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Recreation Amenity
Cost Study



J.B. COXWELL CONTRACTING
INCORPORATED



Creating great community places.



Nassau County Park Amenity Estimates

18 January 2019

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Introduction

Introduction

The Nassau County Department of Planning and Economic Opportunity has requested assistance from GAI Consultants to develop a Park Budgeting and Development Guide that will provide pricing information to assist the Department as it negotiates with developers submitting applications for subdivisions, PUD's and DRI's. This information will allow the Department to better understand the cost to the County to come into compliance with the Nassau County 2030 Comprehensive Plan's **Recreation and Open Space Element (ROS) Goals, Objectives and Policies.**

The stated goal of the ROS is to ***Provide and maintain sufficient public parks, recreation facilities, and open space to meet the recreational needs of County residents and visitors,*** with its first Objective stating **The County shall acquire, develop and efficiently maintain adequate community and regional recreation facilities to achieve and maintain the adopted Level of Service (LOS) in order to meet projected recreational needs through year 2030.** This Objective is further addressed in the following Policies:

Policy ROS.01.04 states *The County shall acquire, maintain, or manage through agreement, community and regional park facilities to achieve and maintain the adopted levels of (LOS) shown below* (followed by a table that listed the Service Radius, Minimum Size and Area/1000 Residents).

Policy ROS.01.05 states *In general, the County shall not seek to acquire neighborhood park facilities. Land and improvements for neighborhood parks shall be provided by new development through the site plan review process. Criteria for the location and design of such facilities shall be included in the Land Development Code (LDC), Planned Unit Development (PUD) or Development of Regional Impact (DRI) development order.*

Policy ROS.01.07 states *The County shall plan recreation facilities based on the following planning guidelines from the State Comprehensive Recreation Program (2000). These guidelines are for planning purposes only and may be used to help determine how grant funds and county funds could be used to improve county recreation*

facilities. The following resources/facilities were identified: Baseball/Softball Field, Basketball Court, Football/Soccer Field, Equipped Play Area, Exercise/Par course Trails, Aquatic Center, and Tennis Court.

Policy ROS.01.12 states *The County shall encourage and create incentives such as cluster development standards, density bonuses, mixed use development etc., for the dedication of recreational land.*

Policy ROS.01.15 states *The County shall review each new development as to the need for public parks and recreation facilities that are necessary to maintain adopted levels of service. Required park land should be identified for dedication during the review process for a subdivision, Planned Unit Development (PUD), or Development of Regional Impact (DRI) and a schedule should be established for construction of facilities. The County may consider funds to be donated in lieu of land in cases where the required aggregate land dedication is less than the minimum standard of useable acres established in Policy ROS.01.01.*

Introduction

The County Planning Department has been receiving a number of requests from developers regarding the provisions of this last policy and it is to that end that GAI Consultants is assisting in the development of the Park Budgeting and Development Guide. GAI routinely designs community and regional parks and sports complexes throughout the state, and is quite familiar with both the design and cost of specific facilities.

Since most of the County's recreation facilities were built during an earlier period and don't meet today's standards and best practices, this guide will provide current layout and pricing information for the construction of individual park facilities. The scope of this effort will include the layout and pricing for sports fields (Baseball, Softball, Little League Baseball, Football and Soccer); tennis and basketball courts; children's age separated playgrounds; a fitness trail; and an aquatic center.

The Guide will describe each of the facilities beginning with the assumptions that were made, followed by a detailed cost estimate for constructing a single facility, and an a la carte menu for pricing additional site furnishings. This will then be followed by a detailed layout of the facility. It should be noted that these estimates are for a single facility of each type, and there are obvious economies of scale that are not reflected in these cost estimates.

The site development costs are based on the following assumption regarding the availability of sufficient undeveloped upland, directly accessible from a paved public or park roadway, generally flat, with utilities adjacent to the site. It is assumed that no imported fill dirt would be required, and any excess dirt would be distributed on-site. It assumes the sites would be 50% grass and 50% wooded.

There is an additional cost for the infrastructure required for sports fields that is substantially greater than for tennis and basketball courts and includes all earthwork, paved parking lots, sidewalks connecting the facility and parking lot, site lighting and storm water management. Because the costs for developing infrastructure for a sports field single-site would be substantially greater than for multiple fields arranged over large areas, we developed infrastructure costs for multi-field complexes. These costs were then averaged out to establish a per acre cost that could be added to the basic field cost for baseball, softball, little league baseball, football and soccer fields. There is a copy of this multi-field detailed cost analysis in the appendix.

The construction of sports fields and courts follow very specific guidelines in terms of configuration, dimensions, and equipment, with very little room for variation. Playgrounds, on the other hand are strictly regulated for safety reasons and must adhere to the Florida Building Code requirements in a public playground area should meet the following:

- Playground equipment must be IPEMA certified (unless otherwise noted). The use and layout of the components needs to conform to the requirements of ASTM F1487. Safety surfacing to comply with ASTM F1292. Accessible route of travel per ASTM F1951.
- Shade structure equipment must meet current Florida Building Code requirements, and shade fabric must meet NFPA 701 (fire retardant).
- Safety Surfacing must meet ASTM F1292 Head Impact and ASTM F1951 Accessibility test.
- If using mulch, surface must have ASTM F2075 Standard specification for wood fiber as a playground safety surfacing under and around playground equipment.

County Building Permit for Playground:

- Provide signed and sealed engineered drawings of engineered foundations for playground equipment and shade structure by Florida licensed professional engineer for building permit application.

Existing Conditions in Nassau County



Baseball/Softball - Nassau County



Baseball/Softball - Nassau County



Baseball/Softball - Nassau County



Tennis - City of Fernandina Beach



Tennis - City of Fernandina Beach



Tennis - City of Fernandina Beach



Soccer/Football - Nassau County



Soccer/Football - Nassau County



Soccer/Football - Nassau County



Playground - Nassau County



Playground - Nassau County



Playground - Nassau County



Playground - City of Fernandina Beach



Playground - City of Fernandina Beach



Playground - City of Fernandina Beach



Trail - City of Fernandina Beach



Trail - City of Fernandina Beach



Trail - City of Fernandina Beach



Aquatics - City of Fernandina Beach



Aquatics - City of Fernandina Beach



Aquatics - City of Fernandina Beach

Baseball

Baseball

ASSUMPTIONS AND CLARIFICATIONS

The cost information being provided is based on developing a single field, reflecting best practices, appropriately sized, designed and built to present-day standards. A single baseball field requires approximately 3 acres. The pricing will include the basic construction of a field, and an a la carte menu of site furnishings (field lighting, bleachers, benches, scoreboard, etc.). Also included is an average per acre cost for the construction of support facilities, i.e. site drainage, retention ponds, parking, sidewalks, and site lighting. Pricing of these facilities does not include land costs.

