AGENDA
COMMUNITY REDEVELOPMENT AREA ADVISORY BOARD
THURSDAY, JANUARY 7, 2016
3:15 P.M.
CITY HALL COMMISSION CHAMBERS
204 ASH STREET
FERNANDINA BEACH, FL 32034

1. ROLL CALL

2. REVIEW MEETING MINUTES

2.1. **REVIEW AND APPROVE NOVEMBER 10, 2015 MEETING MINUTES**

Documents: CRA Minutes 111015 Meeting.pdf

3. BOARD BUSINESS

3.1. **DISCUSSION ITEMS**

A. Potential Hotel Project (Architect: John Cotner)
B Parking
C. Coastal Flooding Study
D. Lot B- Park Update
E. Consider Future Walking Tour

Documents: CRA Traffic Circulation and Parking Study.PDF, Walker Parking Study - 2002.PDF, Preliminary Cost Est 12-18-15 (2).pdf, 60 percentLot B Plans - Riverfront Park (3).pdf, 60percent Plans EMAIL- Riverfront Park Lot B.pdf

4. STAFF REPORT

5. PUBLIC COMMENTS (ITEMS NOT ON THE AGENDA)

6. ADJOURN

THE NEXT REGULAR MEETING IS SCHEDULED FOR THURSDAY, FEBRUARY 4, 2016.

ANY PERSON WISHING TO APPEAL ANY DECISION MADE BY THE COMMISSION WITH RESPECT TO ANY MATTER CONSIDERED AT SUCH MEETING OR HEARING WILL NEED A RECORD OF THE PROCEEDINGS, AND, FOR SUCH PURPOSES, MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDINGS IS MADE, WHICH RECORD INCLUDES THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS MADE.

Persons with disabilities requiring accommodations in order to participate should contact the City Clerk at 310-3115. If you are hearing or speech impaired, please contact the Florida Relay Service by using the following number: 711.

DRAFT MINUTES OF CRA MEETING HELD ON 11/10/15

A duly noticed meeting of the Community Redevelopment Area (CRA) Advisory Board was held on November 10, 2015, in the Commission Chambers at City Hall, 204 Ash Street, Fernandina Beach, FL 32034. Present were the Chair, Arlene Filkoff; Members Andrew Curtin, Lou Goldman, Marla McDaniels, Anne Thomas, and Lynn Williams; City Commission Liaison Robin Lenz; and Community Development Department Senior Planner Kelly Gibson. Absent was CRA Member Daniel McCranie.

The Chair called the meeting to order at 3:00 p.m,

The minutes of the October meeting were deferred to the December meeting.

The first item of business was a discussion regarding flood mitigation. Planning Board member Len Krieger circulated a diagram to illustrate potential flooding in downtown Fernandina Beach, talked about the dire consequences of a combination of high tides and winds, and stated that the City must do whatever needs to be done to avert the costly risk of flooding. He mentioned a shoreline survey that had been done every 30 feet along the St. John's River. Community Development Director Adrienne Burke mentioned a Washington, D.C. Potomac River study on flood mitigation measures and she recommended that the CRA Plan be revised to address flood mitigation measures. There was some discussion regarding the fact that the City had done a stormwater study five years ago, but that the study was vague did not include a stormwater survey. Although City employees, John Mandrik and Rex Lester, have plotted where runoff exists on a large scale map and there is anecdotal knowledge as to the location of stormwater conduits, the City needs to find out what kinds of pipes it has and where they are located. There was general agreement that a stormwater survey is needed.

[Some discussion about C-13 -- I have no ideq what this is -- and $2 million for what?]

There followed a discussion about how, in the short-term, anyone looking to develop in the downtown area can simply follow FEMA guidelines, but that more is needed for the long term; for example, west of Front Street, it may be necessary to construct bulkheads. Arlene Filkoff asked whether the City should put tax credits on the table, since the cost of constructing in a floodplain is significantly higher because of all the FEMA requirements that have to be met. Adrienne Burke said that the cost of constructing in the floodplain has not arisen as an issue.

There was some discussion about the lack of check-valves on the City's stormwater pipes. Gil [last name? title?] said that stormwater is often confused with tidewater and that check-valves don't help with tidewater. He then did a presentation on tidewater. He said there is a tide station in back of Bretts that reports every half hour what the tide level is via satellite and showed a number of slides, including a diagrammatical sketch of how the mean high waterline is calculated, a picture of a bulkhead in the Amelia River, and a slide with white stakes in the marsh at David Cook's property delineating where the mean high water line is located. There were also pictures of the flooding caused by a recent high tide event along the Southeast Atlantic coast, including one showing the Amelia River flooding considerably to the west of the white stakes at the Cook property.

The conclusion of the slide presentation was that bulkheads need to be constructed north of Bretts. Adrienne Burke said that the problem with bulkheads is that they cause erosion at the ends. She said the City needs to do an engineering study to determine how to mitigate the erosion problem. When Planning Board Member Mark Bennet asked whether it would be

possible to build on pilings, her response was that one can build on pilings for a water-dependent use, but typically have to prove that there was a pre-existing structure in the particular location. Arlene Filkoff inquired whether there exists any document laying out what an owner can and cannot do with submerged property. There followed a discussion of riparian rights, including rights of access to the center of the river channel and sightline rights. There was a consensus that if the City acquires title to the Ventura property, the City must ensure that title includes all riparian rights. Lou Gold commented that, for a commercial property like a marina on the Ventura property, the City will also need to lease the submerged land from the State.

The railroad was on the agenda, but discussion was deferred except to the extent of reiterating that one knows for sure whether CSX owns any part of Front Street and, if it does, no one knows what would be the ramifications of that ownership. There was a consensus that the City needs to partner with the railroad.

A discussion of design guidelines ensued. The CRA design guidelines have been incorporated into the Land Development Code and some were of the opinion that perhaps this should be undone. It was noted that the Historic Commission guidelines are not incorporated in the Land Development Code.

It was decided to recommend to the City Commission: (1) that a flood mitigation study, including a stormwater survey, be initiated by the City; and (2) that a partnership be developed among the City, the railroad, the OHPA, and the mills.

In the Staff Report, Kelly Gibson told the Board that Main Streets had hired an Executive Director and that 20% of their budget would be devoted to the CRA.

It was agreed that the December meeting would cover items on the November agenda that had not been addressed at the November meeting.

It was then moved, seconded, and voted to adjourn the meeting.

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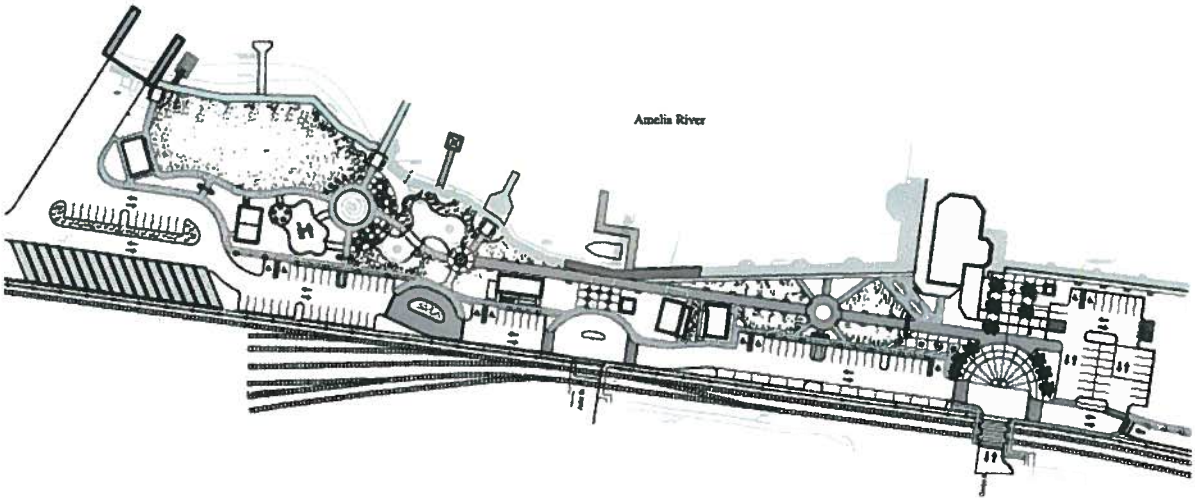
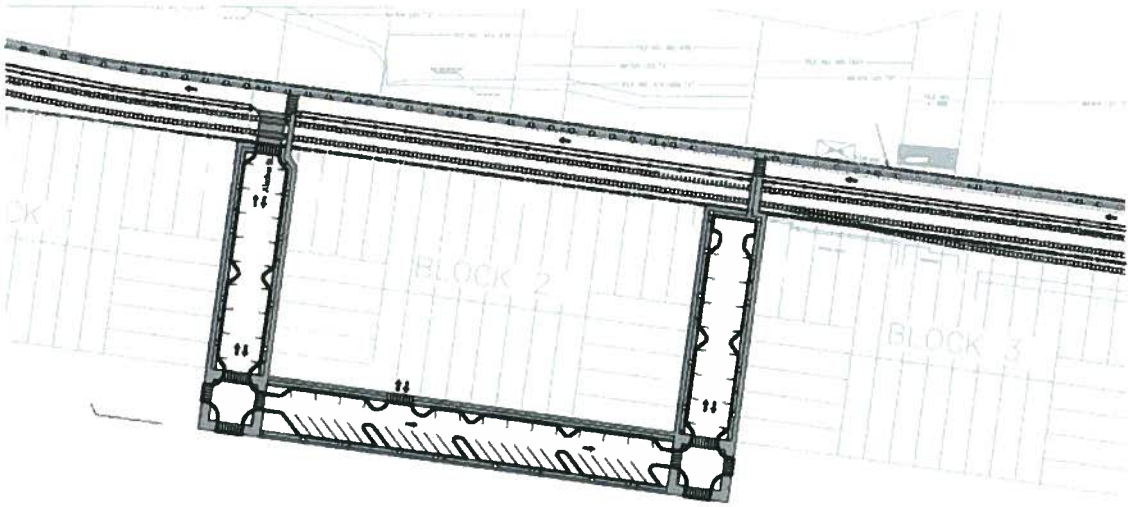
EXECUTIVE SUMMARY

The focus of this study is to determine transportation-related improvements necessary to support development and implementation of the Front Street improvements and the Waterfront Master Plan, currently under conceptual design and development, as shown below.





The Waterfront Master Plan and Front Street improvement concepts are generally consistent with and further the vision of the "Waterfront Area Community Redevelopment Plan – Amended May 2005", which encompasses the 34-acre Waterfront Community Redevelopment Area (CRA) in downtown Fernandina Beach, Florida.

Process

Previous studies and plans that have been conducted by the City were reviewed to determine the status and feasibility of previous findings and recommendations. Data was collected (traffic counts, pedestrian counts) and professional observations were made of traffic flow, parking utilization and the need for transportation improvements to support redevelopment of the area.

Findings

Previous Study Findings

These findings are from previous studies. The current status of each is noted below.

Parking Improvements	Status
Relocate waterfront parking east of RR	See Front St./Waterfront Master Plan
Evaluate public land for additional parking	See Recommendations
Enforce Regulations	Policy varies
Implement 2-3 hour limits – Centre St.	Policy implemented
Implement 6-7 hour limits – Side Streets	Policy varies
Retain City Property for parking	Varies – see recommendations
Improve signage	Varies – see recommendations
Consider fee-based system	Policy not yet implemented
Overnight permits for lots C & D	Policy not yet implemented
Prohibit overnight parking – lots A & B	Policy not yet implemented
Impose time limits or fee – lots A & B	Policy not yet implemented
Implement residential parking permits	Policy not yet implemented
Improve lighting conditions	See recommendations

Front Street Improvements	Comments
Eliminate one RR track	Not Feasible
Frontage road on E. side of RR	See Recommendations
Connect Alachua to Front St.	See Recommendations
Provide pedestrian crossing at Broome	See Recommendations

Pedestrian Improvements	Comments
Construct Sidewalks, as needed	See Recommendations
Provide pedestrian-scale lighting	See Recommendations
Develop way-finding program	See Recommendations

Waterfront Master Plan Traffic Study Findings

The following findings are a result of the Waterfront Master Plan Traffic Study.

Network Capacity – is the number of trips (volume) that can be supported on roadway links and the level of delay at intersections.

- There is ample capacity available in the existing grid transportation network in the downtown area to accommodate substantial additional development and redevelopment.
    - Centre Street, the most heavily traveled roadway in the downtown at 2,625 trips per day, is currently operating at only 36% of its daily capacity at the adopted level of service standard.
    - Centre Street and 2nd Street intersection (with future development of 900,000 sq. ft. of non-retail and 300 dwelling units) is projected to operate with a 28-second approach delay northbound and a 24-second approach delay westbound; These are both within the adopted LOS standard.

- Because the transportation network consists of numerous, highly connected roadways that provide mobility by giving more options for reaching a destination and dispersing traffic; the existing network should be adequate to handle projected increases in traffic due to even a very aggressive redevelopment program.

Network Connectivity – is the degree to which walkways and roadways allow direct pedestrian or vehicular travel between destinations.

- Pedestrian Connectivity Findings
    - Standard - Spacing of 300'- 400' between connections
    - Downtown Area – Standard is generally met with 200'-400' block sizes; exceptions are in primarily residential areas where sidewalks are missing
    - CRA area/east of Front St. – Standard is not met.
        - 475' Ash to Centre
        - 1,750' Centre to Dade
- Vehicular Connectivity Findings
    - Standard - 6 intersections
    - Downtown Area - 39 intersections – exceeds standard
    - CRA/Front St. – 3 intersections – does not meet standard. Additional connectivity is needed
- Connectivity Recommendations
    - Missing sidewalks need to be filled in to improve pedestrian connectivity. Design & Construct Sidewalks - Fill in missing links with minimum 5' wide sidewalks, pedestrian amenities, lighting and signage, as shown in the Study Recommendations. There are approximately 18,000 linear feet of missing sidewalks within the downtown area, not including the provision of sidewalks

along the length of Front Street (which are presumed to be included in the Front Street project).

- Railroad crossing(s) need to be obtained to improve connectivity along Front Street and 2nd Street.
  - Alachua Street Crossing, at a minimum
  - Ideally, crossings at Alachua and Broome

Traffic Circulation

- Front Street
  - South of Centre Street – Two-way design will allow pedestrian connectivity through provision of sidewalk and parking.
  - North of Centre Street – One-way verses two-way will depend on:
    1. Success of obtaining railroad crossing
    2. Provision of Riverwalk
    3. Provision of sidewalks on private property easements
    4. Success of redevelopment efforts and change in character of the area. Front Street design, north of Centre Street, will continue to evolve as other associated decisions are made.
- Ash Street - From an operational standpoint (truck traffic and general mobility) making Ash Street one-way is not warranted at this time.
- Truck Traffic
  - The only significant truck traffic along Ash Street occurs between Front Street and 3rd Street.
  - Truck traffic currently mixes with pedestrians along Front Street due to Front Street being part of the current truck route designation. This will not be desirable as pedestrian traffic increases in this area due to park improvements and redevelopment.
  - The only significant truck traffic along Ash Street occurs between Front Street and 3rd Street.

Parking

- Previous Study – Many of the policy recommendations from the Parking Master Plan have not been fully implemented which may indicate that parking issues have not been insurmountable to date. Many of these recommendations can be implemented through policy changes.

- Capacity - Parking capacity does not appear to be a problem currently. With 420 +/- spaces in the surface parking lots and 422 on-street parking spaces spread throughout the downtown area, these 842 spaces currently provide ample parking within a reasonable proximity to all of the areas downtown.
- Location – The walking level of service (LOS) from public parking areas is LOS B, or better, for most of the study area. Missing sidewalks cause isolated areas to operate at LOS F.
- Visibility - Visibility is a key factor for retail uses. Appropriate signage and way-finding will be an important factor in providing a "sense of visibility" for parking. Directing non-retail users (office, government) away from prime parking locations can also help address this issue.

Key Study Recommendations

The attached table summarizes the key recommendations from the traffic study. The recommendations are prioritized by short-term and longer-term improvements. The key study recommendations are graphically portrayed in the attached figure.

Next Steps

The City of Fernandina Beach should develop cost estimates for the recommended improvements and incorporate them in the City's Capital Improvement Program, in order of City priority. The following short-term recommendations would make a big impact on traffic circulation in the CRA.

- Design and construct Front Street and Waterfront Plan improvements, including associated improvements at existing and proposed crossings.
- Design and construct the 18,000 ± linear feet of missing sidewalks (and lighting). Prioritize areas and develop a program to make improvements on an annual basis. Identify and/or obtain funding for improvements. This will address connectivity concerns and parking level of service deficiencies.
- Design and construct improvements to parking lot west of City Hall and conceptually design identified improvements to potential parking locations.
- Develop Wayfinding Program – Timing is key to include signage improvements with sidewalk, park and parking improvements.
- Develop Bicycle Master Plan for City, making bicycling a more viable mode for residents and visitors.

KEY STUDY RECOMMENDATIONS

Short Term Recommendations

Land Use

- Obtain vehicular and pedestrain railroad crossing(s) at Alachua Street and/or Broome Street.
  - Separate incompatible uses through traffic flow, buffering and landscaping once crossing is achieved.

Access and Connectivity

- ***Front Street Corridor Improvements***
  - Create a landscaped buffer and pedestrian sidewalk/path with pedestrian-scaled amenities on both sides of the rail line north to Broome Street, subject to obtaining railroad crossing(s).
  - Pedestrian Amenities – Provide activities and pedestrian-scaled facades along the building faces fronting the railroad.
  - Improve the walking surface at the existing and proposed crossings of the rail lines for pedestrians.
  - Pedestrian-scaled lighting should be installed on all existing and proposed sidewalks at an average spacing of 100 feet (50 feet staggered).
- ***Pedestrian Improvements beyond Front Street***
  - 18,000 linear feet of missing sidewalks in residential areas should be provided.
- ***Bicycle Improvements***
  - A designated route should be established on low volume streets to access core locations in the downtown.
  - Bicycle parking racks should be provided in public parking lots, parks and along the bike route at other key destinations.
  - A bicycle master plan should be developed for the island to establish safe designated bike routes and identify the need for improvements to better connect residential areas with the downtown.

Parking

- Identify additional locations within one-quarter mile of the waterfront for parking and develop a parking lot layout to maximize number of spaces and use of the property.
  - The City-owned property to the west of City Hall should be improved and striped for parking (at least in the near-term).
  - The City-owned property on the southeast corner of Broome and Second Streets is a good candidate for future parking.
- Develop wayfinding program and provide signage for public parking locations and primary retail uses/areas served by those parking lots/spaces.
- Provide sidewalk connections, lighting and other pedestrian amenities along roadways to parking areas and surrounding destinations.

Long-Term Recommendations

Land Use

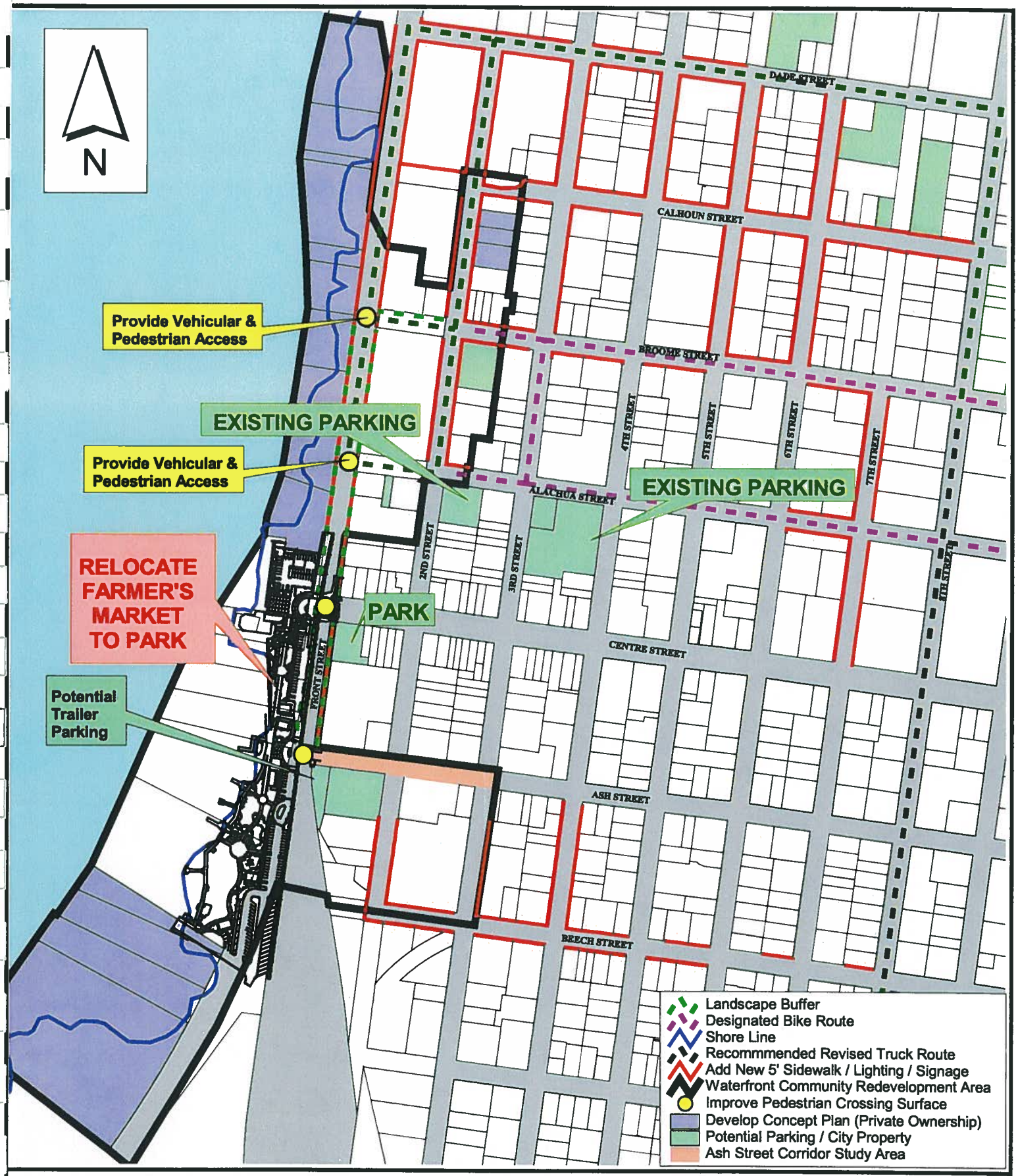
- Revise the future land use designation and zoning classifications on properties in the waterfront CRA in accordance with the provision of a new rail crossing (industrial/working waterfront to the north and waterfront mixed use/pedestrian-oriented south of the new connection).
- A development opportunity assessment should be considered for the 13 privately-owned parcels along the waterfront in order for the City to effectively implement the design of the Waterfront Park and Front Street
- If the Lane property develops as proposed, a pedestrian facility on the east side of the tracks is recommended, along with street level amenities and activities at the building face along the block.
- A corridor study should be conducted for Ash Street to identify opportunities for redevelopment.

Truck Traffic

- Revise designated truck route to provide a clear separation of industrial uses and heavy traffic from the tourist/retail and residential uses and keep heavy trucks out of these areas.
- Reduce truck traffic impacts in residential areas.

Parking

- Conduct a shared parking analysis for existing peak and off-peak private users downtown.
- Upon completion of the Waterfront Park improvements, relocate the Farmer's Market to the waterfront area.



Source : Nassau County Property Appraiser

Date : 03/12/09

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KEY STUDY RECOMMENDATIONS
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

ZEVCOHEN & ASSOCIATES INC
Civil Engineering · Landscape Architecture
Planning · Environmental Services · Transportation
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Waterfront CRA Master Plan Traffic Circulation and Parking Study

March 20, 2009

Prepared by:

ZEVCOHEN & ASSOCIATES INC

Civil Engineering · Transportation · Environmental Services
Landscape Architecture · Planning

INTRODUCTION

Purpose of the Study

The purpose of this study is to evaluate the need for transportation related improvements for the 34-acre Waterfront Community Redevelopment Area (CRA) in downtown Fernandina Beach, Florida, as shown in Figure 1. The study's focus is to recommend improvements that are necessary to support development and implementation of the Waterfront Master Plan.

Background

The Waterfront CRA was established by the City of Fernandina Beach Community Redevelopment Agency in 2005. In the three years since completion of the Redevelopment Plan, the City has achieved the following in the Waterfront CRA:

- Adopted the CRA Capital Improvements Plan
- Adopted CRA design guidelines
- Secured grant funding from Florida Inland Navigation District
- Secured grant funding from Florida Fish and Wildlife Conservation Commission (Boating Infrastructure Grant Program)
- Secured grant funding from the Waterfronts Partnership
- Established Florida Waterfronts Committee
- Created a Waterfront Mixed Use Land use category
- Completed Front Street Concept Plan

Review of Previous Studies

CRA Master Plan

The "*Waterfront Area Community Redevelopment Plan – Amended May 2005*" details the objectives, strategies and projects that were adopted to guide redevelopment. Some of the key elements of the CRA Plan relating to transportation are as follows:

Vision Statement

- Maintain views and access to the water
- Establish a sense of place along the water's edge
- Maintain the character of Fernandina Beach, as reflected in its working waterfront and historic district

Source : City of Fernandina Beach
& USGS 2004 Aerial

Date : 03/11/09

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FIGURE 1
COMMUNITY REDEVELOPMENT
AREA LIMITS MAP
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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Objectives and Strategies

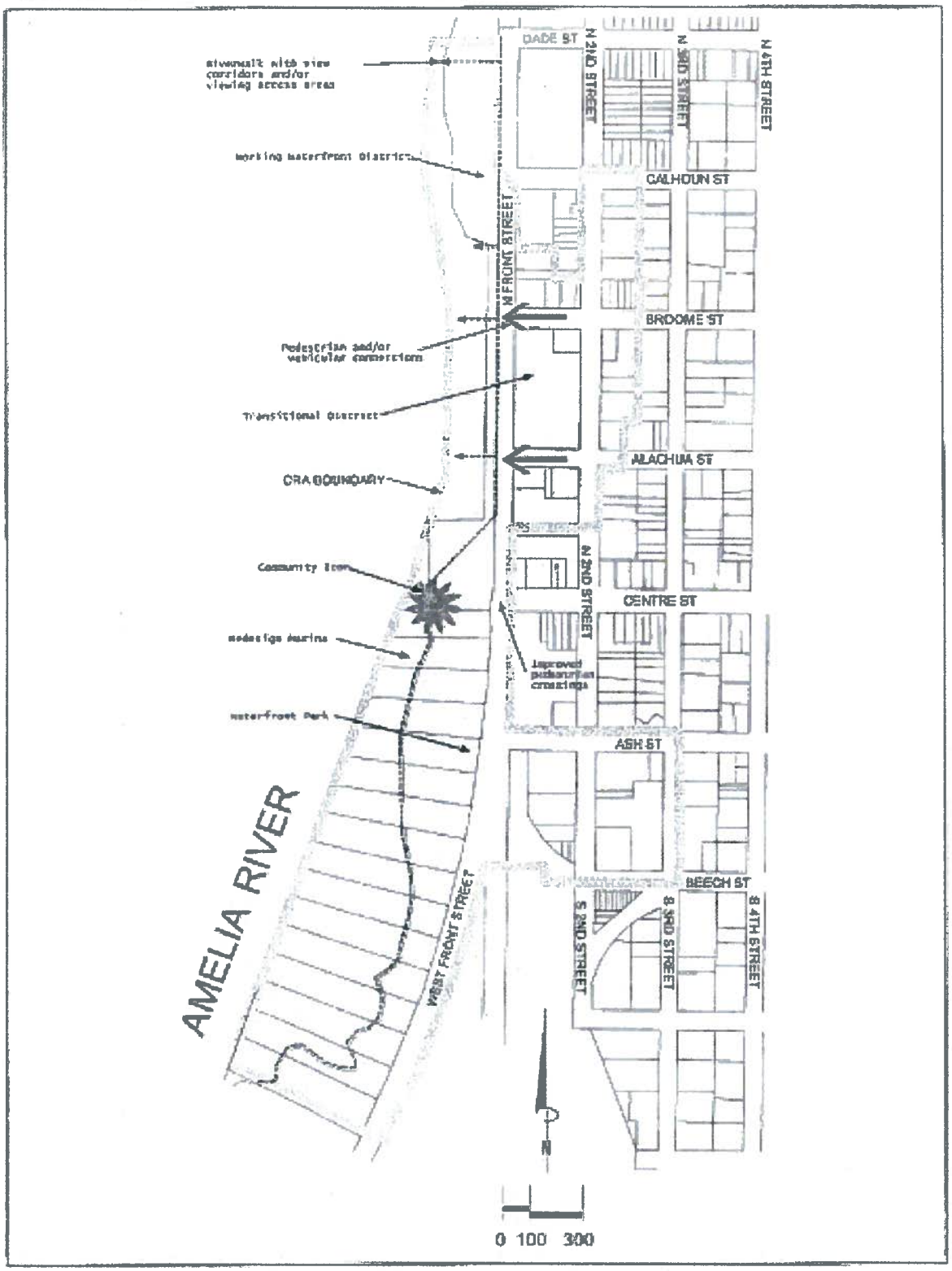
- Front Street improvements
  - Eliminate one of the railroad tracks to provide additional right of way
  - Frontage road on east side of tracks to allow frontage
  - Connect Alachua to Front Street for vehicular and pedestrian traffic
  - Provide a pedestrian crossing at Broome Street or full vehicular access with traffic calming and limitation on trucks.
  - Design elements consistent with Centre Street
- Construct sidewalks, as needed
- Pedestrian-scale street lighting throughout CRA, consistent in style with Centre Street lighting
- Develop a way-finding signage program throughout the historic downtown
- Restrict street sweeping and refuse collection to early morning and late night to avoid conflicts with pedestrian and vehicular traffic flow.
- Public access to the water
  - Redesign public waterfront lands to provide enhanced park facilities
  - Provide a community icon at Centre Street/Front Street intersection
  - Provide a riverwalk system along the water
  - Provide incentives for water views and/or pedestrian connections on private lands
- Parking – relocate waterfront parking to lands east of the railroad tracks
  - Evaluate City-owned property and rights-of-way for additional parking
  - Incorporate screening and landscape standards for new off-street parking facilities

These redevelopment objectives are portrayed graphically in Figure 2, Redevelopment Initiatives Diagram, from the Waterfront Area Community Redevelopment Plan. (Note: Waterfront designs/plans may have changed since this study.)

