Item 8 - Correspondence

From:Michele RosenfeldTo:MCP-ChairCc:Harris, Patricia A.

Subject: Written Testimony: October 7, 2021 Agenda - Item 8: Edgemoor - Lots 20 21 & Pt. Lot 2 Block 8

Date:Wednesday, October 6, 2021 12:22:20 AMAttachments:2021.10.05 testimony letter.signed.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Chairman Anderson:

Please accept the attached letter into the record for the above-referenced item. I also have copied legal counsel for the applicant, consistent with our discussions in connection with this case.

Best regards,

Michele Rosenfeld
The Law Office of Michele Rosenfeld LLC
1 Research Court, Suite 450
Rockville MD 20850
michele@marylandpropertylaw.com
301-204-0913





October 6, 2021

Casey Anderson, Chairman Montgomery County Planning Board 2425 Reedie Drive, 14th Floor Wheaton MD 20902

RE: Administrative Subdivision M-NCPPC FILE No. 62020008A 5310 Moorland Lane and 5314 Moorland Lane ("Subject Property")

Dear Chairman Anderson and Commissioners:

I submit this letter on behalf of my clients Daphna Krim and Sergio Kapfer, who live at 5316 Moorland Lane ("Abutting Property"), next door to the Subject Property. My clients' overwhelming concern relates to stormwater runoff from the significant amount of impervious coverage proposed on the very large lot included in this application.

<u>Summary:</u> The approved stormwater concept plan design directs 100% of the stormwater runoff from the Subject Property to the southwest corner of the site where it abuts my clients' property. Based on the anticipated volume of runoff and the existing topography we anticipate stormwater will flow over, and pond within, my clients' property. As a result, we ask that the Planning Board take one of the two following actions:

- Adopt as an additional condition of approval proposed new Condition No. 16 to address known future stormwater runoff onto the Abutting Property and ensure compliance with County law (see pp. 3 - 4); or
- 2. DENY the application for failure to comply with Chapter 50, which requires that stormwater management requirements to be satisfied <u>before</u> approval of the plat.² The concept plan approved by DPS directs runoff onto the Abutting Property without an easement or other permission from my clients, in violation of Section 19-23(e) of the County Code which requires adjacent property owner permission before stormwater can be diverted off site. No such permission has been granted in this case.³

If the Board adopts proposed Condition No. 16 (see pp. 3-4), my clients withdraw in full their objections to this application.

¹ An engineering report prepared in support of this conclusion, prepared by Douglas Tilley, P.E., R.P.L.S. will be filed separately.

² Montgomery County Code Section 50-6.1.C.5.

² Montgomery County Code Section 50-6.1.C.5

³ "If a stormwater management plan involves direction of some or all runoff off site, the developer must obtain from any adjacent property owner any easement or other necessary property interest concerning water flow. Approval of a stormwater management plan does not create or imply any right to direct runoff onto any adjacent property without that property owners's [sic] permission." County Code Section 19-23(e).

Discussions with the Applicant's Representatives

My clients and the applicants' representatives have engaged in extensive discussions regarding modifications to the stormwater management facilities in an effort to reach consensus on this issue. The applicant has agreed to redirect runoff from planter boxes 3, 4 and 5 away from the Abutting Property. Based on the analysis conducted by our expert, my clients remain concerned that there still will be runoff impacts to their property. As a result we seek certain baseline runoff analysis as part of a final stormwater management plan submission to DPS to verify that runoff will not flow to their property (my clients have not granted an easement or other permission to allow runoff onto their land). It is our understanding that the remaining issues include whether this analysis will be performed, and if it is conducted, the scope of analysis. We anticipate continued discussions between the parties and if we reach agreement with the applicant on this point before the hearing we will notify the Board of that development.

Background

The oversized Subject Property combined with the significant level of impervious coverage results in significant runoff. The Staff Report, in reliance on the DPS concept plan approval, concludes that stormwater will be managed "on site" (p. 10). Instead, the concept plan as submitted to DPS would generate significant runoff onto the Abutting Property without permission of my clients. As explained by Douglas Tilley, P.E., R.P.L.S. in a report that will be filed separately, there is a strong likelihood based on the topography that there will be ponding water and/or runoff drainage onto my clients' property.

Figure 1, excerpted from the approved stormwater concept plan, shows the location of the <u>sole</u> outfall in the approved concept plan.

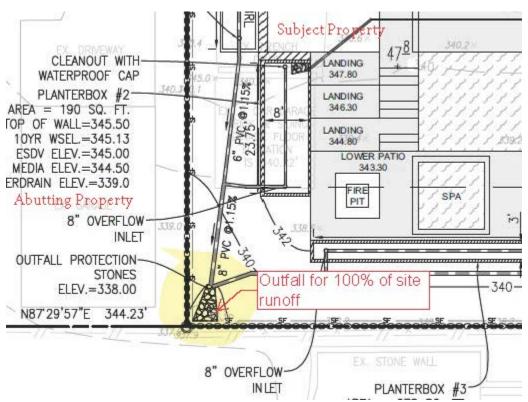


Figure 1

Proposed New Condition

My clients' overriding goal is to ensure that the subdivision approval will not result in runoff onto their property. They have an existing garage next to the proposed outfall, which in addition to serving as a garage has a second story studio apartment with functional living space. Runoff and/or ponding at this location has the potential to damage the structural integrity of the garage, result in flooding, and additionally could cause erosion along the side and rear property boundary. Based on the engineering analysis provided by Mr. Tilley, the following condition will ensure that any final stormwater management plans filed with DPS will ensure that runoff is indeed managed on-site. Based on discussions with the applicant's representatives, we understand that the three highlighted paragraphs remain under discussion with the applicant.

Proposed New Condition 16:

- a. Quantity volume of final westernmost planter box(es) must not exceed volume of Microbioretention Planter Box 1 and 2 on approved concept plan ("Western Planter Box").
- b. Outfall pipe for Western Planter Box on approved concept plan ("Western Planter Box") must be set a minimum of 13' from the western side property line ("Western Outfall").
- c. All rip-rap outfalls must be designed in accordance with Appendix B of the SHA Highway Drainage Manual Design Guidelines for the full-flow capacity of the pipe(s) draining to each rip-rap pad and final design of each rip-rap outfall facility must be shown on sediment control drawings submitted for MCDPS review as part of the final Stormwater Management review during submission for sediment control permit and placed on the sediment control plans for review/approval.
- d. Outfall pipe for Microbioretention Planter Box 3 on approved concept plan must be separated from and located east of the Western Outfall.
- e. The designer of record must establish and analyze a study point at/near the rear property line just beyond the rip-rap outfall closest to the western side property line ("Western Outfall") demonstrating that runoff from a 10-year (ten-year) storm⁴ will not flow onto the property located at 5316 Moorland Lane ("Flow Analysis") and must submit the Flow Analysis for MCDPS review as part of the final Stormwater Management review during submission for sediment control permit and place on the sediment control plans for review/approval. The Flow Analysis must include: (i) volumetric quantity of pipe flow assuming full-flow capacity; (ii) computed volumetric flow from any planter box overflow; (iii) a rear property cross section beginning at the western property line, with a minimum 40' width and including the Western Outfall, that shows the depth of flow during the 10-year storm based on Manning's Formula; (iv) said depth of flow from the 10-year storm in item (iii) including the volumetric quantity from any outfall from Microbioretention Area 3 that impacts the 40' cross-section in addition to the volumetric flow from (i) and (ii); and (v) the Flow Analysis must evaluate the impact of any additional flow from draining from channelization proposed between the Western Planter Box and the site property line, including (a) natural flow from the 10-year storm that travels through channelization in this location; and (b) any anticipated overflow from the Western Planter Box. The overall

