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Student Work, Architecture Studio, Summer 2009

The Heart of Kure Beach: Designing for Our Future

The goal of this project was to understand the issues and explore design solutions for the future development of Kure Beach's downtown core. Our process was to:

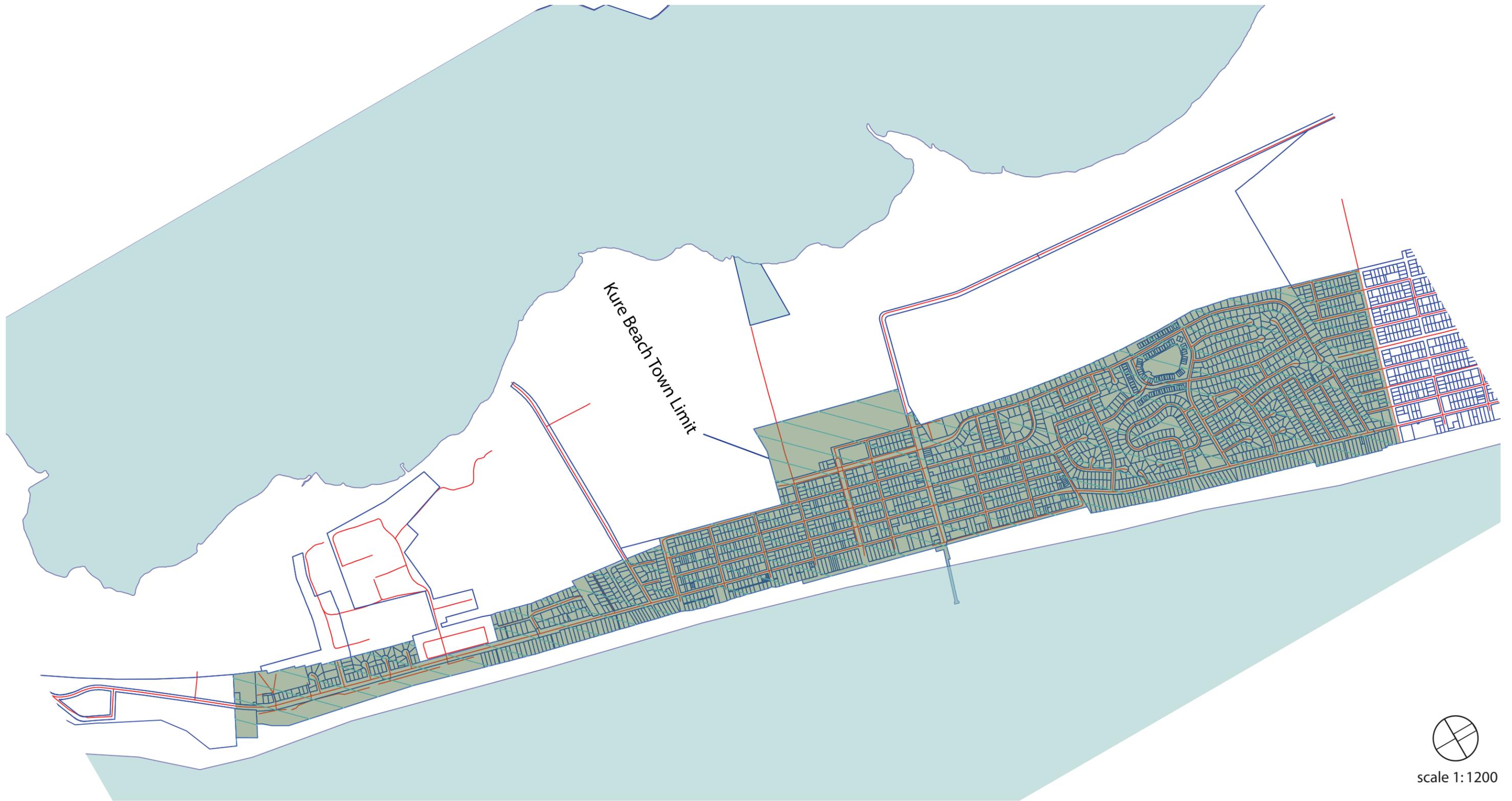
1. Study the existing conditions, regulations, community input, and professional recommendations.
2. Program the focus area (for example regarding commercial, recreational, and residential uses).
3. Prepare master planning studies with visual representations of design concepts.
4. Present design explorations to committee of city representatives.

This report is the documentation of the partnership between the NC State College of Design and the Town of Kure Beach, NC. As a university deeply committed to engagement, we are dedicated to serving our students and the public by forging collaborative relationships with the citizens of North Carolina. Such partnerships are critical strategies in meeting our mission and in serving the public.

We would like to thank:

The Town of Kure Beach
Mayor Mac Montgomery
Jim Dugan
Michelle James
Kaysie Pralle
Michelle Stellaccio
James Vatr

Sincerely,
Professor Georgia Bizios



scale 1:1200

The design process began with a site visit and research. Learning about local / regional issues and culture was useful to the design team.

Existing conditions and municipal regulations informed the design exploration.

- * The following maps were useful references.
- * The Summary of B1 District Study by John Sawyer Architects (July 2007) provided valuable analysis and gave the design team clear direction.

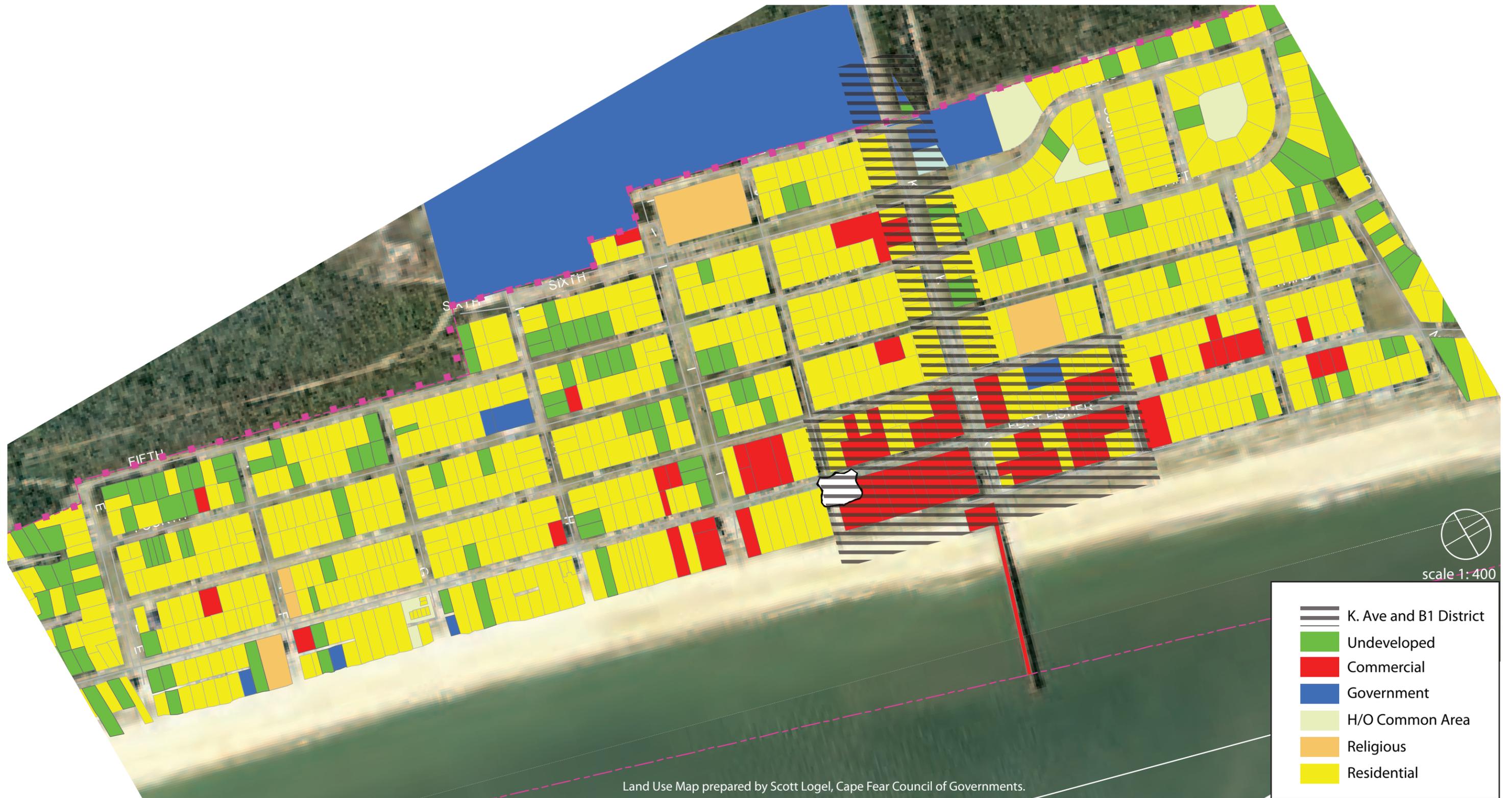
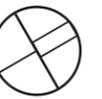




