



Fort Myers Beach Management & Planning Session

**Council Chambers
2525 Estero Blvd.
Fort Myers Beach, FL 33931**

Agenda

Thursday, November 4, 2021

9:00 AM

ORDER OF BUSINESS

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. ITEMS FOR DISCUSSION

A. Lee County Update

An update of Lee County projects on Fort Myers Beach

B. Discussion of Removal/Installation Tree Requirements for Single Family Homes

Council Discussion: Minimum Tree Requirements for Single Family Homes

C. Traffic and Parking

Council discussion: Traffic and Parking in Fort Myers Beach

D. Street Renaming

Discussion: Changing the name of a street

E. American Rescue Plan

Council discussion: American Rescue Plan

IV. AGENDA MANAGEMENT

A. November 2021

V. ADJOURNMENT

NOTE: THIS MEETING IS TELEVISED LIVE ON COMCAST CHANNEL 98.

IF A PERSON DECIDES TO APPEAL A DECISION MADE BY THE COUNCIL IN ANY MATTER CONSIDERED AT THIS MEETING/HEARING, SUCH PERSONS MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE,

TO INCLUDE THE TESTIMONY AND EVIDENCE UPON WHICH ANY SUCH APPEAL IS TO BE BASED.

	For special accommodations, please notify the Town Clerk's Office at least 72 hours in advance. (239) 765-0202		Help for the hearing impaired is available through the Assistive Listening System. Receivers can be obtained from the Town Clerk's Office.
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In accordance with the Americans with Disabilities Act (ADA), persons needing a special accommodation to participate in the Board's proceedings should contact the Town Clerk's Office not later than three days prior to the proceedings.

1. **Requested Motion:**

Meeting Date: November 4, 2021

An update of Lee County projects on Fort Myers Beach

Why the action is necessary:

What the action accomplishes:

Facilitates communications between the Town and County

2. **Agenda:**

ITEMS FOR DISCUSSION

3. **Requirement/Purpose:**

5. **Background:**

Attachments:

1. Estero Blvd Update for 11.04.2021 M-P

Financial Impact:

6. **Alternative Action**

7. **Staff Recommendations:**

8. **Recommended Approval:**

**Estero Boulevard Update to Town of Fort Myers Beach
Management & Planning 11/4/2021 Meeting
Estero Boulevard Segments 5 & 6**

Estero Boulevard Segments 5 and 6 - Current Status:

Albatross Street to Estrellita Drive - The northbound lane is complete and southbound traffic is shifted toward the bay.

Construction activities in Segments 5 and 6 are as follows:

- **Lenell Road to Estrellita Drive – Southbound lane**
 - Crews are 90% complete with storm drain installation on the beach side
 - Crews are 45% complete with concrete curb and sidewalk on the beach side
 - Roadway crews are moving from north to south
 - 30% of the paving is complete on the beach side
 - All crews will concentrate efforts on the beach side through the end of 2021.
- **Final project completion** – The remainder of the asphalt paving of the southbound lane (beach side) is tentatively scheduled for December 2021. The final lift of asphalt pavement and final pavement markings are tentatively scheduled to be completed in early 2022.

1. **Requested Motion:**

Meeting Date: November 4, 2021

Council Discussion: Minimum Tree Requirements for Single Family Homes

Why the action is necessary:

What the action accomplishes:

2. **Agenda:**

ITEMS FOR DISCUSSION

3. **Requirement/Purpose:**

5. **Background:**

The intent of the Town's Tree Protection Code is to preserve native canopy on the island. However in practice, there appears to be a general decline of tree canopy due to

- 1) the exception for existing single family homes to remove up to 3 protected trees annually without a permit,
- 2) permitting criteria to allow the landowner beneficial use of their property,
- 3) setbacks are too small to allow for canopy trees without an arguable risk to property,
- 4) lack of policy to require existing trees to be either relocated or replaced in kind

Strategies to reverse this trend, and increase native tree canopy could include one or more of the strategies below:

- Explicit policy or code requiring relocation, preservation, replacement or mitigation (see Marathon Code Section 106.09)
- Require new SFR development to plant canopy trees (See Marco Island Code Section 30-440)
- Link tree requirements to permitting of impervious surface changes
- Continue Tree Giveaway programs by the Town
- Educate property owners regarding native trees that fit the space available
- Target areas of island where canopy is minimal or non-existent with education

Implementing such strategies can increase canopy habitat for wildlife, and reduce heat island impacts (<https://www.epa.gov/heatislands>) by lowering surface and air temperatures, providing shade and cooling through evapotranspiration. Trees and vegetation can also reduce stormwater runoff and protect against erosion.

Attachments:

1. FMB_ARTICLE_V.____TREE_PROTECTION
2. Marco Island_Sec_30_440Minimum_landscaping_requirements
3. Marathon ARTICLE_2.____TREES_AND_NATIVE_VEGETATION
4. 163.045 FS
5. reducing_urban_heat_islands_ch_2

Financial Impact:

6. **Alternative Action**

Maintain status quo.

7. **Staff Recommendations:**

Implement strategies to increase canopy coverage on the island to increase habitat and decrease heat island effect of impervious surfaces

8. **Recommended Approval:**

Jason Green, Community Development
Services

Date: October 28, 2021

John R Herin Jr, Town Attorney

Date: October 28, 2021

Amy Baker, Town Clerk

Date: October 28, 2021

Roger Hernstadt, Town Manager

Date: October 28, 2021

ARTICLE V. - TREE PROTECTION^[16]

Footnotes:

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Cross reference— Open space, buffering and landscaping, app. A, § 10-411 et seq.

Sec. 14-371. - Reserved.

Sec. 14-372. - Findings of fact.

The town council hereby finds and determines that trees promote the health and general welfare of the citizens of the town, specifically:

- (1) Trees transpire considerable amounts of water each day and assist in purifying the air;
- (2) Trees precipitate dust and other particulate airborne pollutants from the air;
- (3) Trees, through their root systems, stabilize soil and play an important and effective part in soil conservation, erosion control, and flood control;
- (4) Trees are an invaluable amenity, providing shade and cooling the air and land, and reducing noise levels and glare;
- (5) The protection of trees is not only desirable, but essential to the health, safety, and welfare of all the citizens, present and future, of the town;
- (6) Some trees are more beneficial than others as necessary contributions to the town's environment, and it is not necessary to protect each and every tree in order to attain the publicly beneficial results of tree protection; and
- (7) Invasive exotic trees crowd out native trees and other vegetation and do not warrant protection under this article.

Sec. 14-373. - Intent and purpose.

- (a) The intent of this article is to protect trees through the preservation and planting of protected trees in order to:
 - (1) Aid in the stabilization of soil by the prevention of erosion and sedimentation;
 - (2) Reduce stormwater runoff and costs associated therewith and maintain permeable land areas for surface water filtration;
 - (3) Aid in the removal of carbon dioxide and generation of oxygen in the atmosphere;
 - (4) Provide a buffer and screen against noise pollution;
 - (5) Promote energy conservation through the creation of shade, reducing heat gain in or on buildings or paved areas, and reducing the temperature of the microclimate through evapotranspiration;
 - (6) Provide protection against severe weather;
 - (7) Aid in the control of drainage and restoration of denuded soil subsequent to construction or grading;
 - (8) Provide a haven for birds which in turn assist in the control of insects;
 - (9) Protect and increase property values;

- (10) Conserve and enhance the town's physical and aesthetic environment; and
- (11) Generally protect and enhance the quality of life and the general welfare of the town.
- (b) The purpose of this article is to protect trees from abuse and/or mutilation, and to regulate the removal and planting of protected trees in order to enhance and protect the environmental quality of the town.

Sec. 14-374. - Definitions.

- (a) The following words, terms and phrases, and their derivations, when used in this article, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning. When not inconsistent with the context, words in the present tense include the future and words in the singular number include the plural number. The word "shall" is always mandatory and not merely directory.

Diameter at breast height (dbh) means the diameter, in inches, of a tree measured 54 inches above natural grade.

Director means the person to whom the town manager has delegated the authority to administer this article, or that person's designee.

Dripline means an imaginary vertical line running from the outermost branches or portion of the tree crown to the ground.

Indigenous vegetation means those plants which are characteristic of the major plant communities, as listed in § 10-413 of this LDC.

Invasive exotic tree means any of the following tree species: Melaleuca (*Melaleuca quinquenervia*), Brazilian pepper (*Schinus terebinthifolius*), and Australian pine (*Casuarina spp.*).

Person means any public or private individual, group, company, partnership, association, society or other combination of human beings whether legal or natural.

Protected tree means any tree listed in the protected tree list in § 14-380(c) of this chapter.

Protective barrier means a physical structure not less than three feet in height composed of lumber no less than one-inch by one-inch in size for shielding protected trees from the movement of equipment or the storage of equipment, material, debris or fill. Equivalent materials may be used to provide a protective barrier if first approved by the director.

Removal means the deliberate removal of a tree or causing the effective removal of a tree through damaging, poisoning or other direct or indirect actions resulting in the death of the tree.

Tree means a living, woody, self-supporting plant, ten feet or more in height, having one or more well-defined main stems or trunks, and any one stem or trunk four inches in diameter at breast height. Trees protected by this article are listed in § 14-380(c) of this chapter. For the purpose of this article, those palms listed in § 14-380(c) of this chapter are declared to be a tree and are protected by the provisions of this article.

Tree location map means a drawing or aerial photograph which provides the following information: location of all trees protected under the provisions of this article, plotted by ground truthing or any other accurate scientific techniques; common or scientific name of all trees; and diameter at breast height. Groups of trees in close proximity (five feet spacing or closer) may be designated as a clump of trees, with the predominant species, estimated number and average size listed.

Upland means land other than wetlands.

- (b) Unless specifically defined in this article, the words or phrases used in this article and not defined in subsection (a) of this section shall be interpreted so as to give them the meaning they have in common usage and to give this article its most reasonable application.

Cross reference— Definitions and rules of construction generally, app. A, § 1-2.

Sec. 14-375. - Penalty for violation.

- (a) The director is authorized to pursue any one or combination of the enforcement mechanisms provided in this code (for example, § 1-5, or article V of ch. 2 of this LDC) for any violation of this article. See also the restoration standards in § 14-384 of this chapter.
- (b) In any prosecution under this article for the removal of a protected tree without a permit, each tree so removed will constitute a separate offense.

Sec. 14-376. - Exemptions.

- (a) This article shall not apply to the following:
 - (1) *Trees in rights-of-way*. The removal of trees on public rights-of-way conducted by or on behalf of a governmental agency in pursuance of its lawful activities or functions in the construction or improvement of public rights-of-way or in the performance of its official duties.
 - (2) *Damaged trees*. The removal of a protected tree that is dead or which has been destroyed or damaged by natural causes beyond saving or which is a hazard as the result of an act of God and constitutes an immediate peril to life and property.
 - (3) *Utility lines*. The removal of trees by duly constituted communication, water, sewer or electrical utility companies in or adjacent to a public easement or right-of-way, provided such removal is limited to those areas necessary for maintenance of existing lines or facilities or for construction of new lines or facilities in furtherance of providing utility service to its customers, and provided further that such removal is conducted so as to avoid any unnecessary damage or removal of trees.
 - (4) *Surveying activities*. The removal of trees protected by this article by a state-licensed land surveyor in the performance of his duties. The removal of trees protected by this article in a manner which requires clearing a swath of greater than three feet in width shall require approval of the director prior to such a removal and clearance.
 - (5) *Subdivided lots*. The removal of up to three protected trees during any one-year period on a lot that is being used lawfully as a single-family residence or mobile home. However, all other lots that are vacant or have a building that is being replaced are subject to the provisions of § 14-382(c) of this chapter.
- (b) However, exemptions (1), (3), (4) and (5) above, in the previous subsection, shall not apply to any tree cited in the Florida Champion Tree Register (Big Trees: The Florida Register, published by the Florida Native Plant Society, or successor publication).

Sec. 14-377. - Indigenous vegetation.

- (a) Indigenous vegetation shall not be cleared in areas that serve as listed species occupied habitat as defined in ch. 10, article III, division 8 of this LDC. The following shall apply:
 - (1) The director shall determine the location of protected species to be preserved based on the criteria set forth in ch. 10, article III, division 8 of this LDC. This review shall not be substituted for surveys required under ch. 10, article III, division 8 of this LDC.
 - (2) The director, or the property owner with the director's approval, shall develop a management plan based on the criteria set forth in § 10-474 of this LDC. Preparation and review criteria for the plan may be subject to the provisions of an appropriate administrative code. Up to ten percent of

the upland acreage shall be preserved in areas where listed species are present. No more than two separate areas shall be set aside on any given parcel. Any state-mandated upland listed species preserves shall be included within the referenced ten percent preservation area. Bald eagles (*Haliaeetus leucocephalus*) shall be protected pursuant to article III of this chapter.

- (b) Indigenous vegetation shall not be cleared within 25 feet of the mean high-water line of any natural waterway. Indigenous vegetation may be cleared selectively to allow the placement of docks, pipes, pumps and other similar structures pursuant to this code.

Sec. 14-378. - Suspension of article during emergency conditions.

Upon the declaration of a state of emergency pursuant to F.S. ch. 252, the director may suspend the enforcement of the requirements of this article for a period of 30 days in order to expedite the removal of damaged and destroyed trees in the interest of public safety, health and general welfare.

Sec. 14-379. - Nonliability of town.

Nothing in this article shall be deemed to impose any liability upon the town or upon any of its officers or employees, nor to relieve the owner and/or occupant of any duty to keep trees and shrubs upon private property or under his control in a safe condition.

Sec. 14-380. - List of protected trees.

- (a) Any tree delineated in subsection (c) of this section shall henceforth be a protected tree and shall thereby come under the provisions of this article, except where those trees are exempted from protection pursuant to § 14-376 of this article.
- (b) All other species of trees not named in subsection (c) of this section may be removed without a permit, but only in such a manner so as not to disturb or destroy surrounding protected trees or to disturb indigenous vegetation protected by § 14-377 of this article.
- (c) *Protected tree list.*

FAMILY NAME	
Scientific Name	Common Name
ACERACEAE (MAPLE FAMILY)	
Acer rubrum	Red Maple
ANACARDIACEAE (CASHEW FAMILY)	
Rhus copallina	Southern Sumac
ANNONACEAE (CUSTARD-APPLE FAMILY)	
Annona glabra	Pond Apple
AQUIFOLOIACEAE (HOLLY FAMILY)	
Ilex cassine	Dahoon Holly

AREACACEAE (PALM FAMILY)	
Coccothrinax argentata	Silver Palm
Cocos nucifera	Coconut Palm
Roystonea elata	Florida Royal Palm
Sabal palmetto	Cabbage Palm
AVICENNIACEAE (BLACK MANGROVE FAMILY)	
Avicennia germinans	Black Mangrove
BETULACEAE (BIRCH FAMILY)	
Carpinus caroliniana	Iron Wood
BORAGINACEAE (BORAGE FAMILY)	
Cordia sebestena	Geiger Tree
BURSERACEAE (TORCHWOOD FAMILY)	
Bursera simaruba	Gumbo Limbo
CAPPARACEAE (CAPER FAMILY)	
Capparis cynophallophora	Jamaica Caper
COMBRETACEAE (WHITE MANGROVE FAMILY)	
Bucida buceras	Black Olive
Conocarpus erecta	Buttonwood
Laguncularia racemosa	White Mangrove
CORNACEAE (DOGWOOD FAMILY)	
Cornus foemina	Swamp Dogwood
CUPRESSACEAE (CYPRESS FAMILY)	
Juniperus silicicola	Southern Red Cedar

EBENACEAE (EBONY FAMILY)	
Diospyros virginiana	Persimmon
FABACEAE (PEA FAMILY)	
Acacia farnesiana	Sweet Acacia
Lysiloma bahamensis	Wild Tamarind
Piscidia piscipula	Jamaica Dogwood
Pithecellobium unguis-cati	Cat Claw
FAGACEAE (OAK FAMILY)	
Quercus chapmani	Chapman Oak
Quercus incana	Bluejack Oak
Quercus laevis	Turkey Oak
Quercus laurifolia	Laurel Oak
Quercus myrtifolia	Myrtle Oak
Quercus nigra	Water Oak
Quercus virginiana	Live Oak
Quercus virginiana geminata	Sand Live Oak
HAMAMELIDACEAE (WITCH-HAZEL FAMILY)	
Liquidambar styraciflua	Sweet Gum
JUGLANDACEAE (WALNUT AND HICKORY FAMILY)	
Carya aquatica	Water Hickory
Carya glabra	Pignut Hickory
LAURACEAE (LAUREL FAMILY)	
Persea borbonia	Red Bay

Persea palustris	Swamp Bay
MAGNOLIACEAE (MAGNOLIA FAMILY)	
Magnolia grandiflora	Southern Magnolia
Magnolia virginiana	Sweetbay
MELIACEAE FAMILY (MAHOGANY FAMILY)	
Swietenia mahogoni	West Indian Mahogany
MORACEAE (MULBERRY FAMILY)	
Ficus aurea	Strangler Fig
Ficus citrifolia	Short-leaf Fig
Morus rubra	Red Mulberry
MYRTACEAE (MYRTLE FAMILY)	
Eugenia axillaris	White Snapper
Eugenia confusa	Ironwood
Eugenia rhombea	Red Stopper
Eugenia myrtoides	Spanish Stopper
Myrcianthes fragans	Simpson Stopper
NYSSACEAE (SOUR GUM FAMILY)	
Nyssa sylvatica	Black Gum/Black Tupelo
OLACACEAE (XIMENIA FAMILY)	
Ximenia americana	Tallowood
OLEACEAE (OLIVE FAMILY)	
Forestiera segregata	Florida Privet
Fraxinus caroliniana	Pop Ash

PINACEAE (PINE FAMILY)	
Pinus elliottii var. densa	South Florida Slash Pine
Pinus palustris	Long-leaf Pine
PLATANACEAE (SYCAMORE FAMILY)	
Platanus occidentalis	Sycamore
POLYGONACEAE (BUCKWHEAT FAMILY)	
Coccoloba diversifolia	Pigeon Plum
Coccoloba uvifera	Sea Grape
RHIZOPHORACEAE (RED MANGROVE FAMILY)	
Rhizophora mangle	Red Mangrove
ROSACEAE (ROSE FAMILY)	
Prunus caroliniana	Cherry Laurel
RUTACEAE (RUE FAMILY)	
Zanthoxylum clavaherculis	Hercules Club
SALICACEAE (WILLOW FAMILY)	
Salix caroliniana	Coastal-Plain Willow
SAPOTACEAE (SAPODILLA FAMILY)	
Bumelia celastrina	Buckthorn/Saffon Plum
Bumelia tenax	Buckthorn/Tough Bumelia
Chrysophyllum oliviforme	Satinleaf
Mastichodendron foetidissimum	Mastic
SIMAROUBACEAE (QUASSIA FAMILY)	
Simarouba glauca	Paradise Tree

TAXODIACEAE (BALD CYPRESS FAMILY)	
Taxodium ascendens	Pond Cypress
Taxodium distichum	Bald Cypress
THEACEAE (CAMELIA FAMILY)	
Gordonia lasianthus	Loblolly Bay
THEOPHRASTACEAE (JOEWOOD FAMILY)	
Jacquinia keyensis	Joewood
ULMACEAE (ELM FAMILY)	
Celtis laevigata	Hackberry
Ulmus americana	American Elm

Sec. 14-381. - Unlawful injury of trees.

It shall be a violation of this article for any person to remove, injure, disfigure, or destroy a protected tree in preparation for, in connection with, or in anticipation of development of land, except in accordance with the provisions of this article.

Sec. 14-382. - Removal of protected trees.

- (a) *Permit required.* Any protected tree, as defined and protected by this article, may be lawfully removed only after a permit therefor has been secured from the director. Failure to comply with the requirements of a tree removal permit shall be a violation of this article.
- (b) *Relocation to public property.* Where a protected tree is to be removed under the provisions of this article, the town may, with the owner's permission, relocate the tree (not being relocated within the property) at the town's expense to publicly owned property for replanting, either for permanent utilization at a new location or for future use at another location. If the town does not elect to relocate any such tree, it may give the county or any city within the county the ability to acquire such tree at its expense for relocation. The relocation shall be accomplished within 15 working days of the issuance of a permit, unless it is necessary to root prune the tree to ensure its survival, in which case the relocation shall be accomplished within 30 working days of the issuance of a permit or on another suitable schedule as agreed to by all parties.
- (c) *Subdivided lots.* For individual lots that are vacant or have a building that is being replaced, tree permits will be incorporated into the building permit for the site. For clearing prior to building permit issuance, a separate tree removal permit application must be submitted. Review of the proposed removal will follow the criteria listed in § 14-412(d) of this chapter, and will also assess the existing understory or subcanopy plants and protected species for retention or relocation within the site. However, no permit is required for the removal of up to three protected trees during any one-year period on a lot that is being used lawfully as a single-family residence or mobile home.

Sec. 14-383. - Tree protection during development of land.

- (a) Prior to the land clearing stage of development, the owner or developer shall clearly mark all protected trees for which a tree removal permit has not been issued and shall erect protective barriers for the protection of the trees according to the following:
 - (1) Around an area at or greater than a six-foot radius of all species of mangroves and protected cabbage palms;
 - (2) Around an area at or greater than the full dripline of all protected native pines; and
 - (3) Around an area at or greater than two-thirds of the dripline of all other protected species.
- (b) No person shall attach any sign, notice or other object to any protected tree or fasten any wires, cables, nails, or screws to any protected tree in any manner that could prove harmful to the protected tree, except as necessary in conjunction with activities in the public interest.
- (c) During the construction stage of development, the owner or developer shall not cause or permit the cleaning of equipment or material within the outside perimeter of the crown (dripline) or on the nearby ground of any protected tree or group of trees which is to be preserved. Within the outside perimeter of the crown (dripline) of any protected tree or on nearby ground, the owner or developer shall not cause or permit storage of building material and/or equipment, or disposal of waste material such as paints, oil, solvents, asphalt, concrete, mortar, or any other material harmful to the life of the tree.
- (d) No person shall permit any unnecessary fire or burning within 30 feet of the dripline of a protected tree.
- (e) Any landscaping activities within the protective barrier area shall be accomplished with hand labor.
- (f) Prior to the director issuing a certificate of occupancy or compliance for any development, building or structure, all protected trees designated to be preserved that were destroyed during construction shall be replaced by trees of equivalent diameter at breast height tree caliper and of the same species as specified by the director, before occupancy or use, unless approval for their removal has been granted under permit.
- (g) The director may conduct periodic inspections of the site during land clearance and construction.
- (h) If, in the opinion of the director, development activities will so severely stress slash pines or any other protected tree such that they are made susceptible to insect attack, preventative spraying of these trees may be required.

Sec. 14-384. - Restoration standards.

- (a) If a violation of this article has occurred and upon agreement of the director and the violator, or, if they cannot agree, then upon conviction by the court or order of the hearing examiner, a restoration plan shall be ordered in accordance with the following standards:
 - (1) The restoration plan shall include the following minimum planting standards:
 - a. The plan shall include a planting plan for all protected trees. Replacement stock shall be computed on a three for one basis according to the total number of unlawfully removed trees. The phrase "three for one" in this section refers to the requirement of replacing an illegally removed tree with three live trees according to the provisions of this article. Replacement trees shall be nursery grown, containerized, and no less than six feet in height. It shall be within the discretion of the director to allow a deviation from the ratio specified in this subsection. When such deviation is sought, the total of heights and calipers shall equal or exceed that specified in the standards set out in this subsection. An example of this might be one in which trees four feet in height might be planted in a ratio of five replacement trees to one illegally removed tree. Justification for such a deviation shall be provided to the director.

- b. The plan shall include a planting plan for understory vegetation. Understory vegetation shall be restored to the area from which protected trees were unlawfully removed or mutilated. The plant selection shall be based on that characteristic of the Florida Land Use, Cover and Classification System (FLUCCS) Code. Shrubs, groundcover and grasses shall be restored as delineated in the Florida Land Use, Cover and Classification System Code. Up to seven species shall be utilized with relative proportions characteristic of those in the Florida Land Use, Cover and Classification System Code. The exact number and type of species required shall also be based upon the existing indigenous vegetation on adjacent property. Replacement stock shall be no less than one-gallon sized, nursery-grown containerized stock planted at no less than three feet on center in the area from which protected trees were unlawfully removed or mutilated. This area shall be defined by the dripline of the trees. The number of shrubs shall not exceed, but may be less than, 25 shrubs per tree unlawfully removed or mutilated. The understory of the restored site shall be protected for a period of no less than ten years, unless its removal is a provision of a development order which has been approved after the restoration of the site.
 - c. If the unlawful removal or mutilation of trees has caused any change in hydrology or surface water flows, then the hydrology or surface water flows shall be restored to pre-violation condition.
- (2) Massing of replacement stock shall be subject to agreement of the parties or, if appropriate, then by approval of the court or the hearing examiner, as long as the minimum number of trees and/or seedlings are provided. Replacement stock, with the exception of palms, shall be Florida No. 1 or better grade. Replacement stock shall have a guaranteed 80 percent survivability for a period of no less than five years. A maintenance provision of no less than five years must be provided in the restoration plan to control invasion of exotic vegetation. Replacement stock shall not be located on any property line, or in any utility easement that prohibits such plantings. The director may at his/her discretion allow the replacement stock to be planted off-site where approved development displaces areas to be restored. In these situations, off-site plantings shall be on lands under the control of a public agency. The off-site location is subject to the approval of the director.
- (3) In the event of impending development on property wherein protected trees were unlawfully removed, the restoration plan shall indicate the location of the replacement stock consistent with any approved plans for subsequent development. For the purposes of this article, impending development shall mean that a developer has made application for a development order or applied for a building permit.
- (4) If identification of the species of trees is impossible for any reason on property wherein protected trees were unlawfully removed, then a presumption is raised that the trees illegally removed were of a similar species and mix as those found on adjacent properties.
- (5) A monitoring report shall be submitted to the director on an annual basis for five years describing the conditions of the restored site. The monitoring report shall be submitted on or before each anniversary date of the effective date of the restoration plan. Mortality estimates per species planted, estimated causes for mortality, growth of the vegetation, and other factors which would indicate the functional health of the restored systems shall be included in the monitoring report. Failure to submit the report in a timely manner shall constitute a violation of this article. When mitigation is required pursuant to this article, monitoring reports are necessary to ensure that the mitigation efforts have been successful. In order to verify the success of the mitigation efforts and the accuracy of the monitoring reports, periodic inspections are necessary. In order that the town be compensated by the violator for the costs of these periodic inspections of the restored site, a schedule of inspection fees may be established by the town; if no such schedule exists, inspection fees shall be those charged for similar services by Lee County.
- (b) If a violation of this section occurs, then the restoration provisions contained within this section shall govern and supersede any other restoration provisions contained within this article.

