City of Madeira Beach Parking Study Phase One

Phase One Summary Report

DRAFT

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CITY OF MADEIRA BEACH, FLORIDA
PINELLAS COUNTY
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TRANSPORTATION ENGINEERING • PLANNING

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Study Overview and Scope

The City of Madeira Beach Parking Feasibility Study was initiated at the direction of the City Board of Commissioners to evaluate available parking information and to provide a recommended plan of action. The Scope of Professional Service separates the work into two core parking tasks:

- Existing Conditions and Demand Analysis
- John's Pass Village Needs Assessment

Task 1 reviews existing parking supply and current utilization for areas north and outside John's Pass Village including public, private, on-street, and off-street parking, and documents locations with surplus or deficient parking. Task 2 separately evaluates parking needs within John's Pass Village.

Within John's Pass Village, the scope calls for review of up to three City-selected locations to determine whether they are feasible to meet parking demand and to estimate the amount of additional parking needed. The feasibility review considers whether a garage can fit and function at each site, along with constructability, utilities, parcel dimensions, zoning and land use, access and operations, permitting or property needs, developable parking capacity, cost, and major risks. The three locations evaluated in Phase One are located at 130th Avenue, John's Pass Park, and at the John's Pass Village Lot.

The garage concepts are therefore one part of a broader parking study rather than the sole purpose of the work. The initial scope assumes stand-alone public parking garages without ancillary uses and applies typical costs and design treatments at a planning/conceptual level. It does not assume detailed financial bonding projections or engineering design layouts. That distinction allows this evaluation to compare garage feasibility with observed parking conditions, and to consider operational improvements before determining whether any site should advance into more costly detailed engineering or financial analysis investments.

To establish how existing parking is actually being used, multiple occupancy counts were conducted during different days and times. These field observations provided a direct measure of parking occupancy, where spaces remained available, and how conditions changed between peak and lower-demand periods.

The existing John's Pass Village Garage provides an important real-world comparison because it shows how a structure of similar scale functions in the study area. The existing garage is approximately 115 by 180 feet with 318 spaces, and field observations documented more than 10 percent availability even during peak observation periods. That remaining capacity is significant because it indicates that improved visibility, wayfinding, access, and coordination may increase effective parking supply without immediately needing to build another structure.

The operational recommendations follow the same systemwide approach. Better wayfinding, coordination with the existing private garage, parking partnerships, possible parking expansion at the Fisherman Alley's planned development, overflow and drop-off opportunities, and streetscape improvements along Village Boulevard are each evaluated alongside new construction. These measures can improve how existing parking spaces are found and used, address specific access problems, and test lower-capital improvements before the City commits to a major garage investment.

Taken together, the findings describe a connected parking system rather than a single-site problem. Occupancy varies by location and time, while access, walking distance, signage, pricing, circulation, and the visibility of existing parking significantly influence where drivers choose to park. For that reason, the potential benefit of a new garage should be considered together with the improvements that could make current public and private parking work more effectively.

The purpose of this summary report is to give the City a clear record of the work completed in Phase One, the principal findings, and the alternatives that can be tested next. It does not select a preferred garage site. Instead, it places garage feasibility in the context of existing parking performance and identifies practical operational improvements that can move forward while any larger capital decision is considered.

