Mayor & Council of Berlin

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Town of Berlin
Planning Commission
February 11, 2026 - 5:30 PM
Berlin Town Hall – Council Chambers

1. **Call To Order**
2. **Agenda Adoption**
3. **Approval of Minutes** – January 14, 2026
4. **Continuance of Case # PC-9-10-25-06**: Prospect Drive, Purnell Crossing Phase 5, Preliminary Subdivision Review
5. **Case # PC-2-11-26-03:** 513 South Main Street – Final Site Plan Review
6. **Comments from the Public**
7. **Comments from the Staff**
8. **Comments for the Chairman**
9. **Comments from the Commission**
10. **Adjournment**

Any persons with questions about the above-referenced meeting or any persons needing special accommodations should contact Kate Daub at 410-641-4002. Written materials in alternate formats for persons with disabilities are made available upon request. TTY users dial 7-1-1 in the State of Maryland.

Town of Berlin
Planning Commission
Wednesday, January 14, 2026
Meeting Minutes

Chairman Matt Stoehr called the Planning Commission meeting to order on January 14, 2026, at 5:30 PM. Present were Vice Chairman Austin Purnell, Pete Crosby, Newt Chandler, Dirk Widdowson, Erich Pfeffer, and Jenelle Gerthoffer. Present from town staff were Acting Planning Director Ryan Hardesty, Code Enforcement Official Chanita Lewis-Watson, Special Projects Administrator Kate Daub, and Permits Coordinator Kaitlin Ahlers. Support staff in attendance included Davis, Bowen & Friedel, Inc., Senior Engineer and Planner Sharon Cruz. In virtual attendance was Town Legal Counsel Emily Morris.

Chairman Stoehr then called for a motion to approve the agenda for the January 14, 2026, meeting. Mr. Widdowson made the motion, seconded by Mr. Chandler, and it was unanimously approved by the Commission.

Chairman Stoehr then called for a motion to approve the minutes from the November 12, 2025, meeting. Mr. Widdowson moved to approve the minutes, and Mr. Purnell seconded the motion. The minutes were approved unanimously.

Chairman Stoehr introduced Case #PC-1-14-26-01 seeking retroactive approval for work that deviated from the previously approved site plan for 9413 Evans Road. Mr. Chandler recused himself due to his previous ties to the property and the applicant.

Mr. Mark Slavin introduced himself as the representative and owner of Storage Sense on Evans Road and stated that he was seeking retroactive approval for construction that deviated from the approved plan. Mr. Slavin explained to the Commission that he was originally approved for 7 climate-controlled buildings. He explained that he kept space open for two additional building phases he planned for the future. Mr. Slavin explained that as operations continued, they saw higher demand for the drive-up lockers. As a result, moved forward and built the two 2,400-square-foot containers, which he referred to as “Phase 2”. Mr. Slavin expressed to the Commission that he now understands this was a mistake and that he should have come before the Commission for approval.

Chairman Stoehr inquired whether all the electrical and engineering reports had been submitted to the Planning and Zoning Department. Ms. Hardesty confirmed that all reports were received and noted that Mr. Slavin has applied for a building permit. Mr. Purnell asked

Mr. Slavin if the newly built containers were climate-controlled. Mr. Slavin responded that the two new containers are not climate-controlled. Mr. Cosby then asked Mr. Slavin if the two lockers were the same color as the rest of the approved containers. Mr. Slavin confirmed that both lockers match the color of the other storage containers. Finally, Chairman Stoehr asked Mr. Slavin if there had been any deviations from the original landscaping and lighting plans. Mr. Slavin stated that there were no deviations, a point which Ms. Hardesty corroborated for the Commission.

Ms. Gerthoffer inquired whether "Phase 2" and "Phase 3" had been paved. Mr. Slavin responded that these areas had not been paved; they only contained the previously approved stone, allowing vehicles to drive over the surface. Mr. Purnell asked about the plan for the rest of the pad. Mr. Slavin explained that he had not yet decided what he wanted to do in "Phase 3."

Chairman Stoehr directed his question to Ms. Hardesty, asking whether Mr. Slavin would need to return to the Commission when "Phase 3" commenced. Ms. Hardesty confirmed that he would need to come back, as the current recommendation applied only to "Phase 2." Mr. Slavin sought clarification, and Chairman Stoehr reiterated that he would need to present the plans if he were to develop "Phase 3." Mr. Slavin acknowledged this information and agreed to comply.

Mr. Widdowson then asked Ms. Morris whether she was comfortable approving the flag lot. Ms. Hardesty clarified that the flag lot was the next case on the agenda. Mr. Widdowson apologized for the confusion. Ms. Morris explained that the Planning Commission would make a recommendation to the Planning Director, who would then approve the plan.

Mr. Widdowson made a motion to recommend approval of the work, contingent upon the submission and approval of a stamped engineer’s report verifying that the two unpermitted structures are code-compliant. Additionally, he stipulated the submission of building permit applications for the two structures, the payment of doubled building permit fees as permitted by Town Code, the payment of all applicable impact fees, and compliance with all Town requirements prior to the issuance of an updated Certificate of Occupancy. Mr. Purnell seconded the motion, and it was approved unanimously. Mr. Slavin thanked the Commission for their time.

Mr. Chandler requested clarification from Ms. Morris regarding her interpretation of the code, particularly her reasoning that the Planning Commission is not the final authority on decisions. Ms. Morris explained that her interpretation is based on her understanding of the

code and relevant laws, and emphasized that she aims to provide legal guidance to protect the Commission. In response, Mr. Chandler asked for a second opinion on her interpretation.

Chairman Stoehr called the next case forward, PC #1-14-26-02, a re-subdivision and boundary line adjustment at 33 Burley Street. Surveyor Frank Lynch and property owner Allison Bescak presented the case. Mr. Lynch explained to the Commission that their proposed subdivision would combine the six existing lots into three buildable lots. Mr. Lynch stated that the Planning Commission recommended that the re-subdivision be designed as a flag lot to comply with the Town Code. Mr. Lynch also explained that it was suggested that the driveway be on the right side of the lots.

Ms. Bescak explained that they hope to build other structures on the lots. She clarified that they are doing this project for their family, and that the land will stay in her family. She further explained that the land will not be sold after being subdivided. Mr. Lynch explained that they wanted to begin construction of the garage while the plats were under review, but the idea was not well-received. Chairman Stoehr asked which lot the garage would be placed on, and Mr. Lynch stated it would be on lot 7A. Mr. Lynch also confirmed that the pool was preexisting and already approved.

Mr. Widdowson commented that the idea of frontage for the back lots came from the abandoned Commodore Street, and he was not concerned about the existing lots. Mr. Widdowson stated that he trusted Mr. Lynch and his opinions. Mr. Chandler agreed with Mr. Widdowson. Mr. Widdowson stated that he believed Ms. Morris was recommending special consideration to set a precedent for future applicants, specifically that there was a hardship in this case. Mr. Widdowson further acknowledged that the current six lots do not allow three of them to have road access, and that the subdivision would reduce density. He then recommended that the re-subdivision and boundary line adjustment proceed to preliminary approval.

Mr. Chandler agreed with Mr. Widdowson, stating that he could support the motion on hardship grounds, but it would need to be explicitly noted. Mr. Pfeffer asked Mr. Lynch whether they had tried any other configurations before adopting the division presented. Mr. Lynch stated that, because there is only one point of access for two lots, the driveway is set to the West. Ms. Morris explained to the Commission that the applicants for 33 Burley Street would need to return for final approval with evidence that the lots have been combined into three. She stated that she recommends this to avoid future issues.

In response, Mr. Widdowson stated that he believes Mr. Lynch's signature guarantees this, and Mr. Chandler concurred. Mr. Widdowson made a motion for preliminary approval of the proposed flag lot, citing the hardship caused by the lack of access to a public street.

Mr. Crosby requested that the motion include the Commission's general caution with flag lots; however, the current hardship presented outweighs this concern. Chairman Stoehr asked if there was a second to the motion, and Ms. Gerthoffer seconded. All were in favor, and the preliminary subdivision and boundary line adjustment was approved.

Mr. Lynch thanked the Commission and asked if they would have to return for final approval. Ms. Morris addressed the Commission and stated that, under the Town code, subdivision approval is a two-step process. However, Mr. Chandler stated that, in his understanding, this process applies only to commercial developments and that this plat can be approved without conditions. Ms. Morris clarified that the Commission has the authority to waive the applicant's return for final, but it is strongly recommended that they state on the record the reason for the waiver.

Mr. Pfeffer addressed the Commission, noting that some submitted plats do not contain all the information required for final review. Ms. Morris added that simplifying the approval process to a one-step approach could lead to future complications. Mr. Purnell expressed concern that it would waste the applicants' time if they had to return for additional reviews.

Mr. Chandler made a motion to waive the final plat review due to no change in findings from this meeting, and to submit the final plat to the Planning Department for administrative approval. Mr. Purnell seconded, and all were in favor.

Chairman Stoehr asked for public comments. Ms. Patricia Dufendach, a resident of Burley Street, addressed the Commission. She stated that she lived across from the Bescak’s and was happy to have them as her neighbors. Ms. Dufendach stated that she was unaware of a subdivision on Burley Street and had never seen any information about it. She further explained that the street in question, Commodore Street, was never actually established and was just an idea presented by the Town. She also recalled that the previous owner had incorporated easements into his property.

Ms. Dufendach asked for the date the subdivision occurred. She also stated that it is common for properties to have houses fronting the street and a long back lot. She also stated that she wished she had known this was possible when she made alterations to her property,

and she was confused as to how the previous owner was not allowed to subdivide, but the Bescak's are. She further stated that the subdivision changed the neighborhood's character.

Chairman Stoehr asked if there were any other comments from the public.

Mr. Palmer, Sandy Gillis, Ron Humphress, Brock Parker, Mark Cropper, and Sara Rigot and Scott Rodgers of Solutions, Integrated Planning, Engineering, & Management, LLC appeared before the Commission. Mr. Gillis began by thanking the members for their time and requested the opportunity to receive early feedback on a concept plan for Parcel 57 at Heron Park. He explained that the proposed project would convert the former Tyson and Hudson food plant buildings into a mixed professional and retail space. Mr. Gillis noted that the concept was inspired by a 2,000-square-foot renovation completed in Easton that now houses University of Maryland medical offices. He then turned the presentation over to Sara and Scott of Design Solutions.

Mr. Rodgers explained that the two existing buildings were once one structure, and they plan to renovate both. He explained that the building depicted in the back would be for medical offices, and the other would be for commercial uses, such as restaurants. Ms. Rigons added that in their design they aimed to highlight the brick on the façade, and she expressed that there are multiple opportunities with the current design. She also said that there is an opportunity for a patio and/or greenspace. She highlighted the multiple entrances to the development, with the main one-off Old Ocean City Boulevard. She said that the arcade would provide access to different storefronts, and they are currently working on the best ways to level the property.

Mr. Gillis interjected to clarify the term 'arcade,' as the team is referring to a hallway. Chairman Stoehr thanked Mr. Gillis for the clarification. Mr. Pfeffer asked Mr. Gillis for clarification as to what buildings currently exist and if the footprint ultimately determined the design. Mr. Gillis explained that the center harbor had been removed, allowing for the arcade, and the building near the railroad is still there.

Chairman Stoehr asked whether the third building would be newly built, and Mr. Gillis confirmed that it would, adding that it is planned to be a child education center and daycare for Tidal Health. Mr. Gillis further explained that building four would be a garden center like How Sweet It Is in Eden, Maryland, and that building five would be office and retail space for the garden center. He further explained that the size would be in consideration of the property lines.

Mr. Parker explained to the Commission that the land had been plotted several times, and two acres remain unaccounted for. Mr. Gillis explained that the property line depiction shows different variations of the 9.35 acres based on hypothetical property lines. He explained that the red line depicts the actual property line, the blue line depicts a hypothetical property line whose origin has not been determined, and the purple line shows the team's hypothetical property line. Mr. Gillis explained that the design shown is based on the "worst-case scenario," as shown by the blue line.

Mr. Pfeffer asked whether the additional property would change the design at all. Mr. Gillis stated that the only change would be to extend the garden center if more property were available. Mr. Gillis also noted that they have received the results of the traffic study conducted by the State Highway Administration and that the State Highway Administration has allowed a public access road to the back of the property as temporary access from Old Ocean City Boulevard.

Mr. Gillis noted that to accommodate the required parking, they will reduce the building edge by adding two rows of double parking. He also mentioned that they have reserved space for a bike-pedestrian way, which may or may not be completed by the Town. Mr. Widdowson asked whether any additional landscaping would be added. Mr. Gillis stated that they are open to adding landscaping. Mr. Gillis told the Commission that he is excited to be developing in the Town of Berlin and that they have been mindful not to compete with downtown businesses.

Mrs. Gillis stated that the medical offices would likely be "nine-to-five" jobs, allowing for additional public parking after hours and on weekends. Mr. Gillis stated that the goal of the meeting was for his team to receive a "hell yes" or a "hell no" to determine whether to submit to Stormwater. He also said there is a critical timeline for a client within Building Two. Mr. Crosby asked whether any landscaping was planned. Mr. Gillis stated that they will have some landscaping islands and are currently working on the logistics of a pedestrian bike trail. Mr. Crosby asked whether they are planning to use brick for the buildings. Mr. Gillis stated that they were and that brick was his specialty, and it will surely read as brick.

Mr. Crosby commented that he preferred the layout that follows the blue property line. Mr. Gillis said that they would ultimately hope to design the building based on the purple property line depicted.

Mr. Gillis asked the Commission if there were any other comments.

Ms. Gerthoffer asked Mr. Parker whether there were any other stormwater constraints related to the previous property use. Mr. Parker stated that, to his understanding, everything is clear environmentally. He stated that the challenge is the grading, and they will be adding three bio-retentions and two bio-swales. He further stated that zero percent of the land is currently being treated. Ms. Gerthoffer then asked whether there were any plans to install bike racks, since a bike trail will likely be nearby. Mr. Gillis stated that there would be.

Mr. Pfeffer addressed the applicants and stated that the most important part of this project will be the streetscape. He acknowledged that this design was still conceptual, but it will be important in the approval process.

Mr. Gillis stated that the Town had agreed to a conceptual eight-foot sidewalk and that the design team is attempting to de-emphasize the area adjacent to the proposed Public Works building. Ms. Gillis added that they have reached an agreement with the tenant of the neighboring property to assist with the general cleanup of that site. It was also noted that the State Highway Administration is requesting installation of a four-way stop at the intersection of Main Street and Old Ocean City Boulevard.

Mr. Widdowson asked whether there would be an entrance near Old Ocean City Boulevard. Mr. Gillis responded that there would not, explaining that the intent is to push parking away from the street. Mr. Purnell stated that the concept looks very good and that the Commission believes the project is moving in the right direction. Mr. Widdowson commented that it may be preferable to locate the retail spaces closer to the front of the site. Mr. Gillis replied that this was the original intent; however, there was pushback from the Mayor, Council, and the property owner.

Chairman Stoehr asked whether there were any further comments from the public.

A resident of Branch Street stated that the Heron Park project was in good hands and noted his personal involvement.

No other comments from the public. No comments from staff.

Mr. Pfeffer raised concerns regarding the staff reports being provided so close to the meeting time. Ms. Morris apologized for the late distribution of the reports and explained that she initially intended to provide guidance only on the Heron Park project. However, after reviewing the additional two cases, she felt it was important to offer legal guidance on those

matters as well. Ms. Morris acknowledged the inconvenience and stated that this would not occur again.

Mr. Widdowson stated that, while the Commission appreciates her legal opinion, it is difficult for the Commission to discuss potential decisions in public.

Ms. Morris proposed holding a future meeting with the Commission in a closed session and indicated that she would ensure that any such meeting would comply with applicable legal requirements. Chairman Stoehr stated that they could possibly do so after the group's next meeting in February.

With no further comments, the meeting was adjourned at 7:22 PM.

Respectfully,

Kaitlin Ahlers, Permits Coordinator

received 7/17/2025 CD

Agenda Item 4

PD $750.00 dollars

Mayor & Council of Berlin

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berlin and MAIN STREET arts district entertainment

PLANNING COMMISSION APPLICATION

DATE: 7-17-25 CASE NUMBER: PC-9-10-25-06

APPLICATION FOR *(check one)*: ✓ preliminary SUBDIVISION ____ SITE PLAN REVIEW ____ OTHER

PROJECT NAME/DESCRIPTION: Purnell Crossing Phase 5

LOCATION OF PROPERTY: Prospect Drive

SIZE OF PROPERTY: 7.944+1.876 acres ZONING: PUD, TOTAL LOTS: 2[redacted]

- Applications must be submitted at least thirty (30) days prior to a regularly scheduled meeting of the Planning Commission.
- Nine (9) copies of the proposed subdivision or site plan must be provided with this application.
- Applicable review fees must be paid when application is submitted.

ADDITIONAL INFORMATION/EXPLANATION: Constrution of next phase of Purnell Crossing South.

The applicant, or an authorized representative, has been advised to appear at the meeting of the Planning Commission scheduled for _____(date).

Applicant Signature Troy Purnell managing member Date 7-17-25

APPROVED:

_____ _____
Planning Commission Chair (Date)

_____ _____
Planning Director (Date)

$ 750

STAFF REPORT

TO: Planning Commission

FROM: Ryan Hardesty, Acting Planning Director

MEETING DATE: February 11, 2026

SUBJECT: Purnell Crossing- Preliminary 3 lot subdivision

The Applicant seeks the Planning Commission ("**PC**") approval of a three-lot subdivision associated with Phase 5 ("**Minor Subdivision and Boundary Line Adjustment**," **Attachment 1**) within the Purnell Crossing Planned Unit Development ("**Purnell Crossing PUD**"). The purpose of the three-lot subdivision is to create a separate parcel notes as "Tract F" while revising the boundaries of the existing Tract D and Tract E. Town Code requires the proposed three-lot subdivision to comply with the terms of the most recently approved "**Purnell Crossing PUD Master Plan**[1]" (**Attachment 2**) pursuant to Town Code §§ 108-639 *et. seq*. As the Three-Lot Subdivision seeks to subdivide land in a manner non-conforming to the Purnell Crossing PUD Master Plan**,** Staff requested the Applicant submit a revised draft Purnell Crossing PUD for the PC's review and consideration.

As further detailed in this report, Staff has determined that the Three-Lot Subdivision and Draft Purnell Crossing PUD Master Plan are properly listed on the agenda as preliminary[2], rather than final, because the submitted "**Draft Revised Purnell Crossing PUD Master Plan**" (**Attachment 3**) lacks some the required site data for the PC to consider for final approval under Town Code 106-117 *et seq.* and appears to deviate from Town Codes that PC lacks authority to grant relief.

Legal Context.

For background, a **Planned Unit Development (PUD)** is a **custom zoning framework** approved for a specific tract of land. Instead of applying rigid, one-size-fits-all zoning rules, the local government approves a **site-specific development plan** that governs:

- permitted uses
- density and intensity
- setbacks and height
- layout and design
- open space and amenities

[1] The last noticed modified Purnell Crossing Master Plan, which lacked plan details such as setbacks and open space details (See Attachment 4, September 11, 2019 PC meeting notice), was presented at the September, 2019 PC meeting and published minutes in the October 9, 2019 (Attachment 5) seem to indicate that the PC was "approving" it. Applicant handed a paper form draft modified Master Plan at a hearing held during the March,9 2022 PC Meeting, at a which PC hearing noticed for changes to the northern portion of the Purnell Crossing PUD (Sunlight Lane) development "Site Plan" review. The minutes to the March 9, 2022 PC meeting indicate that the revised Master Plan may have been submitted to the PC prior to approve the agenda item for Site Plan review, but no formal discussion or vote was taken on the 2022 revised Master Plan. See Attachment 6, Meeting Minutes to May 11, 2022 Meeting

[2] Applicant has declined to submit an official application but has indicated in emails to Staff that they are seeking "final" approval of the Three-Lot Subdivision. Despite the multitudinous efforts and communications of Staff (including providing a site-specific check list), the Applicant has not provided all the Town Code required information necessary for the PC's consideration of the informally requested "final" approvals.

- phasing and infrastructure

The flexibility as provided by a PUD allows for more thoughtful development which better suits the needs of the community as a whole by allowing a mix of compatible uses and housing types as part of a planned development.

A PUD is **zoned by negotiated agreement**, adopted quasi-legislatively, and then binding on the land. The entire site within a PUD is planned as a whole—streets, utilities, stormwater, buildings, open space—rather than lot-by-lot, or phase. The approved PUD master plan approval typically **supersedes the underlying zoning**, except where the code says otherwise.

Under Town Code § 108-639, the PC is granted the authority adopt PUDs to provide some flexibility and deviations from the Town zoning codes with some limitations, including meeting the use, density, and other limitations of the applicable zoning district. The PC has the latitude modify some, but not all, of the zoning district requirements as provided in the PUD. Compliance with PUD does not excuse compliance with other requirements under Town Code §§ 106 and 108, including meeting the following requirements, and compliance with the PUD is a requirement for the PC to approve a subdivision request.

(a) **Site Plan Review**. Town Code § 108-647 requires development of the land within the PUD to comply with site plan requirements (i.e. the adopted master plan requirements).

(b) **Design Requirements/Limitations.** Town Code § 108-643 requires:
   1. Density shall not be more than 25% more than allowed in the applicable zoning district.
   2. Where feasible, the least height and density of the buildings/uses shall be around the boundaries of the development.
   3. Concept plan (i.e. the approved master plan) is required to articulate land use, traffic flow, both pedestrian and vehicular, open space, drainage patterns, buffers, and landscaping prior to or concurrently with the review of the detailed site plan and supporting details.
   4. Specific lot area, width, yard, height, density, setbacks and coverage regulations shall be determined upon approval of the PUD's Master Plan.

(c) **Residential Uses.** Town Code § 108-641 requires, within residential zones, uses within PUD shall be governed by the density, design, and other requirements of the PUD.

(d) **Open Spaces.** Town Code § 108-644 requires the PUD area to comply with Town Code Section 108-716 and Town Code § 108-717 requires 500 square feet of open space per unit as calculated by the gross square footage of the PUD area. Open space calculations are based upon gross, rather than net, square footage of a PUD development per Town Code § 106-140(1)(c). Common areas within open spaces within multi-family developments must be maintained by the developer, subdivision owner, or bona fide community association per Town Code § 108-717, including shared stormwater facilities.

(e) **Landscaping, Fencing and Screening.** Town Code § 108-645 requires the landscaping, fencing, and screening to be integrated throughout the PUD area, and implemented throughout the entire PUD area in compliance with the Town Code § 108-718, which requires as follows.

> **Sec. 108-718. Landscaping requirements.**
>
> (a) *Purpose.* The purpose of this section is to enhance, maintain, preserve and improve the appearance of the open space, vehicular use areas and property abutting public rights-of-way; to require buffering between noncompliant land uses; to protect, preserve and promote the aesthetic appeal, scenic beauty, character and value of the town, and to promote public health and safety through the reduction of noise pollution, runoff, air pollution, visual pollution, and artificial light glare.
> (b) *Landscaping plan.* A landscaping plan shall be submitted for all nonresidential uses, townhouse and multifamily developments and single-family subdivisions with three or more dwelling units for review and approval prior to final plat or site plan approval.
> (c) *Landscaping criteria.* Landscape plans shall be in accordance with landscape criteria adopted by the planning and zoning commission.
> (d) *Landscaping to be installed.* Landscaping must be installed and maintained in accordance with the approved landscape plan.
> (e) *Installation of landscaping; bond.* Installation of landscaping shall be complete or bonded in the same manner in which other site improvements are required to be installed or bonded prior to the approval of the subdivision plat or issuance of a zoning certificate or other approval.
> (f) *Maintenance bond.* The planning and zoning commission shall require a maintenance and replacement bond for required landscaping for a period not to exceed two years.

Town Code Considerations for Draft Revised Purnell Crossing PUD Master Plan

1. Non-Compliant with Individual Lot Minimum Yard and Open Space

The Draft Revised Purnell Crossing PUD Master Plan seeks to modify the Phase 5 and portions of Phase 6 to increase the number of single-family homes from fifteen (15) in the 2019 Purnell Crossing Master Plan to thirty-six (36) single-family homes within the area Applicant's described Phases 5 and 6. The increase in the number of single-family lots from 15 to 26 appears to be accomplished in the Draft Revised Purnell Crossing PUD Master Plan by reducing the side and rear setbacks as well as the lot open space beyond the minimums allowed under the Town Code and the open space requirements, which beyond what is permitted under Town Code 108-703.

> **Sec. 108-703. Reduction of required yard.**
>
> ***No lot shall be reduced in area so as to make any yard or any other open space less than the minimum required by this chapter***, and if already less than the minimum required, said yard or open space shall not be further reduced. No part of a yard or other open space provided about any building or structure for the purpose of complying with the provisions of this article shall be considered as part of a yard or other open space required under this article for any other building or structure. *[Emphasis Added]*
>
> (Code 1977, § 107-18; Ord. No. 2000-10, 9-25-2000)

The details of the side and rear setbacks are not included on the Draft Revised Purnell Crossing PUD Master Plan, but it appears that the Applicant is seeking approval of lot configurations with lots with side-yard setbacks of 5 feet and rear yards of 10 feet (the minimum allowable rear yard in all residential districts is 35 feet).

Setbacks from Purnell Crossing North and South Master Plan			
Single Family Lot Setbacks	**Original PUD Master Plan (Attachment 7)**	**2019 Master Plan**	**2026 Master Plan**
Front Yard	25’	Data Not Charted[3]	25’
Side Yard	35’ (No sum of widths provided)	Data Not Charted	5’ (No sum of widths provided)
Rear Yard	8’ (Sum of Widths 20’)	Data Not Charted	10’

Setbacks per Town Code (Sec 108-329, 350 & 378)			
Single Family Lot Setbacks	**R1**	**R2**	**R4**
Front Yard	25’	25’	25’
Side Yard	10’ (Sum of Widths 25’)	8’ (Sum of Widths 250)	6’ (Sum of Widths 15’)
Rear Yard	35’	35’	35’

2. Single Family Lot Bulk Standard Requirements.

The original PUD Master Plan **(Attachment 7)** as all single family lots to comply with the bulk standards as applicable for the R-1 zoning district. In the Draft Revised Purnell Crossing PUD Master Plan, it appears that the Applicant is seeking approval of lot configurations using a mixture of the standards from the R-1, R-2 and R-4 zoning districts with compliance with the standards from no single zoning district with some of the proposed 26 lots within Phase 5 and 6 with underlying zoning of R-1 and small portion underlying zoning of R-2 less than 7000 sf and lot widths just over 50 feet

[3] Setbacks were not provided in chart format on the 2019 Master Plan and although they were depicted as typical setbacks on the plan view of said plan, the setbacks are not legible at the scale of the provided document unless significant enlargement and enhancement of the document occurs. When enlarged, it appears the following setbacks are depicted: Front yard: 25 ‘, Side Yard: 5’; Rear Yard: 15’. Furthermore, review of the meeting minutes from the September 11, 2019 PC meeting does not reflect any discussion on changes to setbacks approved in the Original Master Plan.

Single Family Lot Area and Width					
Zoning District	**Minimum Lot Area (per Code)**	**Minimum Lot Width (per Code)**	**Minimum Lot Area (Original PUD Master Plan)**	**Minimum Lot Width (2026 Master Plan)**	**Minimum Lot Size (2026 Master Plan)**
R-1	10,000 sf	80’	8,016 sf	Not Provided	6,121 sf
R-2	8,000 sf	70’	N/A	Not Provided	13,244 sf
R-4	5,000 sf	50’	N/A	N/A	N/A

3. PUD Development Open Space.

Town Code § 108-644 requires the PUD area to comply with Town Code Section 108-716 (present case, minimum R-1=40%; R-2= 35% per lot) and Town Code § 108-717 requires 500 square feet of open space per unit as calculated by the gross square footage of the PUD area. Open space calculations are based upon gross, rather than net, square footage of a PUD development per Town Code § 106-140(1)(c).

The Draft Revised Purnell Crossing PUD Master Plan contains calculations based upon net square footage of open space, rather than gross square footage of open space. The Applicant declined to revise the calculations to gross, rather than net, that was requested by Staff, making it impossible for Staff to determine if the Draft Revised Purnell Crossing PUD Master Plan meets the Town Code § 108-717 requirements.

It is also important to note that the open space of the entire Purnell Crossing PUD needs to meet the Town Code and it appears that the Applicant’s changes to other phases of the Purnell Crossing PUD Master Plan may have reduced the development.

Open Space				
Zoning District	**Zoning Area**	**Required Open Space (based on gross parcel acreage)**	**Provided Open Space (Original PUD Master Plan) (based on gross parcel acreage)**	**Applicant Provided Open Space (2026 Master Plan) (based on NET[4] acreage)**
R-1	749,527 sf	(40%) 299,811 sf	(47.8%) 358,442 sf	[(49%) 214,315 sf]
R-2	1,436,306 sf	(35%) 502,707 sf	(48.9%) 702,388 sf	[(39%) 247,856 sf]
R-4	686,906 sf	(30%) 206,072 sf	(51.2%) 351,437 sf	[(48%) 329,749 sf]
Total	2,872,739 sf	1,008,590 sf	1,412,267 sf	[791,920 sf]

4. Phases Versus Cohesive PUD Development.

PUDs under the Town Code are intended to be developed in a cohesive, planned manner. While construction phasing within a PUD development is typical, changes or modifications within each phase must be considered in the overall PUD development. In the case of the Purnell Crossing PUD, the Applicant has made modifications within the phases that have impacted the larger PUD development. Most notably, the Applicant revised Phase 1 of the Purnell Crossing Development from the original 46-unit townhome development to a 60-unit townhome development by eliminating the connection of Sunlight Lane from Old Ocean City Boulevard to Broad Street. When queried by the PC about pedestrian and bike access to Broad Street, the Applicant has represented and included in the Draft Revised Purnell Crossing PUD Master Plan pedestrian access easement from Phase I (Sunlight Lane) to Broad Street via Prospect Drive. At the July 10, 2019 meeting, the Applicant stated that "when he gets built out to lot 25 the pedestrian walkway and biking would be added". (See **Attachment 4**). During Staff review of the current proposal, the Applicant indicated that the pedestrian easement will be activated upon the completion of the future Phase 6 but has declined to put a timeline for the construction of Phase 6 and the Town's requests for temporary pedestrian access pending construction of Phase 6 for public safety purposes. Similarly, the Applicant's requested Draft Revised Purnell Crossing PUD Master Plan does not include an updated landscaping plan.

Staff Recommendations.

