

GRIST MILL

M E M O R A N D U M

To: Mr. Lederer

Date: 9-30-76

From: Bill Ference WRF

Subject: Bryant Farm Park Preliminary Master Plan

Recommendation:

The Park Authority move to send the master plan for Bryant Farm Park to public hearing.

Statement:

We have received the master plan and write up for Bryant Farm Park from the consultants, Earth Design. Two separate plans were prepared, one for the parcel which we now own and one for the combination of the site we own and the adjoining parcel, which could be acquired.

Both plans indicate that the area will be used for active recreation with such facilities as an indoor pool, ballfields, lakes, tennis courts, bike track, parking, trails, etc.

Due to the high water table and lack of surface relief, special measures (i.e. excavation of lakes, use of fill material, etc.) may be necessary for construction of some of the facilities shown.

WRF/mlb

cc: Downs
Cable

See Grist mill
MP Revision
7/31/02

earth design

LAND USE AND DEVELOPMENT PLANNING / ARCHITECTURAL CONSULTATION / LANDSCAPE ARCHITECTURE

July 20, 1976

A STUDY OF THE SUITABILITY
OF THE
BRYANT FARM PARK SITE
AND RECOMMENDATIONS
FOR ITS USE AS A
PARK AND RECREATIONAL AREA

PREPARED FOR

The Fairfax County Park Authority
Annandale, Virginia

By

EARTH DESIGN
Casanova, Virginia

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I. PURPOSE and SCOPE

This research was planned and executed by EARTH DESIGN at the request of the Fairfax County Park Authority in order to evaluate the suitability of the Bryant Farm Park Site for development as a community recreational facility for families within the Mount Vernon Planning District and Sector.

This report furnishes a survey of facts acquired during the course of the investigation, an analysis of the site's suitability for alternative uses, if any, and recommendations for utilization of this site.

Included is a detailed cost estimate of the recommended development.

II. STUDY INFORMATION

A. SITE SIZE AND DESCRIPTION

Recently Fairfax County made available 38 acres along Mount Vernon Memorial Highway for further development of recreational facilities. An additional 45 acres on both sides of Dogue Creek is available also for acquisition in order to expand these facilities further. This tract of land known as Bryant Farm is an area defined by Mount Vernon Memorial Highway on the south and southeast, Old Mill Road on the southwest, Buckner Avenue on the west, Woodlawn Country Club on the north, and Southwood Drive on the east.

B. USES AND CHARACTERISTICS OF SURROUNDING LANDS

The area surrounding Bryant Farm is bordered by Route 1 on the northwest, Little Hunting Creek on the northeast, the Potomac River on the southeast and Dogue Creek on the southwest. This area is defined as the Mount Vernon Planning Sector. If Bryant Farm were developed it would serve the 71,813 residents of the District and more specifically the needs of the 10,910 residents of the Mount Vernon Sector.

With the exception of the Route 1 corridor, the planning sector is comprised of almost all single family detached dwellings, of above medium income families. Most of the acreage is of low density population, although there are garden apartments, townhouses, and two small mobile home parks.

Four public elementary schools and two high schools serve the Mount Vernon Sector, as well as one private school. The entire sector now has three developed parks and one undeveloped park totaling 53.5 acres. It has recreational facilities at the schools in the area, one 18 hole golf course, several swimming pools, and two marinas.

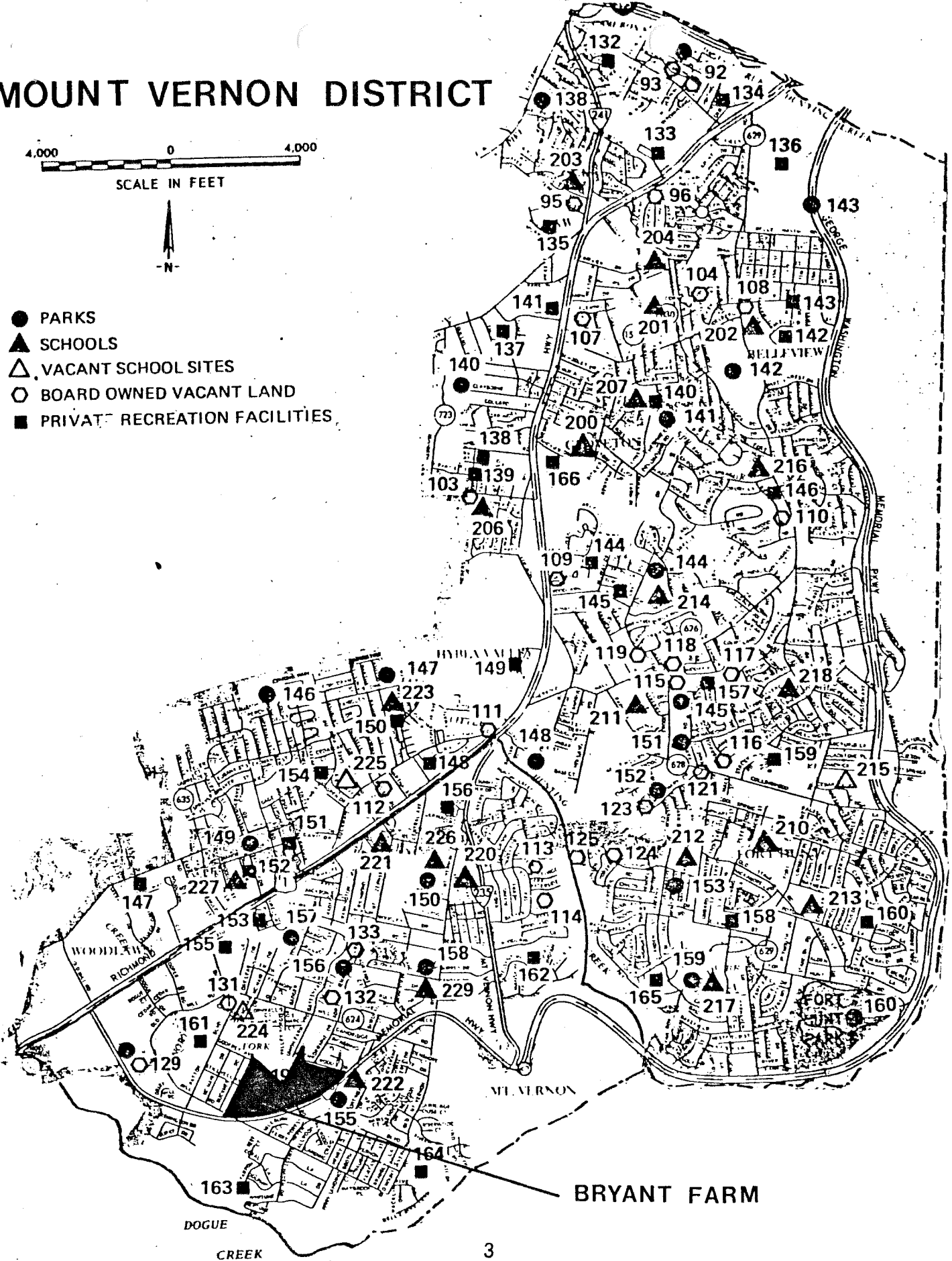
There are historical points of interest which influence the Mount Vernon Sector such as the National Historical Landmark of Mount Vernon itself and Washington's Grist Mill.