FIELD CONSTRUCTION (1 field, 3 acres)

Description	Qty	Unit	Unit Cost	Total Cost
Fine Grading	14520	SY	\$ 3.45	\$ 50,094.00
Infield Clay 5" Thick	413	TN	\$ 72.10	\$ 29,777.30
Warning Track 2.5" Thick	10888	SF	\$ 2.50	\$ 27,220.00
Backstop	1	LS	\$ 7,875.00	\$ 7,875.00
12' Fence	136	LF	\$ 57.15	\$ 7,772.40
6' Fence	1260	LF	\$ 21.00	\$ 26,460.00
12' Swing Gate	1	EA	\$ 1,680.00	\$ 1,680.00
Yellow Top Rail Fence Cover	1040	LF	\$ 3.15	\$ 3,276.00
Foul Pole	2	EA	\$ 4,410.00	\$ 8,820.00
Pitchers Mound, Home Plate & Bases	1	LS	\$ 12,245.00	\$ 12,245.00
Distance Signs	3	EA	\$ 185.00	\$ 555.00
Dugout	2	EA	\$ 15,952.00	\$ 31,904.00
Sodding (Bermuda Sprigs)	1.79	AC	\$ 14,900.00	\$ 26,671.00
Irrigation	1	LS	\$ 24,565.00	\$ 24,565.00
Maintenance (during grow in period)	1	LS	\$ 6,825.00	\$ 6,825.00
				\$ 258,914.70
General Conditions 10%	1	LS	\$ 25,891.47	\$ 25,891.47
				\$ 265,739.70

SITE FURNISHINGS

Sport Field Lighting	1	LS	\$ 285,000.00	\$ 285,000.00
Scoreboard	1	EA	\$ 5,775.00	\$ 5,775.00
Electric for Scoreboard	1	EA	\$ 12,862.00	\$ 12,862.00
Player Bench	1	EA	\$ 2,620.00	\$ 2,620.00
Bleachers (with cover)	1	EA	\$ 28,485.00	\$ 28,485.00
Scoring Table	1	EA	\$ 1,035.00	\$ 1,035.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00



Baseball

SITE

It is assumed there are sufficient uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 1000' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain and an irrigation system. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for field and parking lot lighting.

GRADING & DRAINAGE

The site will be graded to sheet drain storm water off the field and blended with the existing grades around the perimeter to ensure positive drainage. Storm water runoff will be directed to precast concrete drain inlets where it is conveyed through reinforced concrete pipe ranging from 15" to 24" in diameter. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the soccer/football field.

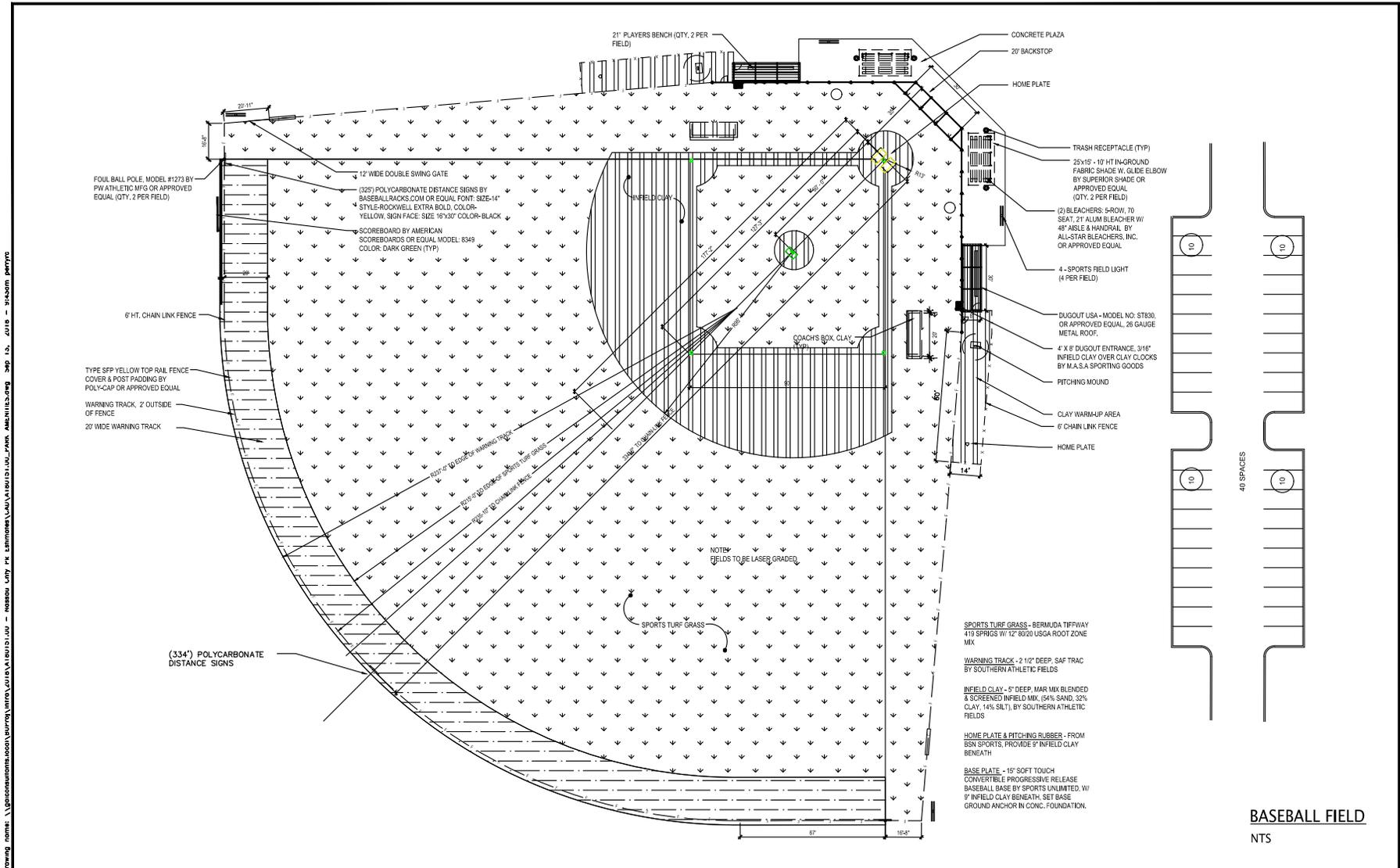
INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the bleachers. The parking lot will provide 40 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

SITE DEVELOPMENT COST APPROXIMATELY \$ 130,000 PER ACRE*

*See Appendix for site dev. cost breakdown.

Baseball Amenity Improvements



Softball & Little League Baseball

Softball & Little League Baseball

ASSUMPTIONS AND CLARIFICATIONS

The cost information being provided is based on developing a single field, reflecting best practices, appropriately sized, designed and built to present-day standards. For expediency, we have lumped a softball field with a little league baseball field since both share an identical footprint. Little league baseball fields typically have a grassed infield while softball has a skinned infield, and any cost differential should be insignificant. A single softball or little league baseball field requires approximately 1.5 acres, and the associated cost will be that sized facility. The pricing will include the basic construction of a field, and an a la carte menu of site furnishings (field lighting, bleachers, benches, scoreboard, etc.). Also included is an average per acre cost for the construction of support facilities, i.e. site drainage, retention ponds, parking, sidewalks, and site lighting. Pricing of these facilities does not include land costs.

