

Downtown Palm Harbor

Streetscape and Parking Strategic Action Plan

JANUARY 2023



Kimley»Horn
Expect More. Experience Better.

Table of Contents

Context	4
Existing Conditions Inventory	8
Parking Assessment and Strategies	18
Specifications Book	30
Streetscape Concepts	46
Next Steps	64
Appendix A: Maintenance Plan	70

CONTEXT

DOWNTOWN PALM HARBOR CONTEXT
FORM BASED CODE
GOAL OF THIS PLAN

DOWNTOWN PALM HARBOR CONTEXT

Downtown Palm Harbor is an area approximately 65 acres in size located along the US Alt. 19 and Pinellas Trail corridors. Downtown Palm Harbor is a popular attraction, especially during the weekends, with restaurants, breweries, and shopping drawing visitors from all over the region. Increased activity in Downtown has also increased demand for parking and improved street environments. The ***Downtown Palm Harbor Streetscape and Parking Strategic Action Plan*** develops streetscape concept plans for various street types and intersections in Downtown Palm Harbor to help inform future street improvements in the area. The action plan also includes a district-wide parking assessment that analyzes parking supply and demand, along with recommendations related to parking improvements and management.

DOWNTOWN PALM HARBOR FORM-BASED CODE

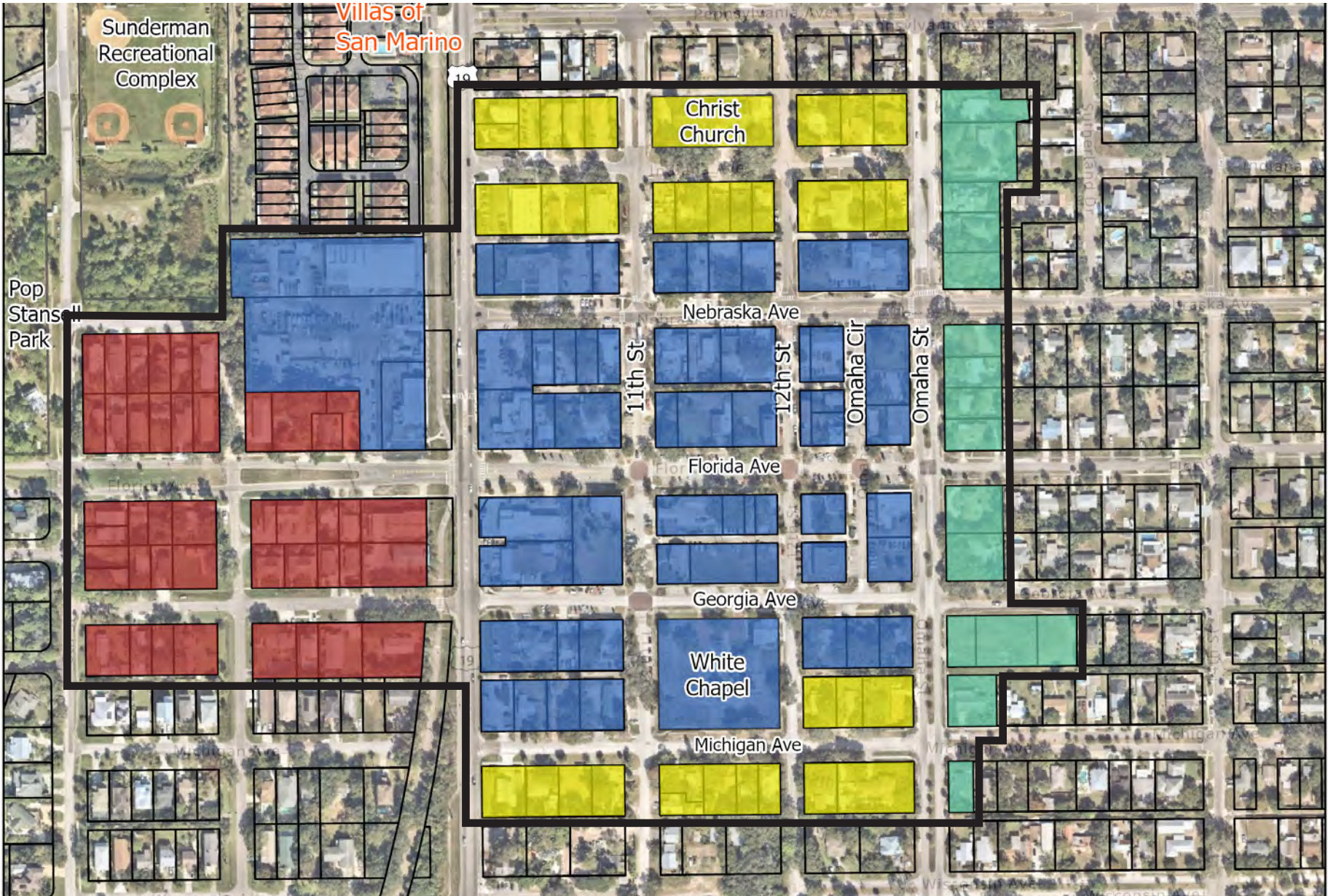
The Downtown Palm Harbor Form-Based Code (DPH FBC) encompasses the Downtown Palm Harbor area, as shown in the map on the following page (pg. 7). The DPH FBC outlines standards for the overall area and provides specific standards within each district. Included in these standards are Sidewalk Width Requirements and Landscape Design Standards, which impact the streets and landscaping within Downtown. The recommendations and specifications within this ***Downtown Palm Harbor Streetscape and Parking Strategic Action Plan*** build off and complement these past planning efforts by utilizing the existing standards in tandem with the recommendations found in the Next Steps section to update the DPH FBC.

GOAL OF THIS PLAN

The goal of this Plan is to create a go-to document for parking strategies and streetscape improvements within Downtown Palm Harbor that can be utilized by County staff, developers, and property owners. This document provides specifications, concepts, and a maintenance plan for horizontal and vertical streetscape elements within the right-of-way, with the intent of providing design guidance that can be leveraged by both public and private actors as improvement and/or redevelopment projects are undertaken within the district. The elements within this Plan include:

- Strategies to improve parking within Downtown
- Specifications Book which outlines specific treatments, street furniture, lighting, etc., for streetscape improvements
- Renderings which depict the elements shown in the Specifications Book
- List of priority improvements
- Funding opportunities
- Landscape Maintenance Plan

DOWNTOWN PALM HARBOR



-
- Project Boundary
-
- Central District (DPH-1)
-
- Neighborhood District (DPH-3)
-
- West District (DPH-2)
-
- Boulevard District (DPH-4)

EXISTING CONDITIONS



Existing Sabal Palms throughout Downtown provide little to no shade for pedestrians



Existing shade trees near intersections



Existing landscaping within a private business's property that is well-maintained and attractive



Brick intersections throughout the project area exhibit the historic character of Downtown



Parked vehicles spilling onto the sidewalk



Inconsistent and non-character conforming planters throughout Downtown

EXISTING CONDITIONS



Existing lighting and street banners throughout Downtown



Existing bench and trash can styles seen throughout Downtown



Existing bench style seen throughout Downtown



A-frame signage seen within Downtown promoting local businesses



Existing bicycle racks within Downtown



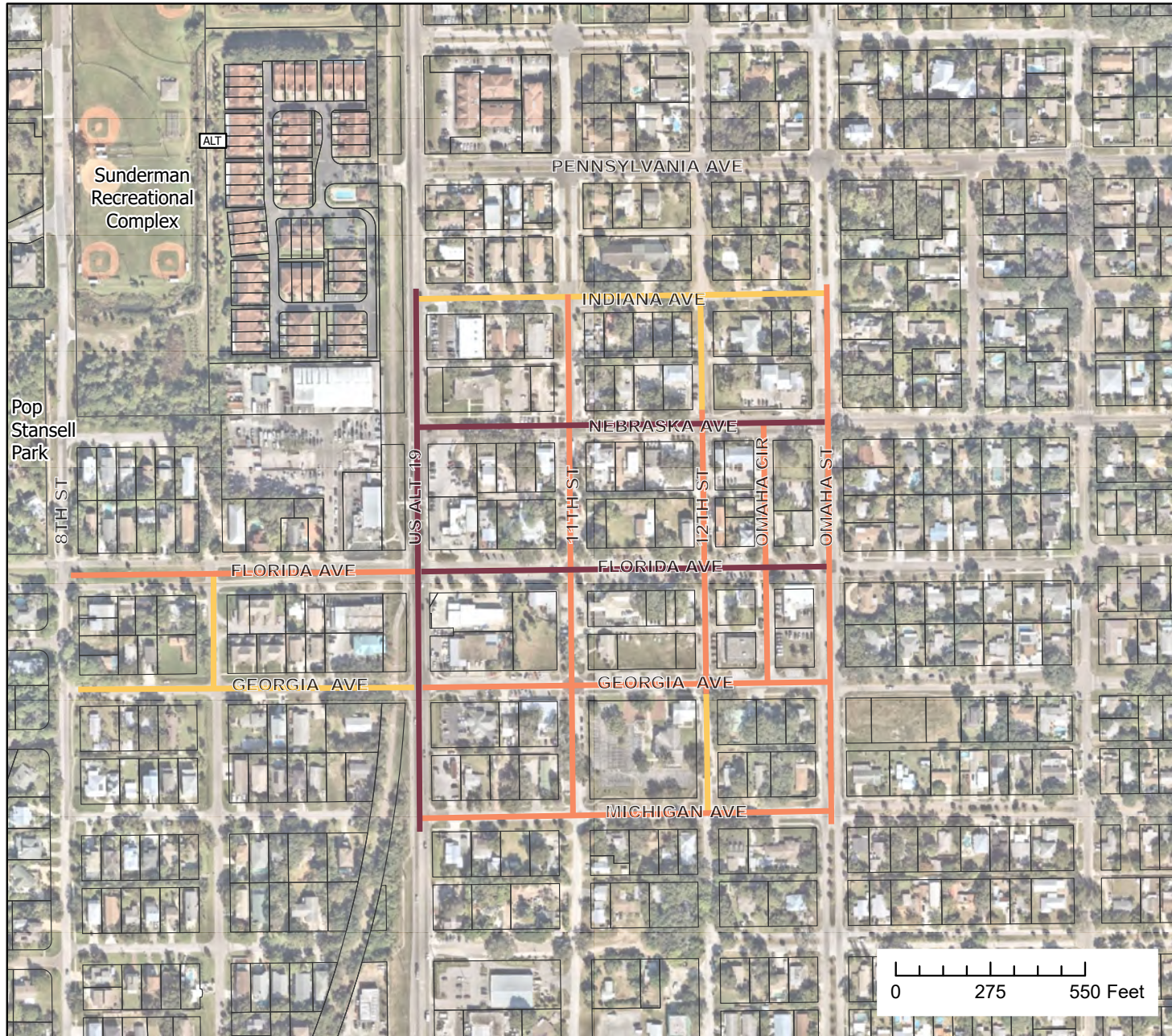
Existing parking and wayfinding signage

STREET TYPES

The streets within Downtown Palm Harbor were assigned a street type to allow for a context-sensitive approach to streetscape design. The street types are characterized by modes of transportation users, adjacent land uses, and sidewalk requirements. Street types were assigned based on existing conditions, future goals, and standards found within the DPH FBC. The table below describes the street type characteristics and corresponding minimum and preferred sidewalk widths, which match the DPH FBC.

STREET TYPE	CHARACTERISTICS	MIN. SIDEWALK WIDTH	PREFERRED SIDEWALK WIDTH	POTENTIAL STREET ELEMENTS
A	<ul style="list-style-type: none"> Frequently used streets High volumes of pedestrian, bicycle, and vehicle traffic On-street parking (except US Alt. 19) Primarily mixed-use and commercial uses 	8 FT.	8 - 10 FT. +	<ul style="list-style-type: none"> Pedestrian-scale lighting with banners Benches Outdoor cafe seating Bicycle racks Planters Bollards Trash receptacles Gateway signage Wayfinding signage
B	<ul style="list-style-type: none"> Frequently used streets Medium to high volumes of pedestrian, bicycle, and vehicle traffic On-street parking Mix of residential and commercial uses 	6 - 8 FT.	8 FT. +	<ul style="list-style-type: none"> Pedestrian-scale lighting with banners Benches Outdoor cafe seating Bicycle racks Planters Bollards Trash receptacles Gateway signage Wayfinding signage
C	<ul style="list-style-type: none"> Primarily resident-used streets Lower volumes of pedestrian, bicycle, and vehicle traffic Primarily residential uses 	5 - 6 FT.	6 FT. +	<ul style="list-style-type: none"> Pedestrian-scale lighting Bicycle racks Trash receptacles Wayfinding signage

STREET TYPES MAP



Legend

- Street Types**
- A Street
 - B Street
 - C Street

STREET FRONTAGE QUALITY ASSESSMENT

One of the goals of this Plan is to improve street frontages over time. A desktop street frontage quality assessment was conducted to determine which streets within Downtown Palm Harbor need improvement. The desktop assessment was confirmed during a site visit for accuracy. The streets were rated “Excellent” to “Poor” based on criteria that makes up a comfortable, walkable street, which is further described in the table below. The results of the street frontage quality assessment are displayed on the map on the following page (pg. 15).

	Excellent	Good	Average	Below Average	Poor
Sidewalks	<i>Wide sidewalks in good condition on both sides of the street</i>	<i>Sidewalks in good condition on both sides of the street</i>	<i>Sidewalks in good to fair condition on one or both sides of the street</i>	<i>Sidewalks in fair condition, or no sidewalks, on one or both sides of the street</i>	<i>Sidewalks in fair to poor condition, or no sidewalks, on both sides of the street</i>
Pedestrian Comfort	<i>Ample shade trees and landscaping along the sidewalk on both sides of the street</i>	<i>Mostly shade trees and landscaping along the sidewalk on both sides of the street</i>	<i>Some shade trees and landscaping along the sidewalk on one or both sides of the street</i>	<i>No shade trees and landscaping along the sidewalk on one or both sides of the street</i>	<i>No shade trees and landscaping along the sidewalk on one or both sides of the street</i>
Building Set Backs	<i>Buildings that meet the sidewalk edge on both sides of the street</i>	<i>Buildings that meet the sidewalk edge or near the sidewalk edge on both sides of the street</i>	<i>Buildings near the sidewalk edge</i>	<i>Buildings set back from the sidewalk edge on one or both sides of the street</i>	<i>Buildings significantly set back from the sidewalk edge on one or both sides of the street</i>
Fenestration	<i>Buildings with windows and entry facing the sidewalk on both sides of the street</i>	<i>Buildings with windows facing the sidewalk on both sides of the street</i>	<i>Empty lot, surface parking lot, or blank building wall on one side of the street</i>	<i>Empty lot, surface parking lot, or blank building wall on one or both sides of the street</i>	<i>Empty lot, surface parking lot, or blank building wall on one or both sides of the street</i>

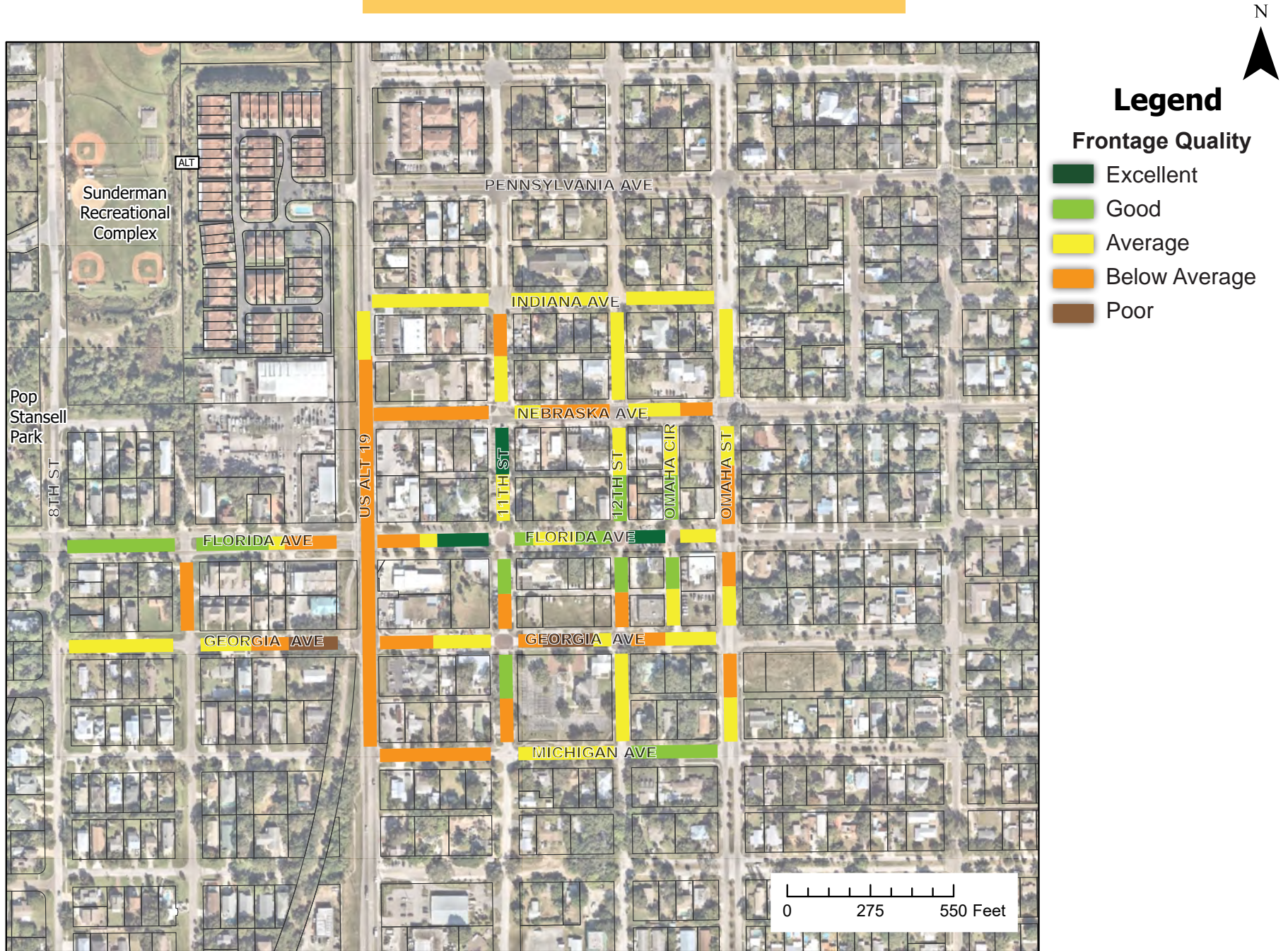


Florida Avenue: Example of excellent/good street frontage



Georgia Avenue: Example of below average/poor street frontage

STREET FRONTAGE QUALITY ASSESSMENT MAP



PRIORITY STREETS

The streets within the Downtown Palm Harbor district are assigned a priority level based on multiple factors. These factors include:

- Frequency of use
- Adjacent land uses
- Potential for redevelopment
- Need for improvement
- Proximity to the downtown core

The Priority Street Map on the following page (pg. 17) is intended to be updated over time as improvements and redevelopment are completed.

