

# Project Shade – Fort Phoenix State Reservation Concept Alternatives



**Project Shade Pilot Project –  
Fort Phoenix  
May 6, 2026**

**Massachusetts Department of  
Conservation and Recreation**

Kyle Zick Landscape  
Architecture, Inc.



## MEETING LOGISTICS

The project team will give a presentation, then the public can ask questions and provide feedback live during the meeting by:

- Using the Q&A feature, where comments will be sent to the moderator.
- Raising your hand using the 'raise your hand' feature on Zoom. You will be given permission to unmute and speak.

*Please note that this meeting is being recorded: the recording will be public record.*

# Commonwealth of Massachusetts



Governor

**Maura T. Healey**

Lieutenant Governor

**Kimberley Driscoll**

Energy and Environmental Affairs Secretary

**Rebecca L. Tepper**

Department of Conservation and Recreation  
Commissioner

**Nicole LaChapelle**



## **OUR MISSION:**

To protect, promote and enhance our common wealth of natural, cultural, and recreational resources for the well-being of all.

## **OUR CORE PRINCIPLES**

**Provide access to a diversity of outdoor recreational experiences and unique landscapes** that is equitable, inclusive, and welcoming.

**Conserve lands, water, and forests** by integrating science, research, and technical expertise into the management of our natural resources.

**Advance climate change mitigation and adaptation efforts** by implementing sustainable practices and advancing resiliency across our infrastructure, assets, and resources.

**Support healthy communities** by providing places for people to connect with nature and each other.

**Inspire generations of stewards** by recognizing and honoring our legacy through partnerships, public engagement, and education.

# Meeting Agenda

1. Introduction to Project Shade
2. Fort Phoenix Pilot Project – 3 Concepts
3. Existing Conditions
4. Environmental Considerations
5. Conceptual Designs
6. Next Steps
7. Discussion and Feedback

# Introduction to Project Shade

## Goals and Objectives

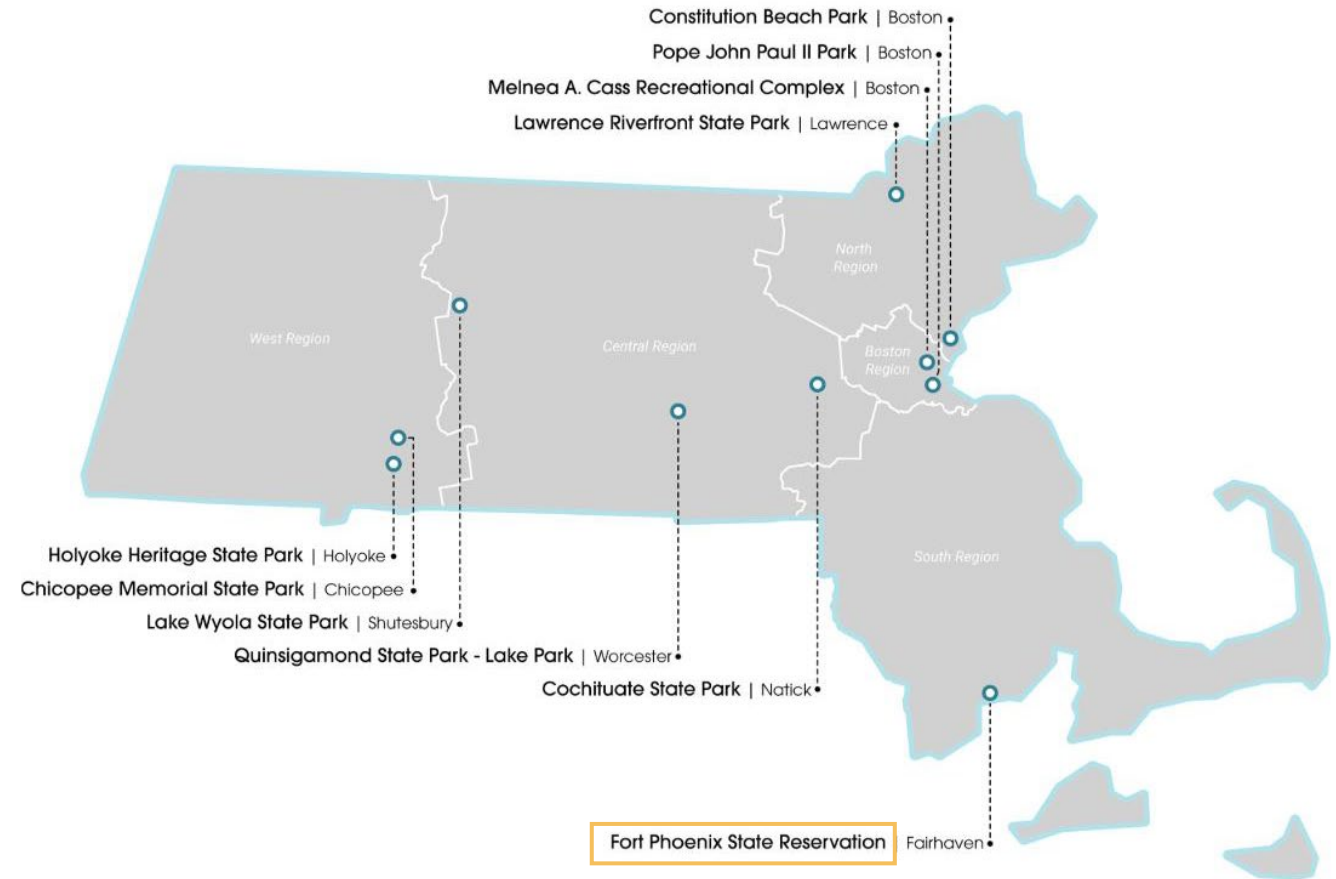
- Enhance the resilience of Massachusetts State Parks to extreme heat by strategically installing shade structures and expanding the native tree canopy
- Protect the health and well-being of park visitors and staff, particularly vulnerable populations



# Introduction to Project Shade

## Fort Phoenix Pilot Project

- Fort Phoenix selected as one of ten pilot project sites to decrease heat vulnerability
- Pilot projects will test ideas for use at other DCR parks
- DCR will take the shade solutions and lessons learned from the pilots to similar sites across Massachusetts



