.32 TN	\$109.28	\$342,737.05

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	0
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Roadway Component Total**\$589,080.73****SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00

Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
575-1	SODDING	25,375.68 SY	\$1.92	\$48,721.31

Erosion Control**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-4	MOWING	9.72 AC	\$125.03	\$1,215.29
104-11	TURBIDITY BARRIER FLOATING	810.00 LF	\$11.99	\$9,711.90
104-12	TURBIDITY BARRIER STAKED	810.00 LF	\$6.46	\$5,232.60
Shoulder Component Total				\$64,881.10

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
430-94-1	DESILTING PIPE, 0 - 24"	6,480.00 LF	\$6.79	\$43,999.20
430-94-2	DESILTING PIPE, 25 - 36"	1,360.80 LF	\$12.47	\$16,969.18
Drainage Component Total				\$60,968.38

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	81.00 AS	\$265.08	\$21,471.48
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	114.00 AS	\$668.34	\$76,190.76
700-20-40	SINGLE POST SIGN, RELOCATE	17.00 AS	\$62.95	\$1,070.15
700-20-60	SINGLE POST SIGN, REMOVE	98.00 AS	\$19.48	\$1,909.04
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	17.00 AS	\$3,046.95	\$51,798.15
700-21-60	MULTI- POST SIGN, REMOVE	17.00 AS	\$481.48	\$8,185.16
Signing Component Total				\$160,624.74

Sequence 1 Total	\$875,554.95
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Sequence: 2 NUR - New Construction, Undivided, Rural**Net Length:** 5.100 MI**Description:** New Access Road using permeable shoulder base (one side) material for water treatment**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	15.00 / 15.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	5.100
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	18.55	AC	\$30,530.50	\$566,340.78
120-6	EMBANKMENT	48,709.76	CY	\$18.38	\$895,285.39
Earthwork Component Total					\$1,461,626.16

ROADWAY COMPONENT**User Input Data**

Description	Value
Number of Lanes	1
Roadway Pavement Width L/R	0.00 / 12.00
Structural Spread Rate	275
Friction Course Spread Rate	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	STABILIZATION TYPE B	51,881.28	SY	\$6.29	\$326,333.25
285-709	BASE OPTIONAL (BASE GROUP 09)	36,891.36	SY	\$18.55	\$684,334.73
334-1-12	SUPERPAVE ASPH CONC (TRAFFIC B)	4,936.80	TN	\$109.28	\$539,493.50

Pavement Marking Subcomponent

Description	Value
Solid Stripe No. of Stripes	2
Solid Stripe No. of Applications	2
Skip Stripe No. of Stripes	0
Skip Stripe No. of Applications	2
Top Layer Thermoplastic	N

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-111	PAINTED PAVT	20.40	NM	\$1,169.10	\$23,849.64

MARK,STD,WHITE,SOLID,6"

Roadway Component Total

\$1,574,011.12

SHOULDER COMPONENT**User Input Data**

Description	Value
Total Outside Shoulder Width L/R	2.67 / 2.67
Total Outside Shoulder Sod Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	160
Total Width (T) / 8" Overlap (O)	T
Rumble Strips No. of Sides	0

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-2	PERFORMANCE TURF, SOD	15,977.28	SY	\$3.13	\$50,008.89

X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
287-1	ASPHALT TREATED PERMEABLE BASE	4,648.00	CY	\$196.65	\$914,029.20

EX-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-72	GRAVEL FILL	4,648.00	CY	\$219.45	\$1,020,003.60
514-71-1	PLASTIC FILTER FABRIC, SUBSURFACE	33,467.00	SY	\$2.95	\$98,727.65

Erosion Control**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-4	MOWING	6.12	AC	\$125.03	\$765.18
104-10-2	SYNTHETIC BALES	5,385.60	LF	\$13.43	\$72,328.61
104-11	TURBIDITY BARRIER FLOATING	1,275.00	LF	\$11.99	\$15,287.25
104-12	TURBIDITY BARRIER STAKED	1,275.00	LF	\$6.46	\$8,236.50
104-13-1	SILT FENCE STAKED (TYPE III)	53,856.00	LF	\$1.41	\$75,936.96
104-15	PREVENTION DEVICE SOIL TRACKING	6.00	EA	\$3,485.22	\$20,911.32

Shoulder Component Total

\$2,276,235.16

DRAINAGE COMPONENT**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II (ENDWALLS)	91.80	CY	\$736.44	\$67,605.19
430-172-102	PIPE CULV OPT MATL, ROUND, 25-36", CD	856.00	LF	\$142.42	\$121,911.52
430-174-101	PIPE CULV, OPT MATL, ROUND,0-24"SD	4,080.00	LF	\$82.66	\$337,252.80

430-984-129	MITERED END SECT (OPTIONAL RD) (24" SD)	204.00 EA	\$1,840.28	\$375,417.12
575-1	SODDING	3,590.40 SY	\$1.92	\$6,893.57
Drainage Component Total				\$909,080.20

SIGNING COMPONENT**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-20-11	SINGLE POST SIGN, F&I, LESS THAN 12 SF	11.00 AS	\$265.08	\$2,915.88
700-20-12	SINGLE POST SIGN, F&I, 12-20 SF	102.00 AS	\$668.34	\$68,170.68
700-21-11	MULTI- POST SIGN, F&I, 50 OR <	11.00 AS	\$3,046.95	\$33,516.45
Signing Component Total				\$104,603.01

Sequence 2 Total	\$6,325,555.65
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Sequence: 3 MIS - Miscellaneous Construction
Description: 3 Bridge Crossings

Net Length: 0.792 MI

BRIDGES COMPONENT

Bridge 100064

Description	Value
Length	125.00
Width	16.00
Type	High Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$160.00
Factored Cost per SF	\$160.00
Final Cost per SF	\$175.34
Basic Bridge Cost	\$320,000.00
Description	BRIDGE 3 (BRIDGE NO. 100064) - PREFAB STEEL TRUSS - HIGH LEVEL BRIDGE CHOSEN TO APPROXIMATE UNIT COST.

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
Bridge 100064 Total				\$350,688.28

Bridge 100301

Description	Value
Length	3,562.00
Width	18.00
Type	Medium Level
Substructure Type	Combination
Superstructure Type	AASHTO Girder
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$130.00
Factored Cost per SF	\$130.00
Final Cost per SF	\$130.54
Basic Bridge Cost	\$8,335,080.00
Description	STRUCTURE 2 - BRIDGE NO. 100301

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	40.00 CY	\$688.00	\$27,520.00
415-1-9	REINF STEEL (APPROACH SLABS)	7,000.00 LB	\$1.00	\$7,000.00
Bridge 100301 Total				\$8,369,600.00

Bridge 150138

Description	Value
Length	620.00

Width	18.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	AASHTO Girder
Cost Factor	1.00
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$112.00
Final Cost per SF	\$115.09
Basic Bridge Cost	\$1,249,920.00
Description	STRUCTURE 1 - BRIDGE NO 150138

Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	40.00	CY	\$688.00	\$27,520.00
415-1-9	REINF STEEL (APPROACH SLABS)	7,000.00	LB	\$1.00	\$7,000.00
Bridge 150138 Total					\$1,284,440.00
Bridges Component Total					\$10,004,728.28
Sequence 3 Total					\$10,004,728.28

Sequence: 4 MIS - Miscellaneous Construction**Net Length:** 0.239 MI**Description:** Boardwalk Structures**Special** Timber Boardwalks - Bridge pull down options chosen to give unit price close to \$100/sf then 50%**Conditions:** adjustment factor applied for a final unit cost close to \$50/sf**BRIDGES COMPONENT****Bridge N/A**

Description	Value
Length	540.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$56.00
Basic Bridge Cost	\$483,840.00
Description	BOARDWALK 1 - TIMBER STRUCTURE

Bridge N/A Total	\$483,840.00
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Bridge N/A

Description	Value
Length	720.00
Width	16.00
Type	Low Level
Substructure Type	Pile Bents
Superstructure Type	Combination
Cost Factor	0.50
Removal of existing structures area	0.00
Default Cost per SF	\$112.00
Factored Cost per SF	\$56.00
Final Cost per SF	\$58.66
Basic Bridge Cost	\$645,120.00
Description	BOARDWALK 2 - TIMBER STRUCTURE

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-10	CONC CLASS II (APPROACH SLABS)	35.56 CY	\$688.00	\$24,465.28
415-1-9	REINF STEEL (APPROACH SLABS)	6,223.00 LB	\$1.00	\$6,223.00
	Bridge N/A Total			\$675,808.28
	Bridges Component Total			\$1,159,648.28

Sequence 4 Total	\$1,159,648.28
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Date: 4/7/2008 2:56:40 PM

FDOT Long Range Estimating System - Production

R3: Project Details by Sequence Report

Project: 422640-1-22-01

Letting Date: 01/2099

Description: SR 60 (CC CAUSEWAY) FROM MCMULLEN-BOOTH RD TO VETERAN'S EXPRESSWAY /
Multi-Use Trail Feasibility Study

District: 07 County: 15 PINELLAS

Market Area: 08 Units: English

Contract Class: 4 Lump Sum Project: N

Design/Build: N Project Length: 8.908 MI

Project Manager: PRD-GIF-LPA

Version 3 Project Grand Total**\$26,596,301.51**

Description: S2 Alternative (South Alignment) - Multiuse trail, vehicle access road and bridges on the south. All
bridges are independant bridges

Project Sequences Subtotal	\$18,365,487.16
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102-1	Maintenance of Traffic	20.00 %	\$3,673,097.43
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101-1	Mobilization	20.00 %	\$4,407,716.92
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Project Sequences Total	\$26,446,301.51
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Project Unknowns	0.00 %	\$0.00
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Justification for high MOT & Mobilization each increased 10% to account for 20% total
%: project unknowns.

Non-Bid Components:

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY (DO NOT BID)		LS	\$150,000.00	\$150,000.00

Project Non-Bid Subtotal	\$150,000.00
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Version 3 Project Grand Total	\$26,596,301.51
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APPENDIX C

FDOT Transportation Costs Planning Document

Other Roadway Related Costs

Revised August 2007

	Construction Cost From LRE	MOT *	Mobilization (15%)	Subtotal	Scope Contingency (25%)	Total Construction Cost	PE Design (15%)	CEI (15%)	Total Project Cost
Intersection Traffic Signalization (Mast Arm Assembly)**									
2-Lane Roadway Intersecting 2-Lane Roadway	\$186,183	\$27,928	\$32,117	\$246,228	\$61,557	\$307,785	\$46,168	\$46,168	\$400,120
4-Lane Roadway Intersecting 4-Lane Roadway	\$228,106	\$34,216	\$39,348	\$301,670	\$75,417	\$377,087	\$56,563	\$56,563	\$490,214
6-Lane Roadway Intersecting 6-Lane Roadway	\$264,560	\$39,684	\$45,637	\$349,881	\$87,470	\$437,351	\$65,603	\$65,603	\$568,556
Bicycle and Pedestrian Facilities									
Sidewalks Per Mile (5' Width - 1 Side)	\$186,765	\$9,338	\$29,416	\$225,519	\$56,380	\$281,899	\$42,285	\$42,285	\$366,468
Sidewalks Per Mile (6' Width - 1 Side)	\$224,118	\$11,206	\$35,299	\$270,623	\$67,656	\$338,279	\$50,742	\$50,742	\$439,762
Multi-Use Trail Per Mile (12' Width - 1 Side)	\$271,814	\$13,591	\$42,811	\$328,216	\$82,054	\$410,270	\$61,540	\$61,540	\$533,351
Stormwater Retention Facilities									
1 Acre Pond Site (6' Depth)	\$395,634	\$19,782	\$62,312	\$477,728	\$119,432	\$597,160	\$89,574	\$89,574	\$776,308
Median Retrofit									
Convert 14' Center Turn Lane to 14' Raised Median (Per Mile)	\$338,587	\$50,788	\$58,406	\$447,781	\$111,945	\$559,726	\$83,959	\$83,959	\$727,644
Cross Street Improvements									
Widen 1-Leg of Existing Rural 2-Lane Cross Street to Accommodate 2 Receiving Lanes, Dual Left Turn lanes, and Exclusive Right Turn Lane (Approximate Length of 0.25 Miles)	\$1,724,941	\$258,741	\$297,552	\$2,281,234	\$570,308	\$2,851,542	\$427,731	\$427,731	\$3,707,005

* A 15% MOT factor was used for Traffic Signals, Median Retrofit, and Cross Street Improvements. A 5% factor was used for all other figures.

**The cost of traffic signalization assumes the installation of mast arms on all four legs of an intersection. To obtain the cost of signalizing a four-lane roadway intersecting a two-lane roadway, divide the signal cost of a four-lane roadway by two and add this figure to the signal cost of the two-lane roadway divided by two.

Notes:

1. Estimates were derived from FDOT LRE system
2. The figures are based on market costs for Hillsborough County.
3. Costs shown are present day costs.
4. The costs developed for this report are not site-specific and should be used for preliminary estimating purposes only.

Interchange Cost

Revised August 2007

	Construction Cost From LRE	MOT (10%)	Mobilization (10%)	Subtotal	Scope Contingency (25%)	Total Construction Cost	PE Design (15%)	CEI (15%)	Subtotal Project Cost
Single Point Urban Interchange (SPUI)	\$ 36,383,575.03	\$3,638,358	\$4,002,193	\$44,024,126	\$11,006,031	\$55,030,157	\$8,254,524	\$8,254,524	\$71,539,204

Note:

1. Cost was derived from an LRE estimate to modify the existing diamond interchange at I-75/SR 54 to a single point urban interchange.
2. Cost shown is for construction only. Does not include Design, CEI, and right-of-way.

Bridge Cost Per Square Foot

Revised August 2007

	Cost Per Foot	Square
New Construction		
Low Level	\$110	
Mid Level	\$130	
High Level	\$155	
Overpass (Over Roadway)	\$140	
Bascule	\$1,725	
Pedestrian Overpass	\$400	
Widening		
Low Level	\$160	
Mid Level	\$195	
High Level	\$220	
Overpass (Over Roadway)	\$170	
Bridge Removal		
Concrete Bridge	\$50	

Note:

1. Figures are for 2007 construction costs per square foot of deck area.
2. All figures exclude costs for right-of-way, bridge approaches, and approach slabs.
3. Figures account for recent increases in concrete and steel, and the effects of labor and material shortages in the construction industry.
4. The costs developed for this report are not site-specific and should be used for preliminary estimating purposes only.

APPENDIX D

Project Area Photos



Ben T. Davis Beach (West End)



Structure 2 (Looking West)



Beach on Clearwater End of Causeway



Access Road Near Structure 2



Access Road Under Structure 2



Conservation Easement on Pinellas End



Access Road Near Structure 2



Ben T. Davis Beach (Looking East)



Signalization Intersection at Damascus Road



Access Road Southside on Pinellas End



Clearance Under Structure 1



Causeway Looking West



Beach on Pinellas End



Access Road Southside on Pinellas End



Access Road Near Boat Ramp



Beach on Pinellas End



Mangrove Overgrowth on Access Road



Access Road - North Side Hillsborough End



Beach on Pinellas End



Clearance on Structure 2



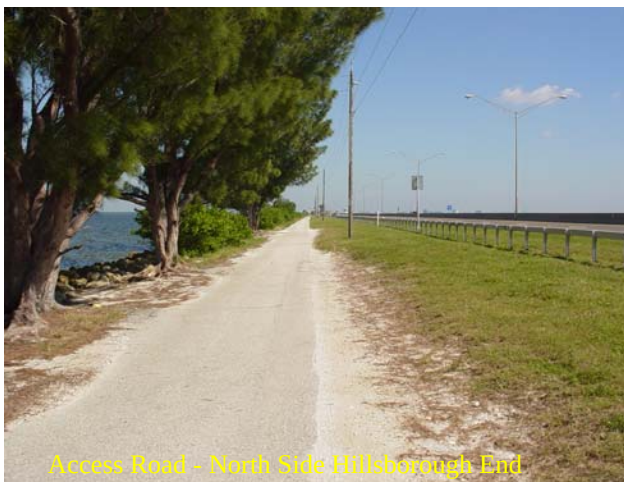
60 MPH Posted Speed



Landscaped Area West of Clearwater Christian College



Clearance on Structure 2



Access Road - North Side Hillsborough End



Conservation Easement Near CCC



Entrance to Clearwater Christian College



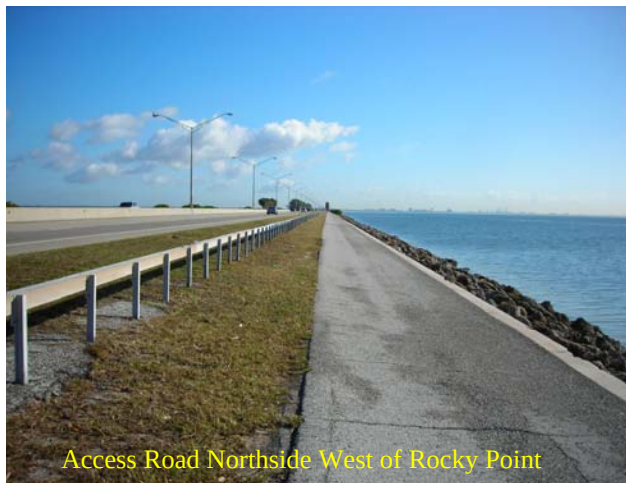
Access Road Return Structures 1 & 2



Looking West Near Rocky Point



Looking East Toward Rocky Point



Access Road Northside West of Rocky Point



Beach Entrance on Pinellas End



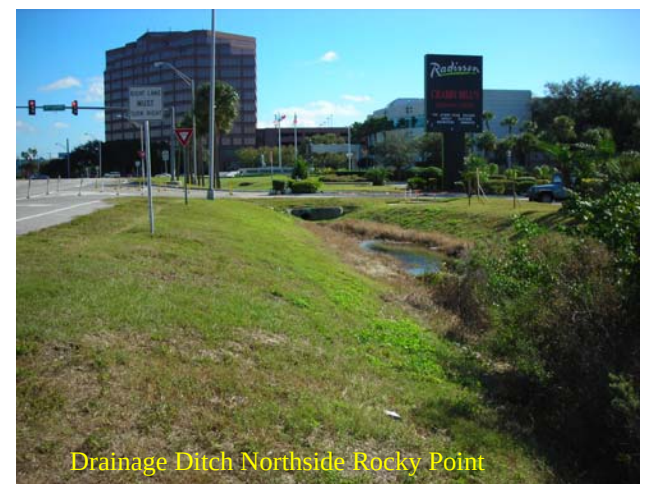
Conservation Easement Near CCC



Access Road Northside West of Rocky Point



Looking West Along Southside Access Road



Drainage Ditch Northside Rocky Point



Access Road Southside Between Structures 1 & 2



Looking East Approaching Rocky Point



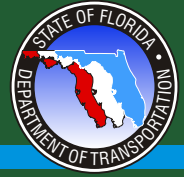
Boat Ramp



Looking West Near Ben T. Davis

APPENDIX E

Project Newsletters, Public Comments



PROJECT SCHEDULE

Activity	Start Date (Approx.)	End Date (Approx.)
Notice to Proceed	June 2007	June 2007
Public Involvement	August 2007	May 2008
Public Workshop	March 2008	March 2008
Study Complete	June 2008	June 2008
Newsletter (1st)	September 2007	September 2007
Newsletter (2nd)	January 2008	January 2008



COURTNEY CAMPBELL
CAUSEWAY

FLORIDA DEPARTMENT OF TRANSPORTATION
District Seven
11201 N. McKinley Drive, MS 7-500
Tampa, Florida 33612

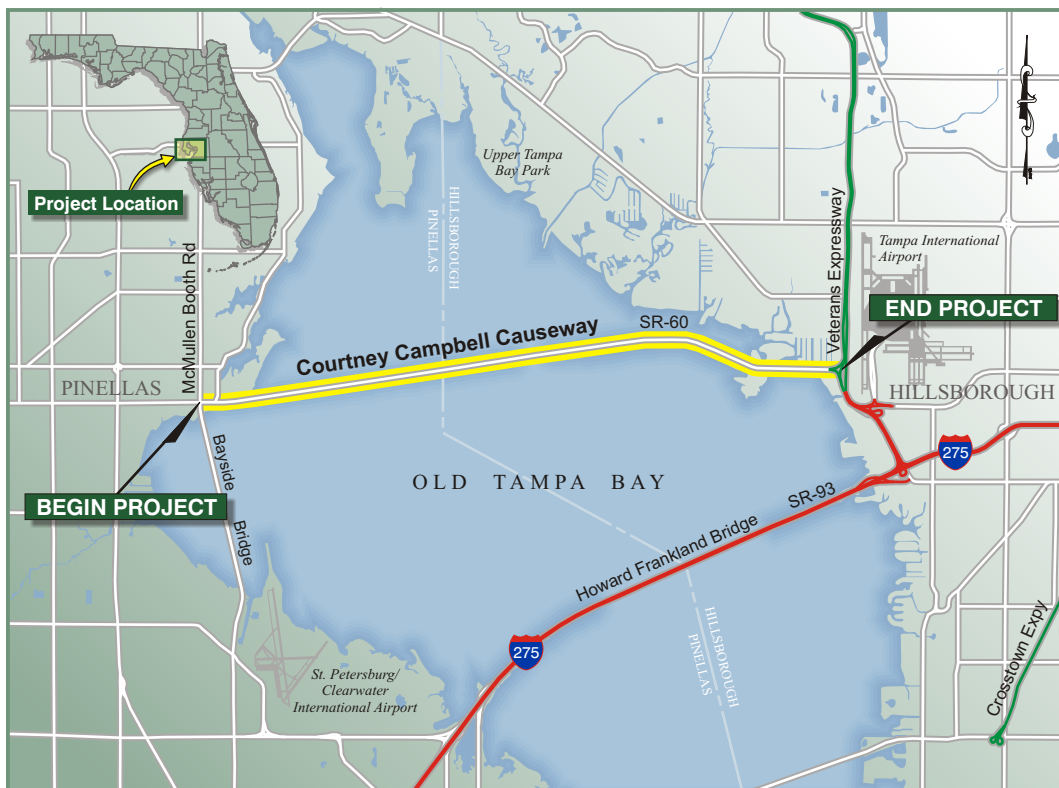
MAILING LIST:

We encourage everyone to participate in this study and invite your comments and questions. If you received this newsletter in the mail, then you are already on the project mailing list. If you would like your name added to the mailing list please contact:

Florida Department of Transportation

Gabor Farkasfalvy
FDOT Project Manager
11201 N. McKinley Drive,
MS 7-500
Tampa, Florida 33612
Phone: (813) 975-6455
Email: gabor.farkasfalvy@dot.state.fl.us

Or,
Marian Scorza, FDOT
Public Information Officer
11201 N. McKinley Drive
MS 7-100
Tampa, Florida 33612
Phone: (800) 226-7220
Phone: (813) 975-6038
Email: marian.scorza@dot.state.fl.us



Project Location Map

FLORIDA DEPARTMENT OF TRANSPORTATION
District Seven
11201 N. McKinley Drive, MS 7-500
Tampa, Florida 33612



Project and Meeting Location Map



Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

Persons who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Gabor Farkasfalvy at 813-975-6455 at least seven days prior to the meeting.