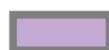
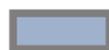
Image produced by John Sawyer Architects and Hayes Planning Associates



scale 1:300



scale 1:300

	K Ave. Corridor
	B1 District

Public Spaces for Public Life

Existing Open Spaces

Our analysis suggests Kure Beach is unique because of the potential to create strong public spaces. Existing assets include:

- * magnificent beach with many public access points
- * beach boardwalk
- * public park (under development)
- * wide avenues, including K Avenue, which gives access to the beach and the historic pier (privately owned)

Public Spaces for Public Life

Proposed Infrastructure and Programming Strategies

Kure Beach can capitalize on the number and variety of public spaces to develop a desirable public identity. As part of this agenda, Kure Beach must provide the public spaces with well-designed, functional, and aesthetically-pleasing infrastructure to create a strong inviting identity. Elements to consider include:

- * distinctive paving, lighting, signage
- * bike ways and racks
- * generous shade and shelter with architectural elements and plant materials
- * efficient parking
- * sidewalk amenities, such as benches, trash cans, and plantings
- * public art installations

In addition to infrastructure, there is need to develop programming of special events in the public spaces to strengthen the public identity, attract visitors on a regular basis, and support cultural life and commerce. Civic events might include:

- * street markets: flea, food, farmers, fish
- * festivals: arts and crafts, music, dance, theater, film
- * fairs: beach / sea themes, seasonal

As the community invests time, effort, and capital in the public infrastructure and programming, private enterprise will be inspired to follow suit. Civic leadership will be a pump prime for private investment. Outstanding design of public spaces will set the example of excellence.

Design Recommendations

Through our research and design studies, five important categories of design recommendations emerged.

1. Circulation and Parking
2. Beach Access
3. Kure Beach Plaza
4. Other Street Types
5. Branding

Within each of these categories are strategies and concepts for enhancing the future of development of Kure Beach. Investment in these area of Kure Beach's public spaces will enrich the public life of residents and visitors.



Circulation and Parking Concepts

An efficient and well-marked system of circulation and parking will set Kure Beach apart from other oceanfront communities. Visitors will be drawn by the convenience and residences will be relieved of the burdens of crowding and gridlock.

It will be important for the parking network to provide a variety of parking options.

- * Document and assess existing on street parking.
- * Develop parking areas on all streets in the downtown area.
- * Establish metering / timed systems. Vary time periods according to location and need.
- * Design public parking areas with paving materials to indicate parking zones.

- * Develop a parking garage near the Town Hall.
- * Develop small, time-limited loading / unloading zones at the intersections of Fort Fisher and all public beach access streets.



Golf Carts

A cart system can be one way to facilitate the movement of people from parking areas to activity points, beach, and commercial areas. Golf carts offer a clean, quiet alternative to automobile congestion. The modest scale of a golf cart system seems appropriate to Kure Beach's quaint atmosphere.

- * Provide transportation by a golf cart system to and from distributed parking areas, the commercial center, and the beach access areas.
- * Clearly mark golf cart stops and provide shade and seating areas.



Bicycle Paths and Rental System

Bicycles are important for healthy communities. Making Kure Beach “bike-friendly” will give the town a positive identity and improve circulation and parking.

- * Provide bicycle paths to connect the town from north to south through one of the residential streets west of Fort Fisher Blvd and through the proposed Island Greenway.
- * Provide a bicycle path network connecting as many Kure Beach streets as possible. Mark the paths clearly with a special, recognizable surface.
- * Bring the system of bicycle paths within close proximity of the main entrance of the commercial businesses, and install conveniently-located bicycle racks.
- * Consider public rental or free bicycle program.



Pedestrians

Kure Beach's size and climate make it ideal for pedestrian traffic. Municipal enhancements which make walking pleasant and memorable will give the community a sense of interconnectedness.

- * Develop pedestrian sidewalks on at least one side of each street.
- * Shade sidewalks as much as possible with vegetation, trellises, umbrellas, and awnings.
- * On major streets, such as K Avenue and Fort Fisher, provide widened sidewalks and covered arcades at the buildings' edge.
- * Give the boardwalk a destination, such as a pavilion, at both ends.





Beach Access

It is critical that visitors and residents have clearly marked and inviting access points to the beautiful Kure Beach ocean experience.

Each beach access can provide short-term parking for loading and unloading, space for street vendors, information regarding long-term parking and public transportation, pavilions for shade and ocean viewing, and other public amenities.

We recommend the development of two types of beach access:

- One that engages the boardwalk near the downtown area
- One that crosses the dunes at residential streets.