# Fort Phoenix Pilot Project

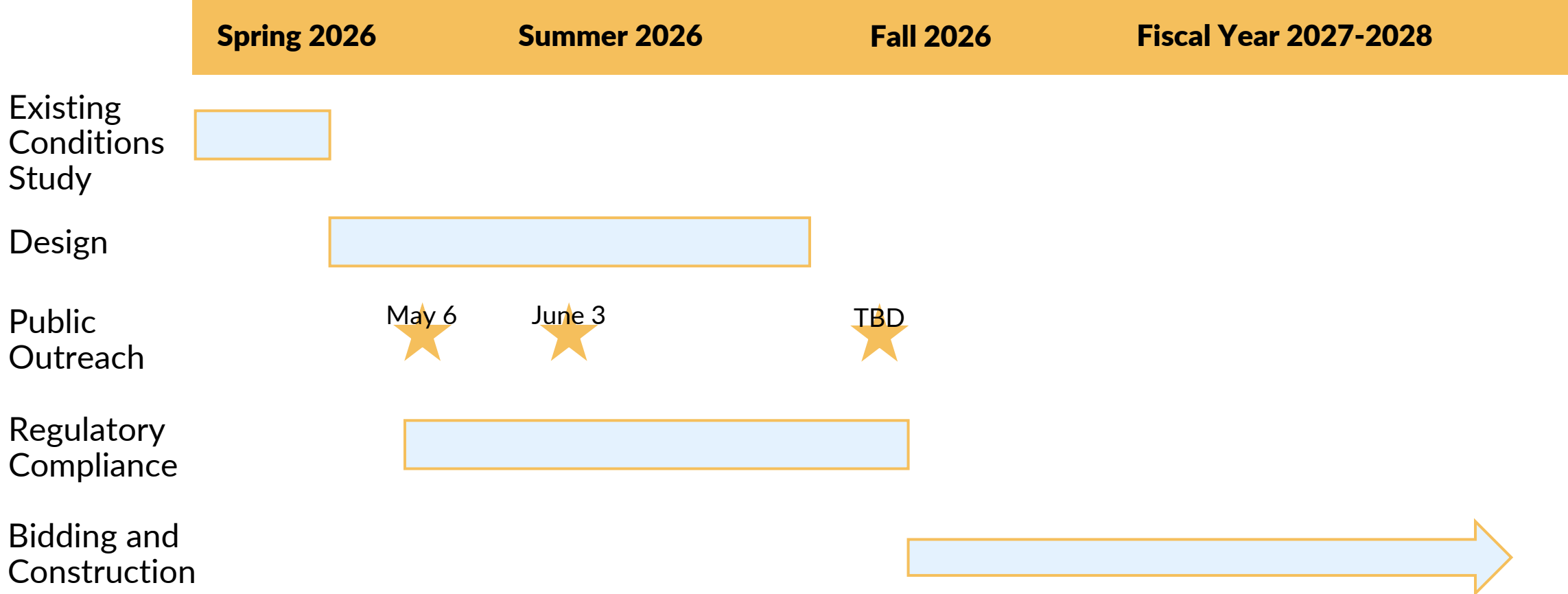
## Goals and Boundaries

- Develop design options for:
  - One or more public pavilions
  - Shade structure for DCR staff
  - Parking lot retreat
  - Additional trees and dune vegetation
- General location for future playground relocation
- Accessible walkways to connect the site's features



# Fort Phoenix Pilot Project Timeline

## Timeline



# Existing Conditions

## Key Points

- Most amenities are not accessible to everyone
- Pedestrians have to cross the driveway to go between site features
- Most stormwater runs into the ocean untreated
- Few mature trees provide shade
- Dune vegetation is degraded by foot traffic
- The existing pavilion is not sufficient for demand



# Existing Conditions

## Photos



# Existing Conditions



# Environmental Considerations

Main themes



# Environmental Considerations

## Main themes

- **Heat** makes midday hours uncomfortable and potentially hazardous for visitors, particularly children and the elderly
  - Limited shade
  - Water and sand reflect heat
  - Proximity to dark asphalt surfaces