YOUR COMMENTS ARE IMPORTANT TO US

We encourage your participation in this study for the SR 60 Courtney Campbell Causeway Multi-Use Trail. If you wish to discuss any issues related to this project, schedule a small group meeting, or add your name to the mailing list,

Please contact:

Florida Department of Transportation

Gabor Farkasfalvy
Project Manager
11201 N. McKinley Drive,
MS 7-500
Tampa, Florida 33612
Phone: (813) 975-6455
Email: gabor.farkasfalvy@dot.state.fl.us

or

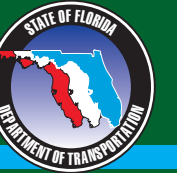
Marian Scorza
Public Information Officer
at 813-975-6038
or email: marian.scorza@dot.state.fl.us

¿Tiene mas preguntas o necesita más Información?
Por favor, comuníquese con Ricardo Feliciano, Relacionista Gubernamental.
Llamando al 813-975-6421 ó 800-226-7220.
Comuníquese por correo electrónico:
ricardo.feliciano@dot.state.fl.us

SR 60

Courtney Campbell Causeway

Multi-Use Trail Study
from McMullen Booth Road to
Veterans Expressway
Pinellas and Hillsborough Counties



WPI: 422640 1, FAP: 9045-090-C

EDITION 2 - ALTERNATIVES PUBLIC MEETINGS
April 2008

Alternatives Public Meetings Scheduled

Dear Property Owner or Interested Citizen:

You are invited to attend and participate in this multi-use trail study workshop at either or both of the following public meetings to view materials showing various alternatives regarding this study of a Multi-Use Trail along the Courtney Campbell Causeway. The public meetings will be held:

Date: May 19, 2008

Time: 6:00 p.m. to 8:00 p.m.

Place: Westshore Plaza
250 Westshore Plaza
Tampa, Florida

and

Date: May 22, 2008

Time: 6:00 p.m. to 8:00 p.m.

Place: Clearwater Christian College, Bldg. D
3400 Gulf to Bay Boulevard
Clearwater, Florida

At these informal public meetings, trail alternative displays will be available for viewing. Department representatives will be available to answer questions and discuss the study. The Project Concept Summary Report developed for the study will be available for review at the public meetings and at the Florida Department of Transportation District Seven Offices, 11201 N. McKinley Drive, Tampa between May 1, 2008 and June 2, 2008.

You may provide written comments by completing the enclosed comment form that can be dropped in the comments box at either of the public meetings. You may also mail your comments to the address preprinted on the back of the form postmarked no later than June 2, 2008. Or you may email comments to robert.clifford@dot.state.fl.us

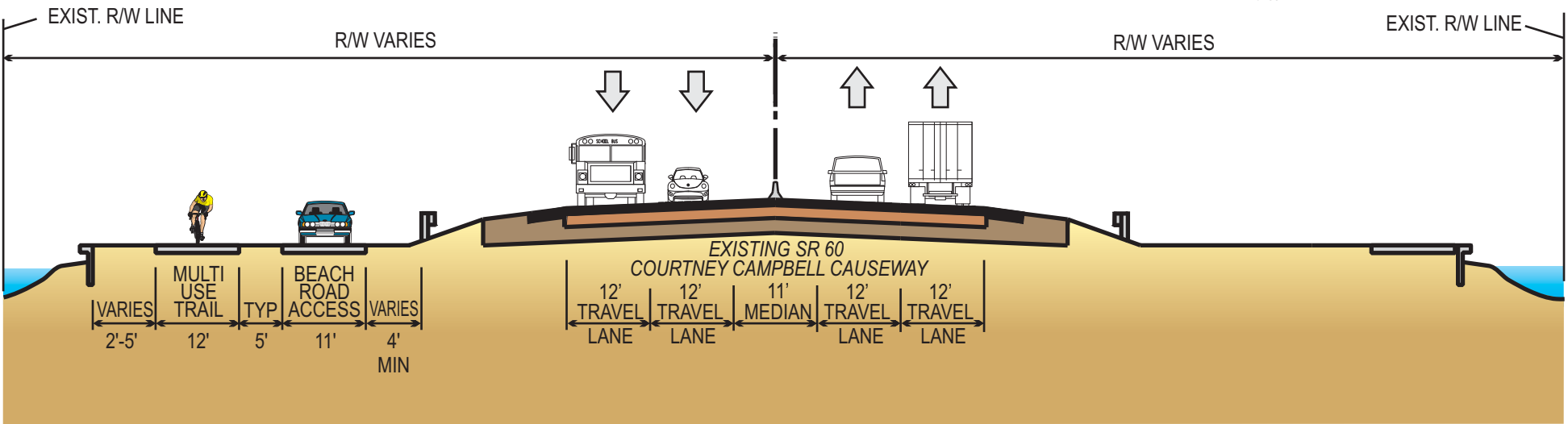
This newsletter serves as notice to property owners (pursuant to Florida Statutes 339.155) that all or a portion of their property is located within 300 feet of the centerline of the proposed project. However, this does not mean that all properties would be directly affected. After comments are received and reviewed, the Project Concept Summary Report will be finalized and will present the recommended alternative(s). There is no Right-of-Way acquisition anticipated for this project.

Project Description and Need

The project proposed is a multi-use trail that will be constructed along Courtney Campbell Causeway from the area near the proposed Bayshore Trail extension in Pinellas County (Bayshore Boulevard at SR 60) to the Trail eastern end point at the sidewalk/multi-use path currently under construction as a part of the Tampa Airport Interchange project in Hillsborough County. The project length is approximately eight miles. The proposed facility is intended for bicycle, pedestrian, and other recreational users thereby providing alternate modes of transportation.

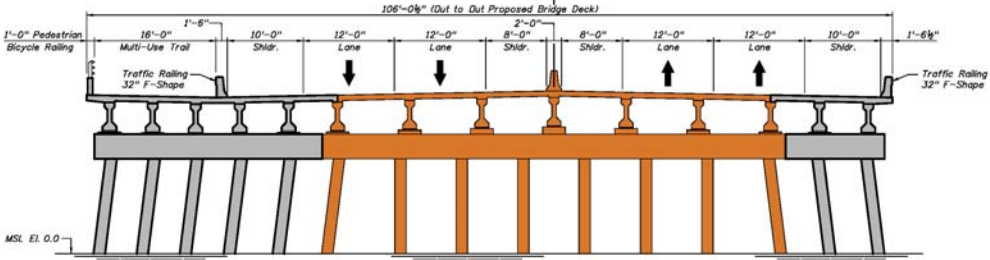
This portion of SR 60 is on the Regional Trail Map/Network and has been prioritized by the West Central Florida Chairs Coordinating Committee and supported by Courtney Campbell Causeway Scenic Highway Committee. The proposed Courtney Campbell Causeway trail would provide currently unavailable links for local and regional non-motorized trips. Both ends of this project would connect directly to other trail facilities.

Current Conditions and Study Alternatives

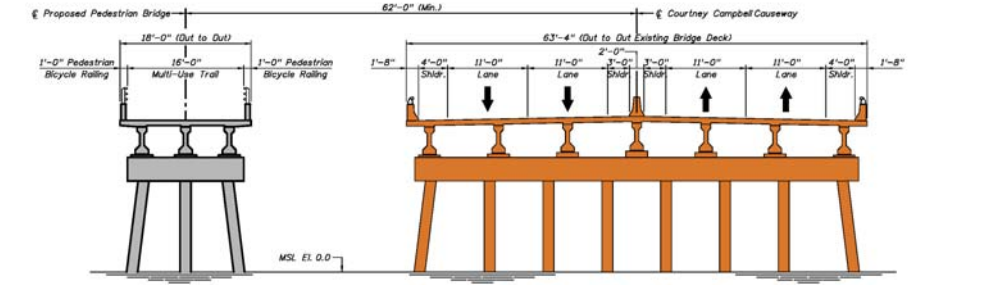


MULTI-USE TRAIL TYPICAL SECTION
ALTERNATIVES N1 and N2

TRAIL ON THE NORTH SIDE



STRUCTURE WIDENING ALTERNATIVE N1



INDEPENDENT STRUCTURE ALTERNATIVE N2

TRAIL ALTERNATIVES

This Study includes the evaluation of four alternatives. The trail alternatives are located on the north or south side of the Causeway and include either one of two possible bridge alternatives. The bridge alternatives are either bridge widening of the existing structures or independent new bridge structures. Aerial maps of the alternatives and cross sections will be on display at the public meetings.

ESTIMATED PROJECT COSTS				
Today's \$\$ shown in millions				
Four Trail Alternatives				
	N1	N2	S1	S2
Trail Construction Cost	\$ 22.0	\$ 14.7	\$ 23.9	\$ 16.6
Structures (Bridges) Construction Cost	\$ 26.6	\$ 10.0	\$ 26.6	\$ 10.0
SUBTOTAL CONSTRUCTION COST	\$ 48.6	\$ 24.7	\$ 50.5	\$ 26.6
Engineering Cost (10% of const.)	\$ 4.9	\$ 2.5	\$ 5.1	\$ 2.7
Const. Eng. & Inspection (15% of const.)	\$ 7.3	\$ 3.7	\$ 7.6	\$ 4.0
TOTAL PROJECT COST	\$ 60.8	\$ 30.9	\$ 63.2	\$ 33.3

FOUR TRAIL ALTERNATIVES

ALTERNATIVE N1

This alternative includes the trail on the north side of the Causeway and the Structures Widening Option for Structures 1, 2 and 3.

ALTERNATIVE S1

This alternative includes the trail on the south side of the Causeway and the Structures Widening Option for Structures 1, 2 and 3.

ALTERNATIVE N2

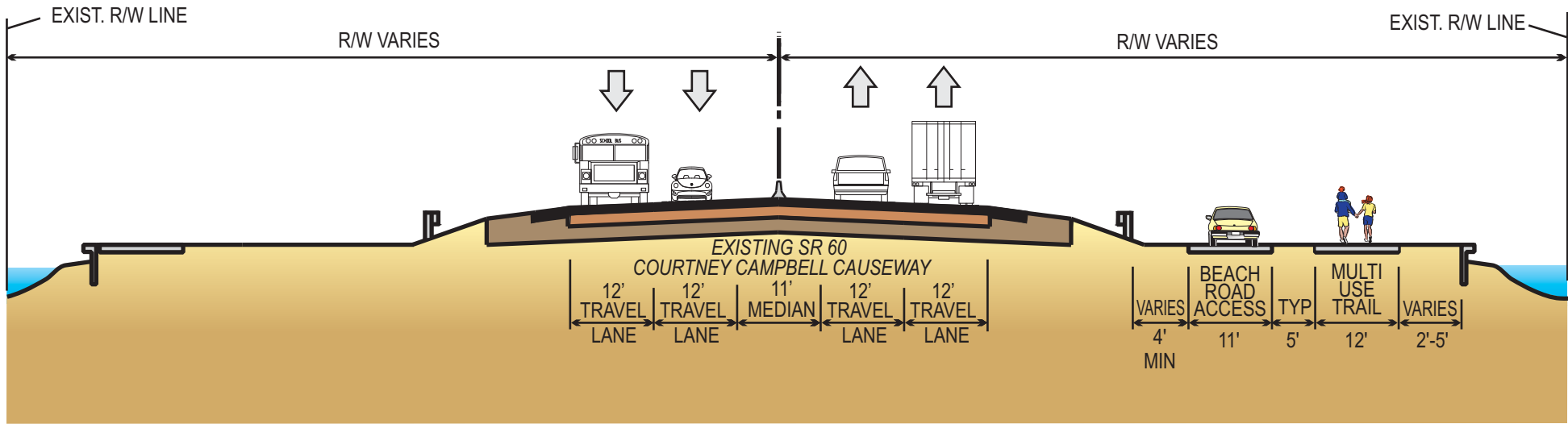
This alternative includes the trail on the north side of the Causeway and the Independent Structural Option for Structures 1, 2 and 3.

ALTERNATIVE S2

This alternative includes the trail on the south side of the Causeway and the Independent Structural Option for Structures 1, 2 and 3.

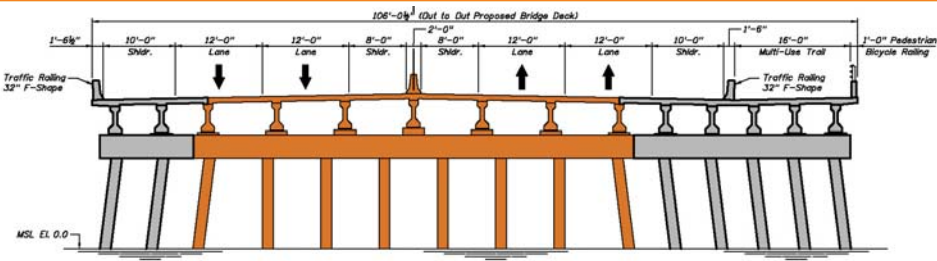
CURRENT CONDITIONS
OF SR 60 COURTNEY CAMPBELL CAUSEWAY

In addition to the SR 60 vehicle roadway, there are segments of service roads that run parallel to the coastline of Old Tampa Bay along the Causeway. Not all segments of these service roads currently allow vehicular access. Those that do, accommodate access for sight-seeing, fishing, and general recreation. In some segments of the Causeway the access roads are not continuous. The various segments of access roads are found on both the north and south shores. As part of the Study, options are being explored for using these segments of access roads for the proposed multi-use trail.

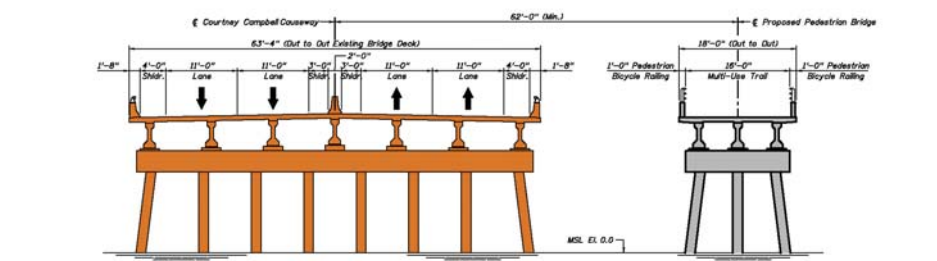


MULTI-USE TRAIL TYPICAL SECTION
ALTERNATIVES S1 and S2

TRAIL ON THE SOUTH SIDE



STRUCTURE WIDENING ALTERNATIVE S1



INDEPENDENT STRUCTURE ALTERNATIVE S2

**SR 60 (Courtney Campbell Causeway) Multi-Use Trail
Feasibility Study
Summary of Comments Recieved**

WPI No. 422640 1
FAP No.: 9045-090-C
June 2008

NAME	MEETING DATE	COMMENT NO.	FOR / AGAINST PROJECT	PREFERRED ALTERNATIVE / OPTION	AFFILIATION	RESPONSE REQUIRED
Paul W. Allaert	5/22/2008	1	N/A	N/A	Citizen	NRN
Bill Jonson, Chair	5/22/2008	2	For	S3	CCSH Corridor Advisory Committee	RR
John Doran	5/22/2008	3	For	S3	Clearwater City Council	RR
Sandy Fussell	5/22/2008	4	N/A	N/A	Citizen	RR
Karen Palus, Director	5/22/2008	5	For	N/A	Tampa Parks & Recreation Department	RR
Robert H. Anderson	5/22/2008	6	N/A	N/A	Citizen	NRN
Art Hays	5/22/2008	7	For	N2* or S2	Citizen	NRN
Michael Kirkpatrick	5/22/2008	8	For	N2	Citizen	NRN
James Richter	5/22/2008	9	For	S3	Citizen/Bicycle Advisory Committee for MPO	RR
Dennis Krohn	5/22/2008	10	For	N2* or S2	Citizen	NRN
Geri Doherty	5/22/2008	11	For	N/A	Citizen	NRN
Ana E. & Ronald W. Tydings	5/22/2008	12	For	N2	Citizens	NRN
William Murphy	5/22/2008	13	For	S1* or S2	Citizen	NRN
Andre' Dervaes	5/22/2008	14	For	S2	Citizen	NRN
Bert Valery	5/22/2008	15	For	N2 or S2	Citizen	NRN
Daughters of Confederacy	5/22/2008	16	N/A	N/A	Daughters of the Confederacy	RR
Felicia Leonard	5/22/2008	17	For	S3	CCSH Corridor Advisory Committee	RR
D. Marino	5/19/2008	18	Against	N/A	Citizen	NRN
Javier Guzman	5/19/2008	19	N/A	N/A	Citizen	NRN
Larry Mize	5/19/2008	20	For	N/A	Citizen	NRN
Unknown	5/19/2008	21	N/A	N/A	Unknown	NRN
Andrew Futa	5/19/2008	22	Against	N/A	Citizen	NRN
Suzanne Cooper	5/19/2008	23	N/A	N/A	Tampa Bay Regional Planning Council	RR

call also - left message 6/23/08

* Liked both, but if had to pick one (*) indicates which one they would pick

APPENDIX F

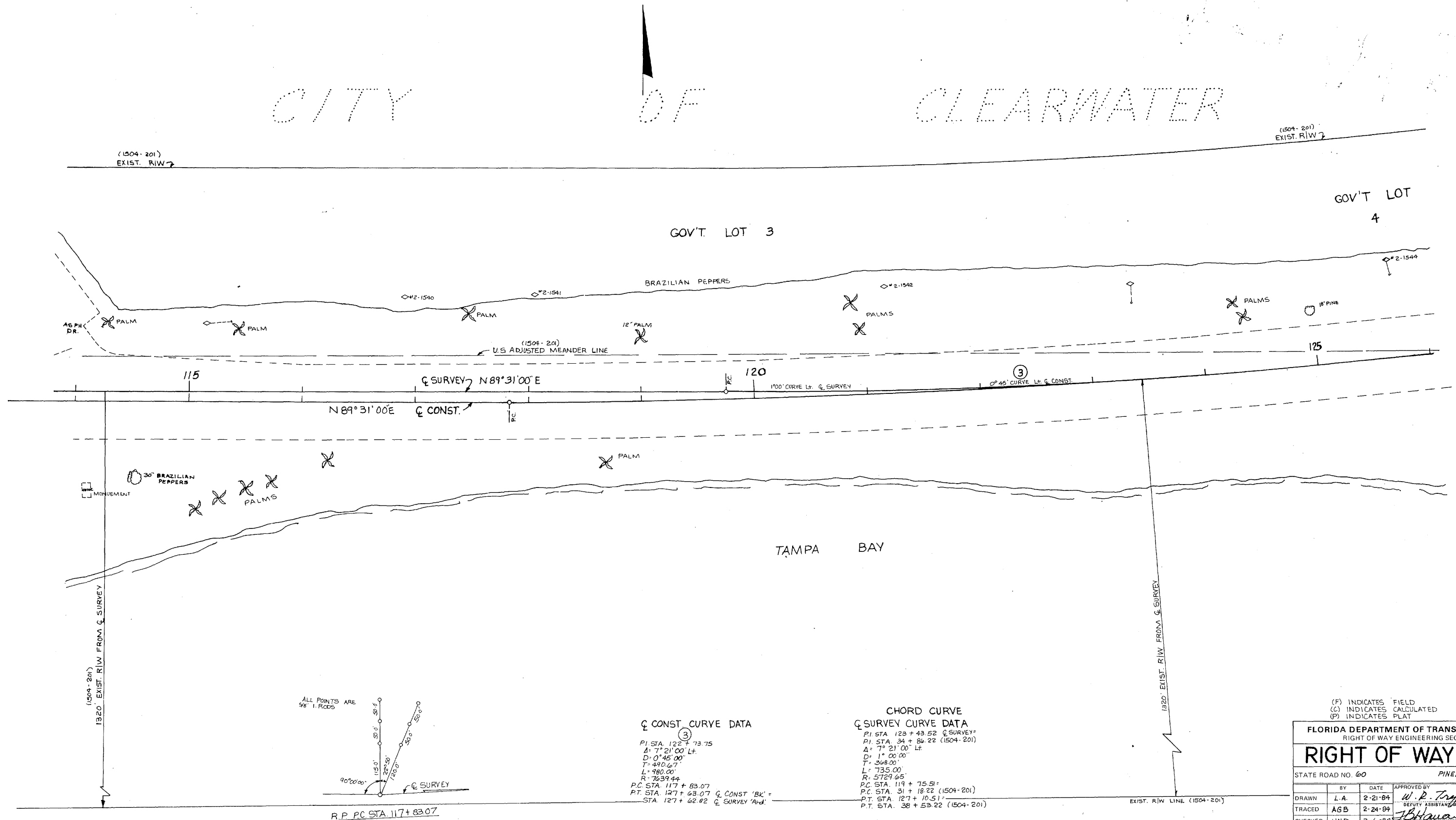
Right-of-Way Maps

SEC. 16
TWP. 29 S ~ RGE. 16 E

CITY

OF

CLEARWATER



(F) INDICATES FIELD
(C) INDICATES CALCULATED
(P) INDICATES PLAT

FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY ENGINEERING SECTION			
RIGHT OF WAY MAP			
STATE ROAD NO. 60		PINELLAS COUNTY	
BY	DATE	APPROVED BY	DATE
DRAWN L.A.	2-21-84	W. P. Trufy, Jr.	
TRACED AGB	2-24-84	DEPUTY ASSISTANT ENGINEER	
CHECKED JWD	3-6-84	ADJ. OF RIGHT OF WAY SURVEYING AND MAPPING	
MAPS PREPARED BY FIRST DISTRICT		FIELD BOOK NO'S 029349, 029351, 029338 11/85	
W.P.I. NO. 1116543		SCALE 1" = 40'	
REVISION	BY	DATE	SECTION 15040 (2517) 2522 SHEET 10