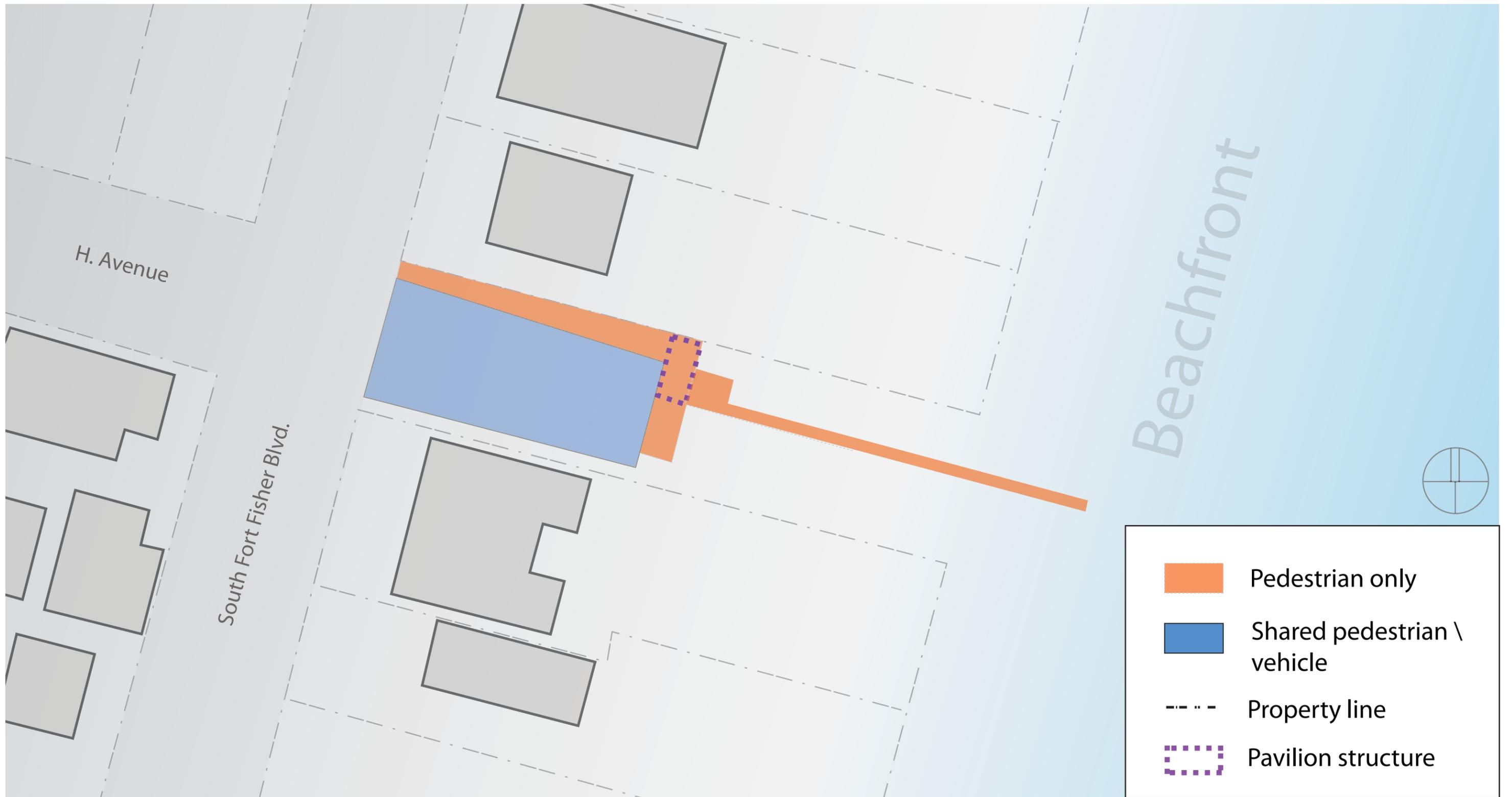
The N Avenue access to the beach at the north end of the boardwalk and the J Avenue access point at the proposed extension of the boardwalk have the potential to be developed into major and special beach access points.

The streets that provide beach access south of J Avenue can be developed as smaller residential access points.









Beach Access Pavilions

Beach access pavilions will be important public spaces for people to sit and watch the beach and the ocean. The pavilions can offer a variety of services and amenities. Some may simply provide shade. Others might incorporate a convenience station. Some might have designated areas for vendors to sell ice cream or sun hats. The pavilions will serve as wayfinding landmarks and emphasize Kure Beach's commitment to being a hospitable and distinctive community.