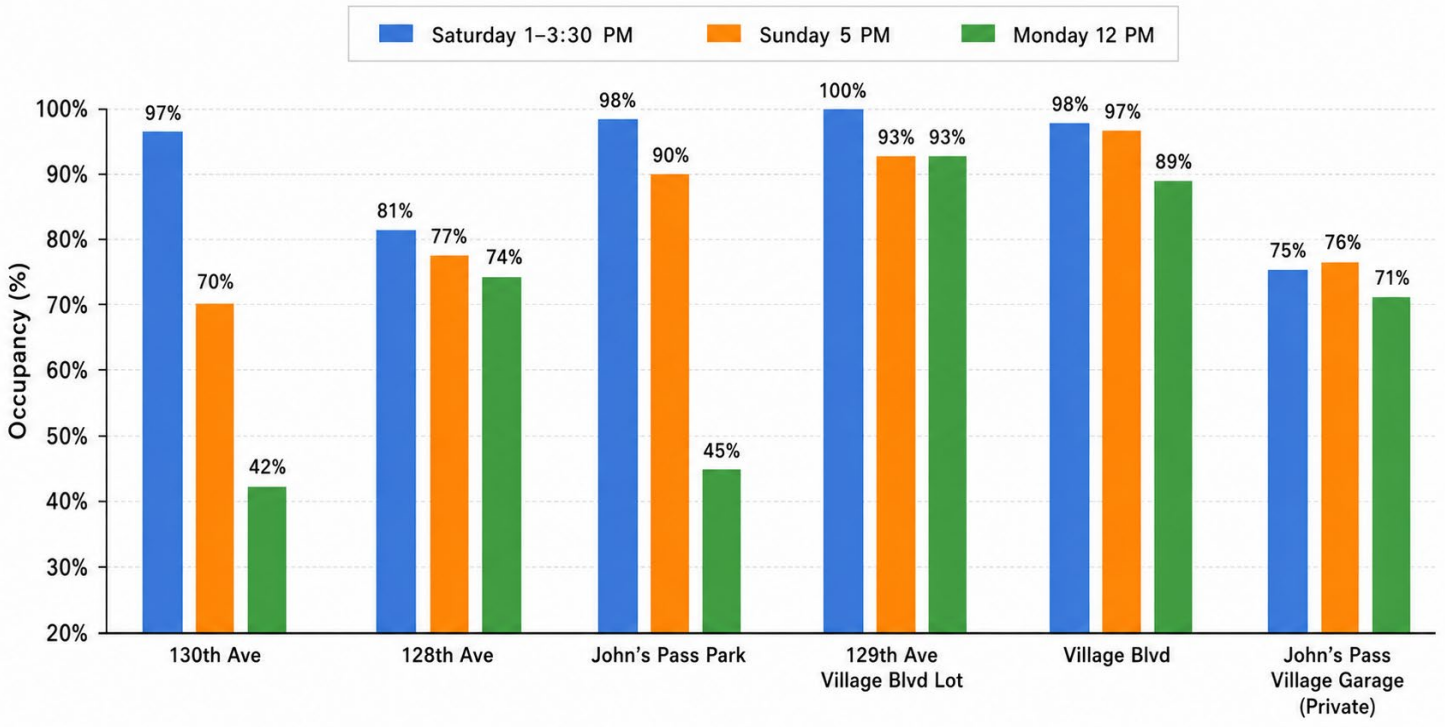
Existing Parking Use

To understand how parking was actually being used, Phase One relied on repeated fieldwork rather than a single snapshot. Multiple parking-occupancy counts were completed at different locations, days, and times, while separate field reviews documented access, circulation, signs, walking routes, driver decision points, and the condition of surrounding parking areas. The team then compared those observations with available parking-revenue spreadsheets and Placer.ai visitation data. Cross-checking the sources helped distinguish recurring patterns from one unusually busy or quiet observation and created a more complete record of how the parking system functions. This combination of repeated counts, on-site review, and independent data comparison is the basis for the location-by-location findings that follow.

The location-by-location results demonstrate why supply and occupancy have to be considered together. The John's Pass Village Lot experienced the greatest observed occupancy of the three possible garage sites, while the private John's Pass Village Garage directly across the street retained more than 10 percent availability during peak observations. That contrast points to a practical opportunity: before adding new supply, the City can test whether

better visibility, wayfinding, pricing information, and pedestrian connections can direct more drivers to capacity that already exists.

The occupancy data shown above was collected during June 2026 across multiple observation periods, including Saturday afternoon, Sunday evening, and Monday around midday. The observations were intentionally spread across weekend and weekday conditions to show how parking demand changes by day and time rather than relying on a single peak-period count. June also represents an important seasonal period for Madeira Beach, as regional tourism and recreational travel increase following the end of the school year and the beginning of summer vacation. Together, these observations provide a useful comparison of peak activity and the variation in parking use across the study area.



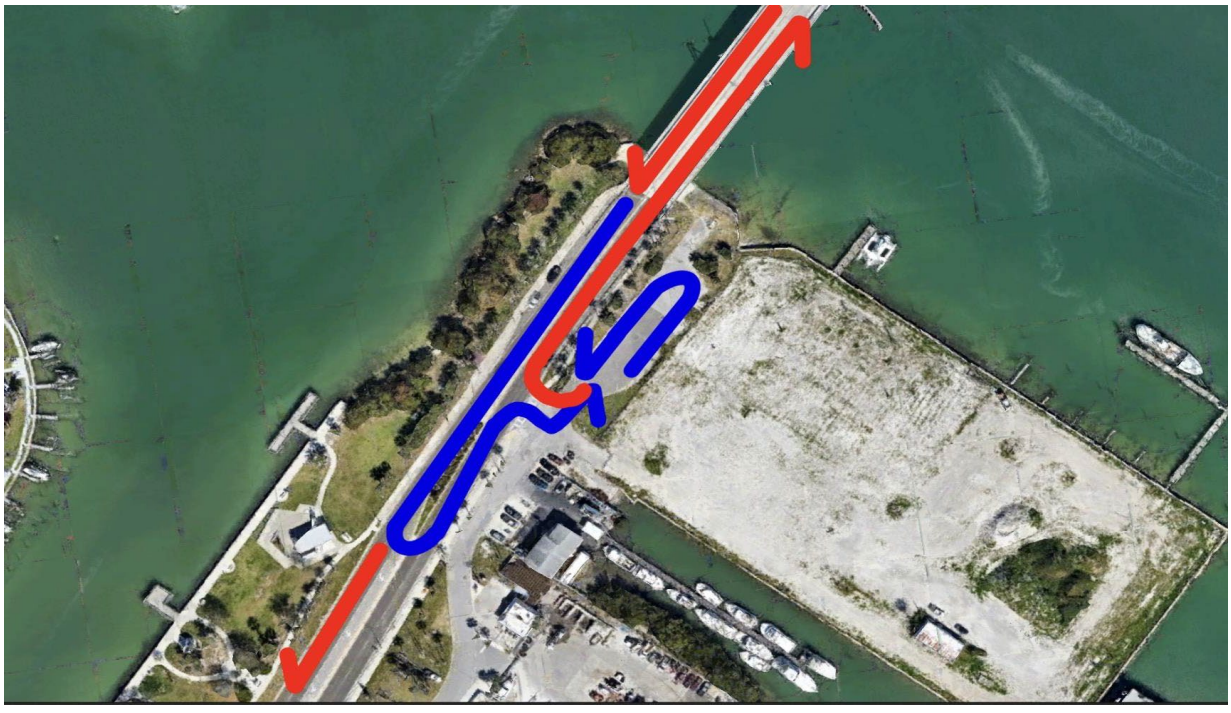
Access from the City Marina

The new City property next to the Marina on the south side of Tom Stuart Causeway was first reviewed as a potential park-and-ride location. The site could intercept some trips before they reach the beach and John's Pass, but circulation is a central constraint. From the marina, Gulf Boulevard and John's Pass lie generally to the southwest. Reaching those destinations requires drivers to reconnect with 150th Avenue, cross the causeway toward Gulf Boulevard, and continue south, while some site movements may still require indirect turns or double-back travel. That makes access less direct and less intuitive for visitors.

