

COASTAL PARTNERSHIP INITIATIVE
<https://floridadep.gov/rcp/fcmp/content/grants>

GRANT APPLICATION

Refer to Rule Chapter 62S-4, Florida Administrative Code, available at <https://floridadep.gov/rcp/fcmp/content/grants> for information on funding requirements and evaluation criteria.

Eligible applicants for the Coastal Partnership Initiative are local governments of the 35 coastal counties and all municipalities within their boundaries required to include a coastal element in the local comprehensive plan. Florida colleges, community colleges, state universities, regional planning councils, national estuary programs and non-profit groups may also apply, as long as an eligible local government agrees to participate as a partner, and a local government representative with appropriate binding signatory authority signs the application.

Submittal Requirements

1. One application per applicant may be submitted per grant cycle (i.e., one application per county, city, or other eligible applicant.)
2. Applicants may request:
 - a) no more than \$30,000 and no less than \$10,000 for planning, design and coordination activities; and
 - b) no more than \$60,000 and no less than \$10,000 for construction projects, habitat restoration, invasive exotic plant removal, and land acquisition. These projects cannot involve planning/coordination tasks or components.
3. Non-profit groups are not eligible to receive funds for construction projects, invasive exotic plant removal, habitat restoration, or land acquisition. Applications submitted by non-profit groups that propose these activities (as listed in 62S-4.004(2)(c)) will be disqualified.
4. Funding is available only for project work initiated and completed during a 12-month period beginning July 1 and ending June 30.
5. One original signed application, electronic or paper, must be submitted.
6. All applications must be submitted on the CPI Application Form.
7. Applications must be submitted via email to FCMPMail@FloridaDEP.gov or mailed to the address below by 4:00 p.m. on the date identified in the notice of availability of funds to:

Department of Environmental Protection
Florida Coastal Management Program, MS 235
ATTN: CPI Applications
2600 Blair Stone Road, MS 235
Tallahassee, FL 32399-3000

Faxed or late applications will not be considered and will be disqualified.

A. TITLE PAGE

Project Title: Delray Beach Marine Way WaStop Check Valve Installation

CPI Initiative Priority Area(s): Resilient Communities

Applicant Name and Name of Partner Entity (if applicable):

City of Delray Beach

Official Contact Name: Missie Barletto

Title: Director of Public Works

Phone: 561-243-4104

Email Address: barlettom@mydelraybeach.com

Postal Address: 434 S. Swinton Avenue

Delray Beach, FL, 33444

Applicant DUNS/UEI Number: 077283737

Applicant FEIN: 59-6000308

Link to coastal element: Intracoastal Waterway linked to Atlantic Ocean

Proposed Project Manager Name: Daisy Zheng, P.E. Email: zhengx@mydelraybeach.com

Certification Statement

“By signing this title page, the undersigned certifies that:

- a. This application is in all respects fair and submitted in good faith without collusion or fraud;
- b. If selected through this application process, the recipient will work in good faith and in partnership with the Florida Coastal Management Program to manage its subgrant in a timely and accurate manner;
- c. Any funds awarded as a result of this application process will not be used to supplant or replace any state or local funds;
- d. Any funds awarded as a result of this application process will not be used as matching funds to apply for or receive other federal funds;
- e. No federal funds will be used as match for funds awarded as a result of this application process;
- f. The applicant local government’s adopted comprehensive plan has been found to be in compliance with Chapter 163, Part II, F.S.;
- g. **[If construction is proposed] The applicant submitted a completed NOAA 306A questionnaire, supplied the required attachments, conducted preliminary consultation with appropriate federal, state, regional and local regulatory agencies and has permits and approvals regarding any construction proposed in the application and has documented the results of the consultation in the Project Description section of the Work Plan;**
- h. [If construction projects, habitat restoration or invasive species removal are proposed] The property on which these activities will take place is owned or leased by the applicant or the applicant holds a sufficient easement; detailed means methods and best management practices to be used for the project and;
- i. The undersigned has full authority to bind the applicant.”