⁴ My clients originally asked that this analysis be conducted using 100-year storm quantities. The

current standards are dated given current weather patterns, *i.e.*, my clients have experienced two 100-year storm events in the past 3 years. See Attachment One.

volumetric flow reviewed at the cross-section shall include all potential flow from pipe outfalls, microbioretention overflow, and rainfall as described herein.

- f. The designer of record must submit an overland relief exhibit showing the overland relief path from the Western Planter Box and from Microbioretention Area 3 that confirms the overland relief path will not impact the property located at 5316 Moorland Lane. The exhibit must be based on complete current, field-run topography and must show the date control drawings to be submitted for MCDPS review as part of the final Stormwater Management review during submission for sediment control permit. The overland relief path must show potential areas of ponding and confirm they do not impact the property at 5316 Moorland prior to draining away naturally.
- g. The final sediment control drawings must be delivered to the owners of 5316 Moorland Lane for review and comment no less than 5 business days prior to submission to MCDPS for review and comment.
- h. The applicant must not submit any Stormwater Management plans to MDCPS for review if the Flow Analysis reflects runoff flow over, or ponding within, the property at 5316 Moorland Lane.

Additional Objections to Subdivision If Condition No. 16 Is Not Adopted

My clients incorporate into this letter the additional objections raised in the Correspondence filed with the Board in this case (Attachment E to the staff report) in opposition to the subdivision, and in particular object to the following elements of the application:

- 1. The level of impervious coverage drives the volume of stormwater runoff, which directly impacts the volume of runoff anticipated on the Abutting Property. Failing proper management of this runoff in accordance with Chapter 19 and Chapter 50 of the code, the project should be denied, or impervious coverage should be reduced to the point where runoff can be managed in accordance with code standards.
- 2. The size and massing of the proposed structure is not consistent with the surrounding neighborhood.

Conclusion

If the Board adopts proposed Condition No. 16, my clients withdraw in full their objection to this application. Their consent to withdraw opposition to this application if the Board approves Condition No. 16 does not serve as a waiver of future judicial claims beyond this administrative proceeding (e.g., tort or declaratory judgment claims) that may arise should the applicant's development cause runoff into my clients' property during or after construction.

If the application is approved without Condition No. 16, my clients preserve all of the legal and factual arguments provided in opposition to approval as set forth in this letter and that may be presented orally at the hearing.

Sincerely,

Michele McDaniel Rosenfeld

Michele McDaniel Rosenfeld

Attachment

Attachment One

Intense and Severe Storm Events

The Montgomery County DOT Drainage Design Criteria Manual lists the following values for various storm events:

- " 1-year storm" event as 2.57 inches of rain in a 24-hour period;
- " 2-year storm" event as 3.10 inches of rain in a 24-hour period;
- " 5-year storm" event as 3.99 inches of rain in a 24-hour period;
- " 10-year storm" event as 4.77 inches of rain in a 24-hour period;
- " 25-year storm" event as 5.97 inches of rain in a 24-hour period;
- " 50-year storm" event as 7.03 inches of rain in a 24-hour period; and a
- "100-year storm" event as 8.23 inches of rain in a 24-hour period.[i]
 - [i] Montgomery County DOT Drainage Design Criteria Manual, at p. 30.

Please note that the model used to calculate these rainfall amounts was introduced in 1975 and was last updated on 4/20/2015.

From:Michele RosenfeldTo:MCP-ChairCc:Harris, Patricia A.

Subject: Planning Board Hearing: October 7; Item 8 - 5310 Moorland Lane and 5314 Moorland Lane - testimony for the

record

Date: Wednesday, October 6, 2021 9:02:07 AM

Attachments: 2021.10.06 SWM report.pdf

[EXTERNAL EMAIL] Exercise caution when opening attachments, clicking links, or responding.

Chairman Anderson: Please enter the attached report for the record in support of my testimony tomorrow on this item.

I have copied the applicant's counsel, consistent with our discussions.

Best regards,

Michele Rosenfeld The Law Office of Michele Rosenfeld LLC 1 Research Court, Suite 450 Rockville MD 20850 michele@marylandpropertylaw.com 301-204-0913





October 6, 2021

Casey Anderson, Chairman Montgomery County Planning Board 2425 Reedie Drive, 14th Floor Wheaton MD 20902

RE: Administrative Subdivision M-NCPPC FILE No. 62020008A 5310 Moorland Lane and 5314 Moorland Lane ("Subject Property")

Dear Chairman Anderson and Commissioners:

I am submitting the attached report in support of the testimony presented on behalf of my clients Daphna Krim and Sergio Kapfer, who live at 5316 Moorland Lane ("Abutting Property"), into the record for the Board's consideration. As explained in my letter of testimony also dated October 6, my clients' overwhelming concern relates to stormwater runoff from the significant amount of impervious coverage proposed on the very large lot included in this application.

The attached report prepared by Douglas E. Tilley, P.E., R.L.P.S., concludes that there is a "strong likelihood of ponding water and/or overland runoff drainage that will adversely impact the southeast corner" of my clients' property, even with some drainage diverted from the outfall where the two properties meet. Report p. 7. This finding justifies the runoff analysis requested in New Condition 16, designed to ensure runoff does not enter my clients' property and compliance with Section 19-23(e) of the County Code, which requires adjacent property owner permission before stormwater can be diverted off site. No such permission has been granted in this case.¹ Chapter 50 which requires that stormwater management requirements to be satisfied <u>before</u> approval of the plat, and proposed Condition No. 16 is necessary to ensure that this subdivision code requirement is met.

Sincerely,

Michele McDaniel Rosenfeld

Michele McDaniel Rosenfeld

Attachment

¹ "If a stormwater management plan involves direction of some or all runoff off site, the developer must obtain from any adjacent property owner any easement or other necessary property interest concerning water flow. Approval of a stormwater management plan does not create or imply any right to direct runoff onto any adjacent property without that property owners's [sic] permission." County Code Section 19-23(e).