Parking Master Plan

A Parking Master Plan (PMP) was completed for the City of Fernandina Beach in July 2002. The PMP divided the 35-block study area from Dade Street, to Ash Street, to 8th Street to the Amelia River into three sub-areas: Downtown Sub-Area, Marina Sub-Area, and Residential/Church Sub-Area. The PMP relied on the Parking Supply/Demand

Figure 2. Redevelopment Initiatives Diagram



Source : City of Fernandina Beach
Waterfront Area Community Redevelopment Plan

Note : Waterfront designs/plans may have changed since this study.

Study conducted previously in 1999. Extensive consensus building was undertaken to address parking issues and identify potential future parking location and number of spaces. The PMP did not address the portion of the CRA located to the west of the RR that is outside of the Marina Sub-Area. The PMP Action Plan high and medium priority recommendations are summarized as follows:

Downtown Sub-Area

- Enforce parking regulations on a consistent and regular basis
- Implement two to three hour time limits or a fee based system along Centre Street
- Implement six to seven hour time limits or fee based system along perpendicular roads
- Retain some of City property for future parking, especially in high demand areas
- Add a parking requirement or an in-lieu fee to the Zoning Ordinance
- Increase patrol officer visibility during business closing hours
- Improve signage to/from parking areas
- Consider a fee-based system

Marina Sub-Area

- Implement overnight parking permits for lots C and D
- Prohibit overnight parking for lots A and B
- Implement time limits or fee based system for lots A and B

Residential Church Sub-Area

- Implement a residential parking permit in problematic areas – where businesses and residential units are merged in close proximity to each other
- Improve lighting conditions to encourage residents to walk to and from downtown

Land Development Traffic Assessment for Lane Company Downtown Fernandina Project

This study was conducted in September 2006 to project the traffic impacts from the proposed development of 3 parcels of land, consisting of 3.3 acres and 8,000 sq. ft. of retail with 4 lofts above and 32 townhouse units. The project was projected to generate 566 daily trips and 36 p.m. peak hour trips. The general findings of this study were:

- There will be no failing roadway links within the project impact area.

Front Street/2nd Street Traffic Circulation Scenarios

A study was conducted in June 2008 to evaluate various scenarios for traffic circulation on Front Street and Centre Street, based on future development of the Waterfront CRA. The future development assumptions included 400,000 square feet of light industrial/warehouse, 300 residential dwelling units, 100,000 square feet of office, and 400,000 square feet of retail, which was assumed to be a maximum development level. The primary purpose of the analysis was to determine the potential for opening the Alachua Street railroad crossing and the possible impacts of closing the Centre Street crossing. The following are the stated conclusions of the study:

- In the future motorists will experience significant delay in the area around Centre and 2nd Streets *(Note: Centre/2nd St. intersection – westbound - 24 seconds approach delay – LOS C; northbound - 28 seconds approach delay - LOS D)*
- Closing the Centre Street crossing would be detrimental to the goals of the City of Fernandina Beach.

ANALYSIS

Study Area

As stated earlier, the purpose of this study is to evaluate the need for transportation related improvements for the Waterfront Community Redevelopment Area (CRA). The study's focus is to recommend improvements that are necessary to support development and implementation of the Waterfront Master Plan. The primary study area will focus on the area of the CRA that is west of the railroad tracks, along the waterfront.

In order to properly evaluate traffic flow and circulation and the level of connectivity needed along the waterfront, it is important to understand key travel origins and destinations, major generators and the characteristics of the *surrounding* street network. To better understand the transportation context, the study area, shown on Figure 1, is defined as follows:

<u>Primary Study Area (PSA)</u>

Waterfront Community Redevelopment Area property west of the railroad

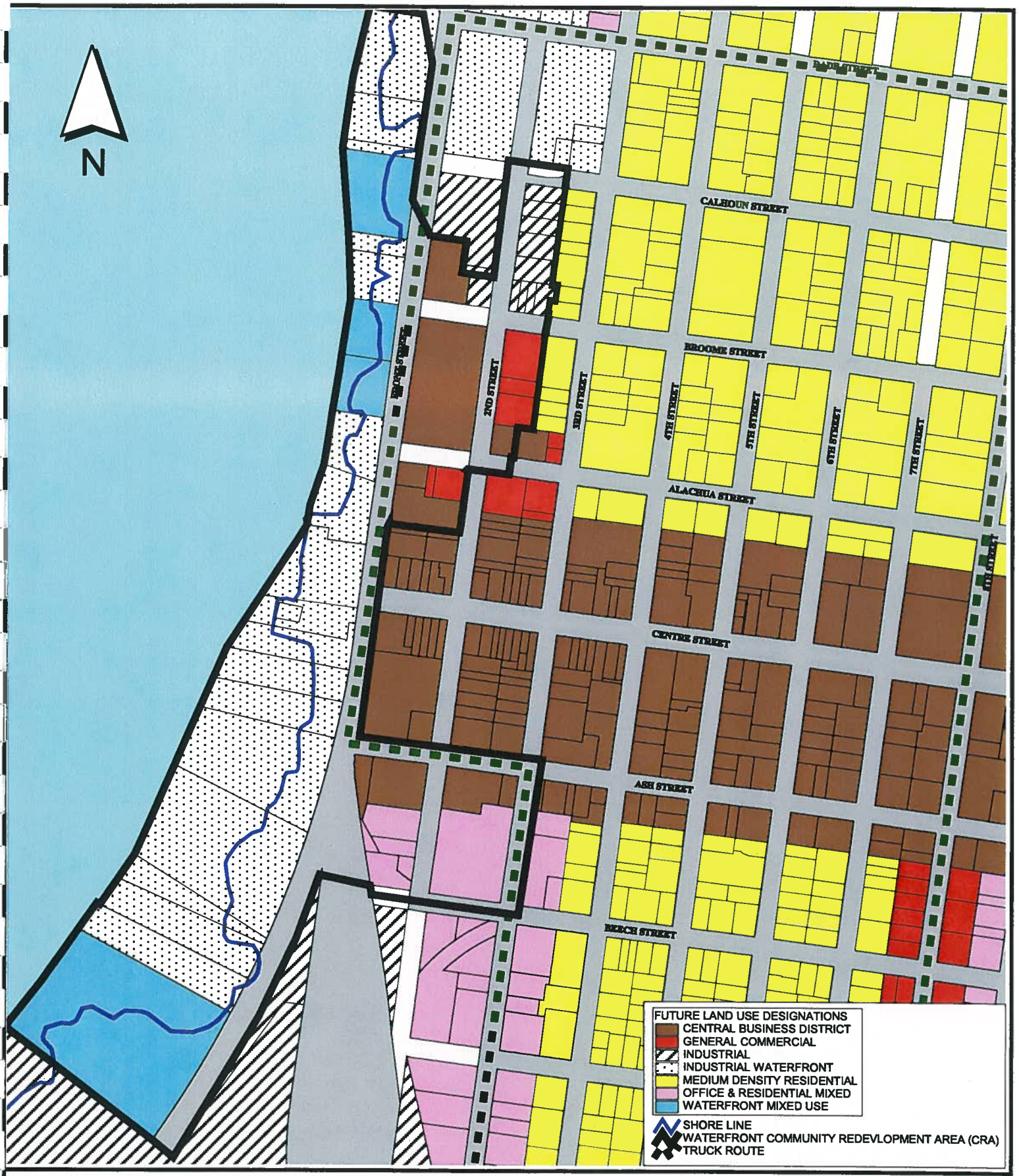
<u>Secondary Study Area (SSA)</u>

- Dade Street on the north
- 8th Street on the east
- Beech Street on the south
- Amelia River on the west

Land Use

Primary Study Area (PSA)

The PSA, located to the west of and including the RR consists of 13 private parcels and seven City-owned parcels. To the north along the water front are the Port Facility and Smurfit Stone Paper Plant and to the south is Rayonier Paper Plant. The RR and marine industries characterize the area. The existing land uses consist of marina, marine industrial, commercial fuel docks, and restaurant.



Source : Nassau County Property Appraiser
& City of Fernandina Beach

Date : 03/11/09

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FIGURE 3
CRA FUTURE LAND USE DESIGNATIONS
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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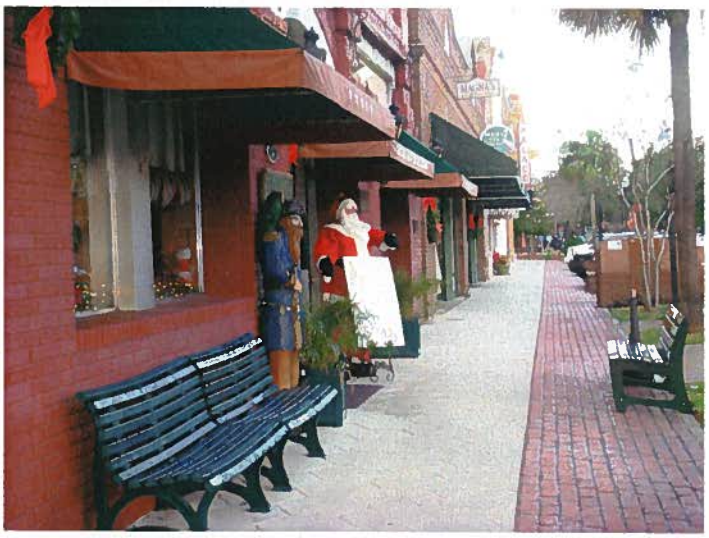
designation. The CRA Waterfront Development Plan proposed a somewhat larger area that would incorporate 6 parcels. (Note that the northernmost parcel that was changed to Waterfront Mixed Use was envisioned as part of the Working Waterfronts area {not mixed use} in the Waterfront Area Community Redevelopment Plan.)

The allowable zoning is reflective of Coastal High Hazard Area restrictions on the increase in entitlements and the City's desire to maintain the characteristics of a working waterfront at a scale of development consistent with the historic development pattern.

Much of the Primary Study Area (waterfront) has physical development constraints that, along with City and State regulations and adopted CRA design guidelines, will limit the scale and impact of redevelopment. There are, however, opportunities for private and public/private redevelopment. The City of Fernandina Beach has developed a concept plan for improvements to Front Street and is currently designing a waterfront park for the seven City-owned parcels.

Land use and site design of the redevelopment of waterfront parcels will determine if the CRA becomes predominantly an auto-dominated or a pedestrian-oriented area. The site design of the building, circulation, parking and landscaping will create the context for a walkable environment or a driving environment. With Front Street lacking connectivity to the larger grid system, the small shallow lots on the waterfront leaving no other opportunities for connectivity, and parking provided between uses and Front Street, the creation of an urban pedestrian environment will be a challenge. Alternatively, allowing the PSA to become a predominantly vehicular environment creates conflicts with the City's Vision Statement to establish a sense of place along the water's edge, maintain views and access to the water, and provide public access to the water. A vehicular-driven development pattern will likely restrict development opportunities of private development parcels along the waterfront.

Secondary Study Area (SSA)



Directly across the railroad from the waterfront properties is the Secondary Study Area located between 8th Street on the east, the rail line on the west, Dade Street on the north and Beech Street on the south and consisting of the downtown and portions of the Historic District. Unlike the CRA, most of the Historic District has a substantially built out sustainable mix of uses with a highly walkable commercial

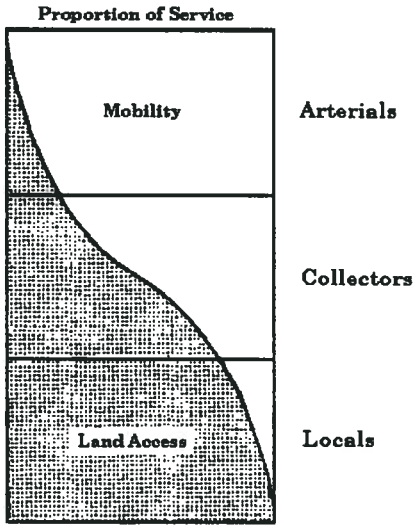
core, civic and recreational uses, and a diverse residential area. This is an area where people enjoy living, working, playing and visiting time and again.
While the SSA is substantially built out, there are some opportunities, primarily for redevelopment (First Baptist Church, the post office, etc.). Please refer to Figure 4, Development/Redevelopment Opportunities. The likelihood is that the majority of redevelopment over time will come from the continued increase in the attraction of Downtown/Historic Fernandina to tourist and daily visitors. This will cause continued intensification from small scale redevelopment in and around Centre Street.

The scale of the development and redevelopment allowed by City regulations along with the size of parcels within the tightly defined urban block and street grid will limit the severity of traffic impacts from the limited number of individual projects.

Mobility

The City's overall downtown roadway network with short blocks and frequent connections (intersecting streets) provides excellent mobility, by dispersing traffic and offering multiple route choices. In a downtown network, the primary purpose of most of the roadways is to provide pedestrian and vehicular *access* to properties in the downtown. Access is an inverse function of mobility, as shown in the figure. The more access a roadway provides to properties, the less mobility it provides.

Relationship of functionally Classified Systems in Serving Traffic Mobility and Land Access



As such, the desired characteristics for a typical downtown roadway network do not focus on roadway capacity but rather focus on:

- **Slow speeds** – this is achieved through side friction (parking, etc. along the street), short blocks with stop controlled intersections and other traffic calming devices, such as pavement treatments for pedestrian crossings. The City's network generally exhibits these characteristics. The **highest recorded average speed** on the downtown network was **20.7 mph** on westbound Beech Street.
- **Evenly dispersed traffic volumes** - this is achieved through the provision of a network of multiple intersecting roadways, providing a variety of route choices. The downtown network generally exhibits low traffic volumes, due to the dispersed traffic patterns. Centre Street is the highest volume roadway, at 2,625 vehicles per day. The other streets in the network typically experience less than 1,000 trips per day, as follows.

Source : Nassau County Property Appraiser
& 2004 USGS True Color Aerial

Date : 03/11/09

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FIGURE 4
DEVELOPMENT / REDEVELOPMENT
OPPORTUNITIES
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FERNANDINA BEACH, FLORIDA

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- **Pedestrian-oriented environment** – this is achieved through the provision of pedestrian-scaled amenities such as furnishings, and architecture to evoke a sense of place, providing a secure environment though lighting and safe crossings. The SSA network generally exhibits these characteristics, while the PSA significantly lacks these characteristics. More detailed information regarding the pedestrian environment is provided in the connectivity section of this report.

The Existing Transportation Facilities are shown in Figure 5. Pedestrian and vehicular transportation facilities are shown, as well as the designated truck route through the area. In general, the SSA network is an excellent high-capacity grid network, both for vehicles and pedestrians. There are some missing links of the network that hinder it from operating at its maximum level of efficiency.

Vehicular classification counts were taken the week of December 14, 2008. This information is shown in Figure 6, Existing Daily Traffic Volumes, and is provided in Appendix A, Existing Daily Traffic Volumes. The data collected includes average speed, vehicle class (truck, motorcycle, passenger car, etc.), and volumes. Additional information is provided in the Vehicular Mix/Truck Traffic section of this report. Key count locations are summarized below.

Street	Link	Count[1]	LOS C Capacity	% Capacity Used
Centre St.	2nd to 3rd	2,625	7,280	36%
Centre St.	Front to 2nd	1,868	7,280	26%
Ash St.	Front to 2nd	1,223	7,280	17%
Front St.	Centre to Ash	944	7,280	13%
Alachua St.	2nd to3rd	730	7,280	10%
2nd St.	Centre to Alachua	514	4,400[2]	12%

Notes: [1]24-hour volume; [2]one-way segment

Primary Study Area – Front Street

The 24-hour volume counts for southbound (SB) and northbound (NB) Front Street are shown on Figure 7, Directional Daily Traffic Volumes, and are summarized below:

Front St. Link	SB	NB	Total
Dade to Centre	135	115	250
Centre to Ash	494	450	944
South of Ash	108	74	182

Centre Street to Ash Street

Existing traffic volumes on Front Street are low, particularly north of Centre Street and south of Ash Street. Most of the traffic on Front Street is between Centre and Ash. Of that, nearly half of the traffic (41% inbound and 30% outbound) from Centre Street is

Source : Nassau County Property Appraiser

Date : 03/11/09

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FIGURE 5
EXISTING TRANSPORTATION FACILITIES
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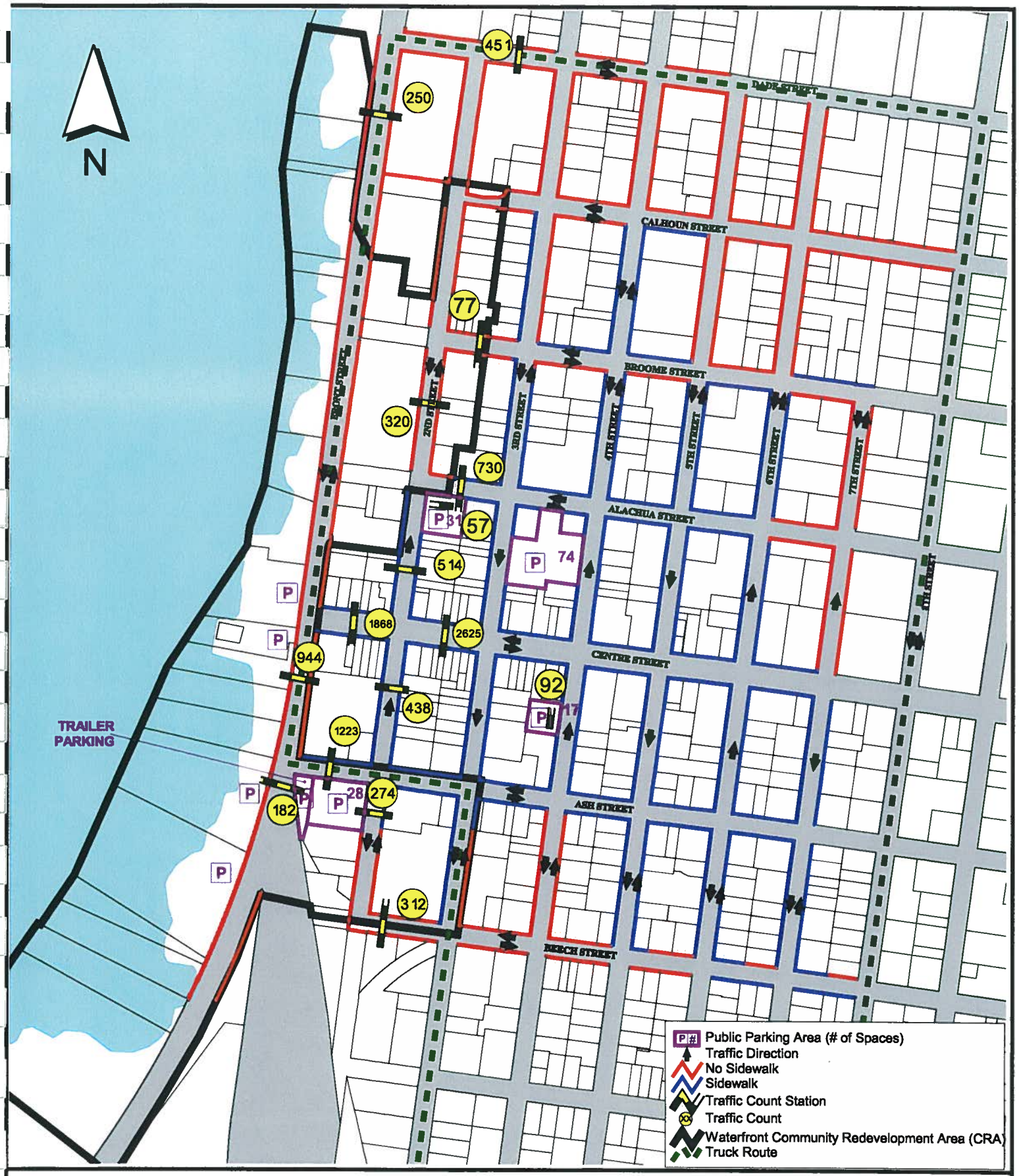

Source : Nassau County Property Appraiser

Date : 03/05/09

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FIGURE 6
EXISTING DAILY
TRAFFIC VOLUMES
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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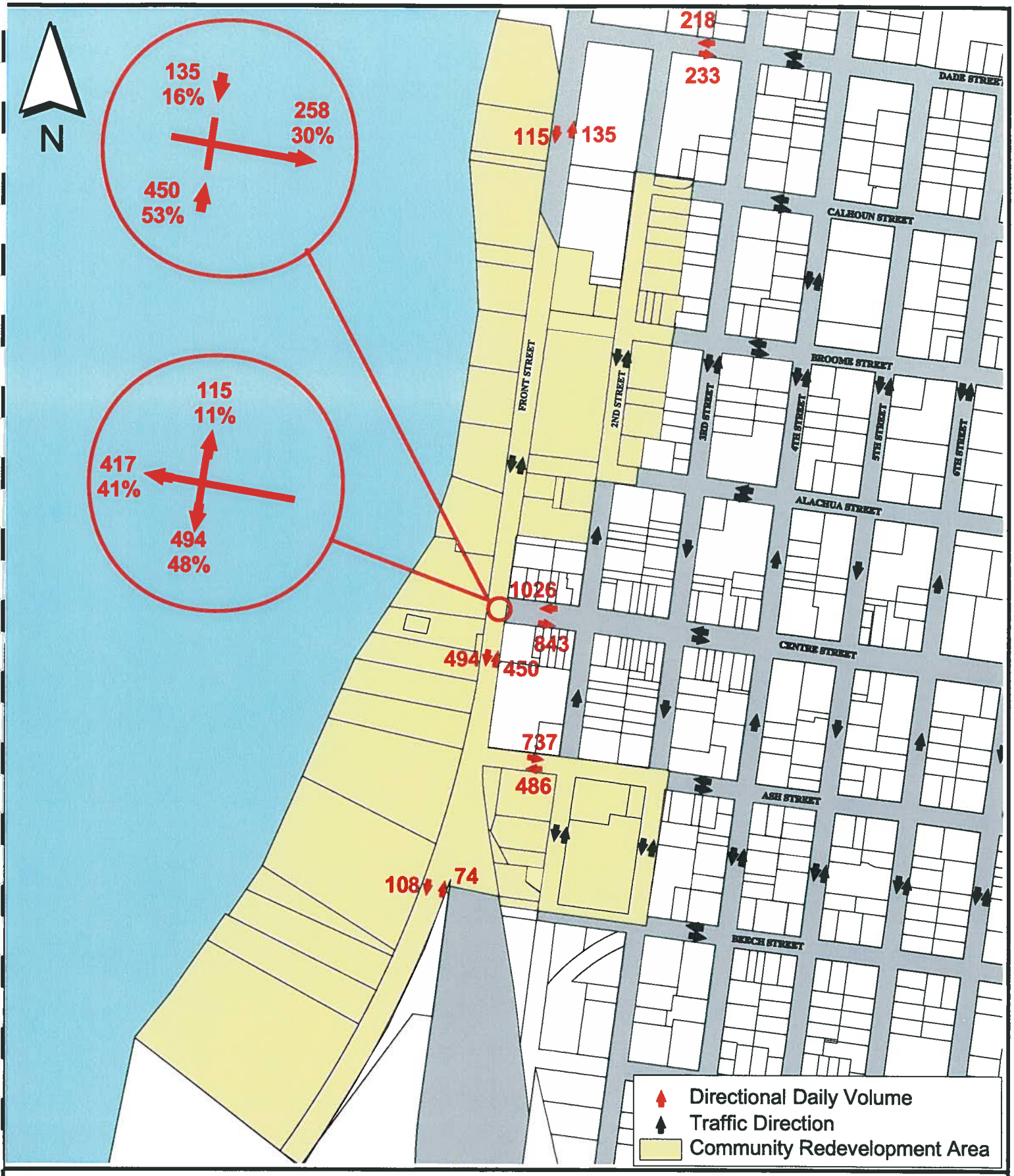

Source : Nassau County Property Appraiser

Date : 03/11/09

200 0 200 400 Feet

FIGURE 7
DIRECTIONAL DAILY VOLUMES
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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coming from/to the parking lots and not directly accessing Front Street for any significant distance. This traffic circulation pattern could change, depending on how the waterfront area is built-out. If parking remains a primary use along the waterfront, the traffic circulation pattern between Centre and Ash Streets is not likely to change significantly.

Dade Street to Centre Street

Between Dade Street and Centre Street, only 11% of the 1,026 trips heading westbound on Centre Street at Front Street proceed north on Front Street to Dade Street. About 16%, (135 trips) of the eastbound trips at Centre Street are heading southbound on Front Street. The peak direction for Front Street, between Centre and Dade is currently southbound. The directional split is 54% (southbound), which is pretty typical for a peak directional flow.

Front Street could operate effectively, between Dade and Centre, as a one-way facility, from a mobility standpoint. However, the one-way facility will further limit vehicular accessibility and further amplifies the need for additional connections to Front Street (at Alachua and/or Broome). The assessment of whether Front Street should be one-way is also dependent on how the properties along Front Street redevelop.

South of Ash Street

The count for Front Street, south of Ash was 182 bi-directional trips per day. It has a predominantly southbound (SB) directional flow (59%). About 7 heavy trucks use this segment per day (5 SB and 2 NB).

