

Welcome to the 2023 FRPA Conference!



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SITE PLAN DEVELOPMENT FOR BEGINNERS, NOVICES AND NEWCOMERS





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LEARNING OBJECTIVES

- One: Have a basic understanding of site analysis, including site conditions, zoning regulations, land development regulations, utilities, topography, soils, hydrology, vegetation and/or wildlife, cultural features/community interests, and environmental concerns
- Two: Understand the agency stakeholders and their interrelationships in site development
- Three: Understand the basic terminology of park site development



Introduction

Site planning is the art of arranging structure on the land and shaping the spaces between linking architecture, engineering, landscape architecture and city planning

Site Planning by Kevin Lynch

Park systems are built site by site

Great Sites are

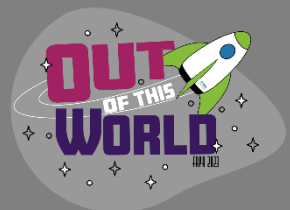
Responsive to humans

Adaptable over time

Efficient

compatible with surroundings

sustainable



Introduction

WHEN IS A SITE PLAN REQUIRED

- For any building permit for new development
- Any redevelopment that includes exterior work
- Many types of land use applications, such as site plan review, conditional use permit, or land divisions



Introduction

Site planning begins by assessing a potential site for development through site analysis. Information about slope, soils, hydrology vegetation, parcel ownership, orientation to wind & sun, etc.

By determining areas that are poor for development (such as floodplain or steep slopes) and better for development, the planner can access optimal location and design a structure that work within a space



Introduction

Why do you need a site plan? Most often to obtain a permit!

There are 3 property rights

- The right to purchase property
- The right to sell property at a profit
- The right to develop land by permit such as zoning



Introduction

What is it for a parks project?

- Creation of a Site Plan
- Creation of Social Infrastructure

Site Planning involves
Buildings & Structures
Roads & Walkways
Trees & Gardens
Water Bodies & Controls
Landscaping
Services
Parking
Manmade Features



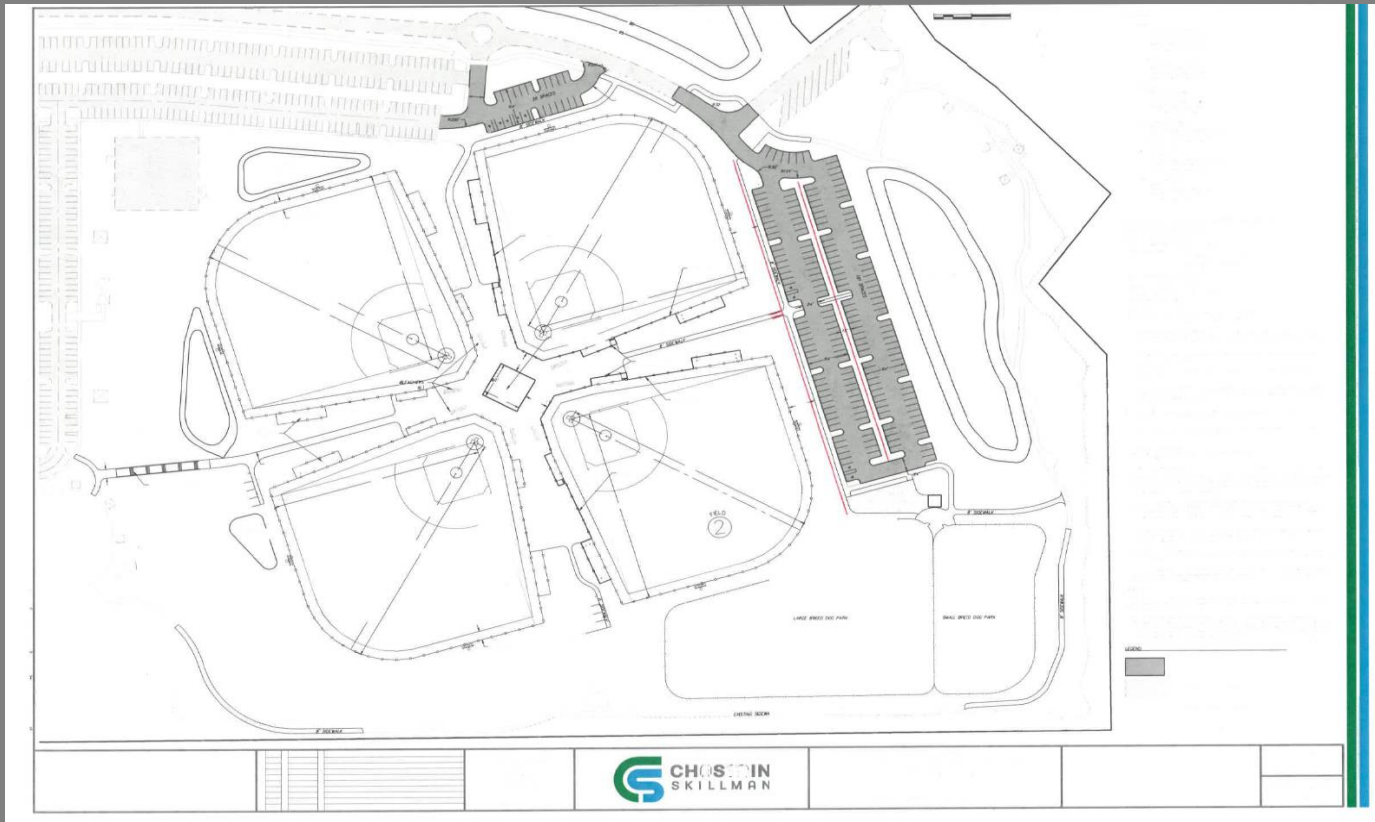
Site Plan Development

- Two Types of Site Plans
 1. Certified site plan by design professional
 2. Noncertified site plan you create in-house