Other surrounding lands that help determine the characteristics of the Mount Vernon Sector are the Potomac River and Fort Belvoir.

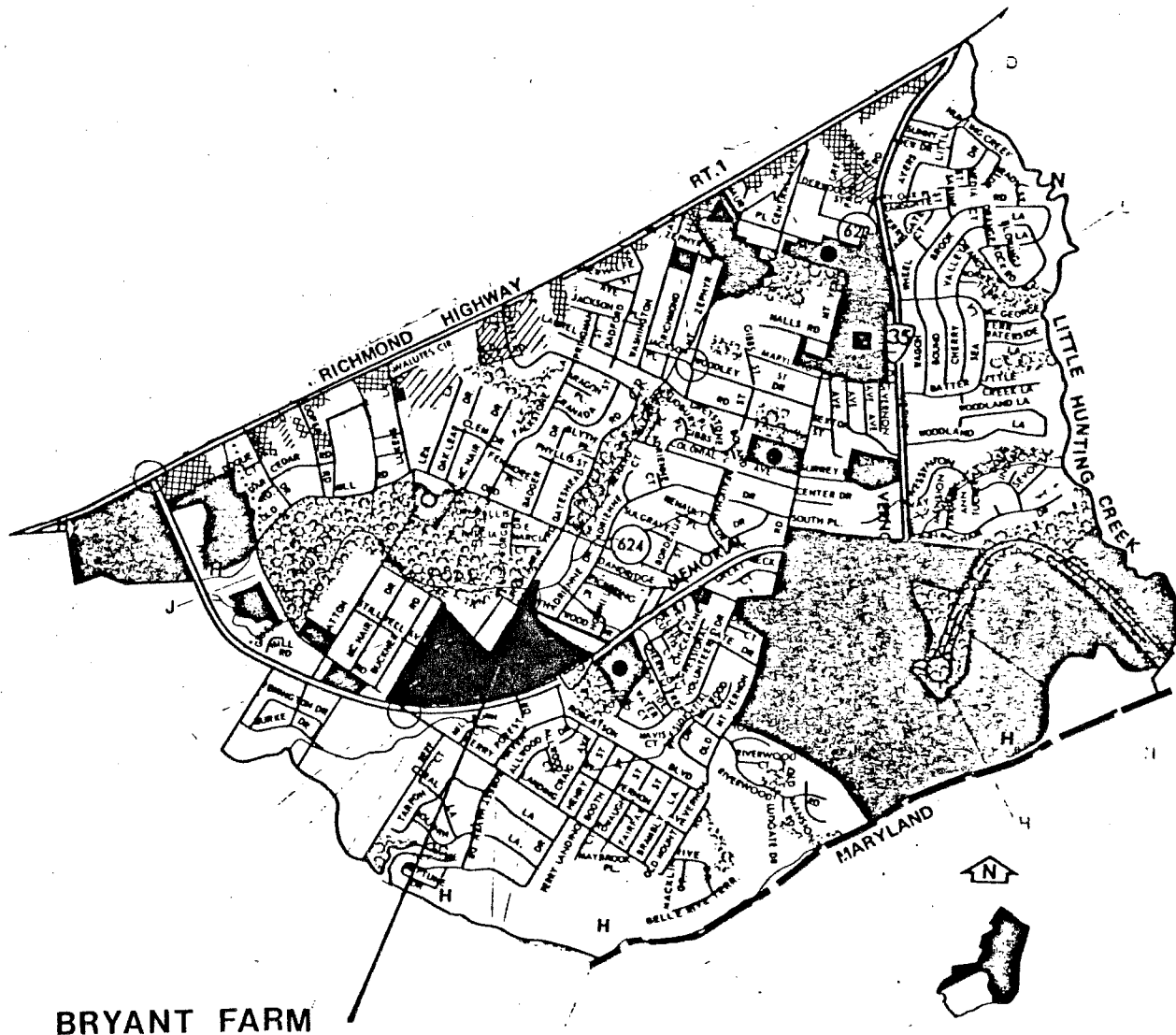
MOUNT VERNON DISTRICT



- PARKS
- ▲ SCHOOLS
- △ VACANT SCHOOL SITES
- BOARD OWNED VACANT LAND
- PRIVATE RECREATION FACILITIES



MOUNT VERNON SECTOR



BRYANT FARM

EXISTING LAND USE

RESIDENTIAL		
LOW-DENSITY		
MED-DENSITY		
HIGH-DENSITY		
COMMERCIAL		
INDUSTRIAL		
PARKS (P: Private Facility)		
INSTITUTIONAL		
SCHOOLS		
ELEM.	●	○
INTER.	■	□
HIGH	▲	◻
FIRE	F	F
HISTORIC SITES	H	H
LIBRARY	L	L
METRO STA.		M
POLICE STA.	★	
COMMUTER RAIL		—

C. CHARACTERISTICS OF THE SITE

Most of Bryant Farm Park land is combined of slopes of less than 3% and is essentially flat. There are several marshy areas and in many places the land is so flat that it does not allow for surface drainage. Major alterations would have to be made to make use of this site as a recreational facility. However, the general absence of trees would not make this quite as difficult.