_____	<u>Terrence R. Moore, ICMA-CM</u>	_____
Signature	Name & Title	Date

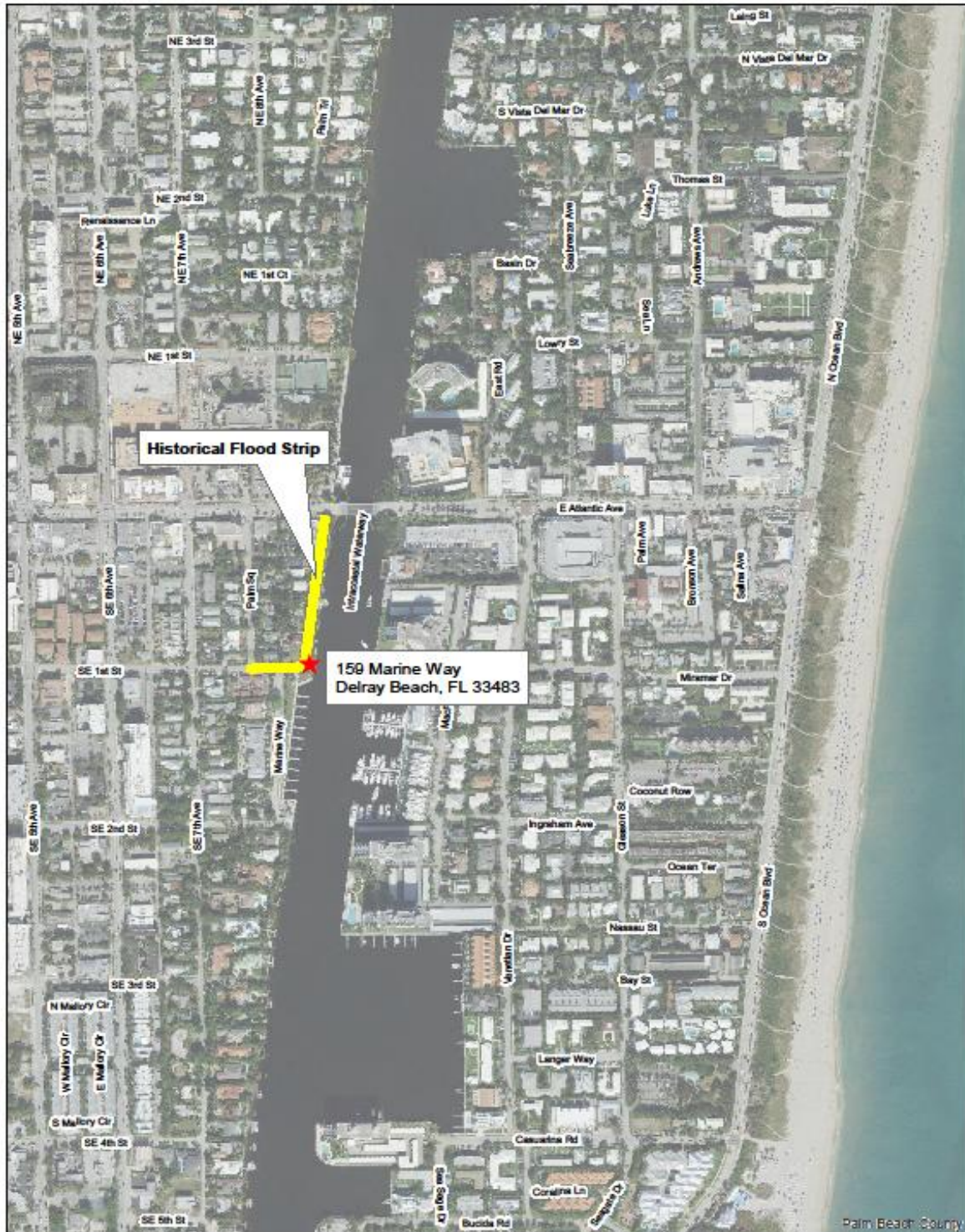
If applicant is a Florida college, community college, state university, regional planning council, national estuary program or non-profit group, include the signature, name, and title of contact for partnering entity; the name of the eligible county or city partner; and the date.