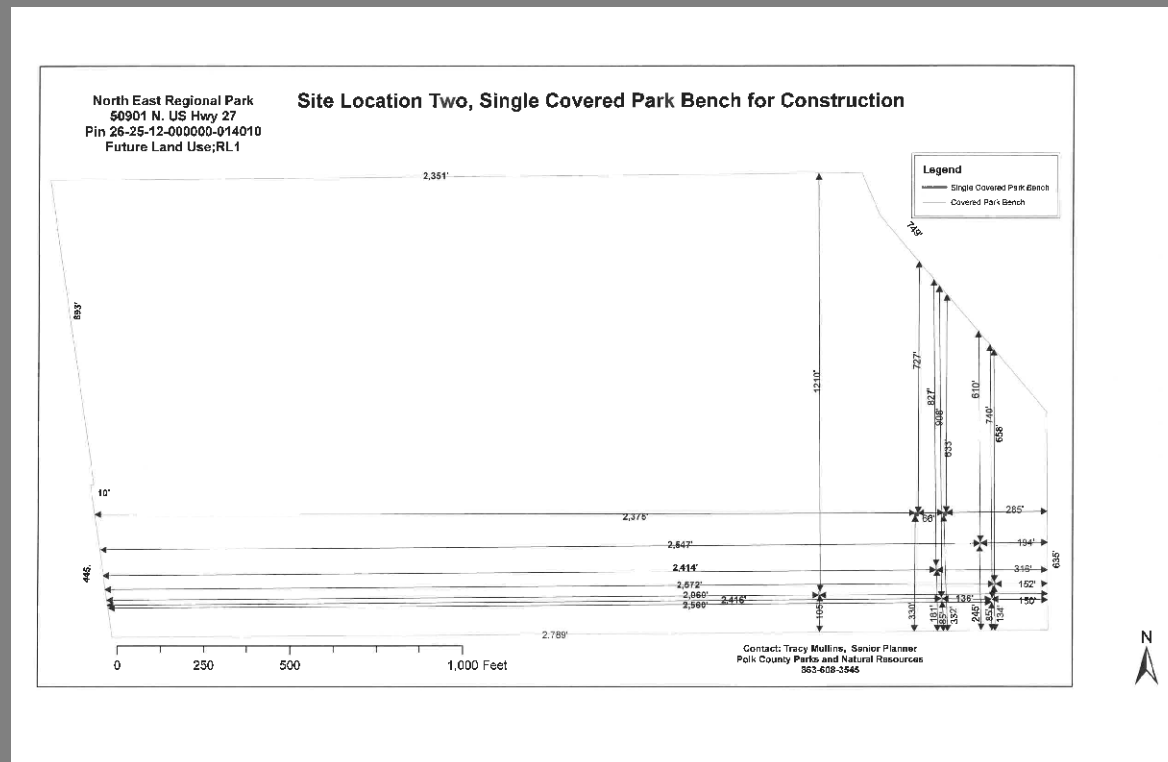
Site Plan Development

Certified site plan created by professionals



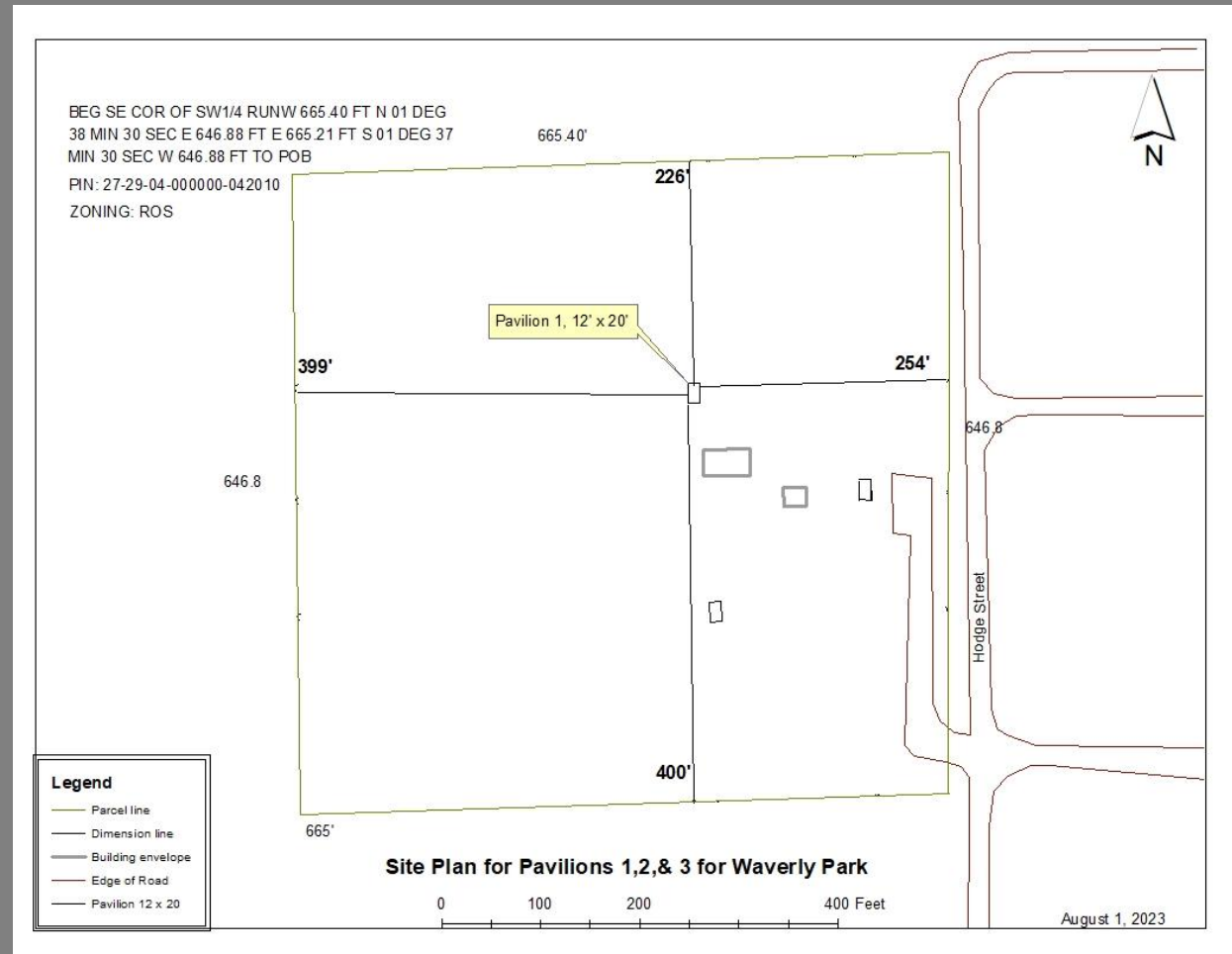
Site Plan Development

Uncertified site plan created in house to get building permit for shaded benched



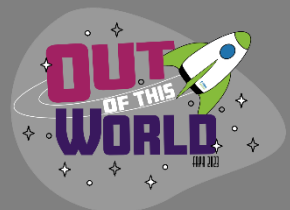
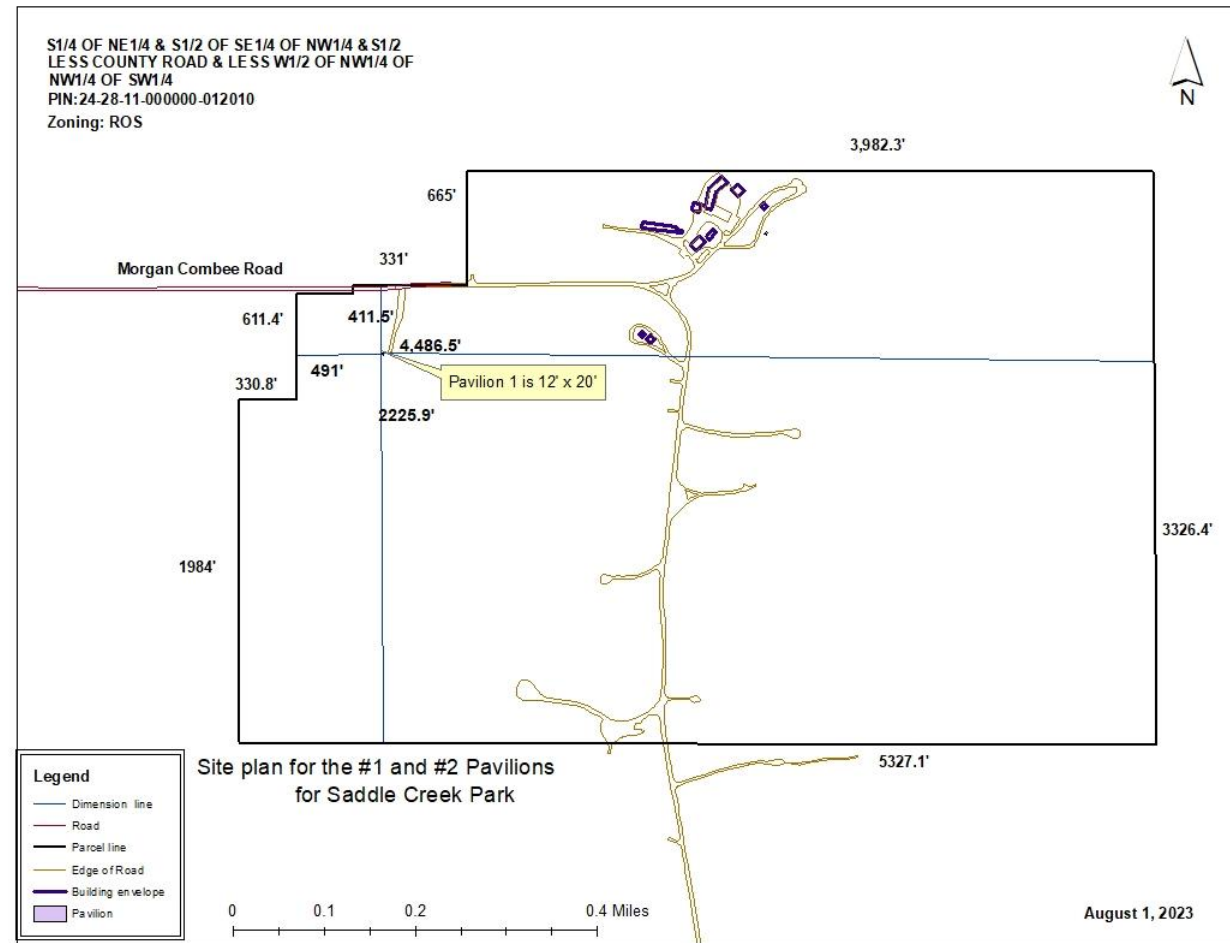
Site Plan Development

Size matters



Site Plan Development

Size /scale matters in parks



Site Plan Development

Minimum information on a site plan from bird's eye view

- Your name and address
- Legal Description
- Scale
- Cardinal direction
- Property lines
- Location details: streets, driveways, parking
- Outline of existing structures and distances between them
- and proposed structures



Site Plan Development : Research

1. Goals What do we need to achieve, and why
2. Facts What do we know, what is a given, what do we not know?
3. Concepts – How do we want to achieve goals? Inhouse talent or hired help
4. Needs How much money and space is needed? What level of quality
5. Problem What are the significant conditions affecting the design of the space? What are the general directions the design should take



THE DISC GOLF COURSE PROJECT

It all started with the Parks, Recreation and Preserves Master Plan Questionnaire

The Questionnaire reveals citizens desire for a Disc golf
Park Planning Staff contact the local disc golfers

Where is a possible site location

What is the size and shape of the site

Do you need utilities?

Power water sewage?

Proximity to user group?

Access by police, fire/rescue?



Data Gathering

Site Development Planning 101

Design process

- Data gathering
- Analysis
- Synthesis

1. Identify your project objective
2. Collect existing data
3. Results of your site visit
4. Environmental assessment
5. Infrastructure analysis
6. Regulatory review
7. Socio-economic considerations
8. Stakeholder engagement
9. Site constraints
10. Synthesize findings

