

**PRELIMINARY
MASTER
PLAN
REPORT**

**FAIRFAX COUNTY
PARK AUTHORITY**

APRIL 1981

POPES HEAD PARK

MASTER PLAN REPORT

OF

POPES HEAD PARK

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I. INTRODUCTION

A. MASTER PLAN

Master planning is the process of arranging man-made and natural objects on the land in an orderly fashion so as to create an orderly and functional park. A master plan is a guide and can be changed. Master plans are made for each park before any construction is done. Development of the facilities on the master plan may take place over an extended period of time, (five, ten or more years), depending on the size of the park and funds available for development.

B. PARK CATEGORIES

The existing and proposed system of Fairfax County parks attempts to establish full opportunity for all residents and visitors to make constructive use of their leisure time through the provision of recreational and cultural programs within safe, accessible and enjoyable parks. Additionally, the park system serves as the primary public mechanism for the preservation of environmentally sensitive land and water resources and areas of historic significance. Parklands to be acquired shall usually be classified in one of the following categories: community park, district park, county park, natural and passive park, stream valley park, and historical park. However, the list is not restrictive since citizen needs, both present and future, may require acquisition of combination park types or ones that differ from all of the categories listed above. All of these park categories are important in a well-rounded park system and must be provided if Fairfax County is to continue to provide a desirable living environment for its citizens.

C. COMMUNITY PARK

A community park, the most frequently occurring park category, is designed to provide for daily relief within an urban setting. Community parks are therefore oriented towards a few hours of activity for passive or active purposes. They are designed to emphasize short term visits and are convenient and often accessible by foot or bicycle for after school, after work or weekend activities with limited or no parking. Community parks are the smaller ones serving the County's numerous neighborhoods and generally range in size up to twenty-five acres. Facilities often provided in fully developed community parks may include playgrounds, tot lots, athletic fields, open play areas, basketball courts, benches, walks, gardens, picnic areas, tennis courts, shelters with restroom/concession facilities, parking, trails and lighting where necessary. Passive uses can often be accommodated in wooded areas.

D. OBJECTIVES

The objectives of this master plan report are:

1. To plan the most appropriate use (s) of the site
2. To outline the information base used in the planning

E. PLANNING PROCESS

The phases of the planning process by which this park was master planned are:

1. Systematic analysis of on-site and off-site factors
2. Solicitation and evaluation of citizen and County recommendations for development
3. Production of a master plan.

This report is intended to supplement the master plan in explaining the methodology and rationale which went into the design of Popes Head Park.

F. LOCATION AND DESCRIPTION (FIGURE 1)

Popes Head Park is located in the Springfield Magisterial District (tax maps 67-3, 67-4) on Popes Head Road, about two miles west of Ox Road. Its 72 acres are divided by Quiet Brook Road into two major parcels: the 57 acres east of the road and the 15 acres to the west. The subdivisions of Popes Head Estates, Colchester Meadow, Quiet Brook, and Colchester Heights lie around the park.

II. SITE ANALYSIS

A. OFF SITE FACTORS

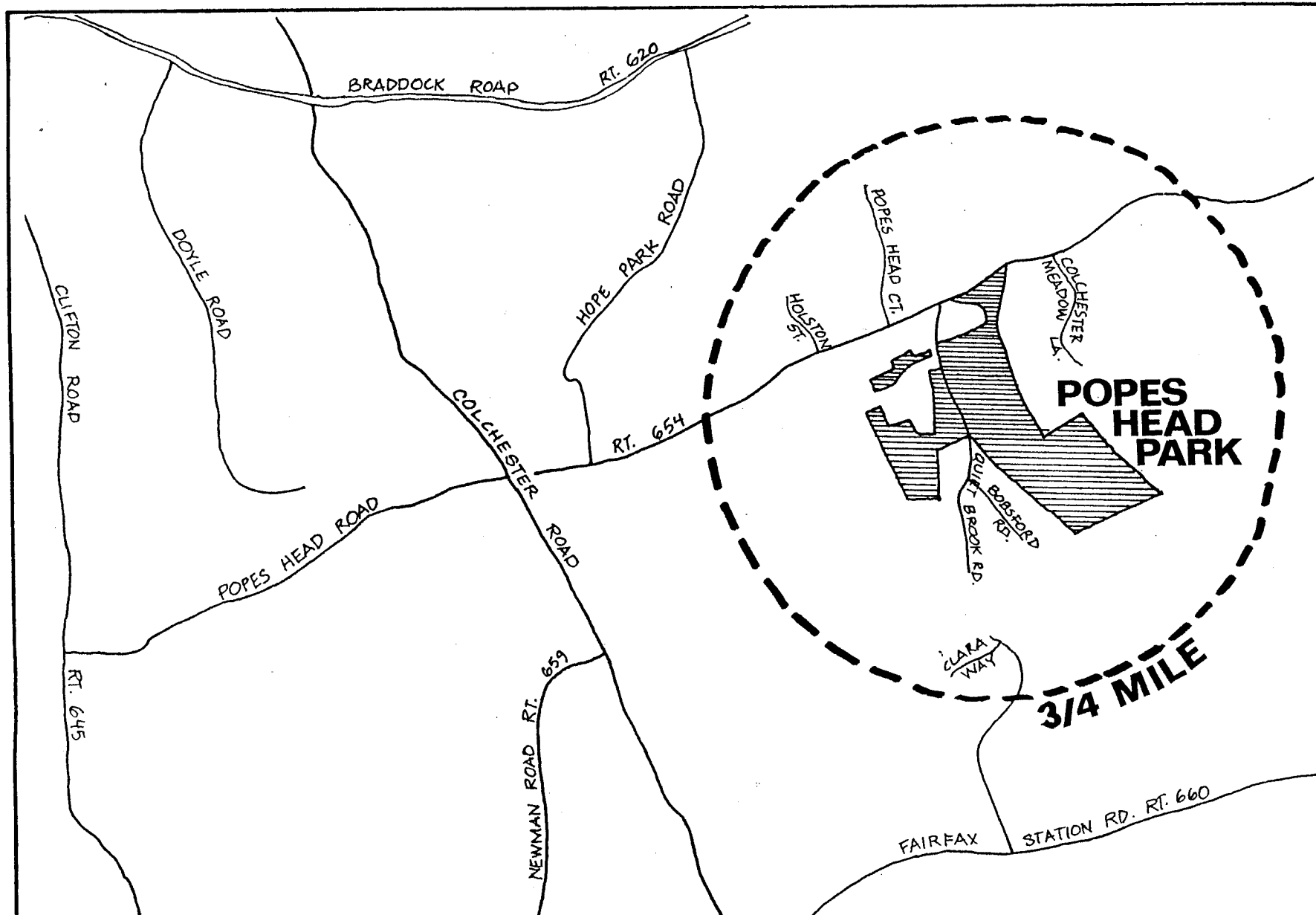
1. Access

Vehicular access is from Popes Head Road to Quiet Brook Road and an unimproved road serving the Police Training Center.

Pedestrian access is possible from Popes Head Road. The Countywide trail plan proposes a trail along the north side of the road passing the park.

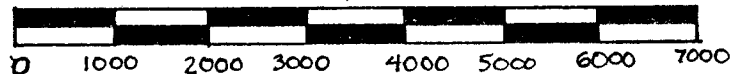
2. Fairfax County Comprehensive Plan (figure 2)

The County's Comprehensive Plan for the Pohick Planning District, Pl (Twin Lakes Community) Planning Sector,



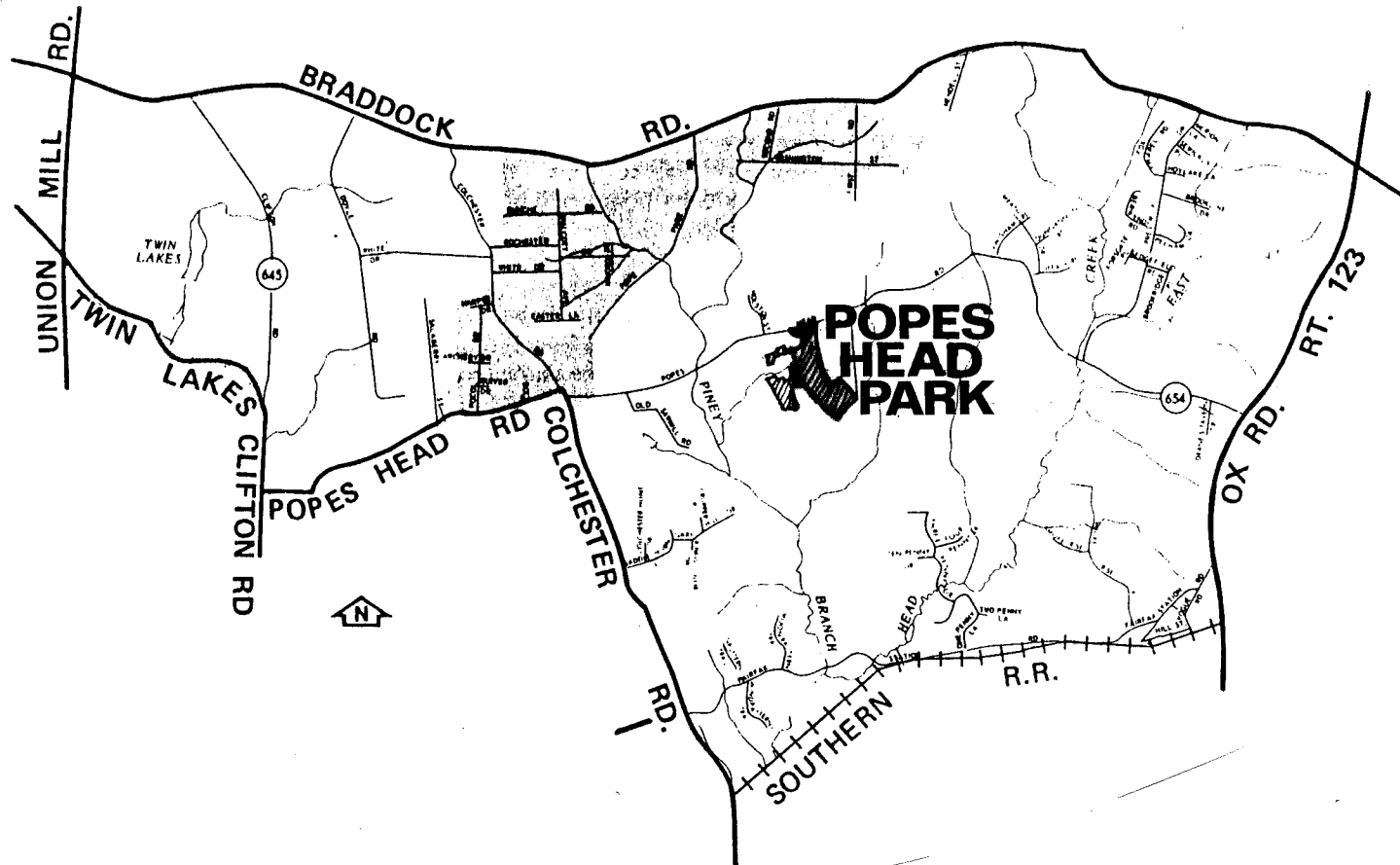
Location Map POPES HEAD PARK

SCALE IN FEET



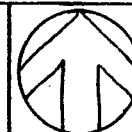
1

P1 TWIN LAKES COMMUNITY PLANNING SECTOR



**Comprehensive Plan
POPES HEAD PARK**

NO SCALE



2

recommends that improvements be made to Popes Head Park.