Secs. 14-385—14-410. - Reserved.

Sec. 14-411. - Permit required.

No person, organization, society, association, corporation, or any agent or representative thereof, shall deliberately cut down, destroy, remove, relocate, defoliate through the use of chemicals or other methods, or otherwise damage any tree that is protected under this article without first obtaining a permit as provided in this article.

Sec. 14-412. - Issuance of permit.

- (a) *Submission of application.* Application for a permit to remove any protected tree defined in this article shall be submitted to the director, in writing, on a form provided by the director, accompanied by a written statement indicating the reasons for removal.
- (b) *Authority of director.* The director shall have the authority to issue the permit and to inspect all work performed under any permit issued under this article.
- (c) *Required information.* All applications to remove any protected tree defined in this article shall be on forms provided by the director. Where an application has been submitted to the director for the removal of more than five protected trees, no tree removal permit shall be issued by the director until a site plan for the lot or parcel has been reviewed and approved by the director, which shall include the following minimum information:
 - (1) The shape and dimensions of the lot or parcel, together with the existing and proposed locations of the structures and improvements, if any.
 - (2) A tree location map for the lot or parcel, in a form acceptable to the director. For the removal of three protected trees or less, an on-site examination by the director's designee shall be made in lieu of the tree location map requirement.
 - (3) Any proposed grade changes that might adversely affect or endanger any protected trees on the lot or parcel, together with specifications reflecting how the trees can be safely maintained.
 - (4) Any proposed tree replacement plan.
- (d) *Criteria for granting.* The director shall approve a permit for issuance for the removal of any protected tree if the director finds one or more of the following conditions is present:
 - (1) Trees which pose a safety hazard to pedestrian or vehicular traffic or threaten to cause disruption to public utility services.
 - (2) Trees which pose a safety hazard to existing buildings or structures.
 - (3) Trees which, if not removed, would preclude vehicular access to a lot or parcel.
 - (4) Diseased trees which are a hazard to people, buildings or other improvements on a lot or parcel or to other trees.
 - (5) Trees so weakened by age, storm, fire, or other injury as to, in the opinion of the director, jeopardize the life and limb of persons or cause a hazard to property.
 - (6) Trees which, if not removed, would allow a landowner no beneficial use of a lot or parcel or would place an inordinate burden on the landowner.

The director may require that a tree protected by this article be relocated on the same lot or parcel in lieu of removal. Permitting decisions of the director may be appealed through the procedure set forth in § 34-86 of this LDC.
- (e) *Submission of site plan when building permit not required.* Where a building permit issuance is not required because no structures are ready to be constructed and no other development of the lot is about to occur, any person seeking to remove a tree protected under this article shall first file a site plan with the director meeting the requirements of subsection (c) of this section prior to receiving a tree removal permit from the director.

- (f) *Inspection of site.* The director may conduct an on-site inspection to determine if any proposed tree removal conforms to the requirements of this article and what effect, if any, removal of the protected trees will have upon the natural resources of the affected area prior to the granting or denying of the application. A permit fee will be required for the removal or relocation of any tree protected under the provisions of this article and shall be paid at the time of issuance of the permit. The fees established must be paid to the director. Such fees are hereby declared to be necessary for the purpose of processing the application and making the necessary inspection for the administration and enforcement of this article.
- (g) *Approval or denial.* Based upon the information contained in the application and after investigation of the application, the director shall approve or deny the application, and, if approved, the director is the party so designated by the town to issue the permit for a period not to exceed one year and to collect the permit fee.
- (h) *Conditions.* The director may attach conditions to the permit relating to the method of identifying, designating and protecting those trees which are not to be removed in accordance with subsection (g) of this section. A violation of these conditions shall automatically invalidate the permit. Special conditions which may be attached to the permit may include a requirement for successful replacement of trees permitted to be removed with trees of the same size, compatible species and same number.

Secs. 14-413—14-450. - Reserved.

Sec. 30-440. Minimum landscaping requirements.

- (a) Landscaping for all new development, including single-family, two-family, mobile home, multifamily, commercial, and institutional uses shall include as a minimum, the number of trees set forth below. Areas dedicated as preserves and conservation areas shall not be counted to meet the requirements of this section. When calculating minimum tree requirements, a fractional unit of 0.50 or greater shall require an additional tree.
- (1) **Single-family, two-family, and mobile home developments.** One canopy tree per 2,500 square feet of lot area, or two canopy trees per lot, whichever is greater, with the maximum number required: 15 trees per lot. One or more canopy trees, palms, or grouping of palms meeting the code requirements shall be located within ten feet of the front property line.
 - (2) *Multifamily developments.* One canopy tree per 2,000 square feet of pervious site area excluding preserves. This is in addition to other landscaping requirements.
 - (3) *Commercial and institutional developments.* One canopy tree per 3,000 square feet of pervious site area excluding preserves. This is in addition to other landscaping requirements.
 - (4) *Building perimeter plantings.* All commercial, institutional, and multifamily developments inclusive of accessory uses shall provide building perimeter plantings in the amount of 100 square feet per 1,000 square feet of proposed building ground level floor area, except within the Elkcarn Circle Zoning Overlay. These planting areas shall be located adjacent to the building and shall consist of landscape areas, raised planters, or planter boxes that are a minimum of five feet wide. Seating courtyards, eating areas and plazas may be incorporated within them. Additional design criteria is provided in article VIII.

(Ord. No. 02-22, § 10, 7-15-2002)

Section 106.06. - Purpose.

The purpose of this article is to implement policies contained in the City Comprehensive Plan to preserve, protect, and encourage the proliferation of trees and native vegetative cover within the City of Marathon, as well as relocation or replacement where necessary, and to control and eliminate invasive non-native species.

Section 106.07. - Applicability.

- A. Regulated trees include Champion trees, Specimen trees, commercially exploited, threatened or endangered trees, regional important and native species. Examples of tree species that are of significant value to the natural environmental systems and to the population in general are identified on Table 106.12.1 "Regulated Trees"; for a complete list of regulated trees, contact the City Biologist.
- B. All land clearing and regulated tree removal in all land uses and zoning districts shall be prohibited without prior approval.
- C. Regulated trees shall not be removed after the issuance of a certificate of occupancy without securing a tree removal permit.
- D. Existing native vegetation on a development site shall be protected in accordance with the following requirements in the LDRs:
 - 1. Provision of Open Space in accordance Table 106.16.1 and with Article 9 of Chapter 107;
 - 2. Protection of natural plant and wildlife habitat in accordance with Article 3 of this chapter;
 - 3. Protection of all other conservation areas as identified in this chapter;
- E. The planting of non-native vegetation listed in F.A.C. 62C-52.011, Florida Prohibited Aquatic Plants List, and F.A.C. Rule 5B-57, Florida Noxious Weed List, shall be prohibited. The removal or control of all non-native invasive species shall be encouraged where not required to be removed by this chapter.
- F. For the purposes of this chapter, a qualified professional includes a landscape architect, approved biologist, certified environmental professional, certified urban forester, or certified arborist. Additionally, for the purposes of mangrove trimming, a qualified professional shall also include a professional mangrove trimmer as certified by the Department of Environmental Protection.

Section 106.08. - Permitting.

A tree removal permit is required for the removal of trees and alteration of associated native vegetation as set forth below:

- A. *Development Applications:* All development applications shall be subject to the permit conditions for tree removal set forth below.
 - 1. At a minimum, applicants for site plans shall be required to have a vegetation survey prepared to locate any regulated trees.
 - 2. Unless prohibited by the City Biologist, removal or eradication of prohibited and discouraged non-native vegetation, identified in this section should be completed for the entire parcel concurrent with the permitted tree removal.
 - 3. Site plans shall be developed in consultation with the City Biologist and shall incorporate each regulated tree and associated native vegetation in its original location to the greatest extent possible within the drip line area of the regulated tree. In creating a plan to minimize the removal of regulated trees and associated native vegetation, consideration shall also be given to preserving non-invasive trees that exhibit the following characteristics:
 - (a) Trees located within regulated natural resource areas or habitats, which may be protected as conservation management areas. Required conservation and open space

area within natural resource areas shall remain completely undisturbed including canopy, understory and groundcover vegetation and substrate.

- (b) Creation or extension of connectivity or linkages to other natural areas in the form of tree and vegetation corridors.
- (c) Existing regulated trees and native vegetation.
- (d) Existing natural tree and vegetative groupings.
- (e) Plantings that complement the project's design including enhancement of the architecture, landscape architecture, and streetscape appearance.
- (f) Plantings located in required buffer areas.
- (g) Plantings that screen unpleasant views or those that augment desirable views.
- (h) Plantings that provide shade to structures, seating areas, or other pedestrian activity areas within or associated with the project.
- (i) Plantings that complement or augment stormwater system design.
- (j) Plantings that are disease and insect resistant.
- (k) Plantings that have strong branching and root characteristics with resistance to high winds.
- (l) Plantings that are salt tolerant.

B. *Additional Permit Conditions:* A tree removal permit may also be issued for the removal of regulated trees, provided the City has determined there will be no significant adverse environmental impacts under the following circumstances:

- 1. Trees that are under attack from infestations of harmful insects, fungi, viruses, or other diseases that are not generally present on other trees of the same species but may reasonably be expected to spread to trees not currently so infested.
- 2. Trees that constitute an immediate safety hazard either to persons, domestic animals, buildings and other structures, or to motor, bicycle, or pedestrian traffic.
- 3. Trees that by the growth of its branches or roots is or will cause progressive damage to buildings or structures and where no reasonable correction or prevention method is available other than removal of the trees.

C. *Application Requirements:* At the time of permit application, and prior to any land clearing or alteration, all applicants for a tree removal permit shall submit information necessary to fully understand the extent, nature, and potential impacts of the proposed project.

- 1. *Permit Applications:* In addition to a completed application form, the applicant shall at a minimum submit a vegetation survey and a description of the project with the identification of location and extent of all areas proposed for tree removal or clearing including the methods to be used for removal. Description shall also include areas of the project that contain utilities, utility easements, and proximity to buildings and other structures on the site.
- 2. *Site Plan Approval:* In addition to the common application requirements in Chapter 102 Article 2 "Common Development Application Elements", the following information shall be required with applications for site plan approval:
 - (a) A recent aerial photograph with the parcel clearly delineated and representative color photographs;
 - (b) A certified site plan or survey, where applicable, showing all easements (both plan view and cross-sectional view sketches may be required);

- (c) Identification of the type and location of native vegetation in the vicinity of, and likely to be affected by the project. This information is to be incorporated into one (1) or more of the following noted documents (in Subsections (b)—(f), herein);
- (d) A Vegetation Survey for the entire parcel proposed for development. The Vegetation Survey shall graphically depict the location of each regulated tree and/or vegetated area to remain undisturbed on the parcel during construction and shall list all species found on-site along with a general description of the condition of the vegetation. This Vegetation Survey shall be incorporated as a part of a Site plan package;
- (e) Either as a separate numbered list or a numbered tabular list on the Vegetative Plan a complete summary of all regulated trees and vegetation within the proposed building area (area to be cleared) indicating the species of tree, the diameter at breast height (DBH) in caliper inches, the condition of the tree, and whether it is proposed to be kept in place, relocated, removed, or mitigated for the removal;
- (f) Methods of erosion control;
- (g) All required documents of these sections must be prepared by a biologist, landscape professional, arborist or other qualified professional approved by the City Biologist.

D. **Vegetation Physical Protection during Construction:**

1. **Undisturbed Area:** The boundary of the area to be protected shall be at least equal to the area of the drip line of the outermost tree or trees in the undisturbed area. All natural resource areas, especially hammocks, cactus barrens, and any wetlands that are outside of approved clearing areas shall be protected from construction impacts.
2. **Barrier Placement and Usage:**
 - (a) The required vegetation protection within 50 feet of any construction activity or area used for storage of construction materials shall be enclosed within a protective barrier to limit access to the protected area, prevent the compaction of soil and the destruction or damage of the trees.
 - (b) Prior to any construction activity, the installation of the barriers shall be approved by the City Biologist.
 - (c) The protective barriers shall not be relocated without the approval of the City Biologist.
 - (d) The protective barriers shall remain in place and intact until construction is completed.
3. **Barrier Construction:**
 - (a) The posts shall be wood posts a minimum of two (2) inches × four (4) inches, steel or galvanized posts a minimum of two (2) inches diameter, or other post material of equivalent size and strength.
 - (b) The posts shall be placed not more than 12 feet apart, and implanted deeply enough in the ground to be stable with at least three (3) feet of the post visible above the ground. A top rail shall be attached to all posts.
 - (c) The posts and top rail shall be linked together by a brightly colored net fence fabric.
 - (d) The barrier shall not be located in such a way as to cause harm to the protected vegetation.
 - (e) As an alternative to the above fencing details the City may require alternative fencing materials, such as chain-link fencing, on a case-by-case basis where additional protection is necessary due to intensity of construction activity, vulnerability of trees or native vegetation to be protected, or similar circumstance.
4. **Restrictions within the Undisturbed Areas:**

- (a) All construction activities shall be prohibited within the undisturbed area including all digging, trenching, construction lay-down areas, placement of hazardous materials, including fuels and solvents, placement of fill or soils, and parking of construction vehicles or employee vehicles.
 - (b) No attachments or wires other than those of a protective and nondamaging nature shall be attached to any tree.
 - (c) No grade changes shall be made within any undisturbed area without prior approval of the City Biologist. If a grade change is made and roots larger than one (1) inch in diameter are damaged or exposed, they shall be cut cleanly and recovered with soil and completed under the direct supervision of a certified arborist.
 - (d) Planting in undisturbed areas outside the approved clearing area, including natural resource conservation areas and required open space areas is strictly prohibited. Only in the case of enforcement action approved by the City Biologist in response to unauthorized clearing or vegetation damage in this area shall planting be allowed and then, only pursuant to a plan approved by the City Biologist.
5. *Repair of Damage:* Trees that have been destroyed or received major damage during construction shall be replaced prior to the issuance of the Certificate of Occupancy and in accordance with Table 106.11.1 "Tree Removal Mitigation Table".

Section 106.09. - Relocation, Replacement and Mitigation Required.

Relocation, replacement, or mitigation shall be required for the alteration of regulated trees as set forth below:

- A. A regulated tree may be relocated in a manner to ensure survivability if there is no reasonable alternative that allows incorporation of the tree into the parcel design, as determined by the project's landscape architect and approved by the City Biologist.
- B. The parcel owner shall provide irrigation, mulch, and other practical means to ensure survival of any relocated tree. If a relocated tree does not survive within a period of one (1) year, it shall be replaced with a native tree of similar size or by another mitigated method required by the City Biologist.
- C. If a regulated tree cannot be retained or relocated, the parcel owner shall install replacement plantings pursuant to Table 106.11.1 "Tree Removal Mitigation Table".
- D. If on-site planting is not feasible due to physical constraints such as limited space or unsuitable soils, off-site replacement may be allowed on public lands, within common areas, or native upland areas but with plantings approved and in quantity as designated by the City Biologist.
- E. Unless otherwise approved by the City Biologist, at least 65 percent of the trees planted as mitigation for the removal of regionally important plant species trees shall be the same species as the trees removed, provided that the mitigation tree is locally available.
- F. If suitable receiver sites (public lands, common areas) are not available at the time of mitigation, payment to the City Restoration Fund shall be made pursuant to Section 106.20 C.

Section 106.10. - Mitigation or Restoration.

- A. *Monitoring Time Frames:* Monitoring time frames shall be established for mitigation and replacement trees, as needed. Native trees that are planted, in excess of the requirements for landscaping within Article 8 of Chapter 107, may count toward mitigation requirements for tree replacement.
- B. *Size and Type of Replacements:* Replacement trees shall consist of native vegetation, indigenous to the area, and be Florida Grade No 1 or better in quality according to the current, most recent edition of "Grades and Standards for Nursery Plants," published by the Florida Department of Agriculture and Consumer Services, Article of Plant Industry.

Section 106.11. - Unauthorized Removal.

When regulated trees or vegetation are removed or damaged without a permit or when trees that were to be preserved in place or relocated are damaged or destroyed during activities conducted with a permit, they shall be replaced at double the rate identified in Table 106.11.1, below.

Table 106.11.1
Tree Removal Mitigation Table

Tree Type	Number of Replacement Trees (per regulated tree)
Native greater than 4 inches DBH	3
Listed species (any size)	3
Regionally important plant species (any size)	3

Section 106.12. - Tree Lists.

- A. **Regulated Tree List:** The list of trees identified in Tables 106.11.1 and 106.12.1 includes those native trees identified by the City to be of notable interest or high value for their species because of their age, size, condition, historic association or uniqueness. As part of the development review process, protection of these species through preservation or relocation will be determined on a tree-by-tree basis by the City Biologist.
- B. **Prohibited Invasive Exotic List:** In addition to the species identified in Table 106.12.2 includes species expressly prohibited in the Florida Keys, as recommended by the Florida Keys Invasive Exotics Task Force.

Table 106.12.1
Regulated Trees

Latin Name	Common Name	Latin Name	Common Name
Acacia farnesiana	Sweet acacia	Gymnathes lucida	Crabwood
Annona glabra	Pond apple, alligator apple	Hypelate trifoliata	White ironwood
Ardisia escallonioides	Marlberry, marbleberry		
Avicennia germinans	Black Mangrove		
Bourreria succulenta var. revoluta	Strongbark	Krugiodendron ferreum	Black ironwood

Bumelia spp.	Buckthorn, saffron plum, bumelia	Languncularia racemosa	White mangrove, white buttonwood
Bursera simaruba	Gumbo Limbo, tourist tree	Lysiloma latisilqua	Wild tamarind
Canella alba	Wild cinnamon	Metopium toxiferum	poisonwood
Chrysophyllum oliviforme	Satin leaf	Mastichodendron foetidissimum	Mastic
Citharexylum fruticosum	Fiddlewood	Myrcianthes fragrans	Twinberry
Clusia rosea	Pitch apple, autograph tree	Myrica cerifera	Wax myrtle
Coccoloba diversifolia	Pigeon Plum	Nectandra coracea	Lancewood
Coccoloba uvifera	Sea grape		
Coccothrinax argentata	Silver palm	Piscidia piscipula	Jamaican dogwood; fish-poison tree
Conocarpus erectus	Buttonwood	Prunus myrtifolia	West Indian cherry
Cordia sebestena	Geiger Tree	Psuedophoenix sargentii	Buccaneer palm, cherry palm
Dipholis salicifolia	Willow-leaved bustic		
Eugenia spp.	Stoppers	Reynosia sptentrionalis	Darling Plum
Exostema caribaeum	Princewood	Rhizophora mangle	Red mangrove
Ficus aurea	Strangler Fig	Thrinax radiata	Florida thatch palm
Ficus citrifolia	Shortleaf Fig	Sabal palmetto	Cabbage palmetto, sabal palm
Guaiacum sanctum	Lignum Vitae	Schaefferia frutescens	Florida boxwood

Guapira discolor	Bolly	Swietenia mahogani	Mahogany
Guettarda elliptica	Everglades velvetseed	Thrinax morrisii	Key Thatch Palm
Guettarda scabra	Rough velvetseed	Zanthoxylum fagara	Wild lime

** The list is by no means a complete inventory of the subtropical or tropical tree species that are native to South Florida or the Florida Keys. For a determination of what constitutes a regulated tree, contact the City Biologist.*

Table 106.12.2

Prohibited Invasive Exotic List

Latin Name	Common Name
Casuarinia equisetifolia	Australian Pine
Colubrina asiatica	Leather leaf, asiatic colubrina
Ficus microcarpa	Laurel fig
Neyraudia reynaudiana	Silk reed, cane grass, burma reed
Scaevola sericea	Beach naupaka
Schefflera actinophylla	Schefflera
Schinus terbinthifolius	Brazilian Pepper
Thespesia populnea	<i>Seaside Mahoe</i>

ARTICLE 3. - NATURAL PLANT AND WILDLIFE HABITAT

Select Year:

The 2021 Florida Statutes

[Title XI](#)

[Chapter 163](#)

[View Entire Chapter](#)

COUNTY ORGANIZATION AND INTERGOVERNMENTAL RELATIONS

INTERGOVERNMENTAL PROGRAMS

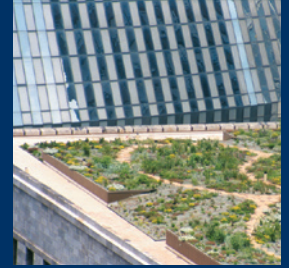
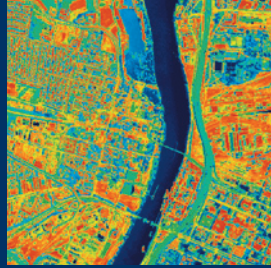
163.045 Tree pruning, trimming, or removal on residential property.—

(1) A local government may not require a notice, application, approval, permit, fee, or mitigation for the pruning, trimming, or removal of a tree on residential property if the property owner obtains documentation from an arborist certified by the International Society of Arboriculture or a Florida licensed landscape architect that the tree presents a danger to persons or property.

(2) A local government may not require a property owner to replant a tree that was pruned, trimmed, or removed in accordance with this section.

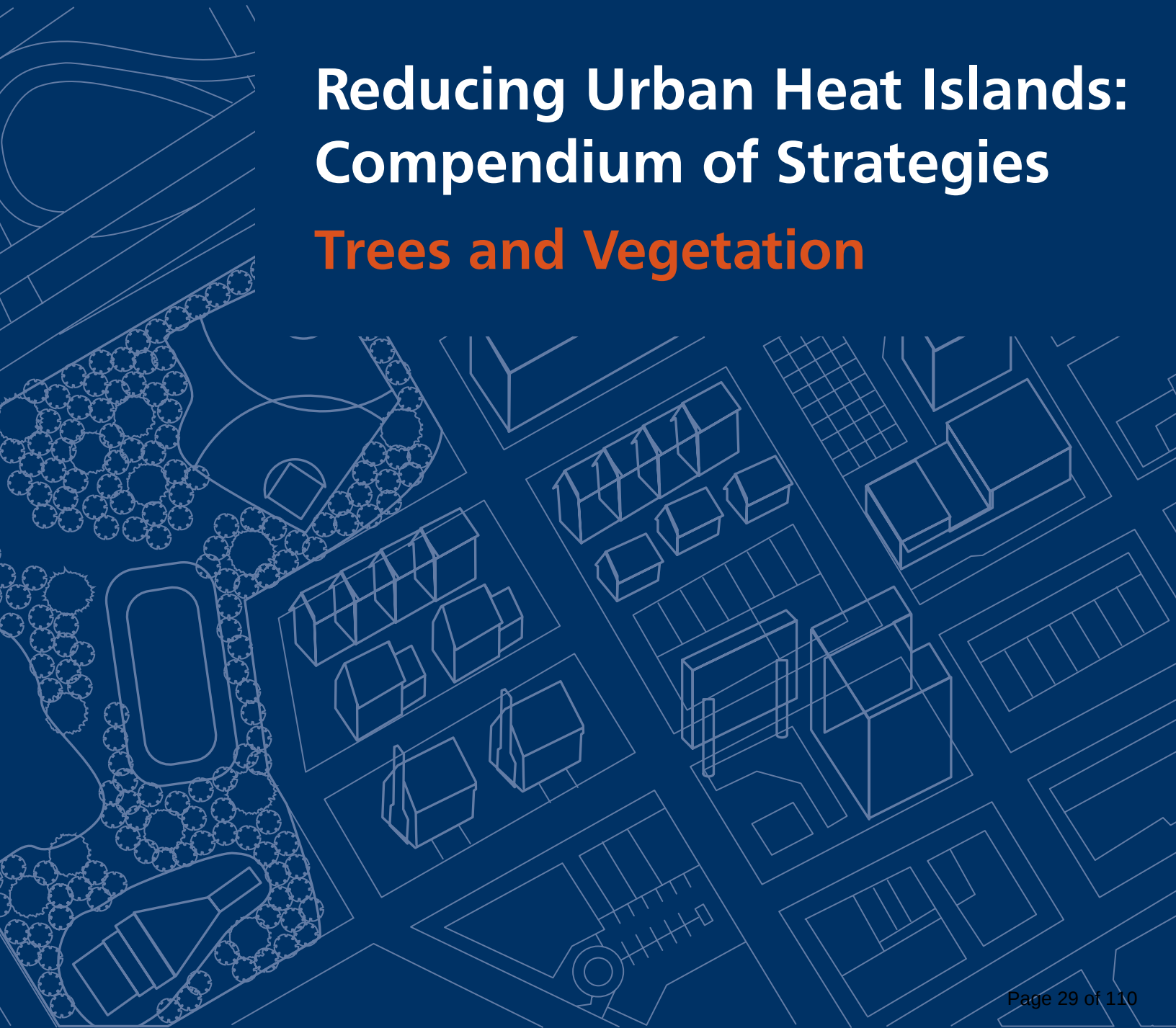
(3) This section does not apply to the exercise of specifically delegated authority for mangrove protection pursuant to ss. [403.9321-403.9333](#).

History.—s. 1, ch. 2019-155.



Reducing Urban Heat Islands: Compendium of Strategies

Trees and Vegetation



Acknowledgements

Reducing Urban Heat Islands: Compendium of Strategies describes the causes and impacts of summertime urban heat islands and promotes strategies for lowering temperatures in U.S. communities. This compendium was developed by the Climate Protection Partnership Division in the U.S. Environmental Protection Agency's Office of Atmospheric Programs. Eva Wong managed its overall development. Kathleen Hogan, Julie Rosenberg, and Andrea Denny provided editorial support. Numerous EPA staff in offices throughout the Agency contributed content and provided reviews. Subject area experts from other organizations around the United States and Canada also committed their time to provide technical feedback.