FIELD CONSTRUCTION (1 field, 1.5 acres)

Description	Qty	Unit	Unit Cost	Total Cost
Fine Grading	7677	SY	\$ 3.45	\$ 26,485.65
Infield Clay (5" Thk)	362	TN	\$ 72.60	\$ 26,281.20
Warning Track 2.5" Deep	8514	SF	\$ 2.55	\$ 21,710.70
Back Stop	1	LS	\$ 7,875.00	\$ 7,875.00
12' Fence	103	LF	\$ 59.15	\$ 6,092.45
6' Fence	844	LF	\$ 20.90	\$ 17,639.60
12' Swing Gate	1	EA	\$ 1,680.00	\$ 1,680.00
Yellow Top Rail Fence Cover	844	LF	\$ 3.15	\$ 2,658.60
Foul Pole	2	EA	\$ 4,410.00	\$ 8,820.00
Pitchers Mound, Home Plate & Bases	1	LS	\$ 12,245.00	\$ 12,245.00
Distance Signs	3	EA	\$ 185.00	\$ 555.00
Dugout	2	EA	\$ 15,952.00	\$ 31,904.00
Sodding (Bermuda Sprigs)	0.77	AC	\$ 15,040.00	\$ 11,580.80
Irrigation	1	LS	\$ 10,565.00	\$ 10,565.00
Maintenance (during grow in period)	1	LS	\$ 6,825.00	\$ 6,825.00
				\$ 192,918.00
General Conditions 10%	1	LS	\$ 19,291.80	\$ 19,291.80
				\$ 212,209.80

SITE FURNISHINGS

Sports Field Lighting	1	LS	\$ 180,000.00	\$ 180,000.00
Scoreboard	1	EA	\$ 5,775.00	\$ 5,775.00
Electric For Score Board	1	EA	\$ 12,862.00	\$ 12,862.00
Player Bench	1	EA	\$ 2,620.00	\$ 2,620.00
Bleachers (with cover)	1	EA	\$ 28,485.00	\$ 28,485.00
Scoring Table	1	EA	\$ 1,035.00	\$ 1,035.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00



Softball & Little League Baseball

SITE

It is assumed there are sufficient uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 1000' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain and an irrigation system. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for field and parking lot lighting.

GRADING & DRAINAGE

The site will be graded to sheet drain storm water off the field and blended with the existing grades around the perimeter to ensure positive drainage. Storm water runoff will be directed to precast concrete drain inlets where it is conveyed through reinforced concrete pipe ranging from 15" to 24" in diameter. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the soccer/football field.

INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the bleachers. The parking lot will provide 40 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

SITE DEVELOPMENT COST APPROXIMATELY \$ 130,000 PER ACRE*

*See Appendix for site dev. cost breakdown.

Soccer/Football

Soccer/Football

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. Since a variety of field sports (soccer & football) can all be played on a soccer sized field, the associated cost breakdown will be for a 2.5 acre soccer-sized facility. The pricing will include the basic construction of a field, and an a la carte menu of site furnishings (lighting, goals, bleachers, benches, scoreboard). Also included is an average per acre cost for the construction of support facilities, i.e. site drainage, retention ponds, parking, sidewalks, and site lighting. Pricing of these facilities does not include land costs.

FIELD CONSTRUCTION (1 field, 2.5 acres)

Field Construction

Description	Qty	Unit	Unit Cost	Total Cost
Fine Grading	13335	SY	\$ 2.70	\$ 36,004.50
Sodding (Bermuda Sprigs)	2.5	AC	\$ 12,915.00	\$ 32,287.50
Irrigation	1	LS	\$ 27,445.00	\$ 27,445.00
Maintenance (During grow in period)	1	LS	\$ 6,825.00	\$ 6,825.00
				\$ 102,562.00
General Conditions 10%	1	LS	\$ 10,256.20	\$ 10,256.20
				\$ 215,380.20

SITE FURNISHINGS

Sports Field Lighting	1	LS	\$ 185,000.00	\$ 185,000.00
Scoreboard	1	EA	\$ 5,775.00	\$ 5,775.00
Electric For Score Board	1	EA	\$ 12,862.00	\$ 12,862.00
Team Bench	1	EA	\$ 2,620.00	\$ 2,620.00
Soccer Goal	1	EA	\$ 3,075.00	\$ 3,075.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00
Bleachers 3-Row Aluminum	1	EA	\$ 3,465.00	\$ 3,465.00
Concrete Bleacher Pad (22 x 35)	770	SF	\$ 12.65	\$ 9,740.50



Soccer/Football

SITE

It is assumed there are sufficient uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 1000' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain and an irrigation system. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for field and parking lot lighting.

GRADING & DRAINAGE

The site will be graded to sheet drain storm water off the field and blended with the existing grades around the perimeter to ensure positive drainage. Storm water runoff will be directed to precast concrete drain inlets where it is conveyed through reinforced concrete pipe ranging from 15" to 24" in diameter. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the soccer/football field.

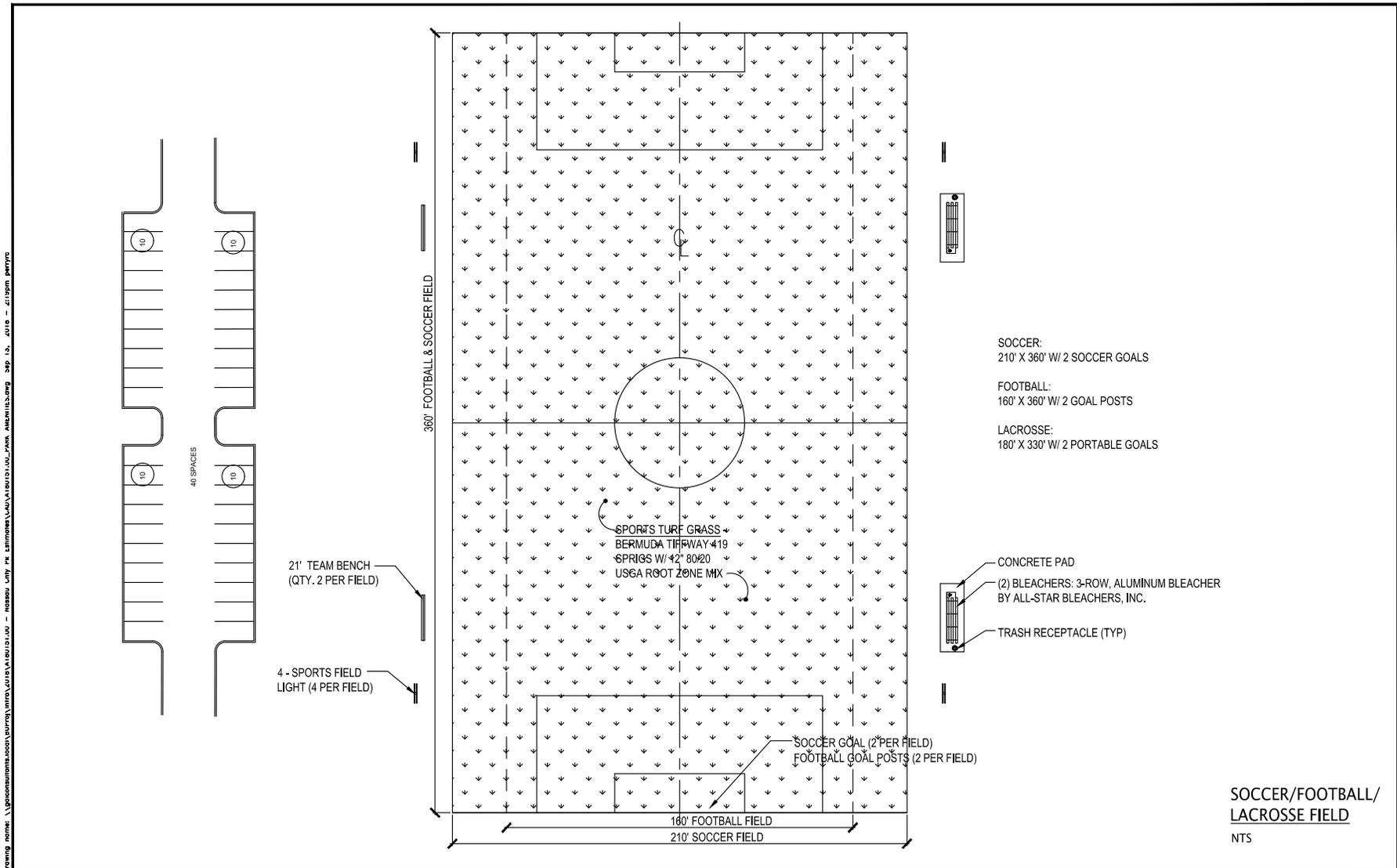
INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the bleachers. The parking lot will provide 40 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

