



Mark Wedemeyer, Director

## Memorandum

TO: Donna Aulds, Planner, OPZ Development Division

FROM: Jeff Bugno, PE, LEED AP BD+C, Engineering Division, Department of Inspections and Permits

SUBJECT: Chick-fil-A, Arnold  
Project Number: C22-0013-00-PP  
Preliminary Plan Review #01

DATE: May 3, 2022

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**Project Scope/Description** – The site is located at 1500 Ritchie Highway in Arnold (Tax Map 39, Grid 18, Parcel 292). The property consists of one parcel and is 269,685 s.f. in size. The site is split zoned between C3, General Commercial and R2, Residential. A CVS Pharmacy was previously constructed and remains on the northern third of the site. The remainder of the site is wooded and contains specimen trees, steep slopes and a Forest Conservation Easement. The proposed site development includes construction of a 2,656 s.f. drive-thru only Chick-fil-A restaurant with canopies and associated parking, site amenities, landscaping, stormwater management and utilities including septic. Three modification applications are associated with this proposed development. The modification applications include a modification to disturb steep slopes (M#16819), modification to clear below the break-even point and allow offsite reforestation for forest conservation (M#16820) and modification to remove specimen trees (M#16821).

### **Engineering and Utility Review**

The above-referenced project has been reviewed for Engineering and Utility issues and the following comments apply:

### **Adequacy of Public Facilities**

The developer has opted to address adequacy of public facilities at this stage of the development process, Preliminary Plan. Adequacy of public facilities is being addressed as follows:

### **Utilities:**

The site will be served by a private septic system. Adequacy of facilities for sewer utilities will be deferred to the Anne Arundel County Department of Health.

The number of EDUs was determined to be less than five (2), therefore a SWAMP analysis of public water services was not required. Adequacy of facilities for water utilities has been adequately addressed for this development.

The consultant/developer is being advised that the availability of capacity is not guaranteed until an Allocation Request has been processed and approved by the Department of Public Works.

### **Storm Drainage:**

Adequacy of facilities for storm drainage has not been addressed. It has not been adequately demonstrated that the onsite drainage system and stormwater management system installed by the developer includes environmental site design to the maximum extent practicable, complies with the stormwater requirements of the Anne Arundel County Code, and is capable of conveying through and from the property, the design flow of storm water runoff originating on the site to an adequate outfall; and offsite downstream drainage systems are capable of conveying the design flow of storm water runoff to an adequate outfall between the site outfall(s) to the Point(s) of Investigation (POI) located approximately 1,500 feet south of the site at a point in Mill Creek at an existing culvert.

The following are comments regarding the plans as submitted; only the comments indicated in the closing paragraph will require a point by point response upon resubmittal:

#### **A. Roads**

The site has frontage along Arnold Road which is a County Public Road and is currently classified as a Collector. The road along the entire frontage of this development was previously improved with the development of the CVS Pharmacy to the required County standard based upon its classification and right of way dedication is not being required because it was previously requested.

The site has frontage along MD 2, Governor Ritchie Highway which is a State Public Road and is currently classified as a Principal Arterial. Right of way dedication and frontage improvement requirements are being deferred to the State Highway Administration.

Offsite road improvements may be required to meet Roads APF- refer to I&P Traffic Comments and SHA Comments.

1. Dimension the driveways and drive aisles on the plans.

#### **B. Storm Drainage**

Storm drainage through and from this development is accomplished by utilizing a combination of both open swales and a closed storm drain system.

1. Storm drain pipes must be a minimum of 10 feet from septic disposal fields, drywells and easements.
2. Revise the storm drain pipe runs to eliminate all acute angles of the pipes entering and exiting structures.
3. It appears the topo from the Sunoco site has been trimmed and/or erased. Please show the gas station's topo.
4. Revise the drainage areas on Sheet 8 per the topography shown on the plan.
5. Expand Drainage Area #3 on Sheet 8 to include the portion of the CVS site's parking lot that drains to MD 2.
6. It may be wise to place a stilling basin below the outfall of the discharge from the swm cartridge device rather than just riprap, as once the cartridges "pop and discharge" a large amount of water is released very quickly. Per the Walking Tour Photographs, it appears they are/were issues with runoff due to the presents of gabion baskets with riprap in the area.

#### **C. Stormwater Management**

Stormwater management for this project is being addressed through the use of three micro-bioretenion areas and a 72" CMP underground storage system with cartridges.

1. Infiltration and filtering devices must be a minimum of 25' from the top of 25% or greater slopes and retaining walls.
2. Infiltration and filtering devices must be a minimum of 10 feet from property lines and right of way lines.
3. Add Checklist Item #73 to the chart on Sheet 2.