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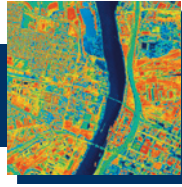
Experts who helped shape this chapter include:

Ryan Bell, David Cole, Ben DeAngelo, Lynn Desaultes, Ed Dickerhoff, Maury Estes, Gordon Heisler, David Hitchcock, Kim Klunich, Cheryl Kollin, Megan Lewis, Julie Magee, Greg McPherson, Dave Nowak, Philip Rodbell, Joyce Rosenthal, Misha Sarkovich, Kathy Wolf, Jim Yarbrough, and Barry Zalph.

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Contents

Trees and Vegetation	1
1. How It Works	2
2. Using Trees and Vegetation in the Urban Landscape	3
3. Benefits and Costs	5
3.1 Benefits	5
3.2 Potential Adverse Impacts.....	9
3.3 Costs	11
3.4 Benefit-Cost Considerations.....	11
4. Other Factors to Consider	12
4.1 Planting Considerations.....	12
4.2 Maintenance	14
4.3 Safety	15
5. Urban Forestry Initiatives	15
6. Resources	19
6.1 Plant Selection.....	19
6.2 Benefit-Cost and Other Tools	21
6.3 General Information	24
Endnotes.....	26



Trees and Vegetation

Shade trees and smaller plants such as shrubs, vines, grasses, and ground cover, help cool the urban environment. Yet, many U.S. communities have lost trees and green space as they have grown. This change is not inevitable. Many communities can take advantage of existing space, such as grassy or barren areas, to increase their vegetative cover and reap multiple benefits.

Opportunities to Expand the Use of Urban Trees and Vegetation

Most U.S. communities have opportunities to increase the use of trees and vegetation. As part of the U.S. Environmental Protection Agency's (EPA's) Urban Heat Island Pilot Project, the Lawrence Berkeley National Laboratory conducted analyses to estimate baseline land use and tree cover information for the pilot program cities.¹ Figure 1 shows the percentage of vegetated and barren land cover in four of these urban areas. The high percentage of grass and barren land cover show the space potentially available for additional tree canopy cover. The statistics do not show the loss of dense vegetated cover as cities expand, however. For example, a 2005 report estimates that Houston lost 10 million trees per year from 1992 to 2000.²

Figure 1: Land Cover Statistics for Various U.S. Cities (Above Tree Canopy)

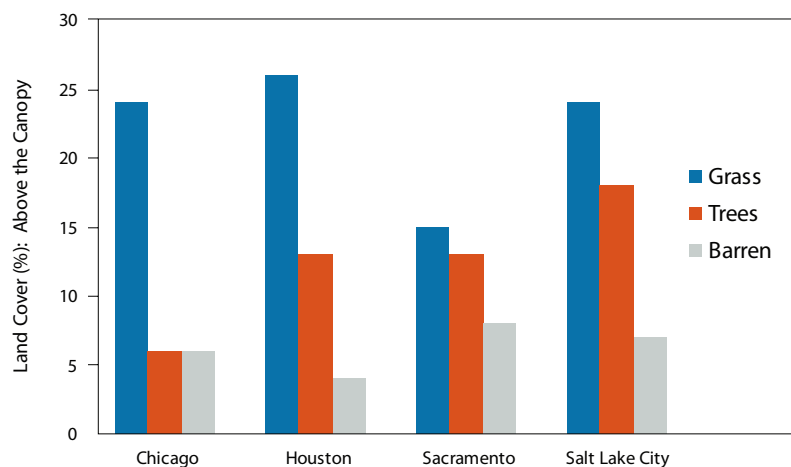


Figure 2: Vegetative Cover in New York City



New York City reveals how developed areas (gray and white in this image) can replace vegetation (green). Central Park is highlighted by the orange rectangle.

This chapter outlines some of the issues communities might consider in determining whether and how to expand the use of trees and vegetation so as to mitigate urban heat island conditions. Among the topics covered in this chapter are:

- How trees and vegetation reduce temperatures
- Some of the benefits and costs associated with trees and vegetation
- Other factors a mitigation program might consider
- Urban forestry initiatives
- Tools and resources for further information.

1. How It Works

Trees and vegetation help cool urban climates through shading and evapotranspiration.

Shading. Leaves and branches reduce the amount of solar radiation that reaches the area below the canopy of a tree or plant. The amount of sunlight transmitted through the canopy varies based on plant species. In the summertime, generally 10 to 30 percent of the sun's energy reaches the area below a tree, with the remainder being absorbed by leaves and used for photosynthesis, and some being reflected back into the atmosphere. In winter, the range of sunlight transmitted through a tree is much wider—10 to 80 percent—because evergreen and deciduous trees have different wintertime foliage, with deciduous trees losing their leaves and allowing more sunlight through.³

Figure 3: Trees Shade a Home



Tree canopies, such as the deciduous trees around this home in Virginia, can block much of the sunlight from reaching the ground or the building.

Shading reduces surface temperatures below the tree canopy. These cooler surfaces, in turn, reduce the heat transmitted into buildings and the atmosphere. For example, a multi-month study measured maximum surface temperature reductions ranging from 20 to 45°F (11-25°C) for walls and roofs at two buildings.⁴ Another study examined the effects of vines on wall temperatures and found reductions of up to 36°F (20°C).⁵ A third study found that tree shading reduces the temperatures inside parked cars by about 45°F (25°C).⁶

Evapotranspiration. Trees and vegetation absorb water through their roots and emit it through their leaves—this movement of water is called “transpiration.” A large oak tree, for example, can transpire 40,000 gallons of water per year; an acre of corn can transpire 3,000 to 4,000 gallons a day.⁷ Evaporation, the conversion of water from a liquid to a gas, also occurs from the soil around vegetation and from trees and vegetation as they intercept rainfall on leaves and other surfaces. Together, these

processes are referred to as evapotranspiration. Evapotranspiration cools the air by using heat from the air to evaporate water.

Evapotranspiration, alone or in combination with shading, can help reduce peak summer air temperatures. Various studies^{8,9} have measured the following reductions:

- Peak air temperatures in tree groves that are 9°F (5°C) cooler than over open terrain.
- Air temperatures over irrigated agricultural fields that are 6°F (3°C) cooler than air over bare ground.
- Suburban areas with mature trees that are 4 to 6°F (2 to 3°C) cooler than new suburbs without trees.
- Temperatures over grass sports fields that are 2 to 4°F (1 to 2°C) cooler than over bordering areas.

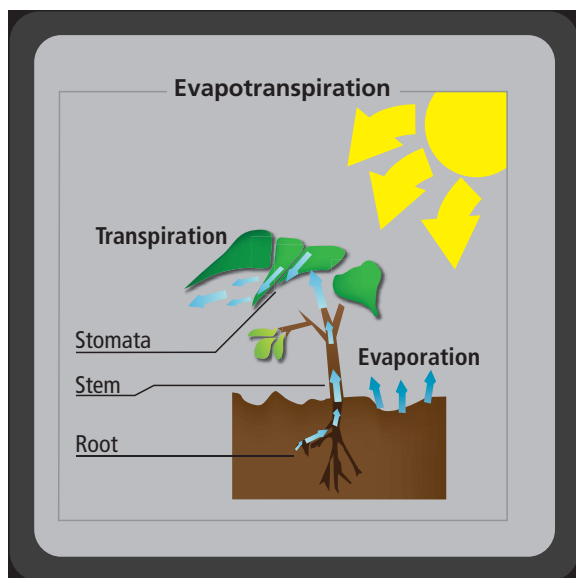
Trees and other large vegetation can also serve as windbreaks or wind shields to reduce the wind speed in the vicinity of buildings. In the summertime, the impacts can be positive and negative. In the wintertime, reducing wind speeds, particularly cold north winds, can provide substantial energy benefits.

2. Using Trees and Vegetation in the Urban Landscape

Trees and vegetation are most useful as a mitigation strategy when planted in strategic locations around buildings. Researchers have found that planting deciduous species to the west is typically most effective for cooling a building, especially if these trees shade windows and part of the building’s roof. Shading the east side of a structure also reduces air conditioning demand.^{10,11}

Planting trees to the south generally lowers summertime energy demand, but must be

Figure 4: Evapotranspiration



Plants take water from the ground through their roots and emit it through their leaves, a process known as transpiration. Water can also evaporate from tree surfaces, such as the stalk, or surrounding soil.

done carefully. Depending on the trees, the building's height, and the distance between the trees and a building, trees may be detrimental to an energy efficiency strategy if they block useful solar energy in the winter, when the sun is low in the sky, without providing much shade during the summer, when the sun is high in the sky.

Shading pavement in parking lots and on streets can be an effective way to help cool a community. Trees can be planted around perimeters and in medians inside parking lots or along the length of streets. Strategically placed shade trees also can benefit playgrounds, schoolyards, ball fields, and similar open spaces.

Trees are not the only vegetation option. There are many areas where trees either do not fit or grow too slowly to be effective over the short term, in which case vines may work better. Vines need less soil and

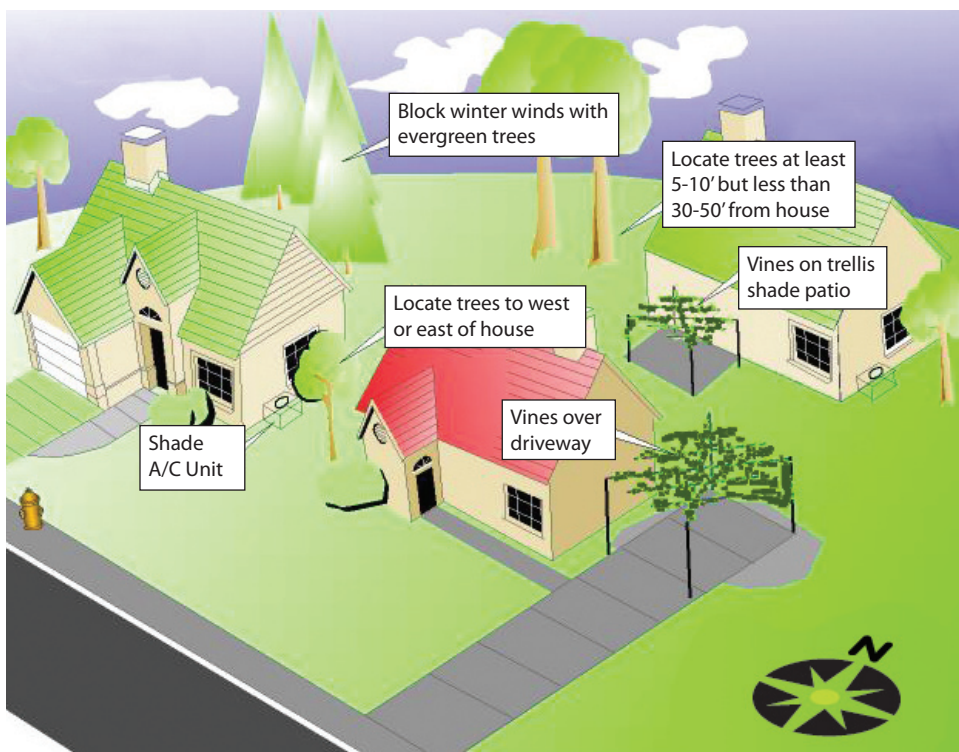
Figure 6: Vines to Shade a Wall



Vines grown on trellises can provide a quick, simple source of shade.

space and grow very quickly. Vines grown on the west side of a building, for example, will shade the exterior wall and reduce its surface temperature, thus reducing heat gain inside the building. The vines will provide some air cooling benefits through evapotranspiration as well.

Figure 5: Tree Placement to Maximize Energy Savings



Picking the right trees and putting them in the right location will maximize their ability to shade buildings and block winds throughout the year.

3. Benefits and Costs

The use of trees and vegetation in the urban environment brings many benefits, including lower energy use, reduced air pollution and greenhouse gas emissions, protection from harmful exposure to ultraviolet (UV) rays, decreased stormwater runoff, potential reduced pavement maintenance, and other quality-of-life benefits. At the same time, communities must also consider the costs of an urban forestry program and any potential negative impacts of increasing tree and vegetation cover. The following sections address these benefits and costs in more detail. Section 6 of this chapter summarizes software tools that calculate the range of potential benefits from urban tree and vegetation initiatives.

U.S. Department of Agriculture (USDA) Forest Service research centers offer links to publications about studies of trees and their benefits to urban areas. See <www.fs.fed.us/ne/syracuse/Pubs/pubs.htm> and <www.fs.fed.us/psw/programs/cufr/>.

3.1 Benefits

Reduced Energy Use. Trees and vegetation that provide direct shading reduce energy needed to cool buildings. Benefits vary based on the orientation and size of the plantings, as well as their distance from a building. Large trees planted close to the west side of a building will generally provide greater cooling energy savings than other plants.

The examples below from a variety of studies highlight cooling and year-round energy savings from trees and vegetation.

- Joint studies by the Lawrence Berkeley National Laboratory (LBNL) and the Sacramento Municipal Utility District (SMUD) placed varying numbers of trees around houses to shade windows and then measured the buildings' energy use.^{12,13} The cooling energy savings ranged between 7 and 47 percent and were greatest when trees were planted to the west and southwest of buildings.¹⁴
- A USDA Forest Service study investigated the energy savings resulting from SMUD's residential tree planting program. This study included over 250 program participants in the Sacramento, California, area, and estimated the effect of new shade trees planted around houses. An average of 3 new trees were planted within 10 feet (3 m) of each house.¹⁵ Annual cooling energy savings were 1 percent per tree, and annual heating energy use decreased by almost 2 percent per tree. The trees provided net wintertime benefits because the positive wind shielding effect outweighed the negative effect of added shade.
- Another LBNL study simulated the effects of trees on homes in various communities throughout the United States. Assuming one tree was planted to the west and another to the south of a house, the model predicted that a 20-percent tree canopy over the house would result in annual cooling savings of 8 to 18 percent and annual heating savings of 2 to 8 percent.¹⁶ Although this particular model included benefits from trees planted to the south of a building, experts generally suggest planting to the west and east of buildings, taking care when planting to the south to avoid blocking desired solar heat gain in the winter.¹⁷

Reduced Air Pollution and Greenhouse Gas Emissions. In addition to saving energy, the use of trees and vegetation as a mitigation strategy can provide air quality and greenhouse gas benefits:

- Leaves remove various pollutants from the air, referred to as “dry deposition”
- Shade trees reduce evaporative emissions from parked vehicles
- Trees and vegetation remove and store carbon
- Trees and vegetation reduce greenhouse gas emissions from power plants by reducing energy demand.

Researchers have investigated the potential for expanding urban tree and vegetative cover to address air quality concerns, such as ground-level ozone. One study predicted that increasing the urban canopy of New York City by 10 percent could lower ground-level ozone by about 3 percent, which is significant, particularly in places needing to decrease emissions to meet air quality standards for this pollutant.¹⁸

Pollutant Removal through Dry Deposition. Plants generally take up gaseous pollutants, primarily through leaf stomata, that then react with water inside the plant to form acids and other chemicals. Plants can also intercept particulate matter as wind currents blow particulates into contact with the plants’ surfaces. Some particulates are absorbed into the plant while others adhere to the surface, where they can be resuspended into the atmosphere by winds or washed off by rain to the soil beneath.¹⁹ These processes can reduce various pollutants found in the urban environment, including particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO₂), carbon monoxide (CO), and ground-level ozone (O₃).

Various studies have documented how urban trees can reduce pollutants. A 2006 study estimated total annual air pollutant removal by urban trees in the United States at 784,000 tons, with a value of \$3.8 billion.²⁰ The study focused only on deposition of ground-level ozone, PM less than 10 microns in diameter (PM₁₀), nitrogen dioxide (NO₂), SO₂, and CO. Although the estimated changes in local ambient air quality were modest, typically less than 1 percent, the study noted that additional benefits would be gained if urban temperature and energy impacts from trees and vegetation were also included.

Reduced Evaporative Emissions. Tree shade can keep parked cars—particularly their gas tanks—cooler, which lowers evaporative emissions of volatile organic compounds (VOCs), a critical precursor pollutant in the formation of ground-level ozone. Most large urban areas have a wide range of control programs to reduce these emissions, and tree shading programs can be part of those strategies. For example, one analysis predicted that light-duty vehicle evaporative VOC emission rates throughout Sacramento County could be reduced by 2 percent per day if the community increased the tree canopy over parking lots from 8 to 50 percent.²¹

Carbon Storage and Sequestration. As trees grow, they remove carbon from the atmosphere and store, or sequester, it. As trees die or deposit litter and debris on the ground, carbon is released to the atmosphere or transferred to the soil. The net effect of this carbon cycle is a substantial level of carbon storage in trees, vegetation, and soils.

The net rate of carbon sequestered by urban trees in the continental United States in 2005 is estimated to have been around 24 million tons per year (88.5 million tons

Plants and Carbon: Storage versus Sequestration

Storage: Carbon currently held in plant tissue (tree bole, branches, and roots).

Sequestration: The estimated amount of carbon removed annually by plants, through the process of photosynthesis.

CO₂eq)²², while current total carbon storage in urban trees in the continental United States is approximately 700 million tons of carbon. The national average urban forest carbon storage density is just over 25 tons per hectare (100,000 square feet, or 9,300 m²), but varies widely from one community to another and corresponds generally to the percentage of land with tree cover and to tree size and health.²³ The California Air Resources Board recently approved guidelines that will allow carbon sequestered from forests to help meet the carbon emissions reductions stipulated by California's law AB32.²⁴

Reduction in Greenhouse Gas Emissions through Reduced Energy Demand.

As noted above, trees and vegetation can decrease energy demand. To the extent that reduced energy consumption decreases fossil fuel burning in power plants, trees and vegetation also contribute to lower carbon emissions from those power plants. One modeling study estimated that the direct energy savings from shading alone by trees and vegetation could reduce carbon emissions in various U.S. metropolitan areas by roughly 1.5 to 5 percent.²⁵ The study assumed that eight shade trees would be

placed strategically around residential and office buildings and four around retail stores. As urban forests also contribute to air temperature reductions, the study found that there would be additional reductions in energy use and carbon emissions from those indirect effects as well.

Full Life-cycle Carbon Reductions. In order to investigate the full life-cycle impact of urban trees on annual CO₂ emissions, researchers consider:

- Annual CO₂ carbon sequestration rates
- Annual CO₂ releases from decomposition
- Annual CO₂ releases from maintenance activities
- Annual CO₂ avoided emissions because of reduced energy use.

By combining these four variables, researchers can estimate the net CO₂ reductions from urban forest resources for a specific community and calculate the associated net monetary benefits. A 2006 field study found that about 15,000 inventoried street trees in Charleston, South Carolina, were responsible for an annual net reduction of over 1,500 tons of CO₂. These benefits were worth about \$1.50 per tree, based on average carbon credit prices.²⁶

Improved Human Health. By reducing air pollution, trees and vegetation lower the negative health consequences of poor air quality. Also, similar to the benefits of cool roofs discussed in the "Cool Roof" chapter, shade trees can reduce heat gain in buildings, which can help lower indoor air temperatures and minimize the health impacts from summertime heat waves.

A third health benefit from trees and vegetation involves reducing direct exposure to UV rays. The sun's UV rays can have adverse health effects on the skin and eyes.

High levels of long-term exposure to UV rays are linked to skin cancer. The shade provided by dense tree canopies can help to lower UV exposure, although this should not be considered a primary preventive measure (see text box below).^{27,28}

Enhanced Stormwater Management and Water Quality. Urban forests, vegetation, and soils can reduce stormwater runoff and adverse impacts to water resources. Trees and vegetation intercept rainfall, and the exposed soils associated with plants absorb water that will be returned to ground water systems or used by plants.

Rainfall interception works best during small rain events, which account for most precipitation. With large rainfalls that continue beyond a certain threshold, vegetation begins to lose its ability to intercept water. Stormwater retention further varies by the extent and nature of a community's urban forest. During the summer, with trees in full leaf, evergreens and conifers in

Sacramento were found to intercept over 35 percent of the rainfall that hit them.²⁹

Reduced Pavement Maintenance Costs. Tree shade can reduce the deterioration of street pavement. One field study compared pavement condition data based on different amounts of tree shade.³⁰ The study found that slurry resurfacing costs on a residential street could be reduced by approximately 15 to 60 percent, depending on the type of shade trees used. Although the specific costs and benefits will vary based on local conditions and paving practices, the study suggests that pavement maintenance benefits are another area to consider in evaluating the potential benefits of a street shade tree program.

Enhanced Quality of Life. Trees and vegetation can provide a range of quality-of-life benefits. Adding trees and vegetation to urban parks, streets, parking lots, or roofs can provide a habitat for birds, insects, and other living things. A well-placed row of

Reducing Exposure to UV Radiation

EPA's SunWise program <www.epa.gov/sunwise> promotes a variety of actions people can take to reduce exposure to harmful UV radiation; seeking shade is just one of them. To reduce the risk of skin cancer, cataracts, and other health effects, the program recommends:

- Wearing a hat with a wide brim
- Wearing sunglasses that block 99 to 100 percent of UV radiation
- Always using sunscreen of SPF 15 or higher
- Covering up with long-sleeve, tightly woven clothing
- Watching for the UV Index to help plan outdoor activities when UV intensity is lowest
- Avoiding sunlamps and tanning salons
- Limiting time in the midday sun (from 10:00 a.m. to 4:00 p.m.)
- Seeking shade whenever possible.

Trees and Property Value Benefits

Many studies show that trees and other vegetative landscaping can increase property values. For example, shopping centers with landscaping can be more prosperous than those without, because shoppers may linger longer and purchase more.^{36,37,38,39} Other studies have found general increases of about 3 to 10 percent in residential property values associated with the presence of trees and vegetation on a property.⁴⁰ The specific impacts on residential property values vary widely based on the property, the buyer's socioeconomic status, and other factors.

STRATUM, a USDA Forest Service tool that uses tree inventory data to evaluate the benefits and costs of street and park trees, assumes an increase in residential property values from tree planting measures. For an example, see the discussion on net benefits and Figure 9 later in this chapter, which summarize data from a study that used the STRATUM tool.⁴¹ In areas with high median residential sales prices, these are often among the largest single category of benefits for a community.

trees and shrubs can reduce urban noise by 3 to 5 decibels, while wide, dense belts of mature trees can reduce noise by twice that amount, which would be comparable to noise reduction from effective highway barriers.³¹ Urban trees and vegetation have been linked to reduced crime,³² increased property values,³³ and other psychological and social benefits that help decrease stress and aggressive behavior.^{34,35}

3.2 Potential Adverse Impacts

Before undertaking an urban forestry program, it is important to know which types of trees are likely to be most beneficial and to avoid those that could cause other problems. Evapotranspiration not only cools the air but also adds moisture to it, raising humidity levels. This increase may be problematic in already humid climates. However, there is little research on the human health and comfort trade-off between temperature reductions and humidity increases in different climates.

Although beneficial in limiting ground-level ozone production by lowering air temperature and filtering ground-level ozone and precursor pollutants from the air, trees and other plants also emit VOCs. These emissions are referred to as biogenic emissions. The biogenic emissions from urban vegetation might counteract some of the air quality benefits from trees. Biogenic VOC emission rates, however, are in part dependent on temperature. Thus, to the extent that the increased use of trees and vegetation contributes to reduced temperatures, the overall biogenic VOC emissions in an urban area might still be reduced.⁴²

Biogenic VOC emissions are affected by sunlight, temperature, and humidity. The emission rates of different tree species vary tremendously; even trees in the same

For more information on the **ozone-forming potential (OFP) of various trees**, see <www.fraqmd.org/Biogenics.htm>.

family and genus show wide variation in VOC emissions.^{43,44} Researchers calculate an ozone-forming potential (OFP) value to rate the potential effect a tree species can have on ground-level ozone formation in a given environment. To minimize the contribution to ground-level ozone, a mitigation program can consider low-OFP

species. Table 1 provides example OFP ranges for common tree species in the Los Angeles area. Communities can check with USDA Forest Service staff in their region to determine if there are additional resources to help select low-OFP tree species for a particular area and climate (see Table 5 for links to regional Forest Service web sites).

Figure 7: The Ozone-Forming Potential of Trees



Susan McDougal/USDA NRCS PLANTS database

Red maple, on the left, has a low ozone-forming potential, whereas Oregon scrub oak, above, has a high potential. Communities that want to plant trees may consider biogenic emissions as well as other properties of trees, such as their ability to survive in urban conditions.

Table 1: Examples of VOC Emissions from Trees in the Los Angeles Climate ⁴⁵

Common Name	Genus and Species	Ozone-Forming Potential		
		L	M	H
Oaks				
White Oak	<i>Quercus alba</i>		✓	
Oregon White Oak	<i>Quercus garryana</i>			✓
Scrub Oak	<i>Quercus laevis</i>		✓	
Valley Oak	<i>Quercus lobata</i>		✓	
Pines				
Sand Pine	<i>Pinus clausa</i>			✓
Red Pine	<i>Pinus densiflora</i>	✓		
Longleaf Pine	<i>Pinus palustris</i>		✓	
Maples				
Red Maple	<i>Acer rubrum</i>	✓		
Silver Maple	<i>Acer floridanum</i>	✓		
Citrus				
Lisbon Lemon	<i>Citrus limon</i>		✓	
Meyer Lemon	<i>Citrus limon</i> 'Meyer'	✓		
Valencia Orange	<i>Citrus sinensis</i> 'Valencia'	✓		

Other potential adverse effects include increased water demand, additional solid wastes from pruning and tree removal, and possible damage to sidewalks, power lines, and other infrastructure from roots or falling branches.

3.3 Costs

The primary costs associated with planting and maintaining trees or other vegetation include purchasing materials, initial planting, and ongoing maintenance such as pruning, pest and disease control, and irrigation. Other costs include program administration, lawsuits and liability, root damage, and tree stump removal. However, as the following section indicates, the benefits of urban trees almost always outweigh these costs.

3.4 Benefit-Cost Considerations

To help communities determine the value of investments in urban trees and vegetation, groups have developed tools to quantify the value of trees (see Section 6). These tools factor in the full range of urban forest benefits and costs, such as energy savings in buildings, air quality improvements, stormwater retention, property value increases, and the value of mulch or hardwood recovered during tree pruning and removal. Some tools also track greenhouse gas emissions or CO₂ reduction. The tools weigh these benefits against the costs of planting, pruning, watering, and other maintenance throughout a tree's life.