Secondary Study Area

The City has an excellent grid transportation network in the downtown area, providing many route choices. Centre Street is the major roadway running east-west through the downtown. It is a 2-lane undivided facility with diagonal parking along both sides. As expected, Centre Street carries the most traffic (2,625 trips per day) of any downtown roadway. The maximum service volume of Centre Street at LOS C is 7,280 vehicles per day. **Centre Street, the most heavily traveled roadway in the downtown, is currently operating at only 36% of its daily capacity.**

The low volumes indicate that the City has substantial capacity available in the existing roadway network to accommodate additional development and redevelopment. Because the SSA is an effective network of highly connected internal roads that provide mobility by giving more options for reaching a destination and dispersing traffic, the road network should be able to handle projected increases in traffic due to even a very aggressive redevelopment program.

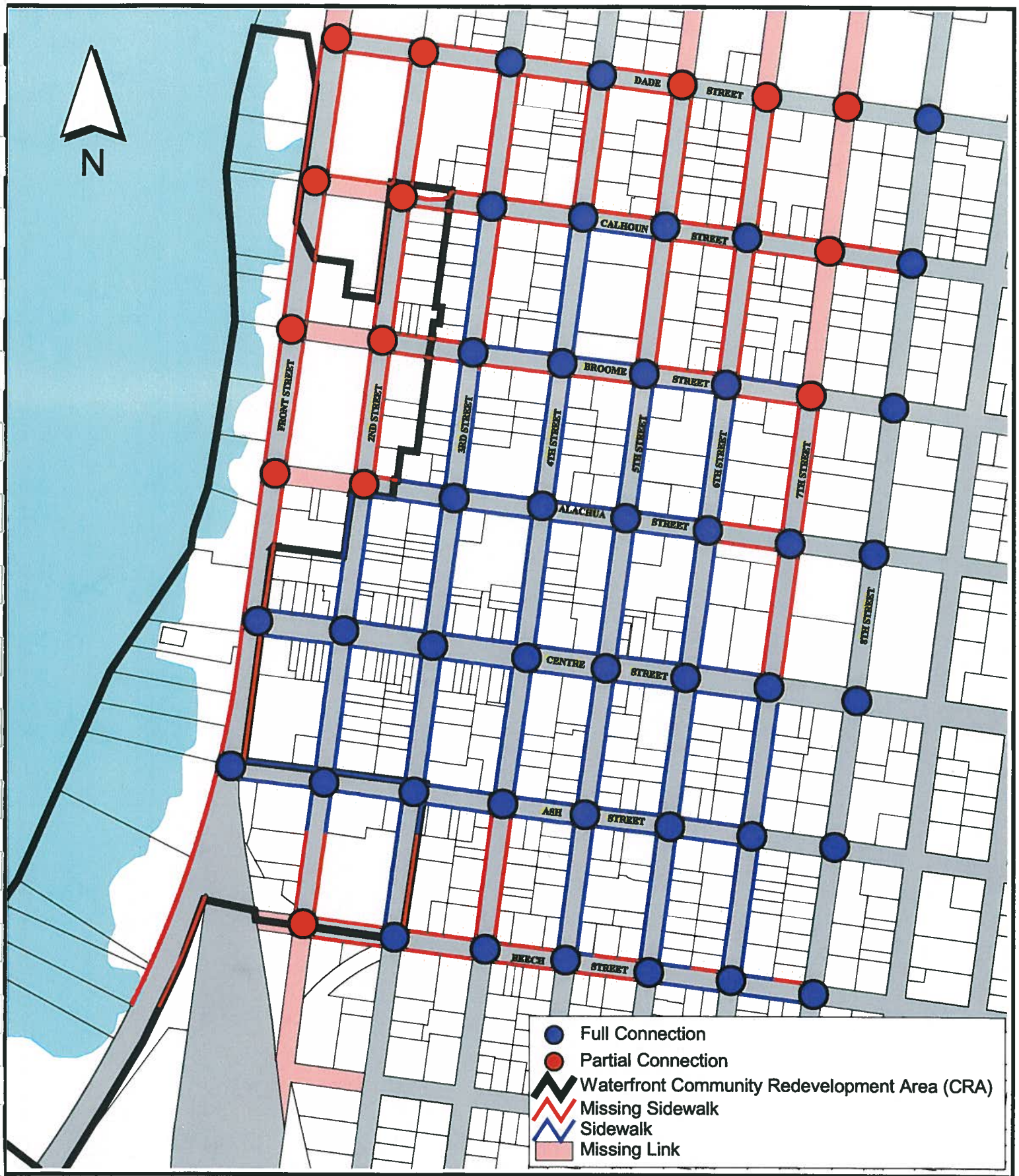
Network Connectivity

Network connectivity is the degree to which walkways and roads are connected to allow direct travel between destinations. The overall network is shown on Figure 8, Network Connectivity. A connectivity index can be used to quantify how well a roadway network connects destinations. Indices can be measured separately for vehicular and pedestrian travel, as noted below.

Primary Study Area Connectivity

Within the Primary Study Area, the City's finding of necessity Resolution identified inadequate street layout (connectivity), and lack of pedestrian or bicycle facilities and parking as blighting influences. Front Street and the PSA exhibit the following characteristics:

- **Vehicular**
  - **Internal Connectivity:** This area is not well connected to an internal road network. Front Street is the only roadway facility west of the RR tracks, with properties accessing the roadway directly. There is no internal street network.
  - **External Connectivity:** This area is not well connected to an external roadway system with only three connections (Dade, Centre, and Ash) in the eight-block area. In comparison, the adjacent SSA system has eight connections in the eight-block area.
- **Pedestrian**
  - **Connectivity:** Walkable communities limit block sizes to 300 feet to 400 feet. The spacing of connections (effective block size) along Front Street ranges from approximately 475 feet between Ash Street and Centre Street to 1,750 feet between Centre Street and Dade Street.
  - **Recommended Spacing:** The **recommended spacing for pedestrian connections is 330 feet**. The recommended spacing is a challenge, due to the regulations restricting the spacing of railroad crossings, as noted below.
- **Railroad:** The rail line is an unsightly physical barrier. Although the railroad is critical to the City's port facility and economic well being, it is also a major design constraint to the redevelopment of the CRA. Front Street is the only street providing vehicular access for the waterfront. Running north and south, Front Street is a two-way street squeezed tightly along the west side of the rail line (six feet or less from the edge of track – three feet from the edge of a railroad car when a train is present). In certain areas, the tracks sit at a significantly higher grade than the neighboring property to the east, creating a substantial separation and visual barrier. The rail cars sitting on the most westward track for lengthy periods of time add to the physical barrier effect, creating a constraint to achieving an urban level of vehicular and pedestrian



Source : Nassau County Property Appraiser

Date : 03/11/09

200 0 200 400 Feet

FIGURE 8
NETWORK CONNECTIVITY
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accessibility. An application for a new crossing has been made by the City of Fernandina Beach for a new railroad crossing at Alachua Street and Front Street. It is currently under review by the Florida Department of Transportation, CSX railroad and Railtec (the short-line operator). **Railroad crossings are typically required to be spaced at least one-half mile (2,640 pedestrian crossings/connections every 300 feet and vehicular connections every 1,320 feet.**

Summary: The PSA has poor accessibility and connectivity that are not conducive to redevelopment.

Because of the limitations in the PSA described above, every opportunity to create a more walkable and interconnected business environment should be incorporated into the design of the Waterfront Master Plan. Obtaining a railroad crossing at Alachua Street is a core improvement, key to obtaining a more walkable, interconnected environment. A traditional urban environment would mimic Centre Street with parking located on the street and behind buildings, with a continuous line of attached building fronts oriented to the street. This will not occur in its ideal form within the PSA due to physical constraints, but measures taken to improve urban form will increase opportunities for redevelopment.

Secondary Study Area Connectivity

Within the SSA, the small city block (average of 200 feet by 400 feet) and street grid system, located between 8th Street on the east, the Rail line on the west, Dade Street on the north and Beech Street on the South is a well connected network and provides good accessibility. The short blocks create frequent stop-controlled intersections, keeping speeds low. It should be noted that this level of connectivity is diminished for the blocks located between 2nd Street and the rail line because there is no form of public access (vehicular or pedestrian) on the west side of the blocks adjacent to the railroad.

- **Vehicular:**
  - **Internal Connectivity:** Within the SSA described above there are **39 intersections within a one-quarter square mile**. An index of 25 intersections per square mile (**6.25 intersections per one-quarter square mile) is indicative of a highly connected system**. As apparent by the index, the network is a very highly connected grid system, providing the highest level of route choice, connectivity and mobility.
  - **External Connectivity:** Neighborhoods within the area have connections to the larger external street system at every block, or approximately at one-eighth mile intervals. An index of connections to the larger street system at every one-quarter mile is indicative of a highly connected system; Fernandina's network

performs twice as good as the standard indicator. A few streets at the outer edges of the SSA (2nd, Beech, 7th) are not continuous, as shown on Figure 7. However, due to the location of these "missing links", the low traffic volumes, and strong grid around these areas, the lack of connectivity on these few segments is not much of a constraint for the overall network.

- **Pedestrian:**
  - **Connectivity:** Walkable communities limit block sizes to 300 feet to 400 feet. The spacing of connections throughout the SSA ranges from approximately 400 feet between east-west streets to 200 feet between north-south streets. The pedestrian connectivity throughout the SSA is excellent.
  - **Recommended Improvements:** Some areas (primarily residential) do not have sidewalks, as shown on Figure 8, Network Connectivity. The areas without sidewalks can be improved by the addition of sidewalks to the grid system over time.

Summary: The area has excellent accessibility and connectivity, with the exception of missing sidewalk connections for pedestrians., particularly in the residential areas.

Vehicle Mix/Truck Traffic

Informal interviews of various business owners, City Staff and Port Authority Staff were conducted to determine loading and delivery locations, parking issues and truck routes. Summaries of key interviews are provided in Appendix D. The following information was obtained from the discussions:

- Business deliveries generally occur in loading zones on side streets and the merchandise is carted to the business.
- Existing loading/delivery options appear to work acceptably. No specific changes regarding loading and delivery in the downtown are recommended at this time.

In addition to interviews, vehicular classification counts were collected the week of December 14, 2008, to determine the vehicle mix on the area roadway network. The Federal Highway Administration uses 13 classes to categorize vehicles, as follows:

Class 1- Motorcycles
Class 2- Passenger Cars
Class 3- Other Two-Axle, Four-Tire, Single Unit Vehicles
Class 4- Buses
Class 5- Two-Axle, Six-Tire, Single Unit Trucks
Class 6- Three-axle Single unit Trucks
Class 7- Four or More Axle Single Unit Trucks

Table 1: Summary of Vehicle Classification Counts

Roadway	Segment	Direction	Speed (mph)		Vehicle Class				Daily Volume	
					1 - 3	4	5	6 - 13		
			85th Percentile	Average	Private Vehicle	Bus	Delivery Truck	Heavy Truck	Directional	Total
Alachua	2nd/3rd	Eastbound	19.7	15.6	97.0%	0.0%	2.2%	0.9%	597	730
		Westbound	22.6	16.9	96.3%	0.0%	2.3%	1.5%	133	
Ash	Front/2nd	Eastbound	21.9	17.5	95.2%	2.3%	3.1%	1.4%	737	1223
		Westbound	24.6	19.1	95.7%	0.0%	2.9%	1.4%	486	
Beech Street	2nd/3rd	Eastbound	19.9	16.9	84.1%	2.8%	11.2%	1.9%	107	312
		Westbound	23.7	20.7	93.7%	0.0%	5.9%	0.5%	205	
Broome	2nd/3rd	Eastbound	17.4	14.0	96.1%	0.0%	3.9%	0.0%	51	77
		Westbound	18.6	15.9	96.1%	0.0%	3.8%	0.1%	26	
Centre	Front/2nd	Eastbound	13.4	10.5	98.5%	0.0%	1.2%	0.0%	843	1868
		Westbound	13.2	10.8	97.5%	0.0%	1.3%	1.3%	1026	
Centre	2nd/3rd	Eastbound	13.6	10.9	98.6%	0.2%	1.1%	0.0%	1166	2625
		Westbound	14.5	11.7	97.8%	0.3%	1.6%	0.2%	1459	
Dade	2nd/3rd	Eastbound	21.0	15.3	83.7%	0.4%	3.4%	12.4%	233	451
		Westbound	22.1	16.9	87.1%	0.9%	1.4%	10.6%	218	
2nd	Alachua/Centre	Northbound	17.0	13.6	97.8%	0.0%	1.8%	0.4%	514	514
2nd	Broome/Alachua	Northbound	22.1	18.6	96.8%	0.0%	2.5%	0.6%	150	313
		Southbound	22.8	18.5	96.1%	0.0%	1.6%	2.9%	163	
Front	South of Dade	Northbound	19.5	15.1	93.9%	0.0%	4.3%	1.8%	115	250
		Southbound	19.2	15.2	94.8%	0.7%	0.0%	4.4%	135	
2nd	Ash/Beech	Northbound	21.3	16.7	94.9%	0.0%	4.6%	0.5%	194	274
		Southbound	20.6	15.3	93.9%	0.0%	6.3%	0.0%	80	
2nd	Centre/Ash	Northbound	17.2	12.9	98.0%	0.0%	1.8%	0.2%	438	438
Front	Centre/Ash	Northbound	20.1	15.6	95.8%	0.0%	2.7%	1.6%	450	944
		Southbound	20.6	16.3	93.7%	0.4%	2.2%	3.6%	494	
Front	South of Ash	Northbound	19.7	14.1	94.6%	0.0%	2.4%	2.8%	74	182
		Southbound	18.6	14.8	92.6%	0.0%	2.8%	4.6%	108	

Class 8- Four or Less Axle Single Trailer Trucks
Class 9- Five-Axle Single Trailer Trucks
Class 10- Six or More Axle Single Trailer Trucks
Class 11- Five or Less Axle Multi-Trailer Trucks
Class 12- Six-Axle Multi-Trailer Trucks
Class 13- Seven or More Axle Multi-Trailer Trucks

More detailed descriptions and representative samples of the 13 classes are provided in Appendix B. For purposes of this analysis, the 13 classifications were combined into four overall categories:

1. Class 1-3 (Passenger vehicles/primarily private use),
2. Class 4 (Buses),
3. Class 5 (Fed-Ex style trucks/EMS vehicles), and
4. Class 6 and above (big trucks)

PSA

Front Street serves some heavy truck traffic and is part of the City's designated truck route as shown on Figure 5. Because of the mix of uses along Front Street (industrial, public, retail), there is also a mix of traffic. Pedestrians are currently forced to interact with trucks, trains and other heavy vehicles. This conflict will escalate as the waterfront develops and increased pedestrian activity occurs in this area.

SSA

Truck traffic has been an issue for some of the residential areas. Neighborhood complaints along Dade Street include: trucks parking in a no parking zone, staging work east of 3rd Street, blocking of access, and safe flow of traffic.

The truck traffic from the port utilizes 8th Street to Dade Street and generally avoids Front Street and the downtown. Trucks utilize the same route in-bound and out-bound. Likewise, Smurfit Stone to the north utilizes 8th Street and 14th Street. Rayonier to the south utilizes Gum Street for access to its site. Therefore, some of the heaviest users are able to avoid routing trucks through the downtown.

Florida Petroleum utilizes 2nd Street, north to Dade for its bulk facility. For the facility located on Front Street, trucks proceed down Front Street to Ash to 3rd to Gum Street.

If a vehicular crossing were obtained (at Alachua or Broome Street), Florida Petroleum could route southbound trucks on Front Street across the new connection to Second Street north to Dade Street and out to 8th Street. This would provide many advantages:

1. The more industrial nature of the working waterfront uses could be better defined and separated from the tourist-oriented commercial and public uses along the waterfront (by making the land use north of the new connection

industrial/working waterfront and the land south of the new connection waterfront/mixed use).

2. Industrial (truck) traffic could be separated from the pedestrian-oriented uses on Front Street south of the new connection.

3. The crossing would be centrally located between the current crossings at Dade Street and Centre Street.

4. Homeland Security issues require that pedestrians be kept off of the Florida Petroleum property. Any pedestrian connections at Broome should route pedestrians along the south side of the right of way and buffer the Florida Petroleum site from unintended pedestrian access.

5. If the crossing (at Alachua or Broome) is not provided, Front Street will need to accommodate large trucks, which do not mix well with the pedestrian-oriented nature of the park and waterfront.

In order to pursue a crossing at Broome Street, Railtec will need to be consulted to determine options to storing rail cars on the western-most track.

There are decisions regarding truck traffic that need to be addressed to reduce the conflict between incompatible traffic mixes. If a connection is made to Front Street from (Alachua Street or Broome Street) the truck route could be re-designated to reduce impacts along Front Street and in the office/residential mixed use areas to the south of downtown.

Traffic Circulation

<u>One-Way Streets Overview</u>

Several streets in the SSA are one-way for one block north and one block south of Centre Street, as shown in Figure 5, Existing Transportation Facilities. The north/south streets alternate direction, beginning at 2nd Street (northbound) and continuing with 3rd Street (southbound) to 6th Street (northbound). 7th Street is one-way northbound north of Centre Street and one-way southbound south of Centre Street. These one-way sections are one lane, with diagonal and parallel parking. They function acceptably from a mobility standpoint, as traffic volumes are relatively low and the grid network is highly efficient.

Ash Street

The question of whether to make Ash Street one-way eastbound to facilitate truck traffic exiting the downtown has been raised by the City. The only significant truck traffic along Ash Street occurs along the 2 blocks between Front Street and 3rd Street. Florida Petroleum trucks travel down Front Street to Ash Street. From Ash Street, they turn south on 3rd Street to Gum Street to access the Rayonier site. This would not warrant making Ash Street one-way.

The benefits of making Ash Street one-way include the ability to provide diagonal parking (if it is reduced to a single lane) and creating additional pedestrian/landscaped area. This could spur redevelopment and additional private investment along Ash Street. Besides Centre Street (and one block of Second/Front Street), Ash Street is the only area downtown that has a Central Business District Future Land Use designation and is zoned C-3, which allows high intensity development. In addition, lots of record can develop at a density of 17 dwelling units per acre.

Further, one-way streets are typically created in parallel pairs. That is, if Ash Street were one-way eastbound, Centre Street or Beech Street should be evaluated for one-way westbound. This could provide an opportunity, in the future, to route more traffic down Ash Street to help spur redevelopment.

From an operational standpoint, (truck traffic and general mobility), making Ash Street one-way is not warranted at this time.

Front Street

One of the alternatives in the Front Street Concept Plan is to make Front Street a one-lane, one-way roadway between Dade Street and Centre Street. Based on the current daily traffic volumes along Front Street, as shown on Figure 6, Front Street does not need to be a two-lane facility. Just south of Dade, the traffic count is 250 vehicles per day (vpd); between Centre and Ash Streets it is 944 vpd; and, south of Ash it is 182 vpd. Southbound is the peak travel direction, as follows:

Link	SB	NB	Total
South of Ash –	108	74	182
Centre St. to Ash St.-	494	450	944
South of Dade -	135	115	250

It will be easier to make Front Street a one-lane, one-way facility if heavy vehicles do not have to be accommodated in the design (turning radius, width, etc.). This could be accomplished by redefining the truck route and obtaining a new railroad crossing at Alachua Street.

Making Front Street a one-lane, one-way facility will also make it easier (by reducing the right-of-way required for the roadway lanes) to achieve the objectives and strategies that were identified in the Waterfront CRA Plan for Front Street improvements, as follows:

- "Eliminate one of the railroad tracks to provide additional right of way.
- Frontage road on east side of tracks to allow frontage.
- Connect Alachua to Front Street for vehicular and pedestrian traffic
- Provide a pedestrian crossing at Broome Street or full vehicular access with traffic calming and limitation on trucks.
- Design elements consistent with Centre Street"

Parking

Previous Studies

The City's Comprehensive Plan, adopted May 4, 2004, specifically addressed parking downtown, as follows:

> Objective 2.08. Downtown Parking
>
> The City shall ensure an adequate parking supply to serve downtown businesses, while maintaining the character of the downtown area and retaining the integrity of residential neighborhoods. The City shall ensure that an inadequate parking supply does not detract from the economic viability of downtown businesses.
>
> Policies
>
> *2.08.01.* The City shall prepare and implement a financially feasible plan for providing downtown parking.
> *2.08.02.* The City shall monitor the supply and demand for parking facilities in the downtown area. The City shall determine fiscally responsible alternatives for resolving parking issues, while preserving the character of the downtown area and the integrity of the residential neighborhoods within and adjacent to the downtown."

Further the Waterfront CRA Plan recommended the following Parking objectives and strategies:

- Relocate waterfront parking to lands east of the railroad tracks
    - Evaluate City-owned property and rights-of-way for additional parking
    - Incorporate screening and landscape standards for new off-street parking facilities

The Parking Master Plan Action Plan high and medium priority recommendations are summarized as follows:

Downtown Sub-Area

- Enforce parking regulations on a consistent and regular basis
- Implement two to three hour time limits or a fee based system along Centre Street
- Implement six to seven hour time limits or fee based system along perpendicular roads
- Retain some of City property for future parking, especially in high demand areas
- Add a parking requirement or an in-lieu fee to the Zoning Ordinance
- Increase patrol officer visibility during business closing hours
- Improve signage to/from parking areas
- Consider a fee-based system

Marina Sub-Area

- Implement overnight parking permits for lots C and D
- Prohibit overnight parking for lots A and B
- Implement time limits or fee based system for lots A and B

Residential Church Sub-Area

- Implement a residential parking permit in problematic areas – where businesses and residential units are merged in close proximity to each other
- Improve lighting conditions to encourage residents to walk to and from downtown

Analysis

Part-Time Impacts

The weekly farmers' market attracts a large number of visitors, causing crowded on-street parking within the block surrounding the 7th Street location, spilling over into the

residential areas. In support of Policy 2.08.02, above, the City should consider relocating the Farmer's Market activities to the waterfront park area, once improvements are made to accommodate it.

The downtown and surrounding neighborhoods are impacted by a variety of special events (approximately 30) in the months of March through December. Some of these events are external, but spill over to Downtown and others are held within the Downtown or waterfront areas. Please refer to Appendix C for a detailed list of special events. Overflow parking is available for these events at the public park and the middle school, east of Eighth Street (off of Centre Street).

Pedestrian Level of Service

Figure 9 shows ¼-mile distance from the public parking. The entire downtown area is within ¼-mile of public parking (actually most of it is substantially less than 1/4-mile). Figure 10, Pedestrian Level of Service (LOS), provides a detailed assessment of walking level of service from public parking areas. For purposes of this assessment, walking routes were deemed acceptable if they had a sidewalk on at least one side of the road. Those roadway links without a sidewalk on either side were not included as a viable route for pedestrians (and as such, are de facto LOS F). LOS A is defined as a walk distance (acceptable surfaces, security, etc. is assumed) of 400'. LOS B is defined as a walk distance of 800' and LOS C is defined as a walk distance of 1200'. Even with the "missing" sidewalk links, most of the network operates at an acceptable level. Provision of these sidewalks would improve the pedestrian LOS.

Especially with the 422 on-street parking spaces spread throughout the downtown area, there is ample parking within a reasonable proximity to all of the areas downtown. Further, general observation indicated that parking is generally about 70% occupied. Parking capacity does not appear to be a problem currently.

However, one of the findings of the Parking Master Plan conducted in 2002 was that desired parking locations for users along Centre Street had less to do with how far they had to walk and more to do with **line of sight** to the destination. **Visibility is a key factor for retail uses. Appropriate signage and way-finding will be an important factor in providing a "sense of visibility" for parking.**

Source : Nassau County Property Appraiser

Date : 03/12/09

300 0 300 600 Feet

FIGURE 9
1/4 MILE FROM PUBLIC PARKING
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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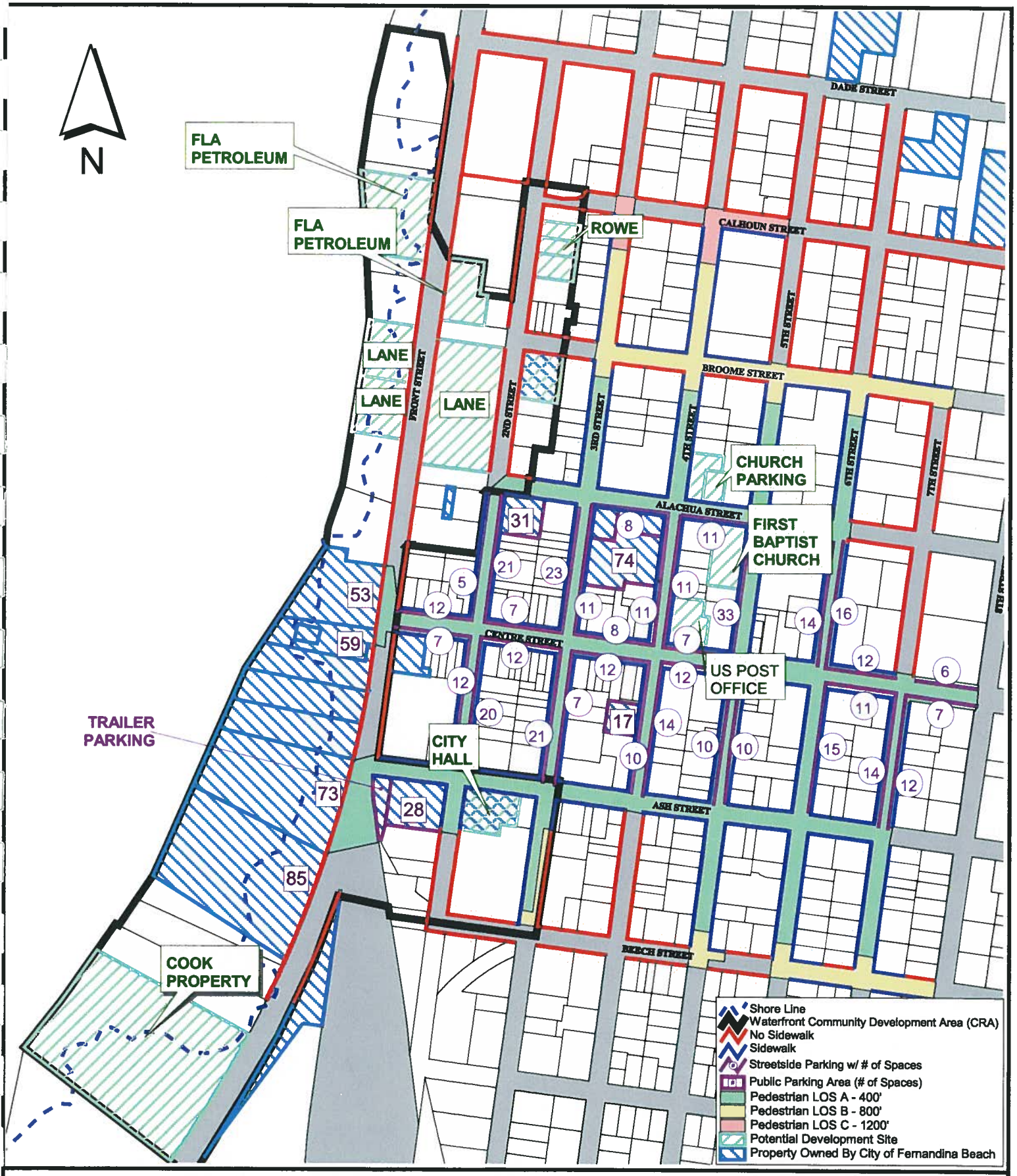

Source : Nassau County Property Appraiser

Date : 03/12/09

200 0 200 400 Feet

FIGURE 10
PEDESTRIAN LOS
FROM PUBLIC PARKING
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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Table 2: Downtown Public Parking Spaces