17904 GEORGIA AVENUE, SUITE 302 OLNEY, MARYLAND, 20832

TEL: 301-924-4570 FAX: 301-924-5872

October 6, 2021

Ms. Daphna Krim and Mr. Sergio Kapfer 5316 Moorland Lane Bethesda, MD 20814

Re: Stormwater Management and Downstream Drainage Review and Comments Administrative Subdivision #62020008A
Stormwater Management Concept Plan #287159
5310-5314 Moorland Lane and 7507 Glenbrook Road - Bethesda, MD 20814
O'C&L Project #021-024

Dear Ms. Krim and Mr. Kapfer:

This letter details O'Connell & Lawrence's comments and findings related to Administrative Subdivision Application #62020008A (the "Subject Application") and Stormwater Management Concept Plan #287159 as filed with the Montgomery County Planning Department of the Maryland-National Capital Park and Planning Commission ("M-NCPPC") and/or the Montgomery County Department of Permitting Services ("MCDPS") for the properties located at 5310-5314 Moorland Lane and 7507 Glenbrook Road in Bethesda, Maryland.

Executive Summary of Findings

- It is O'C&L's opinion there is a strong likelihood that runoff from the outfall location from the proposed on-site Microbioretention Planter Boxes, as shown on the Approved Stormwater Management Concept Plan and Administrative Subdivision Plan associated with the Subject Application, will adversely impact the property located at 5316 Moorland Lane.
- It is further O'C&L's opinion that there is a strong likelihood that runoff from the outfall location from the proposed on-site Microbioretention Planter Boxes, as shown on the Approved Stormwater Management Concept Plan and Administrative Subdivision Plan associated with the Subject Application, will adversely impact the property located at 5316 Moorland Lane, even if a percentage of overall runoff from the proposed planter boxes is discharged to a separate location.
- There is significant inconsistency between plan sets and information either included as part of the Subject Application or provided to O'C&L as supplemental information, particularly as related to existing topographic information downstream of the outfall point from the Microbioretention Planter Boxes. It is difficult to definitely state whether there is suitable overland relief from this discharge point to a safe outfall location, and, further, to definitively state that runoff from these planter boxes will not adversely impact the property located at 5316 Moorland Lane.

Documents Reviewed

As part of this task, O'Connell and Lawrence, Inc. ("O'C&L") reviewed publicly-available documentation pertaining to and/or filed as part of the Subject Application and certain documents that were provided by you, Ms. Krim and Mr. Kapfer (collectively, "the Clients") or the Clients' legal counsel. O'C&L also reviewed certain documents generally associated with Administrative Subdivision Application #620200080 (the "Previous Application"), which was an Administrative Subdivision for 7507 Glenbrook Road Lot 18, Block 8 and 5310 Moorland Lane Lot 19, Block 8, and directly preceded the Subject Application; the Subject Application was filed as an amendment of the Previous Application.

O'C&L's comments and findings are based on review of documents and information including, but not limited to, the following:

- A Statement of Justification entitled "Lots 18 & 19, Block B Edgemoor" produced by Charles P. Johnson and Associates, Inc. ("CPJ") on March 8, 2020 and associated with the Previous Application.
- A Statement of Justification entitled "Lots 20, 21 & Part of Lot 2, Block 8 Edgemoor" produced by CPJ on June 14, 2021 which is part of the Subject Application.
- A report entitled "Geotechnical Engineering Report 5310 Moorland Lane Bethesda, Maryland" produced by Kim Engineering, Inc. ("KEI") on May 12, 2021.
- Documents publically available through the Montgomery County Development Activity Information Center ("DAIC") regarding both the Previous Application and Subject Application.
- Various versions of Administrative Subdivision Plan associated with the Subject Application. In particular, O'C&L most closely reviewed Sheet 4 of 6 of the Administrative Subdivision Plan filed as part of the Subject Application, prepared by CPJ, and signed and sealed on August 11, 2021. This drawing, as obtained from the DAIC, is attached to this letter as **Attachment A**.
- A Stormwater Management Concept and Site Development Plan (the "Approved Concept Plan"), prepared by CPJ, signed and sealed on July 22, 2021, and approved by MCPDS on July 30, 2021. O'C&L reviewed previous version of this document, but has largely focused its review on the Approved Concept Plan. Sheet 1 of the two-page Approved Concept Plan is attached to this letter as **Attachment B**.
- A supplemental topographic exhibit "the "Supplemental Topography" that appears to show field-run topographic information on 7507 Glenbrook Road just to the south of the primary outfall point from a series of proposed Microbioretention Planter Boxes. The exact date of this collected topography and exhibit is not known at this time; the information was provided to O'C&L on September 28, 2021. The exhibit is attached as **Attachment C**.
- The current Bethesda-Chevy Chase Master Plan as approved in 1990.
- The Montgomery County Code (the "Code"), including Chapter 59 of the Code, which is the Montgomery County Zoning Ordinance (the "Zoning Ordinance").
- The MCAtlas Geographic Information Systems website.
- Various documents and standards produced by Montgomery County Department of Transportation ("MCDOT") and MCDPS.
- The Maryland Department of the Environment ("MDE") 2000 Maryland Stormwater Design Manual Volumes I and II, which includes Chapter 5 updates made in 2007.

Further, O'C&L viewed the properties that are included as part of the Subject Application from the property located at 5316 Moorland Lane and from the Moorland Lane and Glenbrook Road

Right-of-Ways. O'C&L's site visit was conducted on September 21, 2021. As of the date of this letter, O'C&L has not physically accessed the properties included within the Subject Application.

Finally, O'C&L virtually attended two (2) meetings held with representatives from the development team, including representatives from CPJ, generally related to the site layout, stormwater management methodologies, and downstream drainage proposed as part of the Subject Application. These meetings were held on September 1, 2021 and September 21, 2021.

O'C&L's comments herein are generally related to its concerns regarding downstream drainage from the proposed on-site stormwater management devices as shown both on the Approved Concept Plan and Administrative Subdivision Plan.