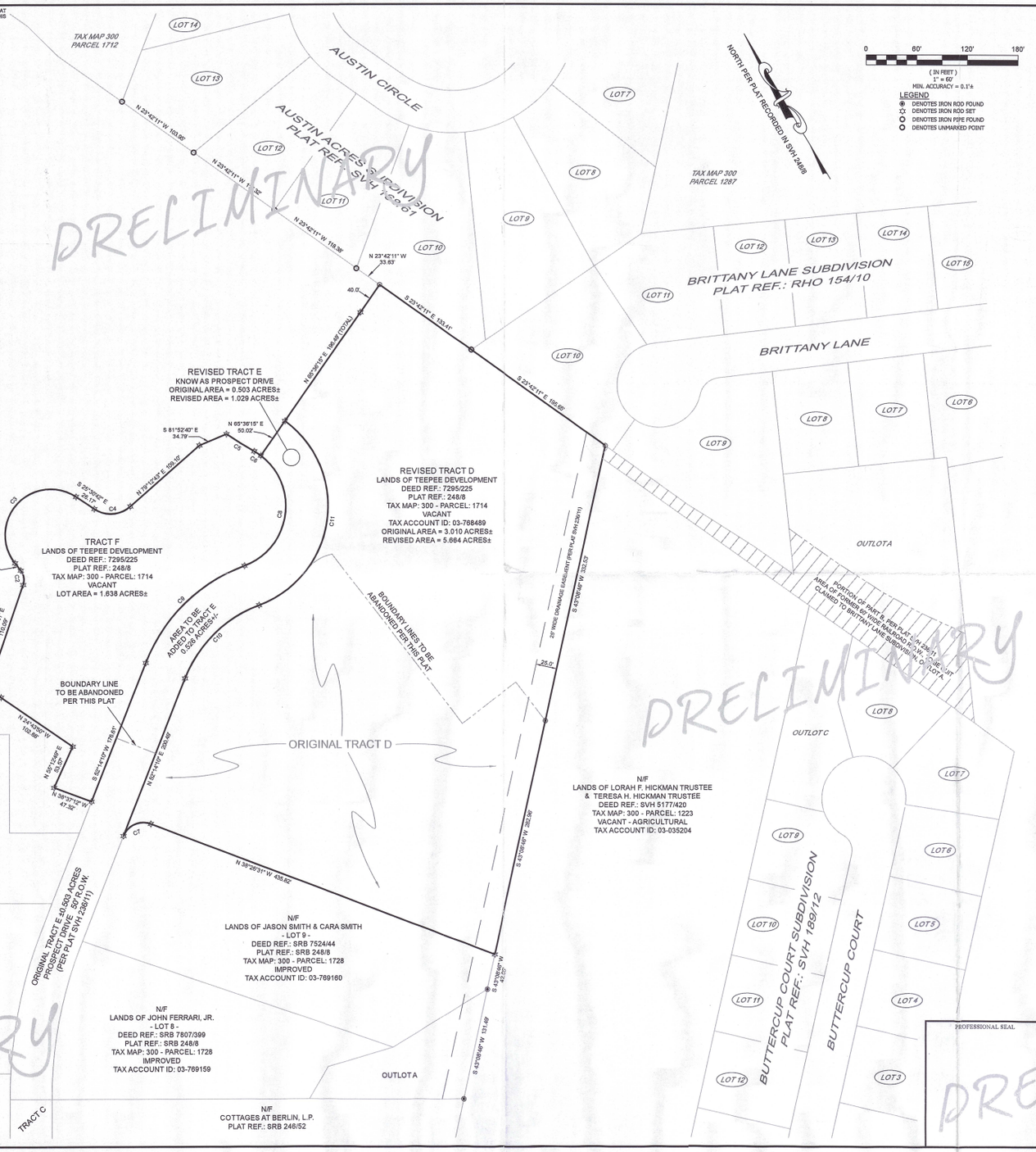
Based upon the information submitted by the applicant, staff feels that the Draft Revised Master Plan as submitted is incomplete, and that the said plan should be revised to incorporate the necessary information to demonstrate compliance with the code and applicable standards as well as meeting the intent of the PUD as approved in the original Master Plan in 2005 before approval. The Minor Subdivision and Boundary Line Adjustment associated with the proposed Phase 5 does not conform with approved Revised Master Plan. As such, any approval of the said Minor Subdivision and Boundary Line Adjustment should be conditioned upon approval of a Revised Master Plan to ensure conformity with any requirements for approval for the PUD Master Plan and to ensure any future subdivisions for the single-family homes comply with zoning and other Town Code requirements.

[4] Town Code § 108-717 requires this calculation be based upon gross, rather than net, calculations. Staff requested the gross calculation, but Applicant declined to provide it.

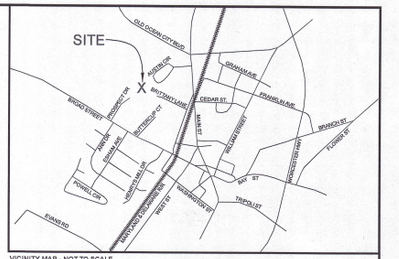
NOTE: THIS PLAT REFLECTS THE DESCRIPTION OF THE LOT/PARCEL AS NOTED IN THE TITLE OF THIS PLAT, AS SHOWN ON THE RECORD PLAT AND DOES NOT VERIFY THE EXISTENCE OR NON-EXISTENCE OF RIGHTS OF WAY, WETLANDS, UTILITIES OR EASEMENTS PERTAINING TO THIS PROPERTY OTHER THAN THOSE AS SHOWN ON SAID RECORD PLAT. NO TITLE SEARCH OR COVENANTS PROVIDED OR STIPULATED.

MINOR SUBDIVISION AND BOUNDARY LINE ADJUSTMENT

CREATING TRACT F AND REVISING TRACT D & TRACT E LANDS OF TEEPEE DEVELOPMENT AND WINDY WAY FARM INC.
TOWN OF BERLIN
THIRD TAX DISTRICT
WORCESTER COUNTY, MARYLAND



CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	25.00'	32.51'	30.27'	N 12°31'26" E	74°30'31"
C2	18.00'	17.89'	17.20'	N 21°06'33" E	57°16'16"
C3	54.00'	152.66'	106.67'	N 73°29'52" E	161°58'53"
C4	35.00'	45.99'	42.75'	S 83°09'00" E	75°16'36"
C5	550.00'	38.78'	38.77'	S 27°11'50" E	4°02'24"
C6	75.00'	9.38'	9.37'	S 25°38'59" E	7°09'53"
C7	25.00'	39.27'	35.36'	N 82°46'00" W	90°00'00"
C8	75.00'	160.49'	131.58'	S 39°14'03" W	122°36'25"
C9	200.00'	168.60'	163.65'	S 76°23'14" W	48°18'04"
C10	150.00'	126.48'	122.74'	N 76°23'14" E	48°18'04"
C11	125.00'	259.52'	220.28'	N 39°46'09" E	123°32'16"



VICINITY MAP - NOT TO SCALE

WORCESTER COUNTY ENVIRONMENTAL PROGRAMS

THE SUBDIVISION AS SHOWN HEREON IS APPROVED AS BEING IN CONFORMANCE WITH THE WORCESTER COUNTY COMPREHENSIVE WATER AND SEWERAGE PLAN PROVIDING FOR INTERIM WATER SUPPLY AND COMMUNITY SEWERAGE.

WORCESTER COUNTY - APPROVING AUTHORITY DATE

APPROVED BERLIN PLANNING AND ZONING COMMISSION

NOT MORE THAN ONE PRINCIPAL BUILDING SHALL BE PERMITTED ON ANY SINGLE FAMILY RESIDENTIAL LOT, AND NO SUCH LOT MAY EVER BE RESUBDIVIDED SO AS TO PRODUCE A BUILDING SITE OF LESS AREA OR WIDTH THAT THE MINIMUM REQUIRED BY THE APPLICABLE ZONING REGULATIONS.

TOWN OF BERLIN CHAIRMAN DATE

TOWN OF BERLIN PLANNING DIRECTOR DATE

WORCESTER COUNTY FOREST CONSERVATION NOTE

THIS SITE IS SUBJECT TO WORCESTER COUNTY FOREST CONSERVATION LAW. THIS SITE IS SUBJECT TO FOREST CONSERVATION PLAN No. 08-29. THIS SITE HAS BEEN SUBJECT TO AND REGULATED ACTIVITY UNDER THE WORCESTER COUNTY FOREST CONSERVATION LAW. THIS SITE HAS MET COMPLIANCE WITH WORCESTER COUNTY FOREST CONSERVATION LAW. AN OFF-SITE FOREST CONSERVATION PLAN HAS BEEN APPROVED AND ON FILE WITH THE DEPARTMENT OF PLANNING, PERMITS AND INSPECTIONS. A PLAT DEPICTING THE APPROVED OFF-SITE FOREST CONSERVATION EASEMENT AREA A PERPETUAL PROTECTIVE AREA AGREEMENT, DEED OF FOREST CONSERVATION EASEMENT, WORCESTER COUNTY, MARYLAND HAS BEEN RECORDED IN THE LAND RECORDS OF WORCESTER COUNTY, MARYLAND.

OWNER'S CERTIFICATION

THE SUBDIVISION OF LAND AS SHOWN ON THIS PLAT IS WITH FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF THE OWNERS, PROPRIETORS AND TRUSTEES, IF ANY, THEREOF. THE REQUIREMENTS OF CHAPTER 106 OF THE BERLIN TOWN CODE AND TITLE 3 SECTION 108 OF THE REAL PROPERTY ARTICLE OF THE ANNOTATED CODE OF THE STATE OF MARYLAND, LATEST EDITION, AS FAR AS THEY RELATE TO THE MAKING OF THIS PLAT AND THE SETTING OF THE MARKERS HAVE BEEN COMPLIED WITH.

G. TROY PURNELL DATE
TEEPEE DEVELOPMENT LLC. (TAX MAP: 300 - PARCEL: 1714)

G. TROY PURNELL DATE
WINDY WAY FARM INC. (TAX MAP: 300 - PARCEL: 1222)

SURVEYOR'S CERTIFICATION

I DO HEREBY ATTEST THAT, TO THE BEST OF MY BELIEF AND KNOWLEDGE, THE REQUIREMENTS OF CHAPTER 106 OF THE BERLIN TOWN CODE AND TITLE 3 SECTION 108 OF THE ANNOTATED CODE OF MARYLAND CONCERNING THE MAKING OF THIS PLAT AND THE SETTING OF ALL MARKERS AS WELL AS THE REQUIREMENTS OF THE COUNTY COMMISSIONERS AND THE OTHER ORDINANCES OF WORCESTER COUNTY AND OTHER APPLICABLE LAW HAVE BEEN COMPLIED WITH.

RUSSELL T. HAMMOND DATE
PROFESSIONAL LAND SURVEYOR #21329

GENERAL NOTES:

1. TRACT D AND TRACT F ARE TO BE SERVED BY PUBLIC WATER AND SEWER.
2. THERE ARE REPORTEDLY NO WETLANDS ON THIS SITE.
3. PROPERTY ZONED: R-1
4. BASED UPON THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NO. 24047C0150H, DATED JULY 16, 2015. THIS SUBDIVISION IS LOCATED IN FLOOD ZONE X.
5. THIS MINOR SUBDIVISION AND BOUNDARY LINE ADJUSTMENT IS NOT WITH IN THE ATLANTIC COASTAL BAYS CRITICAL AREA PROGRAM
6. PER PLAT RECORDED IN S.V.H. 236/11, TRACT E (DESCRIBED AS A 50' R.O.W.) SHALL BE SUBJECT TO AN INGRESS/EGRESS EASEMENT FOR THE BALANCE OF THE PURNELL CROSSING DEVELOPMENT AND SHALL BE TURNED OVER TO THE TOWN OF BERLIN FOR OWNERSHIP AND MAINTENANCE.

PURPOSE STATEMENT

THE PURPOSE FOR THIS PLAT IS TO REVISE THE BOUNDARY LINES ON TRACT D AND TRACT E, WHILE ALSO TO CREATING TRACT F, FROM TAX MAP 300, PARCEL 1222, WINDY WAY FARM, INC.

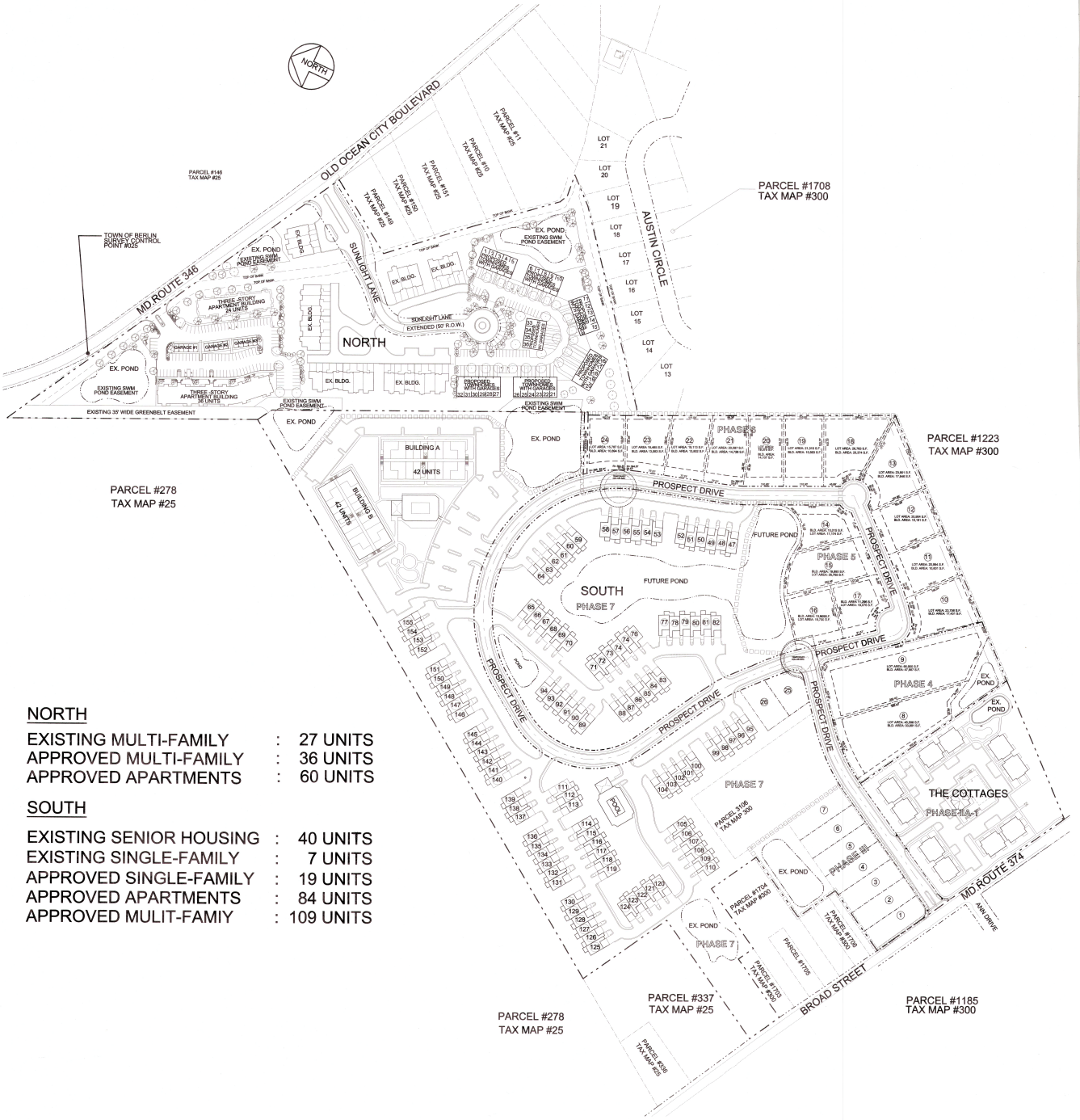
REVISION	DATE

PROFESSIONAL SEAL

RUSSELL T. HAMMOND Surveying, LLC
SURVEYING - LAND PLANNING
10310 Hotel Road Bishopville, MD 21813
(410) 352-5674 - (410)726-8076

DESIGNED BY	N/A	SURVEYED BY	RS/GTH	FILE #	2024-3561
DRAWN BY	R.T.Hammond	CHECKED BY	R.T.Hammond	SCALE	1" = 60'

SHEET 1 OF 1



NORTH

EXISTING MULTI-FAMILY	:	27 UNITS
APPROVED MULTI-FAMILY	:	36 UNITS
APPROVED APARTMENTS	:	60 UNITS

SOUTH

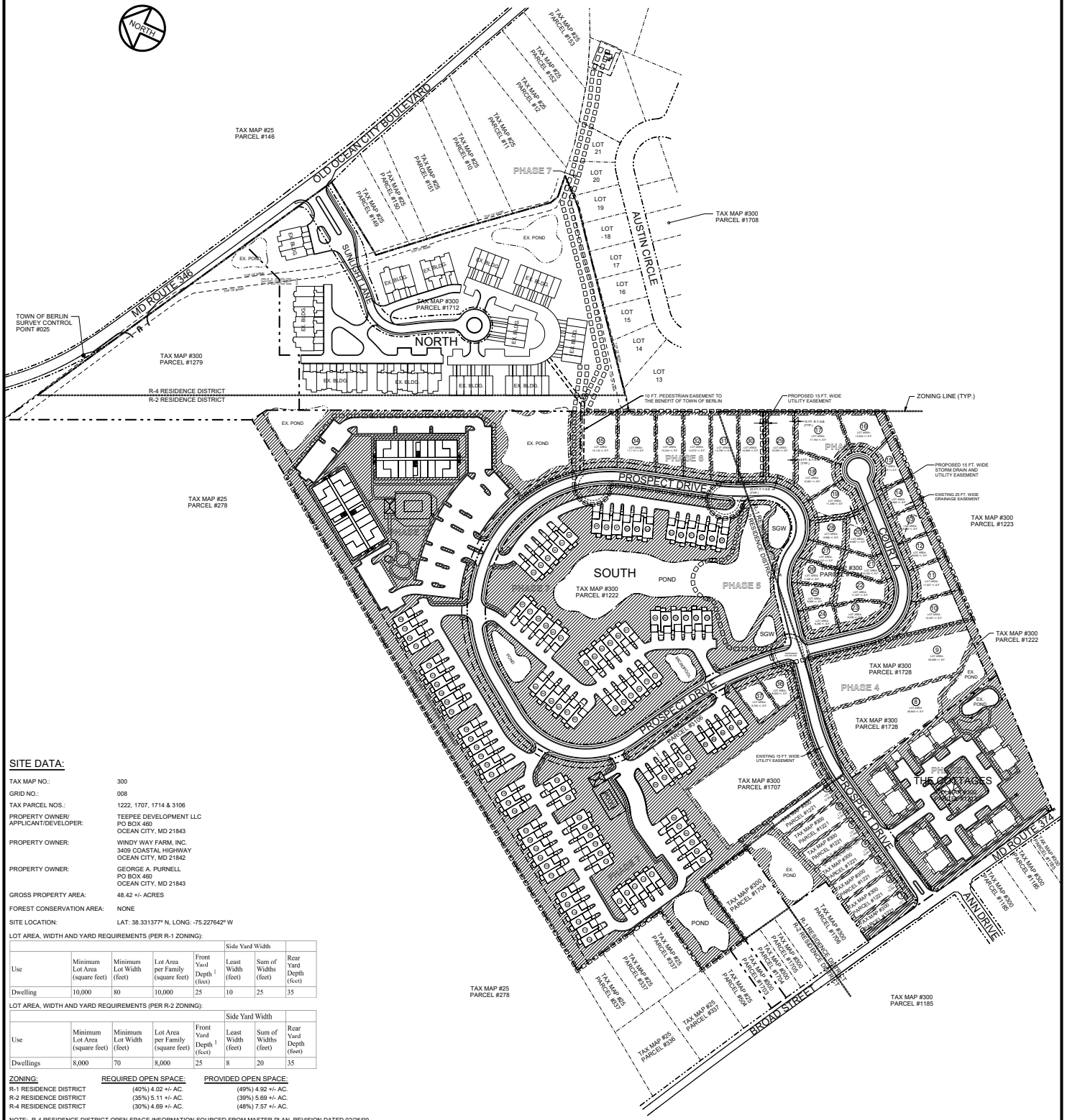
EXISTING SENIOR HOUSING	:	40 UNITS
EXISTING SINGLE-FAMILY	:	7 UNITS
APPROVED SINGLE-FAMILY	:	19 UNITS
APPROVED APARTMENTS	:	84 UNITS
APPROVED MULIT-FAMIY	:	109 UNITS

PURNELL CROSSING - NORTH & SOUTH

REVISED P.U.D. SITE PLAN

SCALE : 1" = 100'

SEPTEMBER 11, 2019



SITE DATA:

TAX MAP NO.:	300
GRID NO.:	008
TAX PARCEL NOS.:	1222, 1707, 1714 & 3106
PROPERTY OWNER/ APPLICANT/DEVELOPER:	TEEPEE DEVELOPMENT LLC PO BOX 460 OCEAN CITY, MD 21843
PROPERTY OWNER:	WINDY WAY FARM, INC. 3409 COASTAL HIGHWAY OCEAN CITY, MD 21842
PROPERTY OWNER:	GEORGE A. PURNELL PO BOX 460 OCEAN CITY, MD 21843
GROSS PROPERTY AREA:	48.42 +/- ACRES
FOREST CONSERVATION AREA:	NONE
SITE LOCATION:	LAT: 38.331377º N, LONG: -75.227642º W

LOT AREA, WIDTH AND YARD REQUIREMENTS (PER R-1 ZONING):

					Side Yard Width		
Use	Minimum Lot Area (square feet)	Minimum Lot Width (feet)	Lot Area per Family (square feet)	Front Yard Depth [1] (feet)	Least Width (feet)	Sum of Widths (feet)	Rear Yard Depth (feet)
Dwelling	10,000	80	10,000	25	10	25	35

LOT AREA, WIDTH AND YARD REQUIREMENTS (PER R-2 ZONING):

					Side Yard Width		
Use	Minimum Lot Area (square feet)	Minimum Lot Width (feet)	Lot Area per Family (square feet)	Front Yard Depth [1] (feet)	Least Width (feet)	Sum of Widths (feet)	Rear Yard Depth (feet)
Dwellings	8,000	70	8,000	25	8	20	35

ZONING:	REQUIRED OPEN SPACE:	PROVIDED OPEN SPACE:
R-1 RESIDENCE DISTRICT	(40%) 4.02 +/- AC.	(49%) 4.92 +/- AC.
R-2 RESIDENCE DISTRICT	(35%) 5.11 +/- AC.	(39%) 5.69 +/- AC.
R-4 RESIDENCE DISTRICT	(30%) 4.69 +/- AC.	(48%) 7.57 +/- AC.

NOTE: R-4 RESIDENCE DISTRICT OPEN SPACE INFORMATION SOURCED FROM MASTER PLAN, REVISION DATED 02/25/09.

PHASE:	CURRENT ZONING:	REQUIRED PARKING:	PROVIDED PARKING:	NO. OF UNITS:	NO. OF EDU'S:
1	R-4 RESIDENCE DISTRICT	186 PARKING SPACES	225 PARKING SPACES	93 TOWNHOUSES (EX.)	93 EDU'S
2	R-1 RESIDENCE DISTRICT	80 PARKING SPACES	61 PARKING SPACES	40 UNITS (EX.)	40 EDU'S
3	R-1 RESIDENCE DISTRICT	21 PARKING SPACES	21 PARKING SPACES	7 SINGLE FAMILY LOTS (EX.)	7 EDU'S
4	R-1 RESIDENCE DISTRICT	6 PARKING SPACES	6 PARKING SPACES	2 SINGLE FAMILY LOTS (EX.)	2 EDU'S
5	R-1 RESIDENCE DISTRICT	60 PARKING SPACES	60 PARKING SPACES	20 SINGLE FAMILY LOTS (PROP.)	20 EDU'S
6	R-2 RESIDENCE DISTRICT	18 PARKING SPACES	18 PARKING SPACES	6 SINGLE FAMILY LOTS (PROP.)	6 EDU'S
7	R-2 RESIDENCE DISTRICT	414 PARKING SPACES	480 PARKING SPACES	2 SINGLE FAMILY LOTS (PROP.) 109 TOWNHOUSES (PROP.) 96 APARTMENTS (PROP.)	207 EDU'S
		TOTAL: 785 PARKING SPACES	TOTAL: 871 PARKING SPACES	TOTAL: 142 UNITS (EX.) 233 UNITS (PROP.)	TOTAL: 375 EDU'S

NOTE: CURRENT ZONING AND REQUIRED PARKING SOURCED FROM TOWN OF BERLIN ZONING MAP, DATED AUGUST 2017, AND CODE OF THE TOWN OF BERLIN, MARYLAND, DATED 01/12/2026.

PLAN
SCALE: 1" = 100'
-100 0 100 200

PHASE	TOTAL AREA (+/- AC.)	AREA OF LOTS/UNITS (+/- AC.)	AREA OF RIGHT-OF-WAY (+/- AC.)	AREA OF STORMWATER MANAGEMENT PRACTICES (+/- AC.)
2	4.47	0.65	0.46	0.11
3	2.39	2.05	N/A	0.34
4	3.31	2.58	0.73	0.95
5	8.31	4.76	1.88	
6	2.68	2.07	0.49	N/A
7	28.43	12.52	1.86	1.62

PROPERTY OWNER/ APPLICANT/DEVELOPER:
SIGNATURE TEEPEE DEVELOPMENT LLC — DATE

PROPERTY OWNER:
SIGNATURE WINDY WAY FARM, INC. — DATE

PROPERTY OWNER:
SIGNATURE GEORGE A. PURNELL — DATE

TOWN SIGNATURE BLOCK:
CHAIRMAN OF PLANNING AND ZONING COMISSION — DATE
PLANNING DIRECTOR — DATE

DESIGNED BY: JJR
DRAWN BY: JJR
CHECKED BY: JWS3

REVISIONS
12/1/25
12/18/25
12/23/25
1/9/26

MASTER SITE PLAN

PURNELL CROSSING - NORTH & SOUTH
TAX MAP 300, PARCELS 1222, 1707, 1714, & 3106, BERLIN
TOWN OF BERLIN WORCESTER COUNTY MARYLAND

J. WILLIAMS ENGINEERING, INC.
P.O. BOX 397, 9842 MAIN STREET, SUITE 3
BERLIN, MD 21811

SCALE: AS SHOWN | DATE: NOV. 2025 | DRAWING No.: 152-02-001 | SHEET No.: 1 of 1

Mayor & Council of Berlin

10 William Street, Berlin, Maryland 21811
Phone 410-641-2770 Fax 410-641-2316
www.berlinmd.gov

Town of Berlin
Planning Commission Agenda
September 11, 2019 5:30PM
Berlin Town Hall – Council Chambers

1. **Call to Order**
2. **Agenda Adoption**
3. **Approval of Minutes – July 10th, 2019**
4. **Revision to the PUD Site Plan- Troy Purnell**
5. **Comments from the Commissioners**
7. **Comments from the Chairman**
8. **Comments from the Public**
9. **Adjournment**

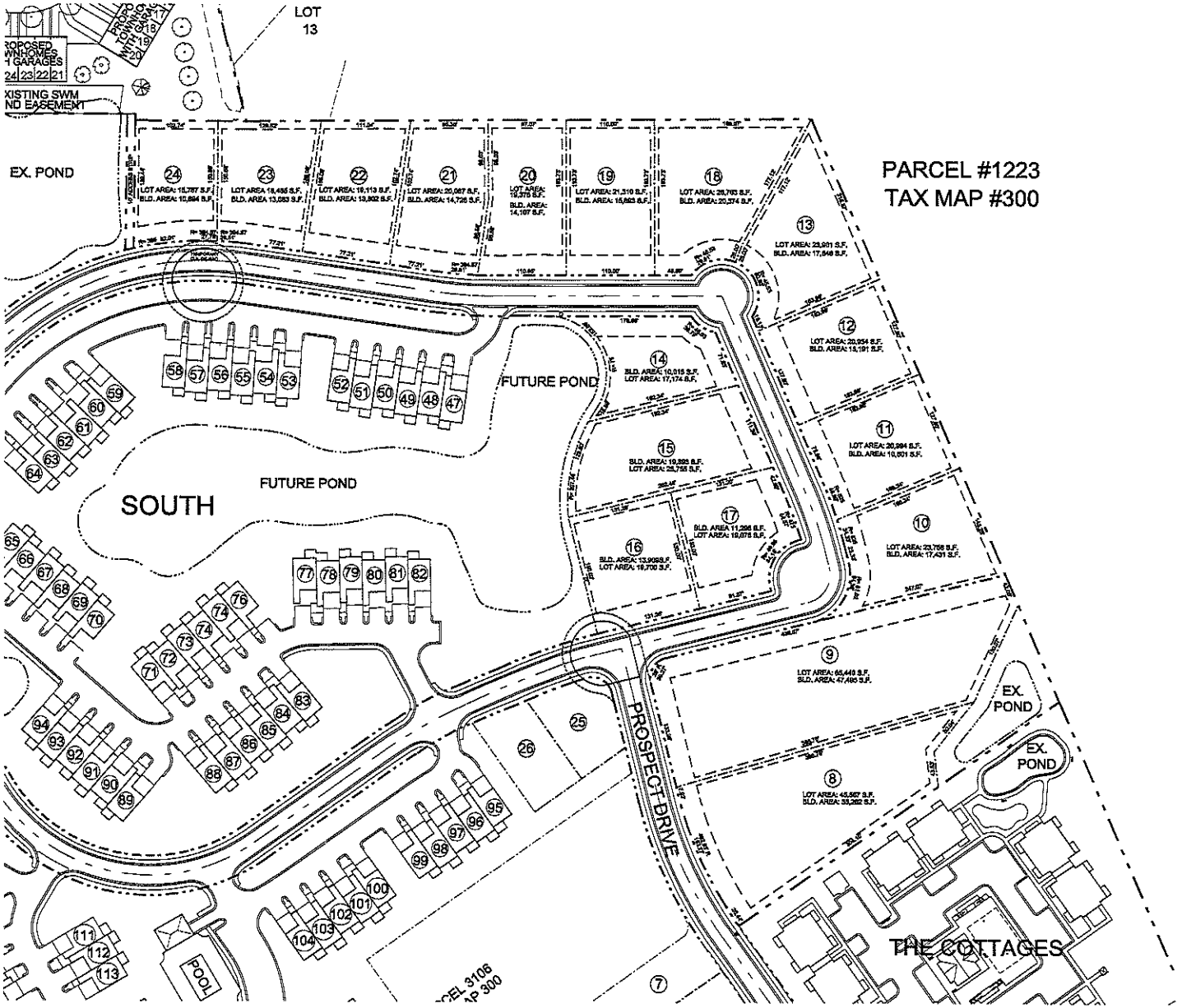
Town of Berlin
Planning Commission Meeting
July 10th, 2019

The Planning Commission Meeting for the July 10th, 2019 was called to order by Chairman Chris Denny at 5:35PM. Members present were Chris Denny, Pete Cosby, John Barrett, Barb Stack, Ron Cascio and Phyllis Purnell. Member absent was Newt Chandler. Staff present were Planning Director Dave Engelhart and Permit Coordinator Carolyn Duffy.