3. Existing Land Use (figure 3)

Land use around the park is primarily scattered, large lot residential - Popes Head Estates and Colchester Meadow are north and east of the park, respectively; Quiet Brook lies to the south and Colchester Heights is to the north-west. The Police Training Center and Firing Range is located south of the site. The Fairfax County Police Association's facility is to the northeast on 7.6+ acres of land leased to the Association from the Board of Supervisors. West of the site are open fields. Three-fourths of a mile west, off Popes Head Road, is Hope Park Mill and Miller's House (early nineteenth century flour mill and house). This complex is included in an Historic District which protects it from the pressures of development nearby. The complex is listed in the National Register of Historic Places, which is the official list of the Nation's cultural resources worthy of preservation.

4. Zoning and Proposed Land Use (figure 3)

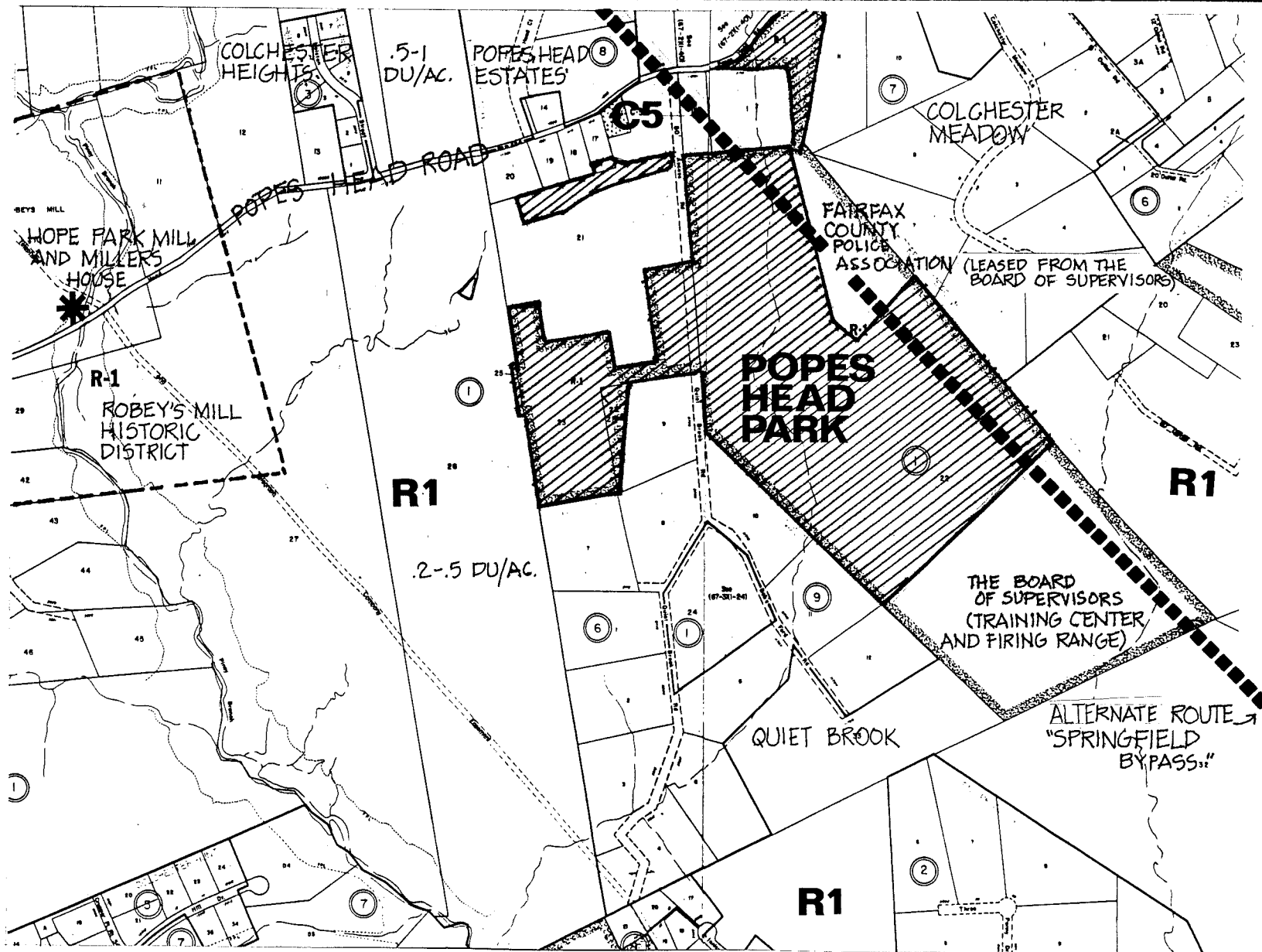
The land around the park is zoned R-1 Residential (1 acre lots). One parcel on Popes Head Road is zoned C-5 Commercial (neighborhood retail).

According to the Comprehensive Plan, future residential development north of Popes Head Road is to be .5-1 du/ac, while south of the road, is to be .2-.5 du/ac. This combined range represents nearly half (45%) of all planned land uses for the Pohick Planning District. A Historic District is planned for the quarter-mile-radius area around Hope Park Mill and Miller's House. At this time, planning studies are being conducted by the Virginia Department of Highways and Transportation to determine the route for the proposed "Springfield Bypass" 4-lane arterial. One possible alignment runs along the east property line of the park and crosses the park near the Police Association's facility.

5. Population

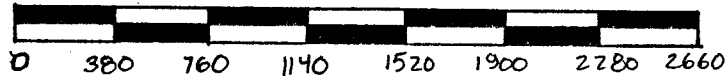
Area III, within which lies Pohick Planning District, is growing far more rapidly than the rest of the County - more rapidly in fact, than the County as a whole has ever grown. It is a very affluent, well educated area of the County as a whole, although there are significant differences between sections of the area. It is also a far more family oriented part of the County.

Because of the current sparse population within a 3/4 mile radius, population studies around the park were expanded out to a 1 1/2 mile radius. Current estimates (based on dwelling count) are 4365 people. Estimates for year 2000 for the same area project 7255 people. Ultimate planned capacity of this area is 8050 people.

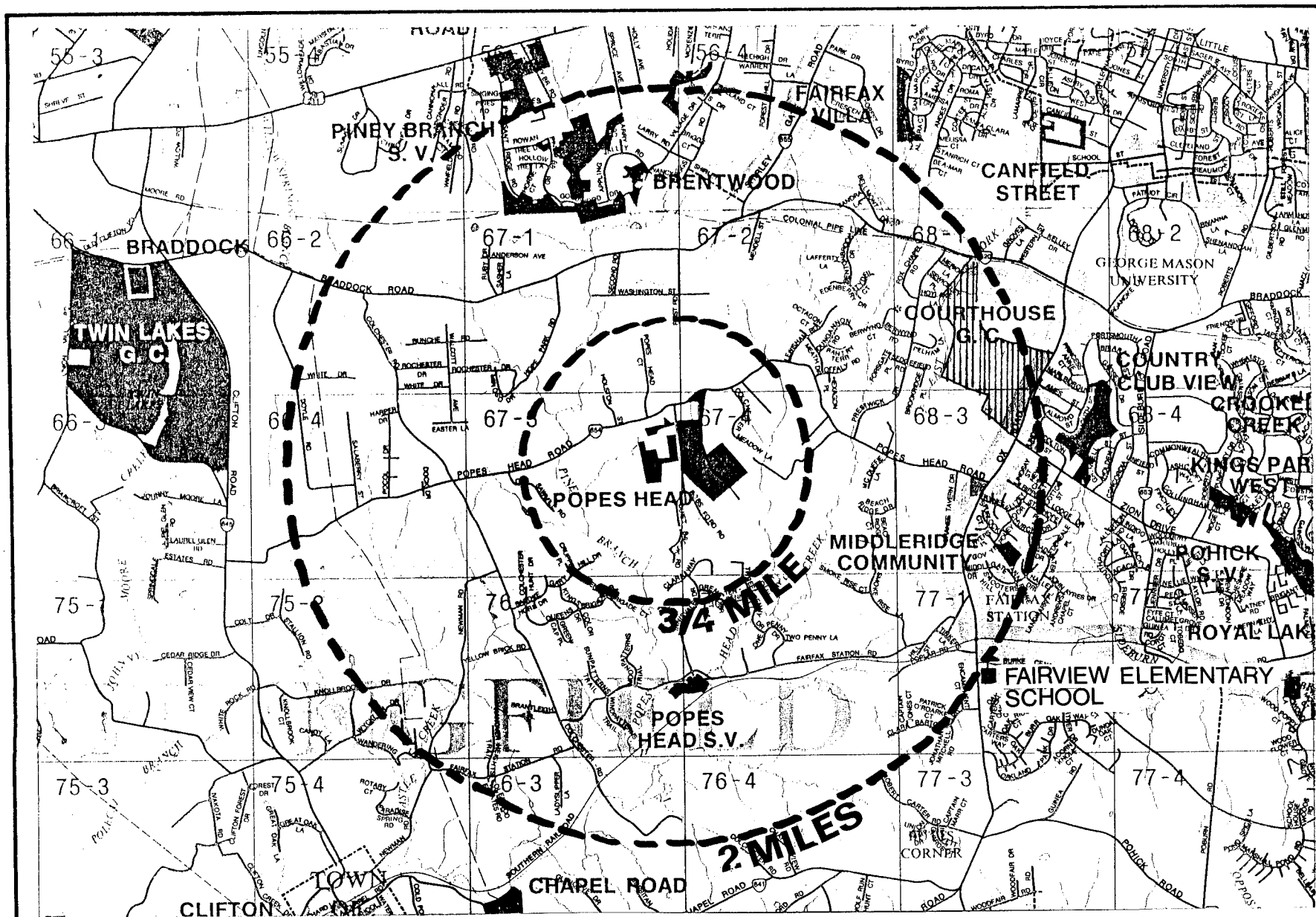


Zoning Map/Land Use POPES HEAD PARK

APPROX. SCALE IN FEET

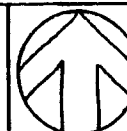
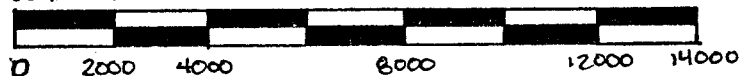