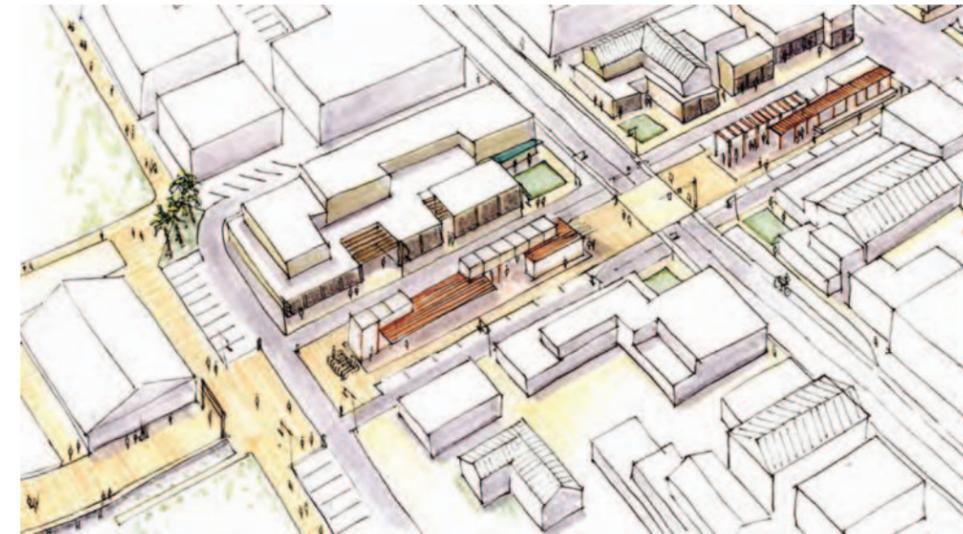


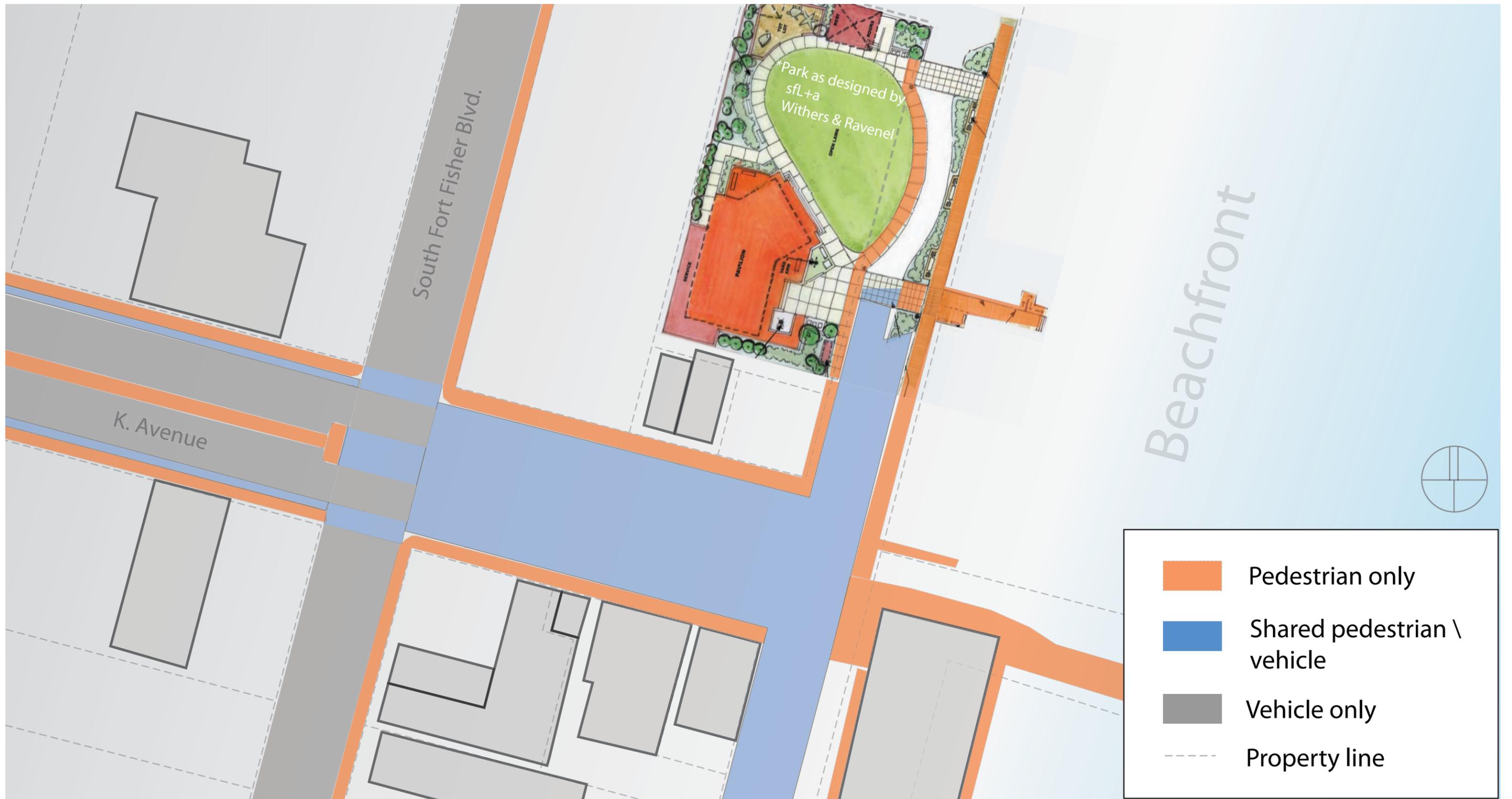


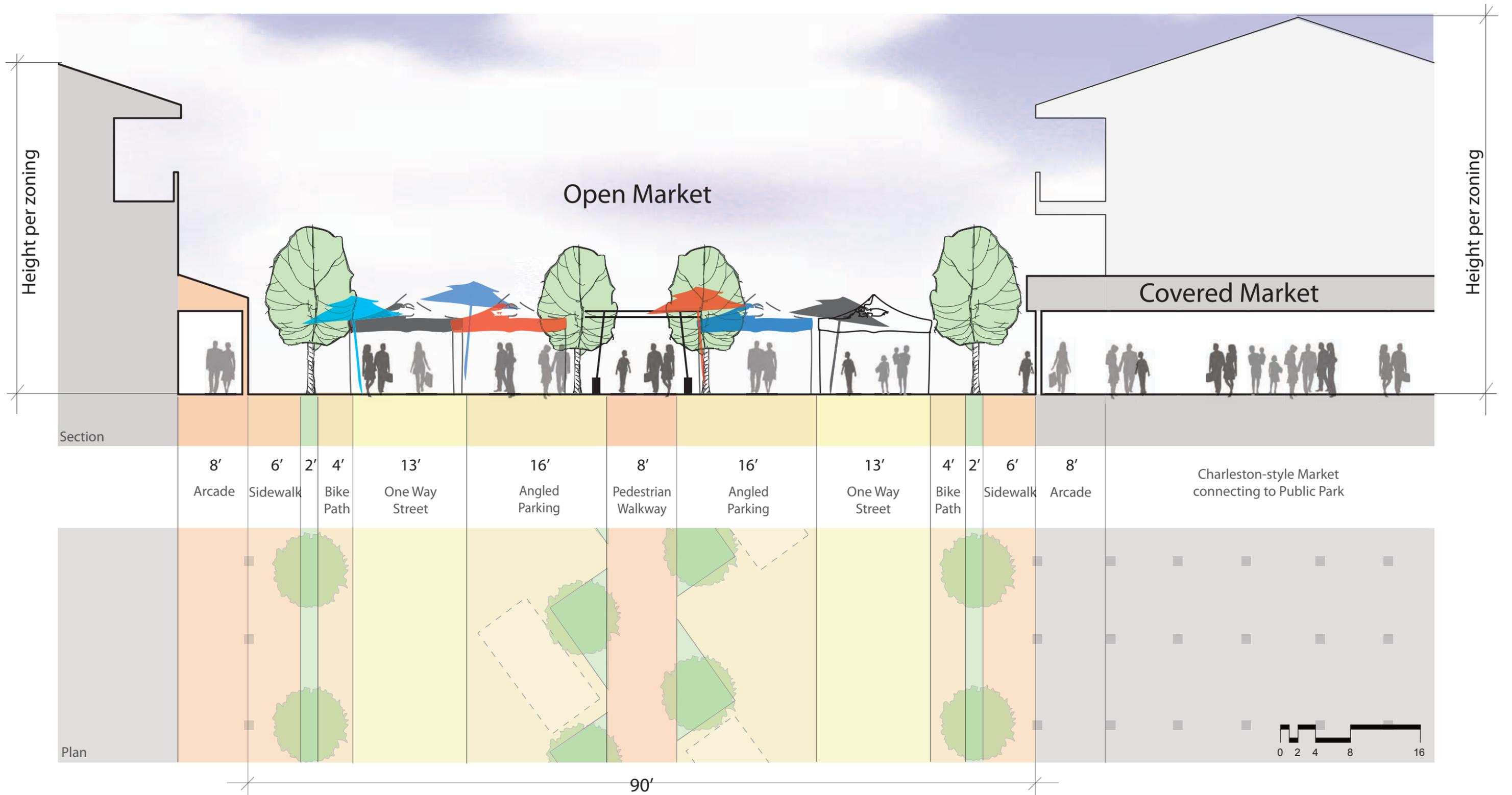
Kure Beach Plaza

The eastern end of K Avenue offers the perfect setting for a public plaza. The wide avenue, the proximity to the pier, the future park, and the adjacent boardwalk will be anchored by the development of a multi-purpose open plaza.

- * Design the surface and edges of K Avenue between Fort Fisher Blvd and Atlantic Avenue to accommodate various functions at different times of the day, the week, and the year.
- * Organize festivals, street markets, and concerts in the plaza.
- * Provide links between the plaza and the public park, pier, boardwalk, and Fort Fisher Blvd.
- * When not in use, the plaza can be open to traffic and parking.