A right-in/right-out pattern would be more effective where possible. That approach would simplify movements, but it would not by itself solve every access question. A park-and-ride location must work as part of a complete trip, including arrival, parking, transfer, return, and departure.

A full median driveway opening would require an FDOT permit and would be located close to the bridge span. The preliminary findings do not treat that opening as an easy or assumed improvement. It remains an access issue that would need to be resolved before the marina could be relied upon as a significant park-and-ride location.

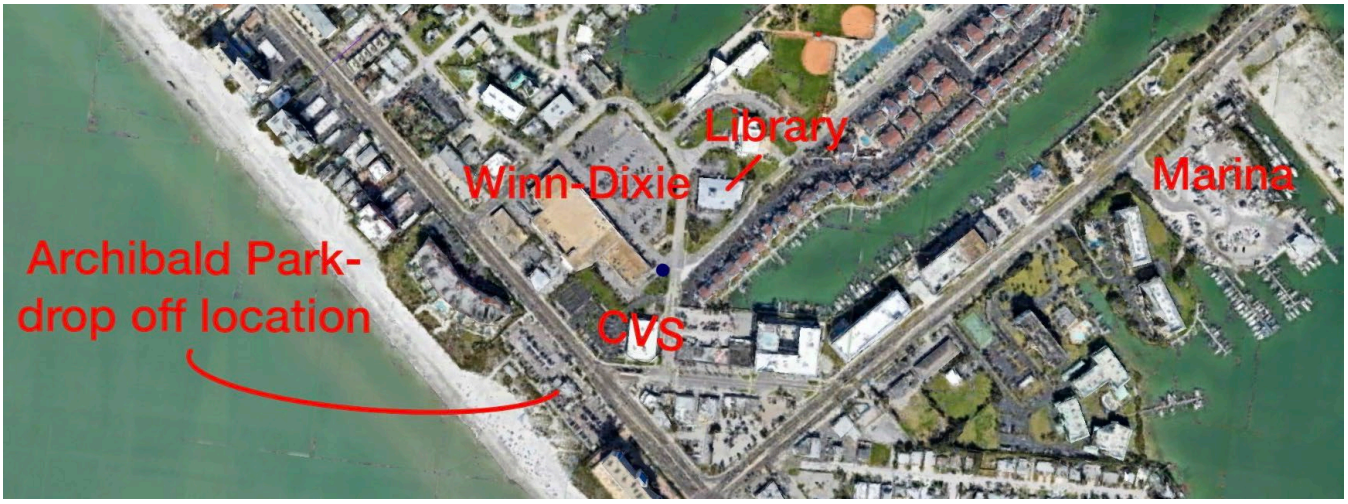
The marina park-and-ride concept therefore illustrates the difference between having land available and having a parking location that is easy to use. The site may offer an opportunity, but its value depends on circulation, clear signage, visitor understanding, and the connection to the destinations being served.



Drop-Off, Overflow, and Walking Routes

A drop-off area serves a different purpose from long-term parking. Its usefulness depends on safe loading, a clear route for vehicles, and a convenient path for passengers after they leave the vehicle. That walking distance matters especially for beach visitors, who frequently carry chairs, tents, coolers, and other heavy items. Overflow parking likewise depends on more than the number of spaces: drivers need to know where it is, when it is available, what it costs, and how easily they can reach their destination from it.

The preliminary findings recommend considering a drop-off location within Archibald Park with more affordable overflow parking nearby, perhaps near CVS or the Winn-Dixie shopping center. The existing library site should also be considered because it is City-owned and already serves as parking for special events at R.O.C. Park. Together, these options broaden the parking discussion beyond constructing new spaces and identify locations that may already be positioned to support beach parking and special events concurrently.



Pedestrian access should be treated as a primary test for every overflow or drop-off option. That applies to Archibald Park, the library site, and potential overflow near the shopping centers. A location with available spaces may still perform poorly if the walk is unclear, indirect, uncomfortable, or impractical for visitors carrying beach equipment. Safe, legible walking routes are therefore part of the parking solution itself.

These ideas also connect to the wayfinding recommendation. Signs and parking information should guide drivers before they reach the most congested decision points. If overflow, drop-off, and existing garage options are presented clearly, some drivers may choose them before circulating through the busiest areas.

Parking Garage Layout Considerations

For general planning, the preliminary findings suggest an efficient garage example with a minimum structure footprint of approximately 120 by 250 feet and about 300–400 spaces. The example is intended to show the scale that may be needed for an efficient structure. It is not a final requirement for every parcel, and it does not establish the exact capacity of a building on any of the three sites.

