Hardy District Park
Master Plan Summary



Isle of Wight County, Virginia

December 2008

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Project Overview

Hardy Park is a new addition to the Isle of Wight recreational system that will mainly *serve* the north and central areas of the County. The Master Plan for Hardy Park was prepared in 2008. The first step was the preparation of a complete topographic survey of the site. Simultaneously an analysis of existing conditions on the site was prepared, along with a review of the relationship of the park site to residential areas, other public sites, and the overall County parks and recreation system. A key step in the analysis was a delineation of wetlands on the site and a confirmation of the delineation by the Army Corps of Engineers.

Following the analysis, an interactive public process was implemented to determine the park program, priorities, and phasing. Three well-attended public workshops were held in the northern part of the County:

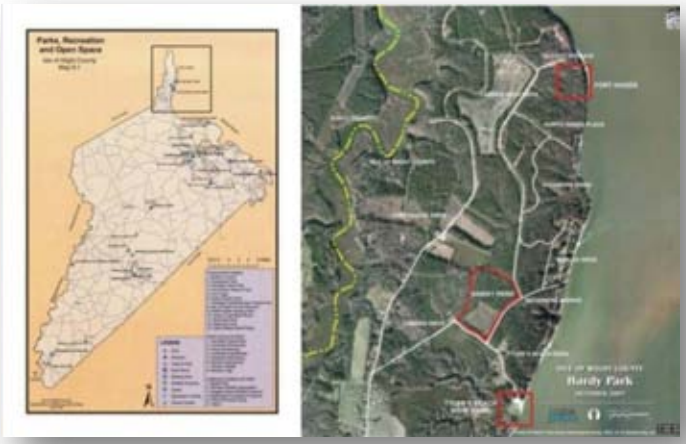
- January 30, 2008 for initial public input
- April 9, 2008 to review alternative plans and priorities
- July 9, 2008 to review draft master plan and phasing

The information provided by the citizens at these meetings was utilized to develop master plan alternatives, to narrow down the alternatives to a preferred master plan, and then to refine the plan into a final version, which is provided in this summary document.

After finalization of the master plan for the park, phased development budget estimates were prepared for staff and elected officials to utilize in the preparation of the County Capital Improvements Budget through 2024. A summary of the phasing is provided in this report, and the budget estimates are included in the Appendix.

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Hardy Park Location and Existing Conditions









Hardy Park is a 50-acre site located on Tyler's Beach Road at the intersection with Woodmere Avenue. Although this is primarily a rural area of the County with undeveloped land immediately around the park site, residential development is expanding in the area. When the land for the park was transferred to the County, 20 acres of the wooded site were cleared for future lawn area and facilities. The remaining 30 acres of the site is wooded area.

Access, Circulation, and Parking: Although the park also has frontage on Tyler's Beach Road, access to the site is planned to be from Woodmere Avenue to provide better visibility. Woodmere also has a lower volume of traffic than Tyler's Beach Road. The draw for this park will be about 30 minutes in driving time, which will include the communities of Smithfield and Windsor as well as the surrounding Isle of Wight County residents.

Although there is no immediate plan to link this site to other parks, the greenways plan for the County does indicate a future connection to Tyler's Beach Boat Ramp and to the north toward Fort Huger and a future boat ramp on the James River. The trail system within the park is planned to allow links to other County parks and communities as a County-wide trails plan develops.

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Utilities: Public water and sewer lines are not currently available in the vicinity of the site. As a part of the agreement with Lawnes Point, Hardy Park will be allowed to utilize the private water and sanitary sewer system constructed to serve Lawnes Point. Development of Hardy Park will require that water and sanitary sewer lines will need to be extended from the existing lines serving Lawnes Point to the park site. Overhead utility lines front the site on Woodmere Avenue and on Tyler's Beach Road and underground phone lines are located on the opposite side of Woodmere Avenue. Utility easements will need to be researched to verify the restrictions for development in or crossing of the easement.

Soils, Drainage and Wetlands: The site is relatively flat and does not currently have a system of ditches or channels to help with drainage. The cleared portion of the site in particular has ponding and drainage issues that have resulted from the clearing process. Trees were removed from the site, but stumps and brush, as well as rutting from equipment, has created an irregular surface. This area is being cleaned up, graded, and seeded in 2009 in preparation for park development. The only wetlands located on the site are in the ravine system at the northern edge of the site. These wetlands can easily be protected as the park is developed, and no wetland fills or permitting will be required.

Vegetation: The wooded 30 acres includes mature Loblolly Pine, Sweetgum, Yellow Poplar, Water and White Oak, and Maple as the primary tree species. This mature canopy of trees offers beautiful habitat and a wonderful opportunity for shaded passive recreation, including a network of trails.



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Master Plan Goals and Priorities

Several key goals and priorities emerged from the public discussions about the development of Hardy Park.

Key goals include:

- Hardy Park should serve the community needs and desires.
- The park should be a family destination with facilities for all ages.
- The park should include facilities for year-round use.
- The park must provide a secure environment with good visibility and lighting.
- Excellent maintenance is essential to create an attractive and safe facility.
- The master plan should be flexible to accommodate changing needs over time.