Street Name	Roadside	Cross Street 1	Cross Street 2	Parking Spaces
2nd Street	West	Ash Street	Centre Street	12
2nd Street	West	Centre Street	Alachua Street	5
2nd Street	East	Ash Street	Centre Street	20
2nd Street	East	Centre Street	Alachua Street	21
3rd Street	West	Ash Street	Centre Street	21
3rd Street	West	Centre Street	Alachua Street	23
3rd Street	East	Ash Street	Centre Street	7
3rd Street	East	Centre Street	Alachua Street	11
4th Street	West	Ash Street	Centre Street	10
4th Street	West	Centre Street	Alachua Street	11
4th Street	East	Ash Street	Centre Street	14
4th Street	East	Centre Street	Alachua Street	11
5th Street	West	Ash Street	Centre Street	10
5th Street	West	Centre Street	Alachua Street	33
5th Street	East	Ash Street	Centre Street	10
6th Street	West	Centre Street	Alachua Street	14
6th Street	East	Ash Street	Centre Street	15
6th Street	East	Centre Street	Alachua Street	16
7th Street	West	Ash Street	Centre Street	14
7th Street	East	Ash Street	Centre Street	12
Alachua Street	South	3rd Street	4th Street	8
Alachua Street	South	4th Street	5th Street	11
Centre Street	North	2nd Street	3rd Street	7
Centre Street	North	3rd Street	4rth Street	8
Centre Street	North	4rth Street	5th Street	7
Centre Street	North	6th Street	7th Street	12
Centre Street	North	7th Street	8th Street	6
Centre Street	North	Front Street	2nd Street	12
Centre Street	South	2nd Street	3rd Street	12
Centre Street	South	3rd Street	4rth Street	12
Centre Street	South	4rth Street	5th Street	12
Centre Street	South	6th Street	7th Street	11
Centre Street	South	7th Street	8th Street	7
Centre Street	South	Front Street	2nd Street	7
Total On-street Parking				*422*
Parking Lot D				85
Parking Lot C				73
Ash Street Lot		Front Street	2nd Street	28
Parking Lot B				59
Parking Lot A				53
4th Street Lot		Centre Street	Ash Street	17
Alachua Street & 2nd Street Lot				31
Alachua Street Lot		3rd Street	4th Street	74
Total Public Parking Lots				*420*
TOTAL PARKING				**842**

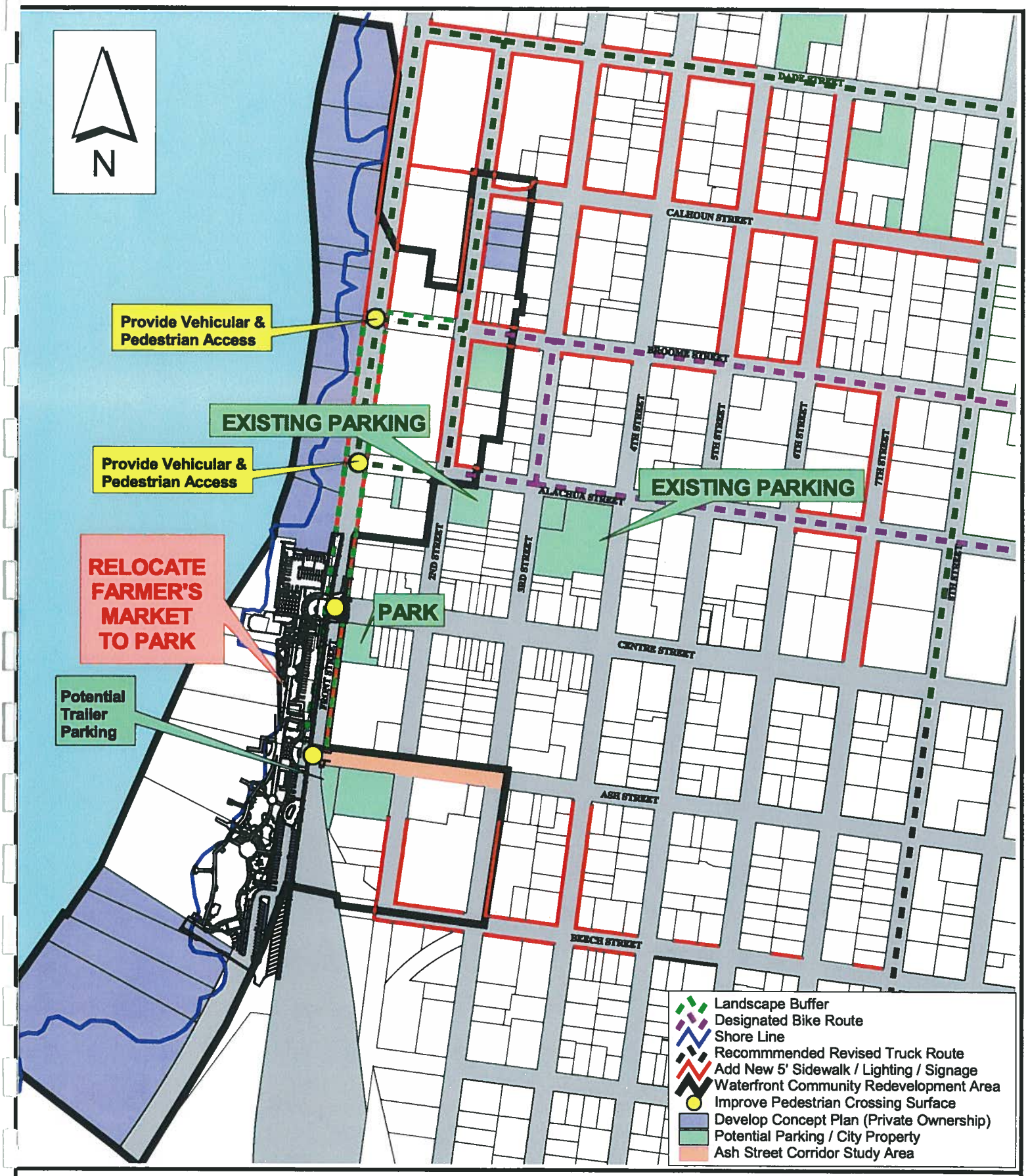
RECOMMENDATIONS

Recommendations, by subject area, are provided below. Figure 11, Recommended Transportation Improvements, graphically highlights some of the key recommendations.

Land Use

Providing additional accessibility will have a significant impact on shaping the development patterns and the ability to redevelop the waterfront area. The following actions are recommended:

1. **Separate incompatible uses** through traffic flow, buffering and landscaping. This can be achieved by providing **a vehicular railroad crossing (at Alachua Street or Broome Street)**. This will enable the property north of the connection to continue to transition to more industrial uses, while allowing the property south of the new connection to become more pedestrian-oriented. By providing a new crossing, Florida Petroleum trucks can use this crossing and avoid using Front Street, south of the new crossing.
2. **Revise the future land use designation and zoning classifications** on properties in the waterfront CRA in accordance with provision of a new rail crossing (industrial/working waterfront to the north and waterfront mixed use/pedestrian-oriented south of the new connection). This will provide a framework for development of the waterfront and encourage private investment consistent with the City's vision.
3. A development opportunity assessment should be considered for the 13 privately-owned parcels along the waterfront in order for the City to effectively implement the design of the Waterfront Park and Front Street improvements. This will provide a better understanding of potential uses and timeframes for development of undeveloped or underutilized parcels, which will better enable the City to plan for the impacts associated with the development of these parcels. A **concept plan** could be developed **for each site**, or the top priority sites, as desired by the City. Part of this analysis should include an assessment of the economically obsolete industrial buildings adjacent to Front Street.
4. It will be important to provide good access (both pedestrian and vehicular) along Front Street for the properties between 2nd Street and Front Street to become fully utilized. If the Lane property develops as proposed, **a pedestrian facility on the east side of the tracks is recommended, along with street level amenities and activities at the building face along the block.**



Source : Nassau County Property Appraiser

Date : 03/12/09

200 0 200 400 Feet

FIGURE 11
KEY STUDY RECOMMENDATIONS
WATERFRONT MASTER PLAN
FERNANDINA BEACH, FLORIDA

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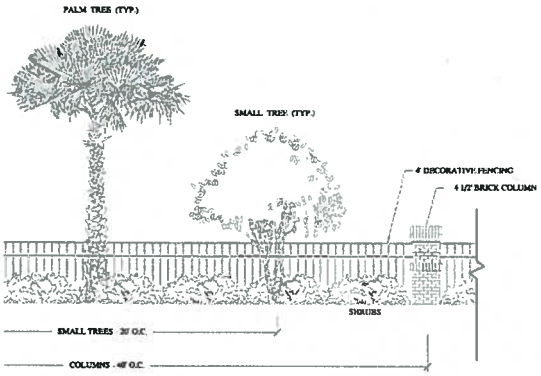
5. Ash Street has high intensity C-3 zoning, which allows a floor area ratio of 2.0. This is the same intensity as the development along Centre Street. However, as currently developed, Ash Street has a mix of lower intensity office and retail uses (with some residential mixed in). A **corridor study should be conducted for Ash Street** to identify opportunities for redevelopment. Streetscape and other roadway improvements should be considered as part of the study.

Access and Connectivity

There is no question that a key factor affecting the waterfront area's ability to experience redevelopment is lack of access and visibility. Greater access and visibility is needed between east side and west side of tracks. The Lane Company development will need to be raised to create adequate street-level views across the tracks.

1. **Front Street Corridor Improvements**

   A. **Create a landscaped buffer and pedestrian sidewalk/path** with pedestrian-scaled amenities on **both sides** of the rail line north to Broome Street, subject to obtaining the railroad crossing at Broome Street. The sidewalk/pedestrian path located on the east side of the rail line may require acquisition of an easement. Regulatory bonus incentives should be considered to facilitate this action. There will be some significant grade issues between the height of the rail line and ground elevations of the adjacent property.



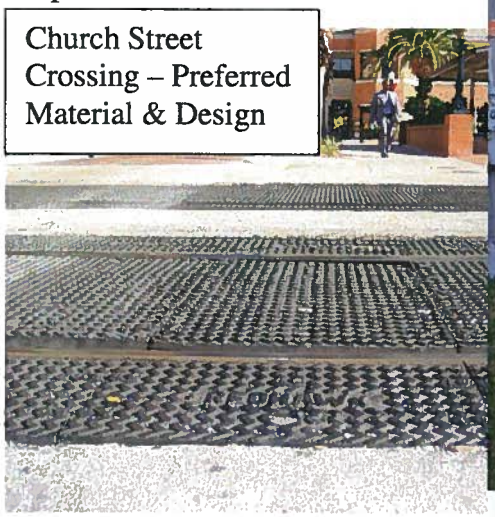
   B. **Pedestrian Amenities** – Provide street furniture designed to complement and connect to Centre Street and the historic district.

   C. **Street-level Activity** – Provide activities and pedestrian-scaled facades along the building faces fronting the railroad. The function of the pedestrian pathway on the east side of the rail line would be greatly enhanced if the City required existing buildings to create windows on the

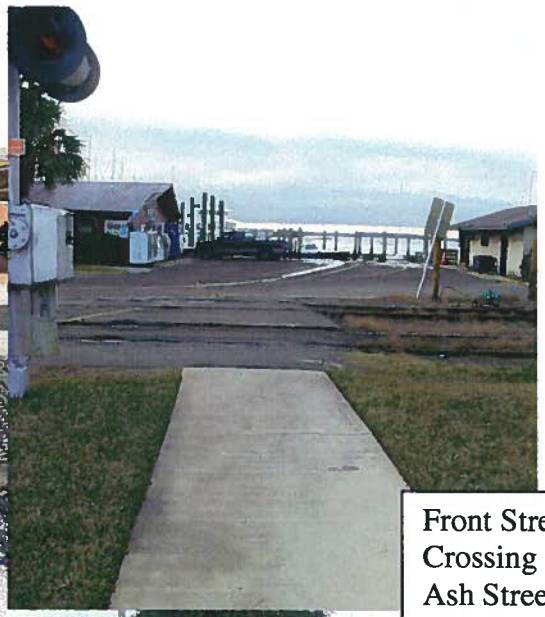
Front Street
Fernandina

pathway facing west. New buildings should be located on a build-to-line at the edge of the pathway and have a traditional urban character. This character should incorporate architectural elements that are interesting, attractive and scaled to the pedestrian. Likewise, if the rail cars cannot be relocated, perhaps they could be painted with interesting advertising or tourist information relative to the history, etc. of Fernandina Beach (if the same cars are used each day).

D. **Crossings** - Improve the walking surface at the existing and proposed crossings of the rail lines for pedestrians.



Church Street Crossing – Preferred Material & Design



Front Street Crossing at Ash Street

E. **Lighting** - Successful mixed use environments are active day and night and require a high level of safety lighting. Pedestrian-scaled lighting designed to complement and connect to Centre Street and the historic district should be installed on all existing and proposed sidewalks and proposed pedestrian pathways at an average spacing of 100 feet (50 feet staggered on either side of the street).

2. **Pedestrian Improvements beyond Front Street** - Improvements to add sidewalks and pedestrian pathways throughout the Historic District will not only create a safe, walking environment; the added connectivity will benefit the Downtown and CRA businesses through increased visibility and activity. The improvements should include:

A. Residential Areas – "Missing" sidewalks in residential areas should be provided, as shown on Figure 11, Key Study Recommendations. New sidewalks should be a minimum of five feet wide and include pedestrian amenities that will serve to increase this alternate mode of travel and also serve as traffic calming devices.

B. Provide landscaping/buffering along the Florida Petroleum property next to the railroad tracks until such time as this use redevelops. If the rail cars will remain, landscape/buffer along Broome Street to discourage pedestrian movements to the north of Broome Street.

C. The Waterfront Park will attract heavy pedestrian users. This will change the mix of traffic along Front Street and calls for the following considerations:
   - Safe pedestrian crossings
   - Slow speeds
   - Good Signage

3. **Bicycle Improvements -** Amelia Island is 13 miles long and four miles wide, making the downtown easily accessible by bicycle and providing a viable mode of travel from residential areas throughout the island. The Bed and Breakfast facilities and hotels located downtown may also provide bicycles for use by visitors. The following improvements are recommended:

   A. **Bicycle Master Plan** - A bicycle master plan should be developed for the island to establish safe designated bike routes and identify the need for improvements to better connect residential areas with the downtown.

   B. **Establish Designated Route Downtown** - A designated route should be established on low volume streets to access core locations in the downtown and the CRA. Bicycle-compatible roadways should comprise a bicycle network of parallel routes with effective spacing of one-half mile.

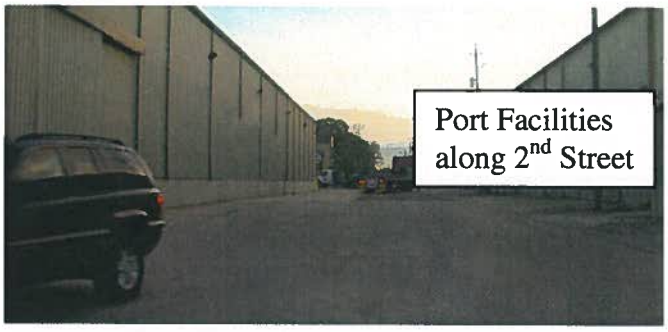
   C. **Bicycle parking racks** should be provided in public parking lots, parks and along the bike route at other key destinations.

Truck Traffic

1. **Revise designated truck route** to remove Front Street, south of Alachua (or Broome), Ash Street and 3rd Street as part of the designated route. Add: New connection (Alachua or Broome) from Front to 2nd and 2nd from Broome to Dade.

   This will provide a clear separation of industrial uses and heavy traffic from the tourist/retail and residential uses and keep heavy trucks out of these areas. *This recommendation is contingent on obtaining a railroad crossing at Alachua Street or Broome Street.*

2. **Reduce truck traffic impacts in residential areas.** Strategies to reduce the impacts of heavy trucks on residential areas should be identified and implemented. These could include buffering, evaluating time of day to determine if operational shifts can be made, staging and parking requirements, policies regarding motor idle times, and enforcement of current laws and regulations.


Port Facilities along 2nd Street

Parking

The recommendations in the 2002 Parking Master Plan should continue to be implemented, as reviewed earlier in the report. In addition, consider the following, relative to parking:

1. Identify additional locations within one-quarter mile of the waterfront for parking.

   a. The City-owned property to the west of City Hall should be improved and striped for parking (at least in the near-term). A parking lot layout should be completed to maximize spaces and use of the lot.
   b. The City-owned lot on the southeast corner of Broome and Second Streets is another good candidate for future parking and a parking lot layout should be completed on this parcel, as well.

City-Owned Property at Broome/2nd

2. Relocate the weekend Farmer's Market to the waterfront area, once the park improvements are complete and can accommodate it. This will eliminate weekend morning parking conflicts in the residential areas and will create a safer environment for pedestrians.

Parking from Farmer's Market

3. If the City is considering purchasing the Baptist Church site for a performing arts center, the associated church parking would have the added benefit of being available for downtown parking during the day, when the performing arts center was not likely to be fully utilized.

4. Conduct a shared parking analysis for existing peak and off-peak private users downtown. For example, using church parking lots for public parking during off-peak periods for the church.

5. Provide wayfinding signage for public parking locations and primary retail uses/areas served by those parking lots/spaces.

6. Provide sidewalk connections, lighting and other pedestrian amenities along roadways to parking areas and surrounding destinations.

WALKER
PARKING CONSULTANTS

PARKING MASTER PLAN – PHASE ONE

CITY OF FERNANDINA BEACH

FERNANDINA BEACH, FLORIDA

Final Report
July 2002
Project No. 15-1484.00

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EXECUTIVE SUMMARY

The City of Fernandina Beach (City) has retained Walker Parking Consultants (Walker) to perform phase one of a parking master plan. The objective of the master plan is to evaluate the parking conditions for effectiveness and efficiency as well as make suggestions for improvement.

The boundaries for the study are Dade Street to the north, Ash Street to the south, 8th Street to the east, and the Amelia River to the west. The study area consists of 35 blocks in historic downtown Fernandina Beach and is separated into three sub-areas: the Marina, the Central Business District (CBD or Downtown), and the Church/Residential district.

Walker Parking Consultants, along with the City of Fernandina Beach held a community workshop on April 27, 2002 at City hall. The workshop allowed both Walker and the City to listen to community concerns regarding parking. Walker has incorporated the community concerns and ideas into the study.

After considering various options, Walker has created action plans for each of the sub-areas. The action plans have been prioritized according to effectiveness, critical versus non-critical, financial obligation, timing, and ease of implementation.

Walker has categorized the action plans into high, medium, and low priority items. High priority items should be implemented immediately or in the near future. Those items identified as high priority are either critical to the success of the parking system or will significantly improve the system.

Walker recommends the following high priority items to be addressed by the City in the next twelve (12) to eighteen (18) months.

Downtown Sub-Area

- Enforce parking regulations on a consistent and regular basis
- Improve lighting conditions, especially in remote parking areas
- Implement two (2) to three (3) hour time-limits along Centre Street OR implement a fee-based system along Centre Street
- Implement six (6) to seven (7) hour time-limits along the roadways perpendicular to Centre Street OR implement a fee-based system along these roadways
- Retain at least some of the city owned property, especially in high demand areas, for future parking needs
- Add a parking requirement or an in-lieu fee to the zoning ordinances
- Increase patrol officer visibility during business closing hours

Marina Sub-Area

- Implement an overnight parking permit for Lots C and D (add restrictions to Lots A and B which prohibit overnight parking)
- Implement a time-limit in Lots A and B OR implement a fee-based system in Lots A and B

Residential/Church Sub-Area

- Implement a residential parking permit program in problematic areas where businesses and residential units are merged within close proximity to each other

System Wide

- Coordinate the actions of all sub-areas. Any actions taken in one sub-area should be closely examined for their effect on adjacent areas.

Please note, as each action is implemented, the requirements of an effective parking system may change. Therefore, Walker suggests continual evaluation of the parking system.

INTRODUCTION

BACKGROUND

The City of Fernandina Beach (City) has retained Walker Parking Consultants (Walker) to perform phase one of a parking master plan. The objective of the master plan is to evaluate the parking conditions for effectiveness and efficiency as well as make suggestions for improvement.

Known as the Isle of 8 Flags, Fernandina Beach is filled with charm, history, and culture. The island is the birthplace to the modern shrimping industry, home of the oldest Saloon in Florida, and filled with Victorian architecture. As the city continues to grow and attract visitors, the parking demand will increase and in turn, changes in the parking system will be needed. Phase one of the master plan will address these issues and suggest some ways to improve the parking conditions.

Figure 1: Welcome Sign

Source: Walker Parking Consultants, 2002

SCOPE OF SERVICES

1. Meet with designated City of Fernandina Beach representatives to confirm the study goals, objectives, procedures and schedule.

2. Conduct a city "Work-Shop" with local citizens to address any concerns, suggestions, and solutions regarding the current and future parking system. Results and feedback from the workshop will be considered and appropriately included in our analysis.

3. Review the Supply/Demand Study (June 1999) and Supply/Demand Update and Alternatives Analysis (June 2000) along with all new and proposed developments in the study area that could alter the study numbers. If no substantial changes have occurred, occupancy counts from the Supply/Demand Study (June 1999) will be used in the development of the Parking Master Plan.

   If substantial changes have occurred in the study area, new occupancy counts may be collected. If this task is deemed necessary by the city, it will be performed on an hourly basis per the attached Rate Schedule.

4. Review the current parking management strategies and methods of operation including:
   - Methods of designating parking areas
   - Enforcement and policing of parking areas
   - Strategies for controlling the use of parking areas
   - Wayfinding and signage

5. Recommend changes to parking management strategies and methods of operation to improve the efficiency and effectiveness of the parking system, while maintaining a high level of customer satisfaction.

6. Evaluate possible parking management systems such as a fee-based system, time restriction based system, etc. The evaluation will include:
   - Capital costs
   - Operational costs
   - Required revenues needed to support such system
   - Comparison analysis of similar cities' parking revenues
   - Possible ways to utilize excess revenues above costs

7. Summarize the findings, including concerns from workshop, in a draft report and present to designated representatives of the City of Fernandina Beach. The client will have 45 days from the issuance date of the draft report to provide feedback concerning the draft report. This feedback will be considered by Walker and appropriately incorporated into the final report. Walker will consider the report to be a final report if no comments are provided during the 45-day period.

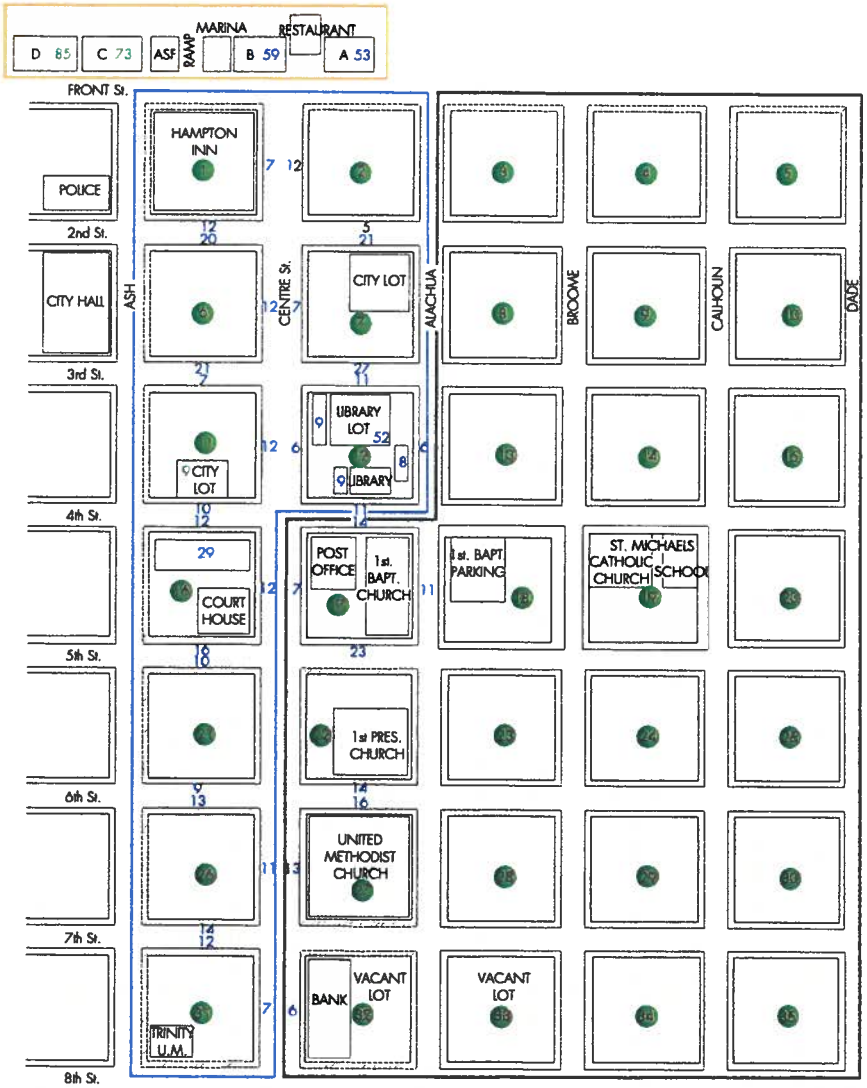
8. Conduct a public meeting for city residents and representatives to present recommendations and receive feedback.

9. After obtaining feedback from City residents and representatives, finalize parking master plan and issue six (6) bound and one (1) unbound copies of the report.

STUDY AREA

The boundaries for the study are Dade Street to the north, Ash Street to the south, 8th Street to the east, and the Amelia River to the west. The study area consists of 35 blocks in historic downtown Fernandina Beach and is separated into three sub-areas: the Marina, the Central Business District (CBD or Downtown), and the Church/Residential district. Figure 2 illustrates the study area and the three sub-areas.

Figure 2: City of Fernandina Beach Study Area



Source: Walker Parking Consultants, 2002

LEGEND:

- Block Numbers
- Lined Spaces
- Estimated Spaces
- Church/Residential District
- Central Business District
- Marina District
- No Parking

NORTH

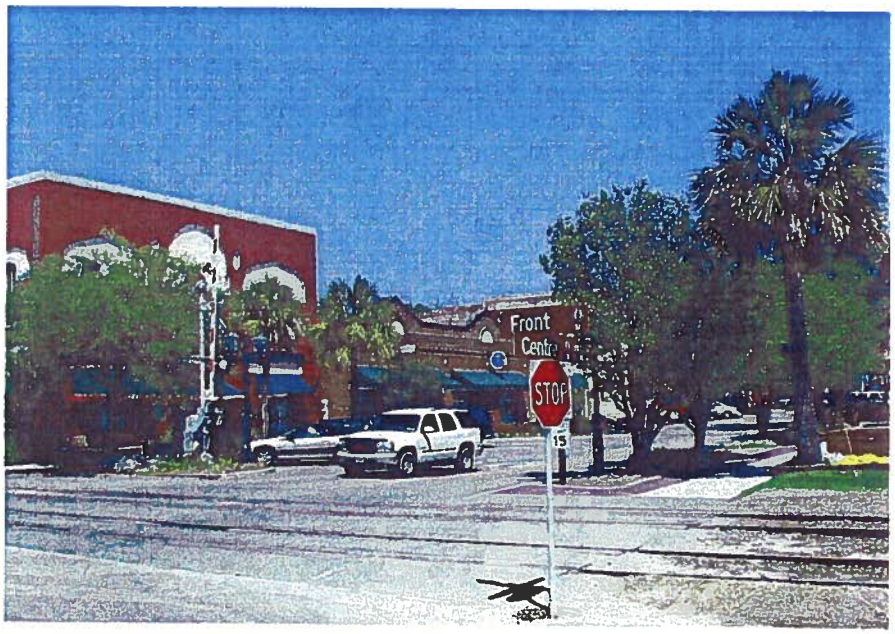
REPORT ORGANIZATION

In order to address the characteristics of the three sub-areas, this report is divided into three sections. The issues and possible solutions are addressed for each sub-area. In doing so, the three sub-areas each have a list of options tailored to their own needs.

Each sub-area section contains study area boundaries, current and future conditions, a description of the users, and management options. Certain topics relevant to all study sub-areas are listed after the sub-area sections.

The last two sections of this report outline the parking operations and suggested action plans for each sub-area. Appendices are included for backup information relevant to this study.