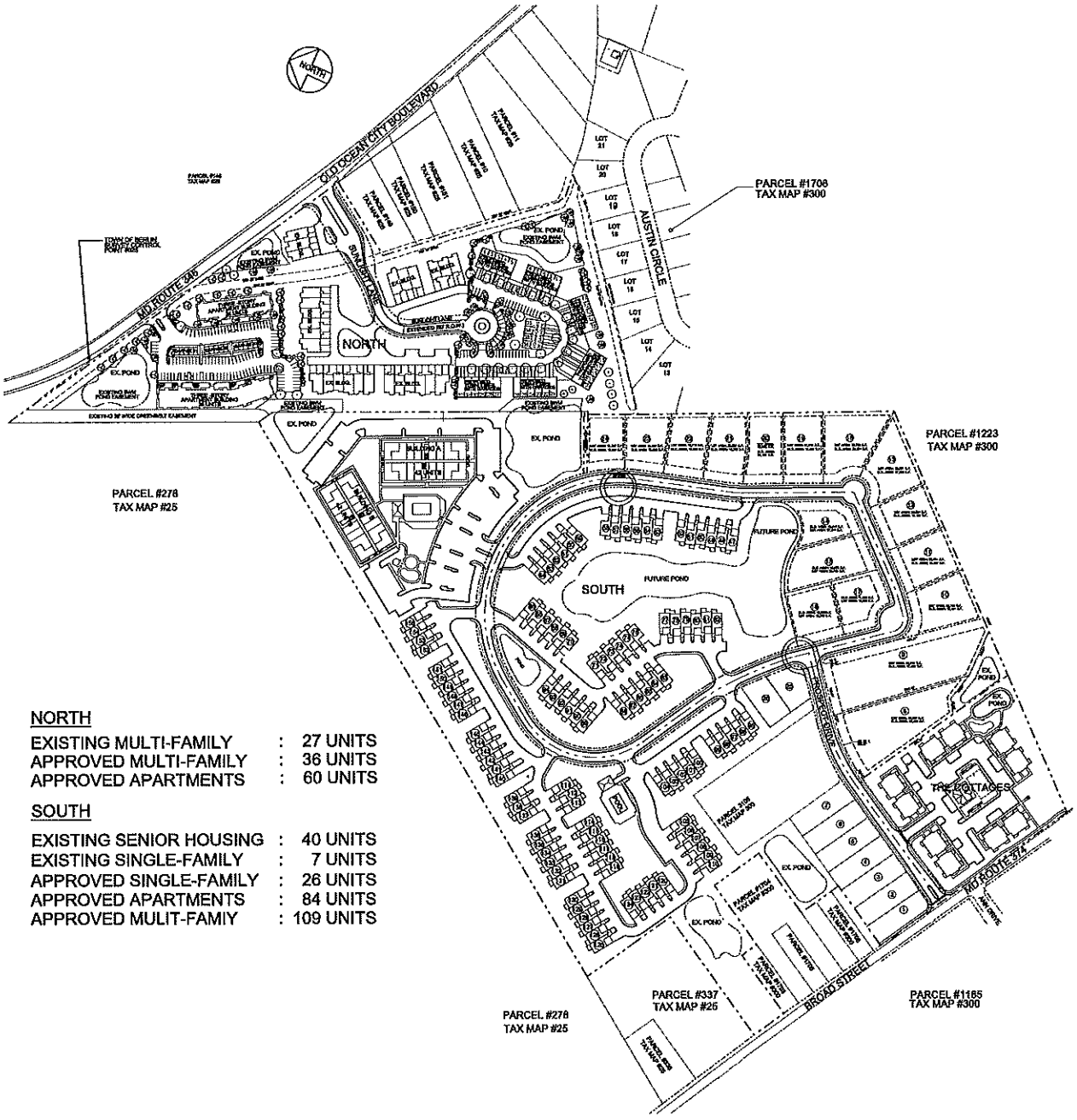
Chairman Chris Denny called the July 10th, 2019 meeting to order at 5:35PM. Chairman Chris Denny called for a motion to adopt the agenda for the July 10th, 2019 meeting. Chairman Chris Denny called for a motion to approve the minutes. Mr. Ron Cascio made one correction to the minutes and that was for the trees to be Red Cedar trees. The first case on the agenda was I. G. Burton for annexation. Mr. Sandy McAllister and Mr. Pete Renzi gave a presentation on behalf of I. G. Burton. Chairman Chris Denny asked if there were any comments from the public there was none. He then called for a motion to approve the recommendation to the Mayor & Council for annexation. Mr. Ron Cascio made the motion for the recommendation for the annexation. Mr. John Barrett seconded he motion, and it was unanimously accepted by the commission.
Next on the agenda was Mr. Troy Purnell requesting modification to the PUD for Purnell Crossing. Mr. Troy Purnell told the commission he had come before them in June and was back to request a change from the 30 lots he had requested before. He now wanted to change the thirty lots into twenty-two larger lots. Mr. Purnell stated it would have two cul de sacs it would come out to Prospect Drive. Mr. Purnell stated you would see the senior housing first then the homes. Mr. John Barrett asked when project is finished would you have the cul de sac there. Chairman Chris Denny asked would the road go all the way through. Mr. Purnell stated this would be half the pervious surface. Mr. Pete Cosby stated what he didn't see was the access for pedestrians to access to the other side. Mr. Cosby asked Mr. Purnell to start putting that on his plans the access for pedestrians and biking to Sunlight Lane. Mr. Purnell stated when he gets built out to lot 25 the pedestrian walkway and biking would be added.

Mrs. Stack questioned the number of units to be built. She asked Mr. Dave Engelhart about the 36 units discussion continued. He stated if they could show a better plan per the code it could be changed. Mr. Purnell last meeting agreed to reduce the building height for this building. Lady in the audience asked when Mr. Purnell would get started on the homes. Mr. Purnell said he would like to start in about two months. Chairman Chris Denny called for a motion. Mr. Pete Cosby made he motion to approve. Mrs. Phyllis Purnell seconded the motion. Chairman Chris Denny asked for comments from he public. Mrs. Parks stated she was concerned about the schools. He then asked for comments from the commissioners. Mrs. Barb Stack stated she was not happy with the PUD process. Mr. Pete Cosby said the original PUD had more density. With no other comments from the staff or chairman the meeting was adjourned. Motion to adjourn was made by Ron Cascio. John Barrett seconded the motion. Meeting adjourned at 6:04PM.

Respectfully Submitted,
Carolyn Duffy


LOT
13
EX. POND
PARCEL #1223
TAX MAP #300
FUTURE POND
FUTURE POND
SOUTH
PROSPECT DRIVE
EX.
POND
EX.
POND
POOL
THE COTTAGES

SCALE: 1"=50'



NORTH

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APPROVED MULTI-FAMILY	:	36 UNITS
APPROVED APARTMENTS	:	60 UNITS

SOUTH

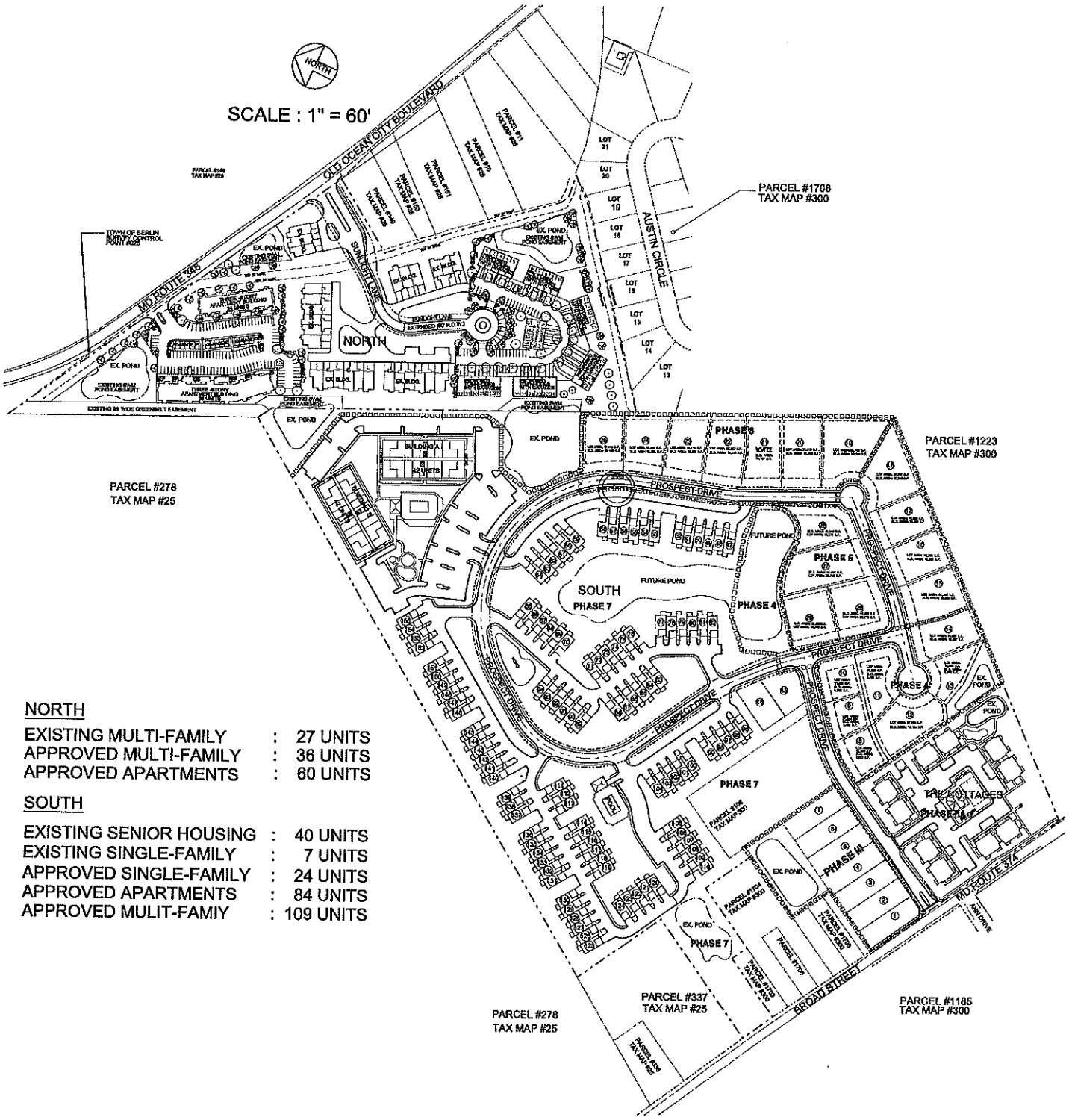
EXISTING SENIOR HOUSING	:	40 UNITS
EXISTING SINGLE-FAMILY	:	7 UNITS
APPROVED SINGLE-FAMILY	:	26 UNITS
APPROVED APARTMENTS	:	84 UNITS
APPROVED MULIT-FAMIY	:	109 UNITS

PURNELL CROSSING - NORTH & SOUTH

REVISED P.U.D. SITE PLAN

SCALE : 1" = 100'

SEPTEMBER 11, 2019



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APPROVED SINGLE-FAMILY	:	24 UNITS
APPROVED APARTMENTS	:	84 UNITS
APPROVED MULIT-FAMIY	:	109 UNITS

PURNELL CROSSING - NORTH & SOUTH

REVISED P.U.D. SITE PLAN

SCALE : 1" = 100'

JULY 10, 2019

Town of Berlin
Planning Commission
September 11, 2019

The Planning Commission Meeting for the September 11, 2019 was called to order by Chairman Chris Denny at 5:31PM. Members present were Chris Denny, Newt Chandler, Phyllis Purnell and Pete Cosby. Members absent were John Barrett, Ron Cascio and Barb Stack. Staff present were Planning Director Dave Engelhart and Permit Coordinator Carolyn Duffy.

Chairman Chris Denny called for a motion to adopt the September 11th, 2019 agenda. Mr. Pete Cosby made the motion to adopt the agenda. Mrs. Phyllis Purnell seconded the motion and it was unanimously accepted by the commission. Chairman Chris Denny called for a motion to approve the minutes from the July 10th, 2019. Mrs. Phyllis Purnell made the motion to approve the minutes from the July 10th, 2019 meeting. Mr. Pete Cosby seconded the motion and it was unanimously accepted by the commission.

Chairman Chris Denny called Mr. Troy Purnell for the revision to the PUD Site plan at Purnell Crossing. Mr. Purnell stated he was asking for a modification to the PUD for Purnell South. He stated the last time he came was July 10th and he had made a change to phase four. He stated phase four was off Prospect Drive on the right-hand side. He said previously there was to be seven lots to go there but he has since changed that and now there will be only two lots. He asked Planning Director Dave Engelhart to show the previous and what is proposed on the screen. He stated for phase four you see the seven lots. Taking those same lots he has someone that wants to build a house on one of the lots and the other would be for sale. He stated the road configuration was the same. Mr. Engelhart stated in July they approved 22 lots and now that number goes to 19 single family lots. Mr. Purnell told Mr. Pete Cosby they had added the 10-foot easement between Purnell Crossing North and South for a pedestrian pathway.

Chairman Chris Denny asked the public if anyone had questions, they would like answered. Mrs. Jennifer Allen of 104 Davis Court had a question about the number of vehicles that would be entering onto the highway. She questioned if a study had been done and if the State would get involved with all the additional traffic. Her next question was if the town of Berlin knew that Harrison Ave with its pot holes would be picking up 416 cars. She stated she did a search that gave estimates on about an average of cars per household. She said she rounded each off to about two cars per household. The next issue was that a lot of pedestrians use Harrison Ave. and walk and run take their dogs out and there are no sidewalks on Harrison. She asked is there a plan to add sidewalks to protect the people and the dogs from the 416 cars that would travel that road to go to work or wherever. She said because of this there needs to be a road put in on Broad Street to eliminate all this traffic. Chairman Denny asked Mr. Purnell in 2001 was there a traffic study done. He replied no there was not. Mr. Purnell stated that State Highway had approved both the entrances to his property. Mr. Purnell stated his project was approved before the other developments were there Franklin Knoll, Henry's Mill and Henry's Green. Mrs. Jenifer Allen stated she was glad to see the numbers had gone down. Chairman Denny asked Planning Director Dave Engelhart if there were plans for sidewalks on Harrison Ave. Mr. Engelhart stated not to his knowledge. Mr. Engelhart said maybe Troy could speak to that being

he's on the council. Mr. Purnell stated DBF is doing a study of the roads and Harrison is next inline to be done. The question now is whether to fix the road with the water & sewer underneath and if something goes wrong just dig the road up. He stated Josh Taylor said the total project would be $500,000 dollars. Mr. Purnell said it is scheduled and didn't know how much money they would be getting from state highway next year to be included but there is a plan and it takes money. Mrs. Myrna Dyson 102 Broad Street had a question she wanted to know how this information gets to the schools. She asked if schools were informed because they are over populated now. Mr. Purnell told her the county does forecasting. Mrs. Dyson asked what about other things in the community like grocery stores. She said adding this amount of people to the community kind of changes everyone's needs. Mr. Jim Hoppa from Henry's Mill had concerns about the traffic impact on Broad Street. He stated when you come out of Henry's Mill you must be very careful it's like an accident waiting to happen. He stated he had gone on the traffic app and the average was 2300 cars a day that traveled Broad Street. He thought this was something that needed to be considered. Mr. Purnell stated his plans have not changed in 20 years. Mr. Hoppa stated but other things have changed.

Chairman Chris Denny stated the project has been active for 20 years. Mr. Jason Walters stated he didn't understand how it has become bullet proof. Mr. Engelhart stated to his knowledge the police didn't want a connector road so it wouldn't be like a race track going through there. Now the apartments are on the North side with no access to Broad Street. Mrs. Jennifer Allen stated there are apartments on both sides. Mr. Purnell stated at one time this was a four story now it's a three-story building. Mr. Pete Cosby said they don't want traffic coming through the complex. He also said that the street parking was a problem getting closer to town but that can be addressed. Discussion continued about the traffic and having a beltway. Mr. Cosby said you need housing for people that need housing not everyone can afford to buy a house.

Mr. Cosby told Mr. Purnell he would like to see less density. Chairman Chris Denny called for a motion. Mr. Newt Chandler made the motion to approve. Mrs. Phyllis Purnell seconded the motion and it was unanimously accepted by the commission.

Mr. Pete Cosby asked Mr. Engelhart about the architectural design guidelines. Mr. Engelhart stated he had to put the pictures in. They had passed the text amendment and that is now a section of the code. When it is ready, he said he would get a draft copy to them. Mr. Cosby said he wants the design standards passed before they must face the next projects that are coming. Mr. Cosby stated the county focused on the Seaside look. Mr. Engelhart stated he and Ivy Wells Economic Development Director went around and took pictures and would be putting in pictures referencing Berlin. Mr. Engelhart told them the town had received a grant from DHCD for a resilience element. To be added to the comprehensive plan. That draft is being prepared by the University of Maryland people. He stated we had public meetings at Buckingham School, Town Hall and one at the Library. This is preparing the town moving forward not just for climate change but impacts on our infrastructure, electrical plants, waste water plants and the spray sites. Also, downtown the buildings and that will be part of our next comprehensive plan review want to add that to the 2020 Comprehensive Plan. They are required to review the plan in 2020. When the document comes out, we would have a public meeting then you would make a recommendation for it to go to Mayor & Council. Then they would amend the comprehensive plan to add that resilience element. Most of it dealing with sustainability how are things are

going to be paid for the town does not have a Capital Improvement Plan fund. Mr. Newt Chandler asked was this primarily for the Mayor & Council and questioned why it should come before Planning Commission. Mr. Engelhart stated with sea level rise and coastal flooding it would get worse and make things worse here with nuisance flooding. Mr. Pete Cosby stated it was the Planning Commission duty to make recommendations to the Mayor & Council. Mr. Engelhart stated this resilience plan is something you would have to review and recommend to Mayor & Council. Then they would make a resolution. Mr. Cosby stated that is something they are going to want to look at because the town is going to need a parking garage. He stated the quality of life is being affected with parking on the streets. He asked would they have public meetings to ask what they want or want to see. He thought it was a good idea and said it should be two public sessions. Discussion continued where parking could be. Jason Walters asked about the Tyson Plant and the easement or right away from the railroad company. Chairman Chris Denny asked about how much did that cost. Mr. Engelhart replied about $1100.00 per year.

Chairman Chris Denny called for a motion to adjourn. Mr. Newt Chandler made the motion to adjourn. Mr. Pete Cosby seconded the motion. Meeting was adjourned at 6:15PM.

Respectfully Submitted,

Carolyn Duffy

Town of Berlin
Planning Commission
May 11th, 2022

Chairman Chris Denny called the Planning Commission Meeting for May 11th, 2022, to order at 5:35PM. Members present were Chris Denny, Newt Chandler, Austin Purnell, Pete Cosby and Ron Cascio. Members absent were Matt Stoehr and Phyllis Purnell. Staff Present were Planning Director Dave Engelhart and Permit Coordinator Carolyn Duffy.

Chairman Chris Denny called for a motion to adopt the agenda. Mr. Newt Chandler made the motion to approve the agenda for May 11th, 2022. Mr. Ron Cascio seconded the motion, and it was unanimously accepted by the Commission. Chairman Denny called for a motion to approve the minutes from the March 9th, 2022, meeting. Mr. Ron Cascio made the motion to approve the minutes from the March 9th, 2022, meeting. Mr. Austin Purnell seconded the motion, and it was unanimously accepted by the commission.

Chairman Chris Denny called Case # 3-9-22-02 Continuation for West View at Purnell Crossing for Site Plan Approval. Mr. Mark Cropper Attorney stated they had been before the Commission and were back to address the concerns they had at the last meeting. Mr. Steve Engel stated they had concerns about landscaping and wanted to see streetlights and parking. The revised plan provides 14 parking spaces around the cul de sac another four off the cul de sac we provided street trees and with talking to Mr. Tim Lawrence have added six streetlights. Mr. Ron Cascio asked where the trees where located. Mr. Engel replied on the landscape plan. Mr. Pete Cosby asked if the lights were the ones you see around town. Mr. Engel stated the lights will be installed by Mr. Lawrence. Mr. Engel showed a picture of the townhouses. Chairman Denny asked for an arch over the doors. Mr. Engel comment on the roof lines of the townhouses this would be the look throughout the project. Mr. Cascio asked were they proposing what they were looking at or is this just for elevations. He stated the pictures were not consistent with what was in the packet shown.

Mr. Engel stated the rooflines were different then what was shown on the rendering. Same with the façade some has stone some without Mr. Cascio stated. Mr. Cascio stated he liked the garage doors with the glass, but you have some without the glass. Mr. Engle said the covered walkways they can change from stone to brick. Mr. Cascio thought this was an improvement. But stated that the rendering showing the shutters didn't match the windows. Mr. Cascio stated all they received was the front elevations and that is not 50% of what the public sees. He stated you have buildings facing different ways backs and sides with no elevations. He stated he finds it hard to approve something and they don't know what it looks like. Mr. Cropper stated he had talked with Mr. Engelhart about this if you're in favor of the site plan they could submit the rear elevations for the back part of the buildings. Mr. Cropper stated the comments about the garage doors they can reflect that also when they submit. Mr. Pete Cosby asked about the tax ditch a easement in the rear of property. Who would own the tax ditch? Mr. Cropper stated it would be owned by the Homeowners Association. Mr. Engel stated the residents don't have to pay for the tax ditch and the ditch helps with the drainage, so every lot benefits from the ditch.

Discussion continued with what types of trees they would plant. Mr. Engel stated with the amount of room they had to work with and utilities they wanted a smaller tree like the Ginko that didn't need a lot of space. Mr. Austin Purnell asked if they could put trees in the location of lots 1 through 12. Mr. Engel replied the town does not allow trees in an easement. Mr. Cropper asked Mr. Cascio if he wanted to propose a tree. He replied a tree like the Willow, Swamp Oak something like this. Mr. Pete Cosby asked about the 20-foot setbacks. Mr. Cropper said it is on here. Mr. Cascio asked about the lights in a rear yard. Mr. Engel replied the town electric department put the lights on for them where they wanted lights to be.

Chairman Denny asked for comments from the public. Mrs. Patty Corsic 510 Sunlight Lane stated at the last meeting she attended you said you were going to buffer Purnell Crossing from the new development. Mr. Engel stated they could put trees in the location she showed them on the plans. Mrs. Corsic had one more comment about the speed on Route 346. She stated right before you get to Purnell Crossing the speed limit is 50mph than drops to 30 mph with the new homes you will have more children lot of residents concerned about the speed limit.

Chairman Chris Denny called for a motion. He stated without the rear elevation and mentioned the six trees at the entrance. Mr. Austin Purnell made the motion to approve the Site Plan. Mr. Ron Cascio seconded the motion, and it was unanimously accepted by the commission.

Planning Director Dave Engelhart wanted to have a discussion on the proposed Sport Complex. He wanted to hear the commission's thoughts on requirements. He stated he had conversations with different members of the commission many times. They don't have a design yet; we know there will be traffic impacts on Route 50 and including the Flower Street corridor. We know we will have water & sewer impacts. The lift station that serves the area is on Route 346 Old Ocean City Blvd. It's not aging like the others not in bad shape like the others but may need replacing eventually. When you think of this being a destination it will affect the way of life in Berlin. He stated he has heard from a lot of the public by email and phone calls. Chairman Chris Denny asked if they would have access to Route 50. Mr. Cascio said no one from the County has spoken to State Highway. He stated there would be no access from the complex onto Route 50 so the leaves everyone trying to go through Flower Street. Mr. Madison Bunting from Bishopville, Maryland, also a County Commissioner, stated the access would have to be off Flower Street unless the State changes it. They were denied access off Route 50. He commented on the appraisal from the old deed which was 104 acres give or take. But is really 95 acres. Mr. Chandler asked if this was the only location for the complex. Mr. Bunting stated they had about 25 sites throughout the county, but they were rejected. Then was narrowed down to three different sites one owner didn't respond the other was sold. So, the land in Berlin was the other site.

Mr. Cascio asked who rejected the other sites. Mr. Bunting replied all he heard was they wouldn't work in the southern end of the county. He said it had to be in the northern end of the county or it wouldn't work. Mr. Bunting stated it was narrowed down by Parks & Recreation Mr. Perlozzo. Mr. Vince Grisrel disclosed that there is 103.54 acres of land, but the county is stating 95.2 acres. Mr. Madison Bunting replied to his statement and said most deeds are wrong. He stated the highway was put in and they needed land for that. Mrs. Gina Velong Intrepid Lane

asked about the entrance going thru Briddell Town when this area has been designated to be a historic area. Mr. Engelhart stated the property that we are discussing the Harrison property does not lay in town limits neither does Briddell Town. Town limits ends right at Cannery Village at the creek. He stated that the Middle School and Stephen Decatur High School are in town. If we were to service anything else out there, there would need to be an annexation. Mr. Engelhart read a letter from Matt Stoehr his thoughts and concerns. He believed the town's tax base couldn't handle this and the citizens would be paying for this for years to come.

Mr. John Gehrig stated he had been pushing for this for years. He discussed the 180-day options that was voted on in the meeting at Stephen Decatur. He stated they are talking indoor and outdoor facilities. He stated there is an opportunity to bring this together and he also agreed that it was a lot of unanswered questions. But thought it was an opportunity to partner with Berlin and Ocean City. He asked how could they drive economic development when costs are rising. He said this was one thing he was passionate about. Mr. Vince Grisral said he read the attraction is for sports. He said if the facility was able to be used by the citizens it detracted from the destination of the tourism and the promoters that are attracted to the facility. He stated it may not be available to the students in the area. He stated we don't have the youth base for this. He thought everyone should read the studies that are out. Mr. Chip Bertino said the interest in this is only by the County. He stated no one reached out to Berlin, or Ocean City for conversation. He stated there is no agreement. He said he didn't want them to think that conversations had been going on with Ocean City there has been none. He stated this is in your back yard here in Berlin. But didn't want taxpayers' money being used for it. He stated only the County has standing with this project.

Chairman Chris Denny said twenty some years ago they were going to put a tech park across Route 50 and that didn't happen, and it still sits. He stated four golf courses have closed. Mr. Tony Weeg stated that Flower Street would be the most impacted and that they should keep their dream rolling somewhere else. Mr. Chip Bertino asked they share with the County commissioners. Mrs. Sharon Abbott said she was advocating for the southern end because they need it the most. She said there was land offered but never made it to the Commissioners. She said she had been told it will go here in Berlin and it had to go here. She said she didn't know if they got booking fees or what but look at the other parts of the County if you care about the County. Mr. Pete Cosby said we need a YMCA. He thought they should advocate for a YMCA make part of this a YMCA he said. Thought it should be used by local people. Mr. Cory Davis said get the answers first. Mr. Tony Weeg stated this is not being marketed for the local people. Mrs. Kate McCloskey thought they needed more questions answered. They have no access on Route 50, a bad location no sewer or water would have to be annexed. With the apartments on Seahawk Road and then onto Flower Street is the worst location. There are lots of other locations for this idea but against it being taxpayer funded. She stated they have private investors that want to take the risk with the project. She thought it was too risky to put on the backs of the taxpayers. Would love to see the town of Berlin and Ocean City work better together with the County. She said as a taxpayer it breaks her heart that they didn't come to the town with this. They should have got your opinion before they got a vote.

Mr. Vince Grisrel talked about trends and encouraged they commission to read the study. Mr. John Gehrig stated there is so much money in travel sports. The families that have money can travel it's like the have and the have nots. Mr. Chip Bertino this is on the taxpayers back if it goes through. Mr. John Gehrig it's like a puzzle we will dump all the pieces out and then put them back together. The town of Ocean City probably won't invest in something so far away they have a responsibly to the citizens of Ocean City. He stated they had gone to see a facility in Virginia with the County Administrator. He stated they need to keep an open mind. Mr. Bertino stated the only purse open is the taxpayers. Mr. Pete Cosby stated right now you have a six-month study period. Didn't think that was enough time. Mr. Gehrig said they have a bond for this project. Mr. Cosby trying to understand asked why would they have a bond on it. Chairman Denny stated he thought the Town owned all the way to Tractor Supply.

Mr. Vince Grisrel said he knew of only two ways to stop this the bond bill. To have a petition of referendum with signatures it states the law, and the voters have the say. The only other way is to have the Commissioners to go back and repeal it and that is always an option. More discussion on the appeal process. Planning Director Dave Engelhart thanked everyone for attending the meeting. Mr. Cascio recapped the issues concerning the sports complex.

Chairman Chris Denny called for a motion to adjourn. Mr. Newt Chandler made the motion to adjourn. Mr. Austin Purnell seconded the motion to adjourn.

Respectfully Submitted,

Carolyn Duffy

SITE DATA

1.

PARCEL No.	TAX MAP	TAX DISTRICT	ZONED	DEED
1222	300	THIRD	R-1 / R-2	SVH 3552 / 562
1279	300	THIRD	R-4	FWH 276 / 36
1221	300	THIRD	R-1	WCL 1103 / 418
3106	300	THIRD	R-2	FWH 324 / 627

2. TOTAL SITE DATA 2,872,739 S.F. = 65.95 AC.

3. OPEN SPACE 1,396,763 S.F. = 32.07 AC.

ZONING DISTRICT	ZONING AREA	REQUIRED OS AREA	PROVIDED OS AREA
R-1	684,042 S.F.	(40 %) 273,617 S.F.	(47.3 %) 329,025 S.F.
R-2	1,507,608 S.F.	(35 %) 527,663 S.F.	(39.2 %) 590,919 S.F.
R-4	681,089 S.F.	(30 %) 204,327 S.F.	(48.4 %) 329,576 S.F.
TOTAL	2,872,739 S.F.	1,005,607 S.F.	1,249,520 S.F.

SWM PONDS ± 265,957 S.F. = ± 6.11 AC.

WALKWAYS, PLAYGROUNDS, OUTDOOR REC., GARDENS, ETC. ± 941,356 S.F. = ± 21.61 AC.

SETBACKS AREA OF SF / DUPLEX LOTS 347,308 S.F. = 7.97 AC.

4. SINGLE FAMILY LOTS ILLUSTRATED 35 LOTS
   - FRONT YARD SETBACK 25'
   - SIDE YARD SETBACK 35'
   - REAR YARD SETBACK 8' (sum of widths 20')

   TOWNHOMES ILLUSTRATED 155 UNITS

   DUPLEX HOMES ILLUSTRATED 16 LOTS / 32 UNITS

   GARDEN APARTMENTS ILLUSTRATED 114 UNITS

   INDEPENDENT CARE / ASSISTED LIVING 100 UNITS

5. GREENBELT EASEMENT, 35' WIDE (WEST PERIMETER) 85,841 S.F. = 1.97 AC.

6. FOREST CONSERVATION

   ONSITE FOREST CONSERVATION 85,841 S.F. = 1.97 AC.

   OFFSITE MITIGATION BANKS (SPLIT BETWEEN OCEAN COAST AND POCOMOKE RIVER WATER SHEDS)

7. **EDU'S @ 250 gal/Edu.**

   155 TH @ 28'x70' TYPICAL FOOTPRINT
   32 DUPLEX UNITS/ 16 LOTS (TYPICAL FOOTPRINT 56'x62')
   35 SINGLE FAMILY LOTS
   100 INDEPENDENT ASSISTED LIVING
   114 GARDEN APARTMENTS (2 STRUCTURES MIN.)
   ------
   436 DWELLING UNITS
   ----
   3 POOL / BATHHOUSE
   2 POOL / BATHHOUSE
   3 POOL / BATHHOUSE
   ----
   444 TOTAL EDU'S
   (± 111,000 GAL PER DAY MAX FLOW)

8. THERE ARE NO KNOWN JURISDICTIONAL WETLANDS ON SITE

9. PARKING SPACES - PROVIDED

USE	No. OF PARKING SPACES				LOADING SPACES	
	10'x20'	9'x20'	8'x20' (HC)	TOTAL	12'x65'	12'x45'
INDEPENDENT/ASSISTED LIVING	75	-	8	83	2	-
114 APT. UNITS + BATHHOUSE	184	40	6	230	3	-
2 POOL/ BATHHOUSES	39	-	4	43	-	2
32 DUPLEX UNITS	64	-	-	64	-	-
161 TOWNHOME UNITS	345	-	2	347	-	-

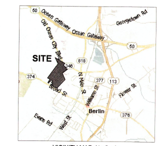
10. ROAD CUL-DE-SAC RADIUS - 60' MIN.