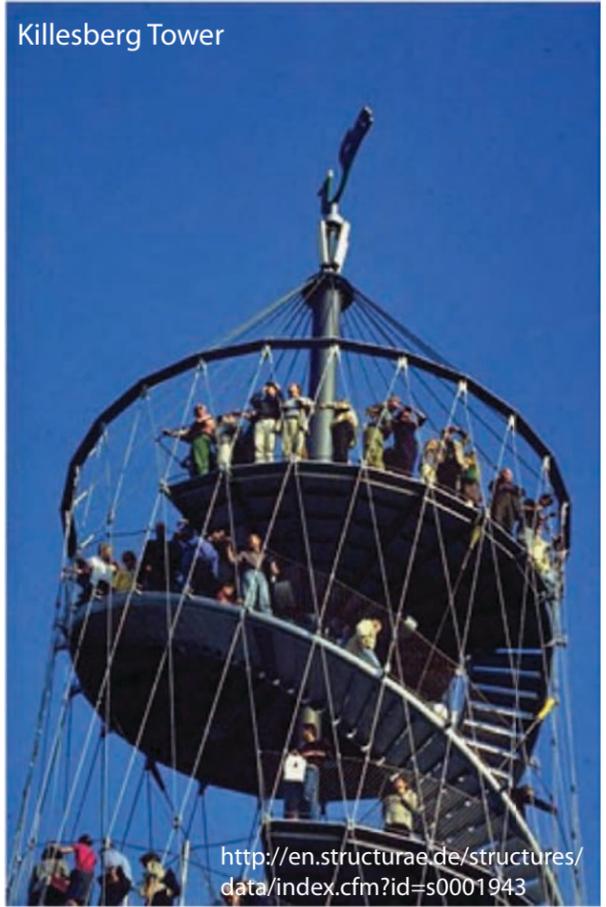






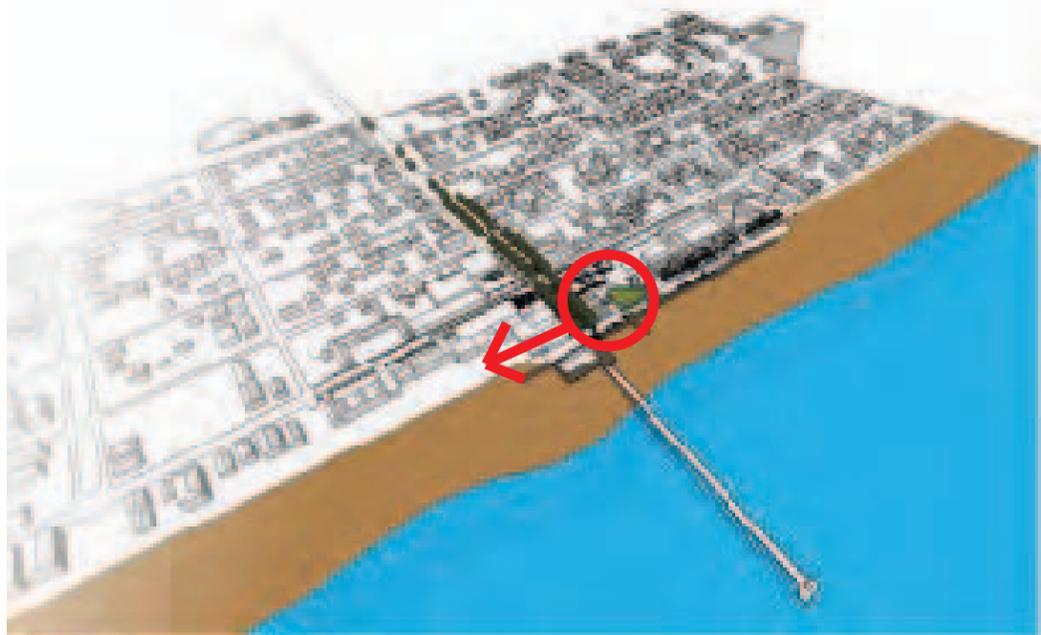
Public Tower

An observation tower will be an enticing attraction at the plaza. Visitors will enjoy the opportunity to climb above the buildings and survey the surrounding coastline. The tower will be a memorable landmark and potential community icon. Like a public sculpture, the tower can be another way for Kure Beach to demonstrate its commitment to strong design supporting public life.



Extended Boardwalk

Extending the successful boardwalk project to the south of K Avenue will be a worthwhile downtown enhancement. Work with the NC Division on Coastal Management, the US Corps of Engineers and property owners to address all the requirements, issues, permits, and the availability of funds.





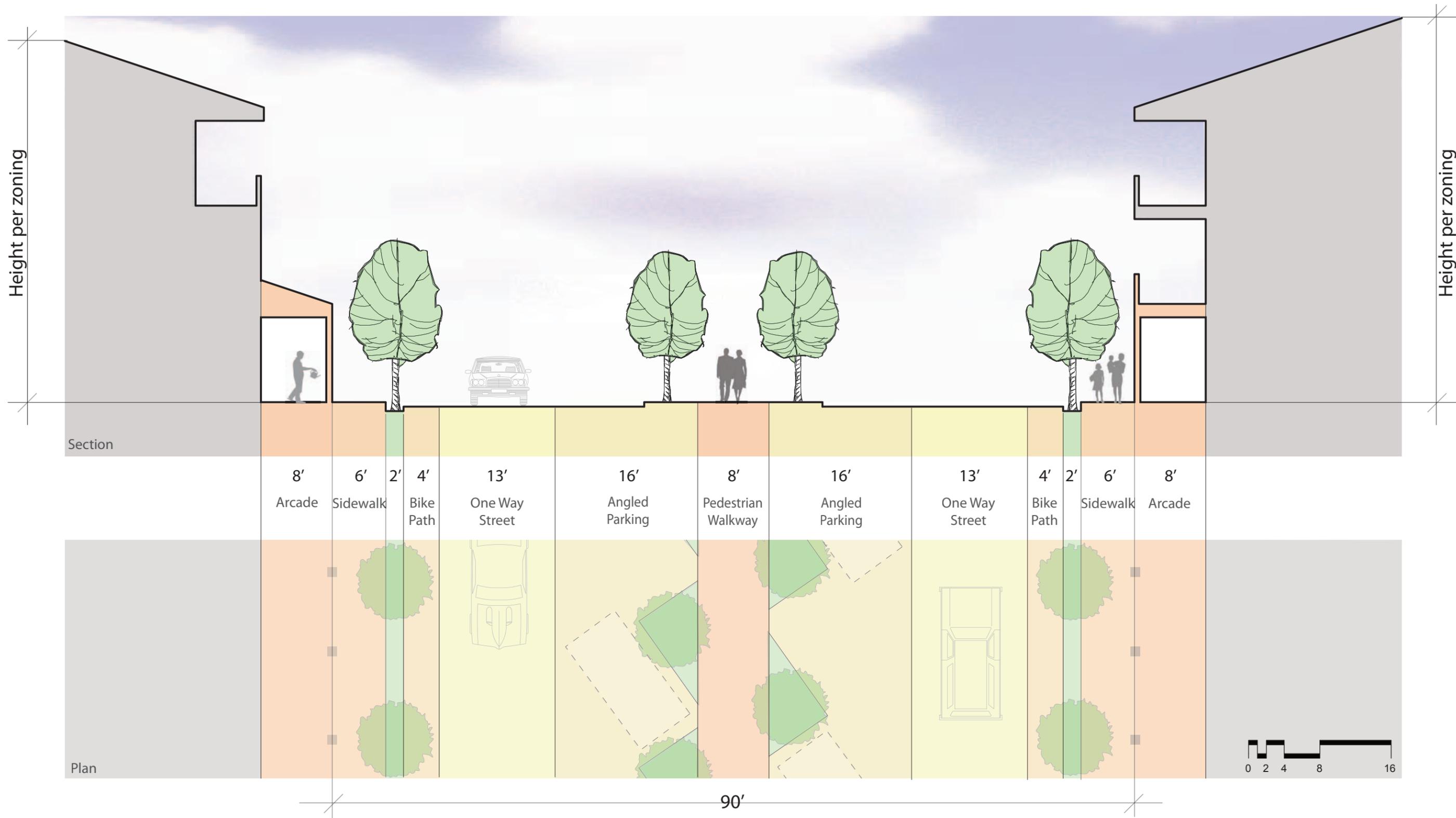
Other Street Types

In addition to the plaza enhancements of K Avenue where it terminates at the pier, other streets can become part of the development strategy for Kure Beach.

