



APPLICATION NUMBER 76-L-071

Lee District

STAFF REPORT

Applicant: R. F. Crist, Tr.

Present Zoning: RE-1

Requested Zoning: R-5

Proposed Use: Single family residential

Subject Parcels: 91-3 ((1)) 22
91-4 ((1)) 3

Acreage: 80.982

Application Filing Date: July 16, 1976

Planning Commission Hearing Date: June 9, 1977

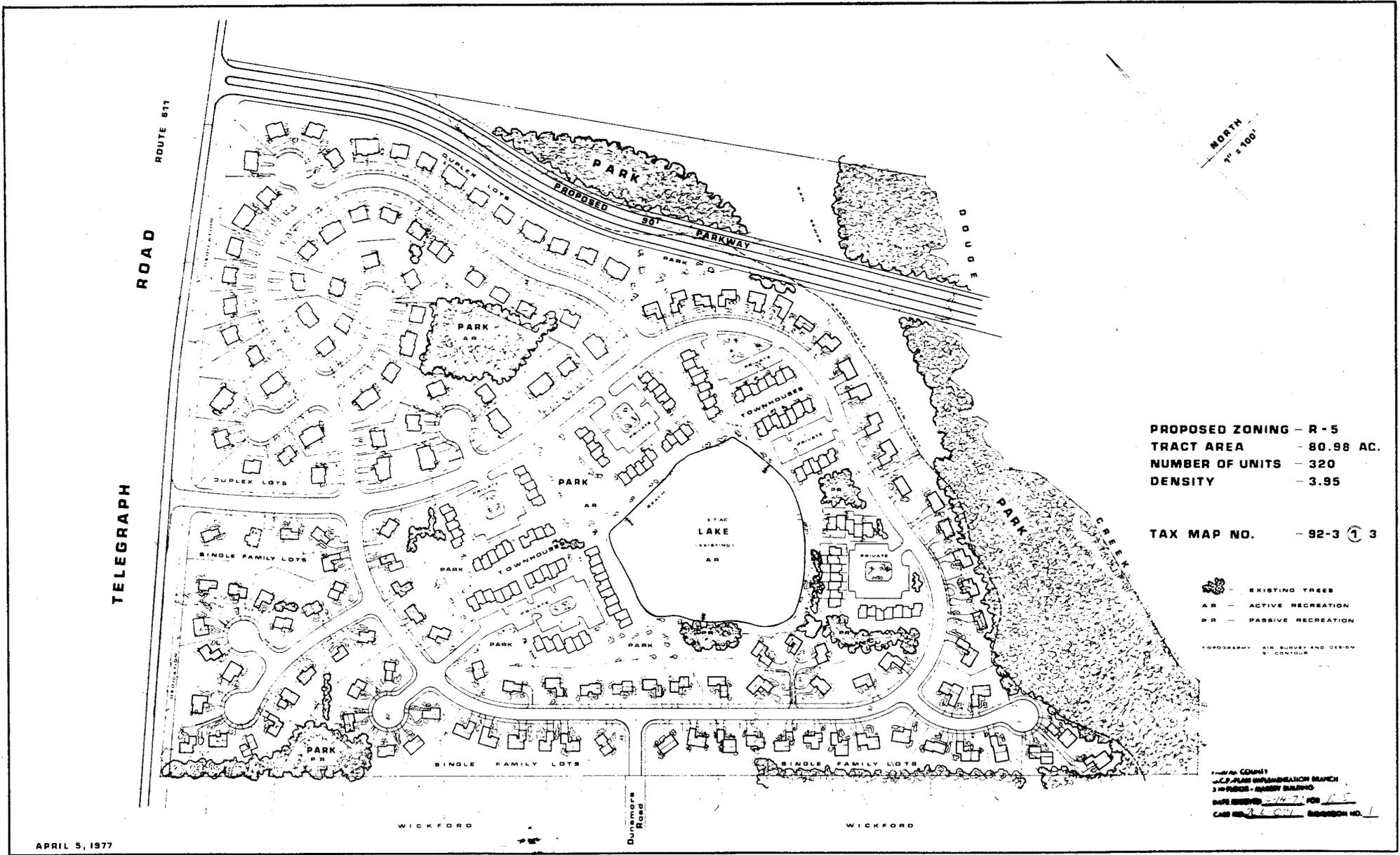
Board of Supervisors Hearing Date: July 18, 1977

Staff Recommendation: The staff recommends that the Zoning Ordinance, as it applies to the subject property, be amended from the RE-1 to the R-12.5 District.

The staff further recommends, that should the applicant commit to the conditions in the final section of this report that the Zoning Ordinance as it applies to the subject property, be amended from the RE-1 District to the R-5 District.

It should be noted that it is not the intent of the staff to recommend that the Board, in adopting any of the above proffers, relieve the applicant from compliance with the provisions of any applicable ordinances, regulations or adopted standards.

SS



PROPOSED ZONING - R-5
TRACT AREA - 80.98 AC.
NUMBER OF UNITS - 320
DENSITY - 3.95

TAX MAP NO. - 92-3 ① 3

- EXISTING TREES
- A R** - ACTIVE RECREATION
- P R** - PASSIVE RECREATION

TOPOGRAPHY - AIR SURVEY AND DESIGN BY CONTOUR

FAIRFAX COUNTY
 J.C.P. PLANNING & DEVELOPMENT DEPARTMENT
 3 W. PULASKI - SUITE 200
 DATE RECEIVED: 4/17/77 FOR 1.5
 CASE NO. 92-3-001 SUBMISSION NO. 1

APRIL 5, 1977

GENERAL DEVELOPMENT PLAN

LAKE d'EVEREUX

LEE DISTRICT - FAIRFAX COUNTY, VA.

Owner - Developer
R. F. CRIST TRUSTEE
 6439 BRANDON AVENUE
 SPRINGFIELD, VA. 22150 (569-1537)

Land Use Planners - Urban Designers

LEIGH A. CONRAD & ASSOC., Inc.
 1147 FOREST VILLAGE LANE WALKER VA 22093-1820

A GLOSSARY OF TERMS FREQUENTLY
USED IN STAFF REPORTS WILL BE
FOUND AT THE BACK OF THIS REPORT

LOCATION AND CHARACTER OF AREA

The property within this application is located on the south side of Telegraph Road approximately 850 feet west of its intersection with South Kings Highway. The site contains several single family homesites and has been generally cleared of vegetation along Telegraph Road. The southeastern portion of the site adjacent to Huntley Meadows Park is heavily wooded. There is a 3.7 acre pond centrally located on this site.

The property in this application at one time was part of Rezoning Application C-448, the proposed New Franconia development.

The site is bounded on the west by the Wickford Subdivision, a development of single family detached residences in the R-12.5 District (single family residential development with minimum lot size of 8,400 square feet). Most of this common boundary is lined by single family homes on pipestem lots, continuously double stacked along the east side of Wickford Drive.

Across Telegraph Road are several single family homes on land zoned RE-1 but currently the subject of Rezoning Application 76-L-058 which requests townhouses in the RTC-5 District (5 dwelling units per acre, 5 du/ac) and 77-L-006 which requests townhouses in the RT-8 District (8 du/ac). Application 76-L-058 is currently pending dismissal action by the Board of Supervisors.

Along the eastern boundary of the application are several single family homes on larger parcels in the RE-1 and RE-0.5 Districts.

DESCRIPTION OF APPLICATION

The applicant requests rezoning of 80.982 acres of RE-1 zoned land to the R-5 District for the purpose of constructing single family homes at a density of less than four dwelling units per acre. The Conceptual Development Plan reveals a mix of single family detached (91), duplexes (118), and townhouses (111) totalling 320 units at a density of 3.95 du/ac. The plan has not been proffered.

The applicant's justification cites compliance with the comprehensive plan density range, the ability to employ the flexibility of the R-5 District to adapt to a particular site, and the precedent of a recent PDH rezoning on a nearby site. See Appendix 2.

COMPREHENSIVE PLAN RECOMMENDATIONS

This application is located in the Huntley Meadows Community Planning Sector and the Lehigh Area of the Rose Hill Planning District in Area IV.

Both of the above areas are recommended for development in the density range 3-4 du/ac. The Lehigh area discussion also suggests that a mix of housing types is appropriate. The recommendation for the Lehigh Area also states:

"All edges of the Lehigh planned development center should be buffered from adjoining low-density uses outside the project area. It is recommended that the project itself provide detached single family units adjacent to existing single family units."

The Area IV Plan map recommends the property for development in the 3-4 du/ac range. Annual plan review item CW-T-19, which was adopted by the Board of Supervisors on March 29, 1977 shows Lockheed Boulevard extended crossing the property near the north-easterly boundary.

PUBLIC FACILITIES ANALYSIS

Transportation

The transportation impact from development of this property must be considered in conjunction with that from other pending and approved rezoning applications in the vicinity.

The potential trip generation of recently approved applications are shown below. It should be noted, however, that the application with the greatest impact, the Lehigh Site PDH 3.5, is currently in a state of revision of its Conceptual Development Plan and it is not known at this time when or whether the development will proceed to the Final Development Plan as required by the PDH District.