The findings also separate the garage footprint from the idea of wrapping retail around the structure. Retail would require additional area and would affect the overall layout. A parcel that can hold the parking structure alone may not have enough room for retail, circulation, entrances, pedestrian routes, and the other parts of a workable project.

Garage height cannot be established from footprint alone. The preliminary garage concepts were developed with approximately three to four parking levels as a planning assumption, subject to the final site layout and applicable City height restrictions. The existing John's Pass Village Garage provides a useful local capacity benchmark at approximately 115 by 180 feet with 318 spaces, but that capacity reflects the complete circulation and ramp design rather than the outside dimensions alone. A site-specific concept still must account for ramps, turning areas, columns, stairs, accessible routes, entrances, circulation, and the City's Land Development Code height restrictions before a final level count or capacity can be assigned.

The existing John's Pass Village garage is approximately 115 by 180 feet, smaller than the generalized 120-by-250-foot planning example. That comparison reinforces why outside dimensions alone do not determine capacity and why each site needs its own circulation and ramp layout.

Construction Cost Considerations

For planning purposes, the generalized construction for a new 320-space garage range from approximately $11 million to $14 million, or about $34,375 to $43,750 per gross space. This is a construction benchmark rather than a complete project budget. Design, financing, operations, and site-specific mitigation would be evaluated separately if a concept advances.

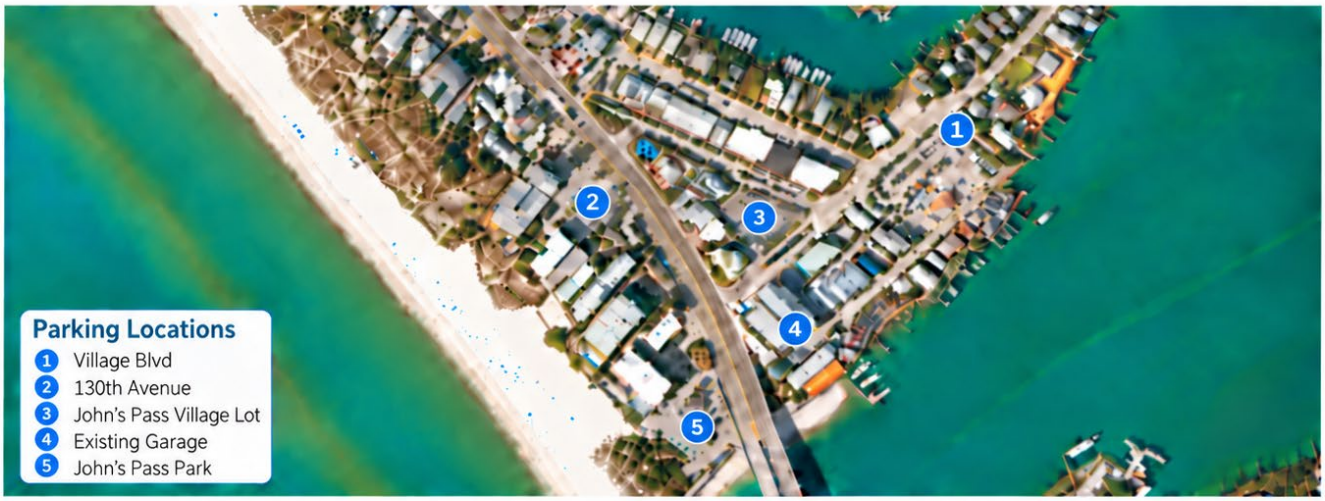
The price range does not imply that each site may cost the same amount. Stormwater mitigation, coastal structural hardening, utility conflicts, access maintenance, parcel geometry, and the efficiency of the final layout all influence construction cost. These factors are especially important when comparing a compact site with a larger site that can accommodate circulation more efficiently.

Cost per space is most useful when paired with net-new capacity. A garage may contain hundreds of gross spaces while replacing existing surface parking on the same property.

Comparing the project cost with the actual increase in usable public parking gives the City a better measure of the investment than gross capacity alone.

Parking Garage Sites Overview

The three potential garage sites are not interchangeable. Each has a different combination of observed occupancy, physical size, access, property conditions, and design constraints, as summarized below.



Location	Main considerations
130th Avenue	Comparatively low observed occupancy; compact parcel; Duke Energy utility easement; layout and height constraints.
John's Pass Park	Variable observed occupancy; approximately 365-space preliminary design concept; coastal construction requirements; Recreational/Open Space land use; outside the John's Pass Village Activity Center.
John's Pass Village Lot	Highest observed occupancy; compact footprint; vertical and visual effects; limited room for retail wrapping; located directly across from the existing garage.

John's Pass Village study area and parking locations.

The comparison does not rank the sites or imply that one has been selected, each site has unique considerations. In practical terms, 130th Avenue is constrained by parcel efficiency and a utility easement; John's Pass Park combines the largest preliminary garage concept

with coastal and land-use compatibility issues; and the John's Pass Village Lot combines the highest observed occupancy with a compact site, vertical design effects, and the existing private garage directly across the street.

Compatibility considerations differ by site and should be evaluated concurrently with the conceptual layout. All three sites share land-use, zoning, and compatibility challenges. For example, John's Pass Park carries a Recreational/Open Space land-use category and lies outside the John's Pass Village Activity Center, which may limit ancillary uses and complicate a mixed-use garage concept. At 130th Avenue, parcel size and the Duke Energy easement affect the feasible layout. At the John's Pass Village Lot, the compact footprint, surrounding activity, building height, and relationship to the existing private garage are central to the design.