SITE DEVELOPMENT COST APPROXIMATELY \$ 130,000 PER ACRE*

*See Appendix for site dev. cost breakdown.

Soccer/Football Amenity Improvements



Basketball

Basketball

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. The pricing will include court surfacing (on top of a concrete slab), basketball goals, and an a la carte menu of site furnishings (court lighting, benches and trash receptacles). Pricing of these facilities does not include land costs or site development costs.

COURT CONSTRUCTION (Single Courts) 0.2 acres

Description	Qty	Unit	Unit Cost	Total Cost
Grade And Compact	890	SY	\$ 2.30	\$ 2,047.00
Court Construction	6580	SF	\$ 4.25	\$ 27,965.00
Court Material/Surfacing	6580	SF	\$ 0.90	\$ 5,922.00
Basketball Hoop	2	EA	\$ 4,625.00	\$ 9,250.00
				\$ 45,184.00
General Conditions 10%	1	LS	\$ 4,518.40	\$ 4,518.40
				\$ 49,702.40

SITE FURNISHINGS

Sport Court Lighting	1	LS	\$ 80,000.00	\$ 80,000.00
Bench	1	EA	\$ 1,150.00	\$ 1,150.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00

SITE

It is assumed that there is a minimum of 0.2 acres of uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.



Basketball

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 500' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for court and parking lot lighting.

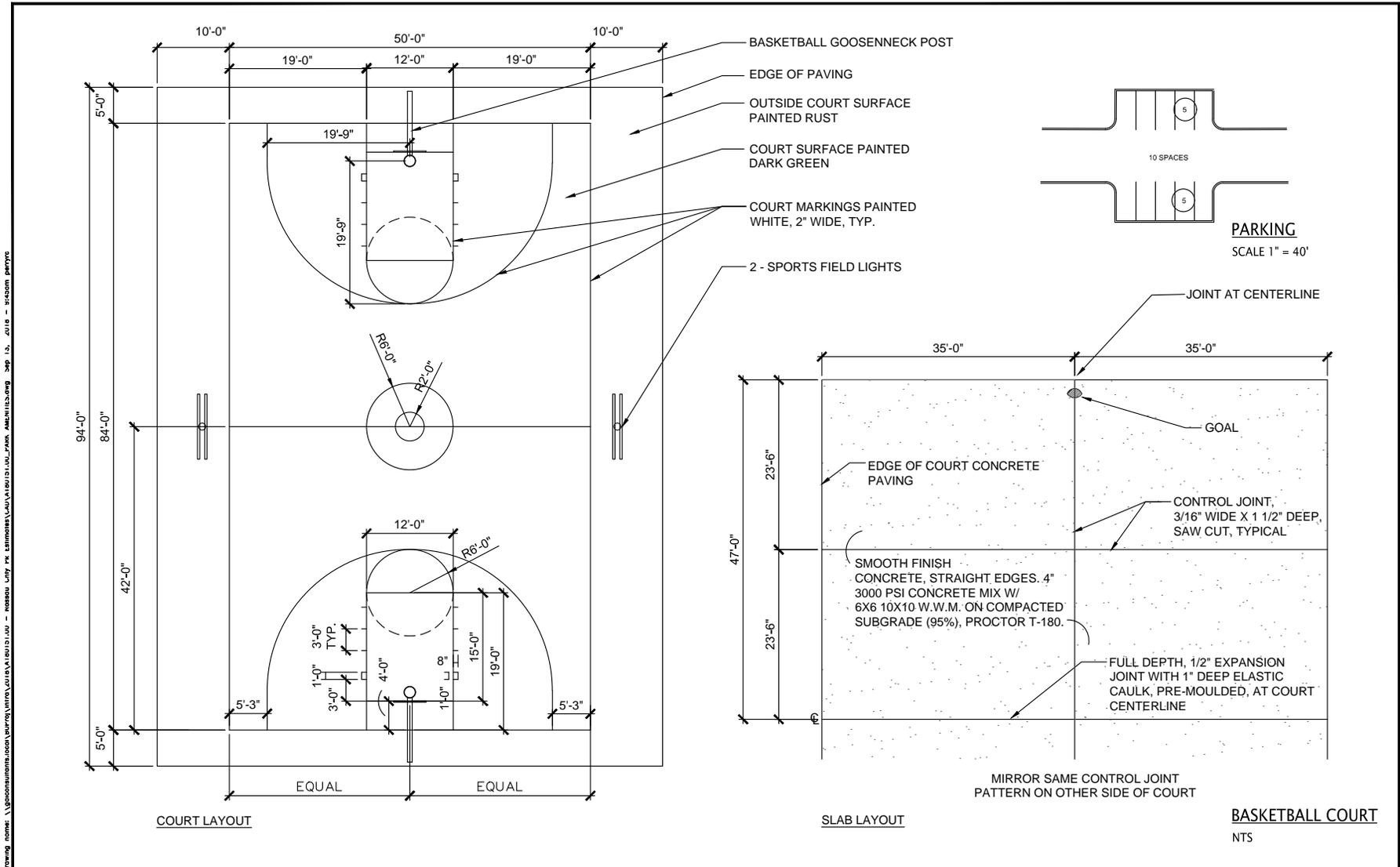
GRADING & DRAINAGE

The site will be graded to sheet drain storm water off the court to blend with the existing grades around the perimeter to ensure positive drainage. If applicable, storm water runoff will be directed to drain inlets. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the tennis court.

INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the court. The parking lot will provide 4 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

Basketball Amenity Improvements



Tennis

Tennis

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. The pricing will include construction of an asphalt court with an acrylic surfacing, tennis net, fencing and wind screens and an a la carte menu of site furnishings (court lighting, covered benches and trash receptacles). Pricing of these facilities does not include land costs or site development costs.