Stormwater Management Methodology and Modifications between the Approved Concept Plan and Administrative Subdivision Plan

As part of its scope, O'C&L reviewed the proposed stormwater management methodology for the Subject Application as shown on the Approved Concept Plan and the Administrative Subdivision Plan. Stormwater management for the Subject Application is proposed to be provided via a series of Microbioretention Planter Boxes. A Microbioretention Planter Box is a type of stormwater management device approved to provide volumetric treatment in accordance with Environmental Site Design ("ESD") and meets Maryland Department of the Environment ("MDE") and MCDPS requirements for a proposed development. A standard detail for a Microbioretention Planter Box is included with this letter as **Attachment D**

A Microbioretention Planter Box generally consists of a concrete structure that is enclosed on five sides, but is open to the air. A series of material layers are placed within the concrete structure; in general, these layers consist of a 15" layer of stone set at the bottom of the box, a 6" layer of sand set above the stone, and a layer of engineered planting media set above the sand. The engineered planting media generally ranges in depth between 24" and 48". A 3" mulch layer is set on top of the planting media. The top of the concrete structure is poured such that the final top of the box is between 6" and 12" above the top of the engineered planting media. During construction, a perforated pipe, referred to as an underdrain, is placed within the stone layer a minimum of 3" above the concrete floor; the perforated pipe is set at a 0% slope, i.e., parallel to the bottom of the concrete box. This underdrain is tied to a non-perforated pipe that penetrates the wall of the planter box and conveys runoff within the pipe away from the box to a separate outfall location (referred to as an "outfall pipe"), to internal vertical cleanouts, and to a vertical "overflow" pipe that projects above the engineered planting media. The engineered planting media and mulch is planted with specific types of plants which are designed by a licensed landscape architect or environmental professional. Inflow protection is utilized at points of concentrated inflow to prevent erosion.

In general, a Microbioretention Planter Box works by accepting runoff from developed portions of a property and forcing runoff to percolate through the various layers of material within the planter box. Once runoff reaches the bottom of the box, it builds in the 3" stone layer before entering the underdrain via perforations and eventually discharges from the concrete planter box through the non-perforated outfall pipe. Runoff is considered to be treated from a qualitative standpoint because it travels through the designed layers which clean the runoff of pollutants. Further, runoff is considered to be treated from a quantitative standpoint, as it takes time for the runoff to percolate through the various layers within the box itself before eventually reaching the outfall pipe and discharging back to the natural environment.

In the event a planter box is fully saturated and/or the underdrain is clogged, runoff will not effectively fully drain through the planter box layers, will build up within the device until reaching the elevation of the overflow pipe, and will drain through this overflow directly to the outfall pipe. In this case, runoff is not considered to be treated either qualitatively or quantitatively. In certain instances, during an intense and severe storm event, the overflow pipe may be fully inundated; in that case, water may spill over the top of the planter box.

The Approved Concept Plan shows a series of five (5) Microbioretention Planter Boxes located generally along the side and rear walls of the proposed house or adjacent lawn/patio areas. Runoff reaches the individual planter boxes in a variety of ways, including trench drain, rooftop downspout, and direct overland flow. The outfall piping from each of these Microbioretention Planter Boxes is directed to an area of "Outfall Protection Stones" generally located at the southwestern corner of the lot, adjacent to 5316 Moorland Lane. The Approved Concept Plan notes that the Outfall Protection Stones, a term generally considered to be analogous to a rip-rap pad, are proposed to be established at an elevation of 338.00.

The Administrative Subdivision Plan shows a series of four (4) Microbioretention Planter Boxes located generally along the side and rear walls of the proposed house or adjacent lawn/patio areas. In this plan, it appears to O'C&L that Microbioretention Planter Boxes 1 and 2 (as shown on the Approved Concept Plan) were combined into a single "SWM Planter Box" which parallels the western property line. This box appears to have been shifted to the east from the location of the Planter Boxes shown on the Approved Concept Plan. The overall size of this SWM Planter Box appears roughly consistent with the size of Microbioretention Planter Boxes 1 and 2, per the Approved Concept Plan. Outfall locations from the SWM Planter Boxes are not shown on the Administrative Subdivision Plan.

It is important to note that Microbioretention Planter Boxes, while similar in design to typical Microbioretention Areas, rely on the perforated underdrain and outfall pipe to drain water away from these facilities, rather than the infiltrative properties of in-situ soil below the facility. O'C&L notes the KEI geotechnical report concluded that the existing in-situ soil conditions on 5310-5314 Moorland Lane showed very poor infiltration results. It is O'C&L's belief that this is one of the primary reasons the designer selected Microbioretention Planter Boxes as the primary form of stormwater management. O'C&L also notes that the use of these boxes *requires* suitable outfall location and downstream drainage; water draining through the layers within the planter boxes is obviously unable to penetrate through the concrete box; the underdrain, outfall pipe, and a suitable outfall location for the outfall pipe are all critical components of this design.

Stormwater Management and Downstream Drainage Comments

O'C&L has particular concerns related to the potential for runoff to impact the property located at 5316 Moorland Lane. While O'C&L recognizes that the Approved Concept Plan is, in fact a conceptual drawing and that more design is required prior to permit issuance, O'C&L has significant concerns related to drainage as proposed both on the Approved Concept Plan and Administrative Subdivision Plan.

First, O'C&L recognizes that the discharge location as shown on the Approved Concept Plan directs runoff from the Microbioretention Planter Boxes to a location very near to the property line directly between 5314 Moorland Lane and 5316 Moorland Lane.

Second, O'C&L recognizes the Approved Concept Plan shows two (2) separate outfall pipes

discharging at the outfall protection stones. Both proposed pipes are 8" PVC pipes. One of the two pipes is proposed to collect drainage from Microbioretention Boxes 3, 4 and 5; O'C&L believes it would be quite simple and possible from a technical standpoint to discharge runoff from these boxes well east of the proposed discharge location. It is O'C&L's opinion that the outfall piping from these three planter boxes could easily be set such that it discharges directly to the south of Planter Boxes 3 and 4, to an undeveloped area (per plan) behind the house at 7507 Glenbrook Road, a property that is already part of the Subject Application.

Most importantly, O'C&L has significant concerns about the downstream topography in the vicinity of the proposed outfall location from the planter boxes. The various types and versions of plan sets reviewed by O'C&L show inconsistent information about the topography directly downstream from the outfall point. In particular, the Approved Concept Plan shows a proposed contour line at a 338 elevation that generally appears to be designed to wrap around the outer face of the outfall protection stones and form a concentrated channel at/near the outfall pipe from the discharge pipes. An existing 338 contour is shown both on the property at 5314 Moorland and, apparently, just to the south of the property line, on 7507 Glenbrook. Further, existing spot grades at/near the southwest corner of 337.9 and 337.8 are also shown in this location. Consequently, this area, per the proposed and existing contouring shown on the Approved Concept Plan, shows that runoff is directed to a low spot that has no obvious relief path and will concentrate and pond on the property at 5316 Moorland Lane.

O'C&L further understands that the area in question just to the south of the outfall location from the Microbioretention Planter Boxes was recently re-graded and landscaped. Subsequently, O'C&L was provided with the Supplemental Topography, which shows what O'C&L understands is current, field-run topography on the property located at 7507 Glenbrook Road. The Supplemental Topography does not match the existing topography shown in this location on the Approved Concept Plan and the Administrative Subdivision Plan. Rather, it shows that the area in question was built up significantly, by more than a foot in certain locations, as part of the landscaping effort. Spot grades shown on the Supplemental Topography show the potential for ponding at/near the property line and the strong potential for drainage from this outfall point to be directed toward the property located at 5316 Moorland Lane at it crosses the established 338 contour line.