3



Nearby Parks/School **POPES HEAD PARK**

SCALE IN FEET



4

6. Nearby Parks and Schools (figure 4)

a. Parks

There are no other County parks within a 3/4 mile radius of Popes Head Park. However, there are several parks within a 2 mile radius of the site: Piney Branch Stream Valley Park, Brentwood Park, Middleridge Community Park, and Popes Head Stream Valley. Courthouse Golf Course (private country club) is also located within the 2 mile radius.

b. Schools

There are no schools within a 3/4 mile radius of the park. The closest school with recreation facilities is Fairview Elementary School on Ox Road, which is just over 2 miles away.

c. Facilities Summary

The following table indicates facilities currently available for public use within 2 miles of Popes Head Park:

| NAME | ACRES | FISHING | ICE SKATING (OUTDOOR POND) | UNDEVELOPED | APPARATUS AREA | BASEBALL/SOFTBALL | BASKETBALL | BLACKTOP | SOCCER FIELD | WATER FOUNTAIN |
|------------------------|-------|---------|----------------------------|-------------|----------------|-------------------|------------|----------|--------------|----------------|
| Brentwood Park | 9.6 | * | * | * | | | | | | |
| Middleridge Comm. Park | 5.9 | | | * | | | | | | |
| Piney Branch S.V. Park | 133.9 | | | * | | | | | | |
| Popes Head S.V. Park | 7.0 | | | * | | | | | | |
| Fairview Elem. School | | | | | * | * | * | * | * | * |

7. Utilities

C & P Telephone currently has overhead service along Popes Head Road. Prince William Electric Cooperative provides service along Popes Head Road and down Quiet Brook Road. Overhead lines also traverse the eastern portion of the park.

Water service is available from Popes Head Road. There is no gas service; the closest available gas connection is at the intersection of Popes Head Road and Ox Road (10,000 linear feet away); there is no sewer service within the Popes Head sewer shed, nor is one proposed at this time.

8. Hydrology

The park is located within the Popes Head Creek watershed which drains into Bull Run and then to the Occoquan River. Popes Head Creek flows southward about one mile east of the park, and Piney Branch flows southward about $\frac{1}{2}$ mile to the west.

The environmental quality of the Occoquan Reservoir is deteriorating due to the effects of urban development elsewhere in the County. Best Management Practices for the control of sediment resulting from stormwater runoff or construction are being instituted to reduce this sedimentation. This policy establishes criteria for most effectively controlling sedimentation throughout the County, and particularly within the watersheds draining into the Occoquan Reservoir; the Popes Head Creek watershed is one such system. According to the Comprehensive Plan, measures are to be considered which will help preserve the environmental quality of this watershed.

Environmental Quality Corridors (EQC's) have been developed as the open space network for the County. These use the County's water resources as the core elements of the system. The Piney Branch EQC has been recommended for preservation, along with Popes Head Creek, as stated in the Comprehensive Plan.

B. SITE FACTORS

1. Existing Conditions (figure 5)

- a. Nike Area - The western portion of the park was once the location of a Nike missile launch facility. All above-ground structures have been demolished but the debris remains on site. The hard surface paving remains, although in a deteriorating state.

ACCESS

WOODED
STREAM
VALLEY

POPES HEAD ROAD

COLCHESTER MEADOWS

POLICE
RECREATION
BUILDING

ACCESS

OPEN FIELD

SCATTERED FILL MATERIAL
20'-30' DEEP
FIELD PLANT SPECIES WITH
SCATTERED TREES
NICE VIEWS OF VERY COLORFUL
WILDFLOWERS
MANY BERRIED BUSHES

The Board of Supervisors

POLICE FIRING
RANGE
DANGER

ACCESS



STUMP
BURIAL

10'-15'
DEEP

FILL AREA
WITH EXPOSED
CONCRETE PIECES
10'-15' DEEP

GRAVEL
PILE

CONCRETE
10'-20' DEEP

DENSELY
WOODED
AREA

VERY
SECLUDED-
NICE
BUFFER

STREAM VALLEY

HEAVILY WOODED-
DIFFICULT ACCESS, BUT NICE FROM INSIDE

DEMOLISHED
STRUCTURES

PAVED
AREA

GOOD CONDITION

DECOUR ESTATES

ACCESS

QUIET BROOK

QUIET BROOK ROAD

PAVED
AREA &
RUBBLE
PILES

MISSILE
SILOS

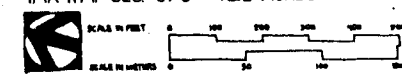
EXPOSED
CONCRETE AND
ASPHALT

CLUTTERED
WEDDING
ORNAMENTAL
PLANTING

OPEN FIELD

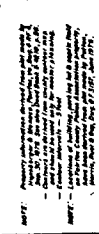
EXISTING CONDITIONS/ VISUAL ANALYSIS POPES HEAD PARK

FAIRFAX COUNTY, VIRGINIA
TAX MAP SEC. 67-3 • 72.2 ACRES • FEB 1981



5

NOTE: Property information derived from data made by
Hatch, Mott & MacDonald, Inc., dated May 1980, and
from the 1978 Fairfax County Tax Map. Contours are
derived from county engineer maps and should be used only for general planning.
NOTE: Contour intervals - 5 feet
NOTE: Locations of buildings, parking lot & picnic field
are Fairfax County Police Reservation property.
Large tree located near site made by Fairfax
County, dated May 1980, and May 1981.



- b. Stream Valley - The central portion shows no signs of use other than from existing foot trails and equestrian trails (for interim use).
- c. Landfill Area - The eastern portion was the location of a landfill operated by the Department of Public Works.

2. Slope and Topography (figure 6)

Nearly half of the site is comprised of slopes 5% or less. Both the landfill area and Nike area exist on slopes less than 5%.

The only substantial slopes occur in the stream valley which bisects the site. Areas of moderate to severe slopes (6% - 15% and greater) flank both sides of the floodplain. Slopes over 15% occur at the south corner of the site.

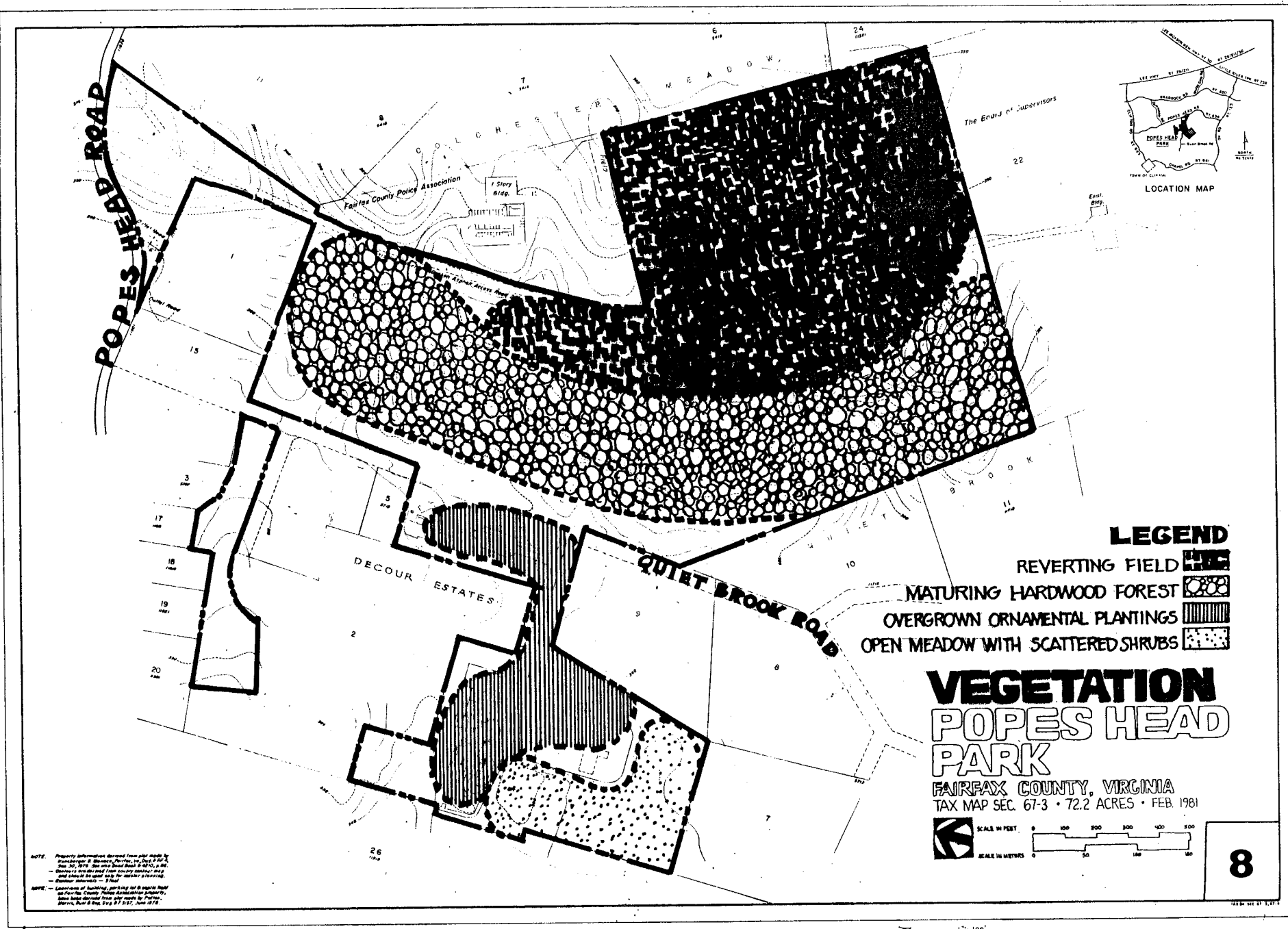
The highest elevation is at the northernmost corner of the site (380'); the lowest point is where the stream leaves the park (295'). Overall relief is approximately 85', however this is not characteristic of the site since these extremes are at the edges of the park. Most of the flatter areas lie between 360' and 330' (30' vertical drop). It is only in the stream valley that any appreciable topographic relief can be observed.