    LENGTH OF ROADWAYS - 50' ROW 6,428 L.F.

    LENGTH OF PRIVATE DRIVES - 24' TYPICAL WIDTH 10,146 L.F.

MASTER DEVELOPMENT PLAN

PLANNED UNIT DEVELOPMENT (P.U.D.)



VICINITY MAP No Scale

LANDSCAPE LEGEND:

611 ORNAMENTAL PLANTINGS
FLOWERING CRABAPPLE (MALUS) 5'-6' HT MIN.
CRAPE MYRTLE (LAGERSTROEMIA INDICA) 5'-6' HT MIN.
SHADBLOW SERVICEBERRY (AMELANCHIER ARBOREA) 3'-4' HT MIN.
BLUE SPRUCE (PICEA PUNGENS GLAUCA) 4' HT MIN.

TREES
142 SCARLET RED OAK (*QUERCUS RUBRUM*) 2 ½ - 3" CAL.
216 RED MAPLE (*ACER RUBRUM*) 2 ½ - 3" CAL.
188 WILLOW OAK (*QUERCUS PHELLOS*) 2 ½ - 3" CAL.

GRAPHIC SCALE
SCALE 1"=100'

OWNER'S NAME:
Purnell Investment Corporation & Purnell Inc.
Troy Purnell, Vicepresident & President Respectively
3409 Coastal Highway
Ocean City, Maryland 21842
Phone: (410) 524-0001

SITE PLANER / PRIME CONSULTANT:
Lawrence T. Whitlock Associates, Inc.
P.O. BOX 110
9040 Worcester Highway
Berlin, Maryland 21811
Phone: (410) 641-9980
Fax: (410) 641-9948

SOILS, GEOTECHNICAL:
Hardin Kight Associates Inc.
12515 Caterpiller Lane
Ocean City Industrial Park
Bishopville, Maryland 21813
Phone: (410) 352-5001

AERIAL TOPOGRAPHIC SURVEY:
Spectrum Mapping L.L.C.
28969 Information Lane
Easton, MD 21601
Phone: (410) 770-6000
Fax: (410) 820-5613

CIVIL ENGINEERING:
J. W. Salm Engineering, Inc.
12432 Collins Road
Bishopville, MD 21813
Phone: (302) 436-7570
Fax: (302) 436-9674

SURVEY & SUBDIVISION PLATS:
L.E. Bunting Surveys, Inc.
24 Broad Street
Berlin, Maryland 21811
Phone: (410) 641-3313
Fax: (410) 641-3314

WETLANDS DELINEATION & FOREST CONSERVATION:
Environmental consultants, Inc.
Ron Gatton
P.O. BOX 438
Trappe, MD 21673
Phone: (410) 476-5331

APPROVED TOWN OF BERLIN PLANNING COMMISSION ____ DATE:

PROPERTY OWNER: ____ DATE:

V:\07400.00 - Purnell Crossing - 450 units\DWG\PLAN\0740000-SP (rev-A).dwg May 02, 2008 - 11:18am

DRAWING NAME: PRAF Base Map-B.dwg
DATE: March 28, 2005
SCALE: 1"=100'

Revisions
12/4/07 Changed Legend, parking spaces, & EDU's

Lawrence T. Whitlock Associates, Inc.
Landscape Architects · Planners · Prime Consultants
P.O. BOX 110 9040 Worcester Highway Berlin, Maryland 21811
Fax (410) 641-9948 Phone (410) 641-9980

MASTER DEVELOPMENT PLAN
ILLUSTRATIVE LANDSCAPE PLAN

PURNELL CROSSING
PLANNED UNIT DEVELOPMENT (P.U.D.)
PREPARED FOR PURNELL INVESTMENT CORPORATION & PURNELL INC.
TOWN OF BERLIN, MARYLAND

Sheet No. 1 of 4

Mayor & Council of Berlin
10 William Street, Berlin, Maryland 21811
Phone 410-641-2770 Fax 410-641-2316
www.berlinmd.gov

PLANNING COMMISSION APPLICATION

DATE: 1/27/2026 **CASE NUMBER:** PC-2-11-26-03

APPLICATION TYPE: (check one)

☐	Concept Site Plan Review	☐	Concept Subdivision
☐	Preliminary Site Plan Review	☐	Preliminary Subdivision
☑	Final Site Plan Review	☐	Final Subdivision
☐	Other: _____		

Has this project already been reviewed by the Planning Commission?

☐ **No**

☑ **Yes** 10/8/25 *Date of Meeting*

PROJECT NAME/DESCRIPTION: 513 S Main Street offices

LOCATION OF PROPERTY: 513 South Main Street

SIZE OF PROPERTY: 15,000 **ZONING:** B1 **TOTAL LOTS:** 1

IMPORTANT:

- **Applications must be submitted at least thirty (30) days before a regularly scheduled Planning Commission meeting. Meeting dates and filing deadlines are available at: berlinmd.gov/government/boards-commissions-and-committees**
- **Nine (9) complete copies of the proposed subdivision or site plan must accompany the application.**
- **All applicable review fees are due at the time of submission.**
- **Submission by the stated deadline does not guarantee placement on the next agenda. Each application is subject to a comprehensive review process, which may extend beyond the next meeting date.**

ADDITIONAL INFORMATION/EXPLANATION:

The applicant, or an authorized representative, has been advised to appear at the meeting of the Planning Commission scheduled for 2/11/26 (*date*).

Applicant Signature _____ **Date** 01/27/2026

IF APPROVED:

Planning Commission Chair _____ **Date** _____ **Planning Director** _____ **Date** _____

STAFF REPORT

TO: Planning Commission

FROM: Ryan Hardesty, Acting Planning Director

MEETING DATE: Wednesday, February 11, 2026

SUBJECT: 513 S. Main St. – Final Site Plan Approval

SUMMARY:
The applicant is proposing the construction of an accessory building to the rear of an existing accounting office located in the B-1 District. The purpose of the accessory building is to expand office space. Parking is proposed between the existing building and the new accessory building. The site provides a total of nine parking spaces, which meets the minimum parking requirement. The property is bordered by an R-1 District to the left and B-1 Districts to the right and rear. The applicant has returned to the Planning Commission with updated landscaping and lighting plans as requested during the Commission's October 2025 meeting.

BACKGROUND:
The subject property is currently developed with an existing accounting office located within the B-1 District. The surrounding zoning consists of an R-1 District to the left of the property and B-1 Districts to the right and rear.

The project was initially reviewed by the Planning Commission in June 2024 at the concept stage. At that time, the Commission appeared supportive of the overall project concept. The applicant returned to the Planning Commission in October 2025, at which point Commission members requested that the applicant provide a landscaping plan and a lighting plan for further review.

The applicant is now returning to the Planning Commission having provided both an updated landscaping plan and an updated lighting plan addressing the Commission's prior comments. In addition, the project has received Final Stormwater Approval and has been reviewed by the Fire Marshal.

FINDINGS:

• The proposed accessory building is intended to expand the existing accounting office use, which is permitted in the B-1 District.

• The site plan shows parking located between the existing building and the proposed accessory building. A total of nine parking spaces are provided, exceeding the minimum parking requirement of seven spaces.

• Per Section 108-437(2) of the Zoning Code, when a property abuts an R District, parking areas must be located at least twenty-five (25) feet from the lot line, with the intervening space landscaped. The submitted site plan includes the required landscaped buffer. While the parking area does not meet the 25ft setback on the left side, it is preexisting.

• Per Section 108-440 of the Zoning Code, a side yard setback of fifteen (15) feet is required when a property adjoins an R District. Where the property adjoins a non-residential district, there is no minimum side yard setback. The proposed setbacks for this project are in compliance.

• The rear of the property is zoned B-1; therefore, a 15ft rear yard setback is required. The proposed plan shows a 26.3ft setback meeting the requirements.

• The applicant has submitted a landscaping plan and a lighting plan in response to Planning Commission comments from October 2025.

• The project has received Final Stormwater Approval.

• The project has been reviewed by the Fire Marshal, and any applicable comments have been addressed.

RECOMMENDATIONS:
Staff recommends that the Planning Commission find the proposed site plan, including the accessory building, parking layout, landscaping plan, and lighting plan, to be consistent with the requirements of the B-1 District and applicable sections of the Zoning Code, and forward a favorable recommendation for approval, subject to any conditions the Planning Commission deems necessary.

CONCLUSION:
The applicant has addressed the Planning Commission's previous comments by providing updated landscaping and lighting plans and has obtained the required Final Stormwater Approval and Fire Marshal review. Staff finds the project to be appropriate for the site and compatible with surrounding zoning districts and recommends approval.

NOTE: THIS PLAT REFLECTS THE DESCRIPTION OF THE LOT/PARCEL AS NOTED IN THE TITLE OF THIS PLAT, AS SHOWN ON THE RECORD PLAT AND DOES NOT VERIFY THE EXISTENCE OR NON-EXISTENCE OF RIGHTS OF WAY, WETLANDS, UTILITIES OR EASEMENTS PERTAINING TO THIS PROPERTY OTHER THAN THOSE AS SHOWN ON SAID RECORD PLAT. NO TITLE SEARCH OR COVENANTS PROVIDED OR STIPULATED.

POST CONSTRUCTION LOT COVERAGE

EXISTING LOT COVERAGE	
EXISTING BUILDINGS =	1,247 S.F.
EXISTING ASPHALT DRIVE=	2,457 S.F.
EXISTING CONC. WALKS=	175 S.F.
EX.ISTING PAVERS=	174 S.F.
PROPOSED BUILDING =	1,440 S.F.±
PROPOSED CONC. POR. =	72 S.F.±
PROPOSED SIDEWALK =	189 S.F.±
PROPOSED ASPHALT =	2,911 S.F.±
POST CONSTRUCTION COVERAGE=	8,665 S.F.

POST CONSTRUCTION LOT COVERAGE PERCENTAGE = 8,665 S.F./14,044 S.F. = 0.6169 OR 61.7%
POST CONSTRUCTION LOT COVERAGE PERCENTAGE = 61.7%

NORTH PER PLAT RECORDED IN 189/72

0 20' 40' 60'

(IN FEET)
1" = 20'
MIN. ACCURACY = 0.1'±

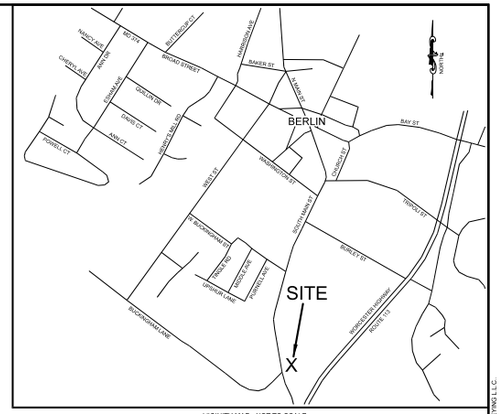
LEGEND:

- DENOTES CONC. MON. FOUND
- DENOTES IRON PIPE FOUND
- DENOTES IRON ROD FOUND
- DENOTES EX. SPOT ELEVATION (NAVD 88)
- DENOTES EXISTING CENTERLINE ROAD
- DENOTES EXISTING EDGE OF PAVEMENT
- DENOTES BOUNDARY LINE
- DENOTES BUILDING RESTRICTION LINE
- DENOTES ADJOINER LINE
- DENOTES ACCESS EASEMENT LINE
- DENOTES DRAINAGE DIVIDE

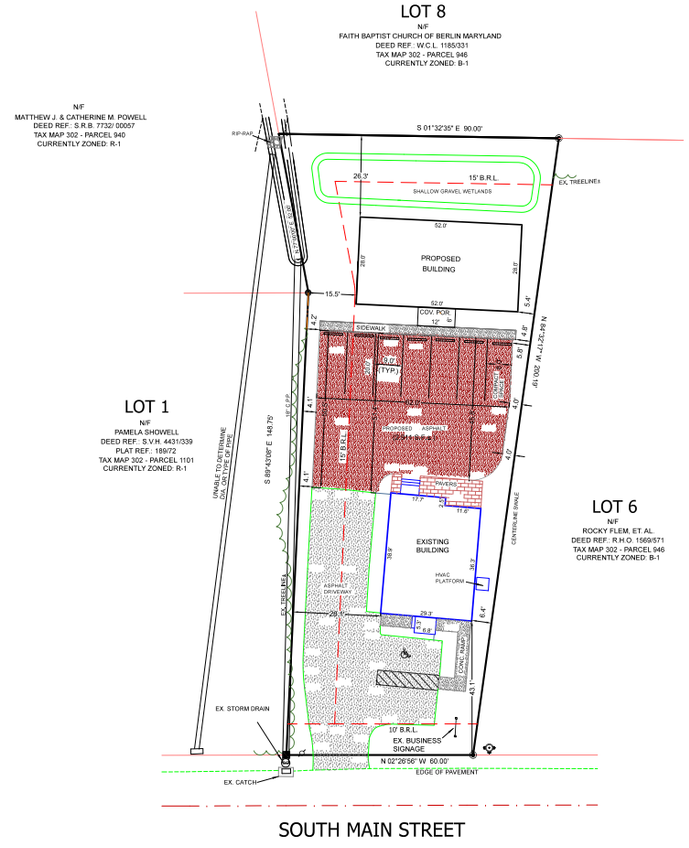
EXISTING CONDITIONS

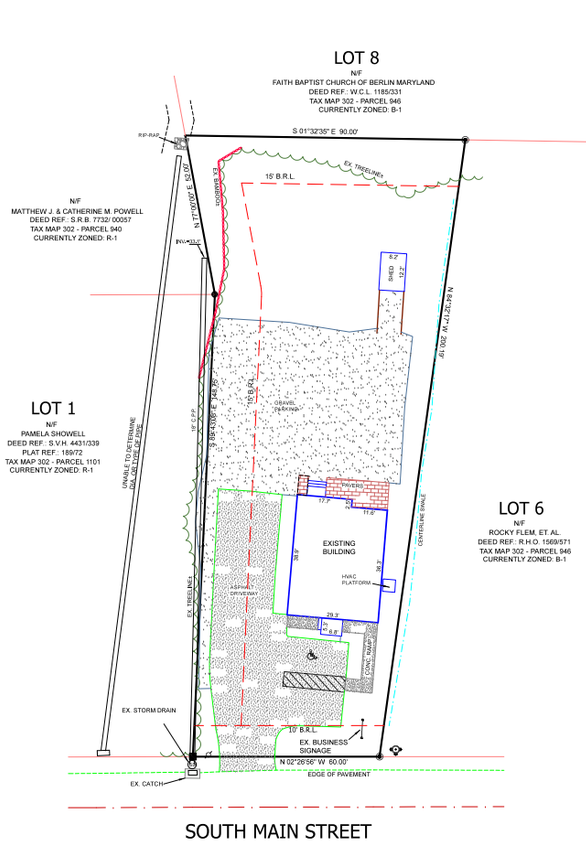
EXISTING LOT COVERAGE	
EX. BUILDINGS =	1,247 S.F.
EX. ASPHALT DRIVE=	2,457 S.F.
EX. CONC. WALKS=	175 S.F.
EX. PAVERS=	174 S.F.
EX. GRAVEL PARKING=	3,674 S.F.
EX. LOT COVERAGE=	7,727 S.F.

LOT COVERAGE PERCENTAGE = 7,727 S.F./15,000 S.F. = 0.5151 OR 51.5%
LOT COVERAGE PERCENTAGE = 51.5%



VICINITY MAP - NOT TO SCALE





SITE NOTES

1. ADDRESS: 513 S. MAIN STREET
   TAX MAP 302 - PARCEL 946
   OWNER/APPLICANT: 513 SOUTH MAIN STREET LLC
   513 SOUTH MAIN STREET
   BERLIN, MD. 21811
   PHONE: 410-641-3133
   CONTACT: PAT VORSTEG
   JPVORSTEG@AOL.COM
   PHONE: 410-375-1035
   SURVEYOR: RUSSELL T. HAMMOND
   RUSSELL T. HAMMOND SURVEYING, LLC
   10310 HOTEL ROAD
   BISHOPVILLE, MARYLAND 21813
   RUSSELL@RTHSURVEY.COM
   PHONE: 410-352-5674
2. DEED REF.: S.R.B. 6642/247
   PLAT REF.: S.V.H. 189/72
3. LOT AREA: 14,044 S.F.± OR 0.3224 AC.±
4. BLDG ENVELOPE: 9,497 S.F.± OR 0.2180 AC.±
5. EX. ZONING: B-1
6. FLOOD ZONE: X PER FIRM NO. 240141 0163 H, DATED JULY 16, 2015.
7. SITE IS IMPROVED AND PARTIALLY WOODED.
8. THIS SITE IS NOT WITHIN THE ATLANTIC COASTAL BAYS CRITICAL AREA.
9. THIS SITE IS WITHIN WORCESTER COUNTY SUB WATERSHED #02130105 NEWPORT BAY DRAINAGE.

CONCEPTUAL
PROPOSED SITE PLAN

LOT 7 - GORMAN B. JONES PLAT

LANDS OF 513 SOUTH MAIN STREET, LLC
TOWN OF BERLIN
THIRD TAX DISTRICT
WORCESTER COUNTY, MARYLAND

REVISION	DATE	BY
ADDED DIMENSIONS OF PROPOSED ASPHALT PARKING	09/10/25	RTH

RUSSELL T. HAMMOND
Surveying, LLC
SURVEYING - LAND PLANNING
10310 Hotel Road Bishopville, MD 21813
(410) 352-5674 - (410)726-8076

DESIGNED BY	N/A	SURVEYED BY	RS/BB
DRAWN BY	R.T. HAMMOND	DATE	09/23/2024
CHECKED BY	R.T. HAMMOND	SCALE	1" = 20'
FILE #	2024-3546	SHEET	1 OF 1

RUSSELL T. HAMMOND
Surveying, LLC

10310 Hotel Road Bishopville, Maryland 21813

Office: 410-352-5674 Cell: 410-726-8076

Email: russell@rthsurvey.com

Stormwater Management Narrative

513 South Main Street

December 16, 2025

RUSSELL T. HAMMOND
Surveying, LLC

10310 Hotel Road Bishopville, Maryland 21813

Office: 410-352-5674 Cell: 410-726-8076

Email: russell@rthsurvey.com

Table of Contents

RUSSELL T. HAMMOND
Surveying, LLC

10310 Hotel Road Bishopville, Maryland 21813

Office: 410-352-5674 Cell: 410-726-8076

Email: russell@rthsurvey.com

December 16, 2025

513 South Main Street

The project is in the Town of Berlin located at 513 South Main Street. It is shown on Tax Map 302, parcel 946. The proposed project is a one-story office building with associated parking spaces. The total site area is 14,044 square feet.

The original parcel is improved with existing office building and is grass maintained. The surrounding properties are commercial on the easterly side and residential along the northerly and southerly side. The existing drainage pattern flows from the front of the property to the rear. South Main Street has two stormwater catch basins with culverts that run along the site's northerly property line. The culverts terminate into an outfall which is overrun with bamboo and are poorly maintained. Currently, the Town of Berlin is not planning any Stormwater Infrastructure along the street or any maintenance of the culverts currently existing.

The developer plans to construct a single building on the parcel with 7 parking spaces. The proposed building is located close to the rear of the site. Soil maps from USDA indicate soil type is Urban Land-Udorthents (UwB), group D soils.

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December 16, 2025

The drainage boundary extends beyond the property lines on the south side to include off-site run-on form the adjoining properties. The adjoining properties consist of several residential dwellings with grass-maintained yards. The adjoining runoff flows to an existing grass area located on the property's southerly property line and appears to run to the rear of the site towards the existing outfall based on existing topography. A proposed grass swale will be constructed to channel this offsite runoff and convey to the outfall channel on the north side of site. The property on the east side of the site consists of a church with associated parking lot. The church property has a concrete curb along the property line which directs their runoff toward the outfall on the north side of the site. Run-on will continue to follow the existing drainage pattern of the surrounding properties.

The limits of disturbance for the project was determined to be 14,585 square feet. Based on the limits of disturbance, the required ESDv is computed at 1,389.2 cubic feet. This was computed based on the following information: 9,538(impervious area)/14,585 (LOD) = 65.4%, which was rounded to 65% (I). The Pe was determined by Chapter 5 of the manual to be 1.8". Rv was computed to be 0.635, based on Rv = 0.05 + 0.009(0.65). The ESDv was determined by the following equation; (1.8) (0.635) (14,585)/ 12 = 1,389.2 cubic feet. WQv is computed at 771.8 cubic feet being (1.0) (0.635)(14,585)/12 and Qe was determined to be 1.143" per (1.8) (0.635).

Due to the site having hydrologic soil group D soils and ESD practices for infiltration will be limited. The proposed project will have three drainage areas. Drainage area #1 consists of the existing driveway area beginning at the street and northerly side of proposed asphalt driveway that will sheet flow to a grass channel that conveys runoff to level spreader area next to the proposed building and flows into the rain garden. Drainage area #2 consists of the proposed parking lot section to the south. The asphalt parking area will sheet flow to a grass channel to flows to an 8" leader that directs the runoff to the rain garden.

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December 16, 2025

The building has been designed with a gabled rooftop. The front of the building's rooftop will be discharged by rain gutters which will be directed towards the rain garden. The rear of the building's rooftop will discharge to a gravel filled level spreader that will redistribute the flow prior to entering the submerged gravel wetlands.

A submerged gravel wetland was chosen as an ESD practice due to specific site conditions which limit the type of available ESD methods. The project is 14,585 square feet and has a unique width. The Town of Berlin requires 7 parking spaces to be provided for the use. Our contributing drainage area is 11,210 square feet. This area was determined by adding the existing parking area, proposed building, and the proposed asphalt parking.

The submerged gravel wetlands will treat the required ESDv of 1,389.2 cubic feet. Soil amendments will not be considered. The ponding area from the planting soil to the top of the submerged gravel wetlands will hold 75% of the WQv. The ponding area will also handle the design storm events for the 2-year, 10 year and 100 year. The Stage-Area-Storage report shows the 1,389.2 cubic feet of ESDv is met at an elevation of 36.37' with the gravel. A concrete weir will be constructed to provide release of the storm events.

Due to the property's drainage pattern, which slopes to the rear of the site, and South Main Street not having adequate Stormwater facilities, the post development flow rates must be less than or equal to the pre-development rates. The properties to the north and east of the site are fairly similar to the project. The properties to the south are higher than the project. The project must demonstrate the 2-year and 10-year storm events are controlled to predevelopment levels.

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December 16, 2025

The pre-development runoff rates for the 2 year, 10 year and 100 year are as follows;
2 year = 1.16 cfs, 10 year = 1.92 cfs and 100 year = 2.87 cfs

The post development rates are as follows;
2 year = 0.72 cfs (inflow) 0.56 cfs (outflow) – peak elevation = 37.31'
10 year = 1.31 cfs (inflow) 1.25 cfs (outflow) – peak elevation = 37.41'
100 year = 2.08 cfs (inflow) 2.02 cfs (outflow) = peak elevation = 37.48'

The surrounding areas appear to drain to the rear of the project and discharge to an existing outfall. The existing outfall flows easterly towards U.S Route 113. A field investigation discovered catch basins located on South Main Street. The catch basins discharge to the existing poorly maintained outfall. To connect to the existing stormwater management infrastructure private easements have been obtained from the individual property owners.

The existing outfall must be reconstructed from the terminus of the 18" culvert to the easterly property line. The easterly property recently performed maintenance along the outfall. The surrounding properties are grass maintained. The outfall structure would create a point discharge for the submerged gravel wetlands. Any overflow from storm events sheet flow from the submerged gravel wetlands to the outfall. The submerged gravel wetlands will allow natural flow paths, and provide a stable conveyance off-site.

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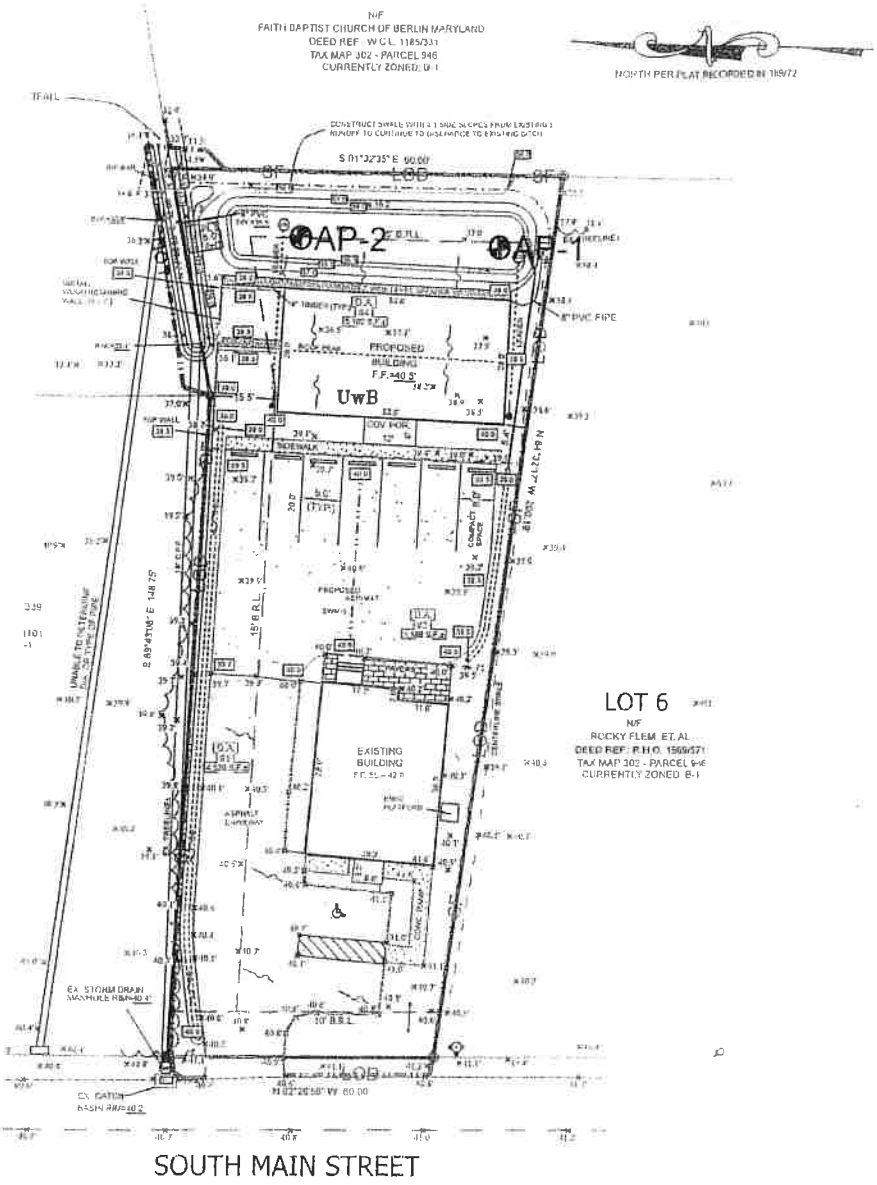
December 16, 2025

The itemized stormwater management cost estimate for the proposed improvements is as follows:

14 cu. yards #2 stone = $700
88 cu. yards # 57 stone = $8,700
50 cu. yards planting soil = $1,800
25 cu. yards sand = $500
35 ft. timber wall = $2,600
Submerge Gravel Wetlands plantings = $1,500
800 ln. ft. silt fence = $300
20 ft. 6 inch smooth wall pipe = $35
20 ft. 6 inch perforated pipe = $35
480 sq., ft. non-woven 6 oz. fabric $150
1 - 6 inch clean out = $40
1 - 6 inch x 6 inch x 4 inch tee = $25
1 - 6 inch 90 degree elbows = $25
Excavation and grading = $8,000
Total $24,410



● - AUGER PROBE LOCATIONS

DATE: 3/2025
DRAWN BY: AB
CHECKED BY: PT

513 S. MAIN STREET
BERLIN, MARYLAND
AUGER PROBE LOCATION PLAN

HARDIN-KIGHT ASSOCIATES, INC.
CONSULTING ENGINEERS

PROJECT: 25533
SCALE: NTS
FILE:
DRAWING: FIG 1

Hardin-Kight Associates, Inc.
12515 Caterpillar Lane
Bishopville, Maryland 21813

Office: 410-352-5001
Fax: 410-352-3228

Record of Soil Exploration

Contracted With: JENNIFER LYNCH
Projects Name: 513 S. MAIN STREET
Location: BERLIN, MARYLAND

Auger Probe: AP - 1
Job #: 25533

Sampler

Datum -
Surf. Elev 37.0+/- *
Date Started 3/21/2025

Inspector

Foreman -
SU
Date Finished 3/21/2025

Elev.	Soil Description Color, Moisture, Density Plasticity, Size Proportions	Strata Depth	Depth Scale	Boring & Sample Notes
	Light brown, tan, moist to wet, fine to medium SAND, some silt (SM) USDA – Loamy Sand			4 inches topsoil at surface
			1.0	
				Water encountered at 3.0 feet while drilling probe
			2.0	
				water at completion 4.0 feet
34.0		3.0	3.0	
	Tan/orange, wet, fine to medium SAND, little silt (SM/SP) USDA – Loamy Sand to Sand			
33.0		4.0	4.0	
	Tan/orange, wet, fine SAND, some clay (SC)			
32.5	USDA – Sandy Clay Loam	4.5		
	Tan/orange, moist to wet, fine to coarse SAND			
32.0	some silt, little clay (SM) USDA – Sandy Loam	5.0	5.0	
	Bottom of Auger Probe at 5.0 feet			
			6.0	*Ground surface estimated from Russell Hammond existing conditions site plan
			7.0	
			8.0	

Sampler Type
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

Sample Conditions
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

Ground Water Depth
AT COMPLETION 4.0 FT
AFTER HRS FT
AFTER 24 HRS FT

Boring Method
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVEN CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS

Hardin-Kight Associates, Inc.
12515 Caterpillar Lane
Bishopville, Maryland 21813

Office: 410-352-5001
Fax: 410-352-3228

Record of Soil Exploration

Contracted With: PATRICK VORSTEG
Projects Name: 513 S. MAIN STREET
Location: BERLIN, MARYLAND

Auger Probe: AP - 2
Job #: 25533

Sampler

Datum -
Surf. Elev. 37.0+/-*
Date Started 3/21/2025

Foreman -
Inspector SU
Date Finished 3/21/2025

Elev	Soil Description Color, Moisture, Density Plasticity, Size Proportions	Strata Depth	Depth Scale	Boring & Sample Notes
	Grey, moist to wet, fine to medium SAND, some silt (SM) USDA – Loamy Sand			4 inches topsoil at surface
			1.0	Water encountered at 4.0 feet while drilling probe
			2.0	
34.5		2.5		water at completion 4.0 feet
	Grey, orange, moist, fine to medium SAND some clay, some silt (SC/SM) USDA – Sandy Clay Loam		3.0	
			4.0	
32.5		4.5		
32.0	Grey, orange, wet, fine to medium SAND, little silt (SP) USDA - Sand	5.0		
			5.0	
	Bottom of Auger Probe at 5.0 feet			*Ground surface estimated from Russell Hammond existing conditions site plan
			6.0	
			7.0	
			8.0	

