MASTER PLAN

NORTHEAST CREEK PARK

JACKSONVILLE, NORTH CAROLINA

April 1984

PREPARED BY

SB
483
.J3
M3
1984

GIDLEY & ASSOCIATES ■ PARK, RECREATION & RESORT PLANNING

PHONE (919) 766-6730 ■ 4350 WOODBOURNE DRIVE ■ CLEMMONS, NORTH CAROLINA 27012

SB483.J3M3 1984 c.1

TABLE OF CONTENTS

		Page
I.	INTRODUCTION	1
II.	PROJECT DESCRIPTION	1
	A. Function	1
	B. Site Analysis	2
	C. Program Narrative	4
III.	PROPOSED DEVELOPMENT	6
	A. Phase I	7
	1. Westside	7
	2. Eastside	8
	B. Phase II	10
	C. Handicapped Provisions	12
IV.	ESTIMATED COSTS	12
	A. Phase I	13
	B. Phase II	14
	C. Development Sequence	14
V.	MANAGEMENT/MAINTENANCE PROGRAM	15
	A. Development Plan	16
	B. Operating Recommendations	17
	C. Maintenance Requirements	17
	D. Staff Requirements	18
	E. Operating Expense and Income	19
	1. Expense	20
	2. Estimated Income (Phase II)	21
	F. Security and Public Safety	22
VI.	ENVIRONMENTAL ASSESSMENT	24

US Department of Commerce
NOAA Coastal Services Center Library
2234 South Hobson Avenue
Charleston, SC 29405-2413

The preparation of this report was financed in part by a grant provided by the North Carolina Coastal Management Program through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

I. INTRODUCTION

In October of 1983, Gardner Gidley and Associates was employed by the City of Jacksonville to prepare a Master Site Plan for Northeast Creek Park. The park is conceived as a city-wide and open space park and is designed to complement other facilities existing or planned for Jacksonville.

The City of Jacksonville is deficient in acreage provided for park and recreation purposes. The addition of this 82 acre parcel of land, with its diverse program offerings, brings the City closer to the objective of meeting National and State recommended standards for park and recreation lands.

II. PROJECT DESCRIPTION

A. Function

The principal purpose of this facility is to provide water-based recreation opportunities for residents of Jacksonville and its immediate environs. The purpose is accomplished by providing access to Northeast Creek and by renovating and making use of two existing sewage lagoons which comprise a total of approximately 10 acres of water. These lagoons will be used for fishing and boating. Other major functions planned for the park include picnicking, a large athletic field, a BMX bike course, a Frisbee golf course, nature, hiking and fitness trails, and playground areas.

The proposed development plan calls for the extensive, as opposed to the intensive, development of the park. Large areas of land will be left totally undisturbed and will be used primarily for passive recreation. In the extreme Western portion of the property, neighborhood serving facilities are planned for use by the residents living near that portion of the park. Planned facilities include playground areas for children, a multi-purpose area for basketball and similar activity, picnic facilities, and a senior citizens area.

B. Site Analysis

The park is located on the eastern edge of the City of Jacksonville. It is bordered on the east by Northeast Creek, on the north by a tributary stream, on the south by a CP&L power line right-of-way and residential areas, and on the west by residential areas. The new extension of Corbin Street isolates approximately 15 acres of land on the extreme western end of the property, and it is this land which will be used for neighborhood serving facilities. Along the north and east boundaries of the park, approximately 15 acres of land is subject to occasional flooding. This is the land within the 100 year flood area. Limited development is proposed for this area since it floods periodically.

In the flood area, the principal soil type is Mucklee, which is severely limited in its development potential because of its constant wetness and excessive fines. The only development planned for

these lands is a nature trail system and a small gazebo overlooking Northeast Creek.

The other principal soil type is Craven fine sandy loam. Where this land exists with one to two percent slopes, it is somewhat limited in its development potential because of poor drainage. However, where slopes range from two to eight percent, the land poses moderate to few restrictions for the proposed uses.