Figure 3: Downtown Fernandina Beach



Source: Walker Parking Consultants, 2002

WORKSHOP

INTRODUCTION

Walker Parking Consultants, along with the City of Fernandina Beach held a community workshop on April 27, 2002 at City hall. The workshop allowed both Walker and the City to listen to community concerns regarding parking. In addition, the community members were afforded the opportunity to contribute possible solutions.

OBJECTIVE AND PURPOSE

The purpose of the workshop was to allow community members a chance to let the city staff and the parking consultants know what they feel the issues are and how they feel the issues could be solved. Then as a group (community members, city staff, and consultants), determine what the benefits and drawbacks are for each possible solution. In addition, the workshop intended to encourage community involvement, input, and support.

ATTENDANCE

Attendance at the workshop consisted of sixteen (16) community members, three (3) city employees, and two (2) consultants from Walker. Community members included business owners, employees, church members, and residents. A list of those in attendance is included in Appendix A.

SUMMARY

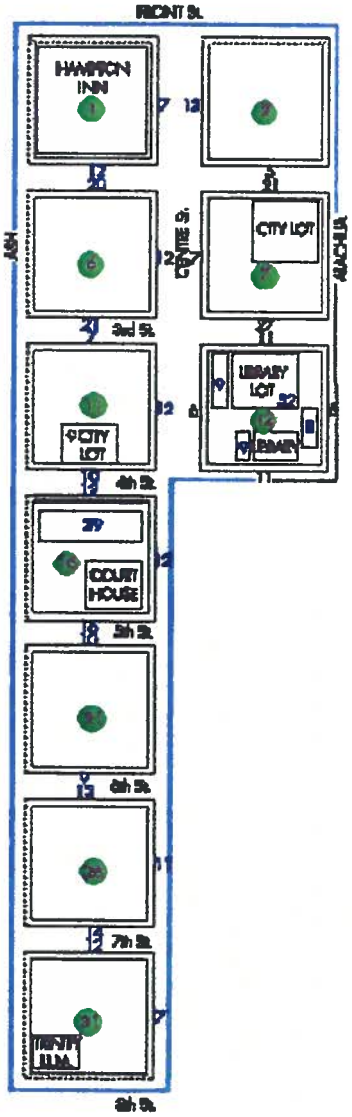
Community members agreed that there is a parking problem in Fernandina Beach and that they are willing to help improve the situation. During the workshop, community members assisted Walker by prioritizing the users of each sub-area. In addition, they participated by listing relevant issues such as enforcement, safety, lighting, and signage. Although they would like to see some additional parking areas and/or a parking garage, there is an understanding of the financial restraints and implications of an endeavor. The agenda and minutes from the workshop are included in Appendix B and C.

DOWNTOWN

STUDY SUB-AREA

The downtown sub-area is a 10-block area. Boundaries for the downtown sub-area are Centre Street to the north, 8th Street to the east, Ash Street to the south, and Front Street to the west. In addition, the three blocks between Alachua Street and Centre Street, and between Front Street and 4th Street, are included.

Figure 4: Downtown Sub-Area



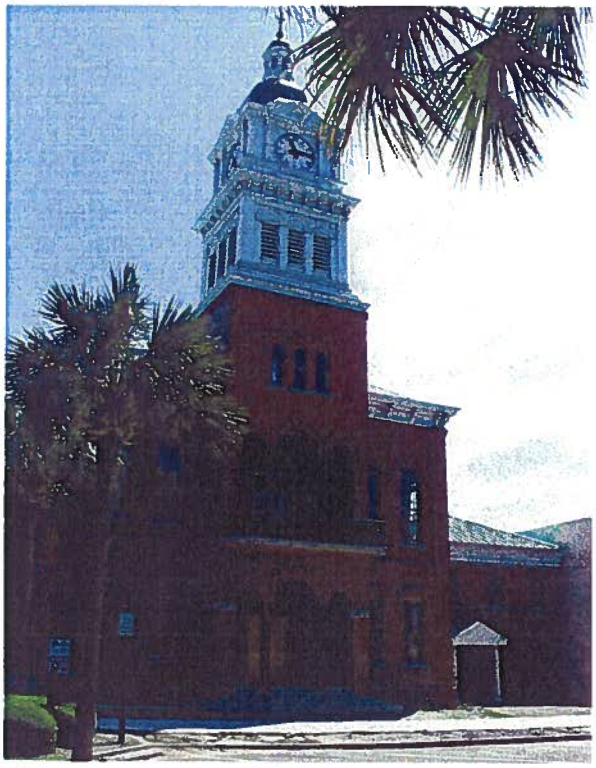
Source: Walker Parking Consultants, 2002

CURRENT AND FUTURE CONDITIONS

The core thoroughfare in the downtown sub-area is Center Street. Retail stores, restaurants, offices, and the county courthouse are some of the tenants found on Centre Street. Parking is permitted both along Centre Street and the adjacent roadways. In addition, there are three public parking lots located at: Alachua Street and 2nd Street, Alachua Street and 3rd Street, and Ash Street and 4th Street.

Currently, the county courthouse is in the process of reopening. Once reopened, downtown parking areas will also need to accommodate the additional parking needs for jurors and other court related personnel. Likewise, there are some vacant office and retail units in this area. If these units are rented or purchased, the number of motorists will increase along with the number of parking spaces needed.

Figure 5: County Courthouse



Source: Walker Parking Consultants, 2002

USERS AND NEEDS

The users and needs of the downtown sub-area were identified during the community workshop. The primary motorists who should have first priority with relation to parking include customers, tourists, visitors, residents, and churchgoers. The secondary motorists who require parking but may not have the same level of priority as the primary users include business owners and employees, office workers and professionals, and those persons making deliveries.

Typically, short-term users are provided access to parking areas most convenient to their destination. On the other hand, the long-term users, such as employees, are provided access to parking areas more remote to their destination but within an acceptable distance.

Users such as customers, visitors, and tourists are usually not as familiar with the surroundings compared to employees who come to the destination regularly. Also, those users are also only at a destination for a short amount of time, much less than an employee who parks their vehicle and does not return until the end of the day. For both of those reasons, parking areas closest to the destination are best suited for the short-term customers, visitors, and tourists.

Residents are typically provided access to parking areas adjacent to their dwelling. Those users may be loading and/or unloading items from their vehicle. Residents with small children will also have to transport the children to and from the vehicle. Therefore, if private off-street parking is not available, accommodations should be made to provide residents a parking area near their unit.

Business owners, employees, and other office workers require parking within a reasonable walking distance. However, these users should park in areas more remote to their destination, leaving the nearby spaces for the customers and visitors.

MANAGEMENT OPTIONS

TIME LIMITS

The City of Fernandina Beach currently has on-street parking areas with posted time limits. Time limits can be used to reduce the number of long-term parkers in the close-up and convenient spaces. The most convenient spaces are best utilized for short-term parkers because it provides parking for a large number of motorists due to the high turnover. In other words, one space may provide parking for up to four (4) vehicles per hour or more.

There are some disadvantages when limiting the amount of time a vehicle can occupy a parking space. Visitors may view the time limits as a nuisance or poor customer service. In addition, consistent enforcement, which is labor intensive, is needed to effectively implement the time limits. Finally, some visitors may receive a parking ticket.

Measures can be taken in order to compensate for some of the disadvantages. A time limit of two (2) to three (3) hours would provide enough time for a visitor to shop and dine in one of the many eating establishments. Similarly, warnings can be issued for first-time offenders. This will allow visitors who go over time limits to not be penalized while repeat offenders will be ticketed for their violations.

If implementing a timed system in all areas, the on-street parking spaces along Centre Street should have a posted time limit of two (2) to three (3) hours. Implementing the time limits throughout Centre Street will free up some visitor spaces and give visitors the perception of ample and therefore, user-friendly parking conditions in the downtown area.

If Centre Street was signed with time limits, the side streets should also have a time limit posted. This area would be used for those visitors who are going to spend more than two (2) to three (3) hours in the downtown area. Time limits in this area should be of greater length, up to six (6) hours. Please note, in order to deter long-term employee parking, the time limit should not extend beyond seven (7) hours.

Time limits should only be effective during the daytime hours since there is not a parking shortage in the evening hours. If the need arises in the future for managed evening parking, time limits could be extended into the evening hours or all day. Please note, hours for enforcement are identified in the zoning ordinances and may require modification in the future for extended hours.

FEE-BASED SYSTEM

The City of Fernandina Beach provides public parking free of charge to all users. Without any parking fees, it can prove difficult to manage and allocate specific parking areas for specific users. Installing a fee-based system in the downtown area may improve the parking conditions for valued customers, visitors, and tourists. There are several advantages and disadvantages of implementing a fee-based system.

One major disadvantage of a fee-based system is cost, both to the motorist and city. Multi-space meters require payment from the visitors who park in those spaces, and they may be viewed in a negative manner. Likewise, the cost to implement a fee-based system can be substantial depending on the type of equipment used.

In order to operate an effective fee-based system, consistent enforcement is required. Visitors who receive a violation for accidentally not paying for parking may view the system as unfriendly. While these drawbacks may be substantial, there are some methods to overcome or dissolve the issues.

A fee-based system has the potential to generate enough revenue to pay for itself. In some cases, the system can generate excess funds which may be used for additional improvements to the parking system, the purchase of new parking areas, or even the construction of a parking garage.

In the downtown sub-area, visitor parking spaces are regularly occupied with long-term parkers such as employees. A fee-based system would deter employees from parking in visitor spaces, therefore allowing visitor spaces to be more readily available. Those visitors may feel the convenience of available front-door parking outweighs the parking fee.

Another benefit from meters is the simplification of the enforcement of time limits. While visitors may violate the regulations, the system could be arranged to issue warnings to first-time offenders. Finally, it is typically easier to enforce and monitor vehicles within a fee-based system. Technology allows one officer to quickly determine which vehicles are in violation without having to chalk tires, mark tire stem locations, or record license plate numbers.

The decision to install a fee-based system in the downtown area should be coordinated with the parking regulations in adjacent areas, particularly the marina and residential/church sub-areas. Please note, implementing a fee-based system in the downtown area may transfer motorists from the downtown area to the adjacent sub-areas. In turn, the parking conditions in those areas could worsen without rules and regulations of their own.

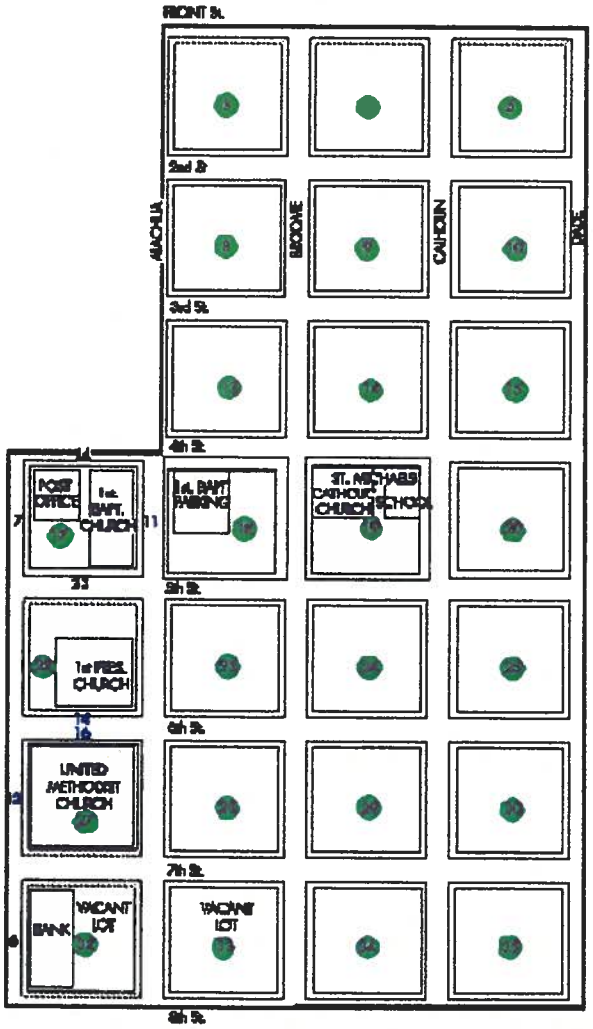
If a fee-based system is implemented, provisions should be made for free or reasonably priced long-term parking areas in order to maintain affordable parking for downtown merchants and employees. The free or low cost long-term parking areas should be located farther from the downtown area but within a reasonable walking distance. A detailed explanation of acceptable walking distances is included later in this report.

RESIDENTIAL

STUDY SUB-AREA

The Residential/Church sub-area is a 25-block area. The boundaries of the sub-area are Dade Street to the north, 8th Street to the east, Alachua Street to the south, Front Street to the west. In addition, the four blocks between 4th Street and 8th Street, and between Alachua Street and Centre Street are included.

Figure 6: Residential and Church Sub-Area



Source: Walker Parking Consultants, 2002

CURRENT AND FUTURE CONDITIONS

The residential/church sub-area contains mostly homes, churches, and some bed and breakfast lodging. Parking in the residential/church sub-area is mostly unrestricted. Although some of the churches do have their own off-street parking, many of them utilize the public on-street parking for some or all of their needs. On the other hand, most of the residential units have their own private off-street parking areas to accommodate their vehicles and any guests.

The First Baptist Church is expected to move from the study sub-area. Once First Baptist moves, the parking conditions during peak church service hours (Sunday and Wednesday) may improve due to the reduction in the number of churchgoers in the area. No other significant changes to the sub-area are expected.

USERS AND NEEDS

The users and needs of the residential/church sub-area were identified during the community workshop. The primary motorists who should have first priority with relation to parking include residents and churchgoers. The secondary motorists who require parking but may not have the same level of priority as the primary users include tourists, visitors, business owners and employees, office workers and professionals, and those persons making deliveries.

As mentioned previously, residents are typically provided access to parking areas adjacent to their dwelling. Therefore, if private off-street parking is not available, the parking spaces in front of the residential units are the best alternative for residents.

Churchgoers have the highest demand on Sunday mornings. When possible, those users should be placed in private parking areas owned by the church. If the church does not have the resources to provide parking, off-street spaces adjacent to the church may be used on a first-come, first-serve basis. Many of these users will leave the area by the afternoon and will not greatly interfere with normal downtown business.

Visitors and tourists are usually not as familiar with the surroundings compared to employees who come to the destination regularly. Most visitors and tourists who are going downtown will not enter the residential/church sub-area and therefore, do not require any special parking areas.

On the other hand, some business owners, employees, and persons making deliveries may be somewhat familiar with the residential/church sub-area. Although these users are not a priority, some may utilize parking in this area. Unless these users are infringing upon the parking areas needed for residential use, there should not be any major problems with them utilizing the vacant spaces, especially on the fringe of the sub-area.

MANAGEMENT OPTIONS

RESIDENTIAL PERMIT

Residential permits may be issued to allow residents who live in the sub-area, to park in public on-street spaces. Signage could designate certain areas as "Permit Required." Permits could be required during all hours or only during designated times. Similarly, time limits could be posted for all vehicles not properly displaying a residential permit.

The City may want to consider a residential permit system in areas where residential units and business infringe upon each other. Those residents who live in the immediate vicinity of high demand businesses could be provided a permit after providing proof of residency. In order to efficiently manage the on-street parking in the fringe areas, only those residents who do not have private off-street parking areas should be granted an on-street permit.

Cost for implementation would include the cost of installing signage, issuing permits, and enforcement. In this case, regular enforcement may not be required in all areas. Only those fringe areas with less than adequate parking conditions may require regular enforcement. Other areas could be enforced on an as-needed basis. Typically residents will make phone calls to the police department when a problem occurs.

FEE BASED

A fee-based system could be installed in the residential/church area if the need for restricting long-term parking arises. However, at the present, there is not a need for a fee-based system in this sub-area. In the future, if the need arises for restricting long-term use of public parking spaces, a fee-based system could be installed. Such systems require provisions allowing residents to park without charge. Please note, a residential permit may be more suitable for this sub-area.

TIME LIMITS

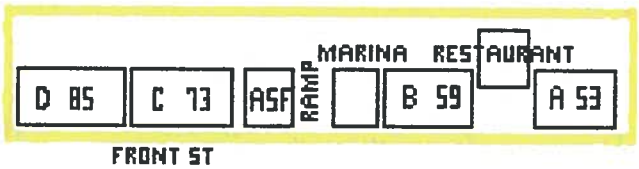
Time limits could be posted in the residential/church sub-area. Although this may be effective in reducing the number of long-term motorists, it will most likely not be effective in this type of area. In order to reduce the number of long-term parkers and provide spaces for residential use, a permit system may be more appropriate.

MARINA

STUDY SUB-AREA

The Marina sub-area consists of the four parking areas located adjacent to the marina. Lots A, B, C, and D are included in this study area. Figure 7 outlines the locations of the four parking lots in relation to the marina, boat ramp, and restaurant.

Figure 7: Marina Sub-Area



Source: Walker Parking Consultants, 2002

Figure 8: Marina Lot A

Source: Walker Parking Consultants, 2002

CURRENT AND FUTURE CONDITIONS

The marina sub-area is located on the west side of downtown. Centre Street ends at the sub-area between the marina parking areas A and B. There are four surface parking areas located in the sub-area. Lots A and B are the two paved lots adjacent to the restaurant and on the north side of the sub-area. Lots C and D are unpaved parking areas on the south side of the sub-area and adjacent to the Marina, boat slips, and boat ramp.

A mixed-use development is being discussed for the area north of this sub-area. The mixed-use development may impact the parking conditions in the four surface lots noted above. Once the development program is decided, the City should evaluate the impact on parking conditions to determine what course of action should be taken.

USERS AND NEEDS

The users and needs of the marina sub-area were identified during the community workshop. The primary motorists who should have first priority with relation to parking include boaters, charter fishing customers, tourists, visitors, and other revenue generating motorists. The secondary motorists who require parking but may not have the same level of priority as the primary users include charter fishermen, business owners and employees, live aboard boaters, hotel overflow parking, Cumberland Island visitors, and those persons making deliveries. Please note Cumberland Island visitors park at the marina and take a ferry over to Cumberland Island. These users may or may not spend time in Fernandina Beach.

Typically, short-term users are provided access to parking areas most convenient to their destination. On the other hand, long-term users, those parked for longer than eight (8) hours, including overnight users, are usually provided access to parking areas more remote to their destination but within an acceptable distance.

Users such as boaters, charter boat customers, visitors, and tourists are usually not as familiar with the surroundings compared to motorists who come to the destination regularly. Those users are also only at their destination for a short amount of time, much less than an employee or overnight user who parks their vehicle and does not return until several hours later. For both of those reasons, parking areas closest to the destination are best suited for the short-term customers, visitors, and tourists.

Charter fishermen, business owners, employees, deliveries and live aboard boaters require parking within a reasonable walking distance. However, these users should park in those areas more remote to their destination, leaving the nearby spaces for the customers and visitors.

Hotel visitors should utilize the private off-street surface parking area or the hotel's overflow parking area. Cumberland Island visitors who are parking for extended periods of time should also utilize those parking areas more remote so that short-term users can utilize the most convenient spaces.

MANAGEMENT OPTIONS

OVERNIGHT PERMIT ONLY

The marina currently provides parking free parking for overnight vehicles which may include passenger cars, trucks, and vehicles with boat trailers. In addition, some local residents may be utilizing the surface parking areas as storage for old or oversized vehicles. These vehicles are utilizing the parking resources for a large amount of time in a prime location, and the City is funding the maintenance, repair, and security of the lots.

There are several options to issuing permits for overnight parking. First, permits could be issued for a fee or complimentary. Should the City charge for the permits, funds collected could be used to offset the cost of maintenance for these parking areas, cover the cost of security, or used to enhance other parking areas. Fees should be appropriately set according to the amount of space required (i.e. a vehicle would require one permit, while a vehicle with a trailer would require two – one for each parking space used). Finally, fees should be initially set at a price low enough to not displace these users to other no-cost adjacent areas, especially the downtown and residential/church sub-areas.

When a permit is issued, information about the vehicle and owner can be collected in case of emergency. Collection of this information will allow the City to monitor authorized vehicles and detect any potential security concerns. Permits could be issued by the marina, other downtown businesses, the police station, or from an automated permit dispenser.

There are some disadvantages to implementing an overnight permit parking system. First, users may feel there is an inconvenience with having to acquire a permit and/or pay for the permit. There may also be some implications when dealing with violators. For example, it may be difficult to collect fines from a ticket issued, and towing a vehicle can create an image of poor customer service.

The City will have to fund the initial cost for the signage, permits, and costs for implementation (brochures, procedures, etc). Regular enforcement will also be needed to maintain an effective parking system. However, the implementation will provide revenue for the City, and possibly more spaces for visitors and marina users.

Please note, in order to prevent marina users from transferring to the downtown area, the downtown sub-area should be changed to a fee-based system.

TIME LIMITS

Implementing a posted time limit on all parking areas at the marina has some advantages. First, the parking spaces will accommodate a larger number of short-term users such as visitors and charter fishing customers. A timed-system will also create additional revenue from violations.

On the other hand, a timed-system will require the installation of signage and consistent enforcement. Enforcing a timed system is labor intensive since it is typically performed manually through chalk marks or another similar means. In addition, enforcement of a signed time-limit is susceptible to human error and more difficult to manage than a fee-based system. Should the City wish to manage parking in this sub-area during the daytime hours, it may be more advantageous to implement a fee-based system.

FEE BASED

Installing a fee-based system in the marina sub-area may improve the parking conditions for valued customers, visitors, tourists, and charter fishing customers. There are several advantages and disadvantages of implementing a fee-based system.

One disadvantage of a fee-based system is cost, both to the motorist and city. Multi-space meters require payment from the visitors who park in those spaces, and they may be viewed in a negative manner. Likewise, the cost to implement a fee-based system can be significant depending on the type of equipment used ($20,000 to $30,000 per meter).

In order to operate an effective fee-based system, consistent enforcement is required. Visitors who receive a violation for accidentally not paying for parking may view the system as unfriendly. While these drawbacks may be substantial, there are some methods to overcome the issues.

A fee-based system has the potential to generate enough revenue to pay for itself. In some cases, the system can generate excess funds which may be used for additional improvements to the parking system, the purchase of new parking areas, or even the construction of a parking garage.

In the marina sub-area, parking spaces are regularly occupied with overnight and long-term parkers such as live aboards, Cumberland Island guests, other overnight boaters, and employees. A fee-based system would deter these users from parking in visitor spaces, therefore allowing visitor spaces to be more readily available during the daytime hours. Those visitors may feel the convenience of available front-door parking outweighs the parking fee.

Finally, another benefit from meters is the simplification of the enforcement of time limits. While visitors may violate the regulations, the system could be arranged to issue warnings to first-time offenders.

The decision to install a fee-based system in the marina area should be coordinated with the parking regulations in adjacent areas, in particular the downtown sub-area. Please note, implementing a fee-based system in the marina area may transfer motorists from the marina area to the adjacent sub-areas. In turn, the parking conditions in those areas could worsen without rules and regulations of their own.

The City should consider implementing a fee-based system on the two surface lots along with the overnight permits on the unpaved lots. Such a system will accommodate all types of users while effectively managing all parking areas.

If a fee-based system is implemented, provisions should be made for free or reasonably priced long-term parking areas to maintain affordable parking for marina employees. The free or low cost long-term parking areas should be located farther from the marina area but within a reasonable walking distance.

Figure 9: Marina Lots C and D

Source: Walker Parking Consultants, 2002

NEW PARKING AREAS

GRAVEL SURFACE LOTS

One method of increasing the parking supply is through the construction of gravel surface lots. Table 1 details the advantages and disadvantages of implementing a gravel surface lot.

Table 1: Advantages vs. Disadvantages – Gravel Surface Lots

Advantages	Disadvantages
• Increase the number of parking spaces	• Cost of construction
• Relatively inexpensive cost for construction (~$500-$800 per space PLUS soft costs and land acquisition)	• Cost and implications of land acquisition may be cumbersome
• Ability to utilize multiple sites which are close to localized parking space deficits	• Not usually the highest and best use of prime real estate
• Ability to conform to any lot size or shape	• Inefficient use of space
• Improves parking space visibility and awareness	• Low level of service to the parking patron
• Ease of navigation in the parking area for the motorist	• May not be aesthetically appealing

Source: Walker Parking Consultants, 2002

The costs for construction are less than that of paved surface lots or a parking structure. However, depending on demand and location, the cost to acquire land may be high.

PAVED SURFACE LOTS

Another method of increasing the parking supply is through the construction of paved surface lots. Table 2 details the advantages and disadvantages of implementing a paved surface lot.

Table 2: Advantages vs. Disadvantages – Paved Surface Lots

Advantages	Disadvantages
• Increase the number of parking spaces	• Cost of construction
• Moderate cost to construct (~$1,800 - $2,000 per space plus soft costs and land acquisition)	• Costs and land acquisition may be cumbersome
• Ability to utilize multiple sites which are close to localized parking space deficits	• Efficient use of space may be compromised if the sites are not of certain size and shape
• Improves parking space visibility and awareness	• Not usually the highest and best use of prime real estate
• Ease of navigation in the parking area for the motorist	• Surface lot may not blend in with the adjacent surroundings

Source: Walker Parking Consultants, 2002

PARKING STRUCTURES

The construction of a parking structure is another method of increasing the parking supply. Table 3 details the advantages and disadvantages of implementing a parking structure.

Table 3: Advantages vs. Disadvantages – Parking Structures

Advantages	Disadvantages
• Increase the number of parking spaces (larger capacity than with just surface parking lots)	• Expensive construction costs ($8,000 - $12,000 per space plus soft costs and land acquisition)
• Shelters vehicles and patrons during inclement weather	• Parking structure may not be aesthetically appealing
• Utilizing land to fullest potential	• Costs and land acquisition may be cumbersome
• Highly visible to the motorist	• Not usually the highest and best use of prime real estate
• Ability to incorporate retail/business space at street level	• May provide parking for only a small area of the study zone

Source: Walker Parking Consultants, 2002

LOCATIONS

Several possible future locations for parking areas were identified during the community workshop. Walker requested additional information from the City regarding these properties. Table 4 outlines each location, assessed value, lot dimensions, and whether or not it is already owned by the City. Please note, the assessed value could vary significantly from the market value.

Table 4: Possible Future Parking Areas (Identified at workshop)

Property	Assessed Value	Lot Size	City Owned
Cook Property	$155,000	252x500	No
Broome Street Property	$100,000	175x100	Yes
Library Location	$1,057,290	425x200	Yes
Old Police Station	$459,116	175x150	Yes
First Baptist Church Parking Lot	$165,000	165x100	No
10th Street (Across from old schoolhouse)	$91,534	150x100	No
Parking Area Behind Post Office	$340,200	50x100	No
2nd Street (Across from Hampton Inn)	$126,159	69x100	No
Bank of America Lot	$215,000	100x100	No
Bank Area 8th and Atlantic	$750,000	200x400	No

Source: City of Fernandina Beach and Walker Parking Consultants, 2002

Using the information provided above, Walker estimated the approximate number of paved parking spaces each location would accommodate. The estimated number of spaces (efficiency) was conservatively based on 330 square feet per stall. The efficiency may be higher or lower depending on the type of parking and the dimensions of the lot.

In order to compare the areas on an equal basis, calculations were made to determine the assessed value per space. As mentioned before, the assessed value may be significantly lower than the actual market value. Table 5 outlines the value (assessed) of each paved parking space for each location.

Table 5: Possible Future Parking Areas - # of Spaces and Value

Property	Assessed Value	Est # of Spaces	Value per Space
Cook Property	$155,000	382	$406
Broome Street Property	$100,000	53	$1,886
Library location	$1,057,290	258	$4,105
Old Police Station	$459,116	80	$5,772
First Baptist= Church Parking Lot	$165,000	50	$3,300
10th St (across from old schoolhouse)	$91,534	45	$2,014
Parking area behind post office	$340,200	15	$22,453
2nd Street (Across from Hampton Inn)	$126,159	21	$6,034
Bank of America Lot	$215,000	30	$7,095
Bank Area 8th and Atlantic	**$750,000**	**242**	**$3,094**

Source: Walker Parking Consultants, 2002

As detailed in Table 5, the estimated assessed value per space ranges from a low $406 per space to $22,453 per space. The range of price may change substantially when comparing the market value of the various locations. Please note, the above listed costs ONLY include the assessed land value. There will be additional costs for site preparation and the construction of a parking area.