4. There are 50 additional parking spaces shown on the plans for a drive-thru only restaurant. How is this reducing impervious surface or retaining natural onsite features? Per Checklist Item #87, add this explanation to the SWM Report.
5. Please make sure the onsite canopies are included within the onsite impervious surface calculations.
6. Why does the Site Outfall move from being on the property line on Sheets 2 and 5 (as it should be) to an offsite area on Sheets 3, 4 and 7? Revise the SWM computations as needed.
7. Outline the site on the Soils Map on page 8 of the SWM Report.
8. In the Pre-Development conditions why is a Manning's "n" of 0.05 for Fallow used? The adjacent development consists of developed single family lots and woods. There are no farm fields or bare earth adjacent to the site.
9. There are D Soils onsite per the plan view and the chart on Sheet 2; however there are no D soils noted in the TR-55 Computations on page 19. Revise all of the swm computations as needed.
10. What does a Manning's "n" of 3.3 correspond to on page 25? Use Manning's "n" values per the Anne Arundel County Storm Drain Design Manual, page V-8. Revise the computations.
11. Why is the % of soil type in the ESD Calculations shown on page 43, 100% B soils when C soils are with the LOD? Please clarify/revise the computations.
12. In the middle of page 45, 1,350 is noted as greater than 1,663.72. Please clarify.
13. On page 46, revise the length and width of the filter device to correspond to the plans and 975 is noted as being greater than 1,595.11. Please clarify.
14. On page 47, revise the length and width of the filter device to correspond to the plans and 1,390 is noted as greater than 1,786. Please clarify.
15. Sheet 8, revise Drainage Area #4 per the grading behind the gas station and the parking lot. Revise the computations are needed.
16. Add a summary of the stormwater treated on the CVS portion of the site (G02015534) to the SWM Report.
17. Page 58 and 60, the site's R2's and C2's CN's appear to be flip-flopped.
18. Label the size and type of culvert at the POI.
19. How was the channel velocity of 13.24 ft/sec computed as shown on page 59?
20. Additional Walking Tour Photographs are needed after the Site Outfall and prior to the POI, as there looks to be a gap in the photos. Per the Checklist, photos are required every 50 feet.
21. Revise the peak flow discharges shown on pages 15, 16 and 82, as it appears to be listed as both 16.19 cfs and 16.17 cfs.
22. Please provide a Geotechnical Report at the Site Development Plan stage to verify the suitability and siting of the proposed SWM practices for the site conditions. Please note, plan revisions may be required depending upon what is discovered during the geotechnical investigation.
23. Provide soil borings at each facility footprint so the proposed practices suitability and siting can be reviewed. Please note, plan revisions may be required depending upon what is discovered during the geotechnical investigation.

#### **D. Utilities**

This development is expected to be served by Public Water and Private Sewer (septic).

- i) Public water in the Broadneck Water Service Area (Pressure Zone 32, Map W-7) – Existing Service Area.
  - ii) Private sewer in the Broadneck Sewer Service Area (#5, Map S-7) - Future Service Area.
1. A SWAMP analysis of water and sewer has not been requested because the number of EDU's is less than five (2). A Fire Flow Test may be required by the Office of the Fire Marshal. The consultant is encouraged to request this directly from the Department of Public Works.
  2. Public sewer is not currently extended through the frontage of the property. This property is not being required to extend sewer because the closest existing utility is located more than 1,200 feet away from the property. This distance is beyond the Required Extension Distance (RED) of 500 feet.
  3. Revise the Water and Sewer Service Areas noted on Sheet 2 in the Resource Map Notes, Note #9.

4. Septic drywells must be separated by 3x of their diameters in all directions.
5. A Private Fire Hydrant Agreement may be required prior to approval of the Grading Permit if a private onsite hydrant is required via comment from the Fire Marshal's review.
6. Show the adjacent properties' septic areas/easements within 100 feet of this entire property per Checklist Item #18. If there are any areas more than 100 feet away note that in the plan view.
7. Show Public Easements around the proposed Public Fire Hydrant and water meter. The public easements can't be encumbered by private swm devices.
8. Will the proposed 2" water meter be large enough to serve the restaurant and its fire suppression system? Also, refer to any Office of the Fire Marshal's comments.
9. Label the existing waterline with the County Tracing #/As-built Record Plan #.
10. Make the Perc. Test labels larger so they can be easily read.
11. Traffic bearing cleanouts will be needed in the parking/paved areas on the site.