In calculating benefits, it is important to note that trees grow slowly, so it may take as long as five years for some benefits from trees, such as energy savings, to take effect. After 15 years, an average tree usually has matured enough to provide the full range of benefits.⁴⁶

Although the benefits can vary considerably by community and tree species, they

Figure 8: Tree-Stump Removal



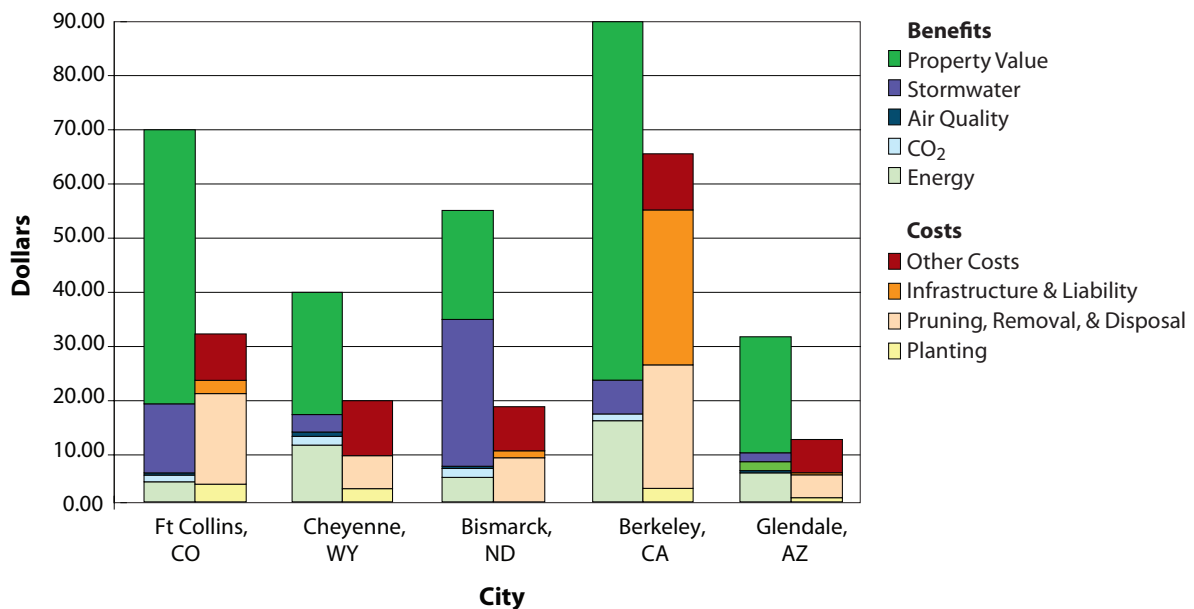
Tree programs will incur certain costs, such as tree removal.

almost always outweigh the expense of planting and maintaining trees. For example, one five-city study found that, on a per tree basis, cities accrued benefits ranging from roughly \$1.50 to \$3.00 for every dollar invested. These cities spent about \$15-65 annually per tree, with net benefits ranging from approximately \$30-90 per tree. In all five cities, the benefits outweighed the costs, as shown in Figure 9.⁴⁷ Figure 9 also compares how the categories of annual costs and benefits associated with trees varied between these cities.

Studies in California also have shown net annual benefits ranging from zero to about \$85 per tree.^{48,49,50} A community can develop similar analyses for its mitigation program. Places as diverse as Florence, Alabama;⁵¹ Cedar Rapids, Iowa;⁵² Portland, Oregon;⁵³ and Hyattsville, Maryland,⁵⁴ have all quantified the net benefits of their trees. See Section 6 for more resources on existing studies and tools that can aid this type of assessment.

For a simple, [online tree benefit calculator](http://usage.smud.org/treebenefit/), see <<http://usage.smud.org/treebenefit/>>.

Figure 9: Total Annual Benefits versus Costs (Per Tree)



Net benefits were positive for all five cities, ranging from \$21 per tree in Cheyenne to \$38 per tree in Ft. Collins. Blue and green categories indicate benefits; red, orange, and yellow indicate costs.

4. Other Factors to Consider

4.1 Planting Considerations

Buildings

To reduce temperatures and cooling energy needs, trees planted for summer shade should shelter western and eastern windows and walls and have branches high enough to maintain views or breezes around the windows. Trees in these locations block the sun when it is at its lowest angle: in the morning and afternoon. Planting trees at least 5 to 10 feet (1.5 to 3 m) away from the building allows room for growth, but shade trees should be no more than 30 to 50 feet (9 to 15 m) away. A building with deciduous trees for summer shade will also allow for winter heat gain to the building, especially if branches are pruned to maximize sun exposure.

It might also be beneficial to shade air conditioner condenser units and other building cooling equipment with trees, vines, or shrubbery, as these units work less efficiently when hot. It is important to follow manufacturer

guidelines for ensuring adequate space to allow for proper air flow around the equipment.

In an urban setting, neighboring buildings, driveways, fences, and other features can make it difficult to follow these guidelines for planting trees. The following are the best use of trees and vegetation:

- Optimize the shade coverage from trees planted in less favorable locations by pruning tree branches to a height that blocks the summer sun, yet lets the winter sun through.
- Use bushes, shrubs, or vines to shade windows and walls in places where

For overall energy efficiency, some communities might promote the use of **evergreens** to block winter winds and **reduce heating needs**. A row of evergreens might be planted perpendicular to the main wind direction, usually to the north or northwest of a home.

Figure 10: View of a Shaded Street



Placing trees next to the curb positions them well to shade the street, sidewalk, and any automobiles parked along the road.

trees will not fit. Shrubs and bushes can shade windows or walls without growing too large or tall. Vines grow very quickly on vertical or overhead trellises and can be used in places with little available space or soil.

- Consider a green or garden roof in addition to landscaping around a building (see the “Green Roofs” chapter).

Paved Surfaces

Trees and large shrubbery also can shade pavements to reduce their surface temperatures. Planting trees at regular intervals of 20 to 40 feet (6 to 12 meters) along both sides of a street (see Figure 10), as well as along medians is a common way to provide valuable shading.

Trees can also shade the perimeter and interior space of parking lots. Although end islands are often used for planting trees within parking lots,⁵⁵ planting strips that run the length of a parking bay can provide greater lot shading (see Figure 11). Some communities have ordinances that require a certain percentage of tree shade in parking lots. For example, Davis, California, and Sacramento each require 50 percent of the parking area to be shaded within 15 years after the lot is constructed.^{56,57}

Permeable grass pavers can also provide some of the heat reduction benefits of larger plantings without taking up space. Grass pavers can replace traditional pavements in low-traffic parking areas, pedestrian walkways, driveways, patios, fire lanes, and other paved areas that are seldom used for vehicular traffic. Pavers are usually prefabricated lattice structures made of concrete, plastic, or metal that are specifically designed to let water drain to the soil below while they support pedestrians and light traffic loads. The openings in the lattice blocks are filled with soil and planted with grass or ground cover, or topped with gravel or sand. See the “Cool Pavements” chapter for further discussion of alternative paving options.

Playgrounds, schoolyards, and sports fields are open spaces that often offer opportunities for increasing urban tree and vegetation coverage. In addition to their cooling benefits, trees in these areas can provide increased shade to protect people, especially children, from the sun’s UV rays. Shade trees are most beneficial in specific locations where people are likely to congregate, such as around team seating, spectator stands, jungle gyms, sandboxes, swings, and picnic tables. Because trees can take some time to mature, a project sponsor may wish to consider a quicker alternative, such as fast growing bushes or

Figure 11: Shaded Parking Lot



Shading in parking lot medians can provide extensive shading coverage.

Communities can consider the use of hardy, native trees and plants in **selecting landscaping options**. See <www.epa.gov/glnpo/greenacres> for further information.

vines on trellises over seating and other areas, either in place of trees or as a first phase of adding shade vegetation.

4.2 Maintenance

Education, skill, and commitment are necessary for planting and maintaining an aesthetically, environmentally, and structurally effective urban landscape. By adhering to good landscape design and maintenance practices, many common problems may be avoided. Local cooperative extension offices can provide additional information on soil conditions and other important considerations. Also, local planting guides are often available from urban forestry agencies, utility companies, arboricultural organizations, and plant nurseries. The following are steps to consider when maintaining trees in an urban area,^{58,59} helping vegetation grow faster and live a longer, healthier, and more productive life.

- *Choose the right plants.* Because trees and vegetation that are hardy enough to survive in a specific climate require little maintenance, communities might want to start by considering native species. Other characteristics to consider include:
 - The vegetation’s projected height and canopy spread
 - Size and growth habits of the roots
 - The plant’s sun, soil, water, and temperature requirements
 - The types of leaves, berries, and flowers it produces
- Allergens and biogenic emissions that can contribute to ground-level ozone formation.
- *Avoid maintenance problems.* Communities will want to avoid interference with utilities, sidewalks, and other infrastructure when planting trees to avoid future maintenance problems. Another important consideration is that trees must have adequate soil and access to water.
- *Make arrangements for regular care.* Especially in the early years after initial planting, trees require regular maintenance to survive. Maintenance requirements and costs generally decline after a tree becomes established.

Local nonprofit tree organizations, cooperative extension offices, urban foresters and arborists, garden clubs, landscape architects, landscaping contractors, and other groups can provide detailed information about the best trees for a specific community’s climate, along with advice about planting and maintaining them. See Section 6 for a list of plant selection resources.

Figure 12: Regular Tree Care



J. David Mattox/City of Manhattan, Kansas

Proper pruning and other regular care will help trees last longer and provide greater benefits to the community.

4.3 Safety

The use of trees and vegetation around buildings can increase fire risks. Communities, especially those in fire prone areas, can find information on tree selection and placement that minimizes those risks:

- The National Interagency Fire Center offers suggestions for tree placement and landscape maintenance to avoid losses to wildland fires. See <www.nifc.gov/preved/index.html>.
- The USDA Forest Service helps homeowners determine and minimize fire risk from landscaping via an interactive, graphical tool. See <www.ecosmart.gov/firewise>.

Project sponsors can also check with local fire departments or street tree agencies to evaluate and minimize fire risks for a specific tree and vegetation initiative.

5. Urban Forestry Initiatives

Communities can use various mechanisms to increase their vegetative cover. These efforts include forming public-private partnerships to encourage voluntary action in the private sector to enacting ordinances. As discussed in the chapter “Heat Island Reduction Activities,” communities already have developed a wide range of voluntary and policy approaches for using urban trees and vegetation. For public-sector projects, local governments and organizations have undertaken efforts to expand the use of trees and vegetation in public spaces and adopted minimum landscaping policies for public buildings. Tree planting programs, used throughout many communities, often involve collaboration with non-profit groups and electric utilities. Some states fund urban forestry program initiatives dedicated to addressing urban heat islands and other community concerns.

Figure 13: Urban Forestry Surveys and Plantings



USDA Center for Urban Forest Research

Urban forestry initiatives can take multiple forms, such as creating an inventory of existing trees or planting additional ones.

In addition, communities have enacted various ordinances to foster the urban forest, including those focused on:

- Tree protection
- Street trees
- Parking lot shade
- General landscaping.

The “Heat Island Reduction Activities” chapter provides a detailed description of these initiatives. Table 2 briefly summarizes them.

Table 2: Examples of Urban Forestry Initiatives

Type of Initiative	Description	Links to Examples
Research	USDA Forest Service programs	<www.fs.fed.us/research/> - USDA Forest Service operates research centers throughout the United States, including the Pacific Southwest Research Station, which specializes in urban forestry. USDA also collaborates with states and universities; for example, the Northeast Center for Urban and Community Forestry involves the Forest Service, the University of Massachusetts, and seven states.
	University programs	<www.cfr.washington.edu/research.envmind/index.html> - The University of Washington College of Forest Resources supports Human Dimensions of Urban Forestry and Urban Greening, a research program that focuses on the interaction of vegetation and humans in cities.
		<www.lhhl.uiuc.edu/> - A similar program at the University of Illinois, Landscape and Human Health Laboratory, studies the connections between greenery and human health and behavior.
Voluntary efforts	Demonstration projects	<www.arborday.org/takeaction/homedepot2007/> - Beginning in 2006, the Home Depot Foundation and the National Arbor Day Foundation partnered together to plant 1,000 trees in 10 cities across the country over a three-year period. This demonstration project is designed to increase awareness of the importance of urban trees and to create healthier communities in urban areas.
	Incentive programs	<www.ladwp.com/ladwp/cms/ladwp000744.jsp> - Trees for a Green LA provides Los Angeles residents with free shade trees if they participate in a tree planting and maintenance workshop and submit a program application that includes a site plan.
		<www.ci.seattle.wa.us/neighborhoods/nmf/treefund.htm> - The Tree Fund, a component of the Neighborhood Matching Fund, provides trees to neighborhood groups in Seattle to enhance the city's urban forest. The city government provides the trees, and neighbors share the work of planting and caring for them.
	Urban forestry programs	<www.treevitalize.net/> - TreeVitalize is a public-private partnership that uses regional collaboration to address the loss of tree cover in the five-county Southeastern Pennsylvania region. Goals include planting 20,000 shade trees; restoring 1,000 acres of forests along streams and water protection areas; and training 2,000 citizens to plant and care for trees.
		<www.groundworkelizabeth.com/> - Groundwork Elizabeth is a non-profit corporation created to "foster sustainable community regeneration" in Elizabeth, New Jersey. It is an outgrowth of a program developed by the National Park Service called Groundwork USA.
Voluntary efforts	Urban forestry	<www.milliontreesla.org> - Million TreesLA is a cooperative effort among the City of Los Angeles, community groups, businesses, and individuals working together to plant and provide long-term stewardship of 1 million trees.

Table 2: Examples of Urban Forestry Initiatives (continued)

Type of Initiative	Description	Links to Examples
	Outreach & education	www.epa.gov/heatisland/ - EPA's Heat Island Reduction Initiative provides information on the temperature, energy, and air quality impacts from urban forestry and other heat island mitigation strategies.
		http://cfpub.epa.gov/npdes/home.cfm?program_id=298 - EPA's Office of Water highlights design options, including trees and vegetation that reduce stormwater runoff and water pollution.
		www.treeutah.org/ - TreeUtah is a statewide, volunteer driven, non-profit organization dedicated to tree planting and education. Since 1989, TreeUtah has worked with over 100,000 volunteers to plant over 300,000 trees throughout Utah, providing training workshops for adults and teens, education for elementary students, service learning opportunities through the University of Utah, and alternative spring break for college students to plant trees in urban neighborhoods.
		www.ladwp.com/ladwp/cms/ladwp001087.jsp - The Los Angeles Cool Schools Program provides students with an educational curriculum about trees and the environment, in addition to planting trees around schools.
Policy efforts	Resolutions	www.ci.annapolis.md.us/upload/images/government/council/Adopted/R3806.pdf - The Annapolis, Maryland, City Council established an Energy Efficiency Task Force in 2005 to make recommendations on how the city could reduce energy costs, energy consumption, and its reliance upon foreign petroleum. One of the Task Force's recommendations was to increase the urban tree canopy to 50 percent of the city's land area by 2036. The recommendations were approved by the City Council in 2006.
		www.ci.austin.tx.us/trees/res_985.htm - The Austin, Texas, City Council adopted a resolution in 2001, acknowledging the urban heat island and available mitigation efforts. The resolution called on the City Manager to evaluate the fiscal impact and cost benefits of recommendations made by the City's Heat Island Working Group.

Table 2: Examples of Urban Forestry Initiatives (continued)

Type of Initiative	Description	Links to Examples
	Tree & landscape ordinances	www.cityofsacramento.org/parksandrecreation/urbanforest/ordinance.htm - Sacramento, California, has a performance-based parking lot shading ordinance with detailed design and maintenance guidelines to help owners with compliance.
		www.ci.austin.tx.us/trees/programs.htm - Austin's tree preservation ordinance specifies that new development projects are evaluated on a case by case basis to ensure tree preservation and planting of high quality native and adapted trees.
Policy efforts	State Implementation Plans (SIPs)	www.treescleanair.org - This web site, sponsored by the USDA Forest Service, evaluates options for including urban forest initiatives in a SIP, a federally-enforceable air quality management plan.
		www.houstonregionalforest.org/Events/SIPTreeWorkingSession - This link provides materials available from a working session on issues and ideas about incorporating urban forest initiatives into a SIP.
		www.fs.fed.us/ne/syracuse/Emerging%20Measures%20Summary.pdf - This paper provides a brief summary of relevant EPA SIP guidance and details actions to help facilitate the inclusion of urban tree canopy increases within SIPs to meet clean air standards.
		www.fs.fed.us/psw/programs/cufr/products/cufr_668_SacAirQualityInit6-21-06.pdf - This link profiles the Sacramento, California, area project that is evaluating tree planting as a SIP reduction strategy for ground-level ozone.

6. Resources

6.1 Plant Selection

One of the key factors in a successful tree or vegetation mitigation project is choosing the right plants. Various web-based plant selection guides are available, including those listed in Table 3. For local information on tree selection, communities can contact tree planting organizations, community arborists, horticultural organizations, or landscape design consultants. Also, the land development codes and guidelines in many communities include lists of recommended and prohibited species, along with guidance on planting methods and site selection.

Figure 14: Green Walls



In places where it may be difficult to plant more vegetation, green roofs and green walls, such as this one on a store in Huntsville, Alabama, offer an alternative. See the “Green Roofs” chapter.

Table 3: Web-Based Plant Selection Guides*

Name	Description	Web Link
General Information		
International Society of Arboriculture Tree Selection	Overview of variables to consider, including tree function, form, size, and site conditions.	< www.treesaregood.com/treecare/tree_selection.aspx >
Databases		
Tree Guide Advanced Search	Database of trees that can be searched by variables including sun exposure, hardiness zone, tree shape, and height.	< www.arborday.org/trees/treeguide/advancedsearch.cfm >
PLANTS Database	Database of information about U.S. plants, with an advance search by name, location, and environmental variables, such as soil type, fire tolerance, and flower color.	< http://plants.usda.gov >
SelecTree for California	Database of California trees that can be searched by name or environmental variable.	< http://selecttree.calpoly.edu/ >
Lists of Recommended Trees		
Tree Link	List of recommended trees by USDA hardiness zone; links to regional tree information.	< www.treelink.org/docs/zonemap.phtml >; < www.treelink.org/linx/?navSubCatRef=20 >
Recommended Urban Trees	Description of recommended urban trees for USDA hardiness zones 1-6, listed by tree size and planting conditions.	< www.hort.cornell.edu/uhi/outreach/recurbtree >
Cleaner Air, Tree by Tree: A Best Management Practices and Guide for Urban Trees in Southern Nevada	Handbook for cultivating recommended trees to mitigate urban heat islands in southern Nevada.	< www.forestry.nv.gov/docs/shades%20green_bmp_guide07.pdf >
Tree Selection Guide for South Carolina	List of trees recommended for South Carolina and tips on what to consider when selecting trees.	< www.state.sc.us/forest/refsel.htm >

* For information on the ozone-forming potential of various trees, see the list in *Estimating the Ozone-forming Potential of Urban Trees and Shrubs*.⁶⁰

6.2 Benefit-Cost and Other Tools

Mitigation programs can use existing research and tools to conduct benefit-cost analyses for urban forest projects. Some of these resources include:

Table 4: Urban Forestry Tools and Resources

Name	Description	Web Link
Tree Inventory, Benefit, and Cost Resources		
<i>i</i> -TREE software suite	Developed by the USDA Forest Service, the <i>i</i> -TREE software suite is available free-of-charge on CD-ROM by request. The software suite uses data gathered by the community to provide an understanding of urban forest structure, information on management concerns, cost-benefit information, and storm damage assessment. The software allows for analyses of a single street tree, a neighborhood, or an entire urban forest. <i>i</i> -Tree combines STRATUM and UFOREthe Mobile Community Tree Inventory (MCTI) (see below).	www.itreetools.org/index.shtm
Street Tree Resource Analysis Tool for Urban forest Managers (STRATUM)	STRATUM is a USDA Forest Service tool that uses tree inventory data to evaluate the benefits and costs of street and park trees and estimate management needs.	www.itreetools.org/street_trees/introduction_step1.shtm
Urban Forest Effects (UFORE)	UFORE is a USDA Forest Service tool that uses tree inventory data to model and quantify urban forest structure (e.g., species composition, tree density, tree health, leaf area, leaf and tree biomass, species diversity), environmental effects, and value to communities.	www.ufore.org
The Mobile Community Tree Inventory (MCTI)	MCTI is a USDA Forest Service tree inventory tool that can be customized to individual communities. Data can be collected either by paper tally sheet, or the Tree Inventory PDA Utility, which simplifies data input. Data collected can then be used with the STRATUM or UFORE applications.	www.itreetools.org/applications/mcti.shtm
ecoSmart	The Center for Urban Forest Research publishes a web-based software program designed to evaluate the economic trade-offs between different landscape practices on residential parcels. The program estimates the environmental and cost impacts of strategic tree placement, rainfall management, and fire prevention practices.	www.ecosmart.gov/

Table 4: Urban Forestry Tools and Resources (continued)

Name	Description	Web Link
Tree Inventory, Benefit, and Cost Resources (continued)		
Municipal Forest Resource Analysis	The Center for Urban Forest Research publishes a series of reports on benefits and costs of tree programs in various U.S. regions and communities.	< www.fs.fed.us/psw/programs/cufr/products.shtml > See "Tree Guides" and "Municipal Forest Resource Analysis."
Urban Forestry Index (UFind)	Database of current and historic urban forestry and arboriculture publications and other media compiled by the USDA Forest Service, the University of Minnesota, and TreeLink with the goal of increasing access to urban forestry material and preventing duplication of products.	< www.urbanforestryindex.com/ >
A Practical Approach to Assessing Structure, Function, and Value of Street Tree Populations in Small Communities	This 14-page report gives step-by-step instructions for estimating benefits and costs of trees in a specific community, using Davis, California as a case study.	< www.fs.fed.us/psw/programs/cufr/products/cufr_128.pdf >
The Community and Urban Forest Inventory and Management Program (CUFIM)	Produced by the Urban Forest Ecosystems Institute of California Polytechnic State University, the Community and Urban Forest Inventory and Management Program (CUFIM) is a free Microsoft Excel-based program that helps to inventory urban trees and estimate an economic value of wood recovery.	User guide: < www.ufe.org/files/ufeipubs/CUFIM_Report.pdf > Program files: < www.ufe.org/files/ufeipubs/CUFIM.zip >
CITYgreen	American Forests developed CITYgreen, a graphical information system application based on the UFORE model that is available for purchase. The software calculates ecologic and economic benefits from urban trees, including energy savings, air quality, stormwater improvements, water quality, and carbon storage and sequestration. CITYgreen also models changes in land cover and can be used in planning green infrastructure.	< www.americanforests.org/productsandpubs/citygreen/ >
Comfort Tool		
OUTdoor COMfort Expert System (OUTCOMES)	The USDA Forest Service developed the OUTdoor COMfort Expert System (OUTCOMES), which calculates a human comfort index by considering weather variables, tree density and shade pattern, and other neighborhood features.	< www.fs.fed.us/ne/syracuse/Tools/tools.htm >

Table 4: Urban Forestry Tools and Resources (continued)

Name	Description	Web Link
Carbon Calculators		
Individual tree carbon calculators	The USDA Forest Service has developed spreadsheet programs to estimate the carbon storage and sequestration rates for a sugar maple and a white pine. These spreadsheets provide a rough approximation of tree carbon storage and sequestration rates based on user-inputs of tree growth rates.	< www.fs.fed.us/ne/syracuse/Tools/tools.htm >
Carbon dioxide calculators for urban forestry	The USDA Forest Service provides guidelines for urban foresters and arborists, municipalities, utilities, and others to determine the effects of urban forests on atmospheric CO ₂ reduction.	< www.fs.fed.us/psw/programs/cufr/products/cufr_43.pdf >
Method for Calculating Carbon Sequestration by Trees in Urban and Suburban Settings	The Department of Energy has developed guidance to calculate carbon sequestration by trees in urban and suburban settings. The guidance is intended for participants in the Voluntary Reporting of Greenhouse Gases Program and provides a methodology and worksheet for calculations.	< ftp://ftp.eia.doe.gov/pub/oiaf/1605/cdrom/pdf/sequester.pdf >

6.3 General Information

Table 5 lists organizations and web sites that contain additional information and reference materials on urban forestry.

Table 5: Urban Forestry Organizations and Web Sites

Name	Description	Web Link
Center for Urban Forest Research, part of the USDA Forest Service's Pacific Southwest Research Station	Publishes research on the benefits and costs of urban trees, including urban heat island, energy, air quality, climate change, and water impacts. Is involved with developing the California urban forestry greenhouse gas reporting protocol and developed STRATUM and ecoSMART.	< www.fs.fed.us/psw/programs/cufr >
Urban Forest Research Unit, part of the USDA Forest Service's Northeastern Research Station	Provides research on urban forest structure and the quantification of urban forest benefits, particularly air quality. Developed the UFORE and COMFORT models and conducts national urban forest assessments.	< www.fs.fed.us/ne/syracuse >
Urban Natural Research Institute, part of the USDA Forest Service Northern Research Station	Provides monthly web casts and other online resources targeted to the science of urban forestry.	< www.unri.org >
Urban and Community Forestry Program, Northeastern Area, part of the USDA Forest Service's State and Private Forestry mission area	Resources on tree planting and care, urban forest management, and outreach and marketing. The Urban and Community Forestry Program provides technical, financial, educational, and research services to states, cities, and nonprofit groups so they can plant, protect, maintain, and utilize wood from community trees and forests to maximize environmental, social, and economic benefits.	< www.na.fs.fed.us/urban/index.shtm >
Urban Forestry South, part of the USDA Forest Service's Southern Research Station	Published the Urban Forestry manual, a 12-chapter guidebook including cost-benefit information, public policy strategies, and tree planting suggestions. Urban Forestry South also hosts the Tree Failure Database.	< www.urbanforestrysouth.org/ >
TreeLink	Provides a links database, listserves, web casts, advice on grant writing, and links to local community forestry groups.	< www.treelink.org >

Table 5: Urban Forestry Organizations and Web Sites (continued)

Name	Description	Web Link
National Alliance for Community Trees (ACT)	Operates the NeighborWoods Program, offering grants to community forestry groups. The web site also has links to local community forestry groups, public policy updates, case studies of tree planting programs, a media kit, and a bi-monthly e-newsletter, and monthly web casts.	< www.actrees.org >
National Arbor Day Foundation	Provides information about local tree planting programs and events and resources for environmental educators and parents.	< www.arborday.org/ >
Sustainable Urban Landscape Information Series	Covers urban landscape design, plant selection, installation, and maintenance.	< www.sustland.umn.edu/ >
American Society of Landscape Architects (ASLA)	Professional association for landscape architects. Includes a search tool to locate ASLA firms. ASLA is developing a sustainability rating system for landscaped sites, comparable to the USGBC LEED standard for buildings, as well as regional guides to best practices.	< www.asla.org >

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1. **Requested Motion:**

Meeting Date: November 4, 2021

Council discussion: Traffic and Parking in Fort Myers Beach

Why the action is necessary:

What the action accomplishes:

2. **Agenda:**

ITEMS FOR DISCUSSION

3. **Requirement/Purpose:**

5. **Background:**

Attachments:

1. Town of Fort Myers Beach Parking Code Review_052919

Financial Impact:

6. **Alternative Action**

7. **Staff Recommendations:**

8. **Recommended Approval:**

John R Herin Jr, Town Attorney

Date: October 27, 2021

Amy Baker, Town Clerk

Date: October 28, 2021

Roger Hernstadt, Town
Manager

Date: October 28, 2021



4904 Eisenhower Boulevard, Suite 150
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813.888.5800
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May 30, 2019

(Sent via e-mail: green@fmbgov.com)

Mr. Jason Green
Associate/ Project Manager
Town of Fort Myers Beach
2525 Estero Boulevard
Fort Myers Beach, FL 33631

Re: Town of Fort Myers Beach – Parking Code Review and Field Observations
Fort Myers Beach, Florida
Walker Project #: 15-2319.00

Dear Jason:

Walker is pleased to present this draft parking code review performed for the Town of Fort Myers Beach. This report represents our preliminary findings and conclusions and is intended to assist with best practice recommendations for the Town of Fort Myers Beach.