COURT CONSTRUCTION (Single Court) .02 Acre

Description	Qty	Unit	Unit Cost	Total Cost
Stabilized Subgrade LBR 30 12" Thick	675	SY	\$ 9.65	\$ 6,513.75
Limerock Base 4" Thick	658	SY	\$ 11.65	\$ 7,665.70
Asphalt Type SP 1.5" Thk	658	SY	\$ 22.80	\$ 15,002.40
Asphalt Type FC-6	658	SY	\$ 20.30	\$ 13,357.40
NIDY Acrylic Surface System	658	SY	\$ 7.90	\$ 5,198.20
Fencing 10' CLF	300	LF	\$ 42.00	\$ 12,600.00
4' x 8' Gate	1	EA	\$ 940.00	\$ 940.00
Windscreen 8'	300	LF	\$ 10.90	\$ 3,270.00
Court Equipment	1	EA	\$ 4,185.00	\$ 4,185.00
				\$ 68,732.45
General Conditions 10%	1	LS	\$ 6,873.25	\$ 6,873.25
				\$ 72,917.45

SITE FURNISHINGS

Sports Court Lighting	1	LS	\$ 85,000.00	\$ 85,000.00
Covered Bench	1	EA	\$ 2,250.00	\$ 2,250.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00

SITE

It is assumed that there is a minimum of 0.02 acres of uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.



Tennis

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 500' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for court and parking lot lighting.

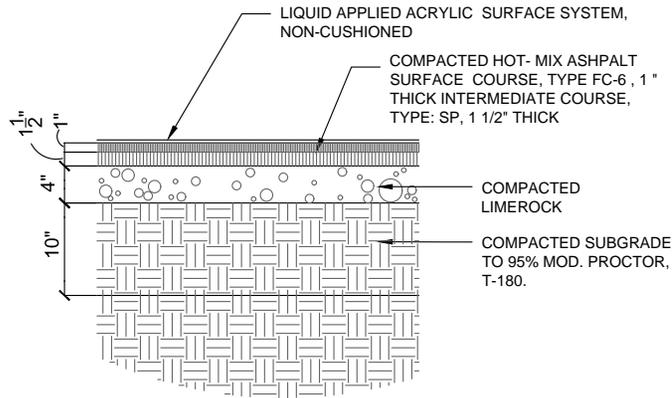
GRADING & DRAINAGE

The site will be graded to sheet drain storm water off the court to blend with the existing grades around the perimeter to ensure positive drainage. If applicable, storm water runoff will be directed to drain inlets. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the tennis court.

INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the court. The parking lot will provide 4 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

Tennis Amenity Improvements



TENNIS SURFACING DETAIL

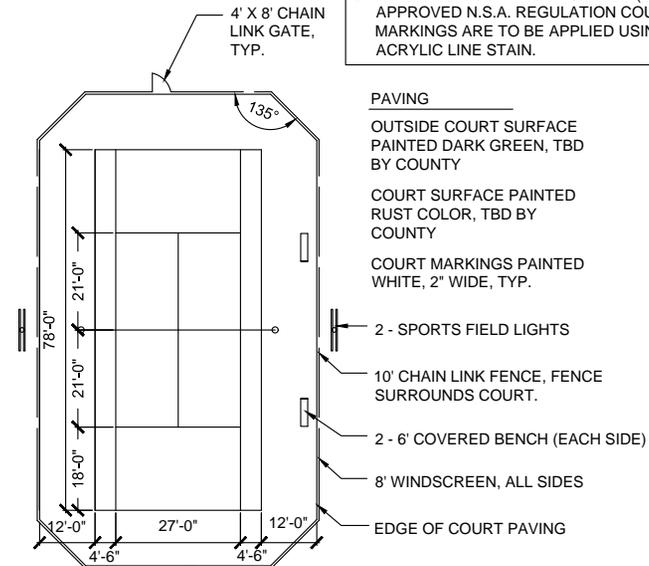
1" = 1'-0"

FILE NAME: A180151.00_PARK AMENITIES

PROVIDE 4 PARKING SPACES FOR TENNIS COURT W/ ASSOCIATED DRIVEWAY

COURT SURFACE FINISHING NOTES
(BY: NIDY CO. (407) 330-9343)

1. ASPHALT TO CURE FOR 2 WEEKS.
2. TWO COATS OF NIDY TEXTURED SPECIAL SURFACE TO BE APPLIED
3. AFTER NIDY COATING HAS DRIED (24 HOURS), APPROVED N.S.A. REGULATION COURT MARKINGS ARE TO BE APPLIED USING WHITE ACRYLIC LINE STAIN.



PAVING

OUTSIDE COURT SURFACE PAINTED DARK GREEN, TBD BY COUNTY

COURT SURFACE PAINTED RUST COLOR, TBD BY COUNTY

COURT MARKINGS PAINTED WHITE, 2" WIDE, TYP.

2 - SPORTS FIELD LIGHTS

10' CHAIN LINK FENCE, FENCE SURROUNDS COURT.

2 - 6' COVERED BENCH (EACH SIDE)

8' WINDSCREEN, ALL SIDES

EDGE OF COURT PAVING

TENNIS COURT
NTS

Playground

Playground

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. The pricing will include age appropriate equipment (2-5 year & 5-12 year), a 30' x 30' shade structure, a 15' x 15' pavilion, fencing and site furnishings. Pricing of this facility does not include land costs, or site development cost.

PLAYGROUND CONSTRUCTION

Description	Qty	Unit	Unit Cost	Total Cost
Sediment & Erosion Control	1	LS	\$ 1,245.00	\$ 1,245.00
Clear & Grub	0.5	AC	\$ 13,618.00	\$ 6,809.00
Excavate & Grade	2340	SY	\$ 3.70	\$ 8,658.00
4" Underdrain	100	LF	\$ 32.00	\$ 3,200.00
Underdrain Cleanout	1	EA	\$ 325.00	\$ 325.00
30' x 30' Shade Structure	1	EA	\$ 38,835.00	\$ 38,835.00
Play Equipment (5-12 Year)	1	EA	\$ 35,000.00	\$ 35,000.00
Play Equipment (2-5 Year)	1	EA	\$ 15,000.00	\$ 15,000.00
Oodle Swing	1	EA	\$ 10,000.00	\$ 10,000.00
Playground Edging 12" x 12" Ribbon Curb	317	LF	\$ 26.00	\$ 8,242.00
Fall Zone/Engineered Wood Fiber (Playground Mulch) 12" Thick	7694	SF	\$ 10.50	\$ 80,787.00
Alum Picket Fence 4' Black	308	LF	\$ 21.85	\$ 6,729.80
3' Gate - Black	2	EA	\$ 500.00	\$ 1,000.00
				\$ 215,830.80
General Conditions 10%	1	LS	\$ 21,583.08	\$ 21,583.08
				\$ 237,413.88

SITE FURNISHINGS

Bench	1	EA	\$ 1,150.00	\$ 1,150.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00
Pavilion 15' x 15'	1	EA	\$ 21,110.00	\$ 21,110.00
Conc Slab 4" thick For Bench & Pavilion	433	SF	\$ 5.15	\$ 2,229.95
Bike Racks	1	EA	\$ 675.00	\$ 675.00



Playground

SITE

It is assumed that there is a minimum of .75 acres of uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed electrical service is available adjacent to the site with sufficient capacity for parking lot lighting.