In order to meet these goals, citizens strongly recommended that public restrooms with running water be provided with initial park development. A recreation center is a high priority with the citizens in order to provide space for on-site staff as well as activities, and access to the park should be gated to control evening and night-time use. Along with the recreation center, early development priorities include playing fields for Pop Warner football, soccer and softball, playgrounds, and a paved court for basketball and volleyball.

Master Plan Program

A program for development of the park was prepared through discussions with the citizens. The following provides a brief description of the overall program.

Recreation Center

The recreation center building will ultimately provide a variety of facilities needed by the community, including:

- Staff support space
- Activity space for senior citizens
- Space for before and after school programs
- Large community meeting room
- Gymnasium and locker rooms
- Fitness equipment
- Library
- Museum focusing on Isle of Wight County history
- Outdoor swimming pool (sharing locker rooms)

Sports Facilities

A variety of sports facilities will be provided. A preference for multi-purpose fields was expressed, and field lighting was requested, particularly for the multi-purpose soccer/football field. Basketball courts should have a separate area from other courts in order to appropriately separate age groups. Shaded tables and bleachers for spectators are also important. Facilities will include:

- Softball field
- Multi-purpose soccer and Pop Warner football field
- Basketball court
- Tennis courts

Family Picnic and Play Area

A family picnic and play area is planned in close vicinity to the sports fields. Citizens emphasized that they want to be able to have people of various ages interact within sight distance of each other. Facilities should be handicapped accessible. The picnic and play area will include:

- Playground for various ages
- Splash park for water play
- Horseshoe courts
- Game tables
- Volleyball courts

Amphitheater/Performance Stage

In addition to the other facilities, a performance area is planned that will serve as an entry focal point. It is important that this feature be an attractive park element that provides an opportunity for entertainment and events. It is located adjacent to the recreation center and play area and is envisioned to function similar to a historic park "bandstand".

The Master Plan for Hardy Park is provided on the following page.


LEGEND
TENNIS COURT
SPORTS COURT
PLAYGROUND
SPRAYGROUND/SPLASHPAD
SHADE SHELTER
RESTROOMS
CONCESSIONS / SHELTER
SHELTER
HORSESHOE PIT
VOLLEYBALL COURT
BADMINTON COURT
LIGHTING
FAMILY ACTIVITY AREA
OPEN PLAY
PLAYING FIELD
PLAYING FIELD
WARMUP AREA
SECOND ENTRANCE
PARKING LOTS 115 PARKING SPACES EACH
PERFORMANCE AREA
MAIN ENTRANCE
COMMUNITY CENTER
• MEETING ROOMS
• ACTIVITY SPACE
• GYMNASIUM
• LIBRARY / MUSEUM
• POOL
MAINTENANCE & STORAGE
WALKING PATH
TYLERS BEACH ROAD
WOODMERE AVENUE
LAWNES NECK DRIVE
V
B
RR
HARDY PARK
MASTER PLAN
Isle of Wight County, Virginia
November 21, 2008
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GRAPHIC SCALE

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Phasing and Budgeting

A phasing sequence and budget estimate for the development of Hardy Park was prepared to guide the development of the park from 2014 through 2024. The phasing summary is as follows. The detailed assumptions for the park budget and the estimates are included in the Appendix.

2015-2016
Site entrance, parking for 115 cars, utility service, recreation center, and maintenance facility

2016-2017
Softball field construction and multi-purpose field lighting

2017-2018
Playground, picnic shelter, and family play area

2018-2019
Secondary entrance and an additional 115 car parking area, basketball court with adjacent restroom, and picnic shelter

2019-2020
Tennis courts

2020-2021
Splash pad play area

2021-2022
Performance Area

2022-2023
Trails

2023-2024
Recreation Center addition for library and museum and outdoor swimming pool

Appendix

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Budget Information
Assumptions for Hardy Park CIP Budget Opinion of Probable Cost

The following provides information on the assumptions that were made in preparing the CIP Budget Opinion of Probable Cost for the design and development of Hardy Park from 2014 through 2024. The final development program used in preparing the budget was provided by Isle of Wight staff. The budget has been prepared based on 2008 dollar values and no escalation factor has been applied.

Overall Assumptions

1. Mobilization cost follows the VDOT standard for contracts over $1,000,000 ($80,000 + 5% of the remainder amount over $1,000,000).
2. The total cost of stormwater management was developed by estimating the cost of two wet stormwater ponds to serve the improvements assuming 5% of the total 51.63 acres would be required for a total of 2.6 surface acres of wet pond. Runoff for most of the site is assumed to be handled by overland flow and ditches, but drainage piping is included in specific elements that are anticipated to require structures and piping. The main outfall will be provided as a part of the basic infrastructure during the 2015-2016 budget year. If this method of stormwater management was to be utilized, a greater proportion of the stormwater management costs would be distributed to the years the ponds were constructed. However, a goal of the master plan is to utilize bioretention and infiltration as well as other low impact development techniques to avoid large amounts of stormwater discharge and the requirement for large retention/detention ponds. Consequently, for budgeting purposes, the stormwater management cost is distributed through the project with the highest costs incurred with the development of the structures that will potentially have the greatest impact on impervious surface. The actual distribution of costs in each phase will depend upon the actual design of the overall stormwater management system.
3. Asphalt roadway and entrance drive pavement are assumed to have 8 inches of aggregate base, a 3-1/2 inch asphalt base course, and a 2-inch asphalt top course. Asphalt parking lots and heavy-duty walks for maintenance vehicle use are assumed to have 6 inches of aggregate base, a 3-1/2 inch asphalt base course, and a 2-inch asphalt top course. Asphalt walks are assumed to have 6 inches of aggregate base, a 1-1/2 inch asphalt base course, and a 1- inch asphalt top course.
4. In the absence of actual grading design, assumptions were made of an overall depth of soil that will be moved for a given use in order to establish positive surface drainage.
5. Site furniture, including benches, trash receptacles, and picnic tables with shade structures will be provided by the County staff and are not included in the estimate.

