



MCPB
Item #
12-6-10

MEMORANDUM

TO: Montgomery County Planning Board
VIA: Mark Pfefferle, Acting Chief, Environmental Planning
FROM: Josh Penn, Senior Planner, Environmental Planning
DATE: November 23, 2010
PLAN NAME: A-305 Snowden Farm Parkway
PLAN NUMBER: MR 2010814
PLAN TYPE: Preliminary Forest Conservation Plan
Special Protection Area Water Quality Plan
REVIEW BASIS: Chapter 22A of the County Code
Chapter 19 of the County Code
ZONE: RE-2
LOCATION: West of Ridge Road (MD 27) 800 feet south of Morning Star Drive in
Clarksburg
APPLICANT: Montgomery County Department of Permitting Services (DPS)
HEARING DATE: December 6, 2010

RECOMMENDATIONS

The Environmental Planning staff has reviewed the special protection area water quality and forest conservation plans. Staff recommends:

APPROVAL of the SPA Water Quality Plan subject to the following condition:

1. Conformance to the conditions as stated in Montgomery County Department of Permitting Services (DPS) preliminary water quality plan approval letter (Attachment 1).

APPROVAL of the Preliminary Forest Conservation Plan subject to the following conditions:

1. Submission and approval of a final forest conservation plan prior to any land disturbing activities.

BACKGROUND

This project proposes to construct a one-half-mile long segment of Snowden Farm Parkway (A-305) from the edge of the Clarksburg Village Phase II site plan, approximately 320 feet north of Morning Star Drive to Ridge Road (MD27). Snowden Farm Parkway will not intersect with Morning Star Drive for Morning Star Drive will be terminated with cul-de-sacs on either side of the proposed Snowden Farm Parkway. The alignment is consistent with approved site plans.

This project would be constructed by Clarksburg Village, L.L.C. and Clarksburg Skylark, L.L.C.

under permit from the Montgomery County Department of Permitting Services as a condition of approval for Preliminary Plans 120020330 and 120010300.

A natural resource inventory/forest stand delineation (NRI/FSD #420071450) was originally approved by Environmental Planning staff on June 11, 2007 and subsequently recertified on January 29, 2010, and revised on November 22, 2010. The NRI/FSD covered a study area of 32.84 acres. The study area contained 1.08 acres of forest, a stream, 0.46 acres of wetlands, and 4.25 acres of stream valley buffer (SVB) . The property is located within the Little Seneca Creek watershed, which is a USE Class IV designation. The Countywide Stream Protection Strategy (CSPS) rates this watershed as good. The entire project is located within the Clarksburg Special Protection Area (SPA) and requires approval of both water quality and forest conservation plans.



Figure 1: 2010 Aerial Photograph with Parcel Boundaries

DISCUSSION

There are three items for Planning Board review for the A-305 Snowdens Farm Parkway: the mandatory referral, the special protection area (SPA) water quality plan, and the forest conservation plan. This memorandum covers staff's review and recommendations on the SPA preliminary/final

water quality plan and the forest conservation plan.

The Board's actions on the SPA preliminary/final water quality plan and forest conservation plan are regulatory and binding. The Planning Board must act on the SPA preliminary water quality plan and forest conservation plan before it can act on the mandatory referral.

SPA WATER QUALITY PLAN

This project is within the Clarksburg SPA and on publicly owned property¹ so it is required to obtain approval of a water quality plan under section 19-67 of the Montgomery County Code. This section of the code states:

(c) Publicly owned property. Before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan.

Review for Conformance to the Special Protection Area Requirements

As part of the requirements of the Special Protection Area law, a SPA water quality plan should be reviewed in conjunction with a mandatory referral.² Under the provision of the law, the Montgomery County Department of Permitting Services (DPS) and the Planning Board have different responsibilities in the review of a water quality plan. DPS has reviewed and conditionally approved the elements of the Water Quality Plan under its purview. The Planning Board responsibility is to determine if environmental buffer protection, SPA forest conservation and planting requirements have been satisfied.

Environmental Planning Staff has reviewed and recommends Planning Board approval with conditions of the elements of the SPA water quality plan under its purview:

County DPS Special Protection Area Review Elements

DPS has reviewed and conditionally approved the elements of the SPA preliminary/final water quality plan under its purview with a synopsis provided below (see Attachment 1).

Site Performance Goals

As part of the preliminary/final water quality plan, the following performance goal was established for the site:

1. Minimize storm flow run off increases.
2. Minimize sediment loading.
3. Maintain stream base flows by providing recharge.

¹ The land subject to this water quality plan is the future Right-of-Way for Snowdens Farm Parkway (A-305) and should be treated as publicly owned land.

² Section 19-67 of the Montgomery County Code states that "before engaging in any land disturbing activity on publicly owned property in an area designated as a special protection area, the applying agency or department should prepare a combined preliminary and final water quality plan."