For the most part the land is open fields covered with mixed grasses. The northwest corner of the park is occupied by mixed hardwoods and scattered with pines throughout. Pines and hardwoods extend down the western edge of the site while a triple row of red maples and a row of cedars bisect the site. Nursery stock remains from an earlier effort to make part of this site a plant farm. The area across the creek to the northeast is predominantly occupied by hardwoods and a few scattered pines.

D. SOILS

The three basic soil types in Bryant Farm Park are Mixed Alluvial Land (flood plain), Bertie Silt Loam, and Mattapex Silt Loam, nearly level phase.

- o Mixed Alluvial Land is derived from recent soil materials which have washed up from the uplands and deposited along stream bottoms. It consists mainly of somewhat poorly drained soils and mixed soil materials including very sandy areas and gravelly bars. In some places there are thin layers of brown silt loam and fine sandy loam materials over strata of gravel. It is subject to frequent flooding and needs drainage in places. The soil is acid in reaction in most places. This soil is best suited to or adapted to permanent pastures or forests. Twenty-three percent of Bryant Farm Park is of this type soil.
- o Sixteen percent or 6.5 acres of Bryant Farm Park is made up of Bertie Silt Loam. Bertie Silt Loam is nearly level, somewhat poorly drained, moderately heavy textured soil of lower Coastal Plain area in the County. It has a grayish brown to olive gray silt loam surface soil. The subsoil is mottled yellow, light brown and gray, ranging from silty clay loam to clay loam. Fine sandy loam and fine sandy clay loam strata occur below 50 inches in places. This soil is difficult to work and needs drainage for good production. It is very strongly to strongly acid throughout. This soil is best suited for permanent pastures and grasses when not arti-

ficially drained. It has a water table of 6" - 8" below the surface during the wet seasons.

- o Sixty-one percent of this park (or 24.5 acres) is Mattapex soil. This soil has a water table of 14 - 16 inches below the surface during the wet seasons. This soil rates marginal for supporting large buildings. Any dwellings on this soil should be built without basements. Mattapex silt loam, nearly level phase, is a somewhat poorly to moderately well-drained, deep light colored soil with a yellowish brown to strong brown silty clay loam sub-soil which is mottled below 14 inches. It is underlain by sands. Natural fertility and organic content are low, and workability and productivity are fair to poor. Strata of heavy compact clay underlie most areas at 26 inches, but sandy loam and sand strata are sometimes found at depths of 6 to 15 feet. This soil is strongly acid. Note also that this property has a water table of 6 - 15' below the surface wet seasons.

E. UTILITIES

Sewer: A 12" trunk sewer line runs down the line of Dogue Creek.

Water: An 8" Transite Line runs along the south side of Mount Vernon Memorial Highway.

F. ACCESS

The major access road to Bryant Farm Park is Mount Vernon Memorial Highway. The only minor entrance to the park is Stillwell Avenue on the west side of the park.

G. EXISTING AND PLANNED RECREATIONAL FACILITIES IN THE AREA

There are several public, private, and residential recreational facilities around the proposed site of Bryant Farm Park. The existing facilities include:

<u>NAME</u>	<u>DISTANCE FROM PARK</u>
1. Fort Hunt Park (160*)	@ 2 miles
2. Martin Luther King Park (148*)	@ 2 miles
3. The Washington Mill Park (155*)	@ 1/2 mile
4. Woodlawn Park (149*)	@ 1 mile

* As coded on the Mount Vernon District Map

- | | |
|---------------------------------------|-----------|
| 5. Woodley Hills Park (158*) | @ 1 mile |
| 6. Mount Vernon Community Park (150*) | @ 1 mile |
| 7. Mount Vernon Woods Park (147*) | @ 1 mile |
| 8. Mount Vernon Manor Park (157*) | @ 1 mile |
| 9. Williamsburg Manor (152*) | @ 2 miles |
| 10. Lee District Park | @ 5 miles |

In addition some private facilities are Woodlawn Country Club (161*), Belle Haven Country Club (136*), and the Mount Vernon Tennis World.

There are many facilities within easy access to the residents of Mount Vernon Planning District, however, many of the public facilities nearby are used primarily by Washingtonians and the swimming pool and other recreational facilities at Martin Luther King Park are used primarily by local black resident.

The private community clubs and country clubs are somewhat limited in their ability to serve many people who would like to join and memberships are therefore difficult to obtain. Woodlawn Country Club offers swimming pool memberships but at a relatively high price: \$200.00 per season. Mount Vernon Tennis World was the only club with open membership at reasonable rates, and was the only tennis facility nearby.

There are six schools in the Mount Vernon Community and together they offer 15 ballfields (60'), five paved play areas, 13 tennis courts, three football fields, two track fields, three soccer fields, and three baseball diamonds (90').

H. USER DEMANDS / NEEDS / DESIRES

As noted earlier, the residents who would benefit from the development of Bryant Farm Park, are owners of single, detached dwellings of above medium value, and the area is of low density population.