Topographically, the land is quite suitable for development. Severe limits are imposed by the zero to two percent grades, most of which are found in association with the flood plain and Mucklee soils, and a few areas with grades in excess of ten percent. These two extreme areas have, for the most part, been avoided in the proposed development plan.

Approximately seventy-five percent of the total land area is covered in woodland. The remaining land is either in water or in pasture grasses. The principal vegetation found in the upland portions of the property are Loblolly Pine, Long Leaf Pine, Water Oak, Sweet Gum, White Oak, Southern Red Oak, and Red Maple, along with Dogwood and an occasional holly. The wet land associations include most of the above species along with River Birch, several willow varieties, and some Tupelo. These woodlands, for the most part, are maturing species. The general area planned for the large parking lot consists of second growth pines with are

approximately 20 to 30 feet in height, with a caliper of 3 to 4 inches.

There are several easements on the property including a sanitary sewer line, a force main, and the right-of-way for Corbin Street. The entire southern boundary of the park is bordered by a CP&L power line easement which averages approximately 100 feet in width. A sanitary sewer pump station is also located on the property and utilizes approximately one-half acre of land.

In summary, the site poses no major problems for the type of development planned for it.

C. Program Narrative

1. Objectives and Need

The Northeast Creek Park project will enable the City to provide public access to public waters and recreation and park facilities in the southeast portion of the City, where there presently are no facilities. This portion of the City was annexed in June of 1980, and has been without public recreation facilities since that time.

The City is determined to provide recreation and parks facilities and programs for this area, and also to provide additional facilities for the entire City. To accomplish this task

the City spent over two years in negotiation with the Westminister Corporation to persuade them to donate land for park space. The City was successful in acquiring an 82-acre donation which will be developed over the next five years into a City-wide park.

National and State standards indicate a city of Jacksonville's size (population 23,000) should have 230 acres of park land, and that some of that land should be water based, if possible. This project will enable the City to start toward reaching those standards, and to reach objectives identified in the 1978 Statewide Comprehensive Outdoor Recreation Plan.

A citizen survey taken in 1982 by the City indicated a need for more park facilities, and a desire to pay for those facilities if necessary.

2. Results or Benefits Expected

The chief result of this Plan will be to make Northeast Creek waters available to the citizens of Jacksonville for recreational activities. Other benefits will include providing additional recreation and parks space for the City, and will allow the City to offer outdoor programs for senior citizens, teenagers, and active adults. Over half of the planned facilities will be those not presently offered by this department.

3. Approach

a. The work on this proposal will begin as soon as notification is received on the outcome of a LW&CF grant application. Should we not receive this grant, work on this project would be delayed until other funds could be found. This delay would result in other City park projects being delayed as well, which would cause the citizens to be without much needed facilities.

Citizens input for this project has been heavy from the outset. Two public meetings for comments on the development of this park were held on April 5 and April 7, 1983. The Recreation and Parks Commission has held discussions on development of this site at four monthly meetings held in November and December of 1982, and January and February of 1983. The Rotary and Kiwanis Clubs and the Jacksonville Board of Realtors have expressed an interest in being involved in this project.

III. PROPOSED DEVELOPMENT

The following facilities are proposed for development:

A. Phase I

1. "Westside"

The west side of the park is designed principally as a neighborhood serving area and will have a separate entrance. Some landscaping and attractive signs will be required, as will a gate which can be used to secure the property. An access road approximately 250 feet in length will be required to serve the 20 car parking lot. Both the road and the parking lot will have a surface of three inches of crush-of-run gravel or a similar material.

The senior citizens area will be designed specifically for that age group and will contain picnic tables, horseshoe courts and shuffleboard courts. Additional facilities may be added at a later date.

Playground areas are planned for three specific age groups: pre-school, ages 6 to 9, and ages 9 to 12. Play equipment appropriate to each age group will be selected and installed. Each area should be separately designated.

For older children, a multi-use court is planned. This court should be constructed of asphalt and should be 80' x 50'. It should have two basketball goals. It may also be set up for volleyball, badminton, skating and other activities.

A connecting trail approximately 500 feet in length is planned to serve the residential neighborhood located in the vicinity of Shadowridge Road.