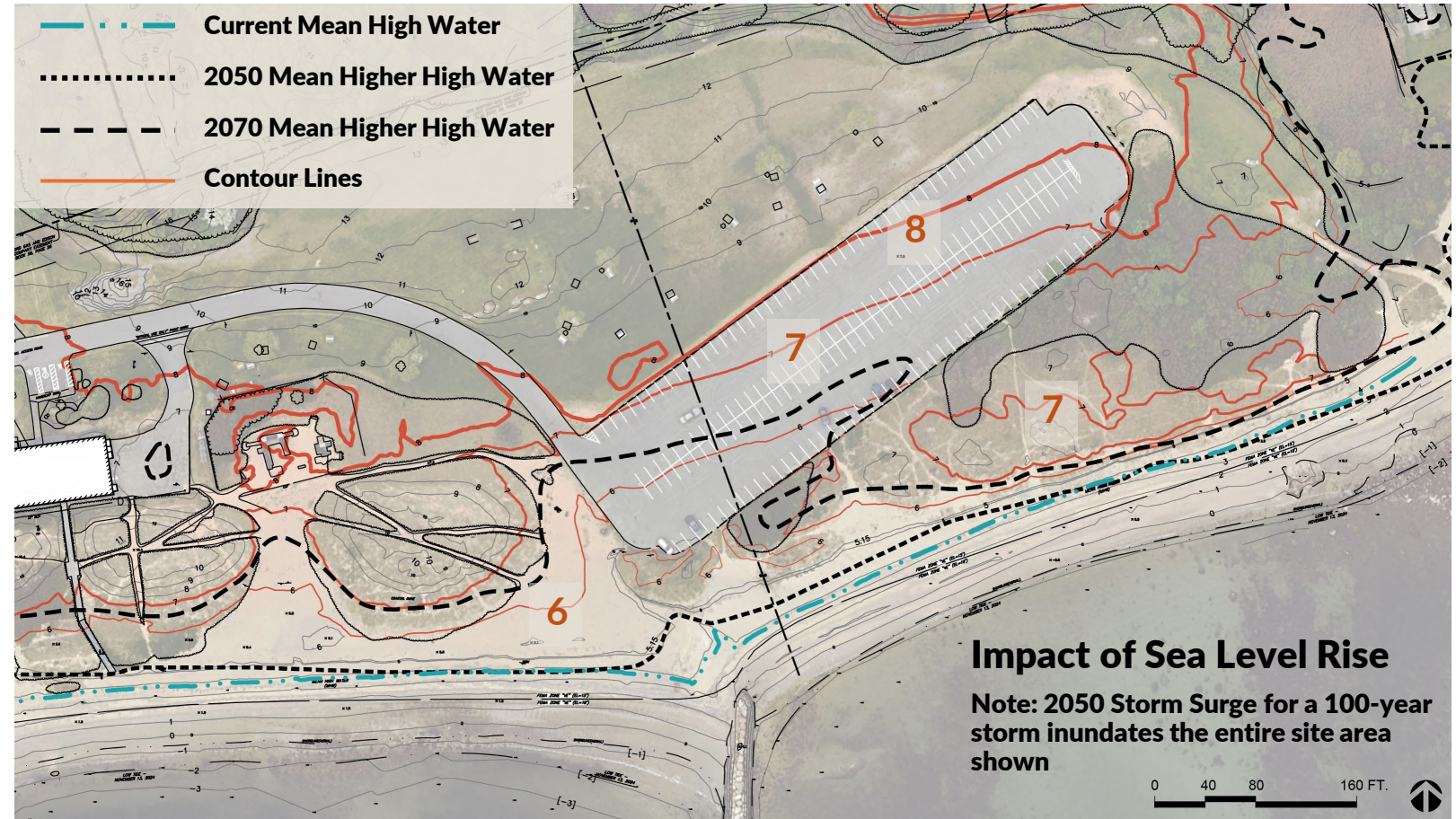


# Environmental Considerations

## Main themes

Need for Managed **Retreat** - relocating vulnerable park features and infrastructure further inland

- Impact of rising sea levels and increasingly severe storms driven by climate change
  - Sea Level Rise by 2050: 2.4 feet
  - Sea Level Rise by 2070: 4.3 feet
- Risk of inundation, erosion and storm damage
- Need for more robust dune vegetation to buffer wave energy, stabilize shoreline, and build natural coastal resilience



# Environmental Considerations

## Main themes

**Water Quality and Vegetation** shapes where programming and infrastructure can responsibly be located

- Stormwater runoff from surrounding impervious surfaces can carry pollutants that degrade water quality
- Infiltrating water on the site is challenging due to ledge
- Park features and improvements must abide by required buffer setbacks from the park's wetlands and coastal dunes

Boundaries shown are approximate and used only for illustrative purposes



# Conceptual Designs

## Goals and Limitations

- Re-evaluate parking size and location
- Add one or more shade pavilions
- Maintain lawn area for play and gathering
- Create paths accessible to all
- Plan a future location for the playground
- Treat stormwater
- Add more trees for shade
- Restore and expand dune vegetation
- Permits for structures near the beach may be hard to get



# Existing Condition

- +/- 200 parking spaces
- +/- 66,000 square feet of impervious surface
- +/- 103,500 square feet of lawn
- +/- 80,000 square feet of dune



# Concept 1

- Retains much of the existing parking lot footprint
- Parking lot separates lawn from beach
- Accessible pathways connect features
- 76 parking spaces
- Removes almost 25,000 square feet of impervious surface, a reduction of 37%
- Reduces the lawn by about 13,500 square feet, or 13%
- Adds 32,000 square feet of coastal dune, an increase of 40%
- Adds 2 new pavilions