Stormwater Management Concept

Stormwater management will be provided on site by a combination of ESD practices that include flat bottom swales, bioswales, a grass channel, and six pocket sand filters. Recharge will be provided via porous pavement, in the flat bottom swales, bioswales, and under the sand filters.

Sediment and Erosion Control

Redundant sediment controls are to be used throughout the site. The use of sediment traps with forebays that provide 125% of the normally required storage volume is acceptable. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance. All sediment trapping devices will need to be equipped with dewatering devices.

Monitoring of Best Management Practices

Monitoring must be in accordance with the BMP monitoring protocols which have been established by the Department of Permitting Services (DPS) and Department of Environmental Protection (DEP). The pre-construction monitoring requirements that were established at the pre-application meeting are still applicable (groundwater elevation and chemistry monitoring). The number and location of the groundwater monitoring wells will be determined prior to the submission of the detailed sediment control plan. The construction and post construction monitoring requirements will be determined upon the finalization of the actual sediment control and stormwater management structure locations. One year of pre-construction monitoring must be completed prior to the issuance of a sediment control permit.

Planning Board Special Protection Area Review Elements

Environmental Guidelines

This proposed roadway project while small in terms of roads has some substantial environmental impacts. This stretch of A-305 Snowdens Farm Parkway will permanently impact over 300 linear feet of stream channel, 4,900 square feet of wetlands, 16,900 square feet of wetland buffer, and approximately 120,000 square feet of stream valley buffer.

Snowdens Farm Parkway is recommended in the Clarksburg Master Plan as a four-lane divided road with a 120-foot-wide right-of-way, with sidewalks and bike paths, that connects Clarksburg Village to Ridge Road and M-83 (Midcounty Highway). The roadway alignment is fixed at the intersection with Ridge Road (MD 27) and where it passes by Morning Star Drive (approved as part of Clarksburg Village Phase II) so there is little opportunity to alter the roadway alignment. The section of roadway subject to the water quality plan, forest conservation plan and mandatory referral is a relatively small since the majority of the master planned roadway has been approved through various site plan approvals.

The applicant made a number of alterations to the typical roadway cross section to reduce the necessary environmental impacts. In the area of the stream crossing and wetlands, as outlined in green in the exhibit below, the modified cross section reduces wetland impact by 720 square feet (new total 4,943 SF) and wetland buffer impact by 600 square feet (new total 16,931 SF compared to the typical cross section).