<u>Application</u>	<u>Trip Generation (Vehicles Per Day, vpd)</u>
C-448	30,245 (PDH-3.5)
C-548	405 (R-12.5)
C-615	930 (I-P)
C-633	2,710 (RTC-10)
C-676	810 (RTC-10)
74-4-157	480 (R-5)
74-4-163	1,880 (RTC-5)
75-6-020	1,800 (RT-5)
76-L-047	745 (R-5)
76-L-050	550 (R-5)
Subtotal	40,555

Pending applications are shown below with estimated trip generation reported for the existing zoning district, the district sought, and at the high end of the comprehensive plan density range.

<u>Pending Applications</u>	<u>Trip Generation (Vehicles Per Day)</u>		
	<u>Existing Zoning</u>	<u>Application Zoning</u>	<u>Comp. Plan Maximum</u>
76-L-058	485(R-12.5)	745(RTC-5)	590(4 du/ac)
76-L-071	675(RE-1)	2,651(R-5)*	2,916(4 du/ac)**
77-L-006	<u>2,845</u> (R-12.5 & PDH-3.5)	<u>6,575</u> (RTC-8)	<u>3,290</u> (4 du/ac)
Subtotals	4,005	9,970	6,795
Total	44,560	50,525	47,350

*Estimated based on presently submitted development plan containing 320 homes of mixed types.

**Estimated based on 324 single family detached homes.

Traffic generated by development of this site would have its greatest impact on Telegraph Road. The 1975 VDH&T traffic counts for this road and the other roads that are most likely to be affected by this site are:

<u>Routes</u>	<u>Vehicles Per Day</u>
Telegraph Road (Rt.611)	
Richmond Highway to Backlick Road	4,842
Backlick Road to Hayfield Road	10,311
Hayfield Road to Wickford Drive	12,561
Wickford Drive to South Kings Highway	12,860
South Kings Highway to Franconia Road	16,130
Franconia Road to North Kings Highway	23,166
North Kings Highway to Alexandria	21,550
Old Telegraph Road (Rt.634)	
Telegraph Road No.intx. to Hayfield Road	1,421
Hayfield Road (Rt.635)	
Telegraph Road to Beulah Street	3,453
Beulah Street (Rt.613)	
Hayfield Road to Franconia Road	5,555
South Kings Highway (Rt.633)	
Telegraph Road to Richmond Highway	12,248
South Van Dorn Street (Rt.613)	
Franconia Road to the Capital Beltway	18,212

<u>Route</u>	<u>Vehicles Per Day</u>
Franconia Road (Rt.644)	
South Van Dorn Street to Beulah Street	20,979
Beulah Street to Frontier Drive	27,746
Frontier Drive to Loisdale Road/Commerce St.	28,028
Loisdale Road/Commerce St. to Shirley Highway	49,568

With the exception of South Van Dorn Street and Franconia Road these streets in the vicinity of the subject site are narrow two lane facilities with poor geometrics. They are estimated to be operating at service level F. South Van Dorn Street is an undivided four lane facility that is estimated to be operating on the borderline between service levels D and E. Its intersection with the Capital Beltway ramps is a particular point of congestion that needs improvement. Franconia Road west of South Van Dorn Street is a six lane divided facility that is estimated to now be operating at service level B between South Van Dorn Street and Beulah Street, level C between Beulah Street and Loisdale Road/Commerce Street, and at level F between Loisdale Road/Commerce Street and Shirley Highway. The Loisdale Road/Commerce Street intersection with Franconia Road is extremely congested and no improvement of this situation is expected in the near future.

The transportation element of the Countywide Plan makes the following recommendations for improving access to the vicinity of the subject site:

- o Improve Telegraph Road (Rt.611) to a four lane divided facility between Richmond Highway and Franconia Road, and to a six lane divided facility between Franconia and the City of Alexandria.
- o Improve Old Telegraph Road (Rt.634) to a four lane divided facility from its north intersection with Telegraph Road to Hayfield Road, and to current two lane standards from Hayfield Road southward.
- o Improve Hayfield Road (Rt.635) to a four lane divided facility.
- o Construct the Springfield Bypass and its spur to Shirley Highway. From the standpoint of this site the most important section is that between Hayfield Road and the proposed Franconia Metro Station.
- o Improve South Kings Highway (Rt.633) to current two lane facility standards.
- o Improve Beulah Street (Rt.613) to current two lane facility standards between Windsor Avenue and Franconia Road.

- o Improve South Van Dorn Street (Rt.613) to a six lane divided facility between the City of Alexandria and Franconia Road, and extend South Van Dorn Street southward as a four lane divided facility on new alignment to Telegraph Road.
- o Improve Lockheed Boulevard (Rt.723) to a four lane divided facility between Richmond Highway and Harrison Lane, and extend to South Van Dorn Street on new alignment.
- o Improve or construct grade-separated interchanges at:
 1. South Van Dorn Street and the Capital Beltway
 2. South Van Dorn Street and Franconia Road
 3. Lockheed Boulevard and Richmond Highway.
- o Construct the Metro rapid rail transit system with stations at Franconia, Van Dorn, and Huntington.

The Countywide Plan Recommended Program of Improvements has established priority status for the following projects:

- o Improvement and extension of Lockheed Boulevard (Rt.723) from Richmond Highway to Telegraph Road, as a four lane divided facility, in Stage I (project initiation).
- o Extension of South Van Dorn Street from Franconia Road southward to Telegraph Road as a four lane divided facility, in Stage I (project initiation).
- o Construction of the Springfield Bypass from Hayfield Road to Ox Road and its stub to Shirley Highway as a four lane divided facility, in Stage II (preliminary engineering). This project is also a Metro access project and should not be delayed past the opening of the Franconia Metro Station. If the opening of this station is delayed this project should still retain its priority status.

The current VDH&T program does not include any projects in the vicinity of the subject site.

Sanitary Sewer

The subject property is located in the Dogue Creek watershed, and would be sewered into the Dogue Creek treatment plant. The treatment facility is presently not over capacity. The addition of the development made possible by this rezoning would bring the treatment facility to 68 percent of its rated capacity. This treatment facility meets the federal water quality standards for the Potomac. Current programs provide for this plant to be abandoned and flows diverted to the Lower Potomac Pollution Control Plant by December 1978.

A 21 inch sewer line located on the property is adequate for the proposed use.

Water Service

The parcel is located in the franchise area of the Fairfax County Water Authority. A 30 inch water main located along Telegraph Road can provide an adequate water supply.

Schools

A comparison of the student population estimated to be generated by the 320 dwellings shown on the development plan and the 81 single family detached units possible under the current zoning reveals a net increase of 134 students. The estimates are:

<u>Level</u>	<u>Estimate of Students Generated</u>	<u>Estimate Under Current Zoning</u>	<u>Increase</u>
Elementary	91 x .383 = 35	89 x .383 = 34	
	118 x .364 = 43		
	111 x .289 = 32		
	110		76
Intermediate	91 x .160 = 15	89 x .160 = 14	
	118 x .105 = 12		
	111 x .071 = 8		
	35		21
High	91 x .351 = 32	89 x .351 = 31	
	118 x .177 = 21		
	111 x .134 = 15		
	68		57
Total	213	79	134

The schools which serve this property, their program capacity, and their current and projected enrollment are:

<u>Schools</u>	<u>Program Capacity</u>	<u>Mar '77 Enrollment</u>	<u>Proj. Sep '77 Enrollment</u>
Hayfield Elementary	754	563	523
Hayfield Intermediate	1135	1104	968
Hayfield High	2208	2041	2087

It is apparent that the existing schools could accommodate the growth from this application only. However, this situation may eventually be altered by completion of development made possible by recent or pending rezonings.

It is difficult to assess the impact from residential rezoning applications on the existing school membership because of the lag time between the granting of a rezoning and actual completed development. Usually, by the time a new project begins generating students, the school make-up and total membership has changed. However, by applying the current student ratio, by dwelling unit type, to a proposed new residential development, the potential additional students can be projected for housing assignment purposes.

Area I school membership is generally declining. New developments will be assigned to schools serving the property or to a nearby existing school with available space. Boundary adjustments are made to accommodate changing school membership and/or school consolidation approvals.

Following is Area I information based on July 1, 1977, alignment of school administrative areas:

	1976-77 <u>Operating Capacity</u>	9-30-76 <u>Membership</u>	9-30-77 <u>Projected Membership</u>
(K-6 Elementary	16,667	16,389	15,881
(7-8) Intermediate	5,243	5,573	5,264
(9-12) High	11,015	11,349	11,152

Parks

This application is adjacent to the large Huntley Meadows and the Wickford Parks and is near the Lee District Park, hence residents will have easy access to a variety of park facilities.

In compliance with the provisions of the R-5 District, 780 square feet of developed active recreational area per dwelling unit must be provided, or a total of approximately 5.73 acres. The developer has indicated he will provide in excess of six acres of developed recreation area concentrated largely around the pond, and an additional 10-19 acres for passive recreation (Appendix 2).