High

- *These streets are identified as high priority streets due to high frequent usage, adjacency to commercial and mixed-use land uses, proximity to the downtown core, and greater potential for redevelopment.*
- *High Priority Streets:*
 - » *Nebraska Avenue*
 - » *Florida Avenue (east of US Alt. 19)*
 - » *Georgia Avenue (between US Alt. 19 and Omaha Street)*
 - » *11th Street (between Georgia and Florida Avenues)*
 - » *12th Street (between Georgia and Florida Avenues)*

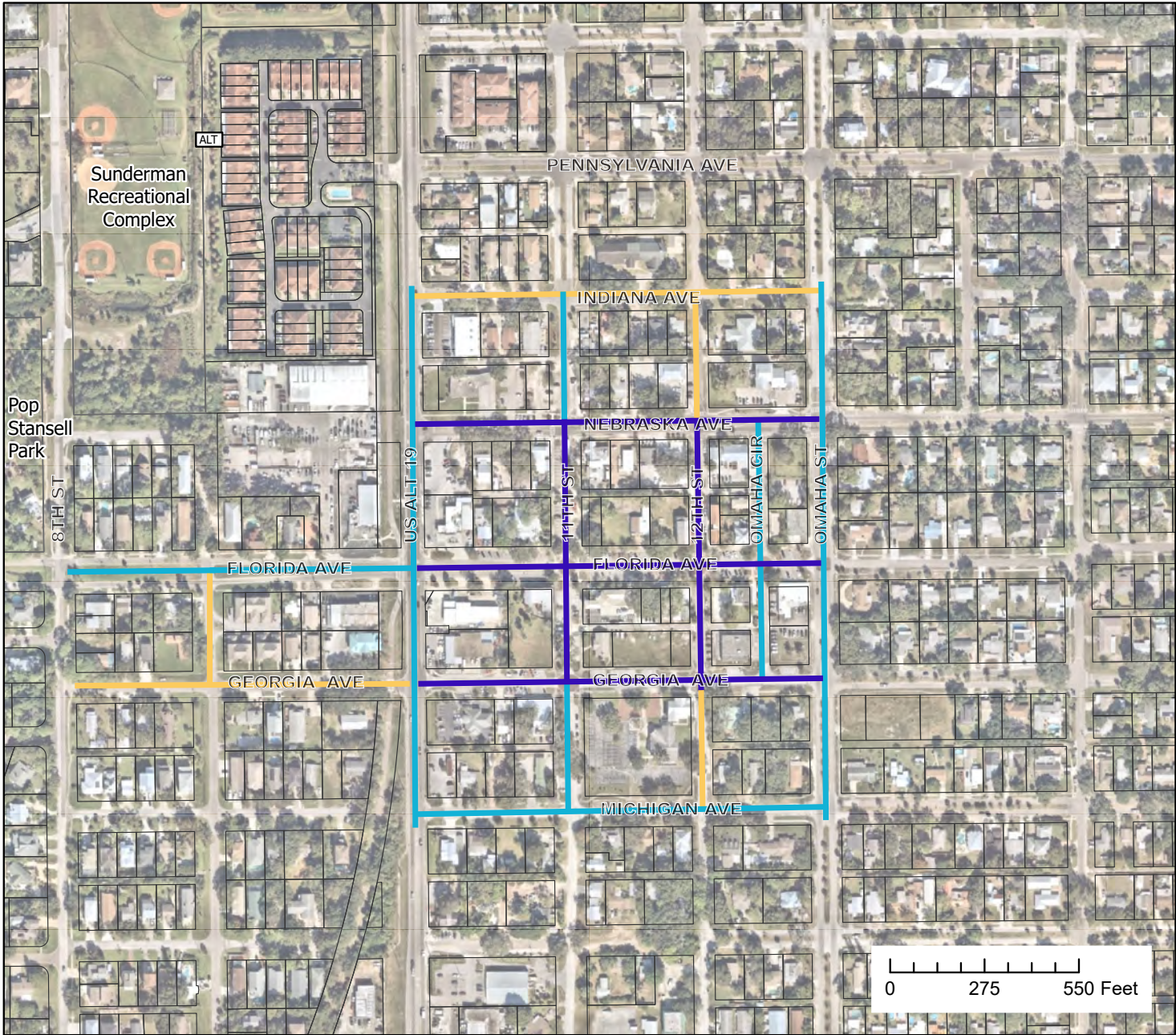
Medium

- *These streets are identified as medium priority streets due to frequent usage, adjacency to commercial and residential land uses, location on the periphery of the downtown core, and some potential for redevelopment. However, improvements, or potential for improvements, may be impacted due to State ownership of US Alt. 19.*
- *Medium Priority Streets:*
 - » *Florida Avenue (west of US Alt. 19)*
 - » *Michigan Avenue*
 - » *US Alt. 19*
 - » *11th Street (between Michigan and Georgia Avenues)*
 - » *11th Street (between Nebraska and Indiana Avenues)*
 - » *Omaha Circle (between Georgia and Nebraska Avenues)*
 - » *Omaha Street*

Low

- *These streets are identified as low priority streets due to lower usage, primarily residential land uses, location on the periphery of the downtown core, and lower potential for redevelopment.*
- *Low Priority Streets:*
 - » *Indiana Avenue*
 - » *Georgia Avenue (west of US Alt. 19)*
 - » *9th Street*
 - » *12th Street (between Nebraska and Indiana Avenues)*
 - » *12th Street (between Michigan and Georgia Avenues)*

PRIORITY STREETS MAP



Legend

Priority Streets

- High
- Medium
- Low

PARKING ASSESSMENT STRATEGIES

EXISTING PARKING INVENTORY AND OCCUPANCY
PARKING STRATEGIES AND RECOMMENDATIONS
PARKING STRATEGIES SUMMARY

PARKING ASSESSMENT STRATEGIES

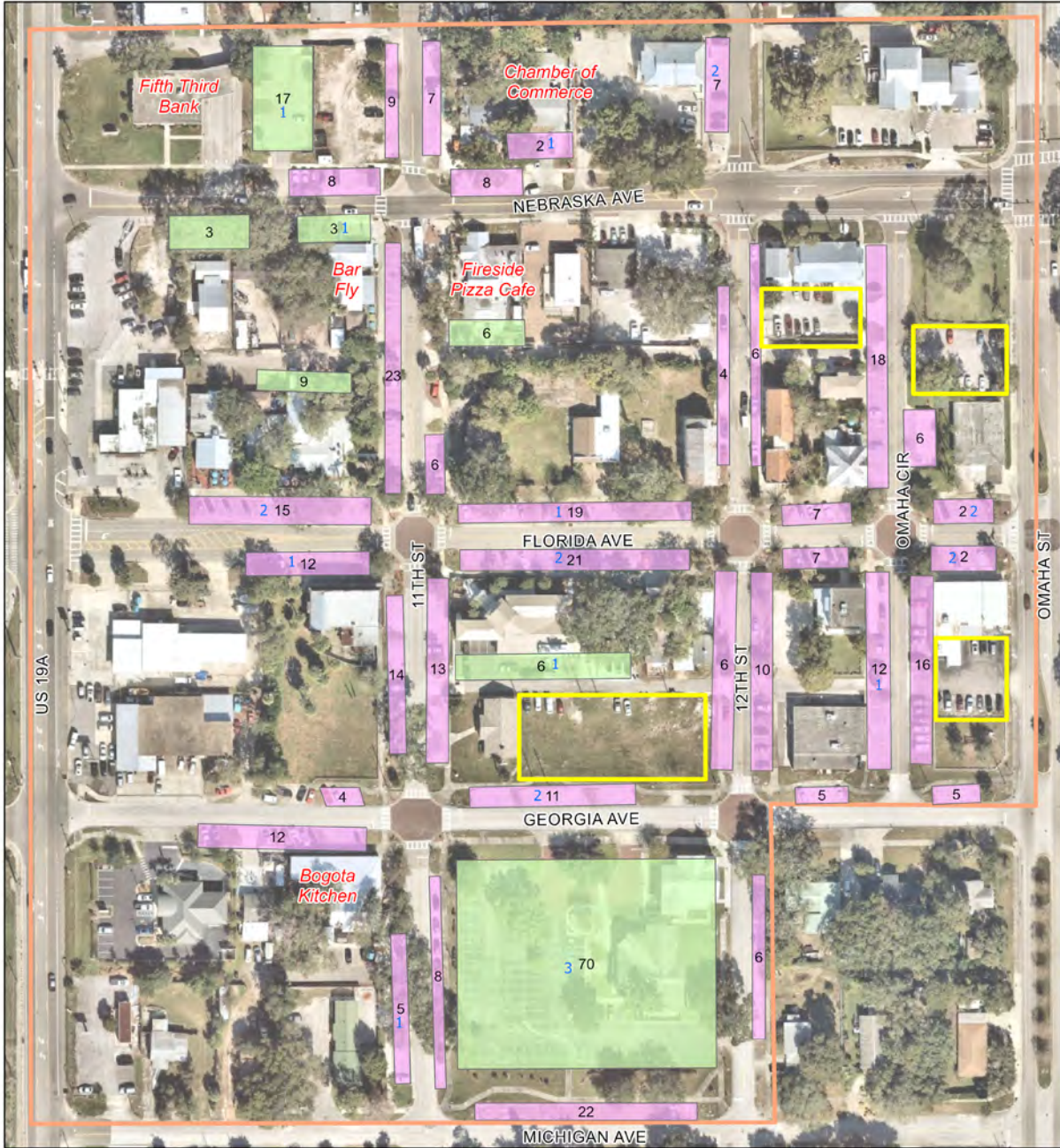
The purpose of this parking assessment was to review the inventory/supply of on-street and off-street parking locations and occupancy levels in the Downtown Palm Harbor area. Occupancy was measured during peak time frames during one of the busiest times of the year, Spring Break weekend. This parking assessment builds on a previous study, Downtown Palm Harbor Parking Observations, which was completed in 2017, to better understand the parking needs and how strategic parking management tools can be leveraged to address any identified issues or opportunities.

EXISTING PARKING INVENTORY AND OCCUPANCY

The Downtown Palm Harbor Parking Inventory study area (pg. 21) consists of on-street parking spaces and off-street parking lots. The study area is bound by US Alt. 19 to the west, Omaha Street to the east, one block north of Nebraska Avenue, and Michigan Avenue to the south. Approximately **76% of all parking spaces** in the study area are classified as public parking spaces. In total, there are **476 parking spaces** across **42 parking locations** in the study area. Of the 476 parking spaces, 355 parking spaces are on-street and 121 are in off-street lots. Approximately **44% of parking locations** have at least one ADA compliant parking space.



PARKING INVENTORY STUDY AREA



Legend

- Off-Street Lot
- On-Street
- Parking Inventory Area
- Lots to Observe Only
- ## ADA Spaces
- ## Non-ADA Spaces



EXISTING PARKING INVENTORY AND OCCUPANCY (CONTINUED)

An inventory of existing spaces was field verified. Parking occupancy counts were also collected the following days and times:

- Friday, April 1, 2022 from 6:00 pm – 9:00 pm
- Saturday, April 2, 2022 from 12:00 pm – 2:00 pm
- Saturday, April 3, 2022 from 6:00 pm – 9:00 pm

Data collection included parking occupancy totals in half-hour increments. It was determined under the direction of County staff to not collect inventory totals for six parking locations in the study area based on lots that were not available or were not counted in the past.

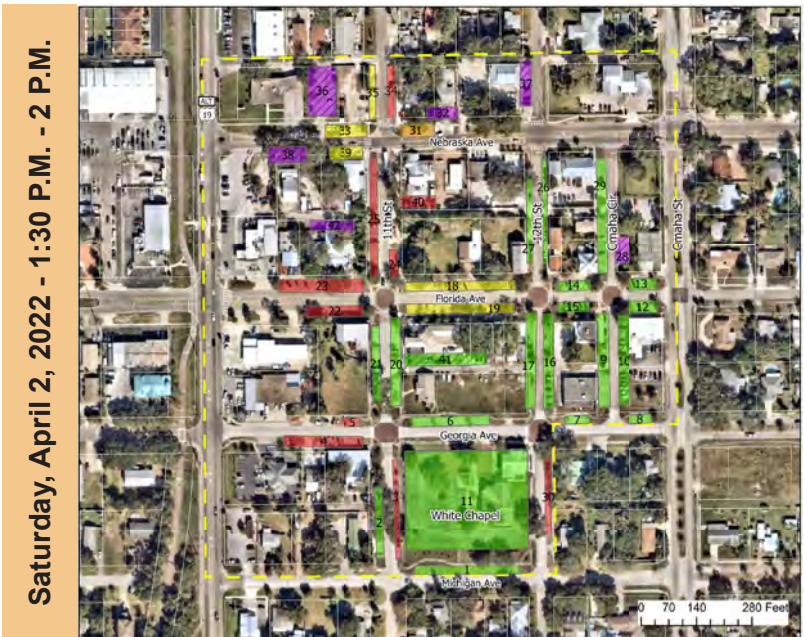
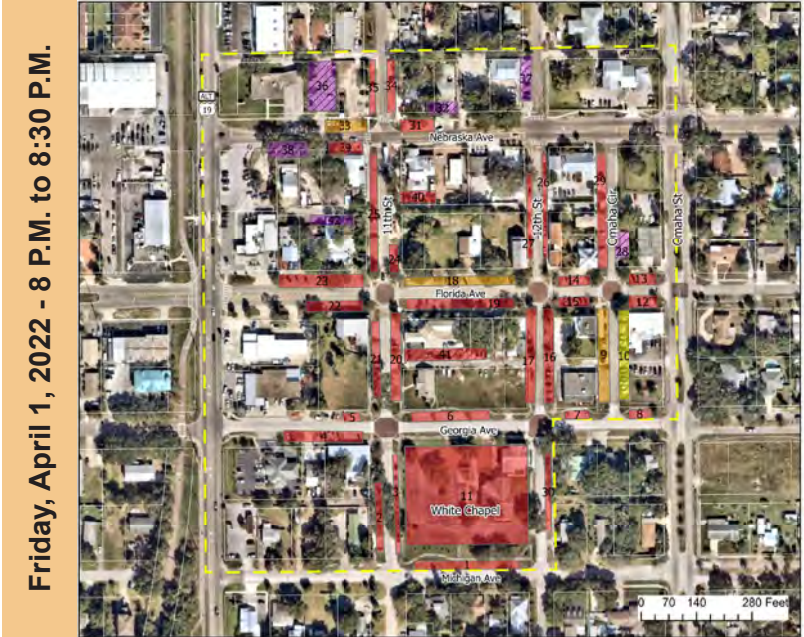
The following table summarizes the parking occupancy levels. The occupancy percentage rate was determined by dividing the number of occupied spaces by the total number of spaces.

PARKING OCCUPANCY PERCENTAGES	
Capacity	Percentage Rate
Not Collected	N/A
Below Capacity	0% - 50%
Medium Capacity	51% - 75%
Nearing Capacity	76% - 90%
At Capacity	91% - 100%

Maps exhibiting when parking was observed to be at its peak are shown on the following page (pg. 23) for each of the three collection time frames. Key findings for the study area include:

- Parking occupancy was at its highest level during the following time frames:
 - Friday, April 1st, 2022 from 8pm – 8:30pm
 - Saturday, April 2nd, 2022 from 1:30pm – 2pm
 - Saturday, April 2nd, 2022 from 7pm – 7:30pm
- The highest occupancy levels were observed at the following parking locations: 11th Street, 12th Street, Nebraska Avenue, and Florida Avenue
- The lowest occupancy levels were observed in the southeastern portion of the study area, near Georgia Avenue and Omaha Circle and Georgia Avenue and Omaha Street
- In peak parking hours, vehicles were parked illegally in areas with no signage
- Heavy pedestrian traffic was present near US Alt. 19 and the busier corridors with more destinations, like Nebraska Avenue and Florida Avenue

PARKING OCCUPANCY MAPS



- ## Legend
- Parking Inventory Area
 - Occupancy**
 - 91% to 100%
 - 76% to 90%
 - 51% to 75%
 - 0% to 50%
 - Not Collected
 - Public/Private**
 - Private
 - Public
 - ## Parking Facility Map ID**



EXISTING PARKING INVENTORY AND OCCUPANCY

General Observations

During the Friday evening inventory collection, parking locations along Michigan Avenue, Georgia Avenue, and Omaha Circle were below capacity to start the collection period. The entire study area reached 62% capacity during the 6:30pm – 7:00 pm time frame. Peak capacity occurred during the 8:00 pm – 8:30 pm time frame, with 76% of parking locations at capacity, no parking locations below capacity, and only one location at medium capacity. Peak capacity was most commonly observed along the 11th Street, 12th Street, Florida Avenue, and Georgia Avenue corridors. The greatest number of public spaces was in the White Chapel off-street parking lot (74 spaces). This parking location reached capacity beginning at 7:00 pm and continued to be at capacity through the entirety of the Friday evening collection period. 14 of the 42 parking locations were at capacity for the entire collection period, most of which being along 11th Street, 12th Street, Florida Avenue, and Georgia Avenue.

During the Saturday mid-day inventory collection, most parking locations remained below capacity for the entire period (see the table below). The peak occupancy period occurred from the 1:30 pm – 2:00 pm time frame, with 24% of parking locations at capacity. The relatively low capacity rate for this time frame could be attributed to inclement weather during the inventory collection time.

BELOW CAPACITY PARKING LOCATIONS - SATURDAY, APRIL 2, 2022, MID-DAY			
Map ID	Location Description	Public/Private Parking	Total spaces
1	North side of Michigan Avenue between 11th Street and 12th Street	Public	22
2	West side of 11th Street between Michigan Avenue and Georgia Avenue	Public	6
6	North side of Georgia Avenue between 11th Street and 12th Street	Public	13
7	North side of Georgia Avenue between 12th Street and Omaha Circle	Public	5
8	North side of Georgia Avenue between Omaha Circle and Omaha Street	Public	5
9	West side of Omaha Circle between Georgia Avenue and Florida Avenue	Public	13
10	East side of Omaha Circle between Georgia Avenue and Florida Avenue	Public	16
11	White Chapel Church	Public	74
12	South side of Florida Avenue from Omaha Circle and Omaha Street	Public	4
13	North side of Florida Avenue from Omaha Circle and Omaha Street	Public	4
14	North side of Florida Avenue from 12th Street to Omaha Circle	Public	7
15	South side of Florida Avenue from 12th Street to Omaha Circle	Public	7
16	East side of 12th Street from Florida Avenue to Georgia Avenue	Public	10
17	West side of 12th Street from Florida Avenue to Georgia Avenue	Public	6
26	East side of 12th Street from Nebraska Avenue to Florida Avenue	Public	6
27	West side of 12th Street from Nebraska Avenue to Florida Avenue	Public	4
29	West side of Omaha Circle from Nebraska Ave to Florida Avenue	Public	18
41	Private lot behind 1114 Florida Avenue between Florida Avenue and Georgia Avenue, 11th Street and 12th Street	Private	7

General Observations (Continued)

During the Saturday evening inventory collection, most parking locations were below capacity or had capacity. The lowest occupancy occurred during the 6:30 pm – 7:00 pm time frame. Peak capacity occurred during the 7:00 pm – 7:30 pm time frame, with 24% of parking locations at capacity, and 43% of parking locations below capacity.

For all three collection periods, the 11th Street corridor experienced the most consistent higher capacity in comparison to the other corridors in the study area. A significant number of vehicles and golf carts were observed to be parked illegally or in parking spaces not marked on the east and west sides of 11th Street between Florida Avenue and Indiana Avenue, concentrated primarily between Bar Fly and Fireside Pizza Café.

The Friday collection period experienced the highest pedestrian activity as pedestrians were observed parking downtown and utilizing the pedestrian crosswalk and signal north of Florida Avenue to access the deBine Brewery. The lots along Georgia Avenue north of Bogota Kitchen and Bar were at or above capacity. Tailgaters were present due to live music at Bogota. Minimal bicycle traffic was observed in this area during the observation period. Observed cyclists kept close to the bike trail.

Unless signage explicitly stated no parking, patrons would utilize the space. The lot on the northwest corner of Nebraska Avenue and 12th Street had appropriate private parking signage and was thus not utilized. Meanwhile, the Chamber of Commerce lot on the corner of Indiana Avenue and 11th Street had no such signage and was used to a moderate extent.

There were three instances of large vehicles parking in the study area. Parking Facility ID 30, along 12th Street east of the White Chapel lot, had an 18-wheeler blocking all spots for the duration of Saturday’s observations. A Blood Donation bus was parked on upper west side of Omaha Circle by Les Olson Jewelers south of Nebraska Avenue, occupying more than one space. A “Meals-on-Wheels” bus was parked on the west side of Omaha Circle north of Georgia Avenue — it occupied approximately three spaces.



On-street parking on Florida Avenue.

PARKING STRATEGIES AND RECOMMENDATIONS

The following section describes strategies to increase the supply of parking spaces in the Downtown Palm Harbor area outside of the existing public and private parking spaces.

SHORT-TERM

Shared Parking Agreements

Pinellas County should work to promote and facilitate shared parking agreements to help maximize the utilization of existing parking assets and reduce the amount of additional parking needed. Often, shared parking agreements can be set up and managed by a third party who is responsible for clean-up and maintenance and coordination with the business. The shared parking agreement should define the responsibilities and liability for each party.

The County should help facilitate shared parking agreements by educating business owners and developers about what is permitted per the Code of Ordinances, tracking potential shared parking options, and networking with and connecting local land and business owners.

Restriping

The supply of parking spaces can potentially be increased by restriping the existing parking spaces. Restriping could include slightly changing the angle of parking spaces in some areas and reducing the width of the existing spaces. Restriping shall be consistent with the DPH FBC. This initiative could also include restriping areas for drop-offs, loading, and unloading near businesses.

Parking Restrictions

Unrestricted parking spaces create problems, such as long-term parking in a space meant to serve short-term visitors or patrons and lack of turnover. Time restrictions for on-street parking (e.g., two-hour parking, three-hour parking, etc.) create greater turnover thus increasing the likelihood of a visitor finding a place to park. By restricting who can park in a specific location (e.g., employee parking only, restaurant patron parking only, etc.), parking can be separated by reason for parking, and in some cases, by duration. Off-street restrictions, such as those in place currently

at various businesses and medical offices in the Downtown area, could restrict public parking to after business hours. This creates additional parking spaces during peak hours throughout the Downtown.

Drop-Off Conflicts/Loading

By creating a well-defined drop-off zone and loading zone, less conflicts should occur between unauthorized vehicles parking in those zones and delivery vehicles. Proper signage should be visible in those zones to effectively communicate additional parking restrictions.

Event Scenario Planning

The County and local business owners can work together to plan for peak weekends/events to make additional parking available. This can be accomplished by activating private parking lots, adjusting parking restrictions for a specific time frame, and utilizing vacant lots/open spaces.

Trolley Usage

The Clearwater Jolley Trolley, in partnership with Pinellas Suncoast Transit Authority, operates in North Pinellas County including Palm Harbor. There are two routes in operation, Coastal and Clearwater Beach. The Downtown Palm Harbor area is serviced by the Coastal route. The trolleys operate seven days a week, from 8:25 am to 11:00 pm Sunday through Thursday, and 8:25 am through 1:00 am Friday and Saturday. In total there are 21 stops on the Coastal route. Two trolley stops are in Downtown Palm Harbor located on Florida Avenue, Stop #9 and Stop #15, and the trolleys circulate for pick-up every 60 minutes.

With the Coastal route covering Clearwater, Dunedin, Palm Harbor, and Tarpon Springs, this provides more opportunities for those desiring to travel to Downtown Palm Harbor to park in other locations outside of the area and ride the trolley into Downtown. Trolley fares cost \$2.25 per ride or \$5.00 for an all day pass.

Public parking along the trolley routes creates additional parking options for those who use the trolley instead of parking Downtown. When special events occur in Downtown Palm Harbor, parking near the trolley stops would allow more people to come into the area without parking their vehicles Downtown, thus increasing the parking inventory for Downtown.

Enhance Employee Parking

Currently, there is minimal signage and designated areas for employee parking for Downtown businesses. Opportunities are present to create parking agreements with businesses within and just outside of the study area that have parking areas to accommodate additional vehicles. By updating signage and increasing designated areas for employees of Downtown businesses to park outside the core area, the lack of available parking will be eased, especially during peak hours.