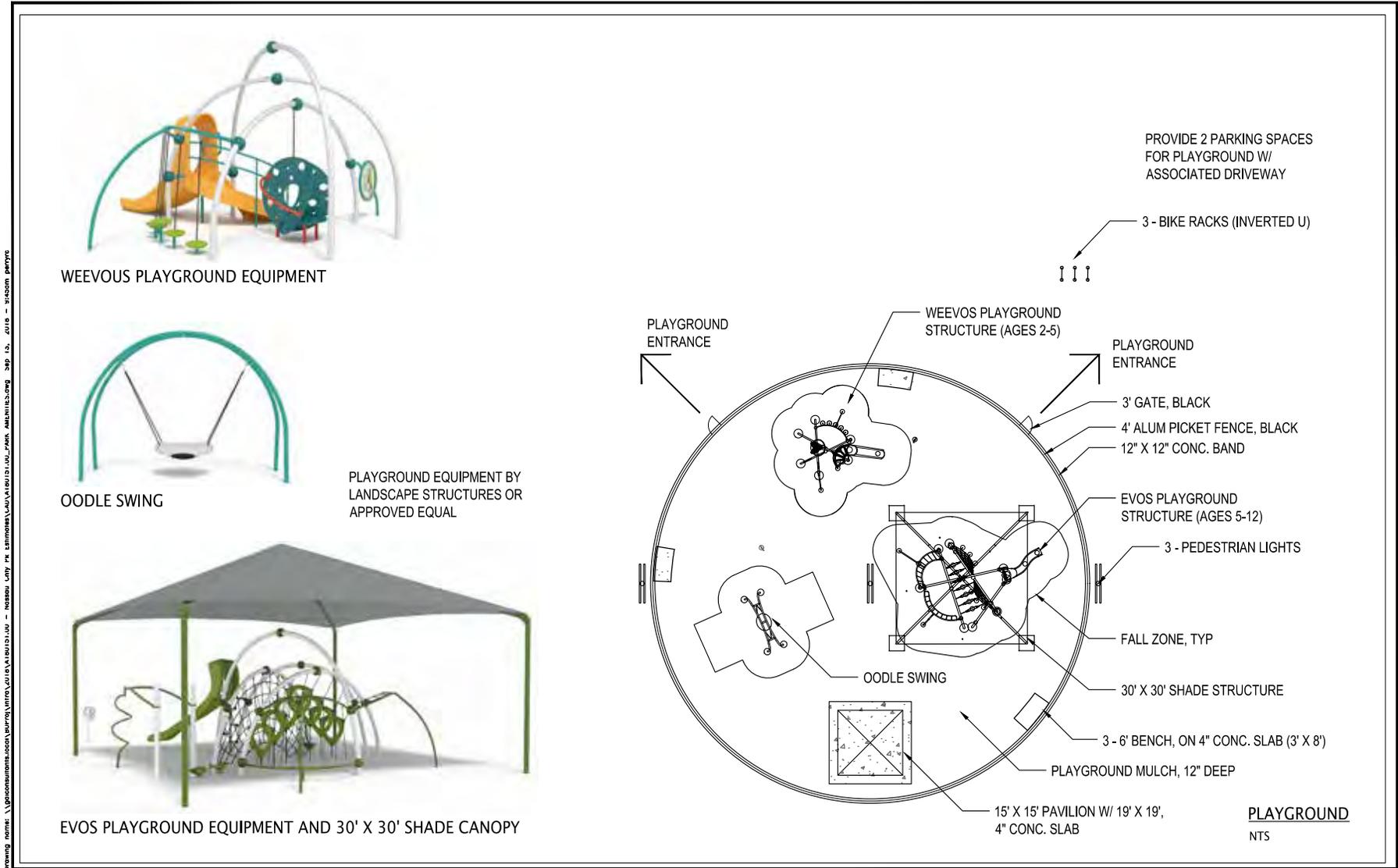
GRADING & DRAINAGE

The site will be graded to blend with the existing grades around the perimeter to ensure positive drainage. Storm water runoff in the play area will be collected through 4" underdrain pipes that discharge into a nearby drain inlet in the parking lot. The storm water runoff in the parking lot will be directed to precast concrete drain inlets where it is conveyed through reinforced concrete pipe ranging from 15" to 18" in diameter. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the playground.

SITE SUPPORT

This will include a paved parking lot with sidewalk connectivity to the playground. The parking lot will provide 5 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

Playground Amenity Improvements



Aquatic Center

Aquatic Center

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. The pricing will include a 25-yard lap pool, a feature/leisure pool, a water play tower, a locker room, all pool equipment, pool deck, fencing and site furnishings. Pricing of this facility does not include land costs.

AQUATIC CENTER

AQUATIC CENTER CONSTRUCTION

Description	Qty	Unit	Unit Cost	Total Cost
Sediment & Erosion Control	1	LS	\$ 1,930.00	\$ 1,930.00
Clear & Grub	1	AC	\$ 10,075.00	\$ 10,075.00
Earthwork (Strip Topsoil)	694	CY	\$ 5.55	\$ 3,851.70
Earthwork (Cut to Fill)	1040	CY	\$ 5.65	\$ 5,876.00
Earthwork (Cut To Dispose)	1070	CY	\$ 10.75	\$ 11,502.50
Water Distribution - 8" Water Main	750	LF	\$ 59.00	\$ 44,250.00
Water Distribution - 2" Water Main	200	LF	\$ 37.40	\$ 7,480.00
Pool Deck Drainage	1	LS	\$ 47,345.00	\$ 47,345.00
Concrete Slab w/Pool Topping	23762	SF	\$ 13.65	\$ 324,351.30
8' Black Vinyl Fencing	925	LF	\$ 31.50	\$ 29,137.50
Landscape Allowance	1	LS	\$ 7,875.00	\$ 7,875.00
Irrigation Allowance	1	LS	\$ 3,675.00	\$ 3,675.00
Pool Lighting	1	LS	\$ 150,195.00	\$ 150,195.00
Locker Room Building	700	SF	\$ 561.75	\$ 393,225.00
Lap Pool	4048	SF	\$ 152.25	\$ 616,308.00
Feature/Leisure Pool	9691	SF	\$ 152.25	\$ 1,475,454.75
Water Play Tower	1	LS	\$ 94,500.00	\$ 94,500.00
Fountain	1	LS	\$ 63,000.00	\$ 63,000.00
			\$	3,290,031.75

SITE FURNISHINGS

Bike Racks	10	EA	\$ 675.00	\$ 6,750.00
Tables/Chairs/Umbrella	10	EA	\$ 1,890.00	\$ 18,900.00
Lounge Chairs	60	EA	\$ 262.50	\$ 15,750.00
Shade Structures	1200	SF	\$ 15.75	\$ 18,900.00