2. "Eastside"

The east side of the park will be developed to serve a variety of purposes, the primary one being access to water. The major entrance should have appropriate signs, landscaping, and security gates. The main spinal road will be approximately 2,300 feet in length and should be 22 feet in width. It should also be surfaced with three inches of gravel or similar material. Three parking lots are proposed. The first of these will accommodate 100 cars and will serve the proposed pond areas, picnic areas, and the athletic field. A 20-car parking lot is proposed to serve the Frisbee golf course area, and an 84-car parking lot is proposed to serve the boat launching area, the gazebo, and the BMX bike course. All of these lots should be of standard dimensions as shown on the site plan and should be surfaced with gravel. The parking lots should be lighted.

The field sports area, 300' x 500', is planned as a large playing field to accommodate multiple activities including soccer, baseball, softball and football. This large turf area should be seeded with appropriate grass such as coastal bermuda or

other permanent grasses. This area, as well as the Number 1 Picnic Shelter, are served by a toilet/canteen structure.

The picnic shelter should consist of approximately 1,200 square feet and is designed to accommodate 80 to 100 people at one time. It is located near the central parking lot.

A Frisbee golf area is also located in this central portion of the park. Frisbee golf is an extremely popular activity and the terrain on which this course is located should make it particularly interesting.

The BMX bike course will be served from the boat launching parking lot. A challenging course of appropriate length is proposed.

The boat launching area and dock is located at the extreme eastern portion of the property along Northeast Creek. In addition to the launching facilities and parking, the area contains a gazebo. The gazebo will provide an excellent overlook for Northeast Creek. Small informal picnic areas are planned for the use of boaters and fishermen.

The hiking and jogging trail system is a major feature of this park. The trail system is approximately 6,000 feet in length. The surface of the trail should be tanbark, wood chips, or a similar appropriate material. The trail system serves a num-

ber of purposes. It is a walking trail, a hiking trail, a nature trail and a jogging trail. One portion of the trail system will contain fitness stations in order that a complete physical workout can be obtained.

B. Phase II

Phase II expands existing facilities and addresses the rehabilitation of the existing sewage lagoons. When the lagoons have been made accessible, it is anticipated that traffic in the park will pick up considerably. At this time the entrance road and the 100-car parking lot should be paved. Additionally, picnic tables should be provided in the vicinity of the ponds and an additional group picnic shelter is proposed. This shelter will contain approximately 1,200 square feet and will accommodate 80 to 100 people at one time.

The above development may require an additional toilet structure; however, the second toilet building is not shown on the site plan. If such a facility is required, it should be constructed in the general area between Group Shelter 1 and Group Shelter 2. Group Shelter 2 will be served by a 60-car parking lot which should have a gravel surface.

Along with the pond development, a boat dock and bridge are proposed. The bridge spans a cut in the dam between the two lagoons. This cut will provide access to both bodies of water.

The boat dock should be designed to accommodate a minimum of 20 paddle boats and 6 fishing boats. It is anticipated that these paddle boats and fishing boats will be extremely popular and will be heavily used, thus necessitating the construction of a canteen and control building near the boat dock. Boating tickets will be purchased at this location and concession sales are expected to be a major revenue generator.

Converting the lagoons to ponds requires additional research and approval by several State agencies. Assuming that the existing sedimentation is inert and does not contain harmful chemicals, it may be possible to raise the elevation of the existing lagoons by approximately four feet. This greater water depth would discourage plant growth and would provide an excellent depth for boating activity. Since little or no siltation can occur in these lakes, the depth would remain constant.

A second alternative is to dredge or pump the existing sludge and other sediments into one portion of one of the ponds and to seal it off there with a dam. This alternative would be quite costly. Regardless of which alternative is followed, it will probably be necessary to install pumps in Northeast Creek in order to maintain satisfactory water levels in the ponds.

The development program proposed above will give a new dimension to the variety of recreation activities currently available to the residents of Jacksonville.

C. Handicapped Provisions

In developing the park, attention should be given to the special needs of handicapped persons. The North Carolina Department of Natural Resources and Community Development publishes an excellent guide to specific design provisions which should be considered. This guide includes details for the design of toilets, walks, ramps, picnic areas and fishing piers. These details can be included in the plans with relative ease.