130th Avenue: Space and Utility Limits

Across the completed counts, occupancy at the 130th Avenue lot ranged from approximately 42 percent at Monday noon to approximately 97 percent on Saturday afternoon, with Sunday evening at about 70 percent. Although the lot filled during the Saturday peak, it showed lower use than the busiest John's Pass locations across the broader set of observations. Occupancy is only one part of the evaluation: the parcel is also compact for an efficient garage structure, and the Duke Energy utility easement could materially affect the building footprint, circulation, and project cost.

The compact parcel should be tested against the general 120-by-250-foot planning benchmark. If that footprint cannot be accommodated, the concept may require a taller structure, a different ramp arrangement, or fewer spaces. Each of those choices affects parking efficiency, visual character, access, and the number of net-new spaces created.

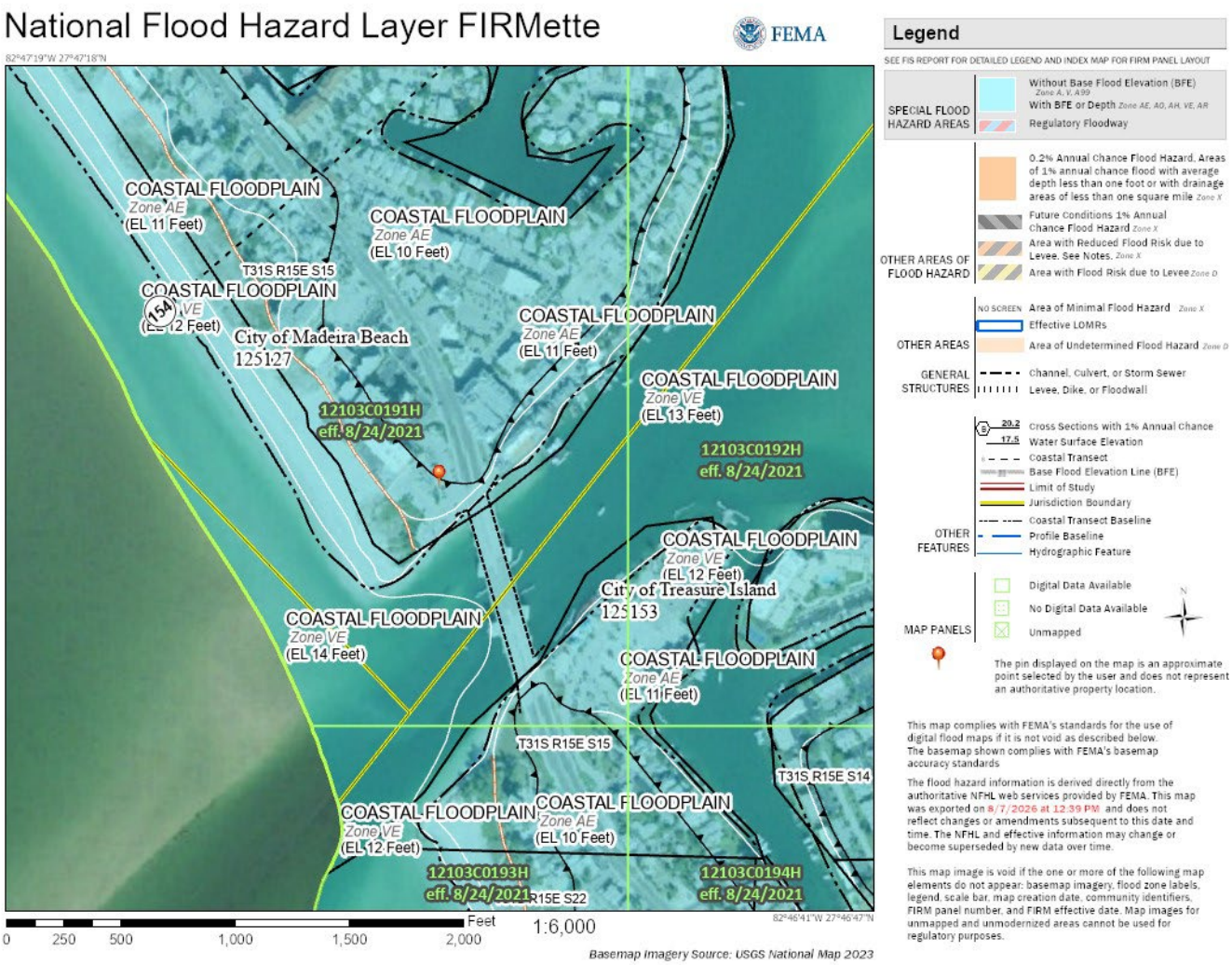
The Duke Energy easement is a separate utility constraint because it may affect the placement of foundations, columns, ramps, and other structural elements. Phase One did not include a Duke Energy relocation quote. The report therefore does not assign a dollar amount to easement mitigation or relocation. Before the site is advanced, direct coordination with Duke Energy should establish what facilities are present, what can be built within or around the easement, whether relocation is necessary, and the actual cost.

In summary, the 130th Avenue site can be described as a lower occupancy location with significant footprint and utility challenges.