Further, it is O'C&L's belief that the Supplemental Topography does not show every single field-run grade shot that was obtained while being collected, for two reasons:

- 1. Typical field-to-finish survey programs will best fit contours based on the available grade shots acquired. In this instance, it appears that certain shots may not be shown on the Supplemental Topography, particularly those shots at/near the top of the retaining wall that would be needed to define the 338 contour as shown on the Supplemental Topography.
- 2. O'C&L's site visit to the property showed numerous shrubs, trees, landscaped areas, and general topographic undulation in the area of the Supplemental Topography. While the Supplemental Topography does only show contouring at 1' intervals, which may not be impacted by each grade shot taken, in O'C&L's opinion, additional grade shots would be typically taken to obtain additional information capturing these topographic changes, particularly in relation to downstream drainage channels.

Photos taken by O'C&L on September 21, 2021 from 5316 Moorland Lane or Glenbrook Road looking toward the area of the Supplemental Topography are found on the pages that follow in this report and are representative of the conditions viewed by O'C&L during its site visit.



Image 1 – Corner at confluence of 5314 Moorland (upper left), 5316 Moorland (lower left), and 7507 Glenbrook (right) – looking East



Image 3 – Corner at confluence of 5314 Moorland (upper left), 5316 Moorland (lower left), and 7507 Glenbrook (right) – looking East



Image 2 – Corner at confluence of 5314 Moorland (upper left), 5316 Moorland (lower left), and 7507 Glenbrook (right) – looking East



Image 4 – Fenceline along 7507 Glenbrook Road (left) and 5316 Moorland Lane (right) – looking West

Conclusions

As discussed herein, it is O'C&L's opinion that, based on the documentation reviewed for the Subject Application, and most particularly the Approved Concept Plan, Administrative Subdivision Plan, and Supplemental Topography, there is a strong likelihood that runoff from the Microbioretention Planter Boxes and directed to the Outfall Protection Stones will adversely impact the property located at 5316 Moorland Lane. This is based on available information reviewed by and provided to



Image 5 – Fenceline between 5316 Moorland (foreground) and 7507 Glenbrook (background) – Looking Southwest

O'C&L and the findings associated with O'C&L's site visit held on September 21, 2021. In particular, it is O'C&L's opinion that the provided information does not afford the opportunity to



 ${\it Image 6-Area of Supplemental Topography, as viewed from Glenbrook Drive Right-of-Way-looking Northeast}$

adequately state that runoff from the Microbioretention Planter Boxes will not adversely impact the property at 5316 Moorland Lane. It is further O'C&L's opinion that there is a *strong likelihood* of ponding water and/or overland runoff that will adversely impact the southeast corner of 5316 Moorland Lane due to a lack of suitable overland relief path from the pipe outfall location and the current topography that exists at this location. Further, it is O'C&L's opinion that there is a strong likelihood of ponding water and/or overland runoff drainage that will adversely impact the southeast corner of

5316 Moorland Lane, even if runoff from Microbioretention Planter Boxes 3, 4, and 5 is diverted to a separate outfall location, based on the information available to O'C&L at this time. Further, it is difficult to suitably evaluate the downstream conditions of the outfall point from the planter Boxes due to the inconsistency of information reviewed between the various documentation provided to O'C&L; however, this difficulty of evaluation dos not change O'C&L's opinions as discussed herein.

The opinions and conclusions expressed in this report were reached with a reasonable degree of engineering certainty. OCL reserves its right to modify any opinions and conclusions contained herein upon receipt of additional or new information.

Very truly yours,

O'Connell & Lawrence, Inc.

DocuSigned by:

Douglas G. tilley

10/6/2021

Douglas G. Tilley, P.E., R.P.L.S.

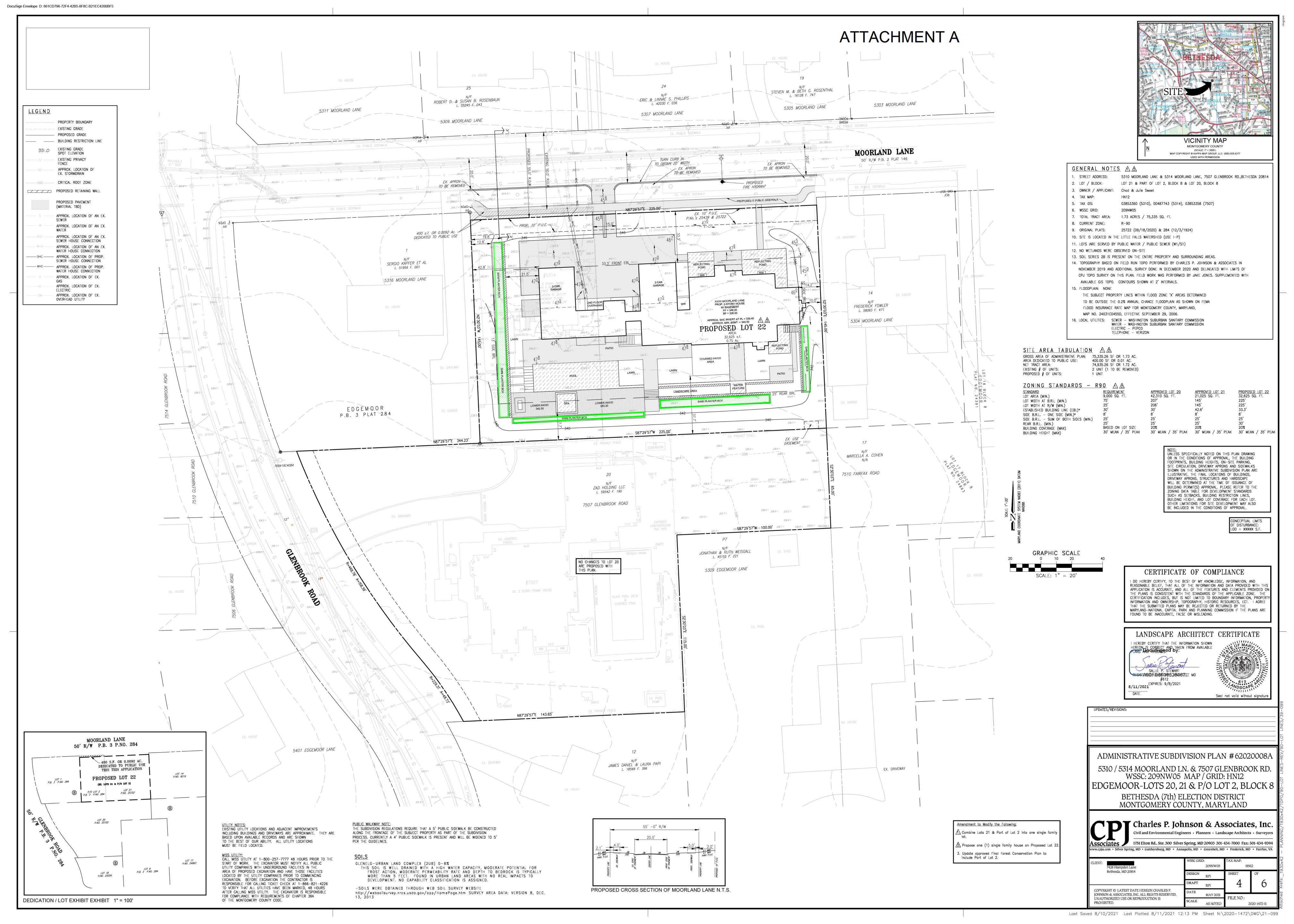
Vice President, Engineering and Surveying