2015-2016

1. Right and left turn lane to the site
   - 200 feet of 12-foot wide turn lane and 200 feet taper lane
   - Entrance drive 30 feet wide
   - No curb and gutter
   - Import of fill for widening of the road - 2-foot depth under new pavement
2. Entrance drive
   - 30-foot pavement width
   - Double swing pipe gate, 30-foot opening
   - Asphalt apron
   - 8-foot wide paver sidewalk by the recreational center with five parking spaces

3. Parking – 115 spaces
    - Eight lights
    - Asphalt sidewalk 8-foot wide
    - Curb and gutter on perimeter of the lot and island with slots for drainage
4. Maintenance and service drive and walk
    - 24-foot wide aggregate surface to maintenance building (600 LF)
    - Asphalt drive on 12-foot wide shared sidewalk (500 LF)
    - Double swing pipe gate, 25-foot opening
5. Water and Sanitary Sewer
    - Clearing and grubbing for water and sewer line from Lawnes Neck Drive (1,440 LF), assuming that the remaining 4,560 LF along Lawnes Neck is located within road shoulder
    - Water - 6,000 LF of 8-inch diameter pipe for service connection
    - Sewer - 5,000 LF of 4-inch force main for service connection to Lawnes Neck sanitary sewer system
    - Small pump station required for sanitary sewer service based on distance
6. Stormwater and Drainage
    - Stormwater will be controlled and treated for quality and quantity as each phase is developed
    - This initial development will include installation of a stormwater pipe to an outfall located above the wetland limits in the ravine on the northern edge of the property and will provide piping to the parking lot and the buildings
7. Electrical Service and Lighting
    - Electrical service includes the installation of a transformer to serve the buildings, site lighting, and field lighting as it is developed in phases
    - 1,000 linear feet of trench from Woodmere for wire, transformer, meter box, and panel box
    - Site lighting includes entrance area, maintenance yard, and recreation building entrances
8. Recreational Center
    - 18,000 SF to contain gymnasium, game room, multipurpose room with kitchen, office area, small locker room, reception, restrooms
    - Assumed fill to raise the building by 1 foot above existing grade
9. Maintenance Building
    - 50' x 50' building
    - Fenced service yard partially aggregate for parking and partially paved with concrete apron for dumpster access

2016-2017

1. Multipurpose field lighting
    - Six field lights, 1,500 LF of trench for the wire, transformer, and panel box
2. Softball Field
    - Clearing, grubbing and rough grading previously accomplished
    - Final grading and construction of softball field with two dugouts and infield material
    - 4-inch thick concrete player bench area 8' x 20'
    - Skinned infield mix on-site 60% sand, 20% clay, 20% silt - 6 inches deep with soil conditioner
    - Under-drainage included in skinned infield
    - 6-foot high chain link fence along sideline - 80 LF each side

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2017-2018

1. Playground
   - Commercial play equipment for several ages
   - Concrete curb edge for soft surface area
   - Soft surface: engineered wood fiber 12 inches deep over weed barrier, drainage stone, and tubing
   - Pedestrian walk connecting existing sidewalk on the east side of the parking lot to the recreational center
2. Shelter and Open Play Area
   - Grading and clearing include the turf open play area
   - Sand volleyball, horseshoe, and badminton courts in open play area will be constructed by County staff
   - 1,800 SF pre-made shelter on concrete pad
   - Asphalt sidewalk connecting to parking lot walk

3. Storm Sewer
   - Three drainage structures to 36-inch drainage pipe and contribution to stormwater management system

2018-2019

1. Basketball
   - 100' x 100' asphalt pavement with colored court surfacing and striping
2. Restroom/Shelter
   - Water and sewer lines to be installed in 2012/2013
   - 1,800 SF open shelter with restrooms at one end
   - Water, sewer, and electrical service extensions to serve building
3. Parking – 115 spaces
   - Eight lights
   - Asphalt sidewalk 8-foot wide
   - Curb and gutter on perimeter of the lot and island with slots for drainage
4. Secondary Entrance Drive
   - 30-foot pavement width
   - Double swing pipe gate, 30-foot opening
   - Asphalt apron
5. Right and left turn lane to the site
   - 200 feet of 12-foot wide turn lane and 200 feet taper lane
   - Entrance drive 30 feet wide
   - No curb and gutter
   - Import of fill for widening of the road - 2-foot depth under new pavement
6. Storm Sewer
   - Additional stormwater management construction
   - 36-inch RCP drainage pipe extension
   - Eight drainage structures