Aquatic Center

SITE DEVELOPMENT COST

Sediment & Erosion Control	1 LS	\$	2,300.00	\$	2,300.00
Clear & Grub	1 AC	\$	10,075.00	\$	10,075.00
Earthwork (Strip Topsoil)	380 CY	\$	5.80	\$	2,204.00
Earthwork (Cut to Fill)	50 CY	\$	5.85	\$	292.50
Earthwork (Pond Excavation)	2262 CY	\$	11.40	\$	25,786.80
Storm Pipe	300 LF	\$	76.75	\$	23,025.00
Drainage Structures	5 EA	\$	2,970.00	\$	14,850.00
8" Gravity Sewer	750 LF	\$	66.00	\$	49,500.00
Sewer Manhole	3 EA	\$	3,550.00	\$	10,650.00
Stabilized Subgrade LBR40 12" Thick	1578 SY	\$	8.50	\$	13,413.00
Limerock Or Crushcrete Base 6" Thick	1431 SY	\$	14.55	\$	20,821.05
Asphalt Type SP-9.5 1.5" Thick	1431 SY	\$	16.40	\$	23,468.40
Concrete Curb & Gutter	662 LF	\$	23.25	\$	15,391.50
Concrete Sidewalk	2250 SF	\$	4.60	\$	10,350.00
Pavement Striping (Traffic Paint)	1 LS	\$	785.00	\$	785.00
Accessible Parking Space (signage & striping)	1 EA	\$	370.00	\$	370.00
ADA Detecable Warning	10 SF	\$	43.00	\$	430.00
Site Lighting (Parking Lot)	1 LS	\$	58,985.00	\$	58,985.00
Bahia Sod (Pond & Parking Lot Areas)	2100 SY	\$	3.95	\$	8,295.00
				\$	290,992.25
SUBTOTAL				\$	3,581,024.00
General Conditions/Mobilization (10%)				\$	358,102.40
Landscape (5%)				\$	179,051.20
Contingency (15%)				\$	537,153.60
TOTAL				\$	3,939,126.40

SITE

It is assumed that there is a minimum of 2.5 acres of uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

Aquatic Center

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface. Site specific explorations should be conducted for structures with individual column loads greater than 200 kips and bearing wall loads greater than 8 lbs per lineal foot to confirm that total and differential settlements will be tolerable.

UTILITIES

It is assumed municipal water and sanitary sewer is available and adjacent to the site. The base estimate includes 750 L.F. of 8" PVC (DR-18) water line with a double check backflow preventer, 200 L.F. of 2" PVC with a reduced pressure backflow preventer, 3 precast concrete sanitary manholes, and 750 L.F. of 8" PVC gravity sewer. It is also assumed electrical service is available and adjacent to the site with sufficient capacity to supply the Aquatic Center and parking lot lighting.

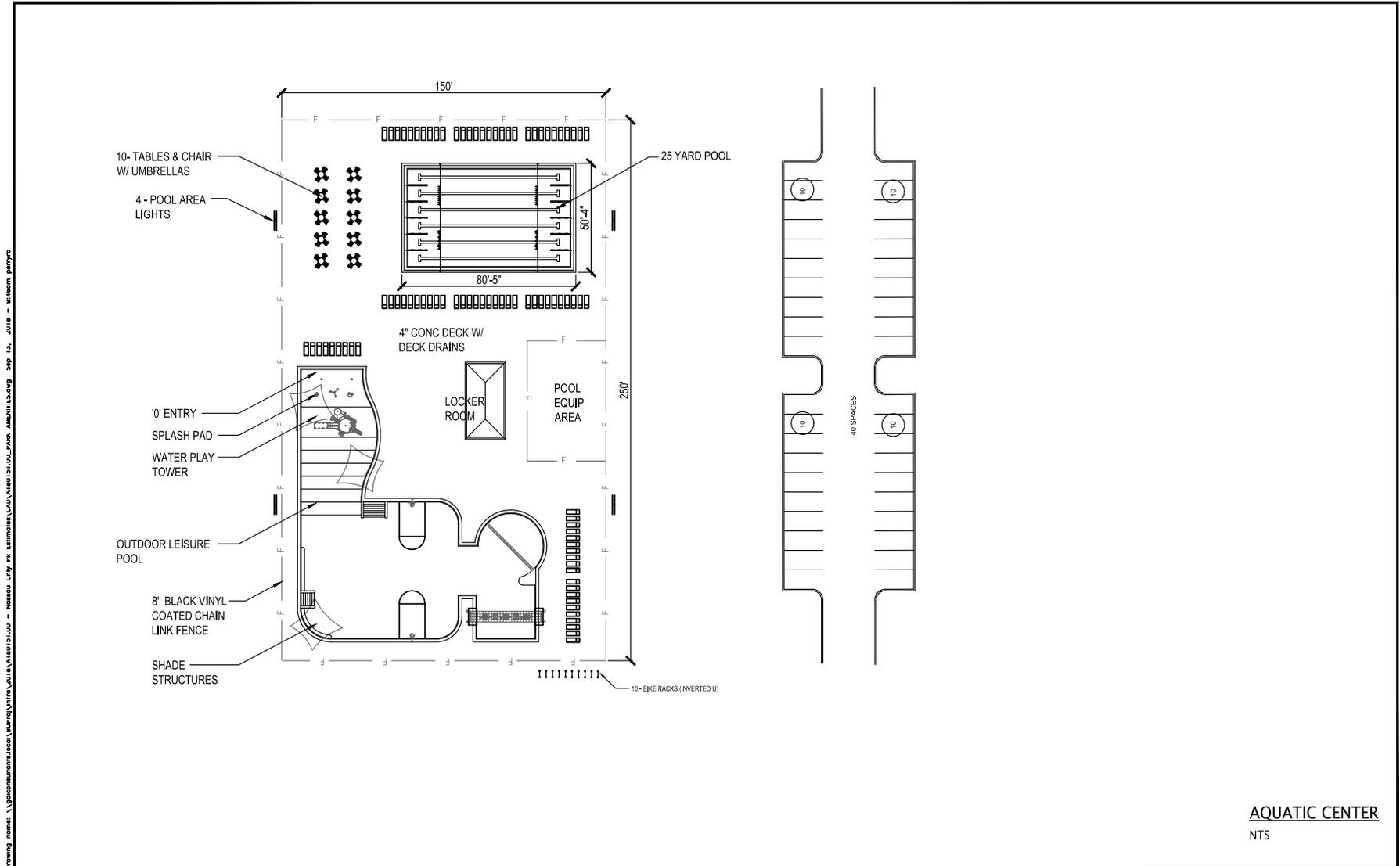
GRADING & DRAINAGE

Storm water runoff will be directed to precast concrete drain inlets where it is conveyed through reinforced concrete pipe ranging from 15" to 24" in diameter. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the facility.

INFRASTRUCTURE

This will include a paved parking lot with sidewalk connectivity to the Aquatic Center. The parking lot will provide 40 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade and will be lighted. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

Aquatic Center Amenity Improvements



AQUATIC CENTER
NTS

Walking/Fitness Trail

Walking/Fitness Trail

ASSUMPTIONS AND CLARIFICATIONS

The information being provided is based on developing a single facility reflecting best practices, appropriately sized, and designed and built to present-day standards. The trail will be a 6' wide, ¼ mile long, paved surface with approximately 12 exercise stations located adjacent to but offset from the trail. The pricing includes the basic construction of the concrete trail and an a la carte menu of site furnishing (lighting, exercise equipment, benches, signage, trash receptacles, bike racks). Also included is an average per acre cost for the construction of support facilities, i.e. site drainage, retention ponds, parking, sidewalks, etc. Also include are alternate surfacing options for the trail. Pricing of these facilities does not include land costs.