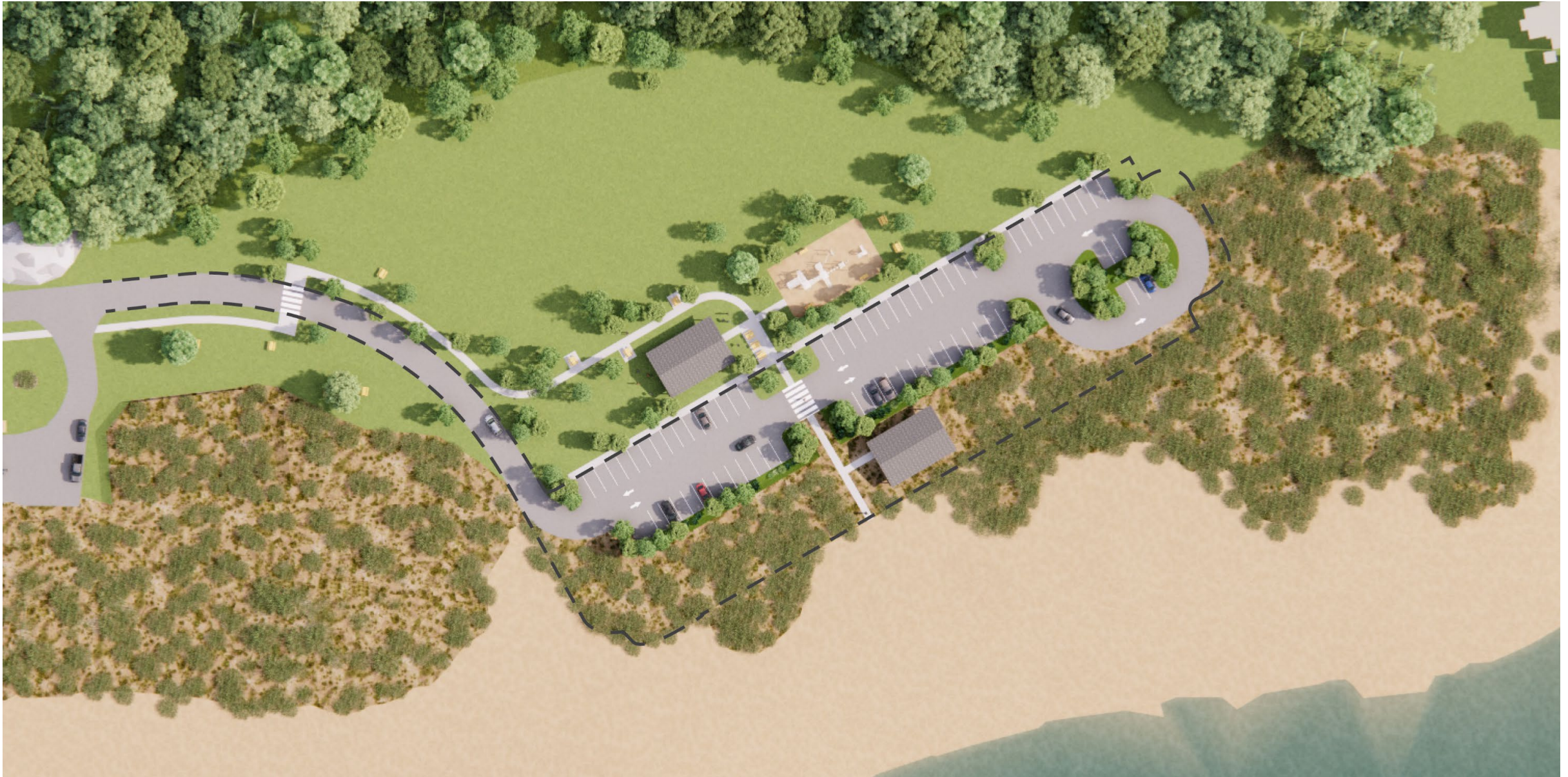


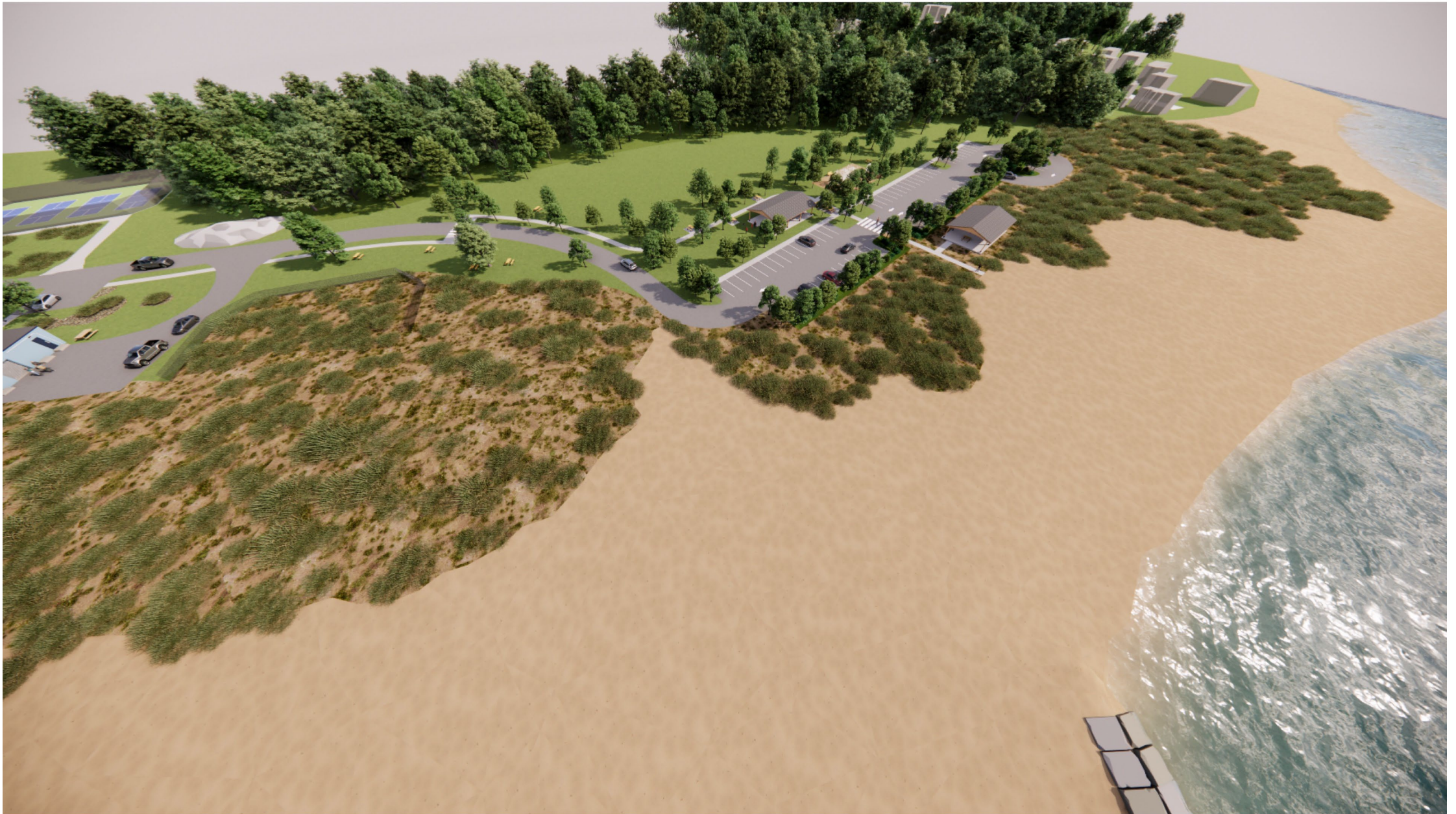


LEGEND	
1	DRIVE
2	PARKING
3	TURN AROUND
4	PAVILION
5	PLAYGROUND
6	EXISTING WETLAND
7	LAWN
8	ACCESSIBLE WALKWAY
9	NEW SHADE TREES
10	VEGETATED SWALE
11	RESTORED DUNE