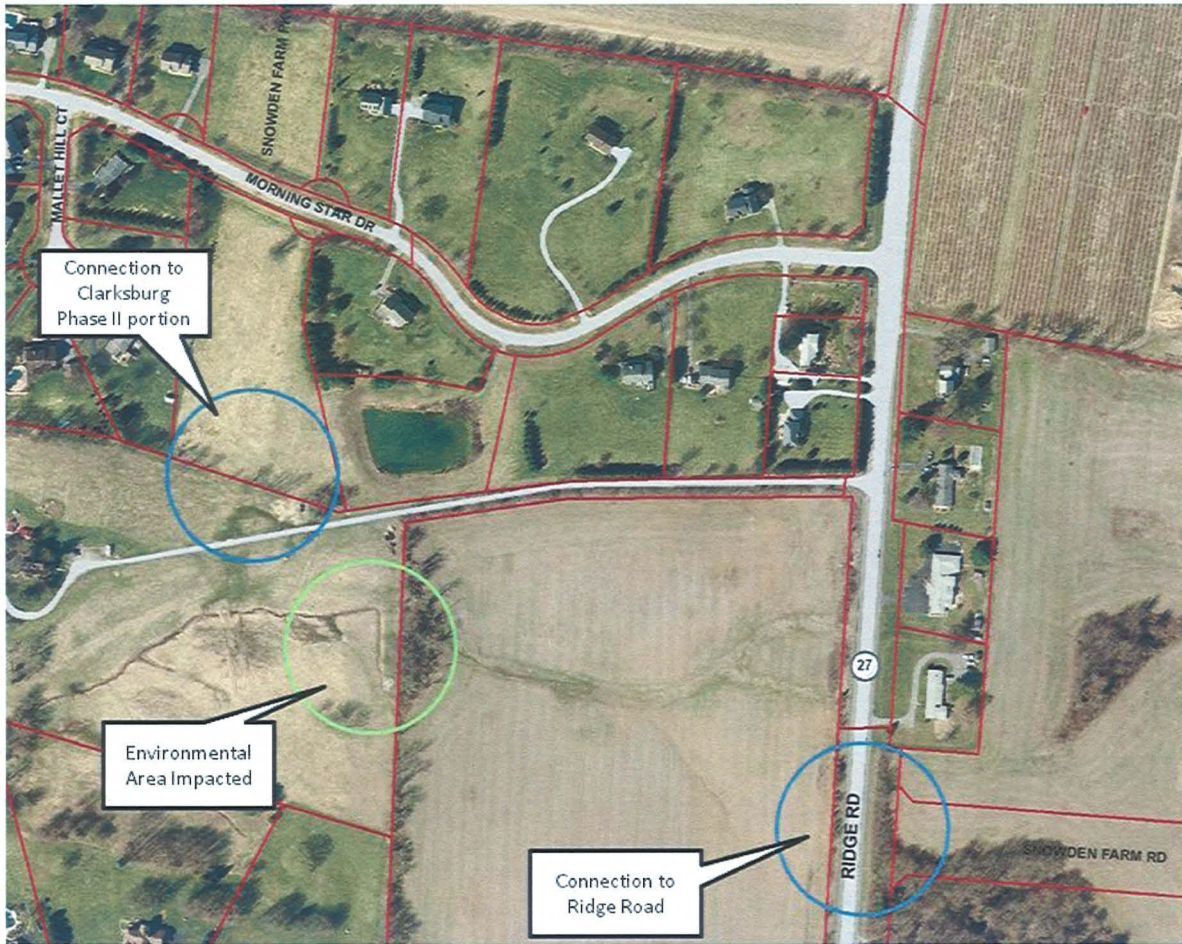


Figure 2: Areas of Concern

Additionally, the centerline grade of the new roadway is set to be approximately 2.5 feet above existing ground at the low point in the roadway. Considering the super elevation requirements, the proposed grade at the right-of-way on the northeast side of the roadway (at the low point) is basically flush with existing ground and the proposed grade at the right-of-way on the southwest side will require approximately four to five feet of fill material. Typically, the proposed grade for a new roadway at a low point requiring a culvert would be set four to eight feet or more above existing ground, to allow more flexibility for the design of underground storm drain and culvert design. The typical roadway construction would require more grading and fill slopes and create more impact within the stream buffer area. By keeping the new roadway grade lower as designed, the impacts to the existing environmental resources have been minimized.

Furthermore, the plan proposes to add a new under drain in the vicinity of the existing seeps and stream channel to be filled as a means to replicate the existing groundwater condition and enhance the groundwater recharge at this location to minimize hydrological impacts on the remaining wetlands and stream.

The applicant has reduced the environmental impacts by implementing design changes for a master planned roadway with few opportunities to reduce the impacts. The applicant's proposal is consistent with the environmental guidelines to either avoid the environmental impacts and when that is not possible to minimize the impacts.

Forest Conservation

This project is subject to the Montgomery County Forest Conservation law (Chapter 22A of the County code) under section 22A-4(d) “*a government entity subject to mandatory referral on a tract of land 40,000 square feet or larger...*” The original study area for the project was 32.84 acres but only the area of the limits of disturbance for the roadway, 8.58 acres, is subject to forest conservation.

The submitted preliminary forest conservation plan (PFCP) shows 0.52 acres of forest removal and no retention of forest within the area subject to forest conservation. The proposed use of this site is a public roadway and is therefore considered an institutional land use and the afforestation threshold for Institutional Development Areas (IDA) was used. The IDA afforestation threshold is 15% of the net tract area and the conservation threshold is 20% of the net tract area. The net tract area for this project is 8.58 acres and 15% of that would be 1.29 acres and 20% would be 1.72 acres. The forest conservation worksheet indicates 1.81 acre planting requirement.

The applicant is proposing to meet the forest planting requirements off-site. The final determination of off-site areas to be used will be done as part of the final FCP.

No trees subject to section 5-1607(c) are being removed or impacted by this project, therefore no variance is required as part of this plan.

The forest conservation plan meets the requirements of the Forest Conservation Law.

Imperviousness

Within this section of the Clarksburg SPA there is no impervious surface cap or limit. However, a main goal of all SPA's is to reduce the overall impervious footprint of new development within SPA boundaries (the impervious footprint includes roads, paved surfaces such as driveways, houses, buildings, parking lots, etc.).

Roadway projects provide very limited opportunities to reduce the impervious footprint because of set roadway standards for width of paving and other required pedestrian and cyclist connections.

The applicant is using porous pavement where feasible for both the required sidewalks and bike paths. While pervious paving is not considered pervious in terms of impervious surface caps and does not reduce the impervious footprint, it does allow for some recharge and should be used where feasible.

CONCLUSION

Staff recommends the Planning Board approve the preliminary/final water quality plan and the preliminary forest conservation plan.