A questionnaire was sent to the households surrounding the Bryant Farm Park proposed site and 198 families responded to it, a total representation of 806 people. These families ranged in size from one member to as many as eight members in one household. The families averaged 4.07 members per household and the ages ranged from infancy to senior citizens, well into their seventies. Specifically, the profile of the 198 families who responded to the questionnaire can be seen in the following illustration:

* As coded on the Mount Vernon District Map

Preschoolers (0 - 6)	50	6.2%
Elementary (7 - 13)	139	17.2%
High Schoolers (14 - 18)	127	15.8%
Adults (19 - 60)	480	59.6%
Senior Citizens (over 60)	<u>10</u>	<u>1.2%</u>
	806	100.0%

The questionnaire that was sent to potential users of the Bryant Farm Park asked families to indicate their preferences of possible available facilities in the park. They were asked to indicate those facilities they would be most interested in and use the most. A simple check mark or an X under Yes or No indicated their preferences to the following suggested facilities by the Fairfax County Park Authority:

	<u>Yes</u>	<u>No</u>
Apparatus area (children 6 - 12)		
Tot Lot (Preschool)		
Bicycle Trail		
Picnic Area		
Nature Area		
Nature Trail		
Open Play Fields		
Baseball & Football Fields		
Horseshoe & Shuffleboard Court		
Tennis Courts		
Swimming Pool		
Shelter		
Community Center		

The families were then asked which of the above facilities they would like to see developed first. In addition to this, the families were requested to express any other ideas or suggestions they would like the Park Authority to consider in planning Bryant Farm Park. As you can easily see from the tabulated results, the residents overwhelmingly voted yes for their preferences in this order:

Tennis Courts	140
Bike Trail	125
Nature Trail	117
Nature Area	108
Swimming Pool	106
Open Play Fields	102

Baseball & Football Fields	101
Picnic Area	93
Multi Use Courts	86
Apparatus Area	75
Community Center	72
Shelter	71
Horseshoe & Shuffleboard	65
Tot Lot	39

Those facilities they wished to see developed first were:

Tennis Courts
Swimming Pool
Bike Trail
Baseball & Football Fields
Multi Use Courts
Community Center
Apparatus and Picnic Areas
Nature Area
Nature Trail
Tot Lot
Horseshoe & Shuffleboard
Open Play Fields & Shelter

You will notice the generally positive response in favor of park development.

Varied suggestions for additional park facilities were voiced. They ranged from an indoor / outdoor swimming pool, roller / ice skating rink, to an archery field. Responses were positive and ranged widely in the various potentials of the park.

Many residents who offered suggestions strongly requested a resident park manager, regular policing to protect the park as well as surrounding residences from vandalism, disorderly conduct, and the possible hazards of drug abuse.

Some residents requested that planned parking facilities be provided in the park to avoid on-street parking.

It was an almost unanimous vote that the Old Barn be saved, not destroyed, and used for something worthwhile. Here, again, the differences of opinion of how the Barn should or could be used varied widely...from an indoor rifle range to a community center.

Almost everyone agreed that the land be left as undisturbed as possible to preserve its natural beauty and protect its natural inhabitants, birds and animals. They also agreed that a large buffer zone of the natural site be maintained between the Park and Residential areas.

Only twelve families of the 198 respondents saw no need for a park at all.

Recreational Facilities
in order of "most wanted
first" on Questionnaire

Questionnaire

Inventory of
Leisure Time Land

Outdoor Space**
Standards

	wanted first	yes response	no response	Mt. Vernon Planning	Public	Private/Club Residential	Schools	Required
Tennis Cts.	84	140	29	district sector	14 8	32* 6*	0 6	40
Swimming Pool	64	106	61	d s	1*	18* 4*	17	20
Bike Trail	42	25	42	d s	1			
Baseball & Football	31	101	51	d s	8 1		61 17	
Multi Use Courts	27	86	53	d s	9 3		15 3	
Community Center	26	72	76	d s	1			
Picnic Area	22	93	68	d s	12* 3*	1		225 acres
Apparatus Area	22	75	75	d s	11 3			
Nature Area	20	108	44	d s	9 4			
Nature Trail	18	117	45	d s	4 2			
Tot Lot	12	39	96	d s	9 4			
Horseshoe & Shuffleboard	8	65	66	d s				
Open Play Fields	7	102	43	d s	5 2			
Shelter	7	71	69	d s				
<u>Volunteered Suggestions</u>								
Soccer Fields		3		d s	1			
Badminton/Volleyball				d s		2		
Handball				d s	1 1	1		
Fishing				d s				

Recreational Facilities
in order of "most wanted
first" on Questionnaire

Questionnaire

Invent. of
Leisure Time Land

Outdoor Space**
Standards

	wanted first	yes response	no response	Mt. Vernon Planning	Public	Private/Club	Residential	Schools	Required
Outdoor Theater		1		d					
				s					
Trap & Skeet Shooting		2		d					
				s					
Ice Rink		5		d					
				s					
Roller Rink				d					
				s					
Miniature Golf				d					
				s					
Indoor Theater in Barn		1		d					
				s					
<u>Also Available In Area</u>									
Hiking Trails				d					
				s					
18 Hole Golf Course				d		3			
				s		1			
Driving Range		1		d		1			
				s					
Basketball		4		d		4			
				s		2			

** The Outdoor Recreation Space Standards prepared by the Department of the Interior in 1970 was applied to the data available. The "Standards" book yields several "ballpark figures for each facility or use and data on available recreational facilities is not often down into the numbers used in their formulas.

III. CONCLUSIONS and RECOMMENDATIONS

A. SITE SUITABILITY

This site offers opportunities for development of particular facilities but has problems that tend to inhibit others. Of the amenities that could be developed are the large open fields available for play areas. The absence of trees and rocks makes land shaping relatively easy, while at the same time, the almost flat terrain/poor surface drainage and high water table makes such site work necessary. This offers the possibility of dredging a lake at almost any low spot which would also provide much needed fill. All paved areas such as tennis courts would have to be raised about three feet from the surrounding land or on stabilized fill. There is a natural stream and wooded section which can be developed into "natural" areas. Unique to the site are an old road bed and bridge, rows of abandoned nursery stock, and a large concrete block barn and silos in excellent structural condition. While the site offers no real views to the river, it is well screened from surrounding neighborhoods, and the opportunity for developing observation platforms in the abandoned silos does exist. Its proximity to Mount Vernon and the bicycle trail along the Parkway could complement the facilities available at the site.

B. COMMUNITY NEEDS (Park Program)

1. ORIENTATION CENTER - To provide information about the site and the park. It functions as an orientation point and an interpretive area for natural and cultural aspects of the region.

Because of the excessive cost in building, maintaining and staffing such a separate facility dedicated to interpreting natural features, the center would be incorporated in the existing barn complex. The small shipping office shed to the west could serve the purpose of housing the displays and maps. Silos offer excellent opportunity for viewing surrounding area as orientation points.