_____	_____	_____	_____
Signature of Partner	Name & Title	County or City Partner Entity	Date

B. PROJECT LOCATION MAP

Include a project location map no larger than 8½" x 11".

(10 pts.)*



* NOTE: The maximum number of points for scored application components is indicated in each section.

C. WORK PLAN (Expand text boxes as needed, keeping within the 10-page Work Plan limit)

This section describes the project and cannot exceed 10 single sided pages or 5 double sided pages. If letters of support or other materials are submitted to address the Work Plan components below, these items will count toward the maximum 10 pages of the application Work Plan; any additional pages or Appendices will be discarded and not considered in the evaluation of the application. The Title Page, Location Map, Budget and Budget Narrative do not count toward the 10-page limit of the Work Plan.

1. PROJECT DESCRIPTION.

a. Describe in detail the activity or work to be conducted; include project location information. (15 pts.)

Project Location: 159 Marine Way, Delray Beach, FL 33483

The City of Delray Beach ("City"), lying in Palm Beach County, is approximately 16.5 square miles, located along the Atlantic Ocean, with a population of 70,000. The City owns 2 outfall pipes (DIA 18" and 24") located at City Marina (the intersection of Marine Way and SE 1st Street in Delray Beach, FL). Those outfall pipes have rubber duckbill valves which have deteriorated over time and no longer close completely. In order to protect this area, the duckbill valves need to be replaced with in-line check valves to reduce excess street flooding caused by intracoastal water backup during king tide or hurricane events. Residents and businesses in the area have repeatedly complained about street flooding as far back as 2015 (see appendix 3), raising safety concerns about travelling in that area and the potential for damage to nearby private properties and roads. This area is also listed on the National Register as a recognized historic district for community planning, development, and architecture (see appendix 5). The City proposes to install WaStop in-check valves (Appendix 4) on the discharge opening of existing storm pipes to the intracoastal. This patented check valve only allows storm water flow out and prevent reverse seawater flow in from the intracoastal. The check valve is made of stainless steel and is hidden inside the pipe which will protect it from the sun, extreme heat, corrosive salt water, and potential marine growth. It is a superior product compared to rubber duckbill check valves. WaStop has a proven success record in South Florida coastal communities. City of Delray Beach has installed over 7 WaStop check valves and they have proven to be effective and require low maintenance.

b. Describe specific project objectives, tasks, and deliverables and related timelines for each. Objectives and tasks should clearly relate to the project description.

(20 pts.)

The City's objective in completing the WaStop in-check valve project is to protect the Delray Beach coastal communities from seasonal flooding due to extreme heavy rain events (e.g. hurricanes) and resilient king tide events. The tasks to be completed as part of the project include the removal of existing rubber duckbill valves from 18" and 24" outfall pipes and the installation of new WaStop check valves. These tasks will be completed by the City of Delray Beach and a local licensed contractor. City of Delray internal staffs will handle procurement, permits, MOT, project management, inspection, and as built certificate. The local licensed contractor shall complete the construction and installation of the WaStop in-check valves. The deliverables and timelines are as follows:

1) Apply for permits and MOT and obtain approval (estimated 3 months)

- 2) Present project to city commissioners and Obtain approval (estimated 1 month)
- 3) Issue purchase order to local contractor and the contractor will install WaStop check valve on the designated pipe discharge opening using a barge. Need to wait for low tide (estimated 1 month)
- 4) Inspection and As-Built certificate-project closure (estimated 1 month).

2. PROJECT NEED AND BENEFIT

- a. Explain the demonstrated need, which the project addresses. **(25 pts.)**

Project Need: The intersection of Marine Way and SE 1st Street in Delray Beach, FL, referred to as the Marine Way Neighborhood, sits on the west side of the intracoastal water way, which is tidally connected with the Atlantic Ocean. The Marine Way Neighborhood was the first planned residential community in Delray Beach and was designated by the City as a historic district in 1988. This District, the Marina Historic District, is also on the National Register of Historical Places. During king tide events, even on a sunny day, significant flooding can be observed along Marine Way between SE 1st Street and Atlantic Avenue. Along this strip, there are business and private residential homes. During flooding, business owners suffer reduced income due to unsafe travelling conditions and homeowners suffer water damage and ruined landscaping. Roadway on the flooding strip has also suffered severe erosion due to flooding.