In the future, if the parking demand exceeds the parking supply, and funding is available, one of the above locations could be used for public parking. Funding may be obtained from the general fund, parking fees charged in the new location (only if a fee-based system is installed in other areas), or by increasing the tax base.

OTHER ISSUES

SHUTTLE

While a shuttle system may not be appropriate at this time in the downtown area, it may provide an alternative means in the future. Shuttle systems allow a large number of vehicles to utilize remote parking areas, which in turn preserves prime real estate for other types of land use. In addition, remote parking areas are usually less expensive to purchase which may offset some of the costs to operate a shuttle.

The disadvantages should be considered before implementing a shuttle system. It can be difficult to encourage users to utilize a shuttle system. Some may view a shuttle as less user friendly and a hassle to change modes of transportation. In addition, if the time it takes to use a shuttle is longer than the time to self-park at the destination, additional methods of encouraging ridership will be needed.

Should the desire or demand for additional parking arise in the areas surrounding the churches, the City may want to suggest a church-operated shuttle which can be funded and organized by each church. The shuttle can either utilize a remote parking area or provide pick up service from the member's home.

CARPOOLING

Carpooling has the potential to be a successful method of reducing the number of vehicles in a downtown or high-density area. However, it may not be a reasonable solution for the City of Fernandina Beach at this time. Many users find carpooling to be inconvenient and bothersome. Similarly, the use of carpools may require financial incentives for the participants.

The City may want to further examine this option in the future after other parking management controls have been implemented. In particular, should the City charge for parking, a carpooling system may be a more attractive option for employees and merchants.

PUBLIC TRANSPORTATION

Public transportation is not widely used in Fernandina Beach, as in most other Florida cities. The main form of public transportation is a bus system which does not offer a convenient schedule in most locations. At this time, public transportation should not be viewed as a viable solution to improving the parking conditions.

ENFORCEMENT AND VIOLATIONS

In order to effectively manage a parking system, consistent enforcement is needed. In the City of Fernandina Beach, all parking related activities, such as the enforcement of parking rules and regulations, are currently being conducted by the police department. According to police officials, enforcement is conducted regularly during peak season and less often during the slower months. Enforcement is not conducted on weekends.

Although the police department handles parking enforcement, there are not dedicated parking enforcement personnel. Instead, a cops officer working Monday through Friday conducts parking enforcement (along with other duties) by chalking tires and returning two hours later to issue violations. The police chief reviews all parking appeals and all fines are deposited in the general fund. Table 6 outlines some of the current parking-related violations and fines.

Table 6: Parking Violations and Fines

Violation	Fine
Overtime Parking	$15.00
Parked in Handicap Space without Permit	$100.00
Parked in Fire Lane	$50.00

Source: City of Fernandina Beach Police Department

The police department has enough personnel to consistently monitor and enforce parking rules and regulations. Walker recommends a more consistent enforcement program, in particular during the slow season. The year round enforcement will reduce the number of repeat offenders and effectively move long-term users from the prime locations. Should the City implement a fee-based system in the downtown area in lieu of a posted time limit, enforcement may be less labor intensive and time consuming, thereby making it easier to implement consistent enforcement.

LIGHTING AND SAFETY

The two primary issues of lighting are intensity (footcandles - fc), and uniformity. In the past, minimum light levels were used in every parking facility without much question, yet today many owners are asking for higher lighting levels than "minimum." These owners include not only those with a higher emphasis on user-friendliness, but also those who have a concern for security problems. The level-of-service (LOS) approach is thus a useful concept for selection of lighting levels.

Increased lighting may discourage criminal acts, such as theft. Walker recommends a formalized study of the lighting conditions in order to determine the necessary increase in lighting levels. The importance of good lighting increases as additional remote parking areas are implemented. Criminal acts are more likely to occur around these remote areas, and increased lighting may help to deter such behavior.

In many ways, good lighting is more critical in parking facilities than in other building types. Vehicles and pedestrians frequently use the same circulation aisles, and drivers must be able to see pedestrians walking between parked cars into driving aisles. Drivers must be more alert to potential hazards, with less time to react to objects entering the field of vision.

Slip and fall accidents represent over 50% of personal-injury liability claims in parking facilities. Therefore, adequate visibility or lighting of pavement surface and curbs is very important.

Parking facilities are at somewhat higher risk of violent crime than all other land uses except residential. Lighting is not only the most critical element in reducing crime; it is also a major contributor to the user's perception of security and safety.

The Illuminating Engineering Society of North America (IESNA) is the recognized technical authority for the illumination of indoor and outdoor environments. The IESNA minimum illuminance criteria for surface parking lots are shown in Table 7. Level of Service Illuminance Ratings are listed in Table 8.

Table 7: Minimum Illuminance Criteria – Surface Parking Lots

Requirement	Basic	Enhanced Security
Minimum Horizontal Illuminance	.2 fc	.5 fc
Uniformity Ratio, Maximum to Minimum	20:1	15:1
Minimum Vertical Illuminance	.1 fc	.25 fc

Source: *Parking Structures, Third Edition*

Table 8: Level of Service Illuminance Ratings

LOS	Minimum Illuminance	Average Illuminance
A	4 fc	10 fc
B	3 fc	8 fc
C	2 fc	6 fc
D	1 fc	4 fc

Source: *Parking Structures, Third Edition*

Using the above guidelines, the City may want to upgrade the existing lighting equipment in some locations. Walker highly recommends the evaluation of those remote parking areas utilized by downtown employees to reduce the safety concerns voiced at the workshop.

According to city officials, there is an officer presence in the downtown area during evening hours. Officers patrol the area both by vehicle and bicycle. During the community workshop, several store owners and employees voiced their concern for safety and a lack of officer presence. The city should also review the current staffing levels for officers during the evening hours. In particular, officer presence should be increased during the times employees and merchants are exiting the stores.

WAYFINDING AND SIGNAGE

Wayfinding is the ability to understand where you are, where you want to go, and then recollect the path of travel when departing. It is generally not necessary to place a high priority on wayfinding in areas where a majority of the users are employees or other regular users. However, in the downtown and marina sub-areas of Fernandina Beach, parking areas are utilized by both frequent and infrequent users.

According to the authors of *Parking Structures:*

> Signage is a means of communication with the driver and/or pedestrian, especially a first time visitor. To be effective, the signage must be clear, concise, and simple. While the creative designer may desire an architectural statement, "plain" is far better than "fancy," particularly for traffic direction.

Visitors drive along Centre Street, which has signs for both traffic and pedestrian wayfinding. Motorists must search for signs related to parking on the same signs with information about retail shops, restaurants, and other attractions. It may be difficult for some motorists to comprehend all of the information on the signage in enough time to make a decision.

Simplifying the signage for visitor parking would be beneficial. In addition, any signage indicating time limits, parking fees, and restricted areas should be easily visible to all motorists.

Of course, any changes in the signage may impact the users. New signage may cause some initial confusion with repeat users since they will have to re-acquaint themselves with the new signs. In addition, there is an associated cost to the City for installing or altering the existing signage.

Should the City decide to update the signage, the following are some general rules for sign design and location:

- All signage should have a general organizing principle that is consistently evident in the system.
- Directional signage for both pedestrians and vehicles must be continuous (i.e. repeated at each point of choice) until the destination is reached.
- Signs should be placed in consistent and therefore predictable locations.
- A sign should be placed at every point where a driver or pedestrian must make a decision.

An important aspect of signage is the graphics. Effective signage programs combine aesthetics with information. Choice of color, typeface, character size, weight, and spacing; and the use of uppercase and lowercase text all influence readability. The arrangement of text and symbols must be visually distinct. They must not contradict their basic meaning or intent, so not to confuse the user. The background is equally important: backgrounds that are too small or too large for the type size can greatly detract from the effectiveness of the sign.

Walker recommends a complete review of all signage to ensure the above stated guidelines are met. In doing so, the City of Fernandina will increase the ease of navigation and user friendliness.

WALKING DISTANCES

Walker examined the walking distances in all three sub-areas. Although each sub-area has a different set of users, walking distances are important to each. Table 9 outlines the maximum walking distances from parking to destination.

Table 9: Maximum Walking Distance (Parking to Destination)

	LOS D	LOS C	LOS B	LOS A
Outdoors, uncovered	1600'	1200'	800'	400'

Source: *Parking Structures, Third Edition*

The following excerpt is from the authors of *Parking Structures*:

> *There are indications that the tolerable limit of human walking distance is more situation-related than energy related. The tolerable walking distance for a given situation is related to such factors as the trip purpose of the individual, the available time and the walking environment.*
>
> *Variables affecting acceptable walking distance include: type of users, frequency of occurrence or use, familiarity of the user, expectations/concerns of the user including security, line of sight to destination, and degree of weather protection along the path of travel.*

In the downtown sub-area, visitors may not prefer parking areas which do not offer a line of sight to Centre Street. For these users, signage plays an important role in directing them to and from the parking areas. Similarly, those frequent and regular users, such as employees and office workers, are more comfortable with the surroundings and would be more comfortable in those parking areas outside the line of sight. Please note, many of the parking locations on the side streets do not exceed a level of service B.

ZONING REQUIREMENTS

Zoning ordinances in the downtown area of Fernandina Beach do not require the construction of parking with new developments. In other words, a new retail establishment could be constructed in the downtown area and it would not have to provide any parking areas for its customers or employees. Therefore, the responsibility of providing parking is left up to the City, which can be both costly and difficult.

In an area where parking conditions are perceived as poor, any increase in parking demand will only worsen the perception. Although the absence of a parking requirement is beneficial for attracting development and growth in an area, it can also be detrimental to a parking system.

One alternative to implementing a parking requirement is a "pay-in-lieu" parking fee. A development would pay a specified amount of money (for each required space) into a city fund in lieu of building their own parking to meet the zoning requirements. The city would still have the responsibility of providing parking, however, the city's financial obligation is reduced by the fees paid by the developers.

Walker recommends the review and consideration of updating the ordinances to include a parking requirement or another alternative such as pay-in-lieu parking fees.

OPERATIONS

The police department currently handles all of the responsibilities associated with parking. The City may want to consider organizing a parking department or division under the existing police department. An independent parking department may not be cost effective due to the small size of the city and the amount of parking related activities.

At this time, all revenues and expenses for parking related items are distributed to and from the general fund. The City could implement a parking fund, with its own budget, for all parking related revenues and expenses. The implementation of a parking fund should be strongly considered if the city implements any fee-based systems. Having a separate parking fund will allow for easier record keeping, budgeting, and long-term goals.

BENCHMARK CITIES

The parking operation in three cities similar to Fernandina Beach was researched in a benchmark analysis. Information gathered from each city includes population, number of meters, hourly parking rates, and if there is a residential permit program in effect. The cities were selected based on recommendations from City staff since all of them have a downtown area or 'old town' similar to that of Fernandina Beach. Table 10 lists some characteristics of the benchmark cities.

Table 10: Benchmark Cities

City	Fernandina Beach	St. Augustine Florida	Alexandria Virginia	Savannah Georgia
Population	10,549	11,592	128,283	131,510
No. of Meters	-0-	450	1,000	3,000
Hourly Rates	N/A	$.25	$.50 - $.75	$.30 - $1.00
Monthly Rates	N/A	$25	-[2]	$70 - $150
Residential Permits	No	No[1]	Yes	Yes

Source: Walker Parking Consultants, 2002

[1] Working towards the implementation of a residential permit program

[2] Information not available

St. Augustine is located on the east coast of Florida and has a similar population as Fernandina Beach. The City's 450 meters are widely used throughout downtown St. Augustine and the City is currently examining the option of a residential parking permit program. Hourly rates in St. Augustine are $.25 for one hour.

Alexandria is located within close proximity to Washington, DC and it also has an old town district. There are approximately 1,000 meters located in the old town district with prices ranging from $.50 per hour up to $.75 per hour depending on location. The City has implemented a residential parking permit program and has recently considered an increase in the parking rates.

Savannah is located along the eastern coast of Georgia and is the largest of the three benchmark cities. There are approximately 3,000 meters located throughout the city with prices ranging from $.30 per hour to $1.00 per hour in prime locations. The city operates three public garages in the downtown area. Savannah also has a residential parking permit program.

All three of the benchmark cities have implemented parking meters and/or a residential parking permit program. Although there are numerous cities which do not have parking meters or a residential permit, Walker believes the benchmark cities exhibit the potential for such programs in Fernandina Beach.

FEE-BASED SYSTEMS

The implementation of a fee-based parking system can be difficult. First, many users may perceive a fee-based system as not user-friendly or that the required parking fees are taking advantage of the users. Second, the surrounding areas may view the aesthetics of a fee-based system as awkward or unattractive.

A fee-based system does offer some significant advantages. First, it generates revenue that would not normally exist. Second, a fee-based system is easier and less labor intensive to monitor and less errors occur with monitoring a fee based system. Finally, since enforcement is improved, fewer appealed tickets are overturned and more revenue from fines is generated.

If a fee-based system is implemented, a multi-space meter would accommodate the parking system without significantly altering the aesthetics. Multi-space meters can be encased in various materials which allow them to blend in with the surrounding area. In addition, the placement of the meters should be convenient yet unobtrusive.

A multi-space meter can service over 20 parking stalls and will operate for approximately 7 to 10 years with regular maintenance. Table 11 outlines the required revenue per stall to offset the costs of purchasing and operating one multi-space meter.

Table 11: Required Revenue per Space

Purchase Price	$25,000
Interest Rate	5%
Term	7
Annual Debt Service	$4,320
Annual Maintenance	$2,500
Total Annual Costs	$6,820
Number of Stalls Serviced	36
Annual B-E Revenue per Space	$189
Days of Operation per Year	260
Daily (260) Break-Even Revenue per Space	$0.73

Source: Walker Parking Consultants, 2002

Figure 10: Centre Street

Source: Walker Parking Consultants, 2002

SUMMARY AND ACTION PLANS

Action plans have been created for each of the sub-areas. Please note, the action plans may require additional evaluation throughout the process in order to achieve the best possible results.

Action plans have been prioritized according to effectiveness, critical versus non-critical, financial obligation, timing, and ease of implementation. High priority items should be implemented immediately or in the near future. Those items identified as high priority are either critical to the success of the parking system or will significantly improve the system. Medium priority items are those actions which should be implemented after the high priority items are completed. The urgency of medium priority items is less than that of high priority items. Finally, low priority items are either less critical actions or are not as time-sensitive as the medium and high priorities. Low priority items should be implemented when the City has the necessary resources.

The option of leaving the system as-is was evaluated. Some benefits of not changing or improving the system include stable costs for enforcement and/or meters, open parking for all motorists, and few parking restrictions, time limits, or fees to park. The option of leaving the system as-is for the residential/church sub-area is highly ranked. However for the downtown and marina sub-areas, the disadvantages of leaving the system as-is appear to outweigh the advantages. Leaving the system as-is will not improve the ability to effectively control parking, improve parking conditions for visitors, generate revenue, or efficiently use the public parking resources.

The tables on the following pages outline the suggested plan of action for each of the sub-areas. Please note, as each action is implemented, the requirements of an effective parking system may change. Therefore, Walker suggests continual evaluation of the parking system.

Table 12: Downtown Sub-Area Action Plans

High

- Enforce parking regulations on a consistent and regular basis
- Improve lighting conditions, especially in remote parking areas
- Implement two (2) to three (3) hour time-limits along Centre Street OR implement a fee-based system along Centre Street
- Implement six (6) to seven (7) hour time-limits along the roadways perpendicular to Centre Street OR implement a fee-based system along these roadways
- Retain at least some of the city owned property, especially in high demand areas, for future parking needs
- Add a parking requirement or an in-lieu fee to the zoning ordinances
- Increase patrol officer visibility during business closing hours

Medium

- Improve signage to/from public parking areas
- If a time-based system is in effect, consider a fee-based system

Low

- If the need arises, and there is potential for ridership, implement a shuttle system for visitors
- If there is a fee-based system, implement an incentive program for carpooling
- Add paved surface lots as needed
- If the parking demand highly exceeds the supply, and funding is available, add a parking garage

Source: Walker Parking Consultants, 2002

Table 13: Marina Sub-Area Action Plans

High

- Implement an overnight parking permit for Lots C and D (add restrictions to Lots A and B which prohibit overnight parking)
- Implement a time-limit in Lots A and B OR implement a fee-based system in Lots A and B

Medium

- If time-limits are in effect on Lots A and B, implement a fee-based system

Low

- Implement a daytime time restrictions in Lots C and D OR a fee-based system in Lots C and D

Source: Walker Parking Consultants, 2002

Figure 11: Marina Lot C

Source: Walker Parking Consultants, 2002

Table 14: Residential/Church Sub-Area Action Plans

High

- Implement a residential parking permit program in problematic areas where businesses and residential units are merged within close proximity to each other

Medium

- Improve lighting conditions to encourage residents to walk to and from surrounding areas

Low

- Provide assistance to any church wishing to implement a privately operated shuttle

Source: Walker Parking Consultants, 2002

Table 15: System Wide Action Plans

High

- Coordinate the actions of all sub-areas. Any actions taken in one sub-area should be closely examined for their effect on adjacent areas.

Medium

- Create a parking division under the police department
- Create a parking fund for all parking related revenues and expenses

Low

- Create a parking department independent of the police department

Source: Walker Parking Consultants, 2002

APPENDIX A

Workshop Attendance
Wednesday, April 27, 2002

NAME	ADDRESS	REPRESENTING
Allen Elefterion	210 Centre Street	Ship's Lantern/HFBA
Jack Ruppel	13 North Fourth Street	Let's Paint
Don Shaw	107 Centre Street	Books Plus
Sid Sax	11 North Third Street	Designs On...
Stephen Colwell	218 Centre Street	Fantastic Fudge
Brian McCarthy	212 North Fourteenth Street	Golden Grouper
Bev Lawrence	2825 South Fletcher Avenue	
Conrad Sharps	9 North Sixth Street	First Presbyterian Church
Melba Whitaker	217 Centre Street	Robison Jewelry
Allison Schaefer	403 Centre Street	Times Union
Linda Hansworth	205 Centre Street	Turtle Bay
Mark Brackbill	207 Centre Street	Coffee Shop
Susie Sax	11 North Third Street	Designs On...
William Kavanaugh	12 North Front Street	Old Town Dinghy Club
Scott M. Moye	204 Ash Street	City
Robin Campbell	511 Ash Street	News Leader
Greg Prey	15 North Fourth Street	Sydneys
Robert E. Jarzen	204 Ash Street	City
E. Danielle Glouner	204 Ash Street	City
John Kowalchik	Tampa, FL	Walker Parking Consultants
Vicky Gagliano	Tampa, FL	Walker Parking Consultants

APPENDIX B

Workshop Agenda
Wednesday, April 27, 2002

The agenda for the meeting included the following items:

1. Introduction
2. Goals of the Workshop
3. Define the Study Area
4. Identify the hierarchy of users and goals of the system
5. Identify the current issues of the parking program
6. Breakout Groups
    - Adding new parking areas
    - Management of existing resource
    - Marina & Residential Parking Areas, Misc. Topics
7. Identify possible solutions
8. Evaluate solutions (pro/con)
9. Identify possible future issues
10. Group Presentations

APPENDIX C

Workshop Minutes and Notes
Wednesday, April 27, 2002

User Priority by Location

Location	Business District	Marina	Church & Residential
High/Primary	Customers Tourists/Visitors Residents Churchgoers	Boaters Charter Fishing Customers Customers Tourists/Visitors Other revenue generators	Residents Churchgoers
Low/Secondary	Business Owners Business Employees Office Workers Professionals Deliveries	Charter Fisherman Business Owners Business Employees Live Aboard Boaters Hotel Overflow Deliveries Cumberland Island Visitors	Tourists/Visitors Business Owners Business Employees Deliveries

Overall Parking Issues

- No off-street parking
- Signage
- Enforcement
- Customer Concern (2 hour limit)
- Business owners and employees parking on Centre Street
- Lighting
- Safety
- Handicap Parking

Breakout Group Notes:

Management

- Possible Solutions:
  - Utilize Cook property
  - Utilize Broom Street
  - On-Street Restrictions using signage
    - Pro: Control who parks where
    - Con: Enforcement cost
  - Ordinance for enforcement
    - Pro: A way of enforcing the restricted parking
    - Con: Enforcement cost
  - Consistent enforcement
    - Pro: Catch the habitual abusers
    - Con: Issue unwarranted tickets
  - Downtown designated parking for business owners and employees
    - Pro: Makes more prime parking spaces available to the visitor
    - Con: Businesses may object and/or move business out of downtown
  - Parking garage at the library
    - Pro: More available parking
    - Con: Cost, Aesthetics (ugly)
  - Signage
    - Pro: Identify parking for transient vehicles
    - Con: May not be aesthetically pleasing
  - Loading Zones
    - Pro: Business will have a loading area
    - Con: Reduces the number of available spaces for transient vehicles
  - Customer Zone
    - Pro: Customer Parking
    - Con: Customer parking driving others out
  - Improve the off-street parking safety
  - Inventory of potential surface lots
    - Pro: Add parking, better utilization
    - Con: Loss of potential resources for development
  - Utilize library, old police station
    - Pro: Add parking, better utilization
    - Con: Loss of potential resource for development

Adding New Parking Areas

- Issues
  - Walking distance
- Possible Solutions
  - City buy land for parking (employee)
    - First Baptist Church parking – unpaved
    - West side of police building
    - 10th street – Across from old school house
    - Parking area behind post office (identify ownership)
    - 2nd street (across from Hampton)
  - Centre Street one-way
  - Extend Alachua past railroad tracks
  - Build a parking garage
  - Implement a shuttle system
  - Reduce the size of the parking spaces (dimensions)
  - Golf cart shuttle
  - Trolley (transportation)
  - Paid parking spaces
  - 1001 Atlantic Avenue
  - Library Parking Lot (Parking Structure)
    - Pro: Good location, available
    - Con: Costs, time
  - Long-term parking relocated
  - Parking Meters (faster turnover)
  - Acquire Bank of America lot
  - Parking impact fee deterrent
  - Fees to support a parking structure
  - Privately owned and operated parking deck
  - Bank area at 8th and Atlantic
    - Con: Costs
- Lighting and Safety Issues and Possible Solutions
  - Lighting is a secondary priority behind parking
  - Increased police patrol
  - Special patrols at closing time

Marina, Residential/Church, and Other Issues

- Issues - Marina
  - Live Aboards – would like to see removed completely
  - Cumberland Island usage
  - Restaurant Employees
- Possible Solutions
  - No Overnight Parking
    - Pro: More convenient for marina and other users
    - Con: Additional enforcement, More signage
  - Lease lot near Emerald Princess for employees (City Lease)
  - Lease lot near Emerald Princess for Cumberland Island visitors (Cumberland Lease)
  - Hang Tag/Permit Parking
    - Pro: Reduce C.I. users, Add'l revenue, Better ability to control and manage
    - Con: Additional manning, constant enforcement, P.R. problems
  - Move lots A, B, and C to paid parking with 2 hours free
  - Purchase/Lease lot at Gum/3rd Street for Cumberland Island visitors (Cumberland Lease)
- Issues – Residential/Church
  - First Baptist Church Relocation
  - Sunday and Wednesday Problem
- Possible Solutions
  - Parking Garage
    - Pro: Extra parking spaces
    - Con: Cost

CITY OF FERNANDINA BEACH

PARKING MASTER PLAN – PHASE ONE

WALKER
PARKING CONSULTANTS

PROJECT NO. 15-1484.00

JULY 2002

RIVERFRONT: PARKING LOT B - ESTIMATED CONSTRUCTION COSTS - 60% Plans

12/18/2015

Category	Item	Quantity	Units	Cost/Item	Total	Possibly Performed by City/FPU Labor	
Landscaping							
	Trees	64	Count	$250	$16,000		
	Groundcovers	1090	Count	$3.00	$3,270		
	Hedge	480	Count	$5.00	$2,400		
	Sod	6400	ft^2	$0.50	$3,200		
	Irrigation	1	Count	$12,500	$12,500		
	Total Landscaping				**$37,370**		
Demolition							
	Asphalt Removal	2860	yd^2	$5	$14,300	Y	
	Full Depth Reclamation	546	yd^2	$8	$4,368	Y	
	Sidewalk/Paver Removal	680	yd^2	$4	$2,720	Y	
	Remove Hydrant/Plug Line	1	Count	$1,250	$1,250	Y	
	Remove Meter	1	Count	$500	$500	Y	
	Relocate Electrical Transfomer	1	Count	$7,500	$7,500	Y	
	Total Demolition				**$30,638**		
Construction							
	Asphalt Paving	1790	yd^2	$17	$30,430		
	6" Header Curb	615	LF	$15	$9,225		
	Traditional Pavers	5900	SF	$6	$35,400		
	Brick Pavers	2070	SF	$8	$16,560		
	Pea Gravel	974	SF	$5	$4,870		
	Striping/Signage	1	Count	$2,500	$2,500		
	New Fire Hydrant	1	Count	$2,500	$2,500	Y	
	Adjust Grate Inlet/MH Covers	2	Count	$500	$1,000	Y	
	Wheel Stops	3	Count	$100	$300		
	Total Construction				**$102,785**		
Accessories							
	Fountain	1	Count	$7,500	$7,500		
	Bench	13	Count	$1,250	$16,250		
	Bike Rack	1	Count	$350	$350		
	Trash Bins	3	Count	$700	$2,100		
	Bollard Lighting	21	Count	$250	$5,250		
	Total Accessories				**$31,450**		
	Total Construction				**$202,243**	$168,105	Reduction in Costs if Tasks (Y above) Performed by City of FB/FPU
	CONTINGENCY			15%	$30,336	$25,216	Considers City/FPU Reduction
	TOTAL ESTIMATED PROJECT COST				**$232,579**	$193,321	Considers City/FPU Reduction

PERMIT SET:
NOT FOR CONSTRUCTION

Engineering Plans

For

DOWNTOWN RIVERFRONT PARK: LOT B

For

CITY OF FERNANDINA BEACH

DOWNTOWN RIVERFRONT PARK:
LOT B
For
CITY OF FERNANDINA BEACH

RELEASED FOR CONSTRUCTION _____ BY _____

Gillette & Associates, Inc.

Civil & Environmental Engineering
Mechanical & Structural Engineering
Permitting & Construction Management

20 South 4th Street Amelia Island, Florida 32034
Phone: 904/261-8819

PERMITTING AGENCIES

CITY OF FERNANDINA BEACH: 904-310-3421
SJRWMD: 904-730-6270

UTILITY PROVIDERS

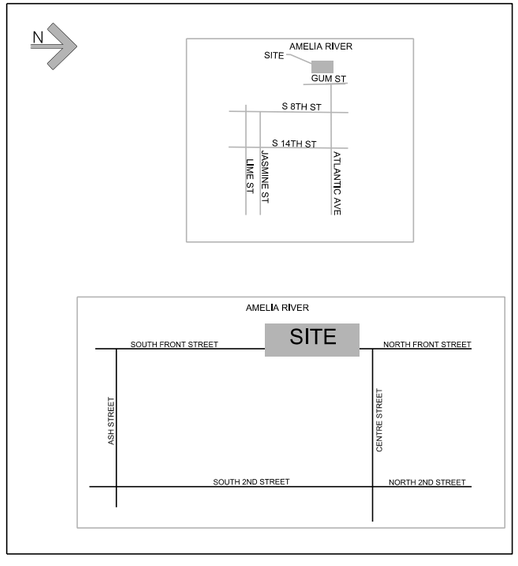
WATER/SEWER: CITY OF FERNANDINA BEACH
ELECTRIC: FLORIDA PUBLIC UTILITIES
CABLE: COMCAST
TELEPHONE: AT&T

G & A

60% Issue Date: DECEMBER 18, 2015

G&A Project
No.:15-10.18

SITE LOCATION MAP



GENERAL NOTES

SITE / GEOMETRY

1.ALL WORK SHALL BE PERFORMED IN A SAFE MANNER.ALL SAFETY RULES AND GUIDELINES OF O.S.H.A.SHALL BE FOLLOWED.THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ANY INJURIES OF HIS EMPLOYEES,AND ANY DAMAGE TO PRIVATE PROPERTY OR PERSONS DURING THE COURSE OF THIS PROJECT.ALL COST'S ASSOCIATED WITH COMPLYING WITH O.S.H.A.REGULATIONS AND THE FLORIDA TRENCH SAFETY ACT MUST BE INCLUDED IN THE CONTRACTOR'S PRICE FOR PERFORMING THE WORK.