2. TRAIL SYSTEM - This is set up to explore the natural features of the site. This trail system could be established in wooded areas, along streams or lakes (areas of more intensive interest). These trails would be connected with the overall trail system, although certain sections would be limited to pedestrians by use of steps or other barriers. It can be used as an interpretive or self-guiding trail, while providing access to activities.

"Pedestrian Trails" provide access, not to mention interesting walks, to various activities to and from the parking lot.

"Bicycle/Major Trail" (no obstacle/paved) will be along Mount Vernon Highway which will connect with existing paths and Stillwell Avenue.

Designated trails could provide service access.

3. Bicycle Moto-cross (BMX) 'Track' - A dirt track approximately 1/4 mile long will be used for official competition of bicycles and for "practice" by local children.

The track would have a series of obstacles as recommended by the NPSA and should be well screened from surrounding activities. The track should also have parking space and road access. Support facilities would include a short tower (for official observation) a "pit" area, along with other viewing areas.

4. PLAY APPARATUS AREA: Designed for children in the "mobile" stage, (ages 4 through 13) enabling them to run, jump, slide, climb, crawl, roll, hang, etc.

Its location will be in the central area adjacent to many adult activities. This way, children can amuse themselves with limited supervision. The area could make use of equipment for creative use. Landforms could be used extensively for play.

5. SKATEBOARD TRACK - Set up for challenging the skill of the skateboard artist without the danger of automobiles.

The track would be about 1,000' of concrete averaging 36" in width. The surface should be smooth (troweled) with banked curves and bumps as obstacles. Its location requires a long slope.

6. PLAYING FIELDS - These would be used for more formal games, for instance, club competition in baseball, softball, football and soccer.

All fields should be located to provide well drained grass surface for play. Play field requirements are as follows:

- o Softball Diamond: Should have 60' baselines along with a "skinned" area of a 70' radius from the pitchers mound. An allowance of 280' should be left from the batter to the nearest obstacle in the outfield, lighted.
- o Baseball Diamond: Should have 90' baselines along with a "skinned" area of a 95' radius from the pitchers mound. An allowance of 280' should be left from the batter to the nearest obstacle in the outfield, lighted.
- o Little League Baseball Diamond: Should have 60' baselines along with a "skinned" area of a 50' radius from the pitchers mound. The outfield fence should be 2' - 6' high and 175' from the batter. Earth viewing mounds should be made along foul lines, lighted.
- o Football/Soccer: Two (2) fields with a minimum of 200' x 340'. Could serve for both games. Includes goal posts. One field should be lighted.

7. TENNIS COURTS - Designed for doubles and singles tennis matches. They will have asphalt surfaces on raised/stabilized fill, oriented N-S with adequate wind screening.

The courts will be in two (2) "blocks" of four (4) each for economy and drainage. They will be standard size 36' x 78' courts with 12' between each and 15' behind the base lines. Nets and lights need to be provided for all courts.

Practice Courts - both will be equivalent in size to one court with two (2) 8' x 24' masonry backboards for practice.

8. MULTI-USE COURTS - These courts provide a hard surface with nets for man to man basketball games or for full court competition.

The court will have an asphalt surface measuring 84' long and 50' wide with four (4) basketball nets centered on each end, lighted.

9. SWIMMING POOL - The pool will have a capacity of up to 400 people for such activities as swimming and diving. A permanent structure or other cover should be provided to allow for yearround use. The pool should be at least 50 m. x 20 m. enclosed with an outdoor deck of 10,000 sq. feet. The support facilities should include: locker rooms (male/female), toilets, showers, as well as a control desk, and lifeguard and first aid station. The barn could provide suitable location for these facilities.
10. CONCESSION - Set up to sell small food items along with some short order food for people using the park and swimming pool.

The concession could be located within the barn which has access to the pool deck (inside fenced in control area) as well as access to the main entrance.

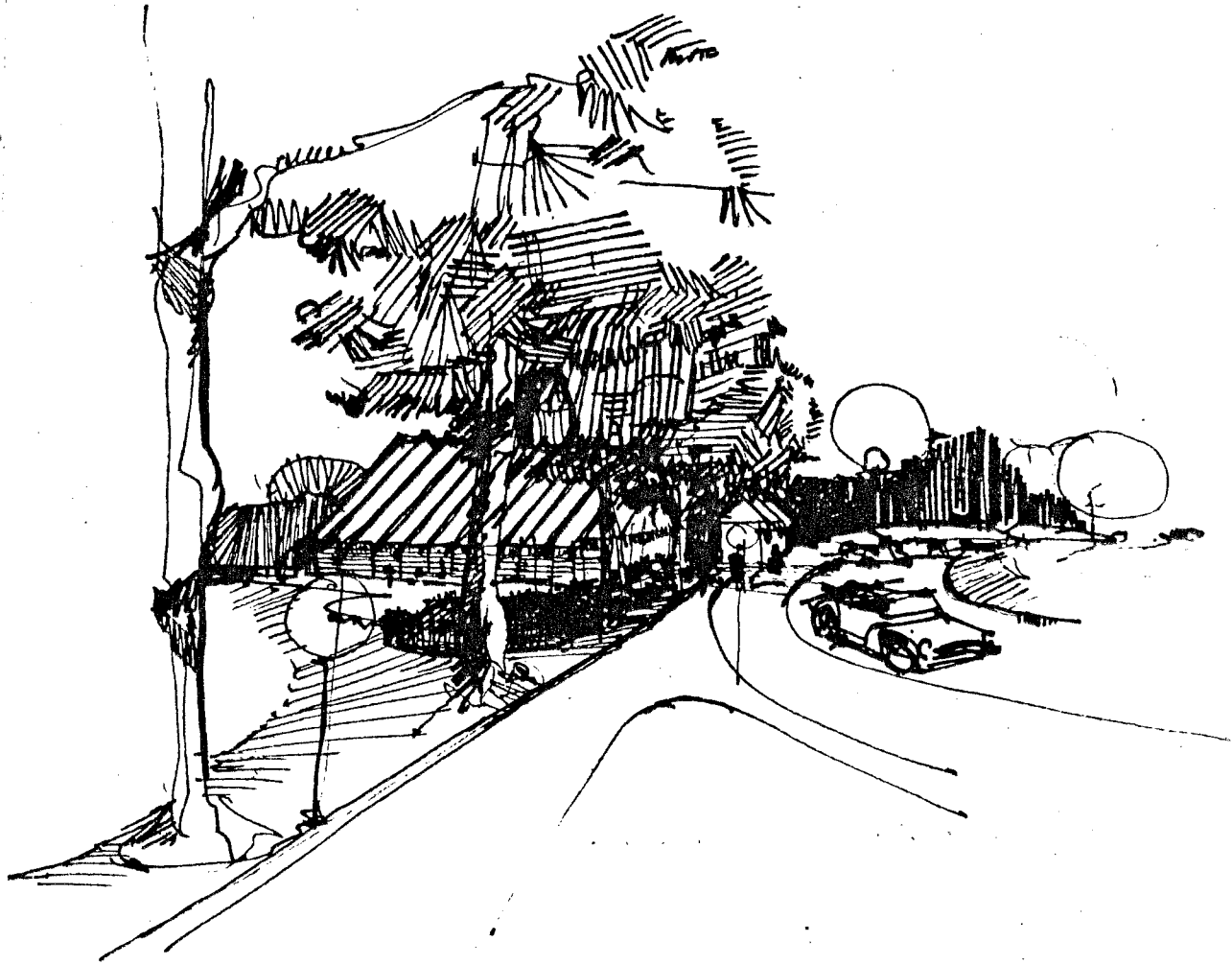
11. COMMUNITY CENTER - Its purpose is to provide adequate space for large gatherings, dances or exhibitions. The upper floor of the barn is well suited for this kind of use.
12. RESIDENT'S APARTMENT - Living facilities for resident manager, located in barn.
13. REST ROOMS - These need to be located where it is isolated from the bathhouse, yet in the center of activities. It should include several sinks and toilets along with a drinking fountain. Limited concessions could be at this location.
14. PARKING - Adequate parking is needed to provide for users of various activities.