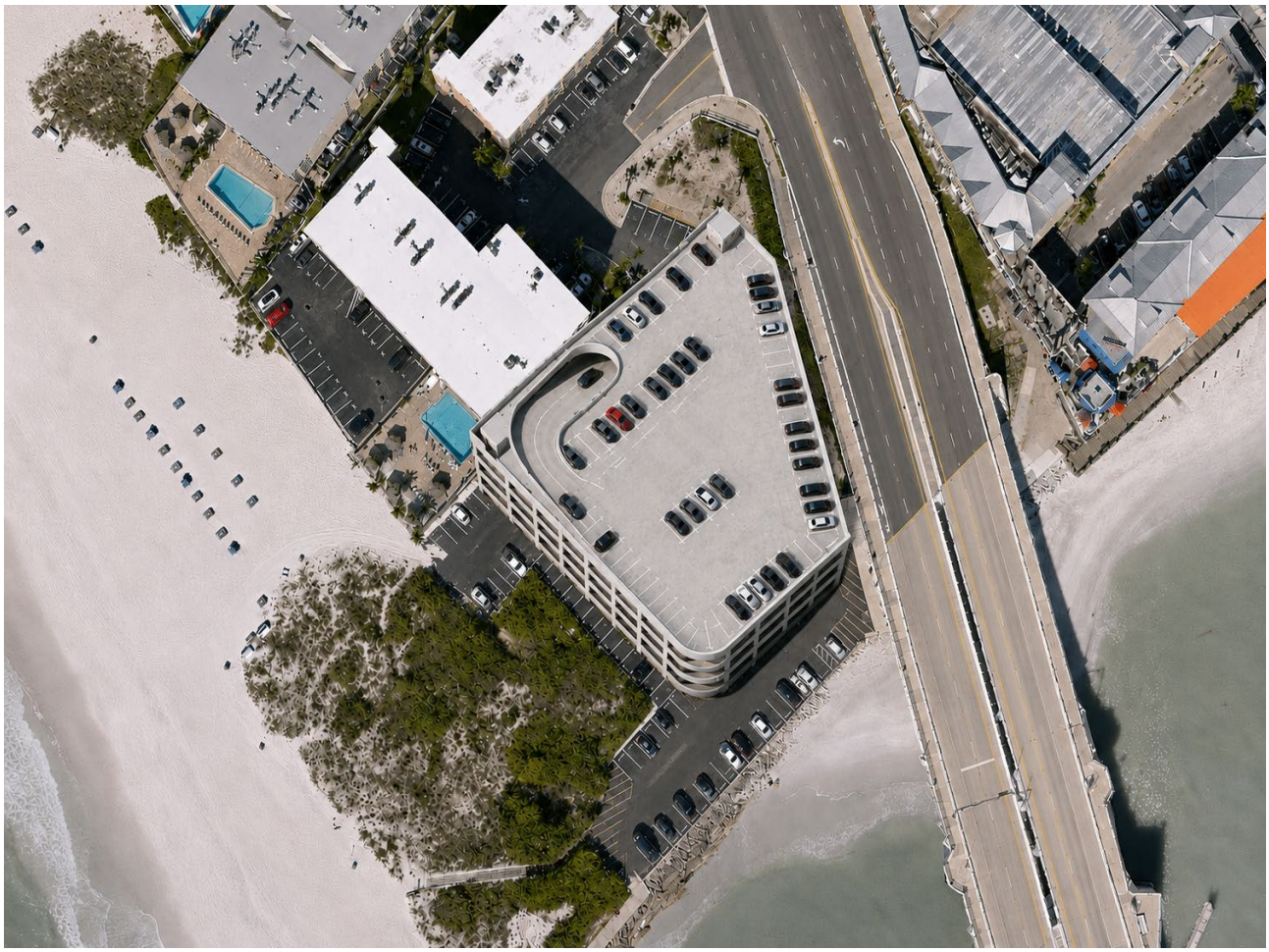
John's Pass Park: Capacity and Coastal Conditions

Multiple occupancy observations at John's Pass Park showed substantial variation by day and time, ranging from approximately 45 percent to 98 percent across the completed counts. The John's Pass Park concept is the largest of the three preliminary garage concepts at approximately 365 spaces. That estimate provides a useful design comparison and should be considered together with the surface spaces displaced by construction, the circulation required within the structure, and the coastal and land-use conditions that apply to the property.

The findings state that the Coastal Construction Control Line and the FEMA coastal floodplain must be considered. They identify FEMA coastal floodplain panel 12103C0191H as effective August 24, 2021 and state that additional structural integrity and mitigation costs would be required. These conditions connect the site's apparent capacity with the additional work needed to build in a coastal setting.



John’s Pass Park also presents a land-use compatibility challenge. The site has a Recreational/Open Space land-use category, which may limit ancillary uses associated with a garage, and it is not within the John’s Pass Village Activity Center. Those land-use conditions should be evaluated together with the approximately 365-space concept, coastal design requirements, and observed occupancy before the site is advanced.



Conceptual John’s Pass Park structured-parking rendering.

John's Pass Village Lot: Use and Design Tradeoffs

The John's Pass Village Surface Lot had the highest observed occupancy of the three potential garage sites and is directly across the street from the existing John's Pass Village Garage. That combination makes it a unique location to evaluate, while also making the relationship between existing and new parking a central part of the evaluation.