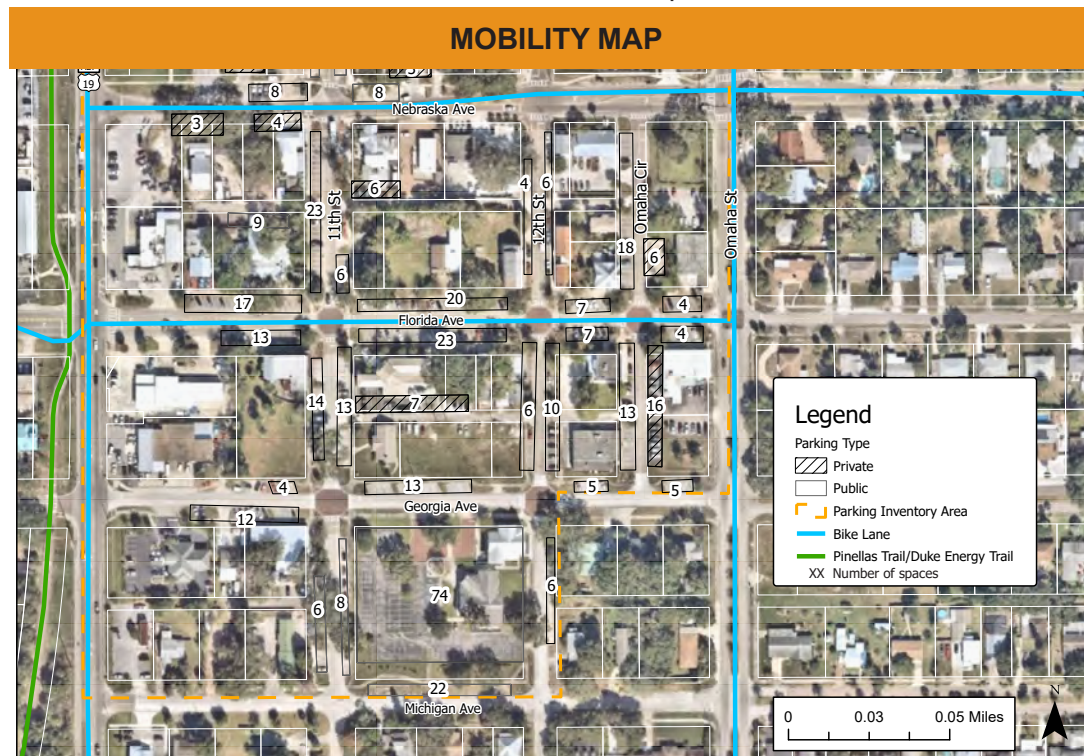
Mobile Applications

While the County may not wish to pursue pay-by-plate parking in the short term, there are similar applications and technology that can be deployed to notify users of open parking spaces for a given area. Metrics such as occupancy and turnover can be kept with the same applications and technology.

Micromobility and First/Last Mile Connections

One of the most important connections for those seeking to travel to the area are first and last mile connections. There are instances when parking directly outside of a desired location is not possible. By making micromobility services such as scooter rentals or bicycle rentals available, visitors would be able to connect from their first/last stop (e.g., a trolley stop or where they parked) to their final destination. Designated parking locations for micromobility modes help to maintain clear sidewalks and improve pedestrian mobility. Existing bicycle parking facilities in the area can be updated to accommodate micromobility parking and charging.

Consideration should also be placed on parking for bicycles, golf carts, and electric vehicles. With the close proximity to Pinellas Trail (see map below), which draws 70,000 users per month, bicycle traffic and parking should be accommodated. Golf carts are a popular mode of travel to Downtown which can utilize smaller parking spaces. Areas for golf cart parking should be evaluated further. Lastly, designated parking for electric vehicle charging station should be considered to accommodate future transportation needs.



LONG-TERM RECOMMENDATIONS

Utilize Publicly Owned Land

There are opportunities to re-purpose existing County-owned land into public parking spaces. An example of where this could be accomplished is Florida Avenue, west of US Alt. 19, in the existing grass median. The County could also look to purchase land in strategic locations for additional parking options. If there are special events in or around the Downtown Palm Harbor area, parking can be offered on the County's land or land that is acquired. Public land, like Palm Harbor High School, may be used during peak seasons or peak hours for capacity as well.

Public Parking with New Development

As new development occurs, the County could pursue requiring that public parking spaces be required for any new development. An example of this would be a mixed-use building having commercial space on the first floor and residences on the upper floors. Public parking would be made available on the first floor of an attached parking garage and resident parking on the upper floors of the garage. New developments could offer off-street parking to the public during non-working hours and for special events. The Downtown Palm Harbor Form Based Code provides parking standards for both vehicles and bicycles and should be addressed by new developments.

Identify Valet Services

Local businesses in areas with high occupancy during peak hours could offer valet services. These services would temporarily park or relocate vehicles that would occupy on-street parking directly in front of a business to an on-street or off-street parking location in low occupancy parking spaces or locations. Funds collected as part of these services could be used for roadway or pedestrian improvements within the Downtown area.

Parking Benefit District

It is suggested that if on-street paid parking is implemented or considered in the future that a Parking Benefits District (PBD) is established. A PBD allows a percentage of revenues from parking to be placed into a fund to be used for area improvements. Potential improvements could include street repairs, streetscape improvements, undergrounding utility wires,

lighting upgrades, or the implementation of smarty city technology. The development of a PBD begins with the involvement of key stakeholders to create a set of guiding principles that help facilitate the process and develop the rules. The main items that need to be determined in establishing a PBD include:

- Shared goals and objectives
- Boundaries and location of parking meters
- Percentage of parking revenue applied to fund
- How monies are applied
- Responsible parties to manage funds and the implementation of neighborhood improvements

OTHER CONSIDERATIONS

The strategies/tools provided below are considerations the County can use to address parking management issues in the study area. These options range from streetscape redesign to technology solutions. While there is no one solution that can solve all issues or conflicts, it is recommended that several strategies are implemented to complement one another and produce more impactful results.

Parklets

Parklets include temporary or permanent transformation of public right-of-way, most likely used for vehicles, for the use of pedestrians and public space. Some of these methods include parklets, pedestrian-only streets, and intersection reconfigurations.

Alleyway Usage – Short-Term

Alleyways help create better mobility by allowing delivery and service type vehicles to more easily access the back of businesses where storage is usually located rather than the front. This strategy helps clear the curb lane of unwanted vehicles and creates more space for things such as on-street parking, bike parking, bike lanes, multi-use paths, and more. Additionally, alleyways also improve congestion by potentially removing a stopped vehicle from the curbside lane. Alleyways can also improve emergency response times by improving access for emergency vehicles. Alleyway use is ideal in downtown areas and dense commercial districts.

Beautification

While beautification of parking infrastructure does not increase the inventory of spaces, it does create a better aesthetic, increased pedestrian safety, and a sense of character. Landscaping along parking areas, additional pedestrian scale lighting, and driveway apron improvements are each beautification treatments that could be made around and near various parking locations.

Technology-Driven Data Collection – Long-Term

Similar to the mobile applications strategy, technology drive data collection—such as occupancy capturing and license plate recognition—can be used to monitor parking occupancy. This technology could be used by law enforcement to enforce the posted parking regulations.

PARKING STRATEGIES SUMMARY

To mitigate the peak occupancy periods especially along 11th Street, 12th Street, Florida Avenue, and Georgia Avenue, there are opportunities to provide additional parking options for visitors and residents. The County should pursue **three key strategies** to accomplish this:

- Explore shared parking agreements with local businesses
- Create a special event parking plan during peak weekends and seasonal time frames to utilize parking locations outside of the Downtown area
- Utilize additional public/private lots adjacent to downtown or within a shuttle range
- Explore public spaces made available with new development

The key strategies can be implemented with other strategies to provide additional parking spaces in Downtown Palm Harbor.

SPECIFICATIONS BOOK

HISTORIC CHARACTER
HARDSCAPE MATERIALS
LANDSCAPE PALETTE
LIGHTING
STREET FURNISHINGS
WAYFINDING & SIGNAGE
PUBLIC ART & PLACEMAKING

The Specifications Book is intended to guide improvements and new development within Downtown. The goal is to create a cohesive aesthetic within Downtown that enhances existing character and establishes a consistent, well-designed brand. This will be accomplished through the specification of materials, landscaping, and street furniture. All improvements or new development shall consult the Specifications Book for design guidance.

Historic Character

Downtown Palm Harbor already exhibits historic elements and character, which is a goal to maintain and enhance in the Action Plan. Elements within this specifications book and any recommended improvements match the historic character already present in Downtown.



Existing Clock in Downtown



Existing Lighting with Street Banners



Existing Historic Brick Pavers



Existing Brick Intersections

Hardscape Materials

BRICK

The County's stockpile of brick will be utilized and incorporated throughout the Downtown streetscape. The brick will help maintain Downtown Palm Harbor's historic character and re-use existing materials available to the County, which is more sustainable and cost-effective. The brick will be used for:

- On-street parking spaces (laid in a herringbone pattern)
- Intersections
- Crosswalks
- Intersection Corners
- Sidewalk Banding

CONCRETE

Concrete is a durable and affordable option which will also compliment the historic brick details. Concrete will be used for:

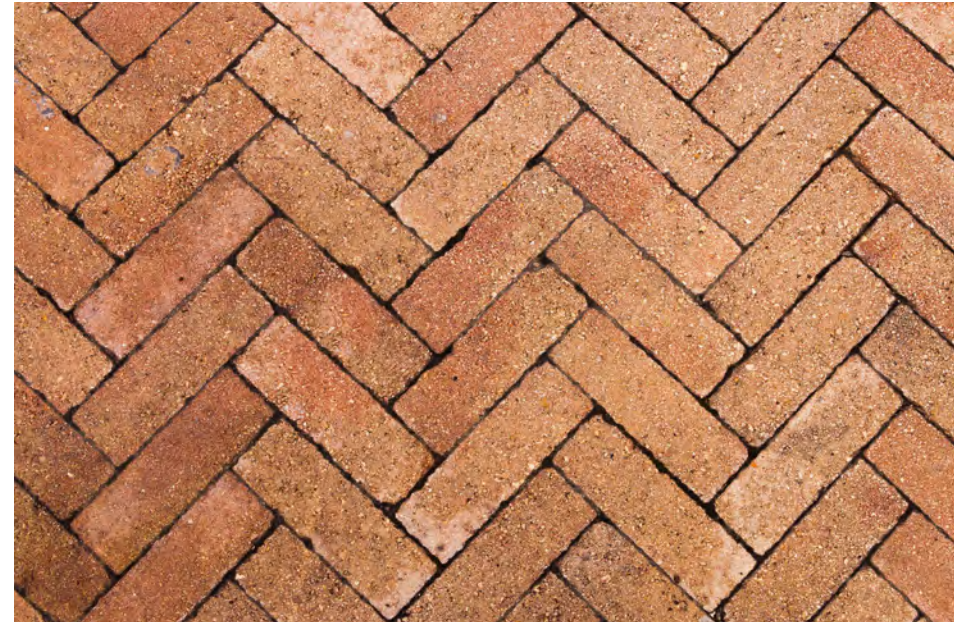
- Sidewalk
- Crosswalk lines
- Parking stall lines for on-street parking where brick pavers are present



Hardscape Treatment: Brick banding between parking and the sidewalk



Hardscape Treatment: On-street Parking Stalls










Hardscape Treatment: Brick herringbone pattern for on-street parking stalls

Landscape Palette







SHRUBS

IMAGE	NAME	CHARACTERISTICS
	Dwarf Schilling Holly <i>ilex vomitoria</i> 'Schillings Dwarf'	Height: 4 to 7 feet Spread: 6 to 10 feet Plant habit: round Plant density: dense
	Dwarf Walters Viburnum <i>viburnum obovatum</i> 'Dwarf Walters'	Height: 6 to 27 feet Spread: 6 to 10 feet Plant habit: oval Plant density: dense
	Coontie <i>zamia pumila</i>	Height: 2 to 4 feet Spread: 3 to 5 feet Plant habit: round Plant density: moderate
	Cardboard Plant <i>zamia furfuracea</i>	Height: 2 to 5 feet Spread: 5 to 8 feet Plant habit: round Plant density: moderate

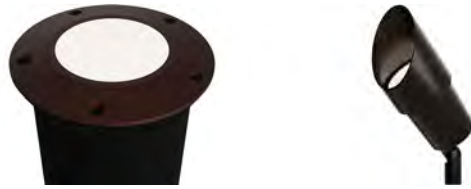
SHRUBS

IMAGE	NAME	CHARACTERISTICS	IMAGE	NAME	CHARACTERISTICS
	Dwarf Podocarpus <i>podocarpus macrophyllus</i> 'Dwarf Pringles'	Height: 3 to 5 feet Spread: 3 to 6 feet Plant habit: upright Plant density: dense		Liriope <i>liriope muscari</i>	Height: 1 to 2 feet Spread: 1 to 2 feet Plant habit: upright Plant density: moderate
	Fakahatchee Grass <i>tripsacum dactyloides</i>	Height: 3 to 4 feet Spread: 4 to 6 feet Plant habit: round Plant density: moderate		Muhly Grass <i>muhlenbergia capillaris</i>	Height: 3 to 5 feet Spread: 2 to 3 feet Plant habit: upright Plan density: dense
	Holly Fern <i>cryptomium fruticosum</i>	Height: 2 feet Spread: 3 feet Plant habit: upright/spread Plant density: moderate		Simpsons Stopper <i>myrcianthes fragrans</i>	Height: 20 to 30 feet Spread: 15 to 20 feet Plant habit: round Plant density: moderate
	Asiatic Jasmine <i>trachelospermum asiaticum</i> 'Asiatic'	Height: Groundcover Spread: Groundcover Plant habit: spreading Plant density: dense			

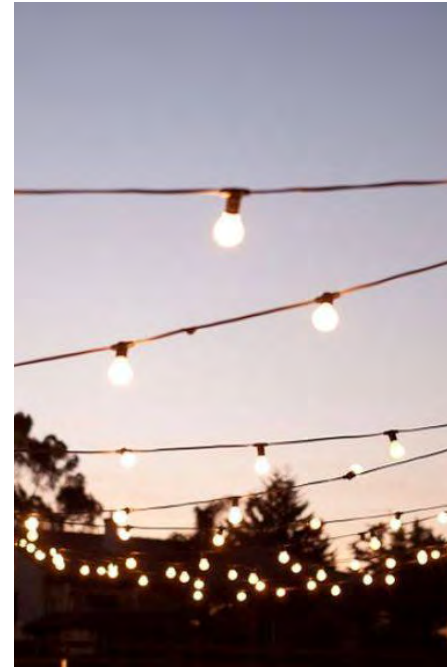
SHADE TREES

IMAGE	NAME	CHARACTERISTICS	IMAGE	NAME	CHARACTERISTICS
	<p>Live Oak <i>quercus virginiana</i></p>	<p>Height: 60 to 80 feet Spread: 60 to 120 feet Crown uniformity: symmetrical Crown shape: spreading, round Crown density: dense</p>		<p>Florida Elm <i>ulmus americana</i> <i>var. floridana</i></p>	<p>Height: 60 to 80 feet Spread: 50 to 60 feet Crown uniformity: symmetrical Crown shape: vase, upright/erect Crown density: moderate</p>
	<p>Southern Magnolia <i>magnolia grandiflora</i></p>	<p>Height: 60 to 80 feet Spread: 30 to 40 feet Crown uniformity: irregular Crown shape: pyramidal, oval Crown density: moderate</p>		<p>Winged Elm <i>ulmus alata</i></p>	<p>Height: 45 to 70 feet Spread: 30 to 40 feet Crown uniformity: irregular Crown shape: pyramidal, vase, oval, upright/erect Crown density: moderate</p>
	<p>Mahogany <i>swietenia mahagoni</i></p>	<p>Height: 40 to 60 feet Spread: 40 to 60 feet Crown uniformity: symmetrical Crown shape: round Crown density: moderate</p>		<p>Cabbage Palm <i>sabal palmetto</i></p>	<p>Height: 30 to 40 feet Spread: 10 to 15 feet Crown uniformity: Symmetrical Crown shape: Oval Crown density: Dense</p>

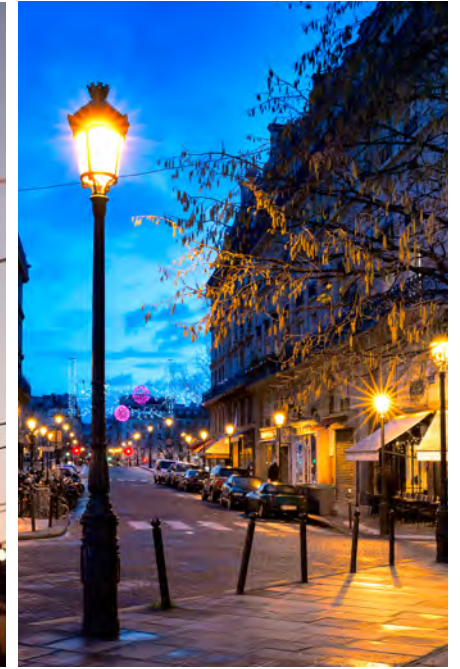
Lighting Types



Lighting Type: Pedestrian-scale lighting and decorative lighting



Lighting Type: Decorative lighting



Lighting Type: Pedestrian-scale lighting



Lighting Type: Pedestrian-scale lighting and decorative lighting



Lighting Type: Pedestrian-scale lighting

Street Furnishings

BENCH SEATING



Source: Victor Stanley CR-196 Bench



Source: Victor Stanley CR-296 Bench



Source: Victor Stanley NRB-4 Bench

CAFE & MOVABLE SEATING OPTIONS



Source: Landscape Forms - Bravo Bistro Chairs and Table



Source: Landscape Forms - Americana Lounge Chair



Source: Landscape Forms - Bravo Bistro Chairs and Table



Source: Landscape Forms - Bravo Bistro Chairs and Table



Source: Landscape Forms - Americana Lounge Chair

TRASH RECEPTACLE



Source: Victor Stanley SD-42 Receptacle

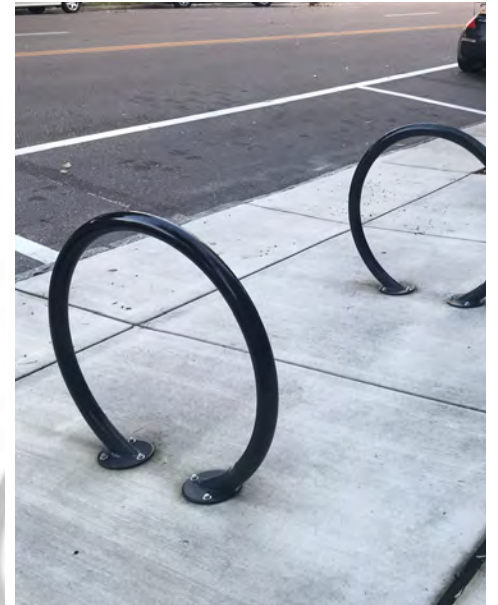


Source: Victor Stanley SD-42 Receptacle

BIKE RACKS



Source: Victor Stanley BRHS-101 Bike Rack



Source: Victor Stanley BRBS-103 Bike Rack

BOLLARDS



Source: Reliance Foundry R-7539 Decorative Bollard



Source: Reliance Foundry R-7539 Decorative Bollard

PLANTERS



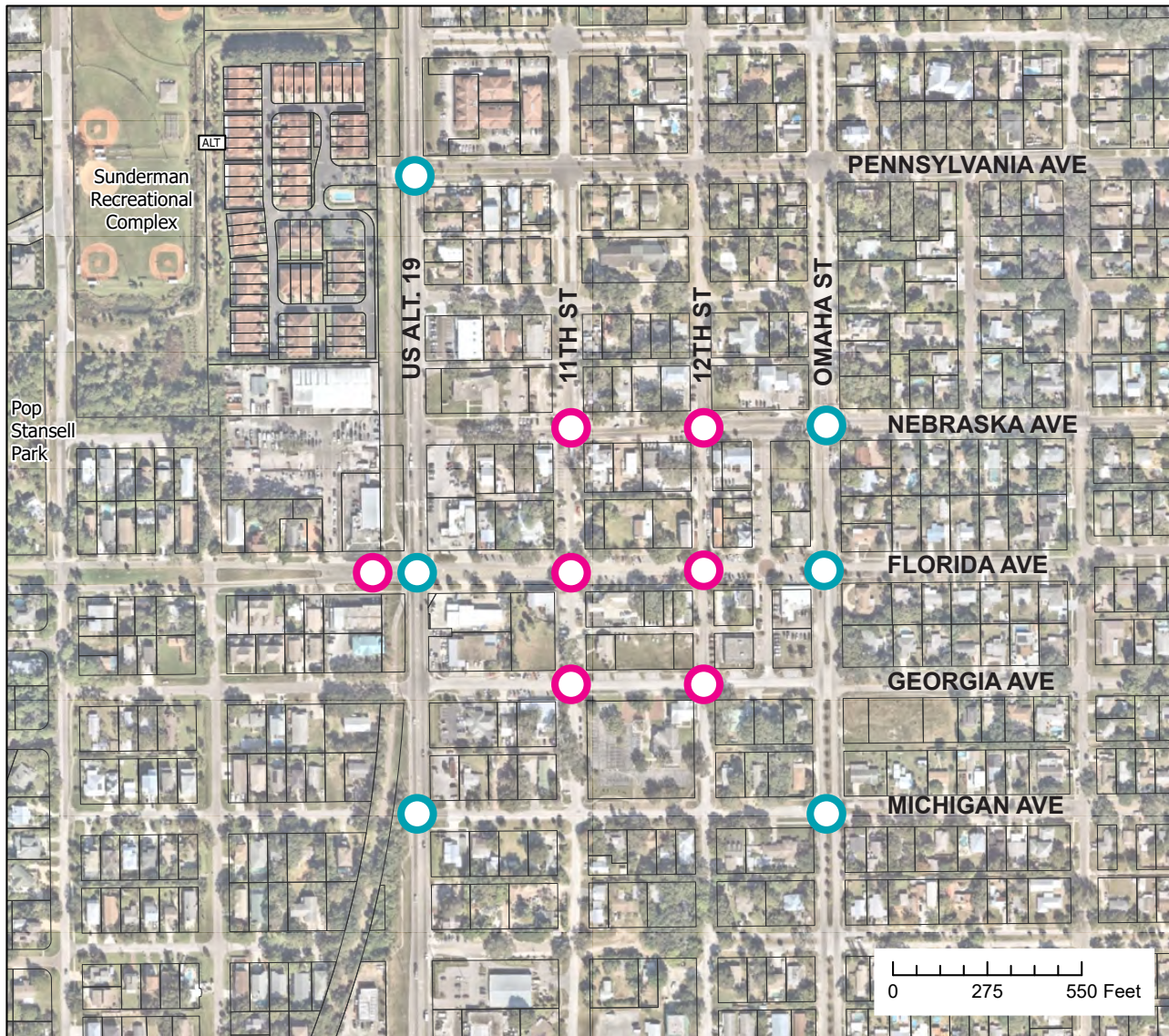
Source: Tournesol, Zena ZCS-3624, ZCS-4830, ZCS-4818





Source: Tournesol, Zena ZCS-4818

Wayfinding & Signage

PROPOSED WAYFINDING LOCATIONS

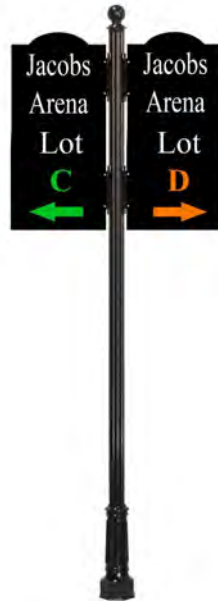


Legend

-  Potential Gateway Monument Location
-  Potential Wayfinding Location



Source: Capital Streetscapes - Decorative Sign Post E



Source: Capital Streetscapes - Wayfinding Sign A



Source: Capital Streetscapes - Sign Exemplar 4A and 4D



Source: Capital Streetscapes - Wayfinding Sign B and Custom Directional Sign



Source: Capital Streetscapes - Sign Examples 4A2 and 4A3



Wayfinding & Signage (continued)



Wayfinding: Monument signage example



Wayfinding: Destination and historic-style signage example

Public Art & Placemaking



Public Art Type: Temporary and interactive art



Public Art Type: Historic markers



Public Art Type: Streetlight banners



Public Art Type: Gateway signs



Public Art Type: Blank wall murals

STREETSCAPE CONCEPTS

11TH STREET

NEBRASKA AVENUE & 11TH STREET

FLORIDA AVENUE

FLORIDA AVENUE & OMAHA CIRCLE

FLORIDA AVENUE & 12TH STREET

FLORIDA AVENUE (8TH STREET TO US ALT. 19)

GEORGIA AVENUE

GEORGIA AVENUE & 12TH STREET

The Streetscapes Concepts illustrate how the Specifications Book may influence streetscape improvements and designs. The Streetscape Concepts are an example of how streets within Downtown can be improved and may be used as a template that can be replicated on other portions of the streets shown or on similar streets. The Streetscape Concepts are illustrative and are intended to inspire future improvements within the framework of the Specification Book.