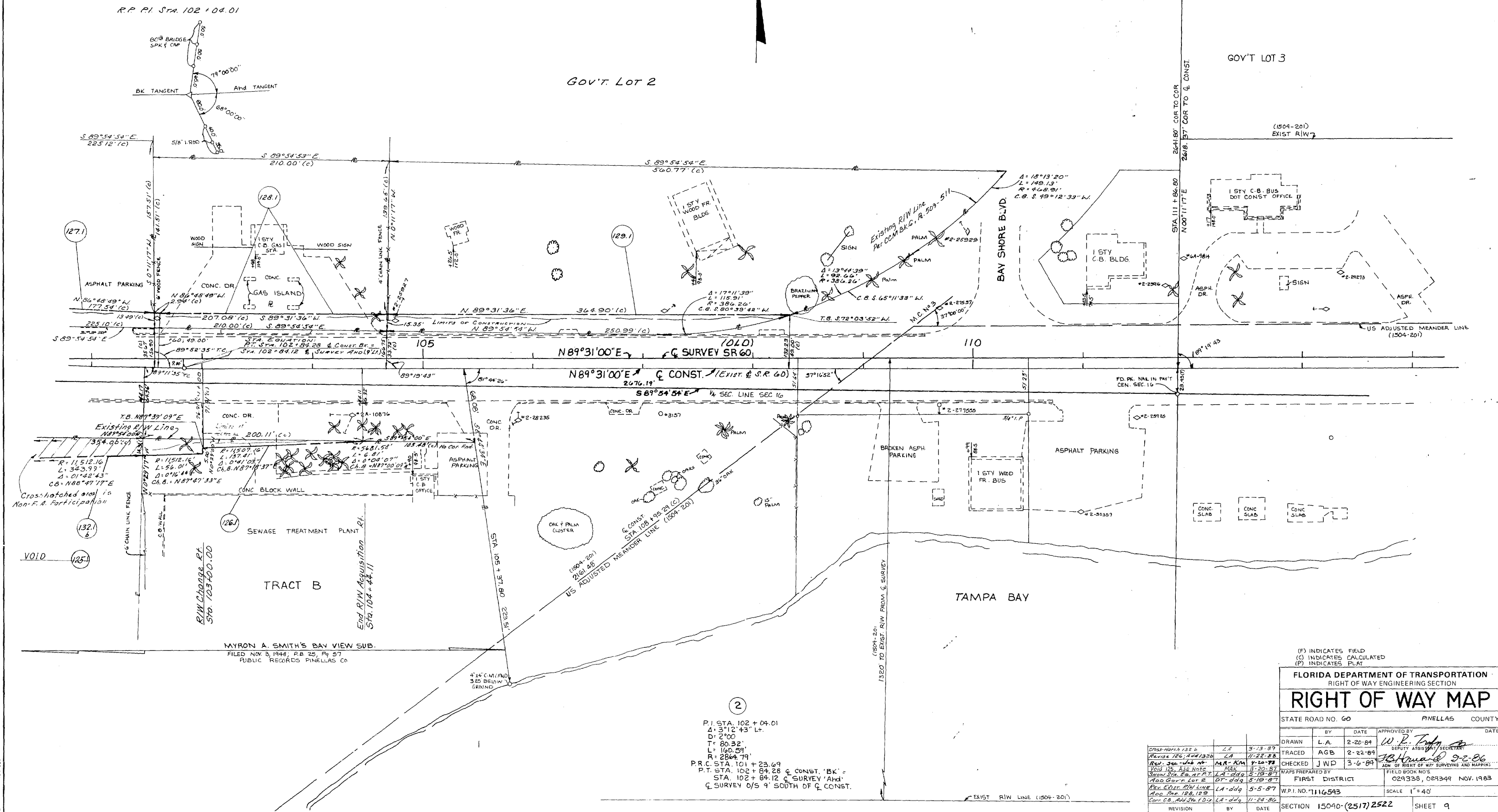
SEC. 16
TWP. 29 S ~ RGE. 16 E

CITY OF CLEARWATER

GOV'T LOT 2

GOV'T LOT 3

(1504-201)
EXIST RIW



(F) INDICATES FIELD
(C) INDICATES CALCULATED
(P) INDICATES PLAT

FLORIDA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY ENGINEERING SECTION

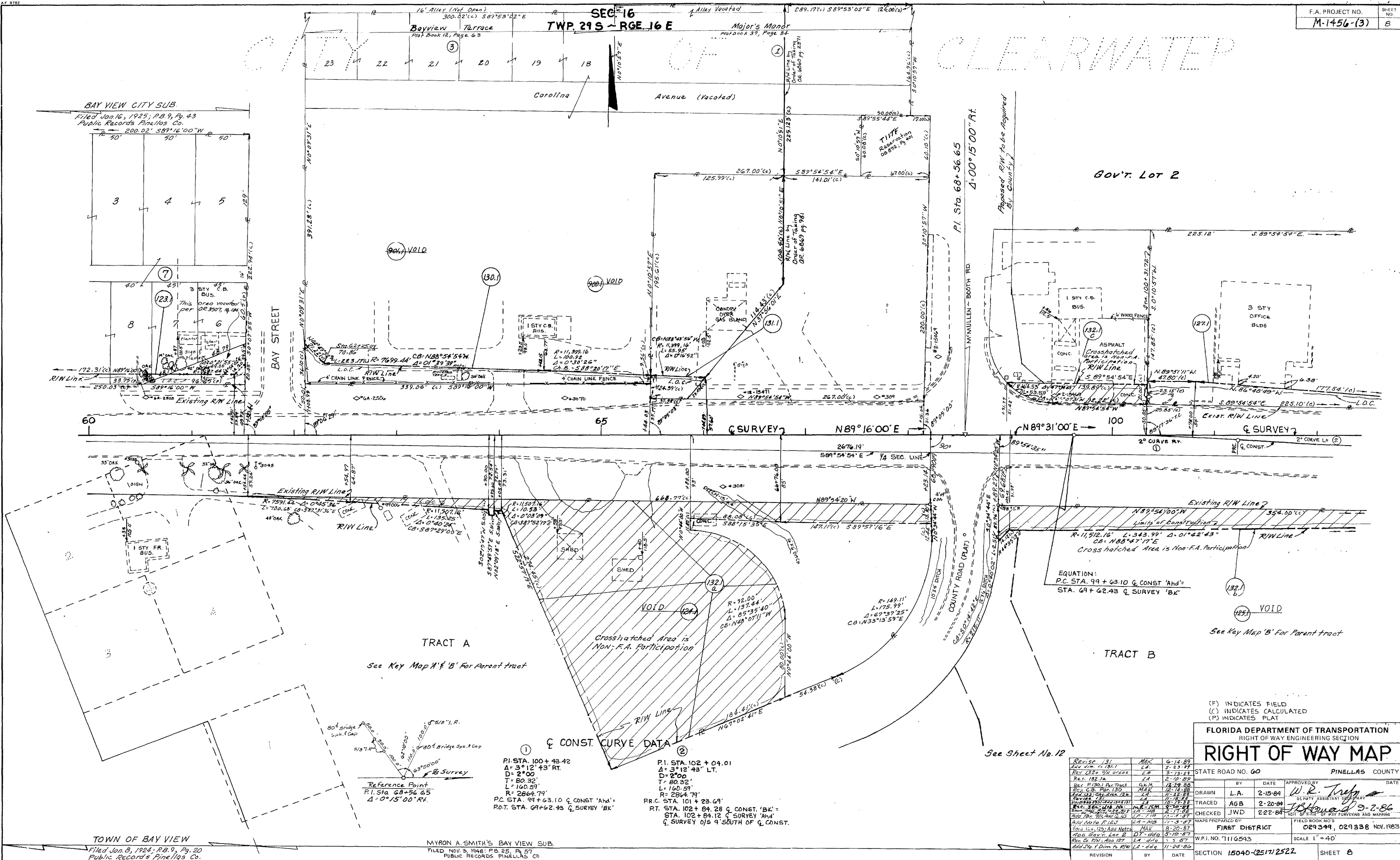
RIGHT OF WAY MAP

STATE ROAD NO. 60 PINELLAS COUNTY

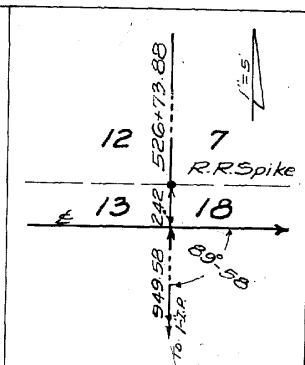
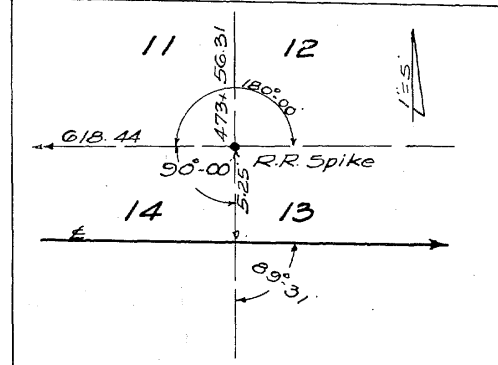
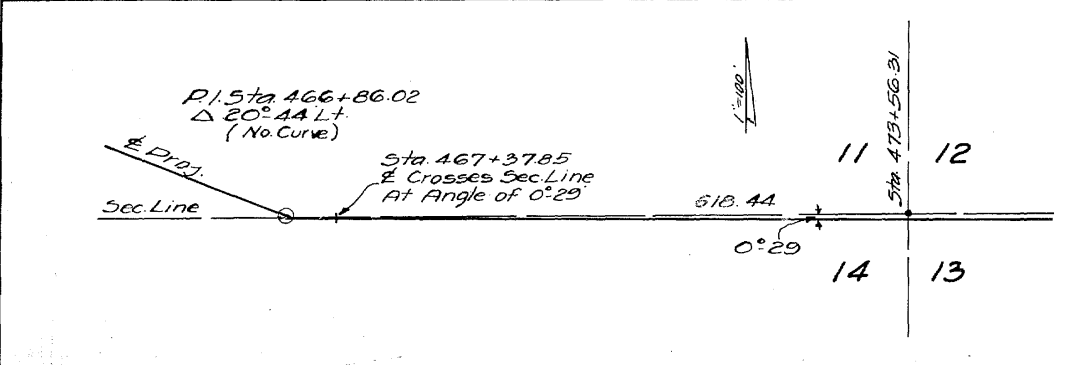
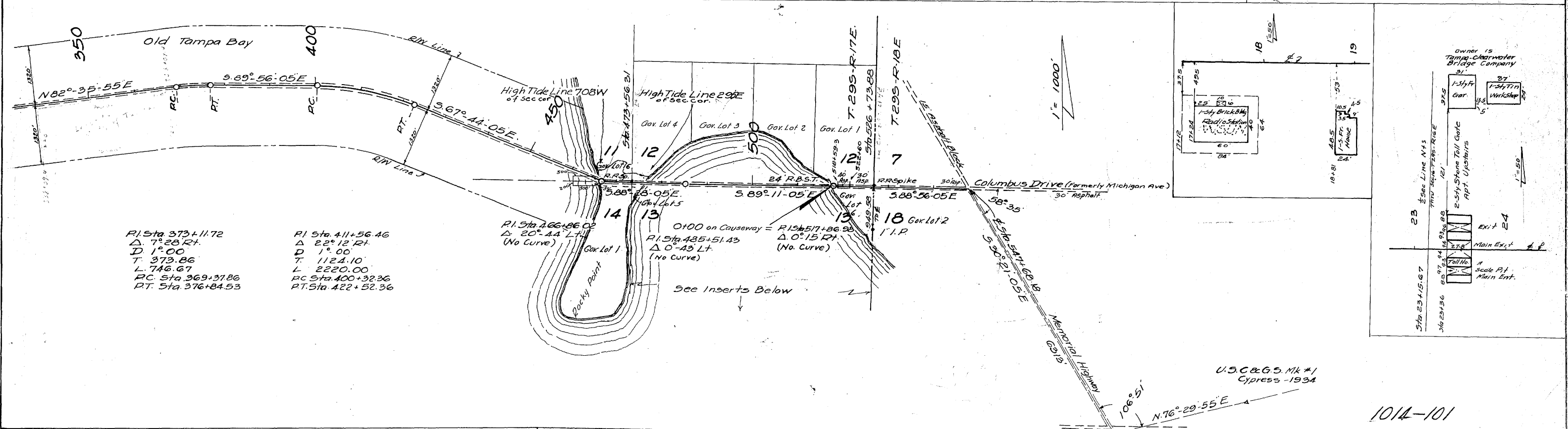
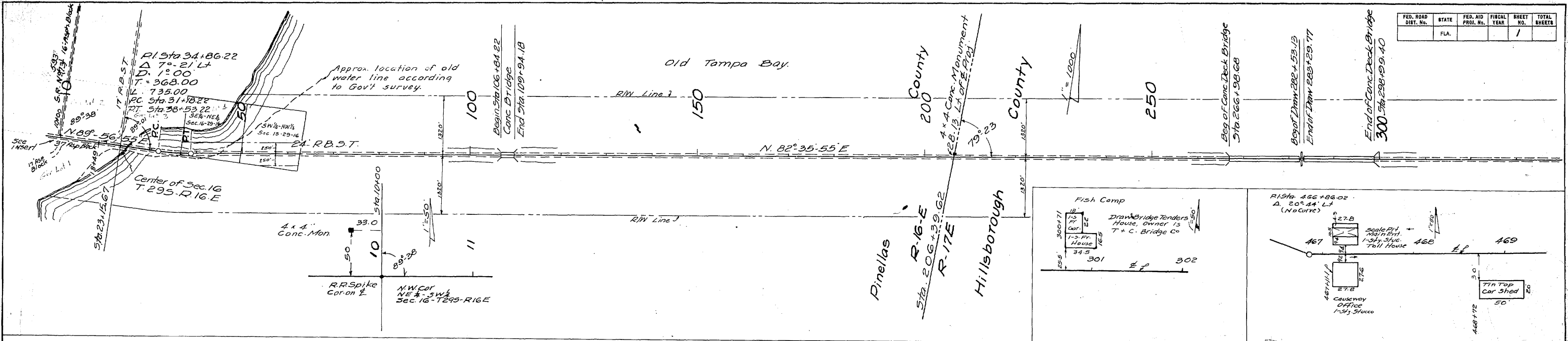
DRAWN	BY	DATE	APPROVED BY	DATE
L.A.	L.A.	2-20-89	W. R. T. [Signature]	
TRACED	AGB	2-22-89	DEPUTY ASSISTANT SECRETARY	
CHECKED	JWD	3-6-89	J. B. [Signature]	9-2-86
MAPS PREPARED BY			FIELD BOOK NO. 029338, 029349 NOV. 1983	
FIRST DISTRICT			W.P.I. NO. 7116543	
SECTION 15040-(2517) 2522			SHEET 9	

2
P.I. STA. 102 + 04.01
Δ: 3°12'43" Lt.
D: 2100'
T: 80.32'
L: 160.59'
R: 2864.79'
P.R.C. STA. 101 + 23.69
P.T. STA. 102 + 84.28 Q CONST. 'BK' =
STA. 102 + 84.12 Q SURVEY 'Ahd'
Q SURVEY 0/5 9' SOUTH OF Q CONST.