It must be concentrated for economy, yet allowing for shade and easy access to activities. This can be easily done by screening with evergreens and low earth berms from the entrance and surrounding areas. What must be avoided is the "supermarket" lot effect. Provisions should be made for about 370 spaces all total.

15. RECREATION LAKE(S) - The water serves as a focal point for picnics, small boats, model boats, nature study, fishing and passive activities.

The lake(s) should be dredged as well as dammed to provide needed fill, which also helps to define the shore of the lake.

16. PICNIC AREAS - Screened areas with shade are needed for picnics. A small scale of one table and one fire pit for each site is suitable. There should be a total of 15 such sites.



C. MASTER PLAN: CONCEPT/DESCRIPTION

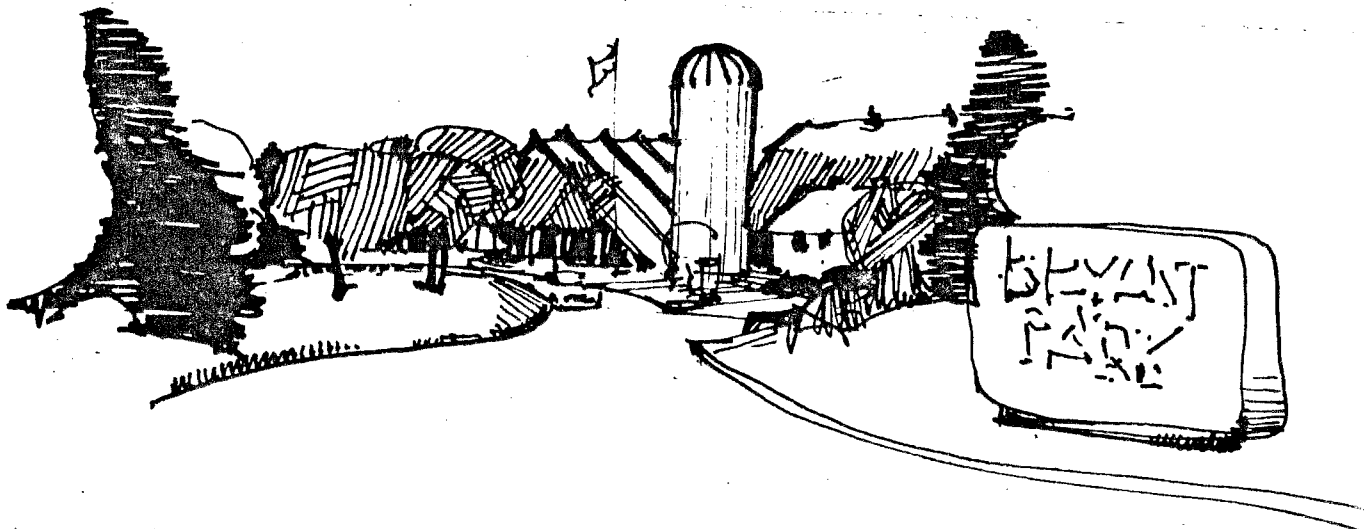
The concept and form of the master plan are direct responses to the area's recreational needs, site amenities and site limitations. The presence of such a large open tract of land in a densely populated area offers the potential for a wide variety of recreational uses. A natural screen of trees boarding nearby subdivision also enhances the possibility of varied uses.

Existing conditions of poor drainage and proximity to Mount Vernon Highway are site features which have to be effectively dealt with before a successful plan can be developed.

After determining recreational needs, these needs were applied to site features and conditions with the following results:

- o A central activity core was created near Mount Vernon Highway. This core includes the most intensive activities. Proceeding out from the central core activities becomes less intensive. By this arrangement, conflicts of noise circulation etc. between activities are reduced. It also offers the advantage of placing the least intensive activities on the perimeter of the site close to neighboring subdivisions.
- o Problems of poor drainage conditions and lack of vertical relief are improved through grading and the creation of lakes and earth Berms.

The plan is an attempt to preserve the open space character of the site and enhance its natural features. As a community oriented park, it should satisfy most of the recreational needs of the residents of the Mount Vernon area.