The preliminary findings state that the John's Pass Village Lot would require a smaller garage footprint with significant vertical visual effects. A smaller footprint may push more parking upward, making building height and appearance more noticeable. The findings also state that wrapping retail around the garage would be difficult. These issues distinguish the John's Pass Village Lot from a larger site where the parking structure and surrounding uses may have more workable space.



A broader redevelopment concept could explore coordination with the VFW property and other adjacent property owners if the City wishes to study a larger project area. Until property agreements are secured, however, the current garage analysis should remain tied to the specific John's Pass Village Lot rather than the larger surrounding property area. This keeps the capacity comparison grounded in property that is actually available for the preliminary concept.

The John's Pass Village Lot's high observed occupancy supports careful review, but it should not be considered separately from the private garage across the street, which retained more than 10 percent availability during peak observations. Improved wayfinding, pricing information, visibility, walking routes, and coordination with that garage should be tested at the existing garage. Before the City commits to adding new structured capacity at this location.

Stormwater and Coastal Design

Stormwater mitigation and coastal structural hardening are identified as cost factors for a new garage. These issues apply to the general construction discussion and are especially important at the John's Pass Park location, where the findings also reference the Coastal Construction Control Line and the FEMA coastal floodplain.

Coastal design affects more than the visible building. Structural systems, foundations, elevations, drainage, materials, and protection from coastal conditions may all influence the final design and price. The preliminary findings do not assign separate amounts to these items, so they should not be converted into a detailed cost allowance without further detail and a topography survey.

Stormwater planning also has to be considered with the site layout. A garage footprint, vehicle circulation, pedestrian routes, and any surrounding retail use all compete for space. If stormwater measures require additional area or construction, the effect may be greater on a compact site than on a larger parcel.

Parking occupancy and constructability should be considered simultaneously. The 365-space estimate at John's Pass Park is accompanied by coastal requirements, and the general $11–14 million range is accompanied by a caution that site conditions may influence cost. Keeping those statements together avoids presenting capacity without the constraints that may influence the feasibility.

Utility Conflicts and Site Preparation

Utility conflicts are listed among the factors that may influence construction cost at each garage location. At 130th Avenue, a utility constraint is known to exist: the Duke Energy easement could affect the placement of the garage and may require mitigation, adding cost and potentially limiting the usable building footprint. The initial findings do not detail a final relocation plan, construction agreement, or price for addressing the easement. For John's Pass Park and the John's Pass Village Lot, the available information does not identify a confirmed utility conflict within the proposed garage footprints. This does not establish that utility conflicts are absent at those sites; rather, there is not enough site-specific utility information at this stage to determine whether existing lines, easements, or facilities would interfere with construction. Additional utility mapping and coordination would therefore be needed before those sites could be evaluated on the same level as the known constraint at 130th Avenue.

An easement or utility conflict can affect where a garage is placed and how the foundations, columns, ramps, and access points are arranged. On a small site, even a limited conflict may have a larger impact because fewer alternative layouts are available. That is why utility conflicts should be investigated in more detail with the garage concept rather than treated as a cost item added after the layout is complete.

Site preparation also connects to stormwater and coastal work. The findings identify these matters together as possible cost drivers. A site that appears to support a particular number of spaces may require changes once utility clearances, structural protection, drainage, and circulation are shown on the same plan.

Before any site is advanced, a concept should show how the garage avoids or addresses known conflicts. The resulting layout can then be used to update the space count and construction range.

Making Better Use of the Existing Garage

The preliminary recommendations call for stronger wayfinding to maximize use of the existing John's Pass Village Garage and other existing parking assets. They also recommend working with the garage owner to improve signage and cleanliness. These actions respond directly to the observation that the private garage still had more than 10 percent availability during peak observation periods, and significant availability during other observation periods.

Wayfinding should help drivers recognize the existing garage in advance to without unnecessary circulation. Directional information should begin at major decision points—

including the approach from Gulf Boulevard, rather than only at the garage entrance. Consistent facility naming, advance signs, and clear pedestrian connections can make the garage function as a more visible part of the overall parking system.

Coordination with the garage owner is important because the structure is privately owned. A partnership could address signs, entrance visibility, cleanliness, parking information, and other improvements that make the facility easier to find and use. Resolution 2022-02 commits the additional revenue generated by the $0.50 citywide hourly parking-meter increase to the design, engineering, and construction of a parking garage facility within one-half mile of John's Pass Village. It is recommended that the city consider using this money towards improving the existing garage before committing to the monies needed to independently build a new garage.

The existing garage also provides a useful physical comparison. It is described as approximately 115 by 180 feet with 318 spaces. That example can inform discussion of garage scale while remaining separate from the proposed 120 by 250-foot efficiency example. The important point is not that one design can be copied directly, but that how existing capacity, driver behavior, and proposed construction relate to one another.



The image illustrates the difference between vehicle access to the existing John's Pass Village Garage and a potential pedestrian alternative. The **red route** shows the relatively indirect and difficult-to-identify driving path required to reach the garage entrance, including multiple turns after crossing the bridge that may not be obvious to visitors unfamiliar with the area. The **blue route** illustrates one alternative in which visitors can also park at **John's Pass Park** and walk underneath the bridge to John's Pass Village. This comparison shows how parking convenience depends not only on where spaces are available, but also on how easily drivers can find them and how directly visitors can reach their destination.

