



**MONTGOMERY COUNTY PLANNING BOARD
OPINION**

Preliminary Plan No. 1-95093

Project: Drayton Farm

Action: APPROVAL SUBJECT TO CONDITIONS. (Motion was made by Commissioner Richardson; seconded by Commissioner Holmes; with a vote of 3-0, Commissioner Hussmann voting in favor of the motion. Commissioner Baptiste was temporarily absent. Commissioner Aron was absent.)

PROJECT DESCRIPTION

The Drayton Farm Preliminary Plan application proposes development of 32 single family detached residential units on 63.3 acres of land. A portion of the property is zoned Rural Cluster zone, the rest is zoned RE-1. Most of the proposed residential development is located within the RE-1 portion. Two of the six units that could be allowed on the Rural Cluster portion of the site have been moved into the RE-1 section, and the lots have been accordingly reduced in size. The area remaining undeveloped will remain primarily agricultural in use. An existing farmhouse -- the Hunt Residence -- will be preserved as an historic resource and a focal point of the agricultural portion of the site.

The project will be developed under the Optional Cluster Method of development, an option available to the Applicant and designed to encourage open space, preservation of environmentally sensitive areas and flexibility in lot layout. The amount of density remains the same. In short, the Applicant can build the same number of homes, on smaller lots than normally permitted under the original zoning. Use of the cluster option is of environmental benefit because it allows for shorter roads, reducing imperviousness in the affected watersheds. This development pattern allows preservation of open space surrounding the historic home, and for preservation of some continued agricultural use. The subject application was filed as a combined cluster development. The procedures for a combined cluster are contained in Section 59-C-1.526 of the Zoning Ordinance. The combined cluster provisions allow for the proposed density shift from the R-C Zone to the RE-1 Zone.

The subject property ("Property") lies within two watersheds. Approximately 21 acres are located within the Upper Paint Branch (Use III waters), and 42.4 acres are within the Patuxent River (Use I waters). Gentle to moderate slopes exist on site with an average slope of approximately 7

percent. The Property has been used for agricultural purposes, and is primarily covered with turf grasses. There is a small stand of forest (4-5 acres) adjacent to a head water stream on the northern end of the Property. A smaller strand of trees, approximately 0.3 acres lying within the stream valley of an off-site stream, is located on the northwestern part of the Property. The historic house and out buildings are surrounded by individual trees, some of them of specimen size.

The Property contains no floodplain. A headwater stream and wetlands are located on the northern part of the site within the Patuxent River watershed. An existing farm pond lies within a portion of these wetlands, and will be retrofitted to current stormwater management pond standards as part of the overall stormwater management plan.

The part of the Property in the Paint Branch contains no streams, wetlands or environmental buffer areas. This part of the Property lies within the upper headwaters of the Left Fork Tributary which is included in the Upper Paint Branch Special Protection Area.

ENVIRONMENTAL CONSIDERATIONS - PAINT BRANCH WATERSHED

On-Site Imperviousness

A preliminary water quality plan, final water quality plan and stormwater management concept were conditionally approved by Montgomery County's Department of Environmental Protection (DEP). As part of the water quality plan, several site performance goals were established: minimize increases to ambient water temperature; minimize sediment loading; maintain stream base flow; and minimize storm flow runoff increases. As construction occurs, the Applicant intends to regrade the site and, as a result, move the natural ridgeline separating Paint Branch and Patuxent River watersheds. After regrading, almost nine acres of land that currently drain to the Paint Branch stream system will drain into the Patuxent River watershed. This regrading is approved in the water quality plans and stormwater management concept.

The portion of the site that lies in the Upper Paint Branch Watershed is located in a Special Protection Area (SPA) that caps the permissible level of impervious development to 10 percent of that part of the site within the watershed. The Applicant asserted that imperviousness within a watershed should be calculated based on the post-development watershed boundary. The Applicant based its assertion on the theory that the proposed open section roads -- which include vegetated swales to convey stormwater runoff -- and the vegetated buffer which is part of the stormwater management concept, will adequately mitigate any loss of infiltration and groundwater recharge due to increased impervious surfaces. The Applicant further stated that the proposed development will have an insignificant effect on the base flow in the Paint Branch Watershed. In particular, the Applicant argued that there would be a substantial reduction in the amount of stormwater runoff to the Paint Branch, and a substantial comparative benefit in the amount of thermal impact from this Property while there would be a minimal difference in the amount of thermal impact to the watershed. The Applicant argued that overall, approval based on the post-development ridgeline would meet the spirit and intent of the SPA, and as a result would result in a comprehensive

environmental benefit. According to the Applicant, these features of the proposed subdivision should allow imperviousness within Paint Branch Watershed to be calculated using the post-development watershed boundary.