Sampler Type
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

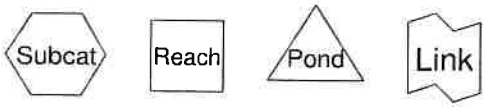
Sample Conditions
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

Ground Water Depth
AT COMPLETION _ 4.0 _ _ FT
AFTER HRS_ _ _ _ _ FT
AFTER 24 HRS_ _ _ _ _ FT

Boring Method
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVEN CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST - DRIVING 2" OD SAMPLER WITH 140# HAMMER FALLING 30": COUNT MADE AT 6" INTERVALS

EXISTING CONDITIONS



Routing Diagram for PRE
Prepared by Russell T Hammond Surveying LLC, Printed 4/15/2025
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Project Notes

Rainfall events imported from "POST.hcp"
Rainfall events imported from "POST.hcp"

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2 YEAR	Type II 24-hr		Default	24.00	1	3.60	2
2	10 YEAR	Type II 24-hr		Default	24.00	1	5.60	2
3	100 YEAR	Type II 24-hr		Default	24.00	1	8.10	2

Summary for Subcatchment 1S: EXISTING CONDITIONS

Runoff = 1.16 cfs @ 11.98 hrs, Volume= 0.072 af, Depth> 2.73"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type II 24-hr 2 YEAR Rainfall=3.60"

Area (sf)	CN	Description
6,044	84	50-75% Grass cover, Fair, HSG D
* 7,727	98	ROOFTOPS,Paved parking, HSG D
13,771	92	Weighted Average
6,044		43.89% Pervious Area
7,727		56.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	68	0.0560	1.66		**Shallow Concentrated Flow, GRASS** Short Grass Pasture Kv= 7.0 fps
0.7	68	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment 1S: EXISTING CONDITIONS

Runoff = 1.92 cfs @ 11.98 hrs, Volume= 0.123 af, Depth> 4.67"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type II 24-hr 10 YEAR Rainfall=5.60"

Area (sf)	CN	Description
6,044	84	50-75% Grass cover, Fair, HSG D
* 7,727	98	ROOFTOPS,Paved parking, HSG D
13,771	92	Weighted Average
6,044		43.89% Pervious Area
7,727		56.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	68	0.0560	1.66		**Shallow Concentrated Flow, GRASS** Short Grass Pasture Kv= 7.0 fps
0.7	68	Total, Increased to minimum Tc = 6.0 min			

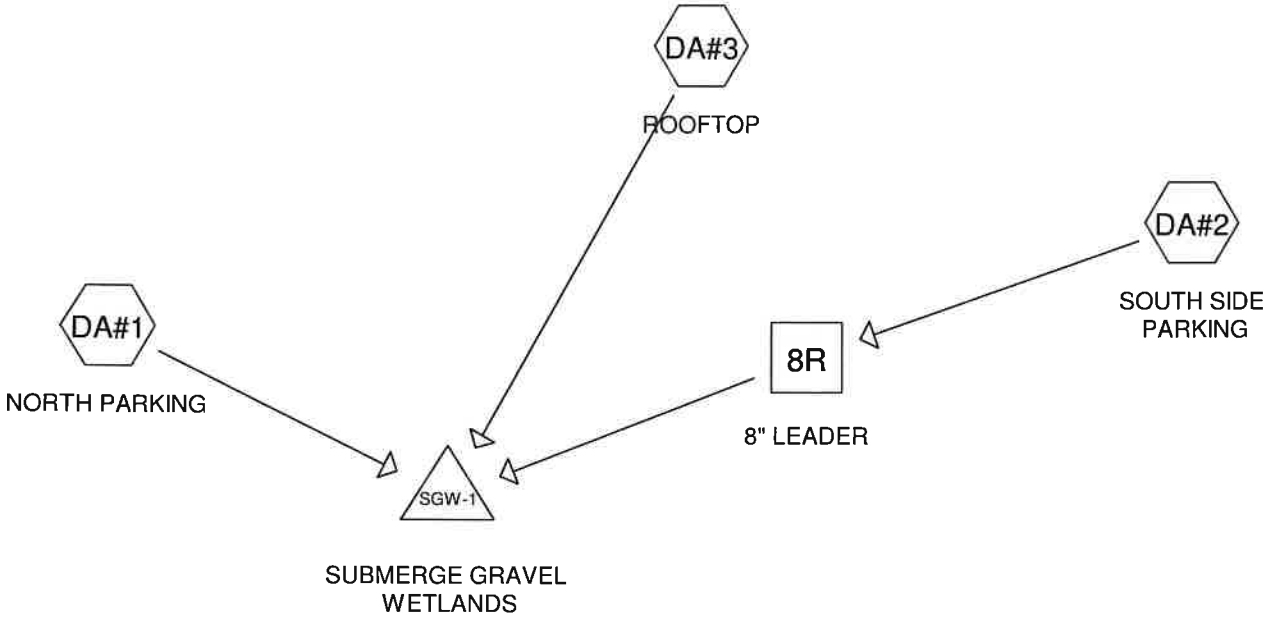
Summary for Subcatchment 1S: EXISTING CONDITIONS

Runoff = 2.87 cfs @ 11.98 hrs, Volume= 0.188 af, Depth> 7.13"

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.04 hrs
Type II 24-hr 100 YEAR Rainfall=8.10"

	Area (sf)	CN	Description
	6,044	84	50-75% Grass cover, Fair, HSG D
*	7,727	98	ROOFTOPS,Paved parking, HSG D
	13,771	92	Weighted Average
	6,044		43.89% Pervious Area
	7,727		56.11% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
0.7	68	0.0560	1.66		**Shallow Concentrated Flow, GRASS** Short Grass Pasture Kv= 7.0 fps
0.7	68	Total, Increased to minimum Tc = 6.0 min			



Subcat Reach Pond Link

Routing Diagram for SUBMERGE GRAVEL WETLANDS-10-14-25
Prepared by Russell T Hammond Surveying LLC, Printed 12/17/2025
HydroCAD® 10.20-6a s/n 07790 © 2024 HydroCAD Software Solutions LLC

Rainfall Events Listing

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2 YEAR	Type II 24-hr		Default	24.00	1	3.60	2
2	10 YEAR	Type II 24-hr		Default	24.00	1	5.60	2
3	100 YEAR	Type II 24-hr		Default	24.00	1	8.10	2

Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
0.097	61	>75% Grass cover, Good, HSG B (DA#1, DA#2, DA#3)
0.031	98	Paved parking, HSG B (DA#2)
0.090	98	Paved parking, HSG D (DA#1)
0.039	98	Roofs, HSG B (DA#3)

Time span=0.00-48.00 hrs, dt=0.04 hrs, 1201 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA#1: NORTH PARKING Runoff Area=4,520 sf 86.42% Impervious Runoff Depth=2.83"
Flow Length=45' Slope=0.0080 '/' Tc=6.0 min CN=93 Runoff=0.39 cfs 0.024 af

Subcatchment DA#2: SOUTH SIDE PARKING Runoff Area=1,588 sf 84.51% Impervious Runoff Depth=2.73"
Flow Length=33' Slope=0.0060 '/' Tc=6.0 min CN=92 Runoff=0.13 cfs 0.008 af

Subcatchment DA#3: ROOFTOP Runoff Area=5,102 sf 33.65% Impervious Runoff Depth=1.25"
Flow Length=157' Tc=6.0 min CN=73 Runoff=0.20 cfs 0.012 af

Reach 8R: 8" LEADER Avg. Flow Depth=0.10' Max Vel=4.32 fps Inflow=0.13 cfs 0.008 af
8.0" Round Pipe n=0.010 L=55.0' S=0.0364 '/' Capacity=3.00 cfs Outflow=0.13 cfs 0.008 af

Pond SGW-1: SUBMERGE GRAVEL WETLANDS Peak Elev=37.31' Storage=401 cf Inflow=0.72 cfs 0.045 af
Outflow=0.56 cfs 0.042 af

Summary for Subcatchment DA#1: NORTH PARKING

Runoff = 0.39 cfs @ 11.98 hrs, Volume= 0.024 af, Depth= 2.83"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 2 YEAR Rainfall=3.60"

Area (sf)	CN	Description
3,906	98	Paved parking, HSG D
614	61	>75% Grass cover, Good, HSG B
4,520	93	Weighted Average
614		13.58% Pervious Area
3,906		86.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	45	0.0080	0.45		**Sheet Flow, ASPHALT PAVEMENT** Smooth surfaces n= 0.011 P2= 1.00"
1.7	45	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#2: SOUTH SIDE PARKING

Runoff = 0.13 cfs @ 11.98 hrs, Volume= 0.008 af, Depth= 2.73"
Routed to Reach 8R : 8" LEADER

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 2 YEAR Rainfall=3.60"

Area (sf)	CN	Description
1,342	98	Paved parking, HSG B
246	61	>75% Grass cover, Good, HSG B
1,588	92	Weighted Average
246		15.49% Pervious Area
1,342		84.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	33	0.0060	0.38		**Sheet Flow, SHEET FLOW** Smooth surfaces n= 0.011 P2= 1.00"
1.4	33	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#3: ROOFTOP

Runoff = 0.20 cfs @ 12.00 hrs, Volume= 0.012 af, Depth= 1.25"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 2 YEAR Rainfall=3.60"

Area (sf)	CN	Description
3,385	61	>75% Grass cover, Good, HSG B
1,717	98	Roofs, HSG B
5,102	73	Weighted Average
3,385		66.35% Pervious Area
1,717		33.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	45	0.0100	0.50		**Sheet Flow, ROOFTOP** Smooth surfaces n= 0.011 P2= 1.00"
0.9	112	0.0170	2.10		**Shallow Concentrated Flow, GRASS LAWN** Unpaved Kv= 16.1 fps
2.4	157	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach 8R: 8" LEADER

Inflow Area = 0.036 ac, 84.51% Impervious, Inflow Depth = 2.73" for 2 YEAR event
Inflow = 0.13 cfs @ 11.98 hrs, Volume= 0.008 af
Outflow = 0.13 cfs @ 11.99 hrs, Volume= 0.008 af, Atten= 0%, Lag= 0.2 min
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Max. Velocity= 4.32 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.34 fps, Avg. Travel Time= 0.7 min

Peak Storage= 2 cf @ 11.99 hrs
Average Depth at Peak Storage= 0.10' , Surface Width= 0.47'
Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 3.00 cfs

8.0" Round Pipe
n= 0.010 PVC, smooth interior
Length= 55.0' Slope= 0.0364 '/'
Inlet Invert= 39.00', Outlet Invert= 37.00'

Summary for Pond SGW-1: SUBMERGE GRAVEL WETLANDS

Inflow Area = 0.257 ac, 62.13% Impervious, Inflow Depth = 2.10" for 2 YEAR event
Inflow = 0.72 cfs @ 11.99 hrs, Volume= 0.045 af
Outflow = 0.56 cfs @ 12.06 hrs, Volume= 0.042 af, Atten= 23%, Lag= 4.5 min
Primary = 0.56 cfs @ 12.06 hrs, Volume= 0.042 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Peak Elev= 37.31' @ 12.06 hrs Surf.Area= 986 sf Storage= 401 cf
Flood Elev= 38.00' Surf.Area= 1,213 sf Storage= 1,162 cf

Plug-Flow detention time= 68.4 min calculated for 0.042 af (94% of inflow)
Center-of-Mass det. time= 35.2 min (844.0 - 808.8)

Volume	Invert	Avail.Storage	Storage Description
#1	36.68'	1,162 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.68	885	0.0	0	0
37.00	885	40.0	113	113
38.00	1,213	100.0	1,049	1,162

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)**
			Head (feet) 0.00 0.00 0.33 0.33 1.00 1.00
			Width (feet) 1.00 1.00 1.00 6.00 6.00 6.00

Primary OutFlow Max=0.55 cfs @ 12.06 hrs HW=37.31' (Free Discharge)
↑—**1=Custom Weir/Orifice** (Weir Controls 0.55 cfs @ 1.81 fps)

Time span=0.00-48.00 hrs, dt=0.04 hrs, 1201 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA#1: NORTH PARKING Runoff Area=4,520 sf 86.42% Impervious Runoff Depth=4.79"
Flow Length=45' Slope=0.0080 '/' Tc=6.0 min CN=93 Runoff=0.64 cfs 0.041 af

Subcatchment DA#2: SOUTH SIDE PARKING Runoff Area=1,588 sf 84.51% Impervious Runoff Depth=4.68"
Flow Length=33' Slope=0.0060 '/' Tc=6.0 min CN=92 Runoff=0.22 cfs 0.014 af

Subcatchment DA#3: ROOFTOP Runoff Area=5,102 sf 33.65% Impervious Runoff Depth=2.76"
Flow Length=157' Tc=6.0 min CN=73 Runoff=0.45 cfs 0.027 af

Reach 8R: 8" LEADER Avg. Flow Depth=0.12' Max Vel=5.01 fps Inflow=0.22 cfs 0.014 af
8.0" Round Pipe n=0.010 L=55.0' S=0.0364 '/' Capacity=3.00 cfs Outflow=0.22 cfs 0.014 af

Pond SGW-1: SUBMERGE GRAVEL WETLANDS Peak Elev=37.41' Storage=506 cf Inflow=1.31 cfs 0.083 af
Outflow=1.25 cfs 0.080 af

Summary for Subcatchment DA#1: NORTH PARKING

Runoff = 0.64 cfs @ 11.98 hrs, Volume= 0.041 af, Depth= 4.79"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 10 YEAR Rainfall=5.60"

Area (sf)	CN	Description
3,906	98	Paved parking, HSG D
614	61	>75% Grass cover, Good, HSG B
4,520	93	Weighted Average
614		13.58% Pervious Area
3,906		86.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	45	0.0080	0.45		**Sheet Flow, ASPHALT PAVEMENT** Smooth surfaces n= 0.011 P2= 1.00"
1.7	45	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#2: SOUTH SIDE PARKING

Runoff = 0.22 cfs @ 11.98 hrs, Volume= 0.014 af, Depth= 4.68"
Routed to Reach 8R : 8" LEADER

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 10 YEAR Rainfall=5.60"

Area (sf)	CN	Description
1,342	98	Paved parking, HSG B
246	61	>75% Grass cover, Good, HSG B
1,588	92	Weighted Average
246		15.49% Pervious Area
1,342		84.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	33	0.0060	0.38		**Sheet Flow, SHEET FLOW** Smooth surfaces n= 0.011 P2= 1.00"
1.4	33	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#3: ROOFTOP

Runoff = 0.45 cfs @ 11.99 hrs, Volume= 0.027 af, Depth= 2.76"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 10 YEAR Rainfall=5.60"

Area (sf)	CN	Description
3,385	61	>75% Grass cover, Good, HSG B
1,717	98	Roofs, HSG B
5,102	73	Weighted Average
3,385		66.35% Pervious Area
1,717		33.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	45	0.0100	0.50		**Sheet Flow, ROOFTOP** Smooth surfaces n= 0.011 P2= 1.00"
0.9	112	0.0170	2.10		**Shallow Concentrated Flow, GRASS LAWN** Unpaved Kv= 16.1 fps
2.4	157	Total, Increased to minimum Tc = 6.0 min			

Summary for Reach 8R: 8" LEADER

Inflow Area = 0.036 ac, 84.51% Impervious, Inflow Depth = 4.68" for 10 YEAR event
Inflow = 0.22 cfs @ 11.98 hrs, Volume= 0.014 af
Outflow = 0.22 cfs @ 11.99 hrs, Volume= 0.014 af, Atten= 0%, Lag= 0.2 min
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Max. Velocity= 5.01 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.53 fps, Avg. Travel Time= 0.6 min

Peak Storage= 2 cf @ 11.99 hrs
Average Depth at Peak Storage= 0.12' , Surface Width= 0.52'
Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 3.00 cfs

8.0" Round Pipe
n= 0.010 PVC, smooth interior
Length= 55.0' Slope= 0.0364 '/'
Inlet Invert= 39.00', Outlet Invert= 37.00'

Summary for Pond SGW-1: SUBMERGE GRAVEL WETLANDS

Inflow Area = 0.257 ac, 62.13% Impervious, Inflow Depth = 3.85" for 10 YEAR event
Inflow = 1.31 cfs @ 11.99 hrs, Volume= 0.083 af
Outflow = 1.25 cfs @ 12.02 hrs, Volume= 0.080 af, Atten= 5%, Lag= 2.0 min
Primary = 1.25 cfs @ 12.02 hrs, Volume= 0.080 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Peak Elev= 37.41' @ 12.02 hrs Surf.Area= 1,020 sf Storage= 506 cf
Flood Elev= 38.00' Surf.Area= 1,213 sf Storage= 1,162 cf

Plug-Flow detention time= 46.2 min calculated for 0.080 af (97% of inflow)
Center-of-Mass det. time= 27.4 min (822.8 - 795.4)

Volume	Invert	Avail.Storage	Storage Description
#1	36.68'	1,162 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.68	885	0.0	0	0
37.00	885	40.0	113	113
38.00	1,213	100.0	1,049	1,162

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Head (feet) 0.00 0.00 0.33 0.33 1.00 1.00 Width (feet) 1.00 1.00 1.00 6.00 6.00 6.00

Primary OutFlow Max=1.22 cfs @ 12.02 hrs HW=37.41' (Free Discharge)
↑—**1=Custom Weir/Orifice** (Weir Controls 1.22 cfs @ 1.52 fps)

Time span=0.00-48.00 hrs, dt=0.04 hrs, 1201 points
Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN
Reach routing by Dyn-Stor-Ind method - Pond routing by Dyn-Stor-Ind method

Subcatchment DA#1: NORTH PARKING Runoff Area=4,520 sf 86.42% Impervious Runoff Depth=7.26"
Flow Length=45' Slope=0.0080 '/' Tc=6.0 min CN=93 Runoff=0.95 cfs 0.063 af

Subcatchment DA#2: SOUTH SIDE PARKING Runoff Area=1,588 sf 84.51% Impervious Runoff Depth=7.14"
Flow Length=33' Slope=0.0060 '/' Tc=6.0 min CN=92 Runoff=0.33 cfs 0.022 af

Subcatchment DA#3: ROOFTOP Runoff Area=5,102 sf 33.65% Impervious Runoff Depth=4.90"
Flow Length=157' Tc=6.0 min CN=73 Runoff=0.80 cfs 0.048 af

Reach 8R: 8" LEADER Avg. Flow Depth=0.15' Max Vel=5.63 fps Inflow=0.33 cfs 0.022 af
8.0" Round Pipe n=0.010 L=55.0' S=0.0364 '/' Capacity=3.00 cfs Outflow=0.33 cfs 0.022 af

Pond SGW-1: SUBMERGE GRAVEL WETLANDS Peak Elev=37.48' Storage=575 cf Inflow=2.08 cfs 0.132 af
Outflow=2.02 cfs 0.130 af

Summary for Subcatchment DA#1: NORTH PARKING

Runoff = 0.95 cfs @ 11.98 hrs, Volume= 0.063 af, Depth= 7.26"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 100 YEAR Rainfall=8.10"

Area (sf)	CN	Description
3,906	98	Paved parking, HSG D
614	61	>75% Grass cover, Good, HSG B
4,520	93	Weighted Average
614		13.58% Pervious Area
3,906		86.42% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.7	45	0.0080	0.45		**Sheet Flow, ASPHALT PAVEMENT** Smooth surfaces n= 0.011 P2= 1.00"
1.7	45	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#2: SOUTH SIDE PARKING

Runoff = 0.33 cfs @ 11.98 hrs, Volume= 0.022 af, Depth= 7.14"
Routed to Reach 8R : 8" LEADER

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 100 YEAR Rainfall=8.10"

Area (sf)	CN	Description
1,342	98	Paved parking, HSG B
246	61	>75% Grass cover, Good, HSG B
1,588	92	Weighted Average
246		15.49% Pervious Area
1,342		84.51% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.4	33	0.0060	0.38		**Sheet Flow, SHEET FLOW** Smooth surfaces n= 0.011 P2= 1.00"
1.4	33	Total, Increased to minimum Tc = 6.0 min			

Summary for Subcatchment DA#3: ROOFTOP

Runoff = 0.80 cfs @ 11.99 hrs, Volume= 0.048 af, Depth= 4.90"
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Runoff by SCS TR-20 method, UH=Delmarva, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Type II 24-hr 100 YEAR Rainfall=8.10"

Area (sf)	CN	Description
3,385	61	>75% Grass cover, Good, HSG B
1,717	98	Roofs, HSG B
5,102	73	Weighted Average
3,385		66.35% Pervious Area
1,717		33.65% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
1.5	45	0.0100	0.50		**Sheet Flow, ROOFTOP** Smooth surfaces n= 0.011 P2= 1.00"
0.9	112	0.0170	2.10		**Shallow Concentrated Flow, GRASS LAWN** Unpaved Kv= 16.1 fps
2.4	157	Total, Increased to minimum Tc = 6.0 min			

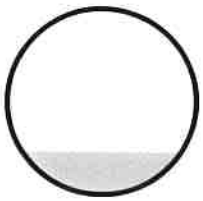
Summary for Reach 8R: 8" LEADER

Inflow Area = 0.036 ac, 84.51% Impervious, Inflow Depth = 7.14" for 100 YEAR event
Inflow = 0.33 cfs @ 11.98 hrs, Volume= 0.022 af
Outflow = 0.33 cfs @ 11.98 hrs, Volume= 0.022 af, Atten= 0%, Lag= 0.1 min
Routed to Pond SGW-1 : SUBMERGE GRAVEL WETLANDS

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Max. Velocity= 5.63 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.73 fps, Avg. Travel Time= 0.5 min

Peak Storage= 3 cf @ 11.98 hrs
Average Depth at Peak Storage= 0.15' , Surface Width= 0.56'
Bank-Full Depth= 0.67' Flow Area= 0.3 sf, Capacity= 3.00 cfs

8.0" Round Pipe
n= 0.010 PVC, smooth interior
Length= 55.0' Slope= 0.0364 '/'
Inlet Invert= 39.00', Outlet Invert= 37.00'



Summary for Pond SGW-1: SUBMERGE GRAVEL WETLANDS

Inflow Area = 0.257 ac, 62.13% Impervious, Inflow Depth = 6.17" for 100 YEAR event
Inflow = 2.08 cfs @ 11.98 hrs, Volume= 0.132 af
Outflow = 2.02 cfs @ 12.01 hrs, Volume= 0.130 af, Atten= 2%, Lag= 1.4 min
Primary = 2.02 cfs @ 12.01 hrs, Volume= 0.130 af

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.04 hrs
Peak Elev= 37.48' @ 12.01 hrs Surf.Area= 1,042 sf Storage= 575 cf
Flood Elev= 38.00' Surf.Area= 1,213 sf Storage= 1,162 cf

Plug-Flow detention time= 34.1 min calculated for 0.130 af (98% of inflow)
Center-of-Mass det. time= 21.9 min (806.9 - 785.0)

Volume	Invert	Avail.Storage	Storage Description
#1	36.68'	1,162 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
36.68	885	0.0	0	0
37.00	885	40.0	113	113
38.00	1,213	100.0	1,049	1,162

Device	Routing	Invert	Outlet Devices
#1	Primary	37.00'	**Custom Weir/Orifice, Cv= 2.62 (C= 3.28)** Head (feet) 0.00 0.00 0.33 0.33 1.00 1.00 Width (feet) 1.00 1.00 1.00 6.00 6.00 6.00

Primary OutFlow Max=2.00 cfs @ 12.01 hrs HW=37.48' (Free Discharge)
↑—**1=Custom Weir/Orifice** (Weir Controls 2.00 cfs @ 1.65 fps)

Summary for Reach 1R: OUTFALL CHANNEL

Inflow Area = 0.334 ac, 79.66% Impervious, Inflow Depth > 2.12" for 2 YEAR event
Inflow = 0.76 cfs @ 12.09 hrs, Volume= 0.059 af
Outflow = 0.76 cfs @ 12.12 hrs, Volume= 0.059 af, Atten= 1%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.66 fps, Min. Travel Time= 1.2 min
Avg. Velocity = 0.26 fps, Avg. Travel Time= 3.0 min

Peak Storage= 53 cf @ 12.10 hrs
Average Depth at Peak Storage= 0.30' , Surface Width= 4.77'
Bank-Full Depth= 3.00' Flow Area= 36.0 sf, Capacity= 86.66 cfs

3.00' x 3.00' deep channel, n= 0.080 Earth, long dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 21.00'
Length= 46.0' Slope= 0.0087 '/'
Inlet Invert= 33.10', Outlet Invert= 32.70'

Summary for Reach 1R: OUTFALL CHANNEL

Inflow Area = 0.334 ac, 79.66% Impervious, Inflow Depth > 3.87" for 10 YEAR event
Inflow = 1.05 cfs @ 12.12 hrs, Volume= 0.108 af
Outflow = 1.05 cfs @ 12.15 hrs, Volume= 0.108 af, Atten= 0%, Lag= 2.0 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.73 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 0.30 fps, Avg. Travel Time= 2.5 min

Peak Storage= 66 cf @ 12.14 hrs
Average Depth at Peak Storage= 0.35' , Surface Width= 5.12'
Bank-Full Depth= 3.00' Flow Area= 36.0 sf, Capacity= 86.66 cfs

3.00' x 3.00' deep channel, n= 0.080 Earth, long dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 21.00'
Length= 46.0' Slope= 0.0087 '/'
Inlet Invert= 33.10', Outlet Invert= 32.70'

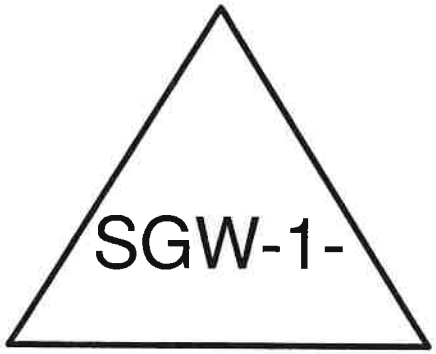
Summary for Reach 1R: OUTFALL CHANNEL

Inflow Area = 0.334 ac, 79.66% Impervious, Inflow Depth > 6.11" for 100 YEAR event
Inflow = 1.26 cfs @ 12.16 hrs, Volume= 0.170 af
Outflow = 1.26 cfs @ 12.19 hrs, Volume= 0.170 af, Atten= 0%, Lag= 1.9 min

Routing by Stor-Ind+Trans method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Max. Velocity= 0.77 fps, Min. Travel Time= 1.0 min
Avg. Velocity = 0.34 fps, Avg. Travel Time= 2.2 min

Peak Storage= 75 cf @ 12.17 hrs
Average Depth at Peak Storage= 0.39' , Surface Width= 5.35'
Bank-Full Depth= 3.00' Flow Area= 36.0 sf, Capacity= 86.66 cfs

3.00' x 3.00' deep channel, n= 0.080 Earth, long dense weeds
Side Slope Z-value= 3.0 '/' Top Width= 21.00'
Length= 46.0' Slope= 0.0087 '/'
Inlet Invert= 33.10', Outlet Invert= 32.70'



SUBMERGE GRAVEL WETLANDS

Subcat Reach Pond Link

Routing Diagram for SUBMERGE GRAVEL WETLANDS-ESDv
Prepared by Russell T Hammond Surveying LLC, Printed 10/14/2025
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Summary for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS

[43] Hint: Has no inflow (Outflow=Zero)

Volume	Invert	Avail.Storage	Storage Description
#1	33.00'	2,996 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Voids (%)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
33.00	885	0.0	0	0
33.50	885	40.0	177	177
34.00	885	40.0	177	354
34.50	885	40.0	177	531
35.00	885	40.0	177	708
35.50	885	40.0	177	885
36.00	885	40.0	177	1,062
36.50	885	100.0	443	1,505
37.00	885	100.0	443	1,947
38.00	1,213	100.0	1,049	2,996

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
33.00	885	0
33.01	885	4
33.02	885	7
33.03	885	11
33.04	885	14
33.05	885	18
33.06	885	21
33.07	885	25
33.08	885	28
33.09	885	32
33.10	885	35
33.11	885	39
33.12	885	42
33.13	885	46
33.14	885	50
33.15	885	53
33.16	885	57
33.17	885	60
33.18	885	64
33.19	885	67
33.20	885	71
33.21	885	74
33.22	885	78
33.23	885	81
33.24	885	85
33.25	885	89
33.26	885	92
33.27	885	96
33.28	885	99
33.29	885	103
33.30	885	106
33.31	885	110
33.32	885	113
33.33	885	117
33.34	885	120
33.35	885	124
33.36	885	127
33.37	885	131
33.38	885	135
33.39	885	138
33.40	885	142
33.41	885	145
33.42	885	149
33.43	885	152
33.44	885	156
33.45	885	159
33.46	885	163
33.47	885	166
33.48	885	170
33.49	885	173
33.50	885	177
33.51	885	181
33.52	885	184
33.53	885	188
33.54	885	191
33.55	885	195
33.56	885	198
33.57	885	202
33.58	885	205
33.59	885	209
33.60	885	212
33.61	885	216
33.62	885	219
33.63	885	223
33.64	885	227
33.65	885	230
33.66	885	234
33.67	885	237
33.68	885	241
33.69	885	244
33.70	885	248
33.71	885	251
33.72	885	255
33.73	885	258
33.74	885	262
33.75	885	266
33.76	885	269
33.77	885	273
33.78	885	276
33.79	885	280
33.80	885	283
33.81	885	287
33.82	885	290
33.83	885	294
33.84	885	297
33.85	885	301
33.86	885	304
33.87	885	308
33.88	885	312
33.89	885	315
33.90	885	319
33.91	885	322
33.92	885	326
33.93	885	329
33.94	885	333
33.95	885	336
33.96	885	340
33.97	885	343
33.98	885	347
33.99	885	350
34.00	885	354
34.01	885	358
34.02	885	361
34.03	885	365

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
35.08	885	736
35.09	885	740
35.10	885	743
35.11	885	747
35.12	885	750
35.13	885	754
35.14	885	758
35.15	885	761
35.16	885	765
35.17	885	768
35.18	885	772
35.19	885	775
35.20	885	779
35.21	885	782
35.22	885	786
35.23	885	789
35.24	885	793
35.25	885	797
35.26	885	800
35.27	885	804
35.28	885	807
35.29	885	811
35.30	885	814
35.31	885	818
35.32	885	821
35.33	885	825
35.34	885	828
35.35	885	832
35.36	885	835
35.37	885	839
35.38	885	843
35.39	885	846
35.40	885	850
35.41	885	853
35.42	885	857
35.43	885	860
35.44	885	864
35.45	885	867
35.46	885	871
35.47	885	874
35.48	885	878
35.49	885	881
35.50	885	885
35.51	885	889
35.52	885	892
35.53	885	896
35.54	885	899
35.55	885	903
35.56	885	906
35.57	885	910
35.58	885	913
35.59	885	917
35.60	885	920
35.61	885	924
35.62	885	927
35.63	885	931
35.64	885	935
35.65	885	938
35.66	885	942
35.67	885	945
35.68	885	949
35.69	885	952
35.70	885	956
35.71	885	959
35.72	885	963
35.73	885	966
35.74	885	970
35.75	885	974
35.76	885	977
35.77	885	981
35.78	885	984
35.79	885	988
35.80	885	991
35.81	885	995
35.82	885	998
35.83	885	1,002
35.84	885	1,005
35.85	885	1,009
35.86	885	1,012
35.87	885	1,016
35.88	885	1,020
35.89	885	1,023
35.90	885	1,027
35.91	885	1,030
35.92	885	1,034
35.93	885	1,037
35.94	885	1,041
35.95	885	1,044
35.96	885	1,048
35.97	885	1,051
35.98	885	1,055
35.99	885	1,058
36.00	885	1,062
36.01	885	1,071
36.02	885	1,080
36.03	885	1,089
36.04	885	1,097
36.05	885	1,106
36.06	885	1,115
36.07	885	1,124
36.08	885	1,133
36.09	885	1,142
36.10	885	1,151
36.11	885	1,159