REVISION	BY	DATE
CRS. 10/1/89	LA	3-13-89
REVISE 10/1/89	LA	11-22-88
REV. 300-10/1/89	LA	1-10-89
VOID 10/1/89	LA	1-10-89
STATION 100-10/1/89	LA	5-18-87
ADD GOV'T LOT 2	DT	5-18-87
REV. EXIST RIW LINE	LA	5-5-87
ADD P.R. 100-10/1/89	LA	11-24-86
CON. CB. 100-10/1/89	LA	11-24-86



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	FLA.			1	



1014-101
HILLSBOROUGH & PINELLAS COUNTIES
PROJ. 6110 State Road 509

STATE OF FLORIDA New Rd. 60
STATE ROAD DEPARTMENT Sh. 1
RIGHT OF WAY MAP
DAVIS CAUSEWAY

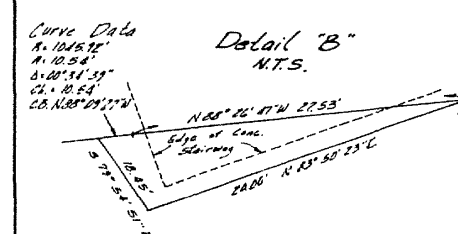
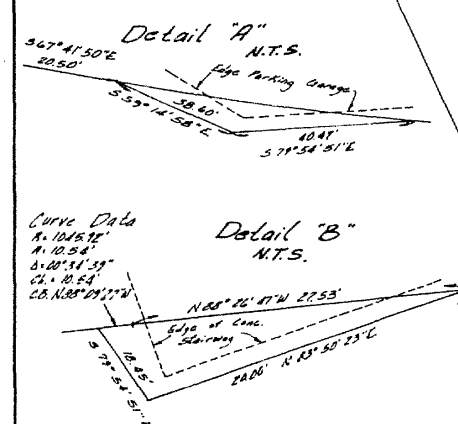
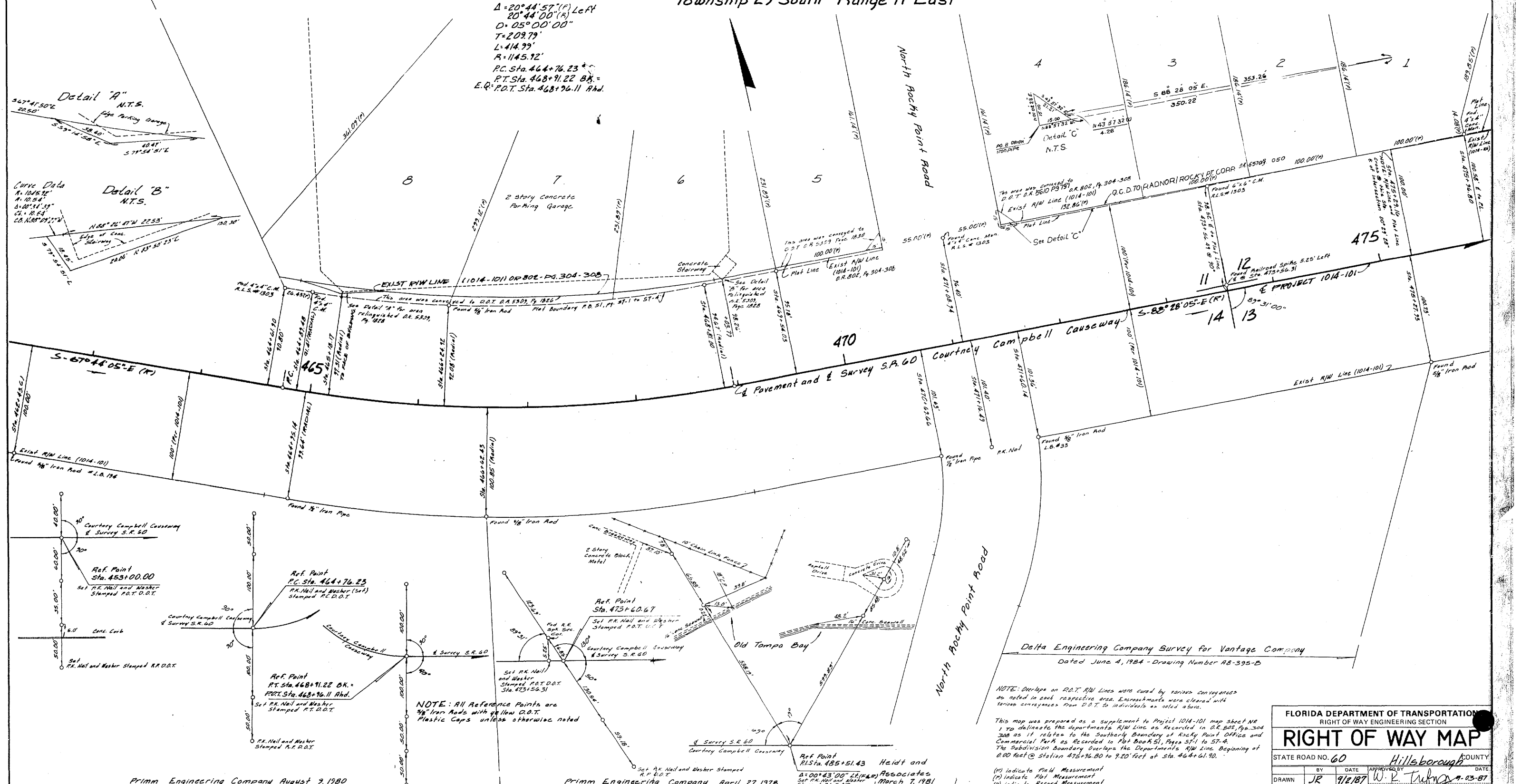
Names	Dates	Approved by
Designed		
Drawn	E.E.I. 4-9-43	Division Engineer
Traced	E.E.I. 4-10-43	State Highway Engineer
Checked	J.C. 4-10-43	Drawing
Revised	5-22-48	10

Rocky Point Office and Commercial Park

Filed JULY 28, 1980 ; Plat Book 51, Page 57-1 to 57-4 Hillsborough County Records

Township 29 South - Range 17 East

Curve Data
 P.I. Sta. 466+86.02
 $\Delta = 20^\circ 44' 57''$ (F) Left
 $20^\circ 44' 00''$ (R)
 $D = 05^\circ 00' 00''$
 $T = 209.79'$
 $L = 414.99'$
 $R = 1145.92'$
 P.C. Sta. 464+76.23
 P.T. Sta. 468+91.22 B.K.
 E.Q. P.O.T. Sta. 468+96.11 Rhd.



NOTE: Overlaps on P.O.T. R/W Lines were cured by various conveyances as noted in each respective area. Encroachments were cleared with various conveyances from D.O.T. to individuals as noted above.

This map was prepared as a supplement to Project 1014-101 map sheet No. 1 to delineate the department's R/W Line as Recorded in D.R. 802, Pg. 304-308 as it relates to the Southern Boundary of Rocky Point Office and Commercial Park as Recorded in Plat Book 51, Pages 57-1 to 57-4. The Subdivision Boundary Overlaps the Department's R/W Line Beginning at 0.00 feet @ Station 475+96.80 to 9.20 feet at Sta. 464+61.90.

(F) indicate Field Measurement
 (P) indicate Plot Measurement
 (R) indicate Record Measurement
 (C) indicate Calculated Measurement
 (D) indicate Deed Measurement

NOTE:
 DEPARTMENTS HAVE BASED ON PROJ. 1014-101
 STA. 468+96.11 TO STA. 485+51.43 BEARING
 $6^\circ 28' 28''$ E OF SURVEY HAS ESTABLISHED ON R/W PROJ. 1014-101 AND THE HISTORICAL SURVEY DATA THAT MAP WAS PREPARED FROM.

FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY ENGINEERING SECTION			
RIGHT OF WAY MAP			
STATE ROAD NO. 60		Hillsborough COUNTY	
BY	DATE	APPROVED BY	DATE
DRAWN JR	9/2/87	W. R. Tufner	9-23-87
TRACED JR	9/2/87	DEPUTY ASST. SURVEYOR	
CHECKED JRB	9/2/87		
MAPS PREPARED BY		FIELD BOOK NO. 29984, 004213	
First District			
W.P.I. NO.	7113331	SCALE	1" = 40'
SECTION	1014 D- 101	SHEET	7

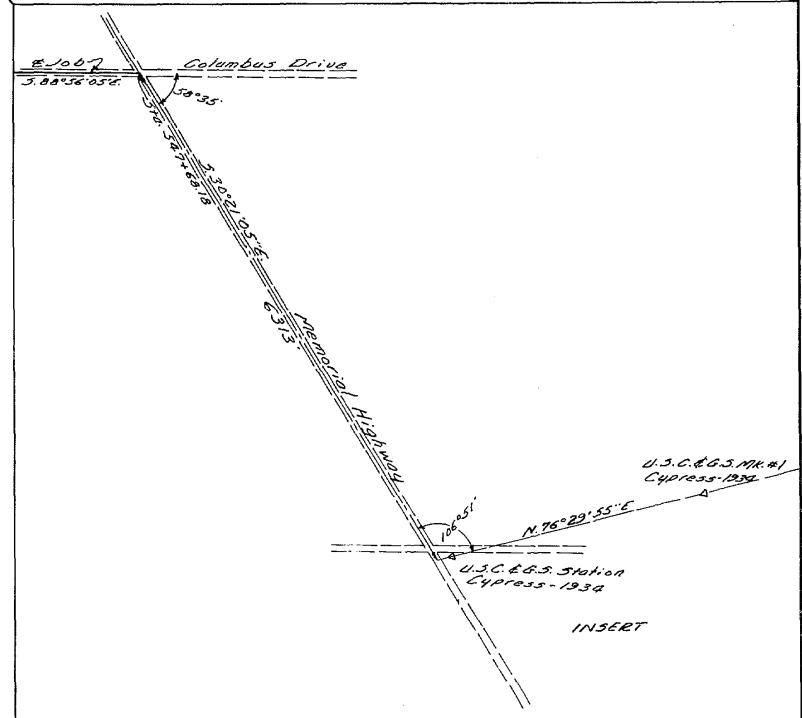
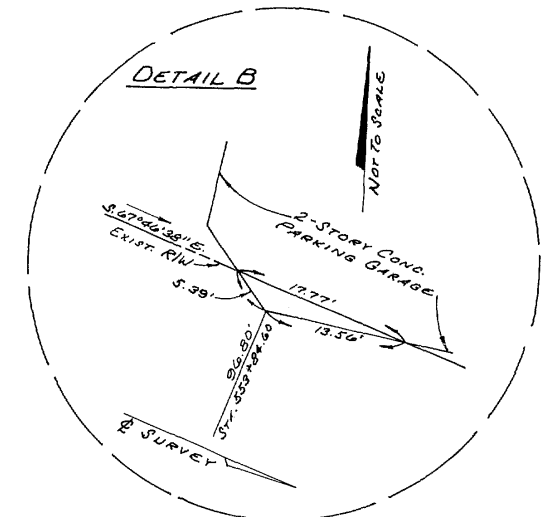
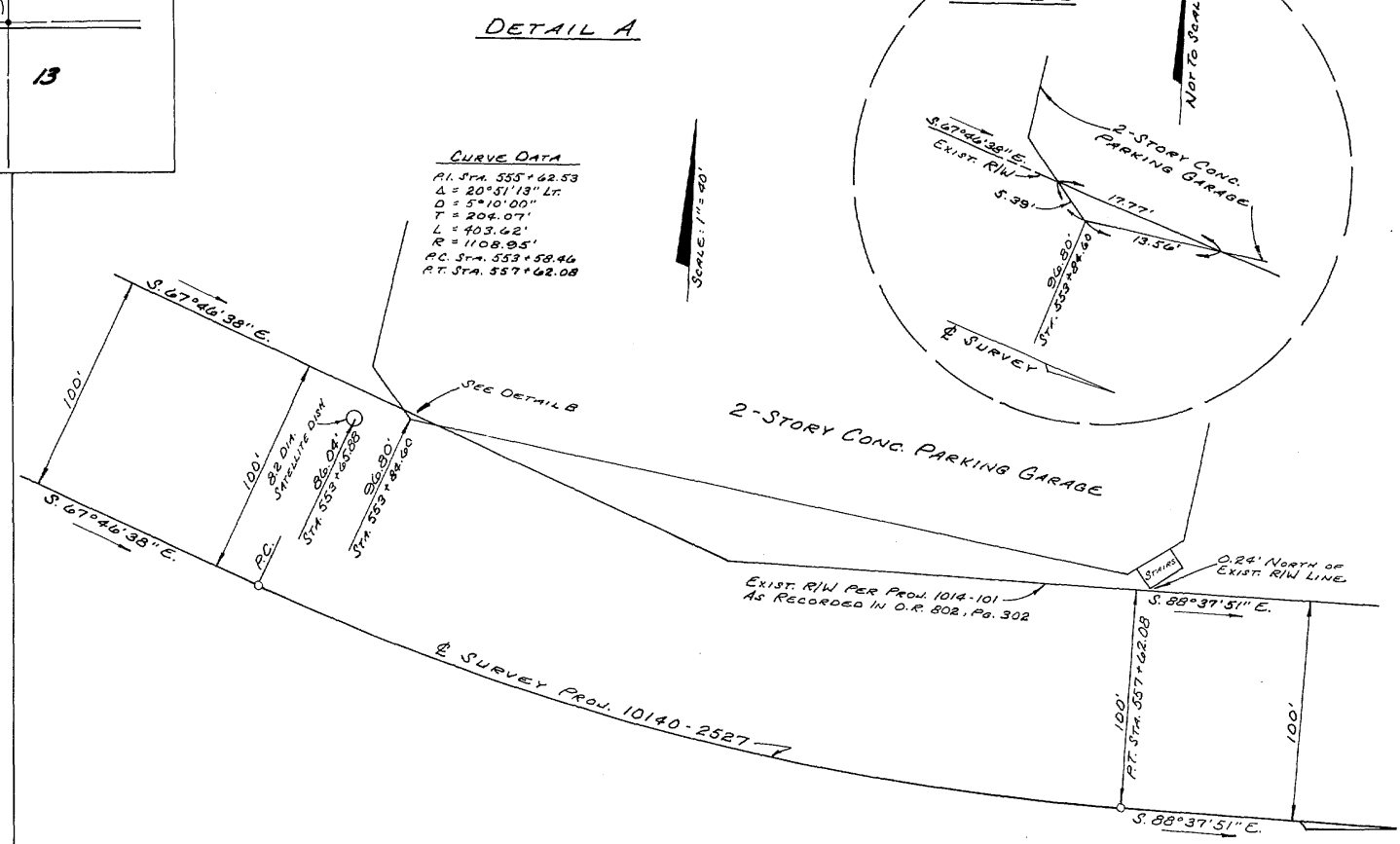
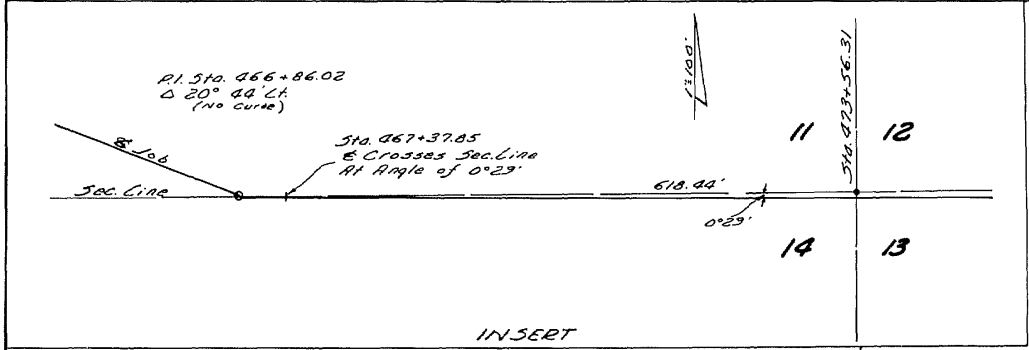
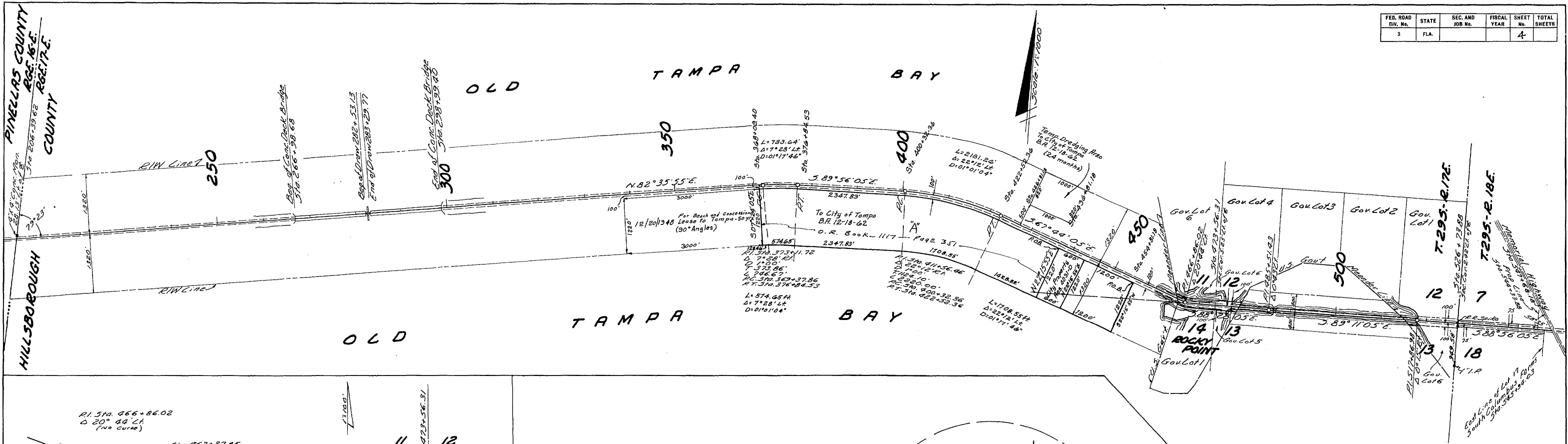
Primm Engineering Company August 9, 1980

Primm Engineering Company April 27, 1978

81-063

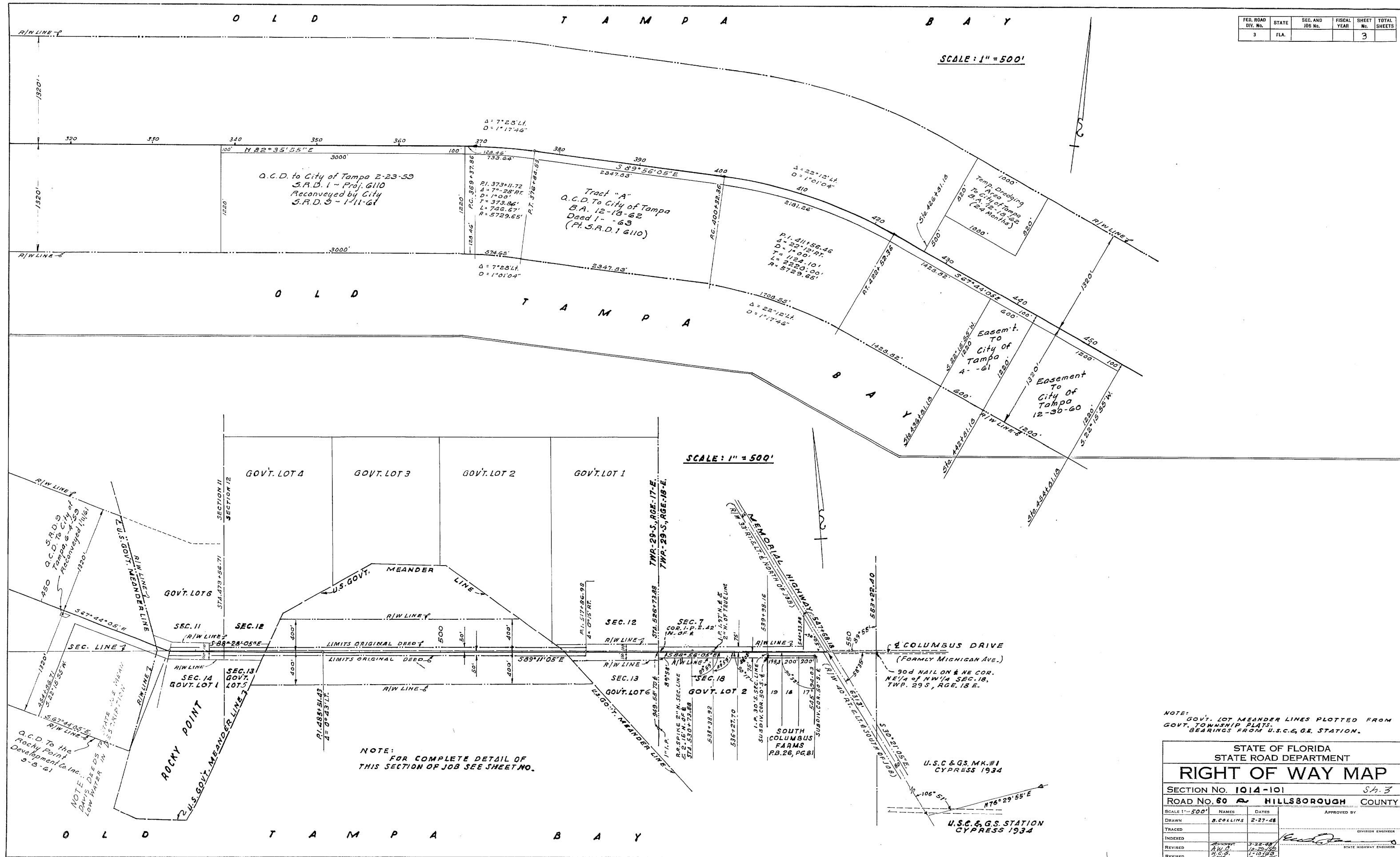
PINELLAS COUNTY
HILLSBOROUGH COUNTY
REG. 165
REG. 172

FED. ROAD DIV. No.	STATE	SEC. AND JOB No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
3	FLA.			4	

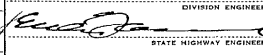


STATE OF FLORIDA STATE ROAD DEPARTMENT			
RIGHT OF WAY MAP			
SECTION NO. 1014		Sh. 4	
ROAD NO. 60		Hillsborough County	
SCALE 1" =	NAME	DATE	APPROVED BY
DRAWN			
TRACED	J.H.P.	3-22-68	
INDEXED			
REVISION	J.H.P.	10-8-61	
BY	J.H.P.	1-10-63	
DATE			
REVISION			