Douglas G. Tilley Registered Professional Engineer Maryland No. 42417



Sealed Date: October 6, 2021

<u>Professional Certification</u>: I hereby certify that these documents were prepared or approved by me and that I am a duly licensed Professional Engineer under the laws of the State of Maryland, License #42417, Expiration Date June 6, 2022.





. LOT / BLOCK: LOT 21 & PART OF LOT 2, BLOCK 8

OWNER / APPLICANT: TAX MAP:

. TAX IDS: 03853360 (5310), 00487743 (5314) WSSC GRID:

11. LOT IS SERVED BY PUBLIC WATER / PUBLIC SEWER (W1/S1)

CURRENT ZONE: 25722 (09/18/2020) & 284 (12/3/1924) 10. SITE IS LOCATED IN THE LITTLE FALLS WATERSHED (USE I-P)

13. SOIL SERIES 2B IS PRESENT ON THE ENTIRE PROPERTY AND SURROUNDING AREAS. 14. TOPOGRAPHY BASED ON FIELD RUN TOPO PERFORMED BY CHARLES P. JOHNSON &

0.75 ACRES / 32,625 SQ. FT.

NOVEMBER 2019 AND ADDITIONAL SURVEY DONE IN DECEMBER 2020 AND DELINEATED WIT

CPJ TOPO SURVEY ON THIS PLAN. FIELD WORK WAS PERFORMED BY JAKE JONES. SUPPLEMENTED WITH

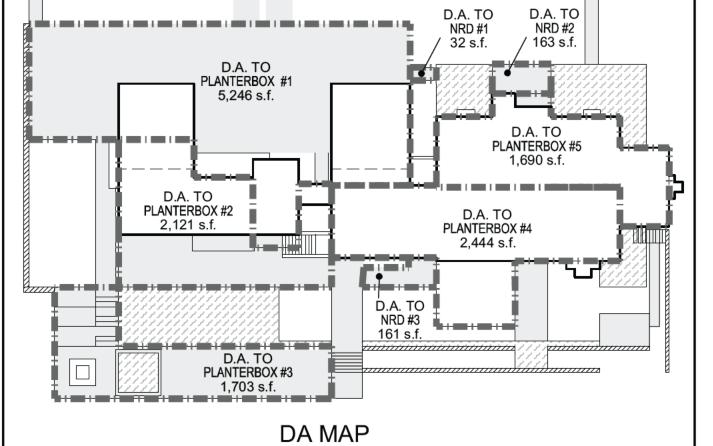
AVAILABLE GIS TOPO. CONTOURS SHOWN AT 2' INTERVALS.

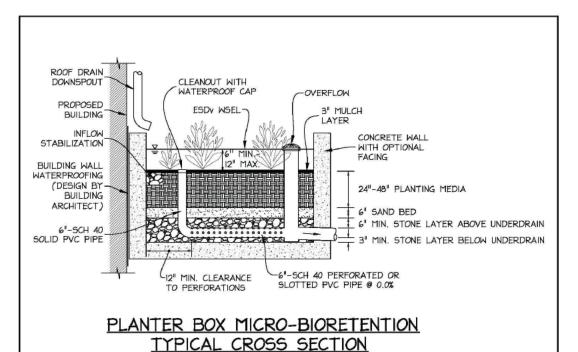
FLOODPLAIN: NONE

TOTAL TRACT AREA:

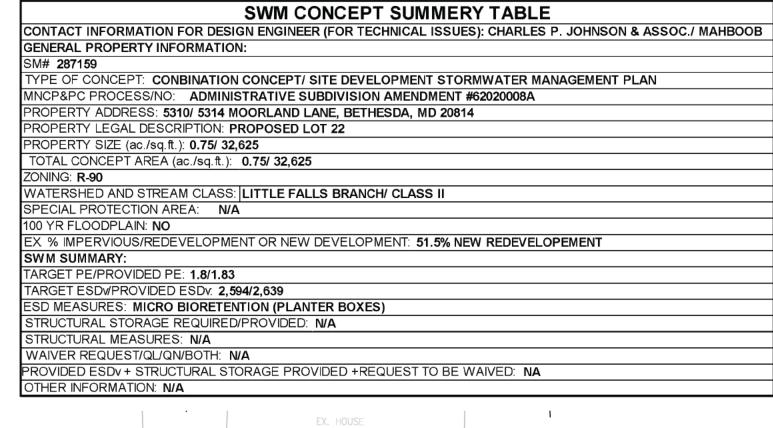
THE SUBJECT PROPERTY LINES WITHIN FLOOD ZONE 'X' AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FEMA FLOOD INSURANCE RATE MAP FOR MONTGOMERY COUNTY, MARYLAND. MAP NO. 24031C0455D, EFFECTIVE SEPTEMBER 29, 2006.

16. LOCAL UTILITIES: SEWER - WASHINGTON SUBURBAN SANITARY COMMISSION WATER - WASHINGTON SUBURBAN SANITARY COMMISSION ELECTRIC - PEPCO TELEPHONE - VERIZON