STREETSCAPE CONCEPTS: 11TH STREET

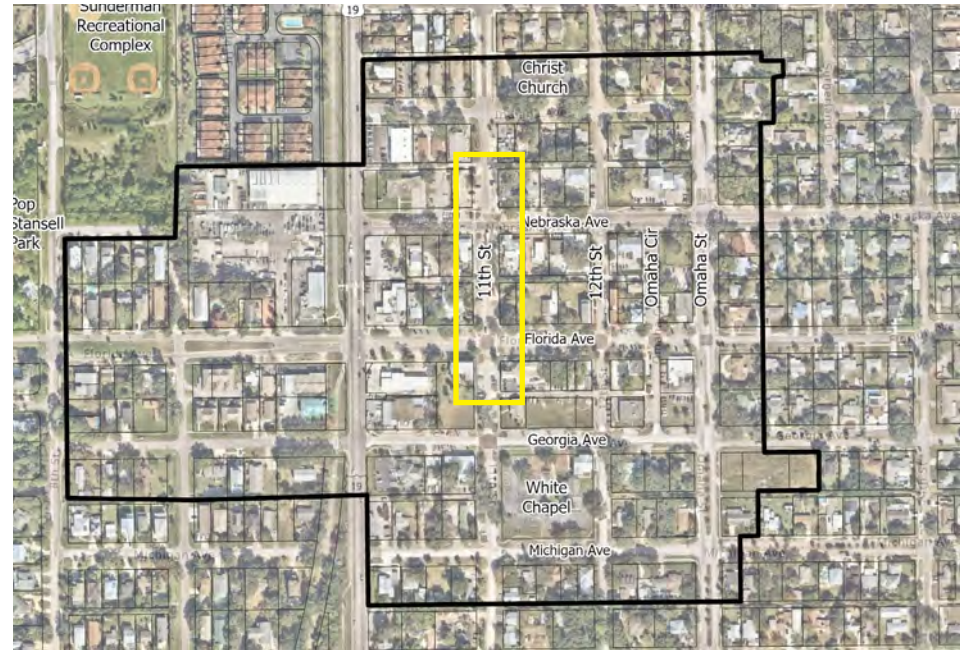
Existing Constraints:

- Inconsistent and sparse landscaping
- Lack of shade trees

Opportunities:

- Add character/placemaking
- Improve landscaping and resiliency of landscaping
- Add shade trees
- Add wayfinding

DOWNTOWN PALM HARBOR MAP



Existing Conditions: 11th Street and Florida Avenue looking north



Existing Conditions: 11th Street near Georgia Avenue looking south

EXISTING TYPICAL SECTION



CONCEPT IDEA: SECTION



Proposed Changes: Additions of brick pavers to perpendicular parking spaces, additional streetlights and banners, uniform landscaping, and shade trees

STREETSCAPE CONCEPTS: 11TH STREET

CONCEPT IDEA: PLAN VIEW



STREETSCAPE CONCEPTS: 11TH STREET

CONCEPT IDEA: PERSPECTIVE VIEW

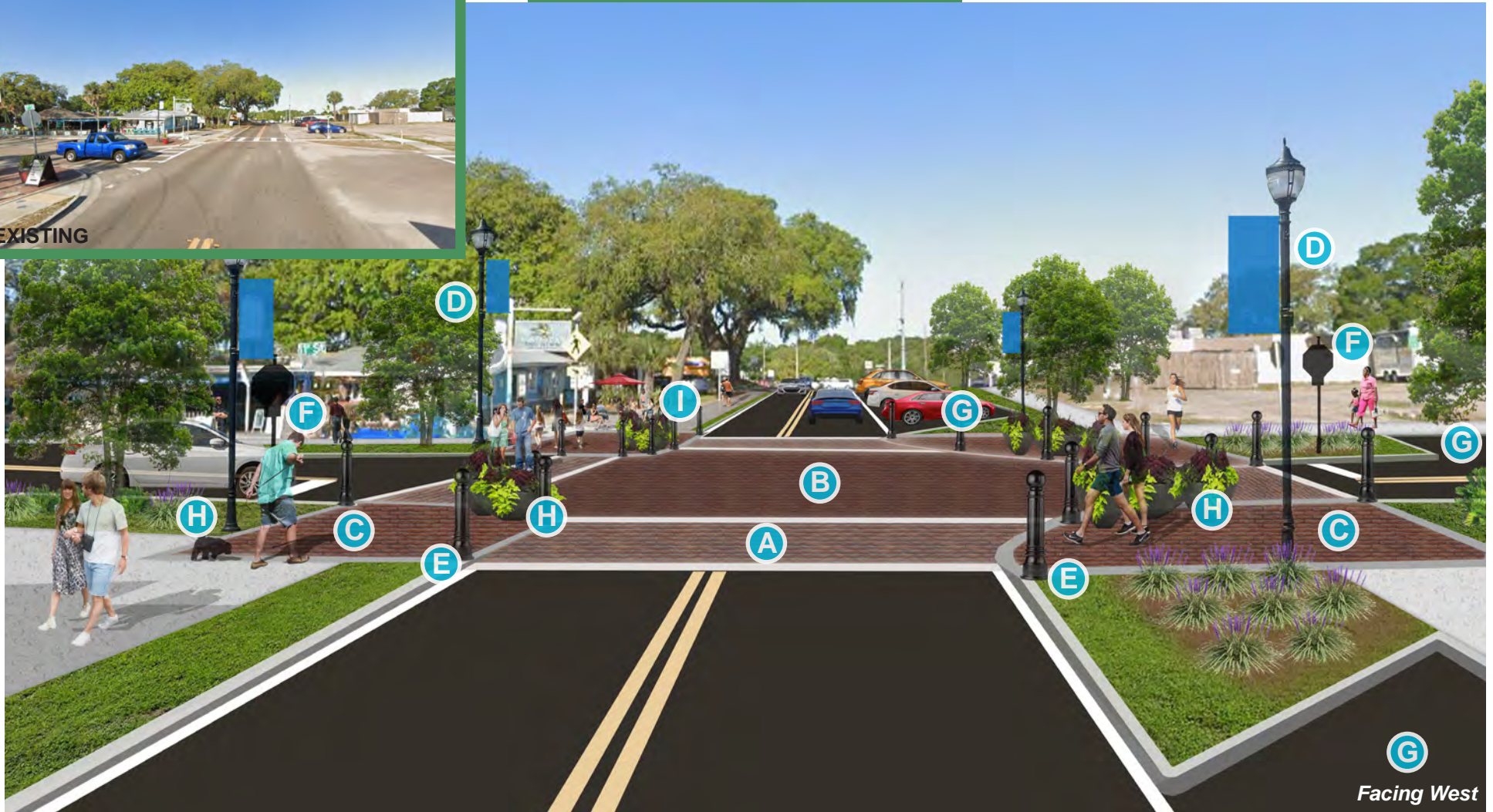


KEY

- A** Brick Paver Crosswalk & Intersection
- B** Expand Brick Pavers on Sidewalk
- C** Paver Treatment for On-Street Parking
- D** Streetlights with Larger Banners
- E** Bollards and Landscape Planters
- F** Space for Outdoor Seating
- G** Updated Stop Signs, Seating, & Trash Receptacles
- H** Wayfinding Signage
- I** Landscape Planting Area

STREETSCAPE CONCEPTS: NEBRASKA AVENUE & 11TH STREET

CONCEPT IDEA: PERSPECTIVE VIEW



KEY

- | | | |
|--|---|--|
| A Brick Paver Crosswalk | D Streetlights with Larger Banners | G On-street Parking |
| B Brick Paver Intersection | E Bollards | H Landscape Planters |
| C Expand Brick Pavers on Sidewalk | F Updated Stop Signs | I Outdoor Restaurant/Cafe Seating |

STREETSCAPE CONCEPTS: FLORIDA AVENUE

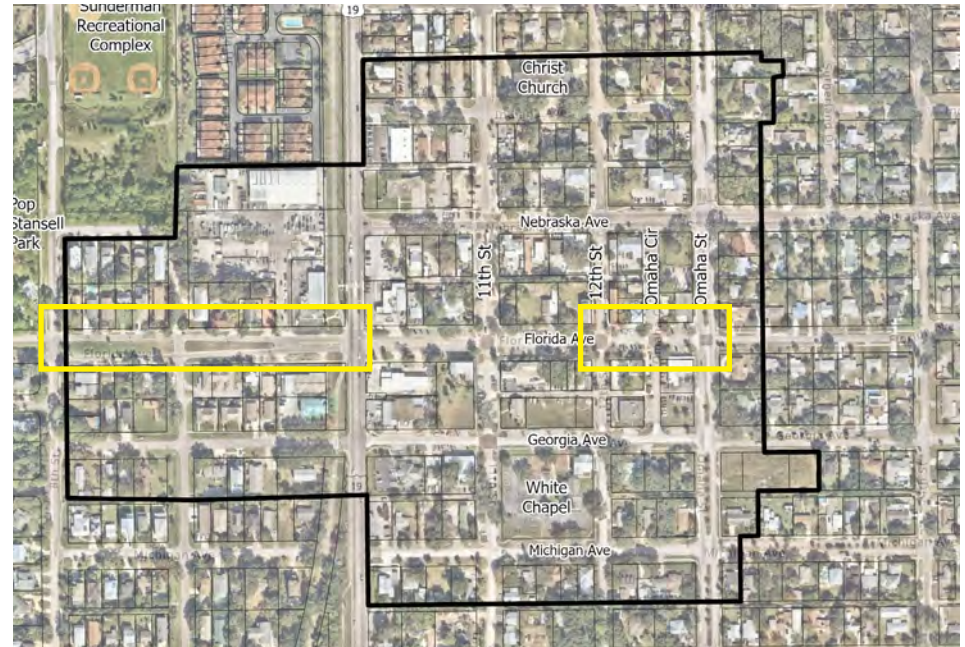
Existing Constraints:

- Varying sidewalk widths
- Inconsistent and sparse landscaping
- Lack of shade trees

Opportunities:

- Build on existing character/placemaking with brick
- Improve landscaping and resiliency of landscaping
- Add shade trees
- Add wayfinding
- Explore additional parking opportunities

DOWNTOWN PALM HARBOR MAP



Existing Conditions: Florida Avenue looking east

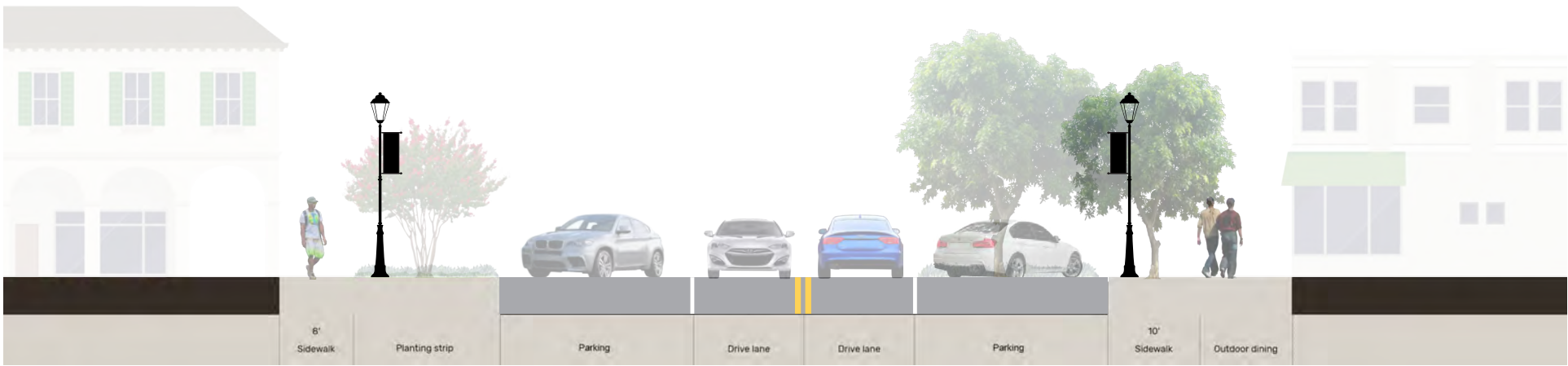


Existing Conditions: Florida Avenue and 11th Street looking east

EXISTING TYPICAL SECTION



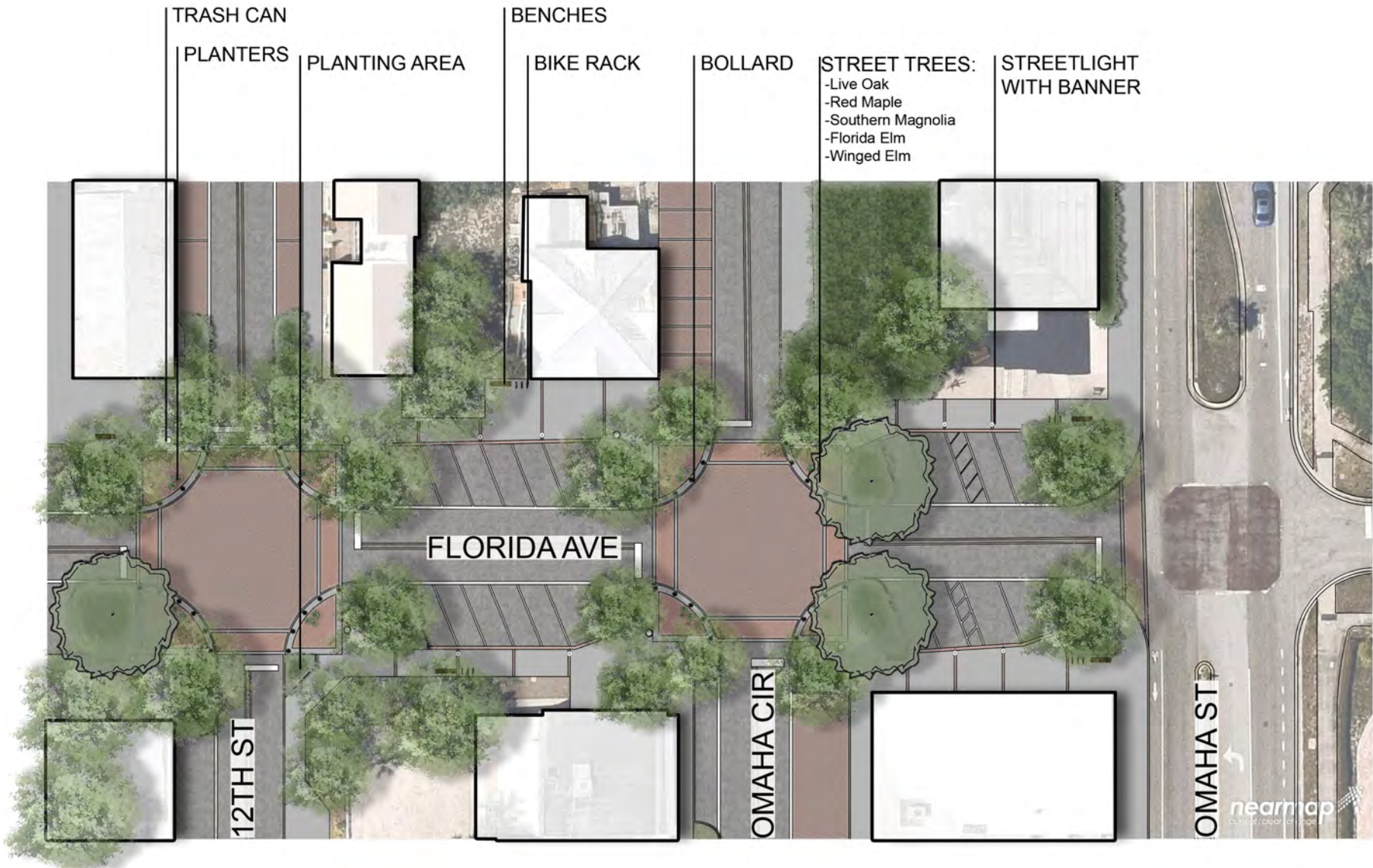
CONCEPT IDEA: SECTION



Proposed Changes: Additional streetlights and banners, uniform landscaping, and shade trees

STREETSCAPE CONCEPTS: FLORIDA AVENUE

CONCEPT IDEA: PLAN VIEW



STREETSCAPE CONCEPTS: OMAHA CIRCLE & FLORIDA AVENUE

CONCEPT IDEA: PERSPECTIVE VIEW



KEY

- A** Brick Paver Crosswalk
- B** Brick Paver Intersection
- C** Expand Brick Pavers on Sidewalk
- D** Streetlights with Larger Banners
- E** Bollards
- F** Updated Stop Signs
- G** Blank Wall Mural
- H** Movable Planters
- I** Temporary Event Spaces

STREETSCAPE CONCEPTS: FLORIDA AVENUE & 12TH STREET

CONCEPT IDEA: PERSPECTIVE VIEW

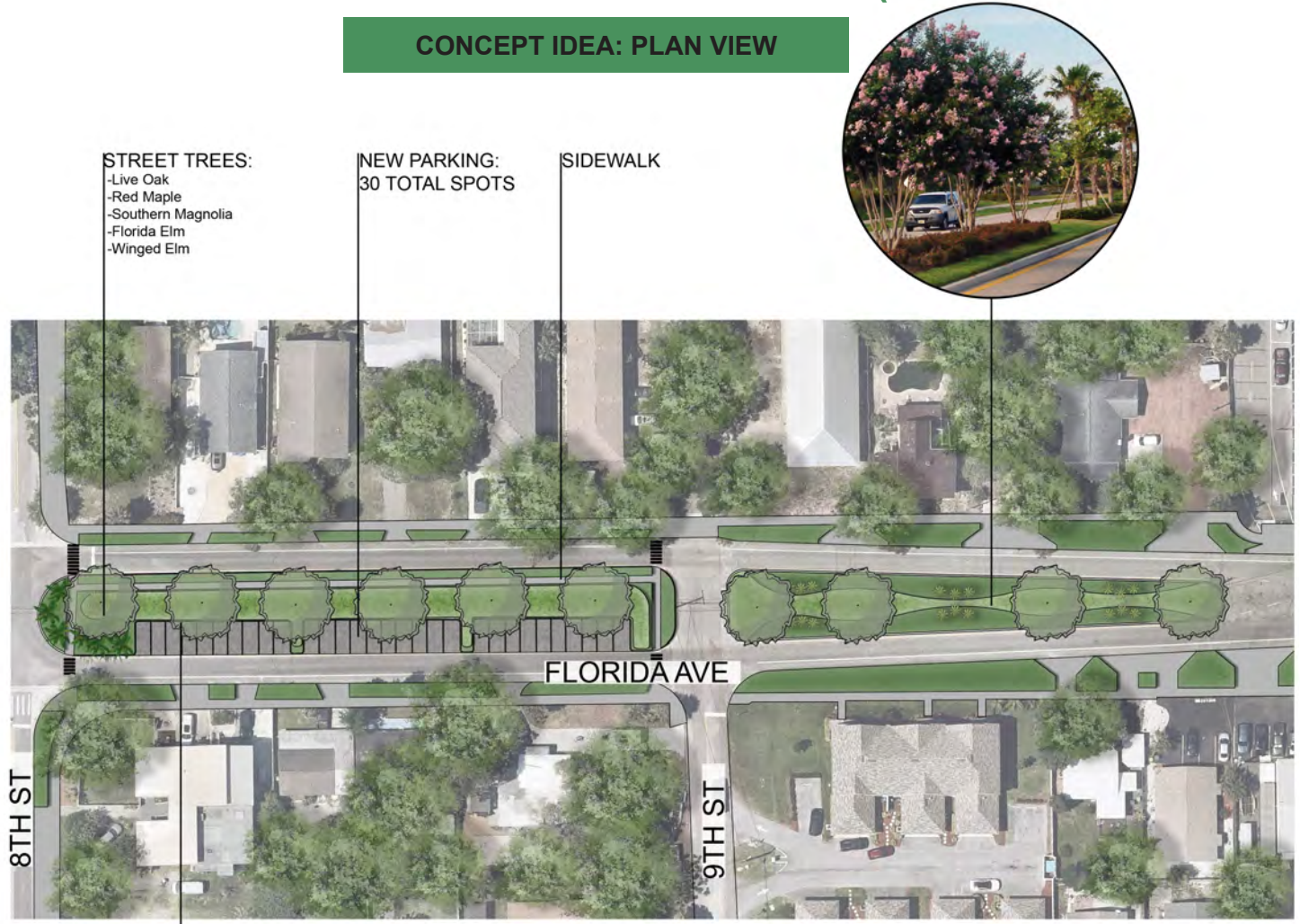


KEY

- A** Brick Paver Crosswalk & Intersection
- B** Brick Paver Banding on Sidewalk
- C** Streetlights with Larger Banners
- D** Updated Stop Signs
- E** Wayfinding Signage
- F** Landscape Planting Area
- G** Space for Outdoor Seating/Activities