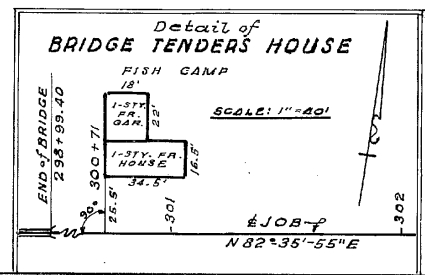
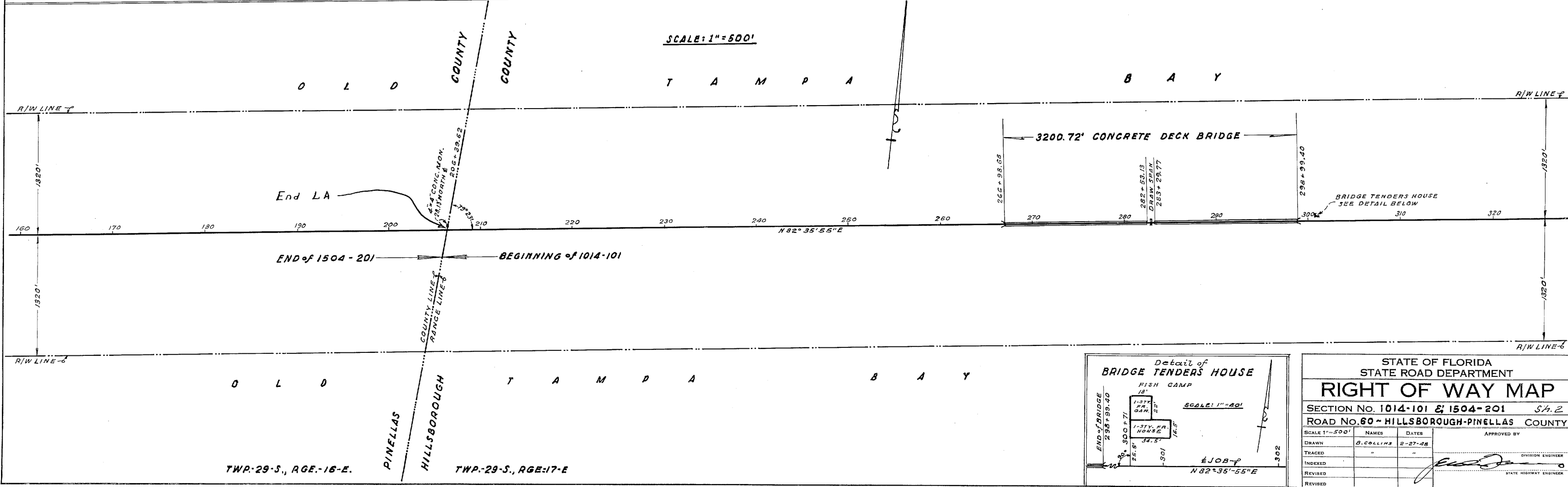
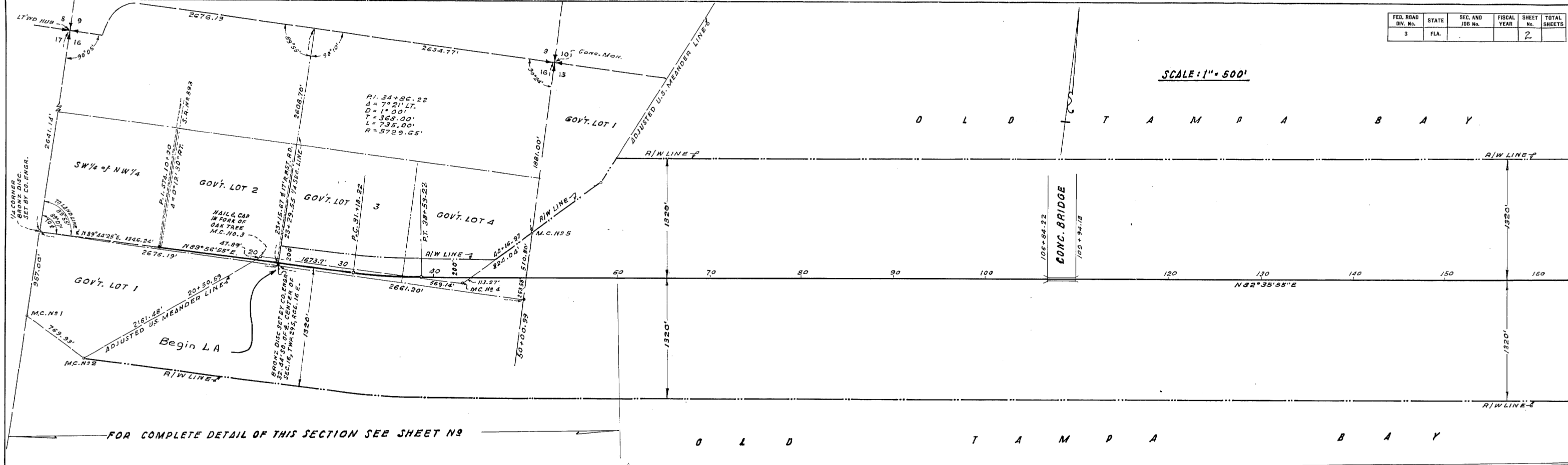
FED. ROAD DIV. No.	STATE	SEC. AND JOB No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
3	FLA.			3	



NOTE: GOVT. LOT MEANDER LINES PLOTTED FROM GOVT. TOWNSHIP PLATS. BEARINGS FROM U.S.C. & G.S. STATION.

STATE OF FLORIDA STATE ROAD DEPARTMENT				
RIGHT OF WAY MAP				
SECTION NO. 1014-101			S.A. 3	
ROAD NO. 60			HILLSBOROUGH COUNTY	
SCALE 1"=500'	NAMES	DATES	APPROVED BY	
DRAWN	B. COLLINS	2-27-48	 STATE HIGHWAY ENGINEER	
TRACED				
INDEXED				
REVISED				
REVISED				

FED. ROAD DIV. No.	STATE	SEC. AND JOB No.	FISCAL YEAR	SHEET No.	TOTAL SHEETS
3	FLA.			2	

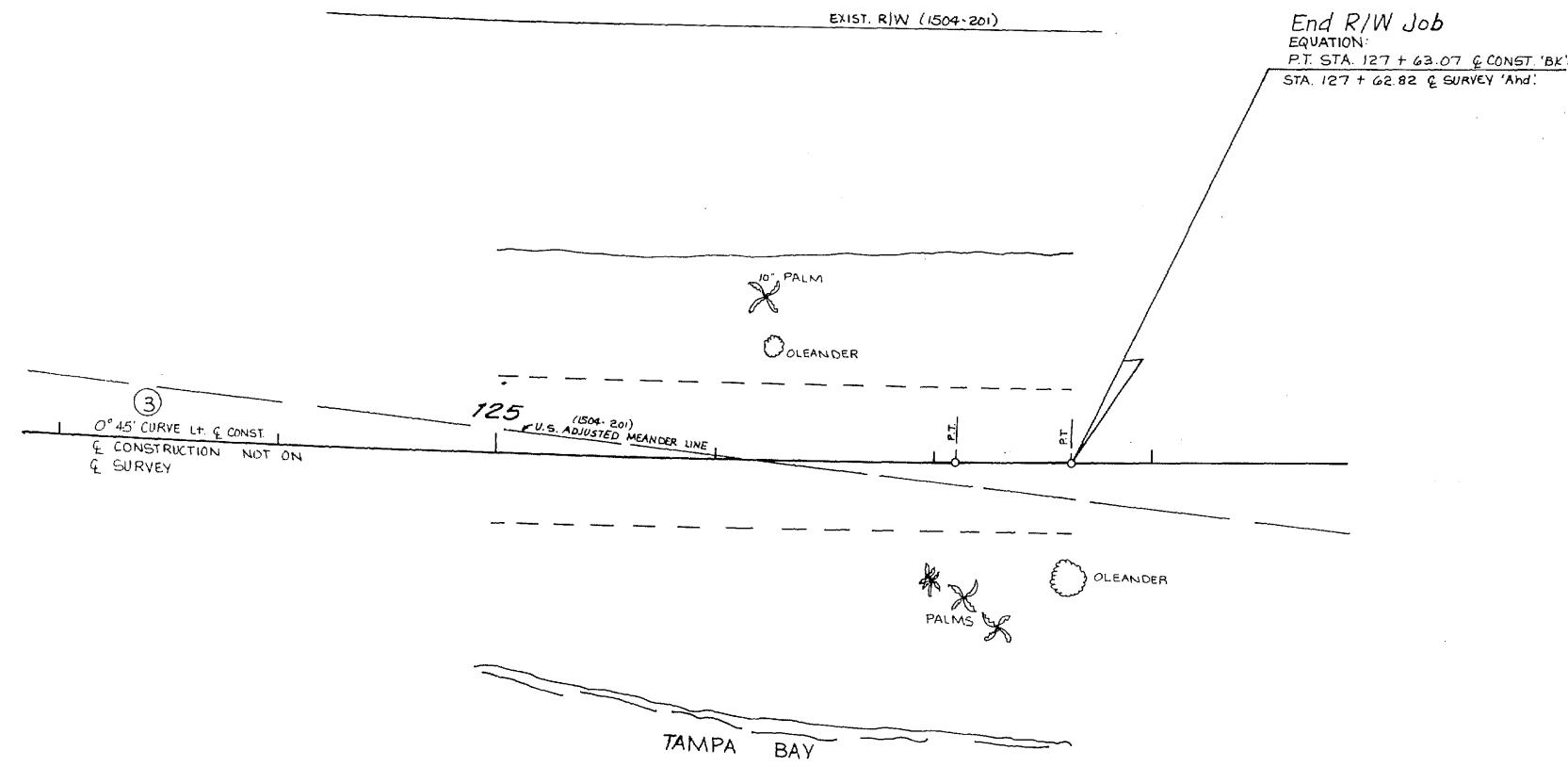


STATE OF FLORIDA STATE ROAD DEPARTMENT			
RIGHT OF WAY MAP			
SECTION No. 1014-101 & 1504-201 S.H. 2			
ROAD No. 60 ~ HILLSBOROUGH-PINELLAS COUNTY			
SCALE 1" = 500'	NAMES	DATES	APPROVED BY
DRAWN	B. COLLINS	2-27-48	
TRACED	"	"	
INDEXED	"	"	
REVISED	"	"	
REVISED	"	"	

CITY OF
CLEARWATER

SEC. 16
TWP. 29 S ~ RGE. 16 E

GOV'T LOT 4

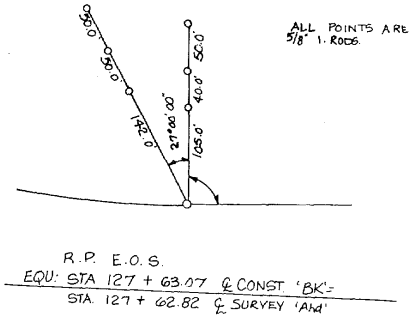


Q CONST. CURVE DATA

③
P.I. STA. 122 + 73.75
Δ = 7° 21' 00" L.
D = 0° 45' 00"
T = 440.67'
L = 980.00'
R = 7639.44'
P.C. STA. 117 + 83.07
P.T. STA. 127 + 63.07 Q CONST. 'BK'
STA. 127 + 62.82 Q CONST. 'Ahd'

CHORD CURVE
Q SURVEY CURVE DATA

P.I. STA. 123 + 43.82 Q SURVEY
P.I. STA. 34 + 86.22 (1504-201)
Δ = 7° 21' 00" L.
D = 1° 00' 00"
T = 368.00'
L = 735.00'
R = 5729.65'
P.C. STA. 119 + 75.51
P.C. STA. 31 + 18.22 (1504-201)
P.T. STA. 127 + 10.51
P.T. STA. 38 + 53.22 (1504-201)



EXIST. R/W LINE (1504-201)

(F) INDICATES FIELD
(C) INDICATES CALCULATED
(P) INDICATES PLAT

FLORIDA DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY ENGINEERING SECTION
RIGHT OF WAY MAP

STATE ROAD NO. 60 PINELLAS COUNTY

DRAWN	L.A.	2-22-84	W.R. Trufan	DATE
TRACED	AGB	2-24-84	DEPUTY ASSISTANT SECRETARY	
CHECKED	JWD	3-6-84	J.B. Howard	9-2-86
MAPS PREPARED BY		FIELD BOOK NO'S		
FIRST DISTRICT		029349, 029337, 029338		

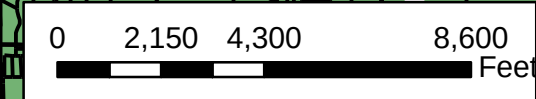
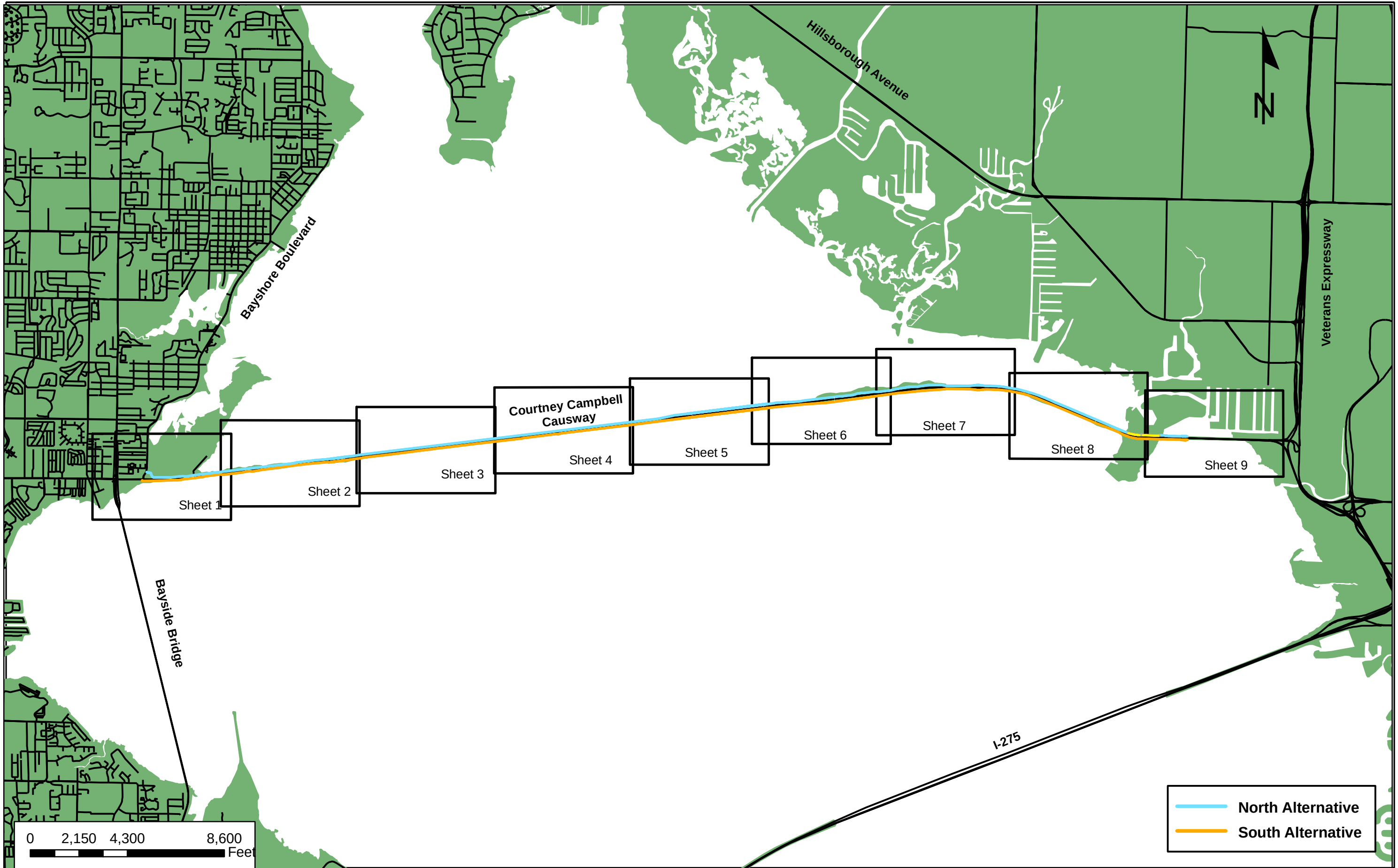
W.P.I. NO. 1116543 SCALE 1" = 40'

Rev. Sec. 16	NO. MR-KM	4-20-88
REVISION	BY	DATE

SECTION 15040 (2517) 2522 SHEET 11

APPENDIX G

Florida Land Use / Land Cover Maps



North Alternative

South Alternative

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



SR 60 (Courtney
Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

FLORIDA LAND USE / LAND COVER MAP

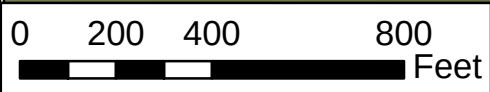
SWFMWD FLUCFCS 2005

SHEET NO.

Key Sheet



FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES



North Alternative

South Alternative

FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



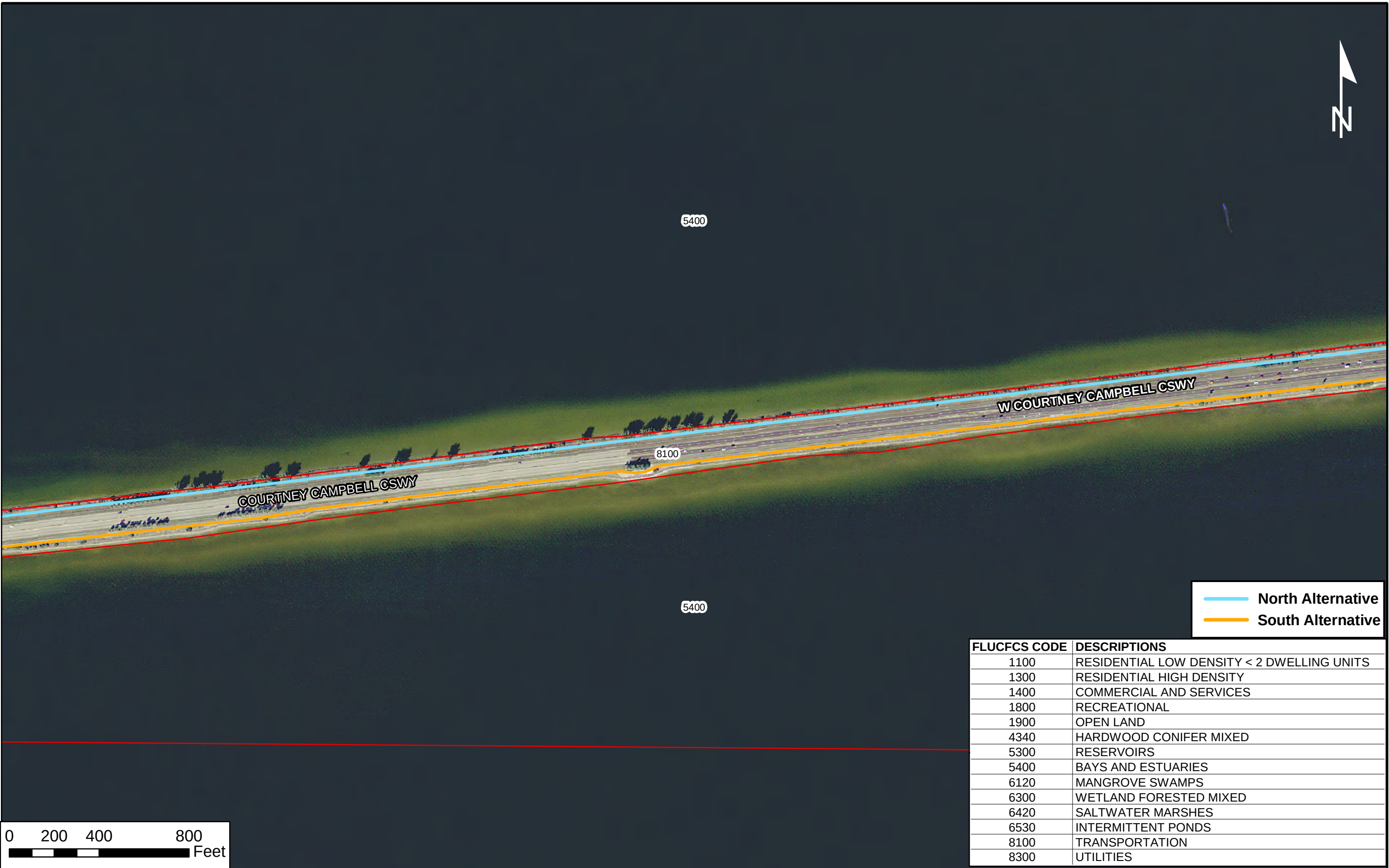
SR 60 (Courtney Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

FLORIDA LAND USE / LAND COVER MAP
SWFMWD FLUCFCS 2005



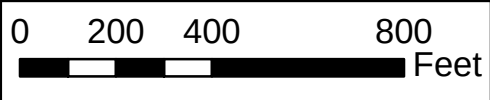
FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