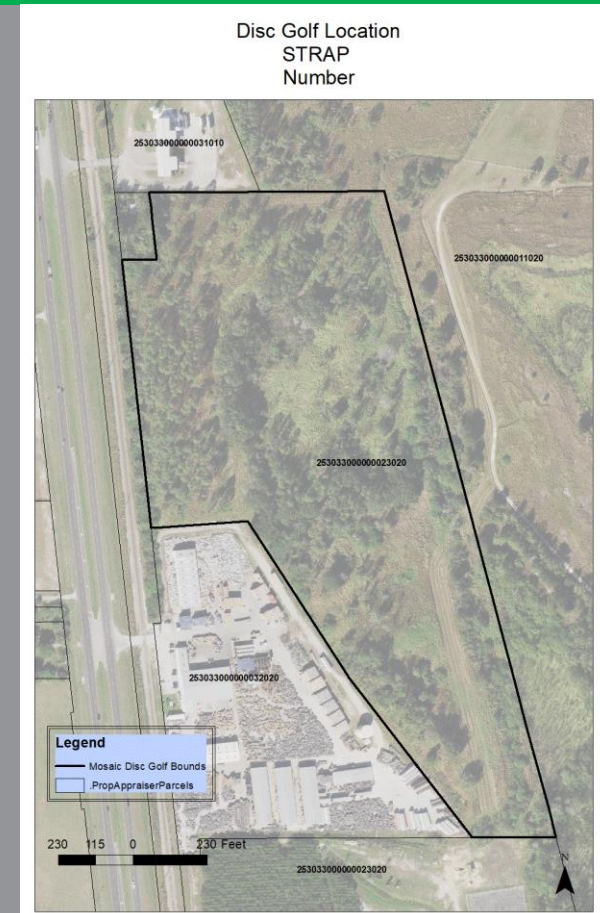


Data Gathering

A Site Donated!

Assessing site suitability

- Comprehensive Plan: “ROSE”
- Parks and Recreation Master Plan
- Individual park master plan



Data Gathering

- Land Development Regulations
- Building Codes
- Environmental Laws
- Public Access Requirements



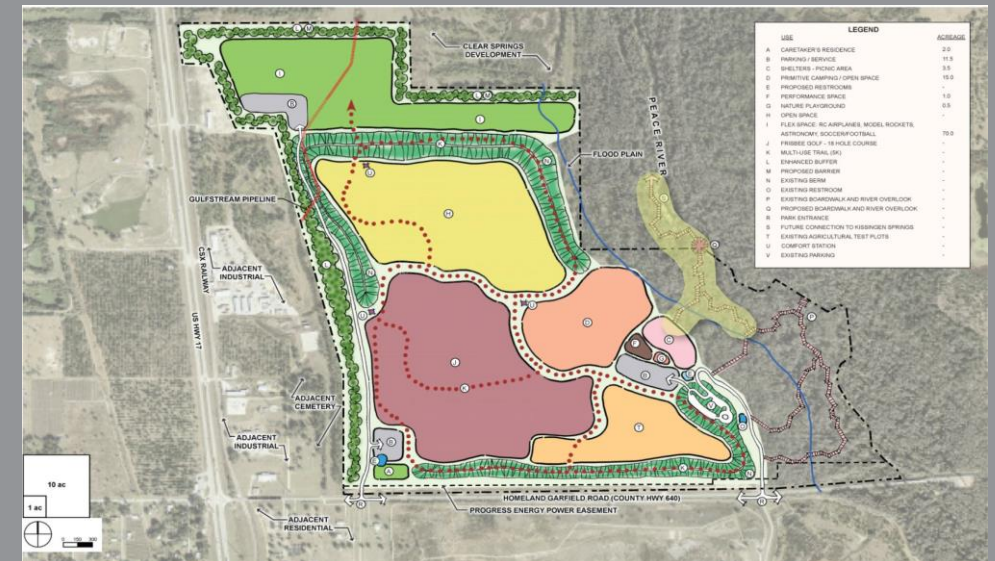
Data Gathering Land Development Regulation

WHATS ALLOWED BY LAW:

Ownership data from County
Property Appraiser Site

Land use and zoning data from the
Planning Department site
Transportation data from the County
Transportation Planning Organization
(TPO) site.

Floodwater Data from the Federal
Emergency Management Agency



Data Gathering

Building codes

- Land use districts
- Conditional uses i.e. boat ramps, High intensity recreation
- Special Districts
- Site development standards
- Access to transportation
- Parking
- Landscaping



Data Gathering

Building Codes

- Ensuring compliance with regulations and laws
- Design and permitting consultants
- Land use Permits
- Building Permits
- Environmental Permits
- Grading Permits
- Sign Permits
- Noise Permits



Data Gathering Environmental

National Environmental Policy Act

Environmental Assessment

(Categorical exemption 1 to 2 months)

Finding of no significant Impact

(Negative Declaration 4 to 9 months)

Environmental impact

(Environmental Impact Report 9 to 18 months)



Data Gathering Public

Public Access

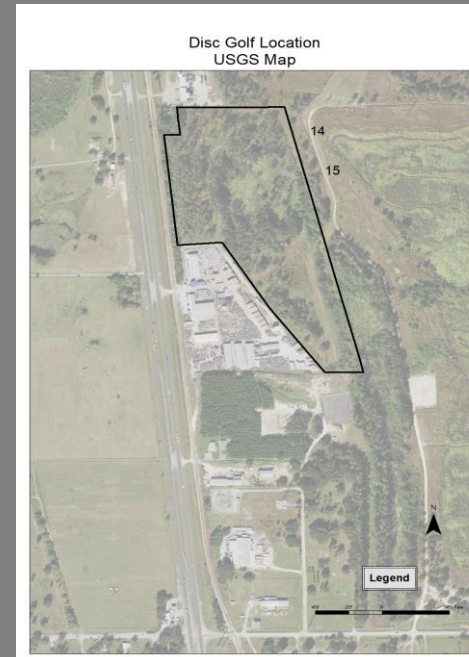
1. Traffic Study Major or Minor
2. Multimodal transportation
3. American Disability Act
1. Transportation Assessment
2. Connectivity Analysis
3. Designed Parking Areas
4. Pedestrian Pathways
5. Bicycle facilities
6. Public Transit Integration
7. Universal Accessibility
8. Safety and Traffic Calming
9. Shared use areas
10. Education and promotion



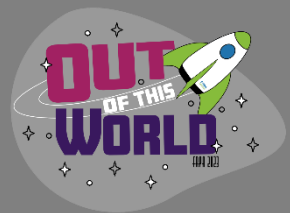
Site Analysis & Assessment: Location

Overview of the potential site, an expansion of Mosaic Peace River Park: Existing land use

United States
Geographical
Services Map



Polk County
Aerial Photo
2020



Site Analysis & Assessment Checklist

Analyze the data you gathered with your team?

1. Do you need an environmental study or permit?
2. Do you have transportation connectivity and ADA access?
3. Do you require a Land Use or Zoning change?
4. Is there Cultural and Historical significance?
5. Do you have psychographic profile of stakeholders
6. What stakeholder engagement do you need?