The Fairfax County Park Authority (FCPA) has expressed concern regarding the impact of development on this site on the Huntley Meadows Park and suggested some specific recreational facilities. It also notes that approval of the Park Authority, the Bureau of Outdoor Recreation, and the General Services Administration is required to extend Lockheed Boulevard through the park in accordance with the Countywide transportation plan. See Appendix 3.

Libraries

Residents could be adequately served by the John Marshall Library located approximately one mile distance to the north.

Fire Service

To be adequately protected under Fairfax County Fire and Rescue Services' standards this type residential development should be no more than three miles from a property manned fire station. The property is 2.8 miles from the Penn Daw Fire Department, Company Number 11.

The Fire and Rescue Services states that fire protection for this property is adequate now.

SITE AND DEVELOPMENT PLAN ANALYSIS

Site Analysis

See Appendix 4, Environmental Analysis, for a discussion of the application site and relevant environmental concerns.

Design Considerations

The Conceptual Development Plan shows 91 single family detached, 118 duplexes, and 111 townhouses on this 80.982 acre parcel, a density of 3.95 dwelling units per acre. This is a basically well designed plan which appears to meet the requirements of the R-5 District. Major concerns with the plan relate to the accommodation of the traffic generated within an improved area highway system and environmental safeguards both on and off-site.

Transportation. As noted earlier, the Countywide plan provides for Telegraph Road in this area to be improved to a four lane divided highway. Dedication and construction of road widening along the Telegraph Road frontage would contribute to this improvement and would be consistent with the improvements made in conjunction with other new subdivisions along this route. The construction of road widening would eliminate an interim requirement for construction of a right turn deceleration lane and a left turn lane along Telegraph Road. In view of the proposed alignment of Lockheed Boulevard extension, the staff concurs with provision of a single access from the proposed subdivision to Telegraph Road.

The dedication of the right-of-way for Lockheed Boulevard as shown on the development plan is essential to the ultimate construction of this segment of an improved cross-county highway network. Some adjustment in the alignment, particularly the southeastern end near Huntley Meadows Park is necessary and can be accomplished in conjunction with the Final Development Plan approval.

With regard to the interior street system, estimated traffic counts will be required by Department of Environmental Management so that street widths and cross-section might be determined. Again this can be accomplished later. The street connection to Dunsmore

Road is desirable for internal street circulation and for fire and rescue service alternate access and should be retained.

Environment. Based on the analysis contained in Appendix, the following recommendations are made with regard to environmental concerns:

Stormwater Management. (Subject to confirmation by DEM):

1. It is recommended that, as per the applicant's verbal discussion, underdrains be employed to drain that portion of the site upslope of the lake and that this sub-surface drainage be conveyed directly into the lake so that the pre-development recharge mechanism can be maintained.
2. Should conventional storm sewers be proposed as a means of conveying surface runoff into the lake, it is recommended that the applicant incorporate continuous sub-surface rock filters devices between the end of the storm sewer pipe and the edge of the lake. (See discussion of rationale and caveats under the section titled Hydrology - Stormwater Management.)
3. Because of the potential adverse impact of de-watering on trees such as willow oaks, pin oaks and maples, it is recommended that the drainage measure selected for the area downslope of the lake or within the dripline of any water dependent mature tree be reviewed and approved by the Arborist.
4. In order to protect Dogue Creek and the downstream Huntley Meadows wetlands, it is recommended that the applicant incorporate the natural system water quality detention ponds as identified by the staff sketch and previous discussion. The staff would recommend Board approval of a request by the applicant to construct these facilities within the 100-year floodplain of Dogue Creek.

Highway Noise Impact Mitigation:

1. It is recommended that the applicant construct a noise abatement barrier approximately parallel to and contiguous with the dedication line for the improvement of Telegraph Road. The barrier is to be designed to reduce noise impact from automobile traffic (not heavy duty tractor trailers), and it should incorporate the following:
 - a. Length - from the edge of the treeline in the park proposal adjacent to the Wickford subdivision to the edge of the dedication for the Lockheed Boulevard extension.

- b. Openings - one 60 foot opening for project access, indicated to be approximately 460 feet from the boundary with the Wickford subdivision.
 - c. Width, Height and Shape - to consist of a berm, wall, or combined berm and wall. The barrier should provide a maximum noise reduction of approximately 8 dB(A) with a height approximately 7' above the final grade of a 4-lane Telegraph Road. The barrier should also parallel the entrance road to the site for nearly 40' on both sides in order to protect against noise leakage at the entrance.
 - d. Landscaping - a "maintenance-free" type of ground cover with flowering shrubs or trees on both sides of the continuous barrier.
2. It is recommended that the applicant dedicate 45' from the edge of the Lockheed Boulevard extension right-of-way line for the purpose of accommodating a future noise berm. Vertical alignment problems preclude specifying exact dimensions for this facility.

Vegetation Protection:

1. It is recommended that the applicant retain the following quality vegetation resources:
 - a. The park in the northwest corner of the tract.
 - b. The majority of the small apple grove perpendicular to this park and approximately 200' south of the existing Telegraph Road alignment.
 - c. The specimen pin oak, maple and juniper trees in front of the existing house at 7101 Telegraph Road.
 - d. The specimen maples directly in front of and immediately to the east of the existing home near the east property line of the application.
 - e. Only those quality maples and pin oaks occurring immediately on or within approximately 25' of the hedgerow situated 550' south of and parallel to Telegraph Road and extending from a point 300' west of the east property line to a point 700' west of said line. The development plan now indicates that the best trees will be cleared and scrub-like cover will be retained in a wet soils area as an active recreation park.

- f. The specimen pin oaks and willow oaks occurring immediately adjacent to the west border of the lake, and the south edge of the open field adjacent to the Wickford subdivision.
- g. The entire western property line which is populated with young, vigorous sweet gums, a high maintenance but excellent fall color tree, and scattered willow and chestnut oaks in the southwest corner of the site.
- h. At least 50% of the mixed hardwoods south and west of the lake and up to the 100 year floodplain line of Dogue Creek. These are quality woodlands. The mature trees will not fare well if their high water table environment is changed as a result of under-drains, fill or actual construction impacts.
- i. A monarch apple tree approximately 175 feet southeast of the lake. This tree is naturally populating the adjacent ground and when combined with a grove of sweet gum and small maples a significant design amenity could be created in this area.
- j. Numerous hedgerows of maples, sweetgums, and junipers should be more fully utilized to accomplish visual breaks between unit types or clusters. This effort will create a more human, intimate scale for the project.

Density and Structure Type:

1. In order to allow for greater protection of the quality hardwoods in the southwest corner of the site as well as to avoid an extremely wet soils area, it is recommended that approximately 6 units south of the sanitary sewer easement be deleted.
2. In order to compensate for this action however, it is recommended that the project density be allowed to rise to the maximum of 4.0 du/ac or 324 du's. The proposed design could be altered to easily accommodate 4 additional townhouses plus the shift of 6 units from single family detached to townhouse units.
3. It is recommended that the historic Belvale house be retained in the project design. It could serve a useful function as a community center building. See Appendix 5.

Traffic Circulation:

1. It is recommended that the access point to Telegraph Road be moved west approximately 200'. This is a location with a better sight distance value which also can utilize the existing hedgerow for a wooded entrance to the project.
2. It is recommended that a cul-de-sac be employed to serve the single family lots south and west of the lake and that a natural woodland break be retained between these units and the townhouses to the east of the lake. Also, the woodlands break can serve as a route for emergency overflow at the lake. The lake is at elevation of 60' and adjacent land to the south lies between 45 and 55'.
3. It is recommended that the access from the Dunsmore Road connection into the townhouse portion of the site immediately north of the lake utilize the subtle ridge-line for an alignment. This will allow more units a better focus onto the lake.
4. It is recommended that a cul-de-sac be employed to serve the townhouses east and south of the lake and that no connection be made to the single family detached units adjacent to Wickford.
5. It is recommended that the poor vegetation area north and east of the lake which is proposed for park be used instead as a courtyard, parking and townhouse unit cluster with the high quality oaks and maples retained to the north as a design amenity.

In addition to the active recreation facilities centered around the lake, it is appropriate to provide some active sports facilities for recreation by the residents as Appendix 3 suggests.

CONCLUSIONS AND STAFF RECOMMENDATIONS ON REZONING

The R-5 District fulfills the general recommendations of the comprehensive plan but will satisfy the density range only with a firm commitment to a density of 4.0 du/ac or less.

The development plan satisfies the requirement of a Conceptual Development Plan in accordance with the R-5 District.

Under Board of Supervisors' policy for attaining the high end of the density range, firm commitments are appropriate to the conditions listed in the final section of this report. Fulfillment of these conditions would accomplish seven of the eight applicable criteria.

The staff recommends that the Zoning Ordinance, as it applies to the subject property, be amended from the RE-1 to the R-12.5 District.

The staff further recommends, that should the applicant commit to the conditions in the final section of this report, that the Zoning Ordinance as it applies to the subject property, be amended from the RE-1 District to the R-5 District.