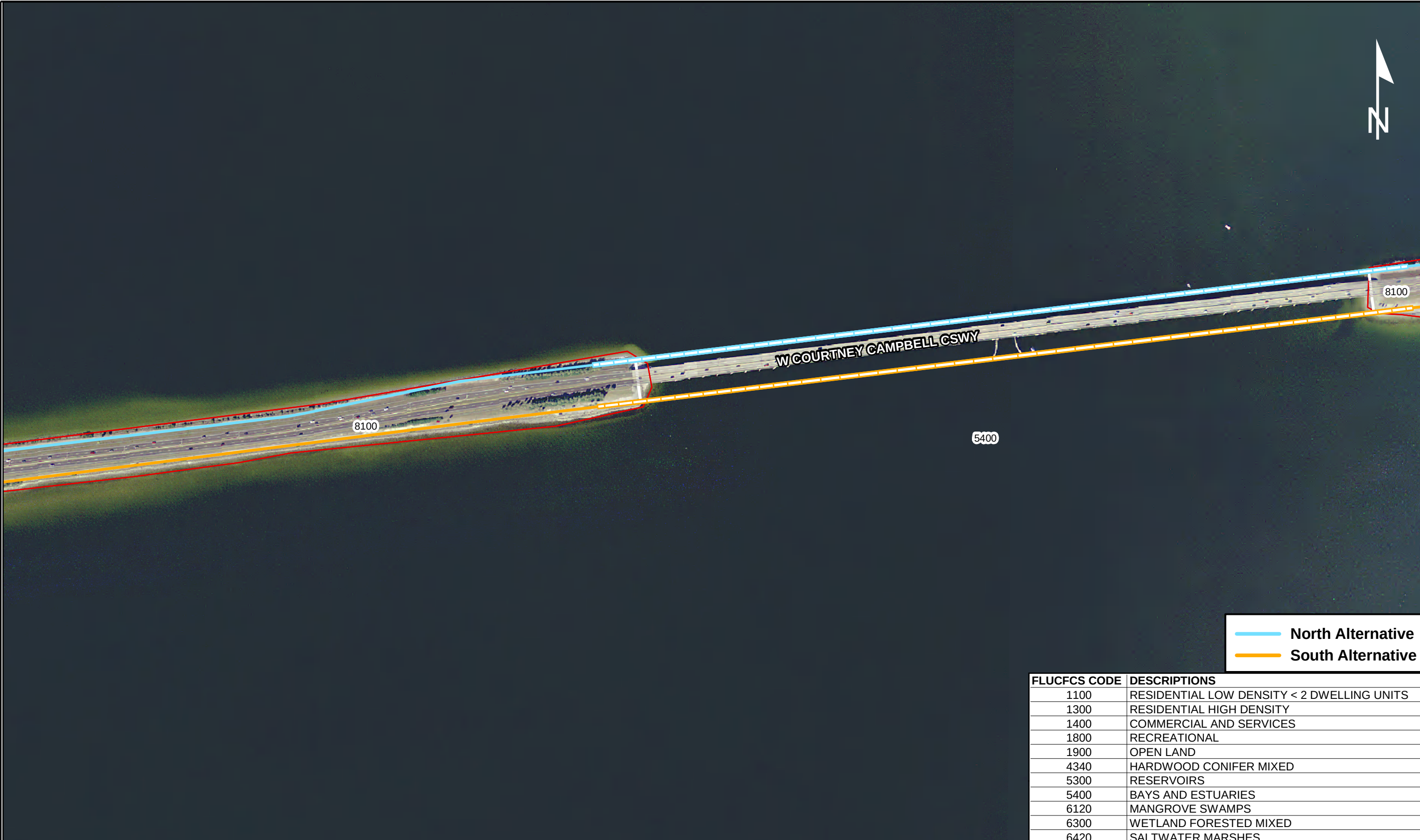


North Alternative

South Alternative

FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

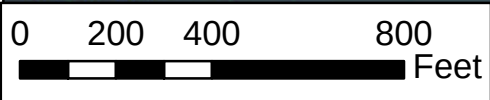




North Alternative

South Alternative

FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

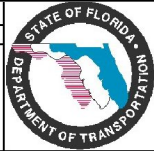


North Alternative

South Alternative

FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
5400	BAYS AND ESTUARIES
6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



SR 60 (Courtney
Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

FLORIDA LAND USE / LAND COVER MAP
SWFMWD FLUCFCS 2005



North Alternative

South Alternative

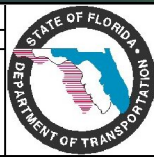
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1800	RECREATIONAL
1900	OPEN LAND
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6120	MANGROVE SWAMPS
6300	WETLAND FORESTED MIXED
6420	SALTWATER MARSHES
6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES



— North Alternative
— South Alternative

FLUCFCS CODE	DESCRIPTIONS
1100	RESIDENTIAL LOW DENSITY < 2 DWELLING UNITS
1300	RESIDENTIAL HIGH DENSITY
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6530	INTERMITTENT PONDS
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REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



SR 60 (Courtney Campbell Causeway)
Multi-use Trail Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

FLORIDA LAND USE / LAND COVER MAP
SWFMWD FLUCFCS 2005

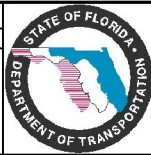
SHEET NO.
8



— North Alternative
— South Alternative

FLUCFCS CODE	DESCRIPTIONS
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1300	RESIDENTIAL HIGH DENSITY
1400	COMMERCIAL AND SERVICES
1800	RECREATIONAL
1900	OPEN LAND
4340	HARDWOOD CONIFER MIXED
5300	RESERVOIRS
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6530	INTERMITTENT PONDS
8100	TRANSPORTATION
8300	UTILITIES

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



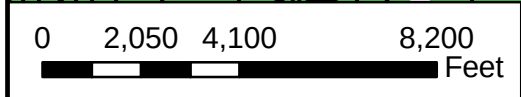
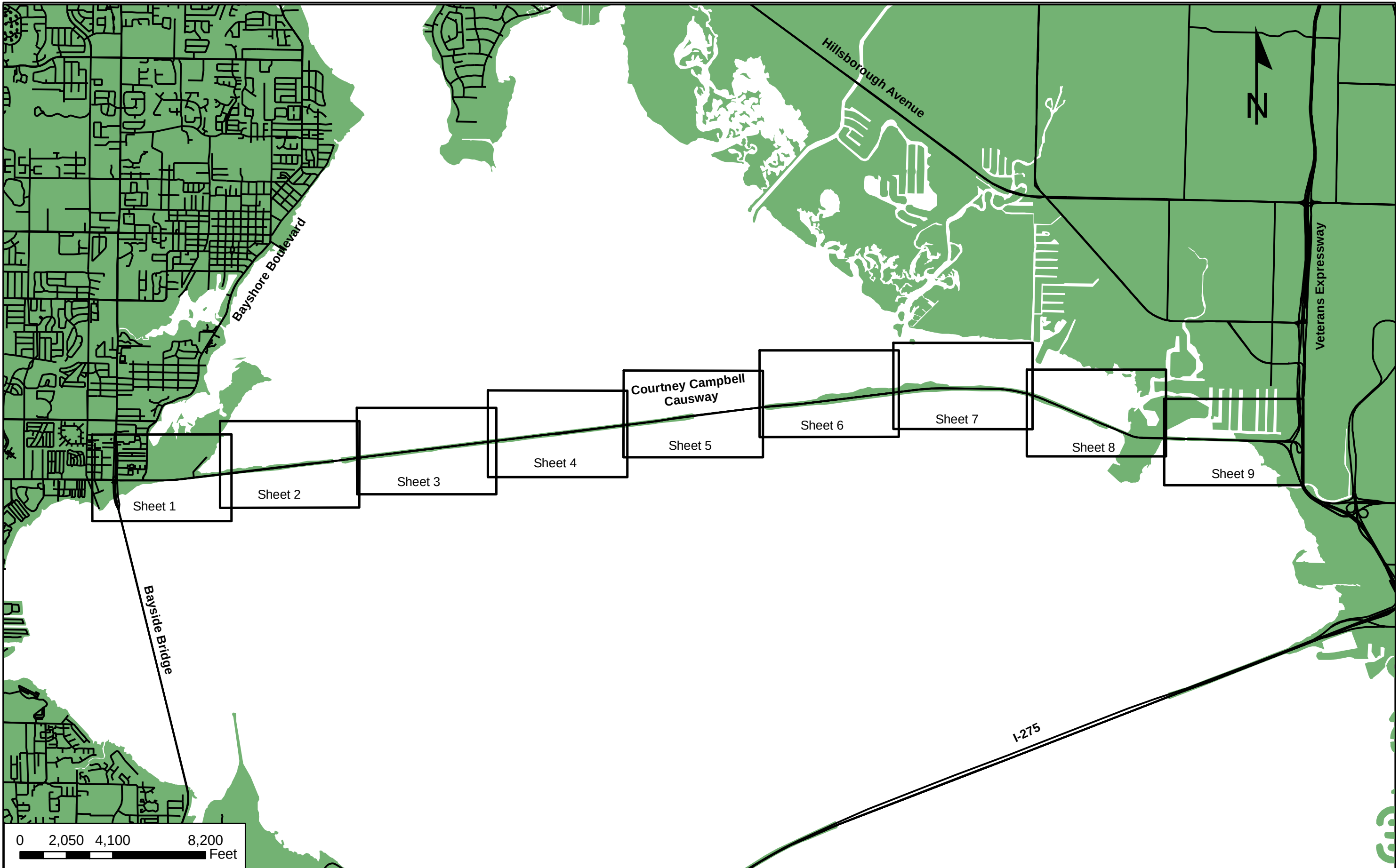
SR 60 (Courtney Campbell Causeway)
Multi-use Trail Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

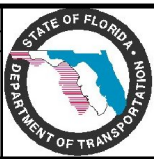
FLORIDA LAND USE / LAND COVER MAP
SWFMWD FLUCFCS 2005

APPENDIX H

Seagrass Maps



REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

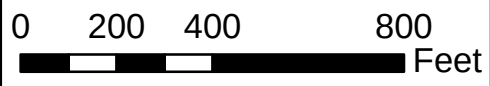


SR 60 (Courtney Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

SHEET NO.
Key Sheet



 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

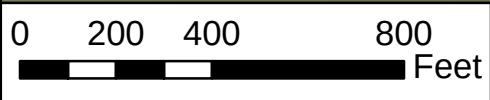
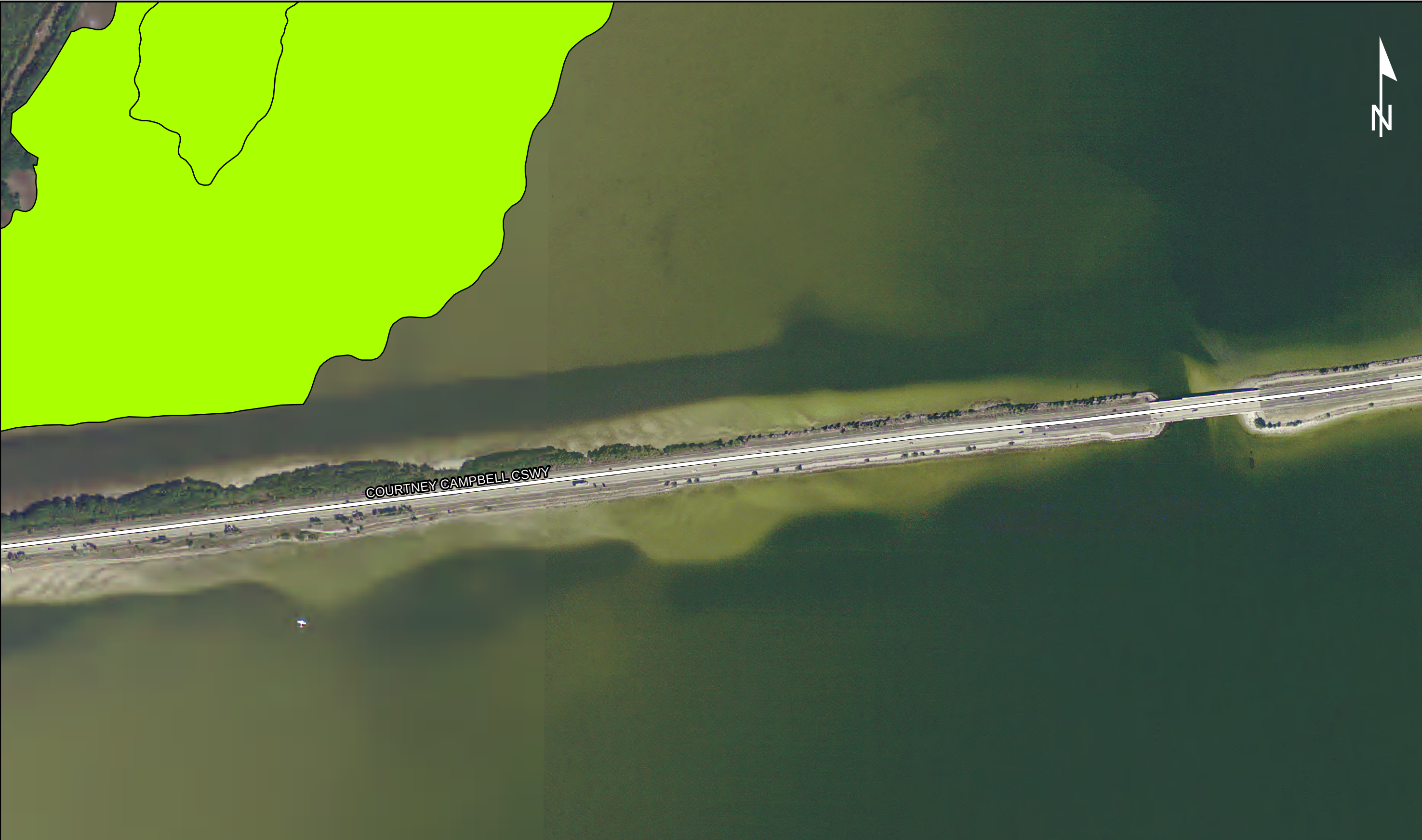


SR 60 (Courtney Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

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1



 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



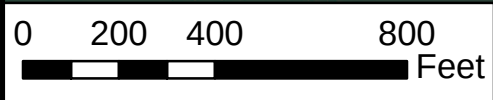
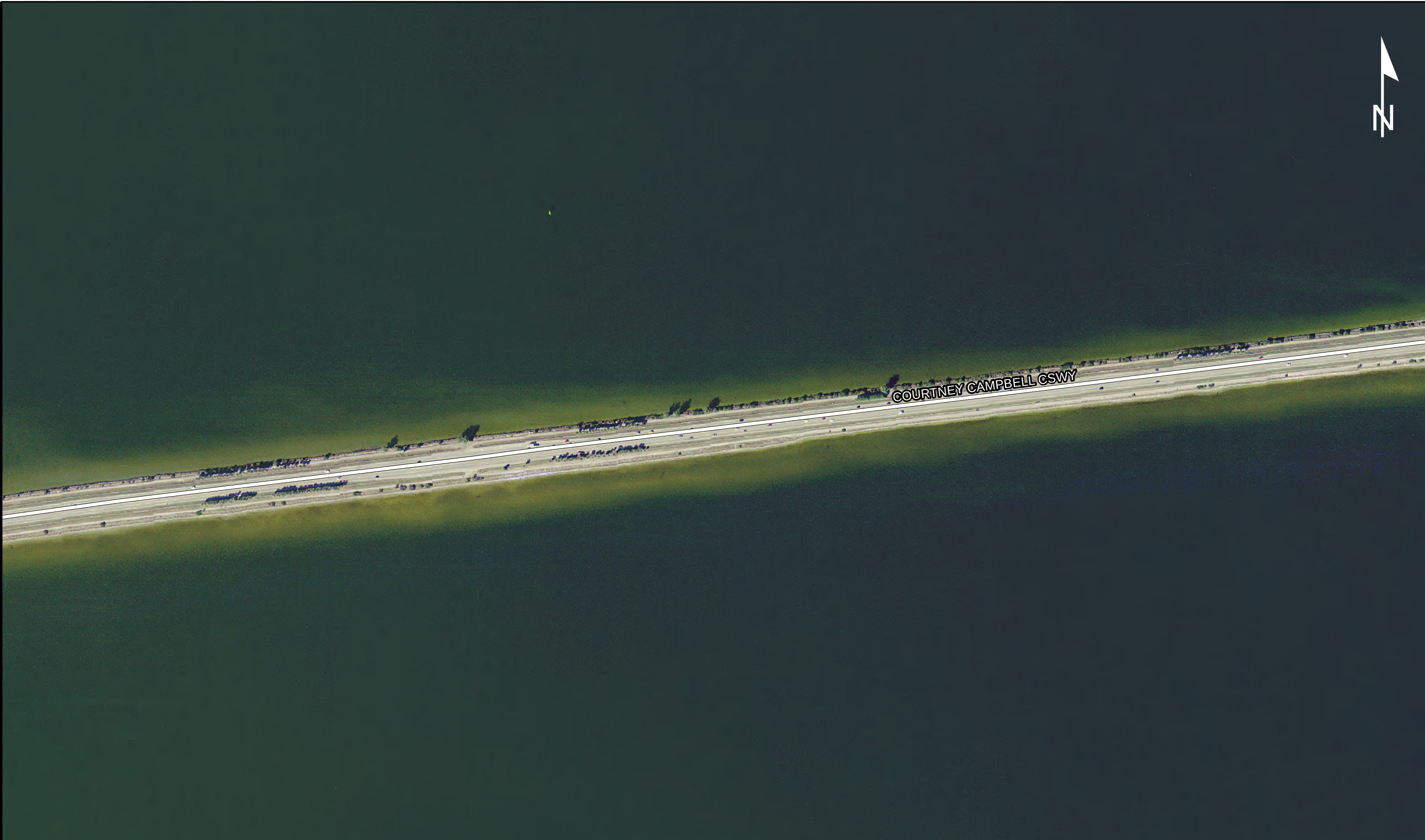
**SR 60 (Courtney
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Multi-use Trail
Feasibility Study**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

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2



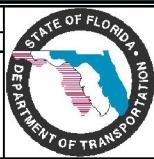
 Seagrass

REVISIONS							SR 60 (Courtney Campbell Causeway) Multi-use Trail Feasibility Study	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SEAGRASS MAP FLORIDA MARINE RESEARCH INSTITUTE 2003	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		3



 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



SR 60 (Courtney
Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

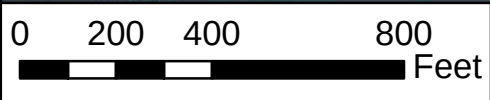
SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

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NO.
4



 Seagrass

R E V I S I O N S							SR 60 (Courtney Campbell Causeway) Multi-use Trail Feasibility Study	STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION			SEAGRASS MAP FLORIDA MARINE RESEARCH INSTITUTE 2003	SHEET NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
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 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

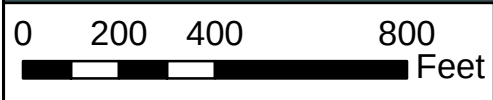
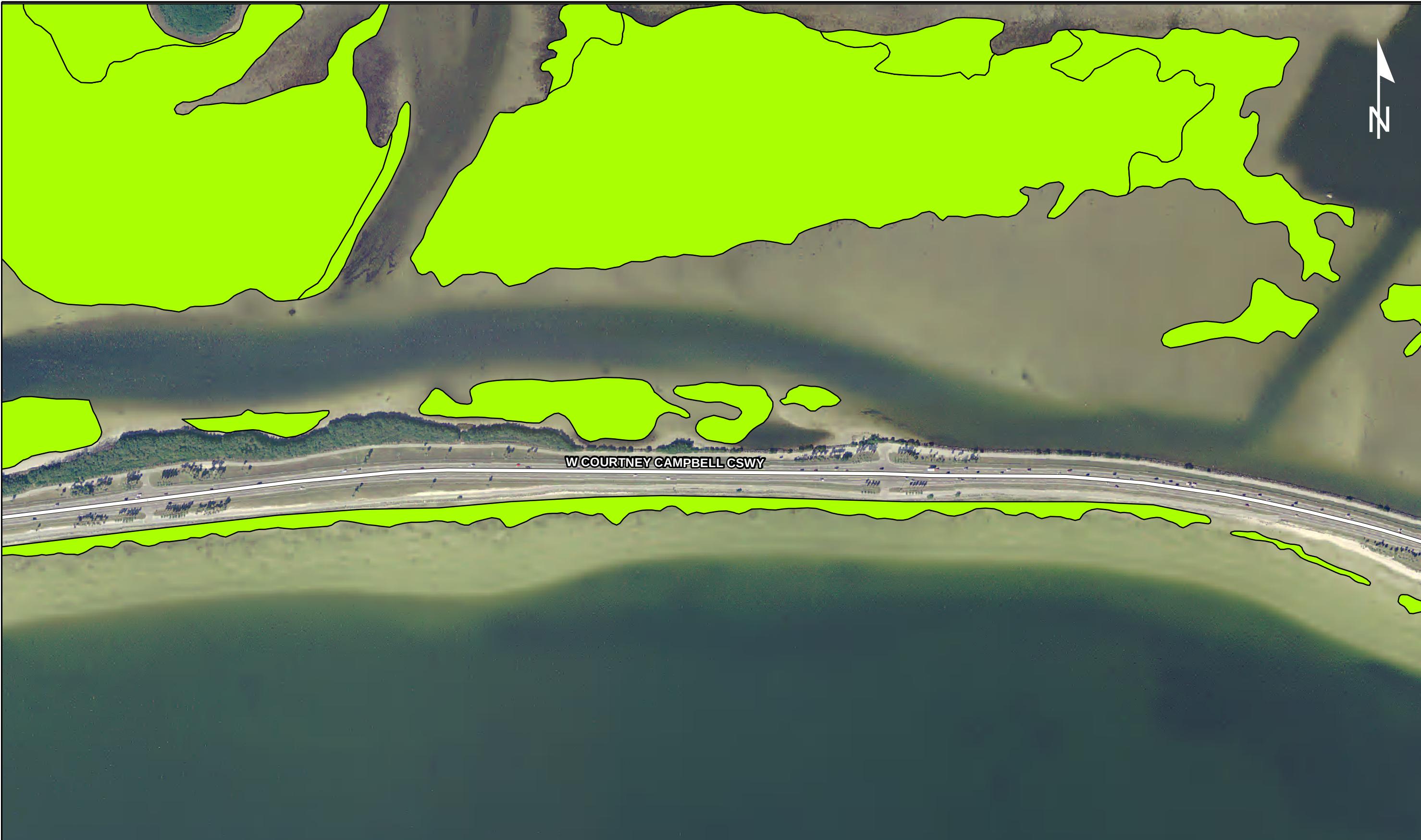