Site Analysis and Assessment Environmental

Soils determine what you can build



Building on sand or muck can require costly engineering solutions for buildings or roadways

Data available from United States Department of Agriculture Soil Conservation Service

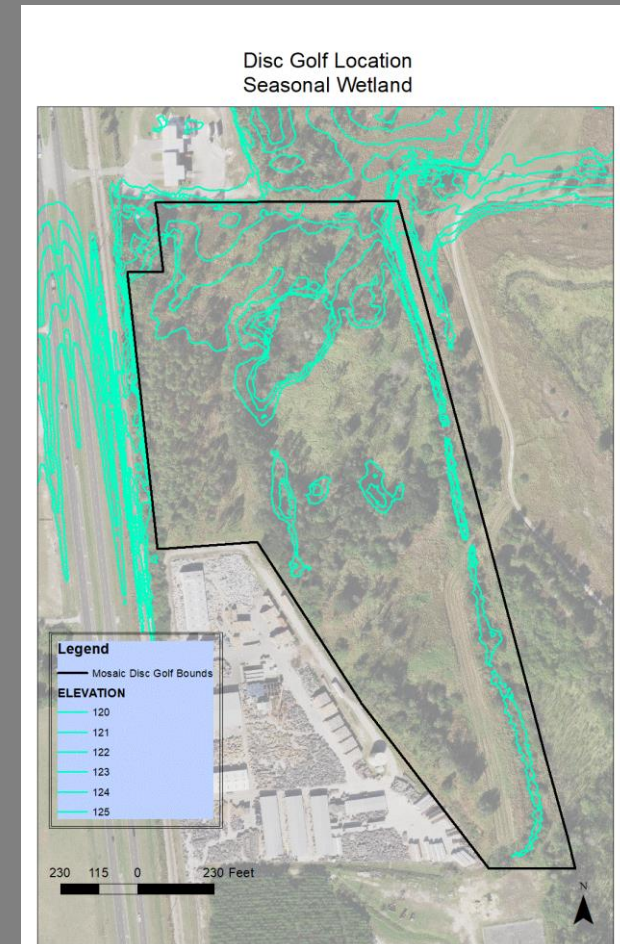


Site Analysis & Assessment Environmental

LIDAR: Light Detection and Ranging
Data collected every 3 to 5 years

Hydrology:

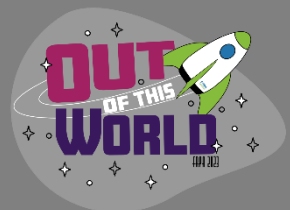
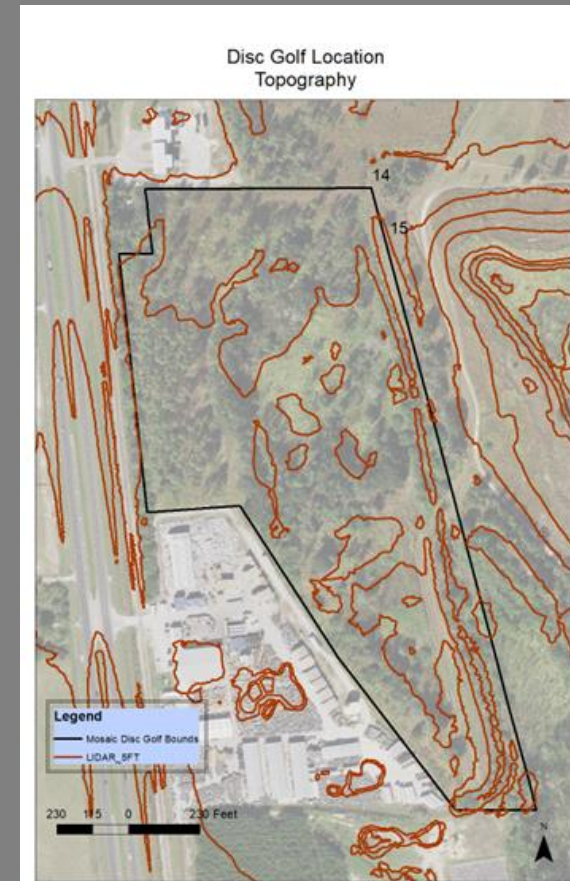
) Uplands, where the rain runs from
Lowlands, where the rain runs to
Swamps, where the rain stays (and
mosquitos breed



Site Analysis & Assessment Environmental

Look for the possibilities in the topography

- elevation
- slope gradient
- slope aspect
- safe places for trails



Site Analysis & Assessment

OTHER ON SITE FACTORS

Vegetation

Water Bodies

Wildlife Habitat

Geological features

Climate, humidity/Rain

Natural resources

Ecological assessment

visual linkages

Infrastructure

Gas/ power/water

View from site/view to site

Shape and Size

Accessibility

Orientation

Wind Direction

Local Culture

Transportation Infrastructure



Site Analysis & Assessment

OFF SITE FACTORS

Land use patterns

Stream and drainage source

Visual , smells sounds

Neighboring aesthetic character

Public utility locations and capacities
(POP Point of presence)

Transportation ways and systems



Site Analysis & Assessment

Public Participation does not have to be painful

- Identifying the needs & preferences of Park Users



Site Analysis & Assessment

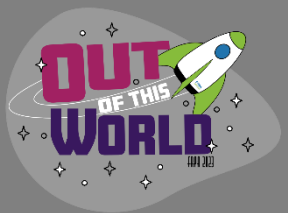
Translating community needs into park program