2019-2020

1. Tennis
   - Two sets of two standard courts
   - Fence 10-foot - 12-foot high with four gates 4-foot wide

- Windscreen on two sides of the courts
- Asphalt sidewalk 8-foot wide connecting courts to other facilities

2. Storm Sewer
   - Drainage structures
   - 36-inch RCP pipe

2020-2021

1. Splash Pad
   - Assume turn key product
   - Independent recirculation system
   - Pad area between 1,800 SF - 2,800 SF
2. Water
   - 8-inch water line extension will serve future restroom facilities
3. Sewer
   - 4-inch diameter gravity sewer extension sized to serve future restroom facilities
4. Storm Sewer
   - Drainage structure into existing storm pipe

2021-2022

1. Performance Area
   - 1,800 SF total area including stage with concrete pad, ramps, and stairs
   - Asphalt walk to stage and defining primary audience area
   - Turf audience area
2. Storm Sewer
   - One drainage structure into existing 36-inch storm pipe

2022-2023

1. Trails
   - Clearing, grubbing, and grading done by volunteers or park staff prior to the trail construction
   - Surface hardwood engineered wood fiber 3-inch thick
   - 5% of the total trail length wood boardwalk without rail

2023-2024

1. Library/Museum
   - 7,500 SF addition to recreation center
   - Outdoor plaza and additional entrance
2. Outdoor Pool
   - 40' x 80' pool
   - Concrete pool deck, water, and sewer connections and filter included in pool estimated cost
   - Filter and pumps adjacent to maintenance building
   - Shares existing locker facilities with gymnasium
   - Asphalt and concrete walks to building and to existing walk system
3. Storm Sewer
   - Drainage structures into existing 36-inch storm pipe

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ISLE OF WIGHT COUNTY
HARDY PARK
LMDG Project No. 2006129-001.01
SUMMARY SHEET
November 13, 2008

	ITEM	ITEM TOTAL	SUBTOTAL
2014/2015			
1	Design for Entrance and Parking	$ 165,450	
2	Design for Basic Infrastructure	$ 205,102	
3	Design for Recreational Center and Maintenance Building	$ 806,549	
	TOTAL 2014-2015		**$ 1,177,101**

2015/2016 - Entrance and Parking			
1	General	$ 165,578	
2	200' Turn Lane & 200' Taper	$ 198,700	
3	Entrance Drive	$ 163,695	
4	Parking - 115 Cars	$ 380,375	
5	Maintenance/Service Drive	$ 50,785	
	SUBTOTAL	**$ 959,133**	
	15% Contingency	**$ 143,870**	
	ENTRANCE AND PARKING TOTAL 2015/2016	**$ 1,103,003**	
2015/2016 - Basic Infrastructure			
6	Water	$ 288,000	
7	Sewer	$ 200,000	
8	Storm Drainage	$ 509,900	
9	Electrical	$ 100,000	
	SUBTOTAL	**$ 1,097,900**	
	15% Contingency	**$ 164,685**	
	BASIC INFRASTRUCTURE TOTAL 2015/2016	**$ 1,262,585**	
2015/2016 - Recreation Center and Maintenance Building			
10	General	$ 302,498	
11	Recreational Center	$ 4,078,100	
12	Maintenance Building	$ 295,050	
	SUBTOTAL	**$ 4,675,648**	
	15% Contingency	**$ 701,347**	
	RECREATION CENTER AND MAINTENANCE BUILDING TOTAL 2015/2016	**$ 5,376,995**	
	TOTAL 2015/2016		**$ 7,742,582**

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ISLE OF WIGHT COUNTY
HARDY PARK
LMDG Project No. 2006129-001.01
SUMMARY SHEET
November 13, 2008

	ITEM	ITEM TOTAL	SUBTOTAL
2016/2017			
1	General	$ 47,485	
2	Multi-Purpose Field Lighting	$ 250,000	
3	Softball Field	$ 128,300	
	SUBTOTAL	**$ 425,785**	
	15% Contingency	**$ 63,868**	
	15% Professional Fees	**$ 73,448**	
	TOTAL 2016/2017		**$ 563,101**
2017/2018			
1	General	$ 96,405	
2	Playground	$ 165,600	
3	Shelter & Open Play	$ 180,465	
4	Storm Drainage	$ 20,000	
	SUBTOTAL	**$ 462,470**	
	15% Contingency	**$ 69,370**	
	15% Professional Fees	**$ 79,776**	
	TOTAL 2017/2018		**$ 611,616**
2018/2019			
1	General	$ 245,440	
2	Basketball	$ 65,660	
3	Restroom/Shelter	$ 152,820	
4	Parking-115 Cars	$ 374,130	
5	Entrance Road	$ 54,390	
6	200' Turn Lane & 200' Taper	$ 182,140	
7	Storm Sewer	$ 245,350	
8	Water	$ 37,500	
9	Sewer	$ 12,000	
	SUBTOTAL	**$ 1,369,430**	
	15% Contingency	**$ 205,414**	
	15% Professional Fees	**$ 236,227**	
	TOTAL 2018/2019		**$ 1,811,071**
2019/2020			
1	General	$ 48,389	
2	Tennis Courts (4)	$ 249,780	
3	Storm Drainage	$ 27,400	
	SUBTOTAL	**$ 325,569**	
	15% Contingency	**$ 48,835**	
	15% Professional Fees	**$ 56,161**	
	TOTAL 2019/2020		**$ 430,564**