OPTION 1

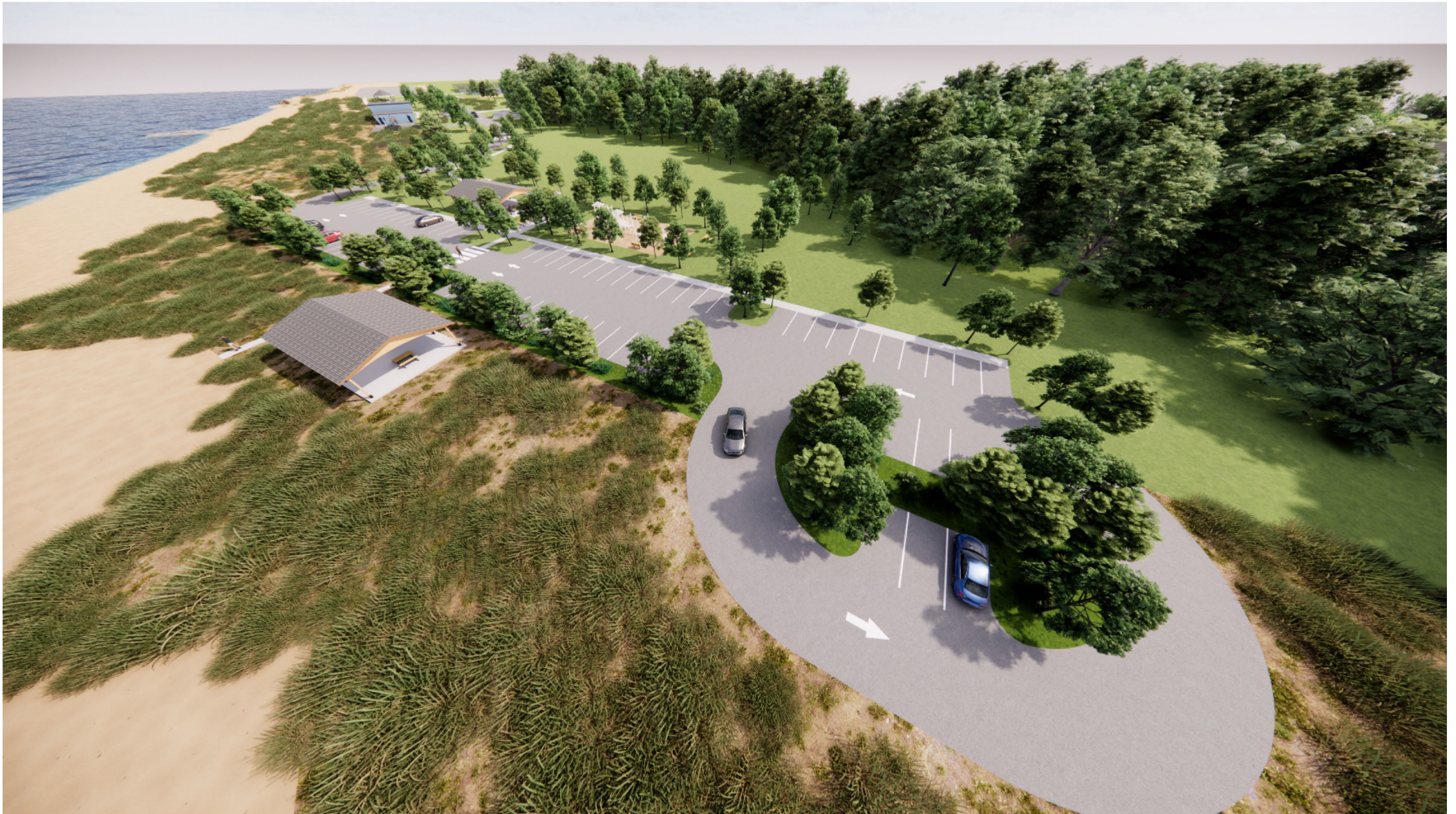
PROJECT SHADE PILOT PROJECT- FORT PHOENIX MAY 5, 2026





**OPTION 1**

**PROJECT SHADE PILOT PROJECT- FORT PHOENIX MAY 5, 2026**



OPTION 1

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OPTION 1

PROJECT SHADE PILOT PROJECT- FORT PHOENIX MAY 5, 2026

# Concept 2

- Retains some of the existing parking lot footprint
- Parking lot separates lawn from beach
- Accessible pathways connect features
- 75 parking spaces
- Removes over 27,000 square feet of impervious surface, a reduction of 41%
- Removes 18,000 square feet of lawn, or 18%
- Adds 38,500 square feet of coastal dune, an increase of 48%
- Adds 1 new pavilion