Four additional street types with recommendations for their development are included in this report:

1. K Avenue West
2. Fort Fisher Boulevard
3. Residential Boulevards
4. Residential Streets





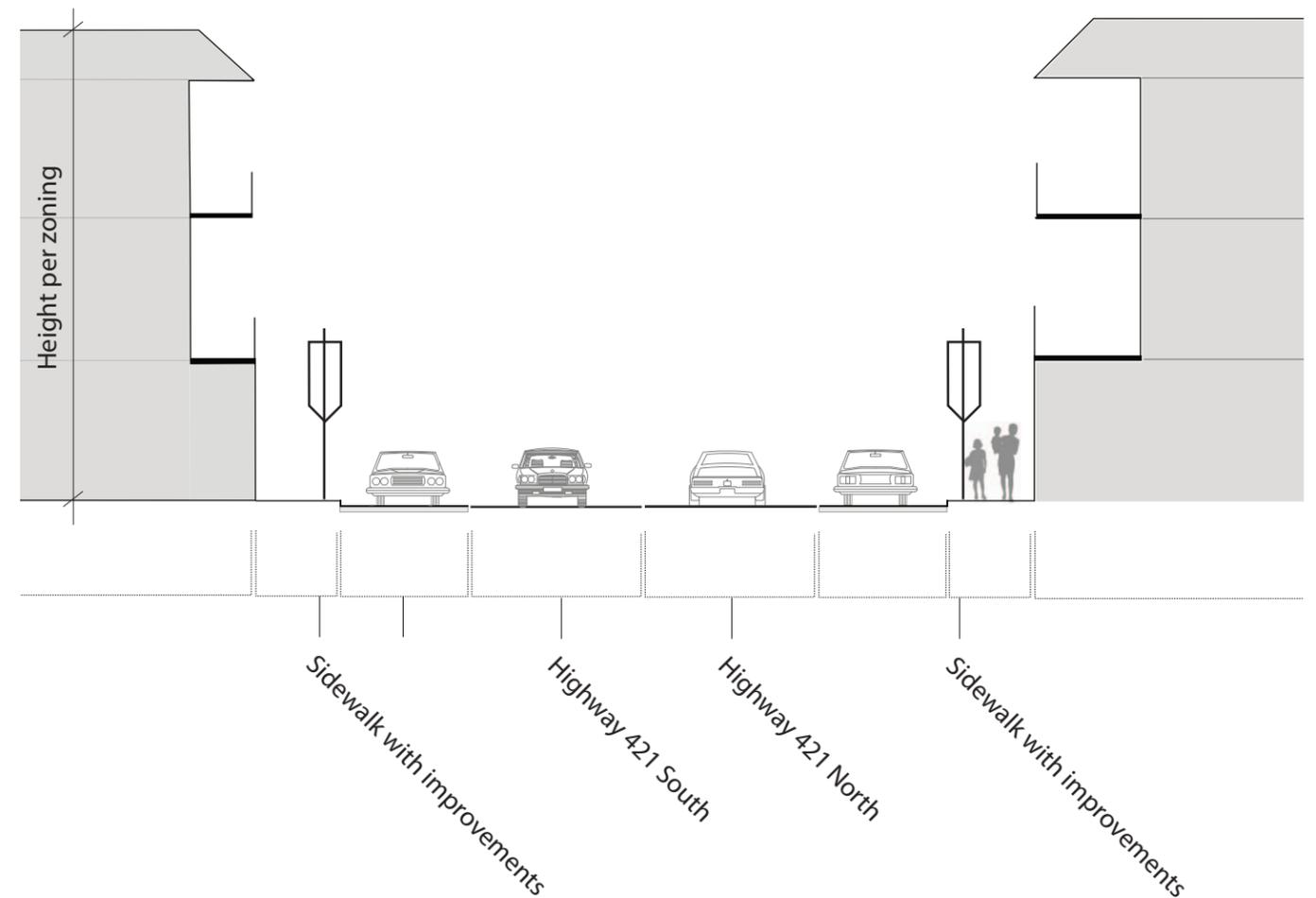
K Avenue West

This primary axis can play an important role in Kure Beach's future development. Its breadth provides an opportunity for this road to be an sun and shade-filled, richly-appointed boulevard. K Avenue West can become a community gateway to be proud of.

- * Angled parking in the center and a pedestrian median provide a casual, inviting alternative to the sidewalks that flank the avenue.
- * Businesses will benefit from pedestrian traffic on the broad sidewalks.
- * A streetscape with landscaping and public amenities will entice visitors to walk between the pier and the proposed parking deck near the Town Hall.