3. Soils (figure 7)

Seven soil conditions have been identified on the site. Six are soil types and one is landfill:

- a. Mixed Alluvial - This soil is derived from recent soil materials which have washed from the uplands and deposited along the smaller stream bottoms. It consists mainly of somewhat poorly and poorly drained soils and mixed soil materials, and is subject to frequent flooding. This soil is best adapted to permanent forests. It is very poor for septic tanks and road subgrade material.
- b. Meadowville Silt Loam - This soil is a deep, well to moderately well drained, fertile soil that is derived from recent colluvial materials which have washed mainly out of the Piedmont uplands. It occurs mainly in depressions at the heads of drains and along upper drainage ways; wet spots occur in places. Natural fertility and water holding capacity are moderate to high. It is poor for septic tank drainage fields and road subgrade materials.

- c. Manor Silt Loam - This soil is a strongly sloping, excessively drained, highly micaceous soil. In most places it does not have any subsoil, or only a very thin subsoil that is largely fine micaceous materials. Bed rock of hard schist is from 30 inches to 30 feet beneath the surface, being more than 20 feet in most places. Because of the steep slopes and porous subsoil it has a low water holding capacity. Its organic matter content is low. This soil is good to excellent for septic tank drainage fields, and poor for road subgrade materials. Steeper slopes are not as good for septic tanks.
- d. Glenelg Silt Loam - This soil is a well drained soil, occurring on favorable topography. Because of its good physical condition, it is one of the most productive soils in the county. It has a good water holding capacity. This soil is good to excellent for septic tank drainage fields and fair to good for road subgrade materials.
- e. Orange Silt Loam/Bremo-Orange Silt Loam
- Orange silt loam, is a moderately well drained soil that has a clay pan in the subsoil. It is less than 50 inches thick over hard bed rock in most places. The clay pan is usually less than 12 inches thick. The parent materials of weathered basic rock are usually very thin sandy clay loam and loams that break abruptly into hard greenstone rocks.
- Bremo-Orange Silt Loam is a unit that includes two soils that are closely associated and intricately mixed. The Orange soil is of minor extent in the unit and is similar to the Orange silt loam described previously. The Bremo soil in the unit is a shallow silt loam soil, usually about 15 inches thick over hard basic rock materials. In most places it has very little or no subsoil and usually contains angular stones and cobbles on the surface and imbedded in the soil layers.
- These soils are best suited for forest and permanent pasture. They are very poor for septic tank drainage fields and fair for road subgrade materials.
- f. Lloyd Loam - This is a deep, well drained soil, in most places it occupies positions between the Orange and Glenelg soils. It is good for septic tank drainage fields and road subgrade materials.



- g. Fill - This is material deposited in the old landfill, the composition and depth of the material is unknown. Some areas are believed to be 60' in depth, but this has not been verified. Needless to say, the fill areas should be considered as unknowns insofar as construction suitability, subbase suitability, or septic suitability is considered.

Preliminary field studies for septic suitability were conducted by a County soil scientist. These identified three possible areas: The eastern edge of the park, the central portion of the stream valley, and the western edge of the park. Any one of these were thought to be suitable for septic drainfield use, based on the tests made. In addition, a drainfield exists at the east corner of the Police Association property (Appendix A).

4. Hydrology

As stated previously the site is bisected by a tributary stream to Piney Branch, draining the area to the east. All surface runoff drains on site except at the southern corner where runoff crosses adjacent property. West of the stream is a drainage divide separating the water sheds for the tributary stream and for Piney Branch. This drainage divide parallels Quiet Brook Road and results in some offsite drainage along the western property lines.

5. Vegetation (figure 8)

Approximately half of the vegetation is in reverting fields - areas which were once landfill and are now revegetating through natural field succession. The stages of revegetation range from grasses to Virginia Pine. The stream valley is primarily a deciduous forest of large, mixed hardwoods with a very dense understory. Overgrown ornamental plantings and an open meadow with scattered shrubs occupy the Nike area (Appendix B).

6. Wildlife

Wildlife at Popes Head Park is typical for a reverting field ecosystem. Quail, songbirds, and voles have been observed at the site. These animals all benefit from the sources of food and shelter offered by the existing vegetation. (Appendix B)

7. Visual Analysis (figure 5)

Entrance to the Nike area is along a service road with large shade trees lining the side. Views are restricted until reaching the end of the road, when the visitor is exposed to a wide open tract (former missile launch sites) with views cross country to the south and west. A sense of enclosure is provided around a grove of trees north of the launch. From here there are views east, south and west to the surrounding country side and nearby houses.

The stream valley is characterized by dense hardwood forest over most of its area. In fact, one almost has a feeling of entering a wooded back-area after leaving Popes Head Road. At the entry to the Police Association facility, the woodland opens up visually to reveal the low-lying stream valley to the west. Once in the central section of the stream valley, there are no striking views, although one can see over the tree-tops in the stream valley to the Nike area.

The landfill area is open visually except near the Pines. The east park boundary is defined by a ridge with hardwood trees, but nearby houses are again visible through the trees. As with the stream valley spatial quality is of a large scale.

C. SUMMARY ANALYSIS

To summarize the findings of the Site Analysis, the following points should be considered:

1. Vehicular access is possible along Quiet Brook Road and the access road to the Police Training Center. Pedestrian access is possible from Popes Head Rd. and Quiet Brook Rd.
2. Existing adjacent land use is primarily large lot residential. Future adjacent land use is also low density residential. One possible alignment of the proposed Springfield Bypass being studied crosses the eastern edge of the park.
3. The present relatively low population of the Pohick planning district is expected to increase at a higher rate than for the County as a whole.
4. Within a 3/4 mile radius, there are currently no community serving school or park facilities.
5. Telephone and electric service is available at the park, as is water. There is no gas or sewer service presently available to the site.

6. The site is two-thirds relatively flat field (eastern and western portions) and one-third stream valley (middle portion). The stream valley is characterized by sloped banks and flood plain.
7. There are six soil types and landfill conditions identifiable at the park. Of these, three are suitable for septic drain fields and three are suitable for road subgrade material.
8. Approximately half of the site is covered with reverting field vegetation, and the other half is covered with deciduous forest. Wildlife typical for these habitats has been observed at the site.
9. Much of the site has an open character with views out of the park possible from several vantage points. The stream valley retains a "wild" character in contrast to the rest of the site.

D. CONCLUSIONS (figure 9)

1. Development Constraints

a. Off-Site Factors

Vehicular access from Popes Head Road may require improving the existing gravel and asphalt road now serving the Police Training Center and Firing Range south of the park. Planned improvements to the Police facilities should include a sign identifying the facilities, a vehicle gate to control unauthorized access from the park, and adequate fencing to protect park users from inadvertently entering the Police facility. These measures should be located along the property line common to the Park and the Police facility. In addition, maintenance of the entry road should be a responsibility shared by the Park Authority and the Department of Public Works. The presence of residential lots virtually surrounding the park creates a need to avoid park uses which might be incompatible with the community. Since community land use patterns are planned to be similar in the future, such consideration should also apply to ultimate park development.

One constraint due to planned land use is due to the proposed Springfield Bypass, which might be located along the eastern border. The Park Authority Board has approved the transfer of approximately 5.2 acres in this portion of the park to the Board of Supervisors for use in the construction of the Bypass. A reverter clause in the transfer agreement would re-transfer this land back to the Park Authority if it were not used for the intended purpose.

b. Site Factors

In the Nike area, slope and topography present no problems for park development. In the stream valley, slopes vary a great deal. Development of this area might be limited to passive activities. In the landfill area, some grading may be necessary for active recreation areas since the existing slope is not quite level enough for field sports.

The possibility of connecting a septic system into the existing drainfield on Police Association property must be ruled out if the proposed Springfield Bypass is constructed across it, so onsite treatment may be required. Soils present several site problems. First, due to the limited number of suitable soils, there are not many potential septic drainfield locations possible. With such a limited number, construction of a septic system may be costly if the drainfield is located a great distance from restrooms. Secondly, the drainfield location may be at a higher elevation than the restroom, which would require a pump (and increased operating costs). Finally a large portion of the landfill area is material of unknown composition. This places a restriction on grading and precludes major construction and underground electric service in the vicinity.

There are no scenic views from within the park. Plant screens may be necessary along portions of the park edge adjacent to private residences.

2. Development Potentials

Slope and topography are favorable for recreation activity. In the Nike area, two flat areas exist: one is around the launch sites, and the other is adjacent to Quiet Brook Road. Both are choice locations for field activity or court games. In the stream valley the slope is favorable for hiking. In the landfill area large areas of relatively flat land again favor active recreation.

The three locations for septic drainfields which were studied are each located in different portions of the park. This should permit a degree of latitude in determining the general location within the park for restroom facilities, if needed.

The extensively forested stream valley should be designated as a Managed Conservation Area.

III. PROGRAM DEVELOPMENT

A. DEVELOPMENT PREFERENCE SURVEY (QUESTIONNAIRE)

1. Response

In August 1979, 915 questionnaires were distributed to civic associations representing Colchester Hunt, Colchester Meadow, Pickwick Woods, Quiet Brook, Ridges of Glendilough, Ten Penny Woods, Smoke Rise, Old Saw Mill Area, The Patterns, Breconridge Woods, Oakbrook, and Lincoln/Lewis/Vannoy for both individual family response and civic association response. The results of the survey are as follows:

| | |
|----------------------------------|-----|
| Total questionnaires distributed | 915 |
| Questionnaires returned to FCPA | 101 |
| Percent returned | 11% |

Age Distribution:

| <u>Age</u> | <u>No.</u> | <u>Percentage</u> |
|------------|------------|-------------------|
| 0-5 | 37 | 10.4 |
| 6-12 | 63 | 17.8 |
| 13-20 | 58 | 16.4 |
| 21-45 | 135 | 38.1 |
| 45-60 | 55 | 15.6 |
| Over 60 | 6 | 1.7 |

| | |
|---|----------|
| No. of people requesting no development | 4 = 4% |
| No. of people requesting minimal development | 3 = 3% |
| No. of people requesting facility development | 94 = 93% |

2. Requests

Facilities requested most often are as follows:

| <u>Facility (Comments)</u> | <u>No. of Requests</u> | <u>Percent</u> |
|-------------------------------|------------------------|----------------|
| 1. Picnic area | 59 | 62 |
| 2. Tennis courts | 54 | 57 |
| 3. Restrooms | 49 | 52 |
| 4. Hiking/biking trail | 49 | 52 |
| 5. Swimming pool (write in) | 45 | 48 |
| 6. Basketball/multi-use court | 43 | 46 |
| 7. Nature trail | 42 | 45 |
| 8. Soccer/football field | 40 | 43 |
| 9. Horse trails | 35 | 37 |
| 10. Parking | 38 | 40 |
| 11. Softball/baseball field | 35 | 37 |
| 12. Open play | 35 | 37 |
| 13. Picnic shelter | 32 | 34 |
| 14. Tot lot | 32 | 34 |

| Facility (Comments) continued | No. of Requests | % |
|-------------------------------------|-----------------|----|
| 15. Play apparatus | 29 | 30 |
| 16. Horseshoe pits | 19 | 20 |
| 17. Skateboard track | 19 | 20 |
| 18. Riding Ring (write in) | 11 | 12 |
| 19. Shuffleboard courts | 14 | 15 |
| 20. Platform tennis | 14 | 15 |
| 21. Model airplane field | 11 | 12 |
| 22. Camping area (write in) | 3 | 3 |
| 23. Motocross track (write in) | 2 | 2 |
| 24. Fitness trail (write in) | 2 | 2 |
| 25. Nature center (write in) | 2 | 2 |
| 26. Roller skating track (write in) | 1 | 1 |
| 27. Fishing (write in) | 1 | 1 |

B. COMMENTS FROM COUNTY AGENCIES

The Police Assoc., Police, Fire and Rescue, Recreation and Community Services, and Comprehensive Planning Departments were contacted and asked to review the preliminary master plan. The only written respondent, Recreation and Comm. Services, requested that soccer practice fields be included (Appendix C).