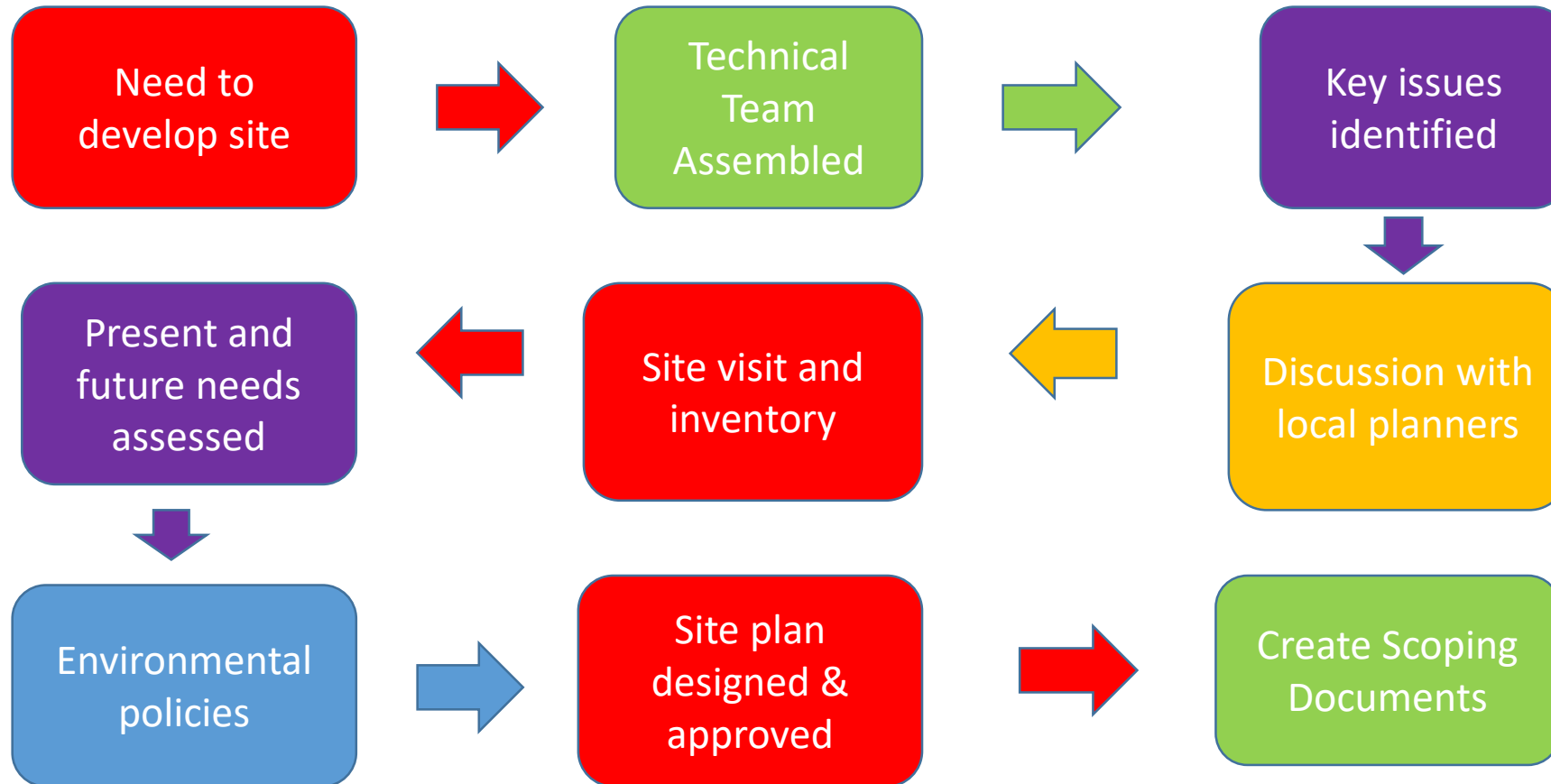
Synthesis

Understanding the Project

- Goals and objectives
- Site Requirements
- Project development
- Implementation and Maintenance



Sequence in producing a Site Plan

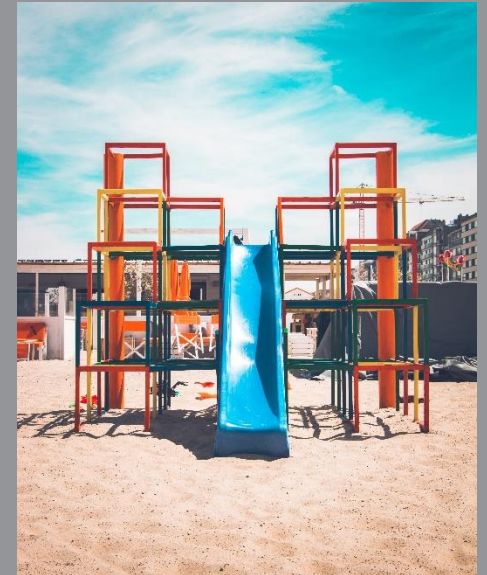


Synthesis

Review to begin

Determining the park's functional requirements

1. Needs Assessment
2. User Profile and demographics
3. Activity analysis
4. Facility and amenity planning
5. Design guidelines



Synthesis: What it is

- Activity planning
- Site facilities & Amenities
- Budgeting & Phasing

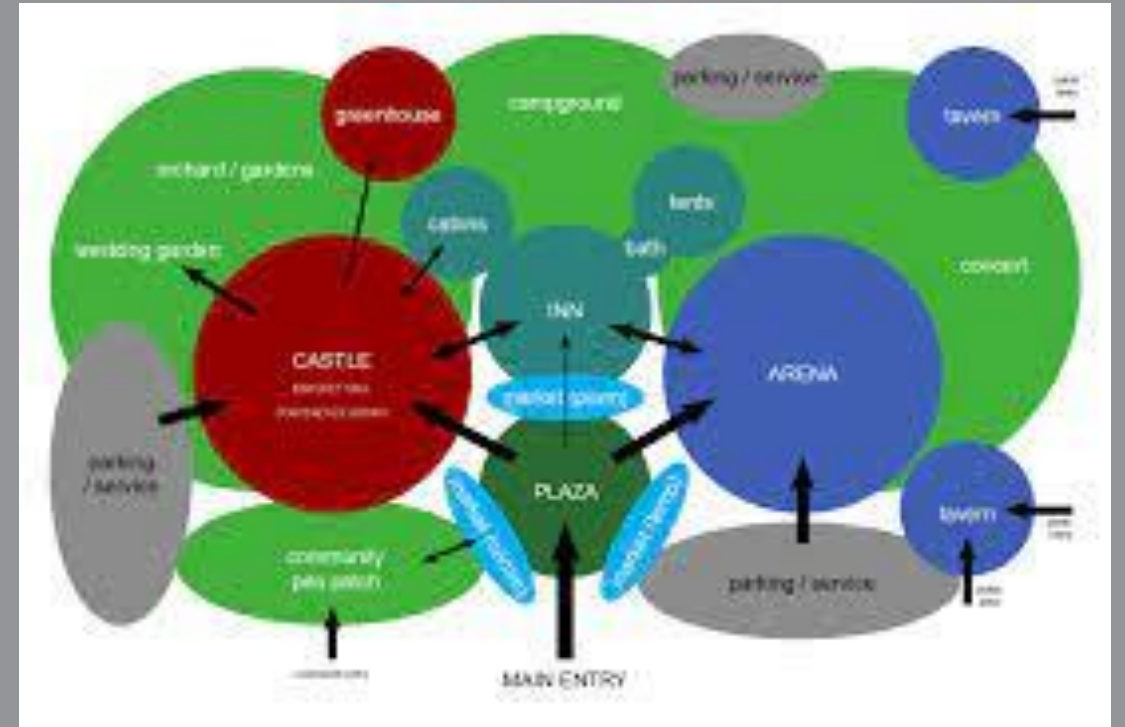
CAN INVOLVE DESIGN FOR

- Sports and Recreation
- Nature /Environmental education
- Arts and Cultural events
- Community Gatherings
- Child and youth programs
- Health and wellness
- Special Events
- Community services