We appreciate and thank you for the opportunity to be of service to the Town of Fort Myers Beach. Please do call or email if there are any questions regarding our work.

Sincerely,

WALKER CONSULTANTS

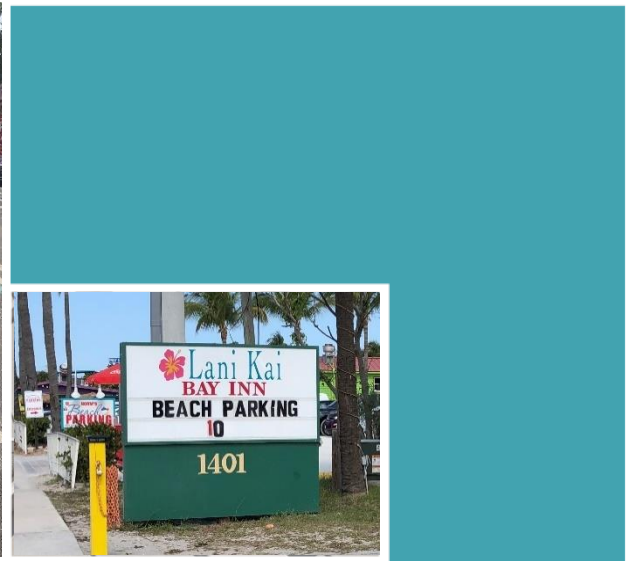
A handwritten signature in blue ink, appearing to read "Jim Corbett".

Jim Corbett, CAPP
Consultant

A handwritten signature in blue ink, appearing to read "Emily R. Krueger".

Emily Krueger
Analyst/Planner

JMC:mm



PARKING CODE REVIEW AND FIELD OBSERVATIONS

TOWN OF FORT MYERS BEACH

Fort Myers Beach, Florida

5/30/2019

Town of Fort Myers Beach
2525 Estero Boulevard
Fort Myers Beach, FL 33631

Walker Project No. 15-2319.00



WALKER
CONSULTANTS

TABLE OF CONTENTS

EXECUTIVE SUMMARY	iii
Conclusions and Recommendations	iii
01- INTRODUCTION	1
Study Area	2
02 - PARKING FIELD SURVEY	3
Survey Objectives	3
Parking Lot Observations	3
<i>Lot 1 – Open Lot on The Southwest Corner Of Estero Boulevard and Chapel Street</i>	3
<i>Lot 2 – Open Lot on The Northeast Corner Of Estero Boulevard and Chapel Street</i>	3
<i>Lot 3 – 2440 Estero Boulevard (Mango Street Lot)</i>	4
<i>Lot 4 – Hoosiers In Paradise</i>	4
<i>Lot 5 – The Goodz Convenience Store</i>	4
<i>Lot 6 – Key Estero Shops</i>	4
<i>Lot 7 – Hooters Lots</i>	5
<i>Lot 8 – Avenue C Lot</i>	5
<i>Lot 9 – Dave’s Beach Side Parking</i>	5
<i>Lot 10 – 1401 Estero Boulevard – The Bay Inn at Lani Kai Parking Lot</i>	5
<i>Lot 11 – Norm’s Beach Parking</i>	6
<i>Lot 12 – 1331 Estero Boulevard – Lani Kai Parking Lot</i>	6
<i>Lot 13 – Lani Kai Resort Parking Lot</i>	6
<i>Lot 14 – Pierview Hotel and Suites</i>	6
<i>Lot 15 – Crescent Street Lot</i>	7
<i>Lot 16 – Seafarer Plaza</i>	7
<i>Lot 17 - 320 Old San Carlos – Shipwreck Lot 1</i>	7
<i>Lot 18 – 430 Old San Carlos – Shipwreck Lot 2</i>	7
<i>Lot 19 – Old Seaport Parking Lot</i>	8
<i>Lot 20 – Moss Marina Lot</i>	8
<i>Lot 21 – William T Freeman Lot</i>	8
<i>Lot 22 – 237 Old San Carlos – Shipwreck Lot 3</i>	8
<i>Lot 23 – The Yucatan Beach Stand</i>	8
<i>Lot 24 – 200 Old San Carlos – SP Plus Lot</i>	9
<i>Lot 25 – 815 Estero Boulevard Parking Lot – Sunset Parking</i>	9
<i>Lot 26 – 1046 Estero Boulevard Parking Lot – Sunset Beach Tropical Grill</i>	9
General Observations	11

PARKING FIELD SURVEY, CONT'D

Parking Code Research	12
<i>Single-Purpose Parking Lots</i>	12
<i>Shared Parking Lots</i>	12
<i>Renting Surplus Parking Spaces within Single-Purpose Parking Lots</i>	12
<i>Shared Parking Lots</i>	12
<i>General Parking Requirements</i>	13
<i>Landscaping Of Parking And Vehicle Use Area Requirements</i>	13
<i>Zoning Districts</i>	14
Downtown Zoning District	14
Commercial Boulevard (CB) Zoning District	15
Commercial Planned Development (CPD) Zoning District	15
Commercial Marina (CB) Zoning District	15
<i>Ordinance No. 15-11 – Deletion Of Seasonal Parking Lot Provisions</i>	18
Parking Code Recommendations	19

LIST OF EXHIBITS AND TABLES

Exhibit 1: Project Site and Study Area	2
Exhibit 2: Parking Field Survey – Lots Observed April 3, 2019	10
Exhibit 3: Zoning Districts between Palermo Circle and Tropical Shore Way	16
Exhibit 4: Zoning Districts between Lagoon Street and Crescent Street	17
Table 10-9. Buffer Type D (per 100 linear feet)	13

EXECUTIVE SUMMARY**CONCLUSIONS AND RECOMMENDATIONS**

The successful completion of the initial segment of the Estero Boulevard Improvement Project has created a renewed focus towards public parking challenges and opportunities in Fort Myers Beach. Although the Estero Boulevard project was not specifically designed to ease seasonal vehicular traffic congestion, improvements have focused on helping travelers safely shift to alternative transportation modes such as bicycling, walking or using the trolley.

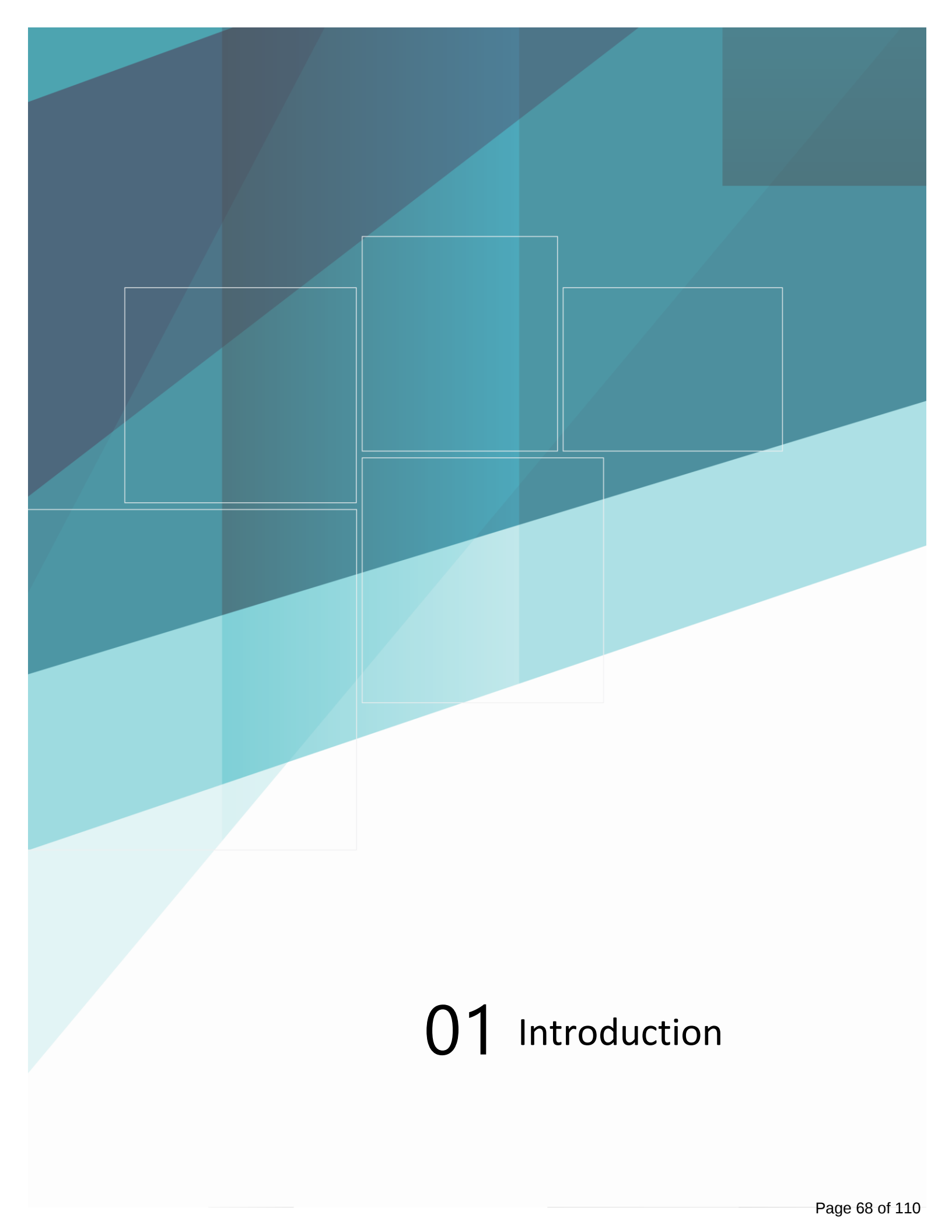
Amidst several opportunities for improvement, the Town seeks guidance on an appropriate course of action to address the Town's public parking requirements focused on the rental of surplus parking inventory. During Walker's data collection and field observations on Wednesday April 3rd and Saturday April 6th, we recognized beach patrons appeared to be naturally utilizing privately-owned shared parking locations first, before considering the use of single-purpose parking inventory. Only when these locations neared capacity levels, were beach patrons migrating toward the use of overflow parking in single-use parking lot locations. Exceptions to these observations were observed at the Lani Kai Resort and Seafarer Plaza parking lots. Both of these locations were displaying signs that clearly advertised "Beach Parking \$10". On-street spaces located on Old San Carlos Boulevard, Estero Boulevard, Center Street and Fifth Street were often last to fill as these metered spaces provide a short-term two-hour limit. Long-term parking on-beach access streets and under the Matanzas Pass Bridge were equally slow to fill.

The following strategic guidelines have been provided to highlight our conclusions and recommendations:

- **Define Surplus Parking Levels:** Owners of single-purpose and joint-use parking lots should retain the ability to rent surplus parking only after a technical analysis of timing and magnitude of the proposed parking demand is on record. Under this proposed review, Walker recommends property owners maintain parking inventory equivalent to an 85th percentile for projected demand for collective land uses. Most professionals in the parking and planning arena recognize that parking ratios for land uses should reflect the 85th percentile of peak hour observations across a large sample of many days, similar to the best practice standards for roadway and intersection design. The remaining 15% of inventory may be considered surplus parking inventory available for rent.
- **Define Peak Periods:** Walker recommends the need to define peak periods for rental of surplus parking spaces. We support the need for property owners to manage and protect the use of their parking inventory during peak activity periods. If surplus parking is not rented, motorists may attempt to occupy the inventory regardless of patronizing the owner's business. Allowing the rental of surplus parking not only supports a commercial-friendly environment but limits the unfortunate effect of punitive towing measures.
- **Required Parking Spaces:** Single-purpose and joint-use parking lots located in the Downtown Zoning District shall be required to meet the minimum required parking spaces identified under Chapter 34 - Zoning Districts, Design Standards and Nonconformities; Article IV; Division 26; §34-2020; before determining the number of available surplus spaces that are not deemed necessary for daily use. Off-street parking reductions may be allowed to the normal off-street parking requirements in §34-2020

according to the following percentages: Old San Carlos Boulevard, multiply by 50%; and all other streets in the Downtown district, and all land on Crescent Street regardless of the zoning district, multiply by 67%. Surplus inventory should be clearly marked or labeled as available for rent.

- Surplus Parking Rental Permit: Walker recommends enforcing the language in Ordinance 15-11 to regulate the rental of surplus parking spaces. To ensure compliance, an annual permit application process should be required of the property owner.
- Joint-Use Parking Agreements: Walker recommends enforcing the joint-use parking agreements between all property owners as discussed in Sec. 34-2018. Similar to our recommendation to define surplus parking levels, the joint-use application should include language to allow the rental of surplus spaces based upon the determination of the technical analysis of parking demands. This will further support Sec. 34-2018(b) which requires the inclusion of a statement indicating that the parties understand that spaces designated cannot be counted to support any use other than those identified in the agreement.
- Landscape Buffer Requirements: Walker recommends adopting landscape buffer requirements similar to the City of Tampa's landscape buffer requirements for off-street surface parking lots in the Core Area of the Central Business District. Along primary pedestrian corridors, the City of Tampa established a three (3) foot landscape buffer between the parking stall and sidewalk.
- Chapter 30 – Signs: Parking lots renting surplus parking should comply with a set of requirements for parking lot signs developed under Chapter 30 of the code. To support the right-of-way improvement efforts set forth by the Town, parking lot signage should be uniform throughout the Town and include the fee to park, hours of operation, owner/operator point of contact, and posted towing ordinances. Towing signage can be located on a separate sign but must be included in the signage package. Signs should be posted at the entrance to the parking lot. The signs must be created and displayed in a professional manner.
- Surplus Parking Rental Audit: In addition to the initial observations performed by Walker staff, we recommend completing a comprehensive audit of parking lots to establish a list of any non-conforming concerns for each individual parking lot.
- Sunset Notice: Walker recommends the Town draft a sunset ordinance designed to notify all non-conforming parking lot owners of code compliance concerns. The ordinance should specify a date when the parking lot must satisfy code requirements to avoid operating penalties.



01 Introduction

INTRODUCTION

The Town of Fort Myers Beach (Client) is a seaside community home to seven miles of coastline, many fishing spots, restaurants, gift shops, hotels and resorts, vacation rentals, and a whole host of recreational facilities.

Parking locations for beach access are available along Estero Boulevard and Old San Carlos Boulevard with pay-by-space kiosks and a pay-by-phone mobile payment option through PassPort Parking. Town of Fort Myers Beach public parking is available at the following locations; Newton Park, Connecticut Street Beach Access, Palm Avenue Beach Access, Old San Carlos, and under Matanzas Pass Bridge. In total, the Town provides 292± public parking spaces for a fee and 23± designated disabled parking spaces. Privately-owned restaurants and retail shops line Old San Carlos Boulevard and Estero Boulevard providing a combination of parking for customers and in many cases, paid parking for beach access.

Transit services are provided by LeeTran, a department of Lee County government, responsible for operating the public transit system that serves the County.¹ LeeTran hosts seasonal service on the Beach Park & Ride Trolley (Route 490), Beach Trolley (Route 410), and LeeTram (Route 420) between January 3 and May 1 of each year. The Beach Park & Ride Trolley offers three trolleys that travel between the Beach Park & Ride and Times Square seven days a week between 8:00 am and 10:23 pm. The Beach Trolley offers three trolleys that travel between Bowditch Park and Lovers Key seven days a week from 8:00 am to 10:00 pm. The LeeTram offers a free open-air tram circling from Bowditch Point Park to Matanzas Pass Preserve every 20 minutes depending on traffic, seven days a week between 8:00 am and 7:50 pm.² Beach Trolley rates are \$0.75 per ride or \$2.00 for an All-Day Pass or \$4.00 for a Three-Day Pass. The LeeTram is a free beach tram during seasonal activity.

Lee County is currently amid repairs along Estero Boulevard, to include installation of sanitary sewer mains, waterlines, 5-foot sidewalks on either side of Estero Boulevard, and 10-foot travel lanes with a center median turn lane. Construction has been completed within Walker's study area with ongoing construction southeast of Lovers Lane just outside the study area.

With all these planned changes on the immediate horizon, the Town wants to ensure that convenient parking spaces will remain available for visitors and patrons of the downtown businesses and beach access areas.

To address the project planning needs, the Client has engaged Walker to identify parking challenges and opportunities and develop best practice recommendations moving forward. To initiate this effort, Walker has completed a parking field survey of the public and private parking supply within the study area, to include a breakdown of restrictions on use; hourly, daily, or monthly parking rates; and private parking lot sales during a typical peak demand day.

¹ <http://www.leegov.com/leetran/about-leetran>

² <http://www.leegov.com/leetran/News%20Documents/LeeTran-increase-service-to-Fort-Myers-Beach.pdf>

STUDY AREA

For the purposes of this analysis, the following streets have been recognized as the study area boundaries for the Town of Fort Myers Beach:

1. First Street to the north
2. Tropical Shore Way to the east
3. Parking south of Estero Boulevard to the south, and
4. Lagoon Street to the west

Primary north/south study corridors will include the commercial activity located along Old San Carlos Boulevard and Crescent Street, and east/west corridors along Estero Boulevard. The following exhibit has been provided to assist the reader with an aerial view of the parking study area.

Exhibit 1: Project Site and Study Area



Source: Walker Consultants and Google Earth 2019



02 Parking Field Survey

PARKING FIELD SURVEY**SURVEY OBJECTIVES**

Walker understands the Town of Fort Myers Beach desires to identify legal and illegal parking operations relative to need and overall parking conditions within the Town. Identification of this inventory requires a focus on observations made during peak usage with potential variations based on seasonality.

Walker observed public and private parking inventory on Wednesday, April 3, 2019 from 10:00 am to 3:00 pm and Saturday, April 6, 2019 from 10:00 am to 3:00 pm. The following is a summary of Walker's "first impressions" of the inventory of public and privately-owned public parking between the Town Hall and Lynn Hall Memorial Park focusing on parking accessible directly off Old San Carlos Boulevard and Estero Boulevard. For ease of understanding, Walker has labeled each lot with a unique corresponding lot number. In addition we've also labeled each lot according to our interpretation of the Town's definition of parking facility type. The types of parking facilities are further defined in the Parking Code Research section of this report and are listed as follows:

-  Single-purpose parking lot
-  Shared parking lot
-  On-street parking

PARKING LOT OBSERVATIONS***LOT 1 – OPEN LOT ON THE SOUTHWEST CORNER OF ESTERO BOULEVARD AND CHAPEL STREET*****SINGLE-PURPOSE PARKING LOT**

Lot 1 is a vacant lot on the southwest corner of Estero Boulevard and Chapel Street. Posted signage states this lot is private property and that vehicles will be towed at owner's expense. An entrance to this lot is accessed off Cottage Avenue. This lot was observed to be vacant on both observation days with no attendant on site.

WEDNESDAY RATE: N/A

SATURDAY RATE: N/A

LOT 2 – OPEN LOT ON THE NORTHEAST CORNER OF ESTERO BOULEVARD AND CHAPEL STREET**SINGLE-PURPOSE PARKING LOT**

Lot 2 is a vacant lot on the northeast corner of Estero Boulevard and Chapel Street. No signage was posted in this unregulated lot. This lot was perceived to be free and open to the public as patrons entered, parked, and walked toward their destination. No attendant was present during both observation days.

WEDNESDAY RATE: N/A

SATURDAY RATE: N/A

LOT 3 – 2440 ESTERO BOULEVARD (MANGO STREET LOT)**SHARED PARKING LOT**

The Mango Street Lot had an attendant present on both observation days. The attendant was stationed at the entrance to the lot off Mango Street to accept cash-only payment for beach parking. Rates on both Wednesday and Saturday were \$15 to park all day with no posted hours of operation. The lot was observed to be half-full on Wednesday prior to the lunch hour while Saturday activity increased throughout the afternoon between 1:00 and 3:00 pm.

WEDNESDAY RATE: \$15/DAY**SATURDAY RATE: \$15/DAY****LOT 4 – HOOSIERS IN PARADISE****SINGLE-PURPOSE PARKING LOT**

Hoosiers in Paradise offers parking for customers of both the restaurant and the Diamond Head Resort located across Estero Boulevard. Parking was reserved and free with posted signage stating unauthorized vehicles would be towed at owner's expense by AFA Towing, 24 hours a day, 7 days a week. Public parking was not being sold for beach parking in this lot. Public parking is available immediately outside the Hoosiers in Paradise lot located along Virginia Avenue. Six pay-by-phone spaces are designated by Town of Fort Myers Beach with posted signs advertising a parking rate of \$3.00 per hour with no time limit.

WEDNESDAY RATE: N/A (ON-STREET \$3/HOUR)**SATURDAY RATE: N/A (ON-STREET \$3/HOUR)****LOT 5 – THE GOODZ CONVENIENCE STORE****SINGLE-PURPOSE PARKING LOT**

The Goodz convenience store advertised beach parking for \$20 payable inside the convenience store. The lot provides eight parking spaces for free customer-only parking and paid beach parking. Hours of operation were not posted.

WEDNESDAY RATE: \$20/DAY**SATURDAY RATE: \$20/DAY****LOT 6 – KEY ESTERO SHOPS****SINGLE-PURPOSE PARKING LOT (JOINT-USE PARKING LOT)**

The Key Estero Shops are a mixed-use commercial site located off Estero Boulevard and Carolina Avenue. Parking surrounds the Shops on all sides with parking spaces parallel to Carolina Avenue sold to the public for beach parking. Two attendants are stationed at either end of the drive aisle to ensure only paid parking is sold on this portion of the site. Customer parking for Key Estero Shops is free in all other surrounding spaces. The Attendant records vehicle license plate and date of purchase onto a hang tag which is to be hung from the rearview mirror or front windshield. Hang tags are only valid for date of purchase.

WEDNESDAY RATE: \$20/DAY**SATURDAY RATE: \$20/DAY**

LOT 7 – HOOTERS LOTS**SINGLE-PURPOSE PARKING LOT**

Hooters provides off-street parking in two lots, one adjacent to the restaurant off Estero Boulevard and one behind the restaurant. Both lots are accessed from Alva Drive. Posted signage states the parking inventory is for customers only and that all others will be towed.

WEDNESDAY RATE: N/A

SATURDAY RATE: N/A

LOT 8 – AVENUE C LOT**SINGLE-PURPOSE PARKING LOT**

A vacant gas station/convenience store located on the corner of Estero Boulevard and Avenue C appears to be hosting permitted parking for nearby sites. Posted signage states the lot is private property and vehicles will be towed at owner's expense.

WEDNESDAY RATE: N/A

SATURDAY RATE: N/A

LOT 9 – DAVE'S BEACH SIDE PARKING**SHARED PARKING LOT**

Dave's Beach Parking is a crushed gravel lot delineated by plantings and fencing with a formal sign directing patrons toward beach parking off Estero Boulevard and Avenue C. The primary use of this lot is as a public parking lot. Parking is sold by an attendant throughout the day for beach and restaurant parking. Parking was sold for \$20 for the entire day with no overnight parking allowed.

WEDNESDAY RATE: \$20

SATURDAY RATE: \$20

LOT 10 – 1401 ESTERO BOULEVARD – THE BAY INN AT LANI KAI PARKING LOT**SINGLE-PURPOSE PARKING LOT**

Lani Kai owns and manages multiple properties along Estero Boulevard for the Lani Kai Resort, the Bay Inn at Lani Kai, and associated parking lots. The Bay Inn lot provide parking for guests and sells daytime parking to the public when surplus inventory is available. Rates were observed to be \$10 on both observation dates. An attendant booth was located at the entrance to the lot, however during weekday and weekend observations the lot was full of hotel guests and the entrance to the lot was blocked with cones.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 11 – NORM’S BEACH PARKING**SHARED PARKING LOT**

Norm’s Beach Parking is a crushed gravel lot delineated by curb stops and surrounded with fencing and plantings located along Estero Boulevard. This lot’s primary use is as a public parking lot. Parking is sold daily until 3am with no overnight parking allowed. An attendant is on duty all day to take cash payment while a pay station is also available for cash, credit card, or Apple Pay payment.