STREETSCAPE CONCEPTS: FLORIDA AVENUE (8TH STREET TO US ALT. 19)

CONCEPT IDEA: PLAN VIEW

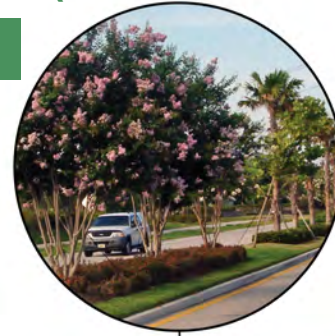


STREET TREES:

- Live Oak
- Red Maple
- Southern Magnolia
- Florida Elm
- Winged Elm

NEW PARKING:
30 TOTAL SPOTS

SIDEWALK



STREETSCAPE CONCEPTS: GEORGIA AVENUE

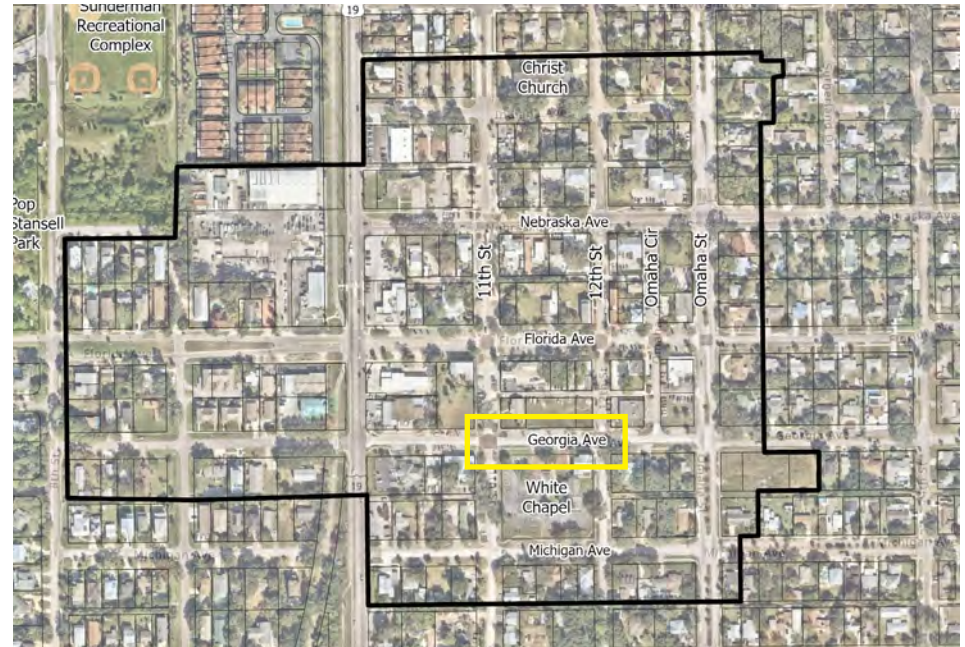
Existing Constraints:

- Varying sidewalk widths
- Inconsistent and sparse landscaping
- Lack of shade trees
- Angled parking
- Power lines and poles

Opportunities:

- Build on existing character/placemaking with brick
- Improve landscaping and resiliency of landscaping
- Add shade trees
- Larger landscape islands
- Add wayfinding
- Underground power lines

DOWNTOWN PALM HARBOR MAP



Existing Conditions: Georgia Avenue and 12th Street looking west



Existing Conditions: Florida Avenue and 11th Street looking northwest

EXISTING TYPICAL SECTION



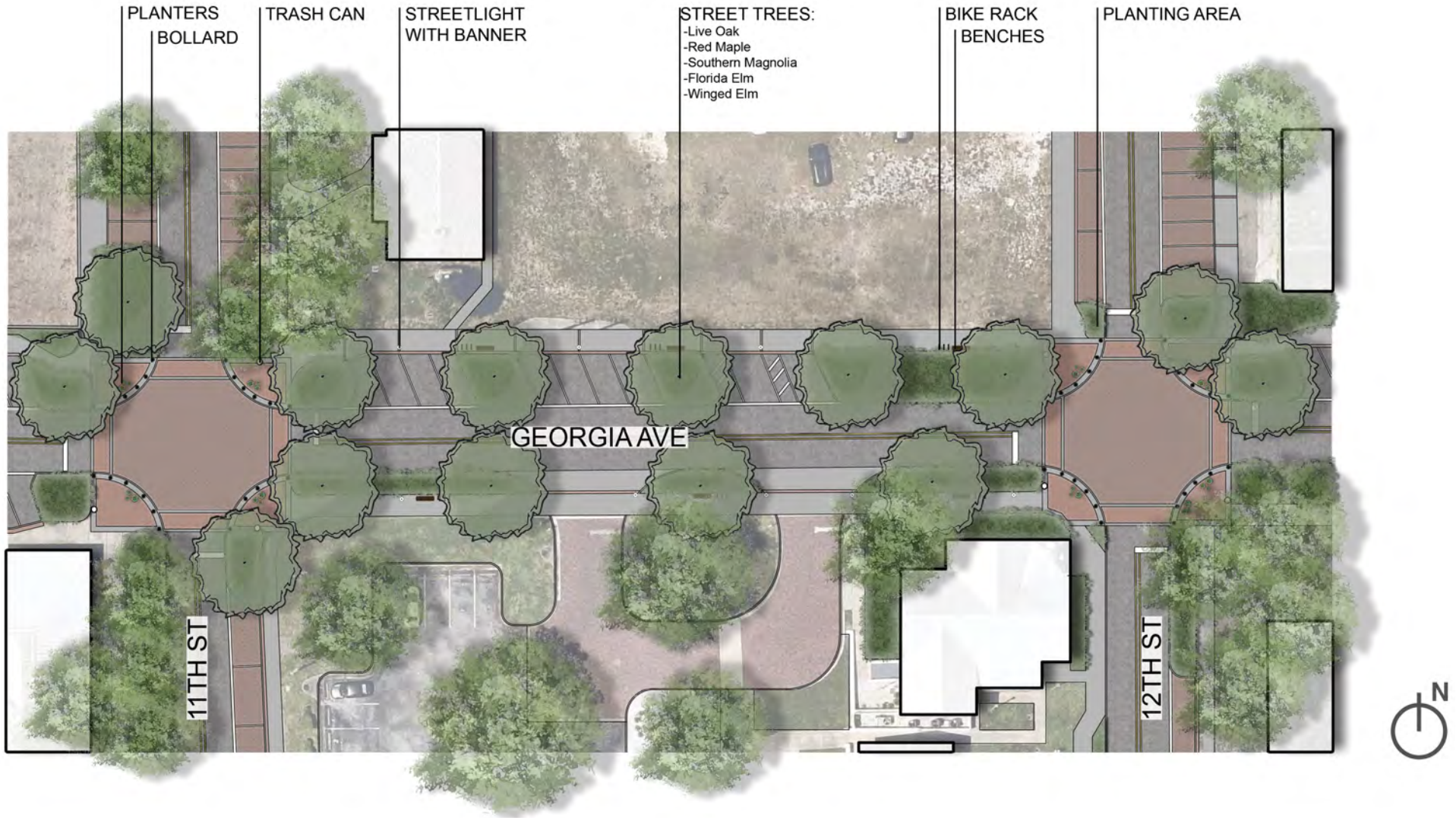
CONCEPT IDEA: SECTION



Proposed Changes: Wider sidewalk on north side of the street, additional streetlights and banners, uniform landscaping, and shade trees

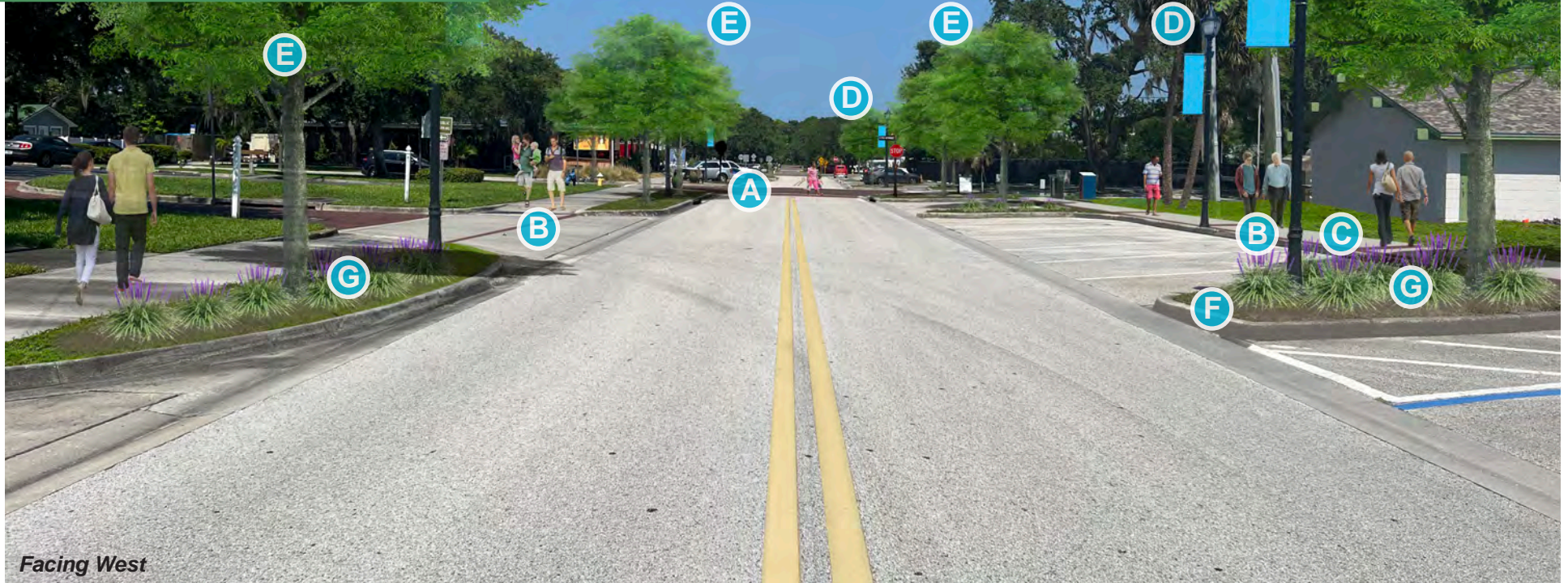
STREETSCAPE CONCEPTS: GEORGIA AVENUE

CONCEPT IDEA: PLAN VIEW



STREETSCAPE CONCEPTS: GEORGIA AVENUE & 12TH STREET

CONCEPT IDEA: PERSPECTIVE VIEW



KEY

- A** Brick Paver Crosswalk & Intersection
- B** Brick Banding on Sidewalk
- C** Wider, Consistent sidewalk
- D** Streetlights with Larger Banners
- E** Shade Trees
- F** Larger Landscape Island
- G** Landscape Planting Areas

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NEXT STEPS

PRIORITY IMPROVEMENTS
LIST OF PROJECTS
FUNDING OPPORTUNITIES

PRIORITY IMPROVEMENTS

The priority improvements are continuous, immediate, or short-term actions that can be taken to implement the ***Downtown Palm Harbor Streetscape and Parking Strategic Action Plan***. The priority actions are divided into Parking Priority Actions and Streetscape Priority Actions. These actions shall have priority for implementation with coordination between County staff, business owners, and private developers. The map on the following page (pg. 67) shows where parking and streetscape improvements should be prioritized within the Downtown area. The streets and intersections within downtown are categorized into high, medium, and low priorities. While all the streets and intersections are important, if funding becomes available for improvements, the higher priority locations shall be considered for improvements first.

PARKING PRIORITY ACTIONS

Below are the actions that should be prioritized to implement the streetscape improvement plan:

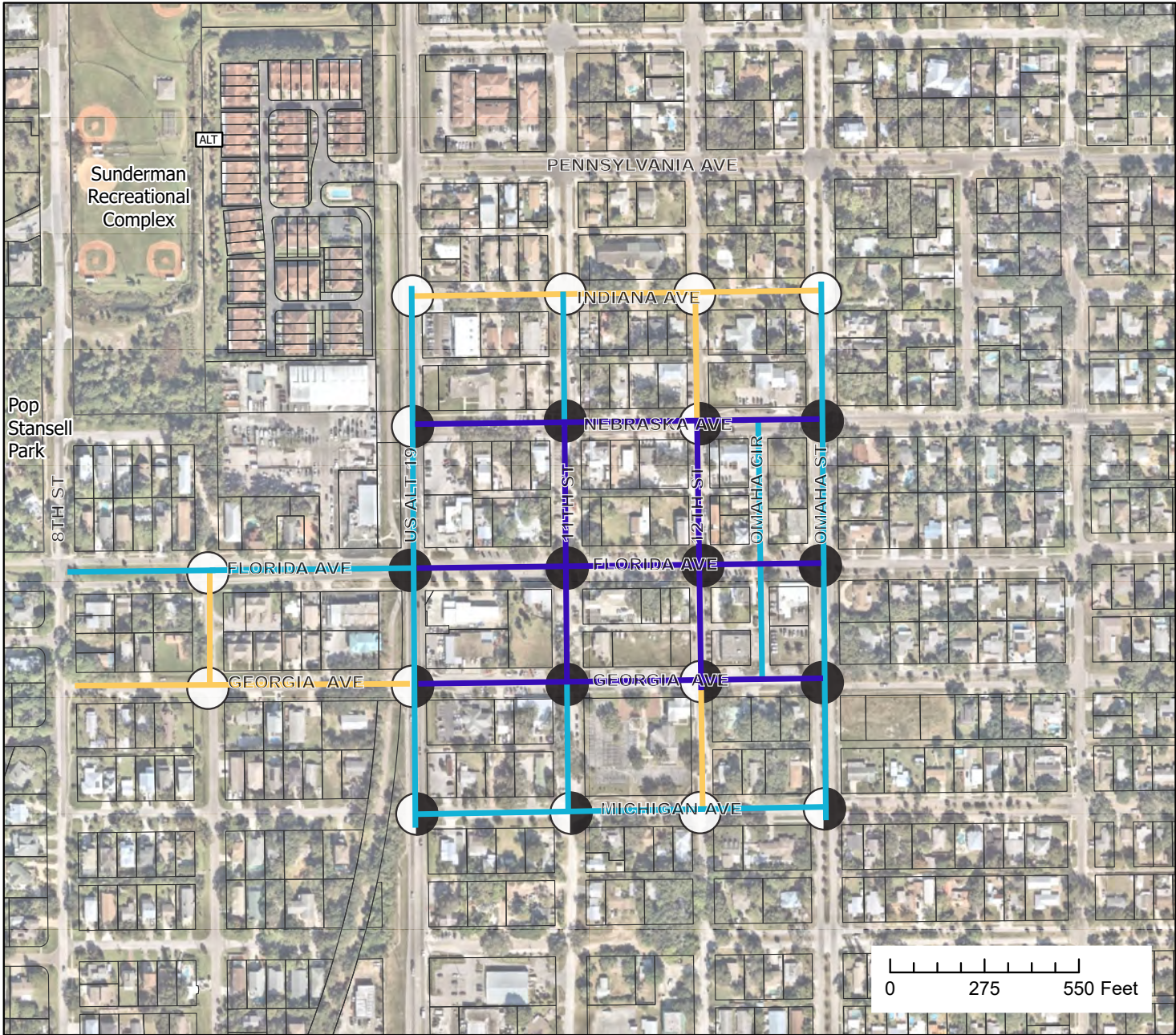
- ❑ Explore shared parking agreements with local businesses
- ❑ Implement wayfinding signage to direct visitors to public parking spaces and lots
- ❑ Create well-defined drop-off and loading zone areas
- ❑ Create a special event parking plan during peak weekends and seasonal time frames to utilize parking locations outside of the Downtown area
- ❑ Utilize additional public/private lots adjacent to downtown or within a shuttle range
- ❑ Explore additional parking opportunities on Florida Avenue between 8th Street and US Alt. 19
- ❑ Deploy mobile parking applications
- ❑ Improve first/last mile connections and implement micromobility options
- ❑ Utilize additional public/private lots adjacent to downtown or within a shuttle range

STREETSCAPE PRIORITY ACTIONS

Below are the actions that should be prioritized to implement the streetscape improvement plan:

- ❑ Update DPH FBC Acceptable Tree Species (Table 138-4504.a) to include Mahogany to match the specifications book
- ❑ Plant shade trees along high and medium priority streets
- ❑ Implement consistent signage, seating, trash receptacles, and planters as identified in the specifications book
- ❑ Improve crossings and intersection safety into downtown from surrounding neighborhood. Specifically, crossing US Alt. 19 and Omaha Street.
- ❑ Implement wayfinding within the Downtown area
- ❑ Design and construct a pilot streetscape to set an example/standard for future development and redevelopment
- ❑ Improve streetscape and median on Florida Avenue between 8th Street and US Alt. 19

PRIORITY IMPROVEMENTS MAP



Legend

Priority Streets

- High (dark blue line)
- Medium (light blue line)
- Low (yellow line)

Priority Intersections

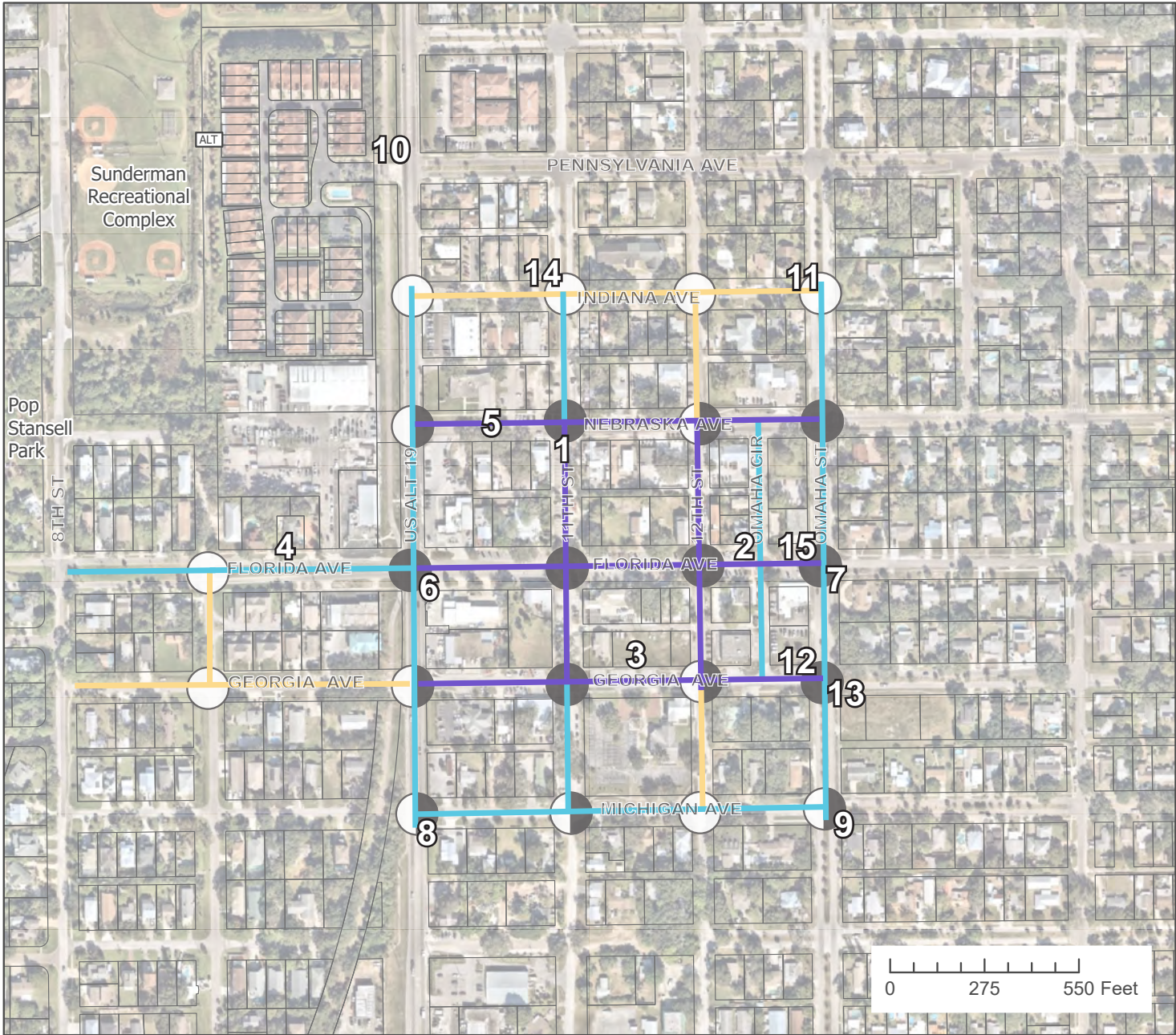
- High (solid black circle)
- Medium (half-filled black circle)
- Low (white circle)

LIST OF PROJECTS

Below is a list of potential projects to improve streetscapes and safety within Downtown. Each project has been assigned a level of cost for implementation. As funding become available, the County can work to address the list of projects. The projects a listed below (in no particular order) with a corresponding ID number on the map.

ID	PROJECT	COST
District-wide		
-	Update street signage per Specifications Book	Low
-	Update the street light banners to be larger	Low
-	Replace bike racks per Specifications Book	Low
-	Replace trash receptacles racks per Specifications Book	Low
-	Replace existing planters at intersections with planters per Specifications Book	Low
-	Add wayfinding signage per Specifications Book	Low
-	Implement temporary, closed street events throughout downtown	Low
Full Corridor Streetscape Improvements		
1	11th Street: Florida Avenue to north of Nebraska Avenue Intersection	High
2	Florida Avenue: 12th Street to Omaha Street	High
3	Georgia Avenue: 11th Street to 12th Street	High
4	Florida Avenue: 8th Street to US Alt. 19	High
5	<i>Nebraska Avenue</i>	<i>Under design</i>
Gateway Monuments		
6	Florida Avenue and US Alt. 19	High
7	Florida Avenue and Omaha Street	Medium
8	Michigan Avenue and US Alt. 19	High
9	Michigan Avenue and Omaha Street	Medium
10	Pennsylvania Avenue and US Alt. 19	High
11	Nebraska Avenue and Omaha Street	Medium
Location Treatments		
12	Georgia Avenue and Omaha Street: Add enhanced street lighting at the intersection	Medium
13	Georgia Avenue and Omaha Street: Implement an RRFB	Medium
14	Nebraska Ave and 11th Street: Add enhanced street lighting at the intersection	Medium
15	Florida Avenue and Omaha Street: Add enhanced street lighting at the intersection	Medium

LIST OF PROJECTS MAP

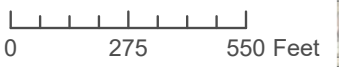


Legend

Project List
Project Number

Priority Streets
■ High
■ Medium
■ Low

Priority Intersections
 High
 Medium
 Low



FUNDING OPPORTUNITIES

Partnerships with private entities, regional and state agencies, as well as interdepartmental coordination and cooperation, will be essential to achieve the improvements and standards identified in this Plan. There are opportunities for other funding sources, outside of the County funds, to implement these projects.