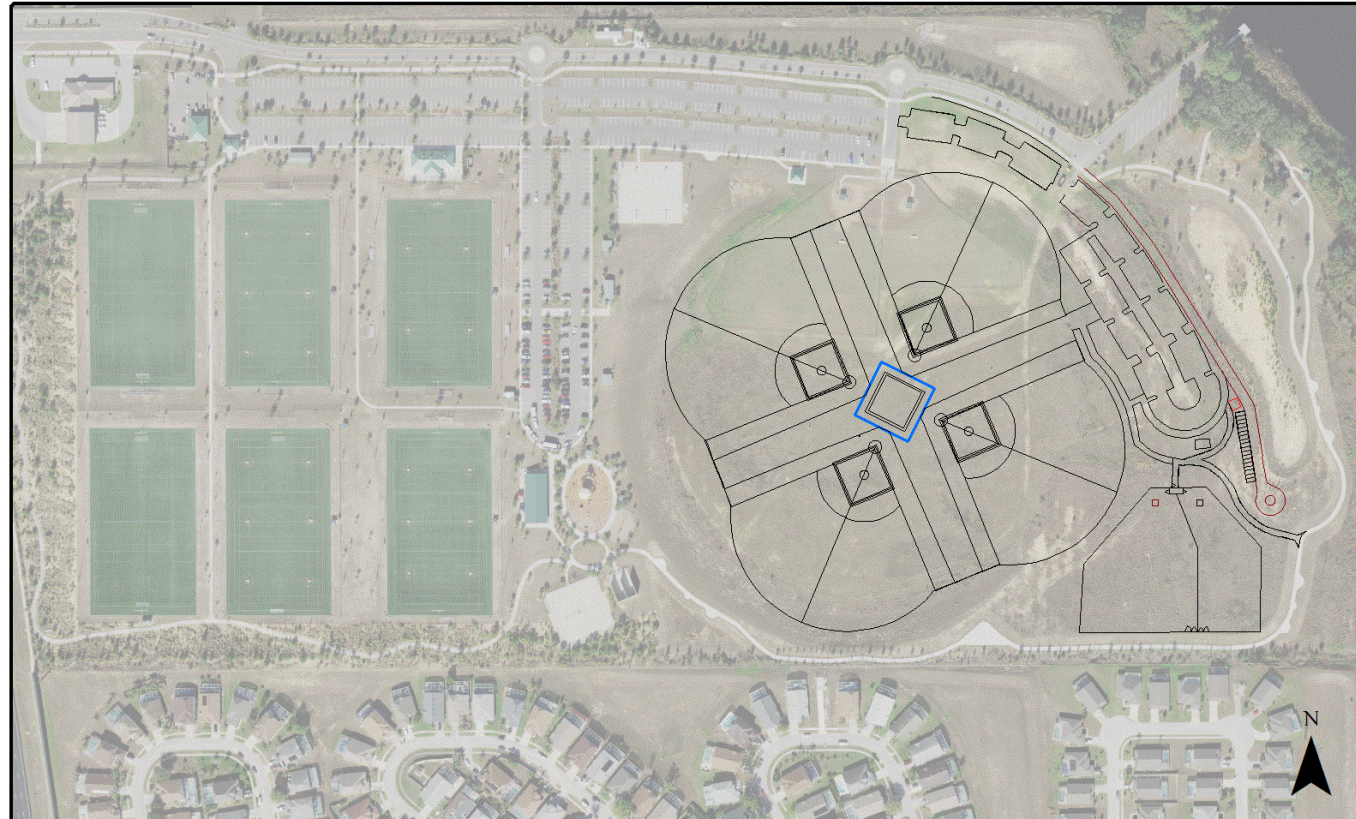


Synthesis: The Bubble diagram, a planning tool

Use of open spaces,
circulation patterns,
views & accessibility



Synthesis : Re-exam Recycle, Reuse your land



Synthesis: Design Principles

- Functionality and flexibility
- Integration with nature
- Safety and security
- Sustainability and stewardship
- Social Interaction and Community Engagement
- Connectivity and linkages
- Maintenance and long-term viability



Synthesis: Design Principles

Creating visually
appealing
Park Spaces



Synthesis: take a fresh look

Preservation
of existing
Natural
Resources

1. Site analysis and assessment
2. Native vegetation
3. Water Management
4. Energy efficient lighting
5. Renewable energy
6. Sustainable materials
7. Wildlife habitat enhancement
8. Education and interpretation
9. Community Engagement



Synthesis: How do you implement sustainability?

Principals of a Sustainable Site Plan

Preserve an enhance natural feature
Efficient Resource management
Efficient Materials and Construction
Accessible and green transportation
Educational and interpretative Elements
Waste management and recycling
Community Engagement

e



Synthesis Guidelines

Use this chance to
upgrade to the
use of Green
Infrastructure

1. Rain Gardens
2. Permeable Pavers
3. Bioswales
4. Urban Forests
5. Natural Wetlands
6. Sustainable irrigation
7. Pollinator-friendly landscapes
8. Green roofs, green walls and vertical gardens
9. Natural Play areas



Synthesis: Prepare to present your site plan

- Develop a realistic timeline
- Develop a solid realistic budget that is not too detailed
- Develop a list of suitable amenities for the park site
- Identify special constraints on the park site, i.e. wetland restrictions, restrictive easements etc.
- **BE PREPARED FOR ALL POSSIBLE QUESTIONS**