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
33.00	885	0
33.01	885	4
33.02	885	7
33.03	885	11
33.04	885	14
33.05	885	18
33.06	885	21
33.07	885	25
33.08	885	28
33.09	885	32
33.10	885	35
33.11	885	39
33.12	885	42
33.13	885	46
33.14	885	50
33.15	885	53
33.16	885	57
33.17	885	60
33.18	885	64
33.19	885	67
33.20	885	71
33.21	885	74
33.22	885	78
33.23	885	81
33.24	885	85
33.25	885	89
33.26	885	92
33.27	885	96
33.28	885	99
33.29	885	103
33.30	885	106
33.31	885	110
33.32	885	113
33.33	885	117
33.34	885	120
33.35	885	124
33.36	885	127
33.37	885	131
33.38	885	135
33.39	885	138
33.40	885	142
33.41	885	145
33.42	885	149
33.43	885	152
33.44	885	156
33.45	885	159
33.46	885	163
33.47	885	166
33.48	885	170
33.49	885	173
33.50	885	177
33.51	885	181
33.52	885	184
33.53	885	188
33.54	885	191
33.55	885	195
33.56	885	198
33.57	885	202
33.58	885	205
33.59	885	209
33.60	885	212
33.61	885	216
33.62	885	219
33.63	885	223
33.64	885	227
33.65	885	230
33.66	885	234
33.67	885	237
33.68	885	241
33.69	885	244
33.70	885	248
33.71	885	251
33.72	885	255
33.73	885	258
33.74	885	262
33.75	885	266
33.76	885	269
33.77	885	273
33.78	885	276
33.79	885	280
33.80	885	283
33.81	885	287
33.82	885	290
33.83	885	294
33.84	885	297
33.85	885	301
33.86	885	304
33.87	885	308
33.88	885	312
33.89	885	315
33.90	885	319
33.91	885	322
33.92	885	326
33.93	885	329
33.94	885	333
33.95	885	336
33.96	885	340
33.97	885	343
33.98	885	347
33.99	885	350
34.00	885	354
34.01	885	358
34.02	885	361
34.03	885	365
34.04	885	368
34.05	885	372
34.06	885	375
34.07	885	379

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
34.08	885	382
34.09	885	386
34.10	885	389
34.11	885	393
34.12	885	396
34.13	885	400
34.14	885	404
34.15	885	407
34.16	885	411
34.17	885	414
34.18	885	418
34.19	885	421
34.20	885	425
34.21	885	428
34.22	885	432
34.23	885	435
34.24	885	439
34.25	885	443
34.26	885	446
34.27	885	450
34.28	885	453
34.29	885	457
34.30	885	460
34.31	885	464
34.32	885	467
34.33	885	471
34.34	885	474
34.35	885	478
34.36	885	481
34.37	885	485
34.38	885	489
34.39	885	492
34.40	885	496
34.41	885	499
34.42	885	503
34.43	885	506
34.44	885	510
34.45	885	513
34.46	885	517
34.47	885	520
34.48	885	524
34.49	885	527
34.50	885	531
34.51	885	535
34.52	885	538
34.53	885	542
34.54	885	545
34.55	885	549
34.56	885	552
34.57	885	556
34.58	885	559
34.59	885	563
34.60	885	566
34.61	885	570
34.62	885	573
34.63	885	577
34.64	885	581
34.65	885	584
34.66	885	588
34.67	885	591
34.68	885	595
34.69	885	598
34.70	885	602
34.71	885	605
34.72	885	609
34.73	885	612
34.74	885	616
34.75	885	620
34.76	885	623
34.77	885	627
34.78	885	630
34.79	885	634
34.80	885	637
34.81	885	641
34.82	885	644
34.83	885	648
34.84	885	651
34.85	885	655
34.86	885	658
34.87	885	662
34.88	885	666
34.89	885	669
34.90	885	673
34.91	885	676
34.92	885	680
34.93	885	683
34.94	885	687
34.95	885	690
34.96	885	694
34.97	885	697
34.98	885	701
34.99	885	704
35.00	885	708
35.01	885	712
35.02	885	715
35.03	885	719
35.04	885	722
35.05	885	726
35.06	885	729
35.07	885	733
35.08	885	736
35.09	885	740
35.10	885	743
35.11	885	747
35.12	885	750
35.13	885	754
35.14	885	758
35.15	885	761

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
35.16	885	765
35.17	885	768
35.18	885	772
35.19	885	775
35.20	885	779
35.21	885	782
35.22	885	786
35.23	885	789
35.24	885	793
35.25	885	797
35.26	885	800
35.27	885	804
35.28	885	807
35.29	885	811
35.30	885	814
35.31	885	818
35.32	885	821
35.33	885	825
35.34	885	828
35.35	885	832
35.36	885	835
35.37	885	839
35.38	885	843
35.39	885	846
35.40	885	850
35.41	885	853
35.42	885	857
35.43	885	860
35.44	885	864
35.45	885	867
35.46	885	871
35.47	885	874
35.48	885	878
35.49	885	881
35.50	885	885
35.51	885	889
35.52	885	892
35.53	885	896
35.54	885	899
35.55	885	903
35.56	885	906
35.57	885	910
35.58	885	913
35.59	885	917
35.60	885	920
35.61	885	924
35.62	885	927
35.63	885	931
35.64	885	935
35.65	885	938
35.66	885	942
35.67	885	945
35.68	885	949
35.69	885	952
35.70	885	956
35.71	885	959
35.72	885	963
35.73	885	966
35.74	885	970
35.75	885	974
35.76	885	977
35.77	885	981
35.78	885	984
35.79	885	988
35.80	885	991
35.81	885	995
35.82	885	998
35.83	885	1,002
35.84	885	1,005
35.85	885	1,009
35.86	885	1,012
35.87	885	1,016
35.88	885	1,020
35.89	885	1,023
35.90	885	1,027
35.91	885	1,030
35.92	885	1,034
35.93	885	1,037
35.94	885	1,041
35.95	885	1,044
35.96	885	1,048
35.97	885	1,051
35.98	885	1,055
35.99	885	1,058
36.00	885	1,062
36.01	885	1,071
36.02	885	1,080
36.03	885	1,089
36.04	885	1,097
36.05	885	1,106
36.06	885	1,115
36.07	885	1,124
36.08	885	1,133
36.09	885	1,142
36.10	885	1,151
36.11	885	1,159
36.12	885	1,168
36.13	885	1,177
36.14	885	1,186
36.15	885	1,195
36.16	885	1,204
36.17	885	1,212
36.18	885	1,221
36.19	885	1,230
36.20	885	1,239
36.21	885	1,248
36.22	885	1,257
36.23	885	1,266

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
36.24	885	1,274
36.25	885	1,283
36.26	885	1,292
36.27	885	1,301
36.28	885	1,310
36.29	885	1,319
36.30	885	1,327
36.31	885	1,336
36.32	885	1,345
36.33	885	1,354
36.34	885	1,363
36.35	885	1,372
36.36	885	1,381
36.37	885	1,389
36.38	885	1,398
36.39	885	1,407
36.40	885	1,416
36.41	885	1,425
36.42	885	1,434
36.43	885	1,443
36.44	885	1,451
36.45	885	1,460
36.46	885	1,469
36.47	885	1,478
36.48	885	1,487
36.49	885	1,496
36.50	885	1,505
36.51	885	1,513
36.52	885	1,522
36.53	885	1,531
36.54	885	1,540
36.55	885	1,549
36.56	885	1,558
36.57	885	1,566
36.58	885	1,575
36.59	885	1,584
36.60	885	1,593
36.61	885	1,602
36.62	885	1,611
36.63	885	1,620
36.64	885	1,628
36.65	885	1,637
36.66	885	1,646
36.67	885	1,655
36.68	885	1,664
36.69	885	1,673
36.70	885	1,682
36.71	885	1,690
36.72	885	1,699
36.73	885	1,708
36.74	885	1,717
36.75	885	1,726
36.76	885	1,735
36.77	885	1,743
36.78	885	1,752
36.79	885	1,761
36.80	885	1,770
36.81	885	1,779
36.82	885	1,788
36.83	885	1,797
36.84	885	1,805
36.85	885	1,814
36.86	885	1,823
36.87	885	1,832
36.88	885	1,841
36.89	885	1,850
36.90	885	1,858
36.91	885	1,867
36.92	885	1,876
36.93	885	1,885
36.94	885	1,894
36.95	885	1,903
36.96	885	1,912
36.97	885	1,920
36.98	885	1,929
36.99	885	1,938
37.00	885	1,947
37.01	888	1,956
37.02	892	1,965
37.03	895	1,974
37.04	898	1,983
37.05	901	1,992
37.06	905	2,001
37.07	908	2,010
37.08	911	2,019
37.09	915	2,028
37.10	918	2,037
37.11	921	2,046
37.12	924	2,056
37.13	928	2,065
37.14	931	2,074
37.15	934	2,083
37.16	937	2,093
37.17	941	2,102
37.18	944	2,112
37.19	947	2,121
37.20	951	2,131
37.21	954	2,140
37.22	957	2,150
37.23	960	2,159
37.24	964	2,169
37.25	967	2,179
37.26	970	2,188
37.27	974	2,198
37.28	977	2,208
37.29	980	2,217
37.30	983	2,227
37.31	987	2,237

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.32	990	2,247
37.33	993	2,257
37.34	997	2,267
37.35	1,000	2,277
37.36	1,003	2,287
37.37	1,006	2,297
37.38	1,010	2,307
37.39	1,013	2,317
37.40	1,016	2,327
37.41	1,019	2,337
37.42	1,023	2,348
37.43	1,026	2,358
37.44	1,029	2,368
37.45	1,033	2,378
37.46	1,036	2,389
37.47	1,039	2,399
37.48	1,042	2,410
37.49	1,046	2,420
37.50	1,049	2,431
37.51	1,052	2,441
37.52	1,056	2,452
37.53	1,059	2,462
37.54	1,062	2,473
37.55	1,065	2,483
37.56	1,069	2,494
37.57	1,072	2,505
37.58	1,075	2,515
37.59	1,079	2,526
37.60	1,082	2,537
37.61	1,085	2,548
37.62	1,088	2,559
37.63	1,092	2,570
37.64	1,095	2,581
37.65	1,098	2,592
37.66	1,101	2,603
37.67	1,105	2,614
37.68	1,108	2,625
37.69	1,111	2,636
37.70	1,115	2,647
37.71	1,118	2,658
37.72	1,121	2,669
37.73	1,124	2,680
37.74	1,128	2,692
37.75	1,131	2,703
37.76	1,134	2,714
37.77	1,138	2,726
37.78	1,141	2,737
37.79	1,144	2,749
37.80	1,147	2,760
37.81	1,151	2,771
37.82	1,154	2,783
37.83	1,157	2,795
37.84	1,161	2,806
37.85	1,164	2,818
37.86	1,167	2,829
37.87	1,170	2,841
37.88	1,174	2,853
37.89	1,177	2,865
37.90	1,180	2,876
37.91	1,183	2,888
37.92	1,187	2,900
37.93	1,190	2,912
37.94	1,193	2,924
37.95	1,197	2,936
37.96	1,200	2,948
37.97	1,203	2,960
37.98	1,206	2,972
37.99	1,210	2,984
38.00	**1,213**	**2,996**

Stage-Area-Storage for Pond SGW-1-: SUBMERGE GRAVEL WETLANDS (continued)

Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
37.16	937	2,093
37.17	941	2,102
37.18	944	2,112
37.19	947	2,121
37.20	951	2,131
37.21	954	2,140
37.22	957	2,150
37.23	960	2,159
37.24	964	2,169
37.25	967	2,179
37.26	970	2,188
37.27	974	2,198
37.28	977	2,208
37.29	980	2,217
37.30	983	2,227
37.31	987	2,237
37.32	990	2,247
37.33	993	2,257
37.34	997	2,267
37.35	1,000	2,277
37.36	1,003	2,287
37.37	1,006	2,297
37.38	1,010	2,307
37.39	1,013	2,317
37.40	1,016	2,327
37.41	1,019	2,337
37.42	1,023	2,348
37.43	1,026	2,358
37.44	1,029	2,368
37.45	1,033	2,378
37.46	1,036	2,389
37.47	1,039	2,399
37.48	1,042	2,410
37.49	1,046	2,420
37.50	1,049	2,431
37.51	1,052	2,441
37.52	1,056	2,452
37.53	1,059	2,462
37.54	1,062	2,473
37.55	1,065	2,483
37.56	1,069	2,494
37.57	1,072	2,505
37.58	1,075	2,515
37.59	1,079	2,526
37.60	1,082	2,537
37.61	1,085	2,548
37.62	1,088	2,559
37.63	1,092	2,570
37.64	1,095	2,581
37.65	1,098	2,592
37.66	1,101	2,603
37.67	1,105	2,614
37.68	1,108	2,625
37.69	1,111	2,636
37.70	1,115	2,647
37.71	1,118	2,658
37.72	1,121	2,669
37.73	1,124	2,680
37.74	1,128	2,692
37.75	1,131	2,703
37.76	1,134	2,714
37.77	1,138	2,726
37.78	1,141	2,737
37.79	1,144	2,749
37.80	1,147	2,760
37.81	1,151	2,771
37.82	1,154	2,783
37.83	1,157	2,795
37.84	1,161	2,806
37.85	1,164	2,818
37.86	1,167	2,829
37.87	1,170	2,841
37.88	1,174	2,853
37.89	1,177	2,865
37.90	1,180	2,876
37.91	1,183	2,888
37.92	1,187	2,900
37.93	1,190	2,912
37.94	1,193	2,924
37.95	1,197	2,936
37.96	1,200	2,948
37.97	1,203	2,960
37.98	1,206	2,972
37.99	1,210	2,984
38.00	**1,213**	**2,996**

513 South Main Street LLC. 1/7/2025
Jennifer Lynch
513 South Main Street
Berlin, Md. 21811

Matthew and Catherine Powell
509 South Main Street
Berlin, Md. 21811

Re: Storm water management " Right to Discharge " from 513 South Main Street LLC.

Location:
513 South Main Street / Parcel 946 / Lot 7
Closest intersecting road is Buckingham Road.

509 South Main Street / Parcel 940
509 South Main Street abuts 513 South Main Street at the left rear of 513 South Main Street.

To: The Town of Berlin:
Please accept this letter memorializing 513 South Main Street LLC. " Right to Discharge " into the existing outfall channel located on the left side of 513 South Main Street. The outfall from this project will be at the left rear corner of 513 South Main Street. This corner is where 513, 509 and 519 South Main Street abut together. It is understood by 513 South Main Street LLC. and Matthew and Catherine Powell that 513 South Main Street LLC. maintains its " Right to Discharge " into this existing channel which is on these three properties. The post development flow rate will be equal to or less than the current pre-development flow rate.

member 513 South Main Street LLC.

Matthew Powell

Catherine Powell

Please sign and return the signed original to 513 South Main Street, Berlin, Md. 21811
This letter is required by The Town of Berlin Code Section 26-106.
If you have any questions please feel free to call the builder, Patrick Vorsteg, at 410-375-1035.

513 South Main Street LLC. 1/7/2025
Jennifer Lynch
513 South Main Street
Berlin, Md. 21811

Faith Baptist Church of Berlin Maryland
519 South Main Street
Berlin, Md. 21811

Re: Storm water management " Right to Discharge " from 513 South Main Street LLC.

Location:
513 South Main Street / Parcel 946 / Lot 7
Closest intersecting road is Buckingham Road.

519 South Main Street / Parce 946 / Lot 8
519 South Main Street abuts 513 South Main Street at the rear of 513 South Main Street.

To: The Town of Berlin:
Please accept this letter memorializing 513 South Main Street LLC. " Right to Discharge " into the existing outfall channel located on the left side of 513 South Main Street. The outfall from this project will be at the left rear corner of 513 South Main Street. This corner is where 513, 509 and 519 South Main Street abut together. It is understood by 513 South Main Street LLC. and Faith Baptist Church of Berlin Maryland that 513 South Main Street LLC. maintains its " Right to Discharge " into this existing channel which is on these three properties. The post development flow rate will be equal to or less than the pre-development flow rate.

member 513 South Main Street LLC.

Faith Baptist Church of Berlin Maryland

Please sign and return the signed original to 513 South Main Street, Berlin, Md. 21811
This letter is required by The Town of Berlin Code Section 26-106.
If you have any questions please feel free to call the builder, Patrick Vorsteg, at 410-375-1035.

RUSSELL T. HAMMOND Surveying, LLC

10310 Hotel Road Bishopville, Maryland 21813

Office: 410-352-5674 Cell: 410-726-8076

Email: russell@rthsurvey.com

16th December 2025

EA Engineering, Science and Technology, Inc.
Steven Lemasters, P.E.

RE: Review Letter, dated November 17, 2025
Review No. SWM-2024-001 – Final Plan #1

Dear Mr. Lemasters:

I have received your review letter, dated 11/17/2025, and have addressed the comments as noted below.

1) Please note that there are improvements being proposed off-property to the shared stormwater conveyance channel. Please provide a note that the Owner and/or Contractor is responsible for obtaining written permission to perform the necessary work from the adjacent landowner and acceptance shall be provided to the Town of Berlin for their records.

Comment: I have added a note on Sheet 1 of 3 addressing the required written permission from adjoining owners and added a statement regarding "Right to Discharge" letters received from the adjoining owners on January 7th, 2025. I have also included copies of the "Right to Discharge" letters in the Stormwater Water Management Narrative.

2) There are two Construction Sequence of Construction for Sediment Control Measures on Sheet 1. Please coordinate and reduce the data to one.

Comment: I have revised and combined the two Sequences of Construction for Sediment Control Measures on Sheet 1 of 3.

3) Please review the impervious area coverage stated between the plan and report. DA#1 and DA#2 HydroCAD states 100% impervious whereas the Plans report less than that amount. Please update the ESDv calculations accordingly on the plans if the error resides on the plans.

Comment: I have revised the impervious area coverages withing the HydroCAD to match the amounts indicated on Sheet 2 of 3.

RUSSELL T. HAMMOND
Surveying, LLC

10310 Hotel Road Bishopville, Maryland 21813

Office: 410-352-5674 Cell: 410-726-8076

Email: russell@rthsurvey.com

December 16, 2025
Cont.

4) Please adjust the sequence of construction for the submerged gravel wetland to specify how and when the additional features of the facility are to be constructed. Please be all inclusive of all stormwater-related items such as gravel, underdrain, planting media, landscaping, outfall structure, riprap, etc.

Comment: I have revised the Sequence of Construction on Sheet 1 of 3 to include the stormwater related items of the submerged gravel wetlands.

5) Please review the submerged gravel wetland outfall structure in HydroCAD and on Sheet 2. It appears the plans calls out a rise of 0.42' for the low stage weir whereas the HydroCAD reports a rise of 0.33'. Update the post development rates within the report and the water surface elevation on the Sheet as a result of the correction.

Comment: I have revised the elevations noted on the submerged gravel wetlands cross-section and detail on Sheet 2 of 3 to reflect the elevations noted in the HydroCAD report.

Thank you for your review of our project. If you have any questions or comments, please contact me for further information.

Sincerely,

Russell T. Hammond, PLS
Maryland Lic. #21329
Delaware Lic. #S6-0000781

JENNIFER A LYNCH
PROPOSED OFFICE BUILDING

CODE SUMMARY:	2021 IBC & NFPA
TOTAL FINISHED AREA:	1456 SQ. FT.
OCCUPANCY CLASSIFICATION:	BUISNESS
TYPE OF CONSTRUCTION	5 B
BUILDING HEIGHT AND AREAS:	BUILDING HEIGHT 21'-6" 1 STORY
TOTAL FIRST FLOOR	1456 SQ. FT.

OCCUPANT LOAD IBC 2021 Code - Section 1004 - Occupant Load
Occupant load factor for business use = 150 gross square feet per person. 1456 square feet for 1st floor / 150 load factor =10 persons.

IBC 2021 Code - Section 1006 - Number of Exits and Exit Access Doorways - Table 1006.2.1 - Spaces with one exit or exit access doorway:
Business use maximum occupant load allowable = 49. Maximum common path of egress travel distance for occupant load equal to or less than 30 = 100 feet. Maximum common path of egress travel distance for occupant load greater than 30 = 75 feet.

REVISION TABLE

NUMBER	DATE	REVISED BY	DESCRIPTION

DRAWINGS PROVIDED FOR:
JENNIFER A LYNCH
513 SOUTH MAIN STREET
BERLIN, MD 21811

DRAWINGS PROVIDED BY:
ATLANTIC DESIGN GROUP
246 CLAYTON AVE
FRANKFORD, DE 19945
302-462-6438

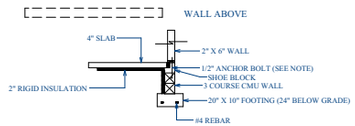
DATE:
11/18/2025

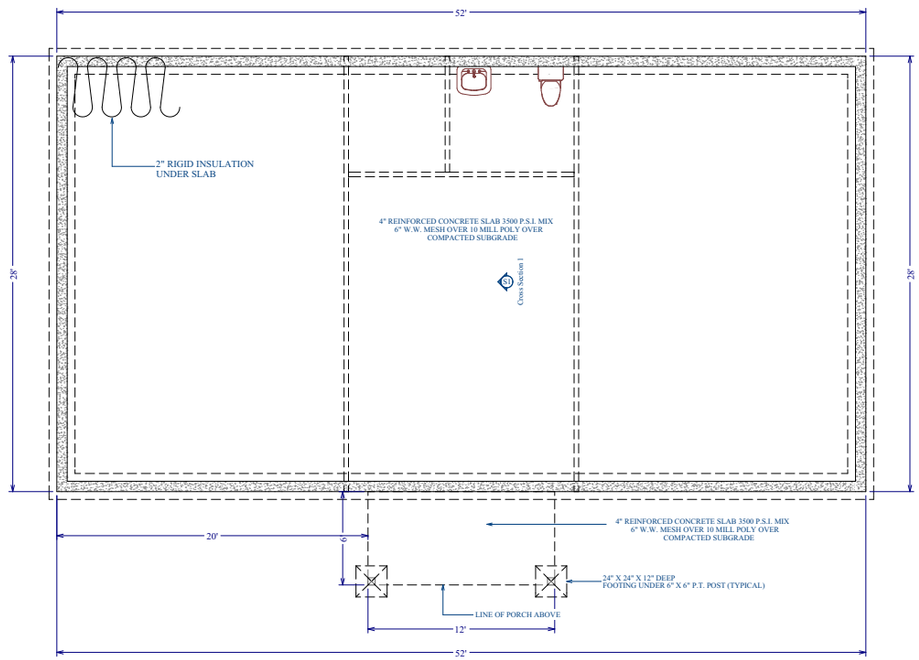
SCALE:1/4"

SHEET:

1/2" X 18" ANCHOR BOLTS W/1 1/8" WASHERS @6'-0" O.C.
BOLTS SPACED NO LESS THAN 3 1/2" BUT NO MORE THAN
12" FROM EA. END OF THE PLATE SECTION AND
EMBEDDED 15" INTO MASONRY-COUNTERSUNK CORES
OF CONCRETE BLOCK FILLED SOLID W/CONCRETE

8" CMU FOUNDATION
WALL (3 COURSES TOTAL)
TOP COURSE IS SHOE BLOCK
W/20" W. X 10" D. CONT.
POURED CONCRETE FOOTING
@ MIN. 2500 PSI W/(2) #4
REBAR STAKED AND TIED (TYPICAL)





FOUNDATION
1/4" SCALE

REVISION TABLE

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DATE:
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SCALE:1/4"

SHEET:
2

OCCUPANCY: BUISNESS

NFPA 2021
TABLE 6.1.14.4.1 (a)
CHAPTER 6

COMBINATION LED EXIT/EMERGENCY LIGHT
TAMLITE SLX3RWEM OR EQUAL
WHITE THERMOPLASTIC, WALL MOUNT
BATTERY BACKUP, TEST SWITCH

LED THERMOPLASTIC EMERGENCY LIGHT UNIT
TAMLITE ESLR-3 OR EQUAL
WHITE THERMOPLASTIC, WALL MOUNT
BATTERY BACKUP, TEST SWITCH

LED EXTERIOR REMOTE HEAD
TAMLITE ESRH1-WP6V7 OR EQUAL
WHITE THERMOPLASTIC, WALL MOUNT

LED EXIT LIGHT
TAMLITE TXP-3 OR EQUAL
WHITE THERMOPLASTIC

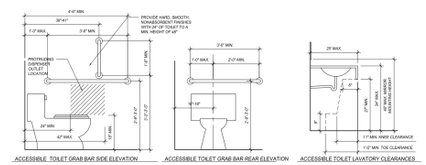
FIRE EXTINGUISHER
2A. 10B-C MOUNTED 48" TO TOP

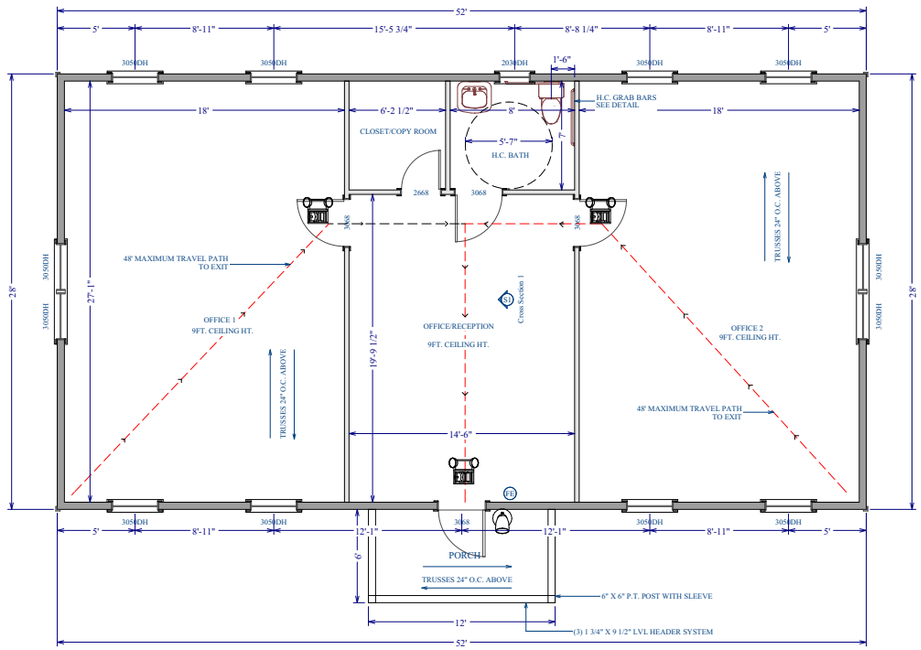
SMOKE/CARBON MONOXIDE DETECTOR

EMERGENCY EXIT/LIGHT COMBINATION (TYPICAL)

PUSH BAR HARDWARE TYPICAL

FRONT DOOR





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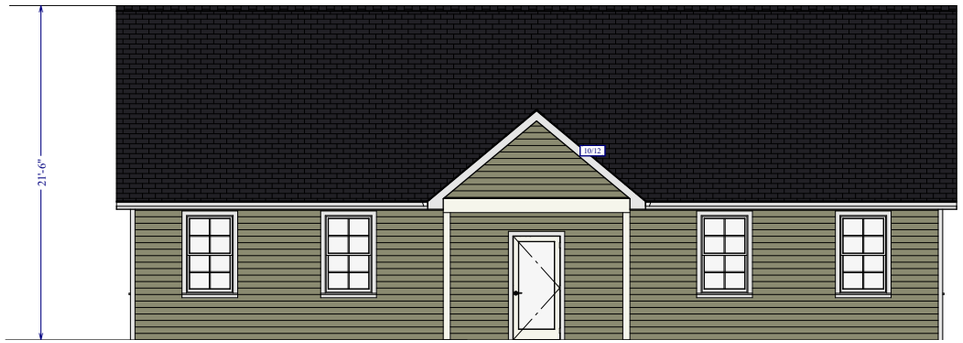
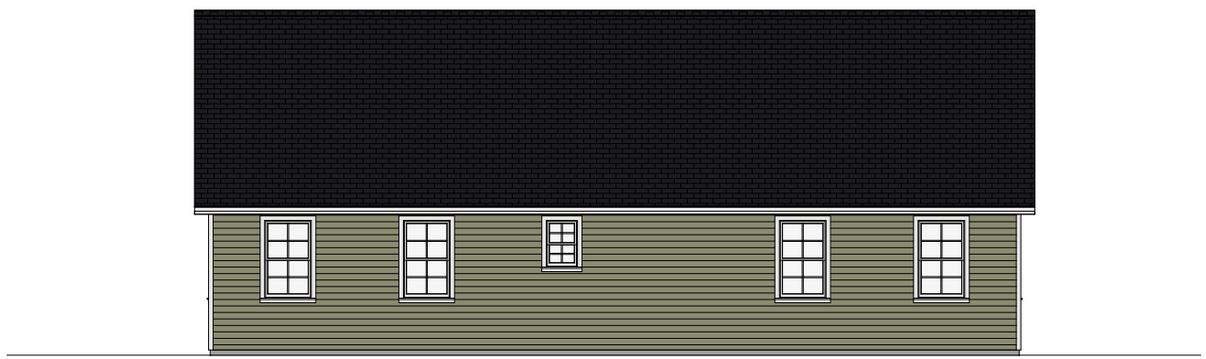


FRONT ELEVATION
1/4" SCALE



REAR ELEVATION
1/4" SCALE

LEFT ELEVATION
1/4" SCALE

RIGHT ELEVATION
1/4" SCALE

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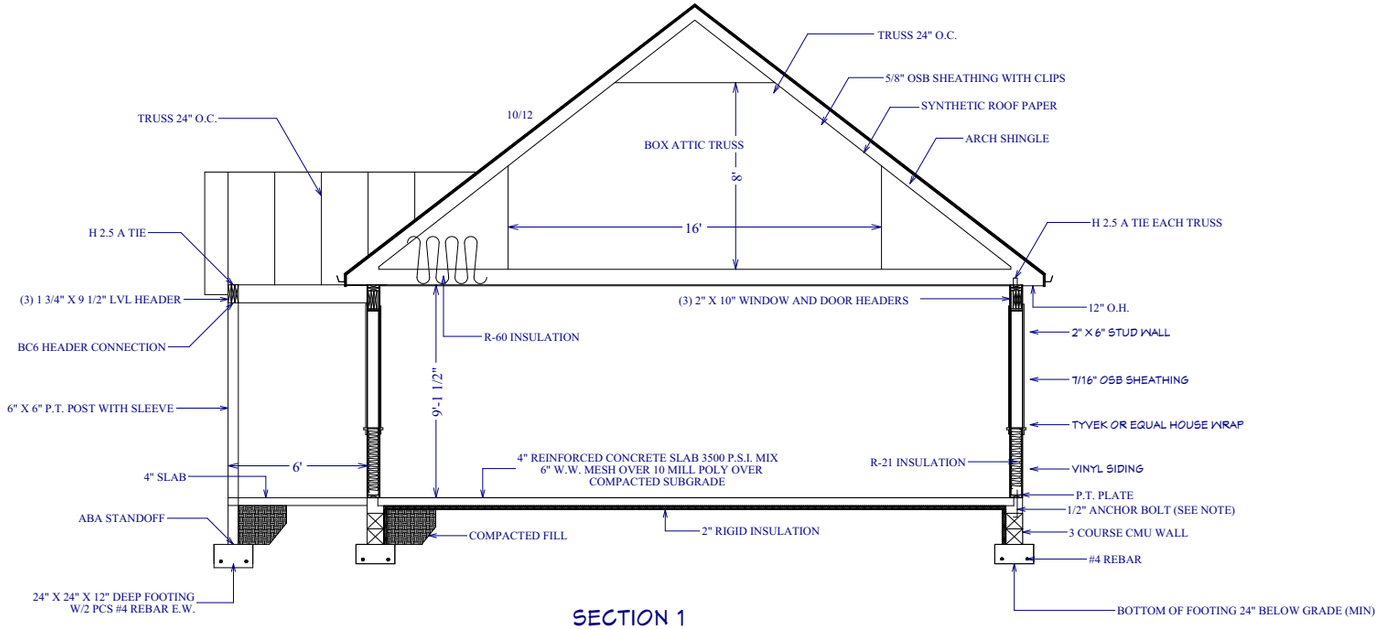
11/18/2025

SCALE:1/4"

SHEET:



SECTION 1
3/8" SCALE

NOTES:

1 All lumber used as structural framing shall be SPF No.1/No.2 or better, having an Fb=875psi as defined in the latest edition of "National Design Specification" published by National Forest & Paper Association.