There are 3 outfall pipes which discharge directly into the intracoastal at the intersection of Marine Way and SE 1st Street. Two of them are owned by the City and are equipped with duckbill valves. The duckbill valves are made of rubber and, being exposed to the South Florida sun and sea water, have deteriorated over time. They no longer close completely allowing seawater to flow back into the pipes. By replacing them with stainless steel WaStop check valves, seawater will be prevented from flowing back into the drainage pipe during tidal events while still allowing stormwater discharge into the intracoastal. The project will reduce street flooding through the back flow of seawater through the discharge pipe during high tide events and protect nearby residents and businesses.

- b. Explain how the proposed project meets the purpose of at least one CPI priority area. **(10 pts.)**

CPI Priority area: Resilient Communities

The City of Delray beach is located in southeast Florida lying within Palm Beach County. The City is located along the Atlantic Ocean, including portions of the Intracoastal Waterway (ICW), which is tidally connected to the Atlantic Ocean. Along the ICW, the City is densely developed with private houses, streets, parks, and other facilities. The City has experienced more frequent and increased seasonal flooding caused by inundation from the ICW during elevated water levels. The project is designed to protect Delray's public infrastructure and private properties from flooding due to seawater backflow and, thereby, improve community resiliency to coastal hazards.

- c. Discuss the extent to which the project will improve the management and protection of coastal resources and identify any potential negative impacts. **(25 pts.)**

This Project will provide better protection for the Marina Historic District, which is a vital coastal resource for Delray Beach. The project will significantly reduce the risk of street flooding due to seasonal high tide events (king tides) or heavy rain events (e.g., hurricanes). The project will protect the City's infrastructure (i.e., City Marina), and nearby private property and businesses. It will also

improve the City's resiliency to coastal sea level rising and provide a safe and sustainable coastal community to its citizens.

There is no potential negative impact.

d. Discuss how project is feasible and can be completed within 12 months.

(10 Pts.)

Over the past three years, the City of Delray Beach has installed 7 WaStop check valves. These WaStop check valves have proven successful in preventing sunny day flooding caused by water backflow due to sea level rising. The City is familiar with the purchase and installation of WaStop check valves and the amount of time necessary to complete this type of project. All 7 WaStop check valves previously installed by the City were completed within 6 months. Additionally, vendors were provided notice of this potential project. The City is confident this Project can feasibly be completed within 6 months.

BUDGET and BUDGET NARRATIVE

(15 Pts.)

Type dollar amounts only in applicable categories (round to nearest dollar; no cents) and leave other categories blank. A recipient will be required to provide 100% (1:1) matching funds, cash or in-kind. No more than one-half (50%) of match can be provided by a third party.

<u>Budget Category</u>	<u>FCMP Funds</u>	<u>MATCH Funds</u>
1. Salaries	_____	<u>\$32,900</u>
2. Fringe Benefits	_____	<u>\$21,056</u>
3. Travel	_____	_____
4. Equipment	_____	_____
5. Supplies	_____	_____
6. Contractual Services	<u>\$50,295</u>	_____
7. Other Expenses	_____	<u>\$5000</u>
8. Indirect Charges	_____	_____
FCMP Total	_____	
Match Total		<u>\$58,956</u>
Total FCMP & Match Funds	<u>\$109,251</u>	

If budget exceeds the amount shown on the "Total" line above, indicate the total project cost: \$_____

BUDGET NARRATIVE: Describe line items for each applicable budget category shown above. Provide sufficient detail to show cost relationship to project activities for both FCMP and match items. **Indirect costs are not allowed as match.**

Total FCMP Funds Requested \$50,295

Salaries:

Fringe Benefits:

Travel:

Equipment:

Supplies:

Contractual Services: \$50,295 check valve installer's quote plus annual expected inflation, see appendix 1

Other Expenses:

Indirect Charges:

Total Match Funds: \$58,956

Salaries: \$32,900 City internal staffs to handle permits, MOT, purchasing and project management

Fringe Benefits: \$21,056 City's fringe benefits including worker compensation, health/dental insurance, unemployment, retirement etc. It is estimated to be 64% of employee's salary.