STAFF RECOMMENDATIONS ON DEVELOPMENT PLAN

The staff recommends approval of the development plan as a Conceptual Development Plan subject to modifications necessary to incorporate the following listed conditions in preparation of a Final Development Plan.

Transportation

- o On Telegraph Road (Rt.611) dedicate right-of-way to 45 feet from centerline and construct road widening to 35 feet from centerline with curb, gutter and sidewalk.
- o For Lockheed Boulevard Extended dedicate a 90-foot wide right-of-way through the site essentially as shown on the submitted development plan except the southeastern end of this right-of-way should be realigned to curve eastward.

Environment

Stormwater Management: Commit to cooperate with the Department of Environmental Management in developing an on-site stormwater management system incorporating features from the Stormwater Management discussion contained within the Design Considerations section of this report as deemed appropriate by DEM.

Highway Noise Impact Mitigation:

- o Commit to construction of a noise abatement barrier along Telegraph Road of dimensions necessary to achieve a noise reduction of approximately 8 dB(A).
- o Dedicate 45 feet from the southern right-of-way of the Lockheed Boulevard extension for the purpose of accommodating a future noise berm.

Vegetation Protection: Commit to incorporating in the Final Development Plan modifications which will protect to the extent possible the vegetative assets described in the Vegetative Protection paragraph of the Design Considerations section of this report.

Density and Structure Type: Agree to consider in preparing the Final Development Plan, the modifications suggested in the Density and Structure Type paragraph of the preceding Design Considerations section.

Traffic Circulation: Agree to consider in preparing the Final Development Plan, the traffic circulation suggestions contained in the preceding Design Considerations section.

Recreational Amenities

Incorporate in the Final Development Plan:

- o Construction of one tot lot in or near the townhouse portion of the development and one multi-purpose court meeting National Recreation and Park Association standards.
- o Construction of countywide trail segments on-site along Telegraph Road and Dogue Creek.

It should be noted that it is not the intent of the staff to recommend that the Board, in adopting any of the above proffers, relieve the applicant from compliance with the provisions of any applicable ordinances, regulations or adopted standards.

APPENDICES:

1. Rezoning Affidavit
2. Applicant's Justification
3. Park Authority Memorandum
4. Environmental Analysis
5. Belvale Historic Home
6. Glossary

REZONING AFFIDAVIT

76-1-071

I, R. F. Crist, do hereby make oath or affirmation that I am an applicant in Rezoning Case Number which was filed on 10th day of July, 1977, and that to the best of my knowledge and belief the following information is true:

- 1. (a) That the following constitutes a listing of names and last known addresses of all applicants, title owners, contract purchasers, or lessees of the land described in the application, and if any of the foregoing is a trustee, each beneficiary having an interest in such land, and all attorneys, real estate brokers, and all agents who have acted on behalf of any of the foregoing with respect to the application:

Table with 3 columns: Name, Address, Relationship. Includes R. F. Crist, Metropolitan Mortgage Fund, Inc., and Charles S. Shaw.

- (b) That the following constitutes a listing of the shareholders of all corporations of the foregoing who own ten (10) per cent or more of any class of stock issued by said corporation, and where such corporation has ten (10) or less shareholders, a listing of all the shareholders:

Table with 3 columns: Name, Address, Relationship. Entry: NONE.

- (c) That the following constitutes a listing of all partners, both general and limited, in any limited partnership of the foregoing:

Table with 3 columns: Name, Address, Relationship. Entry: Raymond F. Crist, Suite 3, 6434 Brandon Ave., Springfield, Va. 22150, General Partner.

See attached sheet for Limited Partners

- 2. That no member of the Fairfax County Board of Supervisors or Planning Commission owns or has any interest in the land to be rezoned or has any interest in the outcome of the decision.

NONE EXCEPT AS FOLLOWS: (If none, so state)

- 3. That within the five (5) years prior to the filing of this application, no member of the Fairfax County Board of Supervisors or Planning Commission or any member of his immediate household and family, either directly or by way of partnership in which any of them is a partner, employee, agent or attorney, or through a partner of any of them, or through a corporation in which any of them is an officer, director, employee, agent or attorney or holds outstanding bonds or shares of stock with a value in excess of fifty dollars (\$50), has or has had any business or financial relationship, other than any ordinary depositor or customer relationship with or by a retail establishment, public utility or bank, including any gift or donation having a value of fifty dollars (\$50) or more with any of those listed in Par. 1 above.

NONE EXCEPT AS FOLLOWS: (If none, so state)

WITNESS the following signature this 20th day of May 1977. [Signature]

The above affidavit was subscribed and confirmed by oath or affirmation before me this 20th day of May 1977, in the State of Virginia. [Signature] Notary Public

My commission expires: 12-11-77

1 (c) List of Limited Partners for Rezoning Case # 76-L-071

1. Donn V. Aaby
Dorothy V. Aaby 9605 Ponca Place
Oxon Hill, Md. 20022
2. Mary W. Bartone, M.D. 8301 Arlington Blvd., Fairfax, Va. 22030
3. D. Anthony Beale 6434 Rives Ct., Springfield, Va. 22150
4. Harold Black 3600 Tristan Ct., Annandale, Va. 22003
5. George F. Boemerman 5913 Bond Ct., Alexandria, Va. 22310
6. W. Lawrence Brantley, Tr. 5228 Westpath Way, Washington, D.C. 20016
7. Edson C. Brolin, 25 Washington Sq., N., New York, N.Y. 10011
8. Nina D. Brolin 3441 S. Stafford St., Arlington, Va. 22206
9. Stanley H. Bukalski 7904 Martha Washington St., Alexandria, Va. 22309
10. Rosilyn H. Dudley 10026 East Lake Dr., Fairfax, Va. 22030
11. Judith C. Hofferan 4106 Port Rae Lane, Fairfax, Va. 22030
12. Allen M. Holmes 14615 Bakersfield St., Woodbridge, Va. 22193
13. Alice N. Johnson R.R. 4, Box 64, Columbus, Ind. 47201
14. Richard L. Kessinger 204 Yoakum Pkwy, Alexandria, Va. 22304
15. Norma D. Kettering 9100 Bowler Dr., Fairfax, Va. 22030
16. Jimmie J. Logan 6817 Melrose Dr., McLean, Va. 22101
17. Earl F. Lovell 5527 Ventnor La., Springfield, Va. 22151
18. Joni McCann 6A Stafford, Nellis AFB, Las Vegas, Ne. 89110
19. Chester Myslicki 2111 Jefferson Davis Hwy, Arlington, Va. 22202
20. Old Town Investment PO Box 15104, Alexandria, Va. 22309
21. Raymond Ruf 1401 Kersey La., Rockville, Md. 20854
22. Carl H. Schmitt 5115 Southampton, Annandale, Va. 22003
23. Claudette Siltman 5811 Cambridge Dr., Springfield, Va. 22152
24. Allen H. Skaggs 7120 Woodland Dr., Springfield, Va. 22151
25. Barbara E. Smith 1537 N. Jefferson St., Arlington, Va. 22205
26. Lt. Col. Vito Solazzo Eastern Sector MEPCOM, Ft. George G. Meade, Md. 20755
27. Robert M. Stocking 2013 Edgar Ct., Falls Church, Va. 22043
28. Joseph Yardumian 4514 Sonata Ct., Fairfax, Va. 22030
29. John V. Zottoli 3451 S. Utah St., Arlington, Va. 22206

July 15, 1976

STATEMENT OF JUSTIFICATION

This request for rezoning from RS-1 to R-5 is based upon the belief that such a proposal would permit a better type of development of the property in question. If limited to a density of less than four dwelling units per acre, this proposal is in conformance with the Master Plan for the area. This limitation is not only acceptable but is preferred.

R-5 zoning would allow an attractive development taking full advantage of the terrain features of the property. The resulting open space emerging from the more flexible zoning category will provide the future inhabitants on this tract with a greater opportunity for community type recreational space and green areas which retain more of the natural beauty of the land than is otherwise possible.

As a precedent for this application, a very large, near-by tract has been recently rezoned for PDH-3.5 - which includes a mixture of townhouses and single family homes and sets the general tone for the area.



model equity conversion corporation of america

SUITE THREE
6434 BRANDON AVENUE
SPRINGFIELD, VIRGINIA 22150
(703) 569-1507

May 2, 1977

Mr. Sidney Steele
Plan Implementation Branch
4100 Chain Bridge Road
Fairfax, Virginia 22030

Re: Application 76-L-071

Dear Mr. Steele:

The subject application meets the requirements of the adopted comprehensive plan in that the density falls within three to four dwelling units per acre.

As required in R-5 zones at least 700 square feet of developed recreation space per dwelling unit will be provided. In this case, that amounts to 5.14 acres. In excess of six acres will be provided and an additional 10-14 acres will be provided to passive recreation.

Development should begin during the Spring of 1978 and should be paced as sales take place.

It is the intention at the present time to conform to the general development plan submitted with the application. Engineering and esthetic considerations may require minor variations from the plan.