IV. ESTIMATED COST

The following estimates are based on the cost of similar facilities recently constructed in North Carolina. Since final detailed plans have not been completed, these estimates are general in nature. Final costs are beyond the planner's ability to estimate at this time. It is assumed that much of the work will be accomplished with force account labor.

A. Phase I

WESTSIDE

1.	Entrance Gates and Signs	$ 1,200
2.	250 LF Road and 20 Car Parking - Gravel	3,000
3.	Senior Citizens Area:	
	4 Shuffleboard Courts	800
	4 Horseshoe Courts	200
	Benches, etc.	800
	9 Picnic Tables	1,200
	3 Grills, 3 Trash Cans	600
4.	Playground Areas:	
	3 - Each Age Graded	20,000
5.	Multi-Use Court (80' x 50')	4,000
6.	Clearing and Landscaping	2,500
7.	Connecting Trail - 500 LF	1,500

EASTSIDE

1.	Entrance Gates and Signs	1,800
2.	Main Road - 2,300 LF - Gravel	7,000
3.	100 Car Parking Lot - Gravel	6,000
4.	20 Car Parking Lot - Gravel	2,500
5.	84 Car Parking Lot - Gravel	5,000
6.	Field Sports Area - 300' x 500' - Grassing	8,000
7.	Frisbee Golf Area	7,000
8.	Toilet/Canteen - 560 SF	5,500
9.	Picnic Shelter - 1,200 SF	2,500
10.	BMX Bike Course	2,000
11.	Picnic Area:	
	9 Tables	1,800
	3 Grills, 3 Trash Cans	600
12.	Boat Launch, Dock and Bulkhead	9,000
13.	Gazebo - 144 SF	4,000
14.	Hiking Trail System:	
	6,000 LF Trails	3,000
	Fitness Stations	7,000
15.	Clearing (6 Acres, Grading and Landscaping)	21,000
16.	Site Utilities, Including Underground Electric Service	6,000
	SUBTOTAL	124,500
	Fees and Contingencies (8%)	9,960
	TOTAL	$134,460

B. Phase II

1.	Pave Entrance Road (450 LF) and 100 Car Lot	$12,000
2.	Family Picnic Area:	
	12 Tables	2,400
	4 Grills, 4 Trash Cans	800
3.	Group Shelter Number 2 - 1,200 SF	10,000
4.	Parking Lot - 60 Cars - Gravel	6,000
5.	Boat Dock and Bridges	8,400
6.	Canteen/Control Building - 600 SF	15,000
7.	Lagoon Conversion:	
	Alternate A - Raise Water Level	5,000
	Alternate B - Dredge and Fill Operation	*(65,000)
8.	Boating:	
	20 Paddle Boats	20,000
	6 Rowboats	1,800
	SUBTOTAL	81,400
	Fees and Contingencies (8%)	6,512
	TOTAL	$87,912

*Add $65,000 for Alternate B.

C. Development Sequence (Phase I)

The following sequence of development is proposed for Phase I.

Phase II development is contingent on the availability of funds.

December 1983	City begins work on access road.
April 1984	Advertise bids for utilities, open bids for utilities and award contract. Prepare bids for playground equipment.
May 1984	City begins work on senior citizens area, athletic fields and parking areas. Bids for playground equipment awarded.
June 1984	Complete utilities construction, start playground and Frisbee golf areas, prepare bids for exercise station course, complete work on access road.
July - Aug. 1984	Complete work on senior citizens area, advertise bids for multi-purpose area, award bids for exercise station course.

September - October 1984	Complete athletic fields, award contract for multi-purpose area, begin construction of jogging trail/exercise station course, and dirt bike course.
November - December 1984	Begin construction of picnic shelter/rest rooms. Complete construction of disc golf and playground areas.
January - February 1985	Complete construction of jogging trail/exercise station course, and multi-purpose area.
March - April 1985	Complete the dirt bike trail, begin construction of the gazebo.
May - June 1985	Complete gazebo, picnic shelter/rest rooms. Advertise bids for pier/bulkhead improvements.
July - August 1985	Award contract for pier/bulkhead improvements, begin construction of nature trail/picnic sites.
September - October 1985	Complete work on all parking areas.
November - December 1985	Complete work on nature trail/picnic sites, finish all landscaping.