C. REQUESTS FROM SPECIAL INTEREST GROUPS

Several organizations and individuals requested that the FCPA consider their particular needs in the program planning for the park:

1. Fairfax Police Youth Club - Requested permission to install one or two soccer fields on site (Dec. 1978). Permission not granted due to FCPA not owning property at the time; possibility for future interim use suggested, once property acquired by FCPA, but was not pursued by Youth Club.
2. Friends of Popes Head Park - Granted interim use of portions of park for equestrian activities (Sept. 1979).
3. Clifton Horse Society - Expressed interest in park for equestrian activities; urged that equestrian facilities be considered in master plan.
4. Virginia Radio Control Club - Provided informative material listing needs of sport and expressed interest in use of park for club activities (May 1980).
5. BMX (Bicycle Moto Cross) - Expression of interest from county resident with previous experience in organized races. He would like to see consideration given to including a BMX track in the park.

D. CAPITAL IMPROVEMENT PROGRAM

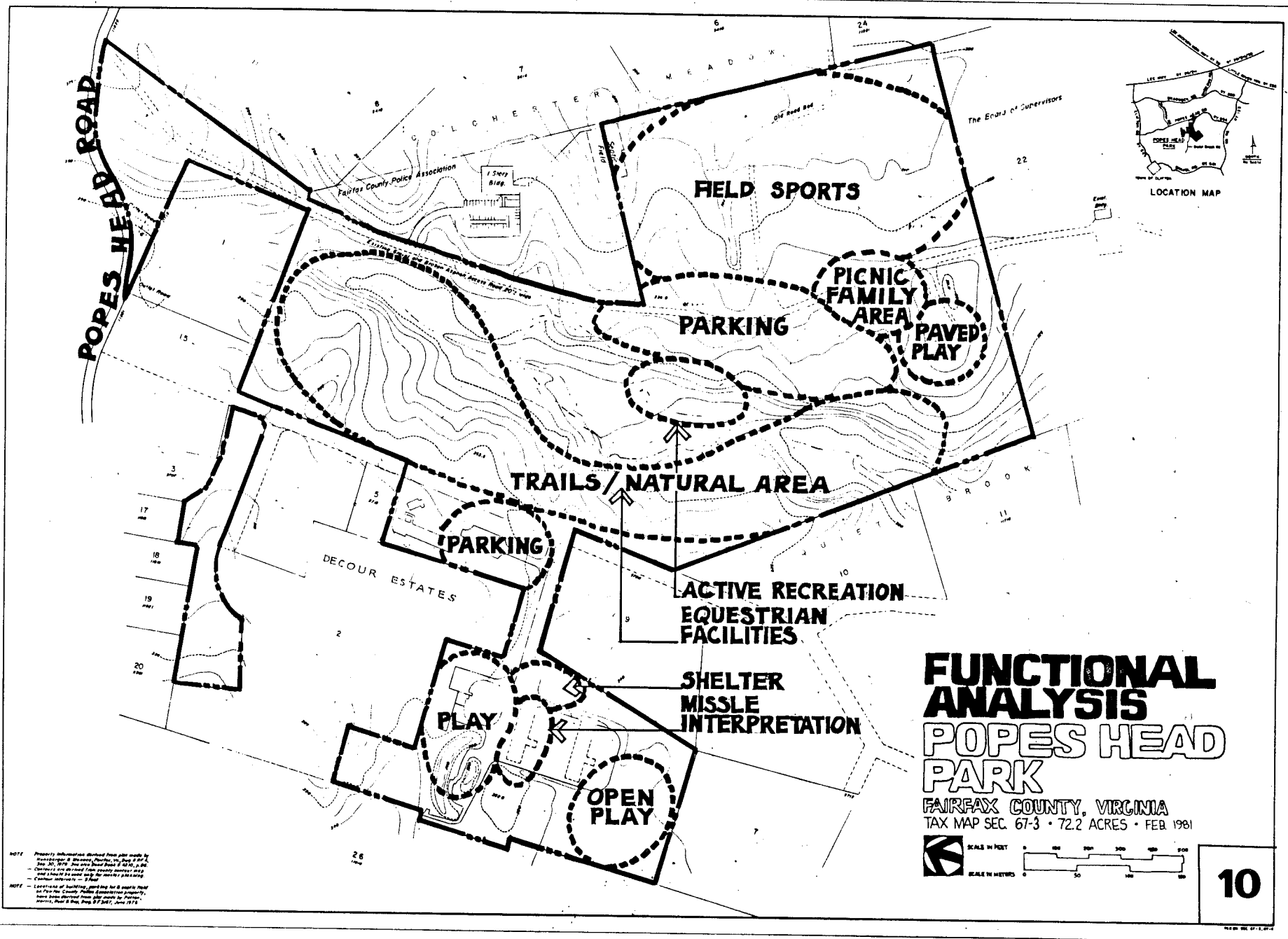
The 1977 Bond Referendum suggested development of ballfields, open play, picnic and playground areas, basketball and/or tennis courts, trails, landscaping and parking plus an adult area, shelter/restrooms and equestrian facilities.

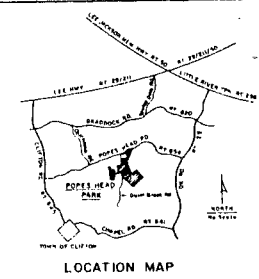
IV. PRELIMINARY MASTER PLAN

A. CONCEPT (Figure 10)

The concept for design of facilities at Popes Head Park is based on the evaluation of off-site and on-site factors and of program recommendations from citizens and County agencies. The concept presents the relationships of use areas to each other and to the site:

1. Nike Launch Area - The open character allows activities which are easily accommodated in cleared areas but do not require great amounts of flat open land. These activities can be active or passive, but need to be arranged so as to minimize user conflicts.
2. Stream Valley Area - The dense woods limits activities to those of a passive nature. Advantage should be taken of natural clearings for activities which can use them. The stream can be used as a natural barrier between conflicting uses.
3. Landfill Area - There is a large area of relatively open land suitable for active use (at the field sports scale) and passive use. Area is also available for expansion of access and parking to meet the needs of an active use area. Once again, proper separation of dissimilar activities is desirable.
4. Managed Conservation Area - Managed Conservation Area is a portion of the park site with special or unique characteristics, protected from intensive, active development and preserved for a variety of passive uses. These uses can range from total non-development of any facilities, to interpretive trails, to study areas for flora and fauna, and to passive recreational activities. Any one, or all, of a variety of use levels may be established within the area, depending on various factors.





LEGEND

- ① SOFTBALL/LITTLE LEAGUE FIELD (280')
- ② OPEN PLAY AREA (6 AC.)
- ③ SOCCER/FOOTBALL FIELD (360' x 225')
- ④ PHYSICAL FITNESS TRAIL (10 STATIONS)
- ⑤ CONTROL LINE AIRPLANE FLYING AREA (150' x 50')
- ⑥ PICNIC SHELTER/RESTROOM (30' x 50')
- ⑦ PICNIC AREA (1 AC.)
- ⑧A PARKING - 96 CARS
- ⑧B PARKING - 50 CARS
- ⑧C PARKING - 5 HORSE TRAILERS
- ⑧D PARKING - 25 CARS
- ⑨ BICYCLE MOTO CROSS
- ⑩ HORSE AREA (150' x 100')
- ⑪ TENNIS COURTS (2), PRACTICE TENNIS COURTS, SEATING AREA
- ⑫ SITTING PLAZA (100' x 100')
- ⑬ BASKETBALL COURT (85' x 50')
- ⑭ GAME COURT (85' x 50')
- ⑮ PLAY APPARATUS AREA (80' x 50')
- ⑯ INTERPRETIVE AREA/NIKE MISSILE SITE
- ⑰ OPEN SHELTER (20' x 30')

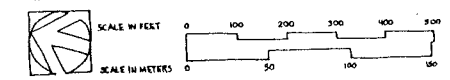
KEY

- PHYSICAL FITNESS STATION
- EQUESTRIAN TRAIL
- HIKING/JOGGING/BIKING TRAIL

NOTE: NO FACILITIES ARE LIGHTED

PRELIMINARY MASTER PLAN POPES HEAD PARK

FAIRFAX COUNTY, VIRGINIA
TAX MAP SEC. 67-3 • 72.2 ACRES • FEB. 1981



NOTE: -- Property information derived from plat maps for: Henderson & Sonnet, Fairfax, Va., Map 67-3, Sec. 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

B. PLAN DESCRIPTION (Figure 11)

The description of the planned elements comprising Popes Head Park is as follows:

1. Nike Launch Area

- a. Entrance - Vehicular entry is past vehicle gate, along entry road to 25-car parking lot. Removeable bollards prohibit further travel by unauthorized vehicle. Deciduous tree plantings provide desired "greening" of parking lot but do not obstruct vision beneath branches.
- b. Tennis Courts/Tennis Practice Area - Two tennis courts, a practice court, and a seating area are located at the end of the parking area. Evergreen screening is shown around the tennis court perimeter.
- c. Sitting Plaza/Play Apparatus Area - Located at the end of the service drive is a small sitting plaza with benches, game tables, and shade trees. A basketball court and a game court (for hopscotch, four-square, etc.) are shown adjacent to the sitting plaza. Located nearby is an open shelter. Just west of this complex is a play apparatus area, with play equipment for tots and older children. Evergreen screening is used near the basketball court as buffer planting.
- d. Interpretive Area - One existing Nike missile launch site is shown as a feature for an historical interpretive area. The area includes a conceptual representation of the above-ground launch facility. The underground chamber is to be filled and sealed off.
- e. Open Play Area - The open play area lies near the interpretive area. The second existing launch site is to be filled and covered with earth to increase the open play area. Deciduous and evergreen plantings within the area act as buffers to adjoining residential areas.
- f. Pedestrian Access - A portion of the hiking/jogging/biking trail provides a pedestrian link to the rest of the park.