Using post-development topography to define the Paint Branch drainage area on the site (i.e., the Applicant's method for calculating site imperviousness) results in a site imperviousness of 4.1 percent.

Staff, on the other hand, recommended to the Planning Board that site imperviousness should be calculated using the pre-development topography. Environmental staff stated that in this geographical area, the pre-development ridgeline generally controls the nature and character of the groundwater recharge that feeds streams flowing downhill of the ridgeline. Staff advised the Board, and the Applicant concurred, that even if the watershed boundary and associated direction of flow for surface water are changed by development, the direction of flow for groundwater should be assumed to continue to follow the pre-development topography. Therefore, the development impact on the watershed will remain the same for purposes of groundwater recharge even if the ridgeline is moved, and the watershed should be analyzed in its pre-development state for purposes of impervious calculations. The Applicant conceded during the public hearing that groundwater recharge generally is determined by the pre-development ridgeline, but argued that the other elements of the performance standards offset this element and as a whole the project should be viewed from the post-development ridgeline for calculation of the 10 percent imperviousness cap.

The 10 percent site imperviousness cap set forth in the 1981 Eastern Montgomery County Master Plan for the Paint Branch Watershed is used as a tool to minimize the impacts of new development on groundwater recharge and associated stream baseflow, water quality, and other features associated with a healthy stream system. Staff advised the Board that the imperviousness cap should be applied to the drainage area within Paint Branch as delineated by the pre-development watershed boundary.

Montgomery County's Department of Environmental Protection concurred with staff's conclusion. In a letter dated February 6, 1996, addressing the subject Preliminary Plan, DEP states that "even though the majority of the surface water (stormflow) is being conveyed to the Patuxent River watershed side, the pre-developed drainage area to the Paint Branch is the area that influences groundwater recharge, baseflow maintenance and to some extent the sediment loadings in the Paint Branch Watershed."

Using pre-development watershed boundaries to define the portion of the Property within Paint Branch, staff calculated the site imperviousness as 11.8 percent. This level exceeds the 10 percent Master Plan site imperviousness cap by 1.8 percent, or 16,387 square feet of impervious surfaces. Since each lot is shown to have 3,390 square feet of impervious surface (2,400 square feet per house and 990 square feet per driveway), the excess impervious surface translates to 5 lots. Staff recommended that 5 lots that lie within the Paint Branch Watershed be deleted so that site imperviousness within Paint Branch does not exceed 10 percent.

The Applicant advised the Board that if it decided to use the pre-development location of the ridgeline to calculate imperviousness, then the Applicant would reduce the maximum square footage of the building footprints to 2,100 square feet (from 2,400 square feet), thereby reducing the number of lots to be eliminated from five to two. Staff supported this request, noting that deletion of two lots would also allow elimination of a cul-de-sac, further reducing imperviousness.

Off-Site Imperviousness

As a condition for approval of this subdivision, the State Highway Administration (SHA) required a 550-foot long by-pass lane along Route 198 at Oak Hill Road that would be located within the Paint Branch SPA, and increase the imperviousness level by 3,300 square feet. Staff worked with SHA, and SHA agreed to allow restriping of existing pavement with limited additional pavement to allow sufficient width for the turning lane, limiting the additional imperviousness. The estimated additional impervious surface due to the by-pass lane along Route 198 will result in an increase in imperviousness for the part of the subdivision within Paint Branch from 11.8 percent to 12.1 percent (using pre-development watershed boundaries, as discussed above).

The Applicant requested that the additional impervious surface due to the by-pass lane not be included in the subdivision's imperviousness calculations, asserting the need for a by-pass lane was the result of the cumulative development on the entire length of Oak Hill Road, and a benefit to the transportation network users as a whole. The Applicant further argued that burdening the Applicant with lot reduction due to impervious area, in addition to constructing the by-pass lane for public benefit, is an inappropriate action.

PATUXENT RIVER WATERSHED

Most of the portion of the Property that lies within the Patuxent River watershed also lies within the Primary Management Area (PMA). Therefore, in accordance with the Planning Board's Environmental Guidelines, there is a 10 percent site imperviousness cap that is applied on the part of the Property in the Patuxent River watershed. Because most of this part of the Property is zoned Rural Cluster and density is very limited, site imperviousness within the Patuxent River watershed is well below 10 percent. Using pre-development topography to define watershed boundaries, site imperviousness within the Patuxent River watershed is 3.6 percent. (If post-development topography is used, site imperviousness within the Patuxent River watershed is 6.8 percent.)