DEPARTMENT OF PERMITTING SERVICES

Isiah Leggett
County Executive

November 10, 2010

Carla Reid
Director

Mr. Edward Wallington
Loiederman Soltesz Associates, Inc.
2 Research Place, Suite 100
Rockville, Maryland 20850

Re: Revised Final Water Quality Plan for
Snowden Farm Parkway A-305
SM File #: 233038
Tract Size/Zone: 12.6 acres/RE-2,C-Inn
Total Concept Area: 6.5 acres
Watershed: Little Seneca Creek

SPECIAL PROTECTION AREA

Dear Mr. Wallington:

Based on a review by the Department of Permitting Services Review Staff, the Revised Final Water Quality Plan (FWQP) for the above mentioned site is conditionally approved. This approval is for the elements of the Final Water Quality Plan of which DPS has lead agency responsibility, and does not include limits on imperviousness or stream buffer encroachments.

Site Description: The development proposal is for the construction of Snowden Farm Parkway/Arterial Route A-305 from station 0+06 (at MD Route 27) northwest to station 24+27. The proposed improvements include the parkway itself along with an 8" wide bike path on one side and a 5' wide sidewalk on the opposite side. This is located within the Little Seneca Creek watershed of the Clarksburg Special Protection Area.

Stormwater Management: Stormwater management will be provided via a combination of nonstructural and structural features that includes flat bottom swales, bioswales, a grass channel and six pocket sand filters. Pretreatment will be provided by vegetated filtering prior to runoff entering the sand filters. The proposed sidewalks and bike paths will be constructed using porous pavement where feasible (cut areas). Recharge will be provided via porous pavement, in the flat bottom swales, bioswales and under the sand filters.

Sediment Control: Redundant sediment control structures are to be used throughout the site. The use of sediment traps with forebays will be acceptable. The total storage volume is to be a minimum of 125% of the normally required volume. All sediment trapping structures are to be equipped with dewatering devices. The following features are to be incorporated into the detailed sediment control plan:

1. The earth dikes that feed the sediment traps are to be constructed using trapezoidal channels to reduce flow rates.
2. Silt fence alone will not be allowed as a perimeter control. The use of super silt fence will be acceptable for small areas of disturbance.

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Performance Goals: The performance goals remain as stated in the original approval letter. They are as follows:

1. Minimize storm flow run off increases.
2. Minimize sediment loading.
3. Maintain stream base flows by providing recharge.

Monitoring: The monitoring must be in accordance with the BMP monitoring protocols which have been established by the Department of Permitting Services (DPS) and Department of Environmental Protection (DEP). The monitoring requirements are described in the "Attachment to the Preliminary/Final Water Quality Plan" memorandum by DEP dated August 10, 2007 and included with the original Preliminary/Final Water Quality Plan approval letter. The structures specified for monitoring in that attachment letter will likely change due to structure number and location changes. The monitoring locations will be specified at the time of detailed plan review.

Prior to the start of any monitoring activity, a meeting is to be held on site with DEP, DPS, and those responsible for conducting the monitoring to establish the monitoring parameters.

Conditions of Approval: The original conditions of approval still apply and must be addressed in the initial submission of a detailed sediment control/stormwater management plan. This list may not be all inclusive and may change based on available information at the time of the subsequent plan reviews:

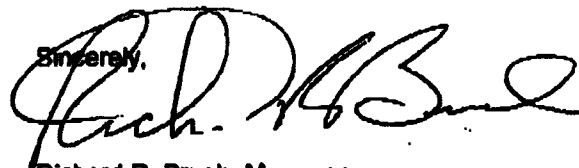
1. Provide a dam breach analysis to show that the existing Greenridge Acres Pond will safely pass through the proposed road culvert.
2. Structures in the road right-of-ways need approval from MCDPW&T including porous pavement.
3. Provide clear access to all stormwater management structures. Areas of bike paths or sidewalks that are crossed or used for maintenance must be full depth paving to support a fully loaded maintenance vehicle. Additionally, drive aprons and swale culverts likely will be required.
4. Water quality structures that are to be used for sediment control must have a minimum undisturbed buffer of two feet from the bottom of the sediment trap to the bottom of the stormwater structure.
5. All of the proposed sand filters will need to be on stormwater parcels or be within the road right-of-way.
6. Prior to permanent vegetative stabilization, all disturbed areas must be topsoiled per the latest Montgomery County Standards and Specifications for Topsoiling.
7. A detailed review of the stormwater management computations will occur at the time of detailed plan review.

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Any divergence from the information provided to this office; or additional information received during the development process; or a change in an applicable Executive Regulation may constitute grounds to rescind or amend any approval actions taken, and to reevaluate the site for additional or amended Water Quality Plan requirements.

If you have any questions regarding these actions, please feel free to contact Leo Galanko at (240) 777-6242.

Sincerely,



Richard R. Brush, Manager
Water Resources Section
Division of Land Development Services

RRB:dm: CN233038

cc: C. Conlon (MNCPPC-DR)
J. Penn (MNCPPC-ER)
L. Galanko
R. Gauza (DEP)
SM File # 233038

QN: on-site
QL: on-site
Recharge provided