Storm water is of concern to the project. The intention is to use the existing pond, if possible, as a water retention pond for such areas as it can be used for. The lower portions of the property are heavily wooded. This vegetation will hold soil in place and reduce any erosion. The slopes on the property are gentle so that erosion should not present a problem to begin with.

Yours very truly,


R. F. Crist



RESIDENTIAL & COMMERCIAL
INVESTMENT PROPERTIES

MORTGAGE
BANKING

LAND USE
CONSULTANTS

Fairfax County Park Authority

M E M O R A N D U M

To: Phil Yates, For Staff Coordinators
Chief, Plan Implementation Branch - OCP

Date: May 9, 1977

From: Larry Gordon *LG*
Assistant Superintendent, Land Acquisition - FCPA

Subject: 76-1-071
92-3-((1))-3

MAY 11 1977

OFFICE OF PLAN

The Fairfax County Park Authority reviewed the subject Rezoning Application at its meeting of May 3, 1977 and made the following recommendations:

- It is anticipated that excessive impervious ground cover and construction will result in extensive runoff into Dogue Creek and the nearby Huntley Meadows Park. The requested density is too high and should therefore be denied. However, should the request be granted:
- The open space associated with Dogue Creek, its flood plain and adjacent 25 horizontal feet or slopes in excess of 15% should be dedicated to the Park Authority in accordance with the County Stream Valley Policy.
- All other open space and recreational facilities associated with the development should be dedicated to the Homeowners Association. Active recreational facilities should include one tot lot (measuring approximately 80' X 100') and one multi-use court (measuring approximately 60' X 90') in accordance with NRPA standards as adopted and adapted by the FCPA.
- The developer should construct or arrange for the construction of trails along Dogue Creek and Telegraph Road (Rte 611) in accordance with the Countywide Trails Plan. The developer should further provide or arrange for the provision of adequate signing, buffering, landscaping, drainage and bridge structures wherever appropriate along all pedestrian facilities. The preferred trail type along Dogue Creek would be 6' in width with a gravel cover. All trails located on Park Authority property should be dedicated to said Authority.
- Ultimately, a trail should be constructed through the open space on the east end of the development that will link said development with Huntley Meadows Park. This trail should be dedicated to the FCPA and should include a footbridge across Dogue Creek.
- No stormwater management facilities should be placed on Park Authority property. However, if this is unavoidable, said facilities and the land on which they are located should be dedicated to the Board of Supervisors for the purposes of maintenance and liability.

- The proposed 90' Parkway is aimed towards Huntley Meadows Park. The Huntley Meadows Park Preliminary Master Plan of November 1976 does not recognize the roadway that has been proposed on the Comprehensive Plan.

"Although there are transportation proposals underway to extend Lockheed Boulevard, the FCPA does not recognize its extension through the parkland in its planning proposals." (Page 11)

Such a road would require approval from both the Park Authority, the Bureau of Outdoor Recreation and GSA. However, should this rezoning be approved as shown, the proposed 90' parkway should be relocated to the extreme north of the development. An extensive wood buffer should be maintained between the roadway and the proposed development. A less extensive buffer should be placed between the roadway and the northern boundary of the property.

ENVIRONMENTAL ANALYSIS

APPLICATION 76-L-071

Overview

Relevant environmental concerns for this application include: 1) the accomplishment of an appropriate treatment for poor bearing, high water table soils which underlie virtually the entire tract, 2) the development of an innovative stormwater management program sufficient to drain the property while protecting on and off site water resources, 3) protection of localized vegetation resources, 4) protection of an on-site citizen identified environmental resource which is also classified as an historic site, 5) buffering of residential uses from existing and projected highway noise impacts, and 6) accomplishment of a vehicular circulation network which focuses development onto inherent site resources.

GEOLOGY

The subject application is located in the Coastal Plain geologic province (see Geologic Sketch map for approximate location). Crystalline bedrock is 100-150 feet below the surface and hence not germane to the analysis. Similarly, groundwater resources should not be directly relevant to this application. Because of the position of the application relative to the identified recharge areas, this site actually represents a potential withdrawal site for groundwater. (See USGS Open File Report 77-284, Potentiometric Surface Maps and Water-Level Change Map, 1960-76, for the Lower Aquifer of the Cretaceous Potomac Group in Fairfax County, Virginia, March, 1977). Available data indicates that a withdrawal well into the lower Potomac aquifer beneath this site would flow under an artesian head to a height of between 20 and 60' above the surface. This means that the hydraulic gradient is directed upwards in this area and that local recharge will not occur.

More important, however, are the surface and near surface materials which in this area include colluvium (a wash deposit from an upland source) and terrace deposits (a water-lain or alluvial matrix of mixed sand, silt, gravel and clay). Both materials can be problematic from a drainage and bearing standpoint.

The colluvium occurs generally upslope of the 50 foot contour and constitutes the better drained and bearing portion of the application. Localized "bog-like" areas do occur even

there however, and most likely reflect a higher silt-clay region within the colluvium deposit. The terrace deposits lie generally below the 50 foot contour and represents the more difficult portion of the site with regards to development proposals. In this area, the terrace materials are very high in silt and clay (non-slippage) and consequently the resultant soils evidence high water table, poor bearing conditions. Internal drainage is nearly non-existent and the topographic gradient is very slight. The Dogue Creek floodplain forms the southern and eastern boundary of the site adding to the wetness problems. Finally, the trunk sewer line which parallels the north side of the stream has interrupted surface drainage even more, thereby creating ponds of standing water on the upslope side of the sewer easement.

TOPOGRAPHY

From a landforms standpoint, this site can be characterized as a lowland plain or terrace. Gradients are slight (0-2%) over virtually the entire parcel. An exception is the small hilltop abutting Telegraph Road. There the gradient reaches 7-14%. The hilltop may cause sight-distance problems along Telegraph Road. It will not however, restrict or impact internal project design. For the remainder of the site, the topography serves merely to suggest slight design opportunities for unit orientation.

SOILS

Soils conditions are extremely difficult on this site. The combination of high water table and swelling clay subsoil dictate that extensive site alteration occur in order to achieve satisfactory support for foundations, roads, and parking lots. Excavation of the swelling subsoil, chemical stabilization, specially designed foundations, and/or controlled fill will most likely be necessary beneath all such facilities. Only a small area of Lunt silt loam (49B&C) in the vicinity of the aforementioned hilltop can be characterized as moderate to good bearing capacity. The remaining soils (Lenoir (53A&B), Bertie (26A) and Elkton (85A) silt loams, Dragston (47A&B) and Fallsington (84A) fine sandy loam and mixed alluvial lands (IA) are problematic with regards to either a high water table, swelling subsoil or both conditions.

HYDROLOGY

Inventory

The subject application is located in the headwaters of the Dogue Creek watershed.

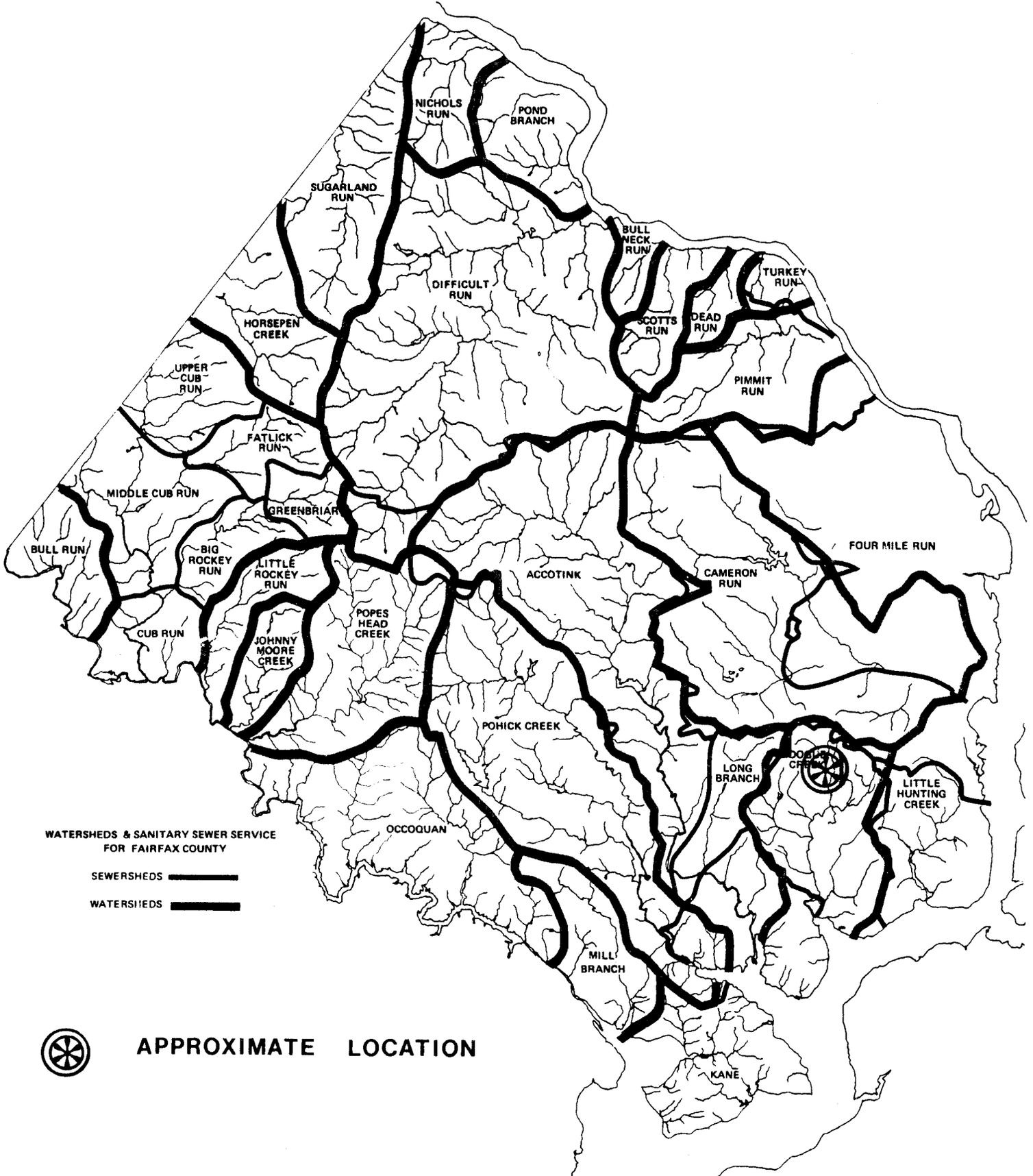
(See Watershed sketch map for approximate location). This pro rata share drainage charge is \$1,916.00 per impervious acre.