V. MANAGEMENT/MAINTENANCE PROGRAM

A. Development Plan

The park is to be developed in two phases. Phase I includes the following facilities:

- Field Sports Area
- Toilet
- 100 Car Parking Lot
- Group Picnic Shelter Number 1

- Family Picnic Areas
- Senior Citizen Area
- Three Play Areas
- Multi-Use Slab
- Two 20-Car Parking Lots
- Frisbee Golf Area
- 80 Car Parking Lot
- BMX Bike Course
- Boat Launch and Dock
- Gazebo
- Jogging, Hiking and Fitness Trails
- Road System

In Phase II, the following facilities are added:

- 60 Car Parking Lot
- Nature Trail
- Boat Dock
- Paddle Boats (15)
- Fishing Boats (6)
- Control Building
- Group Shelter Number 2
- Conversion of the Lagoons
- Additional Picnicking

B. Operating Recommendations

While major maintenance and operating expenses will be generated in Phase I, few revenues will be generated until Phase II is completed.

It is recommended that the park be operated on a year-round basis. It is further recommended that the facilities operate only during daylight hours. Entrance gates should be locked when the park is not in use.

Apart from league athletic fees, few fees are recommended for Phase I facilities. When Phase II is completed, fees are recommended for group shelter use, fishing and boating. Boat launching, Frisbee golf and the BMX bike course represent some revenue potential, primarily from tournament activity. Income from concession sales can also be significant, depending on activity generated on the athletic areas and at the boating area.

C. Maintenance Requirements

It is recommended that the park be "zoned" for maintenance, and that various areas receive differing levels of maintenance.

Class 1 areas include the sports fields, toilets, parking lots, boating areas, picnic and play areas, senior citizens area, the gazebo, the boat launch, roads and parking lots. These areas

should be inspected and cleaned daily, and should be "manicured." Grass should be maintained at a maximum of 2" to 4". On busy weekends, picnic areas, shelter and the boating areas should be cleaned and picked up on a continuous basis.

Class 2 areas include the trail system, the Frisbee golf and BMX courses, and the pond shorelines. Those areas should be inspected and picked up at least on a weekly basis.

Class 3 areas include the remainder of the park. These areas should remain in a natural state. Litter should be removed when noticed, but deadfalls and natural growth should remain undisturbed. Those areas should require very little routine maintenance.

It should also be noted that the park will contain transition zones between activity areas. These areas should be cleared of undergrowth and deadfalls, and branches should be trimmed to a height of eight feet. Examples are the area between the central parking lot and the athletic fields and picnic areas. These areas are similar to Class 2 areas but may require somewhat more intensive maintenance, depending on use.

D. Staff Requirements

While the maintenance and operation of the park will come under the general supervision of the Director of Recreation and Parks, it

is recommended that a Park Manager be employed to manage the facilities on a day-to-day basis. The Manager should be a working foreman and should be responsible for all aspects of maintenance and operations, including the hiring and training of the park staff. During the off season, he should devote his attention to maintenance. He may work elsewhere in the system during the off season. He may also be deputized.

Because of the cost of the required equipment, mowing of the athletic fields should be carried out by the system's staff, but scheduled by the Park Manager.

Other staff requirements include the following:

Phase I

- Park Manager - 40 Hours Per Week, 12 Months
- General Maintenance - 80 Hours Per Week, 8 Months
- Mowing - 10 Hours Per Week, 8 Months
- Concession Sales - As Required by Athletic Schedules

Phase II

- General Maintenance - 40 Hours Per Week, 8 Months
- Boating Operations - 80 Hours Per Week, 8 Months
- Two men, at all times, should be trained in Senior Life Saving.

It is recommended that concession and ticket sales be conducted from the control building in Phase II. Concessions may also be sold at the athletic field during athletic events.