WEDNESDAY RATE: \$20

SATURDAY RATE: \$20

LOT 12 – 1331 ESTERO BOULEVARD – LANI KAI PARKING LOT**SINGLE-PURPOSE PARKING LOT**

The second of three Lani Kai parking lots provides overflow parking for resort guests and sells parking to the public when inventory is available. During Wednesday observations the lot was observed to be full of resort guests’ vehicles. An attendant was not on duty in this lot however an attendant at the resort across Estero Boulevard was able to triage vehicles to each lot as spaces came available. During Saturday observations an attendant was present throughout the day.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 13 – LANI KAI RESORT PARKING LOT**SINGLE-PURPOSE PARKING LOT**

The main parking lot serving the Lani Kai Resort was staffed by a parking attendant on both observation days. His primary goal was to park resort guests in either the main lot or in one of two overflow lots. On Wednesday he was not selling inventory upon observation. He appeared to be quarterbacking between the three lots, selling inventory upon vacancy. On Saturday the lot was full, and he directed vehicles to spaces as they became available within the main lot or to the overflow lots as those spaces opened. The public parking rate on Saturday was \$10 to park the entire day.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 14 – PIERVIEW HOTEL AND SUITES**SINGLE-PURPOSE PARKING LOT**

During Saturday observations an attendant was present until midafternoon. The hotel sells surplus parking to the public at a rate of \$20.

WEDNESDAY RATE: N/A

SATURDAY RATE: \$20

LOT 15 – CRESCENT STREET LOT**SHARED PARKING LOT**

Crescent Street Lot offers paid parking between the hours of 7:00 am and 11:00 pm. There is no attendant on duty however a pay station accepts cash and coin payment only. The daily rate is \$15. The permit must be displayed in dash. Vehicles will be towed for non-payment.

WEDNESDAY RATE: \$15

SATURDAY RATE: \$15

LOT 16 – SEAFARER PLAZA**SINGLE-PURPOSE PARKING LOT (JOINT-USE PARKING LOT)**

The Seafarer Plaza is a commercial plaza with few remaining tenants but ample parking. Nick's Beach Discount Liquor and Wine, Quicky Scooters & Bikes, and Sunny's on the Beach are the remaining tenants of the space. This surplus of parking is available for public parking inventory. Patrons must pay for parking inside Nick's Beach Liquor Store or an attendant for the daily rate of \$10. Signage is posted at the entrance to the parking lot to notify patrons of paid parking. A permit is furnished to the patron to post on their dashboard for daily parking. Vehicles will be towed for non-payment. Overnight parking is prohibited.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 17 - 320 OLD SAN CARLOS – SHIPWRECK LOT 1**SHARED PARKING LOT**

Several lots along Old San Carlos Boulevard are owned and operated by the Shipwreck Motel/ Shipwreck Treasures Gift Shop. This lot is located at the rear of Felipe's Mexican Taqueria and Smokin Oyster Brewery. This lot was observed to charge \$10 to park daily. Payment is made via a pay station at the entrance of the lot with cash or coin payment only. The parking permit must be displayed on the dashboard. Overnight parking is prohibited.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 18 – 430 OLD SAN CARLOS – SHIPWRECK LOT 2**SHARED PARKING LOT**

Shipwreck Lot 2 is accessed from Third Street across the street from Smokin Oyster Brewery. This lot was observed to charge \$10 to park daily. Payment is made via a pay station at the rear of the lot with cash or coin payment only. The parking permit must be displayed on the dashboard. Overnight parking is prohibited.

WEDNESDAY RATE: \$10

SATURDAY RATE: \$10

LOT 19 – OLD SEAPORT PARKING LOT

SINGLE-PURPOSE PARKING LOT (JOINT-USE PARKING LOT)

The Old Seaport Parking Lot provides parking for patrons of Nervous Nellie's, reserved parking for condo tenants of Marina Village at Snug Harbor and paid public parking. Parking for Nervous Nellie's patrons is \$5 for two hours. Public parking is \$15 for daily parking. Overnight parking is prohibited except in reserved parking spaces.

WEDNESDAY RATE: \$15

SATURDAY RATE: \$15

LOT 20 – MOSS MARINA LOT

SINGLE-PURPOSE PARKING LOT

Moss Marina sells surplus inventory as public parking for \$15 payable in the marina store. Overnight parking is prohibited.

WEDNESDAY RATE: \$15

SATURDAY RATE: \$15

LOT 21 – WILLIAM T FREEMAN LOT

SHARED PARKING LOT

The William T Freeman Lot provides paid public parking for the downtown area. Parking is paid either to an attendant or in the Smokin Oyster Brewery. During Wednesday observations the lot was completely full and coned off with no attendant present. On Saturday an attendant was present and filling spaces quickly when a vehicle exited the lot. Parking is available until 3:00 am.

WEDNESDAY RATE: \$5

SATURDAY RATE: \$5

LOT 22 – 237 OLD SAN CARLOS – SHIPWRECK LOT 3

SHARED PARKING LOT

Shipwreck Lot 3 can be accessed off Third Street across the street from the William T Freeman Parking Lot. This lot was observed to charge \$5 on Wednesday and \$10 on Saturday to park daily. Payment is made via a pay station found in the middle of the lot with cash or coin payment only or inside Shipwreck Treasures with cash or credit card. The parking permit must be displayed on the dashboard. Overnight parking is prohibited.

WEDNESDAY RATE: \$5

SATURDAY RATE: \$10

LOT 23 – THE YUCATAN BEACH STAND

SINGLE-PURPOSE PARKING LOT

The Yucatan Beach Stand provides off-street parking for restaurant patrons from Old San Carlos Boulevard. Posted signage states the parking inventory is for customers only and that all others will be towed. This lot also provides one of the few Tesla charging stations found on Fort Myers Beach.

WEDNESDAY RATE: N/A

SATURDAY RATE: N/A

LOT 24 – 200 OLD SAN CARLOS – SP PLUS LOT

SHARED PARKING LOT

The SP Plus Lot's primary use is for public parking. An attendant was present both observation days. Payment can be made either to the attendant with cash or via the pay station with cash or credit card, or via the use of the ParkMobile app.

WEDNESDAY RATE: \$20

SATURDAY RATE: \$25

LOT 25 – 815 ESTERO BOULEVARD PARKING LOT – SUNSET PARKING

SHARED PARKING LOT

This lot offers public parking for beach and restaurant goers. The posted parking rate for both observation days was \$20 for daily parking. An attendant was present until 3:00 pm. If no attendant is present payment can be made by inserting cash in an envelope and lock box. This lot is a cash-only lot.

WEDNESDAY RATE: \$20

SATURDAY RATE: \$20

LOT 26 – 1046 ESTERO BOULEVARD PARKING LOT – SUNSET BEACH TROPICAL GRILL

SINGLE-PURPOSE PARKING LOT

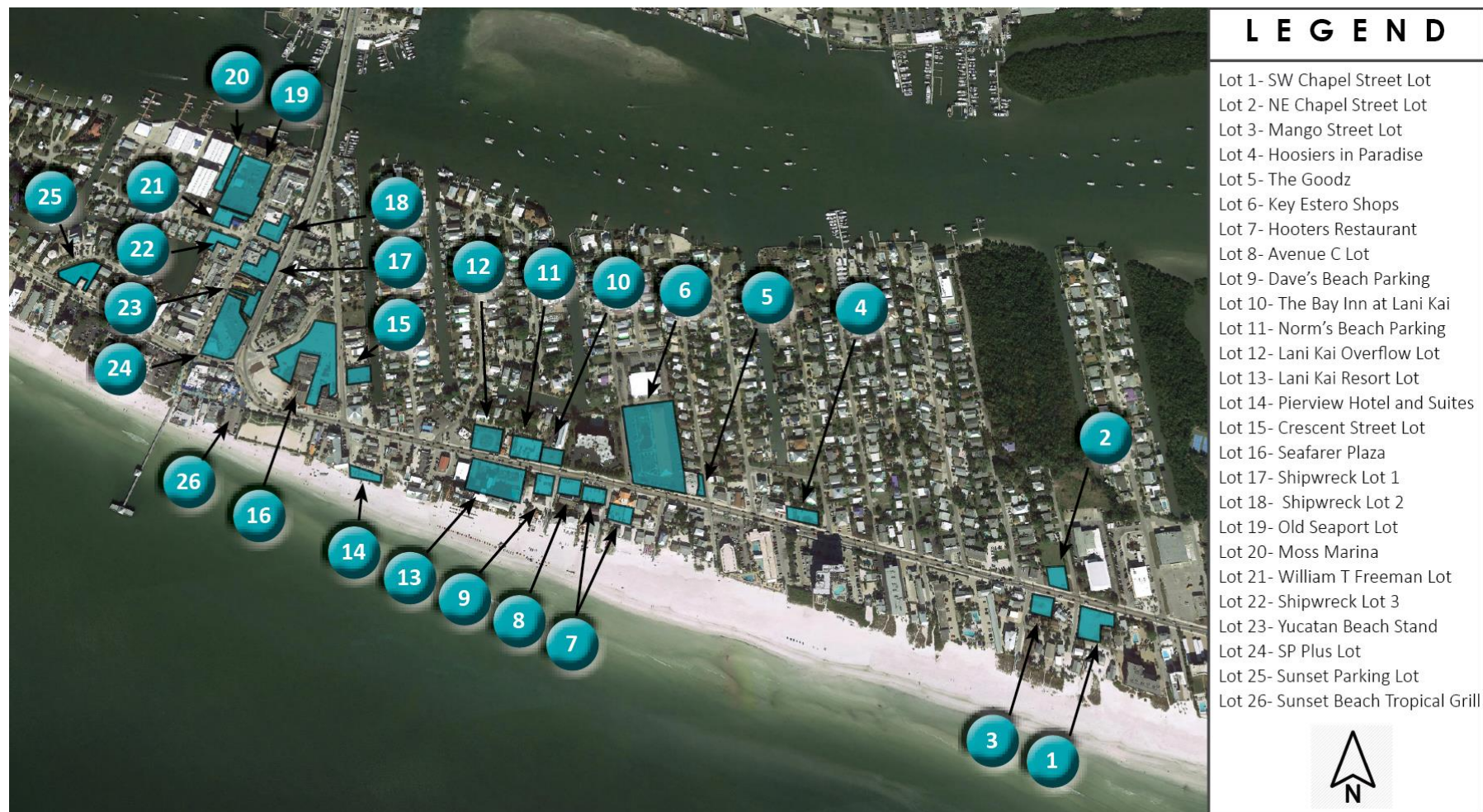
This lot offers free parking to diners of the Sunset Beach Tropical Grill and Playmore Tiki Bar. Our observations reveal it was unknown if a fee was charged for parking beyond the restaurant's needs. A parking attendant was present throughout the day who appeared to regulate who parked in the lot.

WEDNESDAY RATE: FREE DINNER PARKING

SATURDAY RATE: FREE DINNER PARKING

The following exhibit illustrates the parking lots Walker observed to offer either free or paid public parking within the study area.

Exhibit 2: Parking Field Survey – Lots Observed April 3, 2019



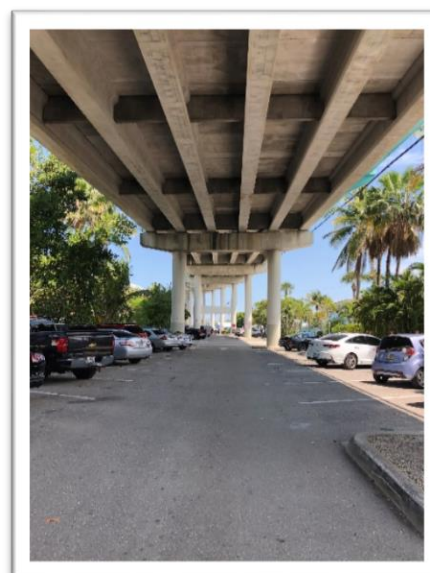
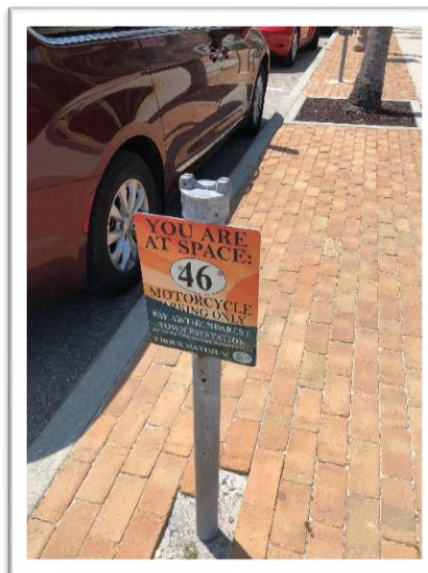
Source: Walker Consultants and Google Earth 2019

GENERAL OBSERVATIONS

Parking at Lee County's Lynn Hall Memorial Park was full during each observation day. Motorists were observed circling the lot in search of empty spaces. The parking rate was observed at \$2 per hour.

Long-term paid public parking under the Matanzas Pass Bridge was less than half full during each observation day. Lots were busier in the afternoons. The parking rate was observed at \$3.00 per hour with no time limit.

Short-term on-street parking is available along Old San Carlos Boulevard between First Street and Estero Boulevard. A handful of perpendicular on-street spaces are also available along Estero Boulevard at the intersection of Old San Carlos Boulevard. On-street parking is payable via pay station with cash or credit card or via pay-by-phone app PassPort. The parking rate was observed at \$3.00 per hour with a two-hour time limit.



PARKING CODE RESEARCH

According to Chapter 34 – Zoning Districts, Design Standards and Nonconformities; Article IV. – Supplemental Regulations; Division 26. – Parking; the Town of Fort Myers Beach defines types of parking facilities as either Single-Purpose Parking Lots, Shared Parking Lots, or On-Street Parking. During Walker’s site visits we were able to identify and observe examples of each type of parking facility. Several businesses were observed to provide paid parking within their single-purpose parking lots and shared parking lots.

SINGLE-PURPOSE PARKING LOTS

Subsection 34-2011. – Types of Parking Facilities establishes that single-purpose parking lots can operate as accessory uses of land, joint-use parking lots, and in some instances as surplus spaces. Accessory uses of land include parking for any principal use of the land whether as hotel guest parking, commercial patron parking or employees of that principal use. Single-purpose parking lots may also serve two or more non-abutting parcels for joint-use parking which requires an agreement between all property owners sharing the parking lot and additional requirements to be met by those included in the agreement. Surplus spaces in some single-purpose parking lots may be rented to the general public during peak periods.

RENTING SURPLUS PARKING SPACES WITHIN SINGLE-PURPOSE PARKING LOTS

Surplus spaces in single-purpose parking lots may be rented to the general public during peak periods if they satisfy all requirements of this division, are not in daily use, and are located in lots with ten or more total parking spaces. Guidance for renting surplus spaces to the general public is further defined in subsection 34-2019(a) – Other Uses of Parking Lots. “Parking spaces that are not in daily use and are located in parking lots having ten or more parking spaces and meeting the other requirements of this division may be rented to the general public during peak hours.” Walker noted that ‘peak periods’ and ‘surplus spaces’ or ‘parking spaces that are not in daily use’ have not been clearly defined within the division.

SHARED PARKING LOTS

Shared parking lots, as defined by the Town of Fort Myers Beach Code of Ordinances, are lots open to the public, generally for a fee, regardless of the destination of the person parking there. The lots may be operated as private businesses and permanent shared parking lots are considered a principal use of a parcel of land and may be approved in certain zoning districts only by special exception or through the planned development zoning district procedures.³

³ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article IV. Supplemental Regulations, Division 26. – Parking, Sec. 34-2011(2)(a). - Types of Parking Facilities

GENERAL PARKING REQUIREMENTS

All parking lots must comply with the provisions found in Chapter 34 – Zoning Districts, Design Standards and Nonconformities, Article IV. – Supplemental Regulations, Division 26. – Parking. Sections 34-2013 through 34-2017 define the prescribed standards each lot must comply with including: access to parking lots, a formal parking plan, location and design standards, dimensional requirements and parking lot surface provisions. In addition to these sections, parking lots must be designed in accordance with the buffer, landscaping, drainage, and other requirements of this code as specified in Section 34-2015. – Location and Design. These requirements are defined in detail in the Land Development Code, Chapter 10 – Development Orders and Engineering Standards, Article III. – Engineering and Environmental Design Standards, Division 6. – Open Space, Buffering and Landscaping, Sec. 10-416. – Landscaping standards.

LANDSCAPING OF PARKING AND VEHICLE USE AREA REQUIREMENTS

Sec. 10-416. – Landscaping standards. describes the provisions for landscaping of parking and vehicle use areas. The provisions apply to all new off-street parking or other vehicular use areas. Existing landscaping that does not comply with the provisions must be brought into conformity to the maximum extent possible when:

1. The vehicle use area is altered or expanded, except restriping lots and drives
2. The building square footage is changed
3. The structure has been vacant for a period of one year or more and a request for an occupational license to resume business is made.
4. When a conflict exists that would decrease the required number of off-street parking spaces or off-street loading facilities to meet the requirements of this division, the director may permit administrative deviations.

Buffer requirements for parking and vehicle use areas for commercial uses, including hotels, resorts, marinas, and public facility buildings, and including freestanding parking areas not associated with other development next to a right-of-way or road easement must comply with the following requirements of Buffer Type D.

Table 10-9. Buffer Type D (per 100 linear feet) ⁴	
Minimum width in feet	15 feet
Minimum number of trees	5
Minimum number of shrubs	Hedge
Wall required	No

⁴ Sec. 10-416. – Landscaping standards., Table 10-9. Buffer Types

ZONING DISTRICTS

Zoning Districts have been established within the Town of Fort Myers Beach to classify, regulate and restrict the location of buildings, land uses, height restrictions, determine the area of yards and open space, regulate intensity of land use, and promote orderly growth in compliance with the goals, objectives, and policies set forth in the Fort Myers Beach Comprehensive Plan.⁵ Four Zoning Districts are found within the study area:

1. Downtown Zoning District
2. Commercial Boulevard (CB) Zoning District
3. Commercial Planned Development (CPD) Zoning District
4. Commercial Marina (CM) Zoning District

Additional parking regulations may be included within each zoning district to support the goals and objectives of the Fort Myers Beach Comprehensive Plan.

DOWNTOWN ZONING DISTRICT

The Downtown Zoning District is part of the Redevelopment Zoning District and requires more detailed regulations than conventional zoning districts. The Downtown zoning district is planned as a park-once district and thus allows substantial reductions in off-street parking minimum requirements. Parking lots are generally found in rear yards on properties fronting Old San Carlos Boulevard with access to those lots on secondary streets to minimize driveways to Old San Carlos Boulevard except for the SP Plus Lot, Yucatan Beach Stand, Shipwreck Lot 1 and Old Seaport Lot. Access to these lots is not possible from secondary streets and thus must be accessed from Old San Carlos Boulevard.

Properties fronting Estero Boulevard should relocate existing driveways and parking spaces to secondary streets when possible and new driveways should connect to secondary streets unless it would be infeasible to access the lot from a secondary street such as the Pierview Hotel and Suites, Lani Kai Resort lots, and Norm's Parking Lot.

New developments within the Downtown Zoning District should locate their parking in rear yards, under mixed-use buildings, or side yards if the property fronts Estero Boulevard and views of the Gulf of Mexico will not be impacted. Parking lots should have as few as possible driveways to Estero Boulevard, Old San Carlos Boulevard, First Street, Fifth Avenue, and Crescent Street and connect to secondary streets where feasible. Property owners of newly built parking inventory may allow the wider use of these spaces for a fee of their own choosing or through reciprocal arrangements with other parties.⁶

⁵ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article III. Zoning District Regulations, Division 1. Mapping of Zoning Districts, Sec. 34-611. Zoning Districts Established

⁶ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article III. Zoning District Regulations, Division 5. Redevelopment Zoning Districts, Subdivision II. – Downtown Zoning District, Sec. 34-676(c)(3). Circulation and Parking, Parking Lot Interconnections.

COMMERCIAL BOULEVARD (CB) ZONING DISTRICT

The Commercial Boulevard Zoning District is also part of the Redevelopment Zoning District and requires more detailed regulations than conventional zoning districts. SW Chapel Street Lot, NE Chapel Street Lot, and Mango Street Lot are located in the Commercial Boulevard Zoning District. Parking lots should be located in rear or side yards in this district. Access to new parking lots within this zoning district should connect to secondary streets only and existing properties fronting Estero Boulevard are directed to relocate driveways to side streets where possible. The three previously mentioned lots all located their driveways off side streets and are compliant with this requirement.

New or expanded uses in this district require rezoning as a commercial planned development, however existing allowable land uses include permanent shared parking lots with a special exception required. Individual property owners shall control all rights to the use of their own parking spaces but may choose to allow wider use of these spaces for a fee of their choosing or through reciprocal arrangements with other parties.⁷

COMMERCIAL PLANNED DEVELOPMENT (CPD) ZONING DISTRICT

All property development regulations in a CPD Zoning shall be the same as for the CB zoning district unless the zoning resolution specifies otherwise.⁸

COMMERCIAL MARINA (CM) ZONING DISTRICT

No additional requirements for parking are discussed in the Commercial Marina Zoning District.⁹

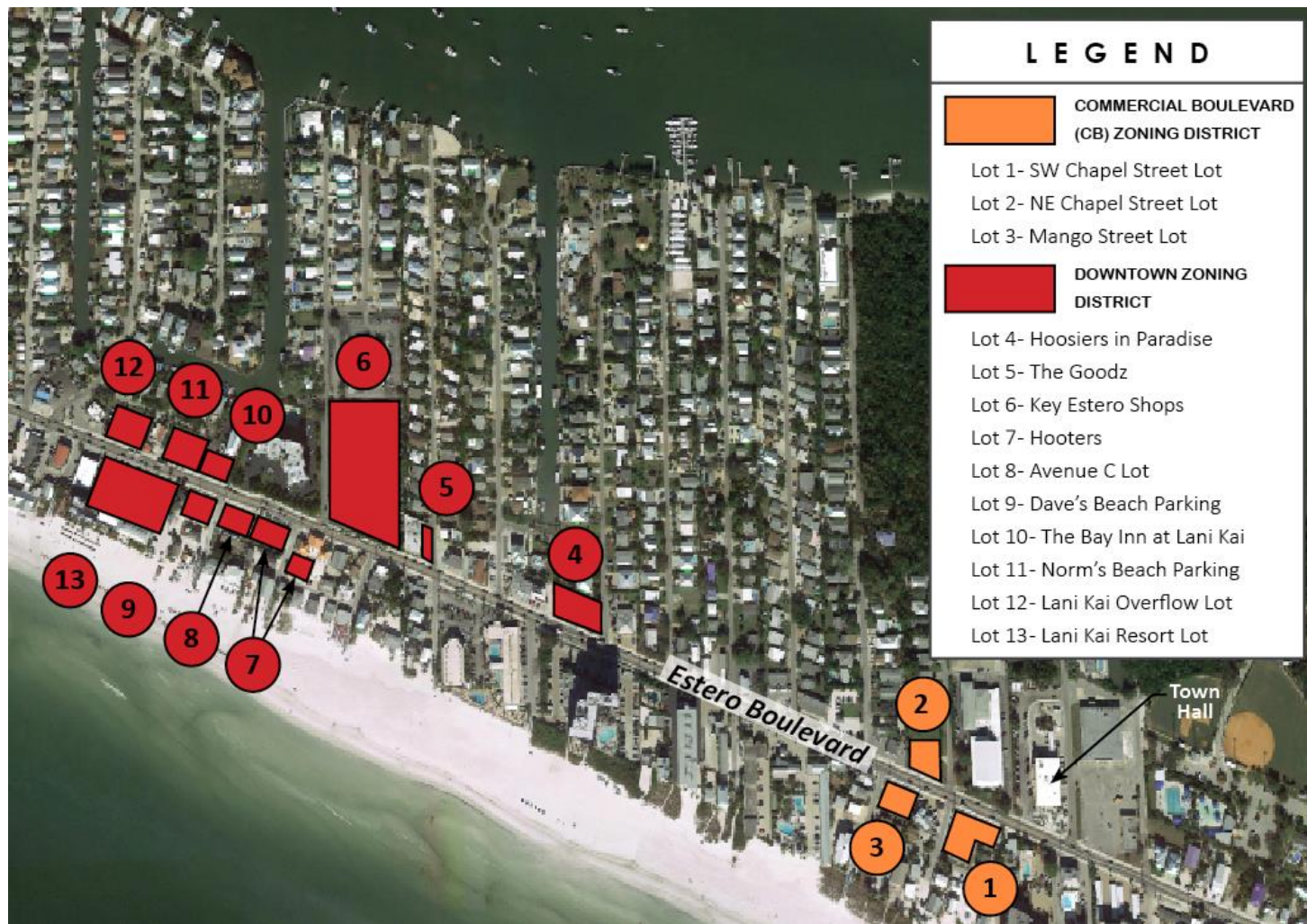
The exhibits on the following pages have been provided to represent the designated zoning district for which each lot is located.

⁷ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article III. Zoning District Regulations, Division 5. Redevelopment Zoning Districts, Subdivision V. – CB Zoning District, Sec. 34-706(c)(3). Circulation and Parking, Parking Lot Interconnections.

⁸ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article III. Zoning District Regulations, Division 6. Planned Development Zoning Districts, Subdivision III. – CPD Zoning District, Sec. 34-953. Building Placement, Size, Design, And Other Property Development Regulations.