2.THE CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE JOB SITE PRIOR TO PREPARING THE BID FOR THE PURPOSE OF FAMILIARIZING HIMSELF WITH THE NATURE AND THE EXTENT OF THE WORK AND LOCAL CONDITIONS.EITHER SURFACE OR SUBSURFACE.WHICH MAY AFFECT THE WORK TO BE PERFORMED,AND THE EQUIPMENT,LABOR AND MATERIALS REQUIRED. FAILURE TO DO SO WILL NOT RELIEVE THE CONTRACTOR OF COMPLETE PERFORMANCE UNDER THIS CONTRACT.THE CONTRACTOR IS URGED TO TAKE COLOR PHOTOGRAPHS ALONG THE ROUTE OF THIS PROJECT TO RECORD EXISTING CONDITIONS PRIOR TO CONSTRUCTION,AND TO AID IN RESOLVING POSSIBLE FUTURE COMPLAINT'S THAT MAY OCCUR DUE TO CONSTRUCTION OF THE PROJECT.ALL COST'S ASSOCIATED WITH PRELIMINARY INVESTIGATION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

3.ALL IMPROVEMENT'S SHOWN ARE TO BE WARRANTED BY THE CONTRACTOR TO THE DEVELOPER.

4.ELEVATIONS ARE BASED ON NAVD 1988.

5.TOPOGRAPHIC AND BOUNDARY INFORMATION WAS PROVIDED BY:COASTAL LAND SURVEYORS (261-8950)

6.THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING,RIGHT-OF-WAY PERMITS NOT PROVIDED AND INSURANCE REQUIRED FOR THE PROJECT.

7.THE CONTRACTOR SHALL COORDINATE THE WORK WITHIN COUNTY OR STATE RIGHT-OF-WAY WITH THE PROPER AGENCIES FOR MAINTENANCE OF TRAFFIC AND METHOD OF CONSTRUCTION & REPAIR.

8.THE CONTRACTOR SHALL ADVISE THE OWNER'S AUTHORIZED REPRESENTATIVE OF PLANNED WORK SCEDULE.THE CONTRACTOR SHALL COORDINATE THEIR CONSTRUCTION WITH ALL OTHER CONTRACTORS.IN THE EVENT OF ANY CONFLICT WHATSOEVER.THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD,AND THE OWNER PRIOR TO PROCEEDING WITH CONSTRUCTION.

9."AS-BUILT" DRAWINGS - AS-BUILTS ARE REQUIRED TO BE SIGNED AND SEALED BY A FLORIDA REGISTERED LAND SURVEYOR. THEREFORE,IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTRACT WITH A LAND SURVEYOR REGISTERED IN THE STATE OF FLORIDA FOR THE PREPARATION,FIELD LOCATIONS,CERTIFICATION,AND SUBMITTAL OF AS-BUILT DRAWINGS.

10."AS-BUILT" RECORD DATA AND INFORMATION SHALL BE MAINTAINED BY THE CONTRACTOR.RECORD DRAWINGS SHALL BE SUPPLIED TO THE ENGINEER.

11.THE CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY AND PROPERTY MONUMENTS.IF A MONUMENT IS DISTURBED,THE CONTRACTOR SHALL CONTRACT WITH THE SURVEYOR OF RECORD FOR REINSTALLATION OF THE MONUMENT.

12.ALL DEBRIS RESULTING FROM ALL ACTIVITIES SHALL BE DISPOSED OF OFF-SITE BY CONTRACTOR ON A DAILY BASIS.

13.ALL EXCESS SUITABLE AND UNSUITABLE MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE ENGINEER.

14.ALL EXISTING TREES LISTED TO REMAIN SHALL BE PRESERVED AND PROTECTED.

15.THE LOCATION OF ALL EXISTING UTILITIES,STRUCTURES,AND IMPROVEMENTS ON THE DRAWINGS ARE BASED ON LIMITED INFORMATION AND MAY NOT HAVE BEEN FIELD VERIFIED.THE LOCATIONS ARE APPROXIMATE.THE CONTRACTOR SHALL NOTIFY RESPECTIVE UTILITY OWNERS AND FIELD VERIFY LOCATIONS OF EXISTING UTILITIES AND OTHER IMPROVEMENTS PRIOR TO COMMENCING ANY CONSTRUCTION.IF THE LOCATIONS SHOWN ARE CONTRARY TO ACTUAL FIELD LOCATIONS,THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER OF THE DISCREPANCY.THE DISCREPANCY SHOULD BE RESOLVED PRIOR TO COMMENCING CONSTRUCTION.THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION WHEN WORKING IN AREAS NEAR EXISTING UTILITY IMPROVEMENTS AND SHALL BE RESPONSIBLE FOR REPAIRS OR PAYMENTS FOR ALL DAMAGE MADE TO EXISTING UTILITIES OR OTHER IMPROVEMENTS.PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION,THE CONTRACTOR SHALL VERIFY ALL GRADES, INVERTS,AND TYPE OF MATERIAL OF EXISTING UTILITIES TO WHICH THEY SHALL CONNECT.

16.THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER ON ALL MATERIALS.FOR REVIEW AND APPROVAL.PRIOR TO PURCHASE OR CONSTRUCTION OF ANY UTILITY OR STRUCTURE.

17.UNSUITABLE MATERIALS UNDER WATER,SEWER,OR STORM PIPE AND/OR STRUCTURES SHALL BE REMOVED AND REPLACED WITH SELECTED BACKFILL COMPACTED TO 98% OF IT'S MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D1557).

18.ALL WATER & SEWER CONSTRUCTION SHALL BE ACCOMPLUSHED BY AN UNDERGROUND UTILITY CONTRACTOR LICENSED UNDER THE PROVISIONS OF CHAPTER 489 FLORIDA STATUTES.

19.WHEN DEWATERING CAPACITY REQUIRES A PERMIT (CUP),IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN THE PERMIT THROUGH THE ST.JOHNS RIVER WATER MANAGEMENT DISTRICT.

20.WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SANITARY HAZARD.THE DISTANCE SHALL BE MEASURED EDGE TO EDGE.WHERE PARALLEL WATER AND SEWER MAINS HAVE LESS THAN 10 FOOT HORIZONTAL SEPARATION,20 FOOT LENGTHS OF C900 (DR18)WATER QUALITY PIPE SHALL BE USED WITH THE JOINTS STAGGERED AT 10 FOOT INTERVALS.THE PIPES SHALL BE PLACED IN SEPARATE TRENCHES WITH THE WATER MAIN AT LEAST 18 INCHES ABOVE THE SEWER.

21.WATER MAINS CROSSING SANITARY HAZARDS SHALL BE LAID TO PROVIDE A MINIMUM VERTICAL DISTANCE OF 18 INCHES BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF THE SEWER MAIN.WHERE WATER AND SEWER MAINS CROSS WITH BETWEEN 18 INCHES AND 6 INCHES OF VERTICAL CLEARANCE.A 20 FOOT SECTION OF C900 (DR18)WATER QUALITY PIPE SHALL BE CENTERED ON THE POINT OF THE CROSSING.THE CONTRACTOR SHALL FIELD VERIFY THE VERTICAL SEPARATION.THE MINIMUM SEPARATION BETWEEN WATER AND SEWER PIPES IS TO BE 6 INCHES OUTSIDE DIAMETER TO OUTSIDE DIAMETER.

22.NO WATER MAIN PIPE SHALL PASS THROUGH OR COME IN CONTACT WITH ANY PART OF A SEWER MANHOLE.

23.BLANK

24.TRACER WIRE SHALL BE PROVIDED ON ALL WATER MAINS AND FORCE MAINS.TRACER WIRE SHALL BE A MINIMUM OF 14 GUAGE SOLID COPPER WIRE,COATED,AND SUITABLE FOR BURIAL.WIRE SHALL BE ATTACHED DIRECTLY TO TOP OF PIPE AND BROUGHT INTO EACH VALVE BOX AND COILED TO ALLOW FOR EASY ACCESS AND EXTENSION ABOVE FINISHED GRADE FOR ATTACHMENT OF LOCATING EQUIPMENT.

25.ALL PIPE LENGTHS ARE APPROXIMATE DIMENSIONS.ALL DRAINAGE STRUCTURES SHALL BE CONSTRUCTED TO CONFORM WITH TYPICAL SECTIONS AND DETAILS AS SHOWN ON THE MISCELLANEOUS DETAILS SHEET AND IN ACCORDANCE WITH THE SPECIFICATIONS.

26.ALL UNDERGROUND UTILITIES MUST BE INSTALLED PRIOR TO PREPARATION OF SUBGRADE FOR PAVEMENT.

27.GRADES SHOWN ON PLANS ARE EDGE OF PAVEMENT FINISHED GRADES UNLESS OTHERWISE NOTED.

28.SHOULD THE SURFACE OR SUBSURFACE CONDITIONS VARY FROM WHAT IS SHOWN ON THE PLANS,THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.

29. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE SEEDED AND MULCHED UNLESS OTHERWISE SPECIFICALLY STATED.

30.THE CONTRACTOR IS RESPONSIBLE FOR THE CONTROL OF SEDIMENT-LADEN RUNOFF RESULTING FROM STORM EVENTS DURING THE CONSTRUCTION PHASE.EROSION CONTROL FACILITIES SHOULD BE INSTALLED EARLY DURING THE CONSTRUCTION PERIOD SO AS TO PREVENT THE TRANSPORT OF SEDIMENT INTO SURFACE WATERS.RE-VEGETATION AND STABILIZATION OF DISTURBED AREAS SHOULD BE ACCOMPLUSHED IMMEDIATELY TO REDUCE THE POTENTIAL FOR FURTHER SOIL EROSION.

31. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND THE CITY OF FERNANDINA BEACH BEFORE COMMENCING WORK.

32.MINIMUM COVER OVER PIPES SHALL BE 36"UNLESS OTHERWISE INDICATED.

33.ALL UNDERGROUND UTILITY COMPANIES SHALL BE CONTACTED AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.

34.IN ADDITION TO THE SPECIFICATIONS AND DETAILS PROVIDED FOR THIS CONTRACT,THE NASSAU COUNTY STANDARD DETAILS AND SPECIFICATIONS (LATEST REVISION) SHALL ALSO BE USED FOR ANY ITEMS NOT COVERED.IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A SET OF STANDARD DETAILS AND SPECIFICATIONS FROM THE CITY OF FERNANDINA BEACH.

35.BACKFILL MATERIAL SHALL BE COMPACTED TO 100% (-2%) PER NASSAU COUNTY REQUIREMENT'S UNDER EXISTING AND PROPOSED ROADWAYS.

36.NO FIELD CHANGES OR DEVIATIONS FROM DESIGN TO BE MADE WITHOUT PRIOR APPROVAL OF THE ENGINEER.

37.STATIONING REFERS TO THE CENTERLINE OF THE ROADWAY EXCEPT AS NOTED ON PLANS.WHERE PAVEMENT SPLITS, THE STATIONING FOLLOWS THE INSIDE EDGE OF PAVEMENT UNTIL ROADWAY TRANSITIONS BACK TO THE TYPICAL ROADWAY SECTION

38.ALL CONSTRUCTION,MATERIAL,AND WORKMANSHIP ARE TO BE IN ACCORDANCE WITH THE CITY OF FERNANDINA BEACH AND CITY OF FERNANDINA BEACH STANDARDS.

WATER NOTES

1.WATER MAINS SHALL HAVE A MINIMUM OF 36"COVER UNDER PAVEMENT OR 30"COVER FROM FINISHED GRADE UNLESS OTHERWISE SHOWN.ALL WATER MAINS SHALL BE FLUSHED IN ACCORDANCE WITH,AND UNDER THE DIRECTION OF THE UTILITY COMPANY.

2.THRUST RESTRAINTS ARE REQUIRED IN ACCORDANCE WITH UTHE UTILITY COMPANY STANDARDS WHERE WATER MAINS ARE TERMINATED AND AT ALL BENDS AND TEES.

3.TIE RODS SHALL BE INSTALLED ON ALL VALVES LOCATED AT FITTINGS.ALL 10" AND LARGER VALVES AND LARGER SHALL REQUIRE (4)TIE RODS. MEGA LUG JOINT RESTRAINTS MAY BE USED IN LIEU OF THRUST BLOCKS OR TIE RODS.

4.UNLESS OTHERWISE NOTED,WATER MAINS ARE TO BE PVC DR18,DR-25,C-900 (BLUE),CLASS 150.

5.ALL WATER MAINS SHALL BE BACTERIOLOGICAL AND PRESSURE TESTED IN ACCORDANCE WITH AWWA C-600.NO CONNECTION TO EXISTING POTABLE WATER SYSTEM SHALL BE ALLOWED UNTIL ALL PROPOSED WATER MAINS HAVE BEEN PRESSURE TESTED, DISINFECTED,AND CLEARED FOR SERVICE.THE UTILITY COMPANY'S AUTHORIZED REPRESENTATIVE MUST BE NOTIFIED 48 HOURS PRIOR TO PERFORMING THE PRESSURE TEST AND MUST BE PRESENT.

6.THE CONTRACTOR SHALL AVOID SERVICE INTERRUPTIONS AND MAINTAIN ANY EXISTING WATER SERVICE TO MEET THE SYSTEM DEMANDS AT ALL TIMES.THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF AFFECTED CUSTOMERS OF THE UTILITY A MINIMUM OF 48 HOURS IN ADVANCE OF ANY INTERRUPTION OF SERVICE.BOIL WATER NOTICES SHALL BE DELIVERED IN ACCORDANCE WITH THE UTLITY COMPANY BOIL WATER NOTICE REQUIREMENT'S.

7.ALL MAIN FLUSHING POINTS SHALL BE SAME SIZE AS MAIN UP TO 8 INCH WATER MAINS.FLUSHING POINTS FOR MAINS LARGER THAN 8 INCH SHALL BE REDUCED TO 8 INCH.

8.ALL WATER MAINS SHALL BE DISINFECTED USING LIQUID CHLORINE OR HYPOCHLORITES IN ACCORDANCE TO AWWA C651-86. WATER IN MAIN SHALL MAINTAIN A CHLORINE RESIDUAL OF 50 MG/L FOR A MINIMUM OF 24 HOURS.WATER MAIN SHALL NOT BE PLACED IN SERVICE UNTIL CLEARANCE HAS BEEN PROVIDED BY THE APPROPRIATE REGULATING AGENCY AND UNITED WATER FLORIDA.

9.IF SOLVENT CONTAMINATION IS FOUND IN THE PIPE TRENCH,WORK SHALL BE STOPPED AND THE PROPER AUTHORITIES NOTIFIED.BASED ON APPROVAL OF THE PERMITTING AGENCY,DUCTILE IRON PIPE,FITTINGS,AND SOLVENT RESISTANT GASKET MATERIAL SUCH AS FLUOROCARBON SHALL BE USED IN THE CONTAMINATED AREA.THE DUCTILE IRON PIPE SHALL EXTEND AT LEAST 100 FEET BEYOND ANY SOLVENT NOTED.ANY CONTAMINATED SOIL THAT IS EXCAVATED SHALL BE PLACED ON AN IMPERMEABLE MAT AND COVERED WITH A WATER PROOF COVERING.THE PROPER AUTHORITIES WILL BE NOTIFIED AND THE CONTAMINATED SOIL HELD FOR PROPER DISPOSAL.

10.2" FLUSHING HYDRANTS SHALL BE INSTALLED AT ALL DEAD END LINES AND MAIN LINE STUB-OUTS.

11.A SEPARATE WATER SERVICE SHALL BE REQUIRED FOR EACH UNIT SERVED AND SHALL BE INSTALLED 3 FEET EITHER SIDE OF PROPERTY LINE.ALL WATER SERVICES SHALL BE MARKED WITH A "W" ETCHED ON THE CURB.ALL VALVES SHALL BE MARKED WITH A "V" ETCHED ON THE CURB.

12.ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY COMPANY'S STANDARDS.

13.ALL BACKFLOW PREVENTION ASSEMBLIES SHALL BE INSTALLED AT THE CONSUMER'S METER OR AT THE PROPERTY LINE WHEN A METER IS NOT USED.

14.BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED BY A STATE OF FLORIDA LICENSED BACKFLOW TECHNICIAN.TEST RESULTS SHALL BE SUBMITTED TO AND APPROVED BY THE UTILITY COMPANY PRIOR TO ACCEPTANCE OF INSTALLATION.

15.MAXIMUM DEPTH ON WATER SERVICES TO METER TO BE 36'.

INDEX

SHEET	DESCRIPTION
	ALL PERMITTING AGENCIES
1	COVER SHEET
2	INDEX SHEET
3	DEMOLITION PLAN
4	GEOMETRY PLAN
5	POST DEVELOPMENT DRAINAGE PLAN
6	LANDSCAPE PLAN
7	IRRIGATION PLAN
8	MISCELLANEOUS DETAILS

FIRE NOTES

1.WHERE UNDERGROUND WATER MAINS AND HYDRANTS ARE TO BE PROVIDED, THEY SHALL BE INSTALLED,COMPLETED,AND IN SERVICE PRIOR TO COMMENCING CONSTRUCTION WORK ON ANY STRUCTURE.(NFPA 1,16.4.3.1.3,2009 EDITION)

2.CLEARANCES OF SEVEN AND ONE HALF FEET (7 FT-6 IN) IN FRONT OF AND TO THE SIDES OF THE FIRE HYDRANT,WITH A FOUR FOOT CLEARANCE TO THE REAR OF THE HYDRANT.(NFPA 1,18.3.4.1,2009)

3.NEW FIRE HYDRANT(S) SHALL BE INSTALLED SO THAT POSITIONED NOT MORE THAN 7 FEET 6 INCHES AWAY FROM CURB OR BERM OF THE ROADWAY.

SEWER NOTES

1.THE CONTRACTOR SHALL PROVIDE,TO THE ENGINEER OF RECORD ,A SCHEDULE OF INVERT ELEVATIONS OF ALL SANITARY MANHOLES PRIOR TO THE PLACEMENT OF THE LIME ROCK BASE COURSE.THIS SCHEDULE TO BE PROVIDED BY THE REGISTERED LAND SURVEYOR SUBMITTING THE "AS-BUILT" DRAWINGS FOR THIS PROJECT.

2.SANITARY SEWER SERVICES SHALL BE 6"PVC WITH A MINIMUM SLOPE OF 0.006 FEET PER FOOT AND SHALL BE TERMINATED AT THE RIGHT-OF-WAY LINE WITH A DEPTH OF 24" TO 48" FROM THE FINAL FINISHED GRADE OF THE DEVELOPED LOT'S.DEPTHS GREATER THAN 48" FROM FINAL FINISHED GRADE SHALL BE READJUSTED BY THE DEVELOPER AT HIS COST.

3.GRAVITY SEWER TO BE CLEANED & TV TESTED BY DEVELOPER AT DEVELOPER'S EXPENSE

4.ALL MANHOLE FRAMES AND COVERS TO BE ADJUSTED TO FINAL FINISHED GRADE.

5.A SEPARATE SEWER SERVICE (6" MIN.) SHALL BE PROVIDED TO THE RIGHT-OF-WAY FOR EACH LOT BEING SERVED.AN "S" SHALL BE ETCHED INTO THE CURB DIRECTLY OVER EACH SERVICE LINE OR IN THE STREET SIDE OF A SIDEWALK IN LINE WITH THE CLEANOUT.

6.GRAVITY SEWER TO BE GREEN IN COLOR

7.NEW GRAVITY SEWER SYSTEM SHALL BE PLUGGED AT NEAREST EXISTING DOWNSTREAM MANHOLE AND SHALL NOT BE REMOVED WITHOUT AUTHORIZATION FROM THE UTLITY COMPANY.EXISTING MANHOLES TO BE COREBORED AND ARRANGEMENTS MADE TO BE REFURBISHED WITH COMPATIBLE MATERIALS IF THE EXISTING MANHOLE IS ALLOWED TO BE USED.

8.FINISHED FLOOR ELEVATIONS SHALL BE GREATER (HIGHER) THAN THE ELEVATION OF THE MANHOLE NEAREST THE SERVICE LATERAL IN ORDER TO AVOID A POTENTIAL BACKUP OF SEWERAGE IN THE HOUSE OR BUILDING.

9.FORCE MAIN MUST PASS A PRESSURE TEST PRIOR TO ACCEPTANCE OF THE SYSTEM.THE PRESSURE TEST SHALL COMPLY WITH AWWA C-600 SECTION 4,STANDARD FOR HYDROSTATIC TESTING.PRESSURE TEST MUST BE WITNESSED AND APPROVED BY AN AUTHORIZED UTLITY COMPANY REPRESENTATIVE.

10.ALL GRAVITY SEWER PIPE TO A 10 FOOT DEPTH OF COVER SHALL BE SDR-26 PVC PIPE (MINIMUM).GRAVITY SEWER PIPE WITH COVER OF 15 FEET (AND IN EASEMENTS) AND GREATER SHALL BE C900 - DR18. JOINT SHALL BE OF THE BELL AND SPIGOT TYPE AND MEET THE REQUIREMENT'S OF THE PIPE REFERRED BEING USED.

11.WHEN A PROPERTY LINE CAN NOT BE DEFINED,THE SEWER CLEANOUT SHALL BE PLACED IN AN UNPAVED AREA AT A DISTANCE NO GREATER THAN 30 FEET FROM THE SEWER MAIN.

12.NOTE: DR-18 TO BE USED ON SEWER LINE CROSSING WHERE STORM DRAIN IS WITHIN 24 INCHES ABOVE GRAVITY ALSO JOINT TO BE CENTERED AT CROSSING

13.ALL MANHOLES TO HAVE MINIMUM 24" HINGED RING AND COVER EAST JORDAN OR APPROVED EQUIVALENT

14.SEWER PLUGS USED DURING THE CONSTRUCTION OR CONNECTION TO A SYSTEM SHALL HAVE THE CONTRACTOR'S NAME PERMANENTLY STAMPED.

15.THE MANHOLE LINER SHALL BE SPECTRA SHIELD OR APPROVED EQUIVALENT.

16.IN ACCORDANCE WITH THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP) REQUIREMENT'S,LEAKAGE TESTING SHALL BE PERFORMED ON ALL SEGMENTS OF THE SEWER SYSTEM.TESTING MAY INCLUDE APPROPRIATE WATER OR LOW PRESSURE AIR TESTING.TEST METHODS SHALL TAKE INTO CONSIDERATION THE RANGE IN GROUNDWATER ELEVATIONS DURING THE TEST AND ANTICIPATED DURING THE DESIGNED LIFE OF THE SEWER.NO LEAKAGE ALLOWED IN SYSTEM.

17.RESTRAINT JOINTS TO BE USED THROUGHOUT ON FORCE MAIN

18. ALL FORCE MAIN TO BE PVC (DR-18)

LEGEND

- EXISTING VALVE
- WM — EXISTING WATER LINE
- SAN — EXISTING SANITARY SEWER
- EXISTING FIRE HYDRANT
- SAN — PROPOSED SANITARY SEWER
- WM — PROPOSED WATER LINE
- PROPOSED FIRE HYDRANT
- EXISTING EDGE OF PAVEMENT
- EXISTING PROPERTY LINE
- 15.3 — PROPOSED SPOT ELEVATION
- S-5 — DRAINAGE STRUCTURE
- P-1 — PIPE
- 15.0 — PROPOSED CONTOUR
- PROPOSED EDGE OF PAVEMENT
- PROPOSED PROPERTY LINE
- PROPOSED R.O.W. LINE
- 16 — EXISTING CONTOUR

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Project Mgr: AG

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CITY OF FERNANDINA BEACH

RIVERFRONT PARK - LOT B

INDEX SHEET

Registered Professional

SHEET NO. IN-1

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Issue Date OCTOBER 2015

Project No. 14-10.27

N

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Scale in Feet

PAVEMENT AREA (TO BE REMOVED): 2,860 SQ YDS

SIDEWALK/PAVER AREA (TO BE REMOVED): 680 SQ YDS

FULL DEPTH RECLAMATION AREA FROM EXISTING PARKING LOT (546 SQ YDS)

TOTAL IMPERVIOUS AREA TO BE REMOVED: 0.73 AC

NOTE:

ALL EXISTING UTILITIES TO BE RETAINED - EXCEPT AS NOTED

WATER LOT "29"

WATER LOT "28"

WATER LOT "27"

WATER LOT "26"

WATER LOT "25"

"BRETT'S WATERWAY CAFE"

REMOVE ALL CURB WITHIN ASPHALT REMOVAL AREA (980 LF)

RELOCATE EXISTING LIGHT POLE (SEE SHEET GE-1)

UNABLE TO GET INVERT ON 18" CONCRETE PIPE DRAINAGE WATER FLOWS INTO RIVER

UNABLE TO GET INVERT ON 24" CONCRETE PIPE DRAINAGE WATER FLOWS INTO RIVER

MANHOLE TOP ELEV=8.48' 2.75' DOWN TO BOTTOM OF GAS VALVE JUNCTION BOX (2 LINES)

ALL ELEVATIONS SHOWN ARE TOP OF WOODEN RAIL

0.7' CONCRETE CURB

WOODEN DOCK

CONCRETE RAMP

24" STEEL PIPE EASTERLY INVERT=1.58'

WOODEN RAIL

CONCRETE SEA WALL

LIGHT POLE

CONCRETE WALK

LIGHT Q POLE

ATLANTIC SEAFOOD F.F.E.=7.01'

24" STEEL PIPE

CATCH BASIN TOP ELEVATION=5.77' BOTTOM ELEVATION=1.02' 24" CONCRETE PIPE EASTERLY INVERT=1.02' 24" STEEL PIPE WESTERLY INVERT=1.27'

WOODEN POWER POLE WITH GUY ANCHOR

WATER METER

BATH HOUSE & RESTROOMS F.F.E.=6.66'

A/C

FIRE HYDRANT

HEADER CURB

CONCRETE WALK (TYPICAL)

ELECTRIC UTILITY

SANITARY MANHOLE TOP ELEVATION=8.17' BOTTOM ELEVATION=2.13' 8" P.V.C. PIPE NORTHERLY INVERT=2.15' 8" P.V.C. PIPE SOUTHERLY INVERT=2.14'

ELECTRIC MANHOLE UNABLE TO OPEN

SANITARY PIPE

SANITARY SEWAR LINE IS NO LINGER IN SERVICE PER UTILITY DIRECTOR OF FPU

SANITARY MANHOLE TOP ELEVATION=7.56' 10" P.V.C. PIPE SOUTHERLY INVERT=1.53' 10" P.V.C. PIPE NORTHERLY INVERT=1.42'

RELOCATE EXISTING FIRE HYDRANT - SEE SHEET GE-1

DRAINAGE PIPE

CATCH BASIN TOP ELEVATION=6.48' 18" CONCRETE PIPE EASTERLY INVERT=2.58' 18" CONCRETE PIPE WESTERLY INVERT=2.58'

MONITOR WELL

BRICK PAVERS

FIRE HYDRANT

ELECTRIC BOX

WATER METER

RELOCATE EXISTING ELECTRIC BOX (SEE SHEET GE-1)