CLUSTER DEVELOPMENT

Several residents from the existing, surrounding neighborhoods testified in opposition to the Applicant's proposed use of the cluster method of development. The testimony largely addressed lot sizes, pointing out that the lots were smaller than those in the existing neighborhoods and objecting to those smaller lots. The Applicant noted that the side lot lines for the proposed development matched the lot lines of the existing development adjacent to the proposed new project.

There also was community opposition to a new access on Oak Hill Road, and citizens asked that the subdivision entry be located on nearby Spencerville Road. Staff noted that Maryland's State Highway Administration requested the access on Oak Hill Road, and prohibited access on Spencerville Road.

BOARD'S FINDINGS

The Board bases its decision on the performance criteria contained in the 1981 Master Plan, and finds that all of the performance criteria must be addressed. The Board accepts staff's recommendation that the groundwater will mimic pre-development surface conditions. In addition, the Board finds that the Proposal must address all of the performance criteria, and that in order to properly apply the review standards it must base its review on the pre-development ridgeline.

The Board adopts Applicant's proposal to limit the building footprints to 2,100 square feet, and deletes two lots from the 32 requested to limit imperviousness to 10 percent. In addition the Board adopts SHA's recommendations on road access, and finds it appropriate to calculate the off-site road imperviousness to the overall imperviousness calculations for this project, as the additional pavement is necessitated by this development, and deletes one additional lot to maintain an overall imperviousness level of 10 percent. Overall, the Board finds that the 10 percent cap will be met with approval of 29 lots.

Finally, the Board finds that the cluster method of development is beneficial to the Paint Branch and Patuxent watersheds. The smaller lots as proposed are a preferable development pattern, and provide overall environmental benefit not only to the watersheds but in the preservation of open space.

The Board approves the subdivision application for 29 lots, subject to the following conditions:

- (1) Site imperviousness must not exceed 10.0 percent within the Paint Branch Watershed, as defined by pre-development topography. Applicant to submit for technical staff approval a revised lot layout and grading plan that includes a building footprint restriction not to exceed 2,100 square feet per building pad.
- (2) Prior to recording of plats submit Preliminary Plan Compliance Agreement with Planning Board including:
 - (a) Conformance to the 1981 Eastern Montgomery County Master Plan performance criteria for imperviousness:
 - (1) For those lots located within the Paint Branch Watershed, as defined by pre-development topography:

- (i) submit revised impervious surface plan in which site imperviousness does not exceed 10.0 percent; and
 - (ii) demonstrate the average building footprint does not exceed 2,100 square feet for all lots submitted simultaneously for building permit approval.
- (2) Demonstrate conformance to imperviousness limits prior to Montgomery County Planning Board release of building permits.
- (3) Prior to recording of plats, submit documentation that soil conservation and water quality plan has been approved by the Montgomery Soil Conservation District for the part of the subdivision that is proposed to remain in agricultural use.
- (4) Record plats to reflect delineation of conservation easements over the areas of forest planting and forest conservation.
- (5) Approval of the preliminary Forest Conservation Plan with conditions as set forth in the Environmental Planning Division Forest Conservation Plan Recommendations dated 2-15-96. These conditions include but are not limited to:
 - (a) Declaration of intent to farm on the agricultural use area to be submitted for staff approval prior to approval of the final forest conservation plan.
 - (b) Category I Conservation Easement to be placed over the forest and tree preservation areas and any forest planting areas.
 - (c) Record plats to include note for preservation of existing trees as shown on final forest conservation plan for Lot 25.
- (6) Approval of the water quality plan with the following condition:
 - (a) Update the water quality plan to show site imperviousness calculations that do not exceed 10.0 percent within the Paint Branch Watershed, as defined by pre-development topography and that are consistent with Condition No. 1 (above).
- (7) At least 90 days prior to the submission for building permits or road construction permits, Applicant to notify all appropriate government agencies of the intent to proceed with construction.

- (8) Conditions of MCDEP memo dated 2-6-96 and Planning Department Staff memo dated 2-16-96 stormwater management/water quality plans.
- (9) Access and improvements as required and approved by MCDOT.
- (10) Improvements to existing Spencerville Road (MD RT 198) as required by MDSHA.
- (11) Compliance with Montgomery County Historic Preservation Commission approval (staff memo dated 12-8-96).
- (12) Dedication of Spencerville Road (MD RT 198) and Oak Hill Road as shown on plan.
- (13) No direct driveway access to Spencerville Road (MD RT 198) or Oak Hill Road.
- (14) Other necessary easements.
- (15) This Preliminary Plan will remain valid until October 16, 1999. Prior to the expiration of this validity period, a final record plat for all Property delineated on the approved Preliminary Plan must be recorded or a request for an extension must be filed.

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