E. Operating Expense and Income

1. Expense

The following expenses are estimated:

Phase I - Operating

Staff:	
- Park Manager (12 Months)	$15,000
- General Maintenance - 90 Hours/Week x 35 Weeks at $4.20 Hour	13,230
- Employee Benefits (18%)	5,081
- Utilities and Insurance	900
- Supplies and Expense	1,300
- Vehicle and Equipment Maintenance	4,000
TOTAL	$39,511

Phase I - Capital

- Long Bed Pickup Truck	$ 8,500
- 72" Riding Mower	7,500
- Weed Eater	350
- Two 24" Mowers	500
- Hand Tools	300
TOTAL	$17,150

Phase II - Operating

Staff (Maintenance and Operations):	
- 40 Hours/Week x 35 Weeks at $4.20 Hour	$ 5,880
- 120 Hours/Week x 35 Weeks at $4.20 Hour	17,670
- (No Benefits for Part-Time Employees)	0
- Utilities and Insurance	1,600
- Supplies and Expense	1,200
- Vehicle and Equipment Maintenance	2,500
TOTAL	$68,361

Phase II - Capital

- Boat and Motor	$ 2,500
- 15 Paddle Boats	15,000
- 5 Fishing Boats	1,250
TOTAL	$18,750

Phase II - Estimated Income

- Concessions (Net)	$ 4,000
- 15 Paddle Boats*	14,700
- 6 Fishing Boats**	2,940
- Fishing Permits - 2,500 x $2.00	5,000
- Group Rentals - 200 x $35.00 Average	7,000
TOTAL	$33,640

* 175 Weekdays x 6 Hours x $30.00 x 20%
70 Weekend Days x 8 Hours x $30.00 x 50%

** 175 Weekdays x 6 Hours x $6.00 x 20%
70 Weekend Days x 8 Hours x $6.00 x 50%

Recommended Fees

Paddle Boats	- $1.00 Per 1/2 Hour
Fishing Boats	- $1.00 Per 1 Hour
Fishing	- $2.00 Per Day
Picnic Shelters	- $25.00 Minimum or $.40 per Person, Whichever is Greater

Additional fees may be generated from athletic field use.

Picnic shelters should be rented out twice daily, from 11:00 a.m. to 3:30 p.m. and from 5:00 p.m. to 9:00 p.m. (or later by arrangement).

F. Security and Public Safety

The park should operate only during daylight hours, although use of the group shelters may be extended by special arrangement.

Secure gates should be installed at both entrances. The power line easement along the southern property line presents a particular problem. The old road bed along this area should be ditched in several locations to prohibit access, and suitable barriers should be installed near the Corbin Street right-of-way. Existing roadways should be blocked off. Multiflora rose forms an effective natural barrier and should be planted in these areas. Access to

the lift station should be via the main entrance and the large parking lot.

The Park Manager should be deputized and the park should be routinely patrolled by the police department. Park vehicles should be equipped with two-way radios.

All permanent staff should be trained in CPR. All vehicles should carry first aid kits. Such kits should also be installed at the canteen and control buildings. All lake staff should be trained in senior lifesaving, first aid and CPR skills. A rescue boat with motor should be provided at the lakes. A minimum of two employees should be on duty at the ponds when they are in operation.

Fire ants infest the property, especially around the ponds. An aggressive program must be undertaken to eliminate this hazard.

Routine safety inspections of the facilities should be conducted at least weekly, and hazardous conditions should be reported and corrected promptly.

Fire extinguishers should be located in the canteen and control buildings.

Screen planting is needed where park property adjoins residential lots along Shadowridge Drive. Evergreens or multiflora rose

should be planted along these areas. Multiflora rose is preferred, since it forms an impenetrable barrier and provides cover for wildlife. It should only be planted where it receives full sunlight.

VI. ENVIRONMENTAL ASSESSMENT

A complete environmental assessment has been prepared for this project by the department staff as a part of an application for a Land and Water Conservation Fund Grant. Copies of this study are available in the office of the Director of Recreation and Parks.

NOAA COASTAL SERVICES CENTER LIBRARY
3 6668 14102 9415