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ISLE OF WIGHT COUNTY
HARDY PARK
LMDG Project No. 2006129-001.01
SUMMARY SHEET
November 13, 2008

	ITEM	ITEM TOTAL	SUBTOTAL
2020/2021			
1	General	$ 35,115	
2	Splash Pad	$ 239,070	
3	Water	$ 8,000	
4	Sewer	$ 6,000	
5	Storm Drainage	$ 5,000	
	SUBTOTAL	**$ 293,185**	
	15% Contingency	**$ 43,978**	
	15% Professional Fees	**$ 50,574**	
	TOTAL 2020/2021		**$ 387,737**
2021/2022			
1	General	$ 37,546	
2	Performance Area	$ 139,410	
3	Storm Drainage	$ 5,000	
	SUBTOTAL	**$ 181,956**	
	15% Contingency	**$ 27,293**	
	15% Professional Fees	**$ 31,387**	
	TOTAL 2021/2022		**$ 240,637**
2022/2023			
1	General	$ 9,695	
2	Trails	$ 96,950	
	SUBTOTAL	**$ 106,645**	
	15% Contingency	**$ 15,997**	
	15% Professional Fees	**$ 18,396**	
	TOTAL 2022/2023		**$ 141,038**
2023/2024			
1	General	$ 203,007	
2	Library/Museum	$ 1,708,530	
3	Outdoor Pool	$ 831,600	
4	Storm Drainage	$ 42,000	
	SUBTOTAL	**$ 2,785,137**	
	15% Contingency	**$ 417,770**	
	15% Professional Fees	**$ 480,436**	
	TOTAL 2023/2024		**$ 3,683,343**
	GRAND TOTAL		**$ 16,788,791**

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ISLE OF WIGHT COUNTY
HARDY PARK
LMDG Project No. 2006129-001.01
Cost Estimate for 2014/2015
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2014/2015					
1	Design for Entrance and Parking (15%)	1	LS	$165,450	$165,450	
2	Design for Basic Infrastructure (15%)	1	LS	$205,102	$205,102	
3	Design for Recreational Center and Maintenance Building (15%)	1	LS	$806,549	$806,549	
					2014/2015 TOTAL	**$1,177,101**

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Cost Estimate for 2015/2016
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
2015/2016 - Entrance and Parking						
1	**GENERAL**					**$165,577.75**
	Mobilization	1	LS	$69,678	$69,678	
	Erosion and Sediment Control - Silt Fence	5100	LF	$3	$15,300	
	Tree Protection	5100	LF	$6	$30,600	
	Planting and Seeding	1	LS	$50,000	$50,000	
2	**200' TURN LANE & 200' TAPER**					**$198,700.00**
	Traffic Control	1	LS	$15,000	$15,000	
	Clear and Grub	1.85	AC	$12,000	$22,200	
	Grading (est. 2' deep)	3000	CY	$11	$33,000	
	Import Fill	500	CY	$20	$10,000	
	Utility Relocation (4 poles)	4	EA	$10,000	$40,000	
	Asphalt Pavement	1500	SY	$50	$75,000	
	Pavement Markings	1	LS	$2,500	$2,500	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
3	**ENTRANCE DRIVE**					**$163,695.00**
	Clear and Grub	0.92	AC	$12,000	$11,040	
	Grading (est. 1' deep)	1500	CY	$11	$16,500	
	Asphalt Pavement	1250	SY	$50	$62,500	
	Curb and Gutter with 18" Gutter Pan	1200	LF	$35	$42,000	
	Paver Sidewalk (8' wide)	2300	SF	$12	$27,600	
	Parking Lot Striping	5	SP	$11	$55	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
	Gate	1	EA	$3,000	$3,000	
4	**PARKING - 115 CARS**					**$380,375.00**
	Clear and Grub	1.75	AC	$12,000	$21,000	
	Grading (est. 1' deep)	2800	CY	$11	$30,800	
	Asphalt Pavement	4180	SY	$45	$188,100	
	Curb and gutter with 18" gutter pan	1820	LF	$35	$63,700	
	Parking Lot Striping	115	SP	$11	$1,265	
	Signs	1	LS	$1,000	$1,000	
	Lights	8	EA	$2,500	$20,000	
	Asphalt Sidewalk (8' wide)	870	SY	$28	$24,360	
	Asphalt Heavy-Duty Walk/Drive	670	SY	$45	$30,150	