SR 60 (Courtney
Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

SHEET
NO.
6



 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

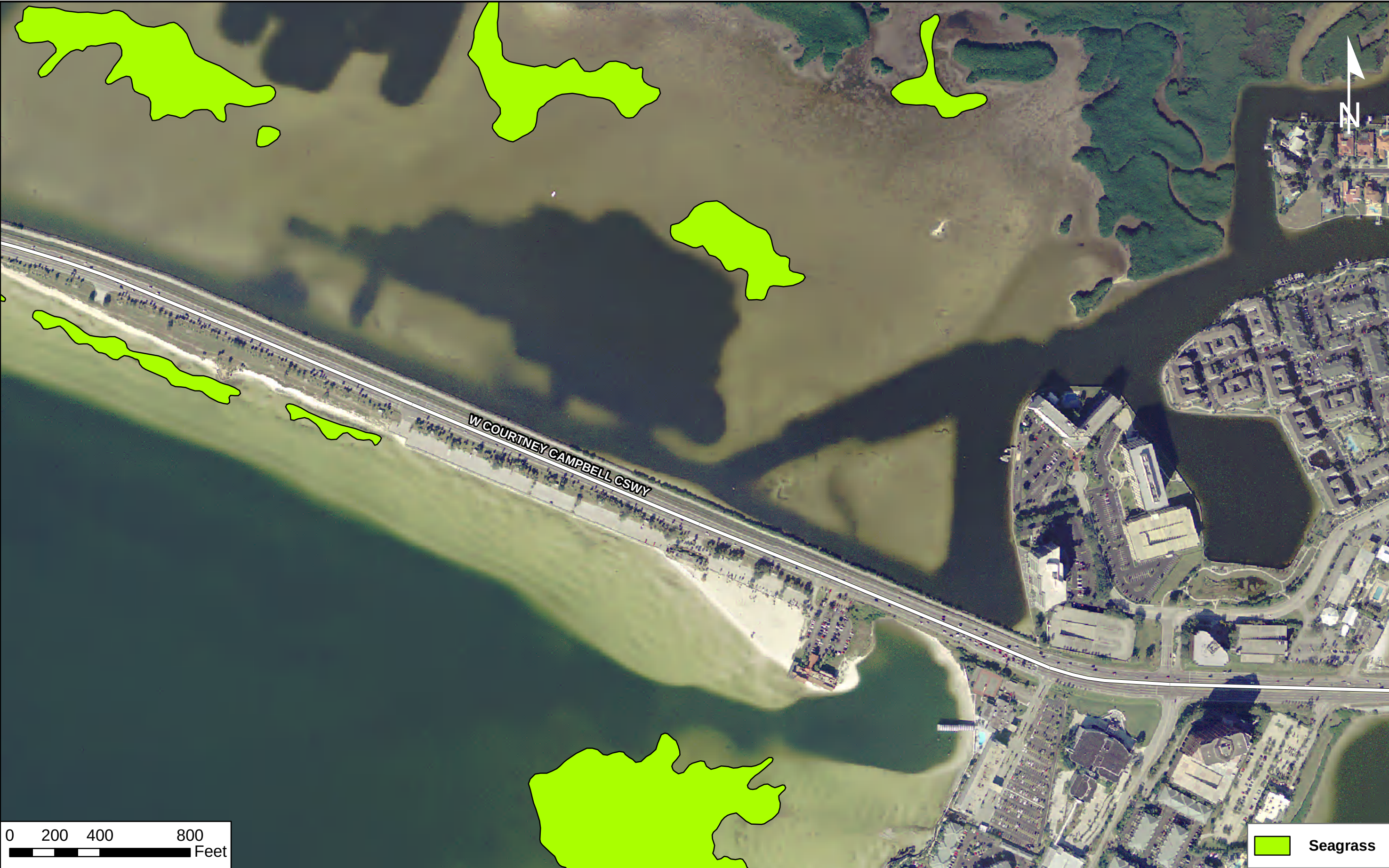


SR 60 (Courtney
Campbell Causeway)
Multi-use Trail
Feasibility Study

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

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NO.
7



 Seagrass

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION



**SR 60 (Courtney Campbell Causeway)
Multi-use Trail Feasibility Study**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID

SEAGRASS MAP
FLORIDA MARINE RESEARCH INSTITUTE 2003

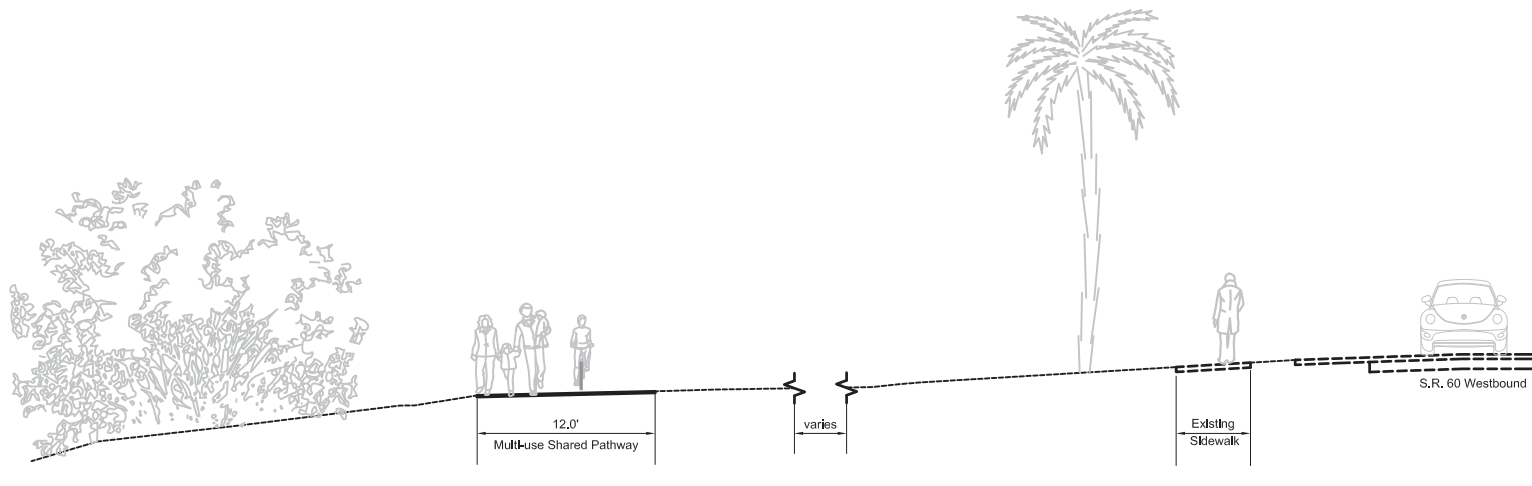
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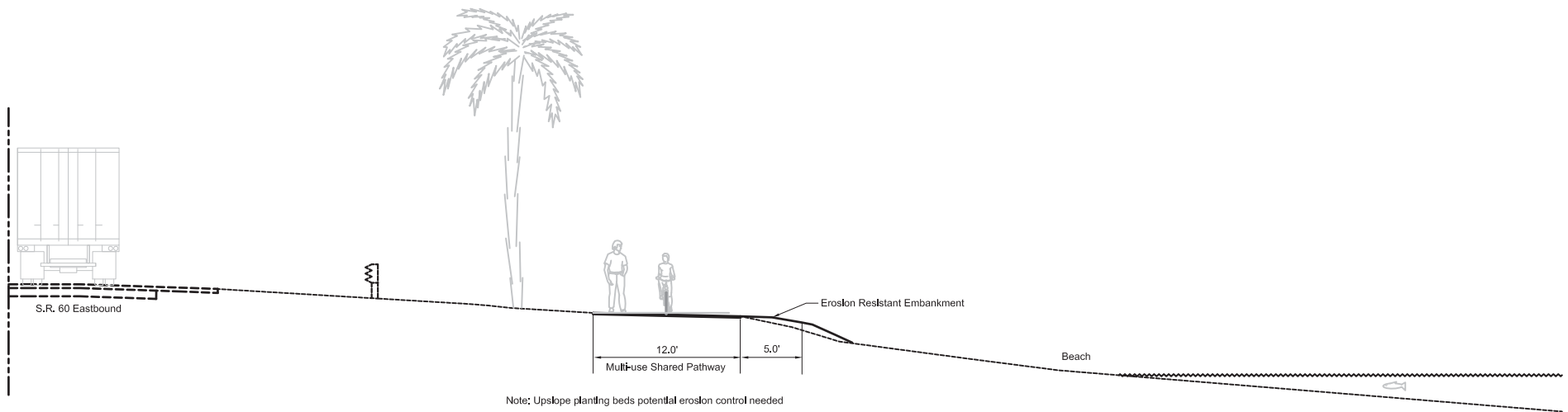
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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		9

APPENDIX I

Trail Cross Sections



Multi-use Trail Section
Sta. 22+00 to Sta. 39+00 North Alt.



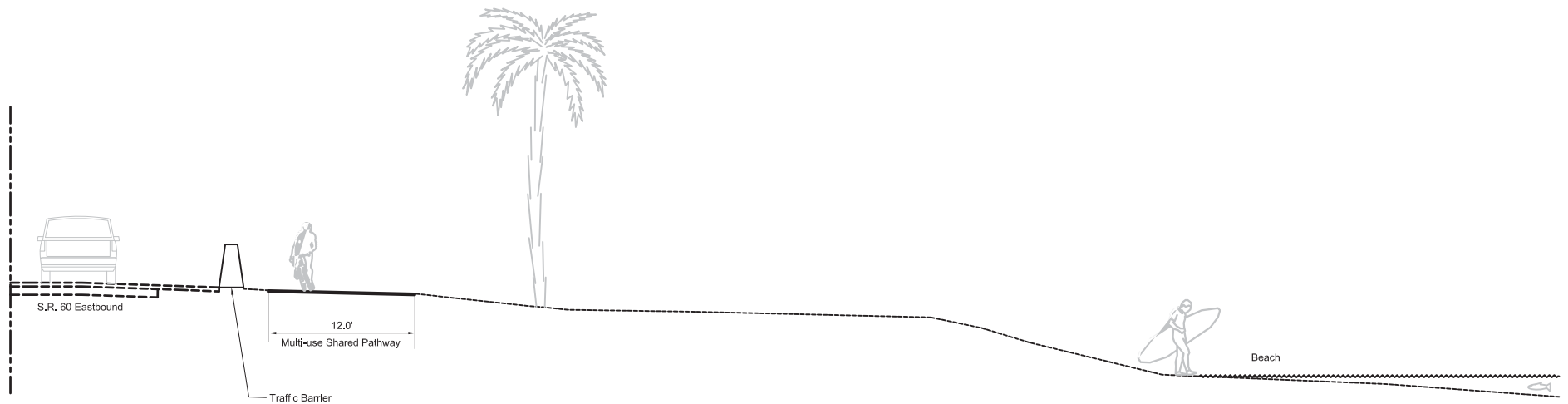
Multi-use Trail Section
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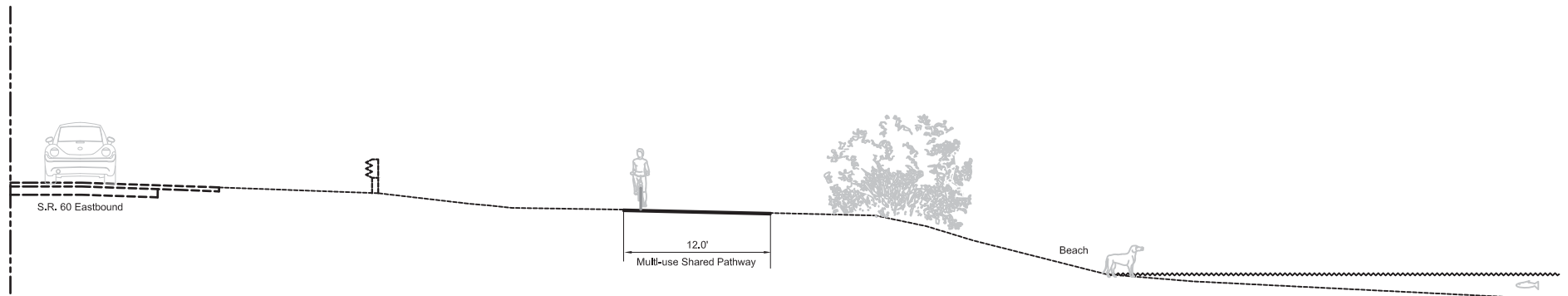
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I



Multi-use Trail Section
Sta. 49+00 to Sta. 56+00 South Alt.



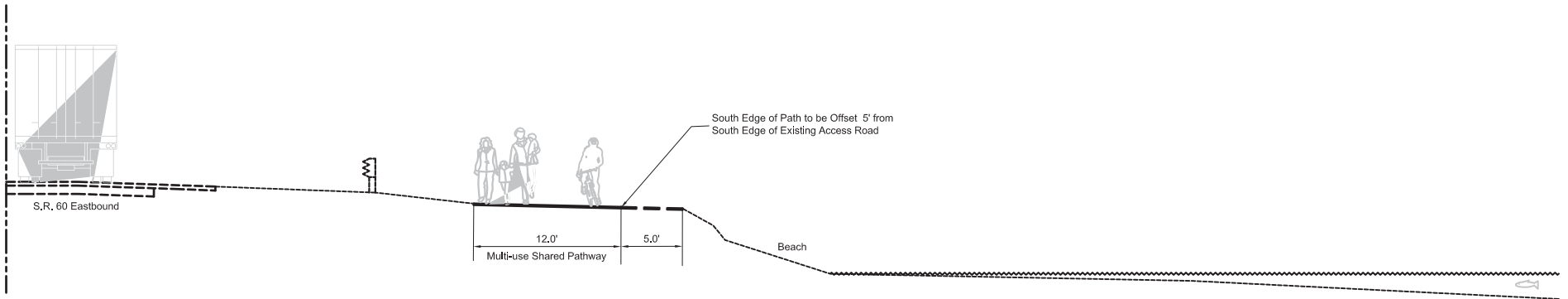
Multi-use Trail Section
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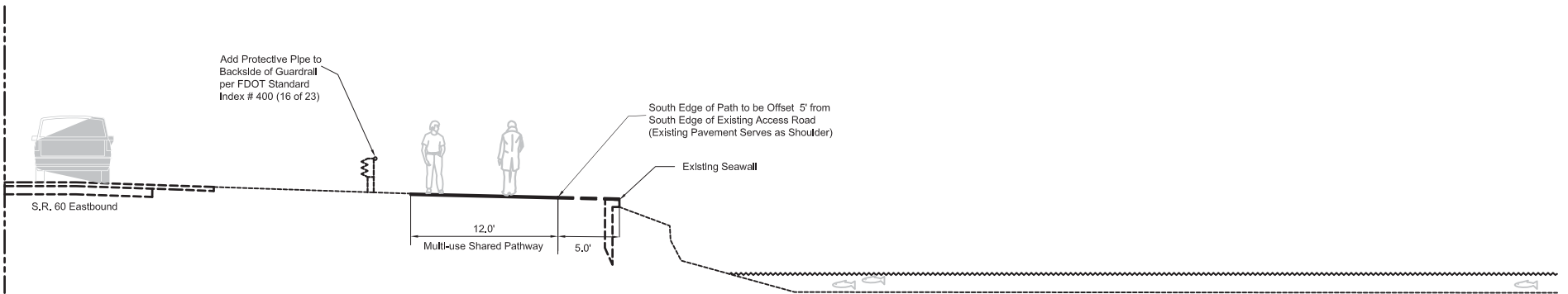
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I



Multi-use Trail Section
Sta. 70+00 to Sta. 85+00 South Alt.



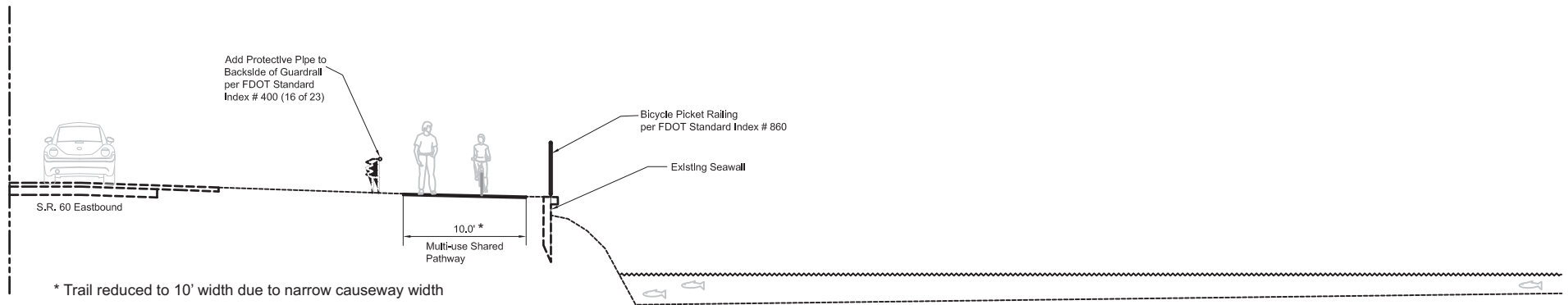
Multi-use Trail Section
Sta. 85+00 to Sta. 98+00 South Alt.



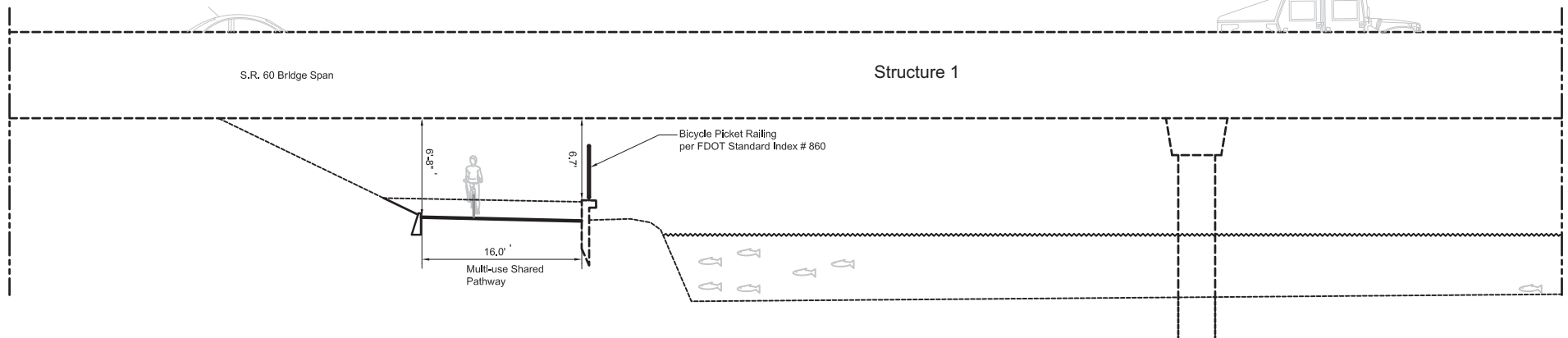
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I



Multi-use Trail Section
Sta. 98+00 to Sta. 106+00 South Alt.