RELOCATE EXISTING WATER METER BOX (SEE SHEET GE-1)

CONCRETE WALL

CONCRETE FOR COOLERS AND MOTORS IN THIS AREA

PROPANE TANK

TICKET BOOTH

CATCH BASIN "F" SEE STRUCTURE TABLE ABOVE:

DRAINAGE PIPE

END OF CURB REMOVAL

SANITARY PIPE CONTINUES WESTERLY

SANITARY MANHOLE "D" SEE STRUCTURE TABLE ABOVE:

STORM MANHOLE TOP ELEVATION=7.11' 24" CONCRETE PIPE NORTHERLY INVERT=3.21' 24" CONCRETE PIPE WESTERLY INVERT=2.91' 24" CONCRETE PIPE EASTERLY INVERT=2.88' 24" CONCRETE PIPE SOUTHERLY INVERT=2.98'

CATCH BASIN "G" SEE STRUCTURE TABLE ABOVE:

SANITARY PIPE CONTINUES EASTERLY

OBSERVATION WELL

FUEL PUMP HOUSING

WAR MEMORIAL

FLAG POLE

RAILROAD LIGHTS

WATER METERS

RAILROAD LIGHT

6" STORM MANHOLE TOP ELEVATION=7.05' 24" CONC PIPE N. INV.=2.90' 24" PLASTIC PIPE E. INV.=3.05'

CATCH BASIN TOP ELEVATION=5.84' 15" CONCRETE PIPE SOUTHERLY INVERT=3.42'

SANITARY MANHOLE TOP ELEVATION=7.02' UNABLE TO OPEN

FIBER OPTIC MARKER

STOP SIGN

RAIL ROAD SIGN

SANITARY SEWER LINE IS NO LONGER IN SERVICE PER UTILITY DIRECTOR OF FPU

EASEMENT RAILROAD TO CITY D.B. ??, PAGE 493 FILE #02-128

CONCRETE CURB

FRONT STREET

LIMITS OF CONSTRUCTION

END OF CURB REMOVAL

TOE OF SLOPE

TOP OF BACK

"GPS FRONT 2" FERNANDINA HARBOR LINE CONCRETE MONUMENT R-11 Y= 2,304,101.3550 X= 509,986.3610

RAILROAD LIGHT WITH CROSSING ARM

MITERED END SECTION

ELECTRIC BOX

CATCH BASIN TOP ELEVATION=6.07' 15" RCP INVERT=3.62' FULL OF WATER WATER LEVEL ELEV.=3.64'

STORM MANHOLE TOP ELEVATION=6.87' 18" CONCRETE PIPE NORTHERLY INVERT=3.27' 18" CONCRETE PIPE

RAILROAD BOX

CONCRETE MONUMENT FOUND "NATIONAL OCEAN SURVEY" 1987 0030 L Y=2,304,368.7565 X=510,060.9966

STONE

EXCEPTION (SIDEWALK)

EXISTING BUILDING

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CITY OF FERNANDINA BEACH

RIVERFRONT PARK - LOT B

DEMOLITION PLAN/SURVEY

Registered Professional

SHEET NO.
DM-1
3 of 8

Issue Date
OCTOBER 2015

Project No.
14-10.27

$$FileName$$

$$time$$

NOTE:
EXISTING LIMEROCK FROM PARKING LOT TO REMAIN UNDER PROPOSED PAVERS BRIC SIDEWALK

TOTAL IMPERVIOUS AREA: 24,080 SF

N

0 20 40
Scale in Feet

NEW PAVEMENT AREA (1,790 SQ.YDS) - 1.5" SP-9.5

PROPOSED BRICK (2,070 SF)

PROPOSED PAVERS (5,900 SF)

PEA GRAVEL (974 SF)

IMPERVIOUS AREA CALCULATIONS

EXISTING

TOTAL EXISTING IMPERVIOUS AREA TO BE MODIFIED: 0.73 AC

EXISTING PARKING LOT TO BE REMOVED (FULL DEPTH RECLAMATION): 0.11 AC

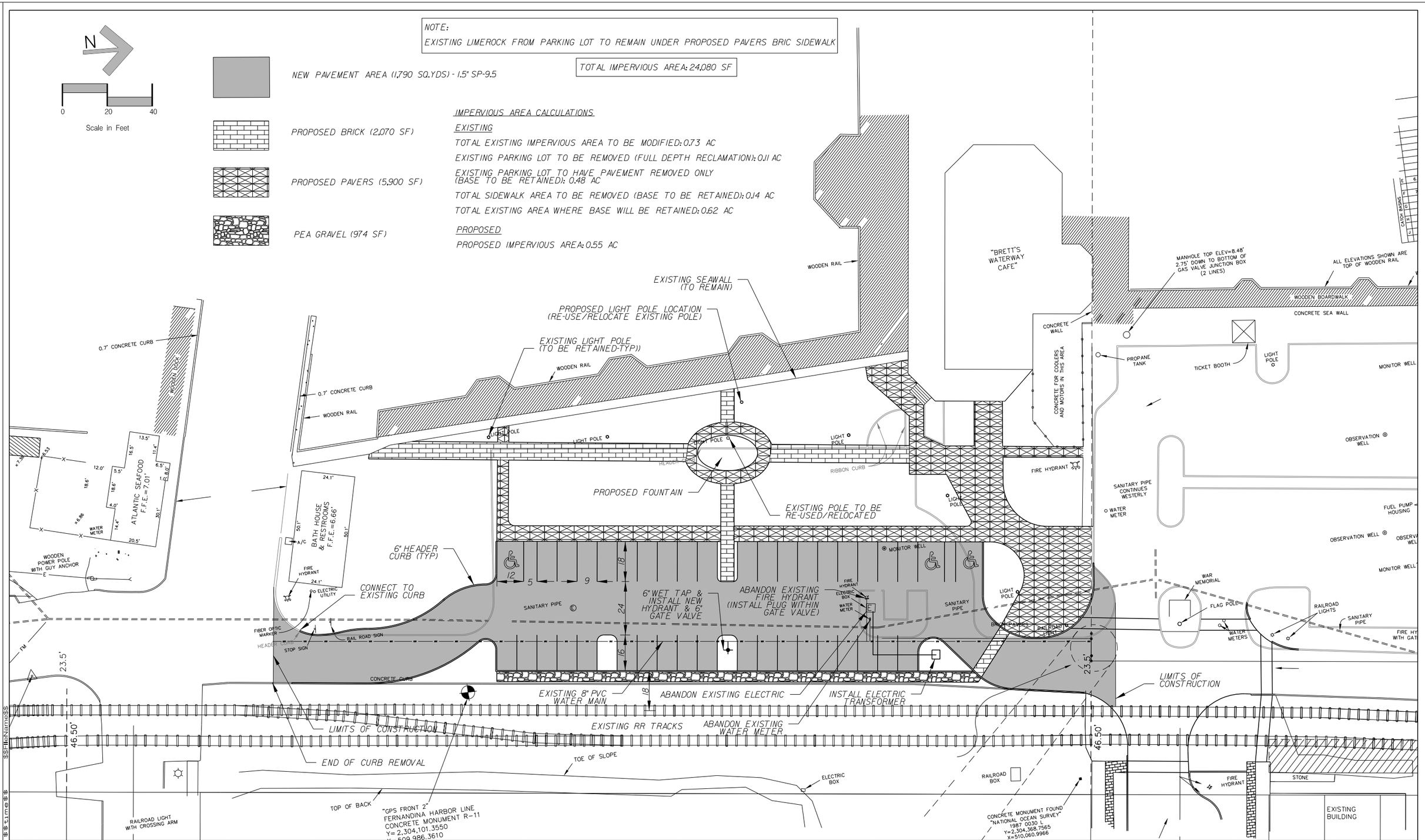
EXISTING PARKING LOT TO HAVE PAVEMENT REMOVED ONLY (BASE TO BE RETAINED): 0.48 AC

TOTAL SIDEWALK AREA TO BE REMOVED (BASE TO BE RETAINED): 0.14 AC

TOTAL EXISTING AREA WHERE BASE WILL BE RETAINED: 0.62 AC

PROPOSED

PROPOSED IMPERVIOUS AREA: 0.55 AC



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RIVERFRONT PARK - LOT B

GEOMETRY PLAN

Registered Professional

SHEET NO.
GE-1
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Issue Date
OCTOBER 2015

Project No.
14-10.27

$$FileName$$ $$time$$ $$date$$

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Scale in Feet

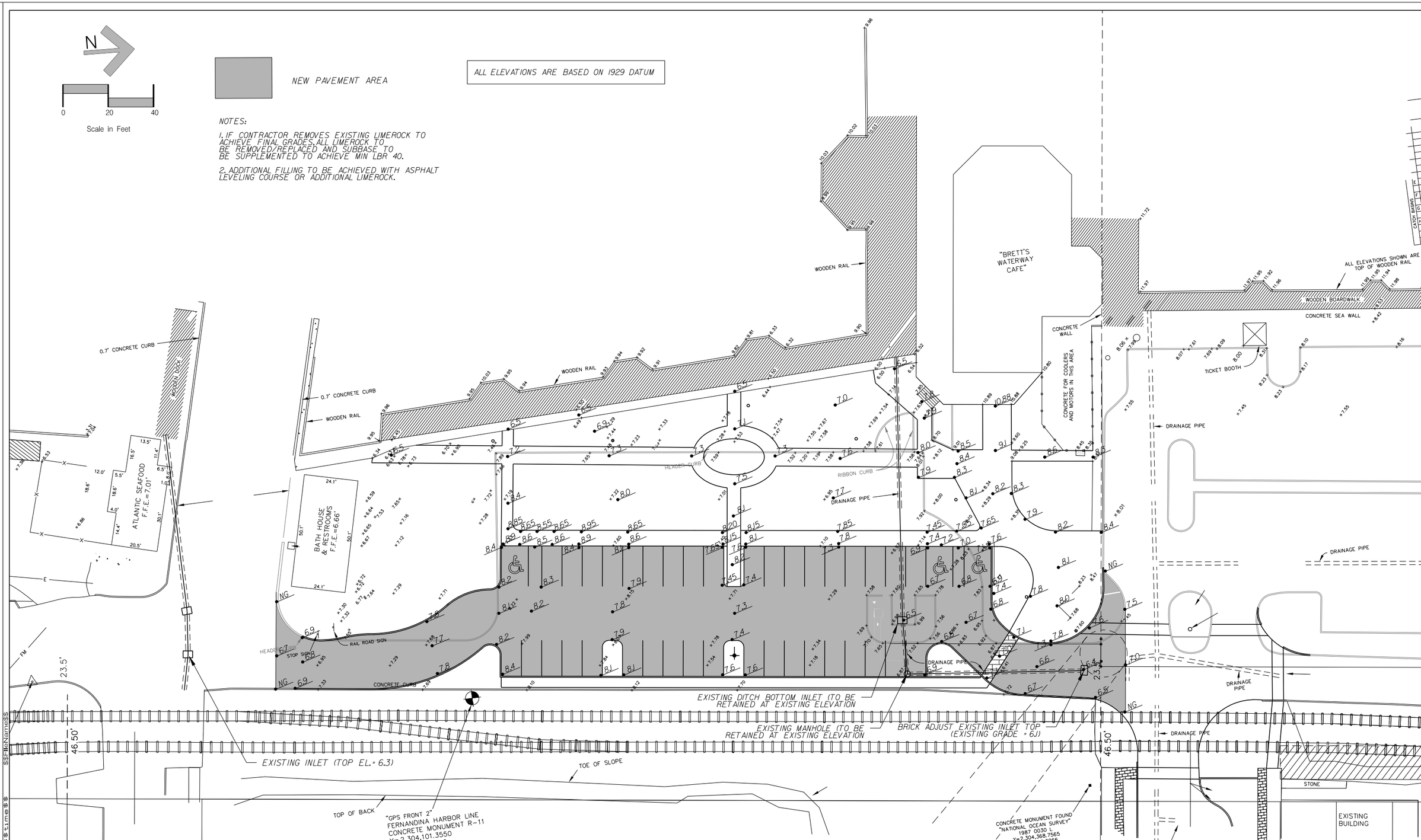
NEW PAVEMENT AREA

ALL ELEVATIONS ARE BASED ON 1929 DATUM

NOTES:

1. IF CONTRACTOR REMOVES EXISTING LIMEROCK TO ACHIEVE FINAL GRADES, ALL LIMEROCK TO BE REMOVED/REPLACED AND SUBBASE TO BE SUPPLEMENTED TO ACHIEVE MIN LBR 40.

2. ADDITIONAL FILLING TO BE ACHIEVED WITH ASPHALT LEVELING COURSE OR ADDITIONAL LIMEROCK.



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RIVERFRONT PARK - LOT B

POST DEVELOPMENT DRAINAGE PLAN

Registered Professional

SHEET NO.
DR-1
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Issue Date
OCTOBER 2015

Project No.
14-10.27

$$date$$ $$time$$ $$FileName$$

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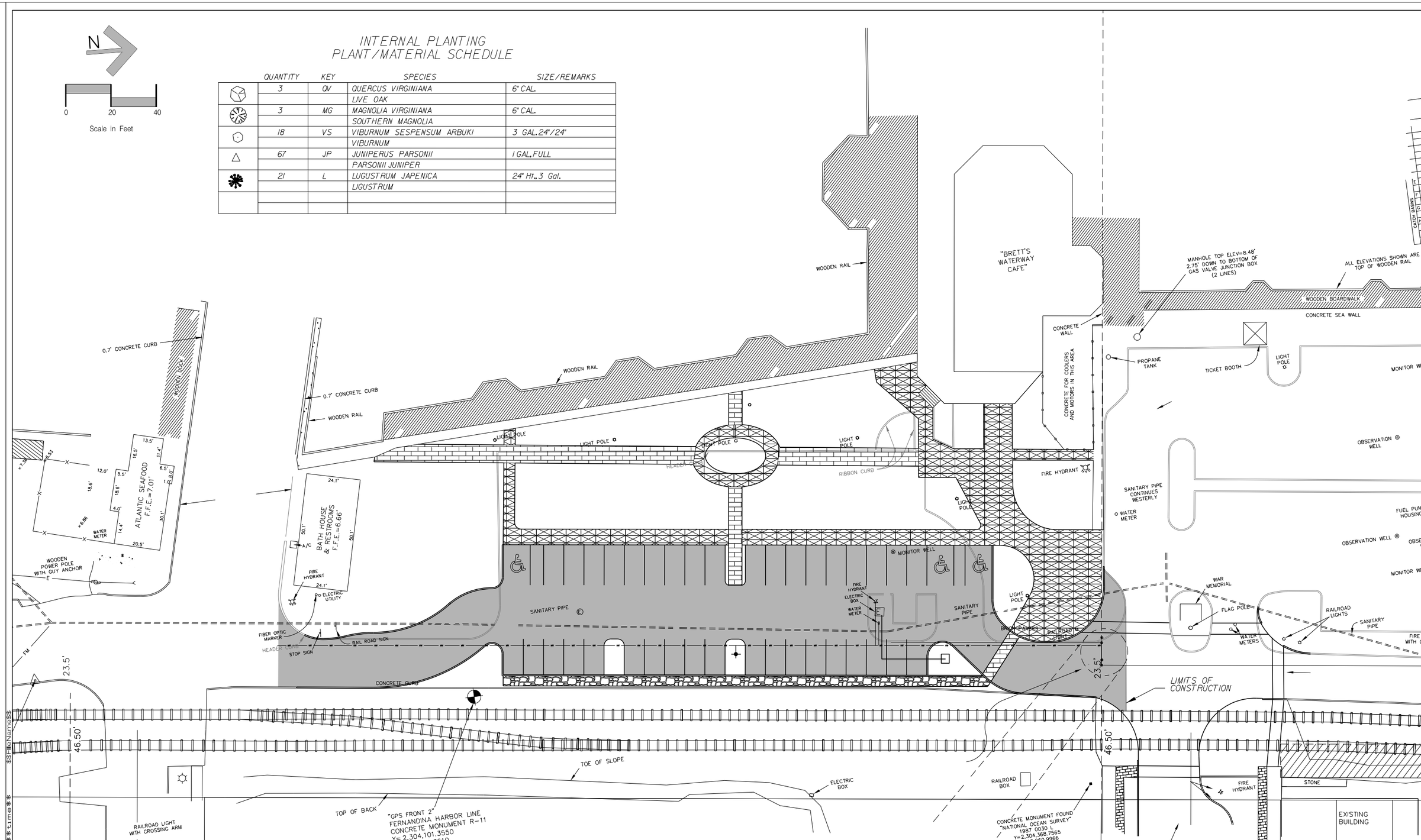
Scale in Feet

INTERNAL PLANTING PLANT/MATERIAL SCHEDULE

QUANTITY	KEY	SPECIES	SIZE/REMARKS
3	QV	QUERCUS VIRGINIANA	6" CAL.
		LIVE OAK	
3	MG	MAGNOLIA VIRGINIANA	6" CAL.
		SOUTHERN MAGNOLIA	
18	VS	VIBURNUM SESPENSUM ARBUKI	3 GAL.24"/24"
		VIBURNUM	
67	JP	JUNIPERUS PARSONII	1 GAL.FULL
		PARSONII JUNIPER	
21	L	LUGUSTRUM JAPENICA	24" Ht.,3 Gal.
		LIGUSTRUM	



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RIVERFRONT PARK - LOT B

LANDSCAPE PLAN

Registered Professional

SHEET NO. LS-1

6 of 8

Issue Date OCTOBER 2015

Project No. 14-10.27

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$$time$$

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Scale in Feet

0.7' CONCRETE CURB
WOODEN DOCK
ATLANTIC SEAFOOD
F.F.E.=7.01'
WATER METER
WOODEN POWER POLE WITH GUY ANCHOR
0.7' CONCRETE CURB
WOODEN RAIL
BATH HOUSE & RESTROOMS
F.F.E.=6.66'
A/C
FIRE HYDRANT
ELECTRIC UTILITY
FIBER OPTIC MARKER
HEADER CURB
STOP SIGN
RAIL ROAD SIGN
WOODEN RAIL
WOODEN RAIL
LIGHT POLE
LIGHT POLE
LIGHT POLE
LIGHT POLE
HEADER CURB
RIBBON CURB
"BRETT'S WATERWAY CAFE"
CONCRETE WALL
CONCRETE FOR COOLERS AND MOTORS IN THIS AREA
FIRE HYDRANT
SANITARY PIPE
MONITOR WELL
FIRE HYDRANT
ELECTRIC BOX
WATER METER
SANITARY PIPE
BRICK PAVERS
RAILROAD LIGHTS
CONCRETE CURB
MANHOLE TOP ELEV=8.48' 2.75' DOWN TO BOTTOM OF GAS VALVE JUNCTION BOX (2 LINES)
ALL ELEVATIONS SHOWN ARE TOP OF WOODEN RAIL
WOODEN BOARDWALK
CONCRETE SEA WALL
PROPANE TANK
TICKET BOOTH
LIGHT POLE
MONITOR WELL
OBSERVATION WELL
SANITARY PIPE CONTINUES WESTERLY
WATER METER
FUEL PUMP HOUSING
OBSERVATION WELL
MONITOR WELL
WAR MEMORIAL
FLAG POLE
RAILROAD LIGHTS
WATER METERS
SANITARY PIPE
FIRE HYDRANT WITH GATE
LIMITS OF CONSTRUCTION
23.5'
46.50'
TOE OF SLOPE
ELECTRIC BOX
RAILROAD BOX
FIRE HYDRANT
STONE
TOP OF BACK
"GPS FRONT 2"
FERNANDINA HARBOR LINE
CONCRETE MONUMENT R-11
Y= 2,304,101.3550
X= 509,986.3610
RAILROAD LIGHT WITH CROSSING ARM
CONCRETE MONUMENT FOUND
"NATIONAL OCEAN SURVEY"
1987 0030 L
Y=2,304,368.7565
X=510,060.9966
EXISTING BUILDING

No.	By	Date	Revision
J			
I			
H			
G			
F			
E			
D			
C			
B			
A			

Scale:
Project Mgr: AG
Designed by: AG-BM
Drawn by: BM
QA/QC: NG

Gillette & Associates, Inc.
20 South 4th Street
Fernandina Beach, FL 32034

Certificate of Authorization No. 9332

DO NOT SCALE THIS DRAWING – DIMENSIONS AND NOTES TAKE PREFERENCE. DRAWING IS REDUCED IF LESS THAN 22" x 34"

G & A‡
GILLETTE & ASSOCIATES, INC
20 SOUTH 4TH STREET
FERNANDINA BEACH, FL 32034
PHONE: (904) 261-8819

CITY OF FERNANDINA BEACH

RIVERFRONT PARK - LOT B

IRRIGATION PLAN

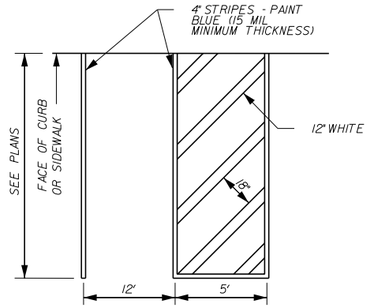
Registered Professional

SHEET NO.
IR-1
7 of 8

Issue Date
OCTOBER 2015

Project No.
14-10.27

$$FileName$$
$$time$$

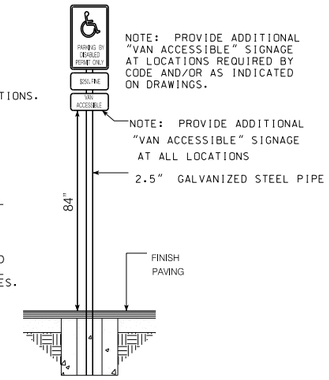


Stall dimension measured from inside to inside striping

TYPICAL DISABLED PARKING

NOTE:

1. ALL SIGNS SHOWN SHALL CONFORM TO FEDERAL ACCESSIBILITY SPECIFICATIONS.
2. ALL SIGNS SHOWN SHALL BE REFLECTORIZED TO SHOW THE SAME COLOR BY NIGHT AS BY DAY.
3. ALL SIGNS SHALL BE SECURELY MOUNTED ON GALVANIZED STEEL CHANNEL POSTS.
4. INSTALL QUANTITY AND AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS. CONFIRM ALL HANDICAPPED SIGNAGE CODES.

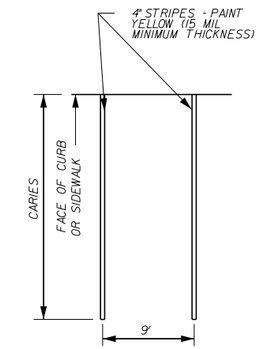


NOTE: PROVIDE ADDITIONAL "VAN ACCESSIBLE" SIGNAGE AT LOCATIONS REQUIRED BY CODE AND/OR AS INDICATED ON DRAWINGS.

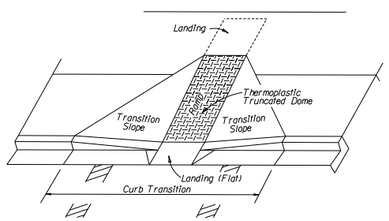
NOTE: PROVIDE ADDITIONAL "VAN ACCESSIBLE" SIGNAGE AT ALL LOCATIONS

2.5" GALVANIZED STEEL PIPE

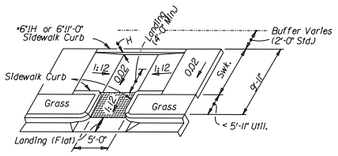
ADA SIGN DETAIL



TYPICAL PARKING

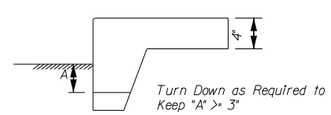


PICTORIAL VIEW



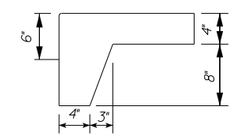
SIDEWALK W/ 5' UTILITY STRIP

ADA CROSSWALK DETAIL



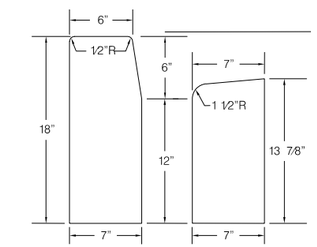
Turn Down as Required to Keep "A" >= 3"

At Grade

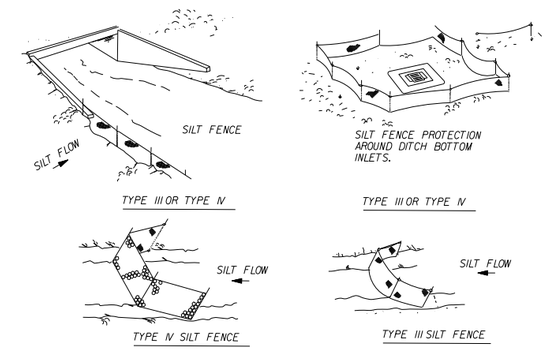


At Asphalt Pavement

SIDEWALK TURNDOWN DETAILS

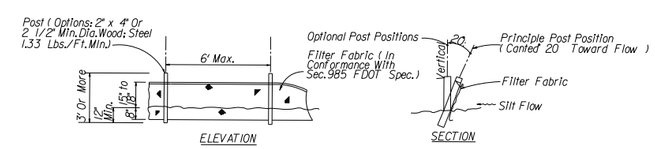


HEADER & DROP CURB

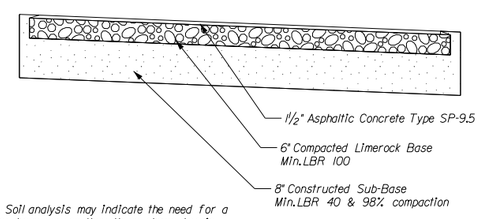


NOTE: SPACING FOR TYPE III AND TYPE IV TO BE IN ACCORDANCE WITH CHART 1.

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

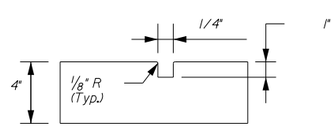


TYPE III SILT FENCE

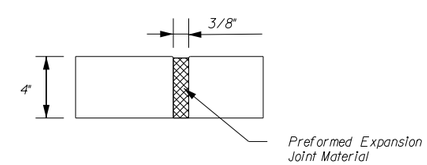


Note: Soil analysis may indicate the need for a thicker base course than those shown herein. The pavement thickness shown herein are not intended to be absolute, but are preliminary criteria & may be modified to accomodate the bearing capacities of various subgrades.

TYPICAL PAVEMENT DETAILS



Dummy Joint



Expansion Joint

SIDEWALK JOINT DETAILS

SILT FENCE APPLICATIONS

No.	By	Date	Revision
J			
I			
H			
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D			
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Scale:

Project Mgr: AG

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CITY OF FERNANDINA BEACH

RIVERFRONT PARK - LOT B

MISCELLANOUS DETAILS

Registered Professional

SHEET NO.
DT-1
8 of 8

Issue Date
OCTOBER 2015

Project No.
14-10.27

$$FileName$$ $$time$$ $$date$$

From:	Nick Gillette
To:	Marshall, D. McCrary; Kelly Gibson
Subject:	60% Plans - Riverfront Park Lot B
Date:	Friday, December 18, 2015 8:14:21 AM
Attachments:	60% Lot B Plans - Riverfront Park.pdf Preliminary Cost Est 12-18-15.pdf

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Marshall/Kelly,

Please find attached the Preliminary Plans for the Waterfront Park. Items of note:

1. Landscape and Irrigation should be completed by next week
2. Re-using 100% of the existing stormwater system
3. No stormwater treatment/attenuation needed for improvements based on my calculations of existing and new impervious areas
4. Identified some items in cost estimate that the City/FPU could perform at no charge to project
5. Mandrick indicated that the existing water service could be abandoned
6. I will need some specs on the pavers at some point

Have a good weekend and call/email with any suggestions/comments you feel need to be immediately addressed.

Thanks.

Nick E. Gillette, P.E.
Principal/Engineer
Gillette & Associates, Inc.
20 South 4th Street
Fernandina Beach, FL 32034
904-261-8819 – P