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LMDG Project No. 2006129-001.01
Cost Estimate for 2015/2016
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
5	**MAINTENANCE/SERVICE DRIVE**					**$50,785.00**
	Clear and Grub	0.83	AC	$12,000	$9,960	
	Grading (est. 1' deep)	1350	CY	$11	$14,850	
	Aggregate Drive	1465	SY	$15	$21,975	
	Signs	1	LS	$1,000	$1,000	
	Gate	1	EA	$3,000	$3,000	
					SUBTOTAL	**$959,133**
					15% Contingency	**$143,870**
					2015/2016 ENTRANCE AND PARKING TOTAL	**$1,103,003**
	2015/2016 - Basic Infrastructure					
6	**GENERAL**					**$91,095.00**
	Mobilization	1	LS	$84,895	$84,895	
	Seeding	1	LS	$5,000	$5,000	
	Clear and Grub	400	SY	$3	$1,200	
7	**WATER**					**$288,000.00**
	8" Water Main	6000	LF	$45	$270,000	
	Water Meter	1	EA	$6,000	$6,000	
	Fire Hydrant	4	EA	$3,000	$12,000	
8	**SEWER**					**$200,000.00**
	4" Force Main	5000	LF	$30	$150,000	
	Pump Station	1	LS	$50,000	$50,000	
9	**STORM DRAINAGE**					**$509,900.00**
	Stormwater Management Facilities	1	LS	$200,000	$200,000	
	Drainage Structure	1	LS	$50,000	$50,000	
	36" RCP Pipe	2700	LF	$80	$216,000	
	Outfall	1	LS	$25,000	$25,000	
	Bedding Stone	2700	LF	$7	$18,900	
10	**ELECTRICAL**					**$100,000.00**
	Electrical Service and Site Lighting	1	LS	$100,000	$100,000	
					SUBTOTAL	**$1,188,995**
					15% Contingency	**$178,349**
					2015/2016 BASIC INFRASTRUCTURE TOTAL	**$1,367,344**

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HARDY PARK
LMDG Project No. 2006129-001.01
Cost Estimate for 2015/2016
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
2015/2016 - Recreation Center and Maintenance Building						
10	**GENERAL**					**$302,498**
	Mobilization	1	LS	$248,658	$248,658	
	Erosion and Sediment Control - Silt Fence	640	LF	$3	$1,920	
	Tree Protection	640	LF	$3	$1,920	
	Planting and Seeding	1	LS	$50,000	$50,000	
11	**RECREATIONAL CENTER**					**$4,078,100**
	Clear and Grub	0.45	AC	$12,000	$5,400	
	Grading (est. 1') 18,981 SF	700	CY	$11	$7,700	
	Import fill (1')	700	CY	$20	$14,000	
	Recreation Center Building	18000	SF	$225	$4,050,000	
	Signs	1	LS	$1,000	$1,000	
12	**MAINTENANCE BUILDING**					**$295,050**
	Clear and Grub	0.2	AC	$12,000	$2,400	
	Grading (est. 1')	350	CY	$11	$3,850	
	Maintenance Building (50'x50')	2500	SF	$100	$250,000	
	Fence	400	LF	$32	$12,800	
	Aggregate Surface	800	SY	$15	$12,000	
	Concrete Surface	200	SY	$65	$13,000	
	Signs	1	LS	$1,000	$1,000	
					SUBTOTAL	**$4,675,648**
					15% Contingency	**$701,347**
	2015/2016 RECREATION CENTER AND MAINTENANCE BUILDING TOTAL					**$5,376,995**
					2015/2016 TOTAL	**$7,847,342**

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ISLE OF WIGHT COUNTY
HARDY PARK
LMDG Project No. 2006129-001.01
Cost Estimate for 2016/2017
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		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2016/2017					
1	**GENERAL**					**$47,485**
	Mobilization	1	LS	$37,085	$37,085	
	Erosion and Sediment Control - Silt Fence	600	LF	$3	$1,800	
	Tree Protection	600	LF	$6	$3,600	
	Planting	1	LS	$5,000	$5,000	
2	**MULTI-PURPOSE FIELD LIGHTING**					**$250,000**
	Lighting	1	LS	$250,000	$250,000	
3	**SOFTBALL FIELD**					**$128,300**
	Grading (est. 1' deep)	4500	CY	$11	$49,500	
	Drainage	1	LS	$30,000	$30,000	
	Backstop	1	EA	$6,000	$6,000	
	Skinned Infield	1	LS	$25,000	$25,000	
	Fine Grade, Seed Mulch	200	SY	$5	$1,000	
	Concrete Pad for Player Area	40	SY	$65	$2,600	
	Dugouts	2	EA	$5,100	$10,200	
	Chain Link Fence along sideline	160	LF	$25	$4,000	
					SUBTOTAL	**$425,785**
					15% Contingency	**$63,868**
					15% Professional Fees	**$73,448**
					2016/2017 TOTAL	**$563,101**