Travel:

Equipment:

Supplies:

Contractual Services:

Other Expenses: \$5000 include fees related with permits, MOT, survey, and as built certificate.

NOTE: Project costs will be evaluated for reasonability, and the application is eligible for up to 10 points based on the evaluation of costs.

Appendix 1. Quote from Check Valve Contractor (\$50,295)

Note-48" pipe there belongs to FDOT, not the city. The quoted price is adjusted with the expected inflation of 5% in 2022 ($\$47,900 \times 1.05 = \$50,295$)



Hinterland Group, Inc.
2051 W Blue Heron Blvd
Riviera Beach, FL 33404

(561) 640-3503 - Phone

FAX - 561-640-3504

ALL PO's/Contractual Issuances are to be emailed to: info@hinterlandgroup.com

Proposal # 21-0273-00

ADDRESS

Daisy Zheng, P.E.
City of Delray Beach
zhengx@mydelraybeach.com

DATE: 9/15/2021

JOB NAME: Delray Beach - Marine Way & SE 1st St. - Outfall Check Valves

ACTIVITY	QUANTITY	UNIT	RATE	AMOUNT
Removal of 2 Duck Bill Valves and preparation of 3 outfalls for proper WaStop Valve Installation	1	LS	\$13,000.00	\$13,000.00
Barnacle removal and cleaning	1	Day	\$1,700.00	\$1,700.00
Turbidity Barrier	1	LS	\$500.00	\$500.00
Furnish and Install an 18" WaStop Valve	1	LS	\$13,800.00	\$13,800.00
Furnish and Install a 24" Wa Stop Valve	1	LS	\$18,900.00	\$18,900.00
Furnish and install a 48" Wa Stop Valve	1	LS	\$64,100.00	\$64,100.00
TOTAL				\$112,000.00

Exclusions:

- Permitting
- Maintenance of Traffic
- Proposal pricing is budgetary and is based on quotes received on 9/15/2021. Actual price is subject to change and will be determined based on market conditions at time of award.

ALL PO's/Contractual Issuances are to be emailed to: info@hinterlandgroup.com

Accepted By: _____

Accepted Date: _____

← → ↺ https://www.in2013dollars.com/inflation-rate-in-2021

★ CPI Inflation Calculator U.S. Canada U.K. Australia Europe More Countries

U.S. inflation rate in 2021: 5.25%

Amount	Start year	End year	Calculate	Inflation from 2020 to 2021	
\$ 1	2020	2021		Average inflation rate	5.25%
				Converted amount (\$1 base)	\$1.06
				Price difference (\$1 base)	\$0.06
				CPI in 2020	258.812
				CPI in 2021	273.567
				Inflation in 2020	1.23%
				Inflation in 2021	5.25%
				\$1 in 2020	\$1.06 in 2021

[\\$1 in 2015 → 2021](#) [Future inflation calculator](#)

Inflation in 2021 and its effect on dollar value

\$1 in 2020 is equivalent in purchasing power to about \$1.06 today. The dollar had an average inflation rate of 5.25% in the last 12 months. As a result, the real value of a dollar has been decreasing recently. Purchasing power decreased by 5.25% in 2021 compared to 2020. On average, you would have to spend 5.25% more money in 2021 than in 2020 for the same item.

Appendix 2. Match Funds calculation

Staff	Responsibility	Estimated Hours	Hourly Rate	Fringe Benefits (64% of hourly rate)	Estimated Total \$
Project Manager	Obtain applicable permits, MOT, manage project, and coordinate with supplier and contractor.	480	\$30	\$19.20	\$23,616
Engineer	Review plans/drawing, oversee project execution and grand administration	200	\$40	\$25.60	\$13,120
Stormwater Maintenance Superintendent	Coordinate with field installation and inspection	150	\$30	\$19.20	\$7,380
Other Support (such as purchasing agent, admin staff and etc.)	Handle misc. paperwork related with this project	200	\$30	\$19.20	\$9,840
Total Salaries			\$32,900		
Total Fringe Benefits				\$21,056	
Other Fees related with permits, MOT, and as-built certificate					\$5,000
Total Match Funds					\$58,956.00

Appendix 3. Pictures

Picture was taken during 2015 king tide. Marine Way and SE 1st street has severe street flooding. This area has been experiencing flood issue for a long time.