Synthesis

1. Preliminary cost estimate
2. Prioritize amenities and phases
3. Cost allocation and funding sources
4. Detailed cost Analysis
5. Contingency planning
6. Phasing Timeline
7. Public engagement and approval
8. Monitor progress and adjustments

Budgeting and Phasing



Synthesis: Costs

COST ESTIMATION

1. Scope Definition
2. Quantify Materials and Labor
3. Construction Activity Breakdown
4. Unit Cost Analysis
5. Include contingencies
6. Review and finalize

Construction cost factors:

Soil Conditions/ erosion

Availability of Water utilities

Sewer utilities

Electric utilities

Roadway capacity

Cost of transporting materials

Site cost/ Mitigation costs

Existing site development

Natural Hazards



The Site Plan Brief

1. Project goals
2. Site Analysis
3. Community Input
4. Conceptual Design
5. Sustainability Considerations
6. Accessibility and universal design
7. Traffic Circulation
8. Safety and security
9. Detailed Design and Documentation
10. Implementation and Maintenance plan



Mapping the Site Plan

Laying out disc golf course with GPS and mapped with GIS

Tee pads laid out and
GPS



Baskets laid out
and GPS



Mapping the Site Plan

GPS data on GIS map



Mapping the Site Plan

Projecting the Disc Golf Greens with GIS



Mapping the Site Plan

Projecting the Disc Golf Greens with GIS

Vision

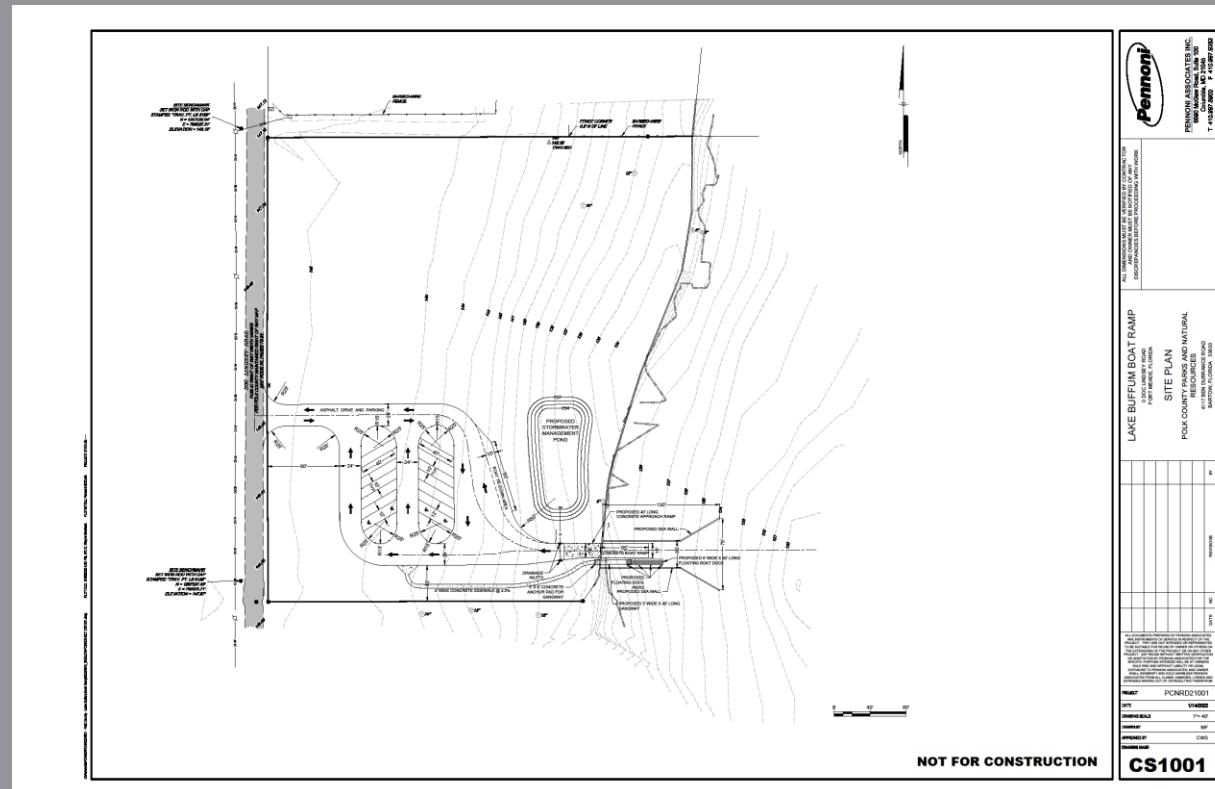
Championship layout &
Competitive layout

Target a National Disc Golf Event
with Sport Marketing



Mapping the Site Plan

Site Plan Lake Buffum Boat Ramp



CHECK IN QR CODE

You will receive a QR code to place in your slide deck before you come to the Conference. This code should be placed within the last five slides of your deck; or last 15-20 minutes of your presentation.

Participants will scan the QR code with their phones to check in to the class. QR codes will be used to track attendance at your session.



Next Steps

Site Plan Approval at Planning Board

Your site plan goes to appropriate officials for review

- Public works
- Fire Prevention
- Zoning
- Survey review and Real estate services
- Health Department
- Land Development (includes landscaping review)
- Construction Services
- Environmental Review
- Parks and recreation



Next Step : Design/Permitting Phase

Here are six steps to describe the design and permitting phase of a construction site plan:

- 1. Refine Conceptual Design: Environmental and Engineering Studies: .**
- 2. Regulatory Compliance and Permitting:**
- 3. Detailed Construction Documents: .**
- 4. Cost Estimation and Budgeting:**
- 5. Review and Approval Process: .**



Next Steps: Management and Maintenance

1. Asset inventory and condition assessment
2. Develop a maintenance schedule and plan
3. Implement an asset Management System



Site Plan Development

Why it is important for Parks

- Improved functionality and usability
- Cost savings
- Increased safety and security
- Enhanced aesthetics & user experience
- Environmental conservation & sustainability



Conclusion

Importance of Site Planning for creating functional and sustainable parks

- Process involves site analysis, goal setting, design and development and implementation and maintenance
- Benefits include improved functionality, cost savings environmental conservation, safety, security and enhanced visitor experience





Thank You!

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FRPA
FLORIDA RECREATION
& PARK ASSOCIATION

For more information about the
Florida Recreation and
Park Association
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