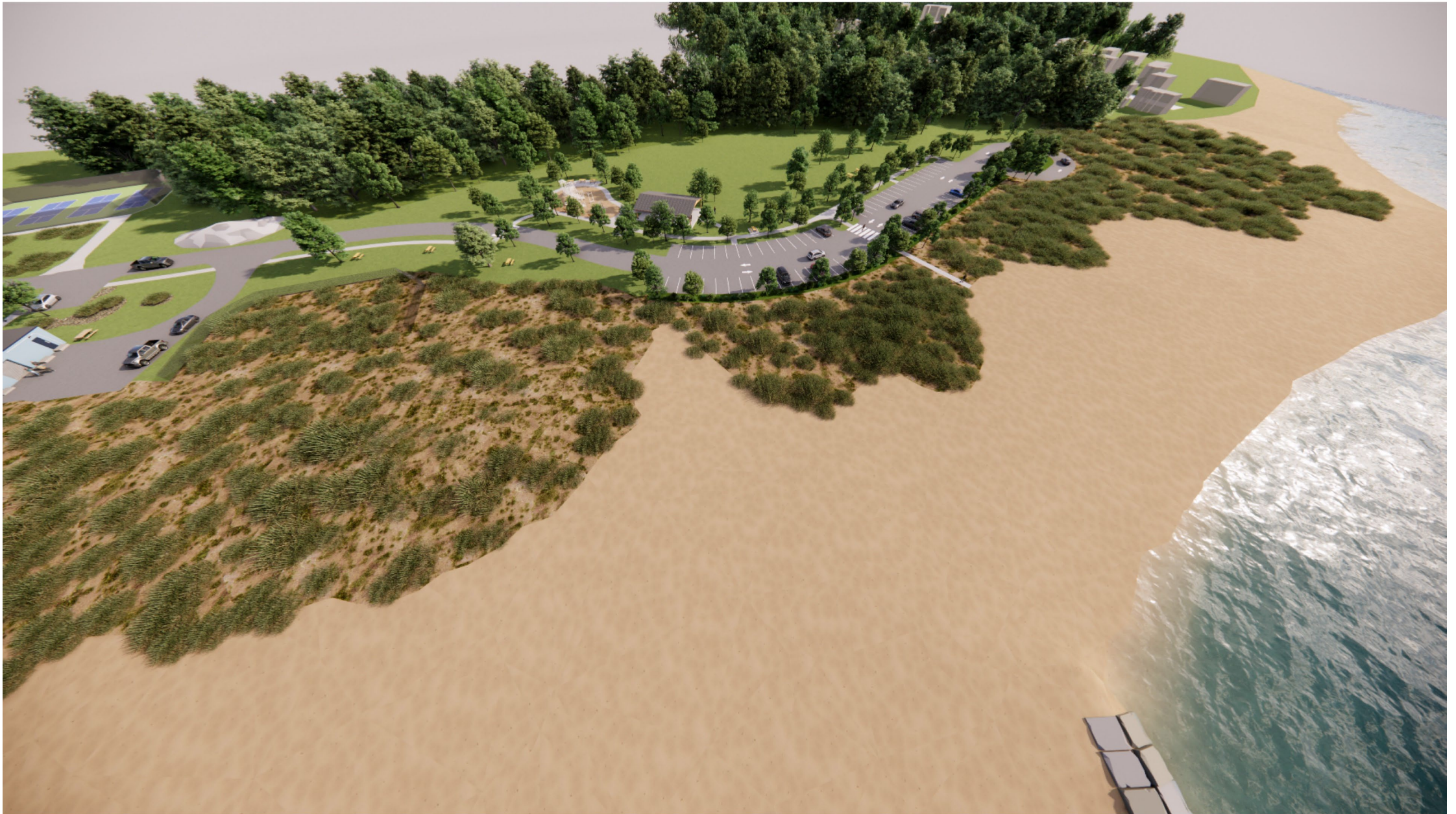




OPTION 2

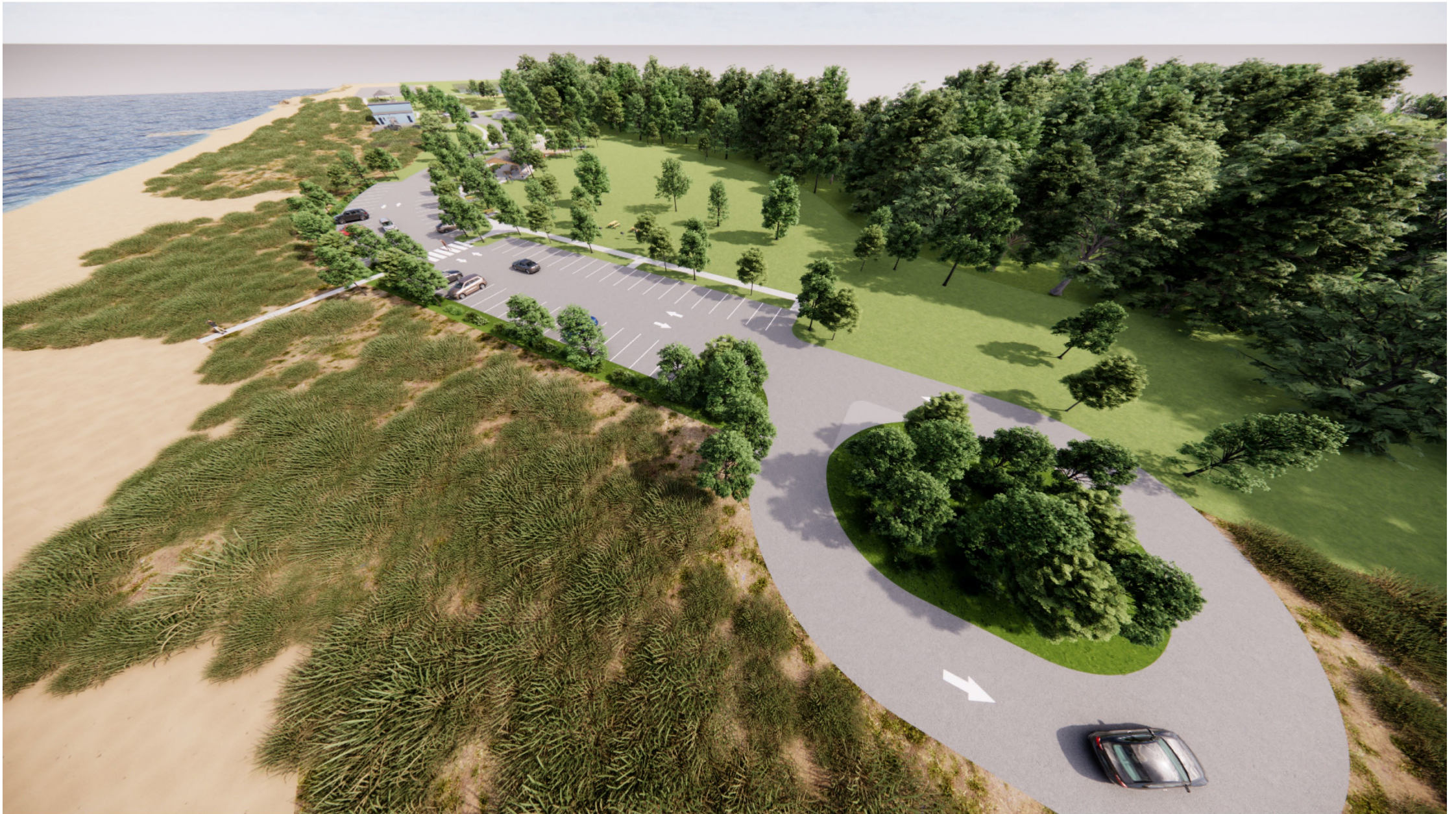
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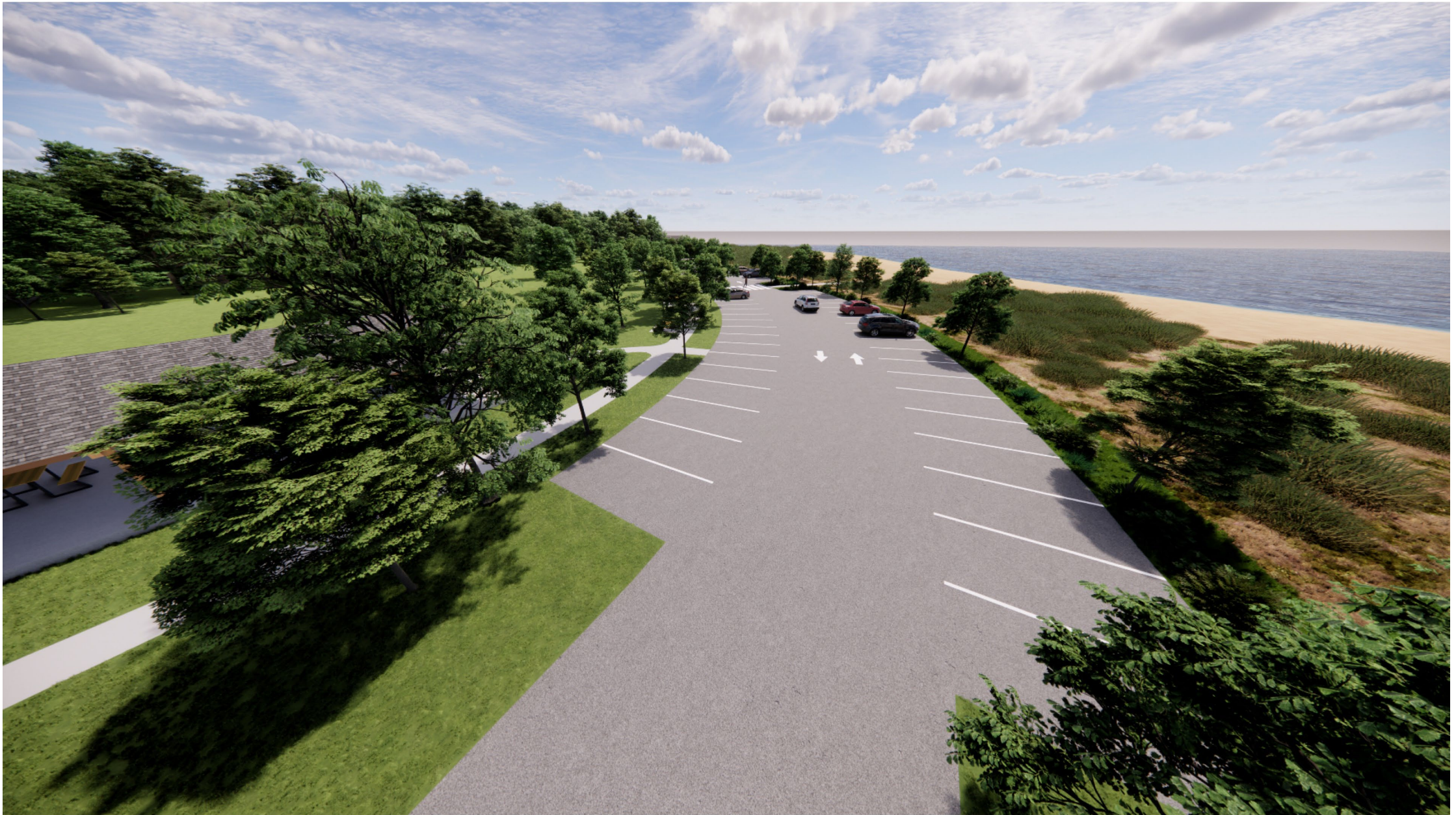
OPTION 2