The site might be characterized as **one massive water feature**. Wet soils, drainage ditches, a very attractive lake and the **Dogue Creek floodplain** all occur on the parcel. Drainage measures will have to be **sophisticated or even innovative** to accomplish adequate drainage and outfalls while still protecting the **on-site lake**, water dependent vegetation and the off-site wetland resources of the **Huntley Meadows Park**.

Master drainage plans for Dogue Creek are **not yet complete**. Preliminary results indicate that no downstream projects will be needed **in the vicinity** of this property. An Immediate Action Plan (I.A.P.) project involves raising **Telegraph Road** approximately 2'-3' across the expanse of Dogue Creek to prevent **overtopping by the 25-year-storm**. This project will make the road act as an impoundment and provide **downstream flood protection** for homes along Sheridonna Lane. No other actions are **proposed in this area** provided the retention scheme at Telegraph Road and other upstream crossings are **accomplished**. These measures will allow development to occur with a **very small change in flows** from 930 cfs to 1030 cfs for the 25-year-storm.

Stormwater Management

For the subject application, on and off site **drainage impact** mitigation measures relate more to water quality than quantity protection. Discussions with the applicant indicate that underdrains will be used to retain the existing **pond or lake** recharge mechanisms while also serving to make the upslope land areas **dry and useable**. This technique is an excellent approach and is recommended rather than a **conventional storm sewer** which would deliver turbid, warm, nutrient enriched street and yard **wash-off into the lake**. Should more direct surface drainage measures prove necessary for **flow regulation**, however, it is then recommended that the applicant incorporate continuous **sub-surface rock filter** devices between the end of the storm sewer pipe and the edge of the **lake**. The percent voids should be extremely high so as not to retard in-pipe flow or **create pressure flow** conditions. However, the rock filter should be used to physically **impede and hence partially** cleanse stormwater wash off. No specifications have been developed to indicate the **necessary size** for this filtration device.



If federally funded research under Section 208, of Public Law 92-500 (nonpoint source pollution) has not developed such guidelines by the time of subdivision plat submission or actual construction, the sizing should be determined by the professional judgement of the engineers in D.E.M.

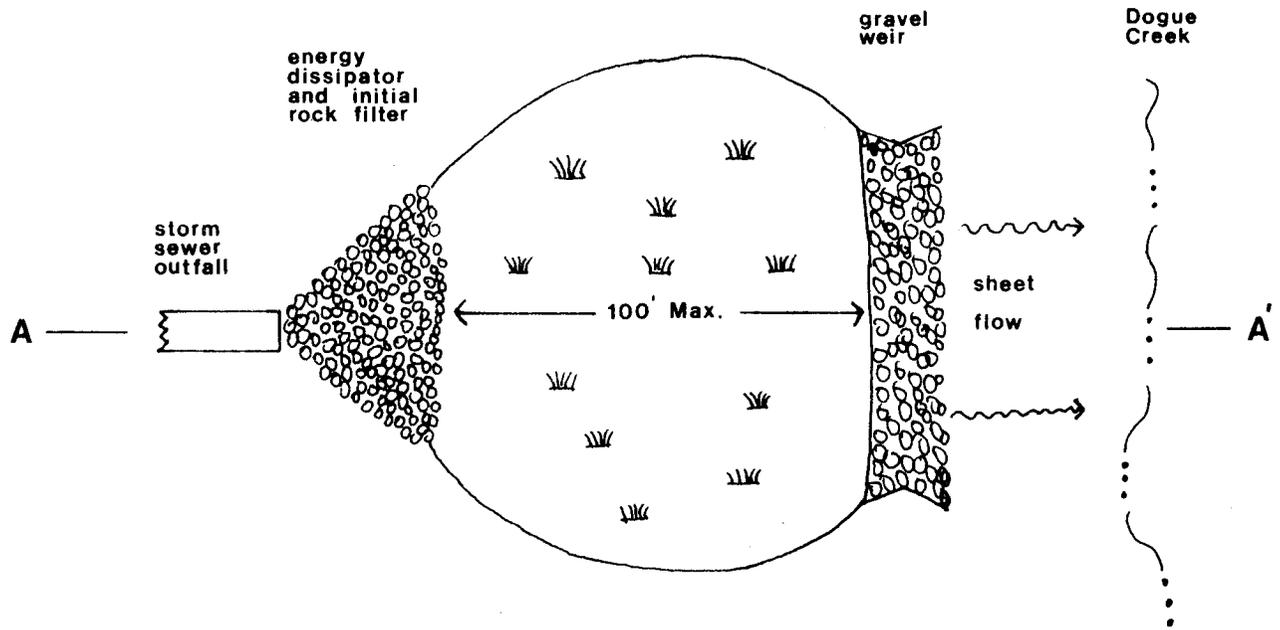
Another water quality protection measure is necessary however, to treat runoff not directed into the lake via the subsurface rock filters. For runoff which might otherwise directly enter Dogue Creek, it is proposed that the applicant construct water quality detention ponds using crushed rock, a natural wetlands vegetation filter and a gravel or crushed rock outfall weir. (See sketch below). Perhaps two of these ponds could be sited in the vicinity of the 100 year floodplain line in order to treat wash-off from this project. As their function is to protect Dogue Creek from water quality impacts, actual siting within the 100 year floodplain should not be intolerable. Further, their sizing is proposed to be such as to present no adverse impact to the hydraulic characteristics of the 100 year storm flow. Because they are water quality measures, these ponds need not be sized to treat the 10-year, 2-hour storm. This could be done. However, more trees would have to be cleared and more importantly, preliminary PBQ&D results indicate that no flow (quantity) regulation devices are needed here. Hence, the staff would recommend that these ponds be sized to impound only up to the two year storm flow for quality improvement measures, unless more flow regulation is deemed necessary by DEM. The on-going 208 studies indicate however, that the land surface pollutant build-up occurs quite rapidly (days or weeks between wash-off events). Hence, if these ponds filter wash-off from rain events that occur 20 or 30 times each year, the vast majority of the pollution will be controlled. The larger and rarer storm event is not the water quality problem.

Vegetation, Wildlife and Open Space Resources

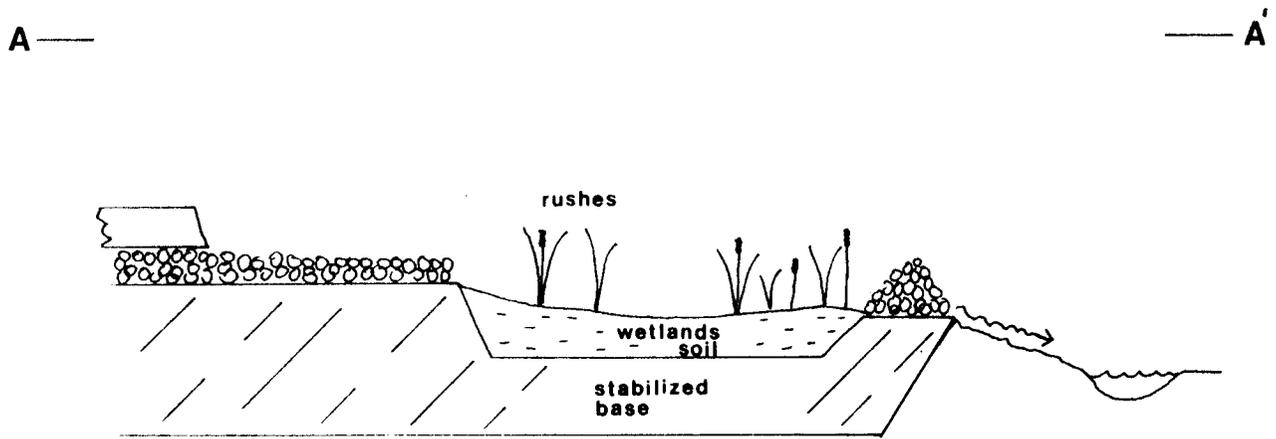
Quality vegetation resources are of limited and hence more important occurrence on this property. Specimen trees exist in the following locations: 1) The extreme N.W. corner of the parcel (48" hickory), 2) Immediately to the front of the westernmost residence on the site (20" pin oak and maple), 3) Immediately to the east of the easternmost residence (40" maple), 4) Along interior hedgerows (36" pin oaks and maples), 5) Southeast of the lake (24" apple tree), 6) West of the lake (28-36" pin oaks), and 7) Virtually the entire southwest corner of the application (a mixture of 20", 28" and 36" pin oaks and willow oaks).