2 All exterior steel bolts, straps and clips shall be hot dipped galvanized.
Hanger References are for Simpson Strong Tie Connectors.
Connectors in contact with contact with pressure treated wood or exposed conditions should be Simpson Z-MAX series.

3 All double and triple LVL's shall be spiked together before loading, using nails as recommended by the manufacturer or as noted on the drawings. Minimum requirements:

4-PLY LVL — 2 rows 6 3/4" Trusslok screws @ 16" centers
3 PLY LVL – — 2 rows 3 3/8" Trusslok screws @ 16" centers
2 PLY LVL – — 3 rows 10d common nails @ 12" centers

Lintel schedule unless noted on the drawings

2 x 6 walls 4'-0" 3-2"x8" with 2 layers of ½"plywood.
- 6'-0" 3-2"x10" with 2 layers of ½" plywood
- >6'-0" 3-2"x12" with 2 layers of ½" plywood

2 x 4 walls 4'-0" 2-2"x8" with 1 layer of ½"plywood.
- 6'-0" 2-2"x10" with 1 layer of ½" plywood
- >6'-0" 2-2"x12" with 1 layer of ½" plywood

4 Structural steel W shapes shall conform to ASTM A992
- Plates shall conform to ASTM A36
- Bolts to be ASTM A325N.
- Fabrication and connections to be in accordance with AISC Specifications

5 Engineered roof and floor trusses are to be installed and stiffened in accordance with the manufacturer's written instructions and specifications.
Non-load bearing walls should not be attached directly to the trusses. Expansion clips or similar should be used to allow vertical movement of the trusses caused by climatic changes.
Dry wall should be attached as recommended by the Gypsum Association.

6 Double joists are required under all walls running parallel to joist system

7 All posts and columns within the house shall be placed directly over foundations or beams below and shall align with posts of lower floors. Posts shall rest on solid timber between floor joists or extend through floors to beams below. Timber below posts shall be at least as large as the cross section as the post above. When using built up posts, select lumber that minimizes the number of knots, and avoid knots in the same locations. Use cement coated nails when joining members of built up posts.

8 Concrete compressive strength at 28 days shall be minimum 3500 psi
- Concrete shall not be placed in water or on frozen ground.
- Reinforcing bars shall conform to ASTM A615 Grade 60
- Welded wire fabric shall conform to ASTM A185 and be provided in flat sheets.
- Grade slabs shall be reinforced using 6x6 W 1.4 x W 1.4 WWF.
- Reinforcing shall be supported and located 1" from the top of slab.

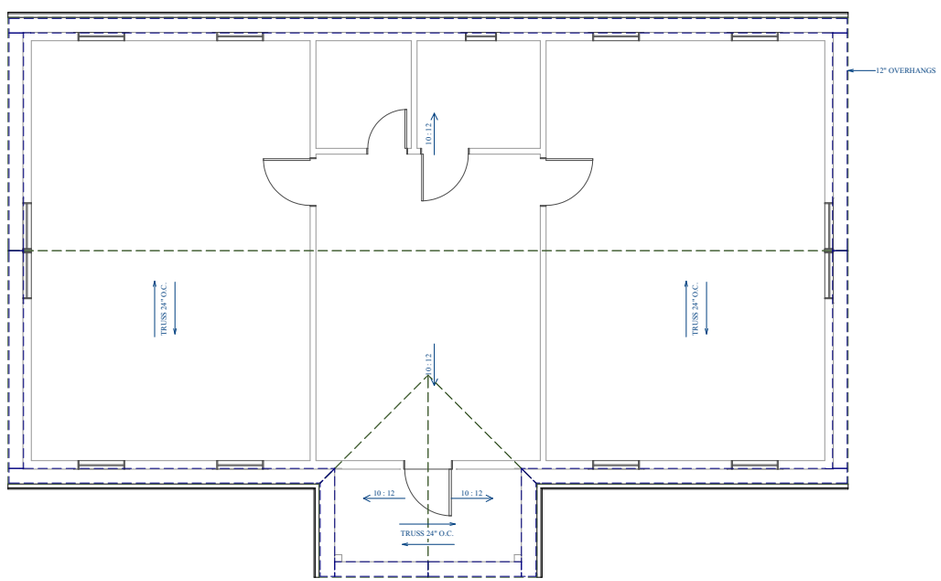
9 Foundations design is based on shallow spread footings bearing on suitable natural soil, with a minimum bearing capacity of not less than 2000 PSF. **Contractor is advised to have a geotechnical engineer verify bearing capacity prior to pouring concrete.**

10 Masonry construction shall conform to ACI 530.1
- All concrete masonry units shall be ASTM C90 Grade N Type 1
- Mortar shall conform to ASTM C270 Type M or S

Where indicated, grout cores solid with a high slump mix in accordance with ASTM C476 having a minimum compressive strength of 3000 psi
Masonry walls over 5 courses high are to be reinforced horizontally at each 4th courses using "Dur-o-wall" or similar approved.

11 DESIGN CODE – International Residential Code 2021

- Exterior shear walls are designed as "Type II" in accordance with the requirements of the American
- Forest & Paper Association, Wood Frame Construction Manual.
- Exterior shear walls are to be sheathed using 7/16" wood structural panels on the exterior attached
- With 8d common nails at 6" centers and 12" centers on internal framing.
- Roof sheathing to be 19/32" structural plywood attached with 8d x 2" common nails at 4" centers at
- panel edges, and 12" centers at intermediate supports.



ROOF PLAN
1/4" SCALE

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302-462-6438

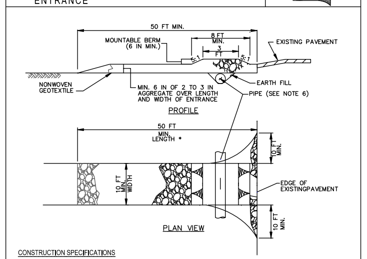
DATE:
11/18/2025

SCALE:1/4"

SHEET:
9

DETAIL B-1 STABILIZED CONSTRUCTION ENTRANCE

STANDARD SYMBOL



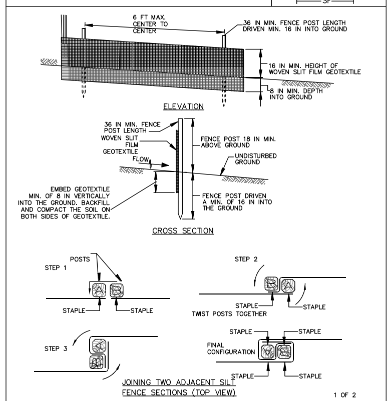
CONSTRUCTION SPECIFICATIONS

1. PLACE STABILIZED CONSTRUCTION ENTRANCE IN ACCORDANCE WITH THE APPROVED PLAN. VEHICLES MUST TRAVEL OVER THE ENTIRE LENGTH OF THE SCE. USE MINIMUM LENGTH OF 50 FEET (*30 FEET FOR SINGLE RESIDENCE LOT). USE MINIMUM WIDTH OF 10 FEET. FLARE SCE 10 FEET MINIMUM AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
2. PIPE ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD THE SCE UNDER THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PROTECT PIPE INSTALLED THROUGH THE SCE WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 12 INCHES OF STONE OVER THE PIPE. PROVIDE PIPE AS SPECIFIED ON APPROVED PLAN. WHEN THE SCE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY, A PIPE IS NOT NECESSARY. A MOUNTABLE BERM IS REQUIRED WHEN SCE IS NOT LOCATED AT A HIGH SPOT.
3. PREPARE SUBGRADE AND PLACE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS.
4. PLACE CRUSHED AGGREGATE (2 TO 3 INCHES IN SIZE) OR EQUIVALENT RECYCLED CONCRETE (WITHOUT REBAR) AT LEAST 6 INCHES DEEP OVER THE LENGTH AND WIDTH OF THE SCE.
5. MAINTAIN ENTRANCE IN A CONDITION THAT MINIMIZES TRACKING OF SEDIMENT. ADD STONE OR MAKE OTHER REPAIRS AS CONDITIONS DEMAND TO MAINTAIN CLEAN SURFACE, MOUNTABLE BERM, AND SPECIFIED DIMENSIONS. IMMEDIATELY REMOVE STONE AND/OR SEDIMENT SPILLED, DROPPED, OR TRACKED ONTO ADJACENT ROADWAY BY VACUUMING, SCRAPING, AND/OR SWEEPING. WASHING ROADWAY TO REMOVE MUD TRACKED ONTO PAVEMENT IS NOT ACCEPTABLE UNLESS WASH WATER IS DIRECTED TO AN APPROVED SEDIMENT CONTROL PRACTICE.

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL SF



1 OF 2

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

DETAIL E-1 SILT FENCE

STANDARD SYMBOL SF

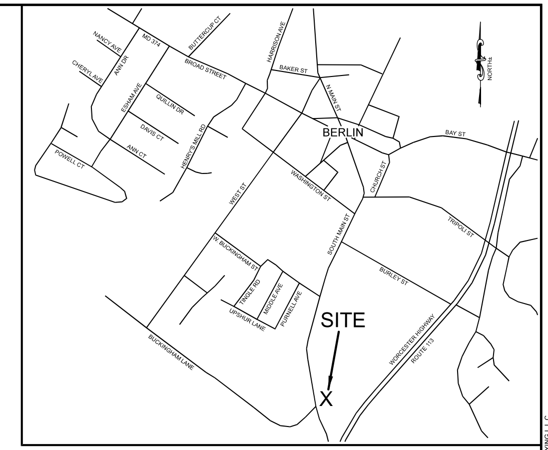
CONSTRUCTION SPECIFICATIONS

1. USE WOOD POSTS 1 3/4 X 1 3/4 ± 1/16 INCH (MINIMUM) SQUARE CUT OF SOUND QUALITY HARDWOOD. AS AN ALTERNATIVE TO WOODEN POST USE STANDARD "T" OR "U" SECTION STEEL POSTS WEIGHING NOT LESS THAN 1 POUND PER LINEAR FOOT.
2. USE 36 INCH MINIMUM POSTS DRIVEN 16 INCH MINIMUM INTO GROUND NO MORE THAN 6 FEET APART.
3. USE WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS AND FASTEN GEOTEXTILE SECURELY TO UPSLOPE SIDE OF FENCE POSTS WITH WIRE TIES OR STAPLES AT TOP AND MIDSECTION.
4. PROVIDE MANUFACTURER CERTIFICATION TO THE AUTHORIZED REPRESENTATIVE OF THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT THE GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
5. EMBED GEOTEXTILE A MINIMUM OF 8 INCHES VERTICALLY INTO THE GROUND. BACKFILL AND COMPACT THE SOIL ON BOTH SIDES OF FABRIC.
6. WHERE TWO SECTIONS OF GEOTEXTILE ADJOIN: OVERLAP, TWIST, AND STAPLE TO POST IN ACCORDANCE WITH THIS DETAIL.
7. EXTEND BOTH ENDS OF THE SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SILT FENCE.
8. REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN SILT FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL FENCE.

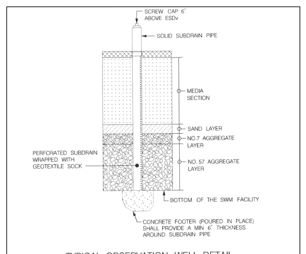
MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

Table B.3: Selected List of Permanent Herbaceous Seeding Mixtures (Continued)

Mix	Recommended Cultivar	Seeding Rate [1] lb/ac	Seeding Rate [1] lb/1000 ft²	Soil Drainage Class [2]	Max. Height (inch)	Maint. Level [3]	Remarks
9. SELECT ONE SPECIES OF FESCUE:							Good for highly managed athletic fields.
Tall Fescue (*Lolium arundinaceum*) (formerly *Festuca arundinacea*)	Recommended MD turf-types [4]	60	1.38				Tall fescue is more suitable for compacted, high use areas and on moist sites.
OR Hard Fescue (*Festuca trachyphylla*)	Attila or Aurora	40	0.92				Hard fescue produces finer-textured turf with more shade tolerance.
AND ADD: Kentucky Bluegrass (*Poa pratensis*)	Recommended MD turf-types [4]	40	0.92	W - SP	2 - 3	A - B	Use tall fescue instead of hard fescue for wastewater treatment strips and areas.
Perennial Ryegrass (*Lolium perenne*)	Blazer (II), Pennfine	20	0.46				For best results, recommend using a blend of 3 cultivars each for tall fescue and Kentucky bluegrass.
11. Creeping Red Fescue (*Festuca rubra var. rubra*)	Dawson, Pennlawn, Flyer, Fortess, Ruby, or Salem	30	0.69				
Chewings Fescue (*Festuca rubra ssp. commutata*)	Common	30	0.69				
Kentucky Bluegrass (*Poa pratensis*)	Recommended MD turf-types [4]	20	0.46	E - MW	2 - 3	B - D	
OPTIONAL ADDITION Rough Bluegrass (*Poa trivialis*)	Common	15	0.34				Add rough bluegrass in moist, shady conditions.



VICINITY MAP - NOT TO SCALE



TYPICAL OBSERVATION WELL DETAIL

NOT TO SCALE

OBSERVATION WELL NOTES:

1. COST OF CONCRETE FOOTER AND GEOTEXTILE SOCK ARE INCIDENTAL TO THE COST OF THE SUBDRAIN ITEM AS USED FOR THE OBSERVATION WELL.
2. SEE SECTION 316 OF THE MDOT SHA STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

CONSTRUCTION SEQUENCE FOR SEDIMENT CONTROL MEASURES

1. CONTACT THE TOWN OF BERLIN DEPARTMENT OF WATER RESOURCES AT 410-641-3845 AT LEAST 48 HOURS PRIOR TO, AND MARYLAND DEPARTMENT OF ENVIRONMENT AT 410-901-4020 AT LEAST 7 DAYS PRIOR TO COMMENCING ANY SITE WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING FAILURE TO DO SO MAY RESULT IN AN IMMEDIATE STOP WORK ORDER.
2. CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS. (2 DAYS)
3. MAINTAIN EXISTING ASPHALT DRIVE AS STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCE AROUND ENTIRE SITE. (1 DAY)
4. ROUGH GRADE SITE. (1 DAY)
5. STABILIZE ALL DISTURBED AREAS, IN ACCORDANCE WITH THE 7/14 DAY RULE. THIS IS A CONTINUAL REQUIREMENT.
6. CONSTRUCTION OF POOL AND OTHER FEATURES. (120 DAYS)
7. FINAL GRADING, SEED/SOD PROPOSED GRASS AREAS, INSTALL LANDSCAPING AND STABILIZATION.
8. INSTALL RAIN GARDENS.
9. APPROVAL OF MDE PRIOR TO REMOVAL OF SEDIMENT CONTROLS.
10. REMOVAL OF CONTROLS AND STABILIZATION OF AREAS THAT ARE DISTURBED BY REMOVAL OF SEDIMENT CONTROLS.

WORCESTER COUNTY FOREST CONSERVATION LAW STATEMENT

IN ACCORDANCE WITH SUBTITLE IV, SECTION 1-403(B)(9) OF THE NATURAL RESOURCES ARTICLE OF THE WORCESTER COUNTY CODE OF PUBLIC LOCAL LAWS, THIS SUBDIVISION IS EXEMPT FROM THE COUNTY'S FOREST CONSERVATION LAW SINCE THE ACTIVITY DOES NOT RESULT IN THE CUTTING, CLEARING, OR GRADING OF MORE THAN 20,000 SQUARE FEET OF FOREST; AND IS SUBJECT OF A DECLARATION OF INTENT FILED WITH THE COUNTY.

OWNER/DEVELOPER CERTIFICATION

I CERTIFY THAT:

ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE IN ACCORDANCE WITH THE SEDIMENT AND EROSION CONTROL PLAN, AND THE "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" AND FURTHER, AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATION BY WORCESTER COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS OR THEIR AUTHORIZED AGENTS.

ANY CLEARING, GRADING, CONSTRUCTION, OR DEVELOPMENT WILL BE DONE PURSUANT TO THE APPROVED EROSION AND SEDIMENT CONTROL PLAN, INCLUDING INSPECTING AND MAINTAINING CONTROLS, AND THE RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF TRAINING AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT TO BEGINNING THE PROJECT.

THE OWNER/DEVELOPER CERTIFIES THE RIGHT OF ENTRY FOR PERIODIC ON SITE EVALUATION BY THE APPROPRIATE ENFORCEMENT AUTHORITY AND/OR MDE.

OWNER/DEVELOPER OR REPRESENTATIVE SHALL CONTACT THE APPROPRIATE ENFORCEMENT AUTHORITY OR ITS AGENT AT THE FOLLOWING STAGES OF THE PROJECT:

A. PRIOR TO THE START OF EARTH DISTURBANCE
B. UPON COMPLETION OF THE INSTALLATION OF PERIMETER EROSION AND SEDIMENT CONTROLS, BUT BEFORE PROCEEDING WITH ANY OTHER EARTH DISTURBANCE OR GRADING.
C. PRIOR TO THE START FO ANOTHER PHASE OF CONSTRUCTION OR OPENING OF ANOTHER GRADING UNIT.
D. PRIOR TO THE REMOVAL OF SEDIMENT CONTROL PRACTICES.

THE DEVELOPER WILL PROVIDE ONE COPY OF A RED LINE AS-BUILT DRAWING OF EACH FACILITY REQUIRING A STATE POND PERMIT.

ALL PHASES OF STORMWATER MANAGEMENT CALCULATIONS, STRUCTURE DESIGN AND CONSTRUCTION WILL ADHERE TO CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR STORMWATER MANAGEMENT AND THE STORMWATER MANAGEMENT PLAN FOR THE SITE.

ALL INFORMATION SET FORTH IN THIS PLAN ACCURATELY CONVEYS THIS SITE'S CONDITIONS TO THE BEST OF MY KNOWLEDGE.

ALL STRUCTURAL DEVICES FOR STORMWATER MANAGEMENT WILL BE PROTECTED BY PROPER SOIL EROSION AND SEDIMENT CONTROL DEVICES UNTIL ALL CONTRIBUTING AREAS HAVE PASSED FINAL STABILIZATION INSPECTION.

*UPON COMPLETION OF THE PROJECT, AN AS-CONSTRUCTED SURVEY, NOTICE OF CONSTRUCTION COMPLETION (NOCC), AND LETTER OF CERTIFICATION MUST BE SUBMITTED TO THE DEPARTMENT, EXCEPT INDIVIDUAL SINGLE FAMILY DWELLINGS. ONCE REVIEW IS COMPLETE AND APPROVED, A CERTIFICATE OF OCCUPANCY CAN BE ISSUED.

NOTE: THE CONTRACTOR AND OWNER SHALL PROVIDE SUPERVISION AND CERTIFICATION OF ALL CONSTRUCTION OF STORMWATER MANAGEMENT PRACTICES THAT PROVIDE INFILTRATION AND FILTERING, BY A PROFESSIONAL ENGINEER DULY LICENSED IN THE STATE OF MARYLAND.

SIGNATURE(S) OF OWNER/DEVELOPER DATE

513 SOUTH MAIN STREET LLC
513 SOUTH MAIN STREET
BERLIN, MD. 21811
PHONE: 410-641-3133
CONTRACTOR: VORSTEG ENTERPRISES LLC
PHONE: 410-375-1035

REVISION	DATE	BY
REVISED PER COMMENT LETTER, DATED 1/2/2025	02/03/2025	RTH
REVISED PER COMMENT LETTER, DATED 2/13/2025	04/12/2025	RTH
REVISED PER COMMENT LETTER, DATED 5/16/2025	06/09/2025	RTH
REVISED PLAN SUBMERGED GRAVEL WETLANDS	07/18/2025	RTH
REVISED PER COMMENT LETTER, DATED 11/17/2025	12/16/2025	RTH

SEDIMENT AND EROSION CONTROL NOTES

1. FOLLOWING INITIAL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
   A.) THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1); AND
   B.) SEVEN (7) CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
2. CERTIFICATION BY OWNER OR DEVELOPER THAT 1. ANY CLEARING, GRADING, CONSTRUCTION OR DEVELOPMENT, OR ALL OF THESE, WILL BE DONE PURSUANT TO THIS PLAN AND 2. THAT RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE CERTIFICATION OF TRAINING AT THE DEPARTMENT APPROVED TRAINING PROGRAM (GREEN CARD CERTIFICATION FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. (CERTIFICATION MAY BE WAIVED BY THE APPROVAL AUTHORITY ON ANY PROJECT INVOLVING FOUR OR FEWER RESIDENTIAL UNITS) AND AS APPLICABLE PER COUNTY 3. THE DEVELOPER WILL ONE COPY OF A RED LINE AS BUILT DRAWING OF EACH FACILITY REQUIRING A STATE POND PERMIT.
3. MAINTENANCE SHALL BE PERFORMED AS NECESSARY TO ENSURE THAT STABILIZED AREAS CONTINUOUSLY MEET THE APPROPRIATE REQUIREMENTS OF "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL".
4. APPROVED PLANS REMAIN VALID FOR 2 YEARS FROM THE DATE OF APPROVAL, EXCEPT SURFACE MINES AND LANDFILL PLANS WHICH REMAIN VALID FOR 5 YEARS FROM THE DATE OF APPROVAL UNLESS SPECIFICALLY EXTENDED OR RENEWED BY THE APPROVAL AUTHORITY.
5. SEDIMENT AND EROSION CONTROL DEVICES MUST BE INSPECTED AND MAINTAINED REGULARLY TO ENSURE THAT THE INTENDED PURPOSE IS ACCOMPLISHED.
6. ALL DISTURBED AREAS WHICH ARE NOT PAVED OF GRADED WILL BE SEEDED OR SODDED. WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH OF BETWEEN 1" AND 2". MULCH APPLIED SHALL ACHIEVE A UNIFORM DISTRIBUTION AND DEPTH SO THAT THE SOIL IS NOT EXPOSED. IF MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 2.5 TONS/ACRE.
7. WHERE SEEDING IS REQUIRED, USE MIX #8, #9, & #11 FROM TABLE B-3, SELECTED LIST OF PERMANENT HERBACEOUS SEEDING MIXTURES OF THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDITMENT CONTROL. FOR RECOMMENDED PLANTING REFER TO TABLE B-25 RECOMMENDED PLANTING DATES FOR PERMANENT COVER IN MARYLAND. FOR RECOMMENDED FERTILIZER AND LIME RATES REFER TO PAGE B23, PERMANENT SEEDING SUMMARY. ALL SLOPES OF 3:1 AND ALL AREAS IF DESIGNATED ON THE PLAN SHALL BE SEEDED AND MULCHED.
8. ALL DISTURBED AREAS ARE TO BE PROTECTED DURING ALL PHASES OF DEVELOPMENT.
9. ALL SPOIL WILL BE REMOVED TO AN APPROVED SITE. SPOIL FROM EXCAVATION WILL BE REMOVED DAILY. CLEAN RUNOFF WATER WILL BE DIVERTED AROUND ANY TEMPORARY STOCKPILE AREAS.
10. THE APPROVAL OF THIS PLAN FOR SEDIMENT AND EROSION CONTROL DOES NOT RELIEVE THE DEVELOPER/CONSULTANT FROM COMPLYING WITH ANY FEDERAL/STATE/COUNTY/TOWN REQUIREMENTS APPERTAINING TO ENVIRONMENTAL ISSUES.
11. ANYTIME A SOIL EROSION OR SEDIMENT CONTROL PROBLEM OCCURS, PROMPT AND NECESSARY MEASURES WILL BE TAKEN BY THE OWNER AND/OR CONTRACTOR TO CORRECT THE PROBLEM.
12. A MARYLAND DEPARTMENT OF THE ENVIRONMENT NOTICE OF INTENT (NOI) GENERAL PERMIT FOR CONSTRUCTION ACTIVITY IS REQUIRED FOR ALL CONSTRUCTION ACTIVITY IN MARYLAND WITH A PLANNED TOTAL DISTURBANCE OF 1 ACRE OR MORE.
13. AS MANDATED BY THE NOTICE OF INTENT (NOI) GENERAL PERMIT ISSUED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT, AN INSPECTION MUST BE PERFORMED ONSITE OF ALL SEDIMENT CONTROLS ON A WEEKLY BASIS AND AFTER EVERY RAINFALL EVENT. ALL SELF INSPECTIONS MUST BE MAINTAINED ALONG WITH ALL APPLICABLE GOVERNING AGENCY INSPECTION REPORTS IN A LOG BOOK, TO BE KEPT ONSITE AT ALL TIMES.
14. CONTRACTOR SHALL INSTALL ALL EROSION AND SEDIMENT CONTROL FACILITIES AS SHOWN HEREON, AND THEY SHALL BE APPROVED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT OR THEIR AUTHORIZED AGENTS PRIOR TO THE START OF ANY GRADING OPERATIONS OF CONSTRUCTION.
15. ALL STONE CHECK DAMS SHALL BE CHECKED AND CLEANED OF SILT AND MAINTAINED PERIODICALLY TO PREVENT THE STORM RUNOFF BREAKING THROUGH.
16. IF DURING ANY PERIOD OF CONSTRUCTION, AN EROSION PROBLEM ARISES, THE PROPER AND NECESSARY MEASURES WILL BE TAKEN TO CORRECT THE PROBLEM BY THE OWNER AND/OR THE CONTRACTOR(S).
17. ALL DISTURBED AREAS NOT PAVED OR SURFACED SHALL BE REVEGETATED AND STABILIZED FOLLOWING THE RECOMMENDATIONS SHOWN ON THE DETAIL SHEET FOR TEMPORARY AND PERMANENT SEEDING.

SITE NOTES

1. ADDRESS: 513 S. MAIN STREET
   TAX MAP 302 - PARCEL 946
   OWNER/APPLICANT: 513 SOUTH MAIN STREET LLC
   513 SOUTH MAIN STREET
   BERLIN, MD. 21811
   PHONE: 410-641-3133
   CONTACT: PAT VORSTEG
   JPVORSTEG@AOL.COM
   PHONE: 410-375-1035
   SURVEYOR: RUSSELL T. HAMMOND
   RUSSELL T. HAMMOND SURVEYING, LLC
   10310 HOTEL ROAD
   BISHOPVILLE, MARYLAND 21813
   RUSSELL@RTHSURVEY.COM
   PHONE: 410-352-5674
2. DEED REF.: S.R.B. 6642/247
   PLAT REF.: S.V.H. 189/72
3. LOT AREA: 14,044 S.F.± OR 0.3224 AC.±
4. BLDG ENVELOPE: 9,497 S.F.± OR 0.2180 AC.±
5. EX. ZONING: B-1
6. FLOOD ZONE: X PER FIRM NO. 240141 0153 H, DATED JULY 16, 2015.
7. DISTURBED AREA = 14,585 S.F.± OR 0.3348 AC.±
8. PROPOSED FILL CONTEMPLATED = 150 C.Y.±
9. SITE SOILS ARE ENTIRELY: UwB - Urban land Udorthents complex
10. SITE IS IMPROVED AND PARTIALLY WOODED.
11. THERE ARE REPORTEDLY NO WETLANDS, STREAMS, SPRINGS, STEEP SLOPES, OR HIGHLY ERODIBLE SOILS WITHIN THE LIMITS OF DISTURBANCE AS SHOWN HEREON.
12. THIS SITE IS NOT WITHIN THE ATLANTIC COASTAL BAYS CRITICAL AREA.
13. THIS SITE IS WITHIN WORCESTER COUNTY SUB WATERSHED #02130105 NEWPORT BAY DRAINAGE.
14. SPLASH BLOCKS TO BE INSTALLED AT ALL DOWNSPOUT LOCATIONS.
15. STORMWATER HAS BEEN ADDRESSED USING THE RAIN GARDEN AS SHOWN HEREON. RAIN GUTTERS FROM THE BUILDING TO BE PIPED TO BIO-RETENTION BY LEADERS. THE DRIVEWAY IS TO BE CONSTRUCTED ASPHALT PAVEMENT AND DRAIN VIA 8" LEADER TO BIO-RETENTION.
16. THE CONTRACTOR SHALL PERFORM A TEST PIT OR SOIL BORING PRIOR TO THE INSTALLATION OF THE RAIN GARDEN TO CONFIRM THAT A CONFINING SOIL LAYER DOES ROT RESIDE BETWEEN THE BOTTOM OF THE FACILITY AND THE GROUND WATER ELEVATION. SHOULD A CONFINING LAYER BE PRESENT, THE FACILITY SHALL BE OVER EXCAVATED AND CLEAN SAND BE BACKFILLED.

CONSTRUCTION NOTES:

1. CONTRACTOR SHALL BE REQUIRED TO PROVIDE ALL MATERIALS AND APPURTENANCE NECESSARY FOR COMPLETE PROJECT CONSTRUCTION AS SHOWN ON THE DRAWINGS AND DESCRIBED IN THE SPECIFICATIONS.
2. THE CONTRACTOR SHALL CONTACT MISS UTILITY FOR LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. (1-800-257-7777)
3. THE CONTRACTOR SHALL CONFINE HIS ACTIVITIES TO THE SITE ANY DAMAGE TO EXISTING UTILITIES, ETC. CAUSED BY THE CONTRACTOR'S NEGLECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS OWN EXPENSE.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY FOR CONSTRUCTION PERMITS AND FEES.

NOTE:

PER THIS PLAN THERE ARE PROPOSED IMPROVEMENTS TO THE SHARED STORMWATER CONVEYANCE CHANNEL.
THE OWNER AND/OR CONTRACTOR IS RESPONSIBLE FOR OBTAINING WRITTEN PERMISSION TO PERFORM THE NECESSARY WORK FROM THE ADJACENT LANDOWNER AND ACCEPTANCE SHALL BE PROVIDED TO THE TOWN OF BERLIN FOR THEIR RECORDS.