Partnerships and Fisherman's Alley

Partnerships may be an important part of any future structured-parking strategy because they can reduce the amount of new capital the City must independently procure. The estimated $11–14 million construction range reinforces the value of testing partnership opportunities before the City assumes the full cost of a new, separate garage.

The recommendations specifically call for considering whether the planned garage at Marriott Fisherman's Alley could be modified or expanded to provide additional parking capacity before the City advances another new garage. That option should be evaluated while the project is still being defined because it may add structured parking within an already planned development and reduce the amount of separate stand-alone construction required.

A parking partnership should address more than capital contribution. Property control, operations, hours of public availability, parking rates, maintenance, signage, revenue allocation, enforcement, and wayfinding all determine whether partnered spaces can function as a dependable part of the City's parking system.

Village Boulevard Street Parking and Streetscape Options

The preliminary recommendations call for Village Boulevard on-street parking and streetscape improvements to better accommodate curbside management, golf-cart parking, e-bikes and scooters, rideshare, and autonomous vehicles. This part of the study broadens the parking discussion beyond conventional automobile spaces.

Curb space has to serve several activities. Passenger pickup and drop-off, deliveries, golf carts, bicycles, scooters, and parked vehicles may all compete for limited frontage. Organizing these uses can reduce confusion and make the remaining parking easier to use, even when the total number of conventional spaces does not change.

Preliminary layout work indicates that converting the existing angled parking along Village Boulevard between 129th Avenue and the northwest terminus of Village Boulevard corridor to 90-degree perpendicular parking may increase the supply from approximately 109 spaces to approximately 125 spaces, thus creating about 16 additional spaces. That gain should be confirmed through a preliminary streetscape design that also shows aisle width, turning movements, pedestrian paths, loading, rideshare, golf-cart parking, e-bike and scooter areas, and other curbside needs.

A preliminary streetscape concept plan is recommended to test perpendicular parking, curb uses, and the connection to the John's Pass Boardwalk before this option is compared with a new garage.

Information Needed for the Next Phase

If the City wishes to pursue a John's Pass Village parking garage concept further, the first demand-related step should be to extend the completed occupancy work across additional seasons and major-event conditions. Those counts should build on the existing weekday and weekend observations so the City can determine whether the peak conditions documented in Phase One are recurring.

The revenue spreadsheets and Placer.ai data provide useful supporting information, but neither source can determine parking occupancy by itself. Revenue records show parking activity through payments collected, but they do not directly show how many spaces were occupied at a specific time, how long individual vehicles remained parked, or how frequently spaces turned over. Placer.ai provides estimates of visitation and movement based on sampled location data, but it does not directly count vehicles or identify the number of occupied parking spaces. These sources therefore help identify broader patterns and provide context for the field observations, but direct occupancy counts are needed to confirm how consistently peak parking conditions occur.

If a specific garage site is carried forward, the next concept should detail the building footprint, number of levels, entrances, internal circulation, pedestrian routes, displaced surface spaces, and the constraints unique to that property.

Detailed engineering and financial or bonding analysis should follow only after a site-specific concept has been defined. Before the City considers advancing a garage with an approximately $11–14 million construction cost, that work should update the estimate to account for stormwater, coastal hardening, utilities, design, financing, operations, and other site conditions and should test repayment or break-even scenarios using realistic parking-rate and occupancy assumptions.

Importantly, the operational recommendations herein can move forward while a garage concept is still being refined. Improved wayfinding, coordination with the existing garage owner, overflow and drop-off options, the library site, Fisherman's Alley partnerships, pedestrian connections, and Village Boulevard streetscape changes each should be tested first to generate additional information before the City commits to major new construction.

Overall Assessment

Phase One shows that Madeira Beach's parking needs are best understood as a system of different locations, access conditions, and user choices rather than as a single shortage with a single solution. Repeated occupancy observations, field reviews, parking-revenue information, and Placer.ai visitation data were each referenced together to evaluate where parking is heavily used, where capacity remains available, and how circulation, wayfinding, walking distance, and visibility affect the usefulness of that supply.

The garage evaluation establishes useful planning benchmarks but also shows meaningful differences among the three sites. The 130th Avenue site combines wide variation in observed occupancy with a compact parcel and Duke Energy easement. John's Pass Park has the largest preliminary concept at approximately 365 spaces but carries coastal and land-use compatibility constraints. The John's Pass Village Lot has the highest observed occupancy, yet it is compact, visually sensitive, and directly across from an existing 318-space private garage that retained availability during peak observations.

The study also identifies actions that may improve parking performance without immediately committing to another garage: stronger wayfinding to the existing garage, coordination with its private owner, Archibald Park drop-off, overflow near CVS or Winn-Dixie, use of the library site, safer pedestrian connections, park-and-ride evaluation at the City Marina, Fisherman's Alley partnerships, and a Village Boulevard streetscape concept that could add approximately 16 spaces through perpendicular parking.

Phase One does not establish a preferred garage location. It establishes a practical sequence for the next decision: to improve and better connect existing parking assets, test lower-capital operational changes, and collect targeted seasonal information while any garage concept is refined. If the City later elects to pursue new structured parking, a site-specific engineered layout and detailed financial or bonding analysis should precede a major capital commitment. This approach preserves the garage option while ensuring that a new structure is evaluated against the full range of methods of how the existing parking system can be made more effective at substantially lower costs to the city.