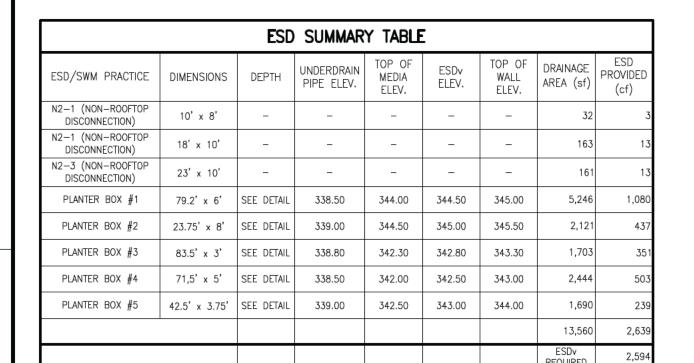


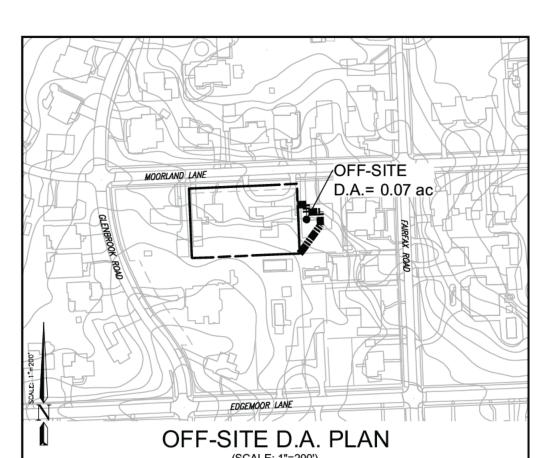


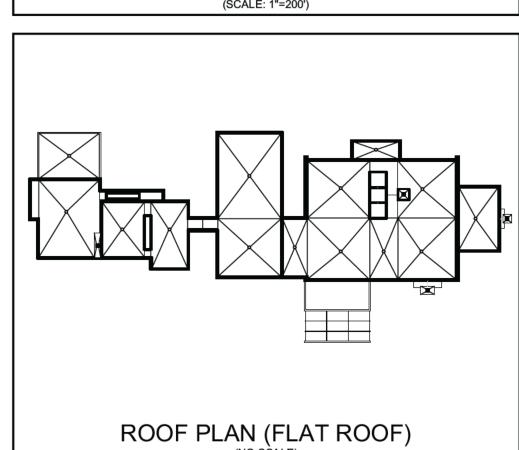
Department of Permitting Services

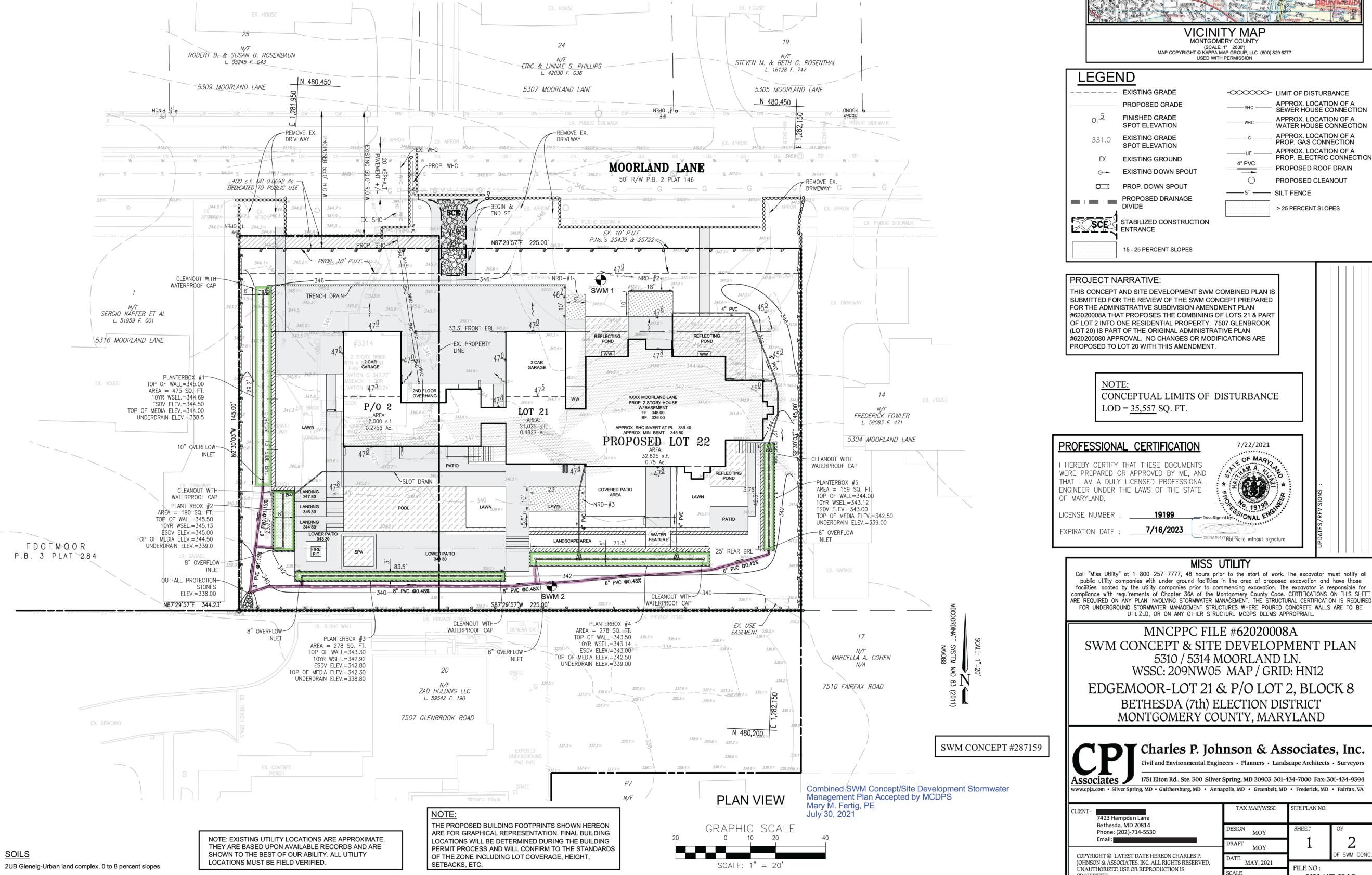


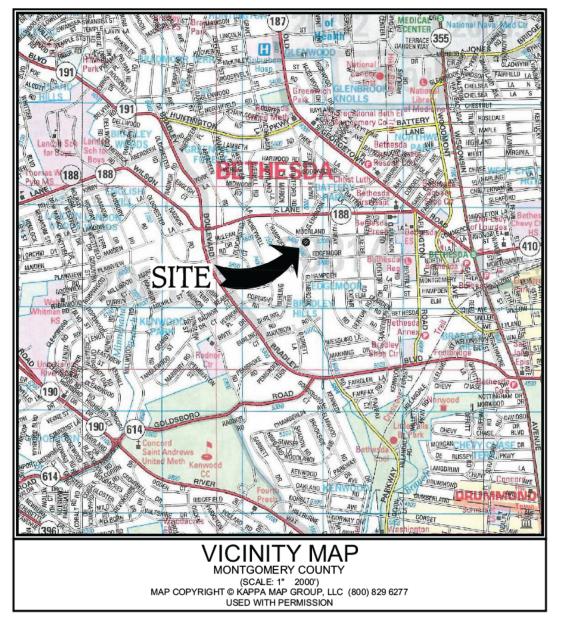
ATTACHMENT B

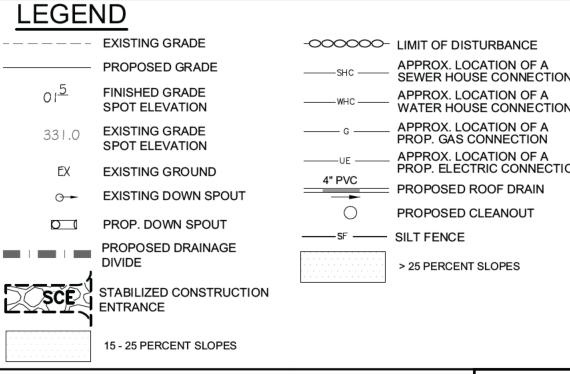












PROJECT NARRATIVE: SUBMITTED FOR THE REVIEW OF THE SWM CONCEPT PREPARED FOR THE ADMINISTRATIVE SUBDIVISION AMENDMENT PLAN #62020008A THAT PROPOSES THE COMBINING OF LOTS 21 & PART OF LOT 2 INTO ONE RESIDENTIAL PROPERTY. 7507 GLENBROOK (LOT 20) IS PART OF THE ORIGINAL ADMINISTRATIVE PLAN 620200080 APPROVAL. NO CHANGES OR MODIFICATIONS ARE PROPOSED TO LOT 20 WITH THIS AMENDMENT.

CONCEPTUAL LIMITS OF DISTURBANCE LOD = 35,557 SQ. FT.

PROFESSIONAL CERTIFICATION HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND,

LICENSE NUMBER 7/16/2023 ⁷⁰1964³∛alid without signature