2. Stream Valley Area

- a. Entrance - Vehicular entry to the major park facilities is provided from Popes Head Road and leads to parking areas near the landfill area.
- b. Stream Valley - The stream, its flood plain, and the surrounding wooded slopes are designated as the Managed Conservation Area. While serving as the area for the conservation of the site's natural animal and plant life, it also provides for passive uses. An equestrian trail loops along the hillside west of the stream. A hiking/jogging/biking trail circulates through the forest, crossing the stream twice on fairweather crossings. Trails connecting various portions of the park pass through the stream valley.

An informal horse area is located in a clearing off of Quiet Brook Road. This is not for organized events but rather for informal practice use by area equestrians. Limited parking for five vehicles/trailers is provided off of the park entrance. A trail connects the parking area with the horse area.

3. Landfill Area

- a. Parking - Space for 96 cars is provided to serve the softball/little league field, soccer/football field and picnic area. Space for 50 cars is provided for control line airplane activities, bicycle moto cross events, and overflow for other park facilities. Plant material provides desired greenery.
- b. Softball/Little League - A 280' graded field is shown north of the landfill. Deciduous and evergreen plantings provide necessary buffers from the parking lot.
- c. Soccer/Football - A 360'x225' field is shown atop the old landfill. Desirable slope conditions are attained by using compacted fill dirt. Again, plant material buffers are provided along the edges.

- d. Picnic Area - A picnic shelter/restroom is located adjacent to the soccer/football field and is accessible from the large parking area. New plantings are to provide a desired shaded area.
- e. Physical Fitness Trail - A loop trail with ten exercise stations is shown encircling the field sports area, taking advantage of new plant material to provide a pleasing environment for the trail.
- f. Springfield Bypass - A 200' wide area along the east boundary is shown for the "Springfield Bypass".
- g. Bicycle Moto Cross (BMX) - A dirt track for BMX racing is shown west of the entrance road. These tracks are generally serpentine courses with jumps and varied bank turns, used in non-motorized bicycle races by competing youths. The track takes advantage of the existing slope throughout its downhill course.
- h. Control Line Airplane Flying Area - A paved 150' x 150' area is located south of the large parking area for use by citizens who fly homebuilt or ready-to-fly model aircraft. This is strictly for control-line flying in a circular pattern within a relatively confined space.

C. USER LEVELS

The number of users is based on an examination of similar facilities in the region and from past experiences in planning recreational facilities. A user day is one person taking part in one activity on a given day; peak time can be considered to be 2:00 p.m. on a summer Sunday.

| Activity | No. User Days/Year | Estimated Vehicles/Yr. |
|--|--------------------|------------------------|
| Softball/little league | 12,600 | 4,000 |
| Open play | 730 | 232 |
| Soccer/football | 15,600 | 4,952 |
| Physical fitness trail | 3,380 | 1,073 |
| Control line airplane flying | 130 | 41 |
| Picnic area | 8,640 | 2,743 |
| BMX racing | 2,600 | 825 |
| Horse area | 160 | 51 |
| Tennis court | 5,250 | 1,667 |
| Tennis practice court | 875 | 278 |
| Basketball | 2,700 | 857 |
| Game court | 730 | 232 |
| Play apparatus | 1,000 | 317 |
| Interpretive area | 200 | 64 |
| Equestrian trail | 400 | 127 |
| Hiking/jogging/biking trail | 1,820 | 578 |
| Total Potential User Days/Year | 56,815 | |
| Total Estimated Persons/Year (1 person = 1.5 user days) | 37,877 | |
| Total Vehicles/Year (1 Vehicle = 2.1 persons) | | 18,037 |

1. Softball/Little League

Primary use is from organized leagues; based on a six month season, field used twice a day, 35 persons per game (not including spectators):
 $35 \text{ persons} \times 2 \text{ games} \times 180 \text{ days} = 12,600.$

2. Open Play

Due to randomness of use, accurate figures are difficult to determine: Assume 2 persons x 365 days = 730.

3. Soccer/Football

Primary use is from organized leagues; based on a six month season, field used 12 times per week for games or practice sessions, 50 persons per game (not including spectators)= $50 \text{ persons} \times 12 \text{ games/week} \times 26 \text{ weeks} = 15,600.$

4. Physical Fitness Trail

Primary use is related to organized field sports; based on six month season, along with regularly scheduled games, 5 persons per game (softball/little league plus soccer/football): 5 persons x 26 games/week x 26 weeks = 3,380.

5. Control Line Airplane Flying

Due to randomness of use, accurate figures are difficult to determine: Assume 5 persons x 26 weeks = 130.

6. Picnic Area

Picnicking is estimated at four persons per table with heaviest use on weekends between April and October. The turnover is estimated at two per day per table. Six tables are assumed: 6 tables x 4 persons/table x 2 turnovers x 180 days = 8,640.

7. BMX Racing

Primary use is from organized meets; based on 100 racers, 6 month season: 100 persons x 26 races = 2,600.

8. Horse Area

Due to randomness of use, accurate figures are difficult to determine: Assume 4 persons x 40 weeks = 160.

9. Tennis Court

Based on 15 players per court per day for 175 day season (3 persons/court x 5 hours/day): 15 persons x 2 courts x 175 days = 5,250.

10. Tennis Practice Court

Based on 5 players per court per day for 175 day season (1 person/court x 5 hours/day): 5 persons x 1 court x 175 days = 875.

11. Basketball

Primary use is for non-organized play and is based on a nine month season with ten persons per day: 10 persons x 275 days = 2,700.

12. Game Court

Due to randomness of use, accurate figures are difficult to determine: Assume 2 persons x 365 days = 730.

13. Play Apparatus Area

Due to randomness of use, accurate figures are difficult to determine: Assume 1,000 children/year.

14. Interpretive

Due to randomness of use, accurate figures are difficult to determine: Assume 5 persons x 40 weeks = 200.

15. Equestrian Trail, Hiking/Jogging/Biking Trail

Due to randomness of use, accurate figures are difficult to determine: Assume 10 persons x 40 weeks = 400 (equestrian). Assume 35 persons x 52 weeks = 1,820 (hiking/jogging/biking).

D. COST ESTIMATE

The approximate costs for the development of Popes Head Park are as follows:

NIKE AREA

1. Open Play Area - 6 Acres

| | |
|-----------------------------------|------------------|
| a. Fill and cap pit (LS) | \$ 42,000 |
| b. Earth fill (3,000 CY @ \$4.00) | \$ 12,000 |
| c. Grading (9,000 SY @ \$1.00) | |
| Seeding (9,000 SY @ \$1.00) | \$ 18,000 |
| d. Landscaping, trash basket (LS) | <u>\$ 20,190</u> |

Subtotal

\$ 92,190

2. Parking D - 25 Cars

| | |
|--|-----------------|
| a. Demolish & remove pavement (1460 SY @ \$2.00) | \$ 2,920 |
| b. Grading (3050 SY @ \$1.00), Seeding (2300 SY @ \$1.00) | \$ 5,350 |
| c. Bituminous Pavement (750 SY), Wheel stops (LS) | \$ 7,270 |
| d. Landscaping (LS) | \$ 5,500 |
| e. 6' Bituminous trail (550 LF @ \$7.50) | <u>\$ 4,125</u> |

Subtotal

\$ 25,165

3. Tennis Courts (2), Practice Tennis
Courts, Seating Area - 200'x120'

| | |
|---|-----------------|
| a. Grading (4200 SY @ \$1.00) | \$ 4,200 |
| b. Tennis courts (2), nets, fence, practice court, wall (LS) | \$ 36,540 |
| c. Seating area, 6' bench (3), trash basket (LS) | \$ 2,900 |
| d. Landscaping (LS) | <u>\$ 6,000</u> |

Subtotal

\$ 49,640

4. Sitting Plaza - 100' x 100'

| | |
|---|-----------------|
| a. Demolish & remove pavement (1000 SY @ \$2.00) | \$ 2,000 |
| b. Grading (550 SY @ \$1.00) | \$ 550 |
| c. Exposed aggregate plaza (3600 SF - LS) | \$ 15,360 |
| d. Game tables (4), benches (4), trash basket (LS) | \$ 1,260 |
| e. Topsoil (250 CY @ \$9.00), landscaping (LS) | <u>\$ 4,250</u> |

Subtotal

\$ 23,420

| | | | |
|-----|---|----|---------------|
| 5. | <u>Basketball Court - 85' x 50'</u> | | |
| a. | Grading (500 SY @ \$1.50) | | |
| | Seeding (LS) | \$ | 750 |
| b. | Bituminous pavement (475 SY-LS) | \$ | 5,980 |
| c. | Goals (2 @ \$1,500) | \$ | 3,000 |
| d. | Landscaping (LS) | \$ | <u>4,000</u> |
| | Subtotal | | \$ 13,730 |
| 6. | <u>Game Court - 85' x 50'</u> | | |
| a. | Grading (475 SY @ \$1.00) | | |
| | Seeding (25 SY @ \$1.00) | \$ | 500 |
| b. | Bituminous pavement (450 SY-LS) | \$ | 5,670 |
| c. | Volleyball supports (LS) | \$ | <u>100</u> |
| | Subtotal | | \$ 6,270 |
| 7. | <u>Play Apparatus Area - 80' x 80'</u> | | |
| a. | Earth cut (200 CY @ \$3.00) | \$ | 600 |
| b. | Clearing & Grubbing (LS) | \$ | 800 |
| c. | Swings, climber, slide, trash basket (LS) | \$ | 17,700 |
| d. | 12" Mulch surface (800 SY-LS) | \$ | 5,000 |
| e. | Landscaping (LS) | \$ | <u>3,000</u> |
| | Subtotal | | \$ 27,100 |
| 8. | <u>Interpretive Area/Nike Missile Site - 1 Acre</u> | | |
| a. | Cap pit (LS) | \$ | 15,400 |
| b. | Restoration (above ground-LS) | \$ | <u>30,000</u> |
| | Subtotal | | \$ 45,400 |
| 9. | <u>Open Shelter - 20' x 30'</u> | | |
| a. | Grading (170 SY @ \$1.00) | \$ | 170 |
| b. | Shelter (LS) | \$ | 15,000 |
| c. | Concrete foundation (8 CY @ \$70) | \$ | <u>560</u> |
| | Subtotal | | \$ 15,730 |
| 10. | <u>Service Road - 22' Wide</u> | | |
| a. | Patch existing road (LS) | \$ | 3,000 |
| b. | Bituminous re-surfacing (1100 SY @ \$5.00) | \$ | 5,500 |
| c. | Gate, bollards (LS) | \$ | 675 |
| d. | 6' bituminous trail (350 LF @ \$7.50) | \$ | <u>2,625</u> |
| | Subtotal | | \$ 11,800 |