Below are a list of partnerships and grant funding assistance the County can pursue to fund streetscape improvements and construction, like those outlined in this Plan:

- Public-Private Partnerships
- Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants
- Florida Department of Transportation County Incentive Grant Program
- Florida Department of Transportation Beautification Grants
- Safe Streets and Roads for All Program

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APPENDIX A: MAINTENANCE PLAN

DOWNTOWN PALM HARBOR STREETScape MAINTENANCE PLAN
CARE & MAINTENANCE MANUAL FOR LANDSCAPE FORMS® SITE FURNISHINGS
WARRANTY & MAINTENANCE MANUAL FOR VICTORY STANLEY™ SITE FURNISHINGS

APPENDIX A:

Downtown Palm Harbor Streetscape Maintenance Plan

I. INTRODUCTION

The health and appearance of the landscape in Downtown Palm Harbor is integral in providing a backdrop that adequately evokes the grace, prominence, and environmental stewardship of the community. The landscape provides the first impression to guests and provides the setting in which residents live and play. A healthy and attractive landscape starts with the proper selection of plant material, appropriate installation methods and an ongoing maintenance program. The landscape is a living thing, and as such will grow and mature with time; but in order to maintain its health and vigor, proper planting methods and a sensible maintenance program must be followed. While this section will not cover the actual details of proper plant installation and an ongoing maintenance program, other than to note that the landscape shall be maintained in good and living conditions at all times, it will note several key concepts that will help to ensure the quality of the landscape as it matures.

Sustainability

Sustainable landscape practices shall be prioritized in the sourcing, installation and maintenance of all landscape material in Downtown Palm Harbor. Plant material not sourced from Downtown Palm Harbor shall be obtained from nursery stock located as close to Downtown Palm Harbor as possible to minimize transportation and ensure plant material that is adapted to the soil conditions found Downtown Palm Harbor. The selection of healthy plant stock and the proper installation of plant material will ensure long-term survivability and health while reducing the number of plant replacements. Environmentally sound practices shall be implemented in the ongoing maintenance program, including, but not limited to; minimizing and properly disposing of landscape related waste, proper application of fertilizers and pest/disease control chemicals, and ensuring irrigation is adequate but not excessive.

Plant Material Quality & Installation

The proper selection and installation of plant material is critical to the long-term success of the landscape. All plant material should be Florida No. 1, or greater, as specified in the Grades and Standards for Nursery Stock ANSI Z60.1-2014 developed by the Florida Department of Agriculture, as updated periodically. Native trees, shrubs and groundcovers should be used in all landscape designs unless otherwise approved by owner. In residential landscapes, a minimum of 75% of the trees, palms and groundcovers shall be native. Plants should be sited in the landscape based upon their expected mature size (or maintained size), and should be located in such a way to complement the architectural lines of the adjacent structure and community views. All plants should be installed using proper industry standards (e.g. proper staking, guying, planting depth, etc.) and provided suitable soil. All plants should be adequately irrigated; plant material not within an irrigation zone should be hand-watered until establishment and monitored to ensure their continuing success by a qualified maintenance professional. See Section II Planting Installation Specifications, for detailed information.

Plant Removal & Pruning

Selective plant removal is the process of removing [under-performing] vegetation to grant additional space for the remaining plants to grow and mature. Similarly, the selective pruning of tree canopies is critical to the formation of strong and healthy trees by eliminating undesirable growth characteristics or weak branches.

Selective pruning also permits the removal of intrusive or possible harmful growth onto adjacent properties or structures. See Section III Landscape Care & Maintenance Specifications, for detailed information.

Soils

The long-term health and success of plants is highly dependent on good soil conditions. The alkaline and poor draining nature of the existing site soils will require periodic testing, amendment and selective replacement to provide a more suitable medium for turf, trees and shrubs to be successful. Soil will need to be maintained to provide adequate drainage and the addition of organic material, sand and pH adjusting compounds will be required on an as needed basis to maintain ideal growing conditions. Additionally, soil replacement may be necessary in key areas (i.e. community entries, medians, community gardens, specialty landscape areas) to support the growth requirements of the designed landscape. Soils shall be sourced from designated stockpile locations at Babcock Ranch when preparing the preferred planting soil mixtures outlined in Planting Installation Specifications. See Section II Planting Installation Specifications and Section III Landscape Care & Maintenance Specifications, for detailed information.

Mulch & Fertilizer

These elements provide nutrients for plants in the landscape, and can help to safeguard plants from diseases, pests, erosion, and extreme temperatures. Plant beds shall be maintained with, a minimum 3” thick layer of Course Shredded and/or Natural Hardwood Mulch or a minimum 4” thick layer of Pine Straw. The type of mulch will be relative to the plant community it will be utilized in, (see “Mulch” in Planting Installation Specifications). The application of fertilizer shall be on an as-needed basis, and determined by soil testing and plant requirements. Fertilizer will be applied in an environmentally sound manner so as to prevent excessive runoff and over fertilization. Over time, soils will acquire the properties to support plant growth and the application of fertilizer can be reduced or eliminated. See Section II Planting Installation Specifications and Section III Landscape Care & Maintenance Specifications, for detailed information.

Irrigation

Irrigation systems are required to be designed to minimize water consumption, maintain good working order, to minimize water waste, overspray, and over/under watering. The use of low volume, drip irrigation is required on all non-turf landscape areas, Plants with similar requirements shall be grouped together on irrigation zones and receive head to head coverage. For turf areas, the use of low trajectory irrigation nozzles is required to minimize water waste in heavy wind. Please note that all spray zones (Turf only) adjacent to pool decks, sports fields and play areas shall use potable water for irrigation. All irrigation shall meet or exceed the requirements set forth by Pinellas County Ordinances and the South Florida Water Management District (SFWMD). See Section IV Irrigation Maintenance, for detailed information.

Drainage

Proper drainage is vital to the health and success of the designed landscape. New areas to be landscaped should be graded to have positive drainage, aerated to prevent compaction and the soil cleaned of rock and debris that would impact proper drainage. Additionally, the proper installation of plant material will aid in the drainage of landscaped areas; rootballs should be planted at the appropriate height to prevent low spots and the accumulation of water around the plant. Drainage shall also be designed to prevent excessive slopes that would create erosion or washout conditions. Existing landscaped areas, unless designed to retain water (i.e. rain gardens, filter marshes, etc.) shall be maintained to preserve positive drainage. Runoff shall be considered in the design of drainage layout and conform to all Florida and SFWMD laws and regulations.

II. PLANTING INSTALLATION SPECIFICATIONS

A. SOIL AMENDMENTS

- Appropriate soil for landscaped areas within Downtown Palm Harbor shall be well drained, have a pH less than 7.5, and adequate organic material to support healthy plant growth. Some areas of existing soil may require complete replacement in order to support healthy plant growth; this includes areas where marl intensive fill has been used or areas with heavy clay content and poor drainage. The chart below defines recommended mixtures for soil amendment and replacement.
 - The preferred planting soil mix for trees, palms, shrubs, groundcovers and turf shall consist of a thoroughly blended mixture of:

TREES

70% clean sand**

30% topsoil mix*

PALMS

90% clean sand**

10% topsoil mix*

SHRUBS, AND GROUNDCOVERS

80% clean sand**

20% topsoil mix*

TURF

30% topsoil*

10% peat

60% clean sand**

peat: federal specifications q-p-166

type 1, class b, sphagnum moss

TOPSOIL*

70% native Babcock Ranch topsoil

20% OrganicLee Compost

10% native Babcock Ranch subsoil

*Topsoil mix shall be free of deleterious materials that would be harmful to plant growth, shall be free of nematodes, shall be of uniform quality and shall have a pH value less than 7.5 (as determined in accordance with ASTM E70). Topsoil shall be mixed on site and be comprised of stockpiled native Palm Harbor topsoils and OrganicLee Compost with admixture of subsoil. It shall be of uniform composition throughout. It shall be free of stones, lumps, live plants and their roots, sticks, clay, silts and other extraneous matter. Spread topsoil mixture to minimum depth of 4 inches throughout all areas and 6 inches in all shrub and ground cover beds. Remove all rocks and other objects over 1 inch in diameter. Smooth all prepared soil mixes to within 4 inches below top of surrounding pavement edges. There shall be a smooth and uniform depth of topsoil mixture to a minimum 12 inches below grade in areas to be sodded. Finish grade all prepared topsoil areas to a smooth, even surface ensuring a minimum 3% positive drainage away from structures and eliminate any low areas which may collect water.

****Clean sand shall be D.O.T. sand or approved equivalent. Clean sand shall be free of stones, lumps, live plants and their roots, sticks, clay, silts and other extraneous matter.**

- Soil Testing Standards
 - Sampling methods shall be per the directions of the soil testing laboratory
 - Separate samples shall be taken for different types of landscape areas (i.e. turf, shrub/groundcover massings, trees and palms)
 - A minimum of 4 samples shall be taken to accurately represent a defined area of landscape
 - A bi-annual testing schedule shall be established in relation to the fertilizing and maintenance schedule

B. TREES, PALMS, SHRUBS & GROUNDCOVERS

All plant materials shall be installed in accordance with the details found in Exhibit A and adhere to the following guidelines:

- All plant material shall be protected during transport and delivery to job site with shade cloth or other acceptable means of windburn prevention.
- All plant material shall be installed in a sound, workmanlike manner and according to accepted good planting procedures with the quality of plant materials as herein described. All elements of landscaping shall be installed so as to meet all applicable ordinances and code requirements.
- Proper drainage and percolation of all planting pits shall be ensured prior to installation of plant material.
- All tree pits shall be filled with water before planting to assure that proper drainage and percolation is available. Correct if required to ensure percolation.
- Trees grown in grow bags or grow bag type material must have the grow bag removed entirely prior to planting.
- Balled and burlapped or any basketed material shall have the top one half (1/2) of the burlap around the base of the trunk cut and pulled back. Do not remove burlap. Wire cages, straps, etc. Must be cut and removed prior to installation.
- Guying / staking practices shall not permit nails, screws, wires etc., to penetrate outer surface of trees, pines, or palms.
- Trees and palms that will be planted in areas where soil testing has demonstrated higher than acceptable pH conditions (>7.5 pH) shall be installed in an overly excavated planting pit and backfilled with the appropriate planting soil mix (see Soil Amendments). Overly excavated planting pits shall be defined as a pit that is a minimum 4 times the diameter of the rootball and a minimum of 2 feet underneath the rootball. Tree pits shall be filled with water before planting to assure that proper drainage and percolation is available and adhere to the guying/staking practices defined in this manual.

C. TRANSPLANTING

The transplanting of large trees shall only be done by a certified arborist or landscape contractor with experience in providing these services. The root pruning and transplanting of large trees shall follow the guidelines listed below and adhere to the details found in Exhibit A.

Root Pruning Process:

- Prune roots only with sharp tools to avoid tearing behind the cut.
- Keep all construction traffic clear of root ball (to the extent of the canopy dripline) to prevent compaction of root system.
- The tree shall be regularly irrigated to supplement the loss of water through the root pruning process.
- The First cut shall be up to 1/8 circumference of the rootball on the North and South (totaling 25% circumference)

- Trench and wrap rootball that has been cut before tree flushes, with plastic 1-3 months after initial root pruning and in coordination with project schedule.
- Wait a minimum of 4-6 weeks between cuts to allow root hardening.
- The Second cut shall be up to 1/8 circumference of rootball in an East and West direction of the trunk (totaling 50% circumference)
- A second waiting period of minimum 4-6 weeks to allow root hardening shall be observed prior to the final cut.
- The Third and final cut will be at the time of preparation for transplanting. At this point, the remaining roots shall be pruned.

Transplanting:

- Once root pruning of 75% of circumference of the rootball has been completed, the tree may be prepared for transplanting.
- Tree spades may be used to transport trees up to a 16” diameter.
- For large trees greater than 16” diameter, the metal rod technique may be used. The metal rod shall be located and drilled into the strongest part of the trunk near the base.
- Extra care shall be taken to minimize damage to the tree while drilling and inserting the metal dowel. Upon successful transportation and placement of the tree, the metal rod shall be removed and the hole allowed to heal naturally.
- Once the tree is transplanted, it shall be regularly irrigated until establishment. The amount of water needed depends upon the species and size of the tree.

D. MULCH

Mulch shall be applied in all tree, palm, shrub and groundcover areas relative to the plant community (see below). All mulch shall be installed per approved landscape plans.

- Pine Straw mulch shall be installed at a minimum depth of 4” and is recommended for use in the plant communities listed below or as specified in approved plans.
 - Pine stands and naturalized areas
 - Residential unit landscapes
- Coarse Shredded and/or Natural Hardwood mulch shall be installed at a minimum depth of 3” and is recommended for use in the plant communities listed below or as specified in approved plans.
 - Streetscape In the residential areas, the streetscape verge plantings are pine straw
 - Founders Square
 - Community Entrances
 - Community Parks

E. INITIAL INSTALLATION FERTILIZATION

- At installation, all shrub and ground cover plantings shall receive an approved slow release fertilizer. All tree and palm plantings shall receive an approved mycorrhiza additive. The NPK ratios listed below are a recommendation and may vary slightly by product type. The intent is to provide newly installed plant material the appropriate means to become quickly established and promote their health and vigor.

PALMS

13-3-13 plus minor elements - slow release
1/2 lb. Fertilizer per 1/2 inch caliper

SHRUBS AND GROUND COVERS

8-10-10 plus minor elements - slow release
1/2 lb. Fertilizer per 1/2 inch caliper

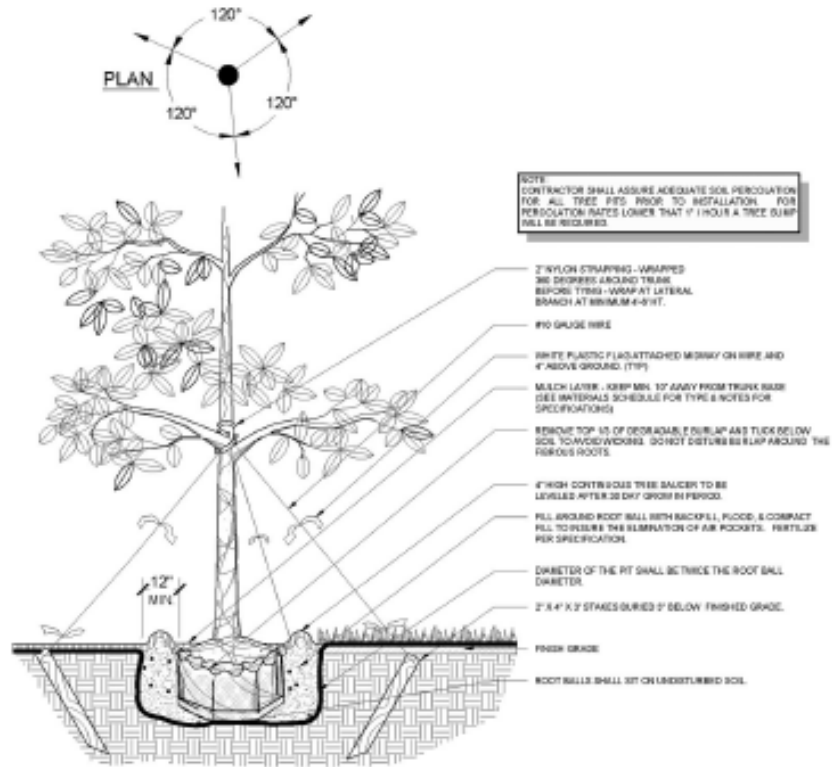
TREES

8-6-6 plus minor elements - slow release
1/2 lb. Fertilizer per 1/2 inch caliper

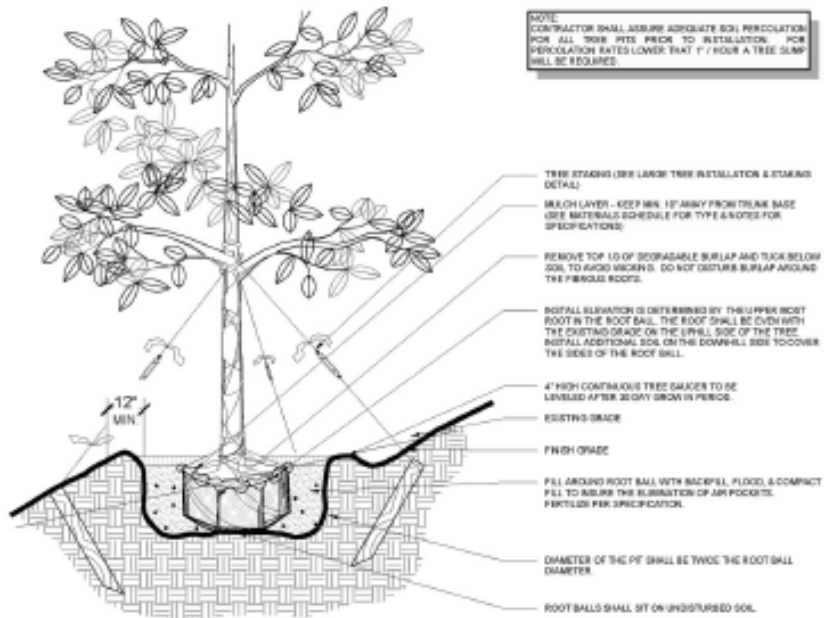
TURF

16-4-8 plus minor elements - slow release
1 lb. Fertilizer per 1000 SF.

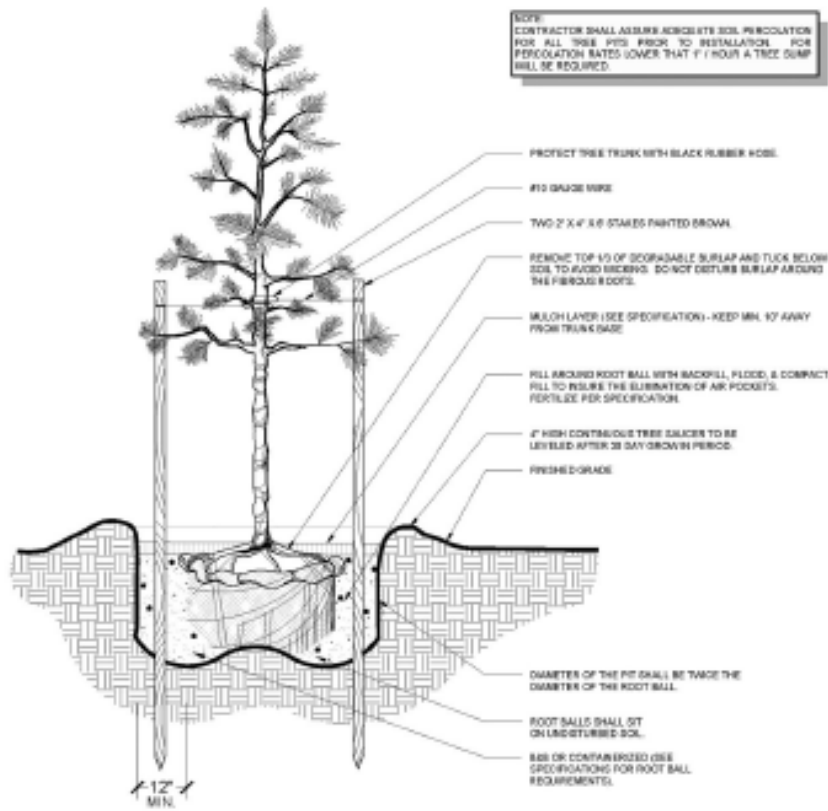
EXHIBIT A PLANTING DETAILS



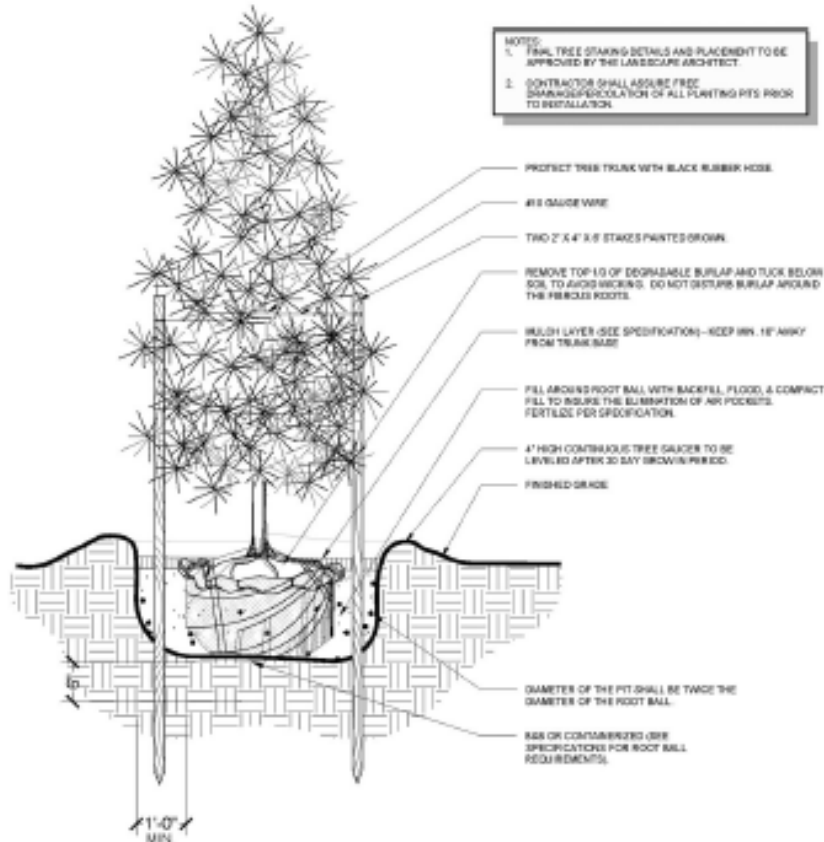
X LARGE TREE INSTALLATION & STAKING SCALE: N.T.S.