Call "Miss Utility" at 1—800—257—7777, 48 hours prior to the start of work. The excavator must notify all public utility companies with under ground facilities in the area of proposed excavation and have those facilities located by the utility companies prior to commencing excavation. The excavator is responsible for

7/22/2021

MNCPPC FILE #62020008A SWM CONCEPT & SITE DEVELOPMENT PLAN 5310 / 5314 MOORLAND LN. WSSC: 209NW05 MAP / GRID: HN12

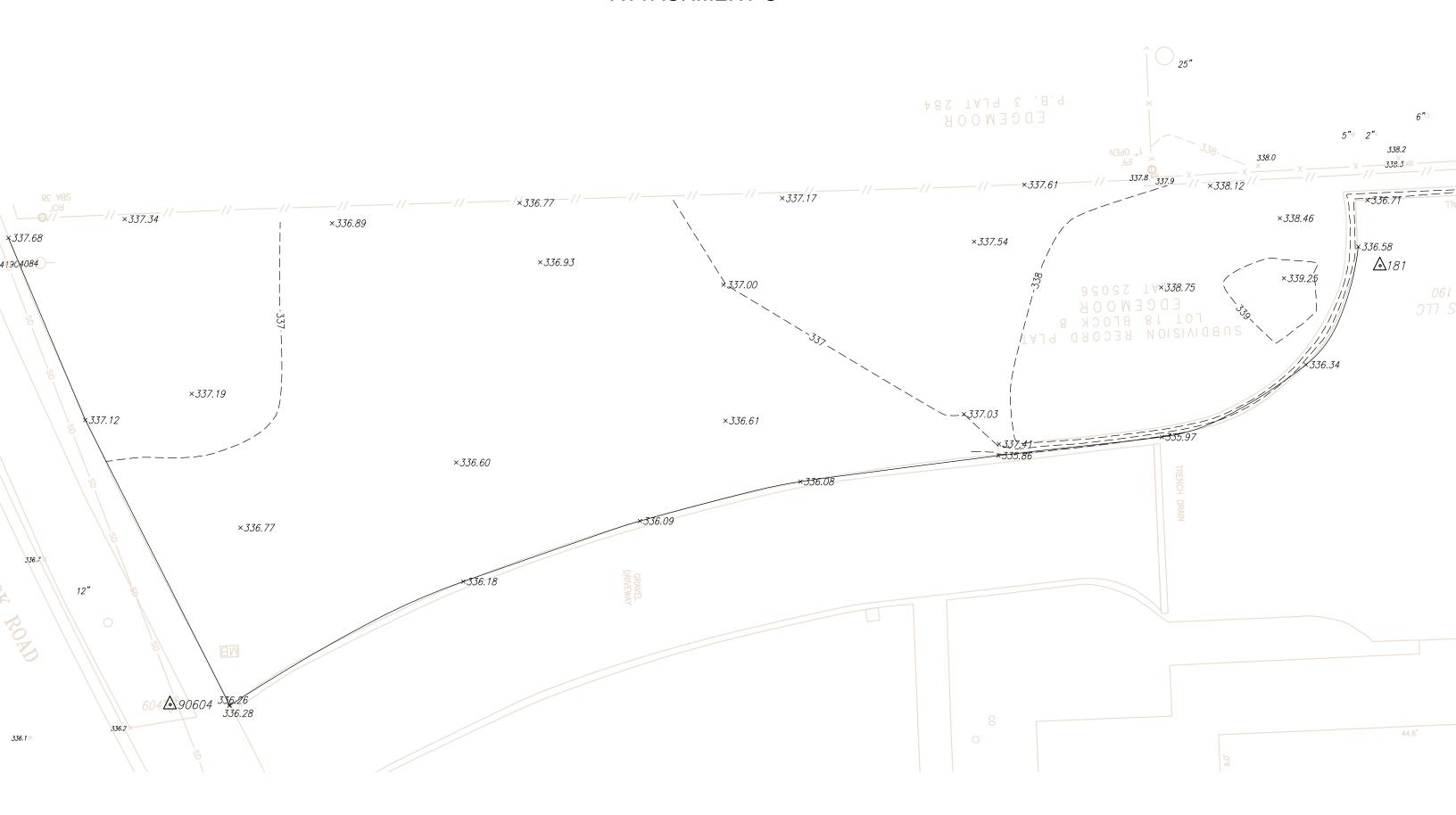
UTILIZED, OR ON ANY OTHER STRUCTURE MCDPS DEEMS APPROPRIATE

EDGEMOOR-LOT 21 & P/O LOT 2, BLOCK 8 BETHESDA (7th) ELECTION DISTRICT MONTGOMERY COUNTY, MARYLAND

The Charles P. Johnson & Associates, Inc. Civil and Environmental Engineers • Planners • Landscape Architects • Surveyors Associates / 1751 Elton Rd., Ste. 300 Silver Spring, MD 20903 301-434-7000 Fax: 301-434-9394 ww.cpja.com • Silver Spring, MD • Gaithersburg, MD • Annapolis, MD • Greenbelt, MD • Frederick, MD • Fairfax, VA

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ATTACHMENT C



ATTACHMENT D