STREAM VALLEY AREA

11. Parking C-5 Horse Trailers

- a. Grading (2000 SY @ \$1.00)
- Seeding (100 SY @ \$1.00) \$ 2,100
- b. Bituminous pavement (1700 SY-LS) \$ 14,630

Subtotal

\$ 16,730

12. Horse Area - 150' x 100'

- Clearing & Grubbing (1700 SY @ \$1.00) \$ 1,700

Subtotal

\$ 1,700

13. Entry Road - 22' Wide

- a. Demolish & remove existing Road (LS) \$ 4,440
- b. Grading (18,000 SY @ \$1.50) \$ 27,000
- c. Bituminous pavement (8070 SY-LS) \$119,682
- d. Gravel shoulder (5870 SY @ \$2.40) \$ 14,088
- e. Gate (LS) \$ 500
- f. 6' bituminous trail (2400 LF @ \$7.50) \$ 18,000

Subtotal

\$183,710

14. Hiking, Jogging, Biking Trails - 6500 LF

- a. Clearing & grubbing (6500 LF @ \$1.00) \$ 6,500
- b. 6' Bituminous trail (6500 LF @ \$7.50) \$ 48,750
- c. Fairweather crossings (2 @ 6000) \$ 12,000
- d. Footbridge (1-LS) \$ 12,000

Subtotal

\$ 79,250

15. Equestrian Trails - 5000 LF

- 10' Clearing (5000 LF @ \$1.00) \$ 5,000

Subtotal

\$ 5,000

LANDFILL AREA

16. Softball/Little League Field - 280'

- a. Earth cut (30,000 CY @ \$3.00) \$ 90,000
- b. Grading (12,000 SY @ \$1.00),
 Seeding (11,000 SY @ \$1.00) \$ 23,000
- c. Backstop/fencing, bleacher pad,
 trash basket (LS) \$ 23,000
- d. Landscaping (LS) \$ 15,000

Subtotal

\$151,000

17. Soccer/Football Field - 360' x 225'

| | |
|--|-----------------|
| a. Earth fill (17,500 CY @ \$4.00) | \$ 70,000 |
| b. Grading (17,000 SY @ \$1.00), Seeding (17,000 SY @ \$1.00) | \$ 34,000 |
| c. Goals (2 @ \$1,500) | \$ 3,000 |
| d. Landscaping (LS) | <u>\$ 8,000</u> |

Subtotal

\$115,000

18. Physical Fitness Trail - 10 Stations

| | |
|--|-----------------|
| a. 6' bituminous trail (2700 LF @ \$7.50) | \$ 20,250 |
| b. Exercise stations (10 @ 700) | <u>\$ 7,000</u> |

Subtotal

\$ 27,250

19. Control Line Airplane Flying Area,
150' x 150'

| | |
|--|-----------------|
| a. Grading (2500 SY @ \$1.00), Seeding (1500 SY @ \$1.00) | \$ 4,000 |
| b. Bituminous pavement (2500 SY-LS) | \$ 18,500 |
| c. 6' Bituminous trail (400 LF @ \$7.50) | <u>\$ 3,000</u> |

Subtotal

\$ 25,500

20. Picnic Shelter/Restrooms - 30' x 50'

| | |
|---|------------------|
| a. Grading (500 SY @ \$1.00) | \$ 500 |
| b. Septic tank, pump, line, drainfield (LS) | \$ 38,000 |
| c. Building (1500 SF @ \$75.00), grill, trash basket, 6 tables (LS) | <u>\$114,950</u> |

Subtotal

\$153,450

21. Picnic Area - 1 Acre

| | |
|---|-----------------|
| a. Trash baskets, grills, tables (LS) | \$ 2,800 |
| b. Landscaping seeding (LS) | \$ 9,500 |
| c. 6' bituminous trail (250 LF @ \$7.50) | <u>\$ 1,875</u> |

Subtotal

\$ 14,175

22. Parking A - 96 Cars

| | |
|---|-----------|
| a. Grading (9000 SY @ \$1.00) | |
| Seeding (5000 SY @ \$1.00) | \$ 14,000 |
| b. Bituminous pavement (3100 SY), wheel stops (LS) | \$ 29,800 |
| c. Storm drain (LS) | \$ 7,300 |
| d. Landscaping (LS) | \$ 7,500 |
| e. 6' bituminous trail (1250 LF @ \$7.50) | \$ 9,375 |

Subtotal

\$ 67,975

23. Parking B - 50 Cars

| | |
|---|-----------|
| a. Earth Fill (700 CY @ \$4.00) | \$ 2,800 |
| b. Grading (4000 SY @ \$1.00), Seeding (2000 SY @ \$1.00), Rip-Rap (LS) | \$ 7,250 |
| c. Bituminous pavement (1500 SY), wheel stops (LS) | \$ 14,535 |
| d. Landscaping (LS) | \$ 5,000 |
| e. 6' bituminous trail (300 LF @ \$7.50) | \$ 2,250 |

Subtotal

\$ 31,835

24. Bicycle Moto Cross - 300' x 100'

| | |
|---|----------|
| a. Remove debris (50 CY @ \$50.00) | \$ 2,500 |
| b. Earth fill (1000 CY @ \$4.00) | \$ 4,000 |
| c. Grading (3000 SY @ \$1.00) | \$ 3,000 |
| d. 6' Bituminous trail (200 LF @ \$7.50) | \$ 1,500 |

Subtotal

\$ 11,000*

Nike Area subtotal

\$310,445

Stream Valley Area Subtotal

\$286,390

Landfill Area Subtotal

\$597,185

Construction Subtotal

\$1,194,020

20% Contingency

\$ 238,804

Construction Total

\$1,432,824

15% Design/Inspection Subtotal

\$ 214,924

Park Grand Total

\$1,647,748

* Possible Contributions from Interest Group.

E. COST VS. BENEFIT

With 4,365 people living within a 1½ mile radius of the park, and with an estimated development cost of \$1,647,748 the total cost breaks down to \$377.49 per person. Taking into account the ultimate population for the area (8,050), the total cost breaks down to \$204.69 per person, still a very high cost.

With an estimated potential of 37,877 persons using the park per year, there would be an estimated potential of 757,540 persons using the park during the first 20 years of its operation. This translates into a cost of \$2.17 for each park user per visit.

F. ANNUAL MAINTENANCE AND OPERATING COSTS*

| FACILITY | SIZE | ** CLASS | QTY. | UNIT | UNIT COST | COST |
|------------------------------------|-----------|-------------|--------|-------|--------------|----------|
| Softball/little league | 2.5 AC | A | 1 | field | \$9,217 | \$ 9,217 |
| Soccer/football | 4.0 AC | A | 1 | field | \$1,227 | \$ 1,227 |
| Picnic area | 1.2 AC | A | 1.2 | AC | \$1,197 | \$ 1,436 |
| Tennis court area | .5 AC | A | 2.5 | CT | \$1,175 | \$ 2,938 |
| Basketball court | 475 SY | A | 1 | CT | \$587 | \$ 587 |
| Game court | 475 SY | A | 1 | CT | \$587 | \$ 587 |
| Open play area | 6.8 AC | B | 6.8 | AC | \$627 | \$ 4,264 |
| Physical fitness trail | 2700 LF | B | 2700 | LF | \$.35 | \$ 945 |
| Control line air-plane flying area | 2500 SY | B | 2500 | SY | \$.94 | \$ 2,350 |
| Picnic shelter w/seasonal emp. | 1500 SF | B | 1 | LS | | \$ 2,683 |
| Parking | 3.8 AC | B | 4 | LS | | \$ 2,814 |
| Bicycle Moto Cross*** | 1.0 AC | B | 1.0 | AC | \$627 | \$ 627 |
| Horse area*** | .6 AC | B | .6 | AC | \$627 | \$ 376 |
| Sitting plaza | 1100 SY | B | 1 | LS | | \$ 1,161 |
| Play apparatus area | 800 SY | B | 1 | LS | | \$ 1,161 |
| Nike interpretive area | 1.0 AC | B | 1 | LS | | \$ 6,579 |
| Open shelter | 600 SF | B | 1 | LS | | \$ 720 |
| Hiking/biking/jogging trail | 11,800 LF | C | 11,800 | LF | \$.31 | \$ 3,658 |
| Equestrian trail*** | 5,000 LF | C | 5,000 | LF | \$.43 | \$ 2,150 |
| Conservation area | 25 AC | C | 25 | AC | \$321 | \$ 8,025 |
| Total | | | | | | \$53,505 |

*Prepared from Productivity Report #11,1975((10/75, Rev. 6/77), by Office of Research & Statistics and FCPA. Figures updated to 4/81 by 15% per year.

**Maintenance Schedule: A=Mowed/maintained once every 7-14 days
B = Mowed/maintained once every 14-30 days; C = Mowed/maintained once a year.