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ISLE OF WIGHT COUNTY
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Cost Estimate for 2017/2018
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2017/2018					
1	**GENERAL**					**$96,405**
	Mobilization	1	LS	$32,455	$32,455	
	Erosion and Sediment Control - Silt Fence	1550	LF	$3	$4,650	
	Tree Protection	1550	LF	$6	$9,300	
	Planting and Seeding	1	LS	$50,000	$50,000	
2	**PLAYGROUND**					**$165,600.00**
	Clear and Grub	0.7	AC	$12,000	$8,400	
	Grading (est. 1' deep)	900	CY	$11	$9,900	
	Soft Surface	6000	SF	$4	$24,000	
	Edging	700	LF	$30	$21,000	
	Equipment and Installation	1	LS	$80,000	$80,000	
	Sidewalk	600	SY	$28	$16,800	
	Site Furnishing	1	LS	$5,000	$5,000	
	Miscellaneous Signs	1	LS	$500	$500	
3	**SHELTER & OPEN PLAY**					**$180,465.00**
	Clear and Grub	1.3	AC	$12,000	$15,600	
	Grading (est. 1.5' deep)	2775	CY	$11	$30,525	
	Shelter	1	LS	$110,000	$110,000	
	Concrete Pad	2300	SF	$10	$23,000	
	Sidewalk (8' wide)	30	SY	$28	$840	
	Miscellaneous Signs	1	LS	$500	$500	
4	**STORM DRAINAGE**					**$20,000.00**
	Stormwater Management and Drainage Structure	1	LS	$20,000	$20,000	
					SUBTOTAL	**$462,470**
					15% Contingency	**$69,370**
					15% Professional Fees	**$79,776**
					2017/2018 TOTAL	**$611,616**

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ISLE OF WIGHT COUNTY
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Cost Estimate for 2018/2019
November 3, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
		2018/2019				
1	**GENERAL**					**$245,440**
	Mobilization	1	LS	$86,200	$86,200	
	Erosion and Sediment Control - Silt Fence	2280	LF	$3	$6,840	
	Tree Protection	400	LF	$6	$2,400	
	Stormwater Management	1	LS	$100,000	$100,000	
	Planting and Seeding	1	LS	$50,000	$50,000	
2	**BASKETBALL**					**$65,660**
	Topsoil Removal and Grade (est. 1' deep)	1000	CY	$14	$14,000	
	Asphalt Pavement/Resilient Colored Surface & Markings	1120	SY	$43	$48,160	
	Goals	6	EA	$500	$3,000	
	Miscellaneous Signs	1	LS	$500	$500	
3	**RESTROOM / SHELTER**					**$152,820**
	Topsoil Removal and Grade (est. 1' deep)	130	CY	$14	$1,820	
	Restroom	1	LS	$150,000	$150,000	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
4	**PARKING - 115 CARS**					**$374,130**
	Topsoil Removal and grade (est. 1' deep)	2060	CY	$14	$28,840	
	Asphalt pavement	5300	SY	$45	$238,500	
	Curb and gutter with 18" gutter pan	2095	LF	$35	$73,325	
	Parking Lot Striping	115	SP	$11	$1,265	
	Signs	1	LS	$1,000	$1,000	
	Lights	8	EA	$2,500	$20,000	
	Sidewalk (8' wide)	400	SY	$28	$11,200	
5	**ENTRANCE ROAD**					**$54,390**
	Clear and Grub	0.16	AC	$12,000	$1,920	
	Grading (est. 1' deep)	270	CY	$11	$2,970	
	Asphalt pavement	820	SY	$50	$41,000	
	Entrance	50	SY	$90	$4,500	
	Signs	1	LS	$1,000	$1,000	
	Gate	1	EA	$3,000	$3,000	

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		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
6	**200' TURN LANE & 200' TAPER**					**$182,140**
	Traffic Control	1	LS	$15,000	$15,000	
	Clear and Grub	0.47	AC	$12,000	$5,640	
	Grading (est. 2' deep)	3000	CY	$11	$33,000	
	Import Fill	500	CY	$20	$10,000	
	Utility Relocation (4 poles)	4	LS	$10,000	$40,000	
	Asphalt pavement	1500	SY	$50	$75,000	
	Pavement Markings	1	LS	$2,500	$2,500	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
7	**STORM SEWER**					**$245,350**
	BMP/ Storm	1	LS	$144,450	$144,450	
	Drainage Structures	1	LS	$40,000	$40,000	
	Pipe	700	LF	$80	$56,000	
	Bedding Stone	700	LF	$7	$4,900	
8	**WATER**					**$37,500**
	8" Water Main	700	LF	$45	$31,500	
	Fire Hydrant	2	EA	$3,000	$6,000	
9	**SEWER**					**$12,000**
	4" Force Main	400	LF	$30	$12,000	
					SUBTOTAL	**$1,369,430**
					15% Contingency	**$205,414**
					15% Professional Fees	**$236,227**
					2018/2019 TOTAL	**$1,811,071**