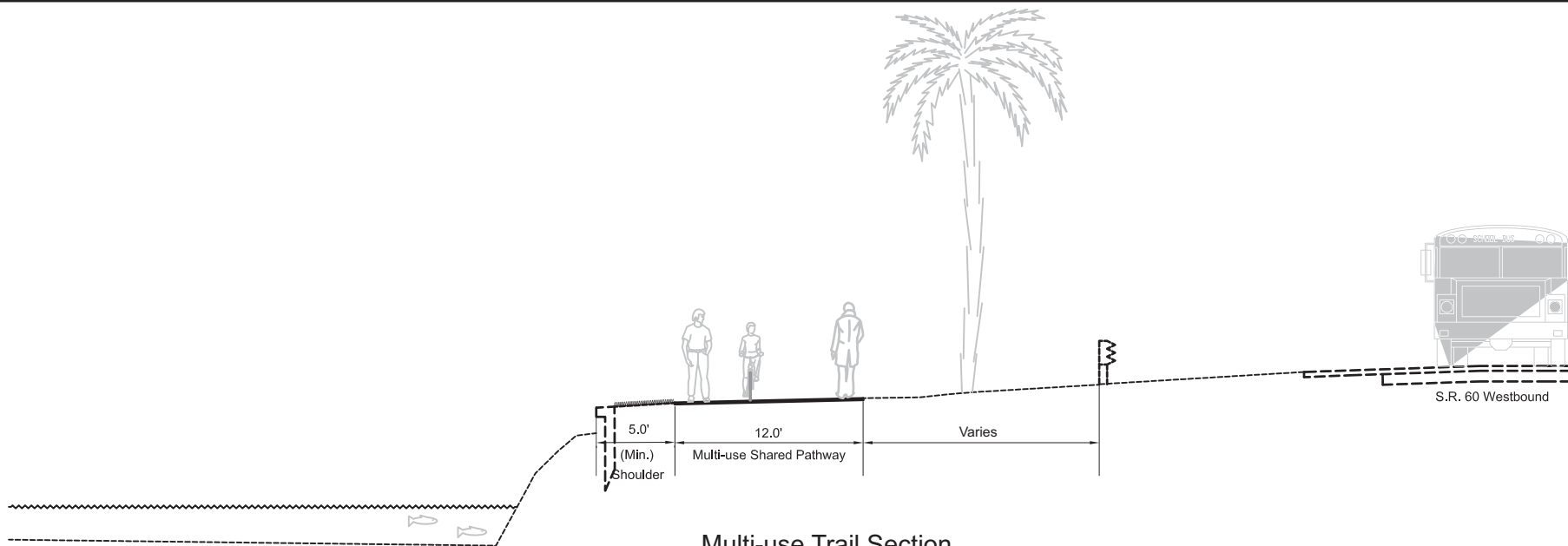
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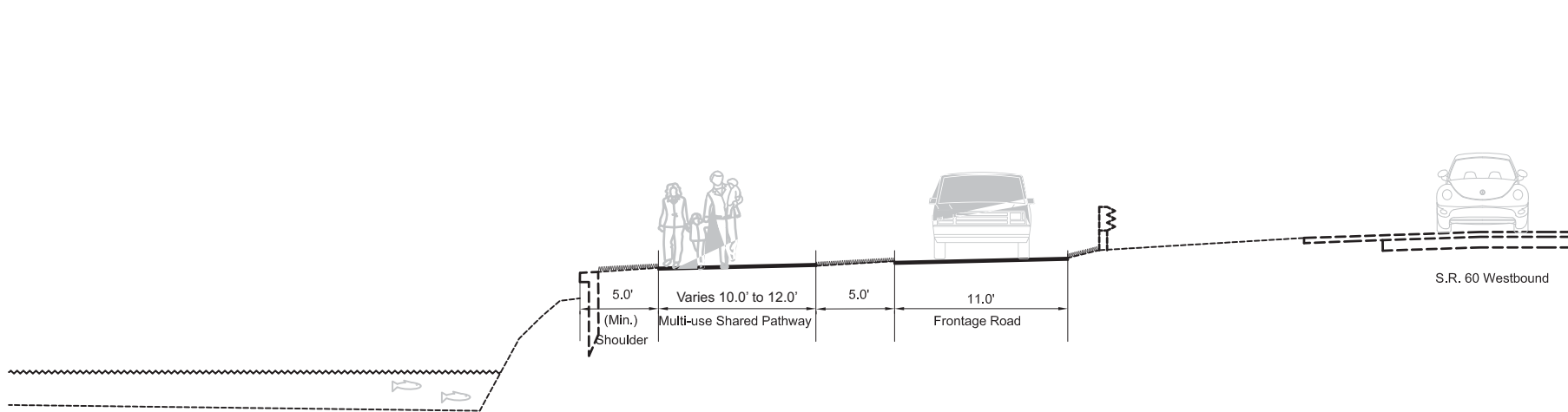
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I

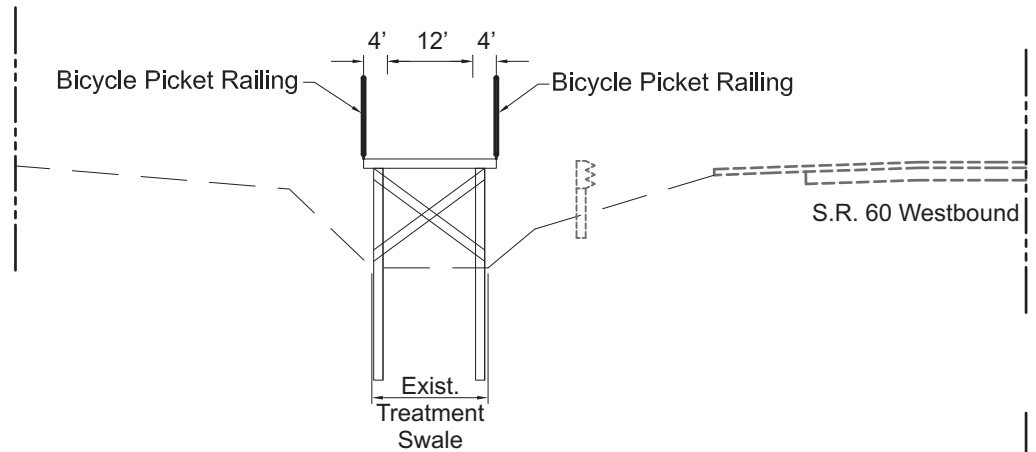


Multi-use Trail Section
Sta. 394+00 to Sta. 465+00 North Alt.

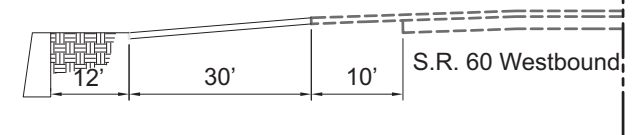


Multi-use Trail Section
Sta. 111+00 to Sta. 265+00 North Alt.
Sta. 301+00 to Sta. 394+00 North Alt.

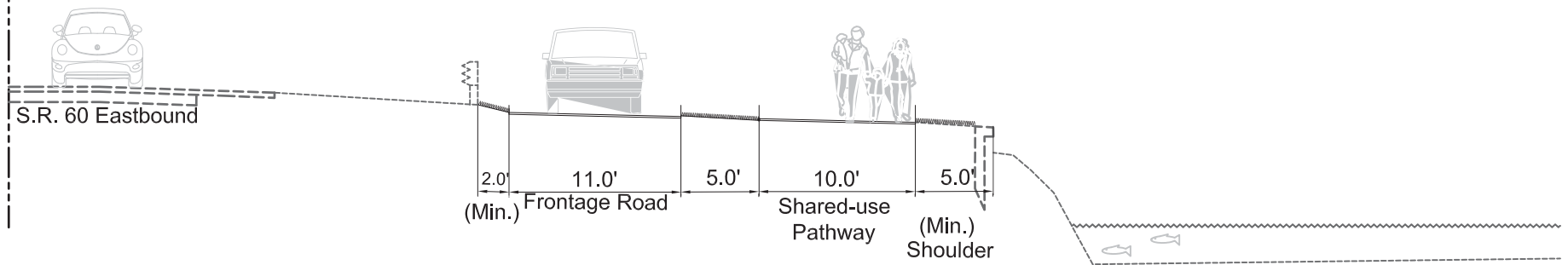




Sta. 465+00 to Sta. 479+00 North Alt.



Sta. 479+00 to Sta. 489+00 North Alt.



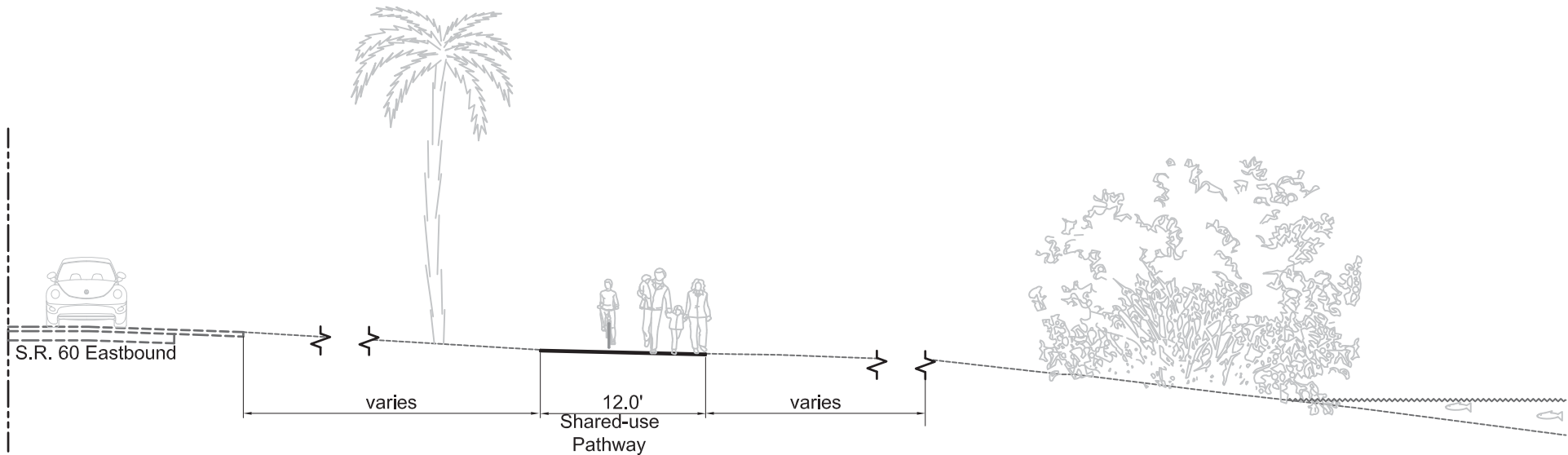
Sta. 111+00 to Sta. 265+00 South Alt.
Sta. 301+00 to Sta. 412+00 South Alt.



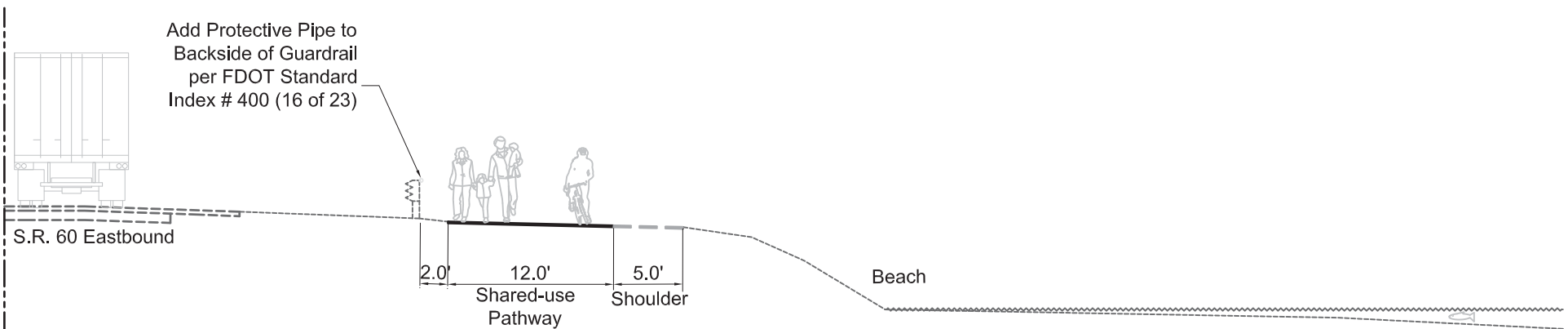
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I



Multi-use Trail Section
Sta. 21+00 to Sta. 34+00 South Alt.
Sta. 412+00 to Sta. 432+00 South Alt.



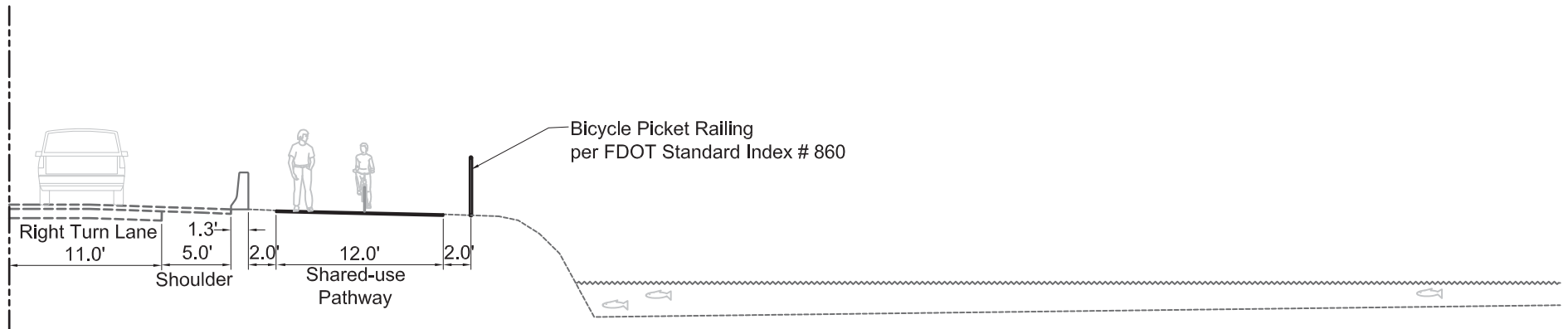
Multi-use Trail Section
Sta. 34+00 to Sta. 36+00 South Alt.
Sta. 39+00 to Sta. 43+00 South Alt.



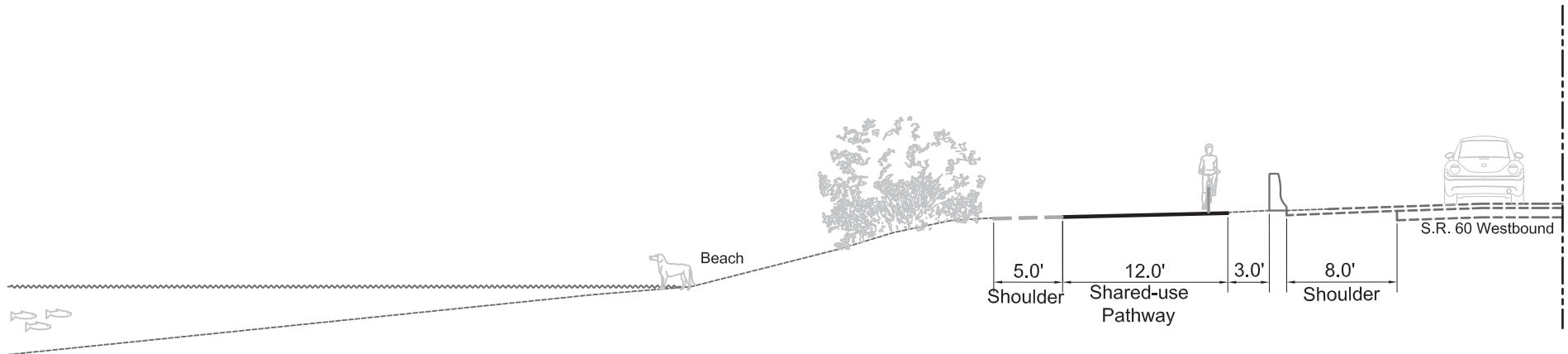
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I



Multi-use Trail Section
Sta. 36+00 to Sta. 39+00 South Alt.



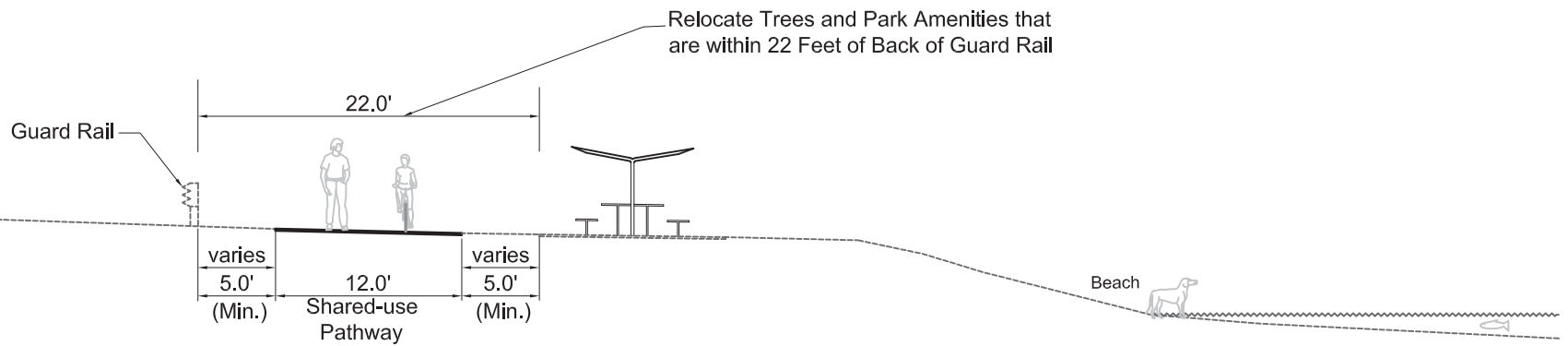
Multi-use Trail Section
Sta. 39+00 to 105+00 North Alt.



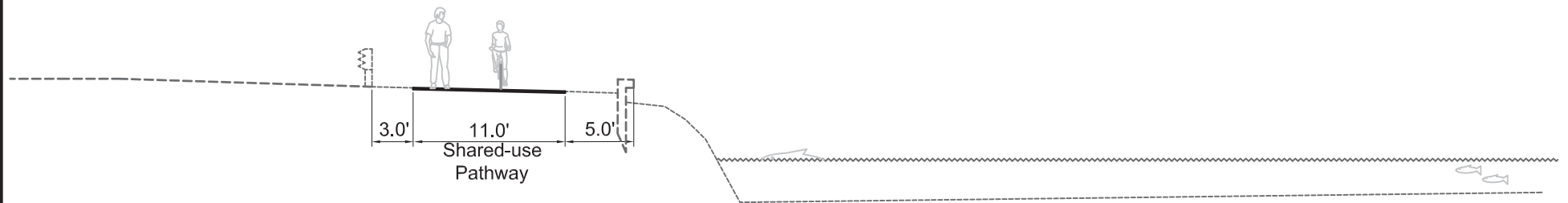
FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I

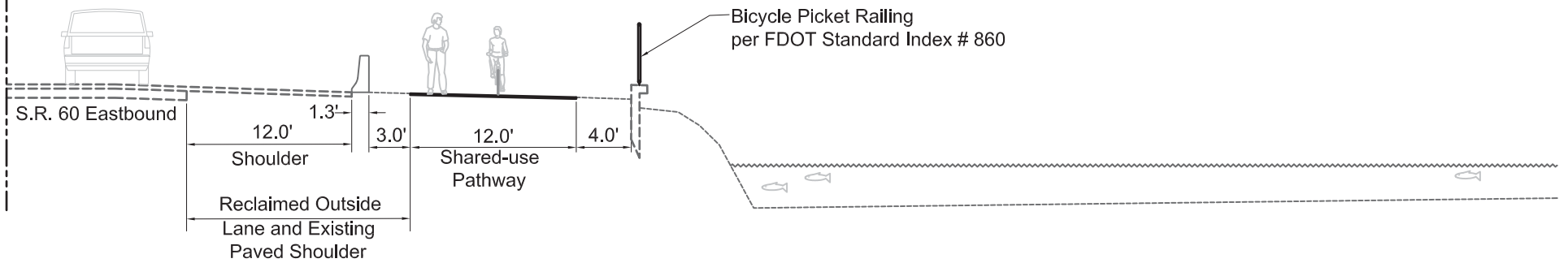


Multi-use Trail Section
Sta. 432+00 to Sta. 458+00 South Alt.

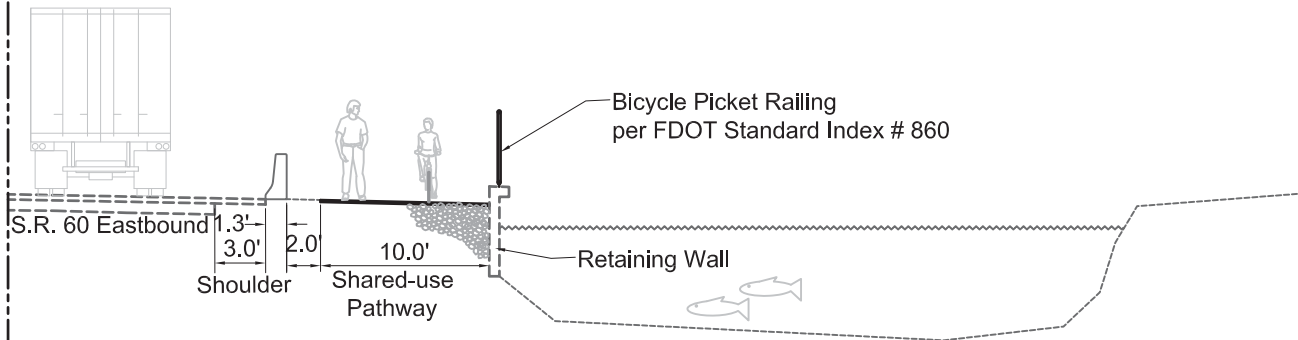


Multi-use Trail Section
Sta. 480+00 to Sta. 489+00 South Alt.





Multi-use Trail Section
Sta. 458+00 to Sta. 462+00 South Alt.



Multi-use Trail Section
Sta. 462+00 to Sta. 480+00 South Alt.



FEASIBILITY STUDY FOR
- SR 60 -
COURTNEY CAMPBELL
CAUSEWAY MULTI-USE TRAIL

TRAIL CROSS SECTIONS

APPENDIX I

APPENDIX J

**Courtney Campbell Causeway Scenic Highway,
Citizen's Advisory Committee – Goals, Objectives and
Strategies Report**