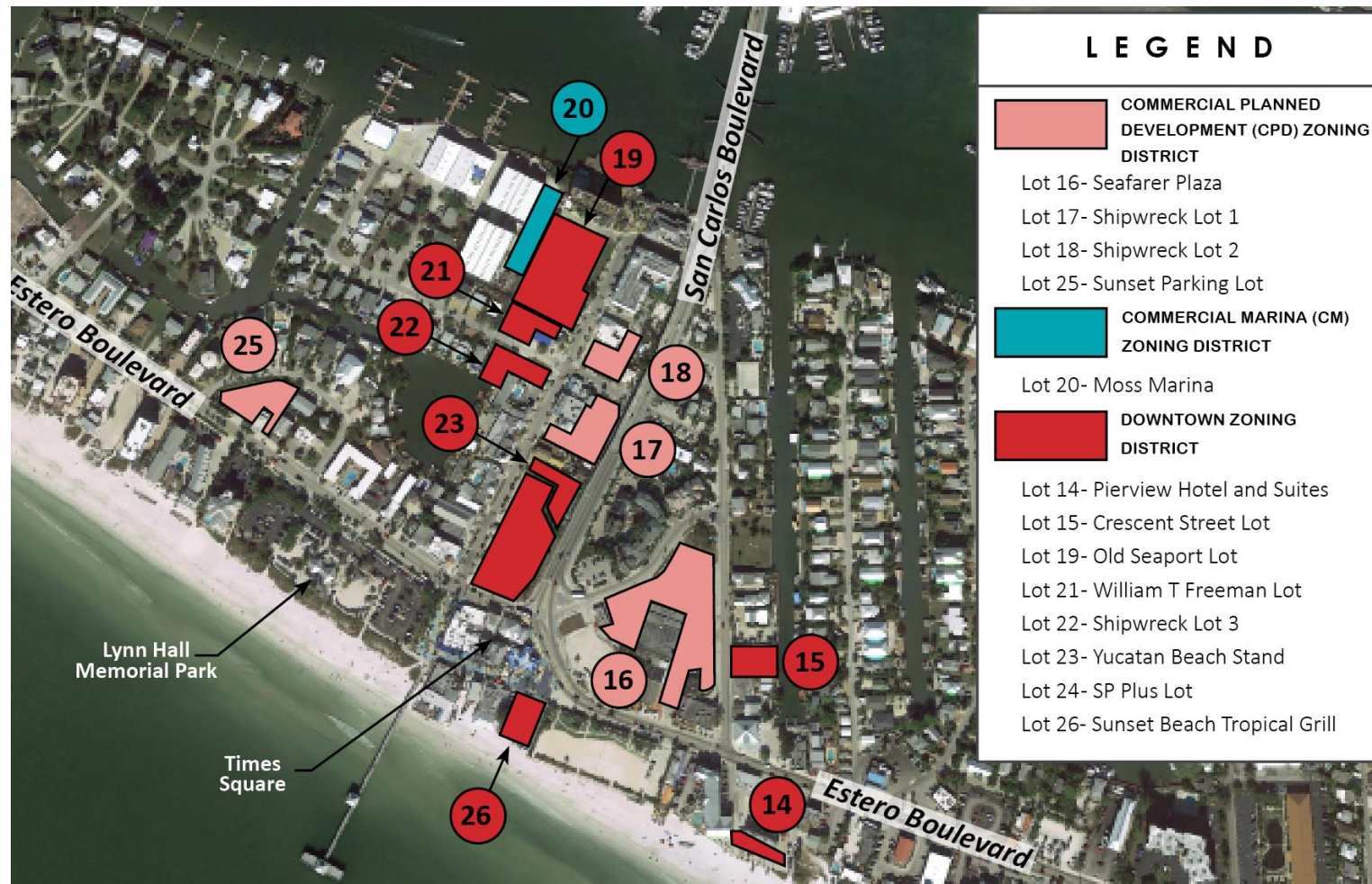
⁹ Chapter 34 – Zoning Districts, Design Standards, and Nonconformities, Article III. Zoning District Regulations, Division 4. Conventional Zoning Districts, Sec. 34-646. – CM (Commercial Marina) Zoning District.

Exhibit 3: Zoning Districts between Palermo Circle and Tropical Shore Way



Source: Walker Consultants and Google Earth 2019

Exhibit 4: Zoning Districts between Lagoon Street and Crescent Street



Source: Walker Consultants and Google Earth 2019

ORDINANCE NO. 15-11 – DELETION OF SEASONAL PARKING LOT PROVISIONS

According to Ordinance No. 15-11, amending the Town of Fort Myers Beach Land Development Code Chapter 34, regarding the deletion of seasonal parking lot provisions, it was discovered that regulations were previously established regarding the duration of peak season, permit fees, and regulations established to manage seasonal parking lots. Seasonal parking in shared parking lots required permits issued administratively for a period of up to eight months so long as the lot was in compliance with the code. Currently, permanent shared parking lots are considered a principal use and may be approved only by special exception or through planned development zoning district procedures. A list of key requirements for seasonal parking lots to comply include:

1. Prior to commencing operation, each lot must obtain a seasonal parking lot permit for a period of up to eight months between November 15 and July 15 of the succeeding year.
2. Seasonal parking lots are permitted in a planned development zoning district where a shared permanent parking lot or seasonal parking lot is included in the approved schedule of uses.
3. The applicant must submit to the director a parking plan, drawn to scale, indicating the location of access points, ropes, and posts, and the circulation pattern within the parking lot.
4. The seasonal parking lot must be supervised by a parking attendant during its posted hours of operation.
5. No overnight parking is authorized in seasonal lots.
6. Established hours of operation are: 7:00 a.m. to 10:00 p.m.
7. Seasonal parking spaces must not be used for calculating off-street parking requirements.
8. Seasonal parking lot signage must comply with requirements for commercial development signs as defined in Sec. 30-151 and must be created and displayed in a professional manner. These signs must be removed immediately upon expiration of the seasonal parking permit.
9. Buffer requirements between the parking lot and a residential zone with a visual screen of 50 percent opacity and a minimum height of three feet. The screening may be made of a combination of walls, fences, railings, and shrubs. (Now 6 feet according to CH 10)
10. Buffer requirements between the parking lot and right-of-way with a visual screen of 25 percent opacity and a minimum height of three feet with a combination of walls, fences, railings, and shrubs. The visual screen must be not less than one foot from the right-of-way or street easement line.

According to the current Sec. 34-2011. and Sec. 34-2019., surplus parking spaces may be rented from single-purpose parking lots only, so long as the spaces are not in daily use, located in lots having ten or more parking spaces, and meeting the other requirements of this division.

PARKING CODE RECOMMENDATIONS

Currently, parking lots satisfying all the requirements set forth in the following portions of the Land Development Code may legally rent surplus parking to the general public during peak periods:

- Chapter 10., Sec. 10-416. – Landscape Standards;
- Chapter 34 – Article III. Zoning District Regulations
- Chapter 34 – Article IV. Supplemental Regulations; Division 26 - Parking

In order for a single-use parking lot to rent surplus spaces it should be determined what accounts for surplus parking spaces and how a peak period is defined. Walker recommends property owners maintain parking inventory equivalent to an 85th percentile for projected demand for collective land uses. Most professionals in the parking and planning arena recognize that parking ratios for land uses should reflect the 85th percentile of peak hour observations across a large sample of many days, similar to the best practice standards for roadway and intersection design. The remaining 15% of inventory may be considered surplus parking inventory available for rent.

Recommendation #1: Walker recommends the Town of Fort Myers Beach define surplus parking spaces and peak periods.

Several regulations found in Ordinance No. 15-11 regarding seasonal parking lots offered easily defined guidance to regulate the rental of surplus parking spaces.

- Requiring a permit, defined by duration, to rent surplus parking spaces.
- Requiring a parking plan indicating access points, delineating the surplus spaces, and the circulation pattern within the parking lot.
- Providing a parking attendant during posted hours of operation.
- Surplus spaces are available only during hours of operation, no overnight parking.
- Limit the duration of when spaces can be rented, hourly and seasonally.
- Further defining surplus spaces as those not required for primary-use off-street parking requirements.
- Parking lot signage designating surplus spaces are for rent.
- Meet landscape buffer and screening requirements.

Recommendation #2: Walker recommends including verbiage from Ordinance No. 15-11, when defining the act of renting surplus parking spaces within a single-purpose parking lot. Require a permit for the rental of surplus parking spaces annually based on current parking lot regulations.

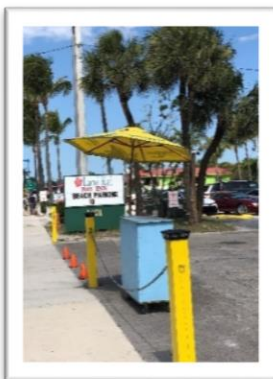
Joint-use parking lots currently require an agreement between all property owners as part of the application for operation as a joint-use parking lot.

Recommendation #3: Walker recommends enforcing the joint-use parking agreements between all property owners as discussed in §34-2018. Surplus parking spaces should not be rented to the general public without a technical analysis of timing and magnitude of the proposed parking demands on record. The joint-use application should include verbiage to allow the rental of surplus spaces based upon the determination of the technical analysis of parking demands. This will further support §34-2018(b) which requires the inclusion of a statement indicating that the parties understand that spaces designated cannot be counted to support any use other than those identified in the agreement.



The current landscaping standards for parking and vehicle use areas require all new off-street parking to comply with Chapter 10 of the Land Development Code, with existing off-street lots to be brought into conformity to the maximum extent possible when vehicular use is altered or expanded, the building square footage changes, or the structure has been vacant for a period of one year or more and a request for an occupational license to resume business is made. It has been recognized that the majority of parking lots renting surplus parking spaces appear to have complied with the previous seasonal parking lot requirements with fencing, landscaping, ropes, and shrubs located along Estero Boulevard.

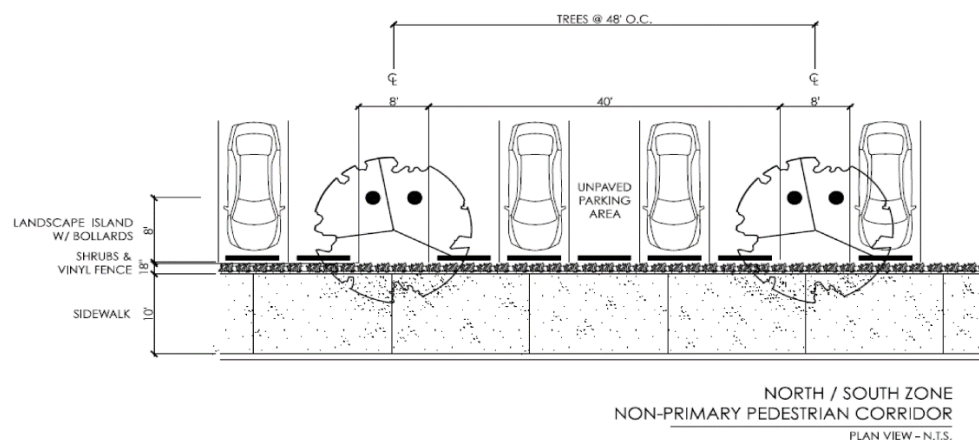
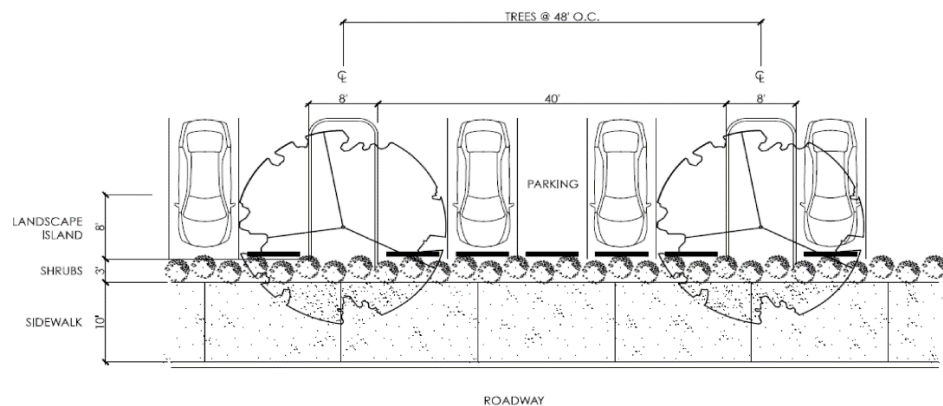
Through Walker's code research of comparable cities it was found that the City of Tampa has established surface parking lot design standards for Central Business District, the area comprising Downtown Tampa including their North Area, Core Area, and South Area. Off-street surface parking design standards in the Core Area Parking Zone require a minimum landscape buffer of 3 feet while North and South Areas require a minimum buffer of 18 inches. The following figures demonstrate the City of Tampa's off-street surface parking design standards.¹⁰



¹⁰ Tampa, Florida Code of Ordinances, Chapter 27 – Zoning and Land Development, Article III. – Establishment of Zoning Districts And District Regulations, Division 2. – Special Districts, Subdivision 3. – Central Business District (CBD) Districts, Sec. 27-185.1. – Off-street surface parking design standards.

Table 185.1 Off-Street Surface Parking Design Standards (City of Tampa)

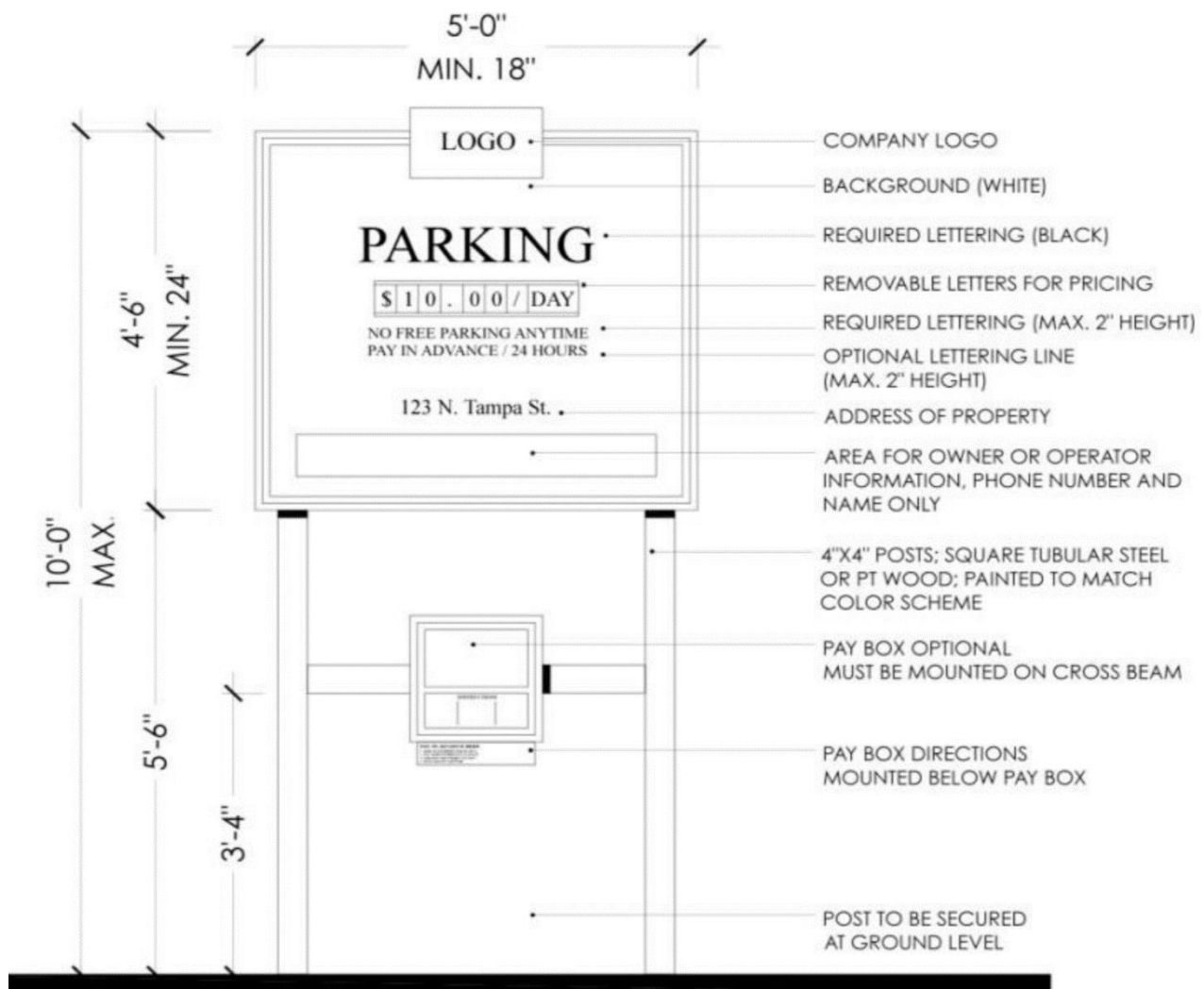
Parking Zone			
	Core Area	North/ South Area Option 1	North/ South Area Option 2
Minimum width in feet	3 feet	3 feet	18"
Tree Specifications	Min 4" caliper, placed 48' on center	Min 4" caliper, placed 48' on center	Min 4" caliper, placed 48' on center
Shrub Specifications	Min. 3-gal (24" ht x 18" spread), placed 3' on center	Min. 3-gal (24" ht x 18" spread), placed 3' on center	N/A
Groundcover Specifications	Min. 1-gal , placed 15" on center	Min. 1-gal , placed 15" on center	Install fence planted with vine at 10' on center

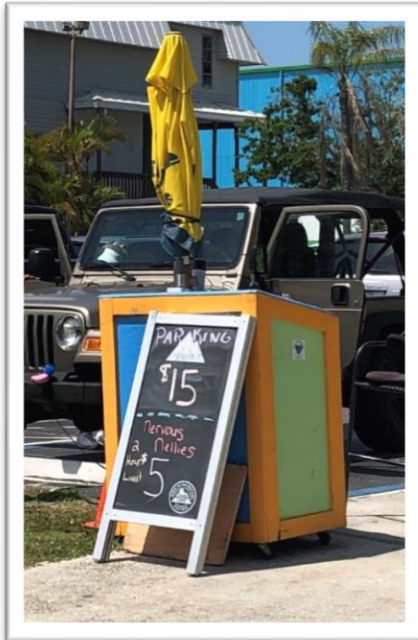


Recommendation #4: Walker recommends adopting landscape buffer requirements similar to the City of Tampa's requirements for off-street surface parking lots in the Core Area of the Central Business District. The City of Tampa established a three (3) foot landscape buffer between parking stalls and the sidewalk. In the case of parking lots fronting Estero Boulevard and/or Old San Carlos Boulevard, Walker suggests the three (3) foot landscape buffer and parking lots abutting secondary pedestrian corridors should maintain the lesser landscape buffer requirement.

Walker observed a variety of posted signage establishing the fee to park and where to pay for parking. Parking lot signage was varied and non-uniform.

Recommendation #5: Parking lots renting surplus parking should comply with a set of requirements for parking lot signs developed under Chapter 30 of the Land Development Code. To support the right-of-way improvement efforts set forth by Town, parking lot signage should be uniform throughout the Town and include the fee to park, hours of operation, owner/operator point of contact, and posted towing ordinances. Towing signage can be located on a separate sign but must be included in the signage package. Signs should be posted at the entrance to the parking lot. The signs must be created and displayed in a professional manner. Walker does not recommend including a Pay Box to parking lot signage as that is an outdated industry standard.





Examples of Existing Non-Uniform Parking Lot Signs

1. **Requested Motion:**

Meeting Date: November 4, 2021

Discussion: Changing the name of a street

Why the action is necessary:

The residents of Court Street want to change their street name to Flamingo Court

What the action accomplishes:

Change street name of Court Street.

2. **Agenda:**

ITEMS FOR DISCUSSION

3. **Requirement/Purpose:**

5. **Background:**

The residents who live on Court Street would like to know the process in which they can try to change their street name to Flamingo Court.

The Lee County website

(<https://www.leegov.com/publicsafety/addressingoffice/streetnameapplication>) has a page that will assist residents on a shared street on how to change their street name. The application is handled by E 9-1-1 Program Addressing Office.

The process starts with checking for already used names. Street name changes shall be agreed upon by the majority of ALL affected property owners. Before submitting the application, a "Property Owner Agreement" form must be signed by all the affected property owners. The owners must submit the desired name, plus two alternatives in case the desired name is unavailable. If the application is approved, the residents will be presented with available names and allowed to choose their new street name.

Attachments:

Financial Impact:

6. **Alternative Action**

7. **Staff Recommendations:**

8. **Recommended Approval:**

Jason Green, Community Development
Services

Date: October 28, 2021

John R Herin Jr, Town Attorney

Date: October 28, 2021

Amy Baker, Town Clerk

Date: October 28, 2021

Date: October 28, 2021

1. **Requested Motion:**

Meeting Date: November 4, 2021

Council discussion: American Rescue Plan

Why the action is necessary:

The Town has received the first of two \$1,776,528.00 allocations.

What the action accomplishes:

Begins the planning process to prioritize the use of ARP funds.

2. **Agenda:**

ITEMS FOR DISCUSSION

3. **Requirement/Purpose:**

5. **Background:**

Process to set Councilor priorities for American Rescue Plan Act funding

Attachments:

1. ARPA - SLFRF Compliance and Reporting Guidance Summary as of 10/21
2. Categories for Projects- SLFRF-Compliance and Reporting Guidance
3. SLFRP-Quick-Reference-Guide-FINAL-508a
4. SLFRP-Fact-Sheet-FINAL1-508A

Financial Impact:

6. **Alternative Action**

7. **Staff Recommendations:**

8. **Recommended Approval:**

John R Herin Jr, Town Attorney

Date: October 27, 2021

Amy Baker, Town Clerk

Date: October 27, 2021

Roger Hernstadt, Town
Manager

Date: October 28, 2021

American Rescue Plan Act/ State and Local Fiscal Recovery Funds Compliance and Reporting Guidelines

<https://home.treasury.gov/system/files/136/SLFRF-Compliance-and-Reporting-Guidance.pdf>

Four Statutory Eligible Uses for Funds:

1. To respond to the COVID-19 public health emergency or its negative economic impacts.
2. To respond to workers performing essential work during the COVID-19 public health emergency by providing premium pay to such eligible workers of the recipient, or by providing grants to eligible employers that have eligible workers who performed essential work.
3. For the provision of government services, to the extent of the reduction in revenue of such recipient due to the COVID-19 public health emergency, relative to revenues collected in the most recent full fiscal year of the recipient prior to the emergency.
4. To make necessary investments in water, sewer, or broadband infrastructure.

[Treasury's Interim Final Rule](#) gives further detail and definitions on eligible and restricted uses within the four categories. The SLFRF awards are generally subject to the requirements set forth in 2 CFR Part 200 (the "Uniform Guidance") for federal awards.

Restrictions:

- Recipients may not deposit SLFRF funds into a pension fund.
- Recipients that are States or territories may not use SLFRF funds to offset a reduction in net tax revenue caused by the recipient's change in law, regulation, or administrative interpretation.
- Recipients may not use SLFRF funds as non-Federal match where prohibited.
- Recipients generally may not use SLFRF funds directly to service debt, satisfy a judgment or settlement, or contribute to a "rainy day" fund.

Eligible Costs Timeframe:

Eligibility cost period begins on March 3, 2021, and ends on December 31, 2024, as long as the award funds for the obligations incurred by December 31, 2024, are expended by December 31, 2026. Costs for projects incurred by the recipient State, territorial, local, or Tribal government prior to March 3, 2021, are not eligible, as provided for in Treasury's Interim Final Rule.

Reporting:

NEU's are required to submit a Project and Expenditure Report **annually** to report on projects funded, expenditures, and contracts and subawards over \$50,000, and other information.

Program and performance reporting provisions include to build public awareness, increase accountability, and monitor compliance of eligible uses. Further instructions will be provided later, including updates to existing guidance as well as a user guide to assist recipients to gather and submit the information through Treasury's Portal.

Change in the reporting date: Deadline for first report moved from October 31, 2021, to **April 30, 2022**.

Key Principles:

- Recipients and subrecipients are the first line of defense, and responsible for ensuring the SLFRF award funds are not used for ineligible purposes, and there is no fraud, waste, and abuse associated with their SLFRF award.
- Many SLFRF-funded projects respond to the COVID-19 public health emergency and meet urgent community needs. Swift and effective implementation is vital, and recipients must balance facilitating simple and rapid program access widely across the community and maintaining a robust documentation and compliance regime.
- SLFRF-funded projects should advance shared interests and promote equitable delivery of government benefits and opportunities to underserved communities, as outlined in Executive Order 13985, On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government.
- Transparency and public accountability for SLFRF award funds and use of such funds are critical to upholding program integrity and trust in all levels of government, and SLFRF award funds should be managed consistent with Administration guidance per Memorandum M-21-20 and Memorandum M-20-21.



Appendix 1: Expenditure Categories

The Expenditure Categories (EC) listed below must be used to categorize each project as noted in Part 2 above. The term “Expenditure Category” refers to the detailed level (e.g., 1.1 COVID-10 Vaccination). When referred to at the summary level (e.g., EC 1) it includes all Expenditure Categories within that summary level.

1: Public Health	
1.1	COVID-19 Vaccination ^
1.2	COVID-19 Testing ^
1.3	COVID-19 Contact Tracing
1.4	Prevention in Congregate Settings (Nursing Homes, Prisons/Jails, Dense Work Sites, Schools, etc.)*
1.5	Personal Protective Equipment
1.6	Medical Expenses (including Alternative Care Facilities)
1.7	Capital Investments or Physical Plant Changes to Public Facilities that respond to the COVID-19 public health emergency
1.8	Other COVID-19 Public Health Expenses (including Communications, Enforcement, Isolation/Quarantine)
1.9	Payroll Costs for Public Health, Safety, and Other Public Sector Staff Responding to COVID-19
1.10	Mental Health Services*
1.11	Substance Use Services*
1.12	Other Public Health Services
2: Negative Economic Impacts	
2.1	Household Assistance: Food Programs* ^
2.2	Household Assistance: Rent, Mortgage, and Utility Aid* ^
2.3	Household Assistance: Cash Transfers* ^
2.4	Household Assistance: Internet Access Programs* ^
2.5	Household Assistance: Eviction Prevention* ^
2.6	Unemployment Benefits or Cash Assistance to Unemployed Workers*
2.7	Job Training Assistance (e.g., Sectoral job-training, Subsidized Employment, Employment Supports or Incentives)* ^
2.8	Contributions to UI Trust Funds
2.9	Small Business Economic Assistance (General)* ^
2.10	Aid to Nonprofit Organizations*
2.11	Aid to Tourism, Travel, or Hospitality
2.12	Aid to Other Impacted Industries
2.13	Other Economic Support* ^
2.14	Rehiring Public Sector Staff
3: Services to Disproportionately Impacted Communities	
3.1	Education Assistance: Early Learning* ^
3.2	Education Assistance: Aid to High-Poverty Districts ^
3.3	Education Assistance: Academic Services* ^
3.4	Education Assistance: Social, Emotional, and Mental Health Services* ^
3.5	Education Assistance: Other* ^
3.6	Healthy Childhood Environments: Child Care* ^
3.7	Healthy Childhood Environments: Home Visiting* ^
3.8	Healthy Childhood Environments: Services to Foster Youth or Families Involved in Child Welfare System* ^



3.9	Healthy Childhood Environments: Other* ^
3.10	Housing Support: Affordable Housing* ^
3.11	Housing Support: Services for Unhoused Persons* ^
3.12	Housing Support: Other Housing Assistance* ^
3.13	Social Determinants of Health: Other* ^
3.14	Social Determinants of Health: Community Health Workers or Benefits Navigators* ^
3.15	Social Determinants of Health: Lead Remediation ^
3.16	Social Determinants of Health: Community Violence Interventions* ^
4: Premium Pay	
4.1	Public Sector Employees
4.2	Private Sector: Grants to Other Employers
5: Infrastructure²⁷	
5.1	Clean Water: Centralized Wastewater Treatment
5.2	Clean Water: Centralized Wastewater Collection and Conveyance
5.3	Clean Water: Decentralized Wastewater
5.4	Clean Water: Combined Sewer Overflows
5.5	Clean Water: Other Sewer Infrastructure
5.6	Clean Water: Stormwater
5.7	Clean Water: Energy Conservation
5.8	Clean Water: Water Conservation
5.9	Clean Water: Nonpoint Source
5.10	Drinking water: Treatment
5.11	Drinking water: Transmission & Distribution
5.12	Drinking water: Transmission & Distribution: Lead Remediation
5.13	Drinking water: Source
5.14	Drinking water: Storage
5.15	Drinking water: Other water infrastructure
5.16	Broadband: “Last Mile” projects
5.17	Broadband: Other projects
6: Revenue Replacement	
6.1	Provision of Government Services
7: Administrative	
7.1	Administrative Expenses
7.2	Evaluation and Data Analysis
7.3	Transfers to Other Units of Government
7.4	Transfers to Non-entitlement Units (States and territories only)

*Denotes areas where recipients must identify the amount of the total funds that are allocated to evidence-based interventions (see Use of Evidence section above for details)

^Denotes areas where recipients must report on whether projects are primarily serving disadvantaged communities (see Project Demographic Distribution section above for details)

²⁷ Definitions for water and sewer Expenditure Categories can be found in the EPA’s handbooks. For “clean water” expenditure category definitions, please see: <https://www.epa.gov/sites/production/files/2018-03/documents/cwdefinitions.pdf>. For “drinking water” expenditure category definitions, please see: <https://www.epa.gov/dwsrf/drinking-water-state-revolving-fund-national-information-management-system-reports>.