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November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2019/2020					
1	**GENERAL**					**$48,389**
	Mobilization	1	LS	$25,789	$25,789	
	Erosion and Sediment Control - Silt Fence	1400	LF	$3	$4,200	
	Tree Protection	1400	LF	$6	$8,400	
	Planting and Seeding	1	LS	$10,000	$10,000	
2	**TENNIS COURTS (4)**					**$249,780**
	Clear and Grub	1.31	AC	$12,000	$15,720	
	Grading (est. 1' deep)	2000	CY	$11	$22,000	
	Pavement, Fence, Net, Windscreen	4	LS	$40,000	$160,000	
	Underdrains	2	LS	$8,000	$16,000	
	Signs	1	LS	$500	$500	
	Lights	2	EA	$14,000	$28,000	
	Sidewalk (8' wide)	270	LF	$28	$7,560	
3	**STORM DRAINAGE**					**$27,400**
	Drainage Structures	1	LS	$10,000	$10,000	
	Pipe	200	LF	$80	$16,000	
	Bedding Stone	200	LF	$7	$1,400	
					SUBTOTAL	**$325,569**
					15% Contingency	**$48,835**
					15% Professional Fees	**$56,161**
					2019/2020 TOTAL	**$430,564**

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Cost Estimate for 2020/2021
November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2020/2021					
1	**GENERAL**					**$35,115**
	Mobilization	1	LS	$24,355	$24,355	
	Erosion and Sediment Control - Silt Fence	640	LF	$3	$1,920	
	Tree Protection	640	LF	$6	$3,840	
	Seeding and Planting	1	LS	$5,000	$5,000	
2	**SPLASH PAD**					**$239,070**
	Clear and Grub	0.57	AC	$12,000	$6,840	
	Grading (est. 1' deep)	930	CY	$11	$10,230	
	Splash Pad Equipment (Independent Recirculation System)	1	LS	$220,000	$220,000	
	Signs	1	LS	$2,000	$2,000	
3	**WATER**					**$8,000**
	6" Water Main	200	LF	$40	$8,000	
4	**SEWER**					**$6,000**
	4" Force Main	200	LF	$30	$6,000	
5	**STORM DRAINAGE**					**$5,000**
	Drainage Structure	1	LS	$5,000	$5,000	
					SUBTOTAL	**$293,185**
					15% Contingency	**$43,978**
					15% Professional Fees	**$50,574**
					2020/2021 TOTAL	**$387,737**

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		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2021/2022					
	GENERAL					
1	Mobilization	1	LS	$14,441	$14,441	**$37,546**
	Erosion and Sediment Control - Silt Fence	495	LF	$3	$1,485	
	Tree Protection	270	LF	$6	$1,620	
	Planting and Seeding	1	LS	$20,000	$20,000	
2	**PERFORMANCE AREA**					**$139,410**
	Grade, Topsoil Remove & Replace	515	CY	$14	$7,210	
	Performance Stage (with concrete pad and stairs)	1	LS	$120,000	$120,000	
	Signs	1	LS	$1,000	$1,000	
	Asphalt Walks	400	SY	$28	$11,200	
3	**STORM DRAINAGE**					**$5,000**
	Drainage Structure	1	LS	$5,000	$5,000	
					SUBTOTAL	**$181,956**
					15% Contingency	**$27,293**
					15% Professional Fees	**$31,387**
					2021/2022 TOTAL	**$240,637**

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Cost Estimate for 2022/2023
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		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
		2022/2023				
1	GENERAL					$9,695
	Mobilization	1	LS	$9,695	$9,695	
2	TRAILS					$96,950
	Hardwood Engineered Wood Fiber 3" for Trails	6200	LF	$9	$52,700	
	Wood Structure - Boardwalk without rail	325	LF	$130	$42,250	
	Signs	1	LS	$2,000	$2,000	
					SUBTOTAL	$106,645
					15% Contingency	$15,997
					15% Professional Fees	$18,396
					2022/2023 TOTAL	$141,038

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November 13, 2008

		QTY	UNIT	UNIT PRICE	ESTIMATE	TOTAL
	2023/2024					
1	**GENERAL**					**$203,007**
	Mobilization	1	LS	$159,107	$159,107	
	Erosion and Sediment Control - Silt Fence	600	LF	$3	$1,800	
	Tree Protection	350	LF	$6	$2,100	
	Seeding and Planting	1	LS	$40,000	$40,000	
2	**LIBRARY/MUSEUM**					**$1,708,530**
	Clear and Grub	0.23	AC	$12,000	$2,760	
	Grading (est. 1' deep)	370	CY	$11	$4,070	
	Library/ Museum Building	7500	SF	$225	$1,687,500	
	Paver Walk/Plaza	1100	SF	$12	$13,200	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
3	**OUTDOOR POOL**					**$831,600**
	Clear and Grub	0.1	AC	$12,000	$1,200	
	Grading and Excavation (avg 4' deep)	1200	CY	$11	$13,200	
	Pool, Equipment and Decking	1	LS	$750,000	$750,000	
	Concrete Paving	800	SY	$65	$52,000	
	Fence	350	LF	$32	$11,200	
	Gate	2	EA	$1,500	$3,000	
	Miscellaneous Signs	1	LS	$1,000	$1,000	
4	**STORM DRAINAGE**					**$42,000**
	Drainage Structures	1	LS	$16,000	$16,000	
	Piping	200	LF	$80	$16,000	
	Stormwater Management	1	LS	$10,000	$10,000	
					SUBTOTAL	**$2,785,137**
					15% Contingency	**$417,770**
					15% Professional Fees	**$480,436**
					2023/2024 TOTAL	**$3,683,343**