A LETTER DATED JANUARY 7, 2025 WAS SIGNED BY ADJOINING PROPERTY OWNERS AND PROVIDED TO THE OWNER/CONTRATOR FOR "RIGHT TO DISCHARGE" FROM SUBJECT SITE.

CONSTRUCTION SEQUENCE FOR SEDIMENT CONTROL MEASURES

1. CONTACT THE TOWN OF BERLIN DEPARTMENT OF WATER RESOURCES AT 410-641-3845 AT LEAST 48 HOURS PRIOR TO, AND MARYLAND DEPARTMENT OF ENVIRONMENT AT 410-901-4020 AT LEAST 7 DAYS PRIOR TO COMMENCING ANY SITE WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING FAILURE TO DO SO MAY RESULT IN AN IMMEDIATE STOP WORK ORDER.
2. CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS. (2 DAYS)
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCE AROUND ENTIRE SITE. (1 DAY)
4. REMAINING CLEARING AND GRUBBING WITHIN INSTALLED PERIMETER CONTROLS. (2 DAYS)
5. ROUGH GRADE SITE. ROUGH EXCAVATE TO WITHIN 1' OF BOTTOM ELEVATION FOR SHALLOW GRAVEL WETLANDS AREA. DO NOT COMPACT SUBGRADE.
6. INSTALLATION OF INTERIOR SEDIMENT CONTROL MEASURES. (1 DAY)
7. STRIP TOP SOIL FROM BUILDING PAD AND GRADE SITE. 5 DAYS
8. STABILIZE ALL DISTURBED AREAS, IN ACCORDANCE WITH THE 7/14 DAY RULE. THIS IS A CONTINUAL REQUIREMENT.
9. STONE ROAD BASE AND PARKING AREAS.
10. INSTALL BUILDING INFRASTRUCTURE INCLUDING SANITARY SEWER, WATER & UTILITY PIPING. STABILIZE DISTURBED AREAS.
11. CONSTRUCTION OF BUILDINGS AND OTHER FEATURES. (120 DAYS)
12. INSTALL SUBSURFACE GRAVEL DETENTION AREA AND PAVEMENT AS INDICATED ON THE PLANS.

SEQUENCE OF CONSTRUCTION FOR SUBMERGED GRAVEL WETLANDS

A. PROTECT SUBMERGED GRAVEL WETLANDS AREA FROM COMPACTION PRIOR TO INSTALLATION.
B. USE LIGHT WEIGHT, WIDE TRACKED EQUIPMENT TO MINIMIZE SOIL COMPACTION AND DISTURBANCE OF WETLAND AREAS.
C. EXCAVATE TO SUB-GRADE ELEVATION CONFORMING STRICTLY TO THE APPROVED DESIGN DRAWINGS. SCARIFY THE EXISTING SUB-GRADE. DO NOT COMPACT SUB-GRADE.
D. PLACE AND BACKFILL PERFORATED PIPE FOR INLET UNDER DRAIN AND OBSERVATION WELL AS PER THE APPROVED DESIGN AND SPECIFICATIONS.
E. PLACEMENT O FILTER FABRIC AND GEO TEXTILE LAYERS. LAY GEO TEXTILE FABRIC ACCORDING TO DESIGN, TYPICALLY ON SIDES AND BENEATH GRAVEL LAYERS WHERE SPECIFIED. ENSURE FABRIC IS FREE FROM TEARS OR DAMAGE AND PROPERLY ANCHORED TO PREVENT MIGRATION DURING BACKFILLING.
F. BACKFILL FILTER MEDIA LAYER WITH CLEAN WASHED GRAVEL AND SAND MIXTURES . GRAVEL RESERVOIRS BED, PREFERABLY AASHTO NO. 8 STONE, 3/8" - 1/4". CHOKER LAYERS AND TRANSITION LAYERS WITH SPECIFIED STONE SIZES AND THICKNESS. OVERFILLING IS RECOMMEND TO ACCOUNT FOR SETTLEMENT. LIGHT TAMPING IS ACCEPTABLE IF NECESSARY. PLACE MATERIALS CAREFULLY TO AVOID MIXING LAYERS AND MAINTAIN MEDIA INTEGRITY.
G. PLANT WETLAND VEGETATION PER LANDSCAPE PLAN WITH A MINIMUM OF THREE DIFFERENT WETLAND SPECIES SUITED TO LOCAL HYDROLOGY AND POLLUTANT REMOVAL OBJECTIVES.
H. CONSTRUCT CONCRETE WIER OUTLET CONTROL STRUCTURE AND RE-CONSTRUCT OUTFALL CHANNEL. ENSURE DISCHARGE POINTS ARE STABILIZED TO PREVENT EROSION AND THAT OVERFLOW PATHWAYS ARE SAFE AND STABLE.
I. FINAL GRADING AND STABILIZATION. COMPLETE GRADING OF THE WETLANDS SURFACE AND SURROUNDING AREAS TO FINAL ELEVATIONS AS SHOWN ON PLANS. STABILIZE ALL DISTURBED SOIL SURFACES PROMPTLY USING SEED, MULCH, OR EROSION CONTROL BLANKETS.
J. NOTIFY THE APPROPRIATE PERMITTING AUTHORITY AT KEY MILESTONES, PROVIDING AT LEAST 24 HOURS NOTICE BEFORE INSPECTIONS AS REQUIRED. INSPECTIONS MUST VERIFY COMPLIANCE WITH APPROVED PLANS AT EACH CRITICAL STAGE BEFORE PROCEEDING TO THE NEXT. ANY WORK COMPLETED WITHOUT APPROVAL MAY REQUIRE REMOVAL AND RECONSTRUCTION.
K. ENSURE OBSERVATION WELL AND DRAINS ARE ACCESSIBLE AND FUNCTIONAL.

13. FINAL GRADING, SEED/SOD PROPOSED GRASS AREAS, INSTALL LANDSCAPING AND STABILIZATION.
14. APPROVAL OF MDE PRIOR TO REMOVAL OF SEDIMENT CONTROLS.
15. REMOVAL OF CONTROLS AND STABILIZATION OF AREAS THAT ARE DISTURBED BY REMOVAL OF SEDIMENT CONTROLS.

STORMWATER MAINTENANCE SCHEDULE
SUBMERGED GRAVEL WETLAND

Inspection Item	Inspection Requirements	Remedial Action
MONTHLY INSPECTION		
Debris and Trash	Check for trash and debris in facility including inlets, outlets, conveyance systems, and area around facility.	Remove all trash and debris and dispose in an acceptable manner. Unclog all openings.
Plant Composition and Health	Compare plant composition with approved plans. Check for invasive species or weeds. Check for dead or dying vegetation.	Remove invasive species and weeds. Replace dead plants in accordance with approved landscaping plan.
Vegetative Cover	Check for channelizing, erosion, and bare spots. Check for vegetation blocking inlets and outlet.	Remove or cut back vegetation around inlet and outlet structures. Mow side slopes when grass exceeds 12 inches in height. Remove grass clippings. Re-seed or re-plant in accordance with approved landscaping plans.
Pea Gravel Chimney	Check pea gravel for sediment accumulation and evidence of erosion.	Stabilize or replace pea gravel according to plan specifications.
SEASONAL INSPECTION AND AFTER A MAJOR STORM		
Dewatering	Check ponding level. Surface storage must dewater within 48 hours of rainfall. Noticeable odors, stained water on the filter surface or at the outlet, or the presence of algae or aquatic vegetation are indicators of anaerobic conditions and inadequate dewatering of the facility.	Remove and replace top six inches of pea gravel in pea gravel chimney. Confirm adequate dewatering with follow up inspections. If the facility does not function as intended after the above action, the entire system including underdrain may need refurbishing.
Erosion	Check inlets, wetland, outlets, and side slopes for erosion, rills, gullies, and runoff channelization.	Re-grading may be required when concentrated flow causes rills or gullying through the facility. Grade, vegetate, and/or armor to provide stable conveyance in accordance with approved plans.
Sediment Accumulation	Check for accumulated sediment in forebay. Check for accumulated sediment in gravel chimneys and wetland area. Check for clogged openings	When sediment in forebay accumulates to 6 inches in depth, clean out sediment. When sediment in gravel chimney or wetland area accumulates to 1 inch in depth, remove sediment. Remove sediment from clogged openings. Discharge any sediment-laden water through a filter bag or other dewatering device. Dispose of all sediment in an acceptable location.
Blockages	Check overflow inlet (riser), piping, and underdrain for blockages. Check observation wells for water level.	Clear out any blockages.
ANNUAL INSPECTION		
Maintenance Access	Check for accessibility to facility.	Prevent excessive vegetative growth, erosion, and obstructions on access way.
Flow Conveyance System	Check overflow inlet, piping, and bypass for misalignments, breakage, and blockage.	Repair any broken or faulty piping. Clear out any blockages.
Structural Components	Check for evidence of structural deterioration, spalling, or cracking. Inlet and outlet structures as well as riprap outfalls must be in good condition.	Repair to good condition according to specifications on the approved plans.
Overall Function of Facility	Check that practice is functioning as designed.	Repair to good condition according to specifications on the approved plans.

STORMWATER MANAGEMENT "AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT THE STORMWATER MANAGEMENT FACILITY (FACILITIES) SHOWN ON THE PLANS HAS (HAVE) BEEN CONSTRUCTED IN ACCORDANCE WITH THE PLANS INCLUDED UNDER THE TOWN OF BERLIN APPROVAL, EXCEPT AS NOTED IN RED ON THE "AS BUILT" DRAWINGS. FURTHERMORE, THE RED-NOTED EXCEPTIONS DO NOT ADVERSELY AFFECT THE INTENDED PERFORMANCE OF THE FACILITY (FACILITIES).

NAME (PRINTED) SIGNATURE

MARYLAND REGISTRATION NUMBER DATE

SURVEYOR CERTIFICATION

"THE DEVELOPER'S PLAN TO CONTROL SILT AND EROSION IS ADEQUATE TO CONTAIN THE SILT AND EROSION ON THE PROPERTY COVERED BY THE PLAN. I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE WORCESTER COUNTY SOIL CONSERVATION DISTRICT PLAN SUBMITTAL GUIDELINE AND THE CURRENT MARYLAND STANDARDS AND SPECIFICATIONS FOR SEDIMENT AND EROSION CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER."

SIGNATURE(S) DATE

RUSSELL T. HAMMOND
RUSSELL T. HAMMOND SURVEYING, LLC
10310 HOTEL ROAD
BISHOPVILLE, MARYLAND 21813
PHONE: 410-352-5674

PROPOSED SITE PLAN
STORMWATER MANAGEMENT PLAN
SOIL EROSION AND SEDIMENT CONTROL PLAN

LOT 7 - GORMAN B. JONES PLAT

LANDS OF 513 SOUTH MAIN STREET, LLC
TOWN OF BERLIN
THIRD TAX DISTRICT
WORCESTER COUNTY, MARYLAND

PROFESSIONAL SEAL

RUSSELL T. HAMMOND Surveying, LLC
SURVEYING - LAND PLANNING
10310 Hotel Road Bishopville, MD 21813
(410) 352-5674 - (410)726-8076

DESIGNED BY	N/A	SURVEYED BY	RS/BB	FILE #	2024-3546
DRAWN BY	R.T. HAMMOND	DATE	09/23/2024	SHEET 1 OF 3	
CHECKED BY	R.T.Hammond	SCALE	1" = 20'		

NOTE: THIS PLAT REFLECTS THE DESCRIPTION OF THE LOT/PARCEL AS NOTED IN THE TITLE OF THIS PLAT, AS SHOWN ON THE RECORD PLAT AND DOES NOT VERIFY THE EXISTENCE OR NON-EXISTENCE OF RIGHTS OF WAY, WETLANDS, UTILITIES OR EASEMENTS PERTAINING TO THIS PROPERTY OTHER THAN THOSE AS SHOWN ON SAID RECORD PLAT. NO TITLE SEARCH OR COVENANTS PROVIDED OR STIPULATED.

PROPOSED CONDITIONS

PROPOSED LOT COVERAGE:

PROPOSED BUILDING =	1,440 S.F.±
PROPOSED COV. POR. =	72 S.F.±
PROPOSED SIDEWALK =	189 S.F.±
PROPOSED ASPHALT =	3,784 S.F.±
TOTAL PROPOSED LOT COVERAGE =	5,485 SQ. FT.±

LIMITS OF DISTURBANCE = 14,585 SQ. FT.

ESD - UNIFIED SIZING CRITERIA

LIMITS OF DISTURBANCE = 14,585 SQ. FT.
9,538 SQ. FT. /14,585 SQ. FT. = 0.6539% ROUNDED TO 65.0%
I = 65.0%
Pe = 1.8" (PER CHAPTER 5 OF MANUAL)
Rv = 0.05 + 0.009(65) = 0.635
ESDv = (1.8) (0.635) (14,585) / 12 = 1,389.2 CUBIC FEET
WQv = (1.0) (0.635) (14,585) / 12 = 771.6 CUBIC FEET
Rev = (0.06) (0.635) (14,585) / 12 = 46.30 CUBIC FEET
Qe = (1.8) (0.635) = 1.143"

POST CONSTRUCTION LOT COVERAGE

EXISTING LOT COVERAGE	
EXISTING BUILDINGS =	1,247 S.F.
EXISTING ASPHALT DRIVE=	2,457 S.F.
EXISTING CONC. WALKS=	175 S.F.
EX. EISTING PAVERS=	174 S.F.
PROPOSED BUILDING =	1,440 S.F.±
PROPOSED COV. POR. =	72 S.F.±
PROPOSED SIDEWALK =	189 S.F.±
PROPOSED ASPHALT =	3,784 S.F.±
POST CONSTRUCTION COVERAGE=	9,538 S.F.

POST CONSTRUCTION LOT COVERAGE PERCENTAGE = 9,538 S.F./14,044 S.F. = 0.6761 OR 67.6%
POST CONSTRUCTION LOT COVERAGE PERCENTAGE = 67.6%

DRAINAGE AREA #1

D.A. = 4,520 S.F.±
3,906 SQ.FT./ 4,520 SQ.FT. = 86.4% ROUNDED TO 86.0%
I = 86.0%
Pe = 1.8" (PER CHAPTER 5 OF MANUAL)
Rv = 0.05 + 0.009(0.491) = 0.824
ESDv = (1.8) (0.824) (4,520) / 12 = 496.6 CUBIC FEET
MAX. OVER MANAGEMENT COMP.: 2.6" x 0.86 x 4,520 / 12 = 842.2 C.F.

DRAINAGE AREA #2

D.A. = 1,588 S.F.±
1,342 SQ.FT./ 1,588 SQ.FT. = 0.845% ROUNDED TO 85.0%
I = 85.0%
Pe = 1.8" (PER CHAPTER 5 OF MANUAL)
Rv = 0.05 + 0.009(58.0) = 0.815
ESDv = (1.8) (0.815) (1,588) / 12 = 194.1 CUBIC FEET
MAX. OVER MANAGEMENT COMP.: 2.6" x 0.85 x 1,588 / 12 = 292.5 C.F.

DRAINAGE AREA #3

D.A. = 5,102 S.F.±
1,717 SQ.FT./ 5,102 SQ.FT. = 0.336% ROUNDED TO 34.0%
I = 34.0%
Pe = 1.8" (PER CHAPTER 5 OF MANUAL)
Rv = 0.05 + 0.009(34.0) = 0.356
ESDv = (1.8) (0.356) (5,102) / 12 = 272.4 CUBIC FEET
MAX. OVER MANAGEMENT COMP.: 2.6" x 0.34 x 5,102 / 12 = 375.8 C.F.

OVERALL DRAINAGE TO SGW-1

D.A. = 11,210 S.F.±
6,965 SQ.FT./ 11,210 SQ.FT. = 62.1%
I = 62.1%
Pe = 1.8" (PER CHAPTER 5 OF MANUAL)
Rv = 0.05 + 0.009(0.621) = 0.608
ESDv = (1.8) (0.608) (11,210) / 12 = 1,022.3 CUBIC FEET
MAX. OVER MANAGEMENT COMP.: 2.6" x 0.621 x 11,210 / 12 = 1,508 C.F.

NORTH PER PLAT RECORDED IN 189/72

(IN FEET)
1" = 20'
MIN. ACCURACY = 0.1'±

LEGEND:

- DENOTES CONC. MON. FOUND
- DENOTES IRON PIPE FOUND
- DENOTES IRON ROD FOUND
- ×39.1' DENOTES EX. SPOT ELEVATION (NAVD 88)
- DENOTES EXISTING CENTERLINE ROAD
- DENOTES EXISTING EDGE OF PAVEMENT
- DENOTES BOUNDARY LINE
- DENOTES BUILDING RESTRICTION LINE
- DENOTES ADJOINER LINE
- DENOTES ACCESS EASEMENT LINE
- DENOTES DRAINAGE DIVIDE
- DENOTES PROPOSED DOWNSPOUT LOCATION

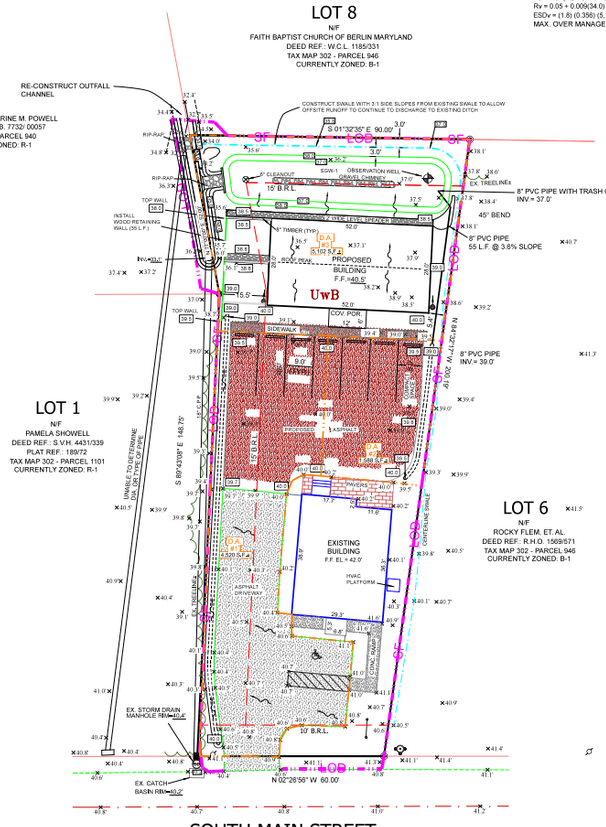
STORMWATER MANAGEMENT LEGEND

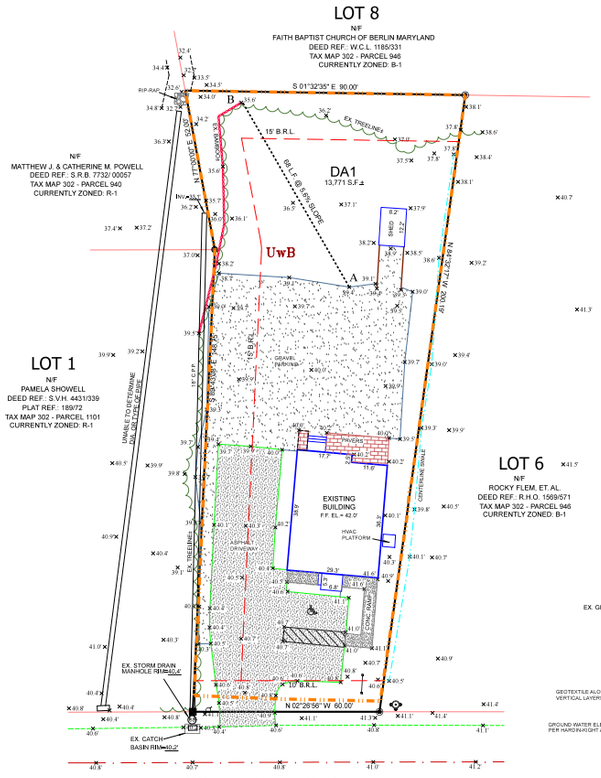
- SF / LOD — DENOTES SILT FENCE AND/OR LIMITS OF DISTURBANCE DISTURBED AREA = 23,963 S.F.± OR 0.550 ACRES ±
- DENOTES POST CONSTRUCTION FLOW
- 40.0× DENOTES EX. SPOT ELEV. (ASSUMED DATUM)
- 40.1 DENOTES PROPOSED SPOT ELEV. (ASSUMED DATUM)
- UwB DENOTES SOIL TYPE

EXISTING CONDITIONS

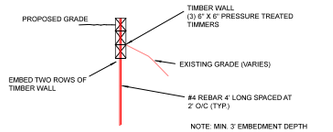
EXISTING LOT COVERAGE	
EX. BUILDINGS =	1,247 S.F.
EX. ASPHALT DRIVE=	2,457 S.F.
EX. CONC. WALKS=	175 S.F.
EX. PAVERS=	174 S.F.
EX. GRAVEL PARKING=	3,674 S.F.
EX. LOT COVERAGE=	7,727 S.F.

LOT COVERAGE PERCENTAGE = 7,727 S.F./15,000 S.F. = 0.5151 OR 51.5%
LOT COVERAGE PERCENTAGE = 51.5%

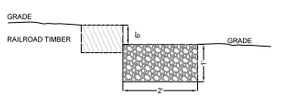




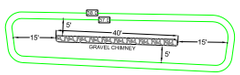
TIMBER WALL



TIMBER WALL WITH LEVEL SPREADER



SUBMERGED GRAVEL WETLANDS CROSS-SECTION



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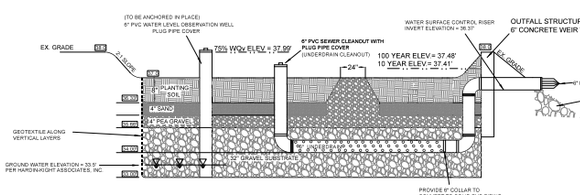
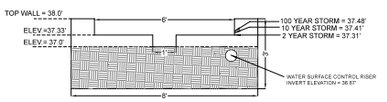
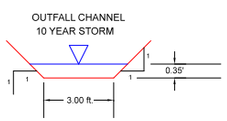
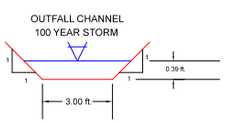


OUTFALL STRUCTURE
6" CONCRETE WEIR WALL





TRAPEZOIDAL CHANNEL
EQUAL SIDE SLOPES
CHANNEL LINING: UNMAINTAINED, DENSE WEEDS



TRAPEZOIDAL CHANNEL
EQUAL SIDE SLOPES
CHANNEL LINING: UNMAINTAINED, DENSE WEEDS

SUBMERGED GRAVEL WETLANDS LANDSCAPE

MINIMUM OF THREE TYPES OF WETLANDS SPECIES SHALL BE PROVIDED. PLANTS BELOW FOUND IN THE NATIONAL LIST OF PLANT SPECIES THAT OCCUR IN WETLANDS. 1988 MARYLAND

TOTAL		
1	MAGNOLIA VIRGINIANA	SWEET BAY MAGNOLIA
2	RHODODENDRON VISCOSUM	SWAMP AZALEA
6	ILEX VERTICILLATA	COMMON WINTER BERRY
9	ASTER PUNICEUS	SWAMP ASTER
12	RUDBECKIA LANCINIATA	CUT-LEAF CONE FLOWER
6	ASTER NOVI-BELGII	NEW YORK ASTER

NOTE: FINAL FINISHED FLOOR ELEVATION AND FINAL GRADING ELEVATIONS ARE TO BE DETERMINED BY CONTRACTOR.

NOTE:

THE LIVING AREA FLOOR AND/OR GARAGE FLOOR ELEVATIONS AS SHOWN ARE PROPOSED MINIMUM ELEVATIONS. THE ACTUAL ELEVATIONS OF THESE FLOORS ARE TO BE DETERMINED BY THE OWNER AND/OR GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE OWNER AND/OR CONTRACTOR TO VERIFY THE BUILDING CODES, FEMA REGULATIONS, AND ANY OTHER APPLICABLE REGULATIONS AND/OR RESTRICTIONS. PLEASE NOTE THAT THE LOWEST MACHINERY OR EQUIPMENT SERVICING THE STRUCTURE MAY CHANGE THE PROPOSED FLOOR

REVISION	DATE	BY
REVISED PER COMMENT LETTER, DATED 1/2/2025	02/03/2025	RTH
REVISED PER COMMENT LETTER, DATED 2/13/2025	04/12/2025	RTH
REVISED PLAN TO REFLECT SUBMERGED GRAVEL WETLANDS	07/18/2025	RTH
REVISED COMMENT LETER, DATED 08/08/2025	10/14/2025	RTH
REVISED COMMENT LETER, DATED 11/17/2025	12/17/2025	RTH

RUSSELL T. HAMMOND Surveying, LLC
SURVEYING - LAND PLANNING
10310 Hotel Road Bishopville, MD 21813
(410) 352-5674 - (410)726-8076

DESIGNED BY	N/A	SURVEYED BY	RS/BB
DRAWN BY	RTH	CADD FILE	
CHECKED BY	R.T.Hammond	SCALE	1" = 20'
FILE #	2024-3546	SHEET	2 OF 3

NOTE: THIS PLAT REFLECTS THE DESCRIPTION OF THE LOT/PARCEL AS NOTED IN THE TITLE OF THIS PLAT, AS SHOWN ON THE RECORD PLAT AND DOES NOT VERIFY THE EXISTENCE OR NON-EXISTENCE OF RIGHTS OF WAY, WETLANDS, UTILITIES OR EASEMENTS PERTAINING TO THIS PROPERTY OTHER THAN THOSE AS SHOWN ON SAID RECORD PLAT. NO TITLE SEARCH OR COVENANTS PROVIDED OR STIPULATED.

LIGHTING PLAN

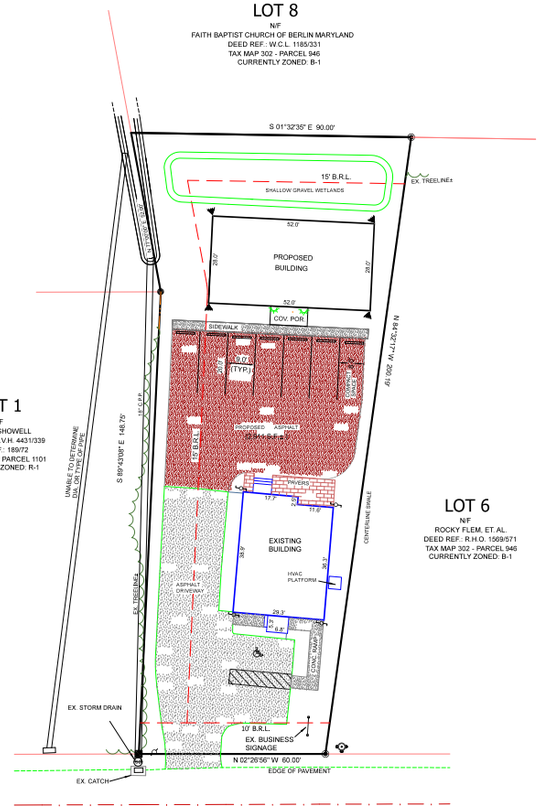
0 20' 40' 60'

(IN FEET)
1" = 20'
MIN. ACCURACY = 0.1'±

LEGEND:

- DENOTES CONC. MON. FOUND
- DENOTES IRON PIPE FOUND
- DENOTES IRON ROD FOUND

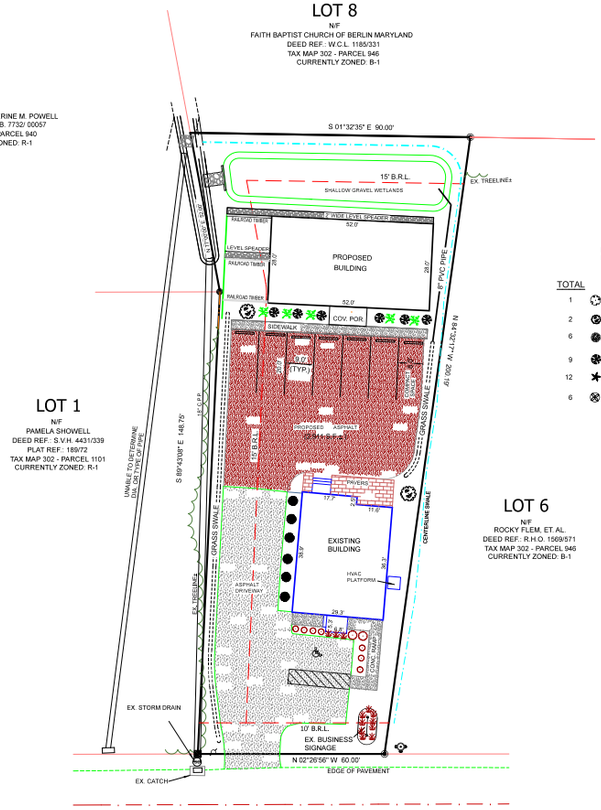
NORTH PER PLAT RECORDED IN 189/72



EXTERIOR LIGHTING

SYMBOL	AMOUNT	DESCRIPTION
EX. LIGHT	4	EXISTING DUAL HEAD LED OUTDOOR SECURITY LIGHTING 1,900 LUMENS 20 WATT PLT WALL PACT MOUNTED ON BUILDING APPROXIMATELY 10' HIGH
PROPOSED LIGHT	4	PHILIPS DUSK TO DAWN 44W 3500LM LED SECURITY FLOOD LIGHTS OUTDOOR MOUNTED ON BUILDING APPROXIMATELY 10' HIGH
PROPOSED LIGHT	2	PROGRESS LIGHTING P5623-31 DISTRICT LED - INCANDESCENT LAMPING TYPE - P5623-31 MOUNTED ON BUILDING APPROXIMATELY 8' HIGH

LANDSCAPE PLAN



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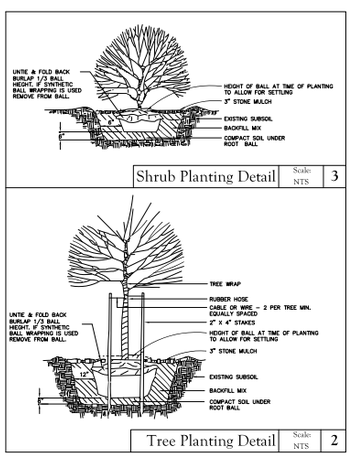

PROPOSED LANDSCAPE PLAN

QTY TOTAL	Key to Plants:
2	London Plane Tree/sycamore – Platanus x. acerifolia/occidentalis (Small Tree – 1" CALIPER – 6' tall)
6	Large Shrub (3 gallon) Ilex cornuta, 'Dwarf Burford Holly
5	Large Shrub (3 gallon) Berberis thunbergii 'Crimson Pygmy
6	Large Shrub (3 gallon) Buxus x 'Green Velvet Boxwood

EXISTING LANDSCAPE PLAN

QTY TOTAL	Key to Plants:
9	Large Shrub (3 gallon) Hollyllex crenata 'Compacta, Compact Japanese
12+	Large Shrub (3 gallon) Rhododendron viscosum, Swamp Azalea

REVISION	DATE	BY

RUSSELL T. HAMMOND Surveying, LLC
SURVEYING - LAND PLANNING
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(410) 352-5674 - (410)726-8076

DRAWN BY	R.T. HAMMOND	DATE	09/23/2024
CHECKED BY	R.T.Hammond	SCALE	1" = 20'

SHEET 3 OF 3