Coronavirus State and Local Fiscal Recovery Funds

The American Rescue Plan will deliver \$350 billion for state, local, territorial, and Tribal governments to respond to the COVID-19 emergency and bring back jobs.

The Coronavirus State and Local Fiscal Recovery Funds provide a substantial infusion of resources to help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery.

Funding Objectives

- **Support urgent COVID-19 response efforts** to continue to decrease spread of the virus and bring the pandemic under control
- **Replace lost public sector revenue** to strengthen support for vital public services and help retain jobs
- **Support immediate economic stabilization** for households and businesses
- **Address systemic public health and economic challenges** that have contributed to the inequal impact of the pandemic

Eligible Jurisdictions & Allocations

Direct Recipients

- States and District of Columbia (\$195.3 billion)
- Counties (\$65.1 billion)
- Metropolitan cities (\$45.6 billion)
- Tribal governments (\$20.0 billion)
- Territories (\$4.5 billion)

Indirect Recipients

- Non-entitlement units (\$19.5 billion)



Support Public Health Response

Fund COVID-19 mitigation efforts, medical expenses, behavioral healthcare, and certain public health and safety staff



Address Negative Economic Impacts

Respond to economic harms to workers, families, small businesses, impacted industries, and the public sector



Replace Public Sector Revenue Loss

Use funds to provide government services to the extent of the reduction in revenue experienced due to the pandemic



Premium Pay for Essential Workers

Offer additional support to those who have and will bear the greatest health risks because of their service in critical infrastructure sectors



Water and Sewer Infrastructure

Make necessary investments to improve access to clean drinking water and invest in wastewater and stormwater infrastructure



Broadband Infrastructure

Make necessary investments to provide unserved or underserved locations with new or expanded broadband access



For More Information: Please visit www.treasury.gov/SLFRP

For Media Inquiries: Please contact the U.S. Treasury Press Office at (202) 622-2960

For General Inquiries: Please email SLFRP@treasury.gov for additional information



Example Uses of Funds



Support Public Health Response

- **Services to contain and mitigate the spread of COVID-19**, including vaccination, medical expenses, testing, contact tracing, quarantine costs, capacity enhancements, and many related activities
- **Behavioral healthcare services**, including mental health or substance misuse treatment, crisis intervention, and related services
- **Payroll and covered benefits** for public health, healthcare, human services, and public safety staff to the extent that they work on the COVID-19 response



Replace Public Sector Revenue Loss

- **Ensure continuity of vital government services** by filling budget shortfalls
- **Revenue loss is calculated** relative to the expected trend, beginning with the last full fiscal year pre-pandemic and adjusted annually for growth
- **Recipients may re-calculate revenue loss** at multiple points during the program, supporting those entities that experience revenue loss with a lag



Water & Sewer Infrastructure

- **Includes improvements to infrastructure**, such as building or upgrading facilities and transmission, distribution, and storage systems
- **Eligible uses aligned to Environmental Protection Agency project categories** for the Clean Water State Revolving Fund and Drinking Water State Revolving Fund



Equity-Focused Services

- **Additional flexibility for the hardest-hit communities and families** to address health disparities, invest in housing, address educational disparities, and promote healthy childhood environments
- **Broadly applicable** to Qualified Census Tracts, other disproportionately impacted areas, and when provided by Tribal governments



Address Negative Economic Impacts

- **Deliver assistance to workers and families**, including support for unemployed workers, aid to households, and survivor's benefits for families of COVID-19 victims
- **Support small businesses** with loans, grants, in-kind assistance, and counseling programs
- **Speed the recovery of impacted industries**, including the tourism, travel, and hospitality sectors
- **Rebuild public sector capacity** by rehiring staff, replenishing state unemployment insurance funds, and implementing economic relief programs



Premium Pay for Essential Workers

- **Provide premium pay to essential workers**, both directly and through grants to third-party employers
- **Prioritize low- and moderate-income workers**, who face the greatest mismatch between employment-related health risks and compensation
- **Key sectors include** healthcare, grocery and food services, education, childcare, sanitation, and transit
- **Must be fully additive** to a worker's wages



Broadband Infrastructure

- **Focus on households and businesses** without access to broadband and those with connections that do not provide minimally acceptable speeds
- **Fund projects that deliver reliable service** with minimum 100 Mbps download / 100 Mbps upload speeds unless impracticable
- **Complement broadband investments** made through the Capital Projects Fund



Ineligible Uses

- **Changes that reduce net tax revenue** must not be offset with American Rescue Plan funds
- **Extraordinary payments into a pension fund** are a prohibited use of this funding
- **Other restrictions apply** to eligible uses

The examples listed in this document are non-exhaustive, do not describe all terms and conditions associated with the use of this funding, and do not describe all the restrictions on use that may apply. The U.S. Department of the Treasury provides this document, the State and Local contact channels, and other resources for informational purposes. Although efforts have been made to ensure the accuracy of the information provided, the information is subject to change or correction. Any Coronavirus State and Local Fiscal Recovery Funds received will be subject to the terms and conditions of the agreement entered into by Treasury and the respective jurisdiction, which shall incorporate the provisions of the Interim Final Rule and/or Final Rule that implements this program.

FACT SHEET: The Coronavirus State and Local Fiscal Recovery Funds Will Deliver \$350 Billion for State, Local, Territorial, and Tribal Governments to Respond to the COVID-19 Emergency and Bring Back Jobs

May 10, 2021

Aid to state, local, territorial, and Tribal governments will help turn the tide on the pandemic, address its economic fallout, and lay the foundation for a strong and equitable recovery

Today, the U.S. Department of the Treasury announced the launch of the Coronavirus State and Local Fiscal Recovery Funds, established by the American Rescue Plan Act of 2021, to provide \$350 billion in emergency funding for eligible state, local, territorial, and Tribal governments. Treasury also released details on how these funds can be used to respond to acute pandemic response needs, fill revenue shortfalls among these governments, and support the communities and populations hardest-hit by the COVID-19 crisis. With the launch of the Coronavirus State and Local Fiscal Recovery Funds, eligible jurisdictions will be able to access this funding in the coming days to address these needs.

State, local, territorial, and Tribal governments have been on the frontlines of responding to the immense public health and economic needs created by this crisis – from standing up vaccination sites to supporting small businesses – even as these governments confronted revenue shortfalls during the downturn. As a result, these governments have endured unprecedented strains, forcing many to make untenable choices between laying off educators, firefighters, and other frontline workers or failing to provide other services that communities rely on. Faced with these challenges, state and local governments have cut over 1 million jobs since the beginning of the crisis. The experience of prior economic downturns has shown that budget pressures like these often result in prolonged fiscal austerity that can slow an economic recovery.

To support the immediate pandemic response, bring back jobs, and lay the groundwork for a strong and equitable recovery, the American Rescue Plan Act of 2021 established the Coronavirus State and Local Fiscal Recovery Funds, designed to deliver \$350 billion to state, local, territorial, and Tribal governments to bolster their response to the COVID-19 emergency and its economic impacts. Today, Treasury is launching this much-needed relief to:

- Support urgent COVID-19 response efforts to continue to decrease spread of the virus and bring the pandemic under control;
- Replace lost public sector revenue to strengthen support for vital public services and help retain jobs;
- Support immediate economic stabilization for households and businesses; and,
- Address systemic public health and economic challenges that have contributed to the unequal impact of the pandemic on certain populations.

The Coronavirus State and Local Fiscal Recovery Funds provide substantial flexibility for each jurisdiction to meet local needs—including support for households, small businesses, impacted industries, essential workers, and the communities hardest-hit by the crisis. These funds also deliver resources that recipients can invest in building, maintaining, or upgrading their water, sewer, and broadband infrastructure.

Starting today, eligible state, territorial, metropolitan city, county, and Tribal governments may request Coronavirus State and Local Fiscal Recovery Funds through the Treasury Submission Portal. Concurrent with this program launch, Treasury has published an Interim Final Rule that implements the provisions of this program.

FUNDING AMOUNTS

The American Rescue Plan provides a total of \$350 billion in Coronavirus State and Local Fiscal Recovery Funds to help eligible state, local, territorial, and Tribal governments meet their present needs and build the foundation for a strong recovery. Congress has allocated this funding to tens of thousands of jurisdictions. These allocations include:

Type	Amount (\$ billions)
States & District of Columbia	\$195.3
Counties	\$65.1
Metropolitan Cites	\$45.6
Tribal Governments	\$20.0
Territories	\$4.5
Non-Entitlement Units of Local Government	\$19.5

Treasury expects to distribute these funds directly to each state, territorial, metropolitan city, county, and Tribal government. Local governments that are classified as non-entitlement units will receive this funding through their applicable state government. Treasury expects to provide further guidance on distributions to non-entitlement units next week.

Local governments should expect to receive funds in two tranches, with 50% provided beginning in May 2021 and the balance delivered 12 months later. States that have experienced a net increase in the unemployment rate of more than 2 percentage points from February 2020 to the latest available data as of the date of certification will receive their full allocation of funds in a single payment; other states will receive funds in two equal tranches. Governments of U.S. territories will receive a single payment. Tribal governments will receive two payments, with the first payment available in May and the second payment, based on employment data, to be delivered in June 2021.

USES OF FUNDING

Coronavirus State and Local Fiscal Recovery Funds provide eligible state, local, territorial, and Tribal governments with a substantial infusion of resources to meet pandemic response needs and rebuild a stronger, more equitable economy as the country recovers. Within the categories of eligible uses, recipients have broad flexibility to decide how best to use this funding to meet the needs of their communities. Recipients may use Coronavirus State and Local Fiscal Recovery Funds to:

- **Support public health expenditures**, by funding COVID-19 mitigation efforts, medical expenses, behavioral healthcare, and certain public health and safety staff;
- **Address negative economic impacts caused by the public health emergency**, including economic harms to workers, households, small businesses, impacted industries, and the public sector;
- **Replace lost public sector revenue**, using this funding to provide government services to the extent of the reduction in revenue experienced due to the pandemic;
- **Provide premium pay for essential workers**, offering additional support to those who have borne and will bear the greatest health risks because of their service in critical infrastructure sectors; and,
- **Invest in water, sewer, and broadband infrastructure**, making necessary investments to improve access to clean drinking water, support vital wastewater and stormwater infrastructure, and to expand access to broadband internet.

Within these overall categories, Treasury’s Interim Final Rule provides guidelines and principles for determining the types of programs and services that this funding can support, together with examples of allowable uses that recipients may consider. As described below, Treasury has also designed these provisions to take into consideration the disproportionate impacts of the COVID-19 public health emergency on those hardest-hit by the pandemic.

1. Supporting the public health response

Mitigating the impact of COVID-19 continues to require an unprecedented public health response from state, local, territorial, and Tribal governments. Coronavirus State and Local Fiscal Recovery Funds provide resources to meet these needs through the provision of care for those impacted by the virus and through services that address disparities in public health that have been exacerbated by the pandemic. Recipients may use this funding to address a broad range of public health needs across COVID-19 mitigation, medical expenses, behavioral healthcare, and public health resources. Among other services, these funds can help support:

- **Services and programs to contain and mitigate the spread of COVID-19, including:**
 - ✓ Vaccination programs
 - ✓ Medical expenses
 - ✓ Testing
 - ✓ Contact tracing
 - ✓ Isolation or quarantine
 - ✓ PPE purchases
 - ✓ Support for vulnerable populations to access medical or public health services
 - ✓ Public health surveillance (e.g., monitoring for variants)
 - ✓ Enforcement of public health orders
 - ✓ Public communication efforts
 - ✓ Enhancement of healthcare capacity, including alternative care facilities
 - ✓ Support for prevention, mitigation, or other services in congregate living facilities and schools
 - ✓ Enhancement of public health data systems
 - ✓ Capital investments in public facilities to meet pandemic operational needs
 - ✓ Ventilation improvements in key settings like healthcare facilities

- **Services to address behavioral healthcare needs exacerbated by the pandemic, including:**
 - ✓ Mental health treatment
 - ✓ Substance misuse treatment
 - ✓ Other behavioral health services
 - ✓ Hotlines or warmlines
 - ✓ Crisis intervention
 - ✓ Services or outreach to promote access to health and social services
- **Payroll and covered benefits expenses** for public health, healthcare, human services, public safety and similar employees, to the extent that they work on the COVID-19 response. For public health and safety workers, recipients can use these funds to cover the full payroll and covered benefits costs for employees or operating units or divisions primarily dedicated to the COVID-19 response.

2. **Addressing the negative economic impacts caused by the public health emergency**

The COVID-19 public health emergency resulted in significant economic hardship for many Americans. As businesses closed, consumers stayed home, schools shifted to remote education, and travel declined precipitously, over 20 million jobs were lost between February and April 2020. Although many have since returned to work, as of April 2021, the economy remains more than 8 million jobs below its pre-pandemic peak, and more than 3 million workers have dropped out of the labor market altogether since February 2020.

To help alleviate the economic hardships caused by the pandemic, Coronavirus State and Local Fiscal Recovery Funds enable eligible state, local, territorial, and Tribal governments to provide a wide range of assistance to individuals and households, small businesses, and impacted industries, in addition to enabling governments to rehire public sector staff and rebuild capacity. Among these uses include:

- **Delivering assistance to workers and families**, including aid to unemployed workers and job training, as well as aid to households facing food, housing, or other financial insecurity. In addition, these funds can support survivor's benefits for family members of COVID-19 victims.
- **Supporting small businesses**, helping them to address financial challenges caused by the pandemic and to make investments in COVID-19 prevention and mitigation tactics, as well as to provide technical assistance. To achieve these goals, recipients may employ this funding to execute a broad array of loan, grant, in-kind assistance, and counseling programs to enable small businesses to rebound from the downturn.
- **Speeding the recovery of the tourism, travel, and hospitality sectors**, supporting industries that were particularly hard-hit by the COVID-19 emergency and are just now beginning to mend. Similarly impacted sectors within a local area are also eligible for support.
- **Rebuilding public sector capacity**, by rehiring public sector staff and replenishing unemployment insurance (UI) trust funds, in each case up to pre-pandemic levels. Recipients may also use this funding to build their internal capacity to successfully implement economic relief programs, with investments in data analysis, targeted outreach, technology infrastructure, and impact evaluations.

3. Serving the hardest-hit communities and families

While the pandemic has affected communities across the country, it has disproportionately impacted low-income families and communities of color and has exacerbated systemic health and economic inequities. Low-income and socially vulnerable communities have experienced the most severe health impacts. For example, counties with high poverty rates also have the highest rates of infections and deaths, with 223 deaths per 100,000 compared to the U.S. average of 175 deaths per 100,000.

Coronavirus State and Local Fiscal Recovery Funds allow for a broad range of uses to address the disproportionate public health and economic impacts of the crisis on the hardest-hit communities, populations, and households. Eligible services include:

- **Addressing health disparities and the social determinants of health**, through funding for community health workers, public benefits navigators, remediation of lead hazards, and community violence intervention programs;
- **Investments in housing and neighborhoods**, such as services to address individuals experiencing homelessness, affordable housing development, housing vouchers, and residential counseling and housing navigation assistance to facilitate moves to neighborhoods with high economic opportunity;
- **Addressing educational disparities** through new or expanded early learning services, providing additional resources to high-poverty school districts, and offering educational services like tutoring or afterschool programs as well as services to address social, emotional, and mental health needs; and,
- **Promoting healthy childhood environments**, including new or expanded high quality childcare, home visiting programs for families with young children, and enhanced services for child welfare-involved families and foster youth.

Governments may use Coronavirus State and Local Fiscal Recovery Funds to support these additional services if they are provided:

- within a Qualified Census Tract (a low-income area as designated by the Department of Housing and Urban Development);
- to families living in Qualified Census Tracts;
- by a Tribal government; or,
- to other populations, households, or geographic areas disproportionately impacted by the pandemic.

4. Replacing lost public sector revenue

State, local, territorial, and Tribal governments that are facing budget shortfalls may use Coronavirus State and Local Fiscal Recovery Funds to avoid cuts to government services. With these additional resources, recipients can continue to provide valuable public services and ensure that fiscal austerity measures do not hamper the broader economic recovery.

Many state, local, territorial, and Tribal governments have experienced significant budget shortfalls, which can yield a devastating impact on their respective communities. Faced with budget shortfalls and pandemic-related uncertainty, state and local governments cut staff in all 50 states. These budget shortfalls and staff cuts are particularly problematic at present, as these entities are on the front lines of battling the COVID-19 pandemic and helping citizens weather the economic downturn.

Recipients may use these funds to replace lost revenue. Treasury's Interim Final Rule establishes a methodology that each recipient can use to calculate its reduction in revenue. Specifically, recipients will compute the extent of their reduction in revenue by comparing their actual revenue to an alternative representing what could have been expected to occur in the absence of the pandemic. Analysis of this expected trend begins with the last full fiscal year prior to the public health emergency and projects forward at either (a) the recipient's average annual revenue growth over the three full fiscal years prior to the public health emergency or (b) 4.1%, the national average state and local revenue growth rate from 2015-18 (the latest available data).

For administrative convenience, Treasury's Interim Final Rule allows recipients to presume that any diminution in actual revenue relative to the expected trend is due to the COVID-19 public health emergency. Upon receiving Coronavirus State and Local Fiscal Recovery Funds, recipients may immediately calculate the reduction in revenue that occurred in 2020 and deploy funds to address any shortfall. Recipients will have the opportunity to re-calculate revenue loss at several points through the program, supporting those entities that experience a lagged impact of the crisis on revenues.

Importantly, once a shortfall in revenue is identified, recipients will have broad latitude to use this funding to support government services, up to this amount of lost revenue.

5. Providing premium pay for essential workers

Coronavirus State and Local Fiscal Recovery Funds provide resources for eligible state, local, territorial, and Tribal governments to recognize the heroic contributions of essential workers. Since the start of the public health emergency, essential workers have put their physical well-being at risk to meet the daily needs of their communities and to provide care for others.

Many of these essential workers have not received compensation for the heightened risks they have faced and continue to face. Recipients may use this funding to provide premium pay directly, or through grants to private employers, to a broad range of essential workers who must be physically present at their jobs including, among others:

- | | |
|---|---|
| ✓ Staff at nursing homes, hospitals, and home-care settings | ✓ Truck drivers, transit staff, and warehouse workers |
| ✓ Workers at farms, food production facilities, grocery stores, and restaurants | ✓ Childcare workers, educators, and school staff |
| ✓ Janitors and sanitation workers | ✓ Social service and human services staff |
| ✓ Public health and safety staff | |

Treasury's Interim Final Rule emphasizes the need for recipients to prioritize premium pay for lower income workers. Premium pay that would increase a worker's total pay above 150% of the greater of the state or county average annual wage requires specific justification for how it responds to the needs of these workers.

In addition, employers are both permitted and encouraged to use Coronavirus State and Local Fiscal Recovery Funds to offer retrospective premium pay, recognizing that many essential workers have not yet received additional compensation for work performed. Staff working for third-party contractors in eligible sectors are also eligible for premium pay.

6. Investing in water and sewer infrastructure

Recipients may use Coronavirus State and Local Fiscal Recovery Funds to invest in necessary improvements to their water and sewer infrastructures, including projects that address the impacts of climate change.

Recipients may use this funding to invest in an array of drinking water infrastructure projects, such as building or upgrading facilities and transmission, distribution, and storage systems, including the replacement of lead service lines.

Recipients may also use this funding to invest in wastewater infrastructure projects, including constructing publicly-owned treatment infrastructure, managing and treating stormwater or subsurface drainage water, facilitating water reuse, and securing publicly-owned treatment works.

To help jurisdictions expedite their execution of these essential investments, Treasury's Interim Final Rule aligns types of eligible projects with the wide range of projects that can be supported by the Environmental Protection Agency's Clean Water State Revolving Fund and Drinking Water State Revolving Fund. Recipients retain substantial flexibility to identify those water and sewer infrastructure investments that are of the highest priority for their own communities.

Treasury's Interim Final Rule also encourages recipients to ensure that water, sewer, and broadband projects use strong labor standards, including project labor agreements and community benefits agreements that offer wages at or above the prevailing rate and include local hire provisions.

7. Investing in broadband infrastructure

The pandemic has underscored the importance of access to universal, high-speed, reliable, and affordable broadband coverage. Over the past year, millions of Americans relied on the internet to participate in remote school, healthcare, and work.

Yet, by at least one measure, 30 million Americans live in areas where there is no broadband service or where existing services do not deliver minimally acceptable speeds. For millions of other Americans, the high cost of broadband access may place it out of reach. The American Rescue Plan aims to help remedy these shortfalls, providing recipients with flexibility to use Coronavirus State and Local Fiscal Recovery Funds to invest in broadband infrastructure.

Recognizing the acute need in certain communities, Treasury's Interim Final Rule provides that investments in broadband be made in areas that are currently unserved or underserved—in other words, lacking a wireline connection that reliably delivers minimum speeds of 25 Mbps download and 3 Mbps upload. Recipients are also encouraged to prioritize projects that achieve last-mile connections to households and businesses.

Using these funds, recipients generally should build broadband infrastructure with modern technologies in mind, specifically those projects that deliver services offering reliable 100 Mbps download and 100

Mbps upload speeds, unless impracticable due to topography, geography, or financial cost. In addition, recipients are encouraged to pursue fiber optic investments.

In view of the wide disparities in broadband access, assistance to households to support internet access or digital literacy is an eligible use to respond to the public health and negative economic impacts of the pandemic, as detailed above.

8. Ineligible Uses

Coronavirus State and Local Fiscal Recovery Funds provide substantial resources to help eligible state, local, territorial, and Tribal governments manage the public health and economic consequences of COVID-19. Recipients have considerable flexibility to use these funds to address the diverse needs of their communities.

To ensure that these funds are used for their intended purposes, the American Rescue Plan Act also specifies two ineligible uses of funds:

- **States and territories may not use this funding to directly or indirectly offset a reduction in net tax revenue due to a change in law from March 3, 2021 through the last day of the fiscal year in which the funds provided have been spent.** The American Rescue Plan ensures that funds needed to provide vital services and support public employees, small businesses, and families struggling to make it through the pandemic are not used to fund reductions in net tax revenue. Treasury's Interim Final Rule implements this requirement. If a state or territory cuts taxes, they must demonstrate how they paid for the tax cuts from sources other than Coronavirus State Fiscal Recovery Funds—by enacting policies to raise other sources of revenue, by cutting spending, or through higher revenue due to economic growth. If the funds provided have been used to offset tax cuts, the amount used for this purpose must be paid back to the Treasury.
- **No recipient may use this funding to make a deposit to a pension fund.** Treasury's Interim Final Rule defines a "deposit" as an extraordinary contribution to a pension fund for the purpose of reducing an accrued, unfunded liability. While pension deposits are prohibited, recipients may use funds for routine payroll contributions for employees whose wages and salaries are an eligible use of funds.

Treasury's Interim Final Rule identifies several other ineligible uses, including funding debt service, legal settlements or judgments, and deposits to rainy day funds or financial reserves. Further, general infrastructure spending is not covered as an eligible use outside of water, sewer, and broadband investments or above the amount allocated under the revenue loss provision. While the program offers broad flexibility to recipients to address local conditions, these restrictions will help ensure that funds are used to augment existing activities and address pressing needs.

AGENDA MANAGEMENT

264	Approve DRMP for CEI @ Bayside Park	PW	added 10.04.2021	11.15.2021
231	Selection of Mayor / Vice Mayor	TC	added 09.07.2021	11.15.2021
232	Town Council: Outside committee (re)appointments	TC	added 09.07.2021	11.15.2021
233	Town Council: In-house committee (re)appointments	TC	added 09.07.2021	11.15.2021
268	Dual Board Lighting Purchase	PW	added 10.12.2021	11.15.2021
276	Purchase Playground Equipment: BORC / Beach School	PW	added 10.22.2021	11.15.2021
277	Clean Vessel Grant application: pumpout boat	PW	added 10.22.2021	11.15.2021
278	Special Event Application: New Year's Eve fireworks	C, P&R	added 10.27.2021	11.15.2021
269	FY23 TDC application	C,P&R	added 10.15.2021	12.07.2021 M&P
226	Resolution: Renewal of Multi-jurisdictional PPI	P&Z	added 08.23.2021	To Nov LPA
254	Committee Reorganizations (BV)	TC	added 10.07.2021	TBD M&P
205	Memorial Naming Options (Dan Hughes)	TC	added 06.07.2021	TBD M&P
267	Mooring Field Upland Services site discussion	PW	added 09.28.2021	TBD M&P