Appendix 4. WASTOP® In-Line Check Valve Fact Sheet



WASTOP® INLINE CHECK VALVE



We all know someone who has been affected by it. We see it, feel it and experience it. Climate change and rising sea levels are affecting us all. Through the innovation of WaStop Inline Check Valve, we at Wapro have prevented thousands of floods worldwide.

In order to protect against flooding, we at Wapro have engineered the WaStop to ensure the lowest possible opening pressure whilst maintaining the best possible seal against backflow. This, combined with the lowest headloss available, gives the most efficient flow conditions, ensuring the fastest evacuation of water. An essential quality of check valves used to protect people and property. WaStop protects.

THE BENEFITS OF WASTOP®

- Easy installation saving on construction & installation costs
- Superior construction materials
- Lowest headloss amongst inline check valves
- Low life cycle cost
- No moving parts - virtually maintenance-free
- Many dimensions 3" - 80" std & non-standard pipes
- Stops liquids, gases, odors, insects and small animals
- Stops backflow effectively even in low flow events

APPLICATIONS - WASTE WATER, SURFACE WATER, TIDAL AREAS

We at Wapro know that any solution for flood prevention or odor control needs to function. Simply, effectively. That's why, when we invented the WaStop inline check valve in 2000 we had one thought in mind. Instant automatic protection. Working on differential pressure the WaStop functions autonomously, without human interaction, without electricity, without constant maintenance. It just works.

To invent the best inline check valve on the market our engineers went one step further. We also thought about the different parts of the process and who would be affected by the design of the valve. With function at the forefront of their minds, our engineers developed a valve that works in stormwater, sewer, odor applications, as well as ensuring coverage of existing pipes sizes to enable retro-fitting with ease. We cover all sizes of pipes, all shapes, from 3" - 80". As standard. Off the shelf in most cases, for fast delivery. We keep a stock to ensure the contractor and end user can keep time and costs to a minimum.





Appendix 5. Marina Historic District (National Register of Historic Places)

[MARINA HISTORIC DISTRICT \(nps.gov\)](https://www.nps.gov/marinahistoricdistrict)

National Register of Historic Places Program

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

Property Name	MARINA HISTORIC DISTRICT
Reference Number	14000268
State	Florida
County	Palm Beach
Town	Delray Beach
Street Address	Bounded by E. Atlantic Av, Marine Way , SE 3rd St, SE 7th St.
Multiple Property Submission Name	N/A
Status	Listed 6/2/2014
Areas of Significance	ARCHITECTURE, COMMUNITY PLANNING AND DEVELOPMENT, COMMERCE
Link to full file	https://npgallery.nps.gov/AssetDetail/NRIS/14000268

The Marina Historic District fulfills criteria A and Cat the local level for listing in the National Register of Historic Places in the areas of Community Planning & Development and Architecture. The district possesses significance as the first planned residential area in Delray Beach. It contains a distinctive collection of buildings in the heart of the waterfront section of the community. Most buildings historically served as winter homes for vacationers from the northern and Midwestern states, starting in the Florida Land Boom era of the 1920s. From the 1930s to the 1940s, many of the newcomers to the neighborhood became permanent residents. The period of significance is from 1924 to 1949. The district is also significant for its architecture. The Marina Historic District displays a variety of architectural styles, including Mediterranean and Mission Revival, Monterey, Minimal Traditional, Frame Vernacular and Art Moderne. The Marina Historic District has maintained a high level of integrity. A number of the distinctive buildings in the district were designed by the prominent local architects Gustav Maass, Samuel Ogren, Sr., and Henry Pope. The City of Delray Beach officially designated the Marina neighborhood as a historic district in 1988.