**E. Preliminary Plan**

1. The entire property and an additional 100 feet beyond the property must be shown on the plans. This includes the CVS portion of the property.
2. Please sign and seal the Resource Certification on Sheet.
3. Turn off all proposed items on Sheet 2, as it is an Existing Conditions and Resources Map.
4. Please submit a copy of the ALTA Survey with the resubmittal package replying to these comments.
5. Add the Preliminary Plan Number to all correspondence including plans, paperwork and reports.
6. Four modifications are listed on the Cover Sheet of the plan set but only three modification applications appear to have been submitted.
7. There is grading in the steep slopes area behind the Sunoco gas station and the cell tower. Clarify the grading in this area. With this grading, how are the cell tower and the CVS's retaining wall affected.
8. The storm drain, stormwater management, grading, LOD, etc. on the Preliminary Plans and the On-Site Wastewater Treatment Plans are not consistent with each other?
9. Sign and Seal the Sketch Plan/Preliminary Plan Checklist. Also add the Professional Certification (I hereby certify that these...) to the checklist.
10. Add the email addresses for the owner and the developer per Checklist Item #6.
11. Relocate the site arrow in the Vicinity Map so the street name, Arnold Road can be seen.
12. Label Arnold Road and Severn Way on the Location Map per Checklist Item #8.
13. Label all property lines with their bearings and distances.
14. Protect the slope of the downhill side of the driveway immediately to the south of the site (1516 Ritchie Highway property) as more water will be flowing to that point after development due to the location of inlets and curb and gutter.
15. The limits of the existing forest west and south of the site are not shown.
16. There are two specimen trees labeled as ST K.
17. Add the necessary items to Sheet 2 or add an additional plan sheet for Checklist Item #39. Existing Conditions Plan showing all existing natural and environmental resources<sup>1</sup> and include all areas to be protected, an illustration of the "developable envelope" outside of these areas. These areas include: steep slopes, wetlands, streams, buffers, floodplain, highly erodible soils, specimen trees, soils (A, B, C and D), hydric soils, etc.
18. Show the site's Buildable Area per Checklist Item #57. Show Buildable Areas- Provide a clear delineation of the areas/features that are to be protected from development as highlighted.
19. Add ADA Ramps to all sidewalks onsite and in the SHA right of way.
20. If any outdoor seating is to be provided, please show it at this time.
21. The existing and proposed woods lines on Sheet 5 appear as the same line type. Please differentiate between the two.
22. Is the Traffic Study including the U-Turn areas south of the site in the median of MD 2?
23. What is to be done with the extremely low hanging overhead wires running parallel with MD 2 along the

currently unimproved portion of the site's frontage?

24. Was the impervious area in and around the cell tower treated with the development of the CVS?
25. Label Arnold Road on Sheets 6 and 7.
26. Show three grid tics in all plan views.
27. Why are 1-foot contours being used onsite? It makes the plans more difficult to read.
28. Is the proposed retaining wall along the western property line tying into the wall from the CVS? It is not clear on the plans as there appears to be very steep topo in the area of the CVS' wall and the existing wall location is not clear.
29. Per the Pre-Submittal Community Meeting, the adjoining owners west of the site were concerned about vehicle headlights shining in/on the rear of their houses. Will screening fence be added to the top of the retaining wall running along the western property line?
30. With the proposed acceleration lane extending to the south, the widening is removing a portion of the wooded buffer along MD 2 in the front yards of private residences. Will this buffer be replaced? Also, with the widening, there is grading on the private residences lots. Offsite grading easements will be required.
31. Label all roads on Sheets 3 and 4.

**F. Site Development Plan/Grading Permit**

1. At the Site Development Plan stage, an Overlay Plan showing Stormwater and Erosion and Sediment Control Practices shall be provided.
2. The designer should review the proposed location of all stormwater practice (micro practices, ESD practices, ponds, etc.) against the Erosion and sediment plans and any location, design, grading, runoff conflicts from MDE Manual for each of the stormwater practices are addressed.
3. A Private Stormwater Management Inspection and Maintenance Agreement will be required prior to approval of the Grading Permit.
4. Temporary Stormwater Management (TSWM) design per County Stormwater Management Practices and Procedures Manual §7.1.7 (after March 01, 2017) may be required for this project development prior to approval of the Grading permit.
5. The new SWM Data Table (I&P Blue Notice IP-20-10) effective July 1, 2020 will be required on the Grading Permit Plans.
6. If onsite fire hydrants are proposed, a Private Fire Hydrant Agreement required prior to approval of the Grading Permit.
7. An SHA Access Permit will be required prior to Grading Permit approval.
8. A Public Works Agreement will be required prior to Building Permit approval.

**G. Plat**

1. N/A

**H. Floodplain**

1. N/A

**I. Recommendations to Resolve Design Issues**

1. N/A

**J. Determination/Recommendation**

We are unable to grant Preliminary Plan approval of these plans until comments A1, B1-6, C1-21, D3-4, D6-10, and E1-31 have been adequately addressed.