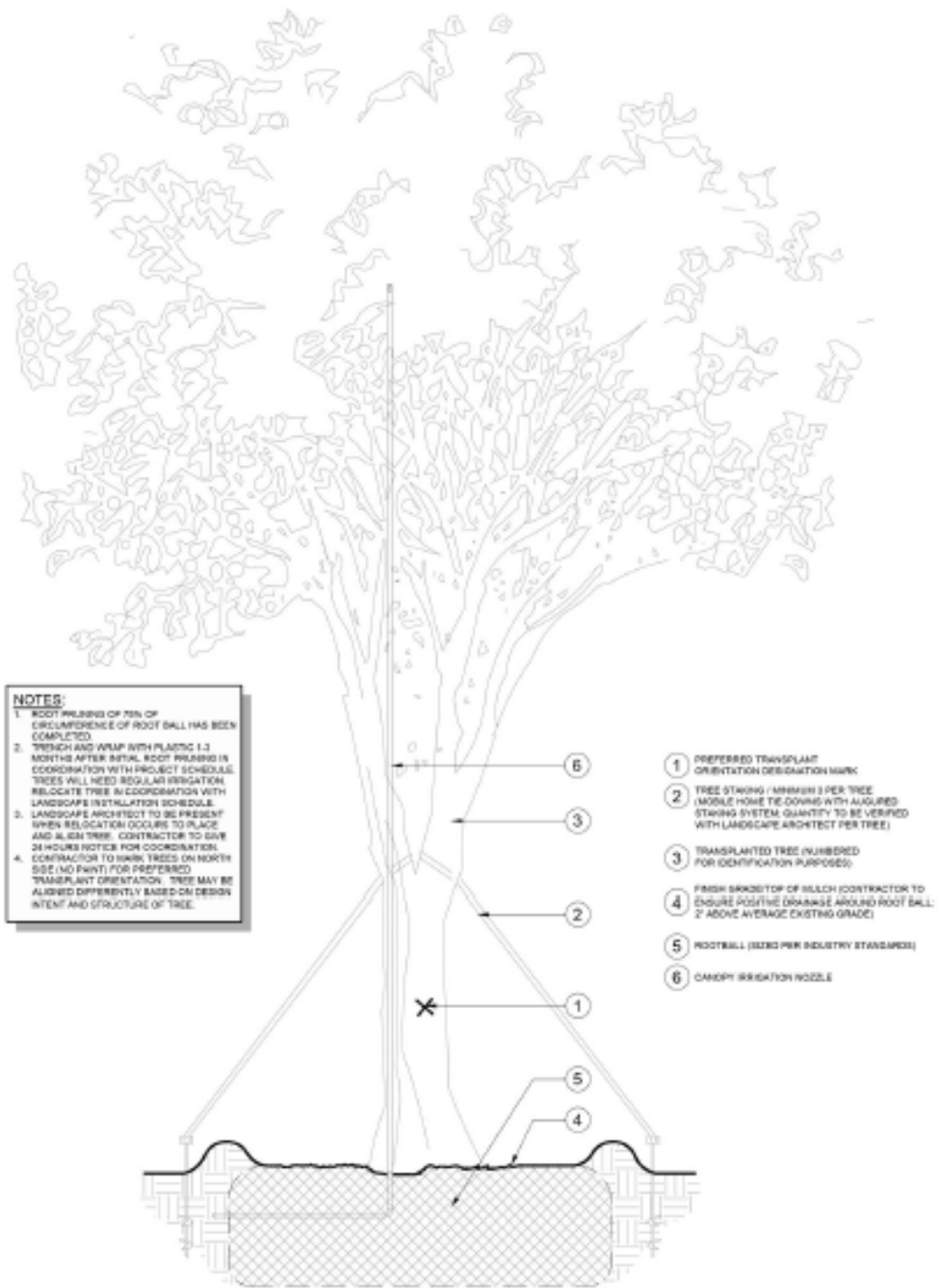
X LARGE TREE ON SLOPE SCALE: N.T.S.



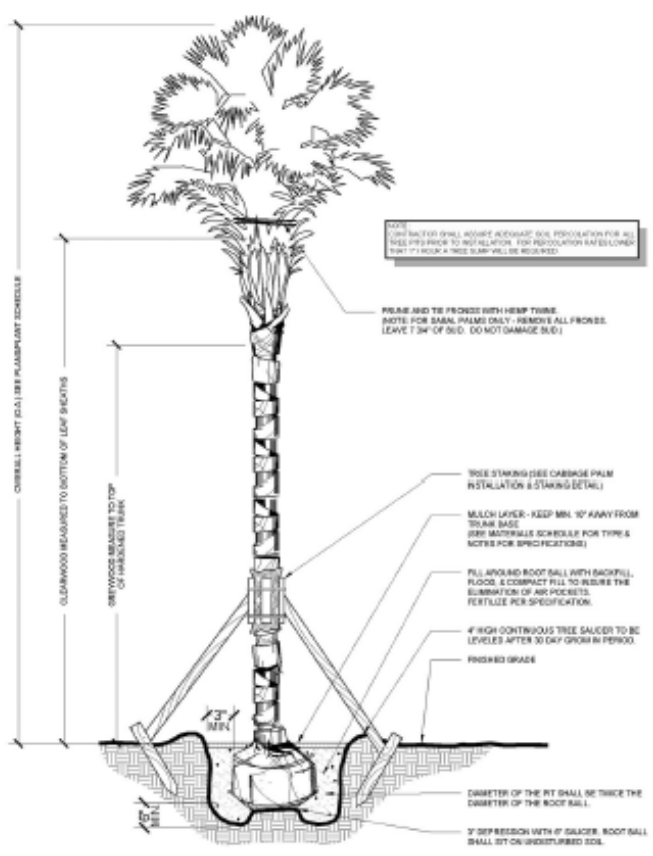
X PINE TREE INSTALLATION
 SCALE: N.T.S.



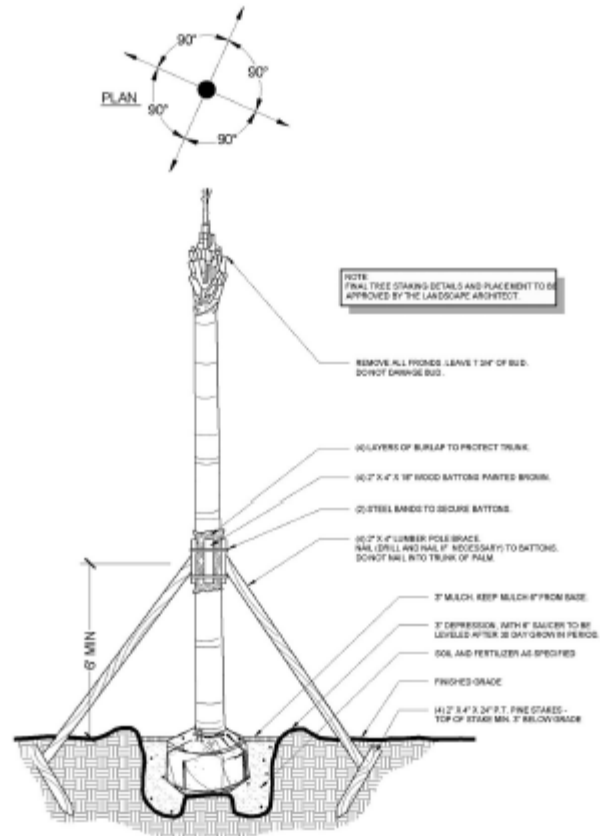
X SMALL TREE INSTALLATION
 SCALE: N.T.S.



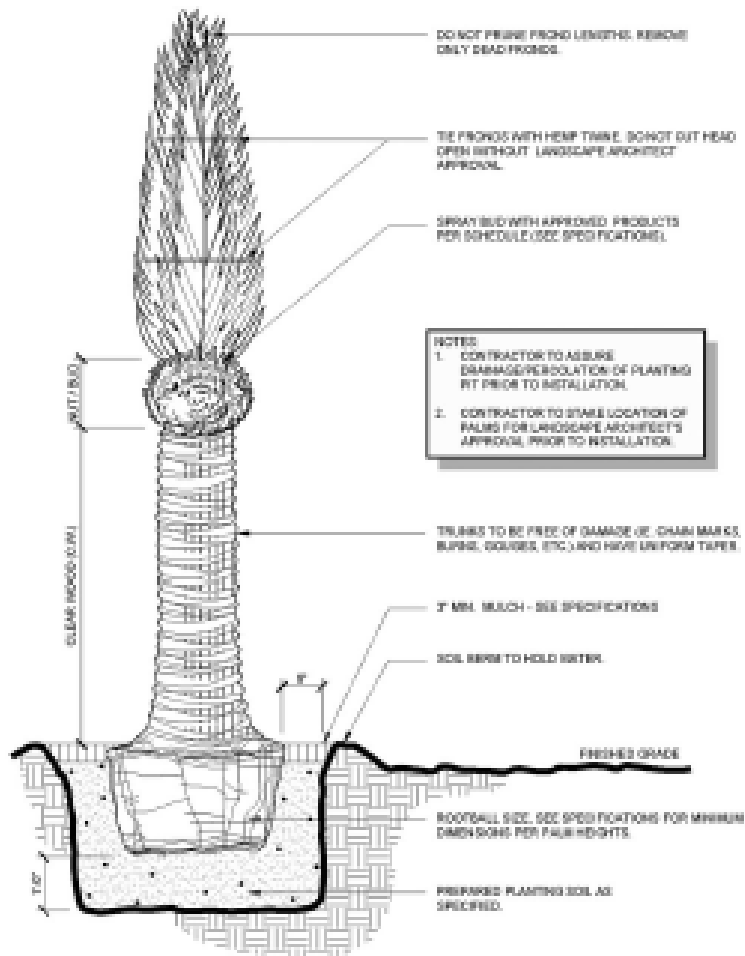
X TREE TRANSPLANTING DETAIL
SCALE: N.T.S.



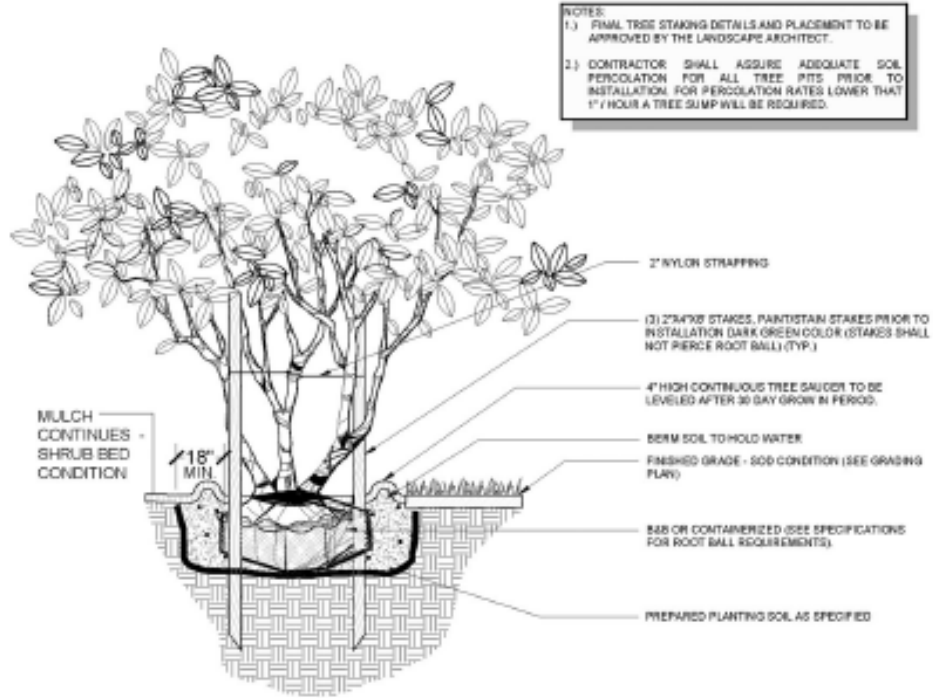
X PALM INSTALLATION
 SCALE: N.T.S.



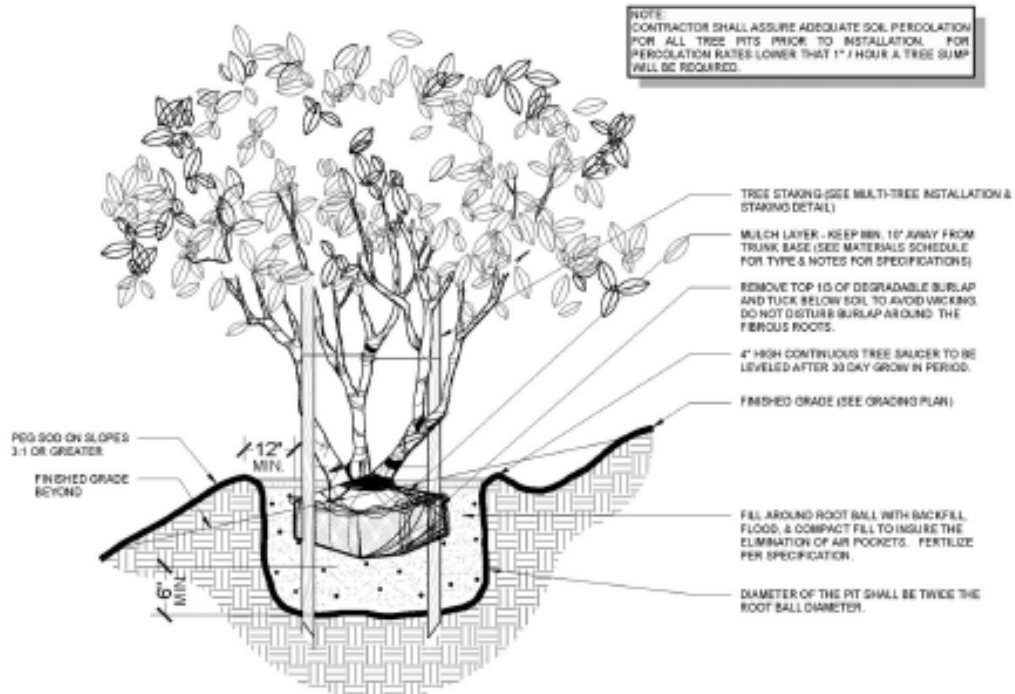
X CABBAGE PALM INSTALLATION
SCALE: N.T.S.



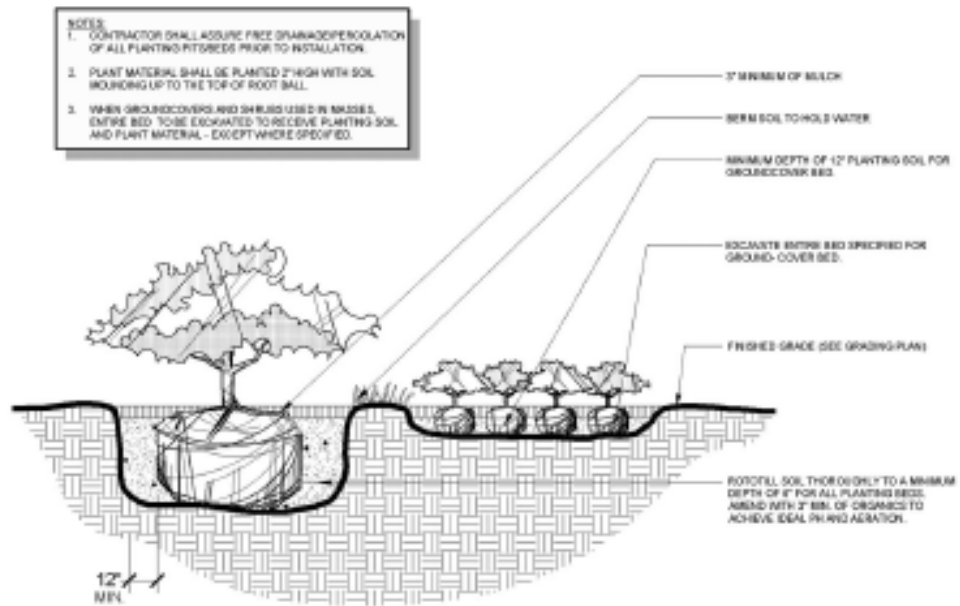
A DATE PALM INSTALLATION & STAKING
SCALE: N.T.S.



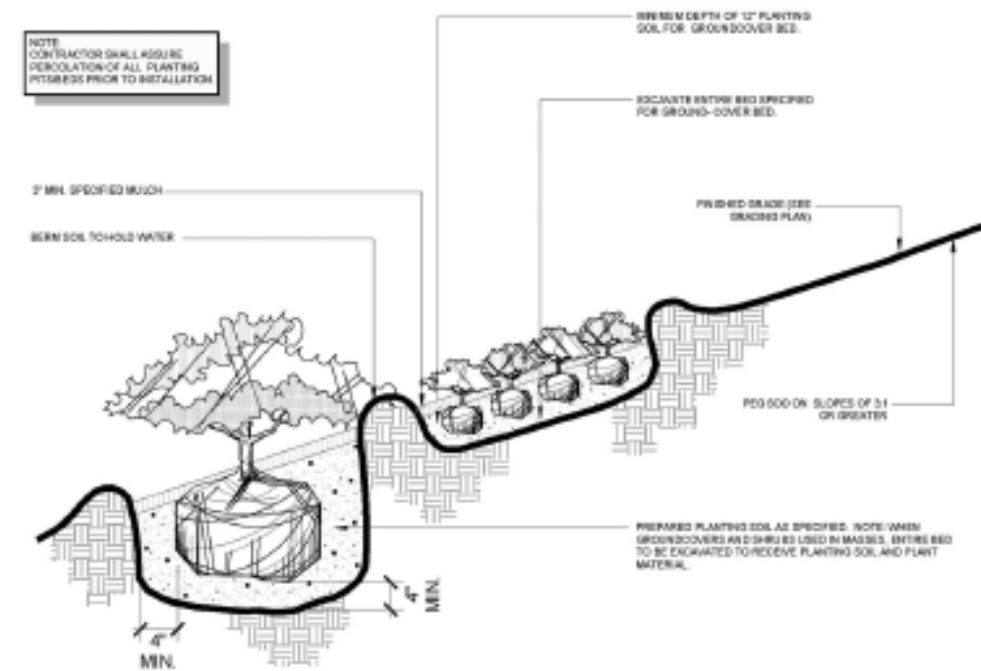
X MULTI-TRUNK TREE INSTALLATION & STAKING
SCALE: N.T.S.



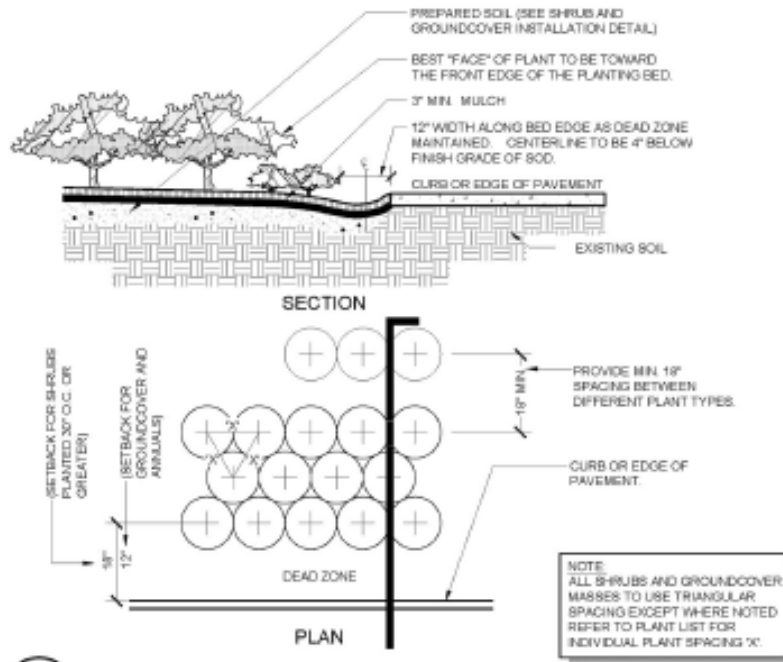
X MULTI-TRUNK TREE ON SLOPE
SCALE: N.T.S.



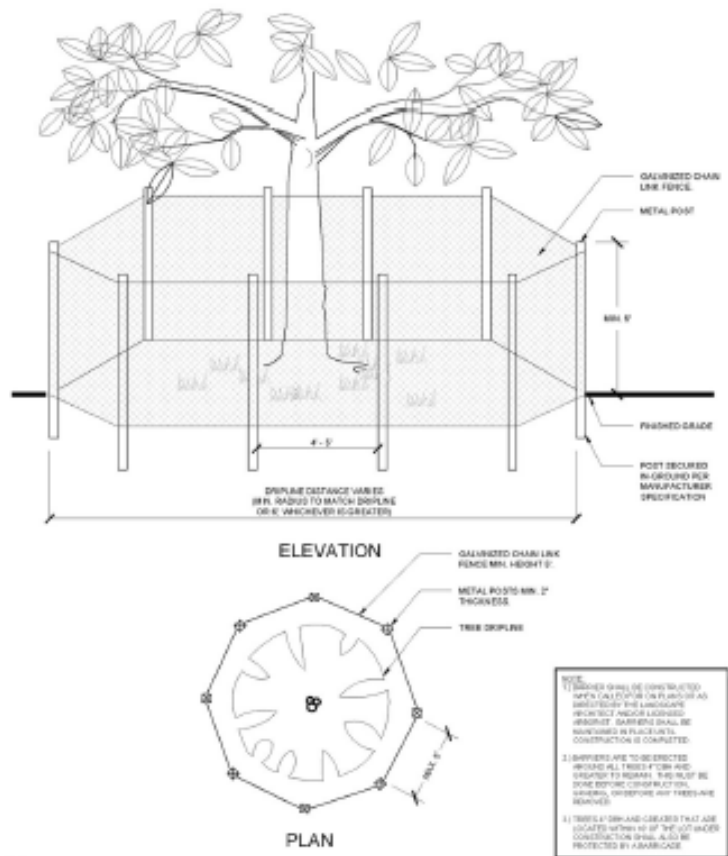
X SHRUB AND GROUNDCOVER INSTALLATION
SCALE: N.T.S.