TRAIL CONSTRUCTION

Description	Qty	Unit	Unit Cost	Total Cost
Trail Surface - Basis of Design				
Fitness Trail Paving - 4" Concrete	2640	SY	\$ 37.60	\$ 99,264.00
Sod Disturbed Areas (Bahia Sod Ea Side)	8800	SY	\$ 3.65	\$ 32,120.00
Stabilized Base	2935	SY	\$ 11.65	\$ 34,192.75
				\$ 165,576.75
General Conditions 10%	1	LS	\$ 16,557.68	\$ 16,557.68
				\$ 182,134.43

SITE FURNISHINGS

Site Lighting (Safety Lighting)	1	LS	\$ 193,495.00	\$ 193,495.00
Exercise Equipment Stations	4	EA	\$ 6,930.00	\$ 27,720.00
Bench	1	EA	\$ 1,150.00	\$ 1,150.00
Signage	1	EA	\$ 1,025.00	\$ 1,025.00
Trash Receptacle	1	EA	\$ 1,900.00	\$ 1,900.00
Bike Racks	1	EA	\$ 675.00	\$ 675.00
Conc Slab 4" Thk for Benches & Exercise Sta	2043	SF	\$ 6.25	\$ 12,768.75

ALTERNATE TRAIL SURFACES

Fitness Trail Asphalt S-III 1" Thk	2640	SY	\$ 30.00	\$ 79,200.00
Stabilized Subgrade LBR 40 12" Thick	3226	SY	\$ 11.05	\$ 35,647.30
Limerock Base 4" Thick	2935	SY	\$ 16.70	\$ 49,014.50
				\$ 163,861.80
Fitness Trail Wood Fiber W/Fabric	2640	SY	\$ 10.10	\$ 26,664.00
Commercial Grade Black Edging	7920	LF	\$ 1.95	\$ 15,444.00
				\$ 42,108.00



Walking/Fitness Trail

SITE

It is assumed the trail would be placed on park land as part of a larger project rather than a standalone project. Basically, in the configuration of a loop this would require approximately 25 acres. The profile of the trail would be 6 feet wide, plus a 5' wide level shoulder on each side, and 6:1 side slopes to a swale bottom on either side of the trail. So, the profile of the trail, shoulders and swales would be around 34', times the length of 3,960 L.F., it would take about 5 acres of uplands (no wetlands that would require permitting or mitigation) that are accessible directly off a paved, public or park roadway. Furthermore, for the purposes of this estimate, it is assumed the project site is undeveloped, generally flat, 50% grass and 50% wooded, and that no imported fill dirt would be required.

GEOTECHNICAL

It is assumed that subsurface conditions will consist of very loose to medium dense sandy soils including fine sands, fine sands with silt or clay, and clayey fine sand (SP, SP-SM, SP-SC, and SC). Groundwater is assumed to be within 3 feet of the existing ground surface.

UTILITIES

It is assumed municipal water is available and adjacent to the site with adequate flow and pressure. The base estimate includes 500' of 1" PVC water line with a backflow preventer to supply water for a drinking fountain/bottle filler. It is also assumed electrical service is available and adjacent to the site with sufficient capacity for security and parking lot lighting.

GRADING & DRAINAGE

The trail will be elevated 1.5 feet and be graded to sheet drain storm water off the trail and shoulders into the swales on either side of the trail. Storm water runoff in the swales will be directed to 20 Nyloplast yard drains, set about 400' apart, where it is conveyed through PVC storm pipe. Runoff will be collected in a storm water management system sized to 20% of the project area where it will be treated and attenuated prior to being discharged into the receiving water body. It is assumed the site lies in FEMA Flood Zone 'X'. No flood compensation will be required for the construction of the Walking/Fitness Trail.

SITE SUPPORT

This will include a paved parking lot with sidewalk connectivity to the bleachers. The parking lot will provide 5 spaces with accessible parking as required to meet accessibility code. The parking lot will be constructed of 1.5" asphalt over 6" aggregate base over 12" stabilized subgrade. The sidewalk will be 5 feet wide and 4" thick unreinforced concrete. The parking lot will be designed with 18" standard concrete curb throughout.

SITE DEVELOPMENT COST APPROXIMATELY \$ 130,000 PER ACRE*

*See Appendix for site dev. cost breakdown.

Appendix

SITE DEVELOPMENT COSTS (based on 16.5 acres)

Field Development

Sediment & Erosion Control	1	LS	\$	3,945.00	\$	3,945.00
Clear & Grub	12.5	AC	\$	5,600.00	\$	70,000.00
Earthwork (Strip Topsoil)	9900	CY	\$	5.25	\$	51,975.00
Earthwork (Cut To Fill)	1700	CY	\$	5.30	\$	9,010.00
Storm Pipe	1642	LF	\$	56.00	\$	91,952.00
Drainage Structures	7	EA	\$	3,680.00	\$	25,760.00
Fill (12" Deep - 80:20 Mix)	11555	CY	\$	82.50	\$	953,287.50
Concrete Sidewalk	18794	SF	\$	4.25	\$	79,874.50
					\$	1,285,804.00

Infrastructure

Sediment & Erosion Control	1	LS	\$	2,300.00	\$	2,300.00
Clear & Grub	4	AC	\$	5,600.00	\$	22,400.00
Earthwork (Strip Topsoil)	1305	CY	\$	5.25	\$	6,851.25
Earthwork (Cut to Fill)	400	CY	\$	5.30	\$	2,120.00
Earthwork (Pond Excavation)	25600	CY	\$	8.10	\$	207,360.00
Storm Pipe	190	LF	\$	93.00	\$	17,670.00
Drainage Structures	5	EA	\$	2,975.00	\$	14,875.00
Water Distribution System 1" PVC	1000	LF	\$	17.95	\$	17,950.00
Stabilized Subgrade LBR40 12" Thick	6004	SY	\$	8.50	\$	51,034.00
Limerock Or Crushcrete Base 6" Thick	5492	SY	\$	14.65	\$	80,457.80
Asphalt Type SP-9.5 1.5" Thick	5492	SY	\$	16.40	\$	90,068.80
Concrete Curb & Gutter	2304	LF	\$	18.30	\$	42,163.20
Concrete Sidewalk	2160	SF	\$	4.25	\$	9,180.00
Pavement Striping (Traffic Paint)	1	LS	\$	2,350.00	\$	2,350.00
Accessible Parking Space (signage & striping)	4	EA	\$	370.00	\$	1,480.00
ADA Detecable Warning	40	SF	\$	43.00	\$	1,720.00
Site Lighting (Parking Lot)	1	LS	\$	130,990.00	\$	130,990.00
Bahia Sod (Pond & Parking Lot Areas)	6000	SY	\$	3.85	\$	23,100.00
					\$	724,070.05

					\$	2,009,874.05
General Conditions 10%	1	LS	\$	200,987.41	\$	200,987.41
					\$	2,210,861.46

Appendix

PLAYGROUND REQUIREMENTS

Florida Building Code requirements in a public playground area should meet the following:

Playground equipment must be IPEMA certified (unless otherwise noted). The use and layout of the components needs to conform to the requirements of ASTM F1487. Safety surfacing to comply with ASTM F1292. Accessible route of travel per ASTM F1951.

Shade structure equipment must meet current Florida Building Code requirements.

Shade fabric must meet NFPA 701 (fire retardant).

Safety Surfacing must meeting ASTM F1292 Head Impact and ASTM F1951 Accessibility test.

If using mulch, surface must have ASTM F2075 Standard specification for wood fiber as a playground safety surfacing under and around playground equipment.

County Building Permit for Playground:

Provide signed and sealed engineered drawings of engineered foundations for playground equipment and shade structure by Florida licensed professional engineer for building permit application.