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**OPTION 2**

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OPTION 2

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# Concept 3

- Relocates the parking lot to the north of the lawn
- Lawn adjacent to beach – amenities grouped together
- Accessible pathways connect features
- 75 parking spaces
- Removes 29,000 square feet of impervious surface, a reduction of 44%
- Removes 30,000 square feet of lawn, or 29%
- Adds 39,500 square feet of coastal dune, an increase of 49%
- Adds 2 new pavilions



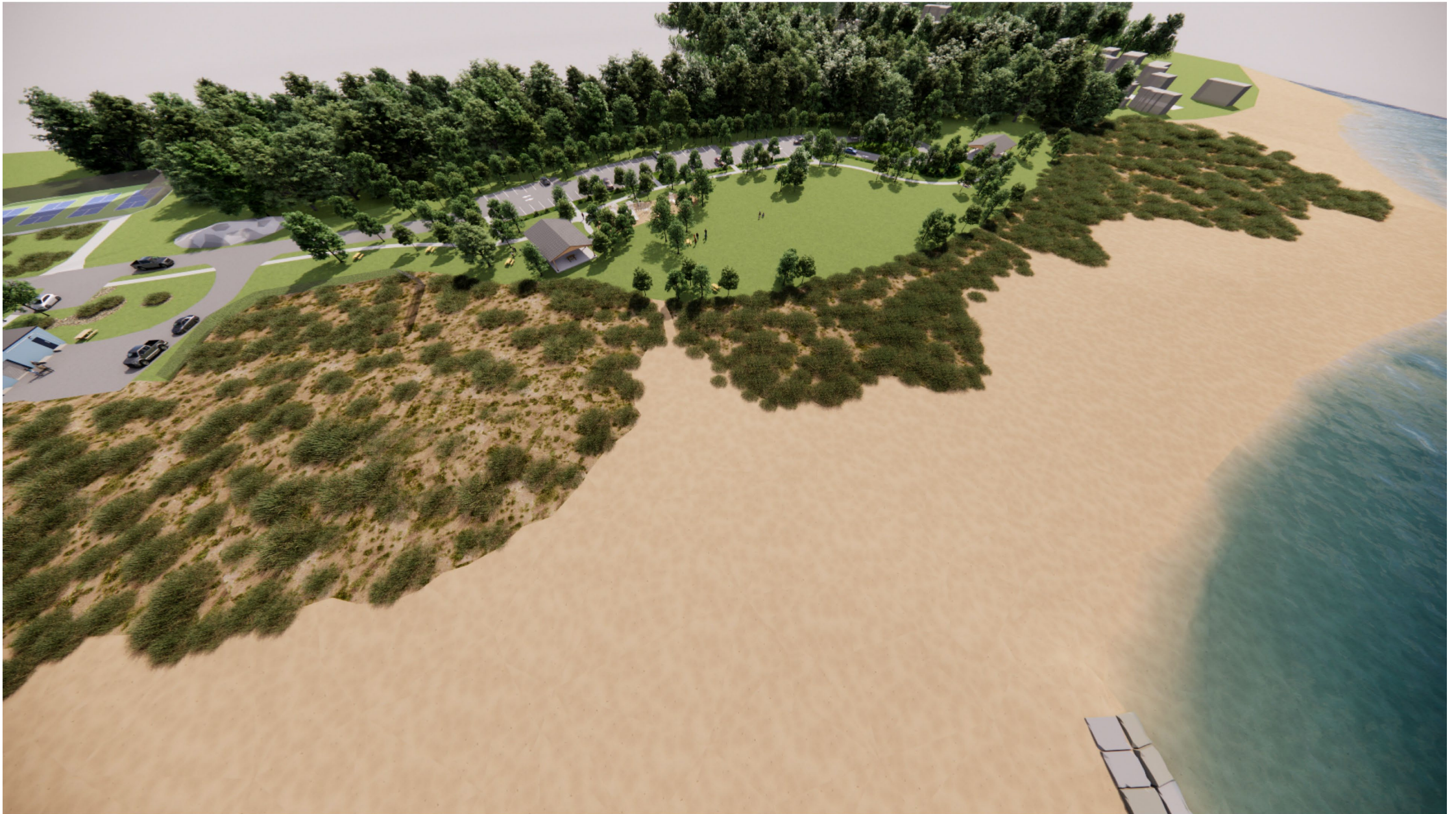


LEGEND	
1	DRIVE
2	PARKING
3	TURN AROUND
4	PAVILION
5	PLAYGROUND
6	EXISTING WETLAND
7	LAWN
8	ACCESSIBLE WALKWAY
9	NEW SHADE TREES
10	VEGETATED SWALE
11	RESTORED DUNE