X SHRUB AND GROUNDCOVER ON SLOPE
SCALE: N.T.S.



X TYPICAL PLANT SPACING DIAGRAM
SCALE: N.T.S.



X TREE BARRICADE DETAIL
SCALE: N.T.S.

****ALSO SEE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1-2014**

**APPENDIX A CONTINUED –
LANDSCAPE & MAINTENANCE SPECIFICATIONS**

MAINTENANCE SCHEDULE

A. LANDSCAPE MAINTENANCE

1. TREES, PALMS, SHRUBS & GROUNDCOVERS

• **Pruning**

All trees will be pruned as needed to keep them off walls and rooftops and to eliminate any overhanging branches or foliage which obstructs or hinders pedestrian and vehicular traffic. All trees will be kept free of sucker growth from trunks and bases.

All palms shall be pruned as needed with regular pruning service to remove dead fronds and spent seedpods. Loose boots will be removed and kept consistent in height.

All shrub beds shall be inspected and detailed a minimum of 12 times per year to address specific plant pruning and weeding issues. During this service, all large weeds will be removed and shrubs shall be pruned as necessary to maintain the natural form of the plant to maintain growth within space limitations, to conform to any code heights required for buffers and to eliminate damaged or diseased wood. New plant material will be topped to promote dense growth as plants develop to their desired height. Ornamental flowering shrubs will be cut back one time per year to promote maximum flowering. Muhly, Fakahatchee and Sand Cordgrass shall only be pruned twice every year in order to encourage natural growth and appearance; combing to remove dead material between pruning shall be performed every March or April and every August or September. *These requirements exclude pruning necessitated by storm damage, disease, or winterkill which will be addressed as an additional cost.*

• **Weed Control**

All beds will be kept reasonably free of broadleaf and grassy weeds and treated with herbicides and hand removal monthly in order to effectively manage weed populations. Weed control will be done with the use of legally approved pre-emergent and post emergent herbicides and hand removal of all large weeds that will look unsightly after herbicide treatment. Non-selective herbicides **except those containing ‘glyphosate-based’ ingredients** may be used. Weed control methods should be applied in a horticulturally sound manner and not in excess.

• **Fertilization**

The fertilizer shall be applied in a horticulturally sound manner, taking care not to over-apply fertilizer and keeping fertilizer within the planting areas.

Newly established trees, shrubs and ground covers all will be fertilized immediately after turnover for maintenance and then four times a year for the first year and two times a year (Spring and Fall thereafter with a complete granular fertilizer at a minimum rate of one pound of Nitrogen per 1,000 SF. with a high quality, complete granular fertilizer that is comprised of 50% water soluble Nitrogen and 50% water insoluble Nitrogen, Sulfate of Potash and Micro Nutrients to promote optimal health of the plants.

All new Palms, other than Sabal Palms, will be fertilized at least four times per year for the first year and then twice per year thereafter with a fertilizer formulation and rates designed specifically for palms. As

soils mature over time, fertilizers may be reduced or eliminated as determined by soil tests and the healthy appearance of plant material.

- **Disease and Insect Control**

All landscape beds, trees and palms will be monitored and treated with the appropriate pesticides necessary to control any damaging levels of disease and insect activity. Pest control methods should be applied in a horticulturally sound manner and not in excess.

- **Control of Imported Pests**

All Phoenix Palms will receive quarterly injections of OTC to prevent the onset of TPPD.

- **Stakes and Guying**

All newly planted trees and palms with existing stakes and guides will be kept adjusted for a minimum of one year including the hurricane season from June to November. Leaning trees and palms shall be straightened. When trees and palms attain substantial root development stability, stakes and guides shall be removed in their entirety.

- **Soil**

All tree, palm, shrub and groundcover areas shall be soil tested annually to determine appropriate fertilizer application and if pH adjusting compounds or organic materials are required. Soil shall be maintained at a pH less than 7.5 using appropriate compounds such as elemental sulfur. Consult with UF/IFAS for additional methods of maintaining and adjusting soil pH in highly alkaline soils. As soils mature over time, amendments may be reduced or eliminated as determined by soil tests and the healthy appearance of plant material.

B. IRRIGATION MAINTENANCE

All irrigation systems shall be maintained for optimal performance to ensure adequate coverage, prevent over-watering and to reduce runoff. The County shall establish a monthly maintenance schedule based on the criteria below:

- At least one wet check shall be completed monthly. In addition to the monthly wet check, repairs or replacements shall be completed to any observed damage or under-performing irrigation in a timely manner throughout the month.

Wet check requirements:

- Ensure the irrigation controller is functioning properly and install any applicable software upgrades provided by the manufacturer.
- Ensure that the irrigation controller battery-backup is charged and performing to full capacity. Batteries shall be replaced every 6 months.
- Verify that the rain gauge is functioning properly and communicating with controller
- Check for adequate pressure
- Test function of valves and solenoids from the controller
- Visually inspect all irrigation zones individually while running to ensure adequate coverage.
- Heads and drip lines shall be adjusted as necessary to achieve optimal coverage and limit runoff.
- Replace broken or blown-out heads, damaged or broken lines and damaged or broken emitters.

- Level heads and boxes that are no longer set properly
- Review landscape performance and adjust watering times as necessary to promote optimal growth and health of plant material.

C. MULCH

Mulch shall be re-applied or supplemented when it has lost approximately half of its installed thickness at a frequency of two times a year in the Spring and Fall; Pine Straw shall be installed to provide a minimum thickness of 4 inches and Natural Hardwood or Coarse Shredded Mulch shall be installed to provide a minimum thickness of 3 inches. Mulch shall not be allowed to over-accumulate or to form dense mats. All mulch shall be installed in accordance with the details found in Exhibit A and in a sound horticultural manner.

D. PORTER SERVICES

1. Debris/Trash Pick-Up – Downtown will be policed for construction and paper debris along with blowing off of dirt, leaves, and debris.
2. Community Trash Cans – community area trash cans be emptied weekly and replaced with trash can liners.

**EXHIBIT B –
MAINTENANCE SCHEDULE**

YEARLY FREQUENCY SCHEDULE

Task	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
LANDSCAPE CARE AND MAINTENANCE													
Mow, Line Trim, Blow	2	3	4	4	4	4	4	4	4	4	4	3	44
Hard Edge	2	3	4	4	4	4	4	4	4	4	4	3	44
Bed Edge	1	2	2	2	2	2	2	2	2	2	2	1	22
Fertilize Turf		1		1						1		1	4
Fertilize Shrubs			1		1					1			3
Fertilize Palms			1		1					1			3
Fertilize Trees			1		1					1			3
Insecticide Turf	1		1		1		1		1		1		6
Insecticide Shrubs	1		1		1		1		1		1		6
Ant Control			1								1		2
Weed Control Turf		1									1		2
Weed Control Beds	2	3	4	4	4	4	4	4	4	4	4	3	44
Pre-emergence Beds		1				1							2
Weed Control Hard Surfaces	2	3	4	4	4	4	4	4	4	4	4	3	44
Prune Shrubs	1	1	1	1	1	1	1	1	1	1	1	1	12
Prune Oaks Canopy to 7ft	1	1	1	1	1	1	1	1	1	1	1	1	12
Prune Palms – 14ft max	1	1	1	1	1	1	1	1	1	1	1	1	12
Prune Palms over 15ft	1	1	1	1	1	1	1	1	1	1	1	1	12
IRRIGATION MAINTENANCE													
Inspections	1	1	1	1	1	1	1	1	1	1	1	1	12
MULCH													
			1							1			2
PORTER SERVICES													
	2	3	4	4	4	4	4	4	4	4	4	3	44

	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Scheduled Full Crew w/Equipment	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	52
WLM Manager/Supervisor monitor wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	52
WLM QYCS Report Updates	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	12
Mowing-wkly maint & debris removal	in cooler months ck turf growth for health & color if needed mow specific growth areas weekly									in cooler months ck turf growth for health & color if needed mow specific growth areas weekly			
	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	52
Edging	2	2	2	2	2-4	2-4	2-4	2-4	2-4	2	2	2	27-34
Trimming & Selective Trim up to 12' ht					Prune Back-Regenerate Plants								
	1	1	1	1	1	1	1	1	1	1	1	1	Approx 12+
Treat weeds in plant beds	1-2	1-2	1-2	1-2	2	2	2	2	2	1-2	1-2	1-2	Approx 20-26
Granular Fertilizer - Turf Plants/Palms/Trees		1			1	Summer months extra nutrients installed to specific areas for deficiencies.				1		1	4+
Pest Control Monitoring	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	52+
Pest Control Treatments- (Up to 12' ht)	I-----Proactively and ongoing throughout the year-----I												
Adjust & Monitor Irrigation	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	wkly	52+
Complete Irrigation Inspection	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	12
WLM Landscape Work - Communicate & Propose Upcoming Plant/Tree/Turf/Irr. Repairs & replacements	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	12+

GENERAL

All bolts should be tight and secure. We recommend checking connections every six months - more often if product is in a high-use area.

STAINLESS STEEL AND POWDERCOATED METAL PRODUCTS

Clean as needed using a soft cloth or brush with a mild detergent. Avoid steam cleaning, abrasive cleansers, carbon steel brushes/wools and cleaners containing chlorine. Stainless steel cleaners may be used on stainless tabletops to remove stubborn stains.

For Powdercoated finishes: Outdoor use will require periodic finish inspection and maintenance. Inspect periodically for scratches, nicks and gouges. Touch-up paint is included with every order and can be used to repair minor nicks and scratches. Larger gouges must be repaired by sanding, then applying a coating of SEM Rust Mort, Rust Seal, or POR-15. Rust Mort is a trade name of a rust converter. Rust Seal converts the rust and adds a sealant to keep the area protected. Both are available through automotive supply stores; POR-15 is available through www.por15.com. Use as instructed by the manufacturer, then touch up area with paint available from Landscape Forms.

MARNEAUX™ SOLID SURFACE TABLETOPS

Use a conventional cleaning agent such as an ammonia-based liquid cleaner (glass cleaner). Dry stains can be removed with Scotch-Brite scouring pad by 3M or a mild abrasive cleaner. Remove burns or scorching by sanding with coarse grit sandpaper followed by finer grit sandpaper. Follow sanding with a Scotch-Brite 7447 red pad by 3M (or equivalent) to match finish of sanded area to surrounding area. Small chips may be sanded smooth.

STACKING CHAIRS

Chair glides and bumpers should be inspected periodically for wear and replaced as needed. Order replacements from Landscape Forms. Stacking chairs are designed to be set in place, not thrown. Throwing chairs can result in damage and is considered "abuse."

UMBRELLAS

Fabric umbrellas must be lowered at night and in windy conditions to prevent damage. All Landscape Forms umbrella styles must be anchored to an embedded or surface mount table base or surface mount stand with supplied hardware. Table bases or stands holding umbrellas must be embedded into or securely mounted onto a hard surface. Failure to mount the umbrella to surface mounted or embedded table/stand may cause umbrellas and/or tables/stands to fall and hit the ground resulting in damage to umbrellas or users which is not covered under warranty. Follow powdercoated metal cleaning directions for Solstice and Shade; Sunbrella directions for Equinox and Marketplace.

SUNBRELLA® UMBRELLA COVERS

Use, Storage, Cleaning: For storage, umbrellas should be cleaned, allowed to air dry and placed in a dry, well-ventilated area. Sunbrella® fabric

has a stain-resistant finish that requires little care. To prevent dirt from becoming deeply embedded in the fabric and delay the need for deep cleaning, hose fabric off on a monthly basis with clear water. A thorough cleaning may be needed every 2 - 3 years. Sunbrella® may be cleaned while on the frame using a soft bristled brush or removed and machine-washed. Always use cold water; natural soap (no detergents), rinse thoroughly and air-dry ONLY before closing. For stubborn stains, use a diluted mixture of ½ cup chlorine bleach and ¼ cup natural soap in 1 gallon of water. Test a small, unobtrusive area for color fastness first. Clean with soft bristled brush, allow soaking up to 20 minutes, rinsing thoroughly. Air dry. Repeat if necessary. Reapplication of the water repellent finish is recommended following a thorough cleaning. Further information is available at www.sunbrella.com

POLYSITE®

To maintain the original finish, simply clean PolySite with soap and water. As a rule, paint will not adhere to PolySite; sealing or painting is not required or recommended. Most forms of graffiti can be cleaned from the PolySite surface with the use of a conventional all-purpose cleaner or petroleum-based cleaner. The surface layer of PolySite is very difficult to carve into. If it does become marred, use fine sandpaper to lightly buff the area smooth. Abraded areas will not darken, spread or cause the PolySite surface to crack or check.

POLYCARBONATE

Wash surface with all-purpose soap and water. Rinse well.

POLYETHYLENE (plastic) and POLYPROPYLENE

Wash surface with all-purpose soap and water. Rinse well. For more stubborn stains, apply Scrubbing Bubbles® according to manufacturer's instructions. Wipe dry with a clean cloth.

FIBERGLASS

Wash surface with liquid dish soap or 3M™ Marine Boat Soap. Rinse with water and dry well. Restoration of the finish is recommended at 12-month intervals or more frequently if subjected to harsh sun and weathering.

Restoring a fiberglass finish:

1. Wash surface with soap and water, rinse well.
2. Apply 3M™ Marine Cleaner & Wax and use as directed for lightly oxidized surfaces and regular maintenance.
3. Apply 3M™ Marine Restorer & Wax and use as directed for heavily oxidized surfaces requiring a greater level of repair.
4. For best results, use a power buffer set at 1500 to 2500 RPM.

WOODS USED FOR EXTERIOR APPLICATIONS

Redwood, Jarrah, Teak and Ipe, Purpleheart and Black Locust: No maintenance required.* Stain, varnish or paint is not recommended for exterior use since weathering will make constant refinishing a necessity. Unfinished wood will weather to a natural gray patina. If desired, may be scrubbed with warm soapy water and soft bristle brush. Pressure washing, steel wool/wire brushes are not recommended. Heavily ingrained

stains may be sanded away with fine grade sandpaper worked in the direction of the grain. Wood will weather to the existing gray patina.

* Prima Marina wood boards require reapplication of the finish every six months. Refer to the Prima Marina CSI specifications for finish specifications.

WOODS USED FOR INTERIOR APPLICATIONS
Red Oak, Jarrah, Teak, and Maple with LF-80: Requires only occasional cleaning with a good-quality furniture polish.

GRAFFITI PREVENTION AND REMOVAL

Powdercoat: To clean graffiti from Pangard II powdercoat surfaces, we recommend SoSafe Yellow or Green Graffiti Remover, depending on climate, available at www.SoSafeUSA.com. Best results are obtained when cleaning within 24 hours of the graffiti application. Used according to SoSafe's instructions, the graffiti remover will safely remove markers and paint without damaging the surface. NOTE: It is very important to wash away SoSafe with clear water soon after application to assure the powder-coated surface is not degraded. It is also possible to specify graffiti-resistant clear top-coat for new product orders.

Wood: To clean graffiti from unfinished wood surfaces, allow paint to dry, scrape away thicker areas until wood can be seen through paint, then sand using 80 grit, then 100 grit sandpapers until the paint is gone. We do not recommend solvents or paint removers which may damage the wood or cause it to absorb pigments from the paint.

Contact Landscape Forms for more information regarding general graffiti removal and graffiti resistant finish.

Glass: As with any glass, you may use a commercial glass cleaner. If a stain occurs on the bottom side (acid etched side), you can use a product called GoJo which can be found in any hardware store.

Concrete: To clean graffiti, determine what was used to deface the concrete surface. For spray paints, remove as much as possible mechanically with a stiff natural bristle brush. Never use mineral spirits as these will dissolve the paint and can carry pigments deeper into the concrete. Use a cotton cloth soaked with acetone to blot off the paint.

SUNBRELLA® Cushion Fabric: For storage, cushions should be cleaned, allowed to air dry and placed in a dry, well-ventilated area. Sunbrella® fabric has a stain-resistant finish that requires little care. Brush off dirt before it becomes embedded in the fabrics and wipe up spills as soon as they occur or spot clean soon after stains occur. For general cleaning, prepare a cleaning solution of 2 ounces (1/4 cup) mild soap per gallon of lukewarm water and use a sponge or a soft bristle brush to clean. Allow

cleaning solution to soak into fabric. Rinse thoroughly to remove all soap residue and allow fabric to air dry. For spot cleaning, apply a light mist of mild soap and water using a spray bottle, work the solution into the stain by lightly scrubbing the area with a sponge or very soft bristle brush. Rinse thoroughly to remove all soap residue and blot excess moisture with a clean, soft towel or sponge. Wet-vacuum or blot excess water and air dry. Repeat steps 3 and 5 until all soap residue is removed. Further information is available at www.sunbrella.com.

Perennials Cushions Fabric: It is recommended to clean Perennials Outdoor Fabric with natural soap in lukewarm water. Cleaners such as 409 and Simple Green have also been used with success. Sponge briskly and rinse thoroughly with clean water to remove dirt. Air dry.

Diluted chlorine bleach will not affect the coloration of the fiber and is therefore acceptable for stain removal. However, chlorine bleach can eventually affect the strength of any fiber or cloth, so it is suggested to use a solution of one part bleach to two parts water. Thorough rinsing is essential. Professional cleaning is always recommended for tough stains. Further information is available at www.perennialsfabrics.com

COCHRAN FABRIC

Phifertex® Plus fabric: To clean: Prepare a simple cleaning solution using 1 Tbsp liquid dish detergent and 2 Tbsp household bleach mixed in a gallon of water. Clean fabric using a sponge or soft cloth dipped in solution. Rinse thoroughly with clean water and air dry. Avoid direct contact with oil-based products, which may cause accelerated aging of fabric. If direct contact occurs, clean promptly.

CONCRETE MAINTENANCE

Generally, cast concrete requires little to no maintenance from the effects of weathering and aging. Maintenance, however, may be performed using the following guidelines:

General cleaning of concrete and UHPC: Routine cleaning can be done with clean soft cloths using water or mild detergents. For more aggressive cleaning use high-pressure hot water washing. In extreme cases detergents may be required. Never use carbon steel wire brushes as minute amounts of steel from the brush will be embedded into the concrete surface resulting in rust staining. If brushes are required, use natural stiff bristle brushes with clean potable water. This should be sufficient for most general cleaning requirements.

Smooth sealed surfaces: To remove food residues and oils on these surfaces, use a small amount of distilled vinegar diluted by half with clean potable water in a clean soft cloth or sponge well wrung out. Similarly, diluted mild detergents and dish soaps are acceptable. Wipe surface, then immediately wipe with clean potable water and dry with a clean dry cloth. Some concrete surfaces are factory-sealed for a degree of stain-resistance (but are not stain-proof). Due to the porous nature of concrete, even with factory-applied sealer, regular maintenance is the best safeguard against staining. Do not allow spills to set. Sealed concrete cannot be warranted against staining, cracking or scratching. Never use non-neutral or abrasive cleaners.

Concrete planters: It is imperative that accumulated dead and decaying organic matter be removed from the soil surface on a regular basis. This material, especially in cold weather can become saturated and freeze. This in turn prevents additional surface water from draining out the bottom of the planter. Enough accumulated surface water can freeze and expand applying enough internal force to break a concrete planter.



Create a timeless moment.™

WARRANTY

Explanation of limited warranty effective November 4, 2009.

All wood slats and components (Philippine Mahogany or Ipe) are warranted for a period of 10 years against structural failure or bacterial rot. Normal weather checking, graying, fading, or wear are not preventable or justification for replacement.

All plastic slats are warranted for a period of 10 years against structural failure provided that they are not overtightened and cracked while installed. Normal loss of gloss or slight color fading cannot be covered.

All weldments, steel frames and legs, components, braces, and assemblies are warranted for a period of 10 years against structural failure. Routine maintenance, coating touch up to prevent nicks and abrasions from propagating, and proper installation are the responsibility of the purchaser and are particularly important for any claims made under this portion of the warranty.

All castings are provided in Ductile Iron and are warranted for a period of 10 years against breakage or structural failure. Again, abrasions, damage to finish, and installation errors must be corrected by the purchaser or end user for this part of the warranty to apply.

Wear items such as plastic or galvanized receptacle or planter liners, lids or leveling feet, etc. are not covered unless damage is noted upon initial delivery.

Items not covered above are subject to a one-year limited warranty.

All warranty coverage is expressed as a limited warranty and starts on the date of invoice for each shipment. Each warranty item specifically excludes coverage for vandalism, freight damage (which must be reported upon delivery), assembly other than as shown on Victor Stanley, Inc. detailed drawings, accident, neglect, misuse, improper installation, unattended routine maintenance, natural weathering of wood, improper repair or acts of God. This warranty shall be held valid only if Victor Stanley has been provided in writing with the appropriate project name and installation address of the Victor Stanley products.

Claims must be made directly to the factory and be accompanied by the appropriate invoice number or copy of invoice. Routine wood checking, fading, or similar cosmetic issues are not covered as each climate naturally exacts its own toll on the surface of materials exposed to the elements.

Repair or replacement, if warranted, will be made by the factory after inspection by authorized personnel and will not include dismantling or re-installation or any other consequential costs or damages. The factory is responsible only for repairing or replacing any defective product or part which must be reinstalled by others, according to instructions provided.

MAINTENANCE

Routine maintenance by the purchaser or end user is required, including but not limited to inspection for loose fasteners, vandalism, normal wear, coating damage, and excessive weathering.

Victor Stanley products are designed and constructed for commercial applications. The components used within the product were chosen to withstand abuse and constant traffic.

To avoid any break down of the powder coating, no harsh solvents should be used on the surface of the product. The powder coating may be cleaned by power washing or hosing the unit using any mild soap.

To protect areas where the coating has been scratched or scuffed, use a piece of steel wool to prepare the surface by sanding off any debris or rust. Then apply a rust inhibiting primer (available at any hardware store) to the affected area. When the primer has dried, apply the touch-up paint to match the color of the product.

Please contact our customer service department with any questions.