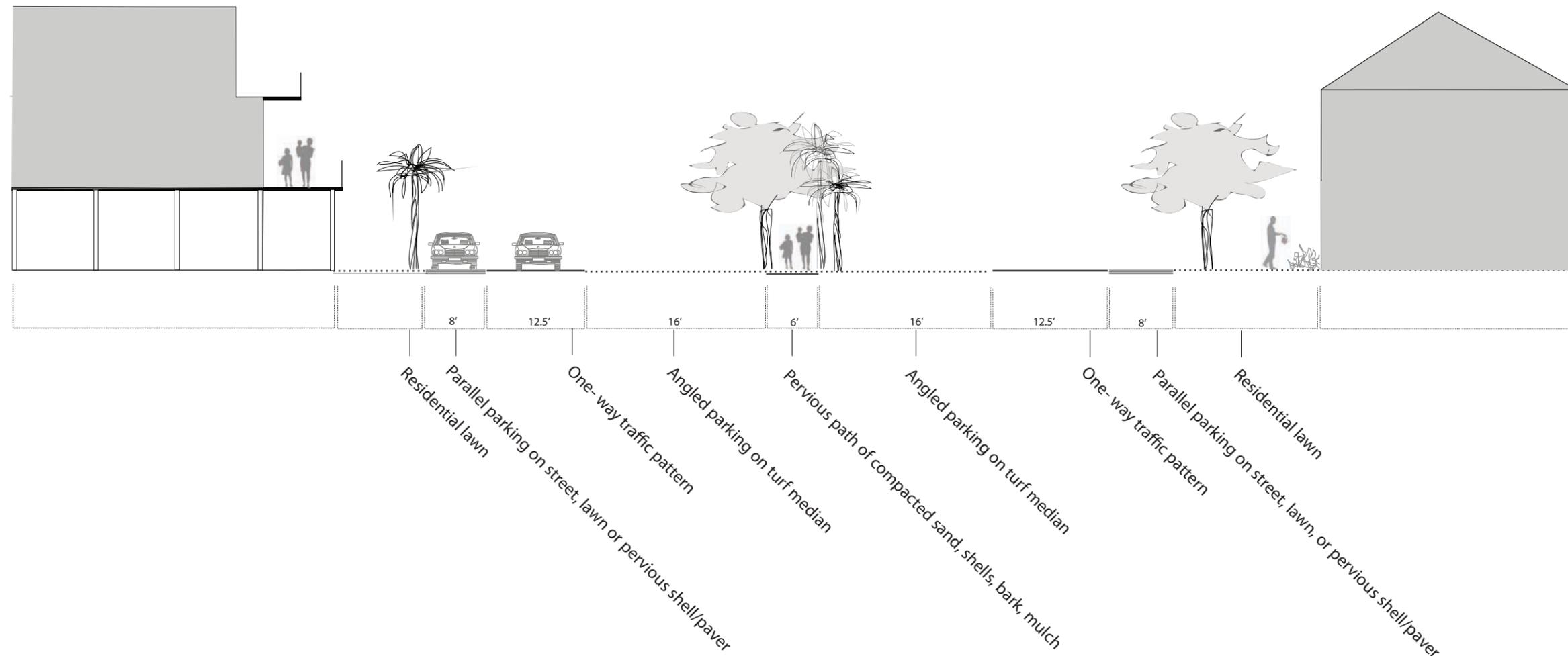
Fort Fisher Boulevard

Kure Beach's main north/south thoroughfare has several empty lots and the potential for significant development. It is the center of Kure Beach's hotel/motel industry. Street improvements such as street trees, banners, lights, and repairing and adding sidewalks would improve the town's image and could spur private development.



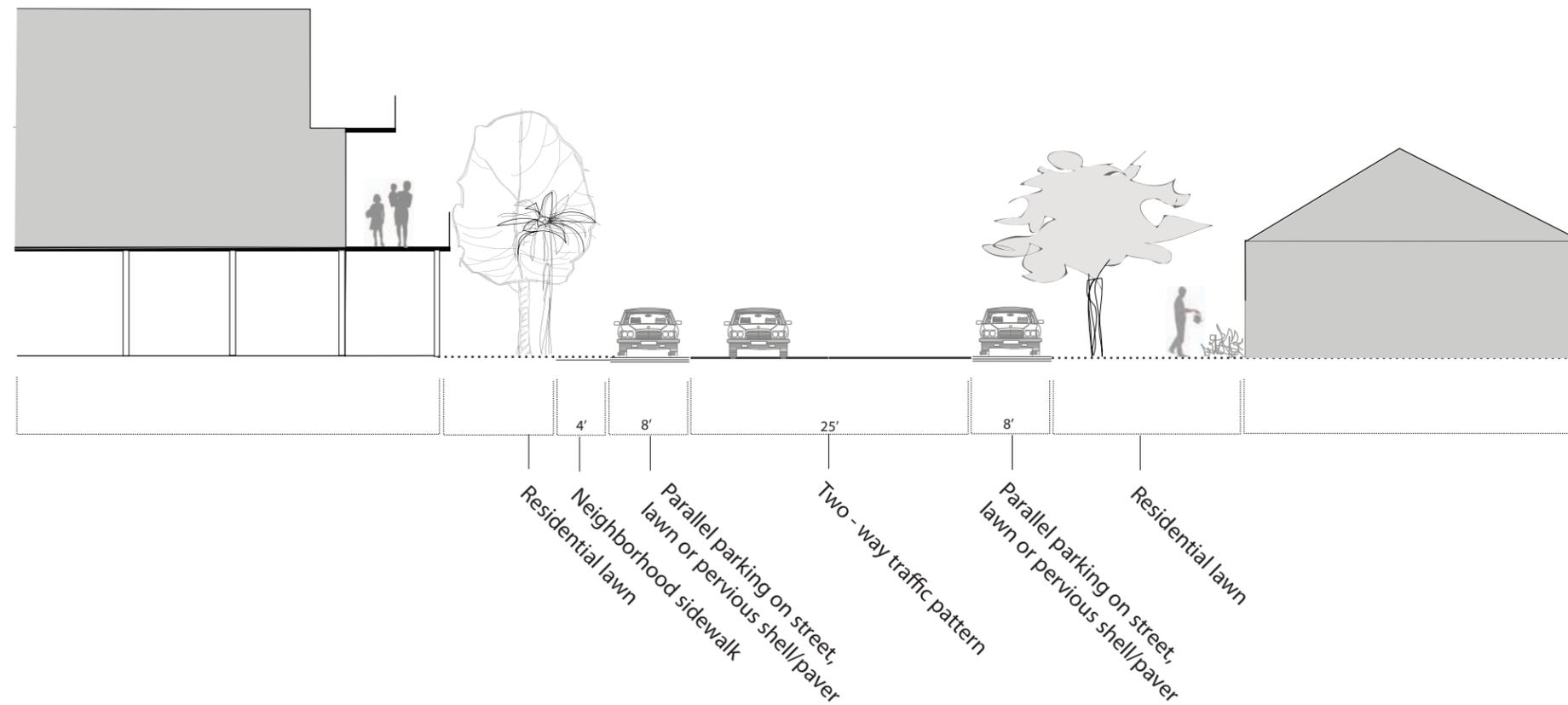
Residential Boulevards

Kure Beach has several side streets in its residential areas, which we call Residential Boulevards. Due to their width, these streets afford significant opportunities for development and for branding Kure Beach's unique town character.



Residential Streets

Streets such as Third, Fourth, and Fifth Avenues are residential in character and contribute to Kure Beach's town image. They can accommodate parking on one or both sides of the street (depending on width). Providing sidewalks at least on one side of the street, landscaping and the planting of street trees would enhance their character.



Branding

Developing a cohesive and enticing community image will be an important part of Kure Beach's future enhancements.

Three categories of branding strategies are outlined here:

1. Green Technologies

- Windmills

- Photovoltaics

- Vegetated Roofs

- Stormwater Retention and Drainage

2. Public Art

3. Material Palette

- Hardscapes

- Plants

Windmills

As one element of Kure Beach's "green" identity, windmills will be eye-catching and educational. New windmill technologies are quiet and affordable.

- * Place windmills at the boardwalk and Kure Beach Plaza
- * Use the electricity produced to provide electrical power to the pavilions, power the boardwalk lights, and power the charging stations for the electric golf carts.
- * Explore the possibility of reverse metering (selling electricity to the utilities company).
- * Provide incentives for private businesses and property owners to join the trend.



Photovoltaics

Investment in photovoltaics would be a good way for Kure Beach to brand itself as an environmentally-aware community.

- * Place photovoltaic panels on the roofs of public pavilions and on shading devices for pedestrians and cars.
- * Use the electricity produced to provide electrical power to the pavilions, power to the boardwalk lights, and power the charging stations for the electric golf carts.
- * Explore the possibility of reverse metering (selling electricity to the utilities company).
- * Provide incentives for private businesses and property owners to join the trend.



Vegetated Roofs

“Green” roofs are good for air quality, cooling, and rainwater management. They are beautiful and intriguing.