IV. PHASING

In order to maximize the investment of the Park Authority in this land, activities should be developed as related to need. The following sequence of implementals is recommended:

PHASE I - Western Portion of Site

1. Initially the entrance road and a portion of the parking lot could be built. The lake could be dredged and the trails can be established. At least four of the tennis courts could be built. All grading performed and infrastructure installation should take place at this time. Partial renovation of barn for administration should be performed at this time.
2. Next, one football and one softball field, along with the multi-use courts can be developed. This can be followed by at least some of the playground equipment.
3. Once the swimming pool has been constructed, the parking lot along with the service road and support facilities would be completed.
4. Finally, the last four tennis courts, playing fields, the general upgrading of the trails and planting would bring the park to completion.

PHASE II - Eastern Portion of Site (Contingent upon purchase)

1. Lake construction, grading and infrastructure.
2. Construction of road and pedestrian trails - followed by little league diamond and football field.
3. Development of nature trail, skateboard track and/or the BMX track, dependent upon demand.

BRYANT FARM PARK -- FAIRFAX COUNTY, VA

(JOB # 58A)

COST ESTIMATE: PHASE I

<u>Description of Work</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
Earth Work: Excavation of top-soil with scraper, strip and store, redistribute and compaction (excavated from lake)			
o Tennis Courts	6,000 CY	3.20 CY	15,000.00
o Berms	1,200 CY	3.20 CY	3,000.00
o Dam	1,050 CY	3.20 CY	2,625.00
o Playing Fields (1 soccer, 1 football, 2 baseball, 2 multipurpose)	9,544 CY	1.60 CY	15,270.00
Sub-Surface Drainage -Tennis Courts			
o 3" perforated tile @ 8' o.c.	7,200 LF	1.05 LF	7,260.00
Site Surveying		L.S.	5,000.00
Sewers			
o Connections from M.H. 4 to barn; 8" pipe	1,600 LF	10.15 LF	16,240.00
Site Utilities -Electric: 480 Volt service, direct burial PVC pipe, trenching included, with rock clause. Bonding - not included, power company fees - not included.			
o Baseball - 1 field		L.S.	40,000.00
o Tennis - 9 courts, 33 poles, 66 1500 watt quartz fixtures, 9 timing devices.		L.S.	30,920.00
o Football /Soccer - 1 field Six 80' steel towers with concrete base. Sixty 1,000 watt metal arc lamps (10 per tower)		L.S.	62,000.00

<u>Description of Work</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
Multipurpose - 2 Fields		L. S.	6,590.00
o 24' poles; 2000 watt quartz lamp fixtures			
Parking Lot		L. S.	15,000.00
o 30 4' poles with 175 watt mercury vapor lamp fixtures.			
Plantings			
o Shade trees	80	150.00	12,000.00
o Conifers - Screening	125	85.00	10,625.00
o Shrubs	50	15.00	750.00
Turf			
o Fine grading and seeding, including Lime, fertilizer, seed; using equipment.	82,280 SY	.67 SY	55,127.00
Surfacing: Roads			
o Grading	933 CY	3.20 CY	2,985.00
o Gravel Basecourse	1,867 SY	1.50 SY	2,800.00
o Bituminous surface and Sub-base	1,867 SY	5.50 SY	10,268.00
o Curbs - Precast concrete	1,600 LF	5.00 LF	8,000.00
Surfacing, Parking Lot - 230 spaces			
o Grading	3,833 CY	3.20 CY	12,266.00
o Gravel Basecourse	7,666 SY	1.50 SY	11,499.00
o Bituminous Surface with Sub-base	7,666 SY	5.50 SY	42,166.00
o Curbs, Precast concrete	2,500 LF	5.00 LF	12,500.00
Surfacing - Walks			
o Grading	1,297 CY	3.20 CY	4,151.00
o Gravel Basecourse	2,594 SY	1.50 SY	3,891.00
o Concrete, 4' wide	14,800 SF	1.10 SF	16,280.00
o Bituminous, 3' wide	8,550 SF	.40 SF	3,420.00

<u>Description of Work</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
Athletic Fields- Tennis Courts -9			
o Grading	3,000 CY	1.60 CY	4,800.00
o 4" base, VDH #210	6,000 SY	2.20 SY	13,200.00
o Level Course	6,000 SY	4.50 SY	27,000.00
o Surfacing	6,000 SY	2.25 SY	13,500.00
o Color Coating	6,000 SY	2.25 SY	13,500.00
o Line painting - 9 Courts	9 CTS	200.00/CT	1,800.00
o Practice backboards (2) 20' x 12'	2	1,411.00	2,822.00
o Posts for nets, pulley and reel, metal fence	8 CTS	400.00/CT	3,200.00
o Chain link fence	1,400 LF	.10.50 LF	14,700.00
Multi-Purpose Courts - 2 (Grading included with Earth Work)			
o Gravel Basecourse	888 SY	1.50 SY	1,332.00
o Concrete Surfacing	8,000 SF	1.10 SF	8,800.00
o Backboards	8	610.00	4,880.00
o Color Coating	888 SY	2.25 SY	1,998.00
Athletic Equipment			
o Apparatus for play area		L.S.	4,000.00
o Goalposts - convertible soccer/football	2 PR	900.00/PR	1,800.00
o Bike racks, 10' long	1 PR	300.00/PR	300.00
o Pool equipment		L.S.	2,500.00
Chain Link Fence - 6'			
o West property line	1,864 LF	7.00 LF	13,048.00
Building Construction			
o Barn - Renovations	9,600 SF	25.00 SF	240,000.00
o New structure - Restrooms adjoining tennis courts	300 SF	45.00 SF	13,500.00
Swimming Pool - 164' x 67'			
o With 'Natatorium' (200'x 100') including all material, labor, installation - By "Paddock"		L.S.	227900 1,200,000.00
o With exposed aggregate deck	10,000 SF	1.50 SF	15,000.00

<u>Description of Work</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
Miscellaneous			
• Picnic facilities; each site with table, grill, trash can	5	270.00	1,350.00
• Trash Cans - additional	6	80.00	480.00
• Fire Hydrant	1	980.00	<u>980.00</u>
		TOTAL, PHASE I	<u>\$2,032,123.00</u>