WATER QUALITY PROTECTION DETENTION POND

PLAN VIEW



CROSS SECTION A-A'



These specimen resources, as well as less spectacular but still useful hedgerow maples and sweet gums should be retained in the project design as an amenity and focal point for the units. Conversely, lesser quality scrub maples, brushy areas or open fields should be used for more intensive unit placement, parking lots and roads.

Preservation efforts for the quality trees must be cognizant of their preferential water environment. Pin oak, maples and willow oaks, especially mature monarchs, will be very intolerant of ditching and filling in their immediate locale. For certain, any of these monarchs will require a construction free zone at least equivalent to the drip line for a particular tree.

Wildlife resources exist on the site. Numerous squirrels, rabbits, song birds and at least one Canadian goose use the site and adjacent areas. The use of the open fields for units and roads will unfortunately impact the rabbit.

Open space resources include the Dogue Creek Environmental Quality Corridor, trail proposals along Dogue Creek and Telegraph Road and a citizen identified historic house at 7101 Telegraph Road. The house has been modernized on the exterior.

Visual Environment

Subtle ridgelines focusing on the lake, scattered monarch trees, useful hedgerows of maples and sweet gum and the entire southwest corner of the application represent the visual assets of the site. The project design should: 1) orient units towards the lake with monarchs as focal points for units without a lake view, 2) use hedgerows as a visual break between unit clusters or different structure types and 3) allocate minimal site coverage (disturbance) to the southwest corner.

Noise Impacts

Existing traffic volumes on Telegraph Road adversely impact an area approximately 100' into the parcel from the proposed roadway dedication line. Consequently, in order to make this area useable for residential purposes a noise attenuation structure (berm or berm and wall) must be constructed along Telegraph Road from the western property line to the proposed intersection with the Dogue Creek Parkway. The berm may be broken at the site entrance but, in order to prevent leakage into the first lots adjacent to the entrance and the berm,

the facility should extend into the site along the access road for approximately 40'.

At the proposed Dogue Creek Parkway intersection, this berm should join another berm roughly parallel to the Parkway (berm not proposed for construction until final Parkway grade data becomes available). An area approximately 45' from the edge of the Dogue Creek Parkway right-of-way should be set aside to allow for the construction of a noise facility of up to 10' in height above the level of pavement. This facility will reduce noise levels behind it from 76 dB(A) L₁₀ to 66 dB(A) L₁₀.

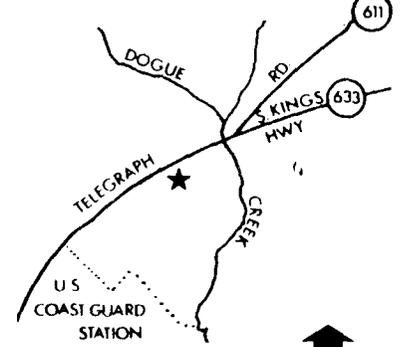
The Telegraph Road noise mitigation structure berm should be designed to attenuate primarily automobile noise. (Relatively few trucks with high exhaust stacks). The berm design should seek a reduction of between 5 and 8 decibels. Consequently, the facility should be approximately 30-32' wide at the base and approximately 7' high relative to the elevation of the pavement on Telegraph Road. (2:1 side slopes, 3-4' top width). The Telegraph Road side should be planted to a maintenance free ground cover and landscaped with flowering trees to soften its appearance and enhance the entrance to this development. The project side might be used by adjacent home owners for yard area. If this occurs however, their side must be terraced or walled so that flat useable ground exists in proximity to the homes. (See suggested cross section).

Air Quality

According to the analysis prepared by the staff of Air Pollution Control, no violations of standards are expected as a result of this development.

SYNTHESIS: Project Design and Proffers

The proposed design does not adequately address the aforementioned environmental concerns. Specifically, these problems exist: 1) no protection is indicated for highway noise impacts, 2) wet soils conditions may still be problematic for some units, (especially those immediately to either side of the sanitary sewer easement), 3) quality vegetation is proposed for clearing while poorer scrub is retained, 4) fragile vegetation types are threatened by "drainage solutions" for wet soil areas, 5) innovative stormwater management above and beyond existing County codes will be necessary to achieve adequate drainage while protecting on and off-site water resources, 6) access to Telegraph Road is proposed for a spot with a marginal sight-distance rating, and 7) internal circulation should better utilize subtle topographic features which if combined with vegetation and water resources could create a community of intimate neighborhood clusters focused on woodlands or water.

<p>1. STATE Virginia COUNTY Fairfax TOWN Alexandria VICINITY Alexandria STREET NO. 7101 Telegraph Road Alexandria, Virginia ORIGINAL OWNER George Johnston ORIGINAL USE Residence PRESENT OWNER Dalbert Richard PRESENT USE Residence WALL CONSTRUCTION Frame and aluminum siding NO. OF STORIES 2</p>	<p>HISTORIC AMERICAN BUILDINGS SURVEY INVENTORY # 131</p> <p>2. NAME Belvale</p> <p>DATE OR PERIOD Probably pre 1766 STYLE --- ARCHITECT --- BUILDER ---</p> <p>3. FOR LIBRARY OF CONGRESS USE</p>
<p>4. NOTABLE FEATURES, HISTORICAL SIGNIFICANCE AND DESCRIPTION</p> <p>OPEN TO PUBLIC No</p> <p>The Belvale property dates from a 1698 grant to Richard Carpenter. In 1763 George Johnston purchased 167 acres of this land and the house was probably built between that year and the year of Johnston's death, 1766. The house remained in the Johnston family until 1925. Johnston was a member of the Virginia Assembly (1758-66) and was closely associated with Patrick Henry in Henry's 1765 resolution opposing the Stamp Act. He was legal advisor and close friend to George Washington, and at least one of his sons served as an aide-de-camp to General Washington during the Revolutionary War.</p> <p>According to Mrs. T. W. Robinson, whose husband was a Johnston descendant, the house was once much more elaborate than it is now. The main body of the house is two stories high but originally a one-story wing extended from the drawing room. The wing is no longer there, perhaps because of fire damage. The original mantels were marble-black in the drawing room, and Italian pink in the library. The bedrooms had either coral or white marble mantels. There was walnut paneling in much of the house. The Johnston family says that two grandsons of George Johnston quarreled and in the absence of one, the other removed the marble mantels and walnut paneling. The replacements for both were plain and undistinguished. The structure was apparently damaged, perhaps by the removal of the paneling. The rear of the house, a back dining room and bedroom above, subsequently collapsed.</p> <p>According to the present owners, the old library is now the kitchen and dining room. The fireplaces have been bricked up and the beams in the basement have been covered. The original white frame and clapboard wall construction has been covered with aluminum siding. The outbuildings are not of the same age as the house. They include a barn, a workshop, and a chicken house now used for storage. On the property there is a cemetery which may have been a slave burial ground.</p> <p>5. PHYSICAL CONDITION OF STRUCTURE Endangered No Interior Good Exterior Good</p>	
<p>6. LOCATION MAP (Plan Optional)</p> 	<p>7. PHOTOGRAPH N. Netherton, 1969</p> 
<p>8. PUBLISHED SOURCES (Author, Title, Pages) INTERVIEWS, RECORDS, PHOTOS, ETC. See Virginia Collection files, Fairfax County Public Library. Eleanor Lee Templeman, <u>Arlington Heritage</u>, Templeman, Arlington, Virginia, 1959.</p>	<p>9. NAME, ADDRESS AND TITLE OF RECORDER Mrs. William R. David Fairfax County Division of Planning 4100 Chain Bridge Road Fairfax, Virginia 22030</p> <p>DATE OF RECORD 11/24/70</p>

GLOSSARY

This Glossary is presented to assist citizens in a better understanding of Staff Reports; it should not be construed as representing legal definitions.

BUFFER - A strip of land established as a transition between distinct land uses. May contain natural or planted shrubs, walls or fencing, singly or in combination.