- * Use vegetated roofs on public pavilions and on shading devices.
- * Select plant materials and soils that are appropriate to and demonstrate the North Carolina coastal ecosystem.



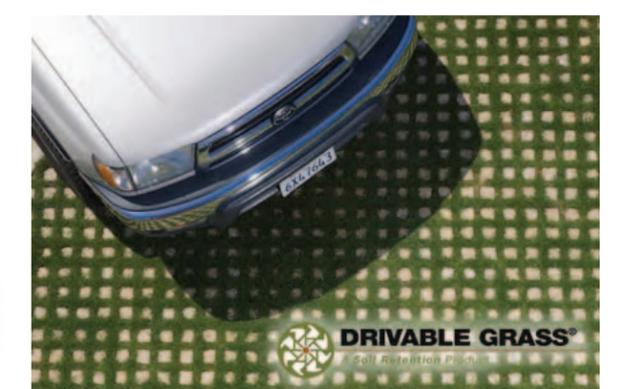
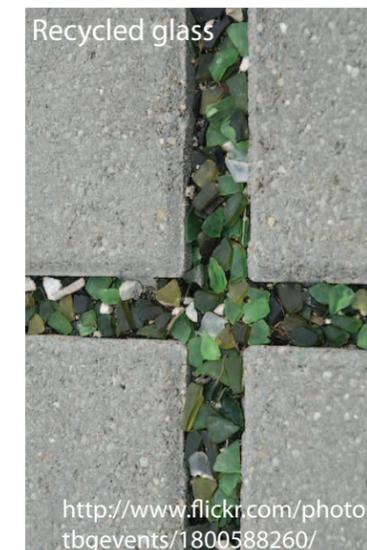
Stormwater Retention and Drainage

Stormwater management as well as rain water recycling are important ways in which municipalities protect the environment. Kure Beach could be a model by implementing “green” methods.

- * Provide pervious surfaces on walkways and parking areas.
- * Direct runoff from impervious surfaces towards vegetated areas for natural filtration.
- * Use best management practices for capturing and filtering stormwater. Provide incentives for business and property owners to also use such practices.
- * Collect stormwater from pavilion roofs for irrigation.



Cistern systems



Public Art

Art in public spaces attracts people of all ages and creates memorable experiences. It delights visitors and residents alike. Public art programs create opportunities and support for local artists.

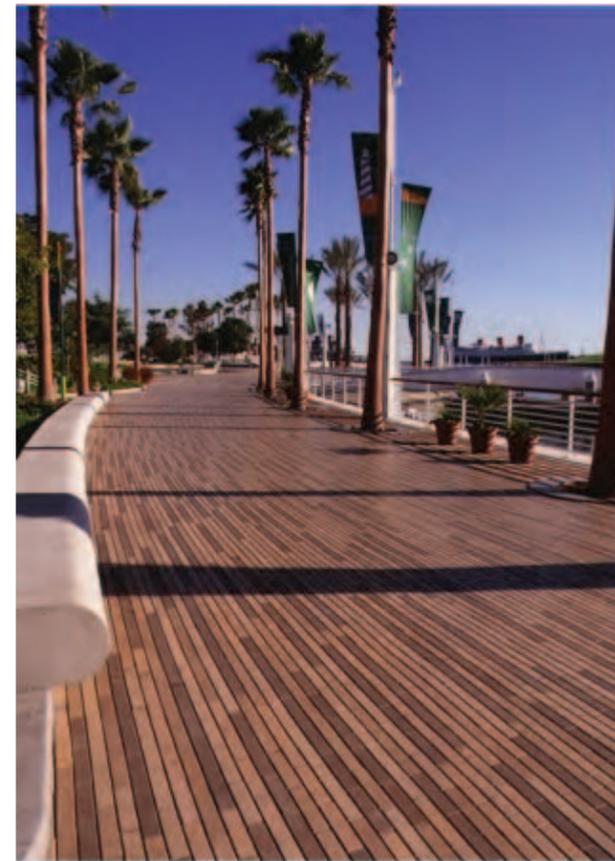
- * Encourage the involvement of artists, craftspeople, landscape architects, and architects in the design and making of functional and non-functional elements such as: signs, banners, doors, paving patterns, fountains, benches, plant boxes, murals.
- * Provide incentives for owners of buildings and businesses to commission the making of functional and non-functional elements within the public realm.
- * Allow the display and sale of homemade and handmade goods outdoors in the downtown area.
- * Create performance opportunities in public spaces. Establish annual art and performance festivals.



Material Palette: Hardscapes

A thoughtfully selected and applied material palette will link the public spaces of Kure Beach. The Kure Beach Plaza, boardwalk, beach access points, and town streets will have a sense of connectedness. Private owners can be encouraged to coordinate their material choices with the town's selections.

- * Select a palette of hardscape materials appropriate to the town's character creating unity in public spaces.
- * Select materials that will withstand the coastal environment and also assist in achieving other design guidelines, such as stormwater best management practices.
- * Examples of materials for pedestrian and light vehicular traffic surfaces include: brick paver (permeable), concrete paver (permeable), permeable concrete (cast in place), and lumber boardwalk.



Running Bond. Shades 52, 53 and 54.
Whiteacre Greer



Gold Rush

<http://www.permapave.com/products-pavers.html>



Material Palette: Plants

In conjunction with hardscape materials, giving the Kure Beach landscaping a cohesive language will further integrate the town's public spaces.

- * Select a palette of plant materials appropriate to the town's ecosystem. Work with county extension agents.
- * Select several species that can be used throughout the public areas. Choose plants at three scales: ground cover, shrubs and vines, and shading trees.
- * Examples of planting materials include: Wild Oats, Northern Sea Oats, Dwarf Yaupon Holly, Cross Vine, Trumpet Flower, Blanket Flower, Lantana.



http://www.cals.ncsu.edu/hort_sci/

Recommendation Goals

The five categories of design recommendations- Circulation and Parking, Beach Access, Kure Beach Plaza, Other Street Types, and Branding- will work collectively to make Kure Beach an attractive and inspiring community. The overall goals are to:

- * Improve the public spaces to create a continuous pedestrian-friendly character with efficient access to parking.
- * Enhance convenience and public accessibility to the beach and ocean.
- * Promote the development of an identifiable downtown center filled with pedestrian-friendly, economically-viable activity.
- * Improve the quality of the physical environment in public spaces to create a high level of expectation for the quality of downtown development.
- * Emphasize the distinctiveness and interconnectivity of Kure Beach's public spaces.
- * Sponsor arts, cultural, and other special events to appeal to residents and visitors.
- * Adopt sustainable, energy efficient strategies, processes, and materials for the development and branding of the public spaces.

Conclusion and Next Steps

We believe Kure Beach has a bright future with enormous potentials for rich development that will meet the needs of residents and visitors alike. We hope this document will be a useful tool as you work together as a community to shape your town.

We expect the next step in your process will be to continue the discussions started here in order to reach community consensus about priorities, fundraising, and project phasing. As you move forward we encourage you to seek the services of licensed professionals who will guide you in bringing these initial ideas to fruition through design development.

Best wishes for your future success.

Credits

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NC State University Architecture Studio, Summer 2009

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