OPTION 3

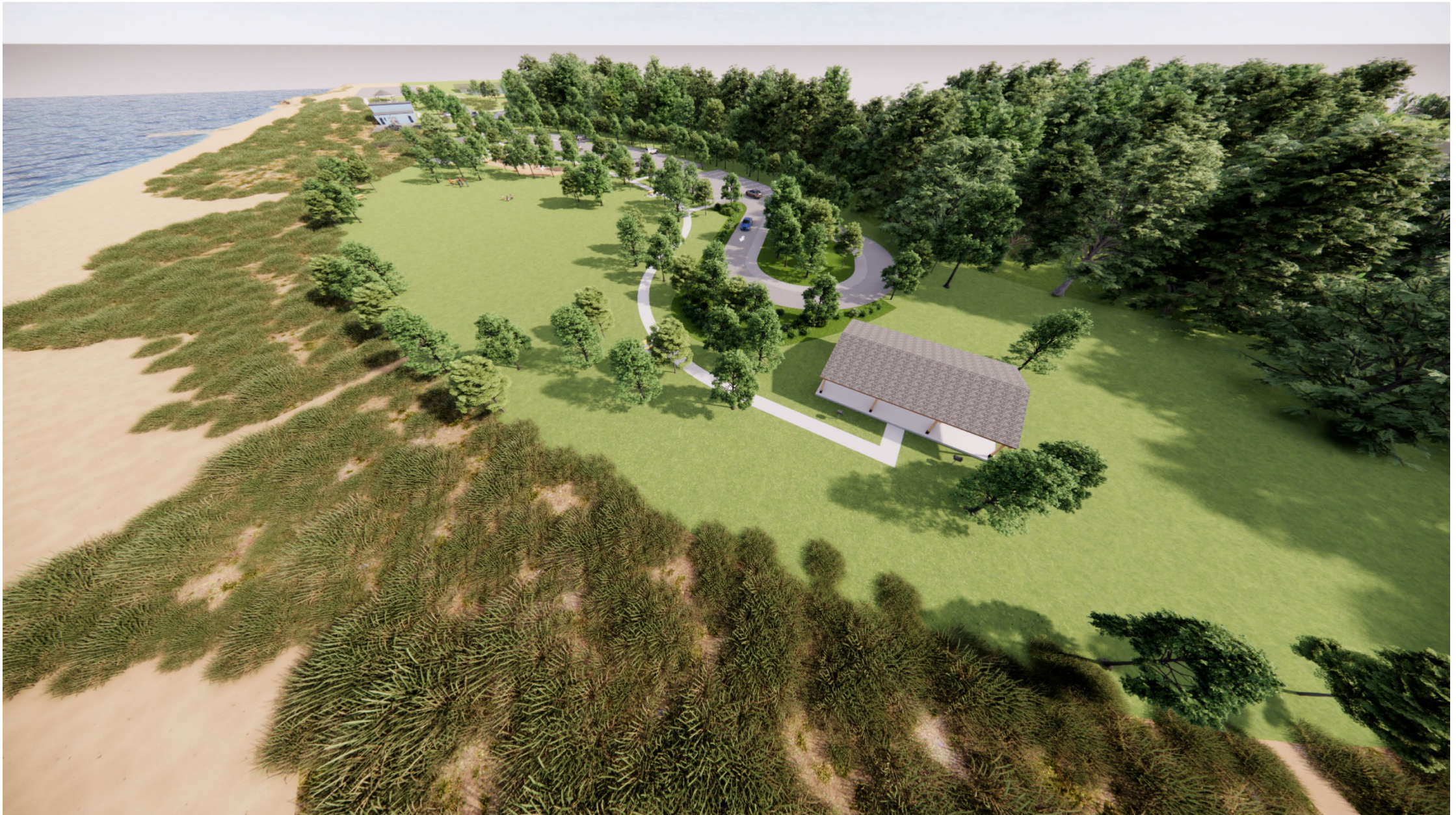
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**OPTION 3**

**PROJECT SHADE PILOT PROJECT- FORT PHOENIX MAY 5, 2026**



**OPTION 3**

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OPTION 3

PROJECT SHADE PILOT PROJECT- FORT PHOENIX MAY 5, 2026

# Concept Comparison



Concept 1



Concept 2



Concept 3

76 parking spaces  
Reduces impervious surface by 37%  
Reduces lawn by 13%  
Adds 40% more coastal dune  
Impacted by sea level rise before 2070  
80+ feet from parking to edge of beach



75 parking spaces  
Reduces impervious surface by 41%  
Reduces lawn by 18%  
Adds 48% more coastal dune  
Impacted by sea level rise around 2070  
80+ feet from parking to edge of beach



75 parking spaces  
Reduces impervious surface by 44%  
Reduces lawn by 29%  
Adds 49% more coastal dune  
Impacted by sea level rise after 2070  
250+ feet from parking to edge of beach



# Next Steps

- Incorporating your feedback
- Starting regulatory work
- Narrowing down to a single preferred scheme
- Next Public Meeting:  
June 3, 2026



# **Discussion and Feedback**

# Additional Information

- Recording and tonight's slide deck will be available at:
  - [www.mass.gov/dcr/past-public-meetings](http://www.mass.gov/dcr/past-public-meetings)
- If you have comments on this project:
  - *Submit online:* [www.mass.gov/dcr/public-comment](http://www.mass.gov/dcr/public-comment)
  - *Deadline: Wednesday, May 20, 2026*  
*Please note: Additional contact information provided, notably email address, will only be used for outreach on future updates to the subject project or property.*
- If you wish to subscribe to a DCR general information or project-related listserv: contact DCR's Office of Community Relations via email at [mass.parks@mass.gov](mailto:mass.parks@mass.gov)



# Thank You.



The Massachusetts Department of Conservation and Recreation (DCR) cares for nearly half a million acres of public lands, nurturing the vital connection between people and nature while keeping these shared spaces welcoming and accessible to all.