COST ESTIMATE -PHASE II

<u>Description of Work</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
Earth Work: Grading, ex-cavation of topsoil with scraper, strip and store, re-distribution and compaction.			
o Berms	1, 100 CY	3.20 CY	3, 520.00
o Little League	3,300 CY	1.60 CY	5, 280.00
Lake		L.S.	3, 000.00
Surveying		L.S.	3, 000.00
Site Utilities - Electric: 480 volt service, Direct burial PVC pipe, trenching included, with rock clause Bonding - not included, power company fees - not included.			
o Baseball field - 1		L.S.	40, 000.00
o Parking Lot - 30 14' poles with 175 watt mercury vapor lamp fixtures.		L.S.	15, 000.00
Plantings			
o Deciduous Shade Trees	60	150.00	9, 000.00
o Conifers, Screening	75	85.00	6, 375.00
Turf			
o Fine grading and seeding including lime, fertilizer and seed; using equipment	72, 600 SY	.67 SY	48, 642.00
Surfacing : Roads			
o Grading	1, 516 CY	3.20 CY	4, 851.00
o Gravel Basecourse	3, 033 SY	1.50 SY	4, 550.00
o Bituminous surface with Sub-base	3, 033 SY	5.50 SY	16, 681.00
o Curbs, precast concrete	2, 600 LF	5.00 LF	13, 000.00
Surfacing: Parking (140 spaces)			
o Grading	2, 333 CY	3.20 CY	7, 465.00
o Gravel Basecourse	4, 666 SY	1.50 SY	6, 999.00
o Bituminous surface with Sub-base	4, 666 SY	5.50 SY	25, 666.00

<u>Description of Work.</u>	<u>Amount</u>	<u>Cost per Unit</u>	<u>Cost</u>
		\$	\$
o Curbs, precast concrete	1,600 LF	5.00 LF	8,000.00
Surfacing - Walks			
o Grading	508 CY	3.20 CY	1,625.00
o Gravel Basecourse	1,015 SY	1.50 SY	1,522.00
o Concrete, 4' wide	4,850 SF	1.10 SF	5,335.00
o Bituminous, 3' wide	4,300 SF	.40 SF	1,720.00
Skateboard Track - 3' wide			
o Grading	166 CY	3.20 CY	531.00
o Gravel Basecourse	333 SY	1.50 SY	500.00
o Concrete Surface	3,000 SF	1.10 SF	3,300.00
Bike Moto-Cross Track			
o Dirt surface, 1/4 mile long		L.S.	2,000.00
Little League Baseball Field			
o Chain link fence - Outfield	275 LF	5.00 LF	1,375.00
o Backstop - 40' wide x 15' high		L.S.	1,110.00
Picnic Facilities			
o Each site with table, grill, trash can	10 Sites	270.00/Site	2,700.00
o Trash cans - additional	3	80.00	<u>240.00</u>
TOTAL - PHASE II			<u>\$242,987.00</u>
TOTAL - PHASE I AND PHASE II			<u>\$2,275,110.00</u>

MAINTENANCE COSTS - BRYANT FARM PARK
*FY 1975 Dollars

SECTION 1 (Area presently owned by FCPA)

	<u>Annual Cost</u>
Community center w/indoor pool	\$300,000.00
Parking lots (230 cars)	\$ 1,573.00
8 (lighted) tennis courts	\$ 7,012.00
2 multi-use courts (lighted)	\$ 1,034.00
2 football/soccer fields	\$ 1,468.00
2 lighted baseball fields	\$ 12,536.00
Play apparatus area	\$ 1,126.00
Rest room/concession	\$ 4,000.00
Picnic area	\$ 702.00
Lake (7 ac.)	\$ 2,000.00
Historic - nature trail (asphalt)	\$ 452.00
Asphalt trail and walks	\$ 692.00
TOTAL	\$332,188.00/year

SECTION 2 (total site)

Community center w/indoor pool	\$300,000.00
Parking lots (365 cars)	\$ 2,642.00
8 lighted tennis courts	\$ 7,012.00
2 multi-use courts (lighted)	\$ 1,034.00
2 football/soccer fields	\$ 1,468.00
3 lighted baseball fields	\$ 18,804.00
Play apparatus area	\$ 1,126.00
Rest room/concession	\$ 4,000.00
Picnic area	\$ 702.00
Lakes (2)	\$ 4,000.00
Open play area (10 ac.)	\$ 3,796.00
Bike motocross	\$ 1,000.00
Skateboard track	\$ 500.00
Historic nature trail	\$ 1,113.00
Asphalt walks and trails	\$ 1,392.00
TOTAL	\$348,589.00/year

COST VS BENEFITS

In a development of this type, it is difficult to put an exact dollar value on the benefits people would derive from its implementation.

However, it is possible to determine the approximate cost per resident or park user and relate that figure to the possible non-monetary benefits that each person affected by the park would receive.

As listed in the previous section, the cost estimates for completion of the entire park are:

<u>Phase I</u> - facilities on land presently owned by FCPA	\$2,032,000
<u>Phase II</u> - entire 80 acre site	<u>\$ 242,987</u>
Total	\$2,275,110

The total population of the immediate area which would be served by the park is 10,910, therefore, the approximate cost per potential user would apparently be $(\$2,275,110 \div 10,910) = \$22,751$. However the major item included in the total cost is the indoor swimming pool which would serve a much greater segment of the County population. Other facilities such as the lakes, bike moto-cross track, etc. would be destination type facilities which would serve people throughout the southern portion of the County to varying degrees. Thus the per capita costs must be derived from a much larger population segment than just the immediate area.

The benefits derived from such a development are many and somewhat abstract, but can be generally classified as follows:

1. Recreational activities which foster physical and mental health.
2. Preservation of open space for:
 - a. Aesthetic qualities
 - b. Flora and fauna preservation
 - c. Air quality
3. Establishment of community and family ties.
4. Soil and water conservation.

**Wakefield
Park
Maintenance
Building**

F.C.P.A. No.4596

October 25, 1974

**Abrash & Eddy
Architects**