***FCPA may not provide funds for operation/maintenance.

G. RECOMMENDED PHASING

There is approximately \$91,826 for development and implementation in FY 1982, \$200,000 in FY 1983, and \$200,000 in FY 1985, as projected in the advertised Capital Improvements Program. Obviously, development will occur through several phases. A ranking of development priorities follows:

Phase I

| | | | |
|--|----|--------|-----------|
| Tennis courts, practice tennis court, seating area | \$ | 49,640 | |
| Basketball | \$ | 13,730 | |
| Subtotal | \$ | 63,370 | |
| 20% Contingency | \$ | 12,674 | |
| Construction Subtotal | \$ | 76,044 | |
| 15% Development | \$ | 11,406 | |
| Phase I Total | | | \$ 87,450 |

Phase II

| | | | |
|-------------------------------------|----|---------|------------|
| Open Play Area (w/o planting) | \$ | 72,000 | |
| Game court | \$ | 6,270 | |
| Play apparatus area (w/o planting) | \$ | 24,100 | |
| Interpretive area/Nike missile site | \$ | 45,400 | |
| Equestrian trail | \$ | 5,000 | |
| Horse area | \$ | 1,700 | |
| Subtotal | \$ | 154,470 | |
| 20% Contingency | \$ | 30,894 | |
| Construction Subtotal | \$ | 185,364 | |
| 15% Development | \$ | 27,805 | |
| Phase II Development Total | | | \$ 213,169 |

Phase III

| | | | |
|-----------------------------------|----|---------|------------|
| Parking D | \$ | 25,165 | |
| Partial planting (open play area) | \$ | 8,000 | |
| Planting (play apparatus area) | \$ | 3,000 | |
| Sitting plaza | \$ | 23,420 | |
| Open shelter | \$ | 15,730 | |
| | \$ | | |
| | \$ | | |
| Hiking/biking/jogging trail | \$ | 62,180 | |
| Subtotal | \$ | 137,495 | |
| 20% Contingency | \$ | 27,499 | |
| Construction Subtotal | \$ | 164,994 | |
| 15% Development | \$ | 24,749 | |
| Phase III Total | | | \$ 189,743 |

Phase IV

| | | |
|---------------------------------------|------------|------------|
| Complete planting (open play area) | \$ 12,190 | |
| Service road (Nike area) | \$ 11,800 | |
| Softball/Little League (w/o planting) | \$ 131,200 | |
| Soccer/football (w/o planting) | \$ 107,000 | |
| Realign entrance road (w/o trail) | \$ 88,620 | |
| Parking A (w/o trail) | \$ 51,100 | |
| Subtotal | \$ 401,910 | |
| 20% Contingency | \$ 80,382 | |
| Construction Subtotal | \$ 482,292 | |
| 15% Development | \$ 72,344 | |
| Phase IV Total | | \$ 554,636 |

Phase V

| | | |
|--------------------------------------|------------|--------------|
| Bicycle moto cross | \$ 11,000 | |
| Complete entrance road | \$ 95,090 | |
| Complete softball/Little League | \$ 19,800 | |
| Complete soccer/football | \$ 8,000 | |
| Physical fitness trail | \$ 27,250 | |
| Control line airplane flying area | \$ 25,500 | |
| Picnic shelter, area | \$ 167,625 | |
| Complete parking A | \$ 16,875 | |
| Parking B | \$ 31,835 | |
| Parking C | \$ 16,730 | |
| Complete hiking/biking/jogging trail | \$ 18,570 | |
| Subtotal | \$ 436,775 | |
| 20% Contingency | \$ 87,355 | |
| Construction Subtotal | \$ 524,130 | |
| 15% Development | \$ 78,620 | |
| Phase V Total | | \$ 602,750 |
| GRAND TOTAL | | \$ 1,647,748 |

FAIRFAX COUNTY, VIRGINIA

MEMORANDUM

TO: David Jillson, Landscape Architect
Design Division
Fairfax County Park Authority

DATE: February 2, 1981

FROM: Larry K. Johnson, Soil Scientist
Soil Survey Office

FILE NO:

SUBJECT: Popes Head Park

REFERENCE:

As per our recent conversation, this memo is to summarize the results of my field investigation of the Popes Head Park site for potential drainfield areas. The investigation was made with Carl Keleman on or about June 22, 1979.

Three (3) potential drainfield sites were located. The sites were within the Old Nike installation and near the old Popes Head landfill. They are shown in approximate location on the plot retained in your office.

As we discussed, the June 22, 1979 investigation was preliminary only. Further field studies would be required to determine total usable areas and design requirements for drainfield installation.



Fairfax County Park Authority

M E M O R A N D U M

To: Carl Kelleman

Date: 8/30/79

From: Gene Biglin *GB*

Subject: Popes Head Park

Popes Head Park is a 72 acre park located in Springfield Magesterial District. At present, access is obtained off of Popes Head Road on either a gravel road leading to the County Police Firing Range or by Quiet Brook Road.

These two roadways divide the park into three sections. The area north of the gravel road is a reclaimed landfill and is generally flat or gently rolling. The area south of Quiet Brook Road is an abandoned Nike site. It is flat with deteriorating paved parking lots and road ways. The area between the two consists of fairly steep slopes down to a small stream. The water quality of the stream is suspect due to the proximity of the landfill.

Reverting fields make up approximately 50% of the area and are generally located in areas which were at one time part of the landfill. The successional stages of these fields vary from open areas consisting of grasses, brambles and flowering plants to VA. Pine seres, consisting of 60-70% VA. Pine. Small wood lots are scattered throughout and tree species include; Staghorn Sumac, Red Maple, White Cedar, Black Locust, Sycamore and others. These reverting fields are a valuable source of food and shelter for wildlife. They are also the most likely areas for recreational development.

The Nike site, as mentioned earlier, is flat and is in a deteriorating condition. Perhaps some of the roadways and parking lots could be reclaimed for public use. Because of its flat terrain, it could also be a likely area for recreational development.

The area between these two roads consists of fairly steep slopes and a largely deciduous forest. Many of the trees are very large and species include; Red Oak, Tulip Poplar, Red Maple, and Willow-Oak. The understory is extremely dense and consists of Honeysuckle, Red Bud, Dogwood, Red Maple and others.

If closer study reveals that the reclaimed landfill area and the abandoned Nike site are developable for active recreation, I would suggest that the middle area be designated as a Managed Conservation Area. Development in this area should be limited to hiking trails.

cc Aldridge/Beckner
District I Filed

IV. OTHER: Indicate by checkmark those items which apply to the site/area

| <u>On-site features</u> | <u>Adjacent lands</u> | <u>Nearby Parkland Facilities (1 mile)</u> | |
|---|--|--|--|
| Roads <input checked="" type="checkbox"/> | Open space <input type="checkbox"/> | Tennis <input type="checkbox"/> | Trails <input type="checkbox"/> |
| Trails <input type="checkbox"/> | Sing. Fam. Homes <input checked="" type="checkbox"/> | Ballfields <input type="checkbox"/> | Walkways <input type="checkbox"/> |
| Public Easement <input checked="" type="checkbox"/> | Townhouses <input type="checkbox"/> | Playground <input type="checkbox"/> | Swimming <input type="checkbox"/> |
| Houses <input type="checkbox"/> | Apartments <input type="checkbox"/> | Tot Lot <input type="checkbox"/> | Nature Trails <input type="checkbox"/> |
| Other Buildings <input type="checkbox"/> | Business <input type="checkbox"/> | Picnic <input type="checkbox"/> | Cons. Area <input type="checkbox"/> |
| Private Dump <input type="checkbox"/> | School <input type="checkbox"/> | Multi-Use Ct. <input type="checkbox"/> | Other <input type="checkbox"/> |
| | Other <input checked="" type="checkbox"/> | Shelter <input type="checkbox"/> | |
| | Police shooting range and training center adjacent to park. <input type="checkbox"/> | Restrooms <input type="checkbox"/> | |
| | | Parking Lot <input type="checkbox"/> | |
| | | Fishing <input type="checkbox"/> | |
| | | Boating <input type="checkbox"/> | |

Briefly describe initial impressions of the site:

Fairly flat reverting fields in varying stages, excellent wildlife habitat. Fairly steep slope to stream valley running through center of park. Flat paved parking lot and roadway reverting into fields at Nike Site.

Briefly describe any special features of the site:

Area was once a landfill. Stream valley section has some large trees and very dense understory. Abandoned Nike Site could be reclaimed as active recreation area.

Recommended public use (recreational/interpretive):

Stream Valley in center of park kept basically as is perhaps with hiking trails. Landfill area and Nike Site could be used for active recreation.

Recommended further actions (Conservation Division):

None ☐
Baseline Survey ☐
Interpretive Plan ☐
Managed Cons. Area ☒

This report will be filed with a cover memorandum by the senior staff member assigned to the site survey. Copies of the report/memorandum will be furnished the Division Supt. Chief Naturalist, Naturalist District files. Original report/memorandum will be forwarded to the Planner assigned to the project (by name).

Site Survey Completed Came Begley 8/30/79

requested reports from the Conservation Division for inclusion in the Master Planning process. A copy of this information will be forwarded with any such reports.

I. GENERAL INFORMATION

Site Name Popes Head Park Tax Map # 67-3 Acres 72 Mag. District Springfield
 Street Location/Access 11819 Popes Head Road
 Naturalist District I Planner Assigned Kelleman

II. NATURAL FEATURES

A. Rate on the following chart with a scale of 0-4 the dominance of natural features (vegetation type) and using the same scale, the potential of public use.

| Features | Scale % | Potential Use | | | |
|-----------------|------------|---------------|----------|--------------|------------|
| | | Aesthetic | Wildlife | Interpretive | Recreation |
| Conifer Forest | 07 | 2 | 2 | 2 | 1 |
| Hardwood Forest | 11 | 3 | 2 | 2 | 1 |
| Mixed Forest | | | | | |
| Open Field | 10 | 2 | 3 | 1 | 4 |
| Managed Field | | | | | |
| Reverting Field | 50 | 2 | 4 | 2 | 3 |
| Stream Valley | 10 | 2 | 3 | 2 | 1 |
| Marsh | | | | | |
| Swamp | | | | | |
| Pond/Lake | | | | | |
| Other Nike Site | 12 | 1 | 2 | 1 | 3 |

Note any particular items deemed important regarding IIA.

Aside from the stream valley area of the park, which is basically a deciduous forest with some very large trees, most of the park is a reverting field in varying stages. The reverting field, open field and conifer forest mentioned above were at one time open areas. There is a variety of tree species present in the wood lots scattered throughout the areas.

II. Cont.

- B. Using established soils data, provide a listing of dominant soil series on the site and a brief description of characteristics.

Soil Series: 1 Not Known 2 3
4 5 6

Description:

- C. Topography: Provide a brief description of the topography of the site.
Area on North and South sides of park (Nike Site and Landfill) basically flat or gently rolling. Stream Valley area in center of park fairly steep.

III. Environmental Problems

On a scale of 0-4 (4 indicating major problem), rate the following environmental conditions (problems).

| Condition | Known | Suspected | Unknown |
|----------------|-------|-----------|---------|
| Erosion | | | |
| Water Quality | | X | |
| Impact (Human) | X | | |
| Litter | | | |
| Vandalism | | | |
| Illegal Use | | | |
| Other | | | |

Note any particular information deemed important regarding III.

Water quality is suspect because the area was once a landfill.

Human impact refers only to the fact that the area was a landfill. Very little evidence of other human activities is present.

MEMORANDUM

TO: Joseph P. Downs, Director
Fairfax County Park Authority

DATE: July 17, 1980

FROM: J. Larry Fones, Director
Recreation & Community Services

FILE NO:

SUBJECT: Popes Head Master Plan

REFERENCE:

We concur with the preliminary master plan for Popes Head Park. If feasible, areas suitable for soccer practices would help considerably in meeting the ever-increasing demand for soccer facilities.

JLF:gr