CLUSTER - The "alternate density" provisions of the Zoning Ordinance, which permits smaller lots and pipestem lots, if specified open space is provided. Primary purpose is to preserve environmental features such as stream valleys, steep slopes, prime woodlands, etc.

COVENANT - A private legal restriction on the use of land, recorded in the land records of the County.

DEVELOPMENT PLAN - Conceptual, Final, Generalized. A Development Plan consists of graphic, textual or pictorial information, usually in combination, which shows the nature of development proposed for a parcel of land. The Zoning Ordinance contains specific instructions on the content of development plans, based upon the purpose which they are to serve. In general, development plans contain such information as: topography, location of streets and trails, means by which utilities and storm drainage are to be provided, general location and types of structures, open space, recreation facilities, etc. A Conceptual Development Plan is required to be submitted with an application for the PDH or PDC District; a Final Development Plan is a more detailed plan which is required to be submitted to the Planning Commission after approval of a PDH or PDC District and the related Conceptual Development Plan; a Generalized Development Plan is required to be submitted with all residential, commercial and industrial applications other than PDH or PDC.

DEDICATE - Transfer of property from private to public ownership.

DENSITY - Number of dwelling units divided by the gross acreage being developed (DU/AC). Density Bonus is an increase in the density otherwise allowed, and granted under specific provisions of the Zoning Ordinance when developer provides excess open space, recreation facilities, moderately priced housing, etc.

DESIGN REVIEW - The Division of the Department of Environmental Management which reviews all subdivision plats and site plans for conformance with County policies and requirements contained in the Zoning Ordinance, the Subdivision Control Ordinance, the Public Facilities Manual, the Building Code, etc, and for conformance with any proffered plans and/or conditions.

EASEMENT - A right given by the owner of land to another party for specific limited use of that land. For example, an owner may give or sell easements to allow passage of public utilities, access to another property, etc.

OPEN SPACE - The total area of land and/or water not improved with a building, structure, street, road or parking area, or containing only such improvements as are complementary, necessary or appropriate to use and enjoyment of the open area.

Common - All open space designed and set aside for use by all or designated portions of residents of a development, and not dedicated as public lands (dedicated to a homeowners association which then owns and maintains the property).

Dedicated - Open space which is conveyed to a public body for public use.

Developed Recreation - That portion of open space, whether common or dedicated, which is improved for recreation purposes.

PROFFER - A Development plan and/or written condition, which, when offered by an owner and accepted by the Board of Supervisors, becomes a legally binding part of the regulations of the zoning district pertaining to the property in question. Proffers, or proffered conditions, must be considered by the Planning Commission and submitted by an owner in writing prior to the Board of Supervisors public hearing on a rezoning application, and thereafter may be modified only by an application and hearing process similar to that required of a rezoning application.

PUBLIC FACILITIES MANUAL - The manual, adopted by the Board of Supervisors, which defines guidelines which govern the design of those facilities which must be constructed to serve new development. The guidelines include streets, drainage, sanitary sewers, erosion and sediment control and tree preservation and planting.

SERVICE LEVEL - An estimate of the effectiveness with which a roadway carries traffic, usually determined under peak anticipated load conditions.

SETBACK, REQUIRED - The distance from a lot line or other reference point, within which no structures may be located.

SITE PLAN - A detailed plan, to scale, depicting development of a parcel of land and containing all information required by the Zoning Ordinance. Site plans are required, in general, for all townhouse and multi-family residential development and for all commercial and industrial development.

SUBDIVISION ORDINANCE - An ordinance regulating the division of land into smaller parcels and which, together with the Zoning Ordinance, defines required conditions laid down by the Board of Supervisors for the design, dedication and improvement of land.

SUBDIVISION PLAT - A detailed drawing, to scale, depicting division of a parcel of land into two or more lots and containing engineering considerations and other information required by the Subdivision Ordinance.

USE - The specific purpose for which a parcel of land or a building, is designed, arranged, intended, occupied or maintained.

Permitted - Uses specifically permitted by the Zoning Ordinance Regulations of the Zoning District within which the parcel is located. Also described as a Conforming Use.

Non-Conforming - A use which is not permitted in the Zoning District in which the use is located but is allowed to continue due to its existence prior to the effective date of the Zoning Regulation(s) now governing.

USE - Continued.

Special Permit - A use specified in the Zoning Ordinance which may be authorized by the Board of Zoning Appeals or the Board of Supervisors in specified zoning districts, upon a finding that the use will not be detrimental to the character and development of the adjacent land and will be in harmony with the policies contained in the latest adopted comprehensive plan for the area in which the proposed use is to be located. A Special Permit is called a Special Exception when granted by the Board of Supervisors.

Transitional - A use which provides a moderation of intensity of use between uses of higher and lower intensity.

VARIANCE - A permit which grants a property owner relief from certain provisions of the Zoning Ordinance when, because of the particular physical surroundings, shape or topographical condition of the property, compliance would result in a particular hardship or practical difficulty which would deprive the owner of the reasonable use of the land or building involved. Variances may be granted by the Board of Zoning Appeals after notification, advertising, posting and conduct of a public hearing on the matter in question.

VPD - Vehicle trips per day (for example, the round trip to and from work equals two VPD). Also ADT - Average Daily Traffic.

ENVIRONMENTAL TERMS

ACOUSTICAL BERM - Usually a triangular-shaped earthen structure paralleling a highway noise source and extending up from the elevation of the roadway a distance sufficient to break the line of sight with vehicles on the roadway.

AQUIFER - A permeable underground geologic formation through which groundwater flows.

AQUIFER RECHARGE AREA - A place where surface runoff enters an aquifer.

CHANNEL ENLARGEMENT - A development-related phenomenon whereby the stream's bank full capacity is exceeded with a greater frequency than under natural undeveloped conditions, resulting in bank and stream bottom erosion. Hydrology literature suggests that flows produced by a storm event which occurs once in 1.5 years are the channel defining flows for that stream.

COASTAL PLAIN GEOGRAPHIC PROVINCE - In Fairfax County, it is the relatively flat southeastern 1/4 of the County, distinguished by low relief and a preponderance of sedimentary rocks and materials (sands, gravels, silts) and a tendency towards poorly drained soils.

dB(A) - Abbreviation for a decibel or measure of the noise level perceived by the ear in the A scale or range of best human response to a noise source.

DRAINAGE DIVIDE - The highest ground between two different watersheds or subsheds.

ENVIRONMENTAL LAND SUITABILITY - A reference to a land use intensity or density which should occur on a site or area because of its environmental characteristics.

ERODIBLE SOILS - Soils susceptible to diminishing by exposure to elements such as wind or water.

FLOODPLAIN - Land area, adjacent to a stream or other surface waters, which may be submerged by flooding; usually the comparatively flat plain within which a stream or riverbed meanders.

IMPERVIOUS SURFACE - A natural or man-made surface (road, parking lot, roof top, patio) which forces rainfall to runoff rather than infiltrate.

MONTMORILLONITIC CLAY - A fine grained earth material whose properties cause the clay to swell when wet and shrink when dry. In addition, in Fairfax County these clays tend to slip or slump when they are excavated from slope situations.

NEF - Noise Exposure Forecast - A noise description for airport noise sources.

PERCENT SLOPE - The inclination of a landform surface from absolute horizontal; formula is vertical rise (feet) over horizontal distance (feet) or V/H.

PIEDMONT GEOGRAPHIC PROVINCE - The central portion of the County, characterized by gently rolling topography, substantial stream dissection, V-shaped stream valley, an underlying metamorphic rock matrix (schist, gneiss, greenstone) and generally good bearing soils.

PIES/ENVIRONMENT - Project Impact Evaluation - A systematic, comprehensive environmental review process used to identify and evaluate likely environmental impacts associated with individual project or area plan proposals.

SHRINK-SWELL RATE - The susceptibility for a soil's volume to change due to loss or gain in moisture content. High shrink-swell soils can buckle roads and crack foundations.

SOIL BEARING CAPACITY - The ability of the soil to support a vertical load (mass) from foundations, roads, etc.

STREAM VALLEY - Any stream and the land extending from either side of it to a line established by the high point of the concave/convex topography, as delineated on a map adopted by the Stream Valley Board. For purposes of stream valley acquisition, the five-criteria definition of stream valleys contained in "A Restudy of the Ponick Watershed" (1969) will apply. The two primary criteria include all the land within the 100-year floodplain and the area along the floodplain in slopes of 15 percent or more.

STORM WATER MANAGEMENT - An emerging art/science that attempts to treat storm water runoff at the source and as a resource. Storm water management programs seek to mitigate or abate quantity and quality impacts typically associated with development by the specific design of onsite systems such as Detention Devices which slow down runoff and in some cases improve quality, and Retention Systems, which hold back runoff.

TRIASSIC GEOGRAPHIC PROVINCE - The western 1/4 of Fairfax County, characterized by broad expanses of nearly level topography, subtle ridge lines, a shallow depth to sedimentary rocks which are locally intruded by igneous rocks and a tendency towards soils with high shrink-swell properties.